TOWN OF RAYMOND

Planning Board Agenda
January 19, 2023
7 p.m. - Raymond High School
Media Center - 45 Harriman Hill

Public Announcement

*If this meeting is canceled or postponed for any reason the information can be found on our website, posted at Town Hall, Facebook Notification, and RCTV. **

1. Pledge of Allegiance

2. Public Hearing-

(CONTINUANCE REQUEST) **Application #2022-015**: A Lot Line Adjustment has been submitted by Joseph Coronati of Jones and Beach Engineers, Inc. on behalf of Tuck Realty Corp. The applicant is proposing to adjust some lot lines between Tax Map 23 Lot 25 located on Main Street in Raymond NH in Zone D and Tax Map 23 Lot 29 located at 109a Main Street in Raymond NH in Zone B for an overall exchange of .88 acres between the two lots.

Application # 2022-008: A SITE PLAN application is being submitted by Wayne Morrill of Jones & Beach Engineers, Inc. on behalf of ONYX Partners LTD. They are proposing to construct a 500,025 S.F. industrial distribution warehouse with associated loading docks, truck parking, and employee vehicle parking. Property is located on Industrial Drive and Raymond Tax Map 22 / Lots 44,45,46,& 47 and Raymond Tax Map 28-3/Lot 120-1.

Application #2022-010: An application for an Earth Excavation Permit has been submitted by Onyx Raymond, LLC. The applicant is proposing the permitting of an existing excavation operation, that is proposed to result in the construction of a 550,025-sf warehouse. The properties are identified as Raymond Tax Map 22, Lot 44, 45, 46, 47, & Map 28-3, Lot 120-1; accessed via Industrial Drive.

3. Approval of Minutes

- **11/17/2022**
- **11/18/2022(SITE WALK)**
- **11/22/2022**
- **12/01/2022**

4. Other Business

- Staff Updates-
- Board Member Updates
- Any other business brought before the board-

* Note: If you require personal assistance for audio, visual or other special aid, please contact the Selectmen's Office at least 72 hours prior to the meeting. If this meeting is postponed for any reason, it will be held at a time TBD.

TOWN OF RAYMOND

Planning Board Agenda
January 19, 2023
7 p.m. - Raymond High School
Media Center - 45 Harriman Hill

5. Adjournment (NO LATER THAN 10:00 P.M.)

Planning Board 2023 Submittal and Meeting Dates

Submittal Deadline for Completed Application & Materials	Planning Board Meeting Dates (1st & 3rd Thursdays of the Month)
December 15, 2022	January 19th, 2023 ONYX warehouse & excavation/*WA White Rock LLA
Extra meeting	January 26, 2023 Jewett Warehouse
January 5th, 2023	February 02, 2023
January 19th, 2023	February 16, 2023 Severino Excavation
February 02, 2023	March 02, 2023
February 16, 2023	March 16, 2023
March 02, 2023	April 06, 2023
March 16, 2023	April 20, 2023
April 06, 2023	May 04, 2023
April 20, 2023	May 18, 2023
May 04, 2023	June 01, 2023
May 18, 2023	June 15, 2023
June 01, 2023	July 06, 2023
June 15, 2023	July 20, 2023
July 06, 2023	August 03, 2023
July 20, 2023	August 17, 2023
August 03, 2023	September 07, 2023
August 17, 2023	September 21, 2023
September 07, 2023	October 05, 2023
September 21, 2023	October 19, 2023
October 05, 2023	November 02, 2023
October 19, 2023	November 16, 2023
November 02, 2023	December 07, 2023
November 16, 2023	December 21, 2023

* Note: If you require personal assistance for audio, visual or other special aid, please contact the Selectmen's Office at least 72 hours prior to the meeting. If this meeting is postponed for any reason, it will be held at a time TBD.

JONES & BEACH ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

Raymond Planning Board
Attn. Brad Reed, Chair
4 Epping Street
Raymond, NH 03077

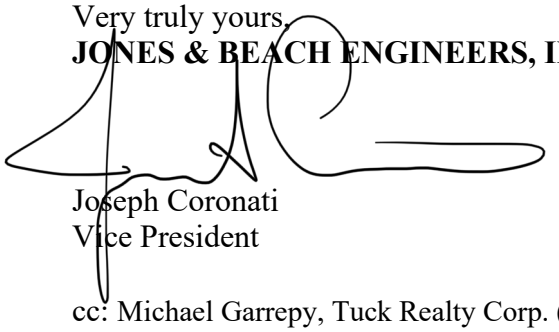
RE: Lot Line Adjustment
White Rock Place
109A&C Main Street, Raymond, NH
Tax Map 23, Lots 25 & 29
JBE Project No. 20564

Dear Mr. Reed,

On behalf of our client, Tuck Realty Corp., Jones & Beach Engineers, Inc. respectfully requests a continuance of the pending application for the above referenced parcel from the next Planning Board meeting for a month. This will give us time to get all the letters of authorization notarized from all the owners.

Please contact me if you have any questions. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.



Joseph Coronati
Vice President

cc: Michael Garrepy, Tuck Realty Corp. (via email)

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

January 12, 2023

Town of Raymond
Attn. Planning Board
4 Epping Street
Raymond, NH 03077

RE: Onyx Partners, LTD
Industrial Drive, Raymond, NH
JBE Project No. 21130
Application # 2022-008

Dear Planning Board Members,

On behalf of our client, Onyx Partners LTD, Jones & Beach Engineers respectfully submits revised drawings and itemized documents for the permitting of the 550,025 S.F. industrial warehouse building off Industrial Drive. These submission documents were discussed at the Planning Board Site Walk held on January 2, 2023.

If you have any questions or need additional information, please let us know.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Wayne G. Morrill
President

JONES & BEACH ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

Site Plan Package

"Raymond Distribution"
550,025 S.F. Warehouse Building
Onyx Partners LTD
Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46 & 47
Tax Map 28, Block 3, Lot 120-1

Application # 2022-008

Table of Contents

Section 1 - Applications – Town

Section 2 – Applications – State

Section 3 - Review Letters

Section 4 – Environmental

Section 5 – Drainage Report Summary and Plans

Section 6 – Traffic

Section 7 - Site Walk Documents

Section 8- Current site plans

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ITEM:	DATE:
1. Revised Site Plan Application	10/05/2022
2. Site Plan Application	08/17/2022
3. Special Permit Application	10/05/2022
4. Conditional Use Application	10/05/2022
5. Revised Design Review Application	09/02/2021
6. Design Review Application	05/05/2022
7. Lot Consolidation Form	11/02/2022
8. Variance Application	10/25/2022
9. Raymond Driveway Permit	08/17/2022

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

August 18, 2022

Raymond Planning Board
Attn. Brad Reed, Chair
4 Epping Street
Raymond, NH 03077

RE: Site Plan Application
Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46 7 47
Tax Map 28, Block 3, Lot 120-1
JBE Project No. 21130

Dear Mr. Reed,

Jones & Beach Engineers, Inc. respectfully submits a Site Plan Application for the above-referenced parcels on behalf of our client, ONYX Partners LTD. The intent of this application is to propose a 550,025 S.F. industrial distribution warehouse with associated loading docks, truck parking, and employee vehicle parking.

The following items are provided in support of this Application:

1. Site Plan Application
2. Waiver Request Letter.
3. Letters of Authorization.
4. Current Deeds.
5. Fee Check in the Amount of $75,898.80.
6. Abutters List & Mailing Labels (3 sets).
7. Tax Map.
8. Three (3) Drainage Analysis.
9. Six (6) Full Size Plan Sets.
10. Ten (10) Half Size Plan Sets.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Wayne Morrill
President

cc: Anton Melchionda, ONYX Partners LTD (application and plans via email)
Jeff Adler, DuBois & King (application & plans via email & U.S. Mail)

Map # 22 Lot # 44, 45, 46 & 47
Map 28, Block 3, Lot 120-1

Site Plan Review Application

Town of Raymond, NH

Project Name: Raymond Distribution

Location: Industrial Drive

Project Description: To propose a 550,025 S.F. industrial distribution warehouse

Zone: D New Industrial/Commercial Square Footage: _____ or Number of Residential Units: _____

Applicant/Agent Information:

Name: Anton Melchionda

Phone: 617-835-4770 Fax: _____

Company: Onyx Partners, LTD

Address: 200 Reservoir Street, Needham, MA 02494

By signing this application, you are agreeing to all rules and regulations of the Town of Raymond, and are agreeing to allow agents of the Town of Raymond to conduct inspections of your property during normal business hours to ensure compliance with all Raymond Zoning and Site Plan Review Regulations while your application is under consideration and during any construction and operational phases after approval is granted.

Signed*: _____ Date: 10-5-22

*Requires notarized letter of permission

Owner Information:

Name: _____

Phone: _____ Fax: _____

Company: Onyx Raymond, LLC

Address: 60 Centre Street, Dover, MA 02030

Signed: _____ Date: _____

Designers of Record: (Provide Name & License Number for each)

Engineer: Erik Poulin, Jones & Beach Engineers, Inc - #16669

Surveyor: David Collier, Jones & Beach Engineers, Inc. - #892

Soil Scientist: _____

Landscape Architect: _____

Fire Protection Engineer: _____

Other(s): _____

FEES: See attached Fee Schedule

For Office Use Only:

Date Application Received: _____ Total Fees Collected w/Application: _____

Abutters List Received: _____ Plans & Checklist Received: _____

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

August 18, 2022

Raymond Planning Board
Attn. Brad Reed, Chair
4 Epping Street
Raymond, NH 03077

RE: Site Plan Application
Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46 7 47
Tax Map 28, Block 3, Lot 120-1
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Dear Mr. Reed,

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10. Ten (10) Half Size Plan Sets.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Wayne Morrill
President

cc: Anton Melchionda, ONYX Partners LTD (application and plans via email)
Jeff Adler, DuBois & King (application & plans via email & U.S. Mail)

Map # 22 Lot # 44, 45, 46 & 47
Map 28, Block 3, Lot 120-1

Site Plan Review Application

Town of Raymond, NH

Project Name: Raymond Distribution

Location: Industrial Drive

Project Description: To propose a 500,025 S.F. industrial distribution warehouse

Zone: D New Industrial/Commercial Square Footage: _____ **or** Number of Residential Units: _____

Applicant/Agent Information:

Name: Anton Melchionda

Phone: 617-835-4770 Fax: _____

Company: Onyx Partners, LTD

Address: 200 Reservoir Street, Needham, MA 02494

By signing this application, you are agreeing to all rules and regulations of the Town of Raymond, and are agreeing to allow agents of the Town of Raymond to conduct inspections of your property during normal business hours to ensure compliance with all Raymond Zoning and Site Plan Review Regulations while your application is under consideration and during any construction and operational phases after approval is granted.

Signed*: _____ Date: 8-17-22

*Requires notarized letter of permission

Owner Information:

Name: Anton Melchionda

Phone: 617 835 4770 Fax: _____

Company: Onyx Raymond, LLC

Address: 60 Centre Street, Dover, MA 02030

Signed: _____ Date: 8/9/22

Designers of Record: (Provide Name & License Number for each)

Engineer: Erik Poulin, Jones & Beach Engineers, Inc - #16669

Surveyor: David Collier, Jones & Beach Engineers, Inc. - #892

Soil Scientist: _____

Landscape Architect: _____

Fire Protection Engineer: _____

Other(s): _____

FEES: See attached Fee Schedule

For Office Use Only:

Date Application Received: _____ Total Fees Collected w/Application: _____

Abutters List Received: _____ Plans & Checklist Received: _____

Appendix II

Site Plan Review Fees

Sample Chart Using 180 sf per space	
1	$ 514.80
2	$ 579.60
3	$ 644.40
4	$ 709.20
5	$ 774.00
6	$ 838.80
7	$ 903.60
8	$ 968.40
9	$ 1,183.20
10	$ 1,248.00
11	$ 1,312.80
12	$ 1,377.60
13	$ 1,442.40
14	$ 1,657.20
15	$ 1,722.00
16	$ 1,786.80
17	$ 1,851.60
18	$ 1,916.40
19	$ 2,131.20
20	$ 2,196.00
21	$ 2,260.80
22	$ 2,325.60
23	$ 2,390.40

Base Rate: $ 300.00
(Includes staff wages with a 23 % roll-up rate) 300.69

Variable Costs (per newly created space): $ 0.36

	Units - SF
POV Spaces:	3240 x 180
Handicap Accessible Spaces:	320
Tractor Trailer	844 x 600
	905,080 x .30
	73 828.80

# Spaces	Formula for Calculation of Fees
1 - 8	$ 0.36 per sf + (1.5 x $ 300 base rate)
9 - 13	$ 0.36 per sf + (2.0 x $ 300 base rate)
14 - 18	$ 0.36 per sf + (2.5 x $ 300 base rate)
19 - 23	$ 0.36 per sf + (3.0 x $ 300 base rate)
24 - 50	$ 0.36 per sf + (3.5 x $ 300 base rate)
51 - 75	$ 0.36 per sf + (4.0 x $ 300 base rate)
76 - 100	$ 0.36 per sf + (4.5 x $ 300 base rate)
101 - 150	$ 0.36 per sf + (5.0 x $ 300 base rate)
151 - 200	$ 0.36 per sf + (5.5 x $ 300 base rate)

73,828.80 x (5.5 x 300)
= 1650.-

ABUTTERS FEE: $10.00 PER NOTICE x 12 = $120.00

Escrow Deposits for Legal/Engineering/Other Peer Review Expenses[1] Minimum Fee (Discretion of the Technical Review Committee):	$ 1,250.00
Disturbed Area[2] - Up to 5 Acres:	$ 2,500.00
Up to 10 Acres	$ 3,250.00
Up to 15 Acres:	$ 4,000.00
Up to 20 Acres:	$ 4,500.00
Over 20 Acres, but less than 30 acres:	$ 5,000.00
Over 30 Acres - To be determined by Town Engineer/Legal Counsel	TBD

[1] Once a balance is reduced to 50% of the original deposit, the applicant shall replenish it to 100%.

[2] Disturbed area is defined as: That portion of the site that is altered due to construction of streets, roadways, parking areas, utilities, buildings or other physical improvements, including earth excavation, removal or altercation.

$ 75,898.80

Site Plan Review Checklist

TOWN OF RAYMOND, NH

PROJECT NAME Raymond Distribution

MAP# _____ **LOT #**_____ **APPLICATION DATE** 8/18/22 **APPLICATION #**_____
Map 22, Lots 44, 45, 45, & 47 & Map 28, Block 3, Lot 120-1

A copy of all plans and technical reports must be sent to the Town engineer. Proof of submittal must be provided to the Community Development Department at the time of application. If proof of transmittal is not provided, the application may be delayed until the following month's Planning Board meeting. Address is: ***Dubois & King, 15 Constitution Dr. Suite 1L, Bedford NH 03110, ATTN: Ross Tsantoulis.***

SUBMITTED				WAIVED	
YES	*NO*			*YES*	*NO*
X		1.	Name of project; names and addresses of owners of record; Tax map and lot number.		
X		2.	Name, license number and seal of surveyor or other persons, north arrow, scale and date of plan; signature block.		
X		3.	Vicinity sketch and zoning district(s).		
X		4.	Abutters and uses of abutting land within 200 feet of the site.		
X		5.	Shape, size, height, location and use of existing and proposed structures located on the site and within 200 feet of the site.		
X		6.	Boundary lines, dimensions and bearings; lots area in acres And square feet and total disturbed area in square feet.		
X		7.	Location, name and widths of any existing and proposed roads on the property and within 200 feet of the site		
X		8.	Location of existing and proposed sidewalks and driveways, with indication of travel for both pedestrian and vehicular traffic.		
X		9.	Access to the site, sight distance at access point(s), curb cuts and any proposed changes to existing streets; copy of driveway permit.		
X		10.	Location and number of parking spaces; loading spaces.		
X		11.	Location, type and nature of all existing and proposed Landscaping and screening.		
X		12.	Location, type and nature of all existing and proposed exterior lighting.		
X		13.	Natural features (streams, ponds, wetlands, etc.)		
X		14.	Waste/dumpster locations and snow storage areas		

Site Plan Review Checklist

TOWN OF RAYMOND, NH

SUBMITTED YES	SUBMITTED NO			WAIVED YES	WAIVED NO
X		15.	Existing and proposed grades and contours, including base Flood elevation where appropriate.		
X		16.	Size and location of all existing and proposed water mains, sewers, culverts, and distances to the existing fire hydrants, cisterns and/ or fire ponds.		
X		17.	Copy of certification from septic designer as to sufficiency of system.		
Waiver Request		18.	Location and type of proposed waste water disposal system; Outline of 4,000 sq. ft. area; test pits; record of percolation tests.		
X		19.	Existing and proposed Storm water drainage system.		
X		20.	Location of existing and proposed on-site well (showing required radius on the property.)		
X		21.	Soil survey data (see: requirements for soils and wetlands data)		
X		22.	Location of any existing or proposed easements, deed restrictions, covenants.		
OTHER:					
X		1.	Any federal, state or local permits.		
X		2.	Building elevations and design		
X		3.	Sign location and design		
N/A		4.	Copies of any proposed or existing easements, deed restrictions, covenants, and street deeds.		
X		5.	Such additional studies as may be required.		
X		6.	Six (6) full-size copies of all plans and ten (10) copies of all plans in 11 X 17 format, and digital copy of plans. *		
X		7.	Three (3) copies of all studies*		

FEES

X		1. Application Fees
X		2. Abutters Notice Fees ***(to include three (3) labels per abutter)***
X		3. Engineering and Legal Review Escrow
X		4. Site Review-Administrative Fee

Raymond NH Planning Board Waiver Request Form

Applicable to Site Plan Review and Subdivision Regulations

Project Name & Application Number:

Regulation, Article & Section from which a waiver is being sought:

Site Plan Regulation Section 6.10.04 - Licensed Landscape Architect

Where the Planning Board finds that unnecessary hardship may result from strict compliance with these regulations with respect to a particular tract of land, the Board may modify or waive these regulations so that substantial justice may be done and the public interest is secured, provided that:

Please respond to the criteria below:

a. Explain how the granting of the waiver will not be detrimental to public safety, health, or welfare or injurious to other adjacent property;

This is a private site and we are proposing plantings at the street entrance and around the front of the building. There is no detrimental effect to public safety, health or welfare or injurious to other adjacent property.

b. Explain how granting this waiver shall not have the effect of nullifying the intent and purpose of these regulations, the Zoning Ordinance, Master Plan or Official Zoning Map;

We are requesting a waiver from having a Licensed Landscape Architect draft and stamp the plan as we are in the industrial zone and the project is designed to be out of sight from the adjacent road & abutters.

In granting waivers, the Planning Board may require such conditions as will, in the Board's judgment, secure substantially the objectives of the standards or requirements of these regulations.

A petition for waiver shall be submitted by the applicant at the time when the application is filed for consideration by the Planning Board. All petitions shall be made in writing using the Town's Waiver Request Form. The petition shall state fully the grounds for the waiver and all of the facts relied upon by the petitioner.

Any granted waivers must be noted on the final approved plan.

Letter of Authorization

I, Anton Melchionda, ONYX Partners LTD, 200 Reservoir Street, Needham, MA 02494, developer of property located in Raymond, NH, known as Tax Map 22, Lots 44, 45, 46 & 47 and Tax Map 28, Block 3, Lot 120-1, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously mentioned property. The parcels are located on Industrial Drive in Raymond, NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

Anton Melchionda
ONYX Partners LTD

5/3/22
Date

Personally, appeared the above-named Anton Melchionda, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information, and belief. Before me.

Notary Public/Justice of the Peace

My commission expires 9/26/25

AARON K. HINCHLIFFE
MY COMMISSION EXPIRES SEPTEMBER 26, 2025
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS

Letter of Authorization

ONYX Raymond LLC. 60 Centre Street. Dover, MA 02030. owner of property located in Raymond, NH, known as Tax Map 22. Lots 44. 45, 46 & 47 and Tax Map 28. Block 3, Lot 120-1. do hereby authorize Jones & Beach Engineers. Inc.. PO Box 219, Stratham, NH. to act on my behalf concerning the previously mentioned property. The parcels are located on Industrial Drive in Raymond. NH.

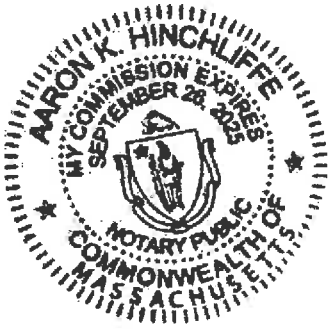
I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process. to include any required signatures.

Witness ONYX Raymond LLC Date 5/3/22

Personally, appeared the above-named ONYX Raymond LLC, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information, and belief. Before me,

Notary Public/Justice of the Peace

My commission expires 9/26/25



E # 22006548 01/11/2022 09:29:51 AM
Book 6373 Page 1280 Page 1 of 2
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA403838	25.00
TRANSFER TAX	RO112753	188.00
RECORDING		34.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **STOLI PROPERTIES, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, pursuant to the provisions of NH RSA 304-C:139 for winding up the business of said company, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain piece of wood land situated in Raymond, County of Rockingham, State of New Hampshire, bounded and described as follows:

Commencing at land now or formerly of Aaron G. Whittier running northeast by a cart north 34 rods to a stone wall on the Blake land, so-called; thence northwest by a stone wall 38 rods to land now or formerly of Aaron G. Whittier land by a stone wall southeast 20¼ rods to the first bound mentioned; containing two and one half (2½) acres, be the same more or less.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of Robert Sinclair and Lorraine Sinclair dated May 16, 2005 and recorded in the Rockingham County Registry of Deeds at Book 4481, Page 108 and being shown on Tax Map 22, Lot 44 on the Town of Raymond tax maps.

This is not homestead property.

Signed this 5 day of January, 2022.

Stoli Properties, LLC

By:
Name: Ashish B Greene
Title: Manager

E # 22001649 01/11/2022 09:25:52 AM
Book 6373 Page 1282 Page 1 of 2
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602939	25.00
TRANSFER TAX	RO112756	15,000.00
RECORDING		14.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **WEST RIVER ROAD, L.L.C.,** a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC,** a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain tract or parcel of land with any buildings thereon situate northerly of State of N.H. Route 101, a limited access highway in Raymond, Rockingham County, New Hampshire, and shown as Tax Map 22, Lot 45 on a plan entitled "A Survey and Plat of Properties prepared for Hard Rock Development, LLC" dated May 26, 2005, prepared by RSA Layout & Design, Inc. and recorded or to be recorded in the Rockingham County Registry of Deeds, more particularly bounded and described as follows:

Beginning at a steel reinforcing rod on the northerly side of said State of N.H. Route 101 at the westernmost point of Tax Map 23, Lot 24; thence running N 16° 32' 12" E a distance of 566.59 feet to a granite/concrete bound; thence turning and running S 80° 25' 28" E a distance of 166.45 feet to a drill hole in a stone wall; thence running S 77° 51' 08" E a distance of 104.68 feet to a drill hole in a stone wall at land now or formerly of Est. of Josephine F. Welch; thence turning and running N 25° 21' 27" E a distance of 41.75 feet to a drill hole in a stone wall; thence running N 26° 13' 24" E a distance of 236.03 feet to a tree w/wire; thence running N 20° 52' 59" E a distance of 109.97 feet to a drill hole in a stone wall; thence running N 21° 25' 01" E a distance of 65.44 feet to a drill hole in a stone wall; thence running N 24° 23' 29" E a distance of 103.77 feet to a drill hole in a stone wall at land now or formerly of Hard Rock Development, LLC; thence turning and running N 80° 16' 26" W a distance of 195.99 feet to a drill hole in a stone wall; thence running N 79° 24' 32" W a distance of 203.68 feet to a drill hole in a stone wall; thence running N 75° 01' 56" W a distance of 156.10 feet to a drill hole in a stone wall; thence running N 66° 33' 02" W a distance of 18.18 feet to a drill hole in a stone wall at land now or formerly of Robert & Lorraine Sinclair; thence turning and running S 72° 23' 47" W a distance of 521. 89 feet to a drill hole in a stone wall at land now or formerly of the Town of Raymond; thence turning and running S 16° 35' 24" E a distance of 346.11 feet to a steel reinforcing rod at other land now or formerly of the Town of Raymond; thence turning and running S 16° 32' 12" W a distance of 848.67 feet to a point on the northerly side of State of N.H. Route 101; thence turning and running N 69° 40' 56" E a distance

of 463.91 feet to a granite/concrete bound; thence turning and running N 78° 16' 37" E a distance of 112.49 feet to a steel reinforcing rod at the point of beginning. Containing 17.8768 acres.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of Inez S. Welch dated June 23, 2005 and recorded in the Rockingham County Registry of Deeds at Book 4500, Page 1939.

This is not homestead property.

Signed this 5 day of January, 2022.

West River Road, L.L.C.

By: _____
Name: Arleigh B. Greene
Title: Sole Member

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5th day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh B. Greene, as Sole Member of West River Road, L.L.C., known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

_____
~~Justice of the Peace~~/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

E # 22001646 01/11/2022 09:25:49 AM
Book 6373 Page 1273 Page 1 of 3
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602936	25.00
TRANSFER TAX	RO112753	773.00
RECORDING		18.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **BBOC DEVELOPMENT, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC,** a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain parcel of land with the buildings thereon situated in Raymond, in the County of Rockingham and State of New Hampshire, identified as Town of Raymond Tax Map 22, Lot 46, bounded and described as follows:

Beginning at an iron monument set into the ground at the end of the Blake passway, so-called, by land of Everett E. Goodwin; thence Westerly by land of the Concord & Portsmouth Railroad 150 rods, more or less, to land formerly of Horatio D. Page; thence turning and running Southwesterly by land formerly of said Page 120 rods; thence Southeasterly by land of Plummer B. Carson 120 rods to land now or formerly of the heirs of Levi Moulton; thence Northeasterly by land of heirs of said Moulton 124 rods to land now or formerly of the Town of Raymond; thence Northwesterly 10 rods, more or less, by land of said Town of Raymond and land now or formerly of Edwin S. Poore to a stone monument; thence Northeasterly by land now or formerly of Edwin S. Poore, land of Stevens, land of Fellows & Abbott, land of heirs of Octavous W. Fellows and land of Everett E. Goodwin to the bound begun at. Containing 112 acres be the same more or less.

Excepting and reserving to the Town of Raymond the right of passing over the land above described or any part thereof which have heretofore been conveyed to said Town which are not to be conveyed or enlarged by this deed. Also a certain other parcel of land situated in said Raymond containing 40 acres be the same more or less, being known as and called the "Bean Land", bounded and described as follows: Southeasterly by land now or formerly of heirs of Daniel Robie; Southwesterly by land now or formerly of Joseph Davis, so-called; Westerly by land now or formerly of heirs of Horatio D. Page; Easterly, so-called, by land now or formerly of Daniel T. Wendell, and Northerly of land of Horatio D. Page.

EXCEPTED from the above-described premises those premises conveyed to Regis Tanning Company, Inc. by deed of Cora P. Falconer dated July 25, 1958 recorded at the Rockingham

County Registry of Deeds at Book 1474, Page 299, more particularly bounded and described as follows:

Two tracts of land with the buildings thereon situated in Raymond, County of Rockingham and State of New Hampshire, bounded and described as follows:

First Tract: Beginning at an iron pipe driven into the ground about 60 feet Westerly from Orchard Street, so-called, in Raymond Village by land now or formerly of the heirs of James L. Jones and land now or formerly of the Concord and Portsmouth Railroad; thence Westerly by land of said Railroad to the end of a stone wall by land now or formerly of Lewis A. Clough; thence Southeasterly by said Clough land to a large oak tree by land now or formerly of Edwin S. Poore; thence Northeasterly by a stone wall by said Poore land and land now or formerly of Fellows and Abbott to land now or formerly of the heirs of Octavous M. Fellows; thence in the same direction by land of the heirs of said Fellows to the bound first mentioned. Containing two acres, more or less.

The grantor also conveys the right of passing on foot and with vehicles for said grantee and his heirs and assigns between the land above described and the highway leading from Packer's Bridge, so-called, and Fremont as heretofore used, over land now or formerly of the Concord and Portsmouth Railroad. Said tract is also subject to rights of passage over a portion of the same for the owners of the land now or formerly of Lewis A. Clough and his assigns to pass from the land of said Clough to said highway as heretofore used by the owners of said land.

Second Tract: Beginning at the Northwest corner of land now or formerly of Aaron G. Whittier; thence North 70 degrees West 12 rods and 50 links to a spotted yellow oak tree; thence North 52 1/2° West 21 rods and 3 links to land now or formerly of the Concord and Portsmouth Railroad; thence by said Railroad Southwesterly 120 rods to land now or formerly of Horatio D. Page; thence turning and running Southwesterly by said Page land 120 rods; thence Southeasterly by land now or formerly of Daniel T. Wendell 120 rods to land now or formerly of Levie Moulton; thence Northeasterly by said Moulton land 124 rods to land now or formerly of said Aaron G. Whittier; thence Northwesterly 10 rods to the bound begun at.

Said premises referenced as contain 110 acres, more or less. There is an unobstructed passage to said tract or lot 2 rods wide agreeable to the reservation in the deed of Sherburne Blake to the Concord and Portsmouth Railroad. Reserving and excepting from said tract about 1 acre of land with the rights of way thereto that has been heretofore deeded to the Town of Raymond for its water works.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated June 30, 2006 and recorded in the Rockingham County Registry of Deeds at Book 4676, Page 1415.

This is not homestead property.

Signed this 5th day of January, 2022.

BBOC Development, LLC

By: _____
Name: Arleigh B. Greene
Title: Manager

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5 day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh B. Greene, as Manager of BBOC Development, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

_____
~~Justice of the Peace~~/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

E # 22001647 01/11/2022 09:25:50 AM
Book 6373 Page 1276 Page 1 of 4
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602937	25.00
TRANSFER TAX	RO112754	44,040.00
RECORDING		22.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **HARD ROCK DEVELOPMENT, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC,** a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

TRACT 1

A certain tract or parcel of land located off of Old Manchester Road and Industrial Drive in the Town of Raymond, County of Rockingham and State of New Hampshire depicted as "Proposed Lot 120-1" on a plan of land entitled "Subdivision Plan of Land, Tax Map 28-3, Lot 120, Old Manchester Road & Industrial Drive, Raymond, NH" prepared by Eric C. Mitchell & Assoc, Inc. dated July 3, 2007 through revision E dated 4/23/13 recorded at the Rockingham County Registry of Deeds as Plan #D-37834 (hereinafter "Plan"); said parcel is more particularly bounded and described as follows:

Beginning at an iron pin at the southerly boundary of the abandoned railroad bed at the northeasterly corner of land now or formerly of MRCT Realty Co., LLC being the northwesterly corner of the within described premises as shown on said Plan; thence running along said abandoned railroad bed N71°36'16"E a distance of 715.25 feet to an iron pin at Proposed Lot 120 as shown on said Plan; thence turning and running along said Lot 120 S31°13'07"W a distance of 151.62 feet to an iron pin; thence turning and running still along said Lot 120 S58°46'53"E a distance of 273.87 feet to an iron pin; thence continuing along said Lot 120 S77°11'24"E a distance of 1036.64 feet to an iron pipe at Tax Map 28-3, Lot 16 as shown on said Plan; thence turning and running S67°09'04"E a distance of 147.35 feet to a drill hole in a stone wall at Tax Map 23, Lot 25 as shown on said Plan; thence turning and running along said Lot 25 and said stone wall the following eleven (11) courses and distances: S26°10'49"W, 101.34 feet; S24°17'47"W, 184.91 feet; S22°19'55"W, 52.48 feet; S24°22'25"W, 468.12 feet; S24°36'24"W, 337.71 feet; S24°14'00"W, 211.15 feet; S24°38'51"W, 213.98 feet; S33°16'21"W, 113.46 feet; S30°11'49"W, 33.21 feet; S19°03'38"W, 28.80 feet; S15°18'27"W, 14.64 feet to a drill hole at an intersection of stone walls at land now or formerly of West River Road, LLC as shown on said Plan; thence turning and running along said stone wall the following twelve (12) courses and distances:

N80°16'26"W, 195.99 feet; N79°24'32"W, 203.68 feet; N75°01'56"W, 156.10 feet; N66°33'02'W, 18.18 feet; N68°14'32"W, 36.67 feet; N73°57'31"W, 241.16 feet; N87°27'00"W, 39.02 feet; N66°33'27"W, 37.71 feet; N77°46'13"W, 148.15 feet; N79°22'58"W, 112.59 feet; N78°45'03"W, 179.83 feet; N78°45'03"W, 216.16 feet to a stone bound at land now or formerly of MRCT Realty Co., LLC as shown on said Plan; thence turning and running along said MRCT land the following eight (8) courses and distances: N20°24'26"E, 536.20 feet; N17°54'53"E, 108.93 feet; N20°30'13"E, 201.41 feet; N23°40'05"E, 106.20 feet; N21°10'51"E, 168.79 feet; N41°53'34"W, 73.21 feet; N40°25'45"W, 59.21 feet; N38°49'14"W, 146.11 feet to the iron pin at the point of beginning.

Said parcel containing 2,666,114 sq. ft. (61.21 acres), more or less, according to said Plan.

SUBJECT TO AND TOGETHER WITH the burden and benefit of certain rights of the Town of Raymond ("Raymond"), and Hardrock Development, LLC ("Hardrock") and BBOC Development, LLC ("BBOC") (collectively, the "Owners") as set forth in a written Agreement entitled "Second Amendment to Further Agreement re: Exercise of Option and Participation in Clean Up" dated May 2, 2013 and on file with the Raymond Town Clerk's office (the "Agreement"), as follows:

1. License of Raymond to use temporary construction road, to be constructed by the Owners or its assigns upon written notice from Raymond, from Industrial Drive over Lot 120-1 along the old logging road shown on the subdivision plan.

2. The right of Raymond for fifteen (15) years from the date of the Agreement to construct a permanent access road or driveway in a location reasonably and mutually agreed upon and tentatively shown on the Subdivision Plan on Lot 120-1 as "Possible Future Permanent Access Road or Driveway" (See Note 9 on the Plan) and "Proposed 50' Right of Way" on Lot 120 subject to the Reciprocal Option of the Owners or its assigns to upgrade to a Town accepted Road at Owners or its assigns' expense.

The foregoing reserved rights, unless earlier exercised, shall terminate at the earlier of fifteen (15) years from the date of the Agreement or three (3) years after the completion of a municipal waste water treatment facility on Lot 120.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated November 4, 2013 and recorded in the Rockingham County Registry of Deeds at Book 5577, Page 0135 and being shown on Tax Map 28, Block 3, Lot 120-1 on the Town of Raymond tax maps.

TRACT 2

A certain tract of land (with improvements and buildings thereon) located in Raymond, Rockingham County, New Hampshire, described as follows:

All of Lot 52-3 as identified and described on a Plan of Land entitled "Revised Subdivision Plan for Pike Industries, Inc. situated in the town of Raymond" by R.S.L. Layout & Design, Inc.,

Raymond, New Hampshire dated November 17, 1987 and recorded in the Rockingham County Registry of Deeds as Plan# D-17579, Said Lot 52-3 contains 12.8 acres, more or less.

SUBJECT TO any easements of record and the easements, conditions and restrictions shown and noted on the Plan including, but not limited to the following:

1. Easement to New England Telephone & Telegraph Company dated March 27, 1962, recorded in the Rockingham County Registry of Deeds at Book 1640, Page 39.

2. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 659.

3. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 660.

4. Easement to Public Service Company of New Hampshire and New England Telephone and Telegraph Company dated March 29, 1988, recorded in said Registry at Book 2760, Page 2530.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated June 30, 2006 and recorded in the Rockingham County Registry of Deeds at Book 4676, Page 1418 and being shown on Tax Map 22, Lot 47 on the Town of Raymond tax maps.

This is not homestead property.

Signed this 5 day of January, 2022.

Hard Rock Development, LLC

By: _____
Name: Arleigh Greene
Title: Manager

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5th day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh Greene, as Manager of Hard Rock Development, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

~~Justice of the~~ Peace/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

0 foot Abutters List Report

Raymond, NH
July 27, 2022

Subject Properties:

Parcel Number:	022-000-044-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-044-000-000		60 CENTRE STREET
Property Address:	INDUSTRIAL DRIVE		DOVER, MA 02030
Parcel Number:	022-000-045-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-045-000-000		60 CENTRE STREET
Property Address:	INDUSTRIAL DRIVE		DOVER, MA 02030
Parcel Number:	022-000-046-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-046-000-000		60 CENTRE STREET
Property Address:	BATCHELDER ROAD		DOVER, MA 02030
Parcel Number:	022-000-047-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-047-000-000		60 CENTRE STREET
Property Address:	INDUSTRIAL DRIVE		DOVER, MA 02030
Parcel Number:	028-003-120-001	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	028-003-120-001-000		60 CENTRE STREET
Property Address:	INDUSTRIAL DRIVE		DOVER, MA 02030

Abutters:

Parcel Number:	022-000-043-000	Mailing Address:	MRCT REALTY CO. , LLC
CAMA Number:	022-000-043-000-000		P.O. BOX 449
Property Address:	10 INDUSTRIAL DRIVE		LAWRENCE, MA 01842
Parcel Number:	022-000-048-000	Mailing Address:	RAYMOND AMBULANCE, INC
CAMA Number:	022-000-048-000-000		1 SCRIBNER ROAD
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	023-000-024-000	Mailing Address:	WELCH, JOAN E
CAMA Number:	023-000-024-000-000		15 NOTTINGHAM ROAD
Property Address:	ROUTE 101		RAYMOND, NH 03077
Parcel Number:	023-000-025-000	Mailing Address:	WELCH,JOSEPH & JOHN & ARDELL & INEZ BETSY PATTERSON & ROBIN PROULX
CAMA Number:	023-000-025-000-000		49 RAYMOND ROAD, ROUTE 156
Property Address:	MAIN STREET		NOTTINGHAM, NH 03290
Parcel Number:	027-004-032-000	Mailing Address:	BAIN, WARREN
CAMA Number:	027-004-032-000-000		P.O. BOX 123
Property Address:	24 OLD MANCHESTER ROAD		RAYMOND, NH 03077

0 foot Abutters List Report

Raymond, NH
July 27, 2022

Parcel Number:	027-004-033-000	Mailing Address:	RAYMOND SCHOOL DISTRICT
CAMA Number:	027-004-033-000-000		43 HARRIMAN HILL ROAD
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	028-003-016-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-016-000-000		4 EPPING STREET
Property Address:	ORCHARD STREET		RAYMOND, NH 03077
Parcel Number:	028-003-043-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-043-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	028-003-120-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-120-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077

STATE OF NEW HAMPSHIRE, DEPT. OF TRANSPORTATION, 7 HAZEN DR, CONCORD, NH 03301

JONES & BEACH ENGINEERS, INC., ATTN. WAYNE MORRILL, PO BOX 219, STRATHAM, NH 03385

ONYX PARTNERS LTD., ATTN. ANTON MELCHIONDA, 200 RESERVOIR ST, NEEDHAM, MA 02494

GOVE ENVIRONMENTAL SERVICES, ATTN. LUKE HURLEY, 8 CONTINENTAL DR, UNIT H, EXETER, NH 03833

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BAIN, WARREN
P.O. BOX 123
RAYMOND, NH 03077

STATE OF NEW HAMPSHIRE
DEPT. OF TRANSPORTATION
7 HAZEN DR
CONCORD, NH 03301

MRCT REALTY CO. , LLC
P.O. BOX 449
LAWRENCE, MA 01842

JONES & BEACH ENGINEERS
ATTN. WAYNE MORRILL
PO BOX 219
STRATHAM, NH 03385

RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

ONYX PARTNERS, LTD
ATTN. ANTON MELCHIONDA
200 RESERVOIR ST
NEEDHAM, MA 02494

RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

GOVE ENVIRONMENTAL SERVICES
ATTN. LUKE HURLEY
8 CONTINENTAL DR, UNIT H
EXETER, NH 03833

RAYMOND, TOWN OF
4 EPPING ST
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING STREET
RAYMOND, NH 03077

WELCH, JOAN E
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

WELCH,JOSEPH & JOHN & ARD
BETSY PATTERSON & ROBIN P
49 RAYMOND ROAD, ROUTE 156
NOTTINGHAM, NH 03290

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AVERY 8460

Raymond, NH

July 27, 2022

1 inch = 550 Feet

0 550 1101 1652

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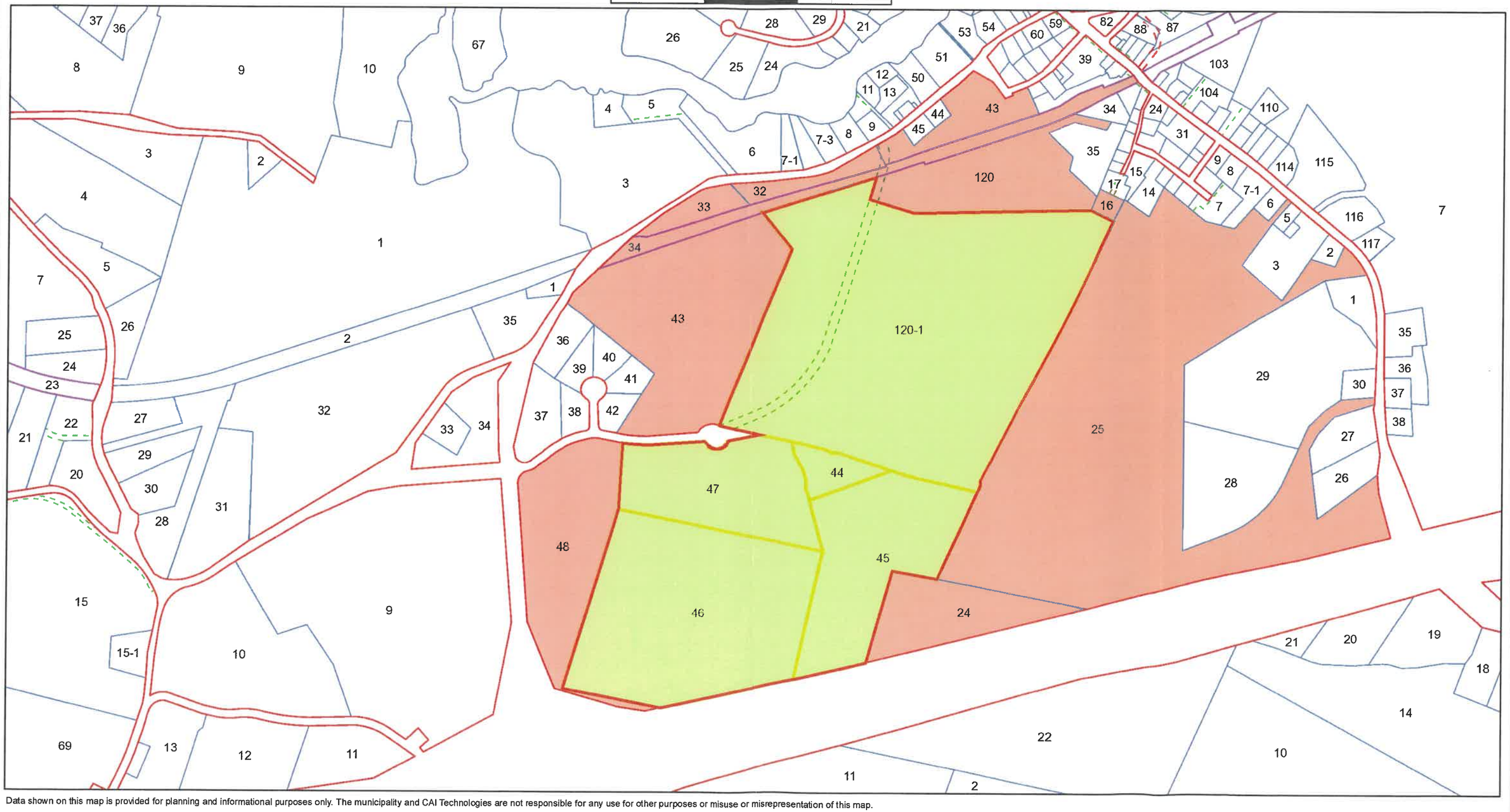


Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

JONES & BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

October 5, 2022

Raymond Planning Board
Attn. Brad Reed, Chair
4 Epping Street
Raymond, NH 03077

RE: Special Permit Application
Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46 7 47
Tax Map 28, Block 3, Lot 120-1
JBE Project No. 21130

Dear Mr. Reed,

Jones & Beach Engineers, Inc. respectfully submits a Special Permit Application for the above-referenced parcels on behalf of our client, ONYX Partners LTD. The intent of this application is to propose a 550,025 S.F. industrial distribution warehouse with associated loading docks, truck parking, and employee vehicle parking which will require wetlands to be filled.

The following items are provided in support of this Application:

1. Special Permit Application
2. Letters of Authorization.
3. Current Deeds.
4. Fee Check in the amount of $220.00.
5. Abutters List & Mailing Labels (3 sets).
6. Tax Map.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Wayne Morrill
President

cc: Anton Melchionda, ONYX Partners LTD (application and plans via email)
Jeff Adler, DuBois & King (application & plans via email & U.S. Mail)

Application for Special Permit

Town of Raymond, NH

Site Information

Property Address: Industrial Drive

Map #: 22 Lot #: 44, 45, 46 & 47
Map 28, Block 3, Lot 120-1

Property Owner Information

Name: Onyx Raymond, LLC Phone: _____

Address: 60 Centre Street, Dover, MA 02030

Address: _____

Applicant/Agent Information

Name: Anton Melchionda, Onyx Partners, Ltd. Phone: 617-835-4770

Address: 200 Reservoir Street, Needham, MA 02494

Address: _____

Project Description

To propose a 550,025 S.F. industrial distribution warehouse which will require wetland fill.

Applicant Signature* (see page 2): _____ **Date:** 10-5-22

Submission Checklist

- ***COMPLETED & SIGNED APPLICATION.** If the applicant is NOT the property owner, a notarized letter of permission from the property owner is required to be submitted with this application.

- **LIST OF ABUTTERS.** The list of abutters must include the following information:
  - Name of property owner(s)
  - Address of property owner(s)
  - Name of abutting property owner(s)
  - Address of abutting property owner(s)
  - Tax Map and Lot Numbers for all properties listed
  - Name and Address of any agents authorized by the applicant to represent them and whose professional seal appears on a plat submitted to the Planning Board (i.e. land surveyors, wetland scientists, engineers, etc.)

  (For more information, please refer to NH Revised Statues Annotated 672:3 for a definition of the term "abutter," and RSA 676:4 for legal notice requirements).

- **APPLICATION FEE.** The application fee to the Planning Board for a Special Permit is as follows:
  - $100.00 base application fee, plus;
  - $10.00 per abutter (including the applicant, property owner(s), and any agents authorized to represent the property owner(s))
  - **When writing a check, this amount must be kept separate from the Escrow Account (see below).** Please make checks payable to the Town of Raymond.

- **ESCROW ACCOUNT.** This is a separate account established by the applicant to cover the cost of any additional legal notification, engineering review, legal review, document recording or outside copying incurred by the Town. Any unused funds will be returned to the applicant.
  - $250.00 – Minimum amount required to establish Escrow Account.
  - **When writing a check, this amount must be kept separate from the Application Fee (see above).** Please make checks payable to the Town of Raymond.

- **PLANS.**
  - One (1) 24" x 36" copy of the plan, plus ten (10) 11" x 17" copies shall be provided.

    -OR-

  - If the original plan is smaller than 24" x 36" in size, then one (1) copy of the original plan, plus ten (10) 11" x 17" copies of the plan shall be provided.

Letter of Authorization

I, Anton Melchionda, ONYX Partners LTD, 200 Reservoir Street, Needham, MA 02494, developer of property located in Raymond, NH, known as Tax Map 22, Lots 44, 45, 46 & 47 and Tax Map 28, Block 3, Lot 120-1, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously mentioned property. The parcels are located on Industrial Drive in Raymond, NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

Anton Melchionda
ONYX Partners LTD

5/3/22
Date

Personally, appeared the above-named Anton Melchionda, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information, and belief. Before me,

Notary Public/Justice of the Peace

My commission expires 9/26/25

AARON K. HINCHLIFFE
MY COMMISSION EXPIRES SEPTEMBER 26, 2025
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS

Letter of Authorization

ONYX Raymond LLC. 60 Centre Street. Dover, MA 02030. owner of property located in Raymond, NH, known as Tax Map 22. Lots 44. 45, 46 & 47 and Tax Map 28. Block 3. Lot 120-1. do hereby authorize Jones & Beach Engineers. Inc.. PO Box 219, Stratham, NH. to act on my behalf concerning the previously mentioned property. The parcels are located on Industrial Drive in Raymond. NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process. to include any required signatures.

Witness ONYX Raymond LLC 5/3/22 Date

Personally, appeared the above-named ONYX Raymond LLC, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information, and belief. Before me,

Notary Public Justice of the Peace

My commission expires 9/26/25

AARON K. HINCHLIFFE
MY COMMISSION EXPIRES SEPTEMBER 26, 2025
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS

E # 22008848 01/11/2022 08:25:51 AM
Book 6373 Page 1280 Page 1 of 2
Register of Deeds, Rockingham County

Return to:

LCHIP	#2022022	25.00
TRANSFER TAX	#2022753	195.00
RECORDING		34.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **STOLI PROPERTIES, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, pursuant to the provisions of NH RSA 304-C:139 for winding up the business of said company, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain piece of wood land situated in Raymond, County of Rockingham, State of New Hampshire, bounded and described as follows:

Commencing at land now or formerly of Aaron G. Whittier running northeast by a cart-path 34 rods to a stone wall on the Blake land, so-called; thence northwest by a stone wall 38 rods to land now or formerly of Aaron G. Whittier land by a stone wall southwest 20½ rods to the first bound mentioned; containing two and one half (2½) acres, be the same more or less.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of Robert Sinclair and Lorraine Sinclair dated May 16, 2005 and recorded in the Rockingham County Registry of Deeds at Book 4481, Page 138 and being shown on Tax Map 22, Lot 44 on the Town of Raymond tax maps.

This is not homestead property.

Signed this 5 day of January, 2022.

Stoli Properties, LLC

By:
Name: Ashish B. Greene
Title: Manager

Book: 6373 Page: 1282

E # 22001649 01/11/2022 09:25:52 AM
Book 6373 Page 1282 Page 1 of 2
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602939	25.00
TRANSFER TAX	RO112756	15,000.00
RECORDING		14.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **WEST RIVER ROAD, L.L.C.**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain tract or parcel of land with any buildings thereon situate northerly of State of N.H. Route 101, a limited access highway in Raymond, Rockingham County, New Hampshire, and shown as Tax Map 22, Lot 45 on a plan entitled "A Survey and Plat of Properties prepared for Hard Rock Development, LLC" dated May 26, 2005, prepared by RSA Layout & Design, Inc. and recorded or to be recorded in the Rockingham County Registry of Deeds, more particularly bounded and described as follows:

Beginning at a steel reinforcing rod on the northerly side of said State of N.H. Route 101 at the westernmost point of Tax Map 23, Lot 24; thence running N 16° 32' 12" E a distance of 566.59 feet to a granite/concrete bound; thence turning and running S 80° 25' 28" E a distance of 166.45 feet to a drill hole in a stone wall; thence running S 77° 51' 08" E a distance of 104.68 feet to a drill hole in a stone wall at land now or formerly of Est. of Josephine F. Welch; thence turning and running N 25° 21' 27" E a distance of 41.75 feet to a drill hole in a stone wall; thence running N 26° 13' 24" E a distance of 236.03 feet to a tree w/wire; thence running N 20° 52' 59" E a distance of 109.97 feet to a drill hole in a stone wall; thence running N 21° 25' 01" E a distance of 65.44 feet to a drill hole in a stone wall; thence running N 24° 23' 29" E a distance of 103.77 feet to a drill hole in a stone wall at land now or formerly of Hard Rock Development, LLC; thence turning and running N 80° 16' 26" W a distance of 195.99 feet to a drill hole in a stone wall; thence running N 79° 24' 32" W a distance of 203.68 feet to a drill hole in a stone wall; thence running N 75° 01' 56" W a distance of 156.10 feet to a drill hole in a stone wall; thence running N 66° 33' 02" W a distance of 18.18 feet to a drill hole in a stone wall at land now or formerly of Robert & Lorraine Sinclair; thence turning and running S 72° 23' 47" W a distance of 521. 89 feet to a drill hole in a stone wall at land now or formerly of the Town of Raymond; thence turning and running S 16° 35' 24" E a distance of 346.11 feet to a steel reinforcing rod at other land now or formerly of the Town of Raymond; thence turning and running S 16° 32' 12" W a distance of 848.67 feet to a point on the northerly side of State of N.H. Route 101; thence turning and running N 69° 40' 56" E a distance

of 463.91 feet to a granite/concrete bound; thence turning and running N 78° 16' 37" E a distance of 112.49 feet to a steel reinforcing rod at the point of beginning. Containing 17.8768 acres.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of Inez S. Welch dated June 23, 2005 and recorded in the Rockingham County Registry of Deeds at Book 4500, Page 1939.

This is not homestead property.

Signed this 5 day of January, 2022.

West River Road, L.L.C.

By: _____
Name: Arleigh B. Greene
Title: Sole Member

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5th day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh B. Greene, as Sole Member of West River Road, L.L.C., known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

_____
~~Justice of the Peace~~/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

Book: 6373 Page: 1273

E # 22001646 01/11/2022 09:25:49 AM
Book 6373 Page 1273 Page 1 of 3
Register of Deeds, Rockingham County

LCHIP	ROA602936	25.00
TRANSFER TAX	RO112753	773.00
RECORDING		18.00
SURCHARGE		2.00

Return to:

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **BBOC DEVELOPMENT, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain parcel of land with the buildings thereon situated in Raymond, in the County of Rockingham and State of New Hampshire, identified as Town of Raymond Tax Map 22, Lot 46, bounded and described as follows:

Beginning at an iron monument set into the ground at the end of the Blake passway, so-called, by land of Everett E. Goodwin; thence Westerly by land of the Concord & Portsmouth Railroad 150 rods, more or less, to land formerly of Horatio D. Page; thence turning and running Southwesterly by land formerly of said Page 120 rods; thence Southeasterly by land of Plummer B. Carson 120 rods to land now or formerly of the heirs of Levi Moulton; thence Northeasterly by land of heirs of said Moulton 124 rods to land now or formerly of the Town of Raymond; thence Northwesterly 10 rods, more or less, by land of said Town of Raymond and land now or formerly of Edwin S. Poore to a stone monument; thence Northeasterly by land now or formerly of Edwin S. Poore, land of Stevens, land of Fellows & Abbott, land of heirs of Octavous W. Fellows and land of Everett E. Goodwin to the bound begun at. Containing 112 acres be the same more or less.

Excepting and reserving to the Town of Raymond the right of passing over the land above described or any part thereof which have heretofore been conveyed to said Town which are not to be conveyed or enlarged by this deed. Also a certain other parcel of land situated in said Raymond containing 40 acres be the same more or less, being known as and called the "Bean Land", bounded and described as follows: Southeasterly by land now or formerly of heirs of Daniel Robie; Southwesterly by land now or formerly of Joseph Davis, so-called; Westerly by land now or formerly of heirs of Horatio D. Page; Easterly, so-called, by land now or formerly of Daniel T. Wendell, and Northerly of land of Horatio D. Page.

EXCEPTED from the above-described premises those premises conveyed to Regis Tanning Company, Inc. by deed of Cora P. Falconer dated July 25, 1958 recorded at the Rockingham

County Registry of Deeds at Book 1474, Page 299, more particularly bounded and described as follows:

Two tracts of land with the buildings thereon situated in Raymond, County of Rockingham and State of New Hampshire, bounded and described as follows:

First Tract: Beginning at an iron pipe driven into the ground about 60 feet Westerly from Orchard Street, so-called, in Raymond Village by land now or formerly of the heirs of James L. Jones and land now or formerly of the Concord and Portsmouth Railroad; thence Westerly by land of said Railroad to the end of a stone wall by land now or formerly of Lewis A. Clough; thence Southeasterly by said Clough land to a large oak tree by land now or formerly of Edwin S. Poore; thence Northeasterly by a stone wall by said Poore land and land now or formerly of Fellows and Abbott to land now or formerly of the heirs of Octavous M. Fellows; thence in the same direction by land of the heirs of said Fellows to the bound first mentioned. Containing two acres, more or less.

The grantor also conveys the right of passing on foot and with vehicles for said grantee and his heirs and assigns between the land above described and the highway leading from Packer's Bridge, so-called, and Fremont as heretofore used, over land now or formerly of the Concord and Portsmouth Railroad. Said tract is also subject to rights of passage over a portion of the same for the owners of the land now or formerly of Lewis A. Clough and his assigns to pass from the land of said Clough to said highway as heretofore used by the owners of said land.

Second Tract: Beginning at the Northwest corner of land now or formerly of Aaron G. Whittier; thence North 70 degrees West 12 rods and 50 links to a spotted yellow oak tree; thence North 52 1/2° West 21 rods and 3 links to land now or formerly of the Concord and Portsmouth Railroad; thence by said Railroad Southwesterly 120 rods to land now or formerly of Horatio D. Page; thence turning and running Southwesterly by said Page land 120 rods; thence Southeasterly by land now or formerly of Daniel T. Wendell 120 rods to land now or formerly of Levie Moulton; thence Northeasterly by said Moulton land 124 rods to land now or formerly of said Aaron G. Whittier; thence Northwesterly 10 rods to the bound begun at.

Said premises referenced as contain 110 acres, more or less. There is an unobstructed passage to said tract or lot 2 rods wide agreeable to the reservation in the deed of Sherburne Blake to the Concord and Portsmouth Railroad. Reserving and excepting from said tract about 1 acre of land with the rights of way thereto that has been heretofore deeded to the Town of Raymond for its water works.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated June 30, 2006 and recorded in the Rockingham County Registry of Deeds at Book 4676, Page 1415.

This is not homestead property.

Signed this 5th day of January, 2022.

BBOC Development, LLC

By: _____
Name: Arleigh B. Greene
Title: Manager

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5 day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh B. Greene, as Manager of BBOC Development, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

_____
~~Justice of the Peace~~/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

E # 22001647 01/11/2022 09:25:50 AM
Book 6373 Page 1276 Page 1 of 4
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602937	25.00
TRANSFER TAX	RO112754	44,040.00
RECORDING		22.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **HARD ROCK DEVELOPMENT, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

TRACT 1

A certain tract or parcel of land located off of Old Manchester Road and Industrial Drive in the Town of Raymond, County of Rockingham and State of New Hampshire depicted as "Proposed Lot 120-1" on a plan of land entitled "Subdivision Plan of Land, Tax Map 28-3, Lot 120, Old Manchester Road & Industrial Drive, Raymond, NH" prepared by Eric C. Mitchell & Assoc, Inc. dated July 3, 2007 through revision E dated 4/23/13 recorded at the Rockingham County Registry of Deeds as Plan #D-37834 (hereinafter "Plan"); said parcel is more particularly bounded and described as follows:

Beginning at an iron pin at the southerly boundary of the abandoned railroad bed at the northeasterly corner of land now or formerly of MRCT Realty Co., LLC being the northwesterly corner of the within described premises as shown on said Plan; thence running along said abandoned railroad bed N71°36'16"E a distance of 715.25 feet to an iron pin at Proposed Lot 120 as shown on said Plan; thence turning and running along said Lot 120 S31°13'07"W a distance of 151.62 feet to an iron pin; thence turning and running still along said Lot 120 S58°46'53"E a distance of 273.87 feet to an iron pin; thence continuing along said Lot 120 S77°11'24"E a distance of 1036.64 feet to an iron pipe at Tax Map 28-3, Lot 16 as shown on said Plan; thence turning and running S67°09'04"E a distance of 147.35 feet to a drill hole in a stone wall at Tax Map 23, Lot 25 as shown on said Plan; thence turning and running along said Lot 25 and said stone wall the following eleven (11) courses and distances: S26°10'49"W, 101.34 feet; S24°17'47"W, 184.91 feet; S22°19'55"W, 52.48 feet; S24°22'25"W, 468.12 feet; S24°36'24"W, 337.71 feet; S24°14'00"W, 211.15 feet; S24°38'51"W, 213.98 feet; S33°16'21"W, 113.46 feet; S30°11'49"W, 33.21 feet; S19°03'38"W, 28.80 feet; S15°18'27"W, 14.64 feet to a drill hole at an intersection of stone walls at land now or formerly of West River Road, LLC as shown on said Plan; thence turning and running along said stone wall the following twelve (12) courses and distances:

N80°16'26"W, 195.99 feet; N79°24'32"W, 203.68 feet; N75°01'56"W, 156.10 feet; N66°33'02'W, 18.18 feet; N68°14'32"W, 36.67 feet; N73°57'31"W, 241.16 feet; N87°27'00"W, 39.02 feet; N66°33'27"W, 37.71 feet; N77°46'13"W, 148.15 feet; N79°22'58"W, 112.59 feet; N78°45'03"W, 179.83 feet; N78°45'03"W, 216.16 feet to a stone bound at land now or formerly of MRCT Realty Co., LLC as shown on said Plan; thence turning and running along said MRCT land the following eight (8) courses and distances: N20°24'26"E, 536.20 feet; N17°54'53"E, 108.93 feet; N20°30'13"E, 201.41 feet; N23°40'05"E, 106.20 feet; N21°10'51"E, 168.79 feet; N41°53'34"W, 73.21 feet; N40°25'45"W, 59.21 feet; N38°49'14"W, 146.11 feet to the iron pin at the point of beginning.

Said parcel containing 2,666,114 sq. ft. (61.21 acres), more or less, according to said Plan.

SUBJECT TO AND TOGETHER WITH the burden and benefit of certain rights of the Town of Raymond ("Raymond"), and Hardrock Development, LLC ("Hardrock") and BBOC Development, LLC ("BBOC") (collectively, the "Owners") as set forth in a written Agreement entitled "Second Amendment to Further Agreement re: Exercise of Option and Participation in Clean Up" dated May 2, 2013 and on file with the Raymond Town Clerk's office (the "Agreement"), as follows:

1. License of Raymond to use temporary construction road, to be constructed by the Owners or its assigns upon written notice from Raymond, from Industrial Drive over Lot 120-1 along the old logging road shown on the subdivision plan.

2. The right of Raymond for fifteen (15) years from the date of the Agreement to construct a permanent access road or driveway in a location reasonably and mutually agreed upon and tentatively shown on the Subdivision Plan on Lot 120-1 as "Possible Future Permanent Access Road or Driveway" (See Note 9 on the Plan) and "Proposed 50' Right of Way" on Lot 120 subject to the Reciprocal Option of the Owners or its assigns to upgrade to a Town accepted Road at Owners or its assigns' expense.

The foregoing reserved rights, unless earlier exercised, shall terminate at the earlier of fifteen (15) years from the date of the Agreement or three (3) years after the completion of a municipal waste water treatment facility on Lot 120.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated November 4, 2013 and recorded in the Rockingham County Registry of Deeds at Book 5577, Page 0135 and being shown on Tax Map 28, Block 3, Lot 120-1 on the Town of Raymond tax maps.

TRACT 2

A certain tract of land (with improvements and buildings thereon) located in Raymond, Rockingham County, New Hampshire, described as follows:

All of Lot 52-3 as identified and described on a Plan of Land entitled "Revised Subdivision Plan for Pike Industries, Inc. situated in the town of Raymond" by R.S.L. Layout & Design, Inc.,

Raymond, New Hampshire dated November 17, 1987 and recorded in the Rockingham County Registry of Deeds as Plan# D-17579, Said Lot 52-3 contains 12.8 acres, more or less.

SUBJECT TO any easements of record and the easements, conditions and restrictions shown and noted on the Plan including, but not limited to the following:

1. Easement to New England Telephone & Telegraph Company dated March 27, 1962, recorded in the Rockingham County Registry of Deeds at Book 1640, Page 39.

2. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 659.

3. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 660.

4. Easement to Public Service Company of New Hampshire and New England Telephone and Telegraph Company dated March 29, 1988, recorded in said Registry at Book 2760, Page 2530.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated June 30, 2006 and recorded in the Rockingham County Registry of Deeds at Book 4676, Page 1418 and being shown on Tax Map 22, Lot 47 on the Town of Raymond tax maps.

This is not homestead property.

Signed this 5 day of January, 2022.

Hard Rock Development, LLC

By: _____
Name: Arleigh Greene
Title: Manager

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5th day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh Greene, as Manager of Hard Rock Development, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

~~Justice of the~~ Peace/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC NEW HAMPSHIRE

0 foot Abutters List Report

Raymond, NH
October 05, 2022

Subject Properties:

Parcel Number:	022-000-044-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-044-000-000		200 RESERVOIR STREET SUITE 306
Property Address:	INDUSTRIAL DRIVE		NEEDHAM, MA 02494
Parcel Number:	022-000-045-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-045-000-000		200 RESERVOIR STREET SUITE 306
Property Address:	INDUSTRIAL DRIVE		NEEDHAM, MA 02494
Parcel Number:	022-000-046-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-046-000-000		200 RESERVOIR STREET SUITE 306
Property Address:	BATCHELDER ROAD		NEEDHAM, MA 02494
Parcel Number:	022-000-047-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-047-000-000		200 RESERVOIR STREET SUITE 306
Property Address:	INDUSTRIAL DRIVE		NEEDHAM, MA 02494
Parcel Number:	028-003-120-001	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	028-003-120-001-000		200 RESERVOIR STREET SUITE 306
Property Address:	INDUSTRIAL DRIVE		NEEDHAM, MA 02494

Abutters:

Parcel Number:	022-000-043-000	Mailing Address:	MRCT REALTY CO. , LLC
CAMA Number:	022-000-043-000-000		P.O. BOX 449
Property Address:	10 INDUSTRIAL DRIVE		LAWRENCE, MA 01842
Parcel Number:	022-000-048-000	Mailing Address:	RAYMOND AMBULANCE, INC
CAMA Number:	022-000-048-000-000		1 SCRIBNER ROAD
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	023-000-024-000	Mailing Address:	TUCK REALTY CORPORATION
CAMA Number:	023-000-024-000-000		P.O. BOX 190
Property Address:	ROUTE 101		EXETER, NH 03833
Parcel Number:	023-000-025-000	Mailing Address:	WELCH,JOSEPH & JOHN & ARDELL & INEZ BETSY PATTERSON & ROBIN PROULX
CAMA Number:	023-000-025-000-000		49 RAYMOND ROAD, ROUTE 156
Property Address:	MAIN STREET		NOTTINGHAM, NH 03290
Parcel Number:	027-004-032-000	Mailing Address:	BAIN, WARREN
CAMA Number:	027-004-032-000-000		P.O. BOX 123
Property Address:	24 OLD MANCHESTER ROAD		RAYMOND, NH 03077

0 foot Abutters List Report

Raymond, NH
October 05, 2022

Parcel Number:	027-004-033-000	Mailing Address:	RAYMOND SCHOOL DISTRICT
CAMA Number:	027-004-033-000-000		43 HARRIMAN HILL ROAD
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	028-003-016-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-016-000-000		4 EPPING STREET
Property Address:	ORCHARD STREET		RAYMOND, NH 03077
Parcel Number:	028-003-043-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-043-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	028-003-120-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-120-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077

STATE OF NEW HAMPSHIRE, DEPT. OF TRANSPORTATION, 7 HAZEN DR, CONCORD, NH 03301

JONES & BEACH ENGINEERS, INC., ATTN. WAYNE MORRILL, PO BOX 219, STRATHAM, NH 03385

ONYX PARTNERS LTD., ATTN. ANTON MELCHIONDA, 200 RESERVOIR ST, NEEDHAM, MA 02494

GOVE ENVIRONMENTAL SERVICES, ATTN. LUKE HURLEY, 8 CONTINENTAL DR, UNIT H, EXETER, NH 03833

AVERY 8460 | Easy Peel Address Labels Bend along line to expose Pop-up Edge | Go to avery.com/templates Use Avery Template 5160

BAIN, WARREN
P.O. BOX 123
RAYMOND, NH 03077

MRCT REALTY CO. , LLC
P.O. BOX 449
LAWRENCE, MA 01842

RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING ST
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING STREET
RAYMOND, NH 03077

TUCK REALTY CORPORATION
P.O. BOX 190
EXETER, NH 03833

WELCH,JOSEPH & JOHN & ARD
BETSY PATTERSON & ROBIN P
49 RAYMOND ROAD, ROUTE 156
NOTTINGHAM, NH 03290

STATE OF NEW HAMPSHIRE
DEPT. OF TRANSPORTATION
7 HAZEN DR
CONCORD, NH 03301

JONES & BEACH ENGINEERS
ATTN. WAYNE MORRILL
PO BOX 219
STRATHAM, NH 03385

ONYX PARTNERS, LTD
ATTN. ANTON
MELCHIONDA
200 RESERVOIR ST
NEEDHAM, MA 02494

GOVE ENVIRONMENTAL SERVICES
ATTN. LUKE HURLEY
8 CONTINENTAL DR, UNIT H
EXETER, NH 03833

Pat: avery.com/patents | Étiquettes d'adresse Easy Peel | Allez à avery.ca/gabarits

Raymond, NH

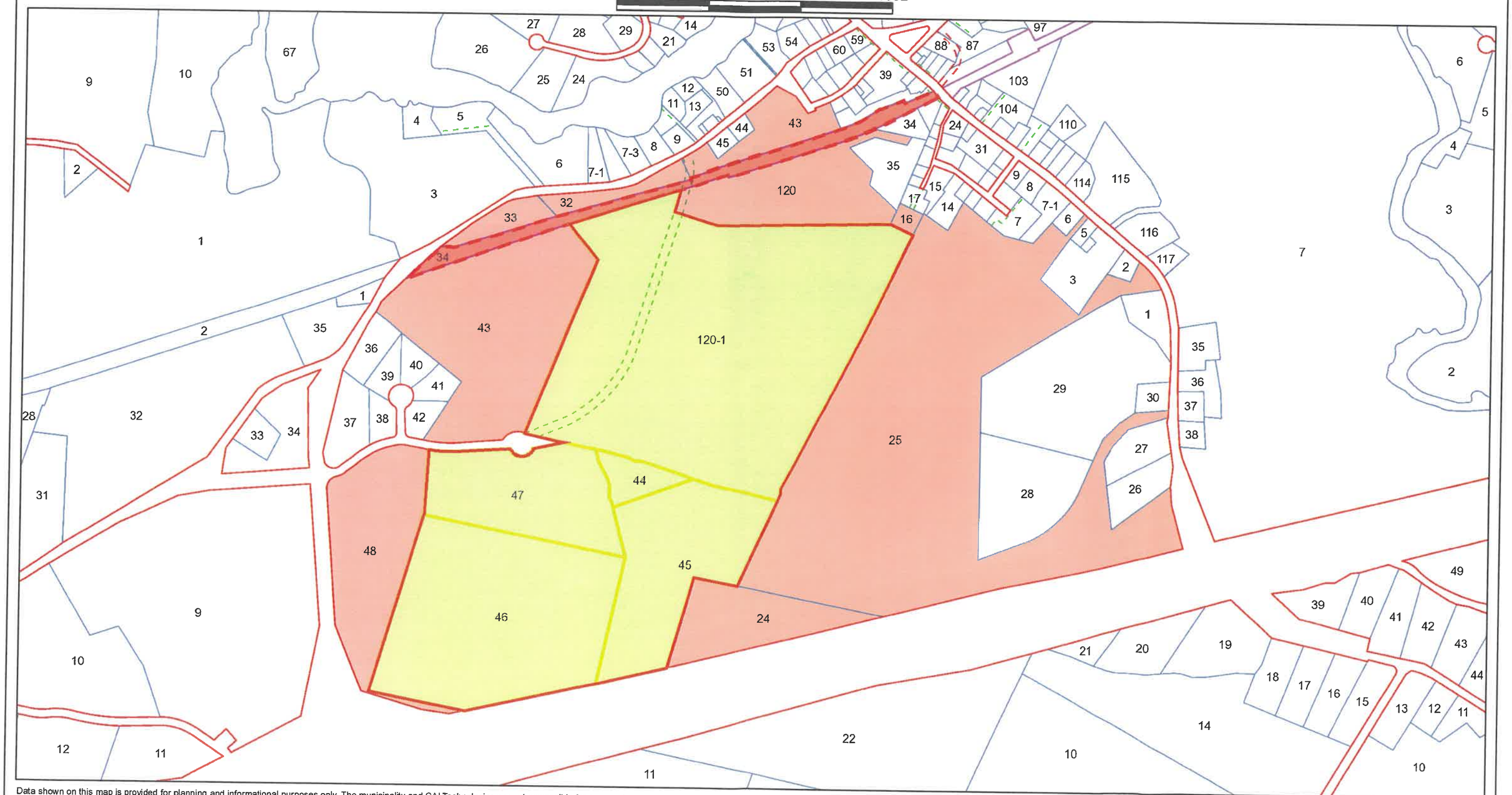
October 5, 2022

1 inch = 550 Feet

0 550 1101 1652

CAI Technologies
Precision Mapping Geospatial Solutions

www.cai-tech.com



Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

October 5, 2022

Raymond Planning Board
Attn. Brad Reed, Chair
4 Epping Street
Raymond, NH 03077

RE: Conditional Use Application
Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46 7 47
Tax Map 28, Block 3, Lot 120-1
JBE Project No. 21130

Dear Mr. Reed,

Jones & Beach Engineers, Inc. respectfully submits a Conditional Use Application for the above-referenced parcels on behalf of our client, ONYX Partners LTD. The intent of this application is to propose a 550,025 S.F. industrial distribution warehouse with associated loading docks, truck parking, and employee vehicle parking. The project will have impervious within aquifer per Section 5.2.11.2.

The following items are provided in support of this Application:

1. Conditional Use Application

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Wayne Morrill
President

cc: Anton Melchionda, ONYX Partners LTD (application and plans via email)
Jeff Adler, DuBois & King (application & plans via email & U.S. Mail)

Application for Conditional Use Permit
Groundwater Conservation Overlay District
Town of Raymond, NH

Conditional Use Permits are Subject to Site Plan Approval by the Planning Board
Raymond Zoning Ordinance, Article 5, Section 5.2

Map 28, Block 3, Lot 120-1
Map # 22 Lot # 44,45, 46 & 47 Application Date 10/5/22 Application # _____
Project Name: Raymond Distribution

Location: Industrial Drive

Zone: D New Industrial/Commercial Square Footage: _____ or Number of Residential Units: _____

Applicant/Agent Information:

Name: Anton Melchionda Phone: 617-835-4770

Company: Onyx Partners, Ltd. Fax: _____

Address: 200 Reservoir Street, Needham, MA 02494

Signed*: _____ Date: 10-5-22

Please Check All that Apply:

5.2.11. CONDITIONAL USES: The issuance of a Conditional Use Permit is subject to Site Plan Approval by the Planning Board. The Planning Board may grant a Conditional Use Permit for a use that is otherwise permitted within the underlying district, if the permitted use is or is involved in one or more of the following:

[ ] 5.2.11.1. Storage, handling, and use of regulated substances in quantities exceeding 100 gallons or 800 pounds dry weight at any one time, provided that an adequate spill prevention, control and countermeasure (SPCC) plan prepared in accordance with Section 5.2.7 by a qualified professional, submitted to the Technical Review Committee for review and approval, with the final plan also submitted to the Raymond Fire Department and the Raymond Community Development Department for its records. The Technical Review Committee may employ the services of a qualified peer review professional to review the plan at the applicant's expense.

[X] 5.2.11.2. Any use that will render impervious more than 15% or 2,500 square feet of any lot, whichever is greater.

5.2.11.3
In granting such approval the Planning Board must first determine that the proposed use is not a prohibited use and will be in compliance with the Performance Standards as well as all applicable local, state and federal requirements. The Planning Board may, at its discretion, require a performance guaranty or bond, in an amount and with surety conditions satisfactory to the Board, to be posted to ensure completion of construction of any facilities required for compliance with the Performance Standards. The amount of this bond shall be in addition to any other bond required by the Board under either the Subdivision or Site Plan Review Regulations.

(Continued)

Application for Conditional Use Permit
Groundwater Conservation Overlay District
Town of Raymond, NH

If you chose 5.2.11.1, above, you must provide a SPCC plan in accordance with the following:

5.2.7 SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN: Conditional Uses, as described under Section 5.2.11 of this Ordinance shall submit a spill control and countermeasure (SPCC) plan to the Technical Review Committee (TRC) who shall determine whether the plan will prevent, contain, and minimize releases from ordinary or catastrophic events such as spills, floods or fires that may cause large releases of regulated substances. It shall include:

5.2.7.1 A description of the physical layout and a facility diagram, including all surrounding surface waters and wellhead protection areas;

5.2.7.2 Contact list and phone numbers for the facility response coordinator, cleanup contractors, and all appropriate federal, state, and local agencies who must be contacted in case of a release to the environment;

5.2.7.3 A list of all regulated substances in use and locations of use and storage;

5.2.7.4 A prediction of the direction, rate of flow, and total quantity of regulated substance that could be released where industry experience indicates a potential for equipment failure;

5.2.7.5 A description of containment and/or diversionary structures or equipment to prevent regulated substances from infiltrating into the ground; and

5.2.7.6 Emergency response plan describing and assigning responsibilities and actions to be taken.

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

May 5, 2022

Raymond Planning Board
Attn. Brad Reed, Chair
4 Epping Street
Raymond, NH 03077

RE: Design Review Application
Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46 7 47
Tax Map 28, Block 3, Lot 120-1
JBE Project No. 21130

Dear Mr. Reed,

Jones & Beach Engineers, Inc. respectfully submits a Design Review Application for the above-referenced parcels on behalf of our client, ONYX Partners LTD. The intent of this application is to propose a 500,025 S.F. industrial distribution warehouse with associated parking.

The following items are provided in support of this Application:

1. Design Review Application
2. Letters of Authorization.
3. Current Deeds.
4. Fee Check in the Amount of $160.00 and an Escrow Check in the Amount of $300.00.
5. Abutters List & Mailing Labels (3 sets).
6. Tax Map
7. Six (6) Full Size Plan Sets.
8. Ten (10) Half Size Plan Sets.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Wayne Morrill
President

cc: Anton Melchionda, ONYX Partners LTD (application and plans via email)
Ross Tsantoulis, DuBois & King (application & plans via email & U.S. Mail)

Map # 22 Lot # 44, 45, 46 & 47
28, Block 3, Lot 120-1

Planning Board Application

In accordance with NH RSA 676:4 II

Conceptual Review___ Design Review X Pre-Application Review ____
(Choose One)

Town of Raymond, NH

(please see back for copy of applicable RSA)

Project Name: Raymond Distribution

Location: Industrial Drive

Project Description: To propose a 500,025 S.F. industrial distribution warehouse with associated parking.

Zone: D Total Number of Lots: 1

Applicant/Agent Information:

Name: Anton Melchionda

Phone: 617-835-4770 Fax: _____

Company: ONYX Partners LTD

Address: 200 Reservoir Street, Needham, MA 02494

By signing this application, you are agreeing to all rules and regulations of the Town of Raymond, and are agreeing to allow agents of the Town of Raymond to conduct inspections of your property during normal business hours to ensure compliance with all Raymond Zoning and Subdivision Regulations while your application is under consideration and during any construction and operational phases after approval is granted.

Signed*: _____ Date: 5-5-22

*Requires notarized letter of permission

Owner Information:

Name: _____

Phone: _____ Fax: _____

Company: ONYX Raymond LLC

Address: 60 Centre Street, Dover, MA 02030

Signed: _____ Date: _____

Designers of Record: (Provide Name & License Number for each)

Engineer: Erik Poulin, Jones & Beach Engineers, Inc. - #16669

Surveyor: David Collier, Jones & Beach Engineers, Inc. - #892

Soil Scientist: LUKE HURLEY, GOVE ENVIRONMENTAL - #95

Landscape Architect: _____

Fire Protection Engineer: _____

Other(s): _____

FEES: $50.00 Application Fee, $300.00 Escrow and $10.00 per abutter.

For Office Use, Only:

Date Application Received: _____ Total Fees Collected w/Application: _____

Abutters List Received: _____ Plans & Checklist Received: _____

NH RSA 676:4 II

II. A planning board may provide for preliminary review of applications and plats by specific regulations subject to the following:

(a) Preliminary conceptual consultation phase. The regulations shall define the limits of preliminary conceptual consultation which shall be directed at review of the basic concept of the proposal and suggestions which might be of assistance in resolving problems with meeting requirements during final consideration. Such consultation shall not bind either the applicant or the board and statements made by planning board members shall not be the basis for disqualifying said members or invalidating any action taken. The board and the applicant may discuss proposals in conceptual form only and in general terms such as desirability of types of development and proposals under the master plan. Such discussion may occur without the necessity of giving formal public notice as required under subparagraph I(d), but such discussions may occur only at formal meetings of the board.

(b) Design review phase. The board or its designee may engage in nonbinding discussions with the applicant beyond conceptual and general discussions which involve more specific design and engineering details; provided, however, that the design review phase may proceed only after identification of and notice to abutters, holders of conservation, preservation, or agricultural preservation restrictions, and the general public as required by subparagraph I(d). The board may establish reasonable rules of procedure relating to the design review process, including submission requirements. At a public meeting, the board may determine that the design review process of an application has ended and shall inform the applicant in writing within 10 days of such determination. Statements made by planning board members shall not be the basis for disqualifying said members or invalidating any action taken.

(c) Preliminary review shall be separate and apart from formal consideration under paragraph I, and the time limits for acting under subparagraph I(c) shall not apply until formal application is submitted under subparagraph I(b).

Letter of Authorization

I, Anton Melchionda, ONYX Partners LTD, 200 Reservoir Street, Needham, MA 02494, developer of property located in Raymond, NH, known as Tax Map 22, Lots 44, 45, 46 & 47 and Tax Map 28, Block 3, Lot 120-1, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously mentioned property. The parcels are located on Industrial Drive in Raymond, NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

Anton Melchionda
ONYX Partners LTD

5/3/22
Date

Personally, appeared the above-named Anton Melchionda, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information, and belief. Before me.

Notary Public/Justice of the Peace

My commission expires 9/26/25

AARON K. HINCHLIFFE
MY COMMISSION EXPIRES SEPTEMBER 26, 2025
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS

Letter of Authorization

ONYX Raymond LLC, 60 Centre Street, Dover, MA 02030, owner of property located in Raymond, NH, known as Tax Map 22, Lots 44, 45, 46 & 47 and Tax Map 28, Block 3, Lot 120-1, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously mentioned property. The parcels are located on Industrial Drive in Raymond, NH.

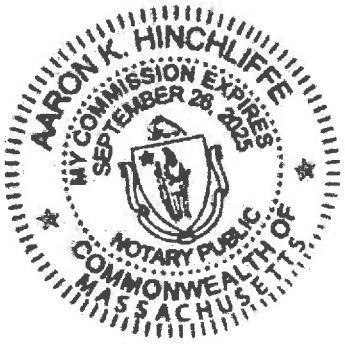
I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness | ONYX Raymond LLC | Date 5/3/22

Personally, appeared the above-named ONYX Raymond LLC, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information, and belief. Before me.

Notary Public/Justice of the Peace

My commission expires 9/26/25



Book:6373 Page:1280

E # 22001648 01/11/2022 09:25:51 AM
Book 6373 Page 1280 Page 1 of 2
Register of Deeds, Rockingham County

LCHIP ROA462038 25.00
TRANSFER TAX RO112755 188.00
RECORDING 14.00
SURCHARGE 2.00

Return to:

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **STOLI PROPERTIES, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, pursuant to the provisions of NH RSA 304-C:139 for winding up the business of said company, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain piece of wood land situated in Raymond, County of Rockingham, State of New Hampshire, bounded and described as follows:

Commencing at land now or formerly of Aaron G. Whittier running northeast by a cart north 34 rods to a stone wall on the Blake land, so-called; thence northwest by a stone wall 38 rods to land now or formerly of Aaron G. Whittier land by a stone wall southeast 20½ rods to the first bound mentioned; containing two and one half (2½) acres, be the same more or less.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of Robert Sinclair and Lorraine Sinclair dated May 16, 2001 and recorded in the Rockingham County Registry of Deeds at Book 4481, Page 108 and being shown on Tax Map 22, Lot 44 on the Town of Raymond tax maps.

This is not homestead property.

Signed this 5 day of January, 2022.

Stoli Properties, LLC

By:
Name: Ashleigh B. Greene
Title: Manager

E # 22001649 01/11/2022 09:25:52 AM
Book 6373 Page 1282 Page 1 of 2
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602939	25.00
TRANSFER TAX	RO112756	15,000.00
RECORDING		14.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **WEST RIVER ROAD, L.L.C.**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC,** a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain tract or parcel of land with any buildings thereon situate northerly of State of N.H. Route 101, a limited access highway in Raymond, Rockingham County, New Hampshire, and shown as Tax Map 22, Lot 45 on a plan entitled "A Survey and Plat of Properties prepared for Hard Rock Development, LLC" dated May 26, 2005, prepared by RSA Layout & Design, Inc. and recorded or to be recorded in the Rockingham County Registry of Deeds, more particularly bounded and described as follows:

Beginning at a steel reinforcing rod on the northerly side of said State of N.H. Route 101 at the westernmost point of Tax Map 23, Lot 24; thence running N 16° 32' 12" E a distance of 566.59 feet to a granite/concrete bound; thence turning and running S 80° 25' 28" E a distance of 166.45 feet to a drill hole in a stone wall; thence running S 77° 51' 08" E a distance of 104.68 feet to a drill hole in a stone wall at land now or formerly of Est. of Josephine F. Welch; thence turning and running N 25° 21' 27" E a distance of 41.75 feet to a drill hole in a stone wall; thence running N 26° 13' 24" E a distance of 236.03 feet to a tree w/wire; thence running N 20° 52' 59" E a distance of 109.97 feet to a drill hole in a stone wall; thence running N 21° 25' 01" E a distance of 65.44 feet to a drill hole in a stone wall; thence running N 24° 23' 29" E a distance of 103.77 feet to a drill hole in a stone wall at land now or formerly of Hard Rock Development, LLC; thence turning and running N 80° 16' 26" W a distance of 195.99 feet to a drill hole in a stone wall; thence running N 79° 24' 32" W a distance of 203.68 feet to a drill hole in a stone wall; thence running N 75° 01' 56" W a distance of 156.10 feet to a drill hole in a stone wall; thence running N 66° 33' 02" W a distance of 18.18 feet to a drill hole in a stone wall at land now or formerly of Robert & Lorraine Sinclair; thence turning and running S 72° 23' 47" W a distance of 521. 89 feet to a drill hole in a stone wall at land now or formerly of the Town of Raymond; thence turning and running S 16° 35' 24" E a distance of 346.11 feet to a steel reinforcing rod at other land now or formerly of the Town of Raymond; thence turning and running S 16° 32' 12" W a distance of 848.67 feet to a point on the northerly side of State of N.H. Route 101; thence turning and running N 69° 40' 56" E a distance

of 463.91 feet to a granite/concrete bound; thence turning and running N 78° 16' 37" E a distance of 112.49 feet to a steel reinforcing rod at the point of beginning. Containing 17.8768 acres.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of Inez S. Welch dated June 23, 2005 and recorded in the Rockingham County Registry of Deeds at Book 4500, Page 1939.

This is not homestead property.

Signed this 5 day of January, 2022.

West River Road, L.L.C.

By: _____
Name: Arleigh B. Greene
Title: Sole Member

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5th day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh B. Greene, as Sole Member of West River Road, L.L.C., known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

_____
~~Justice of the Peace~~/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
NOTARY PUBLIC
NEW HAMPSHIRE
MY COMMISSION EXPIRES FEB. 1, 2022

E # 22001646 01/11/2022 09:25:49 AM
Book 6373 Page 1273 Page 1 of 3
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602936	25.00
TRANSFER TAX	RO112753	773.00
RECORDING		18.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **BBOC DEVELOPMENT, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC,** a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain parcel of land with the buildings thereon situated in Raymond, in the County of Rockingham and State of New Hampshire, identified as Town of Raymond Tax Map 22, Lot 46, bounded and described as follows:

Beginning at an iron monument set into the ground at the end of the Blake passway, so-called, by land of Everett E. Goodwin; thence Westerly by land of the Concord & Portsmouth Railroad 150 rods, more or less, to land formerly of Horatio D. Page; thence turning and running Southwesterly by land formerly of said Page 120 rods; thence Southeasterly by land of Plummer B. Carson 120 rods to land now or formerly of the heirs of Levi Moulton; thence Northeasterly by land of heirs of said Moulton 124 rods to land now or formerly of the Town of Raymond; thence Northwesterly 10 rods, more or less, by land of said Town of Raymond and land now or formerly of Edwin S. Poore to a stone monument; thence Northeasterly by land now or formerly of Edwin S. Poore, land of Stevens, land of Fellows & Abbott, land of heirs of Octavous W. Fellows and land of Everett E. Goodwin to the bound begun at. Containing 112 acres be the same more or less.

Excepting and reserving to the Town of Raymond the right of passing over the land above described or any part thereof which have heretofore been conveyed to said Town which are not to be conveyed or enlarged by this deed. Also a certain other parcel of land situated in said Raymond containing 40 acres be the same more or less, being known as and called the "Bean Land", bounded and described as follows: Southeasterly by land now or formerly of heirs of Daniel Robie; Southwesterly by land now or formerly of Joseph Davis, so-called; Westerly by land now or formerly of heirs of Horatio D. Page; Easterly, so-called, by land now or formerly of Daniel T. Wendell, and Northerly of land of Horatio D. Page.

EXCEPTED from the above-described premises those premises conveyed to Regis Tanning Company, Inc. by deed of Cora P. Falconer dated July 25, 1958 recorded at the Rockingham

County Registry of Deeds at Book 1474, Page 299, more particularly bounded and described as follows:

Two tracts of land with the buildings thereon situated in Raymond, County of Rockingham and State of New Hampshire, bounded and described as follows:

First Tract: Beginning at an iron pipe driven into the ground about 60 feet Westerly from Orchard Street, so-called, in Raymond Village by land now or formerly of the heirs of James L. Jones and land now or formerly of the Concord and Portsmouth Railroad; thence Westerly by land of said Railroad to the end of a stone wall by land now or formerly of Lewis A. Clough; thence Southeasterly by said Clough land to a large oak tree by land now or formerly of Edwin S. Poore; thence Northeasterly by a stone wall by said Poore land and land now or formerly of Fellows and Abbott to land now or formerly of the heirs of Octavous M. Fellows; thence in the same direction by land of the heirs of said Fellows to the bound first mentioned. Containing two acres, more or less.

The grantor also conveys the right of passing on foot and with vehicles for said grantee and his heirs and assigns between the land above described and the highway leading from Packer's Bridge, so-called, and Fremont as heretofore used, over land now or formerly of the Concord and Portsmouth Railroad. Said tract is also subject to rights of passage over a portion of the same for the owners of the land now or formerly of Lewis A. Clough and his assigns to pass from the land of said Clough to said highway as heretofore used by the owners of said land.

Second Tract: Beginning at the Northwest corner of land now or formerly of Aaron G. Whittier; thence North 70 degrees West 12 rods and 50 links to a spotted yellow oak tree; thence North 52 1/2° West 21 rods and 3 links to land now or formerly of the Concord and Portsmouth Railroad; thence by said Railroad Southwesterly 120 rods to land now or formerly of Horatio D. Page; thence turning and running Southwesterly by said Page land 120 rods; thence Southeasterly by land now or formerly of Daniel T. Wendell 120 rods to land now or formerly of Levie Moulton; thence Northeasterly by said Moulton land 124 rods to land now or formerly of said Aaron G. Whittier; thence Northwesterly 10 rods to the bound begun at.

Said premises referenced as contain 110 acres, more or less. There is an unobstructed passage to said tract or lot 2 rods wide agreeable to the reservation in the deed of Sherburne Blake to the Concord and Portsmouth Railroad. Reserving and excepting from said tract about 1 acre of land with the rights of way thereto that has been heretofore deeded to the Town of Raymond for its water works.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated June 30, 2006 and recorded in the Rockingham County Registry of Deeds at Book 4676, Page 1415.

This is not homestead property.

Signed this 5th day of January, 2022.

BBOC Development, LLC

By: _____
Name: Arleigh B. Greene
Title: Manager

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5 day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh B. Greene, as Manager of BBOC Development, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

_____
~~Justice of the Peace~~/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

E # 22001647 01/11/2022 09:25:50 AM
Book 6373 Page 1276 Page 1 of 4
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602937	25.00
TRANSFER TAX	RO112754	44,040.00
RECORDING		22.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **HARD ROCK DEVELOPMENT, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC,** a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

TRACT 1

A certain tract or parcel of land located off of Old Manchester Road and Industrial Drive in the Town of Raymond, County of Rockingham and State of New Hampshire depicted as "Proposed Lot 120-1" on a plan of land entitled "Subdivision Plan of Land, Tax Map 28-3, Lot 120, Old Manchester Road & Industrial Drive, Raymond, NH" prepared by Eric C. Mitchell & Assoc, Inc. dated July 3, 2007 through revision E dated 4/23/13 recorded at the Rockingham County Registry of Deeds as Plan #D-37834 (hereinafter "Plan"); said parcel is more particularly bounded and described as follows:

Beginning at an iron pin at the southerly boundary of the abandoned railroad bed at the northeasterly corner of land now or formerly of MRCT Realty Co., LLC being the northwesterly corner of the within described premises as shown on said Plan; thence running along said abandoned railroad bed N71°36'16"E a distance of 715.25 feet to an iron pin at Proposed Lot 120 as shown on said Plan; thence turning and running along said Lot 120 S31°13'07"W a distance of 151.62 feet to an iron pin; thence turning and running still along said Lot 120 S58°46'53"E a distance of 273.87 feet to an iron pin; thence continuing along said Lot 120 S77°11'24"E a distance of 1036.64 feet to an iron pipe at Tax Map 28-3, Lot 16 as shown on said Plan; thence turning and running S67°09'04"E a distance of 147.35 feet to a drill hole in a stone wall at Tax Map 23, Lot 25 as shown on said Plan; thence turning and running along said Lot 25 and said stone wall the following eleven (11) courses and distances: S26°10'49"W, 101.34 feet; S24°17'47"W, 184.91 feet; S22°19'55"W, 52.48 feet; S24°22'25"W, 468.12 feet; S24°36'24"W, 337.71 feet; S24°14'00"W, 211.15 feet; S24°38'51"W, 213.98 feet; S33°16'21"W, 113.46 feet; S30°11'49"W, 33.21 feet; S19°03'38"W, 28.80 feet; S15°18'27"W, 14.64 feet to a drill hole at an intersection of stone walls at land now or formerly of West River Road, LLC as shown on said Plan; thence turning and running along said stone wall the following twelve (12) courses and distances:

N80°16'26"W, 195.99 feet; N79°24'32"W, 203.68 feet; N75°01'56"W, 156.10 feet; N66°33'02'W, 18.18 feet; N68°14'32"W, 36.67 feet; N73°57'31"W, 241.16 feet; N87°27'00"W, 39.02 feet; N66°33'27"W, 37.71 feet; N77°46'13"W, 148.15 feet; N79°22'58"W, 112.59 feet; N78°45'03"W, 179.83 feet; N78°45'03"W, 216.16 feet to a stone bound at land now or formerly of MRCT Realty Co., LLC as shown on said Plan; thence turning and running along said MRCT land the following eight (8) courses and distances: N20°24'26"E, 536.20 feet; N17°54'53"E, 108.93 feet; N20°30'13"E, 201.41 feet; N23°40'05"E, 106.20 feet; N21°10'51"E, 168.79 feet; N41°53'34"W, 73.21 feet; N40°25'45"W, 59.21 feet; N38°49'14"W, 146.11 feet to the iron pin at the point of beginning.

Said parcel containing 2,666,114 sq. ft. (61.21 acres), more or less, according to said Plan.

SUBJECT TO AND TOGETHER WITH the burden and benefit of certain rights of the Town of Raymond ("Raymond"), and Hardrock Development, LLC ("Hardrock") and BBOC Development, LLC ("BBOC") (collectively, the "Owners") as set forth in a written Agreement entitled "Second Amendment to Further Agreement re: Exercise of Option and Participation in Clean Up" dated May 2, 2013 and on file with the Raymond Town Clerk's office (the "Agreement"), as follows:

1. License of Raymond to use temporary construction road, to be constructed by the Owners or its assigns upon written notice from Raymond, from Industrial Drive over Lot 120-1 along the old logging road shown on the subdivision plan.

2. The right of Raymond for fifteen (15) years from the date of the Agreement to construct a permanent access road or driveway in a location reasonably and mutually agreed upon and tentatively shown on the Subdivision Plan on Lot 120-1 as "Possible Future Permanent Access Road or Driveway" (See Note 9 on the Plan) and "Proposed 50' Right of Way" on Lot 120 subject to the Reciprocal Option of the Owners or its assigns to upgrade to a Town accepted Road at Owners or its assigns' expense.

The foregoing reserved rights, unless earlier exercised, shall terminate at the earlier of fifteen (15) years from the date of the Agreement or three (3) years after the completion of a municipal waste water treatment facility on Lot 120.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated November 4, 2013 and recorded in the Rockingham County Registry of Deeds at Book 5577, Page 0135 and being shown on Tax Map 28, Block 3, Lot 120-1 on the Town of Raymond tax maps.

TRACT 2

A certain tract of land (with improvements and buildings thereon) located in Raymond, Rockingham County, New Hampshire, described as follows:

All of Lot 52-3 as identified and described on a Plan of Land entitled "Revised Subdivision Plan for Pike Industries, Inc. situated in the town of Raymond" by R.S.L. Layout & Design, Inc.,

Raymond, New Hampshire dated November 17, 1987 and recorded in the Rockingham County Registry of Deeds as Plan# D-17579, Said Lot 52-3 contains 12.8 acres, more or less.

SUBJECT TO any easements of record and the easements, conditions and restrictions shown and noted on the Plan including, but not limited to the following:

1. Easement to New England Telephone & Telegraph Company dated March 27, 1962, recorded in the Rockingham County Registry of Deeds at Book 1640, Page 39.

2. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 659.

3. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 660.

4. Easement to Public Service Company of New Hampshire and New England Telephone and Telegraph Company dated March 29, 1988, recorded in said Registry at Book 2760, Page 2530.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated June 30, 2006 and recorded in the Rockingham County Registry of Deeds at Book 4676, Page 1418 and being shown on Tax Map 22, Lot 47 on the Town of Raymond tax maps.

This is not homestead property.

Signed this 5 day of January, 2022.

Hard Rock Development, LLC

By: _____

Name: Arleigh Greene

Title: Manager

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5th day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh Greene, as Manager of Hard Rock Development, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

~~Justice of the~~ Peace/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC NEW HAMPSHIRE

0 foot Abutters List Report

Raymond, NH
May 03, 2022

Subject Properties:

Parcel Number:	022-000-044-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-044-000-000		60 CENTRE STREET
Property Address:	INDUSTRIAL DRIVE		DOVER, MA 02030
Parcel Number:	022-000-045-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-045-000-000		60 CENTRE STREET
Property Address:	INDUSTRIAL DRIVE		DOVER, MA 02030
Parcel Number:	022-000-046-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-046-000-000		60 CENTRE STREET
Property Address:	BATCHELDER ROAD		DOVER, MA 02030
Parcel Number:	022-000-047-000	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	022-000-047-000-000		60 CENTRE STREET
Property Address:	INDUSTRIAL DRIVE		DOVER, MA 02030
Parcel Number:	028-003-120-001	Mailing Address:	ONYX RAYMOND LLC.
CAMA Number:	028-003-120-001-000		60 CENTRE STREET
Property Address:	INDUSTRIAL DRIVE		DOVER, MA 02030

Abutters:

Parcel Number:	022-000-043-000	Mailing Address:	MRCT REALTY CO. , LLC
CAMA Number:	022-000-043-000-000		P.O. BOX 449
Property Address:	10 INDUSTRIAL DRIVE		LAWRENCE, MA 01842
Parcel Number:	022-000-048-000	Mailing Address:	RAYMOND AMBULANCE, INC
CAMA Number:	022-000-048-000-000		1 SCRIBNER ROAD
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	023-000-024-000	Mailing Address:	WELCH, JOAN E
CAMA Number:	023-000-024-000-000		15 NOTTINGHAM ROAD
Property Address:	ROUTE 101		RAYMOND, NH 03077
Parcel Number:	023-000-025-000	Mailing Address:	WELCH,JOSEPH & JOHN & ARDELL & INEZ BETSY PATTERSON & ROBIN PROULX
CAMA Number:	023-000-025-000-000		49 RAYMOND ROAD, ROUTE 156
Property Address:	MAIN STREET		NOTTINGHAM, NH 03290
Parcel Number:	027-004-032-000	Mailing Address:	BAIN, WARREN
CAMA Number:	027-004-032-000-000		P.O. BOX 123
Property Address:	24 OLD MANCHESTER ROAD		RAYMOND, NH 03077

0 foot Abutters List Report

Raymond, NH
May 03, 2022

Parcel Number:	027-004-033-000	Mailing Address:	RAYMOND SCHOOL DISTRICT
CAMA Number:	027-004-033-000-000		43 HARRIMAN HILL ROAD
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	028-003-016-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-016-000-000		4 EPPING STREET
Property Address:	ORCHARD STREET		RAYMOND, NH 03077
Parcel Number:	028-003-043-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-043-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	028-003-120-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-120-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077

STATE OF NEW HAMPSHIRE, DEPT. OF TRANSPORTATION, 7 HAZEN DR, CONCORD, NH 03301

JONES & BEACH ENGINEERS, INC., ATTN. WAYNE MORRILL, PO BOX 219, STRATHAM, NH 03885

ONYX PARTNERS LTD, ATTN. ANTON MELCHIONDA, 200 RESERVOIR ST, NEEDHAM, MA 02494

GOVE ENVIRONMENTAL SERVICE, ATTN. LUKE HURLEY, 8 CONTINENTAL DR, UNIT H, EXETER, NH 03833

AVERY 8460 | Easy Peel Address Labels Bend along line to expose Pop-up Edge | Go to avery.com/templates Use Avery Template 5160

BAIN, WARREN
P.O. BOX 123
RAYMOND, NH 03077

MRCT REALTY CO. , LLC
P.O. BOX 449
LAWRENCE, MA 01842

RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING ST
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING ST
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING STREET
RAYMOND, NH 03077

WELCH, JOAN E
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

WELCH,JOSEPH & JOHN & ARD
BETSY PATTERSON & ROBIN P
49 RAYMOND ROAD, ROUTE 156
NOTTINGHAM, NH 03290

STATE OF NEW HAMSPHIRE
DEPT OF TRANSPORTATION
7 HAZEN DR
CONCORD, NH 03301

JONES & BEACH ENGINEERS
ATTN. WAYNE MORRILL
PO BOX 219
STRATHAM, NH 03885

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200 RESERVOIR ST
NEEDHAM, MA 02494

GOVE ENVIRONMENTAL SERVICES
ATTN. LUKE HURLEY
8 CONTINENTAL DR, UNIT H
EXETER, NH 03833

Étiquettes d'adresse Easy Peel | Allez à avery.ca/gabarits

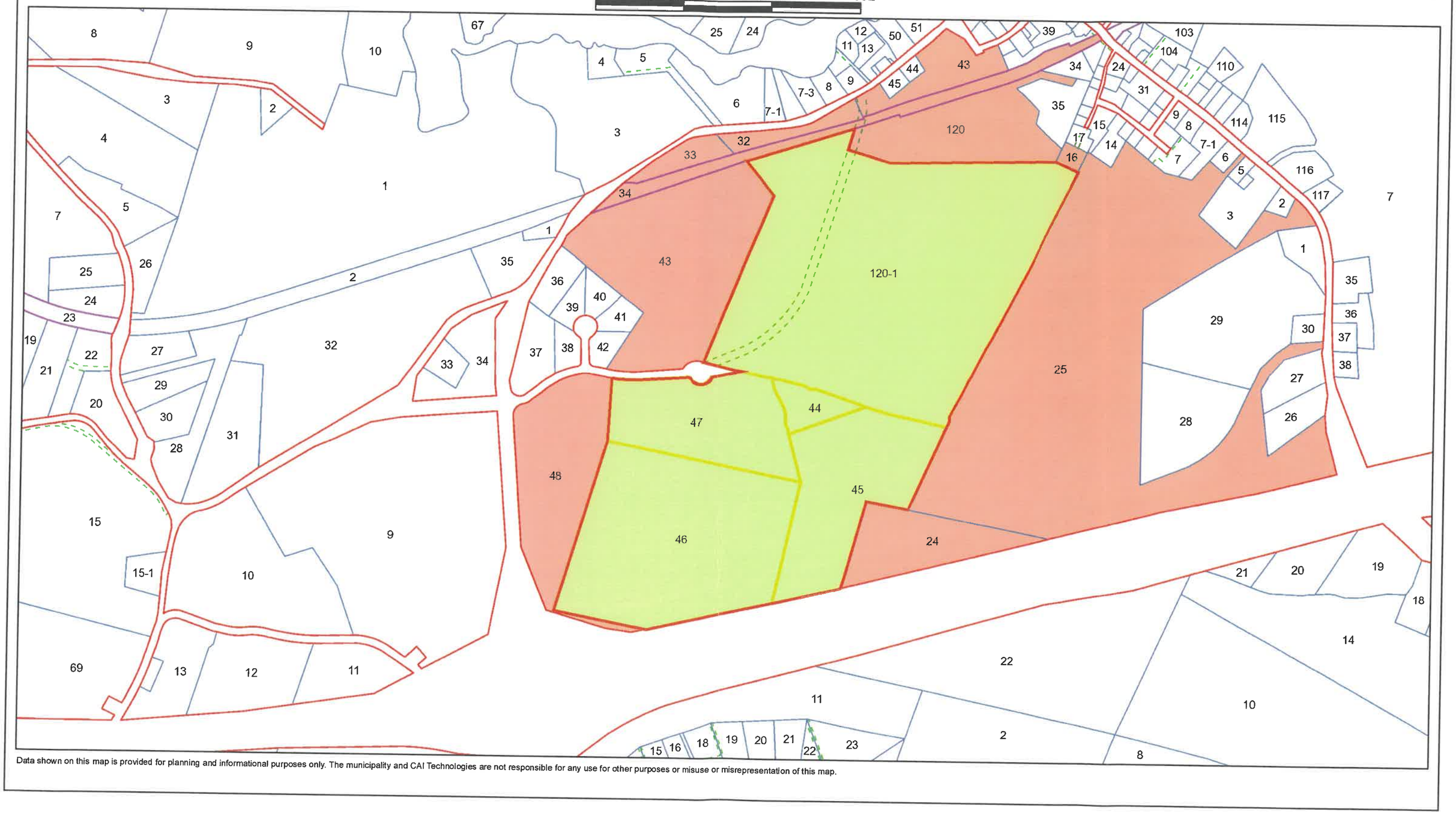
May 3, 2022

Raymond, NH

1 inch = 550 Feet

0 550 1101 1652

CAI Technologies
Precision Mapping Geospatial Solutions
www.cai-tech.com



Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

JONES & BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

September 2, 2021

Raymond Planning Board
Attn. Jonathan Wood, Chair
4 Epping Street
Raymond, NH 03077

RE: Design Review Application
Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46 7 47
Tax Map 28, Block 3, Lot 120-1
JBE Project No. 21130

Dear Mr. Wood,

Jones & Beach Engineers, Inc. respectfully submits a Design Review Application for the above-referenced parcels on behalf of our client, Sippican Capital, LLC. The intent of this application is to propose a 500,500 S.F. industrial distribution warehouse and 17,010 S.F. office with associated parking.

The following items are provided in support of this Application:

1. Design Review Application
2. Letters of Authorization.
3. Current Deeds.
4. Fee Check in the Amount of $190.00 and an Escrow Check in the Amount of $300.00.
5. Abutters List & Mailing Labels (3 sets).
6. Tax Map
7. Six (6) Full Size Plan Sets.
8. Ten (10) Half Size Plan Sets.
9. One (1) Digital Copy of All Documents Submitted.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Wayne Morrill
President

cc: Angus Leary, Sippican Capital, LLC (application and plans via email)
Jeff Adler, DuBois & King (application & plans via email & U.S. Mail)

Map # 22 Lot # 44,45,46,47
28 Block 3, Lot 120-1

Planning Board Application

In accordance with NH RSA 676:4 II

Conceptual Review___ Design Review X Pre-Application Review ___
(Choose One)

Town of Raymond, NH

(please see back for copy of applicable RSA)

Project Name: Sippican raymond

Location: Industrial Drive, Raymond, NH

Project Description: To propose a 500,500 S.F industrial distribution warehouse and 17,010 S.F. office with associated parking.

Zone: D Total Number of Lots: 1

Applicant/Agent Information:

Name: Angus Leary

Phone: 617-828-5951 Fax: _____

Company: Sippican Capital, LLC

Address: 29 Old Farm Road, Dover, MA 02030

By signing this application, you are agreeing to all rules and regulations of the Town of Raymond, and are agreeing to allow agents of the Town of Raymond to conduct inspections of your property during normal business hours to ensure compliance with all Raymond Zoning and Subdivision Regulations while your application is under consideration and during any construction and operational phases after approval is granted.

Signed*: _____ Date: 9-1-21

*Requires notarized letter of permission

Owner Information:

Name: _____

Phone: _____ Fax: _____

Company: Stoli Properties, LLC, PO Box 2750, Seabrook, NH 03874
West River Road, LLC, PO Box 2750, Seabrook, NH 03874
BBOC Development, LLC, 84 Exeter Rd, South Hampton, NH 03827

Address: Hard Rock Development, LLC, 84 Exeter Road, South Hampton, NH 03827

Signed: _____ Date: _____

Designers of Record: (Provide Name & License Number for each)

Engineer: Erik Poulin, Jones & Beach Engineers, Inc - #16669

Surveyor: David Collier, Jones & Beach Engineers, Inc. - #892

Soil Scientist: _____

Landscape Architect: _____

Fire Protection Engineer: _____

Other(s): _____

FEES: $50.00 Application Fee, $300.00 Escrow and $10.00 per abutter.

For Office Use, Only:

Date Application Received: _____ Total Fees Collected w/Application: _____

Abutters List Received: _____ Plans & Checklist Received: _____

NH RSA 676:4 II

II. A planning board may provide for preliminary review of applications and plats by specific regulations subject to the following:

(a) Preliminary conceptual consultation phase. The regulations shall define the limits of preliminary conceptual consultation which shall be directed at review of the basic concept of the proposal and suggestions which might be of assistance in resolving problems with meeting requirements during final consideration. Such consultation shall not bind either the applicant or the board and statements made by planning board members shall not be the basis for disqualifying said members or invalidating any action taken. The board and the applicant may discuss proposals in conceptual form only and in general terms such as desirability of types of development and proposals under the master plan. Such discussion may occur without the necessity of giving formal public notice as required under subparagraph I(d), but such discussions may occur only at formal meetings of the board.

(b) Design review phase. The board or its designee may engage in nonbinding discussions with the applicant beyond conceptual and general discussions which involve more specific design and engineering details; provided, however, that the design review phase may proceed only after identification of and notice to abutters, holders of conservation, preservation, or agricultural preservation restrictions, and the general public as required by subparagraph I(d). The board may establish reasonable rules of procedure relating to the design review process, including submission requirements. At a public meeting, the board may determine that the design review process of an application has ended and shall inform the applicant in writing within 10 days of such determination. Statements made by planning board members shall not be the basis for disqualifying said members or invalidating any action taken.

(c) Preliminary review shall be separate and apart from formal consideration under paragraph I, and the time limits for acting under subparagraph I(c) shall not apply until formal application is submitted under subparagraph I(b).

Letter of Authorization

I, Angus Leary, Sippican Capital, LLC, 29 Old Farm Road, Dover, MA 02030, developer of property located in Raymond, NH, known as Tax Map 22, Lots 44, 45, 46 & 47 and Tax Map 28, Block 3, Lot 120-1, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously-mentioned property. The parcels are located on Industrial in Raymond, NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

Angus Leary
Sippican Capital, LLC

8/30/21
Date

Personally appeared the above named Angus Leary, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information and belief. Before me,

Notary Public/Justice of the Peace

My commission expires March 11, 2027

LOUISE PISANO
Notary Public, Commonwealth of Massachusetts
My Commission Expires March 11, 2027

Letter of Authorization

Stoli Properties, LLC, PO Box 2750, Seabrook, NH 03874, owner of property located in Raymond, NH, known as Tax Map 22, Lot 44 do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously-mentioned property. The parcel is located on Industrial in Raymond, NH.

We hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

Stoli Properties, LLC

Date 9/1/21

Personally, appeared the above-named Stoli Properties, LLC, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information and belief. Before me,

AUSTIN GREENE
Notary Public-New Hampshire
My Commission Expires
December 02, 2025

Notary Public/Justice of the Peace

My commission expires 12-2-25

Letter of Authorization

BBOC Development, LLC, 84 Exeter Road, South Hampton, NH, owner of property located in Raymond, NH, known as Tax Map 22, Lot 46 do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously-mentioned property. The parcel is located on Industrial in Raymond, NH.

We hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

BBOC Development, LLC

9/1/2021
Date

Personally, appeared the above-named BBOC Development, LLC, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information and belief. Before me,

AUSTIN GREENE
Notary Public-New Hampshire
My Commission Expires
December 02, 2025

Notary Public/Justice of the Peace

My commission expires 12-2-21

Letter of Authorization

Hard Rock Development, LLC, 84 Exeter Road, South Hampton, NH, owner of property located in Raymond, NH, known as Tax Map 22, Lot 47 and Tax Map 28, Block 3, Lot 120-1 do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously-mentioned property. The parcels are located on Industrial in Raymond, NH.

We hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

Hard Rock Development, LLC

Date 9/1/2021

Personally, appeared the above-named Hard Rock Development, LLC, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information and belief. Before me,

AUSTIN GREENE
Notary Public-New Hampshire
My Commission Expires
December 02, 2025

Notary Public/Justice of the Peace

My commission expires 12-2-25

Letter of Authorization

West River Road, LLC, PO Box 2750, Seabrook, NH 03874, owner of property located in Raymond, NH, known as Tax Map 22, Lot 45 do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously-mentioned property. The parcel is located on Industrial in Raymond, NH.

We hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

West River Road, LLC

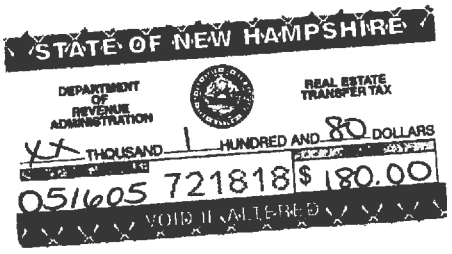
9/1/2021
Date

Personally, appeared the above-named West River Road, LLC, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information and belief. Before me,

AUSTIN GREENE
Notary Public-New Hampshire
My Commission Expires
December 02, 2025

Notary Public/Justice of the Peace

My commission expires 12-2-25



032820

2005 MAY 16 PM 2:14

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that We, **Robert Sinclair** of 106 Melrose Street, Manchester, New Hampshire and **Lorraine Sinclair** of 1311 Hanover Street, Unit 7, Manchester, New Hampshire 03104

for consideration paid, hereby grant to **Stoli Properties, LLC**, a New Hampshire limited liability company of 180 Locust Street, Dover, New Hampshire

with WARRANTY COVENANTS, the following described premises:

A certain piece of wood land situated in Raymond, County of Rockingham, State of New Hampshire, bounded and described as follows:

Commencing at land now or formerly of Aaron G. Whittier running northeast by a cart north 34 rods to a stone wall on the Blake land, so-called; thence northwest by a stone wall 38 rods to land now or formerly of Aaron G. Whittier land by a stone wall southeast 20½ rods to the first bound mentioned; containing two and one half (2½) acres, be the same more or less.

This is not homestead property.

Meaning and intending to convey the same premises conveyed to the grantors herein by warranty deed of Fred D. Sinclair and Bertha I. Sinclair dated November 4, 1964 and recorded in the Rockingham County Registry of Deeds at Book 1743, Page 321.

Signed this 16th day of May, 2005.

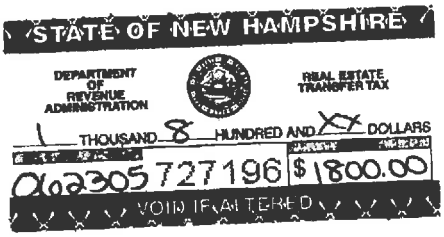
Robert Sinclair

Lorraine Sinclair

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 16th day of May, 2005, before me, the undersigned Officer, personally appeared Robert Sinclair and Lorraine Sinclair, known to me, or satisfactorily proven, to be the persons whose names are subscribed to the foregoing instrument, and acknowledged that they executed the same for the purposes set forth therein.

Justice of the Peace/Notary Public
My commission expires: MY COMMISSION EXPIRES AUG. 18, 2009 NOTARY PUBLIC NEW HAMPSHIRE



042881

2005 JUN 23 AM 10:16

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that I, **Inez S. Welch**, a single person, of 103 Main Street, Raymond, County of Rockingham and State of New Hampshire

for consideration paid, hereby grant to **West River Road, L.L.C.**, a New Hampshire limited liability company of 25 Crystal Drive, Hampton Falls, County of Rockingham and State of New Hampshire

with WARRANTY COVENANTS, the following described premises:

A certain tract or parcel of land with any buildings thereon situate northerly of State of N.H. Route 101, a limited access highway in Raymond, Rockingham County, New Hampshire, and shown as **Tax Map 22, Lot 45** on a plan entitled "A Survey and Plat of Properties prepared for Hard Rock Development, LLC" dated May 26, 2005, prepared by RSA Layout & Design, Inc. and recorded or to be recorded in the Rockingham County Registry of Deeds, more particularly bounded and described as follows:

Beginning at a steel reinforcing rod on the northerly side of said State of N.H. Route 101 at the westernmost point of Tax Map 23, Lot 24; thence running N 16° 32' 12" E a distance of 566.59 feet to a granite/concrete bound; thence turning and running S 80° 25' 28" E a distance of 166.45 feet to a drill hole in a stone wall; thence running S 77° 51' 08" E a distance of 104.68 feet to a drill hole in a stone wall at land now or formerly of Est. of Josephine F. Welch; thence turning and running N 25° 21' 27" E a distance of 41.75 feet to a drill hole in a stone wall; thence running N 26° 13' 24" E a distance of 236.03 feet to a tree w/wire; thence running N 20° 52' 59" E a distance of 109.97 feet to a drill hole in a stone wall; thence running N 21° 25' 01" E a distance of 65.44 feet to a drill hole in a stone wall; thence running N 24° 23' 29" E a distance of 103.77 feet to a drill hole in a stone wall at land now or formerly of Hard Rock Development, LLC; thence turning and running N 80° 16' 26" W a distance of 195.99 feet to a drill hole in a stone wall; thence running N 79° 24' 32" W a distance of 203.68 feet to a drill hole in a stone wall; thence running N 75° 01' 56" W a distance of 156.10 feet to a drill hole in a stone wall; thence running N 66° 33' 02" W a distance of 18.18 feet to a drill hole in a stone wall at land now or formerly of Robert & Lorraine Sinclair; thence turning and running S 72° 23' 47" W a distance of 521.89 feet to a drill hole in a stone wall at land now or formerly of the Town of Raymond; thence turning and running S 16° 35' 24" E a distance of 346.11 feet to a steel reinforcing rod at other land now or formerly of the Town of Raymond; thence turning and running S 16° 32' 12" W a distance of 848.67 feet to a point on the northerly side of State of N.H. Route 101; thence turning and running N 69° 40' 56" E a distance of 463.91 feet to a granite/concrete bound; thence turning and running N 78° 16' 37" E a distance of 112.49 feet to a steel reinforcing rod at the point of beginning. Containing 17.8768 acres.

This is not homestead property.

Meaning and intending to convey the same premises conveyed to Neal F. Welch by deed of Frank P. Corson and Abbie J. Lamprey dated October 5, 1938 and recorded in

the Rockingham County Registry of Deeds at Book 1198, Page 469, however otherwise described. See also Estate of Neal F. Welch (Rockingham County Probate File #2003-1131).

Signed this 23rd day of June, 2005.

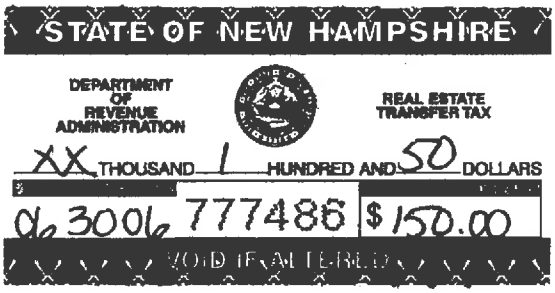
Inez S. Welch

STATE OF NEW HAMPSHIRE
COUNTY OF Rockingham

On this, the 23rd day of June, 2005, before me, the undersigned Officer, personally appeared Inez S. Welch, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that she executed the same for the purposes set forth therein.

Justice of the Peace/~~Notary Public~~
My commission expires:_____

Diane M. Warwick, Justice of the Peace
My Commission Expires March 6, 2007



040591

2006 JUN 30 PM 3:29

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS, that the **TOWN OF RAYMOND**, a New Hampshire municipal association, with an address of 4 Epping Street, Raymond, NH 03077, for consideration paid, grants to **BBOC DEVELOPMENT, LLC**, a New Hampshire limited liability company, with an address of 84 Exeter Road, South Hampton, NH 03827 with **QUITCLAIM COVENANTS**, all of its right, title and interest in and to the following described premises:

A certain parcel of land with the buildings thereon situated in Raymond, in the County of Rockingham and State of New Hampshire, bounded and described as follows:

Beginning at an iron monument set into the ground at the end of the Blake passway, so-called, by land of Everett E. Goodwin; thence Westerly by land of the Concord & Portsmouth Railroad 150 rods, more or less, to land formerly of Horatio D. Page; thence turning and running Southwesterly by land formerly of said Page 120 rods; thence Southeasterly by land of Plummer B. Carson 120 rods to land of the heirs of Levi Moulton; thence Northeasterly by land of heirs of said Moulton 124 rods to land of the Town of Raymond; thence Northwesterly 10 rods, more or less, by land of said Town of Raymond and land of Edwin S. Poore to a stone monument; thence Northeasterly by land of Edwin S. Poore, land of Stevens, land of Fellows & Abbott, land of heirs of Octavous W. Fellows and land of Everett E. Goodwin to the bound begun at. Containing 112 acres be the same more or less.

Excepting and reserving to the Town of Raymond the right of passing over the land above described or any part thereof which have heretofore been conveyed to said Town which are not to be conveyed or enlarged by this deed. Also a certain other parcel of land situated in said Raymond containing 40 acres be the same more or less, being known as and called the "Bean Land", bounded and described as follows: Southeasterly by land now or formerly of heirs of Daniel Robie; Southwesterly by land now or formerly of Joseph Davis, so-called; Westerly by land now or formerly of heirs of Horatio D. Page; Easterly, so-called, by land now or formerly of Daniel T. Wendell, and Northerly of land of Horatio D. Page.

Being the same premises to Cora Falconer by deed of Francis W. Falconer dated July 14, 1911 recorded at the Rockingham County Registry of Deeds at Book 661, Page 4.

SAVE AND EXCEPTED from the above-described premises those premises conveyed to Regis Tanning Company, Inc. by deed of Cora P. Falconer dated July 25, 1958 recorded at the Rockingham County Registry of Deeds at Book 1474, Page 299, more particularly bounded and described as follows:

Two tracts of land with the buildings thereon situated in Raymond, County of Rockingham and State of New Hampshire, bounded and described as follows:

First Tract: Beginning at an iron pipe driven into the ground about 60 feet Westerly from Orchard Street, so-called, in Raymond Village by land now or formerly of the heirs of James L. Jones and land now or formerly of the Concord and Portsmouth Railroad; thence Westerly by land of said Railroad to the end of a stone wall by land now or formerly of Lewis A. Clough; thence Southeasterly by said Clough land to a large oak tree by land now or formerly of Edwin S. Poore; thence Northeasterly by a stone wall by said Poore land and land now or formerly of Fellows and Abbott to land now or formerly of the heirs of Octavoris M. Fellows; thence in the same direction by land of the heirs of said Fellows to the bound first mentioned. Containing two acres, more or less.

The grantor also conveys the right of passing on foot and with vehicles for said grantee and his heirs and assigns between the land above described and the highway leading from Packer's Bridge, so-called, and Fremont as heretofore used, over land now or formerly of the Concord and Portsmouth Railroad. Said tract is also subject to rights of passage over a portion of the same for the owners of the land now or formerly of Lewis A. Clough and his assigns to pass from the land of said Clough to said highway as heretofore used by the owners of said land.

Second Tract: Beginning at the Northwest corner of land now or formerly of Aaron G. Whittier; thence North 70 degrees West 12 rods and 50 links to a spotted yellow oak tree; thence North 52 1/2° West 21 rods and 3 links to land now or formerly of the Concord and Portsmouth Railroad; thence by said Railroad Southwesterly 120 rods to land now or formerly of Horatio D. Page; thence turning and running Southwesterly by said Page land120 rods; thence Southeasterly by land now or formerly of Daniel T. Wendell 120 rods to land now or formerly of Levie Moulton; thence Northeasterly by said Moulton land 124 rods to land now or formerly of said Aaron G. Whittier; thence Northwesterly 10 rods to the bound begun at.

Said premises referenced as contain 110 acres, more or less. There is an unobstructed passage to said tract or lot 2 rods wide agreeable to the reservation in the deed of Sherburne Blake to the Concord and Portsmouth Railroad. Reserving and excepting from said tract about 1 acre of land with the rights of way thereto that has been heretofore deeded to the Town of Raymond for its water works.

The above-referenced property is not homestead property.

Meaning and intending to describe and convey, however otherwise described, the same property conveyed to Grantor by Tax Collector's Deed dated May 31, 1991 recorded at Book 2879, Page 1474, Deed of Paul Priest dated March 1, 2006 recorded at Book 4641, Page 2427, Deed of Mary L. Falconer dated February 24, 2006 and recorded at Book 4641, Page 2430, Deed of Jean E. Falconer dated March 1, 2006 recorded at Book 4641, Page 2433, Deed of Clayton W. Priest, Jr. dated March 4, 2006 and recorded at Book 4611, Page 2438 and Deed of Phyllis Priest Parmenter dated March 4, 2006 and recorded at Book 4641, Page 2441. See also Order of Judgment Quieting Title in the Name of The Town of Raymond, NH recorded on May 1, 2006 at Page 4649, Page 1340.

EXECUTED this 30th day of June, 2006.

TOWN OF RAYMOND
BY ITS BOARD OF SELECTMEN

Harold R. Wood Jr

Harold R. Wood, Jr., Chairman
Duly Authorized

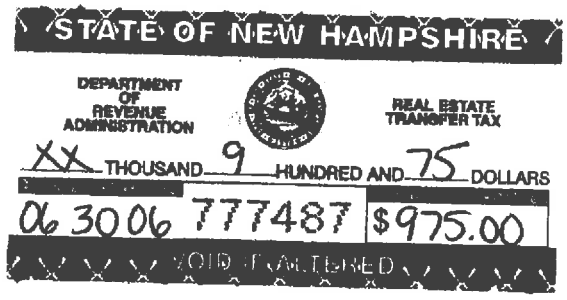
STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM, ss

On this 30th day of June, 2006, before me, personally appeared **Harold R. Wood, Jr.**, in his capacity as Chairman of the Board of Selectmen of the Town of Raymond, known to me or satisfactorily proven to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained on behalf of the Town of Raymond.

Stephanie A. Guy

Notary Public/~~Justice of the Peace~~
Printed Name: STEPHANIE A. GUY
My Commission expires: MY COMMISSION EXPIRES SEPT. 6, 2006 NOTARY PUBLIC NEW HAMPSHIRE

S:\RA-RL\RAYMOND, TOWN OF\TANNERY\QUITCLAIM DEED TO BBOC.DOC



040592

2006 JUN 30 PM 3:29

ROCKINGHAM COUNTY REGISTRY OF DEEDS

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS, that the **TOWN OF RAYMOND**, a New Hampshire municipal association, with an address of 4 Epping Street, Raymond, NH 03077, for consideration paid, grants to **HARD ROCK DEVELOPMENT, LLC**, a New Hampshire limited liability company, with an address of 84 Exeter Road, South Hampton, NH 03827 with **QUITCLAIM COVENANTS**, all of its right, title and interest in and to the following described premises:

A certain tract of land (with improvements and buildings thereon) located in Raymond, Rockingham County, New Hampshire, described as follows:

All of Lot 52-3 as identified and described on a Plan of Land entitled "Revised Subdivision Plan for Pike Industries, Inc. situated in the town of Raymond" by R.S.L. Layout & Design, Inc., Raymond, New Hampshire dated November 17, 1987 and recorded in the Rockingham County Registry of Deeds as Plan # D-17579, Said Lot 52-3 contains 12.8 acres, more or less.

SUBJECT TO any easements of record and the easements, conditions and restrictions shown and noted on the Plan including, but not limited to the following:

1. Easement to New England Telephone & Telegraph Company dated March 27, 1962, recorded in the Rockingham County Registry of Deeds at Book 1640, Page 39.

2. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 659.

3. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 660.

4. Easement to Public Service Company of New Hampshire and New England Telephone and Telegraph Company dated March 29, 1988, recorded in said Registry at Book 2760, Page 2530.

Meaning and intending to describe and convey the same property conveyed to Grantor by Deed of Community Development Finance Authority dated October 14, 1998 and recorded on November 12, 1998 at the Rockingham County Registry of Deeds at Book 3340, Page 1926.

EXECUTED this 30th day of June, 2006.

TOWN OF RAYMOND
BY ITS BOARD OF SELECTMEN

Harold R. Wood Jr.
Harold R. Wood, Jr., Chairman
Duly Authorized

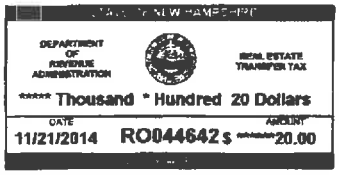
STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM, ss

On this 30th day of June, 2006, before me, personally appeared **Harold R. Wood, Jr.**, in his capacity as Chairman of the Board of Selectmen of the Town of Raymond, known to me or satisfactorily proven to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained on behalf of the Town of Raymond.

Stephanie A. Guy
Notary Public/~~Justice of the Peace~~
Printed Name:_____
My Commission expires:_____

STEPHANIE A. GUY
MY COMMISSION EXPIRES SEPT. 8, 2009
NOTARY PUBLIC
NEW HAMPSHIRE

S:\RA-RL\RAYMOND, TOWN OF\TANNERY\QUITCLAIM DEED TO HARD ROCK.DOC



045475

2014 NOV 21 PM 2:42

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS, that the **TOWN OF RAYMOND**, a New Hampshire municipal corporation with an address of 4 Epping Street, Raymond, New Hampshire 03077, for consideration paid, grants to **HARD ROCK DEVELOPMENT, LLC**, a New Hampshire limited liability company, with an address of 84 Exeter Road, South Hampton, New Hampshire 03827, **with WARRANTY COVENANTS**, the following described premises:

A certain tract or parcel of land located off of Old Manchester Road and Industrial Drive in the Town of Raymond, County of Rockingham and State of New Hampshire depicted as "Proposed Lot 120-1" on a plan of land entitled "Subdivision Plan of Land, Tax Map 28-3, Lot 120, Old Manchester Road & Industrial Drive, Raymond, NH" prepared by Eric C. Mitchell & Assoc., Inc. dated July 3, 2007 through revision E dated 4/23/13 recorded at the Rockingham County Registry of Deeds as Plan #D-37834 (hereinafter "Plan"); said parcel is more particularly bounded and described as follows:

Beginning at an iron pin at the southerly boundary of the abandoned railroad bed at the northeasterly corner of land now or formerly of MRCT Realty Co., LLC being the northwesterly corner of the within described premises as shown on said Plan; thence running along said abandoned railroad bed N71°36'16"E a distance of 715.25 feet to an iron pin at Proposed Lot 120 as shown on said Plan; thence turning and running along said Lot 120 S31°13'07"W a distance of 151.62 feet to an iron pin; thence turning and running still along said Lot 120 S58°46'53"E a distance of 273.87 feet to an iron pin; thence continuing along said Lot 120 S77°11'24"E a distance of 1036.64 feet to an iron pipe at Tax Map 28-3, Lot 16 as shown on said Plan; thence turning and running S67°09'04"E a distance of 147.35 feet to a drill hole in a stone wall at Tax Map 23, Lot 25 as shown on said Plan; thence turning and running along said Lot 25 and said stone wall the following eleven (11) courses and distances: S26°10'49"W, 101.34 feet; S24°17'47"W, 184.91; S22°19'55"W, 52.48 feet; S24°22'25"W, 468.12 feet; S24°36'24"W, 337.71 feet; S24°14'00"W, 211.15 feet; S24°38'51"W, 213.98 feet; S33°16'21"W, 113.46 feet; S30°11'49"W, 33.21

feet; S19°03'38"W, 28.80 feet; S15°18'27"W, 14.64 feet to a drill hole at an intersection of stone walls at land now or formerly of West River Road, LLC as shown on said Plan; thence turning and running along said stone wall the following twelve (12) courses and distances: N80°16'26"W, 195.99 feet; N79°24'32"W, 203.68 feet; N75°01'56"W, 156.10 feet; N66°33'02'W, 18.18 feet; N68°14'32"W, 36.67 feet; N73°57'31"W, 241.16 feet; N87°27'00"W, 39.02 feet; N66°33'27"W, 37.71 feet; N77°46'13"W, 148.15 feet; N79°22'58"W, 112.59 feet; N78°45'03"W, 179.83 feet; N78°45'03"W, 216.16 feet to a stone bound at land now or formerly of MRCT Realty Co., LLC as shown on said Plan; thence turning and running along said MRCT land the following eight (8) courses and distances: N20°24'26"E, 536.20 feet; N17°54'53"E, 108.93 feet; N20°30'13"E, 201.41 feet; N23°40'05"E, 106.20 feet; N21°10'51"E, 168.79 feet; N41°53'34"W, 73.21 feet; N40°25'45"W, 59.21 feet; N38°49'14"W, 146.11 feet to the iron pin at the point of beginning.

Said parcel containing 2,666,114 sq. ft. (61.21 acres), more or less, according to said Plan.

SUBJECT TO AND TOGETHER WITH the burden and benefit of certain rights of the Grantor and Grantee as set forth in a written Agreement entitled "Second Amendment to Further Agreement re: Exercise of Option and Participation in Clean Up" dated May 2, 2013 and on file with the Raymond Town Clerk's office, as follows:

1. License of Grantor to use temporary construction road, to be constructed by Grantee upon written notice from Grantor, from Industrial Drive over Lot 120-1 along the old logging road shown on the subdivision plan.

2. The right of the Grantor for fifteen (15) years from the date hereof to construct a permanent access road or driveway in a location reasonably and mutually agreed upon and tentatively shown on the Subdivision Plan on Lot 120-1 as "Possible Future Permanent Access Road or Driveway" (See Note 9 on the Plan) and "Proposed 50' Right of Way" on Lot 120 subject to the Reciprocal Option of the Grantee to upgrade to a Town accepted Road at Grantee's expense.

The foregoing reserved rights, unless earlier exercised, shall terminate at the earlier of fifteen (15) years from the date hereof or three (3) years after the completion of a municipal waste water treatment facility on Lot 120.

Meaning and intending to describe and convey a portion of the same premises conveyed to the within Grantor by deed of Hard Rock Development, L.L.C. dated June 30, 2006 and recorded at the Rockingham County Registry of Deeds at Book 4676, Page 1411.

This is not homestead property.

EXECUTED this 4 day of November, 2013.

TOWN OF RAYMOND
BY ITS BOARD OF SELECTMEN
DULY AUTHORIZED

Witness — Frank Bourque, Chairman

Witness — Peter Buckingham, Selectman

Witness — William Hoitt, Selectman

Witness — Wayne Welch, Selectman

Witness — Greg Bemis, Selectman

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM, ss.

On this 4 day of November, 2013, before me, personally appeared Frank Bourque, Peter Buckingham, William Hoitt, Wayne Welch and Greg Bemis, known to me, or proven to me through satisfactory evidence of identification, to be the individuals whose names are subscribed to the foregoing instrument, and acknowledged that they executed the same for the purposes therein contained.

Notary Public/Justice of the Peace
Printed Name: Charisse E. Baker
My Commission expires: CHARISSE E. BAKER Notary Public - New Hampshire My Commission Expires November 4, 2014

S:\RA-RL\Raymond, Town of\Tannery\2nd closing\DeedWarranty.rtf

0 foot Abutters List Report

Raymond, NH
August 26, 2021

Subject Properties:

Parcel Number:	022-000-044-000	Mailing Address:	STOLI PROPERTIES, LLC
CAMA Number:	022-000-044-000-000		P.O. BOX 2750
Property Address:	INDUSTRIAL DRIVE		SEABROOK, NH 03874
Parcel Number:	022-000-045-000	Mailing Address:	WEST RIVER ROAD, L.L.C
CAMA Number:	022-000-045-000-000		P.O. BOX 2750
Property Address:	INDUSTRIAL DRIVE		SEABROOK, NH 03874
Parcel Number:	022-000-046-000	Mailing Address:	BBOC DEVELOPMENT, LLC
CAMA Number:	022-000-046-000-000		84 EXETER RD
Property Address:	BATCHELDER ROAD		SO. HAMPTON, NH 03827
Parcel Number:	022-000-047-000	Mailing Address:	HARD ROCK DEVELOPMENT
CAMA Number:	022-000-047-000-000		84 EXETER RD
Property Address:	INDUSTRIAL DRIVE		SO. HAMPTON, NH 03827
Parcel Number:	028-003-120-001	Mailing Address:	HARD ROCK DEVELOPMENT, LLC
CAMA Number:	028-003-120-001-000		84 EXETER ROAD
Property Address:	INDUSTRIAL DRIVE		SOUTH HAMPTON, NH 03827

Abutters:

Parcel Number:	022-000-043-000	Mailing Address:	MRCT REALTY CO. , LLC
CAMA Number:	022-000-043-000-000		P.O. BOX 449
Property Address:	10 INDUSTRIAL DRIVE		LAWRENCE, MA 01842
Parcel Number:	022-000-048-000	Mailing Address:	RAYMOND AMBULANCE, INC
CAMA Number:	022-000-048-000-000		1 SCRIBNER ROAD
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	023-000-023-000	Mailing Address:	WELCH, JOAN E
CAMA Number:	023-000-023-000-000		15 NOTTINGHAM ROAD
Property Address:	INDUSTRIAL DRIVE		RAYMOND, NH 03077
Parcel Number:	023-000-024-000	Mailing Address:	WELCH, JOAN E
CAMA Number:	023-000-024-000-000		15 NOTTINGHAM ROAD
Property Address:	ROUTE 101		RAYMOND, NH 03077
Parcel Number:	023-000-025-000	Mailing Address:	WELCH,JOSEPH & JOHN & ARDELL &
CAMA Number:	023-000-025-000-000		INEZ BETSY PATTERSON & ROBIN
Property Address:	MAIN STREET		PROULX
			49 RAYMOND ROAD, ROUTE 156
			NOTTINGHAM, NH 03290

0 foot Abutters List Report

Raymond, NH
August 26, 2021

Parcel Number:	027-004-032-000	Mailing Address:	BAIN, WARREN
CAMA Number:	027-004-032-000-000		P.O. BOX 123
Property Address:	24 OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	027-004-033-000	Mailing Address:	RAYMOND SCHOOL DISTRICT
CAMA Number:	027-004-033-000-000		43 HARRIMAN HILL ROAD
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	028-003-016-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-016-000-000		4 EPPING STREET
Property Address:	ORCHARD STREET		RAYMOND, NH 03077
Parcel Number:	028-003-043-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-043-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	028-003-120-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-120-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077

STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, 7 HAZEN DR, CONCORD, NH 03301

JONES & BEACH ENGINEERS, ATTN. WAYNE MORRILL, PO BOX 219, STRATHAM, NH 03885

SIPPICAN CAPITAL LLC, 29 OLD FARM RD, DOVER, MA 02030

AVERY 8460™ Easy Peel® Address Labels Bend along line to expose Pop-up Edge® Go to avery.com/templates Use Avery Template 5160

BAIN, WARREN
P.O. BOX 123
RAYMOND, NH 03077

MRCT REALTY CO. , LLC
P.O. BOX 449
LAWRENCE, MA 01842

RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING ST
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING ST
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING STREET
RAYMOND, NH 03077

WELCH, JOAN E
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

WELCH, JOAN E
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

WELCH,JOSEPH & JOHN & ARD
BETSY PATTERSON & ROBIN P
49 RAYMOND ROAD, ROUTE 156
NOTTINGHAM, NH 03290

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
7 HAZEN DR
CONCORD, NH 03301

JONES & BEACH ENGINEERS
ATTN. WAYNE MORRILL
PO BOX 219
STRATHAM, NH 03885

SIPPICAN CAPITAL LLC
29 OLD FARM RD
DOVER, MA 02030

Étiquettes d'adresse Easy Peel® Allez à avery.ca/gabarits

August 26, 2021

Raymond, NH

1 inch = 550 Feet

0 550 1101 1652

CAI Technologies
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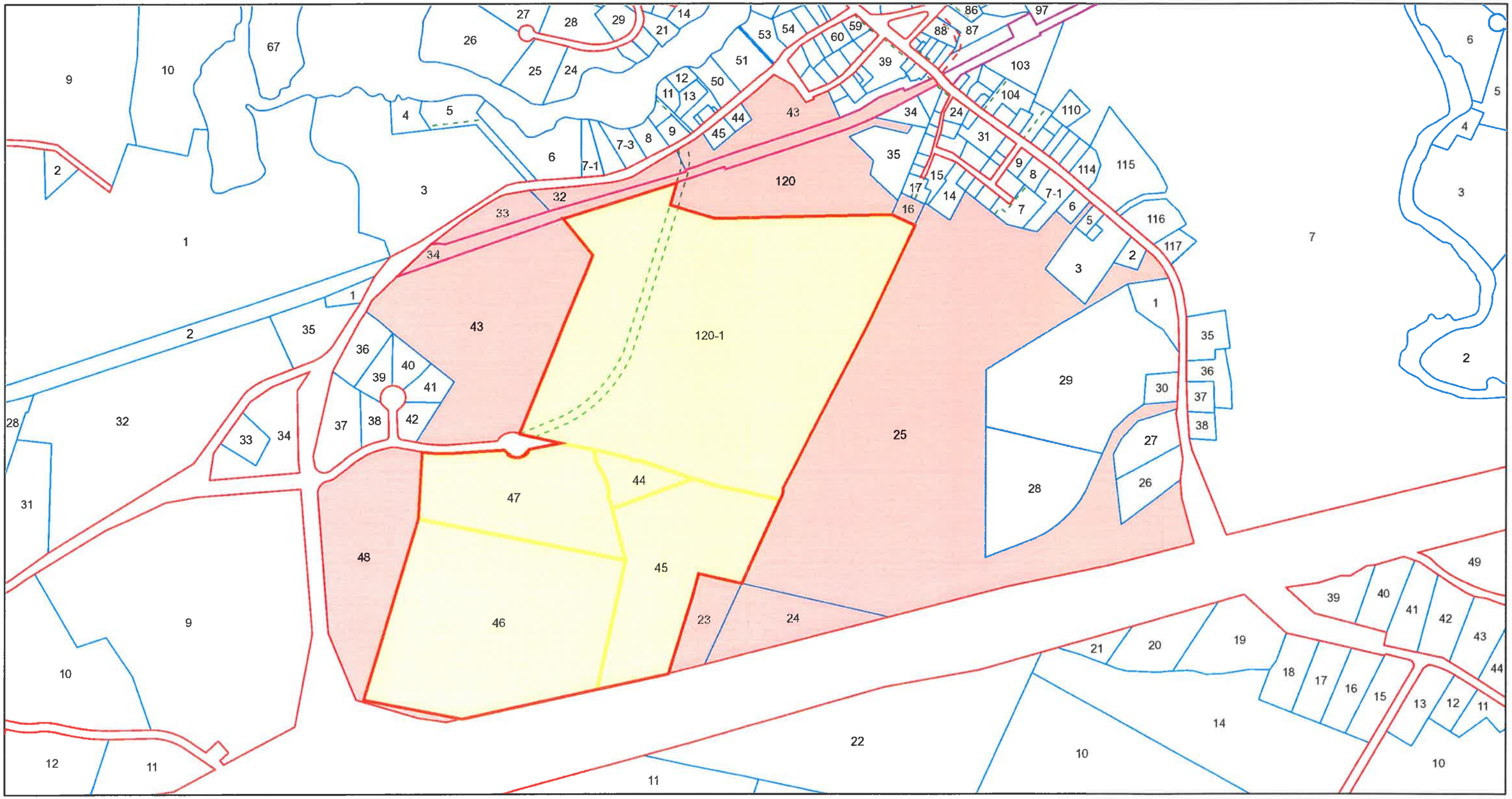

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

Applicant to File Duplicate Originals
Please type of print legibly with black ink – signatures in black ink

Include a check (payable to the Registry of Deeds) for recording fee in the amount of $_____

TOWN OF RAYMOND, NEW HAMPSHIRE
LOT CONSOLIDATION FORM

The undersigned applicant requires that the Town of Raymond, New Hampshire, hereby consolidate the following parcels of land for the purposes of being assessed and treated for regulatory purposes as a single tract or parcel of land:

Name of Owner(s) of Record – Owner(s) must be identical for all lots consolidated:

Onyx Raymond, LLC

Mailing Address of Owner(s):

200 Reservoir Street, Suite 306, Needham, MA 02494

The following existing parcels are to be consolidated into a single parcel:

Map #	Lot #	Street Address	Deed Reference
22	44	Industrial Drive	Book: 6373 Page: 1280
22	45	Industrial Drive	Book: 6373 Page: 1282
22	46	Batchelder Road	Book: 6373 Page: 1273
22	47	Industrial Drive	Book: 6373 Page: 1276
28, Block 3, Lot 120-1		Industrial Drive	Book: 6373 Page: 1276

(Attach additional sheet if necessary)

Applicant understands that (I) this request is subject to the Town Building Department to assure such action does not result in violation of Raymond Land Use Ordinances, (II) that upon approval, a copy of this agreement shall be recorded with the Rockingham County Registry of Deeds, and (III) subsequent to the approval of this agreement, the owner(s) shall not separately convey or encumber any of the previously existing single parcels, such assurance being in the form of an enforceable restrictive covenant between the owner and the Town. Any attempt to separately convey any parcel or part of a parcel submitted hereunder shall require subdivision approval from the Raymond Planning Board.

Dated this 2nd day of November, in the year 2022

_____ _____

Owner *Owner*

_____ _____

Print Name *Print Name*

Then personally appeared the above names owner(s) and acknowledge the foregoing to be his/her/their free act and deed.

_____

Notary Public/Justice of the Peace

AARON K. HINCHLIFFE NOTARY PUBLIC COMMONWEALTH OF MASSACHUSETTS My Commission Expires on 9/26/2025

By signing below, the application has been reviewed by the Raymond Building Department and the requested consolidation shall not result in violation of Raymond Land Use Ordinances.

_____

Raymond Building Official

By signing below, this request has been approved by the Raymond Tax Assessor, delegated authority by the Raymond Board of Selectmen.

Previous Map and Lot #: Map: _____ Lot _____

Newly Assigned Map and Lot #: Map: _____ Lot _____

_____

Chief Assessor

One copy to be retained in Town files. One copy shall be forwarded to the Rockingham County Registry of Deeds for recording upon approval. Recorded copy to be returned to Owner(s).

********Note to Registry of Deeds********

Upon recording, return to: **Town of Raymond, NH**
Assessing Department
4 Epping Street
Raymond, NH 03077

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

October 25, 2022

Raymond Zoning Board
Attn. Keith Smith, Chair
4 Epping Street
Raymond, NH 03077

RE: Variance Application
Off Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46, & 47
Tax Map 28, Lot 120-1
JBE Project No. 21130

Dear Mr. Smith,

Jones & Beach Engineers, Inc. respectfully submits a Variance Application for the above-referenced parcel on behalf of our client, Onyx Partners LTD. The intent of this application is to request a variance from Article 2, Section 2.7 to allow a building height of 44' where 40' is maximum allowed.

The following items are provided in support of this Application:

1. Variance Application.
2. Letter of Authorization.
3. Copy of Deed.
4. Fee Check in the Amount of $770.00.
5. Abutters List & Mailing Labels (3 sets).
6. Tax Map
7. Six (6) Full Size Site Plans

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Wayne Morrill
President

cc: Anton Melchionda, ONYX Partners LTD (application and plans via email)

TOWN OF RAYMOND

Community Development Department
Office of Planning & Zoning
4 Epping Street
Raymond, NH 03077

Tel: (603) 895-4735
Fax: (603) 895-0903
http://www.raymondnh.gov

Application for a Variance

Site Information

Property Address: Off Industrial Drive

Map #: 28 Lot #: 120-1 and Tax Map 22, Lots 44, 45, 46, and 47.

Property Owner Information

Name: Onyx Partners LTD Phone: _____

Address: 200 Resevoir Street, Needham, MA 02494

Address: _____

Applicant/Agent Information

Name: Jones & Beach Engineering, Inc. Phone: _____

Address: P.O. Box 219, Stratham, NH 03840

Address: _____

Complete the Following

A variance is being requested from Article 2, Section 2.7 of the Town of Raymond Zoning Ordinance in order to allow a building height of 44' where 40' is maximum allowed, as further explained in the Applicant's Narrative which is hereby incorporated by reference.

Facts in Support of Granting the Variance (if more space is needed, attach additional sheets)

1) Granting a variance would not be contrary to the public interest because:

see Narrative.

2) Granting a variance would be consistent with the spirit of the ordinance because:

see Narrative.

3) Granting a variance would do substantial justice because: See Narrative.

4) Granting a variance would not diminish the values of surrounding properties because: See Narrative.

5) Owing to the special conditions of the property that distinguish it from other properties in the area, literal enforcement of the provisions of the ordinance would result in an unnecessary hardship because...

   a. No fair and substantial relationship exists between the general public purposes of the ordinance provision and the specific application of that provision to the property because:

See Narrative.

   b. The proposed use is a reasonable one because:

6) If you cannot provide a response establishing the criteria in 5(a) and 5(b) above, explain how an unnecessary hardship will be deemed to exist if, and only if, owing to special conditions of the property that distinguish it from other properties in the area, the property cannot be reasonably used in strict conformance with the ordinance, and a variance is therefore necessary to enable a reasonable use of the property.

Signature of Applicant*

*If the applicant is not the property owner, then a notarized letter of permission from the property owner authorizing the applicant to represent their interests shall be provided.

Applicant's Signature*

10/25/2022

Date

VARIANCE APPLICATION
NARRATIVE

Off Industrial Drive
Tax Map 22, Lots 44, 45, 46 and 47
Tax Map 28, Block 3, Lot 120-1
Raymond, NH 03077

Onyx Partners LTD
(Owner / Applicant)

Introduction

Onyx Partners LTD (the "Applicant") is the owner of property located off of Route 101 shown on Tax Map 22 as Lots 44, 45, 46, and 47, and Tax Map 28, Block 3, as Lot 120-1 (the "Property"). The Property is located in the Industrial Zoning District ("Zone D"). The Property is 123.52 acres in size. The Property is located at the end of Industrial Drive in Raymond. The Property contains a former quarry that was used for the extraction, storage and removal of raw materials.

The property is abutted to the north by conservation land and to the south by Route 101. Jackson Lumber owns the abutting property to the west. The land to the east is vacant. Having a former quarry on it and no direct abutters, other than Jackson Lumber, the Property is uniquely situated.

The Applicant is proposing a 550,025 square foot warehouse distribution building for the Property which is a permitted use in Zone D. The building will comply with all of the dimensional requirements of the Ordinance except for building height. Section 2.7 of the Raymond Zoning Ordinance (the "Ordinance") only allows for a maximum building height in Zone D of 40'. The proposed building will have a height of 44' at average grade. The current industry standard for facilities of the nature proposed is to have 40' of clear height. This cannot be accomplished on the Property without a variance from Section 2.7 of the Ordinance.

The Applicant's plans have already undergone technical review with the Town of Raymond. If the variance is approved, the Applicant will still need site plan approval from the Planning Board.

Variance Criteria

Granting the variances will not be contrary to the public interest and will observe the spirit of the Ordinance.

"There are two methods of ascertaining whether granting a variance would violate an ordinance's basic zoning objectives: (1) examining whether granting the variance would alter the essential character of the neighborhood or, in the alternative; (2) examining whether granting the

variance would threaten the public health, safety, or welfare." *Harborside Assoc v. Parade Residence Hotel,* 162 N.H. 508, 514 (2011).

The Property is zoned industrial and the proposed use, as a "warehouse and wholesale business" is one that is permitted and encourage by Section 4.6 of the Ordinance. Because the Property was historically used as a quarry, it is a very challenging and expensive site to develop. The proposed use is a logical use of the Property that will impose no burden upon adjacent land or the public. The project will include an on-site water storage tank for fire suppression of the building, on-site septic system and connection to the municipal water system for domestic water only. The rear of the Property has a 60' vertical wall of ledge which serves as a natural sound buffer for land to the east. The land to the north consists of conservation land. The Property is bounded to the south by Route 101. The abutter land to the west which houses Jackson Lumber is used for industrial purposes. Allowing a 4' height variance for the proposed warehouse building on the Property will have no negative impact upon the surrounding area or the light, air and space of abutting properties. Granting the variance will allow for the proposed building to be constructed to current industry standard, which the Ordinance does not allow for as presently written. The public interest will be served with the proposed use of the Property. It is estimated that this will bring in $916,000 dollars in annual tax revenue. It will also serve as a place of employment for those living in Raymond and in the surrounding communities, providing in excess of 300 new jobs.

Substantial justice will be done by granting the variance relief.

Any loss to the individual that is not outweighed by a gain to the general public is an injustice. *New Hampshire Office of State Planning, The Board of Adjustment in New Hampshire, A Handbook for Local Officials* (1997); *Malachy Glen Assocs., Inc. v. Town of Chichester,* 155 N.H. 102 (2007).

In the present case, the scale of equities for determining whether substantial justice is done tips heavily in favor of the landowner. As outlined above, the Property is challenging and expensive to develop. The highest and best use of the Property is for a warehouse distribution center, as proposed. In order to construct a building on the Property that meets industry standard for that use, a clear height of 44' is needed where the Ordinance only allows for 40'. Denying the the variance necessary to construct the building would constitute an economic hardship to the Applicant that it not outweighed by any gain to the public. To the contrary, the public interest is served by granting the variance given the amount of tax revenue the proposed use will generate for the Town.

The values of surrounding properties will not be diminished by granting the variance relief.

The proposed use is one that is permitted within Zone D of the Town of Raymond. The height of the building, which is what the variance request pertains to, would have no impact at all on adjacent properties or buildings. A 4' increase in height over what is allowed by the Ordinance will be unnoticeable to adjacent property owners and residents, particularly when you consider the location of the Property and its topography.

Literal enforcement of the provisions of the Ordinance would result in an unnecessary hardship.

The Property has special conditions that distinguish it from surrounding properties such that there is no fair and substantial relationship between the general purposes of the height restriction set forth in Section 2.7 of the Ordinance and its application to the proposed use. The size, topography, location and former use of the Property are special conditions that render the Property unique in its environment, as more specifically discussed above. The variance request is driven by the fact that the Ordinance has yet to catch up with industry standard for industrial warehousing facilities such as the one that is proposed which calls for 44' of clear height. In the present case, a variance of 4' in height will literally have no impact upon the public or abutting property owners and will be unnoticeable to anyone that views the Property.

Finally, the proposed use is reasonable. The use is one that is specifically called out by Section 4.6 of the Ordinance. It is a use that is encouraged within the Industrial Zoning District.

Conclusion

In conclusion, the Applicant has demonstrated that its application meets the criteria for granting the variance from Section 2.7 of the Ordinance. As such, it respectfully requests that the Board approve the application.

Respectfully Submitted,

Dated: October 25, 2022

Onxy Partners LTD

By and Through Its Attorneys,
Durbin Law Offices PLLC

By: Derek R. Durbin, Esq.
144 Washington Street
Portsmouth, NH 03801
(603)-287-4764
derek@durbinlawoffices.com

Raymond 2022 Fee Schedule

PLANNING BOARD FEES
SUBDIVISION APPLICATION SEE ATTACHED
SITE PLAN APPLICATION SEE ATTACHED
PRE-APPLICATION REVIEW- $50 APPLICATION FEE, $300 ESCROW AND $10 PER ABUTTER
SPECIAL PERMIT APPLICATION - $100 APPLICATION FEE, $250 ESCROW AND $10 PER ABUTTER
LOT LINE APPLICATION- $75 APPLICATION FEE, $250 ESCROW AND $10 PER ABUTTER
EXCAVATION APPLICATION- $150 APPLICATION FEE, $500 ESCROW AND $10 PER ABUTTER
ZONING BOARD OF ADJUSTMENT FEES
APPEAL OF ADMINISTRATION DECISION- $150 APPLICATION FEE, $500 ESCROW AND $10 PER ABUTTER
EQUITABLE WAIVER APPLICATION- $150 APPLICATION FEE, $500 ESCROW AND $10 PER ABUTTER
SPECIAL EXCEPTION APPLICATION- $150 APPLICATION FEE, $500 ESCROW AND $10 PER ABUTTER
VARIANCE APPLICATION- $150 APPLICATIN FEE, $500 ESCROW AND $10 PER ABUTTER TOTAL = $770.00

Letter of Authorization

I, Anton Melchionda, ONYX Partners LTD, 200 Reservoir Street, Needham, MA 02494, developer of property located in Raymond, NH, known as Tax Map 22, Lots 44, 45, 46 & 47 and Tax Map 28, Block 3, Lot 120-1, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously mentioned property. The parcels are located on Industrial Drive in Raymond, NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

Anton Melchionda
ONYX Partners LTD

5/3/22
Date

Personally, appeared the above-named Anton Melchionda, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information, and belief. Before me,

Notary Public/Justice of the Peace

My commission expires 9/26/25

Letter of Authorization

ONYX Raymond LLC. 60 Centre Street. Dover, MA 02030. owner of property located in Raymond, NH, known as Tax Map 22. Lots 44. 45, 46 & 47 and Tax Map 28. Block 3. Lot 120-1. do hereby authorize Jones & Beach Engineers. Inc.. PO Box 219, Stratham, NH. to act on my behalf concerning the previously mentioned property. The parcels are located on Industrial Drive in Raymond. NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process. to include any required signatures.

Witness

ONYX Raymond LLC

Date 5/3/22

Personally, appeared the above-named ONYX Raymond LLC. known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge. information, and belief. Before me,

Notary Public Justice of the Peace

My commission expires 9/26/25

AARON K. HINCHLIFFE
MY COMMISSION EXPIRES SEPTEMBER 26, 2025
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS

Book 6373 Page 1280

E # 22000548 [illegible]
Book 6373 Page 1280 Page 1 of 2
Register of Deeds, Rockingham County

Return to:

LCHIP	[illegible]	25.00
TRANSFER TAX	[illegible]	[illegible]
RECORDING		14.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **KEOLI PROPERTIES, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2759, Seabrook, New Hampshire 03874, pursuant to the provisions of NH RSA 304-C:139 for winding up the business of said company, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 40 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain piece of wood land situated in Raymond, County of Rockingham, State of New Hampshire, bounded and described as follows:

Commencing at land now or formerly of Aaron O. Whittier running northeast by a cart north 34 rods to a stone wall on the Blake land, so-called; thence northwest by a stone wall 38 rods to land now or formerly of Aaron O. Whittier land by a stone wall southeast 20½ rods to the first bound mentioned; containing two and one half (2½) acres, be the same more or less.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of Robert Sinclair and Lorraine Sinclair dated May 14, 2001 and recorded in the Rockingham County Registry of Deeds at Book 4481, Page 138 and being shown on Tax Map 22, Lot 44 on the Town of Raymond tax maps.

This is not homestead property.

Signed this 5 day of January, 2022.

Keoli Properties, LLC

By: [signature]
Name: Ashish B. Grover
Title: Manager

Book: 6373 Page: 1282

E # 22001649 01/11/2022 09:25:52 AM
Book 6373 Page 1282 Page 1 of 2
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602939	25.00
TRANSFER TAX	RO112756	15,000.00
RECORDING		14.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **WEST RIVER ROAD, L.L.C.**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain tract or parcel of land with any buildings thereon situate northerly of State of N.H. Route 101, a limited access highway in Raymond, Rockingham County, New Hampshire, and shown as Tax Map 22, Lot 45 on a plan entitled "A Survey and Plat of Properties prepared for Hard Rock Development, LLC" dated May 26, 2005, prepared by RSA Layout & Design, Inc. and recorded or to be recorded in the Rockingham County Registry of Deeds, more particularly bounded and described as follows:

Beginning at a steel reinforcing rod on the northerly side of said State of N.H. Route 101 at the westernmost point of Tax Map 23, Lot 24; thence running N 16° 32' 12" E a distance of 566.59 feet to a granite/concrete bound; thence turning and running S 80° 25' 28" E a distance of 166.45 feet to a drill hole in a stone wall; thence running S 77° 51' 08" E a distance of 104.68 feet to a drill hole in a stone wall at land now or formerly of Est. of Josephine F. Welch; thence turning and running N 25° 21' 27" E a distance of 41.75 feet to a drill hole in a stone wall; thence running N 26° 13' 24" E a distance of 236.03 feet to a tree w/wire; thence running N 20° 52' 59" E a distance of 109.97 feet to a drill hole in a stone wall; thence running N 21° 25' 01" E a distance of 65.44 feet to a drill hole in a stone wall; thence running N 24° 23' 29" E a distance of 103.77 feet to a drill hole in a stone wall at land now or formerly of Hard Rock Development, LLC; thence turning and running N 80° 16' 26" W a distance of 195.99 feet to a drill hole in a stone wall; thence running N 79° 24' 32" W a distance of 203.68 feet to a drill hole in a stone wall; thence running N 75° 01' 56" W a distance of 156.10 feet to a drill hole in a stone wall; thence running N 66° 33' 02" W a distance of 18.18 feet to a drill hole in a stone wall at land now or formerly of Robert & Lorraine Sinclair; thence turning and running S 72° 23' 47" W a distance of 521. 89 feet to a drill hole in a stone wall at land now or formerly of the Town of Raymond; thence turning and running S 16° 35' 24" E a distance of 346.11 feet to a steel reinforcing rod at other land now or formerly of the Town of Raymond; thence turning and running S 16° 32' 12" W a distance of 848.67 feet to a point on the northerly side of State of N.H. Route 101; thence turning and running N 69° 40' 56" E a distance

of 463.91 feet to a granite/concrete bound; thence turning and running N 78° 16' 37" E a distance of 112.49 feet to a steel reinforcing rod at the point of beginning. Containing 17.8768 acres.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of Inez S. Welch dated June 23, 2005 and recorded in the Rockingham County Registry of Deeds at Book 4500, Page 1939.

This is not homestead property.

Signed this 5 day of January, 2022.

West River Road, L.L.C.

By:
Name: Arleigh B. Greene
Title: Sole Member

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5th day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh B. Greene, as Sole Member of West River Road, L.L.C., known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

Justice of the Peace/Notary Public
My commission expires:

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

Book: 6373 Page: 1273

E # 22001646 01/11/2022 09:25:49 AM
Book 6373 Page 1273 Page 1 of 3
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602936	25.00
TRANSFER TAX	RO112753	773.00
RECORDING		18.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **BBOC DEVELOPMENT, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain parcel of land with the buildings thereon situated in Raymond, in the County of Rockingham and State of New Hampshire, identified as Town of Raymond Tax Map 22, Lot 46, bounded and described as follows:

Beginning at an iron monument set into the ground at the end of the Blake passway, so-called, by land of Everett E. Goodwin; thence Westerly by land of the Concord & Portsmouth Railroad 150 rods, more or less, to land formerly of Horatio D. Page; thence turning and running Southwesterly by land formerly of said Page 120 rods; thence Southeasterly by land of Plummer B. Carson 120 rods to land now or formerly of the heirs of Levi Moulton; thence Northeasterly by land of heirs of said Moulton 124 rods to land now or formerly of the Town of Raymond; thence Northwesterly 10 rods, more or less, by land of said Town of Raymond and land now or formerly of Edwin S. Poore to a stone monument; thence Northeasterly by land now or formerly of Edwin S. Poore, land of Stevens, land of Fellows & Abbott, land of heirs of Octavous W. Fellows and land of Everett E. Goodwin to the bound begun at. Containing 112 acres be the same more or less.

Excepting and reserving to the Town of Raymond the right of passing over the land above described or any part thereof which have heretofore been conveyed to said Town which are not to be conveyed or enlarged by this deed. Also a certain other parcel of land situated in said Raymond containing 40 acres be the same more or less, being known as and called the "Bean Land", bounded and described as follows: Southeasterly by land now or formerly of heirs of Daniel Robie; Southwesterly by land now or formerly of Joseph Davis, so-called; Westerly by land now or formerly of heirs of Horatio D. Page; Easterly, so-called, by land now or formerly of Daniel T. Wendell, and Northerly of land of Horatio D. Page.

EXCEPTED from the above-described premises those premises conveyed to Regis Tanning Company, Inc. by deed of Cora P. Falconer dated July 25, 1958 recorded at the Rockingham

County Registry of Deeds at Book 1474, Page 299, more particularly bounded and described as follows:

Two tracts of land with the buildings thereon situated in Raymond, County of Rockingham and State of New Hampshire, bounded and described as follows:

First Tract: Beginning at an iron pipe driven into the ground about 60 feet Westerly from Orchard Street, so-called, in Raymond Village by land now or formerly of the heirs of James L. Jones and land now or formerly of the Concord and Portsmouth Railroad; thence Westerly by land of said Railroad to the end of a stone wall by land now or formerly of Lewis A. Clough; thence Southeasterly by said Clough land to a large oak tree by land now or formerly of Edwin S. Poore; thence Northeasterly by a stone wall by said Poore land and land now or formerly of Fellows and Abbott to land now or formerly of the heirs of Octavous M. Fellows; thence in the same direction by land of the heirs of said Fellows to the bound first mentioned. Containing two acres, more or less.

The grantor also conveys the right of passing on foot and with vehicles for said grantee and his heirs and assigns between the land above described and the highway leading from Packer's Bridge, so-called, and Fremont as heretofore used, over land now or formerly of the Concord and Portsmouth Railroad. Said tract is also subject to rights of passage over a portion of the same for the owners of the land now or formerly of Lewis A. Clough and his assigns to pass from the land of said Clough to said highway as heretofore used by the owners of said land.

Second Tract: Beginning at the Northwest corner of land now or formerly of Aaron G. Whittier; thence North 70 degrees West 12 rods and 50 links to a spotted yellow oak tree; thence North 52 1/2° West 21 rods and 3 links to land now or formerly of the Concord and Portsmouth Railroad; thence by said Railroad Southwesterly 120 rods to land now or formerly of Horatio D. Page; thence turning and running Southwesterly by said Page land 120 rods; thence Southeasterly by land now or formerly of Daniel T. Wendell 120 rods to land now or formerly of Levie Moulton; thence Northeasterly by said Moulton land 124 rods to land now or formerly of said Aaron G. Whittier; thence Northwesterly 10 rods to the bound begun at.

Said premises referenced as contain 110 acres, more or less. There is an unobstructed passage to said tract or lot 2 rods wide agreeable to the reservation in the deed of Sherburne Blake to the Concord and Portsmouth Railroad. Reserving and excepting from said tract about 1 acre of land with the rights of way thereto that has been heretofore deeded to the Town of Raymond for its water works.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated June 30, 2006 and recorded in the Rockingham County Registry of Deeds at Book 4676, Page 1415.

This is not homestead property.

Signed this 5th day of January, 2022.

BBOC Development, LLC

By: _____
Name: Arleigh B. Greene
Title: Manager

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5 day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh B. Greene, as Manager of BBOC Development, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

_____
~~Justice of the Peace~~/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

Book: 6373 Page: 1276

E # 22001647 01/11/2022 09:25:50 AM
Book 6373 Page 1276 Page 1 of 4
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602937	25.00
TRANSFER TAX	RO112754	44,040.00
RECORDING		22.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **HARD ROCK DEVELOPMENT, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

TRACT 1

A certain tract or parcel of land located off of Old Manchester Road and Industrial Drive in the Town of Raymond, County of Rockingham and State of New Hampshire depicted as "Proposed Lot 120-1" on a plan of land entitled "Subdivision Plan of Land, Tax Map 28-3, Lot 120, Old Manchester Road & Industrial Drive, Raymond, NH" prepared by Eric C. Mitchell & Assoc, Inc. dated July 3, 2007 through revision E dated 4/23/13 recorded at the Rockingham County Registry of Deeds as Plan #D-37834 (hereinafter "Plan"); said parcel is more particularly bounded and described as follows:

Beginning at an iron pin at the southerly boundary of the abandoned railroad bed at the northeasterly corner of land now or formerly of MRCT Realty Co., LLC being the northwesterly corner of the within described premises as shown on said Plan; thence running along said abandoned railroad bed N71°36'16"E a distance of 715.25 feet to an iron pin at Proposed Lot 120 as shown on said Plan; thence turning and running along said Lot 120 S31°13'07"W a distance of 151.62 feet to an iron pin; thence turning and running still along said Lot 120 S58°46'53"E a distance of 273.87 feet to an iron pin; thence continuing along said Lot 120 S77°11'24"E a distance of 1036.64 feet to an iron pipe at Tax Map 28-3, Lot 16 as shown on said Plan; thence turning and running S67°09'04"E a distance of 147.35 feet to a drill hole in a stone wall at Tax Map 23, Lot 25 as shown on said Plan; thence turning and running along said Lot 25 and said stone wall the following eleven (11) courses and distances: S26°10'49"W, 101.34 feet; S24°17'47"W, 184.91 feet; S22°19'55"W, 52.48 feet; S24°22'25"W, 468.12 feet; S24°36'24"W, 337.71 feet; S24°14'00"W, 211.15 feet; S24°38'51"W, 213.98 feet; S33°16'21"W, 113.46 feet; S30°11'49"W, 33.21 feet; S19°03'38"W, 28.80 feet; S15°18'27"W, 14.64 feet to a drill hole at an intersection of stone walls at land now or formerly of West River Road, LLC as shown on said Plan; thence turning and running along said stone wall the following twelve (12) courses and distances:

N80°16'26"W, 195.99 feet; N79°24'32"W, 203.68 feet; N75°01'56"W, 156.10 feet; N66°33'02'W, 18.18 feet; N68°14'32"W, 36.67 feet; N73°57'31"W, 241.16 feet; N87°27'00"W, 39.02 feet; N66°33'27"W, 37.71 feet; N77°46'13"W, 148.15 feet; N79°22'58"W, 112.59 feet; N78°45'03"W, 179.83 feet; N78°45'03"W, 216.16 feet to a stone bound at land now or formerly of MRCT Realty Co., LLC as shown on said Plan; thence turning and running along said MRCT land the following eight (8) courses and distances: N20°24'26"E, 536.20 feet; N17°54'53"E, 108.93 feet; N20°30'13"E, 201.41 feet; N23°40'05"E, 106.20 feet; N21°10'51"E, 168.79 feet; N41°53'34"W, 73.21 feet; N40°25'45"W, 59.21 feet; N38°49'14"W, 146.11 feet to the iron pin at the point of beginning.

Said parcel containing 2,666,114 sq. ft. (61.21 acres), more or less, according to said Plan.

SUBJECT TO AND TOGETHER WITH the burden and benefit of certain rights of the Town of Raymond ("Raymond"), and Hardrock Development, LLC ("Hardrock") and BBOC Development, LLC ("BBOC") (collectively, the "Owners") as set forth in a written Agreement entitled "Second Amendment to Further Agreement re: Exercise of Option and Participation in Clean Up" dated May 2, 2013 and on file with the Raymond Town Clerk's office (the "Agreement"), as follows:

1. License of Raymond to use temporary construction road, to be constructed by the Owners or its assigns upon written notice from Raymond, from Industrial Drive over Lot 120-1 along the old logging road shown on the subdivision plan.

2. The right of Raymond for fifteen (15) years from the date of the Agreement to construct a permanent access road or driveway in a location reasonably and mutually agreed upon and tentatively shown on the Subdivision Plan on Lot 120-1 as "Possible Future Permanent Access Road or Driveway" (See Note 9 on the Plan) and "Proposed 50' Right of Way" on Lot 120 subject to the Reciprocal Option of the Owners or its assigns to upgrade to a Town accepted Road at Owners or its assigns' expense.

The foregoing reserved rights, unless earlier exercised, shall terminate at the earlier of fifteen (15) years from the date of the Agreement or three (3) years after the completion of a municipal waste water treatment facility on Lot 120.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated November 4, 2013 and recorded in the Rockingham County Registry of Deeds at Book 5577, Page 0135 and being shown on Tax Map 28, Block 3, Lot 120-1 on the Town of Raymond tax maps.

TRACT 2

A certain tract of land (with improvements and buildings thereon) located in Raymond, Rockingham County, New Hampshire, described as follows:

All of Lot 52-3 as identified and described on a Plan of Land entitled "Revised Subdivision Plan for Pike Industries, Inc. situated in the town of Raymond" by R.S.L. Layout & Design, Inc.,

Raymond, New Hampshire dated November 17, 1987 and recorded in the Rockingham County Registry of Deeds as Plan# D-17579, Said Lot 52-3 contains 12.8 acres, more or less.

SUBJECT TO any easements of record and the easements, conditions and restrictions shown and noted on the Plan including, but not limited to the following:

1. Easement to New England Telephone & Telegraph Company dated March 27, 1962, recorded in the Rockingham County Registry of Deeds at Book 1640, Page 39.

2. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 659.

3. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 660.

4. Easement to Public Service Company of New Hampshire and New England Telephone and Telegraph Company dated March 29, 1988, recorded in said Registry at Book 2760, Page 2530.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated June 30, 2006 and recorded in the Rockingham County Registry of Deeds at Book 4676, Page 1418 and being shown on Tax Map 22, Lot 47 on the Town of Raymond tax maps.

This is not homestead property.

Signed this 5 day of January, 2022.

Hard Rock Development, LLC

By:
Name: Arleigh Greene
Title: Manager

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5th day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh Greene, as Manager of Hard Rock Development, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

~~Justice of the~~ Peace/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC NEW HAMPSHIRE

0 foot Abutters List Report

Raymond, NH
October 05, 2022

Subject Properties:

Parcel Number:	022-000-044-000	Mailing Address:	ONYX RAYMOND LLC. 200 RESERVOIR STREET SUITE 306 NEEDHAM, MA 02494
CAMA Number:	022-000-044-000-000		
Property Address:	INDUSTRIAL DRIVE		
Parcel Number:	022-000-045-000	Mailing Address:	ONYX RAYMOND LLC. 200 RESERVOIR STREET SUITE 306 NEEDHAM, MA 02494
CAMA Number:	022-000-045-000-000		
Property Address:	INDUSTRIAL DRIVE		
Parcel Number:	022-000-046-000	Mailing Address:	ONYX RAYMOND LLC. 200 RESERVOIR STREET SUITE 306 NEEDHAM, MA 02494
CAMA Number:	022-000-046-000-000		
Property Address:	BATCHELDER ROAD		
Parcel Number:	022-000-047-000	Mailing Address:	ONYX RAYMOND LLC. 200 RESERVOIR STREET SUITE 306 NEEDHAM, MA 02494
CAMA Number:	022-000-047-000-000		
Property Address:	INDUSTRIAL DRIVE		
Parcel Number:	028-003-120-001	Mailing Address:	ONYX RAYMOND LLC. 200 RESERVOIR STREET SUITE 306 NEEDHAM, MA 02494
CAMA Number:	028-003-120-001-000		
Property Address:	INDUSTRIAL DRIVE		

Abutters:

Parcel Number:	022-000-043-000	Mailing Address:	MRCT REALTY CO. , LLC P.O. BOX 449 LAWRENCE, MA 01842
CAMA Number:	022-000-043-000-000		
Property Address:	10 INDUSTRIAL DRIVE		
Parcel Number:	022-000-048-000	Mailing Address:	RAYMOND AMBULANCE, INC 1 SCRIBNER ROAD RAYMOND, NH 03077
CAMA Number:	022-000-048-000-000		
Property Address:	OLD MANCHESTER ROAD		
Parcel Number:	023-000-024-000	Mailing Address:	TUCK REALTY CORPORATION P.O. BOX 190 EXETER, NH 03833
CAMA Number:	023-000-024-000-000		
Property Address:	ROUTE 101		
Parcel Number:	023-000-025-000	Mailing Address:	WELCH,JOSEPH & JOHN & ARDELL & INEZ BETSY PATTERSON & ROBIN PROULX 49 RAYMOND ROAD, ROUTE 156 NOTTINGHAM, NH 03290
CAMA Number:	023-000-025-000-000		
Property Address:	MAIN STREET		
Parcel Number:	027-004-032-000	Mailing Address:	BAIN, WARREN P.O. BOX 123 RAYMOND, NH 03077
CAMA Number:	027-004-032-000-000		
Property Address:	24 OLD MANCHESTER ROAD		

0 foot Abutters List Report

Raymond, NH
October 05, 2022

Parcel Number:	027-004-033-000	Mailing Address:	RAYMOND SCHOOL DISTRICT
CAMA Number:	027-004-033-000-000		43 HARRIMAN HILL ROAD
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	028-003-016-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-016-000-000		4 EPPING STREET
Property Address:	ORCHARD STREET		RAYMOND, NH 03077
Parcel Number:	028-003-043-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-043-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077
Parcel Number:	028-003-120-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-120-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077

STATE OF NEW HAMPSHIRE, DEPT. OF TRANSPORTATION, 7 HAZEN DR, CONCORD, NH 03301

JONES & BEACH ENGINEERS, INC., ATTN. WAYNE MORRILL, PO BOX 219, STRATHAM, NH 03385

ONYX PARTNERS LTD., ATTN. ANTON MELCHIONDA, 200 RESERVOIR ST, NEEDHAM, MA 02494

GOVE ENVIRONMENTAL SERVICES, ATTN. LUKE HURLEY, 8 CONTINENTAL DR, UNIT H, EXETER, NH 03833

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Étiquettes d'adresse Easy Peel
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Feed paper - bottom first
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Use Avery Template 5160
Easy Peel® Address Labels
Feed along line to expose Pop-up Edge
AVERY 8460

BAIN, WARREN
P.O. BOX 123
RAYMOND, NH 03077

MRCT REALTY CO. , LLC
P.O. BOX 449
LAWRENCE, MA 01842

RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING ST
RAYMOND, NH 03077

RAYMOND, TOWN OF
4 EPPING STREET
RAYMOND, NH 03077

TUCK REALTY CORPORATION
P.O. BOX 190
EXETER, NH 03833

WELCH,JOSEPH & JOHN & ARD
BETSY PATTERSON & ROBIN P
49 RAYMOND ROAD, ROUTE 156
NOTTINGHAM, NH 03290

STATE OF NEW HAMPSHIRE
DEPT. OF TRANSPORTATION
7 HAZEN DR
CONCORD, NH 03301

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ATTN. LUKE HURLEY
8 CONTINENTAL DR, UNIT H
EXETER, NH 03833

October 5, 2022

Raymond, NH

1 inch = 550 Feet

0 550 1101 1652

CAI Technologies
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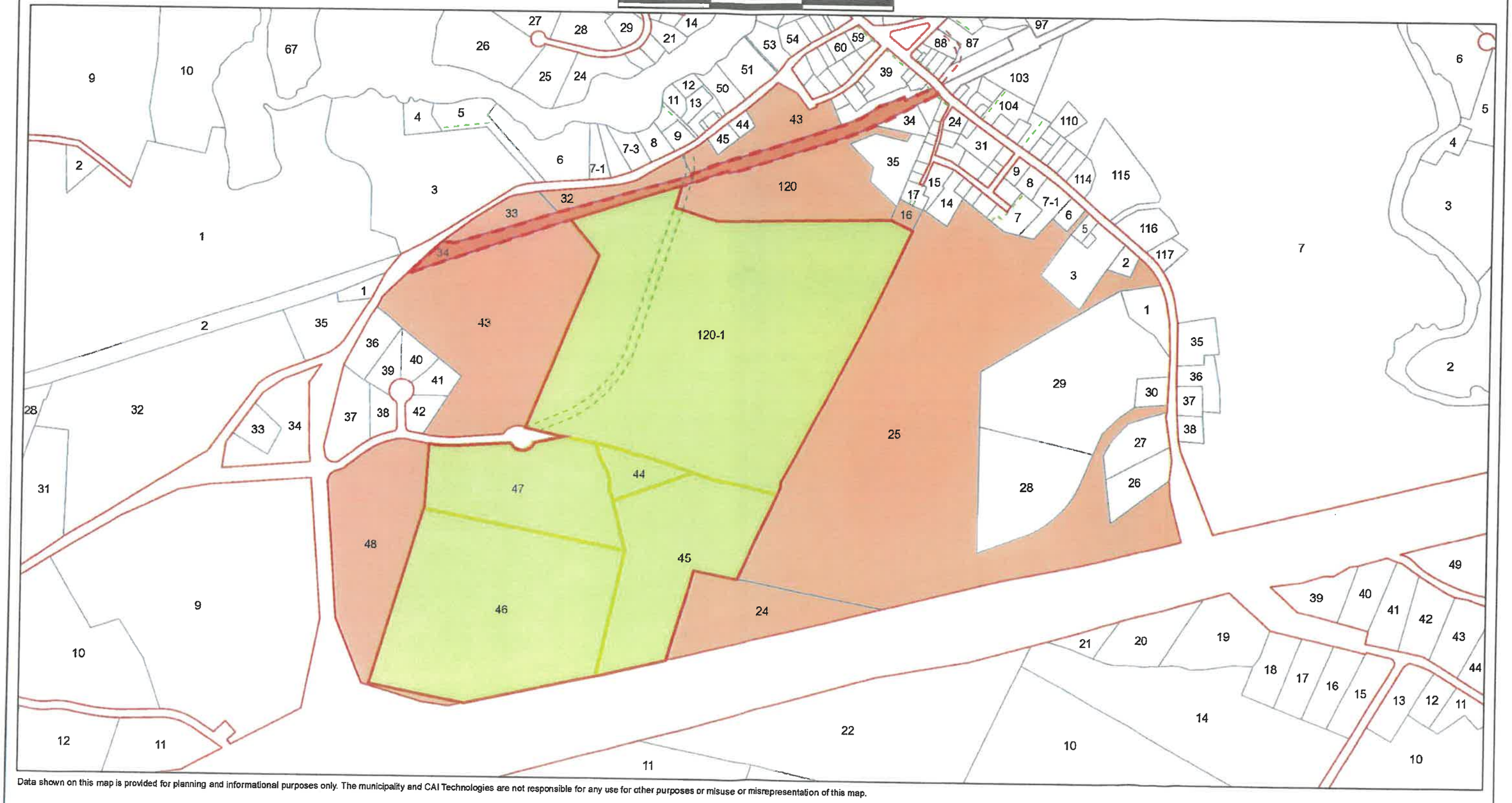


Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

TOWN OF RAYMOND, NEW HAMPSHIRE DEPARTMENT
OF PUBLIC WORKS
603-895-7036

DRIVEWAY PERMIT

PERMIT NUMBER: _____ DATE: 8-17-22

Is this a temporary permit? ☐ Yes ☒ No

Pursuant to NH RSA 236:13, pertinent provisions of the TOWN OF RAYMOND, NEW HAMPSHIRE code, regulations and relevant amendments, anyone wishing to move an existing driveway or install a new driveway to access a Town controlled road must secure an approved DRIVEWAY PERMIT from the Department of Public Works.

Applicant Name: Onyx Partners LTD

Fee Paid: _____

Applicant Address: 60 Center Street, Dover, MA

Map / Lot Number: Map 28, Lot 120-1

Cell Phone: 617-680-9308

Email: anton@onyxpartnersltd.com

PERMIT FEE:	$94.00
TEMPORARY PERMIT FEE:	$16.00

DRIVEWAY INFORMATION:

Driveway Address:

Driveway status? New ☐ Existing ☒

Will this driveway provide access to a residential use? Yes ☐ No ☒

Will driveway serve more than one dwelling unit? Yes ☐ No ☒

Will this driveway provide access to a commercial use? Yes ☒ No ☐

Proposed surface material? Asphalt Pavement ☒ Concrete Pavement ☐ Gravel ☐

Will construction impact? Sidewalk ☐ Curbing ☐ Stonewall ☐ Tree(s) with Town ROW ☐

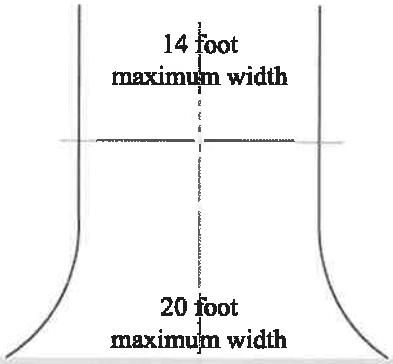
The Applicant / Property Owner, heirs, successors and assigns hereby agree that:

1. This driveway shall be installed in accordance with the attached Driveway Design and Construction Standards and any conditions to the approval of this Permit.
2. The Property Owner, heirs, successors and assigns will have continuing responsibility for the maintenance and adequacy of the driveway, grading, drainage, culvert, headwalls, vegetation impacting sight distance and other improvements made in connection with this driveway work.
3. This driveway shall be used for access only. An approval does not authorize parking within the Town Right of Way.
4. The Property Owner, heirs, successors and assigns shall hold harmless the Town of Raymond, its agents, employees and Boards against any action for injury or damage sustained by reason of exercising this DRIVEWAY PERMIT.
5. This parcel shall have no more than one driveway.
6. The final decision regarding driveway location and construction requirements rest with the Director of Public Works.
7. This Permit will expire in 1 year from the approval date if work is not completed per requirements.

PERMIT NUMBER: _____

Design and Construction Standards

1. Within 25 feet of the Town road, a driveway shall not exceed 14 feet in width and transition to a maximum of 20 feet. The transition shall include a radius at each sideline of the driveway where it meets the road. The radius shall be a minimum of 8 feet.
2. To protect the road edge, all driveways shall be paved for a minimum distance of 10 feet from the road edge for the full width of the driveway and its radius transitions.
3. Pavement shall consist of bituminous asphalt concrete, concrete or smooth paving stones.
4. The driveway surface may change to gravel or other surface types beyond the required 10 foot paved apron.
5. Driveways shall meet the sideline of the street at 90 degrees.
6. Driveway grading at the driveway apron where it meets the road shall slope back away from the road surface at a minimum of 2% slope. No runoff from the driveway shall flow into the road.



Alignment of driveway
to meet the road edge at 90 degrees

CONTRACTOR: Tom Severino, Severino Trucking Date: 8-17-22

Office Phone Number: 603-483-7002 Cell Phone: 603-234-8502

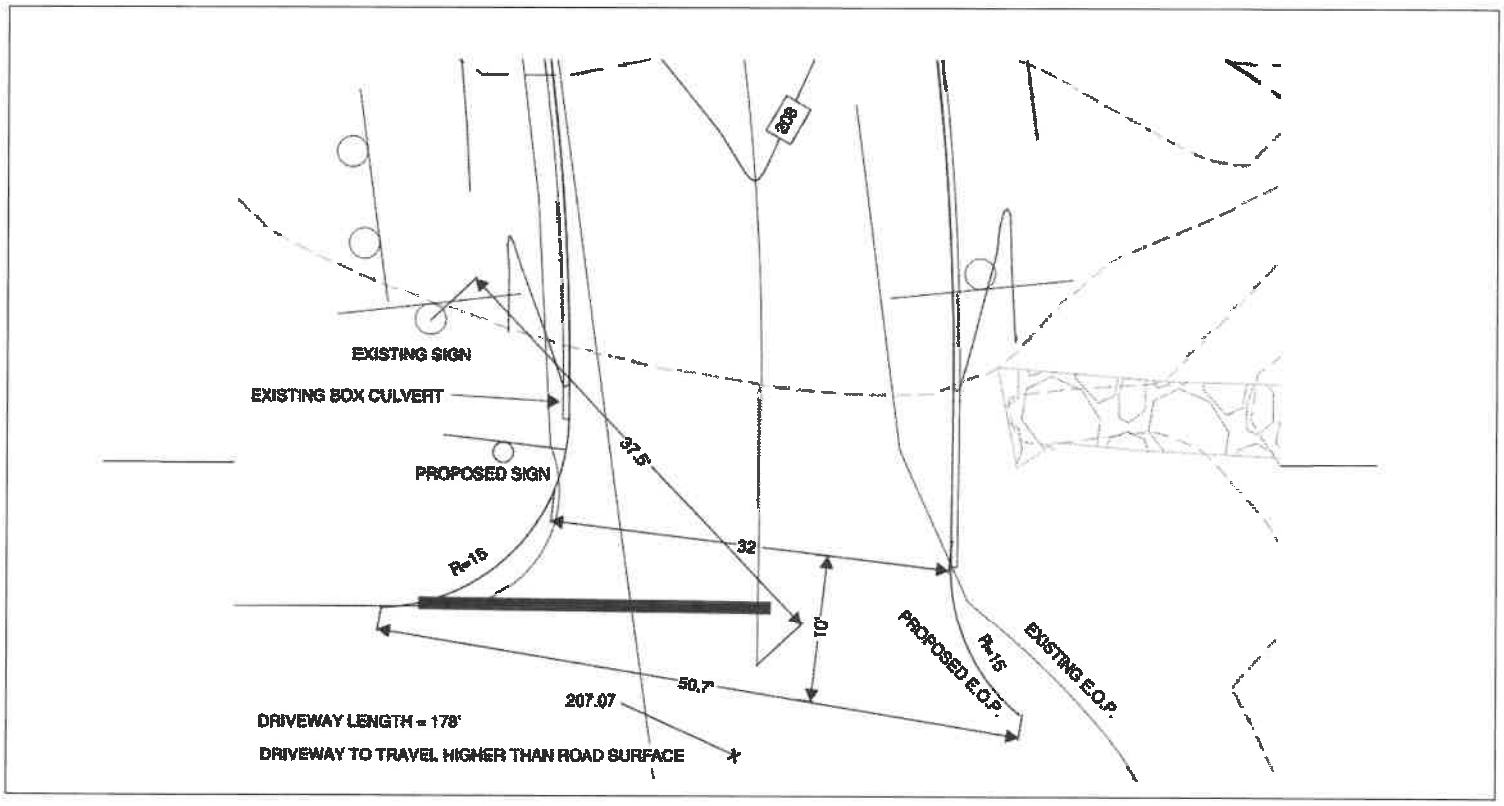
☐ APPROVED ☐ DENIED

DIRECTOR OF PUBLIC WORKS: _____ Date: _____

PERMIT NUMBER: _____

Provide a sketch of the proposed driveway location, dimensional and topographic information.

1. Location information to include horizontal distance from the point where the driveway center line meets the edge of the road to a nearby fixed landmark such as a utility pole.
2. Dimensional information to include driveway width at the street, width at a point 10 feet in from the edge of the road pavement, radius, overall length of driveway.
3. Topographic information to identify whether the driveway profile will travel higher than the road surface or drop below the road surface. Provide information regarding existing road side drainage facilities.



CONDITIONS OF APPROVAL:

TABLE OF CONTENTS

ITEM:	DATE:
1. NHDES Response Email	11/15/2022
2. Response Letter AoT	10/24/2022
3. AoT Review Letter	10/19/2022
4. AoT Acceptance Letter	08/31/2022
5. Wetland Application Acceptance Letter	08/26/2021
6. AoT Application	08/18/2022
7. AoT Amendment Submission	02/23/2022

Erik Poulin

From: Hansen, Michael <Michael.C.Hansen@des.nh.gov>
Sent: Tuesday, November 15, 2022 11:53 AM
To: Erik Poulin
Subject: RE: JBE 21130 Raymond, Industrial Drive - AoT Application #220830-160 - NHB21-3049

Erik,

The ground water monitoring plan needs to be submitted and approved prior to issuance of the AoT permit and also sign off and approval by
NH Fish & Game.

Also please provide a copy of the SWPPP that was developed for the project.

If you feel that these won't be done with the 120 day dead line an extension might be in order for the project.

REMAINING ITEMS STATUS:
1. Groundwater Monitoring Plan included within Environmental Section of PB packet.
2. Active SWPPP on site, included within Excavation Permit Submission Case # 2022-010.
3. Awaiting final sign off from NH Fish and Game.

Michael Hansen, P.E., CFM
New Hampshire Department of Environmental Services
Alteration of Terrain
PO Box 95
Concord, NH 03301-0095
603-271-1087

From: Stefanie Michaud <smichaud@jonesandbeach.com>
Sent: Thursday, November 10, 2022 2:08 PM
To: Hansen, Michael <Michael.C.Hansen@des.nh.gov>
Cc: Wayne Morrill <wmorrill@Jonesandbeach.com>; Erik Poulin <epoulin@jonesandbeach.com>; Douglas Richardson <doug@onyxpartnersltd.com>; anton@onyxpartnersltd.com; Joseph Foley <jmfoley48@comcast.net>
Subject: JBE 21130 Raymond, Industrial Drive - AoT Application #220830-160 - NHB21-3049

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Good Afternoon Michael,

Please follow the link below to download the AoT resubmission documents for the above-mentioned property. We have mailed you a hard copy as well.

2022-11-10 NHDES AoT Resubmission

Stefanie Michaud
Office Manager
Jones&Beach Engineers, Inc.
85 Portsmouth Avenue
PO Box 219
Stratham, NH 03885
(603) 772-4746 (ext. #119)
smichaud@jonesandbeach.com
http://www.jonesandbeach.com

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EXTERNAL SENDER: Use caution when following links or opening attachments.

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

October 24, 2022

NHDES Alteration of Terrain Bureau
Mr. Michael Hansen
P. O. Box 95
Concord, NH 03302-0095

RE: Response Letter
Industrial Drive, Raymond, NH
Tax Map 22, Lot 47
JBE 21130

Dear Mr. Hansen,

We are in receipt of your comments, dated October 19, 2022. Review comments are listed below with our responses in bold.

1. *Due to proximity of the Regis Tannery site, that if any visible signs of contamination are encountered during earthwork (i.e. skins/hides, discolored soil, odors etc.) that work should stop and NHDES be consulted.*
   RESPONSE: If any visible signs of contamination are encountered during earthwork, that work will stop and NHDES will be consulted, Note 30 on Sheet C3 has been added requiring this.

2. *On the plan cover sheet, the incorrect NHB number and project description are refenced in the NHF&G notes.*
   RESPONSE: The plan cover sheet has been corrected to reference the correct NHB number and project description.

3. *Indicate whether a request for consultation with New Hampshire Fish & Game Department relative to threatened and endangered species has been submitted as required by rule Env-Wq 1503.19(h). Once the assessment is deemed complete and adequate, the plans must be revised as necessary to incorporate any recommendations from the NHFG resulting from their review of the wildlife biologist's assessment report. Please provide correspondence with NHFG and provide that NHFG has been satisfied with the updates.*
   RESPONSE: A request for consultation with NH Fish & Game Department has been submitted. We are awaiting NH Fish & Game for their comment.

4. *In addition to the NHFG conditions above or project specific conditions recommended by NHFG, details for manufactured erosion and sediment control BMPs on the plans, such as erosion control blankets, shall specify the following:*
   a. "There shall be no plastic, or multi-filament or monofilament polypropylene netting or mesh with an opening size of greater than 1/8 inches material utilized." (Not applicable to turf reinforcement mats).
   b. "Turf reinforcement mats shall be covered with soil to prevent exposure of the mats to the surface."

   Also, on the detail, recommend a certain product meeting the criteria of paragraph a. on the plans, if not already provided.

   RESPONSE: Notes 14 & 15 in the temporary erosion control notes has been added to satisfy items a & b. Notes has been added to erosion and control details referencing these NH Fish & Game criteria.

5. *It is estimated that greater than 5,000 cy of rock removal will be required, you will be required to identify drinking water wells located within 2000 feet of the proposed blasting activities and develop a groundwater quality sampling program to monitor for nitrate and nitrite either in the drinking water supply wells or in other wells that are representative of the drinking water supply wells in the area (Env-Wq 1503.11(k)(2)). The plan must be submitted to NHDES for approval prior to permitting, and must include pre and post blast water quality monitoring. The groundwater sampling program must be implemented as approved by NHDES.*

   RESPONSE: Drinking water wells within 2,000 feet of the proposed blasting activities have been on the attached Well Map attached. A groundwater quality sampling program be developed by Maine Drilling and Blasting Company and will be submitted for approval to NHDES prior to blasting activities.

6. *Per Env-Wq 1502.30(b)(10) the site is considered a High-load area. A Source Control plan should be developed for this site and the roof will additional treatment.*
   RESPONSE: The project has an active SWPPP with the EPA. Regular SWPPP inspections are taking place and will be conducted throughout construction until the project is stabilized. The source control plan shall consist of the SWPPP, erosion control measures, stormwater design, and environmental monitoring that is proposed on site.

   Corrugated metal pipe has been added within the Underground Stone Infiltration / Detention System. This pipe will be weir controlled and provide adequate pretreatment setting volume for the roof runoff.

7. *The Lamprey River Local Advisory Committee was notified of this project by DES May 22, 2017. The Committee has provided comments. Please provide response to comments.*
   RESPONSE: All LRAC comments were responded to in a LRAC response package that was submitted on October 21, 2022. A copy was submitted to Ridge Mauck on October 21, 2022.

8. *Why is there no pretreatment proposed for infiltration pond 3.*
   RESPONSE: 36" perforated corrugated metal pipe has been added to the two inlet drain manholes. These will be wear controlled to provide sufficient pretreatment

settling volume. BMP sheets have been added to the drainage report and details have been added to Sheet D7.

9. *Numerous warning notes in HydroCad Model. Please review and resubmit updated model. Several nodes have Q out greater than Q in.*
RESPONSE: Warnings have been reviewed. Oscillations have also been reviewed and have been greatly reduced. The remaining oscillations remaining have reduced severity ratings within acceptable levels or have been reviewed to ensure the hydrograph is functioning properly.

10. *After any necessary revisions to the HydroCad analysis to respond to the above, submit a revised summary table of the 2-year, 10-year and 50-year pre- and post-development flows, as well as the 2-year pre- and post-development runoff volumes or 1-year flow (pre) as necessary to show compliance with the requirements of Env-Wq 1507.059(b). Also, include a revision date on the HydroCad analysis, such as in the file name or in the Project Notes screen.*
RESPONSE: The summary table has been revised to reflect the updated model. A description of how the design complies with Env-Wq 1507.05 is also listed in the Executive Summary section of the drainage report. The revision date has been inputted in HydroCad prior to preparing the data.

11. *When project activities are located within 50 feet of a water body or wetland, please show a double row of perimeter controls on the plans.*
RESPONSE: The plans have been updated to show a double row of perimeter controls.

12. *Pursuant to Env-Wq 1507.07, Long-Term Maintenance, provide the following with the Inspection and Maintenance Manual:*
    a. *a deicing log;*
    b. *a plan clearly showing the locations of all the stormwater practices described in the I&M manual (8.5" x 11" or 11" x 17" sheet is recommended);*
    c. *actions to be taken if any invasive species grow in the stormwater management practices;*
    d. *include a requirement to provide photographs of each BMP; and*
    e. *include a note indicating that inspection and maintenance records must be provided to DES upon request.*
RESPONSE: A salt minimization plan has been prepared for the project and will be included with the O & M Manual. A Operation and Maintenance Map has been added to the manual. The requirement to provide photographs of each BMP, and a note indicating the inspection and maintenance records must be provided to DES upon request have all been added.

13. *The total area of disturbance exceeds 5 acres. Include a plan sheet that shows the construction will be phased and clearly indicate that each area must be stabilized before advancing to a successive phase. (Env-Wq 1505.03 and Env-Wq 1504.06(l)).*
RESPONSE: Given the unique circumstances of the existing site being a active rock quarry we would be requesting the disturbance area be in excess of 5 acres and we would commit to additional monitoring on site. The current quarry operation currently is approximately 17 acres.

14. *Env-Wq 1503.21(c) requires that that the permit holder and a qualified engineer certify that the project was completed in accordance with the approved plans, or that deviations were made which did not require an amended or new permit. A permit condition will require this certification. (This is offered as informational only. No reply required.)*
    RESPONSE: Noted.

15. *Pursuant to Env-Wq 1503.15(b), changes to the revised plans are to be called out and a revision date must be added to each page that has been changed. Graphical revision call-outs should be included on the plans. If any changes to the plans or the hydrologic/hydraulic analysis were made other than those identified above, please indicate what additional changes were made in your response letter. Please only send copies of revised plan sheets.*

    RESPONSE: A revision date has been added to any plan pages that have changed and revised plan sheets only have been sent.

Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Erik Poulin, P.E.
Associate/Project Manager

cc: Douglas Richardson ,Onyx Partners, Ltd (via email)
Anton Melchionda, Onyx Partners, Ltd (via email)
Joseph Foley, Lamprey River Advisory Committee (via email)

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

REQUEST FOR MORE INFORMATION

October 19, 2022

Mr. Anton Melchionda
Onyx Partners LTD
60 Center Street
Dover, MA 02030
(sent via email to: anton@onyxpartnersltd.com)

RE: Alteration of Terrain Permit Application #220830-160
Raymond Distribution
Tax Map 22 & 28, Lots 44-47 & 120-1, Block 3 – Raymond, NH

Dear Mr. Melchionda:

The Department of Environmental Services (DES) is in receipt of an application and supporting plans and information, for an Alteration of Terrain Permit for the above referenced project. After review of the information submitted, the following items need to be addressed for DES to make a **final determination** on the application for a permit:

1. Due to proximity of the Regis Tannery site, that if any visible signs of contamination are encountered during earthwork (i.e. skins/hides, discolored soil, odors etc.) that work should stop and NHDES be consulted.
2. On the plan cover sheet, the incorrect NHB number and project description are refenced in the NHF&G notes.
3. Indicate whether a request for consultation with New Hampshire Fish & Game Department relative to threatened and endangered species has been submitted as required by rule Env-Wq 1503.19(h). Once the assessment is deemed complete and adequate, the plans must be revised as necessary to incorporate any recommendations from the NHFG resulting from their review of the wildlife biologist's assessment report. Please provide correspondence with NHFG and provide that NHFG has been satisfied with the updates.
4. In addition to the NHFG conditions above or project specific conditions recommended by NHFG, details for manufactured erosion and sediment control BMPs on the plans, such as erosion control blankets, shall specify the following:
    a. "There shall be no plastic, or multi-filament or monofilament polypropylene netting or mesh with an opening size of greater than 1/8 inches material utilized." (Not applicable to turf reinforcement mats).
    b. "Turf reinforcement mats shall be covered with soil to prevent exposure of the mats to the surface."

    Also, on the detail, recommend a certain product meeting the criteria of paragraph a. on the plans, if not already provided.

5. It is estimated that greater than 5,000 cy of rock removal will be required, you will be required to identify drinking water wells located within 2000 feet of the proposed blasting activities and develop a

groundwater quality sampling program to monitor for nitrate and nitrite either in the drinking water supply wells or in other wells that are representative of the drinking water supply wells in the area (Env-Wq 1503.11(k)(2)). The plan must be submitted to NHDES for approval prior to permitting, and must include pre and post blast water quality monitoring. The groundwater sampling program must be implemented as approved by NHDES.

6. Per Env-Wq 1502.30(b)(10) the site is considered a High-load area. A Source Control plan should be developed for this site and the roof will additional treatment.
7. The Lamprey River Local Advisory Committee was notified of this project by DES May 22, 2017. The Committee has provided comments. Please provide response to comments.
8. Why is there no pretreatment proposed for infiltration pond 3.
9. Numerous warning notes in HydroCad Model. Please review and resubmit updated model. Several nodes have Q out greater than Q in.
10. After any necessary revisions to the HydroCad analysis to respond to the above, submit a revised summary table of the 2-year, 10-year and 50-year pre- and post-development flows, as well as the 2-year pre- and post-development runoff volumes or 1-year flow (pre) as necessary to show compliance with the requirements of Env-Wq 1507.059(b). Also, include a revision date on the HydroCad analysis, such as in the file name or in the Project Notes screen.
11. When project activities are located within 50 feet of a water body or wetland, please show a double row of perimeter controls on the plans.
12. Pursuant to *Env-Wq 1507.07*, *Long-Term Maintenance*, provide the following with the Inspection and Maintenance Manual:
    a. a deicing log;
    b. a plan clearly showing the locations of all the stormwater practices described in the I&M manual (8.5” x 11” or 11” x 17” sheet is recommended);
    c. actions to be taken if any invasive species grow in the stormwater management practices;
    d. include a requirement to provide photographs of each BMP; and
    e. include a note indicating that inspection and maintenance records must be provided to DES upon request.
13. The total area of disturbance exceeds 5 acres. Include a plan sheet that shows the construction will be phased and clearly indicate that each area must be stabilized before advancing to a successive phase. (Env-Wq 1505.03 and Env-Wq 1504.06(l)).
14. Env-Wq 1503.21(c) requires that that the permit holder and a qualified engineer certify that the project was completed in accordance with the approved plans, or that deviations were made which did not require an amended or new permit. A permit condition will require this certification. (This is offered as informational only. No reply required.)
15. Pursuant to Env-Wq 1503.15(b), changes to the revised plans are to be called out and a revision date must be added to each page that has been changed. Graphical revision call-outs should be included on the plans. If any changes to the plans or the hydrologic/hydraulic analysis were made other than those identified above, please indicate what additional changes were made in your response letter. <u>Please only send copies of revised plan sheets.</u>

In addition, please be prepared to submit a CD within one week after the permit approval. The CD needs to contain all of the information submitted to the department for a permit approval, including the application, the approved plans, etc; all in PDF format. A hard copy of the *revised* plan sheets and drainage report are still needed for approval.

Please be aware that pursuant to RSA 485-A:17, **all the information requested above must be provided in a single and complete response within the next 120 days, by February 16, 2023, or your application will be denied**. Please include the file number on your response to this request, as well as a narration of the changes from the current application. If you have any questions, please call me at (603) 271-1087or email at: Michael.C.Hansen@des.nh.gov.

Sincerely,

Michael Hansen, P.E.
Alteration of Terrain Bureau

ec: Raymond Planning Board
Wayne Morrill, Jones and Beach Engineers, Inc.
Eben Lewis, NHDES Wetlands Bureau
Jason Foley, Lamprey Rivers LAC

JBE 21130

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

NOTICE OF ACCEPTANCE OF PERMIT APPLICATION
LAND RESOURCES MANAGEMENT
ALTERATION OF TERRAIN BUREAU

August 31, 2022

RAYMOND MUNICIPAL CLERK
4 EPPING ST
RAYMOND NH 03077

Re: Alteration of Terrain (AoT) Bureau Permit Application (RSA 485-A:17); NHDES File Number: 220830-160
Project Name: Raymond Distribution
Subject Property: Tax Map# 22 & 28, Lot# 44-47 & 120-1, Block # 3

Dear Sir or Madam:

Pursuant to RSA 541-A:39, please be advised that the New Hampshire Department of Environmental Services (NHDES) AoT Bureau accepted an application on August 31, 2022 for the permit program and subject property referenced above. The application requests a permit to disturb approximately 1,783,333+ square feet of earth at the subject property.

Pursuant to Env-Wq 1503.05 (f), the applicant is required to provide a copy of the application and plans to the municipality. If you have not received the required information, please contact the agent: **JONES AND BEACH ENGINEERS INC C/O WAYNE MORRILL, 85 PORTSMOUTH AVE, STRATHAM NH 03885**.

If you wish to comment on the application, please submit your comments by **October 9, 2022**. All comments should reference the NHDES file number, and mailed to the following address: **NHDES ALTERATION OF TERRAIN BUREAU, PO BOX 95, CONCORD NH 03302-0095**.

Please provide a copy of this notice to all interested departments, boards and commissions. Also note that under current state law and regulations, NHDES is not authorized to consider local zoning and regulatory issues pertaining to a project; these must be addressed at the local level.

If you have any questions, please contact the NHDES Alteration of Terrain Bureau at (603) 271-3568.

Sincerely,

Alteration of Terrain Bureau
Land Resources Management

cc: Anton Melchionda, Onyx Partners LTD
Wayne Morrill, Jones and Beach Engineers, Inc.
Joseph Foley, Lamprey Rivers

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

August 26, 2022

ONYX PATNERS LLC
C/O ANTON MELCHIONDA
60 CENTRE
DOVER MA 02030

Re: Administrative Completeness Notice – Standard Dredge and Fill Wetlands Permit Application (RSA 482-A)
NHDES File Number: 2022-02474
Subject Property: Industrial Dr, Raymond, Tax Map #22 & 28, Lot #44,45,46,47 & 120-1, Block #3

Dear Applicant:

On August 26, 2022, the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau received the above-referenced Standard Dredge and Fill Wetlands Permit Application (Application). On August 26, 2022, the NHDES determined the Application was administratively complete in accordance with RSA 482-A:3, XIV.

The Application has been added to the technical review queue for compliance review. This application shall be reviewed in accordance with the timeframes established under RSA 482-A:3, XIV. The language of RSA 482-A:3, XIV has been provided on the reverse of this document for your reference. The status of the application is available at https://www4.des.state.nh.us/lrmonestop/.

Please note this letter is **not** a permit or authorization to begin work. If you have any questions, please contact the Wetlands Bureau at (603) 271-2147.

Sincerely,

Brandy Holmes
Application Receipt Center, Wetlands Bureau
Land Resources Management, Water Division

cc: Brenden Walden, Gove Environmental Services, Inc.

(A) Approve the application, in whole or in part, and issue a permit; or
(B) Deny the application and issue written findings in support of the denial.

(3) If the department does not issue either a permit or a written denial within the 14-day period, the applicant shall be deemed to have a permit by default and may proceed with the project as presented in the application. The authorization provided by this subparagraph shall not relieve the applicant of complying with all requirements applicable to the project, including but not limited to requirements established in or under this chapter, RSA 485-A relating to water quality, and federal requirements.

(4) Upon receipt of a written request from an applicant, the department shall issue written confirmation that the applicant has a permit by default pursuant to subparagraph (b)(3), which authorizes the applicant to proceed with the project as presented in the application and requires the work to comply with all requirements applicable to the project, including but not limited to requirements established in or under this chapter, and RSA 485-A relating to water quality, and federal requirements.

(c) If extraordinary circumstances prevent the department from conducting its normal function, time frames prescribed by this paragraph shall be suspended until such condition has ended, as determined by the commissioner.

(d) The time limits prescribed by this paragraph shall not apply to an application filed after the applicant has already undertaken some or all of the work covered by the application, or where the applicant has been adjudicated after final appeal, or otherwise does not contest, the department's designation as a chronic non-complier in accordance with rules adopted pursuant to this chapter.

(e) Any request for an amendment to an application or permit shall be submitted to the department on the appropriate amendment form. Any request for a significant amendment to a pending application or an existing permit which changes the footprint of the permitted fill or dredge area shall be deemed a new application subject to the provisions of RSA 482-A:3, I and the time limits prescribed by this paragraph. "Significant amendment" means an amendment which changes the proposed or previously approved acreage of the permitted fill or dredge area by 20 percent or more, includes a prime wetland, or elevates the project's impact classification. This meaning of "significant amendment" shall not apply to an application amendment that is in response to a request from the department.

(f) The department may extend the time for rendering a decision under subparagraphs (a)(3)(D) and (a)(4)(D), without the applicant's agreement, on an application from an applicant who, within the 5 years preceding the application, has been determined, after the exhaustion of available appellate remedies, to have failed to comply with this chapter or any rule adopted or permit or approval issued under this chapter, or to have misrepresented any material fact made in connection with any activity regulated or prohibited by this chapter, pursuant to an action initiated under RSA 482-A:13, RSA 482-A:14, or RSA 482-A:14-b. The length of such an extension shall be no longer than reasonably necessary to complete the review of the application, but shall not exceed 20 days unless the applicant agrees to a longer extension. The department shall notify the applicant of the length of the extension.

(g) The department may suspend review of an application for a proposed project on a property with respect to which the department has commenced an enforcement action against the applicant for any violation of this chapter, RSA 483-B, RSA 485-A:17, or RSA 485-A:29-44, or of any rule adopted or permit or approval issued pursuant to this chapter, RSA 483-B, RSA 485-A:17, or RSA 485-A:29-44. Any such suspension shall expire upon conclusion of the enforcement action and completion of any remedial actions the department may require to address the violation; provided, however, that the department may resume its review of the application sooner if doing so will facilitate resolution of the violation. The department shall resume its review of the application at the point the review was suspended, except that the department may extend any of the time limits under this paragraph and its rules up to a total of 30 days for all such extensions. For purposes of this subparagraph, "enforcement action" means an action under RSA 482-A:13, RSA 482-A:14, RSA 482-A:14-b, RSA 483-B:18, RSA 485-A:22, RSA 485-A:42, or RSA 485-A:43.

ALTERATION OF TERRAIN PERMIT APPLICATION

Water Division/ Alteration of Terrain Bureau/ Land Resources Management
Check the Status of your Application: www.des.nh.gov/onestop

RSA/ Rule: RSA 485-A:17, Env-Wq 1500

Administrative Use Only	Administrative Use Only	Administrative Use Only	File Number:
			Check No.
			Amount:
			Initials:

1. APPLICANT INFORMATION (INTENDED PERMIT HOLDER)		
Applicant Name: Onyx Partners LTD	Contact Name: Anton Melchionda	
Email: anton@onyxpartnersltd.com	Daytime Telephone: 617-680-9308	
Mailing Address: 60 Center Street		
Town/City: Dover	State: MA	Zip Code: 02030
2. APPLICANT'S AGENT INFORMATION If none, check here: ☒		
Business Name: Jones and Beach Engineers Inc.	Contact Name: Erik Poulin	
Email: epoulin@jonesandbeach.com	Daytime Telephone: (603) 772-4746	
Address: 85 Portsmouth Ave.		
Town/City: Stratham	State: NH	Zip Code: 03885
3. PROPERTY OWNER INFORMATION (IF DIFFERENT FROM APPLICANT)		
Applicant Name: Onyx Partners LTD	Contact Name: Anton Melchionda	
Email: anton@onyxpartnersltd.com	Daytime Telephone: 617-680-9308	
Mailing Address: 60 Center Street		
Town/City: Dover	State: MA	Zip Code: 02030
4. PROPERTY OWNER'S AGENT INFORMATION If none, check here: ☒		
Business Name:	Contact Name:	
Email:	Daytime Telephone:	
Address:		
Town/City:	State:	Zip Code:
5. CONSULTANT INFORMATION If none, check here: ☐		
Engineering Firm: Jones and Beach Engineers Inc.	Contact Name: Wayne Morrill	
Email: wmorrill@Jonesandbeach.com	Daytime Telephone: (603) 772-4746	
Address: 85 Portsmouth Ave.		
Town/City: Stratham	State: NH	Zip Code: 03885

6. PROJECT TYPE

☐ Excavation Only ☐ Residential ☒ Commercial ☐ Golf Course ☐ School ☐ Municipal
☐ Agricultural ☐ Land Conversion ☐ Other:

7. PROJECT LOCATION INFORMATION

Project Name: Raymond Distribution

Street/Road Address: Industrial Drive

Town/City: Raymond	County: Rockingham

Tax Map: 22 & 28	Block: 3	Lot Number: 44-47, 120-1	Unit: N/A

Location Coordinates: 43.031185, -71.18713 ☒ Latitude/Longitude ☐ UTM ☐ State Plane

Post-development, will the proposed project withdraw from or directly discharge to any of the following? If yes, identify the purpose.

1. Stream or Wetland Purpose: Drainage	☒ Yes ☐ No	☐ Withdrawal	☒ Discharge
2. Man-made pond created by impounding a stream or wetland Purpose:	☐ Yes ☒ No	☐ Withdrawal	☐ Discharge
3. Unlined pond dug into the water table Purpose:	☐ Yes ☒ No	☐ Withdrawal	☐ Discharge

Post-development, will the proposed project discharge to:

- A surface water impaired for phosphorus and/or nitrogen? ☒ No ☐ **Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen**
- A Class A surface water or Outstanding Resource Water? ☒ No ☐ **Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen**
- A lake or pond not covered previously? ☐ No ☒ **Yes - include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond**

Is the project a High Load area? ☒ Yes ☐ No
If yes, specify the type of high load land use or activity: Fleet storage

Is the project within a Water Supply Intake Protection Area (WSIPA)? ☐ Yes ☒ No
Is the project within a Groundwater Protection Area (GPA)? ☐ Yes ☒ No
Will the well setbacks identified in Env-Wq 1508.02 be met? ☒ Yes ☐ No

Note: Guidance document titled "*Using NHDES's OneStop WebGIS to Locate Protection Areas*" is available online. For more details on the restrictions in these areas, read Chapter 3.1 in Volume 2 of the NH Stormwater Manual.

Is any part of the property within the 100-year floodplain? ☐ Yes ☒ No
If yes: Cut volume: _____ cubic feet within the 100-year floodplain
Fill volume: _____ cubic feet within the 100-year floodplain

☒ Project **IS** within **¼ mile of a designated river** Name of River: Lamprey
☐ Project is **NOT** within ¼ mile of a designated river

☐ Project **IS** within **a Coastal/Great Bay Region community** - **include info required by Env-Wq 1503.08(l) if applicable**
☒ Project is **NOT** within a Coastal/Great Bay Region community

8. BRIEF PROJECT DESCRIPTION (PLEASE DO NOT REPLY "SEE ATTACHED")

This project creates a 12 acre building to serve as a distribution center. The distribution center will accommodate 158 loading docks, 244 trailer spaces, and 326 vehicle spaces.

9. IF APPLICABLE, DESCRIBE ANY WORK STARTED PRIOR TO RECEIVING PERMIT

10. ADDITIONAL REQUIRED INFORMATION

A. Date a copy of the application was sent to the municipality as required by Env-Wq 1503.05(e)[1]: 8/22/22.
(Attach proof of delivery)

B. Date a copy of the application was sent to the local river advisory committee if required by Env-Wq 1503.05(e)[2]: 8/22/22.
(Attach proof of delivery)

C. Type of plan required: ☒ Land Conversion ☐ Detailed Development ☐ Excavation, Grading & Reclamation ☐ Steep Slope

D. Additional plans required: ☐ Stormwater Drainage & Hydrologic Soil Groups ☐ Source Control ☐ Chloride Management

E. Total area of disturbance: 1,783,333± square feet

F. Additional impervious cover as a result of the project: 1,324,729 square feet (use the "-" symbol to indicate a net reduction in impervious coverage).
Total final impervious cover: 1,324,729 square feet

G. Total undisturbed cover: 4,055,802 square feet

H. Number of lots proposed: 5 existing lots

I. Total length of roadway: 2,764 linear feet

J. Name(s) of receiving water(s): Lamprey River

K. Identify all other NHDES permits required for the project, and for each indicate whether an application has been filed and is pending, or if the required approval has been issued provide the permit number, registration date, or approval letter number, as applicable.

Type of Approval	Application Filed?	Status	
		Pending	If Issued:
1. Water Supply Approval	☐ Yes ☒ No ☒ N/A	☐	Permit number:
2. Wetlands Permit	☒ Yes ☐ No ☐ N/A	☒	Permit number:
3. Shoreland Permit	☐ Yes ☒ No ☒ N/A	☐	Permit number:
4. UIC Registration	☐ Yes ☒ No ☒ N/A	☐	Registration date:
5. Large/Small Community Well Approval	☐ Yes ☒ No ☒ N/A	☐	Approval letter date:
6. Large Groundwater Withdrawal Permit	☐ Yes ☒ No ☒ N/A	☐	Permit number:
7. Other:	☐ Yes ☐ No	☐	Permit number:

L. List all species identified by the Natural Heritage Bureau as threatened or endangered or of concern: See NHB report

M. Using NHDES's Web GIS OneStop program (www2.des.state.nh.us/gis/onestop/), with the Surface Water Impairment layer turned on, list the impairments identified for each receiving water. If no pollutants are listed, enter "N/A."
N/A

N. Did the applicant/applicant's agent have a pre-application meeting with AOT staff? ☒ Yes ☐ No
If yes, name of staff member: Ridgely Mauck

O. Will blasting of bedrock be required? ☒ Yes ☐ No If yes, estimated quantity of blast rock: 750,000 cubic yards
If yes, standard blasting BMP notes must be placed on the plans, available at:
http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-10-12.pdf

NOTE: If greater than 5,000 cubic yards of blast rock will be generated, a groundwater monitoring program must be developed and submitted to NHDES. Contact AOT staff for additional detail.

[1] Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the governing body of each municipality in which the project is proposed.

[2] Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the Local River Advisory Committee, if the project is within ¼ mile of a designated river.

11. CHECK ALL APPLICATION ATTACHMENTS THAT APPLY (SUBMIT WITH APPLICATION IN ORDER LISTED)

LOOSE:

- ☒ Signed application form: des.nh.gov/organization/divisions/water/aot/index.htm (with attached proof(s) of delivery)
- ☒ Check for the application fee: des.nh.gov/organization/divisions/water/aot/fees.htm
- ☒ Color copy of a USGS map with the property boundaries outlined (1" = 2,000' scale)
- ☐ If Applicant is not the property owner, proof that the applicant will have a legal right to undertake the project on the property if a permit is issued to the applicant.

BIND IN A REPORT IN THE FOLLOWING ORDER:

- ☒ Copy of the signed application form & application checklist (des.nh.gov/organization/divisions/water/aot/index.htm)
- ☒ Copy of the check
- ☒ Copy of the USGS map with the property boundaries outlined (1" = 2,000' scale)
- ☒ Narrative of the project with a summary table of the peak discharge rate for the off-site discharge points
- ☒ Web GIS printout with the "Surface Water Impairments" layer turned on - http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
- ☒ Web GIS printouts with the AOT screening layers turned on - http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
- ☒ NHB letter using DataCheck Tool – www.nhdfl.org/about-forests-and-lands/bureaus/natural-heritage-bureau/
- ☒ The Web Soil Survey Map with project's watershed outlined – websoilsurvey.nrcs.usda.gov
- ☒ Aerial photograph (1" = 2,000' scale with the site boundaries outlined)
- ☐ Photographs representative of the site
- ☒ Groundwater Recharge Volume calculations (one worksheet for each permit application): des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
- ☒ BMP worksheets (one worksheet for each treatment system): des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
- ☒ Drainage analysis, stamped by a professional engineer (see Application Checklist for details)
- ☒ Riprap apron or other energy dissipation or stability calculations
- ☐ Site Specific Soil Survey report, stamped and with a certification note prepared by the soil scientist that the survey was done in accordance with the Site Specific Soil Mapping standards, *Site-Specific Soil Mapping Standards for NH & VT, SSSNNE Special Publication No. 3*.
- ☒ Infiltration Feasibility Report (example online) [Env-Wq 1503.08(f)(3)]
- ☒ Registration and Notification Form for Storm Water Infiltration to Groundwater (UIC Registration-for underground systems only, including drywells and trenches): (http://des.nh.gov/organization/divisions/water/dwgb/dwspp/gw_discharge)
- ☒ Inspection and maintenance manual with, if applicable, long term maintenance agreements [Env-Wq 1503.08(g)]
- ☒ Source control plan

PLANS:

- ☒ One set of design plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for details)
- ☒ Pre & post-development color coded soil plans on 11" x 17" (see Application Checklist for details)
- ☒ Pre & post-development drainage area plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for details)

100-YEAR FLOODPLAIN REPORT:

- ☐ All information required in Env-Wq 1503.09, submitted as a separate report.

ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE

- ☐ See Checklist for Details

☒ **REVIEW APPLICATION FOR COMPLETENESS & CONFIRM INFORMATION LISTED ON THE APPLICATION IS INCLUDED WITH SUBMITTAL.**

12. REQUIRED SIGNATURES

AM By initialing here, I acknowledge that I am required by Env-Wq 1503.20(e) to submit a copy of all approved documents to the department in PDF format on a CD within one week after permit approval.

By signing below, I certify that:

- The information contained in or otherwise submitted with this application is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the application, revoke any permit that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and
- I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

☒ **APPLICANT** ☐ **APPLICANT'S AGENT:**

Signature: _____ Date: 8/9/22

Name (print or type): Anton Melchionda Title: Owner

☒ PROPERTY OWNER ☐ PROPERTY OWNER'S AGENT:

Signature: _____ Date: 8/9/22

Name (print or type): Anton Melchionda Title: Owner

ATTACHMENT A:
ALTERATION OF TERRAIN PERMIT APPLICATION CHECKLIST

Check the box to indicate the item has been provided or provide an explanation why the item does not apply.

DESIGN PLANS

☒ Plans printed on 34 - 36" by 22 - 24" white paper

☒ PE stamp

☒ Wetland delineation

☒ Temporary erosion control measures

☒ Treatment for all stormwater runoff from impervious surfaces such as roadways (including gravel roadways), parking areas, and non-residential roof runoff. Guidance on treatment BMPs can be found in Volume 2, Chapter 4 of the NH Stormwater Management Manual.

☒ Pre-existing 2-foot contours

☒ Proposed 2-foot contours

☐ Drainage easements protecting the drainage/treatment structures All treatment structures will be owned and operated by land owner.

☒ Compliance with the Wetlands Bureau, RSA 482- A http://des.nh.gov/organization/divisions/water/wetlands/index.htm. Note that artificial detention in wetlands is not allowed.

☒ Compliance with the Comprehensive Shoreland Protection Act, RSA 483-B. http://des.nh.gov/organization/divisions/water/wetlands/cspa

☐ Benches. Benching is needed if you have more than 20 feet change in elevation on a 2:1 slope, 30 feet change in elevation on a 3:1 slope, 40 feet change in elevation on a 4:1 slope. Proposed engineered slopes to be utilized, cut areas to sides and rear of building are anticipated to be bedrock.

☒ Check to see if any proposed ponds need state Dam permits. http://des.nh.gov/organization/divisions/water/dam/documents/damdef.pdf

DETAILS

☒ Typical roadway x-section

☒ Detention basin with inverts noted on the outlet structure

☒ Stone berm level spreader

☒ Outlet protection – riprap aprons

☒ A general installation detail for an erosion control blanket

☒ Silt fences or mulch berm

☒ Storm drain inlet protection. Note that since hay bales must be embedded 4 inches into the ground, they are not to be used on hard surfaces such as pavement.

☒ Hay bale barriers

☒ Stone check dams

☒ Gravel construction exit

☒ Temporary sediment trap

☒ The treatment BMP's proposed

☒ Any innovative BMP's proposed

CONSTRUCTION SEQUENCE/EROSION CONTROL

☒ Note that the project is to be managed in a manner that meets the requirements and intent of RSA 430:53 and Chapter Agr 3800 relative to invasive species.

☒ Note that perimeter controls shall be installed prior to earth moving operations.

☒ Note that temporary water diversion (swales, basins, etc) must be used as necessary until areas are stabilized.

☒ Note that ponds and swales shall be installed early on in the construction sequence (before rough grading the site).

☒ Note that all ditches and swales shall be stabilized prior to directing runoff to them.

☒ Note that all roadways and parking lots shall be stabilized within 72 hours of achieving finished grade.

☒ Note that all cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade

☒ Note that all erosion controls shall be inspected weekly AND after every half-inch of rainfall.

☐ Note the limits on the open area allowed, see Env-Wq 1505.02 for detailed information.

Example note: The smallest practical area shall be disturbed during construction, but in no case shall exceed 5 acres at any one time before disturbed areas are stabilized.

Environmental monitoring proposed due to disturbance over 5 acres.

☒ Note the definition of the word "stable"

Example note: An area shall be considered stable if one of the following has occurred:

- Base course gravels have been installed in areas to be paved.
- A minimum of 85 percent vegetated growth has been established.
- A minimum of 3 inches of non-erosive material such stone or riprap has been installed.
- Or, erosion control blankets have been properly installed.

☒ Note the limit of time an area may be exposed
Example note: All areas shall be stabilized within 45 days of initial disturbance.

☒ Provide temporary and permanent seeding specifications. (Reed canary grass is listed in the Green Book; however, this is a problematic species according to the Wetlands Bureau and therefore should not be specified)

☒ Provide winter construction notes that meet or exceed our standards.

Standard Winter Notes:

- All proposed vegetated areas that do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting, elsewhere. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events.
- All ditches or swales which do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions.
- After October 15, incomplete road or parking surfaces, where work has stopped for the winter season, shall be protected with a minimum of 3 inches of crushed gravel per NHDOT item 304.3.

☒ Note at the end of the construction sequence that "Lot disturbance, other than that shown on the approved plans, shall not commence until after the roadway has the base course to design elevation and the associated drainage is complete and stable." – This note is applicable to single/duplex family subdivisions, when lot development is not part of the permit.

DRAINAGE ANALYSES

Please double-side 8 ½" × 11" sheets where possible but, **do not** reduce the text such that more than one page fits on one side.

☒ PE stamp

☒ Rainfall amount obtained from the Northeast Regional Climate Center- http://precip.eas.cornell.edu/. Include extreme precipitation table as obtained from the above referenced website.

☒ Drainage analyses, in the following order:

- Pre-development analysis: Drainage diagram.
- Pre-development analysis: Area Listing and Soil Listing.
- Pre-development analysis: Node listing 1-year (if applicable), 2-year, 10-year and 50-year.
- Pre-development analysis: Full summary of the 10-year storm.
- Post-development analysis: Drainage diagram.
- Post-development analysis: Area Listing and Soil Listing.
- Post-development analysis: Node listing for the 2-year, 10-year and 50-year.
- Post-development analysis: Full summary of the 10-year storm.

☒ Review the Area Listing and Soil Listing reports

- Hydrologic soil groups (HSG) match the HSGs on the soil maps provided.
- There is the same or less HSG A soil area after development (check for each HSG).
- There is the same or less "woods" cover in the post-development.
- Undeveloped land was assumed to be in "good" condition.
- The amount of impervious cover in the analyses is correct.

Note: A good check is to subtract the total impervious area used in the pre analysis from the total impervious area used in the post-analysis. For residential projects without demolition occurring, a good check is to take this change in impervious area, subtract out the roadway and divide the remaining by the number of houses/units proposed. Do these numbers make sense?

☒ Check the storage input used to model the ponds.

☒ Check to see if the artificial berms pass the 50-year storm, i.e., make sure the constructed berms on ponds are not overtopped.

☒ Check the outlet structure proposed and make sure it matches that modeled.

☒ Check to see if the total areas in the pre and post analyses are same.

☒ Confirm the correct NRCS storm type was modeled (Coos, Carroll & Grafton counties are Type II, all others Type III).

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PRE- AND POST-DEVELOPMENT DRAINAGE AREA PLANS

☒ Plans printed on 34 - 36" by 22 - 24" on white paper.

☒ Submit these plans separate from the soil plans.

☒ A north arrow.

☒ A scale.

☒ Labeled subcatchments, reaches and ponds.

☒ Tc lines.

☒ A clear delineation of the subcatchment boundaries.

☒ Roadway station numbers.

☒ Culverts and other conveyance structures.

PRE AND POST-DEVELOPMENT COLOR-CODED SOIL PLANS

☒ 11" × 17"sheets suitable, as long as it is readable.

☒ Submit these plans separate from the drainage area plans.

☒ A north arrow.

☒ A scale.

☒ Name of the soil scientist who performed the survey and date the soil survey took place.

☒ 2-foot contours (5-foot contours if application is for a gravel pit) as well as other surveyed features.

☒ Delineation of the soil boundaries and wetland boundaries.

☒ Delineation of the subcatchment boundaries.

☒ Soil series symbols (e.g., 26).

☒ A key or legend which identifies each soil series symbol and its associated soil series name (e.g., 26 = Windsor).

☒ The hydrologic soil group color coding (A = Green, B = yellow, C= orange, D=red, Water=blue, & Impervious = gray).

Please note that excavation projects (e.g., gravel pits) have similar requirements to that above, however the following are common exceptions/additions:

☐ Drainage report is not needed if site does not have off-site flow.

☐ 5 foot contours allowed rather than 2 foot.

☐ No PE stamp needed on the plans.

☐ Add a note to the plans that the applicant must submit to the Department of Environmental Services a written update of the project and revised plans documenting the project status every five years from the date of the Alteration of Terrain permit.

☐ Add reclamation notes.

See NRCS publication titled: *Vegetating New Hampshire Sand and Gravel Pits* for a good resource, it is posted online at: http://des.nh.gov/organization/divisions/water/aot/categories/publications.

ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE

☐ If project will discharge stormwater to a surface water impaired for phosphorus and/or nitrogen, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.

☐ If project will discharge stormwater to a Class A surface water or Outstanding Resource Water, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.

☐ If project will discharge stormwater to a lake or pond not covered previously, include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond.

☐ If project is within a Coastal/Great Bay Region community, include info required by Env-Wq 1503.08(l) if applicable.

CALMS LLC
60 CENTRE ST
DOVER, MA 02030

1017

53-7353/2113
17234

CHECK ARMOR FRAUD PROTECTION

DATE 8/15/22

PAY TO THE ORDER OF TREASURER STATE OF NEW HAMPSHIRE $ 21,875.00

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Aaron K Hinchliffe MP

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Attn. Joseph Foley, Chair
Street and Apt. N 88 Hedding Rd
City, State, ZIP+ Epping, NH 03042

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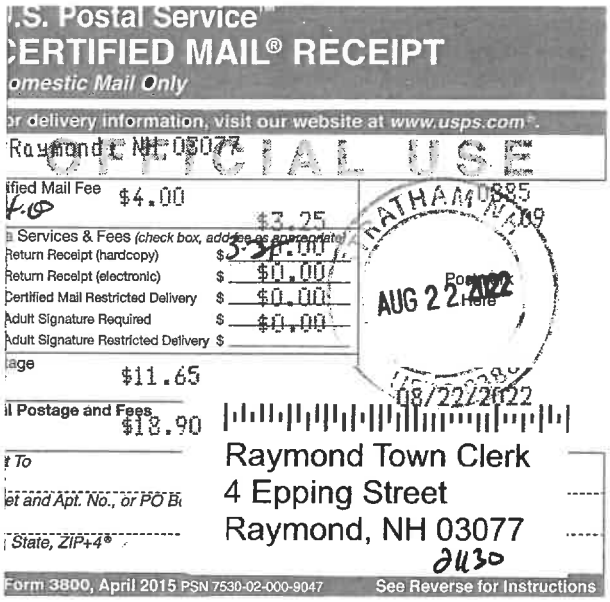

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Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

LETTER OF TRANSMITTAL

Date:	2/23/2022	**JBE Project No:**	21130
Company:	NHDES Alteration of Terrain Bureau	**RE:**	Industrial Drive Raymond, NH
Attn:	Craig Rennie		**AoT -0195**
	PO Box 95 Concord, NH 03302-0095		

Delivery Type: US Mail

We are sending you ☒ Attached ☐ Under separate cover via the following:

COPIES	DOC. DATE	NO.	DESCRIPTION
1	2/22/22	1	AoT Amendment Form
1	11/30/10	2	AoT Permit 0195

THESE ARE TRANSMITTED as checked below:

☒ For approval ☒ For your use ☐ As requested ☒ For review/comment

COMMENTS:

Please call if you have any questions. Thank you for your time.

Signed:
JONES & BEACH ENGINEERS, INC.

Wayne Morrill SM

Wayne Morrill
President

cc:

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

ALTERATION OF TERRAIN AMENDMENT REQUEST FORM

Water Division/ Alteration of Terrain Bureau/ Land Resources Management

Check the Status of your Application: https://www4.des.state.nh.us/DESOnestop

RSA/ Rule: RSA 485-A:17, Env-Wq 1500

Administrative Use Only	Administrative Use Only	Administrative Use Only	File Number: Check No.: Amount: Initials:

1. TYPE OF AMENDMENT REQUESTED [See Env-Wq 1503.27(a)]			
☒ Permit Transfer [use Section 7]	☐ Time Extension [use Section 8]	☐ Project/Plan Change [use Section 9]	
2. PROJECT INFORMATION [See Env-Wq 1503.27(b)]			
Project Name: Hard Rock Development Excavation			
Street/Road Address: Industrial Drive			
Town/City: Raymond		County: Rockingham	
Tax Map: 28.3 & 22	Block:	Lot Number: 120 & 44	Unit:
3. CURRENT PERMIT INFORMATION [See Env-Wq 1503.27(c)-(d)]			
Permit No.: AoT-0195		Current Expiration Date[1]:	
Name of NHDES Signatory: Craig D. Rennie			
Current Permit Holder Name: Hard Rock Development, LLC		Contact Name: James Watkins	
Email: jamey@jamcoexcavators.com		Daytime Telephone: 603-394-7664	
Mailing Address: 84 Exeter Road			
Town/City: South Hampton		State: NH	Zip Code: 03876
4. CURRENT PERMIT HOLDER'S AGENT [See Env-Wq 1503.27(d)] If none, check here: ☒			
Business Name:		Contact Name:	
Email:		Daytime Telephone:	
Mailing Address:			
Town/City:		State:	Zip Code:
5. CURRENT PROPERTY OWNER INFORMATION (IF DIFFERENT FROM PERMIT HOLDER) [See Env-Wq 1503.27(e)]			
Name: Onyx Partners LTD		Contact Name: Anton Melchionda	
Email: anton@onyxpartnersltd.com		Daytime Telephone: 617-680-9308	
Mailing Address: 60 Center Street			
Town/City: Dover		State: MA	Zip Code: 02030

[1] Expired permits cannot be extended.

6. CURRENT PROPERTY OWNER'S AGENT INFORMATION [See Env-Wq 1503.27(e)] If none, check here: ☐		
Business Name:	Contact Name:	
Email:	Daytime Telephone:	
Address:		
Town/City:	State:	Zip Code:

7. COMPLETE THIS SECTION IF THERE IS A CHANGE IN PERMIT HOLDER OR PROPERTY OWNER [See Env-Wq 1503.23 and Env-Wq 1503.27(f)]		
A. Transferee Information		
Name: Onyx Partners LTD	Contact Name: Anton Melchionda	
Email: anton@onyxpartnersltd.com	Daytime Telephone: 617-680-9308	
Mailing Address: 60 Center Street		
Town/City: Dover	State: MA	Zip Code: 02030

B. Transferee Signature and Certification

By signing below, I certify that:

- I have received a copy of the permit and all approved plans and specifications;
- I agree to comply with RSA 485-A:17, Env-Wq 1500, the permit, and all conditions contained in the permit, including the requirement for on-going inspection and maintenance of the stormwater management system(s);
- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and
- I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

Transferee:	Print Name Legibly: Anton Melchionda	Date: 2/22/22

C. Transferor Signature and Certification

By signing below, I certify that:

- I have provided a copy of the permit and all approved plans and specifications to the transferee;
- I am relinquishing all rights to the permit as originally issued;
- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and

I have provided a copy of the permit and all approved plans and specifications to the new owner and .

Transferor:	Print Name Legibly: James Watkins	Date: Feb 23, 2022

8. COMPLETE THIS SECTION IF YOU ARE REQUESTING A TIME EXTENSION [See Env-Wq 1503.25 and Env-Wq 1503.27(g)]

A. Timing of Request

Is this request being submitted not more than 90 days prior to the permit expiration date? ☐ Yes ☐ No

Any request submitted more than 90 days prior to the permit expiration date will be denied.

B. Activity to Date

Has any terrain alteration occurred to date? ☐ Yes ☐ No

If Yes: Attach the inspection report required by Env-Wq 1503.27(g)

C. Other Changes

Are changes to the project or project plans being made? ☐ Yes ☐ No

If Yes:

Do the changes meet the criteria of Env-Wq 1503.21(d) for deviations allowed without a permit amendment? ☐ Yes ☐ No

If Yes: Submit the plans and narrative required by Env-Wq 1503.21(d)(9)

If No: Submit a request for a permit amendment under Env-Wq 1503.22 in addition to a request for a permit extension.

D. Basis for Request

Why is an extension being requested?

D. PERMIT HOLDER SIGNATURE

By signing below, I certify that:

- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and
- I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

☐ **PERMIT HOLDER** ☐ **PERMIT HOLDER'S AGENT:**

Signature:_____ Date: _____

Name (print or type): _____ Title: _____

9. COMPLETE THIS SECTION IF THERE IS A CHANGE TO THE PLAN OR PROJECT [See Env-Wq 1503.22 and Env-Wq 1503.27(h)

A. Type and Extent of Proposed Changes

Do the proposed changes meet the criteria of Env-Wq 1503.22(c)? ☐ Yes ☐ No

If No: The changes do not qualify for an amendment and a new application must be filed.

Area of disturbance associated with proposed changes: square feet

Are revised calculations needed? ☐ Yes ☐ No

If Yes: Attach the revised calculations.

Is the area proposed to be disturbed outside the area allowed to be disturbed under the original permit? ☐ Yes ☐ No

If Yes: Attach an NHB report for the area proposed to be disturbed.

B. Revisions to Plan Sheets

Identify which plan sheets reflect the proposed changes:

Briefly summarize the plan changes (DO NOT attach a separate page):

Attach the identified revised plan sheets with changes highlighted.

C. Fee Calculation

Per RSA 485-A:17, II:

Area of disturbance (square feet) × $0.10/ square foot = $ + $500 Base Fee = $

Fee must be submitted with request.

D. Submission Requirements

Date a copy of the application was sent to the municipality as required by Env-Wq 1503.05(e)[2]: __/__/____.

(Attach proof of delivery)

Date a copy of the application was sent to the local river advisory committee if required by Env-Wq 1503.05(f)[2]: __/__/____.

(Attach proof of delivery)

By signing below, I certify that:

- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and
- I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

☐ **PERMIT HOLDER** ☐ **PERMIT HOLDER'S AGENT:**

Signature:_____ Date: _____

Name (print or type): _____ Title: _____

[2] Env-Wq 1503.22(d)(3) requires proof that a copy of the complete amendment request has been sent or delivered to the governing body of each municipality in which the project is located and, if the project is within ¼ mile of a designated river, to the Local River Advisory Committee.

415-20

The State of New Hampshire

DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

November 30, 2010

Hard Rock Development, LLC
Attn: James Watkins
84 Exeter Road
South Hampton, NH 03876

Re: Hard Rock Development Excavation
Raymond, NH
Tax Map/Lot #: 28.3/120 & 22/44

Permit: AoT-0195

Dear Mr. Watkins:

Based upon the revised plans and application, we are hereby issuing RSA 485-A:17 Alteration of Terrain Permit AoT-0195 subject to the following conditions:

1. Activities shall not cause or contribute to any violations of the surface water quality standards established in Administrative Rule Env-Wq 1700.

2. You must submit revised plans for permit amendment prior to any changes in construction details or sequences. You must notify the Department in writing within ten days of a change in ownership.

3. You must notify the Department in writing prior to the start of construction and upon completion of construction. Forms are available at: http://des.nh.gov/organization/divisions/water/aot/categories/forms.htm.

4. The revised plans dated November 5, 2010 and supporting documentation in the permit file are a part of this approval.

5. **The Permittee must provide the Department a written update of, and revised plans documenting, the project status every five years from the issuance of this permit.**

6. This permit does not relieve the applicant from the obligation to obtain other local, state or federal permits that may be required (e.g., from US EPA, US Army Corps of Engineers, etc.). Projects disturbing over 1 acre may require a federal stormwater permit from EPA. Information regarding this permitting process can be obtained at: http://des.nh.gov/organization/divisions/water/stormwater/construction.htm.

7. No construction activity shall occur until a Wetlands Permit is obtained from the Department, if applicable.

Sincerely,

Craig D Rennie, CWS, CWB
Land Resource Specialist

cc: Raymond Planning Board
Lynnfield Engineering, Inc. (email)

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2. DuBois and King Review Letter - 4	01/05/2023
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4. DuBois and King Review Letter - 3	12/02/2022
5. DuBois and King Response Letter - 2	10/27/2021
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14. Rockingham Planner Commission Letter	09/29/2022

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

January 11, 2023

Raymond Planning Board
Attn: Brad Reed, Chairman
4 Epping Street
Raymond, NH 03077

RE: Response Letter 4
Industrial Drive, Raymond, NH
Tax Map 22, Lot 47
JBE 21130

Dear Mr. Reed,

We are in receipt of comments from Jeffrey Adler, P.E., DuBois & King, dated January 5, 2023. Review comments are listed below with our responses in bold.

1. *Sheet 44. Drawing No. D8. Detail Sheet.*

a. *Repeat Comment: We recommend that the Applicant revise the details for the Filterra Tree Box (Treewell #1 & #2) regarding the cover rims (208.55), to be consistent wit hthe values provided in the table (208.58) and drainage analysis (209.55). (See sheet D8).*

RESPONSE: The invert has been adjusted to 208.55. This has been changed on Sheet D8 and the NHDES water quality sheets for Treewell's #1 & #2.

Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Erik Poulin, P.E.
Project Manager

cc: Jeff Adler, P.E., Dubois & King (via email & U.S. Mail)
Douglas Richardson,Onyx Partners, Ltd (via email)
Anton Melchionda, Onyx Partners, Ltd (via email)

328545P
January 5, 2023

Ms. Christina McCarthy
Raymond Community Development
4 Epping Street
Raymond, New Hampshire 03077

Subject: Warehouse Building "Raymond Distribution"
Industrial Drive – Tax Map 22, Lot 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Engineering Review Services

Dear Ms. McCarthy:

As requested, we have completed our review of the plans and materials submitted for the above referenced project. The submitted materials consist of the following:

- Details Plans, prepared by Jones & Beach Engineers Inc., consisting of 5 sheets (D4 through D8), dated August 18, 2022 and revised on November 10, 2022.
- Drainage Analysis - Proposed Watershed Calculations for 2, 10 (full), 25 and 50 year, prepared by Jones & Beach Engineers Inc.

The following were comments noted during the review.

1. Sheet 44. Drawing No. D8. Detail Sheet.
    a. ***Repeat Comment.*** We recommend that the Applicant revise the details for the Filterra Tree Box (Treewell #1 and #2) regarding cover rims (208.55), to be consistent with the values provided in the table (208.58) and drainage analysis (209.55). (See sheet D-8).

If you have any questions or comments, please do not hesitate to contact us.

Very truly yours,

DuBOIS & KING, Inc.

Jeffrey A. Adler, P.E.

Senior Project Manager

Erik Poulin

From: Erik Poulin
Sent: Thursday, December 15, 2022 4:54 PM
To: jadler@dubois-king.com
Cc: Madeleine Dilonno; Christina McCarthy; Wayne Morrill; Front Desk
Subject: 21130 - Industrial Drive - Raymond NH Response Submission
Attachments: Drainage Docs.pdf; 21130-PLANS.pdf

Jeff,

I have response to your latest comments below;

1. *Sheet 3. Drawing No. C2. Site Plan.*

a. *The height of the proposed building is 48 feet.* ***The Applicant submitted a ZBA Application to the Town of Raymond on October 25th.***

RESPONSE: ZBA application accepted by board on November 16th, 2022.

2. *Sheet 36, 37, 40 of 44. Drawing No. D4, D5, D8. Detail Sheet.*

a. *Drainage Analysis and Infiltration Basin #2 detail shows an 18" HDPE pipe with an invert elevation of 219.00. However, the elevation value for the same pipe invert on the Infiltration Basin (Pond #2) detail is not consistent. Additionally, we recommend checking and revising the invert for FES # 10 and the slope for P-243. (See Sheet D-4).*
RESPONSE: FES #10 INVout revised from 212.00 to 218.00. Length of pipe P-243 has been updated from 47' to 37'.

b. ***Repeat Comment.*** *We recommend that the Applicant check and revise the invert elevation for pipe P-270 (DMH-020) to be consistent between the Stormtech SC-740 Chamber System (Pond #4) detail and Outlet Structure (DMH-020) detail. (See Sheet D-5).*
RESPONSE: Stormtech chamber system detail on sheet D5 has been revised so that DMH-20 INVin for P-270 (223.70) corresponds with DMH-20 detail on D5.

c. ***Repeat Comment.*** *We recommend that the Applicant revise the details for the Filterra Tree Box (Treewell #1 and #2) regarding outlet invert and cover rims, to be consistent with the values provided in the table and drainage analysis. (See sheet D-8).*
RESPONSE: Filterra inverts corrected to correspond with table and details.

3. *Drainage Analysis.*

a. ***Repeat Comment.*** *We recommend that the Applicant revise the volume value for Infiltration Practice Criteria spreadsheet for the infiltration gravel system to be consistent with the drainage calculations. (Pond #3 – Water Quality Volume).*
RESPONSE: Infiltration practice criteria volume for pond #3 updated from 44,235 CF to 46,290 CF.

I wanted to get the responses and relevant data/plans over to you as soon as possible digitally. If everything looks acceptable we can then prepare a full hard copy package.

Please let me know if you need anything further.

Regards,

Erik Poulin, P.E., CPESC-IT
Associate | Project Manager
Jones&Beach Engineers, Inc.
85 Portsmouth Avenue
PO Box 219
Stratham, NH 03885
(603) 772-4746 (ext. #116)
epoulin@jonesandbeach.com
http://www.jonesandbeach.com

SAVE A TREE. PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING.
Think Green and view the Screen
Thank You

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328545P
December 2, 2022

Ms. Christina McCarthy
Raymond Community Development
4 Epping Street
Raymond, New Hampshire 03077

Subject: Warehouse Building "Raymond Distribution"
Industrial Drive – Tax Map 22, Lot 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Engineering Review Services

Dear Ms. McCarthy:

As requested, we have completed our review of the plans and materials submitted for the above referenced project. The submitted materials consist of the following:

- Response Letter, prepared by Jones & Beach Engineers Inc., and dated October 27, 2022.
- Site Plans, prepared by Jones & Beach Engineers Inc., consisting of 44 sheets, dated August 18, 2022 and revised on November 10, 2022.
- Drainage Analysis (including Watersheds Plans, consisting of 6 sheets), prepared by Jones & Beach Engineers Inc., dated November 10, 2022.

The following were comments noted during the review.

1. Sheet 3. Drawing No. C2. Site Plan.

    a. The height of the proposed building is 48 feet. ***The Applicant submitted a ZBA Application to the Town of Raymond on October 25th.***

2. Sheet 36, 37, 40 of 44. Drawing No. D4, D5, D8. Detail Sheet.

    a. Drainage Analysis and Infiltration Basin #2 detail shows an 18" HDPE pipe with an invert elevation of 219.00. However, the elevation value for the same pipe invert on the Infiltration Basin (Pond #2) detail is not consistent. Additionally, we recommend checking and revising the invert for FES # 10 and the slope for P-243. (See Sheet D-4)

b. ***Repeat Comment.*** We recommend that the Applicant check and revise the invert elevation for pipe P-270 (DMH-020) to be consistent between the Stormtech SC-740 Chamber System (Pond #4) detail and Outlet Structure (DMH-020) detail. (See Sheet D-5).
c. ***Repeat Comment.*** We recommend that the Applicant revise the details for the Filterra Tree Box (Treewell #1 and #2) regarding outlet invert and cover rims, to be consistent with the values provided in the table and drainage analysis. (See sheet D-8).

3. Drainage Analysis.

    a. ***Repeat Comment.*** We recommend that the Applicant revise the volume value for Infiltration Practice Criteria spreadsheet for the infiltration gravel system to be consistent with the drainage calculations. (Pond #3 – Water Quality Volume).

If you have any questions or comments, please do not hesitate to contact us.

Very truly yours,

DuBOIS & KING, Inc.

Jeffrey A. Adler, P.E.

Senior Project Manager

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

October 27, 2022

Raymond Planning Board
Attn: Brad Reed, Chairman
4 Epping Street
Raymond, NH 03077

RE: Response Letter 2
Industrial Drive, Raymond, NH
Tax Map 22, Lot 47
JBE 21130

Dear Mr. Reed,

We are in receipt of comments from Jeffrey Adler, P.E., DuBois & King, dated October 25, 2022. Review comments are listed below with our responses in bold.

1. *Sheet 3, 4, 5, 6, 7 of 44. Drawings No. C2, C2-1, C2-2, C2-3, C2-4. Site Plan.*

a. ***Repeat Comment.*** *We recommend that the Applicant revise the plans regarding the accessible parking spaces. As required by the 2010 ADA Standards for Accessible Design, two access aisles are still required, as two parking spaces may share am access aisle.*
RESPONSE: The plans have been revised to include additional access aisles to the main walk way in the middle of the handicap parking field.

b. *The height of the proposed building is 48 feet.* ***The Applicant stated they will submit a variance to the Town of Raymond Zoning Board.***
RESPONSE: A ZBA application was submitted to the Town of Raymond on October 25th.

2. *Sheet 8, 9, 10, 11, 12 of 44. Drawings No. C3, C3-1, C3-2, C3-3, C3-4. Grading and Drainage Plan.*

a. *On sheet C3-3, west of the proposed access road, the proposed CB-247 (between CB-128 and CB-129) does not appear to be connected to the drainage system. We recommend that the Applicant revise and clarify the location and purpose of this structure.*
RESPONSE: The proposed CB-247 on Sheet C3-3 has been revised and the location and purpose of this structure has been clarified.

3. *Sheet 33, 34, 35, 36, 37, 38, 39, 40, 41, 42 of 44. Detail Sheet.*

a. *Infiltration Basin (Pond #1) detail on sheet D-4 shows an apron width (W2) of 32 feet. The rip-rap analysis for rip-rap #11 appears to be 40.62 feet. We recommend that the Applicant revise the detail to be consistent with the calculations.*
RESPONSE: Riprap field is located within the forebay. The field is located to cover the entire section of forebay up to the forebay berm wall. Extending the riprap beyond this berm we feel would not be useful in mitigating stormwater velocity as intended.

b. *We recommend that the Applicant revise the elevation value for the gabion basket (Infiltration Basin-Pond #2 details) on sheet D-4, to be consistent with the drainage analysis. Additionally, we recommend checking and revising the elevations and sizes regarding the baffle/weir orifice and the 30" orifice with trash rack for the outlet structure #2 (OS-2).*
RESPONSE: The elevation valve for the gabion basket (Infiltration Basin – Pond#2 details) on Sheet D-4 has been revised to match the drainage analysis. The elevations and sizes regarding the baffle/weir orifice and the 30" orifice with trash rack for outlet structure #2 (OS-2) have been revised per request.

c. *We recommend that the Applicant revise the inverts for the Stormtech Chamber System (Pond #4) to be consistent between the plan and the outlet structures. Additionally, please check and clarify the weir elevations at the outlet structures DMH-014 and DMH-020, to match the calculations provided. (See Sheet D-5).*
RESPONSE: The inverts for the Stormtech Chamber System (Pond #4) have been revised to be consistent with the plan and the outlet structures. The weir elevations at the outlet structures DMH-014 and DMH-020 have been revised to match the calculations provided.

d. *We recommend that the Applicant revise the details for the Filterra Tree Box (Treewell #1 and #2) to be consistent with the values provided for the outlet in the table and drainage analysis. (See sheet D-8).*
RESPONSE: The details for the Filterra Tree Box (Treewell #1 and #2) have been revised to be consistent with the values provided for the outlet in the table and drainage analysis.

e. *On sheet D-9, at outlet structure #5 (OS-5), it appears that there is a slight difference between the weir elevation shown on plan and the calculated elevation. We recommend checking and revising the detail accordingly.*
RESPONSE: For the outlet structure #5 (OS-5) the weir elevation has been revised per request.

4. *Drainage Analysis.*

a. *The proposed CB-36 appears in two different locations and shows to be a structure for both subcatchment 235 and subcathcment 253 (sheet W2-1 and sheet W2-3). The drainage analysis shows subcatchment 235 flowing to CB-125 and subcatchment 253 flowing to CB-136. We recommend that the Applicant clarify and revise the plans and drainage chart to be consistent.*
RESPONSE: The labels within the watershed plans have been reviewed and updated accordingly.

b. *We recommended that the Applicant provide the minimum required number of test pits for the proposed infiltration basins in accordance with the New Hampshire Stormwater Manual, Vol.2, Chapter 2-4 Design Infiltration Rate, Table 2-2.* ***The Applicant stated they will respond to this comment after receiving the NHDES Alteration of Terrain comment letter and will secure additional test pits.***
RESPONSE: Test pits #206 & #3 were dug for Pond #1. Test pits #202 & #203 were dug for Pond #2. This would be a sufficient test pit data for the proposed basin floor area. Ponds #3 & #4 are located in areas of large fill conditions. These ponds are also located within the existing rock quarry operation on site. The floor of the quarry is bedrock and test pits can not be conducted. We feel the amount of test pits and amoozemeter testing conducted on site is sufficient to assess the soil conditions and SHWT. AoT comments have been received and no additional test pits have been requested at this time.

c. *We recommend that the Applicant revise the Infiltration Practice Criteria spreadsheet for the infiltration gravel system. (Pond #3 – Areas and Water Quality Volume, Pond #5 – Water Quality Volume).*
RESPONSE: Pond #3 – Area shown on Infiltration Practice Criteria is less than the pond receives. This is due to the fact the flow from the stormtech system is already been treated. Area shown on criteria sheet reflects the area of untreated stormwater so the weir elevation can be properly set. Water quality volume for the pond has been reviewed and updated. Pond #5 – Water Quality Volume has been reviewed and updated.

Included with this submission are the following:

1. Three (3) Drainage Analysis.
2. Six (6) Full Size Plan Sets.
3. Ten (10) Half Size Plan Sets.

Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Erik Poulin, P.E.
Project Manager

cc: Jeff Adler, P.E., Dubois & King (via email & U.S. Mail)
Douglas Richardson,Onyx Partners, Ltd (via email)
Anton Melchionda, Onyx Partners, Ltd (via email)

328545P
October 25, 2022

Ms. Christina McCarthy
Raymond Community Development
4 Epping Street
Raymond, New Hampshire 03077

Subject: Warehouse Building "Raymond Distribution"
Industrial Drive – Tax Map 22, Lot 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Engineering Review Services

Dear Ms. McCarthy:

As requested, we have completed our review of the plans and materials submitted for the above referenced project. The submitted materials consist of the following:

- Response Letter, prepared by Jones & Beach Engineers Inc., and dated October 18, 2022.
- Site Plans, prepared by Jones & Beach Engineers Inc., consisting of 44 sheets, dated August 18, 2022 and revised on September 30, 2022.
- Truck Turning Plan, prepared by Jones & Beach Engineers Inc., consisting of 1 sheet, dated August 18, 2022 and revised on September 30, 2022.
- Intersection Improvement Study, prepared by Vanasse & Associates, Inc., and dated September 15, 2022.
- Alta Survey Plans and Plat of Property, prepared by R.S.L. Layout & Design, Inc., and dated March 1, 1996.
- Drainage Analysis (including Watersheds Plans, consisting of 6 sheets), prepared by Jones & Beach Engineers Inc., dated August 18, 2022.

The following were comments noted during the review.

1. Sheet 3, 4, 5, 6, 7 of 44. Drawings No. C2, C2-1, C2-2, C2-3, C2-4. Site Plan.

    a. ***Repeat Comment.*** We recommend that the Applicant revise the plans regarding the accessible parking spaces. As required by the 2010 ADA Standards for Accessible Design, two access aisles are still required, as two parking spaces may share am access aisle.
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3. Sheet 33, 34, 35, 36, 37, 38, 39, 40, 41, 42 of 44. Detail Sheet.

    a. Infiltration Basin (Pond #1) detail on sheet D-4 shows an apron width (W2) of 32 feet. The rip-rap analysis for rip-rap #11 appears to be 40.62 feet. We recommend that the Applicant revise the detail to be consistent with the calculations.
    b. We recommend that the Applicant revise the elevation value for the gabion basket (Infiltration Basin-Pond #2 details) on sheet D-4, to be consistent with the drainage analysis. Additionally, we recommend checking and revising the elevations and sizes regarding the baffle/weir orifice and the 30" orifice with trash rack for the outlet structure #2 (OS-2).
    c. We recommend that the Applicant revise the inverts for the Stormtech Chamber System (Pond #4) to be consistent between the plan and the outlet structures. Additionally, please check and clarify the weir elevations at the outlet structures DMH-014 and DMH-020, to match the calculations provided. (See Sheet D-5).
    d. We recommend that the Applicant revise the details for the Filterra Tree Box (Treewell #1 and #2) to be consistent with the values provided for the outlet in the table and drainage analysis. (See sheet D-8).
    e. On sheet D-9, at outlet structure #5 (OS-5), it appears that there is a slight difference between the weir elevation shown on plan and the calculated elevation. We recommend checking and revising the detail accordingly.

4. Drainage Analysis.

    a. The proposed CB-36 appears in two different locations and shows to be a structure for both subcatchment 235 and subcathcment 253 (sheet W2-1 and sheet W2-3). The drainage analysis shows subcatchment 235 flowing to CB-125 and subcatchment 253 flowing to CB-136. We recommend that the Applicant clarify and revise the plans and drainage chart to be consistent.
    b. We recommended that the Applicant provide the minimum required number of test pits for the proposed infiltration basins in accordance with the New Hampshire Stormwater Manual, Vol.2, Chapter 2-4 Design Infiltration Rate, Table 2-2.
    The Applicant stated they will respond to this comment after receiving the NHDES Alteration of Terrain comment letter and will secure additional test pits.

c. We recommend that the Applicant revise the Infiltration Practice Criteria spreadsheet for the infiltration gravel system. (Pond #3 – Areas and Water Quality Volume, Pond #5 – Water Quality Volume).

We will submit our review of the traffic study under separate cover. If you have any questions or comments, please do not hesitate to contact us.

Very truly yours,

DuBOIS & KING, Inc.

Jeffrey A. Adler, P.E.

Senior Project Manager

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

September 30, 2022

Raymond Planning Board
Attn: Brad Reed, Chairman
4 Epping Street
Raymond, NH 03077

RE: Response Letter
Industrial Drive, Raymond, NH
Tax Map 22, Lot 47
JBE 21130

Dear Mr. Reed,

We are in receipt of comments from Jeffrey Adler, P.E., DuBois & King, dated September 6, 2022. Review comments are listed below with our responses in bold.

GENERAL COMMENTS:

1. *We recommend that the Applicant provide a Traffic Impact Analysis for the proposed industrial development, in accordance with Raymond Site Plan Review Regulations Section 5.03.13.*
   RESPONSE: A Traffic Impact Analysis will be provided for the proposed industrial development.

2. *Sheet 2 of 44. Drawing No. C1. Existing Conditions Plan.*

   a. *We recommend that the Applicant revise the plan and provide a legend identifying and clarifying all designation symbols in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.12.*
   RESPONSE: The legend has been revised on the Cover Sheet to identify and clarify all designation symbols shown on the plan.

   b. *We recommend that the Applicant revise the scale of the plan in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.03.*
   RESPONSE: The boundary plans the project references have been included with this submission. These plans are at 100 foot scale.

   c. *We recommend that the Applicant revise the plan prepared and stamped by a Licensed New Hampshire Land Surveyor, to show the distance and bearings of the boundary lines, dimensions and lot area, in accordance with Town of Raymond Site Plan Review Regulations 5.02.04.*
   RESPONSE: The stamped boundary plans are included with this submission.

c. *Locations and widths of adjacent streets, buildings and drives within 200 feet of the site boundaries are not shown in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.06.*
RESPONSE: Locations and widths of adjacent streets, buildings, and drives within 200 feet of the site boundaries have been added to Sheet C1.

d. *The shape, height and size of the existing buildings on the site and within 200 feet of the site boundaries are not shown on the plans in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.07.*
RESPONSE: The shape, height, and size of the existing buildings on the site and within 200 feet of the site boundaries have been added to Sheet C1.

e. The use of the abutting buildings is not identified in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.09.
RESPONSE: The use of abutting buildings has been identified on Sheet C1.

f. The size, location and elevation of all existing public and private utilities onsite and off-site with which connection is planned is not identified on the plans in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.10.
RESPONSE: The size, location, and elevation of all existing public and private utilities on- and off-site with which connection is planned has been identified on Sheet C4-5.

g. Soil types and approximate soil boundaries are not identified in accordance with Town of Raymond Site Plan Review Regulation Section 5.02.11.
RESPONSE: Site Specific Soils were delineated by Gove Environmental Inc. Their report, along with the web soil survey report is included within the drainage report. The soils are depicted on Sheet C1. They have also been added to the C3 sheets so they can be seen at a smaller scale.

h. We recommend that the Applicant submit copies of existing covenants, easements, right-of-ways in accordance to Town of Raymond Site Plan Review Regulations Section 5.02.12.
RESPONSE: A copy of the property deeds were included with the site plan application. There is a right connected to the property to access Old Manchester Road though the north of the property. As this time, this is the only covenant, easement, or right-of-way known.

i. The location of all building setbacks are not shown in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.13.
RESPONSE: The locations of all building setbacks are now shown on the C2 plans. Wetland setbacks are shown on the C3 plans.

j. The location of aquifer and well head protection areas are not shown (or stated to be absent) in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.14.
RESPONSE: The locations of the aquifer and well head protection areas are now shown on Sheet C1.

3. Sheet 3, 4, 5, 6, 7 of 44. Drawings No. C2, C2-1, C2-2, C2-3, C2-4. Site Plan.

   a. We recommend that the Applicant revise the plans and provide a legend identifying and clarifying all drafting and designation symbols in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.12.
   RESPONSE: A legend has been updated, identifies and clarifies all drafting and designation symbols on the Cover Sheet.

   b. We recommend that the Applicant revise the plans regarding the accessible parking spaces. As required by the 2010 ADA Standards for Accessible Design, for a total number of 301-400 of parking provided, the minimum number of accessible parking spaces will be 8 (2 van accessible parking spaces included). The minimum width for van-accessible parking is 11 feet. Additionally, two access aisles are still required, as two parking spaces may share an access aisle.
   RESPONSE: The plans have been revised to be ADA compliant with eight accessible parking spaces which include two van spaces with aisles.

   c. The maximum height of the proposed building is not shown in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.02. Also, please note that for any building exceeding thirty (30) feet in height, the minimum building setbacks from the property line shall equal the height of the building in accordance with Town of Raymond Zoning Ordinance Section 2.7.3.
   RESPONSE: The height of the proposed building is 48 feet. This is in excess of the allowed building height in the town of Raymond. Due to this, a variance submission will be made to the town Zoning Board for relief on this regulation.

   d. The direction of travel for streets and drives and the inside radii of all curves are not shown in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.03.
   RESPONSE: The direction of travel and drives inside radii of all curves are now shown on the plan.

   e. We recommend that the Applicant revise the plans to locate all proposed signs on the site in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.08.
   RESPONSE: All proposed signs have been added to the plan.

   f. It appears there is a conflict between the location of the proposed retaining wall and the existing tree line on the west side. Additionally, the snow storage location interferes with the proposed retaining wall on the east side of the proposed parking lot.

RESPONSE: The tree line has been modified to allow room for the retaining wall.

4. Sheet 8, 9, 10, 11, 12 of 44. Drawings No. C3, C3-1, C3-2, C3-3, C3-4. Grading and Drainage Plan.

   a. We recommend that the Applicant revise the plans and provide a legend identifying and clarifying all designation symbols in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.12.
   RESPONSE: A legend has been added that identifies all the designation symbols on the Cover Sheet.

   b. We recommend that the Applicant revise the plans and use a light-gray color for the existing contours, for a better visualization.
   RESPONSE: The contour color has been changed to a light-gray for better visualization.

   c. We recommend that the Applicant revise the plans and annotate/label the existing contours in order to verify the proposed grading.
   RESPONSE: The contours have been labeled to verify proposed grading.

   d. We recommend that the Applicant revise the plans and annotate/label all catch basins and drain manholes (i.e. rim, inverts in/out) and drain pipes (i.e. length, size, and slope). Additionally, we recommend labeling all proposed contours.
   RESPONSE: The additional contour labeling has been added to the grading plans. Structures that run along the road profiles included in the plan set are labeled on those profile sheets. These structures are not labeled on the C3 sheets to avoid double labeling. Note 29 on Sheet C3 has been added stating this.

   e. We recommend that the Applicant indicate the proposed door locations and provide spot elevations at the proposed building, ADA parking spaces, proposed 10' concrete sidewalk (to confirm that the proposed pedestrian walkways have ADA-compliant cross-slope) and where slope is less than 2%.
   RESPONSE: Proposed door locations have been indicated as well as spot elevations, ADA parking spaces, and the proposed 10' concrete sidewalk to confirm the slope is less than 2%.

   f. It appears that some of the proposed contours have a slope of 1:1. We recommend that the Applicant revise the plans and maintain a maximum 2:1 and preferred 3:1 slope for stabilization (see comment g below).
   RESPONSE: The contours have been revised on the plan to maintain a maximum 2:1 slope for stabilization in most areas. One section along Pond #2 will remain an engineered 1.5:1 rip rap slope, see detail Sheet D6.

g. Grading and drainage notes no. 8 specifies the use of "North American Green S75 Erosion Control Blankets". The manufacturer's design data for this product indicates that it is not suitable for slopes greater than 3:1. We recommend that the applicant revise the plan to reference a suitable material.
RESPONSE: The erosion control blankets have been changed to a more suitable material for the slope.

h. Grading and drainage notes no. 5 specifies roof drains. We recommend that the Applicant indicate where proposed roof drainage will be located, and how they will tie into the proposed stormwater management system.
RESPONSE: The proposed roof drainage has been indicated on the plans and noted how it will tie into the proposed stormwater management system.

5. Sheet 13, 14, 15, 16, 17, 18 of 44. Drawings No. C4, C4-1, C4-2, C4-3, C4-4, C4-5. Utility Plan.

a. We recommend that the Applicant revise the plans and provide a legend identifying and clarifying designation symbols in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.12.
RESPONSE: A legend has been updated to identify and clarify designation symbols on the Cover Sheet.

b. We recommend that the Applicant meet with the Fire Department to review the proposed protection activities, in accordance with Town of Raymond Site Plan Review Regulations Section 6.09.01
RESPONSE: The utility plans have been submitted to the Fire Department for fire suppression review.

c. We recommend that the Applicant provide a plan to provide fire truck turning movements.
RESPONSE: A fire truck turning plan has been prepared, see attached Sheet T1. This plan has been provided to the Fire Department.

d. The proposed septic system appears conceptual in nature with no details provided.
RESPONSE: The septic system is located in a large fill area. This will provide ample separation to ground water. All approvals must be secured prior to a septic approval being given from the state. We therefore are not planning on moving forward with a full septic design at this time.

6. Sheet 33, 34, 35, 36, 37, 38, 39, 40, 41, 42 of 44. Drawing No. D1. Detail Sheet.

a. We recommend that the Applicant revise the OS-2 label at the Infiltration Basin (Pond #2) detail on sheet 36 of 44 (D4) to match the drainage report.
RESPONSE: The OS-2 label at the Infiltration Basin (Pone #2) detail has been revised to match the drainage report.

b. We recommend that the Applicant revise the top elevation for the stone Infiltration Basin cross-section detail on sheet 39 of 44 (D4) to match the drainage report.
RESPONSE: The top elevation of the stone storage cross section has been reviewed and is proposed at 230.25. The pavement elevation has been reviewed and shows the lowest elevation pavement over the system at 232.40.

c. We recommend that the Applicant revise the Stormtech chamber system (Pond #3) to match the drainage report (i.e. inverts, pipe sizes).
RESPONSE: The Stormtech chamber system (Pond #3) has been reviewed and updated.

DRAINAGE ANALYSIS

7. Drainage

a. We recommend that the Applicant revise the plans and use a light-gray color for the existing contours, for a better visualization.
RESPONSE: The plans have been revised and a light-gray color has been used for the existing contours.

b. We recommend that the Applicant revise the Watershed Plans and reannotate/relabel all of the proposed subcatchments and structures to match and reflect the drainage analysis report. (i.e. on Sheet W2-1, CB-37 appears in two different locations and shows to be a structure for subcatchment 236 and for subcatchment 255, as in the drainage analysis subcatchment 236 flows to proposed CB-123 and subcatchment 255 flows to proposed CB-137). Additionally, we recommend that the Applicant revise the plans (i.e. W2-4) and show all proposed structures and pipes on the plan.
RESPONSE: The Watershed Plans have been revised and reannotated and relabeled to match the drainage report. All proposed structures and pipes are now shown on the plans.

c. We recommend that the Applicant provide the minimum required number of test pits for the proposed infiltration basins in accordance with the New Hampshire Stormwater Manual, Vol.2, Chapter 2-4 Design Infiltration Rate, Table 2-2.
RESPONSE: This project has been submitted to the NHDES Alteration of Terrain Bureau. There is potential AoT could also want additional test pits. Once we are in receipt of the AoT comment letter, we will secure additional test pits to satisfy all review comments.

d. We recommend that the Applicant revise the calculations to provide a minimum of 1 foot of freeboard in the infiltration basins (pond numbers 2,3 and 5) during the 50-year storm event.
RESPONSE: The calculations have been revised to provide a minimum of 1 foot freeboard for the surface Ponds #1, 2, & 5.

e. We recommend that the Applicant revise the Infiltration Practice Criteria spreadsheet for the infiltration ponds. (Ponds #4 and 5).
RESPONSE: The treatment documents pertaining to Infiltration Ponds #4 and #5 within the submitted drainage report has been reviewed and submitted.

f. We recommend that the Applicant revise the Rip-Rap calculations to provide modeling summaries for the 25-year storm event. Additionally, we recommend that the Applicant provide the 25-year storm analysis for review.
RESPONSE: The Rip-Rap calculations have been revised to provide modeling summaries for the 25-year storm event. The 25-year storm analysis has also been provided for review.

Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Erik Poulin, P.E.
Project Manager

cc: Jeff Adler, P.E., Dubois & King (letter & attachments via email)
Douglas Richardson ,Onyx Partners, Ltd (letter and plans via email)
Anton Melchionda, Onyx Partners, Ltd (letter and plans via email)

328545P
September 6, 2022

Ms. Christina McCarthy
Raymond Community Development
4 Epping Street
Raymond, New Hampshire 03077

Subject: Warehouse Building "Raymond Distribution"
Industrial Drive – Tax Map 22, Lot 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Engineering Review Services

Dear Ms. McCarthy:

As requested, we have completed our review of the plans and materials submitted for the above referenced project. The submitted materials consist of the following:

- Site Plan Review Application (including supporting documents), prepared by Jones & Beach Engineers Inc., and dated August 18, 2022.
- Site Plans, prepared by Jones & Beach Engineers Inc., consisting of 44 sheets, dated August 18, 2022.
- Drainage Analysis (including Watersheds Plans, consisting of 6 sheets), prepared by Jones & Beach Engineers Inc., dated August 18, 2022.

The following were comments noted during the review.

1. We recommend that the Applicant provide a Traffic Impact Analysis for the proposed industrial development, in accordance with Raymond Site Plan Review Regulations Section 5.03.13.

2. Sheet 2 of 44. Drawing No. C1. Existing Conditions Plan.

    a. We recommend that the Applicant revise the plan and provide a legend identifying and clarifying all designation symbols in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.12.
    b. We recommend that the Applicant revise the scale of the plan in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.03.
    c. We recommend that the Applicant revise the plan prepared and stamped by a Licensed New Hampshire Land Surveyor, to show the distance and bearings of

the boundary lines, dimensions and lot area, in accordance with Town of Raymond Site Plan Review Regulations 5.02.04.

d. Locations and widths of adjacent streets, buildings and drives within 200 feet of the site boundaries are not shown in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.06.
e. The shape, height and size of the existing buildings on the site and within 200 feet of the site boundaries are not shown on the plans in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.07.
f. The use of the abutting buildings is not identified in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.09.
g. The size, location and elevation of all existing public and private utilities onsite and off-site with which connection is planned is not identified on the plans in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.10.
h. Soil types and approximate soil boundaries are not identified in accordance with Town of Raymond Site Plan Review Regulation Section 5.02.11.
i. We recommend that the Applicant submit copies of existing covenants, easements, right-of-ways in accordance to Town of Raymond Site Plan Review Regulations Section 5.02.12.
j. The location of all building setbacks are not shown in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.13.
k. The location of aquifer and well head protection areas are not shown (or stated to be absent) in accordance with Town of Raymond Site Plan Review Regulations Section 5.02.14.

3. Sheet 3, 4, 5, 6, 7 of 44. Drawings No. C2, C2-1, C2-2, C2-3, C2-4. Site Plan.

a. We recommend that the Applicant revise the plans and provide a legend identifying and clarifying all drafting and designation symbols in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.12.
b. We recommend that the Applicant revise the plans regarding the accessible parking spaces. As required by the 2010 ADA Standards for Accessible Design, for a total number of 301-400 of parking provided, the minimum number of accessible parking spaces will be 8 (2 van accessible parking spaces included). The minimum width for van-accessible parking is 11 feet. Additionally, two access aisles are still required, as two parking spaces may share am access aisle.
c. The maximum height of the proposed building is not shown in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.02. Also, please note that for any building exceeding thirty (30) feet in height, the minimum building setbacks from the property line shall equal the height of the building in accordance with Town of Raymond Zoning Ordinance Section 2.7.3.
d. The direction of travel for streets and drives and the inside radii of all curves are not shown in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.03.

e. We recommend that the Applicant revise the plans to locate all proposed signs on the site in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.08.
f. It appears there is a conflict between the location of the proposed retaining wall and the existing tree line on the west side. Additionally, the snow storage location interferes with the proposed retaining wall on the east side of the proposed parking lot.

4. Sheet 8, 9, 10, 11, 12 of 44. Drawings No. C3, C3-1, C3-2, C3-3, C3-4. Grading and Drainage Plan.

    a. We recommend that the Applicant revise the plans and provide a legend identifying and clarifying all designation symbols in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.12.
    b. We recommend that the Applicant revise the plans and use a light-gray color for the existing contours, for a better visualization.
    c. We recommend that the Applicant revise the plans and annotate/label the existing contours in order to verify the proposed grading.
    d. We recommend that the Applicant revise the plans and annotate/label all catch basins and drain manholes (i.e. rim, inverts in/out) and drain pipes (i.e. length, size, and slope). Additionally, we recommend labeling all proposed contours.
    e. We recommend that the Applicant indicate the proposed door locations and provide spot elevations at the proposed building, ADA parking spaces, proposed 10' concrete sidewalk (to confirm that the proposed pedestrian walkways have ADA-compliant cross-slope) and where slope is less than 2%.
    f. It appears that some of the proposed contours have a slope of 1:1. We recommend that the Applicant revise the plans and maintain a maximum 2:1 and preferred 3:1 slope for stabilization (see comment g below).
    g. Grading and drainage notes no. 8 specifies the use of "North American Green S75 Erosion Control Blankets". The manufacturer's design data for this product indicates that it is not suitable for slopes greater than 3:1. We recommend that the applicant revise the plan to reference a suitable material.
    h. Grading and drainage notes no. 5 specifies roof drains. We recommend that the Applicant indicate where proposed roof drainage will be located, and how they will tie into the proposed stormwater management system.

5. Sheet 13, 14, 15, 16, 17, 18 of 44. Drawings No. C4, C4-1, C4-2, C4-3, C4-4, C4-5. Utility Plan.

    a. We recommend that the Applicant revise the plans and provide a legend identifying and clarifying designation symbols in accordance with Town of Raymond Site Plan Review Regulations Section 5.03.12.
    b. We recommend that the Applicant meet with the Fire Department to review the proposed protection activities, in accordance with Town of Raymond Site Plan Review Regulations Section 6.09.01
    c. We recommend that the Applicant provide a plan to provide fire truck turning movements.

d. The proposed septic system appears conceptual in nature with no details provided.

6. Sheet 33, 34, 35, 36, 37, 38, 39, 40, 41, 42 of 44. Drawing No. D1. Detail Sheet.

   a. We recommend that the Applicant revise the OS-2 label at the Infiltration Basin (Pond #2) detail on sheet 36 of 44 (D4) to match the drainage report.
   b. We recommend that the Applicant revise the top elevation for the stone Infiltration Basin cross-section detail on sheet 39 of 44 (D4) to match the drainage report.
   c. We recommend that the Applicant revise the Stormtech chamber system (Pond #3) to match the drainage report (i.e. inverts, pipe sizes).

7. Drainage Analysis.

   a. We recommend that the Applicant revise the plans and use a light-gray color for the existing contours, for a better visualization.
   b. We recommend that the Applicant revise the Watershed Plans and reannotate/relabel all of the proposed subcatchments and structures to match and reflect the drainage analysis report. (i.e. on Sheet W2-1, CB-37 appears in two different locations and shows to be a structure for subcatchment 236 and for subcatchment 255, as in the drainage analysis subcatchment 236 flows to proposed CB-123 and subcatchment 255 flows to proposed CB-137). Additionally, we recommend that the Applicant revise the plans (i.e. W2-4) and show all proposed structures and pipes on the plan.
   c. We recommend that the Applicant provide the minimum required number of test pits for the proposed infiltration basins in accordance with the New Hampshire Stormwater Manual, Vol.2, Chapter 2-4 Design Infiltration Rate, Table 2-2.
   d. We recommend that the Applicant revise the calculations to provide a minimum of 1 foot of freeboard in the infiltration basins (pond numbers 2,3 and 5) during the 50-year storm event.
   e. We recommend that the Applicant revise the Infiltration Practice Criteria spreadsheet for the infiltration ponds. (Ponds #4 and 5)
   f. We recommend that the Applicant revise the Rip-Rap calculations to provide modeling summaries for the 25-year storm event. Additionally, we recommend that the Applicant provide the 25-year storm analysis for review.

If you have any questions or comments, please do not hesitate to contact us.

Very truly yours,

DuBOIS & KING, Inc.

Jeffrey A. Adler, P.E.

Senior Project Manager

FIRE SUPPRESSION REVIEW

Wayne Morrill

From: Paul Hammond <phammond@raymondnh.gov>
Sent: Tuesday, November 29, 2022 8:38 AM
To: Wayne Morrill
Subject: FW: 550,025 Industrial Drive-Raymond

Wayne,
Please see below. I don't believe SFC has any questions at this time.

Paul Hammond
Fire Chief, EMD

Phone: 603-895-3321
1 Scribner Road, Raymond NH 03077

From: Jeff Murphy <jmurphy@sfceng.com>
Sent: Tuesday, November 29, 2022 8:25 AM
To: Paul Hammond <phammond@raymondnh.gov>
Subject: RE: 550,025 Industrial Drive-Raymond

Good Morning Chief-

Yes, SFC received the revised report and it was incorporated into our review letters.

_JMurphy

SFC ENGINEERING

Jeffrey M Murphy, PE
Professional Licensure held in NH, ME, and VT
Vice President
SFC Engineering Partnership, Inc.
(603) 647-8700 (office)
(603) 801-8697 (mobile)

From: Paul Hammond <phammond@raymondnh.gov>
Sent: Tuesday, November 29, 2022 8:22 AM
To: Jeff Murphy <jmurphy@sfceng.com>
Subject: FW: 550,025 Industrial Drive-Raymond

Jeff,
I believe I sent you this 7 you commented?

Paul Hammond
Fire Chief, EMD

Phone: 603-895-3321

From: Wayne Morrill <wmorrill@Jonesandbeach.com>
Sent: Monday, November 28, 2022 4:14 PM
To: Paul Hammond <phammond@raymondnh.gov>
Cc: Douglas Richardson <doug@onyxpartnersltd.com>; Front Desk <frontdesk@jonesandbeach.com>; Erik Poulin <epoulin@jonesandbeach.com>
Subject: 550,025 Industrial Drive-Raymond

21130

Good afternoon Paul,
Wanted to check with you to make sure you received the information from our fire engineer and was able to forward to your review consultant. Hoping to address any comments you might have before the next planning board hearing. Let us know if you have any comments.
Thank you

Wayne Morrill
President
Jones&Beach Engineers, Inc.
85 Portsmouth Avenue
PO Box 219
Stratham, NH 03885
(603) 772-4746 (ext. #122)
wmorrill@jonesandbeach.com
http://www.jonesandbeach.com

SAVE A TREE. PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING.
Think Green and view the Screen
Thank You

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CODE RED CONSULTANTS
(617) 500-7633 | INFO@CRCFIRE.COM
(617) 500-2074 | WWW.CRCFIRE.COM
154 TURNPIKE ROAD, SUITE 200
SOUTHBOROUGH, MA 01772

Memorandum

Date:	November 15, 2022	Project#:	226076
To:	Douglas Richardson – Onyx Partners Ltd		
From:	Jeremy Souza, P.E., – Code Red Consultants, LLC		
Re:	Fire Protection Memo – Proposed Warehouse Industrial Drive, Raymond, NH		
Cc:	David Carrillo – Code Red Consultants, LLC		

Executive Summary

Code Red Consultants, LLC (CRC) has been retained by Onyx Partners Ltd to provide a review of the construction, use, and storage arrangements for a proposed distribution warehouse located in Raymond, NH. The purpose of the review was to determine the appropriate sprinkler design criteria and approximate fire protection water supply requirements based on the requirements of NFPA 13 *Standard for the Installation of Sprinkler Systems* (2016 edition), as currently adopted in the State of New Hampshire.

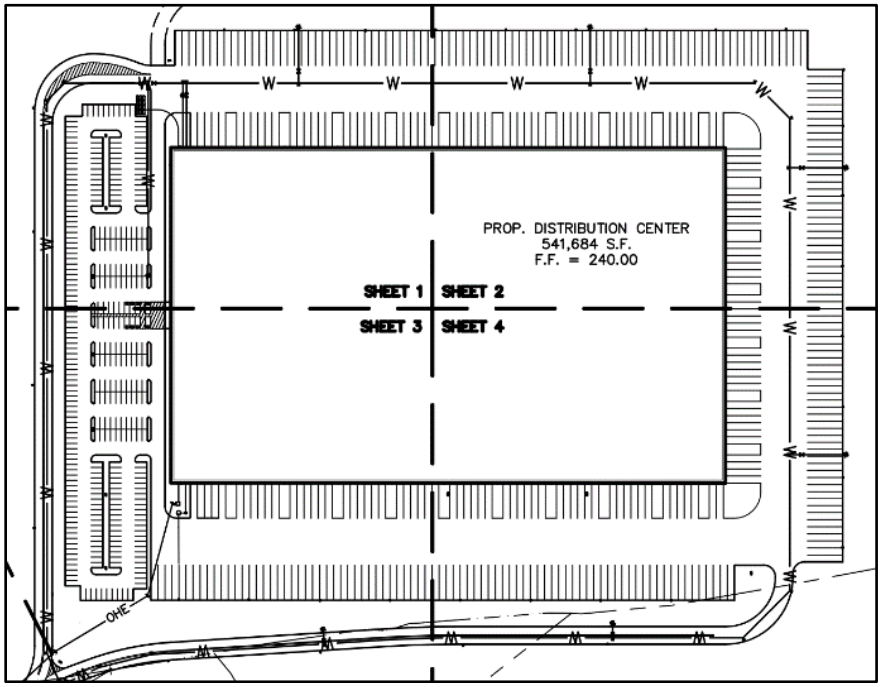

Figure 1: Proposed Warehouse

This review is based on the following:

- Drawing 21130-PLAN.dwg "Raymond Distribution Industrial Drive, Raymond, NH" prepared by Jones & Beach Engineers, Inc. dated 11/10/22 Revision 2 "Issued For Review"

- Excel file "Raymond NH Hydrant Flow Test 2019" provided by Raymond Water Department

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- Related phone and email correspondence with Onyx Partners Ltd regarding the intended operations.

- Select portions of the following codes and standards as they pertain to storage arrangements and sprinkler design criteria (referred to herein as "current applicable codes")[a]:

    - BCR 300, *Building Code* of the *State of New Hampshire*, referencing the 2018 *International Building Code*
    - Saf-C 6000, *Fire Code* of the *State of New Hampshire*, an amended version of NFPA 1, *Fire Code,* 2018 Edition
    - NFPA 13 *Standard for the Installation of Sprinkler Systems* (2016 edition)
    - NFPA 20 *Standard for the Installation of Stationary Pumps for Fire Protection* (2016 edition)
    - NFPA 22, *Standard for Water Tanks for Private Fire Protection* (2018 edition)
    - NFPA 24, *Standard for the Installation of Private Fire Service Mains and Their Appurtenances* (2016 edition)

Design Parameters Summary
The following characteristics were used in conjunction with the 2016 edition of NFPA 13 to evaluate the fire protection design criteria and approximate water supply for the proposed warehouse:

Warehouse Construction

- Single Story
- 550,000 or 1,200,000 square feet total floor area
- Recommended maximum ceiling height of 40 feet
    - Exposed, unexpanded plastic commodities limits total ceiling height to 40 feet
    - Cartoned, unexpanded plastic commodities limit total ceiling height to 45 feet
    - Exposed, expanded plastic commodities limit total ceiling height to 40 feet
- Maximum roof slope allowed 2 in 12* (a rise of 2 units in a run of 12 units, a roof slope of 16.7%). This limitation is based on the maximum allowed slope for ESFR sprinkler heads. It is our understanding that the roof slope will be 0.25 in 12.
- Locations columns and other structural elements (trusses, joists, bracing, etc.) are required to coordinate with the sprinkler system layout such that the sprinkler branch lines are not deviated more than 1 foot from the allowable spacing, and that the area per sprinkler head does not exceed 110 square feet.
- Coordination of rooftop HVAC units should be undertaken to locate units at center of groups of sprinklers. Install all ductwork and/or RTU registers to be located on a plane parallel to or above all sprinkler deflectors.

[a] The 2018 Edition of the International Building Code was adopted in New Hampshire on July 1, 2022, replacing the 2015 Edition. There is a dual concurrency period where building permit applications between July 1, 2022 and December 31, 2022 may utilize either the 2015 or 2018 codes. This memorandum was developed using the 2018 code requirements.

- Should solid structural components (beams) be utilized, sprinklers are required to be installed within each channel or bay formed by the structural components

Storage limitations

- Maximum storage height of 35 feet
  - Exposed, unexpanded plastic commodities limit total storage height to 35 feet
  - Cartoned, unexpanded plastic commodities limit total storage height to 40 feet
  - Exposed, expanded plastic commodities limit storage height to 35 feet
- Single, double, or multiple row racks
  - Open racks
  - No solid shelves
  - 6-inch longitudinal flues between double racks. Racks with less than 6-inch longitudinal flues are classified as multiple row racks
  - Racks storing exposed, expanded plastic commodities require a solid vertical barrier within the racks at maximum 16.5-foot intervals that extend across longitudinal flues.
- Aisle width: minimum 3.5 feet between double racks
- No open-top containers
- Minimum clearance from sprinkler deflector to top of storage: 36 inches

Sprinkler Obstruction Requirements

Obstructions such as beams, ducts, lighting fixture are permitted, however the vertical distance of the sprinkler above the bottom of the obstruction is prescriptively regulated per the table below:

Table 8.12.5.1.1 Positioning of Sprinklers to Avoid Obstructions to Discharge (ESFR Sprinklers)

Distance from Sprinkler to Side of Obstruction *(A)*	Maximum Allowable Distance of Deflector Above Bottom of Obstruction *(B)* [in. (mm)]
Less than 1 ft (300 mm)	0 (0)
1 ft (300 mm) to less than 1 ft 6 in. (450 mm)	1½ (35)
1 ft 6 in. (450 mm) to less than 2 ft (600 mm)	3 (75)
2 ft (600 mm) to less than 2 ft 6 in. (750 mm)	5½ (140)
2 ft 6 in. (750 mm) to less than 3 ft (900 mm)	8 (200)
3 ft (900 mm) to less than 3 ft 6 in. (1.1 m)	10 (250)
3 ft 6 in. (1.1 m) to less than 4 ft (1.2 m)	12 (300)
4 ft (1.2 m) to less than 4 ft 6 in. (1.4 m)	15 (375)
4 ft 6 in. (1.4 m) to less than 5 ft (1.5 m)	18 (450)
5 ft (1.5 m) to less than 5 ft 6 in. (1.7 m)	22 (550)
5 ft 6 in. (1.7 m) to less than 6 ft (1.8 m)	26 (650)
6 ft (1.8 m)	31 (775)

Should the obstruction thresholds above not be achievable in the installed condition, additional EFSR sprinklers are required beneath the obstruction.

General Sprinkler System Requirements

- 40,000 square feet maximum coverage per riser
  - Total risers needed for 550,000 sqft: 14 risers (minimum)
  - Total risers needed for 1,200,000 sqft: 30 risers (minimum)
- Installation requirements
  - Sprinkler deflector to ceiling deck: 6 inches to 18 inches
  - Sprinkler temperature rating: Intermediate temperature
  - Sprinkler coverage:
    - Maximum: 100 sqft/sprinkler per NFPA 13 Table 8.12.2.2.1
    - Minimum: 64 sqft / sprinkler per NFPA §8.12.2.3
  - Sprinkler spacing:
    - Maximum: 10 feet between sprinklers per NFPA 13 Table 8.12.2.2.1
    - Minimum: 8 feet between sprinkler per NFPA §8.12.3.4

Sprinkler Design Requirements

In order to maximize the possible storage arrangements for potential tenants within the proposed warehouse, this sprinkler analysis utilizes the NFPA 13 requirements for the storage of exposed, expanded, Group A plastics on racks up to 35 feet. This category is the broadest, and exceeds the sprinkler requirements for both cartoned and nonexpanded Group A plastic commodities. As such, all types of Group A plastics would be permitted to be stored in the warehouse.

Two options for sprinkler protection are given by NFPA 13 for ESFR sprinklers:

(1) Option 1: utilizes ceiling-only protection.
(2) Option 2: utilizes ceiling sprinklers plus in-rack sprinklers.

It is our understanding that Option 2 will not be utilized, and as such it was not analyzed by CRC as the intent is to accommodate the proposed storage arrangements without the use of in-rack sprinklers.

The ceiling-only sprinkler design criteria are summarized below. Unless specifically noted otherwise, the below criteria were determined based on NFPA §17.3.3.5.

- Sprinkler type: ESFR
- K-Factor: 25.2
- Sprinkler orientation: Pendent only
- Minimum operating pressure: 60 psi at most remote sprinkler
- Design area: Most remote 12 sprinkler heads
- 4 sprinklers on 3 branch lines
- Peak remote area in accordance with NFPA 13 §23.4.4.4
- Hose stream allowance per NFPA 13 Table 17.3.1.17
  - Inside Hose: 0, 50, or 100 gpm
  - Total Combined: 500 gpm
- Duration: 120 minutes

- In-rack sprinklers: not required

Hydraulic Analysis
Code Red Consultants has conducted a preliminary hydraulic analysis of the available water supply with respect to the required performance criteria for a proposed warehouse sprinkler design.

The sprinkler design utilizes an indoor fire protection piping loop, extending from a single fire protection water service room, and continuing around the interior of the exterior walls to supply the various sprinkler risers for each individual sprinkler zone.

The hydraulic analysis was conducted using the following approximations:

- K-Factor 25.2 ESFR sprinklers
- Sprinkler coverage: 100 sqft per sprinkler
- Minimum operating pressure at most remote sprinkler: 60 psi
- Design area: 12 sprinklers operating in the most remote area
- Total hose allowance: 500 gpm
- Supply Loop: 10 inch Schedule 10 black steel pipe
- Riser: 8 inch Schedule 10 black steel pipe
- Grid End Mains: 6 inch Schedule 10 black steel pipe
- Branch lines: 3 inch Schedule 10 black steel pipe

These parameters yielded the following results:

- Sprinkler Flow Required: 2,350 gallons per minute
- Hose Demand: 500 gallons per minute
- Total Flow Required: 2,850 gallons per minute
- Pressure required at the water service entry: 123 psi
- Duration: 120 minutes
- Residual Pressure at street at Demand: 24 psi

Conclusion

Utilizing the municipal water supply, the volume available for the fire protection system would be marginal. Generally, a 20 psi floor for the residual pressure is acceptable. The Raymond Water Department should be consulted to determine if a 24 psi residual is acceptable to prevent damage to the water system and to prevent cross contamination through backflows elsewhere in the system when the fire protection system operates at full capacity. Full-capacity flows can be anticipated during commissioning of the pump or during any flow testing (at least annually), as well as during a fire incident.

The available water pressure at the site is insufficient to operate the sprinklers at the required flow, and as such, a fire pump will be required for the project. The fire pump should be sized based on the difference between the required pressure and the available pressure, combined with the design water flow. The calculation shows a sprinkler demand of approximately 2,350 gallons per minute at 123 psi. As such, a 2,500 gallon per minute, 100 psi fire pump would be

required. This pump pressure can be influenced by pipe diameters other than those specified in the analysis above.

At the full design flow, including the hose stream demand, a total of 342,000 gallons of water would be needed to supply the 120 minute flow duration required by NFPA 13. Additionally, water for manual firefighting activities is required to be provided (Saf-C 6000, Section 18.4.5.3). This quantity is minimally 2,000 gallons per minute for 2 hours, or 240,000 gallons. The larger of these two quantities (sprinkler demand versus manual firefighting demand) is required to be provided. If a water storage tank was required, this quantity is also the quantity of water that would be required to be stored. Should a water tank be required, it is recommended that a minimum 350,000 gallon tank be utilized. Additionally, if a water storage tank is required, the fire pump would then be required to supply the full system demand, requiring a 3,000 gallon per minute, 125 psi pump. This pump pressure can be influenced by pipe diameters other than those used in the analysis above.

Fire hydrants will be provided around the perimeter of the building, supplied by a fire protection water main fed from the fire protection water tank. These hydrants will be marked to identify that they are private hydrants and not tied directly to the public water supply.

The above calculations are estimates only, and should not be relied upon as definitive requirements for fire protection systems within the building.

If you have any questions or concerns, please do not hesitate to contact us.

Prepared By:

David A. Carrillo

Reviewed By:

Jeremy Souza, P.E.

-End of Memo-

Wayne Morrill

Subject: FW: Raymond Industrial Warehouse - Traffic Safety Review

Industrial Drive signage

From: Michael Labell <mlabell@raymondnh.gov>
Sent: Tuesday, November 15, 2022 12:04 PM
To: Erik Poulin <epoulin@jonesandbeach.com>
Subject: Re: Raymond Industrial Warehouse - Traffic Safety Review

Hi Erik,

The HW Safety Committee has not had a meeting to review, but I sharded it with the other members of the TRC and my opinion is that there are no issues involving the signage.

Michael R. Labell

Chief of Police

Raymond Police Department

1 Scribner Road

Raymond, NH 03077

603.895.0914 / Fax 603.895.0901

mlabell@raymondnh.gov

From: Grant Partin
Sent: Friday, October 21, 2022 3:28 PM
To: mlabell@raymondnh.gov
Cc: Front Desk <frontdesk@jonesandbeach.com>; Erik Poulin <epoulin@jonesandbeach.com>
Subject: Raymond Industrial Warehouse - Traffic Safety Review

Good Afternoon Mr. Labell,

Please find attached for your review the C4-5 sheet from our industrial warehouse project plan set, showing proposed modifications to Industrial Drive.

Thank you,

Grant Partin
Project Engineer
Jones&Beach Engineers, Inc.
85 Portsmouth Avenue
PO Box 219
Stratham, NH 03885
(603) 772-4746
http://www.jonesandbeach.com

SAVE A TREE. PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING.
Think Green and view the Screen
Thank You

LEGAL NOTICE
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EXTERNAL SENDER: Use caution when following links or opening attachments.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

SCRIBNER ROAD

OLD MANCHESTER ROAD

INFINITY DRIVE

INDUSTRIAL DRIVE

EXISTING POND

SHEET 3

SHEET 5 – INDUSTRIAL ROAD

EX. 8" WATER LINE

PROPOSED SIGN "TRUCKS NO RIGHT TURN"

CONNECT TO EXISTING POLE

PROPOSED 3-PHASE OVERHEAD POWER

PROPOSED UTILITY POLE

PROPOSED UTILITY POLE
INV=203.32

PROPOSED UTILITY POLE

EX. HYDRANT

PROP. ROAD

206.49

206.54

PROP. HYDRANT
PROP. 8" TEE W/ GATE VALVES

PROP. 8" D.I. WATER MAIN
L=188'

D.I. X D18 C900 D.J. TRANSITION JOINT

PROPOSED SIGN "NO TRUCK IDLE"

PROPOSED SIGN "NO TRUCK IDLE"

EX. WATER VALVE CONNECT TO EXISTING 8" WATER MAIN

EX. 8" D.I. WATERMAIN

EX. DRAINAGE 15" CPP FES INV=202.91

EX. DRAINAGE 24" CPP INV=195.61

PROPOSED MILLING (LIMIT OF WORK)

PROPOSED MILLING

R3-8 (14)
INV=194.83

RELOCATED HYDANT

RELOCATED R1-1 "STOP SIGN"

R3-8 (14)

205.01

205.82

205.54

205.77

205.41

205.91

205.42

205.65

12'

DSTL

R=231'

R=267'

R=30'

EXISTING 12" D.I. WATERMAIN

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH

J/B Jones & Beach Engineers, Inc.

85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885

Civil Engineering Services

603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	UTILITY PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.

C4-5

SHEET 18 OF44
JBE PROJECT NO. 21130

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

October 5, 2022

Raymond Planning Board
Brad Reed, Chairman
4 Epping Street
Raymond, NH 03077

RE: Response Letter
Industrial Drive, Raymond, NH
Tax Map 22, Lot 47
JBE 21130

Dear Mr. Reed,

We are in receipt of comments from Madeleine Dilonno, Regional Planner, Rockingham Planning Commission, dated September 29, 2022. Review comments are listed below with our responses in bold.

GROUNDWATER PROTECTION

1. *A Conditional Use Permit for exceeding the maximum 15% impervious cover in the Groundwater Conservation District is required. It is recommended the applicant provide a brief narrative addressing performance standards in ZO 5.2.6 for the Planning Board's review.*
   RESPONSE: An application for a Conditional Use Permit has been submitted and a brief narrative addressing performance standards in ZO 5.2.6 has been provided.

2. *The applicant should clarify if there will be any storage, handling, or use of regulated substances in quantities exceeding 100 gallons at one time on the site, in which case, a spill prevention, control, and countermeasure plan is required.*
   RESPONSE: We have clarified that there will not be any storage, handling, or use of regulated substances in quantities exceeding 100 gallons at one time on the site and therefore, a spill prevention, control, and countermeasure plan is not required.

3. *A listing of the types and quantifies of regulated and hazardous substances and pollutants which may be used on the site should be indicated on the plan (SPR 5.06.03e).*
   RESPONSE: No hazardous substances and pollutants are proposed to be stored on site at this time. If user proposes to have such materials on site in the future, this change would need to be submitted to the town of Raymond for review.

4. *Aquifer boundaries and any wellhead protection areas should be indicated on the plan (SPR 5.02.14).*
   RESPONSE: Aquifer boundaries and wellhead protection areas have been indicated on the plan. These boundaries are depicted on Sheet C1.

5. *It is recommended that a statement be provided on the plan certifying that the proposed development does not violate the rules and regulations of Chapter 485-C, Groundwater Protection Act (SPR 5.06).*
   RESPONSE: The project has a stormwater treatment design in compliance with NH Alteration of Terrain regulations. This design includes deep sump catch basins, tree wells, forebays, infiltration ponds and the use of an Operation and Maintenance Manual. We are certifying that the development does not violate the rules and regulations of Chapter 485-C, Groundwater Protection Act.

WETLANDS

6. *A special permit is required for wetlands disturbance (ZO 4.9.5) as well as input from the Raymond Conservation Commission.*
   RESPONSE: An application for a wetlands disturbance permit has been submitted. Several meetings have taken place with the Raymond Conservation Commission, and the commission has since submitted a letter to the Raymond Planning board. This letter has indicted that the commission has no further comment at this time.

TRAFFIC

7. *It is recommended that a traffic impact analysis be provided for the proposed development (SPR 5.03.13).*
   RESPONSE: A traffic impact analysis has been performed and provided for review.

8. *It is recommended that a truck turnaround plan be provided to ensure adequate access for Raymond Fire Department and emergency services.*
   RESPONSE: A truck turnaround for the Raymond Fire Department as well as emergency services has been prepared and submitted to the fire department for review.

9. *The direction of travel/circulation throughout the site should be identified on the plan (SPR 5.03.03).*
   RESPONSE: The direction of travel/circulation throughout the site has been identified on the plan with the use of directional arrows. These are depicted on site plans.

10. *It is recommended that a loading area plan be provided in accordance with SPR 6.08.04.*
    RESPONSE: The use of the proposed building is a warehouse and three walls of the structure are dedicated as loading areas. The site plans and grading plans within the submitted plan set provide additional information on stall dimensions, drive line dimensions, and loading area grading.

OTHER

11. *The height of the proposed building be identified on the plan (SPR 5.03.02).*

RESPONSE: The height of the proposed building has been identified on Sheet C2. An application for zoning relief has been submitted to the Raymond Zoning Board of Adjustment.

12. *Hours of operation should be noted on the plan.*
RESPONSE: The hours of operation have been noted on the plan.

13. *It is recommended that architectural concept drawings be submitted for the proposed building (SPR 5.02.15).*
RESPONSE: Architectural concept drawings have been prepared also and submitted with this submission.

14. *It appears that a waiver request is being sought for the location and type of proposed septic system (as indicated on site plan review checklist), however, only one waiver request has been provided for SPR 6.10.04.*
RESPONSE: Since the initial submission, a full septic design has been prepared and submitted for review.

Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Erik Poulin, P.E.
Project Manager

cc: Douglas Richardson ,Onyx Partners, Ltd (via email)
Anton Melchionda, Onyx Partners, Ltd (via email)
Madeleine Dilonno, Rockingham Planning Commission (via email)

ROCKINGHAM PLANNING COMMISSION
theRPC.org

156 Water Street | Exeter, NH 03833
603-778-0885 | www.therpc.org

Memo To: Town of Raymond Community Development Department
From: Madeleine DiIonno, Regional Planner, Rockingham Planning Commission
Date: September 29, 2022
Subject: Review of Site Plan Application for Industrial Drive (Tax Map 22 Lots 44, 43, 46 & 47 and Tax Map 28 Block 3 Lot 120-1)

Rockingham Planning Commission has received and reviewed a site plan application submitted by Jones & Beach Engineers on behalf of Onyx Partners, LTD for the construction of a 500,025 SF industrial warehouse with associated parking and utilities at Industrial Drive (Tax Map 22 Lots 44, 43, 46 & 47 and Tax Map 28 Block 3 Lot 120-1). The property is in Zone D: Industrial. My specific comments are as follows:

Groundwater Protection:

1. A conditional use permit for exceeding the maximum 15% impervious cover in the Groundwater Conservation District is required. It is recommended the applicant provide a brief narrative addressing performance standards in ZO 5.2.6 for the Planning Board's review.
2. The applicant should clarify if there will be any storage, handling, or use of regulated substances in quantities exceeding 100 gallons at one time on the site, in which case, a spill prevention, control, and countermeasure plan is required (ZO 5.2.11).
3. A listing of the types and quantities of regulated and hazardous substances and pollutants which may be used on the site should be indicated on the plan (SPR 5.06.03.e).
4. Aquifer boundaries and any wellhead protection areas should be indicated on the plan (SPR 5.02.14).
5. It is recommended that a statement be provided on the plan certifying that the proposed development does not violate the rules and regulations of Chapter 485-C, Groundwater Protection Act (SPR 5.06).

Wetlands

6. A special permit is required for wetlands disturbance (ZO 4.9.5) as well as input from the Raymond Conservation Commission.

Traffic

7. It is recommended that a traffic impact analysis be provided for the proposed development (SPR 5.03.13)
8. It is recommended that a truck turnaround plan be provided to ensure adequate access for Raymond Fire Department and emergency services.
9. The direction of travel/circulation throughout the site should be identified on the plan (SPR 5.03.03).
10. It is recommended that a loading area plan be provided in accordance with SPR 6.08.04.

Other:

11. The height of the proposed building be identified on the plan (SPR 5.03.02)
12. Hours of operation should be noted on the plan.
13. It is recommended that architectural concept drawings be submitted for the proposed building (SPR 5.02.15)

156 Water Street | Exeter, NH 03833
603-778-0885 | www.therpc.org

14. It appears that a waiver request is being sought for the location and type of proposed septic system (as indicated on site plan review checklist), however, only one waiver request has been provided for SPR 6.10.04 – Licensed landscape architect. It is recommended the applicant clarify what the plans are for wastewater disposal on the site and complete a waiver request if needed.

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1. Enviro North American Consulting Contaminant Remedial Summary	01/12/2023
2. Enviro North American Consulting PFAS Letter	12/14/2022
3. Enviro North American Consulting Opinion Letter	12/08/2022
4. Enviro North American Consulting Mercury Letter	01/12/2023
5. Raymond Conservation Commission Letter	12/09/2022
6. Groundwater Monitoring Plan	11/11/2022
7. Lamprey River Advisory Committee Response - JBE	10/20/2021
8. Lamprey River Advisory Committee Response - GES	10/20/2022
9. Lamprey River Advisory Committee Letter	09/21/2022
10. Salt Minimization Plan	10/11/2022
11. NH Fish and Game Report	08/14/2022
12. NH Natural Heritage Bureau Report	09/29/2021
13. NHDES Hazardous Waste Remediation Bureau Letter	03/20/2013

ENVIRO NORTH AMERICAN
CONSULTING, LLC

Riverbend Professional Building
P.O. Box 1075 Alton, NH 03809

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January 12, 2023
Project 1190-681

Douglas Richardson, Executive V.P.
Onyx Partners Ltd.
200 Reservoir Street, Suite 306
Needham, MA 02494

And

Wayne Morrill, President
Jones & Beach Engineers, Inc.
85 Portsmouth Avene
Stratham, NH 03885

Re: **Contaminant Remedial Summary Lot 120-1: Wetland A, Lagoon 3, and Connecting Trench**

Subject: **Onyx Raymond LLC.**
Application #2022-010
Industrial Drive, Raymond, NH

Dear Gentlemen:

Enviro North American Consulting, LLC (ENAC) has completed an evaluation of information and data pertaining to the proposed development of parcel(s) of land shown on an Existing Conditions Plan dated November 10, 2022 referenced as the Onyx Raymond LLC – Raymond Distribution (subject Property). The contiguous parcels of the subject Property are in the general northeast area off the end of cul-de-sac at Industrial Drive in Raymond, NH.

An abutting property to the northeast is referenced by the Town of Raymond as Lot 120 and has been impacted by subsurface contamination due to the presence of total chromium and Per- and Polyfluorinated Substances (PFAS) released to the environment during past industrial operations of a tannery known as the Former Regis Tannery, also referred to as Former Rex Leather Tannery. The New Hampshire Department of Environmental Services (NHDES) Hazardous Waste Remediation Bureau (HWRB) tracks the remedial activity of the northeast abutting property as Site #201110061 (Lot 120).

A second parcel of land is located further northeast beyond a recreational trail (former railroad easement Boston & Maine Railroad) and is associated with the former industrial use of Regis Tannery / Rex Leather Tannery and identified by the Town of Raymond as Lot 43.

Tannery related contamination released to the environment at Lot 43 is managed by the NHDES HWRB as remedial Site #198705081. Both former tannery sites are considered contaminated properties and are currently owned by the Town of Raymond. The NHDES lists the Town of Raymond as the Responsible Parties (RP) for the ongoing remedial investigation and clean-up activity.

ENAC notes the subject Property is not a remedial site managed by NHDES.

Scope of Services

The scope of service conducted by ENAC included a review of available remedial documents through the NHDES Onestop database for the Former Regis Tannery sites and telephone interview with the active NHDES Hazardous Waste Remediation Bureau's (HWRB) Project Manager, Tanya Justham who is currently managing investigations and monitoring at the Former Regis Tannery Sites.

This letter presents the remedial activities concerning sources of contamination discovered from former tannery discharges which had impacted the subject Property, specifically referenced as former Wetland A, former Lagoon #3 and a former Drainage Trench, connecting the two surface water bodies. Remedial excavations were completed to remove contaminant impacted soil and sediment from the subject Property, prior to a subdivision of land. ENAC notes that current-day Lot 120-1 had been previously subdivided from a larger Town of Raymond owned Lot 120 and known to be part of the Former Regis Tannery remedial site.

ENAC reviewed a recent Draft copy of a Phase I ESA prepared for the subject property (Lot 120-1) in December of 2022 for the identification of Recognized Environmental Conditions (RECs), Controlled Recognized Environmental Conditions (CRECs), and Historical Recognized Environmental Conditions (HRECs) associated with past and current use of the subject Property. My professional opinion regarding the subject Property's existing environmental conditions and past remedial clean-up activity is provided in this letter report.

REMEDIAL INFORMATION FORMER REGIS TANNERY - LOT 120

Remedial investigations and follow-up clean-up actions occurred at the Former Regis Tannery Sites as part of the initiatives through federal Brownfield Clean-up Grants awarded to the Town of Raymond for Lots 43 and 120, and through a subgrant available through the New Hampshire Brownfields Revolving Loan Fund and the American Recovery and Reinvestment Act of 2009. The objectives of the remedial action conducted to date provided protection to human health and the environment by removal, consolidation and capping of contaminated material, and to limit impacts of contaminated sources impacting groundwater, surface water and soil. Completion of remedial actions were conducted in accordance with specifications and pre-approval by the NHDES or the United States Environmental Protection Agency (USEPA).

During planned remedial excavations conducted under the approved RAP, Former Lagoon #1 located on Lot 120 is a remedial Consolidation Area to dispose of Lot 43 and Lot 120 buried tannery wastes encountered during past remedial excavations. The Consolidation Area (Lagoon

#1) was capped with low-permeability soil under direction of NHDES Hazardous Waste Remediation Bureau. Remedial activity conducted to date is documented in Revised Remedial Action Implementation Report dated October 23, 2012.

WETLAND A, LAGOON #3 AND CONNECTING DRAINAGE TRENCH – LOT 120-1

The wastewater discharge process from the Former Regis Tannery on Lot 43 was altered in the early 1960s and included discharging process wastewater into 3-lagoon areas located across Lot 120. Process water was pumped from lower lying areas of Lagoon #1 and #2, upslope to Lagoon #3. The process included discharging tannery process water through a wetland noted as Wetland A, where water flowed west from Wetland A across a surface trench with a final discharge into Lagoon #3.

Former process tannery discharges into Wetland A, Lagoon #3 and the connecting surface drainage trench are located on the land owned by Onyx Raymond, LLC (subject Property) referenced as current-day Lot 120-1. ENAC notes that current Lot 120-1 was part of a larger parcel of land referred to as Lot 120, until a land subdivision divided the two lots of record. Former tannery process wastewater discharges to Wetland A, Connecting Drainage Trench, and Lagoon #3 are shown on the attached Existing Conditions Plan (C1). Tannery operations reported wastewater was pumped to Wetland A and flowed west across the drainage trench discharging into Lagoon #3. This occurred only when Lagoon #1 and Lagoon #2 (located on Lot 120) capacities were full and no longer could receive tannery wastewater discharge.

Consolidation Area (former Lagoon #1) was established during the RAP and was located on current-day Lot 120. The Consolidation Area contains capped tannery sourced wastes and has been established as an Activity Use Restriction (AUR) area for future subsurface disturbances and development. Groundwater quality surrounding the Consolidation Area on Lot 120 is currently monitored under a Groundwater Management Permit (GMP) issued by the NHDES, where the Groundwater Management Zone (GMZ) is limited to the AUR boundary on Lot 120. The GMZ or AUR does not extend across the common property boundary of Lot 120-1 (subject Property) and there are no deed restrictions in-place by NHDES for Lot 120-1 limiting proposed use or development.

<u>Remedial Excavations: Drainage Trench from Wetland A to Lagoon #3</u>
Contaminated trench soil and sediment containing concentrations of metals detected above the NHDES – Soil Remediation Standards (SRS) were excavated from the connecting drainage trench from Wetland A to Lagoon #3. Approximately, 165 cubic-yards of chromium impacted soil and sediment was excavated and placed in the Former Lagoon #1 Consolidation Area located on current-day Lot 120, as the NHDES approved remedial approach for clean-up removal of chromium impacts. Reportedly, depths of chromium impacts from within the limits of the drainage trench did not exceed 1-foot in depth. Post-excavation soil samples collected and laboratory analyzed for the presence of chromium met the NHDES SRS. Also, sediment pre-excavation from the connecting trench did not result with detected metals detected above the EPA's Toxicity Characteristic Leaching Procedure (TCLP) and did not require special handling or disposal as hazardous waste.

Lagoon #3 Dam Removal and Dewatering

Former tannery operations pumped overflow wastewater into Wetland A, which flowed via surface trench in a westerly direction discharging into Lagoon #3. A former surface water dam was located within Lagoon #3 which received past discharges from Wetland A via surface drainage connecting trench. During remedial activity, a NHDES wetlands permit was authorized in December 2007 to remove the dam from Lagoon #3, it was reported that standing surface water from Lagoon #3 was dewatered prior to dam removal. The Lagoon #3 dewatering was completed under NHDES Wetland Permits and Temporary Discharge Permits issued in October of 2008. Dewatering of Lagoon #3 was conducted over a 4-week period during March of 2009. Excavation of the Lagoon #3 dam contained leather straps and debris excavated and transported to be deposited at the Consolidation Area of Lot 120 as the approved remedial approach.

Portions of Lagoon #3 dam and a soil berm located along the north edge of Lagoon #3 contained sand and gravel observed free of contamination and with no visual or olfactory evidence of oil or hazardous wastes. Excavated sands and gravel from Lagoon #3 (dam and berm) were transported for restoration of remedial excavations located at nearby Former Tannery remedial site Lot 43. Prior to utilization of the sands and gravel for restoration purposes on Lot 43, the sand and gravel material was investigated by test pits where soil samples were collected and analyzed for the presence of chromium. Table 2 of the October 12, 2012 Revised Remedial Action Implementation Report shows the chromium results were detected below the applicable NHDES SRS and USEPA TCLP.

NOTICE OF ACTIVITY USE RESTRICTION (AUR)

Remedial activity for Lot 43 and Lot 120 included separate post-excavation recorded Notice of Activity Use Restrictions (AURs) authorized by the NHDES for the landfilled areas labeled as the Deeply Buried Leather Fill Area (Lot 43) and the Consolidation Area (former Lagoon #1 Consolidation Area) on Lot 120. The AURs were authorized by NHDES and remain in-place to protect human health and as an advisory to future site disturbances or redevelopment activity. ENAC notes that the Notice for AUR boundary for Lot 120 is limited to Former Lagoon #1 – Consolidation Area. The Lot 120 AUR boundary does not extend south across the common adjoining property boundary onto current-day Lot 120-1. The Notice of AUR was recorded in the Rockingham County Registry of Deeds for Lot 120 and received by the NHDES on February 21, 2013.

CERTIFICATE OF COMPLETION – ISSUED BY NHDES FOR LOT 120

The NHDES HWRB (Brownfields Program) issued the Town of Raymond (Responsible Party) a Certificate of Completion dated March 20, 2013 based on their review of the Revised Remedial Action Implementation Report prepared for the site dated October 23, 2012. The Certificate of Completion is attached as appendices to this letter.

The NHDES Certificate of Completion outlines the Responsible Party (Town of Raymond) of the Former Regis Tannery – Lot 120 remedial Site #201110061, Hazardous Waste Project #27227 has met the obligations set forth in the approved Remedial Action Plan (RAP). The

Revised Remedial Action Implementation Report and other information concerning soil and groundwater contamination was reviewed by NHDES and compared to the NH Code of Administrative Rules Env-Or 600, Contaminated Site Management. The criteria to support issuance of the Certificate of Completion are itemized below:

- (Item 1) All activities specified in the approved remedial action plan, with the exception of groundwater monitoring, have been completed,
- (Item 2) The performance standards specified for the approved remedial action and the groundwater management permit have been achieved,
- (Item 3) All monitoring under the groundwater management permit are being met, and
- (Item 4) Any necessary activity and use restrictions (AURs) have been implemented.

The NHDES concludes that the conditions meet the Certificate of Completion criteria in accordance with information outlined in Contaminated Sites Management, subsection Env-Or 609.01. The NHDES notes that groundwater monitoring shall continue in accordance with Conditions of GWP-201110061-R-001 (Groundwater Management Permit issued to the Lot 120 remedial site for continued compliance of Ambient Groundwater Quality Standards - AGQS).

GROUNDWATER MANAGEMENT PERMIT – LOT 120

Past industrial release(s) to the environment on Lot 120 have impacted shallow area groundwater quality and the Town of Raymond is the listed responsible party (RP). Remedial activities have been completed and AURs exist on Lot 120 to protect the risk to human health. Shallow groundwater quality has been monitored under a NHDES issued Groundwater Management Permit since 2013 (for a 5-year period), the initial permit expired in 2018. A second GMP has been issued by NHDES to the Town of Raymond for Lot 120 dated July 15, 2022 for a consecutive 5-year monitoring period (2022 – 2027). A copy of the Groundwater Permit Renewal Application and the NHDES issued Groundwater Management Permit are attached as appendices.

Due to decreasing concentrations of total chromium in site groundwater, the NHDES has reduced chromium monitoring to occur during June of 2023 and June of 2026. Remaining Permit Conditions require annual monitoring (each year) in June for groundwater elevation measurements and water sample collection from 4-monitoring wells for the presence of Per- and Polyfluoroalkyl Substances (PFAS).

<u>Per- and Polyfluoroalkyl Substances (PFAS) Former Tannery Site Lot 120</u>
As directed by the NHDES HWRB, groundwater quality from the Former Tannery Site Lot 120 was screened for the presence of PFAS. Analytical results from groundwater samples have detected the presence of PFAS and associated chemical derivatives in groundwater at concentrations above the NHDES adopted AGQS. Due to the persistence of PFAS detections in site groundwater, the updated Permit issued to Lot 120 includes annual monitoring of PFAS chemicals. The NHDES has also required a Supplemental Site Investigation (SSI) as part of Permit conditions warranted at both Former Tannery Sites to further evaluate the source and

delineate the presence of PFAS. The suspected source for PFAS has been noted as the likely use of fire extinguishing foam during 1972 when fire destroyed the tannery, and the possibility of tanning processes using PFAS chemicals which discharged to the environment. To date, the request by NHDES for the SSI work has not been completed.

DRAFT PHASE I ENVIRONMENTAL SITE ASSESSMENT ONYX RAYMOND, LLC. – DECEMBER 2022

ENAC reviewed a draft copy of a Phase I Environmental Site Assessment (ESA) report dated December 8, 2022 and prepared by others for the subject Property owned by Onyx Raymond, LLC (subject property). The recent Phase I ESA report was completed in conformance with the American Society for Testing Materials (ASTM) Phase I ESA Standards of Practice E1527-13 and newly revised Standard E1527-21. ENAC notes there were no reported Data Gaps identified in the ESA process. The Phase I ESA report's Section 8.0: Findings, Opinions, and Conclusions, made the determination that the assessment has not identified Recognized Environmental Conditions (RECs), Controlled Recognized Environmental Conditions (CRECs), and Historical Recognized Environmental Conditions (HRECs), or deminimis conditions in connection with the subject property. The Phase I ESA report's Section 9.0: Recommendations – provides a basis for no further action, no additional assessment, and no subsurface investigations.

ENVIRONMENTAL SAMPLING – ONYX RAYMOND LLC.

Surface Water Quality Sampling – Onyx Raymond LLC.

ENAC representative visited the subject Property to collect surface water samples from 3-existing wetland areas containing standing water on November 22, 2022. The 3-surface water sample locations are shown on the attached Existing Conditions Plan. Grab water samples were collected from 3-selected wetland or stream bed areas of the subject Property with use of a dedicated water sample bottle connected to an extendable rod. Water samples for total chromium analysis were collected and field filtered with use of a 0.45-micron filter then placed in preserved laboratory containers. Grab water samples (raw non-filtered) were collected for PFAS analyses at each location and placed directly in laboratory prepared containers. The water samples were placed inside a cooler with ice and delivered directly to a New Hampshire certified laboratory for the analyses of total chromium by EPA Method 200.8 and 24-compound list of PFAS and derivative chemicals by EPA Method 537 modified.

Total Chromium

Total chromium was detected at concentrations below human health concerns or was not detected above laboratory detection limits from the 3-surface water samples. Resulting surface water quality concentrations for total chromium are presented in Table 1 as compared to the NHDES Maximum Contaminant Level (MCL) for water and fish ingestion for protection of human health:

TABLE 1
ONYX RAYMOND LLC.
SUMMARY OF TOTAL CHROMIUM – SURFACE WATER

Sample Designation: **(surface water samples)**	**Total Chromium Concentration:** **(surface water samples)**	**Total Chromium MCL: for water & fish ingestion human health criteria**
SFW-1	Total Chromium = 5.6 µg/L	100 µg/L
SFW-2	Total Chromium <1.0 µg/L	100 µg/L
SFW-3	Total Chromium = 24 µg/L	100 µg/L

Notes:
1. µg/L = micrograms per liter, equivalent to parts per billion (ppb).
2. SFW-1 sample designation for surface water sample location #1.
3. Total chromium Maximum Contaminant Level (MCL) from Table 1703-2A.
4. Table 1703-2A found in NH Code of Administrative Rules Env-Wq 1700.
5. Note the NHDES AGQS for total chromium = 100 µg/L.

Water samples from November 22, 2022 resulted with low concentrations of total chromium detected below the NHDES MCL for water and fish ingestion criteria of 100 micrograms per liter (µg/L). The same water quality value has been adopted as the AGQS for total chromium in drinking water at 100 µg/L.

PFAS Sampling Results – Surface Water Quality

Results of PFAS were detected at low concentrations from 3-surface water samples collected by ENAC on November 22, 2022. PFAS was detected below the NHDES adopted AGQS as shown below in Table 1A.

TABLE 1A
ONYX RAYMOND LLC
SURFACE WATER QUALITY DATA - PFAS

COMPOUND	Surface Water Sample Locations			NHDES Water Quality Standards	
PFAS by EPA Method 537M	**SFW-1**	**SFW-2**	**SFW-3**	**AGQS**	**Surface Water Standard**
Perfluorooctanesulfonic Acid (PFOS)	0.0117	ND	0.00406	***0.015***	***NSA***
Perfluoropentanoic Acid (PFPeA)	ND	ND	ND	***NSA***	
Perfluorohexanoic Acid (PFHxA)	ND	ND	ND	***NSA***	
Perfluorooctanoic Acid (PFOA)	0.00507	ND	ND	***0.012***	
Perfluorohexanesulfonic Acid ((PFHxS)	ND	ND	ND	***0.018***	
Perfluorobutanoic Acid (PFBA)	ND	ND	ND	***NSA***	
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ND	***NSA***	
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ND	***NSA***	
Perfluorononanoic Acid (PFNA)	ND	ND	ND	***0.011***	
N-ethyl-perfluorooctane Sulfonamido Acetic Acid (EtFOSAA)	0.00434	ND	ND	***NSA***	

NOTES (from Table 1A):

1. PFAS concentrations are presented as parts per billion (ppb) equivalent to micrograms per liter.
2. ND = Not detected and below laboratory reporting limits.
3. Concentrations compared to NHDES Ambient Groundwater Quality Standards (AGQSs), effective 1/1/2021.
4. NSA = No water standard for individual compounds.

CONCLUSIONS

Based on available information reviewed, the following outlines my professional opinion regarding the environmental evaluation of the subject Property - Onyx Raymond LLC., as it relates to contamination from former tannery derived wastes. It is my professional opinion that groundwater contamination from the Former Tannery sites is located and limited to the north adjoining properties (Lots 43 and 120) and the subject Property's groundwater quality has not been impacted by past discharges of tannery hazardous releases. The following itemization supports my professional opinion.

1. Past sources of contamination have been removed from current-day Lot 120-1 under an authorized NHDES Remedial Action Plan (RAP) and further described in a Revised Remedial Action Implementation Report. Sources of metals included chromium impacts to shallow sediment of a connection trench between former Wetland A and former Lagoon #3 on Lot 120-1. Sediment from the connection trench was mitigated by removal and placement in a designated landfill area labeled as Former Lagoon #1 – Consolidation Area located on Lot 120. Confirmation soil sampling post-excavation resulted with laboratory results that met the NHDES Soil Remediation Standards (SRS).

2. Former Lagoon #3 was dewatered as part of the approved NHDES remedial activity, where water was allowed to flow west draining surface water of Lagoon #3 over a 4-week period. The former Lagoon #3 contained a dam which was removed as part of approved remedial work conducted under the RAP.

3. Former Lagoon #3 located at Lot 120-1 included a dam and soil berm, both were tested for the presence of chromium and metals prior to excavation of the dam and berm materials. Soil from the dam and berm were tested for the presence of metals which met the NHDES SRS. Leather straps were observed as mixed debris in portions of the dam. The debris was excavated and disposed of in Lot 120's Consolidation Area following conditions of the RAP. Non-contaminated soil excavated from former Lagoon #3 was used for reclamation of remedial areas across Lot 120 and Lot 43 former tannery sites.

4. An Activity Use Restriction (AUR) has been established at Lot 120 for the area containing buried tannery wastes. The AUR on Lot 120 includes the Consolidation Area where impacted chromium soil and tannery wastes were buried following conditions of the RAP. The limits of the AUR include the perimeter of the buried wastes (Consolidation Area) and does not expand across common property boundary of Lot 120-1. The Notice of AUR has been recorded in the Lot 120 deed at the Rockingham Country Registry.

5. Groundwater Management Permit has been issued by the NHDES for ongoing groundwater quality monitoring for the presence of total chromium and PFAS detected beneath Lot 120. The remedial site's Permit includes a Groundwater Management Zone (GMZ) Boundary which is limited to the same AUR boundary around the Consolidation Area. The site's GMZ does not extend across property boundaries to include Lot 120-1.

To date, the NHDES has not required groundwater quality investigations beneath the adjoining and hydrogeologic upgradient Lot 120-1.

6. ENAC has reviewed the local ordinance described under Section 5.06 Groundwater Protection defined by RSA 485-C: 2 VIII. Item 2 of the Town ordinance states that property contaminated by hazardous or toxic materials shall disclose such information as part of the application process. Our application process has included review of available information and results show that remedial action is complete and the NHDES has issued a Certificate of Completion which includes remediation at current-day Lot 120-1.

7. Telecommunications conducted with Todd Greenwood of ENAC and Tanya Justham of NHDES Hazardous Waste Remediation Bureau (HWRB), acting Project Manager for the Former Regis Tannery sites. According to Ms. Justham, the past remediation activity for Former Wetland A, Former Lagoon #3 and Former Drainage Connecting Trench located on Lot 120-1 has been completed to satisfy NH Code of Administrative Rules, Contaminated Site Management Env-Or 600 and no further investigations are warranted.

8. Ms. Justham of NHDES explained the outstanding subsurface investigation (SSI) required for the Former Regis Tannery sites will be focused on hydrogeologic down-gradient properties directed toward the Lamprey River for the further evaluation of PFAS in groundwater. The NHDES has no plans to investigate groundwater quality beneath the subject property (Lot 120-1) due to its hydrogeologic up-gradient setting.

9. Ms. Justham of NHDES acknowledged the subject property (Lot 120-1) is not a listed remedial site tracked by the NHDES therefore jurisdiction for NHDES HWRB is non-applicable for limiting the planned future development.

10. ENAC reviewed a recent Draft copy of a Phase I Environmental Site Assessment (ESA) prepared by others for the subject Property in December of 2022. The Phase I ESA report findings conclude that no past or present Recognized Environmental Conditions (REC) exist, and no further environmental assessment or subsurface investigations are warranted.

11. Todd A. Greenwood, NH Licensed Geologist #715, has provided the professional review of available contaminant information and conducted recent November 2022 surface water sampling in connection with past sources of tannery wastes on behalf of Onyx Raymond, LLC. The information presented to the Town of Raymond's Planning Board with conclusions based upon facts that Lot 120-1 is not a listed contaminated remedial site. The Town of Raymond should move forward with the application processes for proposed development by Onyx Raymond LLC.

12. Bulleted items below support my conclusion based on surface water sampling conducted in November of 2022 and review of available monitoring data collected and reported from the adjoining Lot 120 tannery remedial site.

- Water quality samples have been collected by ENAC from 3-surface water sources at the subject Property and laboratory analyzed for the presence of total chromium and PFAS. Detected concentrations of total chromium in surface water at the subject Property indicate the likely source is derived as background concentrations.

- Laboratory analytical results of PFAS from 3-surface water samples collected from former Wetland A, Lagoon #3, and a third west surface stream persist below applicable drinking water quality standards (AGQS). The concentrations of detected PFAS were below NHDES adopted AGQS does not warrant additional investigations and NHDES has not adopted PFAS surface water quality standards to date.

- Past and ongoing groundwater monitoring activity at the Former Tannery Sites has measured groundwater elevations and inferred shallow groundwater flow is directed north and northwest toward the Lamprey River and away from the subject Property.

- The subject Property's setting is hydrogeologic upgradient from the Former Tannery sites with steeply sloping upward topography elevation differences (60- to 100-feet vertical elevations). Under natural conditions pathways for contaminant migration are not anticipated to impact the environment.

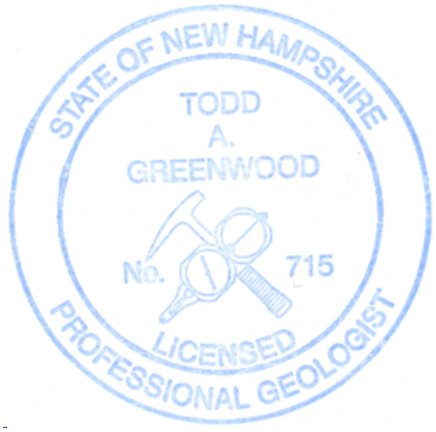
- Groundwater flow under natural conditions follows the area topography in a north direction towards the Lamprey River. The Lamprey River is located approximately 1,300-feet north of the subject Property.

- The Town of Raymond contracts with an environmental consultant who conducts routine annual groundwater quality monitoring as part of their responsibility under conditions of active Groundwater Management Permits for both Former Tannery sites. ENAC has reviewed recent monitoring reports and a 2019 Water Well Receptor Survey Summary which have been submitted to NHDES HWRB and evaluated sensitive receptors within a radius of 500-feet. The northern portion of the subject Property is located within the 500-foot receptor radius and has not been identified as a potential sensitive receptor.

- Due to the hydrogeologic upgradient setting of Lot 120-1 as compared to inferred shallow groundwater flow and anticipated contaminant migration pathways directed north towards the Lamprey River, the subject Property is considered low-risk for environmental impacts resulting from tannery contaminant migration. The application process for development of Lot 120-1 should be allowed by the Town of Raymond's Planning Board.

It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC



Todd A. Greenwood, P.G.
President

Attachments: Existing Conditions Plan
Certificate of Completion
Groundwater Permit Renewal Application – October 29, 2019
Groundwater Management Permit GWP-201110061-R-002 (2022-2027)

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

15,438 SF WAREHOUSE 1 STORY

TAX MAP 28-3, LOT 43
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

FORMER WETLAND A

SFW-1

SFW-2

SFW-3

CONNECTING TRENCH

FORMER LAGOON 3

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

BUILDING 3
63,500 SF
1 STORY

BUILDING 2
33,460 SF
1 STORY

BUILDING 1
38,881 SF
1 STORY

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

EXISTING LUMBER YARD

TAX MAP 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

ZONE LINE "D" (INDUSTRIAL)

ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

INDUSTRIAL ROAD

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

WELLHEAD PROTECTION AREA BOUNDARY

GROUNDWATER PROTECTION ZONE

SCRIBNER ROAD

OLD MANCHESTER ROAD

TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

NH ROUTE 101 (WESTBOUND)

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 24
JOHN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

LAMPREY RIVER AQUIFER PROTECTION AREA BOUNDARY

PROJECT PROPERTY BOUNDARY

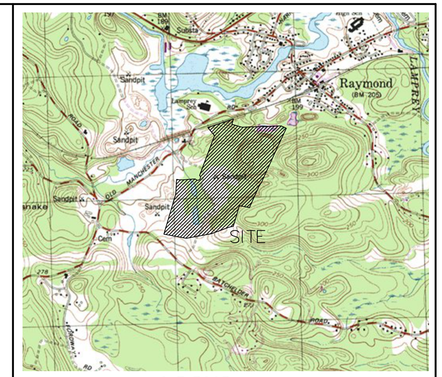
NH ROUTE 101 (EASTBOUND)

ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

ZONE LINE "D" (INDUSTRIAL)

PLAN REFERENCE:

1. AN ALTA SURVEY AND PLAT OF PROPERTY PREPARED FOR M-O-H ENTERPRISES FL, INC. SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY R.S.L. LAYOUT & DESIGN, INC. DATED 2/21/1996



LOCUS SCALE: 1"=2000'

EXISTING CONDITIONS NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
2. BASE ELEVATION WAS ESTABLISHED THROUGH MULTIPLE GPS POST PROCESS OBSERVATIONS AND WAS REDUCED TO THE NAVD88 DATUM BY THE NATIONAL GEODETIC SURVEY OPUS SOFTWARE.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN WALDEN C.W.S., DURING SUMMER, 2021, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
   a. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
   b. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
   c. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
   d. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
7. SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING SPRING, 2022, AND IS BASED ON THE STANDARDS OF SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 2.0 (1999: SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND). THE MAP IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR THE USE(S) REQUIRING THE SITE SPECIFIC SOIL SURVEY AND IS PRODUCED BY A CERTIFIED SOIL SCIENTIST. IT IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. A NARRATIVE REPORT IS A COMPONENT OF THE MAP.
8. A TEMPORARY CULVERT AND ROADBED SHALL BE IN PLACE PRIOR TO ANY USE OF A WETLAND CROSSING.
9. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
10. TEST PITS PERFORMED BY WAYNE MORRILL, JONES & BEACH ENGINEERS, INC., 12/20/21.
11. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafdc	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0-8%; C SLOPE = 8-15%; D SLOPE = 15-25%

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN
Project: RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C1
SHEET 2 OF44
JBE PROJECT NO. 21130

The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

March 20, 2013

Ernest M. Cartier Creveling
Town of Raymond
4 Epping Street
Raymond, NH 03077

CERTIFICATE OF COMPLETION

Subject: **Raymond** – Former Regis Tannery - Lot 120, Old Manchester Road
DES #**201110061**, Project #27227

Revised Remedial Action Implementation Report, prepared by StoneHill Environmental, Inc., dated October 23, 2012

Dear Mr. Creveling:

The Department of Environmental Services (Department) has reviewed the subject report. This report, prepared on your behalf, transmits information relative to the completion of required remedial activities at the site. A request for a Certificate of Completion is also included in the report. The Department has reviewed this report, as well as the copy of the recorded *Notice of Activity and Use Restriction* received by the Department on February 21, 2013, and determined that the required remedial activities for the site have been completed in accordance with the provisions of the approved Remedial Action Plan. This information, together with other information concerning soil and groundwater contamination at the site, was compared with the criteria for issuance of a *Certificate of Completion* contained in New Hampshire Code of Administrative Rules Env-Or 600, *Contaminated Site Management*. These criteria are listed below:

1. All activities specified in the approved remedial action plan, with the exception of groundwater monitoring, have been completed;

2. The performance standards specified for the approved remedial action and the groundwater management permit have been achieved;

3. All monitoring requirements under the groundwater management permit are being met;

4. Any necessary activity and use restrictions have been implemented;

5. All penalty(ies) or fine(s) issued under the New Hampshire Statutes for Oil Spillage, Underground Storage Facilities, or Hazardous Waste Management have been paid;

6. All invoices associated with the Department's recoverable costs have been paid or waived; and

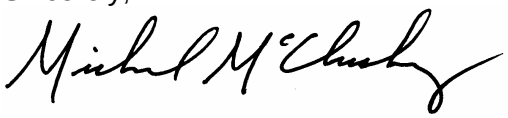
7. All fees or costs due under the Brownfields Program have been paid.

The Department has concluded that the conditions at this site meet the above certificate of completion criteria. Therefore, in accordance with Env-Or 609.01, the Department hereby issues this ***Certificate of Completion***. Groundwater monitoring **shall** continue in accordance with the conditions of Groundwater Management Permit GWP-201110061-R-001.

The Department reserves the right, under New Hampshire Code of Administrative Rules Env-Or 600, *Contaminated Site Management*, to require additional investigations or remedial measures if further information indicating the need for such work becomes known.

If you should have any questions, please contact me at the Department's Waste Management Division.

Sincerely,



Michael McCluskey, P.E.
Brownfields Program
Hazardous Waste Remediation Bureau
Tel: (603) 271-2183
Fax: (603) 271-2181
E-mail: Michael.McCluskey@des.nh.gov

ec: Town of Raymond Health Officer
Timothy Stone, P.G., StoneHill Environmental, Inc.
Chad Tomforde, P.G., StoneHill Environmental, Inc.
Rebecca Williams, P.G., Brownfields Coordinator, HWRB

DES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095

GROUNDWATER MANAGEMENT PERMIT RENEWAL APPLICATION

Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire 03077

NHDES Site # 201110061
Project Type: HAZWASTE
Project Number: 27227

Prepared For:
Town of Raymond
4 Epping Road
Raymond, New Hampshire 03077
Contact Name: Stephen Brewer, Director of Public Works
Phone Number: 603-895-7035
Email: sbrewer@raymondnh.gov

Prepared By:
StoneHill Environmental
600 State Street, Suite 2
Portsmouth, New Hampshire 03801
Contact Name: Chad G. Tomforde, P.G.
Phone Number: 603-433-1935
Email: ctomforde@stonehillenvironmental.com

Date of Report: October 29, 2019
StoneHill Project No. 14038

StoneHill
Environmental
a subsidiary of CEA

600 State Street, Suite 2
Portsmouth, NH 03801
tel 603-433-1935
fax 603-433-1942

October 29, 2019 StoneHill Project No. 14038

Groundwater Management Permits Coordinator
NHDES - Waste Management Division
P.O. Box 95, 29 Hazen Drive
Concord, New Hampshire 03302-0095

RE: Groundwater Management Permit Renewal Application
Former Regis Tannery – Lot 120, Old Manchester Road, Raymond, New Hampshire
NHDES Site #201110061; Project #27227

Dear GMP Coordinator:

On behalf of the Town of Raymond, New Hampshire, StoneHill Environmental (StoneHill) is pleased to submit the attached Groundwater Management Permit (GMP) Renewal Application and supporting documentation for the above-referenced property (Site). The GMP Renewal Application is being prepared in accordance with the New Hampshire Department of Environmental Services (NHDES) request letter dated January 14, 2019.

If you have questions, please do not hesitate to contact the undersigned at (603) 433-1935.

Sincerely,
StoneHill Environmental

Misty L. Cawthern
Senior Scientist

Chad G. Tomforde, PG
Principal Geologist

Attachment: GMP Renewal Application and Supporting Documentation

GROUNDWATER MANAGEMENT PERMIT APPLICATION
Former Regis Tannery - Lot 120
Old Manchester Road, Raymond, New Hampshire
NHDES Site # 201110061

V. SUPPORTING INFORMATION

V. (a). Summary of data trends – see Tables 1 through 3 and July 2019 Laboratory Report, attached

- General Trends: Dissolved total chromium concentrations continue to be detected below NHDES Ambient Groundwater Quality Standards (AGQS). Per- and polyfluoroalkyl substances (PFAS) analysis of the Lot 120 monitoring wells indicated that PFAS compounds exceed NHDES Ambient Groundwater Quality Standards (AGQS) at the Site. Groundwater elevations were observed to be generally consistent throughout the monitoring period.
- MW-1 (120): Several PFAS compounds were detected in samples from MW-1 (120) in August 2018 with perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) detected at concentrations above AGQS in August 2018 and July 2019.
- MW-2 (120): Several PFAS compounds were detected in samples from MW-2 (120) in August 2018 with PFOA and PFOS detected at concentrations above AGQS in August 2018 and July 2019.
- MW-3 (120): PFOS was detected at a concentration below AGQS in samples from well MW-3 (120) in August 2018 and July 2019. No other PFAS compounds were detected.
- GZ-3 (120): Several PFAS compounds were detected in samples from MW-2 (120) in August 2018 with PFOA and PFOS detected at concentrations above AGQS in August 2018 and July 2019.

V. (b). Status of remedial measures performed

- The Site was formerly operated as part of the Regis Tannery, which ceased operations circa 1970. Several Site Investigations were completed for the former tannery between 1987 and 2007. It was determined that three unlined lagoons located on the property were used as wastewater discharge locations. Leather scraps were used in the construction of the lagoon berms. During the investigations, chromium impacted soil was identified in a trench connecting Wetland A and Lagoon 3 and within Lagoons 1 and 2. Refer to Figure 2 – Site Plan and Groundwater Contour Map-Lot 120 for a visual representation of pertinent Site features.
- A remedial action plan (RAP) was prepared for the Site in 2007. In 2008 and 2009, in accordance with the RAP, impacted soils from the Wetland A/Lagoon 3 trench and impacted soils, buffing dust and leather scraps from Lagoon 2 were excavated and relocated to the Consolidation Area (Former Lagoon 1).
- Three monitoring wells were installed outside of the Consolidation Area to monitor groundwater quality. An existing monitoring well was incorporated into the monitoring program.
- An activity use restriction (AUR) was established in 2012 to restrict soil disruption and maintain the integrity of the capped Consolidation Area.
- A Groundwater Management Permit (GMP) was issued for the Site in 2013 and expired in January 2018.

Groundwater monitoring during the permit period indicated that groundwater quality continually met AGQS for chromium.

- As part of a statewide initiative, screening for the presence of PFAS was requested for the Site in October 2017. The results of the PFAS screening for the Site in August 2018 indicated that samples from three of the four wells contained concentrations of PFOS and PFOA exceeding AGQS. The presence of PFAS in the Site groundwater is believed to be the result of fire suppressant foam potentially used during a building fire in 1972 and leather conditioning products used in the former tannery operations. NHDES has requested renewal of the GMP to monitor groundwater quality related to PFAS.
- In February 2019, a survey of the Site vicinity for the presence of drinking water wells indicated that all properties within a 500 foot radius of the Site utilize the municipal drinking water supply.
- On July 5, 2019, groundwater monitoring was conducted at the Site and samples were collected from the four monitoring wells for PFOA and PFOS. The analytical results indicated that concentrations of PFOS and PFOA continue to exceed AGQS in samples from three of four monitoring wells.

V.(c). Recommendations for modifications to existing permit

The expired GMP required annual monitoring in June of dissolved chromium and static groundwater levels for monitoring wells MW-1 (120), MW-2 (120), MW-3 (120) and GZ-3 (120). The following recommended changes are being made:

- Since dissolved chromium concentrations have been below AGQS or below laboratory detection limits throughout the permit period, StoneHill recommends discontinuing dissolved chromium analysis at the Site.
- Due to the detection of PFAS at concentrations above AGQS in samples from monitoring wells MW-1 (120), MW-2 (120), and GZ-3 (120), StoneHill recommends the GMP be renewed with the following sampling protocol:
    - Monitoring wells MW-1 (120), MW-2 (120), MW-3 (120) and GZ-3 (120) will be sampled once every year in June for the analysis of PFAS for a period of five years. Static water level measurements will be collected during the sampling events.

V. (d). GMZ Map and Site Plan– see Figures 1 and 2, attached

V. (e). GMZ property information: same as previous permit renewal

Tax Map/ Lot No.	Owner and Property Address	Contact Name, Address, and Telephone Number	Deed Reference (Book/Page)
Portion of Map 28-3/ Lot 120	Town of Raymond Old Manchester Road and Wight Street Raymond, NH	Joseph Ilsley, Town Manager 4 Epping Road Raymond, NH 03077 603-895-7007	Book 4676/ Page 1411

Application for *Renewal* of Groundwater Management Permit

Waste Management Division
Site Remediation Programs

RSA 485-C:4, VIII and Env-Or 607

A GROUNDWATER MANAGEMENT PERMIT is issued under RSA 485-C:4, VIII and Env-Or 607 to a responsible party to remedy contamination associated with the past discharge of regulated contaminants, and to manage the use of the contaminated groundwater. (Examples include sites contaminated from leaking underground storage tanks, unlined landfills regulated pursuant to RSA 14-M, hazardous waste disposal, etc.)

SUBMIT:

- ONE SIGNED AND COMPLETED APPLICATION (Application shall be dated, signed and sealed by the professional of record licensed under RSA 310-A.)
- SUPPORTING INFORMATION
- $2,000 APPLICATION FEE (In the form of a check payable to the "Treasurer – State of New Hampshire." State and local government, including counties and political subdivisions, are exempt unless eligible for funding under the Petroleum Reimbursement Fund Program.)

TO: NHDES/Waste Management Division
Site Remediation Programs
Groundwater Management Permit Coordinator
P.O. Box 95, 29 Hazen Drive
Concord, NH 03302-0095

CERTIFICATION OF NOTICE TO LOCAL TOWN/CITY CLERK

In order to meet the requirements of Env-Or 607.02 (b)(3), the applicant certifies that on 10/30, 20 19 a copy of this completed permit application was given to the Town/City Clerk of _____ (the town in which the facility requesting a permit is located).

Date: 10/29/19 **Applicant Signature:** _____

Applicant Name (print or type): Joseph Ilsley

CERTIFICATION OF NOTICE TO OWNERS OF LOTS PROPOSED FOR INCLUSION IN THE GMZ
(As Applicable)

In order to meet the requirements of Env-Or 607.02 (b)(2), the applicant certifies that notification has been provided (via certified mail – return receipt requested) to all owners of lots proposed for inclusion in the Groundwater Management Zone (GMZ).

Date: 10/29/19 **Applicant Signature:** _____

Applicant Name (print or type): Joseph Ilsley

I. SITE INFORMATION

Site Name: Fmr Regis Tannery Lot 120 DES Site #: 201110061
Address: Old Manchester Road and Wight Street
City: Raymond State: NH Zip: 03077
Tax Map: 28-3 Lot Number: 120
Deed Reference: County: Rockingham Book and Page: 4676/1411

II. SITE OWNER INFORMATION

Site Owner Name: Town of Raymond Phone: 603-895-4735
Mailing Address: 4 Epping Street
City: Raymond State: NH Zip: 03077
Email: Fax: 603-895-7064

III. PERMIT APPLICANT INFORMATION (complete only if different than site owner)

Permit Applicant Name: Phone:
Mailing Address:
City: State: Zip:
Email: Fax:

IV. CONTACT PERSON INFORMATION (complete only if different than site owner)

Contact Person Name: Phone:
Mailing Address:
City: State: Zip:
Email: Fax:

V. SUPPORTING INFORMATION (required)

a) Tabular summary of all monitoring results for the 5 years immediately preceding the renewal application from existing monitoring points with an assessment of trends in the data.

b) Narrative summary of the status of remedial measures performed (e.g., landfills: active, inactive w/no closure plan submitted, closed (as per approved closure plan); petroleum release and hazardous waste release sites: active remediation on-going, remedial action plan (RAP) completed w/on-going monitoring or monitoring–only RAP) and an update on the performance of measures conducted.

c) Recommendations for any revisions to the existing Groundwater Management Permit, including an outline of proposed modifications to the monitoring program. Any proposed modifications to the monitoring program must be specific in terms of individual monitoring locations, sampling frequency and analytical parameters, and should be supported by reference to the monitoring summary.

d) Updated site plan(s) scaled to fit onto an 8-1/2 inches by 11 inches or 11 inches by 17 inches sheet, using a tax map as a base, that identifies and locates the following:
   1. Proposed groundwater management zone boundary.
   2. Any properties, including tax map and lot numbers, within and abutting the lots on which the proposed groundwater management zone is located.
   3. All proposed sampling locations.

4. Current groundwater contours referenced to a table of current water level measurements obtained from piezometers and monitoring wells used to develop the contours.
5. Water supply wells, including type of use, within 500 feet of the GMZ per Env-Or 607.03 (a) (7) f..

e) A list of properties located within the groundwater management zone including owner's name, mailing address, telephone number, property address, and deed reference including county book and page and tax map and lot number.

VI. CERTIFICATION

To the best of my knowledge, the data and information that I have submitted to renew the Groundwater Management Permit from the New Hampshire Department of Environmental Services, are true and correct.

The undersigned certifies that application has been made for all required local, state, or federal permits. If an officer of the owner, I affirm that I have been duly authorized by the corporation, LLC, LLP, or other corporate entity to bind the corporation, LLC, LLP, or other corporate entity, and to make the above declarations. I also affirm that the corporation, LLC, LLP, or other corporate entity has made all filings and paid all fees required by the New Hampshire Secretary of State.

Date: 10/29/19 **Signature:** _____ Permit Applicant

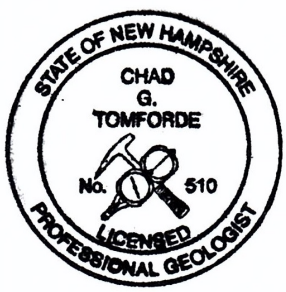
Name (print or type): Tisley, Joseph

VII. PROFESSIONAL CERTIFICATION

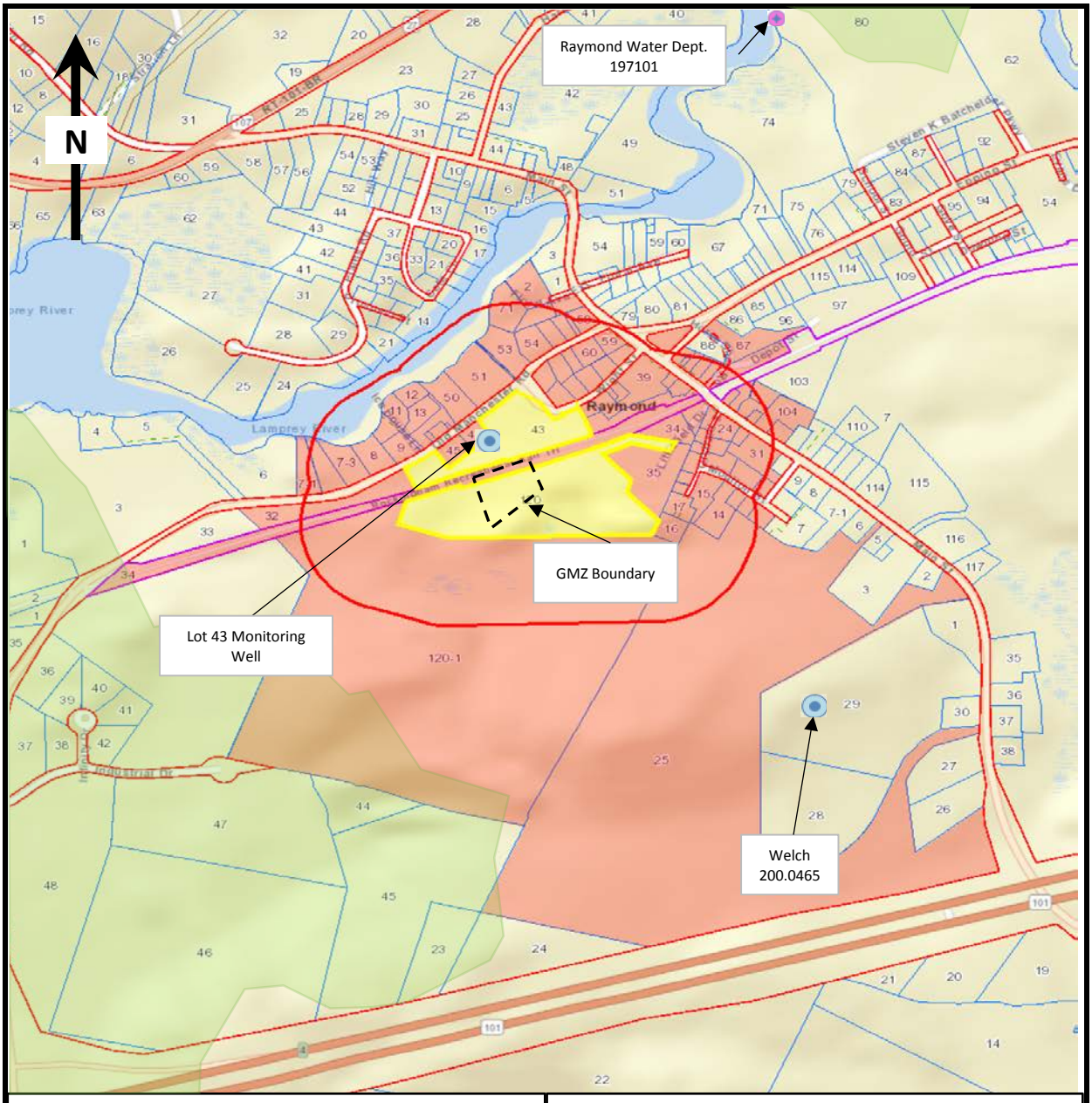
Date: 10/29/19 **Signature:** _____ Professional Engineer or Geologist

Name (print or type): Chad G. Tomforde

The New Hampshire licensed professional of record who prepared this permit application is required to apply their professional seal in the space provided below.



No liability is incurred by the State by reason of any approval for Groundwater Management Permits. Approval by the New Hampshire Department of Environmental Services is based on the information supplied by the applicant. No guarantee is intended or implied by reason of any advice given by NHDES or its staff.



Legend

- Wellhead Protection Areas
- Public Water Supply Wells
- Water Well Inventory
- Site Boundary
- Abutters within 500 ft of Site
- 500 foot Buffer

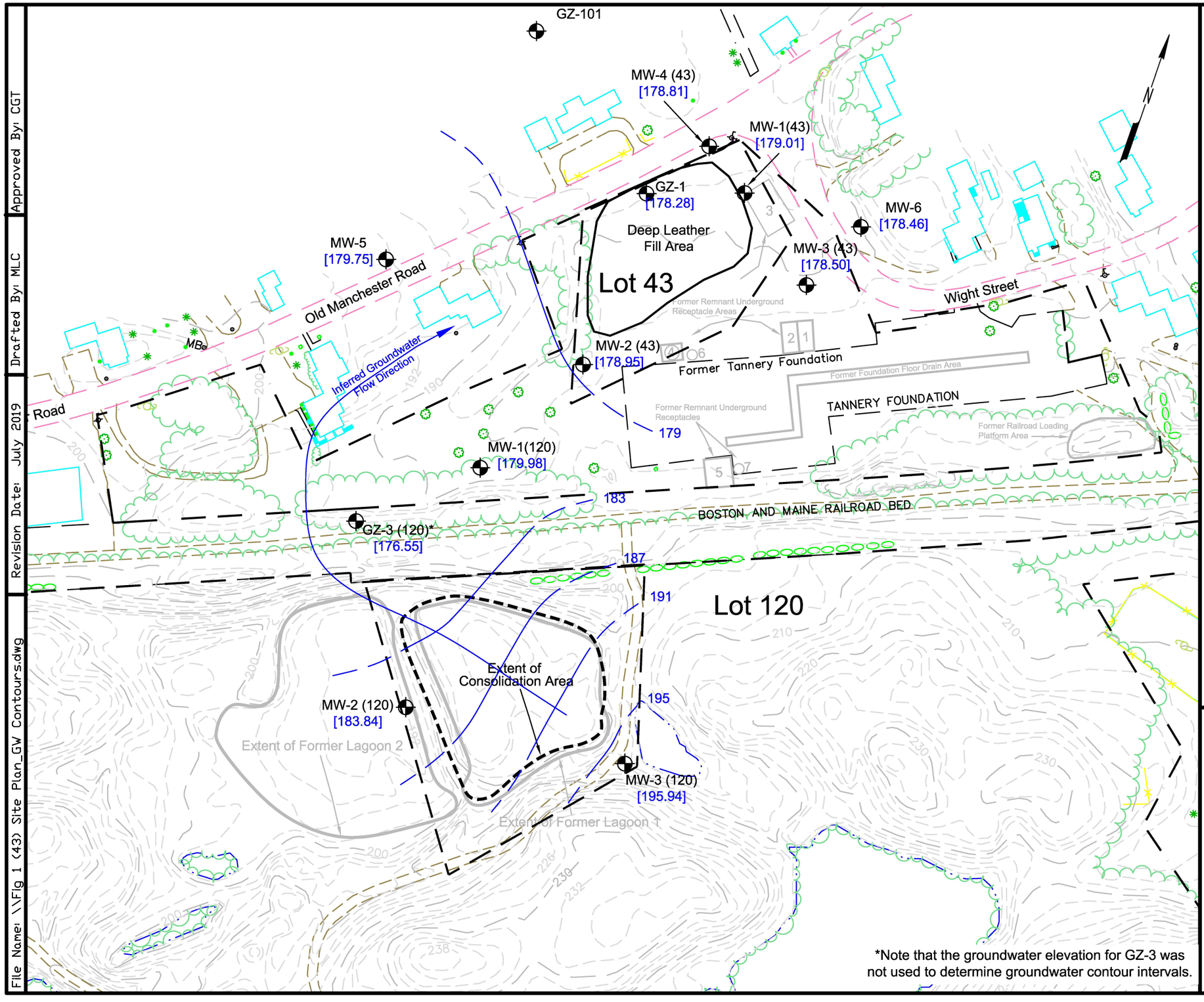
Map Sources:

1. Town of Raymond, NH Online GIS Database
2. NHDES OneStop GIS Mapper and Well Inventory Database

Figure 1
TAX MAP AND GMZ BOUNDARY
- LOT 120
500 foot Radius

Former Regis Tannery
Old Manchester Road
Raymond, NH
DES Sie No. 201110061

Prepared by:
StoneHill Environmental
Project No. 14038



LEGEND:

- Property boundary
- GMZ Boundary
- Former Remedial Action Areas
- Surface Contour (Feet)
- wetland boundary / intermittent stream

MW-1 (43) - Monitoring Well Loction

[179.01] - Groundwater elevation in feet collected by StoneHill on July 5, 2019

179 - Groundwater Elevation Contour (Feet)

- Tree Line
- Existing Building

0 50 100 200

Approximate Scale in Feet
All Locations Are Approximate

Base Map Sources:
GZA GeoEnvironmental, Inc., *Exploration Location Plan and Approximate Limits of Buried Leather,* November 2004

Figure 2
Site Plan and Groundwater Contour Map - Lots 43 / 120
July 5, 2019

Former Regis Tannery Site
Raymond, New Hampshire
NHDES Site No. 198705081 (Lot 43)
NHDES Site No. 201110061 (Lot 120)

Prepared By:
StoneHill Environmental
Project No. 14038

Approved By: CGT | Drafted By: MLC | Revision Date: July 2019 | File Name: \\Fig 1 (43) Site Plan_GW Contours.dwg

Table 1
Groundwater Elevation Data
Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire

Monitoring Well	Top of Casing Elevation	Measurement Date	Depth to Groundwater BTOC	Groundwater Elevation
MW-1 (120)	193.10	03/17/11	8.37	184.73
		04/29/11	10.44	182.66
		06/28/11	12.14	180.96
		06/14/13	11.68	181.42
		06/30/14	13.9	179.20
		06/22/15	13.5	179.60
		06/20/16	14.09	179.00
		07/12/17	13.07	180.03
		07/24/18	NM	NM
		08/28/18	11.79	181.31
		07/05/19	13.12	179.98
		09/25/19	14.38	178.72
		10/02/19	14.43	178.67
MW-2 (120)	195.30	03/17/11	4.98	190.32
		04/29/11	7.63	187.67
		06/28/11	9.83	185.47
		06/14/13	9.22	186.08
		06/30/14	12.7	182.60
		06/22/15	12.1	183.20
		06/20/16	12.90	182.40
		07/12/17	11.41	183.89
		07/24/18	NM	NM
		08/28/18	10.09	185.21
		07/05/19	11.46	183.84
		09/25/19	NM	NM
		10/02/19	14.78	180.52

Table 1
Groundwater Elevation Data
Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire

Monitoring Well	Top of Casing Elevation	Measurement Date	Depth to Groundwater BTOC	Groundwater Elevation
MW-3 (120)	208.90	03/17/11	8.59	200.31
		04/29/11	9.49	199.41
		06/28/11	11.27	197.63
		06/14/13	9.39	199.51
		06/30/14	14.6	194.30
		06/22/15	13.4	195.50
		06/20/16	14.46	194.40
		07/12/17	13.83	195.07
		07/24/18	NM	NM
		08/28/18	10.54	198.36
		07/05/19	12.96	195.94
		09/25/19	NM	NM
		10/02/19	Dry	--
GZ-3 (120)	193.10	03/17/11	11.31	181.79
		04/29/11	13.49	179.61
		06/28/11	15.43	177.67
		06/14/13	15.02	178.08
		06/30/14	17.4	175.70
		06/22/15	17	176.10
		06/20/16	17.62	175.50
		07/12/17	16.44	176.66
		07/24/18	NM	NM
		08/28/18	15.36	177.74
		07/05/19	16.55	176.55
		09/25/19	18.58	174.52
		10/02/19	18.71	174.39

Notes:

All measurements in feet.

BTOC = below top of PVC casing.

NM = Not measured

Benchmark - eastern hydrant nut on hydrant north of curve in Wight Street (194.50 feet)

TABLE 2
Summary of Groundwater Quality Data - Chromium
Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire

Monitoring Well	Measurement Date	Dissolved Total Chromium (ug/l)
AGQS		**100**
MW-1 (120)	03/17/11	ND (50)
	06/28/11	ND (50)
	06/14/13	ND (50)
	06/30/14	3
	06/22/15	3
	06/20/16	2
	07/12/17	ND (10)
MW-2 (120)	03/17/11	ND (50)
	06/28/11	ND (50)
	06/14/13	ND (50)
	06/30/14	1
	06/22/15	2
	06/20/16	ND (1)
	07/12/17	20
MW-3 (120)	03/17/11	ND (50)
	06/28/11	ND (50)
	06/14/13	ND (50)
	06/30/14	ND (1)
	06/22/15	2
	06/20/16	ND (1)
	07/12/17	ND (10)
GZ-3 (120)	03/17/11	ND (50)
	06/28/11	ND (50)
	06/14/13	ND (50)
	06/30/14	2
	06/22/15	2
	06/20/16	2
	07/12/17	ND (10)

Notes:
AGQS = Ambient Groundwater Quality Standards.
ug/l = micrograms per liter.
ND (50) = analyte not detected at concentration at or above detection limit shown in parenthesis.

TABLE 3
Summary of Groundwater Quality Data - PFAS
Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire

		PFAS EPA Method 537									
Monitoring Well	**Sampling Date**	PFBA (ng/l)	PFPeA (ng/l)	PFBS (ng/l)	PFHxA (ng/l)	PFHpA (ng/l)	PFHxS (ng/l)	PFOA (ng/l)	PFNA (ng/l)	PFOS (ng/l)	PFOA & PFOS Combined (ng/l)
NHDES AGQS		**NS**	**NS**	**NS**	**NS**	**NS**	**18**	**12**	**11**	**15**	**70**
MW-1 (120)	08/28/18	1.87	ND (1.71)	2.68	2.16	3.03	17.9	**37.5**	1.74	**146**	**183.5**
	07/05/19	--	--	--	--	--	--	**35.0**	--	**280**	**315**
MW-2 (120)	08/28/18	4.84	4.25	5.26	7.28	10.0	**24.1**	**49.5**	ND (1.84)	**74.5**	**124**
	07/05/19	--	--	--	--	--	--	**73.0**	--	**170**	**243**
MW-3 (120)	08/28/18	ND (1.73)	ND (1.73)	ND (1.73)	ND (1.73)	ND (1.73)	ND (1.73)	ND (1.73)	ND (1.73)	4.76	4.76
	07/05/19	--	--	--	--	--	--	ND (2.0)	--	3.4	3.4
GZ-3 (120)	08/28/18	2.19	ND (1.71)	3.16	3.80	4.67	**23.3**	**44.7**	ND (1.71)	**108**	**152.7**
	07/05/19	--	--	--	--	--	--	**37.0**	--	**110**	**147**

TABLE 3
Summary of Groundwater Quality Data - PFAS
Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire

Notes:
NHDES AGQS = New Hampshire Department of Environmental Services Ambient Groundwater Quality Standard effective September 30, 2019
NS = No standard.
ng/l = nanograms per liter (parts per trillion)
ND () = analyte not detected at a concentration above laboratory detection limit shown in parenthesis.
BOLD = analyte detected at a concentration above AGQS.
-- = not analyzed
PFAS = per- and polyfluoroalkyl substances
PFBA = perluorobutanoic acid
PFPeA = perfluoropentanoic acid
PFBS = perfluorobutane sulfonic acid
PFHxA = perfluorhexonic acid
PFHpA = perfluoroheptanoic acid
PFHxS = perfluorohexane sulfonic acid
PFOA = perfluorooctanoic acid
PFNA = perfluorononanoic acid
PFOS = perfluorooctane sulfonic acid
[1]Monitoring wells MW-5 and MW-6 were mixed up in the field. The data table corrects for the error by attributing the analytical results to the correct monitoring location.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 30, 2019

Chad Tomforde
StoneHill Environmental, Inc.
600 State Street, Suite 2
Portsmouth, NH 03801

Project Location: Raymond, NH
Client Job Number:
Project Number: B-20190228 - Regis Tannery 14038
Laboratory Work Order Number: 19G0304

Enclosed are results of analyses for samples received by the laboratory on July 8, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy
Project Manager

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B235845 15

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

StoneHill Environmental, Inc.
600 State Street, Suite 2
Portsmouth, NH 03801
ATTN: Chad Tomforde

REPORT DATE: 7/30/2019

PURCHASE ORDER NUMBER:

PROJECT NUMBER: B-20190228 - Regis Tannery 14038

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19G0304

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Raymond, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Lot 120 MW-1	19G0304-01	Water		SOP 434-PFAAS	
Lot 120 MW-2	19G0304-02	Water		SOP 434-PFAAS	
Lot 120 MW-3	19G0304-03	Water		SOP 434-PFAAS	
Lot 120 GZ-3	19G0304-04	Water		SOP 434-PFAAS	
Lot 43 MW-3	19G0304-05	Water		SOP 434-PFAAS	
Lot 43 MW-4	19G0304-06	Water		SOP 434-PFAAS	
Lot 43 MW-5	19G0304-07	Water		SOP 434-PFAAS	
Lot 43 MW-6	19G0304-08	Water		SOP 434-PFAAS	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SOP 434-PFAAS

Qualifications:

S-01

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte & Samples(s) Qualified:

13C-PFDA
19G0304-01RE1[Lot 120 MW-1], 19G0304-05RE1[Lot 43 MW-3], 19G0304-07RE1[Lot 43 MW-5]

13C-PFHxA
19G0304-01RE1[Lot 120 MW-1], 19G0304-05RE1[Lot 43 MW-3], 19G0304-07RE1[Lot 43 MW-5]

d5-NEtFOSAA
19G0304-01RE1[Lot 120 MW-1], 19G0304-05RE1[Lot 43 MW-3], 19G0304-07RE1[Lot 43 MW-5]

S-03

Surrogate recovery outside of control limits due to suspected sample matrix interference.

Analyte & Samples(s) Qualified:

13C-PFOA
19G0304-02[Lot 120 MW-2]

V-17

Internal standard area <50% of associated calibration standard internal standard area. Reanalysis yielded similar internal standard non-conformance.

Analyte & Samples(s) Qualified:

13C-PFOA
19G0304-06[Lot 43 MW-4]

13C-PFOS
19G0304-03[Lot 120 MW-3], 19G0304-07[Lot 43 MW-5]

d3-NMeFOSAA
19G0304-01[Lot 120 MW-1], 19G0304-02[Lot 120 MW-2], 19G0304-03[Lot 120 MW-3], 19G0304-05[Lot 43 MW-3], 19G0304-06[Lot 43 MW-4], 19G0304-07[Lot 43 MW-5], 19G0304-08[Lot 43 MW-6]

Z-01

Surrogate Recovery is outside of method Control limits, sample was not re-extracted due to sample hold time non-conformance. Sample was re-analyzed. Original result is reported

Analyte & Samples(s) Qualified:

13C-PFDA
19G0304-01[Lot 120 MW-1], 19G0304-02[Lot 120 MW-2], 19G0304-03[Lot 120 MW-3], 19G0304-04[Lot 120 GZ-3], 19G0304-05[Lot 43 MW-3], 19G0304-06[Lot 43 MW-4], 19G0304-07[Lot 43 MW-5]

d5-NEtFOSAA
19G0304-01[Lot 120 MW-1], 19G0304-02[Lot 120 MW-2], 19G0304-03[Lot 120 MW-3], 19G0304-04[Lot 120 GZ-3], 19G0304-05[Lot 43 MW-3], 19G0304-06[Lot 43 MW-4], 19G0304-07[Lot 43 MW-5], 19G0304-08[Lot 43 MW-6]

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The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 120 MW-1

Sample ID: 19G0304-01 | Start Date/Time: 7/5/2019 12:00:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 12:05:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	35	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 3:11	BLM
Perfluorooctanesulfonic acid (PFOS)	280	20	ng/L	10		SOP 434-PFAAS	7/18/19	7/28/19 3:24	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
13C-PFHxA	93.2		70-130		7/28/19 3:11
13C-PFHxA		*	70-130	S-01	7/28/19 3:24
13C-PFDA	**34.4**	*	70-130	Z-01	7/28/19 3:11
13C-PFDA		*	70-130	S-01	7/28/19 3:24
d5-NEtFOSAA	**42.0**	*	70-130	Z-01	7/28/19 3:11
d5-NEtFOSAA		*	70-130	S-01	7/28/19 3:24

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 120 MW-2

Sample ID: 19G0304-02 | Start Date/Time: 7/5/2019 12:15:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 12:20:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	73	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 1:56	BLM
Perfluorooctanesulfonic acid (PFOS)	170	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 1:56	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual		
13C-PFHxA	129		70-130		7/28/19	1:56
13C-PFDA	**41.3**	*	70-130	Z-01	7/28/19	1:56
d5-NEtFOSAA	**27.2**	*	70-130	Z-01	7/28/19	1:56

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 120 MW-3

Sample ID: 19G0304-03 | Start Date/Time: 7/5/2019 12:30:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 12:35:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:08	BLM
Perfluorooctanesulfonic acid (PFOS)	3.4	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:08	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual		
13C-PFHxA	130		70-130		7/28/19	2:08
13C-PFDA	**12.6**	*	70-130	Z-01	7/28/19	2:08
d5-NEtFOSAA	**39.8**	*	70-130	Z-01	7/28/19	2:08

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 120 GZ-3

Sample ID: 19G0304-04 | Start Date/Time: 7/5/2019 12:45:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 12:50:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	37	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:21	BLM
Perfluorooctanesulfonic acid (PFOS)	110	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:21	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual		
13C-PFHxA	89.2		70-130		7/28/19	2:21
13C-PFDA	**48.5**	*	70-130	Z-01	7/28/19	2:21
d5-NEtFOSAA	**32.9**	*	70-130	Z-01	7/28/19	2:21

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 43 MW-3

Sample ID: 19G0304-05 | Start Date/Time: 7/5/2019 1:30:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 1:35:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	130	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 3:37	BLM
Perfluorooctanesulfonic acid (PFOS)	1700	200	ng/L	100		SOP 434-PFAAS	7/18/19	7/28/19 3:49	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
13C-PFHxA	130		70-130		7/28/19 3:37
13C-PFHxA		*	70-130	S-01	7/28/19 3:49
13C-PFDA	**60.3**	*	70-130	Z-01	7/28/19 3:37
13C-PFDA		*	70-130	S-01	7/28/19 3:49
d5-NEtFOSAA	**53.4**	*	70-130	Z-01	7/28/19 3:37
d5-NEtFOSAA		*	70-130	S-01	7/28/19 3:49

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 43 MW-4

Sample ID: 19G0304-06 | Start Date/Time: 7/5/2019 1:45:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 1:50:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	200	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:46	BLM
Perfluorooctanesulfonic acid (PFOS)	170	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:46	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual		
13C-PFHxA	98.5		70-130		7/28/19	2:46
13C-PFDA	**50.1**	*	70-130	Z-01	7/28/19	2:46
d5-NEtFOSAA	**53.2**	*	70-130	Z-01	7/28/19	2:46

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 43 MW-5

Sample ID: 19G0304-07 | Start Date/Time: 7/5/2019 2:00:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 2:05:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	40	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 4:02	BLM
Perfluorooctanesulfonic acid (PFOS)	190	20	ng/L	10		SOP 434-PFAAS	7/18/19	7/28/19 4:15	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
13C-PFHxA	114		70-130		7/28/19 4:02
13C-PFHxA		*	70-130	S-01	7/28/19 4:15
13C-PFDA	**12.3**	*	70-130	Z-01	7/28/19 4:02
13C-PFDA		*	70-130	S-01	7/28/19 4:15
d5-NEtFOSAA	**28.2**	*	70-130	Z-01	7/28/19 4:02
d5-NEtFOSAA		*	70-130	S-01	7/28/19 4:15

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 43 MW-6

Sample ID: 19G0304-08 | Start Date/Time: 7/5/2019 2:15:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 2:20:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	41	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:59	BLM
Perfluorooctanesulfonic acid (PFOS)	66	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:59	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual		
13C-PFHxA	110		70-130		7/28/19	2:59
13C-PFDA	**46.1**	*	70-130		7/28/19	2:59
d5-NEtFOSAA	**22.1**	*	70-130	Z-01	7/28/19	2:59

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Sample Extraction Data

Prep Method: SOP 434-PFAAS-SOP 434-PFAAS

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
19G0304-01 [Lot 120 MW-1]	B235845	250	1.00	07/18/19
19G0304-01RE1 [Lot 120 MW-1]	B235845	250	1.00	07/18/19
19G0304-02 [Lot 120 MW-2]	B235845	250	1.00	07/18/19
19G0304-03 [Lot 120 MW-3]	B235845	250	1.00	07/18/19
19G0304-04 [Lot 120 GZ-3]	B235845	250	1.00	07/18/19
19G0304-05 [Lot 43 MW-3]	B235845	250	1.00	07/18/19
19G0304-05RE1 [Lot 43 MW-3]	B235845	250	1.00	07/18/19
19G0304-06 [Lot 43 MW-4]	B235845	250	1.00	07/18/19
19G0304-07 [Lot 43 MW-5]	B235845	250	1.00	07/18/19
19G0304-07RE1 [Lot 43 MW-5]	B235845	250	1.00	07/18/19
19G0304-08 [Lot 43 MW-6]	B235845	250	1.00	07/18/19

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B235845 - SOP 434-PFAAS										
Blank (B235845-BLK1)				Prepared: 07/18/19 Analyzed: 07/27/19						
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							
Surrogate: 13C-PFHxA	*51.9*		ng/L	40.0		130	70-130			
Surrogate: 13C-PFDA	*40.9*		ng/L	40.0		102	70-130			
Surrogate: d5-NEtFOSAA	*172*		ng/L	160		107	70-130			
LCS (B235845-BS1)				Prepared: 07/18/19 Analyzed: 07/27/19						
Perfluorooctanoic acid (PFOA)	19.9	2.0	ng/L	20.0		99.6	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.0	2.0	ng/L	18.5		108	70-130			
Surrogate: 13C-PFHxA	*45.9*		ng/L	40.0		115	70-130			
Surrogate: 13C-PFDA	*40.1*		ng/L	40.0		100	70-130			
Surrogate: d5-NEtFOSAA	*174*		ng/L	160		109	70-130			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.
S-03	Surrogate recovery outside of control limits due to suspected sample matrix interference.
V-17	Internal standard area <50% of associated calibration standard internal standard area. Reanalysis yielded similar internal standard non-conformance.
Z-01	Surrogate Recovery is outside of method Control limits, sample was not re-extracted due to sample hold time non-conformance. Sample was re-analyzed. Original result is reported

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SOP 434-PFAAS in Water	
Perfluorooctanoic acid (PFOA)	NH-P
Perfluorooctanesulfonic acid (PFOS)	NH-P

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2019
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2019
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

con-test ANALYTICAL LABORATORY

1960304

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Email: info@contestlabs.com

http://www.contestlabs.com

Doc # 381 Rev 1_03242017

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

KKM

Company Name:	Stonehill Environmental
Address:	600 State St. Portsmouth, NH
Phone:	603-433-1935
Project Name:	Regis Tannery
Project Location:	Raymond, NH
Project Number:	140138
Project Manager:	C. Tomforde
Con-Test Quote Name/Number:	
Invoice Recipient:	
Sampled By:	D. Adams

Requested Turnaround Time
7-Day [X] 10-Day [ ]
Due Date:

Rush-Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [ ]
Other:
CLP Like Data Pkg Required: [ ]
Email To: ctomforde@stonehillenvironmental.com
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	PFOS	PFOA	Dissolved Chromium
1	Lot 120 MW-1	7/5/19 12:00	12:05					X	X	
2	Lot 120 MW-2	12:15	12:20					X	X	
3	Lot 120 MW-3	12:30	12:35					X	X	
4	Lot 120 GZ-3	12:45	12:50					X	X	
	Lot 43 MW-1	13:00	13:05							X
	Lot 43 MW-2	13:15	13:20							X
5	Lot 43 MW-3	13:30	13:35					X	X	X
6	Lot 43 MW-4	13:45	13:50					X	X	X
7	Lot 43 MW-5	14:00	14:05					X	X	
8	Lot 43 MW-6	14:15	14:20					X	X	

# of Containers
[2] Preservation Code
[3] Container Code

Dissolved Metals Samples
[X] Field Filtered
[ ] Lab to Filter

Orthophosphate Samples
[ ] Field Filtered
[ ] Lab to Filter

Comments:

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 7/8/19 11:25	
Received by: (signature)	Date/Time: 7/8/19 11:25	
Relinquished by: (signature)	Date/Time: 7/8/19 15:15	
Received by: (signature)	Date/Time: 7/8/19 15:15	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Detection Limit Requirements
MA
CT
Other:

Special Requirements
[ ] MA MCP Required
MCP Certification Form Required
[ ] CT RCP Required
RCP Certification Form Required
[ ] MA State DW Required
PWSID #

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NELAC and AIHA-LAP, LLC Accredited

Project Entity
[ ] Government [ ] Municipality [ ] MWRA [ ] WRTA
[ ] Federal [ ] 21 J [ ] School
[ ] City [ ] Brownfield [ ] MBTA

Other
[ ] Chromatogram
[ ] AIHA-LAP,LLC

PCB ONLY
[ ] Soxhlet
[ ] Non Soxhlet

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CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

KLM

Company Name:	Stonehill Environmental
Address:	600 State St. Portsmouth, NH
Phone:	603-433-1935
Project Name:	Regis Tannery
Project Location:	~~14038~~ Raymond, NH
Project Number:	14038
Project Manager:	C. Tomforde
Con-Test Quote Name/Number:	
Invoice Recipient:	
Sampled By:	D. Adams

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☐ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To:
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	PFOS	PFOA	Dissolved Chromium										# of Containers
	Lot 43 GZ-1	14:30	14:35							x										
9	Field Blank	12:10	12:15																	

ANALYSIS REQUESTED

[2] Preservation Code
[3] Container Code

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 7/18/19 11:25	
Received by: (signature)	Date/Time: 7/18/19 11:25	
Relinquished by: (signature)	Date/Time: 7/18/19 15:15	
Received by: (signature)	Date/Time: 7/18/19 15:15	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY
www.contestlabs.com
NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Stonehill

Received By mf Date 7/8/19 Time 15:15

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 2.7

By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Is there enough Volume? T

Is there Headspace where applicable? N/A MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? N/A Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	17	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

NOTICE OF GROUNDWATER MANAGEMENT PERMIT
GWP-201110061-R-001
TO BE RECORDED AGAINST:

Town of Raymond
Book 4676 / Page 1411

027198

2013 MAY 23 AM 10: 24

NOTICE IS HEREBY GIVEN THAT: The New Hampshire Department of Environmental Services (Department) has issued Groundwater Management Permit #GWP-201110061-R-001 ("Permit") to the Town of Raymond. Pursuant to Env-Or 607.09(a) this notice is recorded for each property located within the groundwater management zone identified in the Permit at the Registry of Deeds for the county in which the property is located.

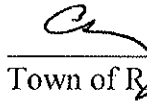
The Permit establishes a Groundwater Management Zone ("GMZ"), an area within which groundwater use must be controlled and monitored due to the presence of groundwater contaminants that exceed the State's Ambient Groundwater Quality Standards ("AGQS"). The Permit may include conditions to and restrictions upon the use of the properties within the GMZ, including restrictions on the use of groundwater.

The Permit was issued on January 8, 2013 and expires on January 7, 2018, unless renewed for subsequent five-year period(s). This Notice will remain in effect until such time as the AGQS are restored within the GMZ and the Department issues a Release of Recordation to the Permittee. The Permit is available for review at the New Hampshire Department of Environmental Services, 29 Hazen Drive, Concord, NH 03301, or can be viewed online by clicking on the green OneStop Data and Information icon located on the left side of the DES home page at: http://des.nh.gov/ .

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

The following properties are located within the GMZ:

Property Owner/Property Address	**Tax Map/Lot**	**Deed Reference Book/Page**
Town of Raymond/ Lot 120, Old Manchester and Wight Street Raymond, NH	Portion of Tax Map 28-3/ Lot 120	Book 4676 / Page 1411



_____,Permittee
Town of Raymond

05-22-2013
Date

Revised November 2010

The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Robert R. Scott, Commissioner

EMAIL ONLY

July 15, 2022

David Fredrickson
Director of Public Works
Town of Raymond
4 Epping Street
Raymond, NH 03077

Subject: Raymond – Former Regis Tannery, Lot 120, Old Manchester Road
DES Site #201110061, Project #27227

Groundwater Management Permit Renewal Application, prepared by StoneHill Environmental, dated October 29, 2019

Dear David Fredrickson:

Please find enclosed Groundwater Management Permit Number **GWP-201110061-R-002** (Permit), as approved by the New Hampshire Department of Environmental Services (NHDES). This Permit is issued for a period of 5 years to monitor the effects of past discharges to groundwater of tannery waste and per- and polyfluoroalkyl substances (PFAS) at the Former Regis Tannery, Lot 120 (site), and is a renewal of your Permit that expired on January 7, 2018. NHDES had previously requested[1] additional investigation activities to assess the nature and extent of PFAS groundwater contamination at the site prior to reissuing the Permit; however, we have reconsidered and chosen to issue the renewed Permit at this time.

Due to the long-term nature of the tannery waste contained in the consolidation area and the potential for the dissolution and mobilization of chromium should site soil and groundwater geochemistry or local precipitation chemistry change, NHDES has retained monitoring for dissolved chromium in the Permit on a twice every five years basis.

Based on the results of the PFAS screening conducted in 2018, 2019, and 2020, PFAS have been included in the monitoring schedule at Condition #7 of the attached Permit on an annual basis. In a separate letter for DES Site #198705081 (Former Regis Tannery Lot 43) dated July 1, 2022, NHDES has requested that the Town perform a Supplemental Site Investigation (SSI) to investigate the nature, location, and extent of PFAS contamination in groundwater at both of the former Regis Tannery sites (i.e., Lot 43, DES Site #198705081 and Lot 120, DES Site #201110061). Please be advised that, based on the results of the SSI, NHDES may modify the attached Permit to include additional monitoring wells and potentially expand the current Groundwater Management Zone.

NHDES recommends that monitoring well, surface water, and private drinking water well samples be analyzed for PFAS using an isotope dilution method using LC/MS/MS for a broad suite of PFAS target analytes to evaluate the potential source(s), transport, and fate of PFAS impacts. NHDES recommends that PFAS samples be analyzed using the draft CWA Method 1633. Alternatively, NHDES recommends following the protocols for PFAS by LC/MS/MS outlined in Table B-15 of the U.S. Department of Defense

[1] Email from NHDES to StoneHill Environmental dated August 26, 2021.

Quality Systems Manual 5.4 (or later version), USEPA Method 533, or USEPA Method 537.1 (with modifications). NHDES also recommends that analytical data summary tables and laboratory reports include both CAS numbers and analyte names, with PFAS ordered by carbon chain length and split by families.

NHDES requests that PFAS data for the Site be uploaded to the Environmental Monitoring Database (EMD). Guidance for PFAS EMD uploads can be found at the following link: https://www4.des.state.nh.us/nh-pfas-investigation/wp-content/uploads/pfas-emd-guidance.pdf.

Please submit all required sampling results and monitoring summaries to the NHDES Groundwater Management Permits Coordinator. Correspondence should include the appropriate Cover Sheet for Reports and completed Cover Sheet for Groundwater Monitoring Reports that clearly show the NHDES identification number for this site (i.e., DES Site #201110061, Project #27227). The submittal of documents in an electronic format through NHDES' OneStop database is preferred.

Should you have any questions, please contact me at NHDES' Waste Management Division.

Sincerely,

Tanya P. Justham
Hazardous Waste Remediation Bureau
Tel: (603) 271-6572
Email: tanya.p.justham@des.nh.gov

ec: Raymond Health Officer
Matthew Taylor, P.G., Permit Coordinator, HWRB
Kate Emma Schlosser, P.E., HWRB

The

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

hereby issues

GROUNDWATER MANAGEMENT PERMIT NO. GWP-201110061-R-002

to the permittee

TOWN OF RAYMOND

to monitor the past discharge of

Chromium and Per- and Polyfluorinated Substances

at

FORMER REGIS TANNERY – LOT 120
(Old Manchester Road)

in RAYMOND, N.H.

via the groundwater monitoring system comprised of

4 monitoring wells

as depicted on the Site Plan entitled

"Figure 2 – Site Plan and Groundwater Contour Map – Lots 43 / 120"

dated July 5, 2019, prepared by StoneHill Environmental

TO: TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

Date of Issuance: July 15, 2022
Date of Expiration: July 14, 2027

Pursuant to authority in N.H. RSA 485-C:6-a, the New Hampshire Department of Environmental Services (NHDES), hereby grants this Permit to monitor past discharges to the groundwater at the above-described location for five years, subject to the following conditions:

(continued)

STANDARD MANAGEMENT PERMIT CONDITIONS

1. The permittee shall not violate Ambient Groundwater Quality Standards adopted by NHDES (N.H. Admin. Rules Env-Or 600) in groundwater outside the boundaries of the Groundwater Management Zone, as shown on the referenced site plan.
2. The permittee shall not cause groundwater degradation that results in a violation of surface water quality standards (N.H. Admin. Rules Env-Wq 1700) in any surface water body.
3. The permittee shall allow any authorized staff of NHDES, or its agent, to enter the property covered by this Permit for the purpose of collecting information, examining records, collecting samples, or undertaking other action associated with this Permit.
4. The permittee shall apply for renewal of this Permit prior to its expiration date but no more than 90 days prior to expiration.
5. This Permit is transferable only upon written request to, and approval of, NHDES. Compliance with the existing Permit shall be established prior to Permit transfer. Transfer requests shall include the name and address of the person to whom the Permit transfer is requested, the signatures of the current and future permittees, and a summary of all monitoring results to date.
6. NHDES reserves the right, under N.H. Admin. Rules Env-Or 600, to require additional hydrogeologic studies and/or remedial measures if NHDES receives information indicating the need for such work.
7. The permittee shall maintain a water quality monitoring program and submit monitoring results to NHDES no later than 45 days after sampling. Samples shall be taken from the monitoring wells as shown and labeled on the referenced site plan and listed in the following table in accordance with the schedule outlined herein:

Monitoring Locations	Sampling Frequency	Parameters
MW-1 (Lot 120), MW-2 (Lot 120), GZ-3	June each year	Per- and Polyfluoroalkyl Substances (PFAS) and Static Water Levels
MW-3 (Lot 120)	June each odd year	PFAS and Static Water Level
MW-2 (Lot 120) and GZ-3	June 2023 and June 2026	Dissolved Chromium

Sampling shall be performed in accordance with the documents listed in Env-Or 610.02 (e). Samples shall be analyzed by a laboratory certified by the U.S. Environmental Protection Agency, or NHDES pursuant to Env-C 300. All overburden groundwater samples collected for metals analysis (i.e., chromium) shall be analyzed for dissolved metals; and therefore, must be field filtered (with a 0.45-micron filter) and acidified after filtration in the field.

Summaries of water quality shall be submitted biennially to NHDES' Waste Management Division, in the month of August, starting in 2022 and using a format acceptable to NHDES.

The Periodic Summary Report shall include the information listed in Env-Or 607.04 (a), as applicable.

The Periodic Summary Report shall be prepared and stamped by a professional engineer or professional geologist licensed in the State of New Hampshire.

8. Issuance of this Permit is based on the Groundwater Management Permit Renewal Application dated October 29, 2019, and the historical documents found in NHDES file DES #201110061. NHDES may require additional hydrogeologic studies and/or remedial measures if invalid or inaccurate data are submitted.

9. Within 30 days of discovery of a violation of an ambient groundwater quality standard at or beyond the Groundwater Management Zone boundary, the permittee shall notify NHDES in writing. Within 60 days of discovery, the permittee shall submit recommendations to correct the violation. NHDES shall approve the recommendations if NHDES determines that they will correct the violation.

10. All monitoring wells at the site shall be properly maintained and secured from unauthorized access or surface water infiltration.

SPECIAL CONDITIONS FOR THIS PERMIT

11. Recorded property within the Groundwater Management Zone shall include the lot as listed and described in the following table:

Tax Map / Lot No.	Property Address	Owner Name and Address	Deed Reference (Book / Page)
*Portion of Tax Map 28-3/ Lot 120	Old Manchester Road and Wight Street Raymond, NH	Town of Raymond 4 Epping Street Raymond, NH 03077	Book 4676/ Page 1411

*The boundaries of the Groundwater Management Zone are depicted on the plan entitled "Groundwater Management Zone and Activity and Use Restriction Boundary, A Portion of Map 28-3, Lot 120, DES Site #201110061, Raymond, Rockingham County, New Hampshire" prepared by Holden Engineering and Surveying, Inc. dated 09-21-11 (revised 07-23-12) and described as follows:

Beginning at a point in a stone wall on the southerly side of the Abandoned Railroad Bed being the northeasterly corner of the within described premises as shown on the said Plan; thence running S06°23'57"W a distance of 204.99 feet to a point; thence turning and running S61°58'31"W a distance of 98.59 feet to a point; thence running S65°37'57"W a distance of 117.00 feet to a point; thence turning and running N11°07'54"W a distance of 304.15 feet to a point at the Abandoned Railroad Bed as shown on said Plan; thence turning and running along said Railroad Bed S89°47'16"E a distance of 282.27 feet to a point of beginning.

12. The permittee shall update the ownership information required by Env-Or 607.03(a)(20) for all properties within the Groundwater Management Zone prior to renewal of the Permit, or upon a recommendation for site closure.

Jeffrey M. Marts, P.G., Administrator
Hazardous Waste Remediation Bureau
Waste Management Division

Any person aggrieved by any terms or conditions of this Permit may appeal to the N.H. Waste Management Council ("Council") by filing an appeal that meets the requirements specified in RSA 21-O:14 and the rules adopted by the Council, Env-WMC 200. The appeal must be filed **directly with the Council within 30 days** of the date of this decision and must set forth fully **every ground** upon which it is claimed that the decision complained of is unlawful or unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council.

Information about the Council, including a link to the Council's rules, is available at https://nhec.nh.gov/. Copies of the rules also are available from NHDES' Public Information Center at (603) 271-2975.

ENVIRO NORTH AMERICAN
CONSULTING, LLC

Riverbend Professional Building
P.O. Box 1075 Alton, NH 03809
Ph. (603) 875-8100
Fax (603) 875-8101
www.environorthamerican.com

December 14, 2022
Project 1190-681

Douglas Richardson, Executive V.P.
Onyx Partners Ltd.
200 Reservoir Street, Suite 306
Needham, MA 02494

And

Wayne Morrill, President
Jones & Beach Engineers, Inc.
85 Portsmouth Avene
Stratham, NH 03885

Re: **Addendum Letter for Laboratory Results of Per- and Polyfluorinated Alkyl Substances**

Subject: **Onyx Raymond LLC.**
Application #2022-010
Industrial Drive, Raymond, NH

Dear Gentlemen:

Enviro North American Consulting, LLC (ENAC) has completed an environmental evaluation of information and data pertaining to the proposed development of parcel(s) of land shown on an Existing Conditions Plan dated November 10, 2022 and referenced as the Onyx Raymond LLC – Raymond Distribution (subject Property). The contiguous parcels of the subject Property are located in the general east and northeast area off the end of cul-de-sac at Industrial Drive in Raymond, NH.

A previous letter report prepared by ENAC with Environmental Evaluation with Professional Opinion for Proposed Development dated December 8, 2022 presented detected concentrations from surface water sample locations for total chromium. This addendum letter provides the detected concentrations of Per- and Polyfluorinated Alkyl Substances (PFAS/PFOS) collected from the 3-surface water sampling locations resulting from water sample collection on November 22, 2022. The surface water sampling locations are shown on the attached Site Plan labeled as SFW-1, -2, and -3.

An abutting property to the northeast is referenced by the Town of Raymond as Lot 120 and has been impacted by subsurface contamination due to the presence of total chromium and Per- and Polyfluorinated Alkyl Substances (PFAS) released to the environment during past industrial

operations of a tannery known as the Former Regis Tannery, also referred to as Former Rex Leather Tannery. The New Hampshire Department of Environmental Services (NHDES) Hazardous Waste Remediation Bureau (HWRB) tracks the remedial activity of the northeast abutting property as Site #201110061 (Lot 120).

A second parcel of land is located further northeast beyond a recreational trail (former railroad easement Boston & Maine Railroad) and is associated with the former industrial-use of Regis Tannery / Rex Leather Tannery and identified by the Town of Raymond as Lot 43. Environmental contamination was released at Lot 43 and is tracked by the NHDES HWRB as Site #198705081. Both contaminated properties are currently owned by the Town of Raymond. The NHDES lists the Town of Raymond as the Responsible Parties (RP) for the ongoing remedial investigation and clean-up activity conducted in connection to the past tannery industrial releases to the environment.

Per- and Polyfluoroalkyl Substances (PFAS) Former Tannery Sites

As directed by the NHDES HWRB, groundwater quality from both Former Tannery Sites were screened for the presence of PFAS. Analytical results from groundwater samples have detected the presence of PFAS and associated chemical derivatives in groundwater at concentrations above the NHDES adopted AGQS. Due to the persistence of PFAS detections in area groundwater quality, the Permit issued to Lot 120 has been updated by NHDES to include annual monitoring of PFAS chemicals. The NHDES has also required a Supplemental Site Investigation (SSI) at both Former Tannery Sites to evaluate the source of PFAS in soil and groundwater. The suspected source for PFAS has been noted in past reports as the likely use of fire extinguishing foam when the tannery building was destroyed by fire in 1972 (Lot 43). To date, the SSI work has not been completed to define the source of PFAS at the Former Tannery Sites.

ENAC contacted the active Project Manager, Ms. Tanya Justham (by phone) regarding ongoing remedial investigations administered by the NHDES – HWRB on December 14, 2022. Ms. Justham indicated that the PFOA/PFOS detected in groundwater beneath Lot 120 has likely been sourced from past tannery processes as a result of treatment of hides, specifically with the use of PFOA substances. ENAC has forwarded the December 2022 testing results for total chromium and PFAS concentrations to Ms. Justham for review.

ENVIRONMENTAL SAMPLING – ONYX RAYMOND LLC.

Surface Water Quality Sampling – Onyx Raymond LLC.

ENAC representative visited the subject Property to collect surface water samples from 3-existing wetland areas containing standing water on November 22, 2022. The 3-surface water sample locations are shown on the attached Site Plan. Grab water samples were collected from 3-selected wetland or stream bed areas of the subject Property with use of a dedicated water sample bottle connected to an extendable rod. Water samples for total chromium analysis were collected and field filtered with use of a 0.45-micron filter then placed in preserved laboratory containers. Grab water samples for PFAS analyses were collected from each location and placed directly in laboratory prepared containers. The water samples were placed inside a cooler with

ice and delivered directly to a New Hampshire certified laboratory for the analyses of total chromium by EPA Method 200.8 and 24-compound list of PFAS / PFOS chemicals by EPA Method 537.1 modified.

Per- and Polyfluoroalkyl Substances (PFAS)

ENAC presents the results of water quality sampling for the November 22, 2022 for the presence of PFAS detected from 3-surface water sample locations. The attached summary table provides a comparison to the adopted groundwater quality standards referenced as the Ambient Groundwater Quality Standards (AGQS). ENAC notes the NHDES has not adopted PFAS standards for drinking water quality to date. As shown in the attached PFAS summary table, results of surface water sampling for PFAS have met the AGQS for the 4-adopted PFAS / PFOS chemicals (AGQS shown on right-side Table 1A).

It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC

Todd A. Greenwood, P.G.
President

Attachments: Sampling Site Plan
PFAS Summary Table 1A
Laboratory Water Sample Results (PFAS)

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

15,438 SF WAREHOUSE 1 STORY

TAX MAP 28-3, LOT 43
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

BUILDING 3
63,500 SF
1 STORY

BUILDING 2
33,460 SF
1 STORY

BUILDING 1
38,881 SF
1 STORY

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

EXISTING LUMBER YARD

SFW-1

SFW-2

SFW-3

INDUSTRIAL ROAD

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

SCRIBNER ROAD

OLD MANCHESTER ROAD

WELLHEAD PROTECTION AREA BOUNDARY

PROJECT PROPERTY BOUNDARY

LAMPREY RIVER AQUIFER PROTECTION AREA BOUNDARY

GROUNDWATER PROTECTION ZONE

TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 24
JOHN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

TAX MAP 23, LOT 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

NH ROUTE 101 (WESTBOUND)

NH ROUTE 101 (EASTBOUND)

ZONE LINE "D" (INDUSTRIAL)

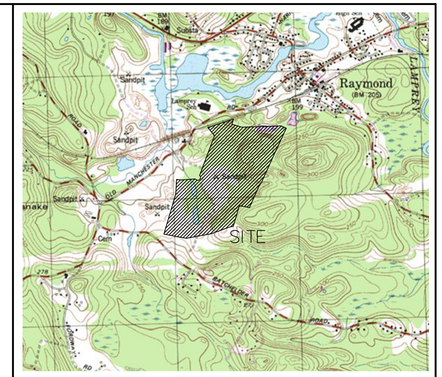
ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

ZONE LINE "D" (INDUSTRIAL)

PLAN REFERENCE:

1. AN ALTA SURVEY AND PLAT OF PROPERTY PREPARED FOR M-O-H ENTERPRISES FL, INC. SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY R.S.L. LAYOUT & DESIGN, INC. DATED 2/21/1996



LOCUS SCALE: 1"=2000'

EXISTING CONDITIONS NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
2. BASE ELEVATION WAS ESTABLISHED THROUGH MULTIPLE GPS POST PROCESS OBSERVATIONS AND WAS REDUCED TO THE NAVD88 DATUM BY THE NATIONAL GEODETIC SURVEY OPUS SOFTWARE.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN WALDEN C.W.S., DURING SUMMER, 2021, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
   a. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
   b. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
   c. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
   d. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
7. SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING SPRING, 2022, AND IS BASED ON THE STANDARDS OF SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 2.0 (1999: SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND). THE MAP IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR THE USE(S) REQUIRING THE SITE SPECIFIC SOIL SURVEY AND IS PRODUCED BY A CERTIFIED SOIL SCIENTIST. IT IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. A NARRATIVE REPORT IS A COMPONENT OF THE MAP.
8. A TEMPORARY CULVERT AND ROADBED SHALL BE IN PLACE PRIOR TO ANY USE OF A WETLAND CROSSING.
9. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
10. TEST PITS PERFORMED BY WAYNE MORRILL, JONES & BEACH ENGINEERS, INC., 12/20/21.
11. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafdc	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0-8%; C SLOPE = 8-15%; D SLOPE = 15-25%

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531 ± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR
Checked: WGM	Scale: AS NOTED
Drawing Name: 21130-PLAN.dwg	Date: 8/19/21
	Project No.: 21130

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN
Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C1
SHEET 2 OF44
JBE PROJECT NO. 21130

TABLE 1A
ONYX RAYMOND LLC
SURFACE WATER QUALITY DATA - PFAS

COMPOUND	Surface Water Sample Locations			NHDES Water Quality Standards	
PFAS by EPA Method 537M	**SFW-1**	**SFW-2**	**SFW-3**	**AGQS**	**Surface Water Standard**
Perfluorooctanesulfonic Acid (PFOS)	0.0117	ND	0.00406	***0.015***	***NSA***
Perfluoropentanoic Acid (PFPeA)	ND	ND	ND	***NSA***	
Perfluorohexanoic Acid (PFHxA)	ND	ND	ND	***NSA***	
Perfluorooctanoic Acid (PFOA)	0.00507	ND	ND	***0.012***	
Perfluorohexanesulfonic Acid ((PFHxS)	ND	ND	ND	***0.018***	
Perfluorobutanoic Acid (PFBA)	ND	ND	ND	***NSA***	
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ND	***NSA***	
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ND	***NSA***	
Perfluorononanoic Acid (PFNA)	ND	ND	ND	***0.011***	
N-ethyl-perfluorooctane Sulfonamido Acetic Acid (EtFOSAA)	0.00434	ND	ND	***NSA***	

NOTES:

1. PFAS concentrations are presented as parts per billion (ppb) equivalent to micrograms per liter.
2. ND = Not detected and below laboratory reporting limits.
3. **Bold** concentrations exceed the NHDES Ambient Groundwater Quality Standards (AGQSs), effective 1/1/2021.
4. NSA = No water standard for individual compounds listed.
5. NA = Compound Not Analyzed.

Eastern Analytical, Inc.
professional laboratory and drilling services

Todd Greenwood
Enviro North American Consulting
PO Box 1075
Alton , NH 03809

Laboratory Report for:

Eastern Analytical, Inc. ID:	252744
Client Identification:	ONYX RAYMOND
Date Received:	11/22/2022
Report revision/reissue:	Revision, replaces report dated 12/7/2022
Revision information:	Report revised to include PFAS data.

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:
- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director — 12.9.22 Date

SAMPLE CONDITIONS PAGE

EAI ID#: **252744**

Client: **Enviro North American Consulting**

Client Designation: **ONYX RAYMOND**

Temperature upon receipt (°C): 5.8 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
252744.01	SFW-1	11/22/22	11/22/22 10:20	aqueous		Adheres to Sample Acceptance Policy
252744.02	SFW-2	11/22/22	11/22/22 10:40	aqueous		Adheres to Sample Acceptance Policy
252744.03	SFW-3	11/22/22	11/22/22 11:10	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **252744**

Client: **Enviro North American Consulting**

Client Designation: **ONYX RAYMOND**

Sample ID:	SFW-1	SFW-2	SFW-3					
Lab Sample ID:	252744.01	252744.02	252744.03					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	11/22/22	11/22/22	11/22/22					
Date Received:	11/22/22	11/22/22	11/22/22	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Chromium	**0.0056**	< 0.001	**0.024**	AqDis	mg/L	11/23/22	200.8	DS

Vista
an Enthalpy Analytical Laboratory

December 08, 2022

Vista Work Order No. 2211263

Ms. Jennifer Laramie
Eastern Analytical, Inc.
51 Antrim Avenue
Concord, NH 03301

Dear Ms. Laramie,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on November 23, 2022 under your Project Name '252744 NH'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at frschwebel@enthalpy.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Frieda Schwebel
Project Manager

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 2211263
Case Narrative

Sample Condition on Receipt:

Three aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the recommended temperature requirements.

Analytical Notes:

PFAS Isotope Dilution/LC-MSMS Method Compliant with Table B-15 of DoD QSM 5.3 (Aqueous)

The samples were extracted and analyzed for a selected list of PFAS using Isotope Dilution and LC-MS/MS compliant with Table B-15 of DoD QSM 5.3. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limits (RL). The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are listed in the table below. The responses of the internal standards with low recoveries were greater than 10:1 signal-to-noise, which is the limit generally considered acceptable for accurate quantitation by isotope dilution analysis.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
B22K258-BLK1	B22K258-BLK1	PFAS Isotope Dilution Table B-15	13C8-PFOSA	H	49.5

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

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Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2211263-01	SFW-1	22-Nov-22 10:20	23-Nov-22 09:51	Polypropylene, 250mL
				Polypropylene, 250mL
2211263-02	SFW-2	22-Nov-22 10:40	23-Nov-22 09:51	Polypropylene, 250mL
				Polypropylene, 250mL
2211263-03	SFW-3	22-Nov-22 11:10	23-Nov-22 09:51	Polypropylene, 250mL
				Polypropylene, 250mL

ANALYTICAL RESULTS

Vista
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Sample ID: Method Blank

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Matrix: Aqueous

Laboratory Data

Lab Sample: B22K258-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFPeA	2706-90-3	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFBS	375-73-5	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
4:2 FTS	757124-72-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHxA	307-24-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFPeS	2706-91-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHpA	375-85-9	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHxS	355-46-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
6:2 FTS	27619-97-2	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFOA	335-67-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHpS	375-92-8	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFNA	375-95-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFOSA	754-91-6	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFOS	1763-23-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFDA	335-76-2	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
8:2 FTS	39108-34-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFNS	68259-12-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
MeFOSAA	2355-31-9	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
EtFOSAA	2991-50-6	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFUnA	2058-94-8	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFDS	335-77-3	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFDoA	307-55-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFTrDA	72629-94-8	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFTeDA	376-06-7	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	63.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C3-PFPeA	IS	73.0	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C3-PFBS	IS	70.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-4:2 FTS	IS	73.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFHxA	IS	72.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C4-PFHpA	IS	75.4	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C3-PFHxS	IS	77.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-6:2 FTS	IS	69.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFOA	IS	73.4	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C5-PFNA	IS	72.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C8-PFOSA	IS	49.5	50 - 150	H	B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C8-PFOS	IS	71.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFDA	IS	78.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1

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Sample ID: Method Blank

PFAS Isotope Dilution Table B-15

Client Data				**Laboratory Data**			
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	B22K258-BLK1	Column:	BEH C18
Project:	252744 NH						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-8:2 FTS	IS	71.4	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
d3-MeFOSAA	IS	67.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
d5-EtFOSAA	IS	62.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFUnA	IS	72.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFDoA	IS	69.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFTeDA	IS	62.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Vista
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Sample ID: OPR

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Matrix: Aqueous

Laboratory Data

Lab Sample: B22K258-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	43.6	40.0	109	73 - 129		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFPeA	2706-90-3	43.6	40.0	109	72 - 129		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFBS	375-73-5	44.4	40.4	110	72 - 130		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
4:2 FTS	757124-72-4	48.1	40.0	120	63 - 143		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFHxA	307-24-4	40.9	40.0	102	72 - 129		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFPeS	2706-91-4	45.9	40.4	114	71 - 127		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFHpA	375-85-9	41.6	40.0	104	72 - 130		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFHxS	355-46-4	40.9	40.0	102	68 - 131		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
6:2 FTS	27619-97-2	41.6	40.0	104	64 - 140		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFOA	335-67-1	43.3	40.0	108	71 - 133		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFHpS	375-92-8	41.2	40.0	103	69 - 134		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFNA	375-95-1	44.6	40.0	112	69 - 130		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFOSA	754-91-6	43.3	40.0	108	67 - 137		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFOS	1763-23-1	44.4	40.0	111	65 - 140		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFDA	335-76-2	42.2	40.0	106	71 - 129		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
8:2 FTS	39108-34-4	38.7	40.0	96.8	67 - 138		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFNS	68259-12-1	44.8	40.0	112	69 - 127		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
MeFOSAA	2355-31-9	43.4	40.0	109	65 - 136		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
EtFOSAA	2991-50-6	41.3	40.0	103	61 - 135		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFUnA	2058-94-8	40.2	40.0	101	69 - 133		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFDS	335-77-3	36.4	40.0	91.0	53 - 142		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFDoA	307-55-1	44.6	40.0	112	72 - 134		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFTrDA	72629-94-8	41.9	40.0	105	65 - 144		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFTeDA	376-06-7	41.9	40.0	105	71 - 132		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	57.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C3-PFPeA	IS	67.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C3-PFBS	IS	67.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-4:2 FTS	IS	71.0	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFHxA	IS	68.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C4-PFHpA	IS	71.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C3-PFHxS	IS	75.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-6:2 FTS	IS	65.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFOA	IS	71.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C5-PFNA	IS	67.1	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1

Vista
an Enthalpy Analytical Laboratory

Sample ID: OPR

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Matrix: Aqueous

Laboratory Data

Lab Sample: B22K258-BS1
Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOSA	IS	50.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C8-PFOS	IS	69.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFDA	IS	72.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-8:2 FTS	IS	74.1	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
d3-MeFOSAA	IS	66.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
d5-EtFOSAA	IS	64.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFUnA	IS	73.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFDoA	IS	66.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFTeDA	IS	64.3	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1

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Sample ID: SFW-1

PFAS Isotope Dilution Table B-15

Client Data				Laboratory Data			
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211263-01	Column:	BEH C18
Project:	252744 NH	Date Collected:	22-Nov-22 10:20	Date Received:	23-Nov-22 09:51		
Location:	252744						

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFPeA	2706-90-3	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFBS	375-73-5	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
4:2 FTS	757124-72-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHxA	307-24-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFPeS	2706-91-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHpA	375-85-9	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHxS	355-46-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
6:2 FTS	27619-97-2	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFOA	335-67-1	5.07	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHpS	375-92-8	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFNA	375-95-1	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFOSA	754-91-6	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFOS	1763-23-1	11.7	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFDA	335-76-2	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
8:2 FTS	39108-34-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFNS	68259-12-1	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
MeFOSAA	2355-31-9	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
EtFOSAA	2991-50-6	4.34	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFUnA	2058-94-8	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFDS	335-77-3	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFDoA	307-55-1	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFTrDA	72629-94-8	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFTeDA	376-06-7	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	56.6	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C3-PFPeA	IS	71.0	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C3-PFBS	IS	60.5	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-4:2 FTS	IS	78.7	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFHxA	IS	66.8	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C4-PFHpA	IS	72.9	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C3-PFHxS	IS	75.0	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-6:2 FTS	IS	73.0	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFOA	IS	73.5	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C5-PFNA	IS	73.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C8-PFOSA	IS	59.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C8-PFOS	IS	75.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1

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Sample ID: SFW-1

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Location: 252744
Matrix: Aqueous
Date Collected: 22-Nov-22 10:20

Laboratory Data

Lab Sample: 2211263-01
Date Received: 23-Nov-22 09:51
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFDA	IS	78.6	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-8:2 FTS	IS	65.9	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
d3-MeFOSAA	IS	78.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
d5-EtFOSAA	IS	74.5	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFUnA	IS	79.7	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFDoA	IS	70.8	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFTeDA	IS	67.7	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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Sample ID: SFW-2

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Location: 252744
Matrix: Aqueous
Date Collected: 22-Nov-22 10:40

Laboratory Data

Lab Sample: 2211263-02
Date Received: 23-Nov-22 09:51
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFPeA	2706-90-3	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFBS	375-73-5	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
4:2 FTS	757124-72-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHxA	307-24-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFPeS	2706-91-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHpA	375-85-9	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHxS	355-46-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
6:2 FTS	27619-97-2	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFOA	335-67-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHpS	375-92-8	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFNA	375-95-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFOSA	754-91-6	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFOS	1763-23-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFDA	335-76-2	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
8:2 FTS	39108-34-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFNS	68259-12-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
MeFOSAA	2355-31-9	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
EtFOSAA	2991-50-6	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFUnA	2058-94-8	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFDS	335-77-3	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFDoA	307-55-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFTrDA	72629-94-8	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFTeDA	376-06-7	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	56.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C3-PFPeA	IS	68.6	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C3-PFBS	IS	63.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-4:2 FTS	IS	78.0	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFHxA	IS	70.1	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C4-PFHpA	IS	74.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C3-PFHxS	IS	81.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-6:2 FTS	IS	67.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFOA	IS	71.6	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C5-PFNA	IS	69.4	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C8-PFOSA	IS	54.5	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C8-PFOS	IS	66.1	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1

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Sample ID: SFW-2

PFAS Isotope Dilution Table B-15

Client Data

Name:	Eastern Analytical, Inc.	Matrix:	Aqueous
Project:	252744 NH	Date Collected:	22-Nov-22 10:40
Location:	252744		

Laboratory Data

Lab Sample:	2211263-02	Column:	BEH C18
Date Received:	23-Nov-22 09:51		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFDA	IS	77.5	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-8:2 FTS	IS	67.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
d3-MeFOSAA	IS	70.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
d5-EtFOSAA	IS	74.1	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFUnA	IS	75.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFDoA	IS	70.5	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFTeDA	IS	67.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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Sample ID: SFW-3

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Location: 252744
Matrix: Aqueous
Date Collected: 22-Nov-22 11:10

Laboratory Data

Lab Sample: 2211263-03
Date Received: 23-Nov-22 09:51
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFPeA	2706-90-3	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFBS	375-73-5	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
4:2 FTS	757124-72-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHxA	307-24-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFPeS	2706-91-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHpA	375-85-9	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHxS	355-46-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
6:2 FTS	27619-97-2	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFOA	335-67-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHpS	375-92-8	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFNA	375-95-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFOSA	754-91-6	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFOS	1763-23-1	4.06	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFDA	335-76-2	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
8:2 FTS	39108-34-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFNS	68259-12-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
MeFOSAA	2355-31-9	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
EtFOSAA	2991-50-6	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFUnA	2058-94-8	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFDS	335-77-3	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFDoA	307-55-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFTrDA	72629-94-8	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFTeDA	376-06-7	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	54.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C3-PFPeA	IS	68.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C3-PFBS	IS	68.3	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-4:2 FTS	IS	81.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFHxA	IS	69.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C4-PFHpA	IS	77.3	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C3-PFHxS	IS	78.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-6:2 FTS	IS	64.7	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFOA	IS	74.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C5-PFNA	IS	71.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C8-PFOSA	IS	61.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C8-PFOS	IS	77.9	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1

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Sample ID: SFW-3

PFAS Isotope Dilution Table B-15

Client Data

Name:	Eastern Analytical, Inc.	Matrix:	Aqueous
Project:	252744 NH	Date Collected:	22-Nov-22 11:10
Location:	252744		

Laboratory Data

Lab Sample:	2211263-03	Column:	BEH C18
Date Received:	23-Nov-22 09:51		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFDA	IS	78.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-8:2 FTS	IS	67.7	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
d3-MeFOSAA	IS	74.0	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
d5-EtFOSAA	IS	80.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFUnA	IS	78.8	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFDoA	IS	74.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFTeDA	IS	55.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Pennsylvania Department of Environmental Protection	018
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613/1613B
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537.1
Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry	EPA 533
Perfluorooctanesulonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

CHAIN-OF-CUSTODY RECORD

Eastern Analytical, Inc.
professional laboratory and drilling services

EAI ID# 252744 Page 1

Sample ID	Date Sampled	Matrix	aParameters	221263 1.3°C	Sample Notes
SFW-1	11/22/2022 10:20	aqueous	Subcontract - Perfluorinated Compounds EPA Method 537 modified		
SFW-2	11/22/2022 10:40	aqueous	Subcontract - Perfluorinated Compounds EPA Method 537 modified		
SFW-3	11/22/2022 11:10	aqueous	Subcontract - Perfluorinated Compounds EPA Method 537 modified		

EAI ID# 252744 **Project State: NH**

Project ID:

Company Vista Analytical Laboratory
Address 1104 Windfield Way
Address El Dorado Hills, CA 95762
Account #
Phone # (916) 673-1520

Results Needed: **Preferred Date: Standard**

RUSH Due Date: _____

QC Deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

Notes about project:

Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.

24 Compound List RUSH TAT NEEDED
RESULTS NEEDED ASAP

PO #:58738 **EAI ID# 252744**

Data Deliverable (circle)

Excel NH EMD EQuIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by: _____

Relinquished by	Date/Time	Received by
Beth Ann Ertell	11/22/22 1600	UPS
UPS	11/22/23 09:51	Bryan Clark

Relinquished by **Date/Time** **Received by**

As a subcontract lab to EAI, you will defend, indemnify and hold Eastern Analytical, Inc., its officers, employees, and agents harmless from and against any and all liability, loss, expense or claims for injury or damage arising out of the performance against this chain of custody but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligent or intentiona acts or omissions of you as a subcontract lab, your officers, agents or employees.

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2211263 **TAT** Rush

Samples Arrival:	**Date/Time** 11/23/22 09:51		**Initials:** BAC		**Location:** WR-2 **Shelf/Rack:** N/A		
Delivered By:	FedEx	(UPS)	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Techni Ice	Dry Ice	None
Temp °C: 1.4 (uncorrected) **Temp °C:** 1.3 (corrected)			**Probe used: Y / (N)**		**Thermometer ID:** IR-3		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?		✓	✓
Airbill — Trk # 1ZX495990194395303	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / (Client) / Retain / (Return) / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 11/23/22 10:16	**Initials:** JL	**Location:** R-13, WR-2 **Shelf/Rack:** A-4, E-3
COC Anomaly/Sample Acceptance Form completed?		✓	✓

Comments:

CoC/Label Reconciliation Report WO# 2211263

LabNumber	CoC Sample ID		SampleAlias	Sample Date/Time		Container	BaseMatrix	Sample Comments
2211263-01	A SFW-1	☑ A, I	252744	22-Nov-22 10:20	☑	Polypropylene, 250mL	Aqueous	
2211263-01	B SFW-1	☑	252744	22-Nov-22 10:20	☑	Polypropylene, 250mL	Aqueous	
2211263-02	A SFW-2	☑	252744	22-Nov-22 10:40	☑	Polypropylene, 250mL	Aqueous	
2211263-02	B SFW-2	☑	252744	22-Nov-22 10:40	☑	Polypropylene, 250mL	Aqueous	
2211263-03	A SFW-3	☑ A, I	252744	22-Nov-22 11:10	☑	Polypropylene, 250mL	Aqueous	
2211263-03	B SFW-3	☑	252744	22-Nov-22 11:10	☑	Polypropylene, 250mL	Aqueous	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		

Comments: A Sample contains rusty tint.

Preservation Documented: Na2S2O3 ~~Trizma~~ (Trizma T6) NH4CH3CO2 None Other

Verifed by/Date: WA, 11/23/22

CHAIN-OF-CUSTODY RECORD

252744

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 / 524.2 MTBE ONLY; VTICs; 8260 / 624 / 1, 4 DIOXANE; 8021; 8015 GRO / MAVPH	SVOC: 8270 / 625 ABN / PAH; EDB / DBCP; TPH8100 / L1 / L2; 8015 DRO / MAEPH; PEST 608 / PEST 8081; PCB 608 / PCB 8082; OIL & GREASE 1664; TPH 1664	TCLP: TCLP 1311 VOC / ABN / METALS / PEST / HERB	INORGANICS: BOD / CBOD; TS / TSS / TDS; BR / CL / F / SO_4; NO_2 / NO_3 / NO_2NO_3; TKN / NH_3 / TN; T. PHOS. / O. PHOS.; pH / T. RES. CHLORINE / SPEC. CON. / T. ALK.; COD / PHENOLS / TOC / DOC; TOTAL CYANIDE / TOTAL SULFIDE; REACTIVE CYANIDE / REACTIVE SULFIDE / FLASHPOINT / IGNITABILITY	MICRO: TOTAL COLIFORM / FECAL COLIFORM; ENTEROCOCCI / HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	OTHER: PFAS/PFOS-24	# OF CONTAINERS	No MeOH
SFW-1	11/22/22 10:20	SW	G						✓	✓	3	
SFW-2	11/22/22 10:40	SW	G						✓	✓	3	
SFW-3	11/22/22 11:10	SW	G						✓	✓	3	

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: TODD GREENWOOD

COMPANY: EAIAC

ADDRESS: P.O. BOX 1075

CITY: ALTON STATE: NH ZIP: 03809

PHONE: 603-875-8100 EXT.:

E-MAIL: tag@metrocast.net

SITE NAME: ONYX RAYMOND

PROJECT #:

STATE: (NH) MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: N/A

QUOTE #: PO #:

QA/QC REPORTING

A B C

MA MCP

TEMP. 5.8 °C

ICE? (YES) NO

REPORTING OPTIONS

PRELIMS: YES OR NO

ELECTRONIC OPTIONS

(PDF) EXCEL

EQUIS

OTHER

TURN AROUND TIME

24hr* 48hr*

3-4 Days*

(5 Day) 7 Day

10 Day

*Pre-approval Required

SAMPLER(S): TODD A. GREENWOOD

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	11/22/22	13:05	BAF
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN

OTHER METALS: (Chromium)

SAMPLES FIELD FILTERED? ☑ YES

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF E

Total dissolved chromium only Metals by ICP.

PFAS/PFOS 24 Comp. L1

SITE HISTORY: N/A

SUSPECTED CONTAMINATION: N/A

FIELD READINGS: N/A

Eastern Analytical, Inc.
professional laboratory and drilling services
51 Antrim Avenue | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTIC

(WHITE: Lab Copy GREEN: Customer Copy)

ENVIRO NORTH AMERICAN
CONSULTING, LLC

Riverbend Professional Building
P.O. Box 1075 Alton, NH 03809

Ph. (603) 875-8100
Fax (603) 875-8101
www.environorthamerican.com

December 8, 2022
Project 1190-681

Douglas Richardson, Executive V.P.
Onyx Partners Ltd.
200 Reservoir Street, Suite 306
Needham, MA 02494

And

Wayne Morrill, President
Jones & Beach Engineers, Inc.
85 Portsmouth Avene
Stratham, NH 03885

Re: **Environmental Evaluation with Professional Opinion for Proposed Development**

Subject: **Onyx Raymond LLC.**
Application #2022-010
Industrial Drive, Raymond, NH

Dear Gentlemen:

Enviro North American Consulting, LLC (ENAC) has completed an environmental evaluation of information and data pertaining to the proposed development of parcel(s) of land shown on an Existing Conditions Plan dated November 10, 2022 and referenced as the Onyx Raymond LLC – Raymond Distribution (subject Property). The contiguous parcels of the subject Property are located in the general east and northeast area off the end of cul-de-sac at Industrial Drive in Raymond, NH.

An abutting property to the northeast is referenced by the Town of Raymond as Lot 120 and has been impacted by subsurface contamination due to the presence of total chromium and Per- and Polyfluorinated Substances (PFAS) released to the environment during past industrial operations of a tannery known as the Former Regis Tannery, also referred to as Former Rex Leather Tannery. The New Hampshire Department of Environmental Services (NHDES) Hazardous Waste Remediation Bureau (HWRB) tracks the remedial activity of the northeast abutting property as Site #201110061 (Lot 120).

A second parcel of land is located further northeast beyond a recreational trail (former railroad easement Boston & Maine Railroad) and is associated with the former industrial-use of Regis Tannery / Rex Leather Tannery and identified by the Town of Raymond as Lot 43.

Environmental contamination was released at Lot 43 and is tracked by the NHDES HWRB as Site #198705081. Both contaminated properties are currently owned by the Town of Raymond. The NHDES lists the Town of Raymond as the Responsible Parties (RP) for the ongoing remedial investigation and clean-up activity conducted in connection to the past tannery industrial releases to the environment.

The scope of services conducted by ENAC included a review of available information through the NHDES Onestop database, information shared by Onyx Raymond LLC., and collection of surface water samples for laboratory analyses during a recent November 2022 visit. The information and data to support our professional opinion includes:

- Review of Town of Raymond tax card & tax map information,
- Review of online topographic maps available through www.historicaerials.com,
- Available online NHDES Onestop Information for the Former Regis Tannery,
- Available information provided to ENAC authorized by Onyx Raymond LLC.,
- Water quality test results from three (3) recent surface water samples collected by ENAC from the subject Property on November 22, 2022, where water laboratory analyses included total chromium and PFAS.

ENAC has also reviewed information regarding concentrations of chromium in groundwater, surface water as compared to the NHDES regulatory standards and federal guidelines outlined by Environmental Protection Agency (Maximum Contaminant Levels – MCLs, and Secondary - SMCLs). Our professional opinion for the subject Property's environmental evaluation is discussed below.

ENVIRONMENTAL INFORMATION FORMER TANNERY LOT 43 & LOT 120

The former Regis Tannery / Rex Leather Tannery reportedly operated from 1953 to 1972. Prior to 1953, the Faulkner Shoe Company occupied the eastern portion of Lot 43. The tannery operations included a tannery building, 3-wastewater accepting lagoons, a subsurface waste water piping system, a buried septic tank, 2-petroleum underground storage tanks (USTs), a buried brine solution UST, and process settling pits. The tannery ceased operations in 1972 after a fire destroyed the main manufacturing building. The tannery site was vacant with no redevelopment (1972-present) and only the tannery building's former concrete slab and foundation remained. To date, the above grade structures have been razed and Lot 43 is vacant land.

Lot 43 – Tannery Operations

Lot 43 contained the main industrial process and manufacturing building. Lot 43 contained the process vat solutions used in tannery processes where liquid wastes and suspended solids were flushed through a network of trench drains eventually discharging into subsurface basin structures and a concrete holding tank. The overflow from the concrete tank was allowed to discharge through a network of buried piping into the nearby Lamprey River (1/8-mile north of the site).

Remedial actions completed under authority of the NHDES included capping a deeply buried leather fill area along the northeast portion of Lot 43. A minimum 2-foot soil cap covered the leather fill area across the northern portion of Lot 43.

Lot 120 – Settling Lagoons for Tannery Wastewater Discharges

The wastewater process from the tannery on Lot 43 was altered in the early 1960s and included discharging process wastewater into 3-lagoon areas located on Lot 120. Lot 120 has been described as surface ground topography located upslope of Lot 43. Former Lagoon #1 was used as a Consolidation Area to dispose of Lot 43 and Lot 120 tannery wastes encountered during remedial actions (2008-2009). The following remedial wastes totaling 9,280 cubic yards were removed from Lot 43 and Lot 120 and placed at Consolidation Area known as former Lagoon #1 at Lot 120:

- Tannery foundation including slab and footings removed and placed in Lagoon #1 Consolidation Area,
- Soil impacted with chromium wastes was removed from Lot 43 and placed in Lagoon #1 Consolidation Area,
- Topsoil stripped from Lot 43 contained chromium and lead excavated and placed in Consolidation Area.
- Foundation floor drain discharge solids impacted by tannery wastes was removed from Lot 43 and placed in the Lagoon #1 Consolidation Area,
- Tannery process building buried receptacles were removed from Lot 43 and placed in Lagoon #1 Consolidation Area,
- Railroad loading platform soil with tannery wastes were removed from Lot 43 and placed in Lagoon #1 Consolidation Area,
- Lagoon #2 wastes included process tannery dust, leather pieces, soil exceeding SRS were excavated and placed in Lagoon #1 Consolidation Area,
- Drainage Trench from Wetland A to Lagoon #3: impacted trench soil with SRS exceedances were excavated from the trench connecting Wetland A to Lagoon #3 (overflow deposits) where past process wastewater overflow had impacted underlying soil. The SRS soil was placed in the Lagoon #1 Consolidation Area,
- Lagoon #3 dam excavation leather debris and soil was placed in the Consolidation Area,
- The Consolidation Area (Lagoon #1) was capped with low-permeability soil.

Activity Use Restrictions

Remedial activity for both Lot 43 and Lot 120 included Activity Use Restrictions (AURs) issued by the NHDES for the landfilled areas labeled as the Deeply Buried Leather Fill Area (Lot 43) and the Consolidation Area (former Lagoon #1 on Lot 120). The AURs were authorized by NHDES and remain in-place to protect human health and as an advisory to future site disturbances or redevelopment activity.

Source(s) of Chromium Contamination in Area Groundwater

Past industrial-release(s) to the environment on Lot 43 and Lot 120 have impacted shallow area groundwater quality with total chromium. Shallow groundwater quality is actively monitored under NHDES authorized Groundwater Management Permits (the Permits) for each separate Lot. For purposes of this report, the tannery contamination associated with Lot 43 and Lot 120 are referred to as the Former Tannery Sites.

Per- and Polyfluoroalkyl Substances (PFAS) Former Tannery Sites

As directed by the NHDES HWRB, groundwater quality from both Former Tannery Sites were screened for the presence of PFAS. Analytical results from groundwater samples have detected the presence of PFAS and associated chemical derivatives in groundwater at concentrations above the NHDES adopted AGQS. Due to the persistence of PFAS detections in area groundwater quality, the Permit issued to Lot 120 has been updated by NHDES to include annual monitoring of PFAS chemicals. The NHDES has also required a Supplemental Site Investigation (SSI) at both Former Tannery Sites to evaluate the source of PFAS in soil and groundwater. The suspected source for PFAS has been noted in past reports as the likely use of fire extinguishing foam when the tannery building was destroyed by fire in 1972. To date, the SSI work has not been completed to define the source of PFAS at the Former Tannery Sites.

ONYX RAYMOND LLC - PROPERTY SETTING

The subject Property is located off the east end of a cul-de-sac at the end of Industrial Drive in Raymond, NH. The subject Property is an active industrial area currently used for hard rock mining and contains an active quarry for rock blasting. The subject Property's contiguous acreage includes undeveloped parcel(s) of land which abut the active quarry. Future industrial development is planned after aggregate mining is complete. The subject Property is located to the south of the Former Regis and Rex Leather Tannery (Former Tannery Sites) which has been contaminated by total chromium and PFAS chemicals.

ENAC reviewed available topographic map features of the general vicinity based from United States Geological Survey (USGS) mapped coverage for the area dated 1919, 1932, 1939, 1944, 1951, 1957, 1959, 1965, 1973, 1981, 1988, 2012, 2015, and 2018. Topography across the subject Property is higher in elevation than the abutting Former Tannery Sites (to the north). Surface topography slopes downward from the subject Property to the north and northwest across the lower lying areas of the Former Tannery Sites. The local height of land across the subject Property has been mapped by USGS as 350-feet, where topography slopes downward to the north across the Former Tannery Sites depicting an average contour elevation at 200-feet. Past groundwater monitoring conducted at the Former Tannery Sites has inferred shallow groundwater flow directed north and northwest towards the nearby Lamprey River, away from the subject Property. The general shallow groundwater flow follows area topography.

Mapped groundwater flow infers that the subject Property is considered a hydrogeologic upgradient setting from the Former Tannery Sites. Contaminant migration of total chromium and PFAS chemicals at the Former Tannery Sites is directed north towards the Lamprey River under naturally occurring conditions following contaminant fate and transport. The subject

Property has not been identified as a potential receptor for contaminant migration from the Former Tannery Sites.

Wetland areas at the subject Property contain seasonal changes due to recent years of drought conditions. The presence of perennial stream beds exist across the upper topography at differing locations. Onyx Raymond LLC contracted with ENAC to collect 3-surface water quality samples for analyses of total chromium and PFAS in an effort to evaluate the potential for contaminant migration resulting from the adjoining Former Tannery Site sources.

ENVIRONMENTAL SAMPLING – ONYX RAYMOND LLC.

Surface Water Quality Sampling – Onyx Raymond LLC.

ENAC representative visited the subject Property to collect surface water samples from 3-existing wetland areas containing standing water on November 22, 2022. The 3-surface water sample locations are shown on the attached Site Plan. Grab water samples were collected from 3-selected wetland or stream bed areas of the subject Property with use of a dedicated water sample bottle connected to an extendable rod. Water samples for total chromium analysis were collected and field filtered with use of a 0.45-micron filter then placed in preserved laboratory containers. Grab water samples for PFAS analyses were collected from each location and placed directly in laboratory prepared containers. The water samples were placed inside a cooler with ice and delivered directly to a New Hampshire certified laboratory for the analyses of total chromium by EPA Method 200.8 and 24-compound list of PFAS and derivative chemicals by EPA Method 537 modified.

Total Chromium

Total chromium was detected at low concentrations or was not detected above laboratory detection limits from the 3-surface water samples. Resulting surface water quality concentrations for total chromium are presented in Table 1 below as compared to the NHDES Maximum Contaminant Level for water and fish ingestion for protection of human health:

Table 1 Summary of Surface Water Quality – Onyx Raymond LLC

Sample Designation: (surface water samples)	**Total Chromium Concentration:** (surface water samples)	**Total Chromium MCL: for water & fish ingestion human health criteria**
SFW-1	Total Chromium = 5.6 µg/L	100 µg/L
SFW-2	Total Chromium <1.0 µg/L	100 µg/L
SFW-3	Total Chromium = 24 µg/L	100 µg/L

Notes:
1. µg/L = micrograms per liter, equivalent to parts per billion (ppb).
2. SFW-1 sample designation for surface water sample location #1.
3. Total chromium Maximum Contaminant Level (MCL) from Table 1703-2A.
4. Table 1703-2A found in NH Code of Administrative Rules Env-Wq 1700.
5. Note the NHDES AGQS for total chromium = 100 µg/L.

Water samples from November 22, 2022 resulted with low concentrations of total chromium detected below the NHDES MCL for water and fish ingestion criteria of 100 micrograms per liter (µg/L). The same water quality value has been adopted as the AGQS for total chromium in drinking water at 100 µg/L. The detected total chromium concentrations at the subject Property are routinely detected as background concentrations in surface water bodies in the United States[1].

Per- and Polyfluoroalkyl Substances (PFAS)

As of the date of this report, ENAC has not received the water quality sampling results for PFAS analyses. Once the laboratory results are received, an addendum may be presented by ENAC with results of PFAS from the 3-surface water sample locations.

PROFESSIONAL OPINION

Based on available information reviewed, the following outlines my professional opinion regarding the environmental evaluation of the subject Property - Onyx Raymond LLC., as it relates to existing contamination at the hydrogeologic downgradient and adjoining Former Tannery Sites. It is my professional opinion that groundwater contamination from the Former Tannery Sites located on the north adjoining properties has not impacted the subject Property. The following information supports my professional opinion.

- Water quality samples have been collected by ENAC from 3-surface water sources at the subject Property and laboratory analyzed for the presence of total chromium and PFAS. Low detected concentrations of total chromium in surface water at the subject Property indicate the likely source is derived from precipitation and naturally occurring as background concentrations. The source of low detected concentrations of total chromium in surface water of the subject Property does not appear to be a result of groundwater recharge, groundwater discharge, or surface water runoff migration pathways.

- As of the date of this report, PFAS laboratory analytical results have not been received for inclusion with this report. An addendum with PFAS laboratory results may be presented once received.

- Past groundwater monitoring activity at the Former Tannery Sites has measured groundwater elevations and inferred shallow groundwater flow directed north and northwest toward the Lamprey River and away from the subject Property.

- The subject Property's setting is hydrogeologic upgradient from the Former Tannery Sites with steeply sloping upward topography elevation differences and therefore, under the existing natural conditions (no major groundwater pumping or withdrawal), there are no anticipated pathways for contaminant migration to impact the environment beneath the subject Property.

[1] Study and Interpretation of the Chemical Characteristics of Natural Water, USGS Water-Supply Paper 2254; Fourth Printing 1992, pp. 138-139 Chromium.

- Ground surface topography across the subject Property contain higher elevations compared to ground surface at lower lying elevations across the Former Tannery Sites. Groundwater flow under natural conditions follows the area topography in a north direction towards the Lamprey River located approximately 1,300-feet north of the subject Property.

- The Town of Raymond contracts with an environmental consultant (StoneHill Environmental) who conducts routine annual groundwater quality monitoring as part of their responsibility under conditions of Groundwater Management Permits for both Former Tannery Sites. ENAC has reviewed recent monitoring reports and a 2019 Water Well Receptor Survey Summary which have evaluated sensitive receptors located within a radius of 500-feet from both Former Tannery Sites. The northern portion of the subject Property is located within the 500-foot receptor radius and has not been identified as a potential sensitive receptor. Due to the hydrogeologic upgradient setting as compared to inferred shallow groundwater flow and anticipated contaminant migration pathways directed north from the Former Tannery Sites, the subject Property is low-risk for environmental contaminant migration.

- To date, the NHDES Hazardous Waste Remediation Bureau (HWRB) has not required subsurface investigations beneath the subject Property for the presence of contamination from historic releases at the Former Tannery Sites. This fact supports the conclusion of low-risk for contaminant migration onto, or beneath the subject Property.

It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC

Todd A. Greenwood, P.G.
President

Attachments: Sampling Site Plan
Laboratory Water Sample Results (ENAC)

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

15,438 SF WAREHOUSE 1 STORY

TAX MAP 28-3, LOT 43
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

BUILDING 3
63,500 SF
1 STORY

BUILDING 2
33,460 SF
1 STORY

BUILDING 1
38,881 SF
1 STORY

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

EXISTING LUMBER YARD

SFW-1

SFW-2

SFW-3

INDUSTRIAL ROAD

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

SCRIBNER ROAD

OLD MANCHESTER ROAD

WELLHEAD PROTECTION AREA BOUNDARY

PROJECT PROPERTY BOUNDARY

LAMPREY RIVER AQUIFER PROTECTION AREA BOUNDARY

GROUNDWATER PROTECTION ZONE

TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 24
JOHN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

TAX MAP 23, LOT 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

NH ROUTE 101 (WESTBOUND)

NH ROUTE 101 (EASTBOUND)

ZONE LINE "D" (INDUSTRIAL)

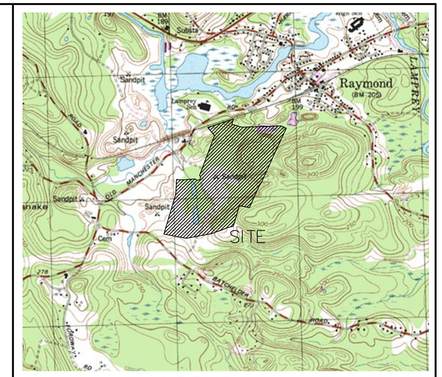
ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

ZONE LINE "D" (INDUSTRIAL)

PLAN REFERENCE:

1. AN ALTA SURVEY AND PLAT OF PROPERTY PREPARED FOR M-O-H ENTERPRISES FL, INC. SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY R.S.L. LAYOUT & DESIGN, INC. DATED 2/21/1996



LOCUS SCALE: 1"=2000'

EXISTING CONDITIONS NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
2. BASE ELEVATION WAS ESTABLISHED THROUGH MULTIPLE GPS POST PROCESS OBSERVATIONS AND WAS REDUCED TO THE NAVD88 DATUM BY THE NATIONAL GEODETIC SURVEY OPUS SOFTWARE.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN WALDEN C.W.S., DURING SUMMER, 2021, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
   a. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
   b. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
   c. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
   d. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
7. SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING SPRING, 2022, AND IS BASED ON THE STANDARDS OF SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 2.0 (1999: SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND). THE MAP IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR THE USE(S) REQUIRING THE SITE SPECIFIC SOIL SURVEY AND IS PRODUCED BY A CERTIFIED SOIL SCIENTIST. IT IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. A NARRATIVE REPORT IS A COMPONENT OF THE MAP.
8. A TEMPORARY CULVERT AND ROADBED SHALL BE IN PLACE PRIOR TO ANY USE OF A WETLAND CROSSING.
9. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
10. TEST PITS PERFORMED BY WAYNE MORRILL, JONES & BEACH ENGINEERS, INC., 12/20/21.
11. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafdc	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0-8%; C SLOPE = 8-15%; D SLOPE = 15-25%

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531 ± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR
Checked: WGM	Scale: AS NOTED
Drawing Name: 21130-PLAN.dwg	Date: 8/19/21
	Project No.: 21130

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN
Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C1
SHEET 2 OF44
JBE PROJECT NO. 21130

Eastern Analytical, Inc.

professional laboratory and drilling services

Todd Greenwood
Enviro North American Consulting
PO Box 1075
Alton , NH 03809

Laboratory Report for:

Eastern Analytical, Inc. ID: 252744
Client Identification: ONYX RAYMOND
Date Received: 11/22/2022

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:

< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:

- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992
- ASTM International

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director — 12.7.22 Date

SAMPLE CONDITIONS PAGE

EAI ID#: **252744**

Client: **Enviro North American Consulting**

Client Designation: **ONYX RAYMOND**

Temperature upon receipt (°C): 5.8 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
252744.01	SFW-1	11/22/22	11/22/22 10:20	aqueous		Adheres to Sample Acceptance Policy
252744.02	SFW-2	11/22/22	11/22/22 10:40	aqueous		Adheres to Sample Acceptance Policy
252744.03	SFW-3	11/22/22	11/22/22 11:10	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **252744**

Client: **Enviro North American Consulting**

Client Designation: **ONYX RAYMOND**

Sample ID:	SFW-1	SFW-2	SFW-3					
Lab Sample ID:	252744.01	252744.02	252744.03					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	11/22/22	11/22/22	11/22/22					
Date Received:	11/22/22	11/22/22	11/22/22	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Chromium	**0.0056**	< 0.001	**0.024**	AqDis	mg/L	11/23/22	200.8	DS

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

252744

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 MTBE ONLY; 524.2 VTICS; 8260 624; 1, 4 DIOXANE; 8021; 8015 GRO; MAVPH	SVOC: 8270 625; ABN PAH EDB DBCP; TPH8100 LI L2; 8015 DRO MAEPH; PEST 608 PCB 608; PEST 8081 PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS; VOC PEST HERB	INORGANICS: BOD CBOD; TS TSS TDS; BR CL F SO4; NO2 NO3 NO2NO3; TKN NH3 TN; T. PHOS. O. PHOS.; PH T. RES. CHLORINE SPEC. CON. T. ALK.; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI; FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	OTHER: PFAS/PFOS-24; # OF CONTAINERS
SFW-1	11/22/22 10:20	SW	G						✓	✓ 3
SFW-2	11/22/22 10:40	SW	G						✓	✓ 3
SFW-3	11/22/22 11:10	SW	G						✓	✓ 3

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Page 4 of 4

No MeOH

PROJECT MANAGER: TODD GREENWOOD

COMPANY: ENAC

ADDRESS: P.O. BOX 1075

CITY: ALTON STATE: NH ZIP: 03809

PHONE: 603-875-8100 EXT.:

E-MAIL: tag@metrocast.net

SITE NAME: ONYX RAYMOND

PROJECT #:

STATE: (NH) MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: N/A

QUOTE #: PO #:

QA/QC REPORTING

A B C

MA MCP

TEMP. 5.8 °C

ICE? (YES) NO

REPORTING OPTIONS

PRELIMS: YES OR NO

ELECTRONIC OPTIONS

(PDF) EXCEL

EQUIS

OTHER

TURN AROUND TIME

24hr* 48hr*

3-4 Days*

(5 Day) 7 Day

10 Day

*Pre-approval Required

SAMPLER(S): TODD A. GREENWOOD

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	11/22/22	13:05	BAF
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN

OTHER METALS: Chromium

SAMPLES FIELD FILTERED? ☑ YES

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF E

Total dissolved chromium only Metals by ICP.

PFAS/PFOS 24 Comp. Li

SITE HISTORY: N/A

SUSPECTED CONTAMINATION: N/A

FIELD READINGS: N/A

Eastern Analytical, Inc.
professional laboratory and drilling services
51 Antrim Avenue | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTIC

(WHITE: Lab Copy GREEN: Customer Copy)

ENVIRO NORTH AMERICAN
CONSULTING, LLC

Riverbend Professional Building
P.O. Box 1075 Alton, NH 03809
Ph. (603) 875-8100
Fax (603) 875-8101
www.environorthamerican.com

January 12, 2023
Project 1190-681

Douglas Richardson, Executive V.P.
Onyx Partners Ltd.
200 Reservoir Street, Suite 306
Needham, MA 02494

And

Erik Poulin, P.E., CPESC-IT
Jones & Beach Engineers, Inc.
85 Portsmouth Avene
Stratham, NH 03885

Re: **Levels of Mercury in Area Waterbodies**

Subject: **Onyx Raymond LLC.**

Industrial Drive, Raymond, NH

Dear Gentlemen:

Enviro North American Consulting, LLC (ENAC) has completed an environmental evaluation of information and data pertaining to the proposed development of parcel(s) of land shown on an Existing Conditions Plan dated November 10, 2022 and referenced as the Onyx Raymond LLC – Raymond Distribution (subject Property). The contiguous parcels of the subject Property are located in the general east and northeast area off the end of cul-de-sac at Industrial Drive in Raymond, NH.

This letter report has been prepared by ENAC to support the proposed development by Onyx Raymond LLC. This addendum letter provides a brief discussion on background concentrations of mercury detected from area surface waters during past evaluations conducted by others.

Mercury in the Environment

Mercury is a common element found naturally occurring in the environment (soil, sediment, rocks). Mercury deposition in soil, sediment and impairing waters can be released to the environment which occur naturally resulting from weathering. Forest fires also release mercury to the environment. Mercury can also be found in the atmosphere and associated with releases through combustion from coal burning and is commonly released from naturally occurring volcano eruptions. The major source of mercury impacts to the environment are from atmospheric deposition from man-made or anthropogenic sources. Mercury does not tend to

degrade naturally and break-down to lesser concentrations under natural conditions in the environment.

Coal fired power plants are significant sources for atmospheric mercury found in New England states. Known sources for mercury in the environment come from industries which historically produced mercury containing byproducts released into the environment. Mercury had been used and applied as fungicides for agricultural applications, composition of mercury in paint, used as a production chemical in chlorine production, and commonly used historically in electrical component manufacturing of batteries and fluorescent lamps. Sources of mercury in the environment can be both naturally occurring and anthropogenic (industrial processes).

New Hampshire Mercury Deposition Concerns with Fish Consumption

The New Hampshire Department of Environmental Services (NHDES) has tracked depositional mercury in the environment as it relates to surface waters of the state. Depositional mercury can accumulate within lake sediment over time and transform into methylmercury which is a toxic form that can enter the food chain. As methylmercury enters the food chain it can begin to bioaccumulate in predatory fish and wildlife. All species of fish may have the presence of methylmercury but the older and larger predatory fish have higher levels.

The NHDES has cautioned the public regarding unsafe levels of mercury from fish consumption. The consumption of mercury risk is elevated for women who are pregnant, newborn and children up to 6-years old who consume fish with higher levels of mercury. There as been shown an increased risk for neurological impacts, increased risk of kidney failure, heart attack, and immune system deficiencies. As a result, the NHDES has a statewide fish consumption advisory which identify waterbodies and species of fish that have exhibited higher levels of mercury which are targeted for consumption. Attached to this letter report is the NHDES Fish Consumption Guidelines which lists the waterbody name and fish species to avoid or limit consumption.

Regulated Clean-up of Mercury Impacts in the Environment

The NHDES does not currently regulate the clean-up of depositional impacts of mercury from anthropogenetic sources which accumulate in the atmosphere and are deposited to earthen materials including the impairment of surface waters and pond or lake sediment. Mercury is subject to remedial investigation or cleanup under NH Code of Administrative Rules Env-Or 600 Contaminated Sites Management, if mercury wastes were discharged into the environment as a direct result of material processes or negligence. An example of regulatory authority over a cleanup scenario includes if a past process contained mercury in wastewater which discharged into the ground, groundwater, or surface water of the State and resulted with soil, sediment or water concentrations detected above State of NH or EPA federal Maximum Contaminant Levels (MCLs), a responsible party (RP) would be sought out to investigate and mitigate the release of mercury. Second example would include burying wastes containing mercury which leach impacting soil, sediment or water quality of the State at concentrations above applicable clean-up standards or MCLs.

Lot 120-1 Proposed Development

Based on review of available information for the proposed development of the subject Property by Onyx Raymond LLC, there is no existing or planned activity which warrants concern for additional mercury deposition to the area or environment. ENAC has reviewed a recent draft version of a Phase I Environmental Site Assessment report (December 2022) which did not identify past material processes that discharged mercury containing wastes into the environment and no Recognized Environmental Conditions (REC) were noted in the Phase I ESA.

The NHDES Global Information System (GIS) database includes a section for impaired water bodies of the State. A nearby surface water known as Jones Brook is listed on the database as impaired by mercury resulting from atmospheric deposition as a toxin. Current NHDES regulations do not warrant regulatory directed investigation or clean-up due to atmospheric deposition of mercury into the environment.

The planned proposed use of the subject Property includes development of a distribution warehouse and should be considered low-risk for the potential of mercury containing wastes discharged to the environment.

It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC

Todd A. Greenwood, P.G.
President

Attachments: NHDES Fish Consumption Guidelines

ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

ARD-EHP-25 2021

New Hampshire Fish Consumption Guidelines

Fish and shellfish are an important part of a healthy diet. They are a good source of low fat protein and contain nutrients like omega-3 fatty acids, a key nutrient for brain development. NHDES offers these fish consumption guidelines to educate the public regarding certain contaminants that have been analyzed in fish tissues. There are other contaminants that may be present in the environment that have not been analyzed, nor are they included in this advisory. Mercury analysis has been completed for a variety of the most common freshwater fish species, however not all species or waterbodies have been analyzed for mercury and the other contaminants listed in the advisory (fish sampled to date include 26 species, >230 waterbodies, ~4,000 fish). Mercury does not break down in the environment. Nearly all fish and shellfish have traces of mercury, and fish from some freshwater sources may also contain polychlorinated biphenyls (PCBs) or dioxin. Small amounts of mercury can damage a brain starting to form or grow. That is why babies and young children are at most risk. PCBs and dioxins are man-made organic chemicals which do not readily break down in the environment. They are taken up and may accumulate in fish. PCBs and dioxins have been shown to cause a variety of harmful health effects such as cancer as well as non-cancer health effects involving immune, reproductive, nervous and endocrine systems. Risks from mercury, PCBs and dioxin in fish and shellfish depend on the amount of fish and shellfish eaten and the levels of these contaminants in the fish and shellfish. You can eat fish and be healthy. Following these guidelines will help.

FRESHWATER FISH

The **high risk group** consists of pregnant and nursing women and women who may become pregnant (i.e., women of child bearing age) and children through age six. The **low risk group** consists of all other adults and children age seven and older. A meal size is 4 oz. for children age six and under. For older children and adults (including women in the high risk group) a meal size is 8 oz. Follow these fish consumption guidelines, they outline how much these groups can safely eat:

STATEWIDE FRESHWATER FISH ADVICE DUE TO MERCURY			
Waterbody Name	**Fish Species**	**High Risk Group**	**Low Risk Group**
All fresh lakes, ponds, rivers and streams[1]	Rainbow and Brown trout	1 meal per week	6 meals per week
	All other freshwater fish including Brook trout	1 meal per month	4 meals per month
	Largemouth and Smallmouth bass, Pickerel, White perch and Yellow perch	Limit consumption to fish 12 inches or less in length while following the above guidelines	

[1] NHDES. *Status and trends of mercury in fish tissue in New Hampshire waterbodies, 1992-2016.* Final Report, Concord, November 2017. [publication #R-WD-17-22]

SPECIAL ADVICE FOR OTHER NEW HAMPSHIRE FRESH WATERBODIES				
Waterbody Name	**Fish Species**	**High Risk Group**	**Low Risk Group**	**Contaminant**
Androscoggin River from Berlin to the Maine border[2]	All freshwater fish	Do not eat	Do not eat	Dioxin and Mercury
Ashuelot Pond (Washington)	All freshwater fish	Do not eat	2 meals per month	Mercury
Beaver Lake (Derry)	Large & smallmouth bass	1 meal per month	3 meals per month	PFOS
Canobie Lake (Salem)	All freshwater fish	1 meal per month	3 meals per month	PFOS
Cobbetts Pond (Windham)	Large & smallmouth bass	1 meal per month	2 meals per month	PFOS
Comerford and Moore Reservoirs on the Connecticut River[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
Country Pond (Kingston/Newton)[3]	Large and Smallmouth bass	1 meal per month and 6 meals per year	6 meals per year	PCBs and Mercury
	All other fish species	1 meal per month	21 meals per year	PCBs and Mercury
Crescent Lake (Newport)[4]	Yellow perch	1 meal per month	7 meals per month	Mercury
Crystal Lake (Gilmanton)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
Dubes Pond (Hooksett)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
Eastman Pond (Grantham)[4]	Yellow perch	2 meal per month	11 meals per month	Mercury
	Smallmouth bass	1 meal per month	5 meals per month	Mercury
Horseshoe Pond (Merrimack)	All freshwater fish	Children younger than 7 years - Do not eat	1 meal per month	PFOS
		Women of childbearing age - 1 meal per month		
Jackman Reservoir (Hillsboro)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
Mascoma Lake (Enfield)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
May Pond (Washington)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
Perkins Pond	Largemouth bass	1 meal per month	3 meals per month	Mercury

[2] Chlor-Alkali former superfund site, Berlin, NH – https://semspub.epa.gov/work/01/550299.pdf

[3] NHDES Interoffice Memo. Ottati & Goss/Great Lakes Container Corp. Site, Kingston, NH - Evaluation of PCB Contamination in Fish Sampled from Country Pond. December 30, 2011.

[4] NHDES. "Evaluation of Mercury Concentration in Fish Collected from Claremont Area Water Bodies." Health Consultation, Concord, 2009.

SPECIAL ADVICE FOR OTHER NEW HAMPSHIRE FRESH WATERBODIES				
Waterbody Name	**Fish Species**	**High Risk Group**	**Low Risk Group**	**Contaminant**
(Sunapee)[4]	Yellow perch	1 meal per month	8 meals per month	Mercury
	Smallmouth bass	1 meal per month	5 meals per month	Mercury
Rand Pond (Goshen)[4]	Yellow perch	2 meals per month	12 meals per month	Mercury
	Brown bullhead	2 meals per month	13 meals per month	Mercury
Robinson Pond (Hudson)	All freshwater fish	Children younger than 7 years - Do not eat	2 meals per month	PFOS
		Women of childbearing age - 1 meal per month		
Souhegan River between Riverway East and the Goldman Dam[5]	All freshwater fish	Do not eat	Do not eat	PCBs
Squam Lake and Little Squam Lake	Yellow perch	4 meals per year	1 meal per month	PCBs
	All other freshwater fish	1 meal per year	3 meals per year	PCBs
Stocker Pond (Grantham)[4]	Rock Bass	2 meals per month	10 meals per month	Mercury
Tower Hill Pond (Candia)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury

SALTWATER FISH, SHELLFISH AND COMMERCIALLY AVAILABLE FISH

For all saltwater fish, shellfish and commercially available fish please follow these consumption guidelines:

Fish Species	High Risk Group	Low Risk Group
BEST CHOICES Catfish, Cod, Flounder, Haddock, Herring, Light Tuna (canned), Pollack, Sole, Salmon, Tilapia and Shellfish (Oysters, Shrimp, Crab, Clams, Scallops, Lobster)	2 meals per week	No limit
GOOD CHOICES Halibut, Red Snapper, Tuna Steak, and White Tuna (canned)	1 meal per week	No limit
CAUTION King Mackerel, Swordfish, Shark, Tilefish	Do not eat	2 meals per month
AVOID CONSUMPTION Lobster tomalley (green substance in lobster)	Do not eat	Do not eat

Consumption restrictions for both salt water and freshwater fish should be considered together and cumulatively. For example, a pregnant woman may have one meal of freshwater fish, but is advised not to consume any additional mercury containing freshwater or saltwater fish that month.

Remember: "meal" sizes are 4 oz. for children age six and under and 8 oz. for older children and adults.

FOR MORE INFORMATION

[5] Fletcher's Paint Works & Storage superfund site, Milford, NH – https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Healthenv&id=0101085

To find more information regarding the details on waterbody-specific advisories, please call the NHDES Rivers and Lakes coordinator at (603) 271-2959.

The technical background for the 2018 update to the New Hampshire Statewide Mercury Fish Consumption Advisory, is based on: NHDES. “Status and trends of mercury in fish tissue in New Hampshire waterbodies, 1992 - 2016.” Final Report, Concord, November 2017. [publication #R-WD-17-22]

For general questions about fishing regulations in New Hampshire, please call the New Hampshire Fish and Game Department at (603) 271-3421, or visit the NH Fish and Game website.

RAYMOND CONSERVATION COMMISSION

4 EPPING STREET, RAYMOND, NEW HAMPSHIRE 03077
(603) 895-7017

December 9, 2022

TO: Raymond Planning Department

RE: Industrial Warehouse – Industrial Way – Raymond Tax Map 22, Lots 44,45,46,47 & Map 28, Block 3, Lot 120-1

Three Conservation Commission members conducted site walks on 9/8/2022 and 9/20/2022 and met with the applicant representatives on 12/8/2021, 9/14/2022, 9/28/2022 and 11/30/22 on the above referenced proposed development. The commission has the following comments.

The applicant proposes to fill 87,175 square feet (2.0 acres) of wetland, which includes three vernal pools. The proposed mitigation includes two areas to be set aside for wildlife and recreation. As defined on the plan, Conservation Restriction 'A' includes the "Raymond Pond aka Pike Pond" which consists of 22.71 aces and Conservation Restriction 'B' includes a Beaver Pond north of the proposed warehouse and consists of 12.47 acres and extends to the town property line, Tax map 028-003-120.

The Conservation Commission agrees with the **wetland mitigation proposal** in accordance with Zoning Ordinance 2.9 -Wetlands No Net Loss and has the following comments:

1. The commission recommended that the "Raymond Pond" area 'A' include a seventy-five-foot buffer around the pond so that the protected area aligns with Zone G, 4.9.3.1-Shoreland Protection Area. The developer has agreed to this recommendation and confirmed that the plan dated 11/10/22 was updated to reflect this. The conservation commission requests a copy of the updated plan. It has been noted that there may be a monitoring well at the pond, and the conservation commission recommends that testing be performed to determine appropriate functions and uses of the pond and appropriate signage be installed as needed.

2. The conservation commission is concerned that the Beaver Pond area 'B' may have been lagoon #3 of the Regis/Rex Tannery site, formerly lot 120, and recommends that testing be performed to confirm the current conditions and there are no risks of contaminants flowing downstream into the Lamprey River. The property line also needs to be marked. During the site walk of 9/20/22, silt socks and a concrete structure were noted, and the conservation commission recommends that confirmation be obtained that these items are not related to the Regis Tannery Brownfield site and that the Planning Board receive a professional opinion as to whether these items need to be retained or removed.

3. We recommend that trash and campsite debris be cleaned up on both areas prior to deed approval.

RAYMOND CONSERVATION COMMISSION
4 EPPING STREET, RAYMOND, NEW HAMPSHIRE 03077
(603) 895-7017

4. The applicant and the conservation commission have agreed that a deed restriction is more appropriate in this situation than a conservation easement.

5. The conservation commission recommends that the deed restriction language be approved by the conservation commission and Town legal counsel prior to site plan approval. The commission has offered to work with the applicant on the language.

The commission has the following comments on the **Special Permit** which is required due to impacts to wetlands, wetland buffers, and the Shoreland Protection Area according to 4.9 – Zone G – Conservation District; 4.9.6 – Special Permit.

1. In areas where grading is being performed within the wetland or shoreland buffer, the commission recommends native plants suitable for mitigating runoff be planted and maintained.

2. We recommend no salt usage be allowed on Industrial Drive around Raymond Pond or on the proposed driveway and parking lot.

3. The commission also agrees with LRAC concerns regarding stormwater drainage into the Lamprey River (letter dated 9/21/2022 attached).

4. Understanding that the site is within the Groundwater Conservation District, the commission recommends third-party oversight for Zoning 5.2– Groundwater Conservation District requirements.

5. The commission is also concerned that NHDES has not received sufficient information on how the project impacts the Lamprey River, drinking water, and groundwater (letter dated 11/9/2022 attached).

6. The board recommends that a blasting monitoring plan be required that includes pre- and post-blasting groundwater monitoring.

7. Given the proximity of the project site to the former Regis/Rex Tannery, the commission is concerned that the project may pose a risk of contaminated groundwater migrating.

Thank You,

Raymond Conservation Commission
ConsComChair@raymond-nh.gov

RAYMOND CONSERVATION COMMISSION

4 EPPING STREET, RAYMOND, NEW HAMPSHIRE 03077
(603) 895-7017

Cc: Wayne Morrill – Jones and Beach Engineers, Inc.
Douglas Richardson – Onyx Partners, LTD
Brenden Walden – Gove Environmental Services, Inc.
Luke Hurley – Gove Environmental Services, Inc.

Enc:
-Conservation Commission Minutes - 12/8/2021, 9/8/2022, 9/14/2022, 9/20/2022, 9/28/2022, 11/30/22 (Draft)
-LRAC Letters (2) – Dated 9/21/2022
-NHDES Request for information – Dated 11/9/2022

Groundwater Monitoring Plan
for
Raymond Distribution

Tax Map 22, Lots 44,45,46,47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive – Raymond, NH
Date: November 11, 2022

Prepared By:
Maine Drilling & Blasting, Inc
Northeast Division
88 Gold Ledge Ave
Auburn, NH
Phone: 603-647-0299
Fax: 603-647-5899

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General

The purpose of this plan is to outline the groundwater monitoring procedures and methods to be used for the proposed Distribution Center located in Raymond, NH. The plan will monitor for potential impacts associated with blasting to the groundwater. The plan will provide for monitoring of a representative sample of the drinking water supply wells to asses any impact by blasting operations. This plan will outline the blasting and excavation practices to be used to prevent adverse effects to the wells.

Well Testing / Notification

Well test are to be performed by Jones & Beach Engineers on behalf of Severino Trucking. A representative sample of wells will be selected based on proximity and gradient. Within the 2,000' radius from the site, there are approximately ten domestic, privately owned wells, and about sixteen wells, pump houses, and storage tanks owned by the Town of Raymond. The remaining properties appear to be on public water supplied by the Town of Raymond. It is MD&B's recommendation to test 2 privately owned wells to each the North, East, and South of the site for a total of 6 wells. In addition to work with the town of Raymond to test up to 2 of the Towns wells. The attached well location plan shows all the wells located within 2,000' radius with the location of public water supply.

Table 1 – Properties within 2,000-Ft Radius of Blast Area

Street Adress	Lot Designation	Owner(s)	Comments	State Well ID WRB#
3 Pierce Road	022-004-037	John J & Barbara A	Domestic	200.0546
36 Batchelder Road	022-004-040	Kenneth Silverstein	Domestic	200.008
44 Batchelder Road	022-004-042	William & Kristen Clevette	Domestic	200.0615
22A Pierce Road	022-004-027	Kevin & Cynthia Gallager	Domestic	200.0273
109A Main Street	023-000-029	Wayne Welch	Domestic	200.0465
109B Main Street	023-000-028	Paul & Teri Welch	Domestic	
9 Depot Street	028-003-097	Edward & Denise Fahey	Test/Exploration	200.1502
1 Harmon Hill Road	028-001-044	Paul Hanley	Domestic	200.1275
2 Harmon Hill Road	028-001-024	Ryan Brackett	Domestic	200.1244
21 Old Manchester Road	028-003-046	Amanda Brissette	Test/Exploration	200.1365
Old Manchester Road	028-003-043	Town of Raymond	Test/Exploration	200.1519
Old Manchester Road	028-003-043	Town of Raymond	Test/Exploration	200.1518
Old Manchester Road	028-003-043	Town of Raymond	Test/Exploration	200.1365

Cider Ferry Road	027-000-001	USGS	Test/Exploration	200.0060
Cider Ferry Road	027-000-001	Epping Well & Pump	Domestic	200.1200
Cider Ferry Road	027-000-001	Raymond Water Department	Municipal	1971010
Cider Ferry Road	027-000-001	Raymond Water Department	Municipal	200.1516
Cider Ferry Road	027-000-001	Raymond Water Department	Municipal	1971010
Cider Ferry Road	027-000-001	Pump House Source 005	Municipal	1971010
Cider Ferry Road	027-000-001	Pump House Blend 002 and 003	Municipal	1971010
Cider Ferry Road	027-000-001	Raymond Water Department	Municipal	200.0442
Cider Ferry Road	027-000-001	Pump House Source 003	Municipal	1971010
Cider Ferry Road	027-000-001	Pump House Source 002	Municipal	1971010
Cider Ferry Road	027-000-001	Raymond Water Department	Municipal	200.1055
Cider Ferry Road	027-000-001	Pump House Source 004	Municipal	1971010
Orchard Road	028-003-016	ATMOSPHERIC TANK /ORCHARD ST	Community	1971010

Well tests will monitor for nitrate and nitrite. The water will be sampled from outdoor or indoor faucet as available and if possible will be collected prior to any treatment or filtration systems. The water will be allowed to run for approximately 30 minutes prior to collection of the sample to allow for a fresh sample of the groundwater. All samples will be collected in containers provided by the laboratory, preserved as required, stored on ice, and transported to the analytical laboratory within required holding times under chain-of-custody protocol.

The Testing will be completed prior to blasting and submitted to NH DES. The blasting is expected to take approximately two years. The wells will be tested again during project (approximately one month intervals) and for two consecutive months following the completion of the blasting. All monitoring data will be submitted to NHDES within a few days of receipt from the Laboratory.

All property owners for well testing will be contacted by mail with certified Letter to request permission to access wells for sampling. Within 2-3 days before scheduled sampling each property owner will be contacted again. Where property owners deny access or do not respond to request for access, their water supply wells will not be sampled as part of the groundwater Monitoring Program. DES will be supplied a summary of the responses to the sampling offers that are sent to the private well owners.

Best Management Practices

All blasting operations will follow the Institute of Makers of Explosives (IME) Blasting; Best Practices, a copy of which is attached in the appendices. Specifically the following procedures will be followed during loading of holes:

1) Drilling notes shall be maintained by the driller and communicated directly to the blaster. The notes shall indicate depths and lengths of voids, cavities, and fault zones or other weak zones encountered as well as groundwater conditions.
2) Explosive products shall be managed on-site so that they are used in the borehole, returned to the delivery vehicle, or placed in secure containers for off-site disposal.

3) Spillage around the borehole shall either be placed in the borehole or cleaned up and returned to an appropriate vehicle for handling or placement in secured containers for off-site disposal.
4) Loaded explosives shall be detonated as soon as possible and shall not be left in the blast holes overnight, unless weather or other safety concerns reasonably dictate that detonation should be postponed.
5) Loading equipment shall be cleaned in an area where wastewater can be properly contained and handled in a manner that prevents release of contaminants to the environment.
6) Explosives shall be loaded to maintain good continuity in the column load to promote complete detonation. Industry accepted loading practices for priming, stemming, decking, and column rise need to be attended to.
7) Rock will be excavated and processed as soon as reasonably possible.
8) Blast size will be coordinated between MD&B and Severino Trucking to ensure this is achievable.

Explosive Selection

Explosive products selected have the appropriate water resistance for the site conditions present in order to minimize the potential for hazardous effect of the product upon groundwater. Bulk emulsion will be used with ¾ lb cast boosters. When seams or voids are encountered during the drilling process; packaged product (blastex) will be used in combination with stemming to ensure product containment within the holes.
Holes exceeding 20’ in depth will be double primed to ensure complete detonation.

Misfire Prevention

Maine Drilling and Blasting follows strict misfire prevention guidelines, these are included in the appendices.

Spill Prevention

Measures shall be taken to reduce the possibility of fuel spills. Spill clean-up kits are available on every fuel tank and drill that will be used on site. Large spill-kits will also be available on site. The used contents of these kits will be disposed of off-site in the appropriate manner. Double wall fuel storage containers will be used as well and stored in an area free of surface water and away from such areas to minimize contamination potential.

1. Fuel storage requirements shall include
    a. Storage of regulated substances on an impervious surface.
    b. Secure storage areas against unauthorized entry.
    c. Label regulated containers clearly and visibly.
    d. Inspect storage areas weekly.
    e. Cover regulated containers in outside storage areas.

    f. Wherever possible keep regulated containers that are stored outside more than 50’ from surface water and storm drains, 75’ from private wells, and 400’ from public wells; and
    g. Secondary containment is required for containers containing regulated substances that are stored outside, except for on premise use heating fuel tanks, or aboveground or underground storage tanks otherwise regulated.
2. The fuel handling requirements shall include:
    a. Except when in use keep containers containing regulated substances closed and sealed.
    b. Place drip pans under spigots, valves, and pumps.
    c. Have spill control and containment equipment readily available in all work areas.
    d. Use funnels and drip pans when transferring regulated substances.
    e. Perform transfers of regulated substances over an impervious surface.
3. The training of on-site employees and the on-site posting of release response information describing what to do in the event of a spill of regulated substances.
4. Fueling and maintenance of excavation, earthmoving and other construction related equipment will comply with the regulations of the New Hampshire Department of Environmental Services requirements that are summarized in WD-DWGB-22-6 Best Management Practices for Fueling and Maintenance of Excavation and Earthmoving Equipment or its successor document.

Attachments

- IME Best Management Practices
- Misfire Prevention Guidelines
- Well Location Plan
- Technical Data Sheets

IME Best Management Practices

INSTITUTE OF MAKERS OF EXPLOSIVES

Blasting; Best Practices

The potential to impact surface or groundwater with the substances used in commercial explosives can be controlled through the implementation of certain measures. Implementing such measures as part of a standard operating procedure will eliminate or minimize the potential for these substances to dissolve in or become associated with water. The specific measures included can be grouped into the following four (4) basic categories:

1. Education/Training of Explosive Users
2. Selection of Appropriate Explosives for the Job and Conditions
3. Explosives Loading and Handling
4. Attention to Technical Matters

1. Education/Training of Explosive Users

Both the owners/operators of the location where explosives are being used and the personnel working with commercial explosives should be well informed of all applicable regulations as well as any potential consequences associated with the products' exposure to water. The federal Clean Water Act, or the equivalent state statute, regulates the release of substances, in particular those that can cause an undue risk to human health or the environment. In addition, the Resource Conservation and Recovery Act, governs the disposal of hazardous wastes.

2. Selection of Appropriate Explosive for the Job and Conditions

Selecting the proper explosive for the particular job is critical to the prevention of surface or groundwater impact.

- ANFO (ammonium nitrate - fuel oil) is not water-resistant and should be avoided if contact with water is likely.

- Various types of commercial explosives are available to withstand exposure to water. Water-resistant explosives include the cartridge forms of gelatinous nitroglycerin, watergels and emulsions and the bulk forms of emulsions which are: 1) Site Mixed Emulsion (ammonium nitrate - fuel oil - emulsifier) is a water-resistant explosive, semi-solid. This is manufactured on site and detonated while still warm assuring complete detonation. 2) Repump Emulsion (ammonium nitrate - fuel oil - emulsifier) is a water-resistant explosive, semi solid, manufactured off site, transported and pumped into the borehole as needed.

3. Explosives Loading and Handling

- All excess product in augers or hoses is to be recovered and used either in the next blasthole or recycled in the mixer/holding tank.
- Explosive spillage around the blasthole collar is to be controlled and any such spillage should be placed into the blasthole before stemming
- Water contacting explosives during cleanup is to be contained and managed in accordance with applicable regulations
- Minimize the amount of time that explosives are exposed to wet conditions within the blasthole. The blast should be initiated as near the time the loading is completed as safety and operational procedures allow.
- Avoid having explosives exposed to precipitation.
- To assure complete detonation of explosives placed into the ground, a sufficient number of boosters must be used.

4. Attention to Technical Matters

- The actual physical conditions into which explosives are being placed must be taken into account.
- Personnel responsible for loading explosives into the boreholes should be in continuous communication with the drillers of those boreholes or supplied with adequate drill logs, so that any knowledge regarding fractures, crevices or cavities is obtained.
- Where Bulk ANFO or Emulsion is used in fractured, creviced or cavitied boreholes, plastic borehole sleeves and/or positioned inert stemming decks will be used to ensure total detonation of the explosives and avoidance of excessive charges.
- Choosing and placing the correct drilling patterns that results in the optimal use of explosives with all the explosives undergoing complete detonation.
- Quality assurance/quality control measures to maintain drilling accuracy that prevents the detonation in one blasthole from impacting the proper detonation in a nearby blasthole.
- Selecting the appropriate drilling equipment so that adequate borehole quality is maintained.
- Where appropriate to ensure complete detonation, two (2) primers will be used in each blasthole; one near the top and one near the bottom of the explosive column.
- Correct selection of delay timing for each blasthole to ensure detonation of the entire pattern, and the prevention of cut-off blastholes.

Misfire Prevention Guidelines

Maine Drilling & Blasting
Misfire Notification and Handling Procedure

I. PURPOSE
To set forth the methods by which we will address each occurrence of misfired product in the field.

II. DEFINITION
The complete or partial failure of explosive material to detonate as planned. This term is also used to describe the explosive material itself that has failed to detonate.

III. REASONS FOR OCCURANCE
- Operator Error
- Poor blast design
- Shot not completely energized
- Geology
- Deadpressing
- Product separation
- Explosive malfunction

Non-Electric
- Shock tube pinched by blasting mats or rock
- Shock tube nicked of cut by knife or other tool

Electric
- Ground Leakage
- Shunted shot
- Shorted wire
- Inadequate power supply

IV. PREVENTION

<u>Prevention of Misfires</u>
These guidelines were established to provide good work practices that will greatly reduce the possibility of a misfire due to self-induced causes.

Shot Design Nonelectric
1. Use proper hookup procedures as found in the MD&B published guidelines
2. The Blaster-In-Charge may determine the need for extra surface delays to create a dual path system to enhance reliability
3. Ensure that there is enough slack in the shock tube
4. Ensure shot design allows for complete energization or in cases of larger shots appropriate advancement of the initiation sequence.

Shot Design Electric

5. Ensure shot design allows for complete energization
6. Tape connections in wet locations
7. Monitor meter while matting
8. Test equipment regularly
9. Perform stray current tests

Loading

10. "Tape" all non-electric connections to ensure there is a proper connection
11. The Blaster-In-Charge must walk the shot completely and verify all connections prior to shooting
12. The Blaster-In-Charge will have additional competent person(s) walk the shot to ensure all connections are made properly
13. Use caution whenever sticking a loading pole or stemming rod into a loaded hole as it can damage shock tube
14. Re-prime any hole where separation is suspected
15. Re-prime any hole where you have used a powder retriever
16. Do not step on shock tube

Matting

17. Matting shall only be performed under the direction of the Blaster-In-Charge, or their competent designee
18. Ensure that the excavator on the project is sufficient in size to handle the mats in an efficient manner
19. Communicate the matting procedure clearly with the excavator operator, discuss hand signals also.
20. Design the shot with the excavators reach in mind
21. Clean mats by "shaking" them with an excavator. This is more effective when the tire "grain" is sloping downward
22. Do not drag mats over a shot
23. Do not set mats with a front-end loader or other equipment that cannot properly hoist the mat over the shot
24. Place ANFO bags under shock tube exposed to jagged surfaces
25. Utilize sand cover whenever geological conditions warrant extra coverage

General Prevention Techniques

26. Do not cut open detonator boxes with a knife
27. No not allow your powder knife to swing from a lanyard (strap) unless the blade is protected
28. Document and calculate timing before loading the shot
28. After the shot has been tied in – GET OFF THE SHOT!

V. REPORTING

- Misfires must be reported by the blaster in charge to a supervisor and the Safety Manager immediately. This is the sole responsibility of the blaster in charge.
- Additionally the contractor needs to be informed immediately and work suspended in the area of the misfire until a plan has been developed to remediate the misfire.
- An incident report must be completed within 12 hours of the misfire

VI. HANDLING

1. Evaluation
   - Misfires will range in seriousness from very dangerous, to a simple re-hook and shoot. The blaster-in-charge along with their supervisor should evaluate the situation
   - Wait a minimum of 15 minutes after the misfire to re-enter the blast area. Use this time to barricade the area if necessary.
2. Unfired Explosives
   - Perform continuity tests for all electric caps found
   - Find all misfired caps, re-hook along with additional surface delays and detonate when possible. Keep in mind that the boreholes may now be deformed creating a cut off that is not visible. Also, the relief of the shot has changed and the blaster must account for it with additional berming or matting.
   - Gather all loose unfired explosive and return to the magazine.
   - This product needs to be clearly marked and set aside until it is determined whether the product should be sent back for testing, or destroyed in an appropriate manner.
   - When removing loose material, extreme care should be taken
   - Loose rock should be removed from the face to stabilize the work area
3. Marking and Detonating
   - Mark each misfire and adjacent area
   - Create off-sets and record distances
   - Wherever possible survey in the exact location utilizing the engineering department.
   - Do not attempt to remove an unexploded charge or work in area until charge has been successfully detonated by rewiring or re-priming with a new primer
   - Mat and berm unfired holes if possible, because relief may have been created

4. Extracting Explosives
   - All material extraction must be done under the supervision of the blaster in charge.
   - The blaster in charge may remove explosive material from a hole. This must be done with extreme caution using moderate air or water pressure, or a combination of both, with a blowpipe made of non-metallic material.
   - Extraction of primers utilizing a powder retriever is prohibited.

VII. REMEDIATION PLAN

The remediation plan should, at a minimum, contain the following items:

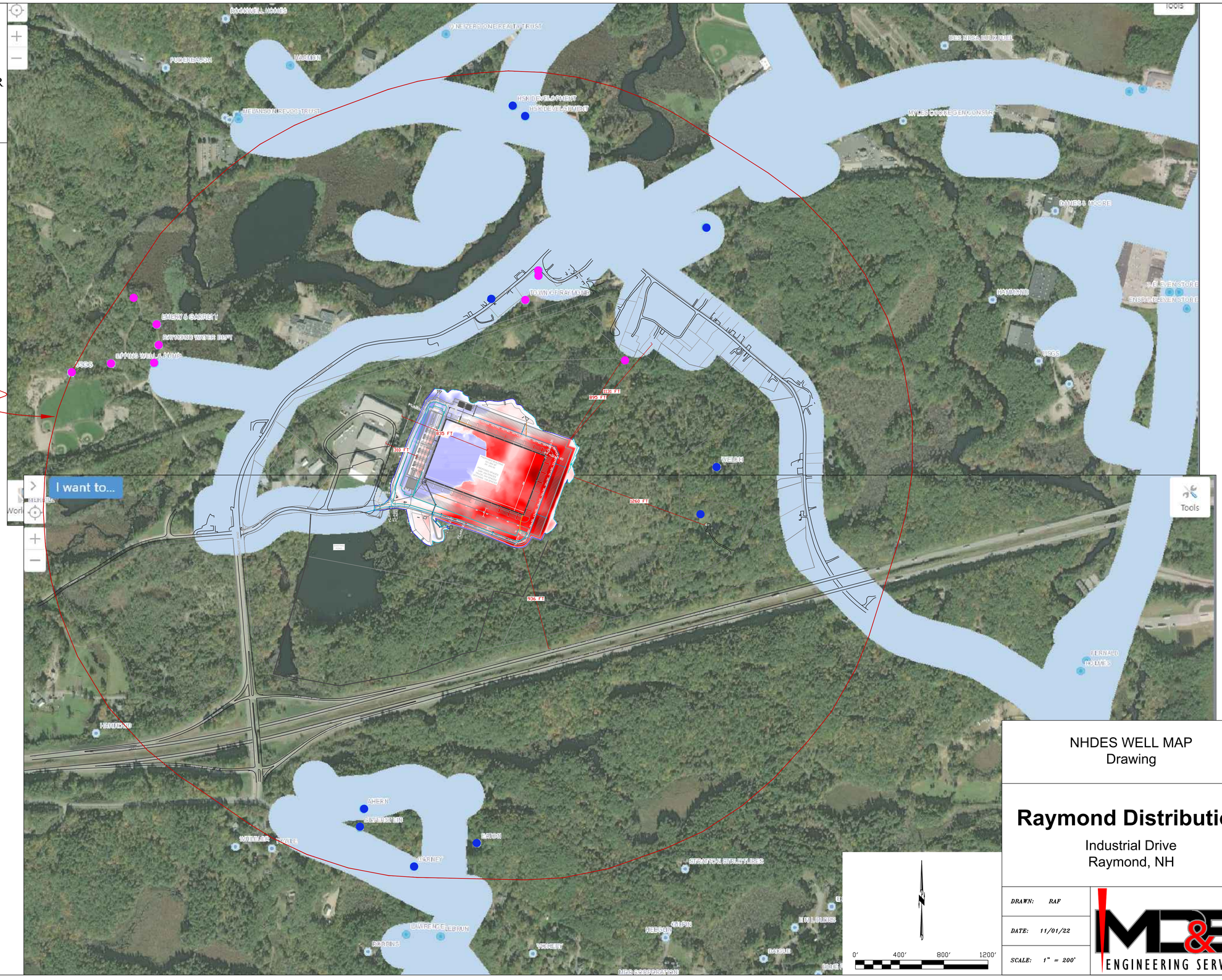
- A record of the where the misfire happened, and include all offset information. Utilize the engineering department when necessary.
- What product is misfired, and how the holes were loaded.
- All shot data, including blast logs, hole sheets, etc.
- Notification to the contractor/owner.
- How the area is barricaded to prevent unauthorized activities
- Site-specific procedures identifying the method of extraction required for the specific situation.
- Never leave product unattended during the remediation process

Well Location Plan

LEGEND:

- DOMESTIC WELLS
- TOWN WELLS/PUBLIC WATER SUPPLIES

2,000ft WELL MONITORING RADIUS



NHDES WELL MAP
Drawing

Raymond Distribution

Industrial Drive
Raymond, NH

DRAWN:	RAF
DATE:	11/01/22
SCALE:	1" = 200'

MD&B ENGINEERING SERVICES

MSDS Sheets

TECHNICAL DATA SHEET

NONEL® LEAD LINE

Nonelectric Shock Tube

Properties

SDS #1124

Net Explosive Content per 100 Spools of 2500 ft 1.105 KG or 2.436 lbs

Length		Spools / Case
meters	feet	
762	2500	2

- Length rounded to nearest one-half meter.
- See case label for exact case weight.

Case Dimensions

51 x 25 x 28 cm 20 x 9 7/8 x 10 7/8 in

Hazardous Shipping Description

- Articles, Explosives, N.O.S. (HMX, Aluminum), 1.4S, UN 0349, PG II

PRODUCT DESCRIPTION

NONEL LEAD LINE is NONEL shock tube spooled at the factory in 763 meter (2,500 foot) lengths for easy application and deployment. NONEL LEAD LINE shock tube is a small diameter, three-layer plastic tube coated on the innermost wall with a reactive explosive compound. When initiated, NONEL shock tube propagates a low energy signal, similar to a dust explosion, at approximately 2000 m/sec (6,500 ft/sec) along the tube's length with minimal disturbance to the outside of the tube. The signal is transmitted from one NONEL shock tube to another through field-assembled splices.

NONEL LEAD LINE provides maximum flexibility to the blaster in choosing a position of safety from which to initiate nonelectric blast rounds in either underground or surface applications. NONEL LEAD LINE is the only NONEL product that can be cut and spliced into a NONEL detonator product to construct a custom length nonelectric starter assembly.

APPLICATION RECOMMENDATIONS

- ALWAYS splice NONEL LEAD LINE to NONEL EZTL™ nonelectric trunkline delay detonators, NONEL EZ DET® nonelectric blast initiation system, NONEL TD or NONEL Starter detonators to make-up the nonelectric starter assembly when using NONEL LEAD LINE as the primary initiator for NONEL blast rounds.
- ALWAYS trim at least 3 m [10 ft] of tubing before inserting into a nonelectric shock tube starting device or whenever dirt and/or moisture may have compromised the open tube ends before making a splice connection.

Product Disclaimer: Please see reverse side.

DYNO® Dyno Nobel

TECHNICAL DATA SHEET

NONEL® LEAD LINE

Nonelectric Shock Tube

TRANSPORTATION, STORAGE AND HANDLING

- NONEL LEAD LINE must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.
- For maximum shelf life (3 years), NONEL LEAD LINE must be stored in a cool, dry, well ventilated magazine. Explosive inventory should be rotated. Avoid using new materials before the old. For recommended good practices in transporting, storing, handling and using this product, see the booklet "Prevention of Accidents in the Use of Explosive Materials" packed inside each case and the Safety Library Publications of the Institute of Makers of Explosives.

APPLICATION RECOMMENDATIONS - continued

- ALWAYS replace the plastic tube closure over the open end of any NONEL LEAD LINE that remains on the spool and is intended to be used to make up another nonelectric starter assembly.
- ALWAYS make the final hook-up of the nonelectric starter assembly to the blast round only after all equipment and non-essential personnel are clear of the blast area.
- ALWAYS unspool NONEL LEAD LINE by hand if the starter assembly has been spliced to it and is attached to the blast round.
- ALWAYS keep any NONEL LEAD LINE tube ends sealed and free from dirt and moisture since dirt or moisture in the shock tube may cause a misfire.
- NEVER use NONEL LEAD LINE for in-hole use. NONEL LEAD LINE is for use outside the borehole only.
- NEVER attempt to knot different lengths of shock tube together. Shock tube will not initiate itself through knot connections. It must be spliced.
- NEVER remove the plastic tube closure from the NONEL LEAD LINE shock tube until just before splicing.
- NEVER attach the starter assembly to the blast round until after the LEAD LINE deployment is complete whenever NONEL LEAD LINE is to be unspooled by any method other than by hand,
- NEVER run over NONEL LEAD LINE with equipment. This may damage the shock tube and may cause a misfire.
- ALWAYS replace the NONEL LEAD LINE if it is damaged
- When making a nonelectric starter assembly using NONEL LEAD LINE, ALWAYS remove the plastic tube closure and save for later use. Splice two freshly-cut ends of NONEL shock tube together (one from the NONEL LEAD LINE and the other from the NONEL detonator) by inserting them into opposite ends of the plastic connector sleeve and pushing them toward one another until they are both at least ½ cm (¼ in) in the splice.

ADDITIONAL INFORMATION – Visit **dynonobel.com** for Brochures and Case Studies related to this product.

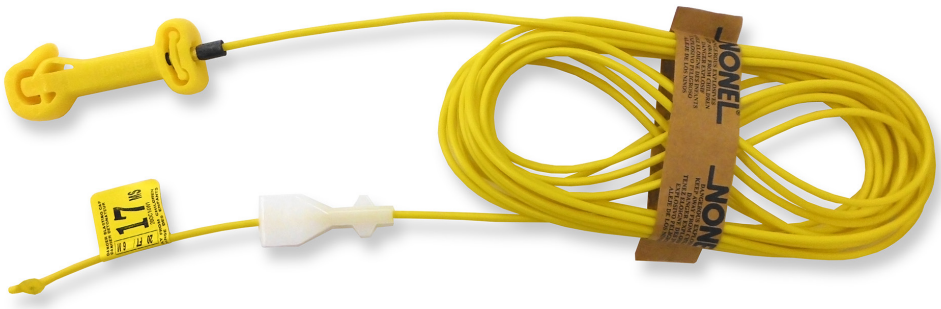
Product Disclaimer: Dyno Nobel Inc. and its subsidiaries disclaim any warranties with respect to this product, the safety or suitability thereof, or the results to be obtained, whether express or implied, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND/OR OTHER WARRANTY. Buyers and users assume all risk, responsibility and liability whatsoever from any and all injuries (including death), losses, or damages to persons or property arising from the use of this product. Under no circumstances shall Dyno Nobel Inc. or any of its subsidiaries be liable for special, consequential or incidental damages or for anticipated loss of profits.

DYNO® Dyno Nobel

NONEL® EZTL™ CPZ

Technical Information

Nonelectric Trunkline Delay Detonators Perchlorate Free



Product Description

NONEL® nonelectric delay detonator EZTL™ units consist of a length of yellow shock tube, with a surface detonator attached to one end and the other end sealed. The detonator is housed in a plastic EZ Connector block which facilitates easy connection to shock tube. A white J-hook is affixed near the sealed end. Easy-to-read, color-coded delay tags display the delay number and nominal firing time prominently.

EZTL detonators are designed for use with NONEL MS and EZ DET® units to provide effective and accurate surface timing between blastholes and/or rows of blastholes in surface and underground blasting designs.

Application Recommendations

For detailed application recommendations, **ALWAYS** request a copy of Dyno Nobel's *Product Manual: NONEL® and PRIMACORD®* from your Dyno Nobel representative.

- **ALWAYS** be sure that the shock tube(s) are securely inserted, one at a time, into the plastic EZ connector. The head of the connector block should rise to accept the tube, and return to a closed position with an audible click.
- **ALWAYS** ensure that the individual shock tubes remain aligned side by side in the EZ connector channel and do not cross over one another during insertion.
- **ALWAYS** protect the plastic EZ connector and all shock tube leads from impact or

Properties

MSDS #1322

Net Explosive Content per 100 units 0.0240 kg
0.0529 lbs

Delay Time (msec)	Delay Code	Connector Block Color
17	17Z	Yellow
25	25Z	Red
33	33Z	Green

Hazardous Shipping Description
Detonator assemblies nonelectric,
1.4B, UN 0361 PG II

See Product Disclaimer on page 2.

DYNO® Dyno Nobel
Groundbreaking Performance™

NONEL® EZTL™ CPZ

Technical Information

Application Recommendations (continued)

damage. Use care when placing blasting mats and cover material on top of the blasting circuit. The EZ connector contains a detonator and is subject to detonation caused by abuse such as impact. Shock tube which has been cut, ruptured or damaged may cause misfires.

- **NEVER** use NONEL EZTL detonators with detonating cord. The low strength surface detonator will not initiate detonating cord.
- **NEVER** attempt to disassemble the delay detonator from the EZ connector block or use the detonator without the connector.
- **NEVER** place more than 6 shock tube leads into an EZ connector block. Misfires may result.
- **NEVER** tie-in NONEL EZTL units until all holes have been primed, loaded, stemmed and the blast site has been cleared.

Transportation, Storage and Handling

- NONEL EZTL must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.
- For maximum shelf life (3 years), NONEL EZTL must be stored in a cool, dry, well ventilated magazine. Explosive inventory should be rotated. Avoid using new materials before the old. For recommended good practices in transporting, storing, handling and using this product, see the booklet "Prevention of Accidents in the Use of Explosive Materials" packed inside each case and the Safety Library Publications of the Institute of Makers of Explosives.

Packaging

Length		Product Code	Case Type	Quantity per	
m	ft			Case*	Inner Carton
3.5	12	DY---812ME	D	90	30
6	20	DY---820ME	D	60	20
9	30	DY---830ME	D	45	15
12	40	DY---840ME	D	30	10

* Always shipped with 2 cases strapped together. Case dimension width will double.

- Length rounded to nearest one-half meter.
- Case weight varies by length & delay; see case label for exact weight.
- Replace "---" in Product Code with delay desired.

Case Dimensions

Detpak (D) 44 x 22 x 25 cm 17½ x 8¾ x 10 in

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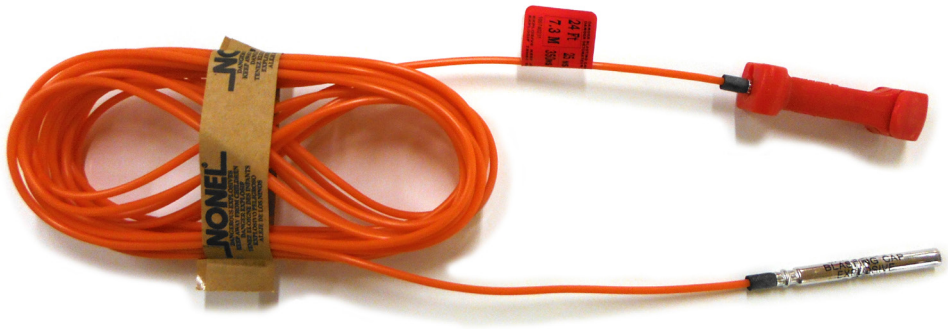
DYNO Dyno Nobel

Groundbreaking Performance™

NONEL® EZ DET® CPZ 1.4B

Technical Information

Nonelectric Blast Initiation System
Perchlorate Free



Product Description

NONEL® nonelectric delay detonator EZ DET® 1.4B units consist of a length of orange shock tube with a surface detonator attached to one end and a Standard (#8) in-hole detonator on the other. The surface detonator is inside a color-coded plastic EZ™ Connector block to facilitate easy connections to shock tube leads. This block can hold up to 6 shock tube leads. Easy-to-read, color-coded delay tags display the delay number and nominal firing time prominently.

NONEL EZ DET units can be easily connected to one another to satisfy basic blast design requirements in construction, mining, and quarry operations. They can also be used in combination with NONEL MS, NONEL EZTL™ and/or NONEL TD detonators to satisfy complex blast design requirements and minimize inventory of initiation system components.

Application Recommendations

For detailed application recommendations, **ALWAYS** request a copy of Dyno Nobel's *Product Manual: NONEL® and PRIMACORD®* from your Dyno Nobel representative.

- **ALWAYS** select a NONEL EZ DET unit having more than enough tubing length to extend from the planned primer location in the borehole to the collar of the next hole.

Properties

MSDS #1322

Net Explosive Content per 100 units 0.0810 kg / 0.1782 lbs

Nominal Time (msec)	Delay Code	Connector Block Color
17/350	DBZ	Yellow
25/350	ABZ	Red
25/375	AEZ	Red

Hazardous Shipping Description

Detonator assemblies nonelectric, 1.4B, UN 0361 PG II

See Product Disclaimer on page 2.

DYNO Dyno Nobel

Groundbreaking Performance™

NONEL® EZ DET® CPZ 1.4B

Technical Information

Application Recommendations (continued)

- **ALWAYS** protect the plastic EZ Connector block and all shock tube leads from impact or damage during the loading and stemming operations. Use care when placing blasting mats and cover material on top of the blasting circuit. The EZ Connector block contains a detonator and is subject to detonation caused by abuse such as impact. Shock tube which has been cut, ruptured or damaged may cause misfires.
- **ALWAYS** be sure that the shock tube(s) are securely inserted, one at a time, into the EZ Connector block. The head of the EZ Connector block should rise to accept the shock tube and return to a closed position with an audible click.
- **ALWAYS** ensure that individual shock tubes remain aligned side by side in the connector channel and do not cross one over the another on insertion.
- **NEVER** use NONEL EZ DET units with detonating cord. The low strength surface detonator will not initiate detonating cord and may cause misfires.
- **NEVER** attempt to disassemble the delay detonator from the plastic EZ Connector block or use the detonator without the connector.
- **NEVER** place more than 6 shock tube leads into the plastic EZ Connector block. Misfires may result.
- **NEVER** pull, stretch, kink or put tension on shock tube such that the tube could break.
- **NEVER** splice NONEL EZ DET shock tube together to extend between holes.
- **NEVER** connect NONEL EZ DET units together until all holes have been primed, loaded and stemmed and the blast site has been cleared.

Transportation, Storage and Handling

- NONEL EZ DET must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.
- For maximum shelf life (3 years), NONEL EZ DET must be stored in a cool, dry, well ventilated magazine. Explosive inventory should be rotated. Avoid using new materials before the old. For recommended good practices in transporting, storing, handling and using this product, see the booklet "Prevention of Accidents in the Use of Explosive Materials" packed inside each case and the Safety Library Publications of the Institute of Makers of Explosives

Packaging

Length		Product Code	Case Type	Quantity per Case
m	ft			
4.5	16	DX---616	D*	60
7	24	DX---623	D*	60
9	30	DX---629	D*	40
12	40	DX---641	D*	30
18	60	DX---660	DC	50
24	80	DX---680	DC	40
30	100	DX---6M0	DC	30

* Always shipped with 2 cases strapped together. Case dimension width will double.

- Length rounded to nearest one-half meter.
- Case weight varies by length & delay; see case label for exact weight.
- Replace "---" in Product Code with delay desired.

Case Dimensions

Detpak Case (DC)	48 x 45 x 26 cm	18¾ x 17¾ x 10¼ in
Detpak (D)	44 x 22 x 25 cm	17 ½ x 8 ¾ x 10 in

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TECHNICAL DATA SHEET

CAST BOOSTERS

TROJAN® SPARTAN®

Cast Booster

Properties

SDS #1108

Density	g/cc avg	1.65
Velocity	m/sec	7,550
	ft/s	24,800
Detonation Pressure	Kbars	235
Water Resistance		6 months with no loss of sensitivity
Shelf Life Maximum		5 years from date of production
Maximum Usage Temperature*		66°C / 150°F

*Never expose explosive materials to sources of heat exceeding 66°C (150°F) or to open flame, unless such materials or procedures for their use have been recommended for such exposure by the manufacturer.

All Dyno Nobel Inc. energy and gas volume values except Velocity and Detonation Pressure are calculated using PRODET™ the computer code developed by Dyno Nobel Inc. for its exclusive use. Other computer codes may give different values.

Velocity and Detonation Pressure are the result of empirical methods during May 2009.

Hazardous Shipping Description

- UN 0042 Boosters, 1.1D PG II

PRODUCT DESCRIPTION

TROJAN SPARTAN cast boosters are detonator sensitive, high density, high energy molecular explosives avaliable in various sizes designed to optimize initiation of all booster sensitive explosives. All TROJAN SPARTAN boosters are manufactured with an internal through-tunnel and detonator well for easy application with either electric, electronic or nonelectric detonators or 10.6 g/m (50 gr/ft) minimum strength detonating cord.

TROJAN SPARTAN boosters are formulated from the highest quality PETN and other high explosive materials ensuring reliability, consistency and durability in all blasting environments. The fluorescent green container and clear printing makes the TROJAN SPARTAN booster more visible on the blast site (as well as in low light situations) and reduces the possibility of misplaced charges. The redesigned Caplock™ holds the detonator in place more securely and makes it more difficult for the detonator to be pulled out of the capwell position while it is being lowered into the borehole.

APPLICATION RECOMMENDATIONS

- NEVER force the detonator into the through-tunnel, the detonator-well or otherwise attempt to clear these areas if obstructed. If the through-tunnel or detonator-well does not accommodate the detonator, do not use the booster. Notify your Dyno Nobel representative.

Product Disclaimer: Please see reverse side.

DYNO® Dyno Nobel

TECHNICAL DATA SHEET

TROJAN® SPARTAN®

Cast Booster

Properties Cont.

Packaging

Unit Weight		Unit Dimensions				Case Quantity	Gross Weight/Case	
		Length		Diameter				
g	oz	cm	in	cm	in		kg	lbs
90*	3.2	11.9	4.7	2.7	1.1	150	14.0	30.9
150	5.5	11.9	4.7	3.6	1.4	95	15.0	33.1
200	7	11.7	4.6	4.1	1.6	72	15.6	34.4
350	12	11.9	4.7	5.0	2.0	49	17.6	38.9
400	14	11.9	4.7	5.5	2.2	40	16.8	37.0
450	16	11.9	4.7	5.8	2.3	36	17.4	38.3
900*	32	12.9	5.1	7.9	3.1	18	17.8	39.2

* The Caplock feature is not available on these boosters because the shells are made of cardboard instead of plastic.

Note: All weights and dimensions are approximate.

Case Dimensions

42 x 33 x 14 cm 16 ½ x 13 x 5 ½ in

APPLICATION RECOMMENDATIONS - continued

- ALWAYS use detonating cord with a coreload of 10.6 g/m (50 gr/ft) or higher when initiating the TROJAN SPARTAN booster with detonating cord.
- Minimum detonator is No. 8 strength for temperatures above -40° C (-40° F). A high strength detonator is recommended for temperatures below -40° C (-40° F).
- Extremely low temperatures do not affect the performance of cast boosters with commercial detonators. Low temperatures do affect detonators and detonating cord. Be certain your initiation system is suitable for your application in extremely low temperatures. Cast boosters are more susceptible to breakage during handling in extremely cold temperatures.

TRANSPORTATION, STORAGE AND HANDLING

- Dyno Nobel cast boosters must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.
- For maximum shelf life (5 years), Dyno Nobel cast boosters must be stored in a cool, dry, well ventilated magazine. Explosive inventory should be rotated. Avoid using new materials before the old.

ADDITIONAL INFORMATION – Visit **dynonobel.com** for Brochures and Case Studies related to this product.

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TECHNICAL DATA SHEET

PACKAGED EXPLOSIVES

BLASTEX ®

Small & Large Diameter Booster Sensitive Emulsion

Properties

SDS #1063

		BLASTEX	BLASTEX PLUS
Density	(g/cc) Avg	1.26	1.26
Energy[a]	(cal/g)	740	800
	(cal/cc)	930	1,010
Relative Weight Strength[a]		0.84	0.91
Relative Bulk Strength[a,b]		1.29	1.40
Velocity[c]	(m/s)	5,000	4,900
	(ft/s)	16,400	16,100
Detonation Pressure[c]	(Kbars)	79	76
Gas Volume[a]	(moles/kg)	44	39
Fume Class		IME1 & NRCan[d]	IME1
Shelf Life Maximum		1 year from date of production	
Maximum Water Depth		45 m (150 ft)	
Water Resistance		Excellent	

[a] All Dyno Nobel Inc. energy and gas volume values are calculated using PRODET™ the computer code developed by Dyno Nobel Inc. for its exclusive use. Other computer codes may give different values.

[b] ANFO = 1.00 @ 0.82 g/cc

[c] Unconfined @ 75 mm (3 in) diameter

[d] Approved by Natural Resources Canada as Fume Class 1 in:
*valeron chub 50 mm (2 in) diameter and greater
*shot bag 125 mm (5 in) diameter and greater

Hazardous Shipping Description

- Explosive, Blasting, Type E, 1.5D, UN 0332 II

PRODUCT DESCRIPTION

BLASTEX is a booster sensitive, water resistant, packaged emulsion explosive designed to satisfy a majority of medium diameter explosive applications for quarry and construction blasting. It is a cost effective alternative to most detonator sensitive, water resistant, packaged emulsion explosives. BLASTEX is available in two grades with increasing energy level for each.

APPLICATION RECOMMENDATIONS

- Package diameter and type affect product density. Use cartridge count to determine actual explosive charge weight.
- Ensure continuous column loading. For column lengths in excess of 6 m (20 ft) or whenever column separation is suspected, multiple priming is recommended.
- Emulsion explosives are susceptible to “dynamic shock” and may detonate at low order or fail completely when applied in very wet conditions, where explosive charges or decks are closely spaced and/or where geological conditions promote this effect. Consult your Dyno Nobel representative for alternate product recommendations when these conditions exist.
- ALWAYS use a cast booster as a primer for BLASTEX to ensure maximum performance.
- ALWAYS use a 340 g (12 oz) or larger cast booster at internal product temperatures higher than -18° C (0° F). At internal product temperatures below -18° C (0° F) and higher than -34° C (-30° F) use a 454 g (16 oz) or larger cast booster.
- NEVER use BLASTEX at internal product temperatures below -34° C (-30° F). At internal product temperatures below -34° C (-30° F), adequate product warm-up time must be allowed after loading into boreholes and before initiation.
- Use with detonating cord is not recommended.

Product Disclaimer: Please see reverse side.

DYNO® Dyno Nobel

TECHNICAL DATA SHEET

BLASTEX ®

Small & Large Diameter Booster Sensitive Emulsion

Properties Cont.

Packaging, Chub

Diameter x Length		Blastex	Blastex Plus	Case Qty	Net Explosive Weight*		Net Explosive Weight / Chub	
mm	in				kg	lbs	kg	lbs
50 x 400	2 x 16	•	•	18	18.0	40	1.00	2.20
57 x 400	2¼ x 16	•	•	14	17.7	39	1.26	2.78
65 x 400	2½ x 16	•	•	12	18.1	40	1.51	3.33
70 x 400	2¾ x 16	•	•	9	17.3	38	1.92	4.23
75 x 400	3 x 16	•	•	8	18.2	40	2.27	5.00
89 x 400	3½ x 16	•	•	6	16.7	37	2.77	6.11

Packaging, Shot Bag

Bag Diameter		Bag Weight		Tote Bag Quantity
mm	in	kg	lbs	
125	5	11.3	25	40

TRANSPORTATION, STORAGE AND HANDLING

- BLASTEX and BLASTEX PLUS must be transported, stored, handled and used in conformity with all applicable federal, state, provincial and local laws and regulations.
- Packaged emulsions have a shelf life of one (1) year when stored at temperatures between -18° C and 38° C (0° F and 100° F). Explosive inventory should be rotated. Avoid using new materials before the old. For recommended good practices in transporting, storing, handling and using this product, see the booklet “Prevention of Accidents in the Use of Explosive Materials” packed inside each case ad the Safety Library Publications of the Institute of Makers of Explosives.

PACKAGING DETAILS

- Package diameter and type affect product density. Use cartridge count to determine actual explosive charge weight.
- All weights are approximate.
- BLASTEX and BLASTEX PLUS are available in a wide variety of sizes. Custom sizes are subject to surcharge and may require longer than usual lead times.
- Check with your Dyno Nobel representative should you have any questions.

*Add two pounds for Gross Case Weight

Tote Bag Dimensions

84 x 84 x 94 cm 33 x 33 x 37 in

Case Dimensions

44 x 35 x 20 cm 17.25 x 13.875 x 7.875 in

ADDITIONAL INFORMATION – Visit dynonobel.com for Brochures and Case Studies related to this product.

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DYNO Dyno Nobel

Maine Drilling & Blasting

1966 Emulsion Blend
Technical Data Sheet

1966 Emulsion Blend is based on the Nelson Brothers PowerNel ®1500 or similar Sensitized Bulk Emulsion. For purposes of this document the PowerNel ®1500 was used to develop the information below:

PowerNel® 1500 Specification

PowerNel 1500 is an ammonium nitrate / hydrocarbon emulsion blasting agent in the form of a water-in-oil emulsion explosive. PowerNel 1500 can be used in packaged or bulk form, and it is often used in combination with low cost ANFO in various proportions to meet individual blasting needs. PowerNel 1500 is sensitized to insure effective performance when used under demanding conditions.

PowerNel® 1500 is manufactured to the following specifications:

PowerNel® 1500

Parameter	Specification
Density *g/cc*	1.25 maximum[1]
lb/gal	10.43 maximum[1]
Absolute Weight Strength *cal/g*	645[2]
Absolute Bulk Strength *cal/cc*	806
Relative Bulk Strength *(% ANFO)*	109
Velocity of Detonation[3] *ft/sec*	19,000 – 20,000
Shelf Life (minimum, matrix only)	1 year

The Sensitized Bulk Emulsion is blended to an approximate 80% Emulsion / 20% Ammonium Nitrate ratio for delivery to the job site. Additional ratios may be blended on site by "Quad" blend trucks and include 70/30 and 50/50 ratios.

BLEND	***Sensitized Emulsion***	***80/20***	***70/30****	***50/50****
DENSITY[4] g/cc	**1.25**	**1.27**	**1.29**	**1.34**
Relative Bulk Strength	**109**	**117**	**123**	**135**
Velocity of Detonation ft/sec	**19,000-20,000[3]**	**19,000[5]**	**18,700[5]**	**16,100[5]**
Water Resistance	**Excellent**	**Excellent**	**Excellent**	**Excellent**
Minimum Diameter**	**3"**	**3 ½"**	**5"**	**6"**
Minimum Booster***	**¾ lb**	**¾ lb**	**1 lb**	**2 lb**

*These blends (70/30 & 50/50) are produced on site from a "Quad" truck.

** Recommended minimum diameters

***Recommended minimum priming requirements

All data provided by Nelson Bros. laboratory:

[1] *At normal ambient temperature (approx 75 F)*
[2] *From TIGERWIN Program Code, version 4*
[3] *Measured velocities in 6.75 inch diameter borehole, 100% emulsion*
[4] *Typical values, may vary with ANFO density*
[5] *Typical, averaged values in 6.75 inch borehole*

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

October 20, 2022

NHDES Alteration of Terrain Bureau
Mr. Ridge Mauck
P. O. Box 95
Concord, NH 03302-0095

RE: Response Letter
Industrial Drive, Raymond, NH
Tax Map 22, Lot 47
JBE 21130

Dear Mr. Mauck,

We are in receipt of comments from Joseph Foley, chair, Lamprey River Advisory Committee, dated September 21, 2022. Review comments are listed below with our responses in bold.

1. *Materials reviewed include Alteration of Terrain Permit Application signed and dated 8-9-2022, plans dated 2-19-2021 (?), and Natural Heritage Report dated 9-29-2021.*
   RESPONSE: Noted.

2. *The applicant desires to create a 12-acre building to serve as a distribution center. The distribution center will accommodate 158 loading docks, 244 trailer spaces, and 326 vehicle spaces. 1,783,333 square feet will be impacted, with 1,324,729 square feet (almost 31 acres) of impervious surface. A wetlands permit will also be needed. 750,000 cubic yards of rock will be blasted.*
   RESPONSE: A wetlands permit has been submitted to the state and was mailed to the Lamprey River Advisory Committee by Gove Environmental Inc. on August 26th, 2022. A supplemental electronic copy was sent September 20th, 2022.

3. *The Natural Heritage Bureau report is dated 9/29/2021 (valid until 9/29/2022). The report indicates that four species of concern have been reported over several years in the vicinity and could be expected on the site: Blanding's turtles, wood turtles, spotted turtles, northern black racers. The NHB did not include any recommendations on the report, but requires the applicant to consult with the NH Fish and Game Department. We assume a fresh NHB report will be required and NHFGD can coordinate with the applicant at that time. We will want to see that communication as it becomes available.*
   RESPONSE: Coordination with NH Fish and Game Department and NHDES has begun and is ongoing. We await further comment from those agencies regarding any additional Natural Heritage Bureau Report work that may be needed.

4. *Nothing in this package references any studies for vernal pools The package for the Standard Dredge and Fill Wetlands Application identified several active pools.*
   RESPONSE: Studies of the vernal pools on the site were done as part of the wetland application process. This was included with the report mailed to LRAC on September 20th. The vernal pool section of that report has been included with this response letter.

5. *The applicant reports that the existing site is currently partially developed with an active rock quarry, with the remaining area covered by wooded terrain. Photos of the natural features include typical forest cover and beaver dams. We cannot ascertain where the mining is currently taking place or where the beaver dam(s) are. We found nothing in the application package indicating where this property lies in relation to highest ranking habitats per the NH Wildlife Action Plan. Plans show that a small, 5.72 or 8.72 acre conservation easement is nearby and on the southwest corner, another conservation area of 18.45 acres. With conservation areas nearby and beavers present, the likelihood of proximity to areas worth protecting is high.*
   RESPONSE: The active rock quarry area has been identified within the wetland impact plans that were included with the wetland application package. A copy of the plan showing the limit of quarry operations has been included with this response letter. The location of the beaver dam site has also been labeled on the attached plan. The conservation easement areas have been expanded to 21.65 acres and 12.47 acres. This is shown on the attached Site Plan "Sheet C2". The beaver dam site is located within Conservation Easement #2.

6. *Stormwater analysis included up to 50-year storms. Raymond is susceptible to flooding along the Lamprey River and this area has experienced three 100-year floods in the recent past. The possibility of a 100-year storm should be taken into consideration given the vast amount of impervious surface being proposed.*
   RESPONSE: The 100-year storm was modeled and all surface ponds were reviewed for overtopping. All surface ponds were found to have sufficient capacity to prevent overtopping. The Hydrocad summaries for these ponds have been included with this response letter.

7. *Flood maps used were dated 2005. More recent data exist that include the three 100-year storms. Please refer to Floodplain Maps|Floodplain Management Program|NH Office of Strategic Initiatives.*
   RESPONSE: The flood maps were obtained using the FEMA Flood Map Service Center. These maps also match the FEMA maps shown on the NH Flood Hazard Viewer Map. A copy of this map has been included within this response letter.

8. *This is a former Rex Tannery (aka Regis Tannery) site which was remediated somewhere around 2014. Groundwater monitoring was done and there were no high chromium levels. NHDES is still asking for PFAS sampling. There seems to be an annual report produced on the site, but we cannot ascertain by whom. This should be specified.*
   RESPONSE: This is an abutting property which is not apart of this project. The parcel in question is owned by the town of Raymond.

9. *On Page 4 of the Functions and Values Assessment – Gove refers to the Sig Sauer Parking development (cut and paste error). The stormwater Operations Manual is for the WS Goodrich Inc. in Epping dated 2015.*
   RESPONSE: The cut and paste error has been corrected. Page 4 has been attached with this response letter confirming this.

10. *PREP has identified air-borne pollution as contributing roughly 33% of nitrogen pollution in the Great Bay region. When this air-borne pollution lands on impervious surfaces, it does not get filtered property. While stormwater infiltration lowers risks associated with erosion and sudden inputs of water to the river, to remove nitrogen pollutants effectively, stormwater needs to be exposed to biotic or chemical conditions that capture nitrogen. Without real treatment, nitrogen-rich water that enters the groundwater ends up in the river and ultimately Great Bay. In addition to converting 31 areas of forest to impervious surface, the applicant will be filling 59,573 square feet of wetlands that are identified as effective in nutrient removal. The site history indicates that 41,125 SF of wetlands were filled illegally by the previous owner of the property. Because no permit was granted, we do not know if these wetlands were effectively providing nutrient removal, but it can be assumed that they probably were to at least some degree. The increase of nutrients into groundwater and ultimately to the Lamprey River is a major concern and must be addressed. Five stormwater infiltration pits are proposed to supply groundwater recharge, but they will not address nitrogen loading. Some sort of effective nitrogen removal should be required.*
    RESPONSE: The design complies with all local and state regulations regarding stormwater treatment. We await further comment from the NH Alteration of Terrain Bureau regarding the design.

Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Erik Poulin, P.E.
Project Manager

cc: Douglas Richardson ,Onyx Partners, Ltd (via email)
Anton Melchionda, Onyx Partners, Ltd (via email)
Joseph Foley, Lamprey River Advisory Committee (via email)

GOVE ENVIRONMENTAL SERVICES, INC.

October 20, 2022

To: Joseph Foley

Cc: Eben Lewis, NH DES Wetlands
Raymond Conservation Commission.
Raymond Planning Board

Subject: Raymond Distribution Center
Industrial Drive, Raymond, NH

File Number: 2022-02474

Dear Mr. Foley,

The purpose of this letter is to respond to the comments provided by the Lamprey River Advisory Committee on September 21st, 2022 on the subject of Raymond Distribution Center on Industrial Drive, in Raymond NH. The comments will be addressed in the same order as are in the original letter.

Response

1. **Materials reviewed include Standard Dredge and Fill Wetlands Permit Application signed and dated 8/24/2022 and Natural Heritage Report dated 9/29/2021.**

   We agree with this statement.

2. **The applicant desires to create a 12-acre building to serve as a distribution center. The distribution center will accommodate 158 loading docks, 244 trailer spaces, 326 vehicle spaces. 1,783,333 square feet will be impacted, with 1,324729 square feet (almost 31-acres) of impervious surface. Permanent impacts to wetlands have been calculated at 87,117 square feet, or 2 acres. An Alteration of Terrain Permit will also be needed.**

   We agree with this statement referencing the SF of proposed overall impact, proposed impervious surface, and proposed wetland impacts. The referenced number of loading docks, trailer and vehicle spaces are what is currently proposed however those numbers may be adjusted to meet the need of the tenant during the construction.

3. **The Natural Heritage Bureau report is dated 9/29/2021 (valid until 09/29/2022). The report indicates that four species of concern have been reported over several years in the vicinity and could be expected on site: Blanding's turtles, wood turtles, spotted, turtles, norther black racers. The NHB did not include any recommendations on the report, but requires the applicant to consult with NH Fish**

and Game Department. We assume a fresh NHB will be required and NHFGD can coordinate with the applicant at that time. We will want to see that communication as it becomes available.

We agree the NHB report did list those species in the vicinity of the project site. The NHB report had a recommendation for a vernal pool survey which was conducted during the spring of 2022 and a report was provided to F&G with the wildlife habitat assessment submitted with the AOT permit and is also attached. A turtle nesting survey was also requested and was completed at the end of September and is attached. Any additional coordination or sign off from fish and game can be forwarded for review and records by the LRAC.

4. **Per the Functional Assessment Report, "With a project of this size…., environmental impacts to jurisdictional areas area almost guaranteed to occur." Normal negative impacts that will result from the loss of natural vegetation and filling of wetlands are habitat loss and groundwater recharge. Reported habitat value on site includes mature forest, vernal pools, and species of concern nearby. Natural groundwater infiltration results in cleaner water but groundwater can theoretically be recharged using stormwater infiltration systems. That said we are most concerned in this case with the double impacts on nutrient removal. This project will convert 31 acres of natural area to impervious surface while simultaneously removing 59,573 square feet of wetlands (from wetlands #1, #3, and #5) that were effectively removing nutrients. The site history indicates that 41,125 SF of wetlands were filled illegally by the previous property owner. Because no permit was granted, we do not know if these wetlands were effectively providing nutrient removal but it can be assumed that they probably were to at least some degree. The increase of nutrients into groundwater and ultimately to the Lamprey River is a major concern and must be addressed.**

   The proposed project will need to meet the current AOT standards for stormwater management. This will include the treatment of any stormwater received on the subject property prior to it entering into any jurisdictional areas through infiltration. The proposed infiltration areas will account for the total proposed impervious surface and have been sized to handle the stormwater events with the construction of this warehouse facility.

5. **The applicant will be required to pay a significant sum to the ARM Fund for impacts to two high-functioning and one medium-functioning vernal pools on site, and direct losses of wetlands and intermittent streams. Protecting an area off-site is a poor substitute for the ecological impacts to the site itself and the increase in nutrients entering our waters.**

   The applicant is not proposing any off-site protection with this proposed mitigation. The

mitigation will be provided in the form of payment to the ARM Fund to account for all impacts to jurisdictional areas. The applicant is also working with the town to establish deed restriction language for two areas on the subject property for environmental protection from and future land development. The total amount of land to be restricted will amount to approximately 28 acres of wetlands and areas of adjacent uplands.

This concludes our response letter addressing the above comments to the Lamprey River Advisory Committee. If you feel I can be of further assistance or have any other questions please don't hesitate to reach out either via email bwalden@gesinc.biz or by phone 207-710-7863.

Sincerely,

Brenden Walden
Business Manager & Wetland Scientist
Gove Environmental Services, Inc.

GOVE ENVIRONMENTAL SERVICES, INC.

Lamprey River Advisory Committee Letter

Lamprey River Advisory Committee

c/o 88 Hedding Road
Epping, NH 03042
www.lampreyriver.org

Protecting the Lamprey, Little, North, North Branch, Pawtuckaway, and Piscassic rivers that connect our fourteen communities

Barrington, Brentwood, Candia, Deerfield, Durham, Epping, Exeter, Fremont, Lee, Newfields, Newmarket, Northwood, Nottingham, Raymond

September 21, 2022

Mr. Eben Lewis
NHDES
PO Box 95
Concord, NH 03302-0095

Re: Raymond Distribution Center
Industrial Drive
Raymond, NH
File #: 2022-02474

Dear Mr. Lewis:

The above-referenced project is within the quarter mile corridor of the Lamprey River and is, therefore, subject to review by the Lamprey River Advisory Committee (LRAC) in accordance with NHRSA 483. Upon final review, we offer the following comments:

1. Materials reviewed include Standard Dredge and Fill Wetlands Permit Application signed and dated 8/24/2022 and Natural Heritage Report dated 9/29/2021.

2. The applicant desires to create a 12-acre building to serve as a distribution center. The distribution center will accommodate 158 loading docks, 244 trailer spaces, and 326 vehicle spaces. 1,783,333 square feet will be impacted, with 1,324,729 square feet (almost 31 acres) of impervious surface. Permanent impacts to wetlands have been calculated at 87,117 square feet, or 2 acres. An Alteration of Terrain Permit will also be needed.

3. The Natural Heritage Bureau report is dated 9/29/2021(valid until 09/29/2022). The report indicates that four species of concern have been reported over several years in the vicinity and could be expected on site: Blanding's turtles, wood turtles, spotted, turtles, northern black racers. The NHB did not include any recommendations on the report, but requires the applicant to consult with the NH Fish and Game Department. We assume a fresh NHB will be required and

NHFGD can coordinate with the applicant at that time. We will want to see that communication as it becomes available.

4. Per the Functional Assessment Report, "With a project of this size, ..., environmental impacts to jurisdictional areas are almost guaranteed to occur." Normal negative impacts that will result from the loss of natural vegetation and filling of wetlands are habitat loss and groundwater recharge. Reported habitat value on site includes mature forest, vernal pools, and species of concern nearby. Natural groundwater infiltration results in cleaner water, but groundwater can theoretically be recharged using storm water infiltration systems. That said, we are most concerned in this case with the double impacts on nutrient removal. This project will convert 31 acres of natural area to impervious surface while simultaneously removing 59,573 square feet of wetlands (from wetlands #1, #3, and #5) that were effectively removing nutrients. The site history indicates that 41,125 SF of wetlands were filled illegally by the previous property owner. Because no permit was granted, we do not know if these wetlands were effectively providing nutrient removal, but it can be assumed that they probably were to at least some degree. The increase of nutrients into groundwater and ultimately to the Lamprey River is a major concern and must be addressed.

5. The applicant will be required to pay a significant sum to the ARM Fund for impacts to two high-functioning and one medium-functioning vernal pools on site, and direct losses of wetlands and intermittent streams. Protecting an area off-site is a poor substitute for the ecological impacts to the site itself and the increase in nutrients entering our waters.

Thank you for the opportunity to comment on this project.

Joseph Foley

Joseph Foley, chair

CC: Tracie Sales, NHDES
Raymond Conservation Commission, Planning Board
Brenden Walden, Gove Envrionmental Services, bwalden@gesinc.biz

GOVE ENVIRONMENTAL SERVICES, INC.

2022 Vernal Pool Report

GOVE ENVIRONMENTAL SERVICES, INC.

2022 VERNAL POOL ASSESSMENT

EPPING, NH

1.0 INTRODUCTION

Gove Environmental Services, Inc. (GES) presents this Vernal Pool Report for approximately 123 acres of land located on Industrial Way in Raymond, NH. The subject property is located on Tax Map 22 Lots 44, 45, 46, & 47 and Tax Map 28 Block 3 Lot 120-1. The attached locus map shows the limits of the site with a sketch depicting the approximate locations of the vernal pools identified during the investigation. The analysis contained in this report is based on the field assessment conducted during the 2022 breeding season. It addresses:

- Amphibian and other obligate species activity; and
- Existing conditions in the upland envelope surrounding the pool.

All field data collection and analysis for this report was conducted by GES.

Location and Site Description

The subject property is located right off of exit 4 on route 101 in Raymond, in an area of expanding commercial/industrial development. The subject property has an active AOT for earth work and with active quarey activities taking place. The 123-acre piece of land has a significant amount of authorized active disturbance on the property all within the limits of the approved AOT. Beyond this active site is a mix of naturalized foresed area intermixed with areas that have seen selective cut forestry acativities adjacent to a drained beaver pond. There is significant topographical changes throughout the site with areas bed rock supporting ponding within the identified juridictional wetlands. The jurisdictional wetlands identified on site consist of a mix of forested and scrub shrub wetlands with almost all wetlands identified on site being connected with very few areas on the northern portion of the property being man made isolated features. Along with these forested/scrub shrub areas there is the remenants of a large beaver pond that bisected the property from east to west. The owner removed the beaver dam to drain the pond in incremants to allow the area to drain without any risk of issues down stream. Vegetation within the wetlands consisted of Red Maple, Iron Wood, American Beach, High Bush Blueberry, Winterberry, Cinnamon Fern, Gold Thread and Skunk Cabbage. Small intermittent streams were also observed connecting many of these wetlands and were seen to eventually drain into the old beaver pond or into larger adjacent wetlands both on and off site. Uplands consisted of a mix of mature white pine and red oak.

Regulations

NH Department of Environmental Services defines vernal pools under Env-Wt 104.44 “Vernal pool” means a surface water or wetland, including an area intentionally created for purposes of

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Ph (603) 778 0644 / *Fax* (603) 778 0654
www.gesinc.biz
info@gesinc.biz

compensatory mitigation, that provides breeding habitat for amphibians and invertebrates that have adapted to the unique environments provided by such pools and that:

(a) Is not the result of on-going anthropogenic activities that are not intended to provide compensatory mitigation, including but not limited to:
(1) Gravel pit operations in a pit that has been mined at least every other year; and
(2) Logging and agricultural operations conducted in accordance with all applicable New Hampshire statutes and rules; and
(b) Typically has the following characteristics:
(1) Cycles annually from flooded to dry conditions, although the hydroperiod, size, and shape of the pool might vary from year to year;
(2) Forms in a shallow depression or basin;
(3) Has no permanently flowing outlet;
(4) Holds water for at least 2 continuous months following spring ice-out;
(5) Lacks a viable fish population; and
(6) Supports one or more primary vernal pool indicators, or 3 or more secondary vernal pool indicators.

2.0 METHODOLOGY

Three site visits were conducted one on April 4th, April 11th and April 18th. During the wetland delineation of the property in July of 2021, several areas were observed to have signs of seasonal ponding. At the time of the delineation several of these areas appeared to meet the criteria for additional follow up assessments for potential vernal pool activity. Upon further investigation, vernal pool activity was identified in three areas on the subject property with the. Active vernal pool areas are shown on the attached sketch.

Egg mass counts were conducted in these areas by slowly wading through the pools while wearing polarized glasses for a better view through the water. Egg mass species identification was made using the professional experience of the biologist in conjunction with the publication "Identification and Documentation of Vernal Pools in New Hampshire".[1] During surveys, adult amphibians and other vernal pool indicator species were noted if present. Other factors which contribute to the significance of the pool were also recorded including ponding depth, canopy cover, the character of the surrounding upland, and the presence of predator species. The following section provides a brief description of the pools.

3.0 VERNAL POOL DESCRIPTIONS & DISCUSSION

Several areas of interest were identified on the subject property. These are areas which at the time of observation met the criteria set for having potential for vernal pool activity. Of the areas that were observed during the assessment periods three of them had vernal pool activity. The

[1] Michael Marchand, Identifying and Documenting Vernal Pools in New Hampshire Third Edition: Published by New Hampshire Fish and Game Department – Nongame and Endangered Wildlife Program.

activity assessed in the active pools will be discussed below (see sketch for corresponding pool locations).

Pool #1
This is a naturally formed depression on a hilltop that has an intermittent outlet that maintains a connection to the wetland complex along the northern portion of the subject property. The area appears to have seasonal ponding reaching a depth of about 2 ft at the time of assessment. There were small shrubs within the ponded area as well as several branches which made an environment suitable for both wood frogs and spotted salamanders to attach their egg masses. The substrate of the depression was primarily leaves over top of a deep organic layer which was underlain by a mineral layer. This vernal pool was essentially the limit of the wetland boundary for this area with abrupt topographical changes. Adjacent uplands we composed of mature White Pint and Red Oak with adjacent areas of disturbance from the earth work activities. A total of 4 wood frog egg masses and 8 spotted salamander egg masses were observed during the assessments. No other primary or secondary indicators were observed during this assessment.

Pool #2
This wetland is a large isolated wetland on the western side of the subject property just south west of vernal pool #1. The wetland appears to be naturally occurring with a large area of ponding with depths reaching 3 ft. The vernal pool has dense scrub shrub vegetation throughout the pond with areas of deep organics present. Vegetation in the pond consists of areas of aquatic grasses, scrub shrub vegetation consisting of highbush blueberry, witch hazel and some speckled alder. Surrounding uplands adjacent to the vernal pool consist of areas of mature white pine, red oak and some areas of hemlock. There appeared to be some areas of disturbance adjacent to the vernal pool consisting of earth work as well as some areas where forestry activities have taken place. A total of 3 spotted salamander egg masses were observed during the assessments. No other primary or secondary indicators were observed during this assessment.

Pool #3
This is a small ponded area withing a wetland system that originates off site. The pond is a shallow depression within the landscape of the wetland complex with a temporary outlet controlled by water levels in the pond. There is no vegetation within the ponded area that exists on the subject property, however, the portion of wetland off site has dense scrub shrub vegetation that recedes as the wetland moves onto the subject property. The area of ponding on the subject property does plenty of sticks within the water for egg mass attachment. The substrate is a combination of leaves and muck overtop a mineral layer. A total of 8 wood frog egg masses and 4 spotted salamander egg masses were observed during the assessments. No other primary or secondary indicators were observed during this assessment.

Appendix A
Vernal Pool Photos

Vernal Pool Photo Log
Industrial Way, Raymond, NH
Taken: 4/18/2022

Vernal Pool #1:

Photo #1: Looking to the south at vernal pool #1

Photo #2: Looking to the east at vernal pool #1.

Photo #3: Looking at the intermittent outlet on the norther part of the vernal pool

Photo #4: Looking at a spotted salamander egg mass observed in vernal pool #1.

Vernal Pool #2:

Photo #1: Looking to the west at vernal pool #2.

Photo #2: Looking to the east at vernal pool #2.

Photo #3: Looking at a spotted salamander observed in vernal pool #2.

Photo #4: Looking at another spotted salamander egg mass in vernal pool #2 noting the dense algae present.

Vernal Pool #3:

Photo #1: Looking to the east at vernal pool #3.

Photo #2: Looking to the south at vernal pool #3.

Photo #3: Looking at the intermittent outlet associated with vernal pool #3.

Photo #4: Looking at a wood frog egg mass in vernal pool #3.

GOVE ENVIRONMENTAL SERVICES, INC.

2022 Turtle Nesting Report

GOVE ENVIRONMENTAL SERVICES, INC.

October 20, 2022

To: Melissa Winters

Cc: Eben Lewis NH DES Wetlands
Kimberly Snyder NH Fish and Game

Subject: Raymond Distribution Center
Industrial Drive, Raymond, NH

File Number: 2022-02474

Dear Melissa,

The purpose of this letter is to present documentation related to the completion of the turtle nesting survey that was requested in NHB21-3049 for the subject property located on Tax Map 22, Lots 44, 45, 46 & 47 & Tax Map 28, Block 3, Lot 120-1 on Industrial Way in Raymond, NH. The NHB report indicated that there were three species of turtles listed at the state level of endangered, threatened, and special concern. These species include the Blanding's Turtle, Spotted Turtle, and Wood Turtle.

Nesting habitat for these three species of turtles identified in the NHB report was reviewed prior to the site assessment. As listed on the NH Fish and Game Nongame Endangered Wildlife fact sheets for these species; all prefer similar nesting habitats. Those areas include, sandy/well drained areas, disturbed areas, clearings, fields, and road side areas. These nesting area characteristics were identified on the subject property in a couple of areas outlined on the attached sketch. Additionally, the soil map was reviewed to ensure that no areas were overlooked for the survey.

The subject property is currently undergoing active large scale quarry operations with large areas of exposed sands and gravels. This quarry area would meet the criteria for the disturbed area suitable for potential turtle nesting, however, the area was not reviewed as any nesting activities that may occur would not be considered viable for potential long term sustainable habitat as the area is in a constant flux of ground disturbing activity. The target areas for this assessment were determined by reviewing locations where disturbance has occurred at some point (excluding the quarry), exposed mineral soils were present, or side slopes adjacent to waterbodies were present or any combination thereof.

There were two primary areas where these nesting locations were observed on site with one being along the edge of the man-made pond on the southwestern part of the property and the area to the northeast along the banks of the beaver pond. Both of these areas are currently being proposed for conservation deed restriction associated with the proposed commercial warehouse project as a supplement to satisfy the towns zoning ordinance for wetland impacts.

The man-made pond (previously a large sand pit) had steep gravel banks on the eastern side with areas of dense vegetation consisting of grape vines and areas of small shrubs as well as areas of exposed mineral soil primarily on the north east corner. Attached is a sketch to identify the areas reviewed during the survey. The area along industrial way (area A) is maintained grass area adjacent to longer herbaceous vegetation near the pond consisting of grasses, sedges, rushes, with areas of goldenrod present as well. No areas of exposed mineral soils were present along this section of the pond, and the upper grass area was recently maintained. The northeast portion (area B) adjacent to the pond identified to have exposed mineral areas and steeper banks with some areas of sparse vegetation adjacent to areas of dense vegetation was identified during the site walk to have active turtle nesting taking place. Nesting ranged from the top of the bank down to within 15 ft of the waters edge. Several nesting areas were identified with dehydrated egg shells identified on the mineral surface. Some of the egg shells were adjacent to small holes however there were no identifiable animal track present near these areas. The southern portion of this bank (area C) adjacent to the observed nesting area had extremely dense vegetation that would likely not be ideal habitat for any of the listed species. A good portion of the egg shells in area A were identified in and adjacent to an active foot trail as the pond area is heavily used by town residents for recreation both for water activities, fishing kayaking, dog training, and hiking. The intended conservation deed restriction for this area will continue to allow the access for recreation to the public in these areas that area currently in use and keep a buffer between the proposed development and the resource area.

The second area reviewed for turtle nesting activity was to the north of the proposed development, along the northern edge of the beaver pond (highlighted on the sketch (area D). This was an area identified during the wetland delineation and various site walks to have areas of exposed gravel amongst the large areas of exposed ledge and slopes that run down to the old beaver pond. The depths of the sand/gravel areas aren't obvious, however, there do appear to be areas where sands and gravels could be greater than 6 inches depth especially along the side slopes. The beaver pond area was released in 2021, and has been maintained as so until recently, as the beavers have repopulated the area and begun reconstructing the dam. This change in presence of surface waters in the form of active beaver impoundment specifically in this area during the breeding/nesting season may have affected this season's turtle nesting activity. The area was reviewed by slowly transecting the areas of exposed mineral soils adjacent to the beaver pond. Only one area near the newly reconstructed beaver dam was observed to have the remains of turtle eggshells. This area is also proposed to have a conservation deed restriction associated with the proposed warehouse development to address the towns zoning ordinance. This area would not have the same restrictions associated with the pond as this area is not accessible to the public for recreational activities.

These two large areas addressed in the assessment were the only two areas identified on the subject properties associated with the dredge and fill application #2022-02474 to meet the characteristics as identified on each turtle species fact sheet for potential nesting habitat locations. The remaining landscape does not present suitable/viable turtle nesting habitat, as those remaining areas consist of mature forested uplands with soils inconsistent with the target nesting areas and the large ongoing quarry area. As both of these areas are proposed for

conservation deed restriction associated with the project they will have protection from any future development or impacts.

This concludes the turtle nesting assessment report for the Industrial Way Warehouse project. If you feel I can be of further assistance of if you have any questions on the supplied materials please feel free to contact me either by phone at (207) 710-7863 or by email at bwalden@gesinc.biz.

Sincerely

Brenden Walden
Business Manager & Certified Wetland Scientist #297
Gove Environmental Services, Inc.

Attachments: NHB Report - NHB21-3049
Existing conditions plan
Proposed deed restriction plan
Assessment areas sketch
Photo Log

GOVE ENVIRONMENTAL SERVICES, INC.

NHB REPORT
NHB21-3049

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

To: Luke Hurley, Gove Environmental Services, Inc.
8 Continental Drive
Exeter, NH 03833

From: Jessica Bouchard, NH Natural Heritage Bureau
Date: 9/29/2021 (valid until 09/29/2022)
Re: Review by NH Natural Heritage Bureau
Permits: NHDES - Alteration of Terrain Permit, NHDES - Wetland Standard Dredge & Fill - Major

NHB ID: **NHB21-3049** Town: Raymond Location: Industrial Drive
Description: The proposed project is for a warehouse facility with associated access roads/driveways, parking and loading docks.
cc: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments **NHB: No Comments At This Time**
F&G: Please conduct a preliminary vernal pool survey this fall. Please check for evidence of hatched or predated turtle nests in exposed mineral soils before freeze up. Please submit AoT-related documents for NHFG review, AoT review inquiries or wildlife biologist questions to NHFGreview@wildlife.nh.gov. If project related: Include the NHB datacheck results letter number (i.e. NHB21-3049) in the email subject line at a minimum. Not including this number will affect our response time and delays of our review. Please include the NHB number in the title of the assessment along with a date (year,month,day).

Vertebrate species	State[1]	Federal	Notes
Blanding's Turtle (*Emydoidea blandingii*)	E	--	Contact the NH Fish & Game Dept (see below).
Northern Black Racer (*Coluber constrictor constrictor*)	T	--	Contact the NH Fish & Game Dept (see below).
Spotted Turtle (*Clemmys guttata*)	T	--	Contact the NH Fish & Game Dept (see below).
Wood Turtle (*Glyptemys insculpta*)	SC	--	Contact the NH Fish & Game Dept (see below).

[1]Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

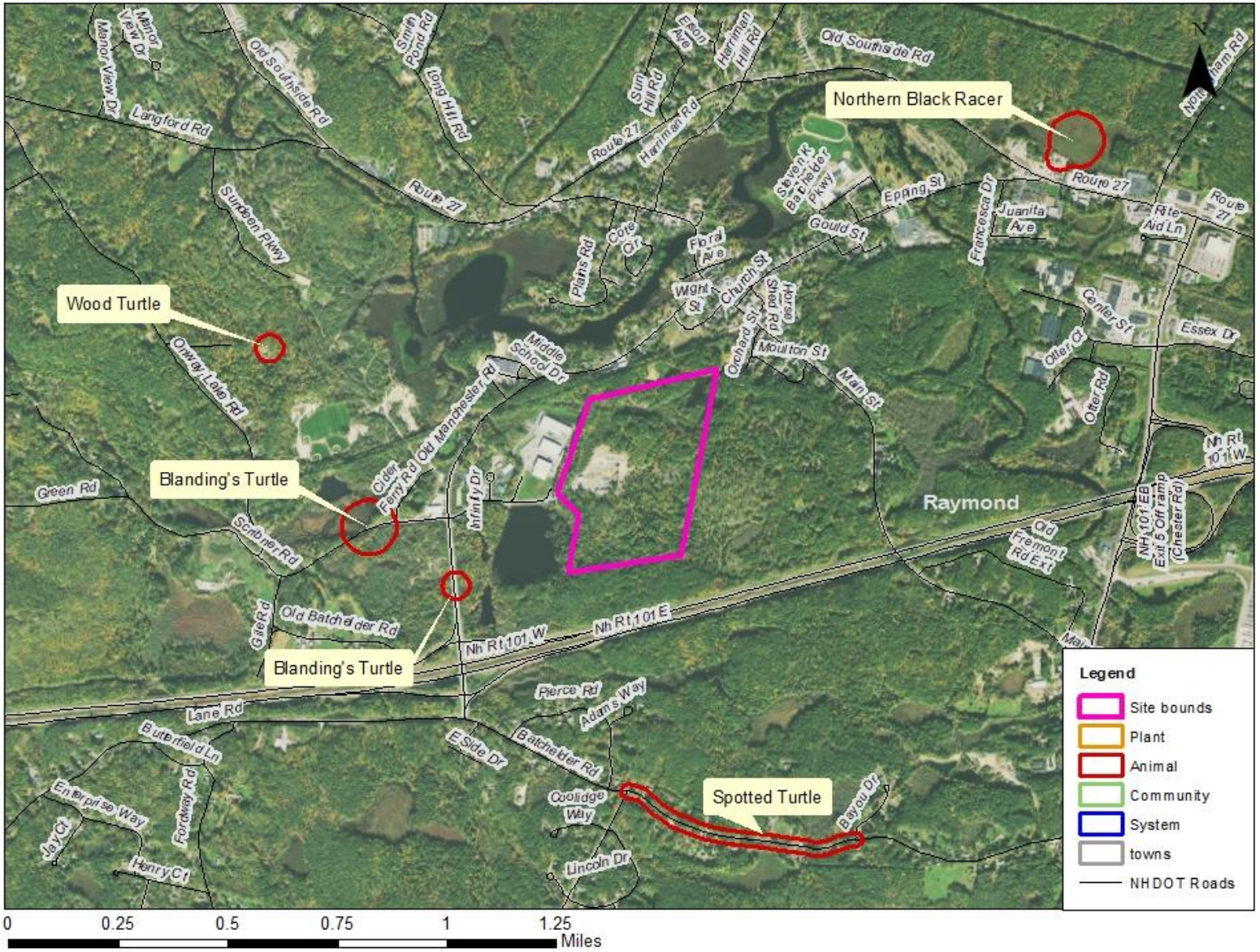
A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB21-3049



New Hampshire Natural Heritage Bureau - Animal Record

Blanding's Turtle (*Emydoidea blandingii*)

Legal Status	Conservation Status
Federal: Not listed	Global: Apparently secure but with cause for concern
State: Listed Endangered	State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2008: Area 11564: 1 adult male seen.
General Area: --
General Comments: --
Management Comments: --

Location

Survey Site Name: Rattlesnake Hill, east of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 7.7 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2008: Area 11564: Exit 4 off Route 101. Approx 1/4 mile down Scribner Road, where Lamprey comes close to road.

Dates documented

First reported: 2008-05-20 Last reported: 2008-05-20

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Blanding's Turtle (*Emydoidea blandingii*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Apparently secure but with cause for concern
State:	Listed Endangered	State:	Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2017: Area 14399: 1 adult observed, sex unknown.
General Area: 2017: Area 14399: Roadside. Forest on either side of road.
General Comments: --
Management Comments: --

Location

Survey Site Name: Rattlesnake Hill, east of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 1.9 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2017: Area 14399: Old Manchester Road, Raymond, between the Safety Complex and the Exit 4 ramp. Right by the Route 101 sign.

Dates documented

First reported:	2017-05-31	Last reported:	2017-05-31

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Northern Black Racer (*Coluber constrictor constrictor*)

Legal Status	Conservation Status
Federal: Not listed	Global: Demonstrably widespread, abundant, and secure
State: Listed Threatened	State: Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank:	Not ranked
Comments on Rank:	--
Detailed Description:	2012: Area 12799M: 1 adult observed. 2010: Area 12799M: 1 adult observed. 1993: Area 11938M: 2 observed. 1992: Area 11940: 1 observed. 1991: Area 11938M: 6 eggs found and collected. 2 hatched and released at original location on 8/23.
General Area:	2010: Area 12799M: Mixed forest. 1993: Area 11938M: Old sawmill site behind town shed. 1992: Area 11940: Swamp. 1991: Area 11938M: Sunny, sandy conditions adjacent to swamp. Under old plywood.
General Comments:	--
Management Comments:	--

Location

Survey Site Name: Flint Hill, south of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 10.3 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2010: Area 12799M: 8 Sherwood Drive, Raymond. 1992: Area 11940: Swamp behind Raymond town shed. 1991: Area 11938M: Old sawmill site behind Raymond town shed [Rte. 27/107 in Raymond across from intersection with Epping St.]

Dates documented

First reported: 1991-06-26 Last reported: 2012-04-16

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Spotted Turtle (*Clemmys guttata*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Demonstrably widespread, abundant, and secure
State:	Listed Threatened	State:	Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank: --

Detailed Description: 2007: Area 11749: 1 adult female seen, about 5".
General Area: --
General Comments: --
Management Comments: --

Location

Survey Site Name: Batchelder Road, Raymond
Managed By:

County: Rockingham
Town(s): Raymond
Size: 11.4 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2007: Area 11749: Batchelder Road, unknown exact location.

Dates documented

First reported:	2007-07-22	Last reported:	2007-07-22

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Wood Turtle (*Glyptemys insculpta*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Rare or uncommon
State:	Special Concern	State:	Rare or uncommon

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2021: Area 14704: 1 adult observed, sex unknown.
General Area: 2021: Area 14704: Sports field complex surrounded by forest and wetlands.
General Comments: --
Management Comments: --

Location

Survey Site Name: Lamprey River, Raymond
Managed By:

County: Rockingham
Town(s): Raymond
Size: 1.9 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2021: Area 14704: Riverside Park, Raymond.

Dates documented

First reported:	2021-05-23	Last reported:	2021-05-23

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

GOVE ENVIRONMENTAL SERVICES, INC.

EXISTING CONDITIONS PLAN

GRAPHIC SCALE

(IN FEET)
1 inch = 100 ft.

LIMIT OF QUARRY OPERATIONS

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Design: WGM	Draft: GDR	Date: 10/12/21
Checked: WGM	Scale: AS SHOWN	Project No.: 21130
Drawing Name: 21130-EX CONDITIONS.dwg		

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REV.	DATE	REVISION	BY
0	10/12/21	ISSUED FOR REVIEW	GDR

Designed and Produced in NH

Jones & Beach Engineers, Inc.

85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885

Civil Engineering Services

603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	EXISTING CONDITIONS PLAN
Project:	INDUSTRIAL BUILDING INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	HARD ROCK DEVELOPMENT 84 EXETER ROAD, SOUTH HAMPTON, NH 03827

DRAWING No.

C1

SHEET 1 OF 1
JBE PROJECT NO. 21130

GOVE ENVIRONMENTAL SERVICES, INC.

PROPOSED DEED RESTRICTION PLAN

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

CONSERVATION EASEMENT #2
AREA=8.77 ACRES

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

CONSERVATION EASEMENT #1
AREA=18.45 ACRES

TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

TAX MAP 83, LOT 24
JOAN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

OLD BOSTON & MAINE RAILROAD

OLD MANCHESTER ROAD

STATE OF NEW HAMPSHIRE ROUTE 101 WESTBOUND

STATE OF NEW HAMPSHIRE ROUTE 101 EASTBOUND

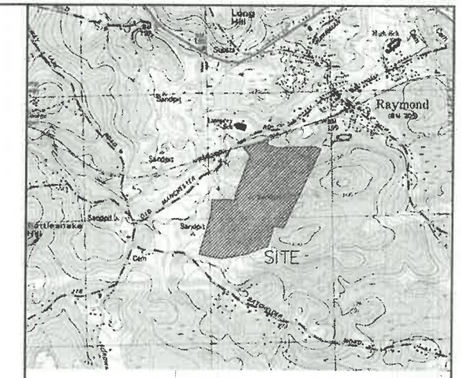
ZONE LINE "A" (RESIDENTIAL)

ZONE LINE "C" (INDUSTRIAL)

ZONE LINE "B" (RESIDENTIAL / AGRICULTURAL)

ZONE LINE "D" (INDUSTRIAL)

LIMIT OF QUARRY EXCAVATION



LOCUS SCALE: 1"=2000'

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Design: WGM	Draft: GDR
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Date: 10/12/21
Project No.:21130

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85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS EXHIBIT
Project: INDUSTRIAL BUILDING
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
EXH
SHEET 1 OF 1
JBE PROJECT NO. 21130

GOVE ENVIRONMENTAL SERVICES, INC.

ASSESSMENT AREAS SKETCH

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)

1 inch = 200 ft.

Area A

Area B

Area C

Area D

area reviewed no signs of activity signs of pretty dense vegetation/visible cobble / ledge

red lines are limit of conservation areas

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
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ZONE LINE "A" (RESIDENTIAL)

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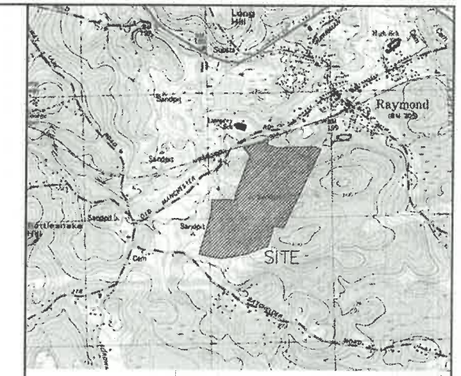

LOCUS SCALE: 1"=2000'

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Plan Name:	EXISTING CONDITIONS EXHIBIT
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Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.

EXH

SHEET 1 OF 1
JBE PROJECT NO. 21130

GOVE ENVIRONMENTAL SERVICES, INC.

PHOTO LOG

GOVE ENVIRONMENTAL SERVICES, INC.

Photo Log
Industrial Way, Raymond
Taken: 9/27/22 & 10/10/22

Photo #1: Looking along industrial way towards the project site noting the densely vegetated bank.

Photo #2: Looking along industrial way towards the project site at the maintained lawn area on the top of the bank.

Photo #3: Looking at the dense vegetation along the shoreline adjacent to industrial way below the maintained lawn area.

Photo #4: Looking to the west along industrial drive noting the maintained lawn and dense vegetation along the bank of the pond.

Photo #5: Looking at the dense vegetation along a portion of the bank of the pond.

Photo #6: Looking at the path along the north eastern edge of the pond noting the area of sparse vegetation and exposed mineral soils.

Photo #7: Looking to the north at the gravel drive area at the entrance of the path in photo #6.

Photo #8: Looking at the areas of exposed mineral soil on the path.

Photo #9: Looking at the remains of a couple of turtle eggs found in the area in photo #8.

Photo #10: Looking at another egg shell remain found adjacent to photo #9.

Photo #11: Looking to the southwest at the vegetated slop with areas of exposed mineral soil.

Photo #12: Looking up slope to the northeast at the vegetated hillside with areas of exposed mineral soils.

Photo #13: Looking at an egg shell observed in the area identified in photos 11 & 12.

Photo #14: Another nesting area identified from the location shown in photos 11 &12.

Photo #15: Looking at another area of vegetated hill side with exposed mineral soils adjacent to the ponded area.

Photo #16: Looking at the remnants of the nesting area that was located in the same area as photo #15.

Photo #17: Looking at another nesting area with egg shell remnants from photo #15.

Photo #18: Looking at the southern edge of the of the beaver pond.

Photo #19: Representative photo of the vegetation on the southern edge of the beaver pond.

Photo #20: Looking at the exposed rock and cobble on the southern side of the beaver pond noting the lack of exposed mineral soil.

Photo #21: Looking at the stony remains from a test pit adjacent to the area in photo #20 noting the loamy soils.

Photo #22: Looking at the down slope towards the beaver dam noting the exposed mineral soils.

Photo #23: Looking at the egg shell remains from the location in photo #22.

Photo #24: Looking to the east at the northern edge of the beaver pond noting the exposed mineral soils along the trail system.

Photo #25: Looking at the exposed ledge in the same location as photo #24.

Photo #26: Looking to the north at the exposed mineral soils on side slope of the beaver pond.

Photo #27: Looking at another area along the slope of the beaver pond noting the exposed mineral soils.

Photo #28: Looking at the exposed mineral soils along the trail system adjacent to the beaver pond.

Photo #29: Looking at another area of exposed mineral soil on the slope adjacent to the beaver pond.

Photo #30: Looking at the exposed bedrock and the mineral soils adjacent to the beaver pond area.

Lamprey River Advisory Committee
c/o 88 Hedding Road
Epping, NH 03042
www.lampreyriver.org

Protecting the Lamprey, Little, North, North Branch, Pawtuckaway, and Piscassic rivers that connect our fourteen communities

Barrington, Brentwood, Candia, Deerfield, Durham, Epping, Exeter, Fremont, Lee, Newfields, Newmarket, Northwood, Nottingham, Raymond

September 21, 2022

DRAFT

Mr. Eben Lewis
NHDES
PO Box 95
Concord, NH 03302-0095

Re: Raymond Distribution Center
Industrial Drive
Raymond, NH
File #: 2022-02474

Dear Mr. Lewis:

The above-referenced project is within the quarter mile corridor of the Lamprey River and is, therefore, subject to review by the Lamprey River Advisory Committee (LRAC) in accordance with NHRSA 483. Upon final review, we offer the following comments:

1. Materials reviewed include Standard Dredge and Fill Wetlands Permit Application signed and dated 8/24/2022 and Natural Heritage Report dated 9/29/2021.
yup standard.
2. The applicant desires to create a 12-acre building to serve as a distribution center. The distribution center will accommodate 158 loading docks, 244 trailer spaces, and 326 vehicle spaces. 1,783,333 square feet will be impacted, with 1,324,729 square feet (almost 31 acres) of impervious surface. Permanent impacts to wetlands have been calculated at 87,117 square feet, or 2 acres. An Alteration of Terrain Permit will also be needed.
wetland SF correct
3. The Natural Heritage Bureau report is dated 9/29/2021(valid until 09/29/2022). The report indicates that four species of concern have been reported over several years in the vicinity and could be expected on site: Blanding's turtles, wood turtles, spotted, turtles, northern black racers. The NHB did not include any recommendations on the report, but requires the applicant to consult with the NH Fish and Game Department. We assume a fresh NHB will be required and

turtle nesting habitat study was done to be written up likely will need new NHB and coordination is ongoing.

NHFGD can coordinate with the applicant at that time. We will want to see that communication as it becomes available.

4. Per the Functional Assessment Report, "With a project of this size, …, environmental impacts to jurisdictional areas are almost guaranteed to occur." Normal negative impacts that will result from the loss of natural vegetation and filling of wetlands are habitat loss and groundwater recharge. Reported habitat value on site includes mature forest, vernal pools, and species of concern nearby. Natural groundwater infiltration results in cleaner water, but groundwater can theoretically be recharged using storm water infiltration systems. That said, we are most concerned in this case with the double impacts on nutrient removal. This project will convert 31 acres of natural area to impervious surface while simultaneously removing 59,573 square feet of wetlands (from wetlands #1, #3, and #5) that were effectively removing nutrients. The site history indicates that 41,125 SF of wetlands were filled illegally by the previous property owner. Because no permit was granted, we do not know if these wetlands were effectively providing nutrient removal, but it can be assumed that they probably were to at least some degree. The increase of nutrients into groundwater and ultimately to the Lamprey River is a major concern and must be addressed.

not too sure how much infiltration was occurring with all that ledge on site.

5. The applicant will be required to pay a significant sum to the ARM Fund for impacts to two high-functioning and one medium-functioning vernal pools on site, and direct losses of wetlands and intermittent streams. Protecting an area off-site is a poor substitute for the ecological impacts to the site itself and the increase in nutrients entering our waters.

No areas off site are proposed for protection, just on site land for CC no net loss.

Thank you for the opportunity to comment on this project.

Joseph Foley

Joseph Foley, chair

CC: Tracie Sales, NHDES
Raymond Conservation Commission, Planning Board
Brenden Walden, Gove Envrionmental Services, bwalden@gesinc.biz

SALT MINIMIZATION PLAN

Industrial Building
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH 03077

Prepared for:

ONYX Partners LLC
60 Centre Street
Dover, MA 02030

Prepared by:
Jones & Beach Engineers, Inc.
85 Portsmouth Avenue
P.O. Box 219
Stratham, NH 03885
(603) 772-4746
October 11th, 2022
JBE Project No. 21130

Inspection and Maintenance of Facilities and Property

A. Maintenance of Common Facilities or Property

1. The Property Owner (Onyx Partners LLC) is responsible for maintenance of all salt minimization measures associated with this site. This includes all temporary and permanent stormwater and erosion control facilities both during and after construction.

B. Introduction/Background

1. The purpose of this project is to construct an industrial warehouse on the existing Tax Map 22, Lots 44, 45, 46, 47, and Tax Map 28, Block 3, Lot 120-1 on Industrial Drive, Raymond, NH. The proposed industrial development will contain 1 building with 550,025 sq. ft. of space. The majority of the existing site is currently un-developed consisting of wooded and wetland areas, as well as an active gravel pit.

C. Development of Project Area Description

1. The project consists of approximately 17.78 acres of pavement. This developed surface area is the primary concern for salt minimization. In addition to pavement area the remainder of the impervious area on site consists of 12.63 acres of roof area. The project storm water is treated with extended wet ponds, and above and below ground infiltration basins.

   Much of the site is proposed to be left vegetated to the best extent practical. Areas to be cleared and not utilized for pavement or building area will be grassed. Natural buffer areas surrounding the proposed pond to the south of the project are to remain, which will provide additional vegetative buffering and shade to the pond. These areas can be seen in the associated plan to this report.

   The existing pond (Raymond Pond) promotes aquatic life including fish, and serves recreational purposes. Salt minimization is critical to the health of this pond for the use of the public.

D. Operational Guidelines

1. This is a living document and should be updated and modified as needed to keep up to date, and be the most effective in reducing salt amounts. See the attached *Amendment Log* and keep updated to any changes made to this document.

   Training is an effectual part of effective use of salt to promote motorist safety, as well as reducing the impact of excess salt use on the surrounding water resources. Any training that takes place must be documented using *Salt Minimization Plan Training Log.*

2. **Winter Operator Certification Requirements:** Contractors responsible for snow removal and maintenance are to undergo "Green SnowPro Training".

   The University of New Hampshire Technology Transfer Center (UNH T 2) offers a full day Green SnowPro Training course focused on efficient, more environmentally friendly winter maintenance practices that do not compromise road, parking lot and sidewalk safety. The course covers the basics of salt reduction methods including equipment calibration and rate applications, pre-treatment methods, effective plowing and planning, salt accounting management and environmental impacts of salting. The course is offered several times a year. For more information, visit the UNH T 2 webpage at: http://t2.unh.edu/green-snowpro-trainingand-nhdes-certification.

   Individuals who attend the Green SnowPro Training and pass the exam are eligible to apply for voluntary NHDES Salt Applicator Certification. The NHDES Salt Applicator Certification program aims to improve efficiency in salt use and reduce the amount of salt used by commercial applicators. The NHDES salt applicator certificate carries the responsibility of annually reporting salt use to NHDES and attending a refresher training course every two years. The Salt Applicator Certificate has proven valuable to the private contractors as well as to their clients and their insurance carriers. To date, 800 individuals have become Certified Salt Applicators. For more information on how to become a NH Certified Salt Applicator or to find a list of Certified Salt Applicators refer to the NHDES webpage at: http://des.nh.gov/organization/divisions/water/wmb/was/saltreduction-initiative/salt-applicator-certification.htm

3. **Pre-season Preparation:** Take some time before the season to plan your routes and learn the plowing policies. A little planning up-front can help you do a more efficient job in keeping the roads safe. The attached *Salt Minimization Checklist* document is to be filled out prior to each winter season to review the overall readiness for the coming season, and prepare materials and treatment plan prior to first snow fall to maximize the plans effectiveness.

4. **Weather:** Weather information is to be gathered on a regular basis to make informed decisions as to when and to what extent materials are applied.

   Pavement temperatures are to be acquired using the NHDOT Road Weather Information System, a hand-held infrared sensor, or truck-mounted sensor.

   Weather Information Sources:
   - National Weather Service
   - NHDOT Road Weather Information System (RWIS)
   - University of New Hampshire Weather Services

5. **Equipment Calibration Requirements:** Calibration is an essential procedure to measure the amount of material applied to the roadway at various auger settings in relation to truck speed. No matter how sophisticated or simplified your operations, always calibrate or verify calibration yearly.
    - Because spreaders vary, calibrate each truck. Re-calibration is required if changes are made to the hydraulic system, if the augers have extensive wear or are resurfaced or replaced, or a different material is used.
    - Follow the manufacturer's guidelines for calibration, and contact the manufacturer for training.
    - Calibrate separately for salt/sand mix vs. salt or sand only.
    - Determine flow rate or calibrate liquid application systems at the same time as the dry systems.
    - Remember: The auger plate must be in place during calibration. You are not calibrating the truck properly if the material is gravity-flowing.
    - For manual sander controls, place a chart in your truck to see how much material is applied at each setting, at various speeds.
    - There are two types of automatic sander controllers. Open loop controllers monitor only truck speed during operation; closed-loop controllers monitor both truck speed and spreader discharge.

6. **Mechanical Removal:**
    a) **Effective use of Plows:**
        - Plow first before applying deicers to avoid dilution of the salt.
        - Coordinate plowing activities to eliminate windrows at intersections and prevent plowing off another operator's material.
        - Remove snow from roads as quickly as possible to reduce compaction; use of underbody blades helps remove compacted or slushy snow.
        - Make use of carbide, flexible, or rubber-encapsulated plow blade edges.
        - Adjust blade angle to maximize cutting efficiency or snow throwing capabilities.
    b) **Loading and Hauling**
        - Set up and load under cover and on a level surface wherever possible.
        - Maintain loading area. Keep it clear and smooth.
        - Don't overload. Avoid spilling on units.
        - Watch for co-workers/pedestrians in or near the loading area.

7. **Salt Usage Evaluation and Monitoring:**

a) **Anti-icing:** Anti-icing can be a cost-effective strategy that optimizes chemical usage. It is a proactive approach that should be first in a series of strategies for most winter storms. By applying chemical freeze-point-depressant materials before a storm, you can prevent snow and ice from bonding to the pavement.

Guidelines for anti-icing:

- Anti-icing is often effective for heavy frosts.
- Anti-icing works best when combined with accurate road weather information.
- Because motorists have difficulty perceiving how slippery light freezing drizzle and light frost can be, early application is important in these conditions.
- Liquids are the most efficient and may be applied days in advance of an event, but the closer to the event start time, the better, as tire action and wind wear away material.
- Similar applications of pretreated salts will also work. Use the lowest possible setting, less than 100 lbs/two-lane mile; apply as close to the start of event as possible.

b) **Pre-treating and Pre-wetting Salt and Sand:** Dry material bounces or blows off the road, so everyone should be either pre-treating or pre-wetting dry material. Liquids also increase salt's effectiveness by jump-starting the melting process. Depending on the liquid used, it may lower salt's effective working temperature. Because pre-treating and pre-wetting cause material to stick to the road, 20 to 30 percent less material is used—saving money and reducing environmental impacts.

Pre-treating is mixing a liquid into the stockpile of salt or sand before it is applied. Unlike pre-wetting, it does not require equipment changes and requires no new capital investment for equipment. You can also switch from dry application to wet application immediately—just turn down the application rate.

Salt stockpile:

- Treat the salt stockpile with a liquid deicing chemical. It may be purchased pretreated or mixed on site by the vendor or your crew.
- When treating the stockpile at the shop, apply at 4 to 6 gallons/ton. Salt must be very dry for the chemical to stick.
- Because leach risk at a stockpile is increased, store it covered on an impervious pad.

Sand stockpile:

- Pretreat the stockpile to keep it flowable.
- Apply to stockpile at 4 gallons of salt brine/ton sand.

- Store the stockpile under cover.

Guidelines for Pre-wetting: Pre-wetting is adding a liquid to the salt as it is being applied— either at the spinner or through a soaker pipe in the auger box—to help it stick to the road better. Although pre-wetting requires some equipment changes, it provides flexibility to switch the chemical makeup depending on conditions.

- Salt brine, calcium, magnesium chlorides, and acetates may be used as pre-wetting agents.
- The usual application rate is 8 to 14 gallons/ton for salt brine.
- Pre-wetting with other chemicals at the spinner can help reduce the application rate.
- Below 15˚ F, salt brine becomes less effective; below 0˚ F, it may freeze hoses and valves.
- Salt brine should be mixed at 23.3%.
- Verify concentration of liquids you're using: Salt brine: 23.3% $CaCl_2$: 29.8% $MgCl_2$: 21.6% CMA: 32.5% KAC: 49%.

c) **Deicing:** Deicing is a reactive operation in which a deicer is applied to the top of an accumulation of snow, ice, or frost that is already bonded to the pavement surface. Removing ice that has already bonded to the pavement can be difficult, and removing it mechanically can damage equipment and roads. Generally, enough ice must be melted chemically to break the bond between the ice and the pavement, which requires larger quantities of chemical than anti-icing.

- Use an appropriate amount of salt. Most oversalting can be prevented by using calibrated, speed-synchronized spreaders and good judgment in selecting application rates and truck speed.
- It is not necessary to melt all the snow or ice on the road with salt. This is an overuse of materials. Apply just enough to loosen the bond between the road and the ice so it can be plowed off.

d) **Using Abrasives:** Use winter sand and other abrasives when temperatures are too cold for deicing chemicals to be effective. But be aware that sand does not melt anything. It provides temporary traction, and only when it is on top. Sand also clogs sewers, ditches, and streams. As a result, avoid sand use as much as possible. A salt/sand mix is generally not recommended. Salt reduces the effectiveness of sand, and sand reduces the effectiveness of salt. However, a salt/sand mix may be helpful in

limited situations such as a freezing rain event where the salt is washed away quickly. A 25 to 50 percent sand/salt mix has been documented as effective in increasing friction by sticking the sand to the surface, like sandpaper.

- Use abrasives in slow-moving traffic areas such as intersections and curves.
- If your purpose is melting, use salt only.
- Salt is ineffective in cold weather, so use sand or an alternative chemical.
- Sand is not cheap when you consider the handling, cleanup, and disposal costs.
- Sweep up sand frequently, after each event if feasible.

e) Standard Practices

- Know the pavement temperatures and trends to help you use the right application at the right time. Generally use less chemical when temperatures are rising and more when they are falling.
- Don't apply dry salt (sodium chloride) at below 15˚ F pavement temperature. It will not melt fast enough to help and it will blow off the road into the ditch.
- Below 20˚ F, switch to other tools like CaCl2 and MgCl2 at curves, hills, and intersections to obtain maximum melting. If unavailable, use sand for traction.
- Adjust your spinner speed to the lowest setting possible, except at intersections.
- Don't let the traffic dictate your speed. Drive at the slowest possible speed—17 to 25 mph—to keep material on the road.
- On high-speed roads, apply deicers in the center of the road or high side of the curve.

f) Documenting and Charting: Good documentation helps you use less material, reduce costs and environmental impacts, and run a more effective snow and ice control program. Unless you document and chart, you can't measure what you are doing. The attached *Anti-icing Route Data Event Report* document is to be filled out prior to each snow event to monitor the chemical usage on site, and provide a record for review to make future adjustments to maximize the effectiveness of the Salt Implementation Plan.

- Track your material use.
- Understand the storm conditions and the target level of service for each route.
- Refine your procedures and material use based on observations.

- Share observations to improve operations and learn from each other.
- Use forms like those shown in the appendix of this field handbook to record and track your work and observations.
- Complete forms at the end of your shift.
- Turn in documentation forms to your supervisor.

g) Guidelines for Determining Applications Rates:

To determine the amount of material needed, take the application rate parking lot area/1000 sq. ft. (See attached application rate tables)

Example: **Given 300,000 sq. ft. parking lot and application rate of 1.5 lbs/1000 sq. ft. (1.5x300,000) = 450,000 450,000/1000 = 450 lbs**

- Sand/salt mix isn't advised but may help in some situations such as freezing rain.
- Always plow before applying chemical.
- Generally the first pass will require an application rate at the higher end of the range, with subsequent passes requiring less and less.
- On long routes where you'll only be able to make one pass, you may have to apply more material than what's recommended in the charts.
- High traffic volume will work salt into the snow and aid in melting—so use a lower rate.
- Higher traffic speeds will blow salt off the road and hinder melting—so increase use of pre-wetted materials.
- Use sand for short-term traction only. It will never melt anything.
- It is usually not cost-efficient to apply salt (sodium chloride) at pavement temperatures below 15˚ F.

8. Analysis Alternative De-icing Materials and Practices

- Be aware. Find out what the salt loading reduction goals are within the watershed and town where work generally occurs or where the specific project is located.
- Re-evaluate current practices. Source reduction is identified as the most effective method for reducing chloride loading.
- Consider alternative de-icing materials such as calcium magnesium acetate (CMA) and limited use of abrasives (sand, sawdust, cat litter).
- Pre-wet salt with brine to reduce the loss of salt from bounce and scatter (up to a 30% reduction in loss) and increase melting times.

- Be proactive for storm events and anti-ice by applying a small amount of liquid chemical to pavements and overpasses before a storm to prevent ice from bonding with the surface.
- If applicable, keep pavement free of potholes and cracks which both minimize the ability for water to pond and/or infiltrate into the ground where ultimately they could end up in groundwater resources. In addition, pavement that is in good condition allows for snow and or ice to be mechanically removed.
- Consider future maintenance needs in project planning. o Include development amenities/features such as heated sidewalks or parking garages. o Limit the amount of impervious surfaces that require winter maintenance activities. Some options to achieve this are only including sidewalks on one side of the street, the use of porous paving materials and limited use of curb cuts. o Properly design parking lots or designated parking areas with appropriate winter maintenance and snow storage practices. This includes considering where plowed snow will be piled, avoiding melt drainage to flow back across cleared areas (freeze/thaw cycle). o Consider landscape vegetation that is more salt tolerant and that doesn't shade out sidewalks or parking areas from the sun during the winter.
- Share information with the town and other landowners in the watershed to help track where salt is being applied, what quantity, and how often or the level of service based on the winter management plan. Track what BMPs are being applied to help determine effectiveness.
- Spread the word and encourage co-workers and colleagues to become a New Hampshire Certified Green SnowPro. Educate clients about the benefits of hiring a New Hampshire Certified Green SnowPro. The NHDES has developed a flyer for businesses to share with their colleagues - 4 - or clients available on the NHDES website. A link for this flyer and other helpful information is included below.
- Attend the annual New Hampshire Salt Symposium. The event counts toward the continuing education requirement of the New Hampshire Salt Applicator Certificate and as T2 Road Scholar Program contact hours.

  Every year the NHDES hosts an annual NH Salt Symposium. Attendees are updated with the latest snow industry technologies and BMPs. The event counts toward continuing education credits for the NH Certified Green SnowPro Certificate, the New Hampshire Salt Applicator Certificate and T2 Roads Scholar Program Contact Hours. People interested in attending can learn more about the event or register online at http://www.sima.org/newhampshire-salt-symposium.

E. Relevant/Helpful Tables:

Table A: Treatment Amount

RECOMMENDED SNOW AND ICE TREATMENTS PER LANE MILE

Conditions	Temperature	Type 1A & 1B		TYPE 2 & 3	
		Lane Length	Area	Lane Length	Area
Sleet & Freezing Rain	Variable	Salt 300 lbs. per lane mile and/or abrasive as needed.	Salt 207 lb per acre and/or abrasive as needed.(4)	Salt 300 lbs. per lane mile and/or abrasive as needed. (2)	Salt 207 lb per acre and/or abrasive as needed.(4)
Snow	20˚ and up	Salt 250 lbs. per lane mile. (1)	Salt 172 lb per acre (4)	Salt 250 lbs. per lane mile. (2)	Salt 172 lb per acre (4)
Snow	Below 20˚	Salt 250 lbs. per lane mile.(2&3)	Salt 172 lb per acre (4)	Abrasive-Chemical Mix	Abrasive-Chemical Mix

(1) For exceptionally high volume roads where traffic will enhance the action of the salt, this rate may be decreased to 200 lbs. per lane mile.
(2) Abrasive – chemical mix may be needed at extremely low temperatures or on very lightly traveled highways.
(3) An alternative low temperature treatment is to use a chemical mix of 2 parts salt to 1 part calcium chloride at 200 lbs. per lane mile.
(4) Area amount extrapolated using the area of 1 mile x 12' lane.

NHDOT Roadway Classification:

Type 1 A - Highways on the Interstate and Turnpike Systems and those highways carrying 15,000 vehicles or more daily (green) should have full width bare pavement as soon as practical after a winter storm terminates.

Type 1 B - Highways on the State system and carrying 5,000 to 15,000 vehicles daily (blue) should have full width bare pavement as soon as practical after a winter storm terminates.

Type 2 - Highways on the State system carrying 1,000 to 5,000 vehicles daily (orange) should have some bare pavement as soon as practical after a winter storm terminates.

Type 3 - Highways on the State highway system carrying less than 1,000 vehicles daily (red) should have bare pavement in left wheel tracks near the center of the highway as soon as practical after the winter storm. Included in this classification are highways carrying less than 500 vehicles daily for which snow-covered pavement is deemed acceptable.

Table B: Minimum/Maximum Accumulation

SNOW AND ICE MANAGEMENT PLANNING CRITERIA			
HIGHWAY TYPE	PLANNED PLOWING FREQUENCY	PLANNED ALLOWABLE SNOW ACCUMULATION	AVE. MAX. ALLOWABLE ACCUMULATION
Type 1A	1 1/2 hours	1 1/2"	3"
TYPE 1B	2 hours	2"	4"
Type 2,4	2 1/2 hours	2 1/2"	5"
Type 3,5	3 1/2 hours	3 1/2"	6"

Table C: lbs per two-lane mile

Deicing Application Rate Guidelines

24' of pavement (typcial two-lane road)

These rates are not fixed values, but rather the middle of a range to be selected and adjusted by an agency according to its local conditions and experience.

			Pounds per two-lane mile			
Pavement Temp. (°F) and Trend (↑↓)	Weather Condition	Maintenance Actions	Salt Prewetted / Pretreated with Salt Brine	Salt Prewetted / Pretreated with Other Blends	Dry Salt*	Winter Sand (abrasives)
> 30° ↑	Snow	Plow, treat intersections only	80	70	100*	Not recommended
	Freezing Rain	Apply Chemical	80 - 160	70 - 140	100 - 200*	Not recommended
30° ↓	Snow	Plow and apply chemical	80 - 160	70 - 140	100 - 200*	Not recommended
	Freezing Rain	Apply Chemical	150 - 200	130 - 180	180 - 240*	Not recommended
25° - 30° ↑	Snow	Plow and apply chemical	120 - 160	100 - 140	150 - 200*	Not recommended
	Freezing Rain	Apply Chemical	150 - 200	130 - 180	180 - 240*	Not recommended
25° - 30° ↓	Snow	Plow and apply chemical	120 - 160	100 - 140	150 - 200*	Not recommended
	Freezing Rain	Apply Chemical	160 - 240	140 - 210	200 - 300*	400
20° - 25° ↑	Snow or Freezing Rain	Plow and apply chemical	160 - 240	140 - 210	200 - 300*	400
20° - 25° ↓	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
	Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15° - 20° ↑	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
	Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15° - 20° ↓	Snow or Freezing Rain	Plow and apply chemical	240 - 320	210 - 280	300 - 400*	500 for freezing rain
0° - 15° ↑↓	Snow	Plow, treat with blends, sand hazardous areas	Not recommended	300 - 400	Not recommended	500 - 750 spot treatment as needed
< 0°	Snow	Plow, treat with blends, sand hazardous areas	Not recommended	400 - 600**	Not recommended	500 - 750 spot treatment as needed

* Dry salt is not recommended. It is likely to blow off the road before it melts ice.

** A blend of 6 - 8 gal/ton $MgCl_2$ or $CaCl_2$ added to NaCl can melt ice as low as -10°.

Figure 4-1. Deicing Application Rate Guidelines

Table D: Salt Application Rate: lbs per 1000 sq. ft.

Deicing Application Rate Guidelines for Parking Lots and Sidewalks

These rates are adapted from road application guidelines (Mn Snow & Ice Control Field Handbook, Manual 2005-1). Develop your own application rates using the guidelines as a starting point and modify them incrementally over time to fit your needs. The area should first be cleared of snow prior to applying chemical.

Pavement Temp. (ºF) and Trend (↑↓)	Weather Condition	Maintenance Actions	Application Rate in lbs. per 1000 square foot area			
			Salt Prewetted/ Pretreated With Salt Brine	Salt Prewetted/ Pretreated With Other Blends	Dry Salt	Winter Sand (abrasives)
>30º↑	Snow	Plow, treat intersections only	0.75	0.5	0.75	not recommended
	Frz. Rain	Apply chemical	1.25	1.0	1.5	not recommended
30º↓	Snow	Plow & apply chemical	1.25	1.0	1.5	not recommended
	Frz. Rain	Apply chemical	1.5	1.25	1.75.	not recommended
25 - 30º ↑	Snow	Plow & apply chemical	1.25	1.0	1.5	not recommended
	Frz. Rain	Apply chemical	1.5	1.25	1.75	not recommended
25 - 30º ↓	Snow	Plow & apply chemical	1.25	1.0	1.5	not recommended
	Frz. Rain	Apply chemical	1.75	1.5	2.25	3.25
20 - 25º ↑	Snow or Frz. Rain	Plow & apply chemical	1.75	1.5	2.25	3.25 for frz. rain
20 - 25º ↓	Snow	Plow & apply chemical	2.0	2.0	2.75	not recommended
	Frz. Rain	Apply chemical	2.5	2.0	3.0	3.25
15º to 20º ↑	Snow	Plow & apply chemical	2.0	2.0	2.75	not recommended
	Frz. Rain	Apply chemical	2.5	2.0	3.0	3.2
15º to 20º ↓	Snow or Frz. Rain	Plow & apply chemical	2.5	2.0	3.0	3.25 for frz. rain
0 to 15º ↑ ↓	Snow	Plow, treat with blends, sand hazardous areas	not recommended	3.0	not recommended	5.0 spot treat as needed
< 0º	Snow	Plow, treat with blends, sand hazardous areas	not recommended	4.5	not recommended	5.0 spot treat as needed

Table E: Gallons per Lane Mile

Anti-icing Application Rate Guidelines

Anti-Icing Guidelines These are a starting point only. Adjust based on your experience.			
	Gallons/1000 sq. ft.		
Condition	$MgCl_2$	Salt Brine	Other Products
1. Regularly scheduled applications	0.2 - 0.4	0.3 – 0.6	Follow manufacturers' recommendations
2. Prior to frost or black ice event	0.2 - 0.4	0.3 – 0.6	
3. Prior to light or moderate snow	0.2 - 0.4	0.3 – 0.8	

CAUTION: Too high an application rate may result in slippery conditions or tracking.

ice event				
3. Prior to light or moderate snow	15 – 25	15 – 25	20 – 50	

Table F: Gallons per 1000 sq. ft.

Table F

Pounds of Ice Melted Per Pound of Salt

Pavement Temp. °F	One Pound of Salt (NaCl) melts	Melt Times
30	46.3 lbs of ice	5 min.
25	14.4 lbs of ice	10 min.
20	8.6 lbs of ice	20 min.
15	6.3 lbs of ice	1 hour
10	4.9 lbs of ice	Dry salt is ineffective and will blow away before it melts anything.
5	4.1 lbs of ice	
0	3.7 lbs of ice	
-6	3.2 lbs of ice	

At temps below 15 degrees, it may be more cost-effective to use a chemical other than NaCl.

Table G: Chemical Melting Temperatures

Chemical	Lowest Practical Melting Temperature	Concentration
***NaCl (Sodium Chloride)**—Delivered as solid rock salt; also can be made into a brine. The basis of most deicing materials. Very corrosive. Inexpensive.	15° F	23.3%
***$MgCl_2$ (Magnesium Chloride)**—Delivered as flakes, pellets, or liquid. Often used to wet NaCl crystals to increase adherence to road and reduce melting points. Corrosive. Higher cost.	-10° F	27 to 30%
***$CaCl_2$ (Calcium Chloride)**—Delivered as flakes, pellets, or liquid. Powerful deicer but extremely corrosive. Sometimes used incorrectly to open storm drains. Higher cost.	-20° F	30%
CMA (Calcium Magnesium Acetate)—Delivered as a powder, crystals, pellets, or liquid. Liquid CMA is used mainly on automated bridge deicing systems. Non-corrosive, biodegradable. Sometimes added to sodium chloride as a corrosion inhibitor. Alternative for areas where chloride use must be limited. Higher cost.	20° F	32%
KAc (Potassium Acetate)—Delivered as a liquid. Used on automated bridge deicing systems. Use for anti-icing, deicing, and prewetting. Non-corrosive, biodegradable. Alternative for areas where chloride use must be limited. Higher cost.	-15° F	50%
Winter Sand/Abrasives—Winter sand is sand treated with brine or another blend. It is often used as an abrasive for low-temperature conditions when chemicals are not effective. Sand provides temporary traction and only works when it is on top of the ice.	Never melts—traction only	
Other Blends—Proprietary-purchased blends or blended in-house.	Varies	Varies

*Liquid chlorides are available with corrosion inhibitors.

See attached sample forms as a guideline.

Any inquiries in regards to the design, function, and/or maintenance of any one of the above mentioned facilities or tasks shall be directed to the project engineer:

Jones & Beach Engineers, Inc.
85 Portsmouth Avenue
P.O. Box 219
Stratham, NH 03885

T#: (603) 772-4746
F#: (603) 772-0227

Salt Minimization Plan
Amendment Log
Industrial Building
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Salt Minimization Plan
Amendment Log
Industrial Building
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Salt Minimization Plan
Event Report
Industrial Building
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH

Anti-icing Route Data Event Report				
Applier (Company name):				
Date:				
Air Temperature	Pavement Temperature	Relative Humidity	Dew Point	Sky
Reason for Applying:				
Route:				
Chemical:				
Application Time:				
Application Amount:				
Observation (first day):				
Observation (after event):				
Observation (before next application):				
Name:				

Salt Minimization Plan
Checklist
Industrial Building
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH

Recommended practice	Check which response applies to current practices and anticipated site maintenance activities for job site.				
	Already do	Will do	Might do	Will not do	If "will not do" Why not?
Use an application rate chart.					
Calibrate equipment each year.					
Learn about the deicer ingredients and use the appropriate one for the condition.					
Look for reasons if and why materials are leaking or spilling from vehicles and fix them (e.g. gaps, overfilling, etc).					
Develop a comprehensive winter maintenance policy. Follow your policy.					
Measure and use pavement temperatures.					
Use anti-icing appropriately prior to the storm.					
Plow before applying deicers.					
Use wet materials (pre-wet or pretreated).					
Don't apply sodium chloride (road salt) for pavement temperatures below 15ºF.					
Don't apply deicers for pavement temps under -10º F. It's too cold.					
Separate salt and sand. Use salt for melting. Use sand for traction.					
Apply deicers in the center of the road or on the high side of the curve.					
Store the salt in a building or under secure cover.					
Store salt away from water flow and direct the water away from storage area.					
Store snow away from lakes, ponds and wetlands.					
Sweep up sand, dispose of properly.					
For each event, document what you did and how well it worked. Use this information to make improvements.					

Salt Minimization Plan
Training Log
Industrial Building
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH

Salt Minimization Plan Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- ❑ **Green Snowpro Training**
- ❑ **New Hampshire Certified Salt Applicator**
- ❑ **New Hampshire Salt Symposium**
- ❑ **Inspections/Corrective Actions**
- ❑ **Pollution Prevention Measures**

Specific Training Objective:_____

_____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		

Salt Minimization Plan
References
Industrial Building
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH

References:

- Environmental Fact Sheet: **Best Management Practices and Salt-Use Minimization Efforts In Chloride-Impaired Watersheds of New Hampshire** A Guidance Document for Private Developers and Contractors (WD-WMB-26) https://www.des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/documents/wmb-26.pdf

- **Minnesota Snow and Ice Control** Field Handbook for Snowplow Operators Second Revision
  Minnesota Snow and Ice Control handbook, available at:
  http://www.mnltap.umn.edu/pdf/snowicecontrolhandbook.pdf

- **NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION** Winter Maintenance Snow Removal And Ice Control Policy.
  https://www.nh.gov/dot/org/operations/highwaymaintenance/documents/wmsrip.pdf

- Environmental Fact Sheet: **Road Salt AND Water Quality**
  https://www.des.nh.gov/organization/commissioner/pip/factsheets/wmb/documents/wmb-4.pdf

- **Chapter 4 Designing Best Management Practices**, 4-2 Source Control BMP's
  https://www.des.nh.gov/organization/divisions/water/stormwater/documents/wd-08-20b_4-2.pdf

- **Minnesota Pollution Control Agency:** Winter Parking Lot Sidewalk Maintenance https://www.pca.state.mn.us/sites/default/files/p-tr1-20.pdf

NEW HAMPSHIRE FISH & GAME REPORT

for a

Commercial Development

at

Industrial Drive
Raymond
8/14/22

Prepared by
Gove Environmental Services, Inc
8 Continental Drive, Unit H
Exeter, NH 03833

(1) A copy of the department of natural and cultural resources NHB Data Check tool results letter, dated within one year of the date of the consultation request, and which includes the Data Check tool results letter number; NHB 21-3049 is attached and identified the following species:

Blanding's Turtle (*Emydoidea blandingii*)	E
Northern Black Racer (*Coluber constrictor constrictor*)	T
Spotted Turtle (*Clemmys guttata*)	T
Wood Turtle (*Glyptemys insculpta*)	SC

(2) The applicant's full name;
Anton Melhcionda

(3) The applicant's mailing address;
83 Exeter Road, South Hampton, NH 03827

(4) The applicant's telephone number and email address to be used for the purpose of contact; 603-835-4770, anton@onyxpartnersltd.com>

(5) If the applicant is a corporation, firm, partnership, association, institution, or public or private agency, the name, mailing address, and email address of the person who will respond to requests for information on behalf of the applicant;
Luke Hurley, GES Inc., lhurley@gesinc.biz, 603-770-5114
Erik Poulin, Jones and Beach Engineers, Inc, epoulin@jonesandbeach.com 603-772-4747

(6) The name, mailing address, and email address of any person acting as an agent of the applicant, or any consultant who will submit information to the department on behalf of the applicant;
Luke Hurley, GES Inc., lhurley@gesinc.biz, 603-770-5114
Erik Poulin, Jones and Beach Engineers, Inc, epoulin@jonesandbeach.com 603-772-4747

(7) Description of the proposed action;
This project proposes to construct a 550,025 S.F. industrial building in the Town of Raymond Tax Map 22, Lots 44, 45, 46, 47, and Tax Map 28, Block 3, Lot 120-1. As part of the project there will be 89,112 sf of wetland impact including intermittent streams shrub wetlands and three vernal pools.

The drainage design intent for this site is to maintain the post-development peak flow to the pre-development peak flow conditions to the extent practicable and to effectively treat stormwater from the development of this project. This has been accomplished through the use of one (3) above ground infiltration basins. Two (2) Subsurface Infiltration / Detention Systems, and (4) tree well treatment systems to maintain the peak discharge, and treat and infiltrate stormwater.

In addition, the potential for increased erosion and sedimentation is handled by way of erosion control blankets, vegetated swales, sedimentation sumps, and riprap inlet and outlet protection aprons. The use of Best Management Practices per the NHDES Stormwater Manual have been applied to the design of this drainage system and will be observed during all stages of construction. Existing wetlands and abutting property owners will suffer minimal impact resultant from this development.

The study area consists of the subject property and upstream contributing area. The study area consists of 116.330± acres including offsite contributing areas. The existing site is currently partially developed with an active rock quarry, with the remaining area covered by wooded terrain. Half of the site drains North across the site through these wooded areas to the rear of the site to an existing wetland system. The remaining area drains Southwest through an existing wetland system along Southwest side of the rock quarry. Both analysis points drain into the Lamprey River.

The addition of the proposed impervious paved areas and buildings causes an increase in the curve number (Cn) and a decrease in the time of concentration (Tc), the net result being a potential increase in peak rates of runoff from the site. To mitigate the potential increase in the peak rate of runoff and to effectively treat the subsequent stormwater runoff the following Best Management Practices (BMP's) have been employed at the Analysis Points as follows:

Analysis Point #1 - Several Drainage systems were added to the proposed design to mitigate peak runoff and provide stormwater treatment to Analysis Point #1. The South and East sides of the truck parking area is directed towards a proposed infiltration pond #1. The area includes pavement and grass areas. Stormwater is collected via a closed drainage system and then discharges into a proposed forebay. The stormwater then discharges over a weir to the infiltration basin which then discharges into the existing wetland system.

A section of the driveway on the west side of the project and a section of the driveway on the south side of the project is directed towards a proposed infiltration pond #5. The area includes pavement and grass areas. Stormwater is collected via a closed drainage system and then discharges into a proposed forebay. The stormwater then discharges over a weir to the infiltration basin which then discharges into the existing wetland system. This then flows through an existing box culvert under the driveway entrance. This flow then travels through an existing wetland system to Analysis Point #1.

Tree Wells #1 & #2 are located at the entrance of the project. These systems provide treatment to the remaining proposed pavement at the entrance area and then discharge to Analysis Point #1.

Analysis Point #2 - Several Drainage systems were added to the proposed design to mitigate peak runoff and provide stormwater treatment to Analysis Point #2. The North and East sides of the truck parking area is directed towards a proposed infiltration pond #2. The area includes pavement and grass areas. Stormwater is collected via a closed drainage system and then discharges into a proposed forebay. The stormwater then

discharges over a weir to the infiltration basin which then discharges into the existing wetland pond system. This then discharges though a wetland system to Analysis Point #2.

The Westerly car parking area and the South side of the truck parking area is directed towards a proposed subsurface infiltration pond #4. This pond is a Storm Tech MC4500 chamber system. The area includes pavement and grass areas. Stormwater is collected via a closed drainage system and then discharges into two isolation rows for pretreatment. The stormwater then discharges over a weir to the infiltration basin which then discharges into a proposed infiltration / Detention Stone subsurface pond. This then discharges to an existing wetland system to Analysis Point #2.

The roof runoff is directed towards an Infiltration / Detention Stone Subsurface Pond #3. This pond will consist of clean crushed stone that will be graded in order to provide 40% void space for detention. Stormwater is collected via a closed drainage system and then discharges into the pond. The stormwater will be distributed though the stone with a network of 12" HDPE perforated pipe. The stormwater then discharges to an existing wetland system to Analysis Point #2.

Tree Wells #3 & #4 are located at the entrance of the project. These systems provide treatment to the remaining proposed pavement at the entrance area and then discharge to Analysis Point #2.

The proposed site development will have minimal adverse effect on abutting infrastructures or properties by way of stormwater runoff or siltation if properly constructed in accordance with this Drainage Analysis and approved project plan set. The post-construction peak rates of runoff for the site will be lower than or equal to the existing conditions for all analyzed storm events. Appropriate steps will be taken to control erosion and sedimentation; these will be accomplished through the construction of a drainage system consisting of site grading, catch basins with sedimentation sumps, jute matting, swales, infiltration basin, and riprap outlet protection aprons. The use of Best Management Practices developed by the State of New Hampshire have been utilized in the design of this system and their application will be enforced with regular inspections throughout the construction process.

(8) Description of the project parcel by reference to street address and town, and, if available, a geographical information system defined project boundary;
The 123-acre subject property located on Industrial Way, in Raymond, NH encompasses Tax Map 22 Lots 44, 45, 46 & 47 and Tax Map 28 Bloc 3 Lot 120-1 within the industrial zone of Raymond. The subject property is currently undergoing active quarry operations starting at the entrance to the site as approved by AOT permit AOT-0195. These areas within the quarry are typical quarry conditions with stock piles present and areas of open gravel and roadways established to harvest materials. Beyond the limits of the active quarry operations several wetlands consisting of isolated wetlands and wetlands that are part of larger wetland complexes have been identified during the field delineation of the subject property. These wetland areas are identified on the existing conditions plan and labeled Wetland #1 – Wetland #8.

The parcel is bordered directly to the north by an active rail trail, and large industrial lumber yard and warehouse. The parcel is bordered to the east and west by open wooded land and NH Route 101 directly to the South. The parcel has varying terrain from steep rocky slopes to low lying wooded swamps, and open ponds, as well as intermittent streams. The site rises sharply from the quarry walls to the north and east where it drops sharply down to the east. Significant areas of rock outcrops exist throughout the parcel.

Upland Cover Type

Field analysis revealed there is one dominant upland cover type on the parcel: Hemlock-Hardwood-Pine. This is the remaining upland cover type, not currently part of the active quarry. The canopy is primarily comprised of mature eastern hemlock ranging in size from 8-24+" dbh (diameter at breast height), eastern white pine ranging in size from 12-24+" dbh, and red oak ranging from 8-24+" dbh. Beech and white ash are secondary components of the tree stratum. Other species present include paper birch and sugar maple. The sapling stratum is primarily comprised of young red oak, American beech, hemlock and white pine. The herbaceous layer, consisting of goldenrod, panic grass, and foxtail was well contained to the developed areas; the forests had little to no understory present.

Wetland Cover Type

Wetland #1: Classified as a PFO1E this forested wetland is located along the western property boundary spans from the southern entrance of the property to the north western corner of the property and is connected to Wetland #8. This wetland has areas of deep seasonal ponding as the wetland largely assists in the detention of melt water and stormwater within the existing commercial development. The wetland was assessed during the 2022 vernal pool season vernal pool indicator species but no activity was noted during the survey dates.

Wetland #2: Classified as a PSS1E contains an active vernal pool assessed during the 2022 vernal pool season and is associated with an intermittent stream that acts as an overflow drainage for the ponded area. This wetland is directly adjacent to ongoing quarry activities with areas of clearing and an established gravel roadway within 100ft of the wetland.

Wetland #3: Classified as PFO1E drainage overflow area associated with a PSS1E area containing an active vernal pool assessed during the 2022 vernal pool season. This wetland is also adjacent to the active quarry operation and has some adjacent forestry activity near the wetland in anticipation for material harvest associated with the quarry operations as this area along with Wetland #2 were within the AOT permitted envelope for quarry operations.

Wetland #4: Classified as a PFO1E with an associated intermittent stream R4SB3 that drains to the south west on the property. The forested wetland portion extending off site was verified as an active vernal pool assessed during the 2022 vernal pool season. There has not been any significant disturbance in this area with the expanding quarry operations on site.

Wetland #5: This is a small isolated forested wetland PFO1E to the north of wetland #7 adjacent to the entrance of the subject property. This wetland is hydrologically connected to wetland #1 via a culvert for overflow stormwater control. This area is adjacent to both the roadway and the limit of the quarry operations.

Wetland #6: This is a large wetland to the south of Wetland #4 and is connected to Wetland #7. This area has a couple wetland types PFO1E PSS1E with an intermittent stream R4SB3 connecting these areas. The wetlands are primarily natural with mature forested growth with an outlet connection to the large pond adjacent to Industrial Way.

Wetland #7: Is a man-made pond freshwater pond PUBHx associated with adjacent wetlands. This area is a large deep water habitat area that detains stormwater and has been observed to be utilized for recreational fishing. There is adjacent development to the pond however to the south east of the pond the area is primarily natural.

Wetland #8: Incorporates several different classifications as it includes an intermittent stream system, an old beaver impoundment and areas of dense scrub shrub and forested wetland R4SB3/PFO1E/PSS1Cb/PEM1Cb/PSS1Eb/PSS1E. This wetland is expansive, originating from the northeastern corner of the property and flowing across the property. This wetland also receives contributing water from the intermittent outlet associated with wetland #2. This wetland still has areas of ponding occurring from some areas of active beaver impoundment.

(9) A listing of any state or federal permits which have been applied for, have been granted, or which will be necessary for the proposed action to proceed;
NHDES Wetland Permit Pending
NHDES Alteration of Terrain Permit Pending

(10) The current condition of the action area prior to any proposed modifications, including a description of known or discernible actions within the preceding 24 months that have altered the site, including but not limited to, timber harvests, significant impact from storms, removal of gravel or stone, or addition or removal of structures;
The area is currently part of an open quarry, actively being worked.

(11) Any habitat features supporting or that could support threatened and endangered species that have been identified; and
Blanding's Turtle (*Emydoidea blandingii*)
Found in wetland habitats with permanent shallow water and emergent vegetation such as marshes, swamps, bogs, and ponds. Use vernal pools extensively in spring and while traveling through the landscape. May use slow rivers and streams as mechanisms for dispersal between wetlands. Extensive use of terrestrial habitats for nesting and travel among wetlands.

Northern Black Racer (*Coluber constrictor constrictor*)
Found in a variety of habitats including dry brushy pastures, powerline corridors, rocky ledges, and woodlands. Have large home ranges and require large patches of suitable habitat.

Spotted Turtle (*Clemmys guttata*)
Found in wetlands with shallow, permanent water bodies and emergent vegetation. Marshes, vernal pools, wet meadows, swamps, ponds, and slow-moving streams and rivers all provide suitable habitats for spotted turtles. Terrestrial habitat used extensively while searching for suitable nesting sites, traveling among wetland habitats, and periods of inactivity during high temperatures.

Wood Turtle (*Glyptemys insculpta*)
Found in slow-moving streams and channels with sandy bottoms. Extensive use of terrestrial habitats during summer, including floodplains, meadows, woodlands, fields, as well as wetlands.

The existing conditions of the site are over 50% open wooded land and wetlands with a large open water pond to the south west of the property.

There is ample habitat throughout the entire rear 1/2 of the property not proposed as part of the project. This includes the large old beaver pond, as well as vernal pool complexes, streams and wooded swamps for the following species identified in the NHB report. No impact to these species should be expected as there should be significant land to remain both on and off of the site.

(12) A description of any conservation measures proposed by the applicant to avoid, minimize, or mitigate potential harm to threatened and endangered species and habitat determined to be critical. Prior to the start of work a sweep of the site will be conducted for any listed species and notification will be made to NHF&G. The proposed limit of work will be fenced off with silt fence or similar fencing to prevent any species from travelling into the work area. Potential travel corridors on the site as noted in the NHF&G Corridor maps show corridor potential through the portion of the site currently an open quarry. This areas is constantly being worked in and does not provide ideal travel through by large or small wildlife. There is additional or secondary corridor potential along the east and western portions of the site through the natural wooded areas. Two separate conservation easements are proposed one in the north of 8.77 acres and an additional one in the southwest of the open pond at 18.45 acres.

FIS 1004.04:
(b) signature page – *please provide a signed and dated affirmation that all project info is accounted for*
under Fis 1004 and everything is true, complete, and non-misleading to the best of your current
knowledge and belief and that you understand that the submission of false, incomplete, or misleading
information shall constitute grounds, pursuant to Fis 1004.13, for the department to:
a. Suspend consultation pending submission of true, complete, and not misleading information;
b. Terminate consultation;
c. Withdraw any recommendations made to the referring state agency under this part; or

d. Report the suspension, termination, or withdrawal of recommendations, and the full circumstances of
the submission, to the referring state agency for action in the pending or completed request for a permit or
other action.
Luke Hurley___ August 17, 2022
Name – printed Date

_____

Appendices

- Aerial Photo
- USGS Topo Map
- WAP Habitat Cover Map
- WAP Highest Ranked Wildlife Habitat Map
- Conservation Parcels Map
- NRCS Soils
- NHB

NHB

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

To: Luke Hurley, Gove Environmental Services, Inc.
8 Continental Drive
Exeter, NH 03833

From: Jessica Bouchard, NH Natural Heritage Bureau
Date: 9/29/2021 (valid until 09/29/2022)
Re: Review by NH Natural Heritage Bureau
Permits: NHDES - Alteration of Terrain Permit, NHDES - Wetland Standard Dredge & Fill - Major

NHB ID: **NHB21-3049** Town: Raymond Location: Industrial Drive
Description: The proposed project is for a warehouse facility with associated access roads/driveways, parking and loading docks.
cc: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments **NHB: No Comments At This Time**
F&G: Please conduct a preliminary vernal pool survey this fall. Please check for evidence of hatched or predated turtle nests in exposed mineral soils before freeze up. Please submit AoT-related documents for NHFG review, AoT review inquiries or wildlife biologist questions to NHFGreview@wildlife.nh.gov. If project related: Include the NHB datacheck results letter number (i.e. NHB21-3049) in the email subject line at a minimum. Not including this number will affect our response time and delays of our review. Please include the NHB number in the title of the assessment along with a date (year,month,day).

Vertebrate species	State[1]	Federal	Notes
Blanding's Turtle (*Emydoidea blandingii*)	E	--	Contact the NH Fish & Game Dept (see below).
Northern Black Racer (*Coluber constrictor constrictor*)	T	--	Contact the NH Fish & Game Dept (see below).
Spotted Turtle (*Clemmys guttata*)	T	--	Contact the NH Fish & Game Dept (see below).
Wood Turtle (*Glyptemys insculpta*)	SC	--	Contact the NH Fish & Game Dept (see below).

[1]Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

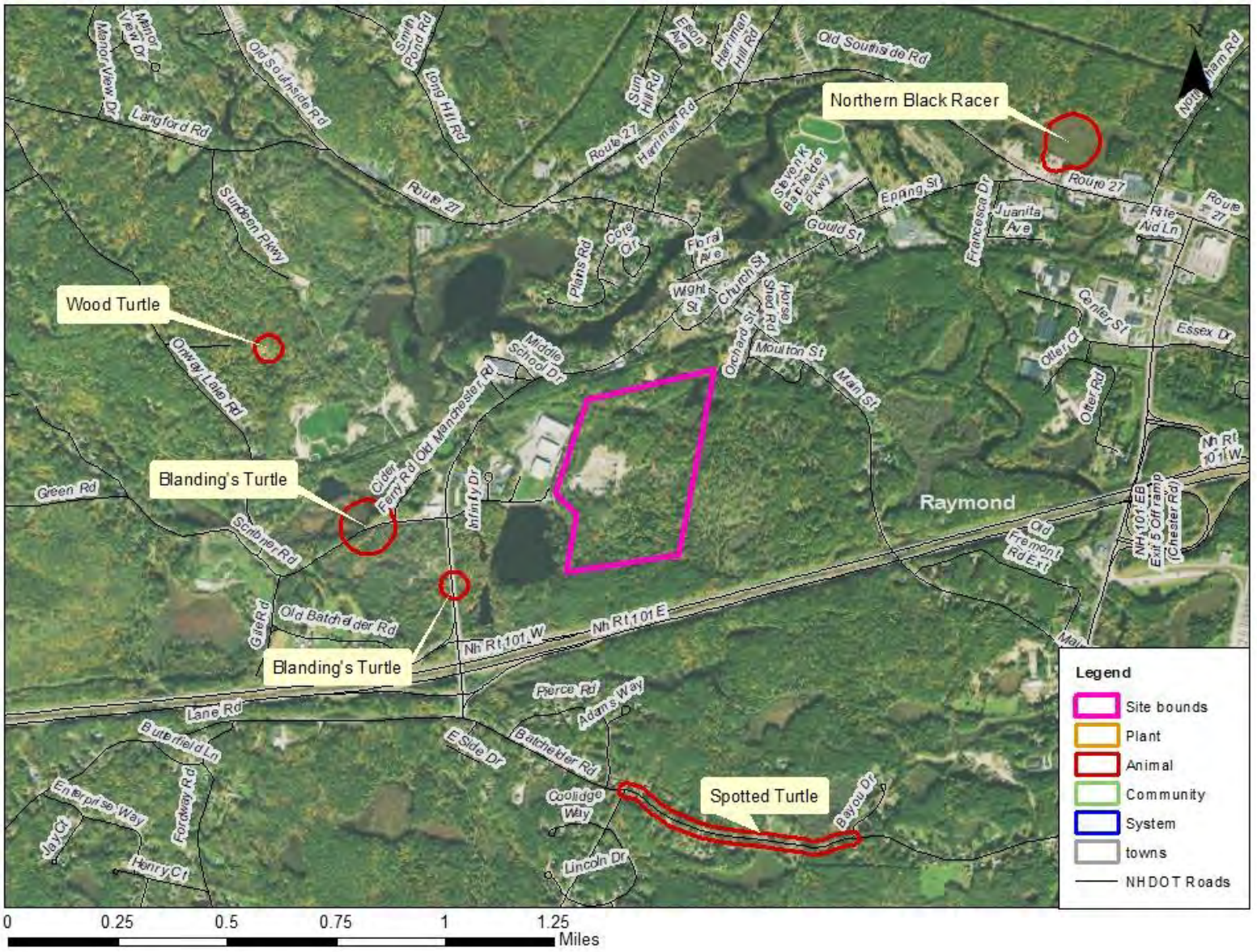
A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB21-3049



New Hampshire Natural Heritage Bureau - Animal Record

Blanding's Turtle (*Emydoidea blandingii*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Apparently secure but with cause for concern
State:	Listed Endangered	State:	Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2008: Area 11564: 1 adult male seen.
General Area: --
General Comments: --
Management Comments: --

Location

Survey Site Name: Rattlesnake Hill, east of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 7.7 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2008: Area 11564: Exit 4 off Route 101. Approx 1/4 mile down Scribner Road, where Lamprey comes close to road.

Dates documented

First reported: 2008-05-20 Last reported: 2008-05-20

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Blanding's Turtle (*Emydoidea blandingii*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Apparently secure but with cause for concern
State:	Listed Endangered	State:	Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2017: Area 14399: 1 adult observed, sex unknown.
General Area: 2017: Area 14399: Roadside. Forest on either side of road.
General Comments: --
Management Comments: --

Location

Survey Site Name: Rattlesnake Hill, east of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 1.9 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2017: Area 14399: Old Manchester Road, Raymond, between the Safety Complex and the Exit 4 ramp. Right by the Route 101 sign.

Dates documented

First reported:	2017-05-31	Last reported:	2017-05-31

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Northern Black Racer (*Coluber constrictor constrictor*)

Legal Status	Conservation Status
Federal: Not listed	Global: Demonstrably widespread, abundant, and secure
State: Listed Threatened	State: Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank:	Not ranked
Comments on Rank:	--
Detailed Description:	2012: Area 12799M: 1 adult observed. 2010: Area 12799M: 1 adult observed. 1993: Area 11938M: 2 observed. 1992: Area 11940: 1 observed. 1991: Area 11938M: 6 eggs found and collected. 2 hatched and released at original location on 8/23.
General Area:	2010: Area 12799M: Mixed forest. 1993: Area 11938M: Old sawmill site behind town shed. 1992: Area 11940: Swamp. 1991: Area 11938M: Sunny, sandy conditions adjacent to swamp. Under old plywood.
General Comments:	--
Management Comments:	--

Location

Survey Site Name: Flint Hill, south of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 10.3 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2010: Area 12799M: 8 Sherwood Drive, Raymond. 1992: Area 11940: Swamp behind Raymond town shed. 1991: Area 11938M: Old sawmill site behind Raymond town shed [Rte. 27/107 in Raymond across from intersection with Epping St.]

Dates documented

First reported: 1991-06-26 Last reported: 2012-04-16

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Spotted Turtle (*Clemmys guttata*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Demonstrably widespread, abundant, and secure
State:	Listed Threatened	State:	Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank: --

Detailed Description: 2007: Area 11749: 1 adult female seen, about 5".
General Area: --
General Comments: --
Management Comments: --

Location

Survey Site Name: Batchelder Road, Raymond
Managed By:

County: Rockingham
Town(s): Raymond
Size: 11.4 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2007: Area 11749: Batchelder Road, unknown exact location.

Dates documented

First reported: 2007-07-22 Last reported: 2007-07-22

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Wood Turtle (*Glyptemys insculpta*)

Legal Status		**Conservation Status**	
Federal:	Not listed	Global:	Rare or uncommon
State:	Special Concern	State:	Rare or uncommon

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2021: Area 14704: 1 adult observed, sex unknown.
General Area: 2021: Area 14704: Sports field complex surrounded by forest and wetlands.
General Comments: --
Management Comments: --

Location

Survey Site Name: Lamprey River, Raymond
Managed By:

County: Rockingham
Town(s): Raymond
Size: 1.9 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2021: Area 14704: Riverside Park, Raymond.

Dates documented

First reported:	2021-05-23	Last reported:	2021-05-23

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

Aerial Photo

Aerial

Legend

- Parcels
  - Parcel Polygons
  - Attributes for Additional Lines
- State
- County
- City/Town

Map Scale

1: 6,494

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Map Generated: 8/17/2022

Notes

USGS Topo Map

USGS

Legend

Parcels
- Parcel Polygons
- Attributes for Additional Lines

State

County

City/Town

Map Scale

1: 6,494

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Map Generated: 8/17/2022

Notes

Industrial Drive
Raymond
August 17, 2022

NH Wildlife Action Plan
Land Cover Figure

WAP 2020: Wildlife Habitat Land Cover

Legend

Parcels
- Parcel Polygons
- Attributes for Additional Lines

State

County

City/Town

WAP 2020: Wildlife Habitat l Cover
- Alpine
- Appalachian oak-pine
- Cliff and Talus slope
- Coastal island and Rocky coast
- Developed Impervious
- Developed or Barren land
- Dune
- Floodplain forest
- Grassland
- Hemlock-hardwood-pine
- High-elevation spruce-fir
- Lowland spruce-fir
- Northern hardwood-conifer
- Northern swamp
- Open water
- Peatland
- Pine barren
- Rocky ridge
- Salt marsh
- Sand/Gravel
- Temperate swamp
- Marsh and shrub wetland

Map Scale

1: 12,988

© NH GRANIT, www.granit.unh.edu

Map Generated: 8/17/2022

Notes

Industrial Drive
Raymond
August 17, 2022

NH Wildlife Action Plan
Habitat Rankings

WAP 2020: Highest Ranked Wildlife Habitat

Legend

Parcels
- Parcel Polygons
- Attributes for Additional Lines

State

County

City/Town

WAP 2020: Highest Ranked Wildlife Habitat
- 1 Highest Ranked Habitat in NH
- 2 Highest Ranked Habitat in Regior
- 3 Supporting Landscape

Map Scale

1: 12,988

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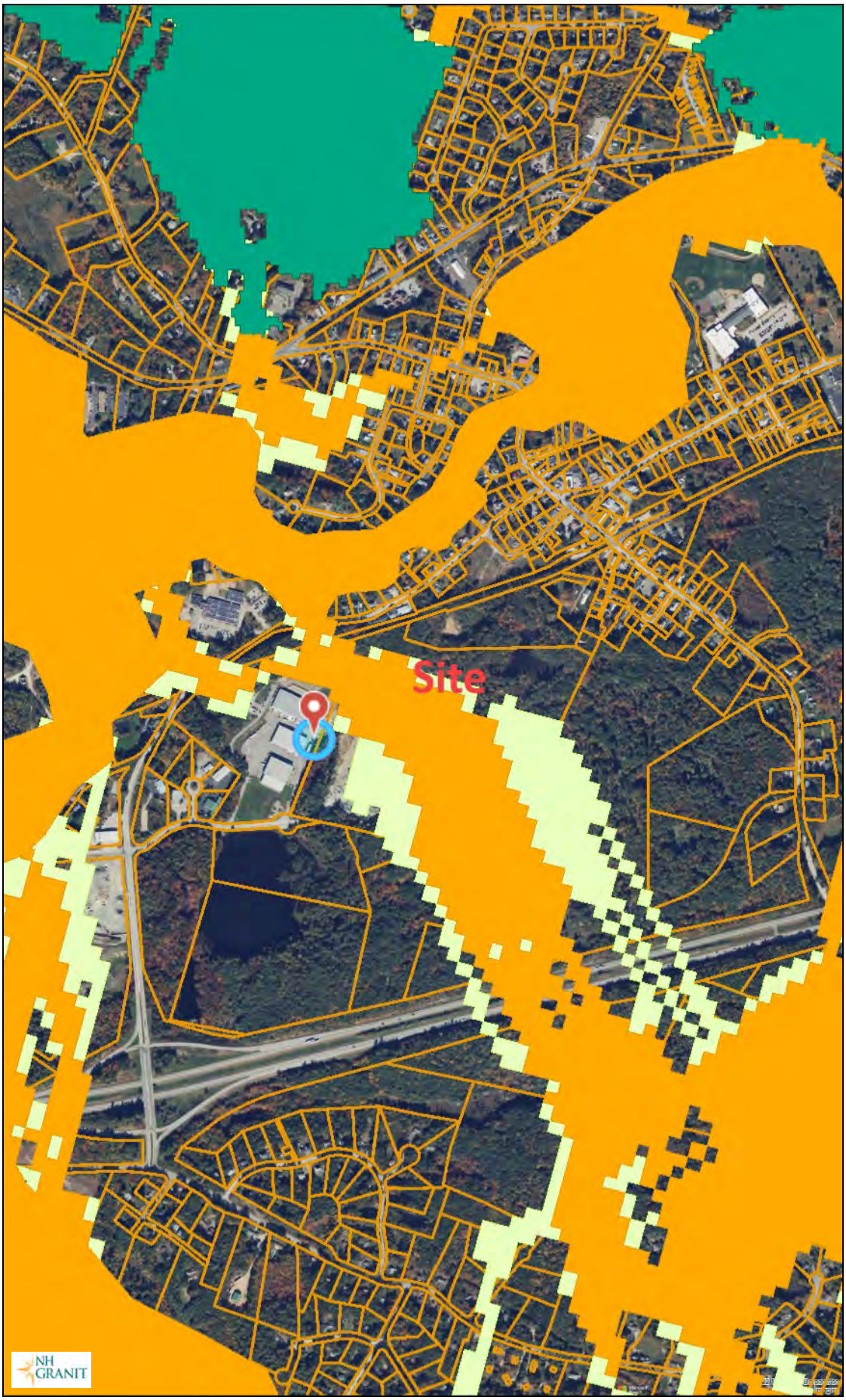
Map Generated: 8/17/2022

Notes

Wildlife Corridor Data



Legend

- Wildlife Corridors
- Prioritized Habitat Blocks
- Wildlife Secondary Corridors
- Parcels
  - Parcel Polygons
  - Attributes for Additional Lines
- State
- County
- City/Town

Map Scale

1: 12,988

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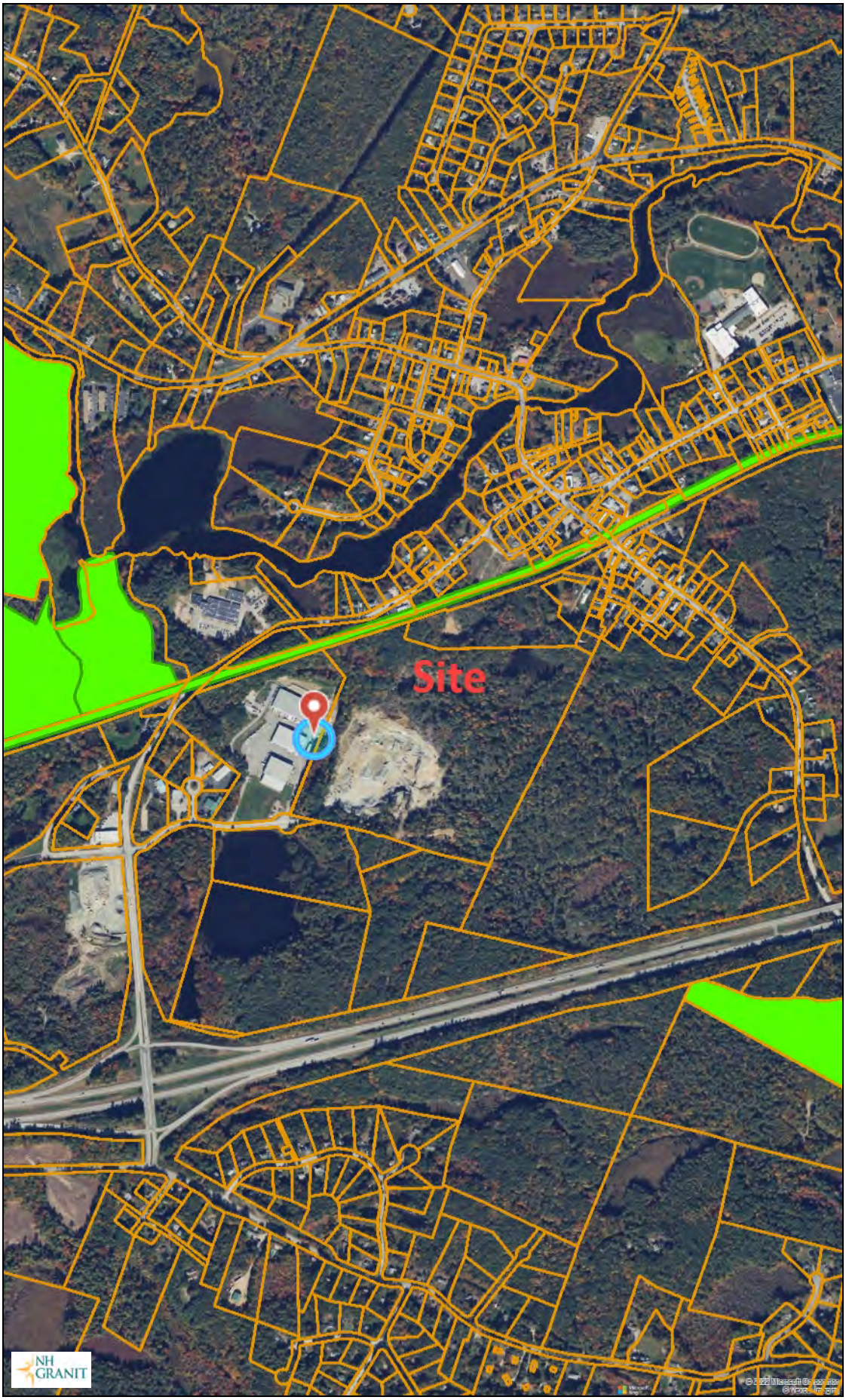
Map Generated: 8/17/2022

Notes

Industrial Drive
Raymond
August 17, 2022

Conservation Parcels

Conservation Lands



Legend

Parcels
- Parcel Polygons
- Attributes for Additional Lines

State

County

City/Town

Conservation and Public Lar

Map Scale

1: 12,988

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Map Generated: 8/17/2022

Notes

NRCS Soils

Map Scale: 1:3,860 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockingham County, New Hampshire
Survey Area Data: Version 24, Aug 31, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 19, 2021—Nov 1, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
97	Freetown and Natchaug mucky peats, ponded, 0 to 2 percent slopes	5.7	12.6%
140C	Chatfield-Hollis-Canton complex, 8 to 15 percent slopes, rocky	20.6	45.4%
140D	Chatfield-Hollis-Canton complex, 15 to 35 percent slopes, rocky	14.6	32.0%
298	Pits, sand and gravel	0.0	0.0%
395	Swansea mucky peat, 0 to 2 percent slopes	4.5	9.9%
Totals for Area of Interest		**45.4**	**100.0%**

4
3
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10
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6
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12
5
8
1

Industrial Drive, Raymond, NH
Wildlife Habitat Assessment Report
Photo Log (GES:2021145) October 2021

Photo 1: Looking east

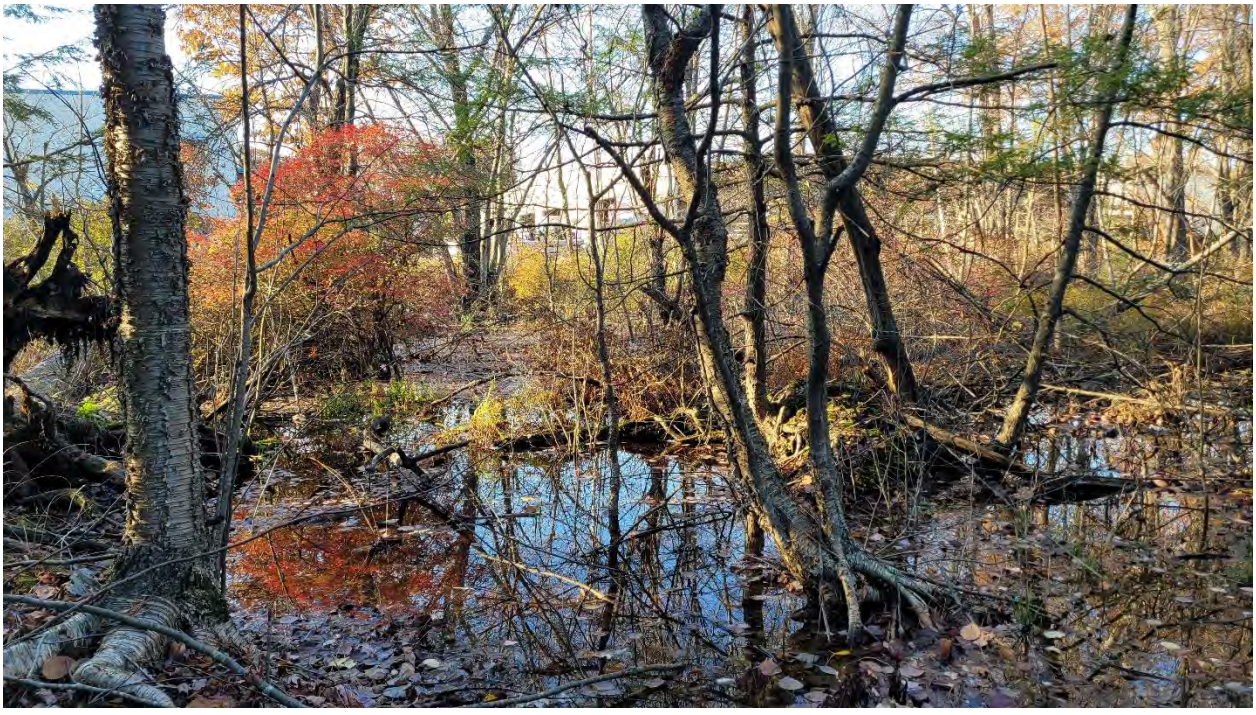


Photo 2: Looking northwest

:

Photo 3: Looking west

Photo 4: Looking east

Photo 5: Looking south-southwest

Photo 6: Looking east

Photo 7: Looking east

Photo 8: Snag

Photo 9: Looking south

Photo 10: Looking east

Photo 11: Looking west

Photo 12: Temporary structure

2022 VERNAL POOL ASSESSMENT

EPPING, NH

1.0 INTRODUCTION

Gove Environmental Services, Inc. (GES) presents this Vernal Pool Report for approximately 123 acres of land located on Industrial Way in Raymond, NH. The subject property is located on Tax Map 22 Lots 44, 45, 46, & 47 and Tax Map 28 Block 3 Lot 120-1. The attached locus map shows the limits of the site with a sketch depicting the approximate locations of the vernal pools identified during the investigation. The analysis contained in this report is based on the field assessment conducted during the 2022 breeding season. It addresses:

- Amphibian and other obligate species activity; and
- Existing conditions in the upland envelope surrounding the pool.

All field data collection and analysis for this report was conducted by GES.

Location and Site Description

The subject property is located right off of exit 4 on route 101 in Raymond, in an area of expanding commercial/industrial development. The subject property has an active AOT for earth work and with active quarey activities taking place. The 123-acre piece of land has a significant amount of authorized active disturbance on the property all within the limits of the approved AOT. Beyond this active site is a mix of naturalized foresed area intermixed with areas that have seen selective cut forestry acativities adjacent to a drained beaver pond. There is significant topographical changes throughout the site with areas bed rock supporting ponding within the identified juridictional wetlands. The jurisdictional wetlands identified on site consist of a mix of forested and scrub shrub wetlands with almost all wetlands identified on site being connected with very few areas on the northern portion of the property being man made isolated features. Along with these forested/scrub shrub areas there is the remenants of a large beaver pond that bisected the property from east to west. The owner removed the beaver dam to drain the pond in incremants to allow the area to drain without any risk of issues down stream. Vegetation within the wetlands consisted of Red Maple, Iron Wood, American Beach, High Bush Blueberry, Winterberry, Cinnamon Fern, Gold Thread and Skunk Cabbage. Small intermittent streams were also observed connecting many of these wetlands and were seen to eventually drain into the old beaver pond or into larger adjacent wetlands both on and off site. Uplands consisted of a mix of mature white pine and red oak.

Regulations

NH Department of Environmental Services defines vernal pools under Env-Wt 104.44 “Vernal pool” means a surface water or wetland, including an area intentionally created for purposes of

8 Continental Dr Bldg 2 Unit H, Exeter, NH 03833-7526
Ph (603) 778 0644 / *Fax* (603) 778 0654
www.gesinc.biz
info@gesinc.biz

compensatory mitigation, that provides breeding habitat for amphibians and invertebrates that have adapted to the unique environments provided by such pools and that:

(a) Is not the result of on-going anthropogenic activities that are not intended to provide compensatory mitigation, including but not limited to:
(1) Gravel pit operations in a pit that has been mined at least every other year; and
(2) Logging and agricultural operations conducted in accordance with all applicable New Hampshire statutes and rules; and
(b) Typically has the following characteristics:
(1) Cycles annually from flooded to dry conditions, although the hydroperiod, size, and shape of the pool might vary from year to year;
(2) Forms in a shallow depression or basin;
(3) Has no permanently flowing outlet;
(4) Holds water for at least 2 continuous months following spring ice-out;
(5) Lacks a viable fish population; and
(6) Supports one or more primary vernal pool indicators, or 3 or more secondary vernal pool indicators.

2.0 METHODOLOGY

Three site visits were conducted one on April 4th, April 11th and April 18th. During the wetland delineation of the property in July of 2021, several areas were observed to have signs of seasonal ponding. At the time of the delineation several of these areas appeared to meet the criteria for additional follow up assessments for potential vernal pool activity. Upon further investigation, vernal pool activity was identified in three areas on the subject property with the. Active vernal pool areas are shown on the attached sketch.

Egg mass counts were conducted in these areas by slowly wading through the pools while wearing polarized glasses for a better view through the water. Egg mass species identification was made using the professional experience of the biologist in conjunction with the publication "Identification and Documentation of Vernal Pools in New Hampshire".[1] During surveys, adult amphibians and other vernal pool indicator species were noted if present. Other factors which contribute to the significance of the pool were also recorded including ponding depth, canopy cover, the character of the surrounding upland, and the presence of predator species. The following section provides a brief description of the pools.

3.0 VERNAL POOL DESCRIPTIONS & DISCUSSION

Several areas of interest were identified on the subject property. These are areas which at the time of observation met the criteria set for having potential for vernal pool activity. Of the areas that were observed during the assessment periods three of them had vernal pool activity. The

[1] Michael Marchand, Identifying and Documenting Vernal Pools in New Hampshire Third Edition: Published by New Hampshire Fish and Game Department – Nongame and Endangered Wildlife Program.

activity assessed in the active pools will be discussed below (see sketch for corresponding pool locations).

Pool #1
This is a naturally formed depression on a hilltop that has an intermittent outlet that maintains a connection to the wetland complex along the northern portion of the subject property. The area appears to have seasonal ponding reaching a depth of about 2 ft at the time of assessment. There were small shrubs within the ponded area as well as several branches which made an environment suitable for both wood frogs and spotted salamanders to attach their egg masses. The substrate of the depression was primarily leaves over top of a deep organic layer which was underlain by a mineral layer. This vernal pool was essentially the limit of the wetland boundary for this area with abrupt topographical changes. Adjacent uplands we composed of mature White Pint and Red Oak with adjacent areas of disturbance from the earth work activities. A total of 4 wood frog egg masses and 8 spotted salamander egg masses were observed during the assessments. No other primary or secondary indicators were observed during this assessment.

Pool #2
This wetland is a large isolated wetland on the western side of the subject property just south west of vernal pool #1. The wetland appears to be naturally occurring with a large area of ponding with depths reaching 3 ft. The vernal pool has dense scrub shrub vegetation throughout the pond with areas of deep organics present. Vegetation in the pond consists of areas of aquatic grasses, scrub shrub vegetation consisting of highbush blueberry, witch hazel and some speckled alder. Surrounding uplands adjacent to the vernal pool consist of areas of mature white pine, red oak and some areas of hemlock. There appeared to be some areas of disturbance adjacent to the vernal pool consisting of earth work as well as some areas where forestry activities have taken place. A total of 3 spotted salamander egg masses were observed during the assessments. No other primary or secondary indicators were observed during this assessment.

Pool #3
This is a small ponded area withing a wetland system that originates off site. The pond is a shallow depression within the landscape of the wetland complex with a temporary outlet controlled by water levels in the pond. There is no vegetation within the ponded area that exists on the subject property, however, the portion of wetland off site has dense scrub shrub vegetation that recedes as the wetland moves onto the subject property. The area of ponding on the subject property does plenty of sticks within the water for egg mass attachment. The substrate is a combination of leaves and muck overtop a mineral layer. A total of 8 wood frog egg masses and 4 spotted salamander egg masses were observed during the assessments. No other primary or secondary indicators were observed during this assessment.

Appendix A
Vernal Pool Photos

Vernal Pool Photo Log
Industrial Way, Raymond, NH
Taken: 4/18/2022

Vernal Pool #1:

Photo #1: Looking to the south at vernal pool #1

Photo #2: Looking to the east at vernal pool #1.

Photo #3: Looking at the intermittent outlet on the norther part of the vernal pool

Photo #4: Looking at a spotted salamander egg mass observed in vernal pool #1.

Vernal Pool #2:

Photo #1: Looking to the west at vernal pool #2.

Photo #2: Looking to the east at vernal pool #2.

Photo #3: Looking at a spotted salamander observed in vernal pool #2.

Photo #4: Looking at another spotted salamander egg mass in vernal pool #2 noting the dense algae present.

Vernal Pool #3:

Photo #1: Looking to the east at vernal pool #3.

Photo #2: Looking to the south at vernal pool #3.

Photo #3: Looking at the intermittent outlet associated with vernal pool #3.

Photo #4: Looking at a wood frog egg mass in vernal pool #3.

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

To: Luke Hurley, Gove Environmental Services, Inc.
8 Continental Drive
Exeter, NH 03833

From: Jessica Bouchard, NH Natural Heritage Bureau
Date: 9/29/2021 (valid until 09/29/2022)
Re: Review by NH Natural Heritage Bureau
Permits: NHDES - Alteration of Terrain Permit, NHDES - Wetland Standard Dredge & Fill - Major

NHB ID: **NHB21-3049** Town: Raymond Location: Industrial Drive
Description: The proposed project is for a warehouse facility with associated access roads/driveways, parking and loading docks.
cc: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments **NHB: No Comments At This Time**
F&G: Please conduct a preliminary vernal pool survey this fall. Please check for evidence of hatched or predated turtle nests in exposed mineral soils before freeze up. Please submit AoT-related documents for NHFG review, AoT review inquiries or wildlife biologist questions to NHFGreview@wildlife.nh.gov. If project related: Include the NHB datacheck results letter number (i.e. NHB21-3049) in the email subject line at a minimum. Not including this number will affect our response time and delays of our review. Please include the NHB number in the title of the assessment along with a date (year,month,day).

Vertebrate species	State[1]	Federal	Notes
Blanding's Turtle (*Emydoidea blandingii*)	E	--	Contact the NH Fish & Game Dept (see below).
Northern Black Racer (*Coluber constrictor constrictor*)	T	--	Contact the NH Fish & Game Dept (see below).
Spotted Turtle (*Clemmys guttata*)	T	--	Contact the NH Fish & Game Dept (see below).
Wood Turtle (*Glyptemys insculpta*)	SC	--	Contact the NH Fish & Game Dept (see below).

[1]Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

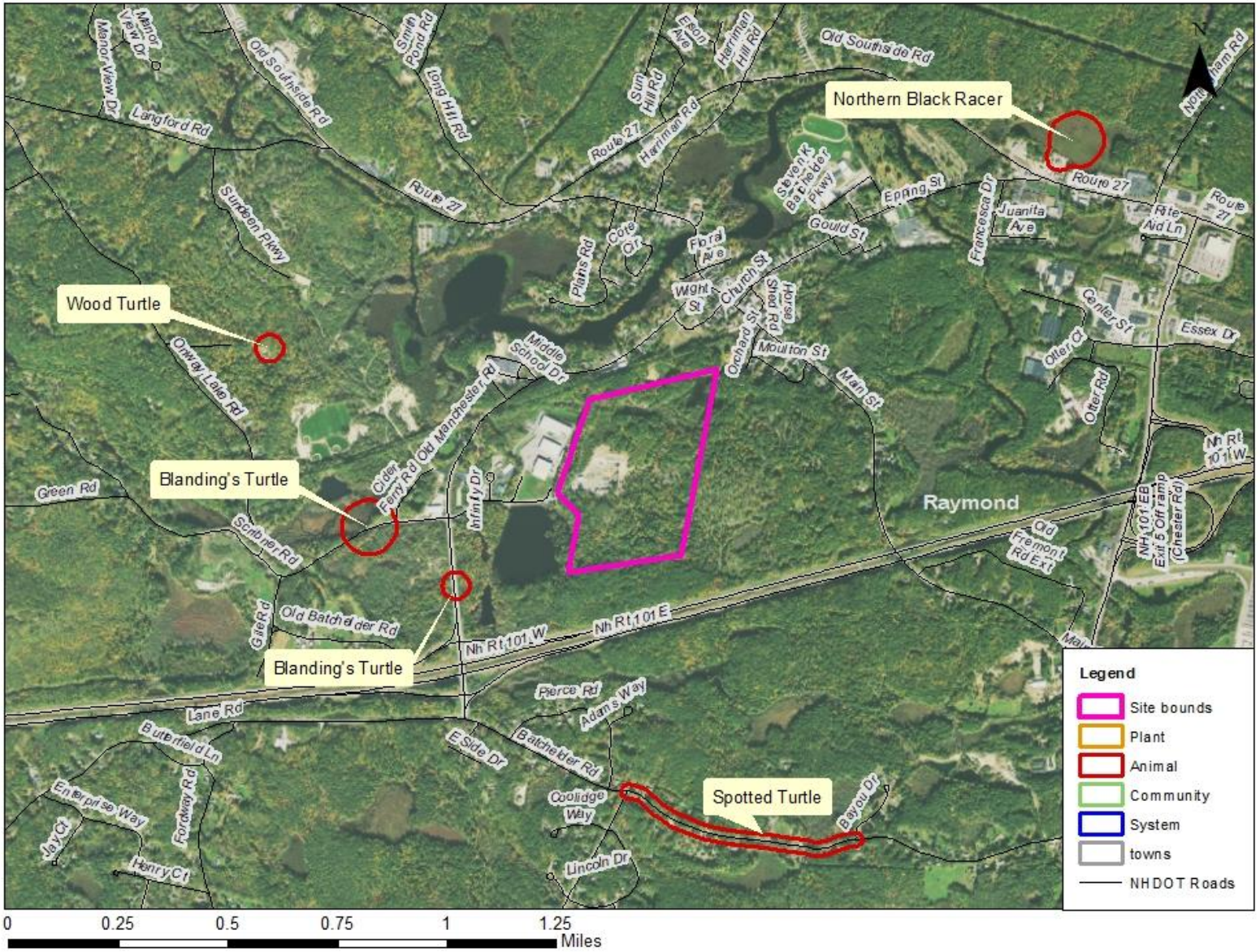
A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB21-3049



New Hampshire Natural Heritage Bureau - Animal Record

Blanding's Turtle (*Emydoidea blandingii*)

Legal Status	Conservation Status
Federal: Not listed	Global: Apparently secure but with cause for concern
State: Listed Endangered	State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2008: Area 11564: 1 adult male seen.
General Area: --
General Comments: --
Management Comments: --

Location

Survey Site Name: Rattlesnake Hill, east of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 7.7 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2008: Area 11564: Exit 4 off Route 101. Approx 1/4 mile down Scribner Road, where Lamprey comes close to road.

Dates documented

First reported: 2008-05-20 Last reported: 2008-05-20

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Blanding's Turtle (*Emydoidea blandingii*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Apparently secure but with cause for concern
State:	Listed Endangered	State:	Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2017: Area 14399: 1 adult observed, sex unknown.
General Area: 2017: Area 14399: Roadside. Forest on either side of road.
General Comments: --
Management Comments: --

Location

Survey Site Name: Rattlesnake Hill, east of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 1.9 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2017: Area 14399: Old Manchester Road, Raymond, between the Safety Complex and the Exit 4 ramp. Right by the Route 101 sign.

Dates documented

First reported:	2017-05-31	Last reported:	2017-05-31

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Northern Black Racer (*Coluber constrictor constrictor*)

Legal Status	Conservation Status
Federal: Not listed	Global: Demonstrably widespread, abundant, and secure
State: Listed Threatened	State: Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank:	Not ranked
Comments on Rank:	--
Detailed Description:	2012: Area 12799M: 1 adult observed. 2010: Area 12799M: 1 adult observed. 1993: Area 11938M: 2 observed. 1992: Area 11940: 1 observed. 1991: Area 11938M: 6 eggs found and collected. 2 hatched and released at original location on 8/23.
General Area:	2010: Area 12799M: Mixed forest. 1993: Area 11938M: Old sawmill site behind town shed. 1992: Area 11940: Swamp. 1991: Area 11938M: Sunny, sandy conditions adjacent to swamp. Under old plywood.
General Comments:	--
Management Comments:	--

Location

Survey Site Name: Flint Hill, south of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 10.3 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2010: Area 12799M: 8 Sherwood Drive, Raymond. 1992: Area 11940: Swamp behind Raymond town shed. 1991: Area 11938M: Old sawmill site behind Raymond town shed [Rte. 27/107 in Raymond across from intersection with Epping St.]

Dates documented

First reported: 1991-06-26 Last reported: 2012-04-16

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Spotted Turtle (*Clemmys guttata*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Demonstrably widespread, abundant, and secure
State:	Listed Threatened	State:	Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank: --

Detailed Description: 2007: Area 11749: 1 adult female seen, about 5".
General Area: --
General Comments: --
Management Comments: --

Location

Survey Site Name: Batchelder Road, Raymond
Managed By:

County: Rockingham
Town(s): Raymond
Size: 11.4 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2007: Area 11749: Batchelder Road, unknown exact location.

Dates documented

First reported:	2007-07-22	Last reported:	2007-07-22

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Wood Turtle (*Glyptemys insculpta*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Rare or uncommon
State:	Special Concern	State:	Rare or uncommon

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2021: Area 14704: 1 adult observed, sex unknown.
General Area: 2021: Area 14704: Sports field complex surrounded by forest and wetlands.
General Comments: --
Management Comments: --

Location

Survey Site Name: Lamprey River, Raymond
Managed By:

County: Rockingham
Town(s): Raymond
Size: 1.9 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2021: Area 14704: Riverside Park, Raymond.

Dates documented

First reported:	2021-05-23	Last reported:	2021-05-23

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

March 20, 2013

Ernest M. Cartier Creveling
Town of Raymond
4 Epping Street
Raymond, NH 03077

CERTIFICATE OF COMPLETION

Subject: **Raymond** – Former Regis Tannery - Lot 120, Old Manchester Road
DES #**201110061**, Project #27227

Revised Remedial Action Implementation Report, prepared by StoneHill Environmental, Inc., dated October 23, 2012

Dear Mr. Creveling:

The Department of Environmental Services (Department) has reviewed the subject report. This report, prepared on your behalf, transmits information relative to the completion of required remedial activities at the site. A request for a Certificate of Completion is also included in the report. The Department has reviewed this report, as well as the copy of the recorded *Notice of Activity and Use Restriction* received by the Department on February 21, 2013, and determined that the required remedial activities for the site have been completed in accordance with the provisions of the approved Remedial Action Plan. This information, together with other information concerning soil and groundwater contamination at the site, was compared with the criteria for issuance of a *Certificate of Completion* contained in New Hampshire Code of Administrative Rules Env-Or 600, *Contaminated Site Management*. These criteria are listed below:

1. All activities specified in the approved remedial action plan, with the exception of groundwater monitoring, have been completed;

2. The performance standards specified for the approved remedial action and the groundwater management permit have been achieved;

3. All monitoring requirements under the groundwater management permit are being met;

4. Any necessary activity and use restrictions have been implemented;

5. All penalty(ies) or fine(s) issued under the New Hampshire Statutes for Oil Spillage, Underground Storage Facilities, or Hazardous Waste Management have been paid;

6. All invoices associated with the Department's recoverable costs have been paid or waived; and

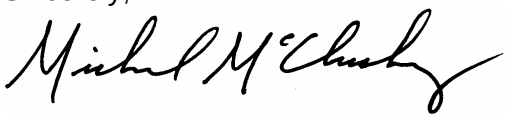
7. All fees or costs due under the Brownfields Program have been paid.

The Department has concluded that the conditions at this site meet the above certificate of completion criteria. Therefore, in accordance with Env-Or 609.01, the Department hereby issues this ***Certificate of Completion***. Groundwater monitoring **shall** continue in accordance with the conditions of Groundwater Management Permit GWP-201110061-R-001.

The Department reserves the right, under New Hampshire Code of Administrative Rules Env-Or 600, *Contaminated Site Management*, to require additional investigations or remedial measures if further information indicating the need for such work becomes known.

If you should have any questions, please contact me at the Department's Waste Management Division.

Sincerely,



Michael McCluskey, P.E.
Brownfields Program
Hazardous Waste Remediation Bureau
Tel: (603) 271-2183
Fax: (603) 271-2181
E-mail: Michael.McCluskey@des.nh.gov

ec: Town of Raymond Health Officer
Timothy Stone, P.G., StoneHill Environmental, Inc.
Chad Tomforde, P.G., StoneHill Environmental, Inc.
Rebecca Williams, P.G., Brownfields Coordinator, HWRB

JONES & BEACH ENGINEERS INC.

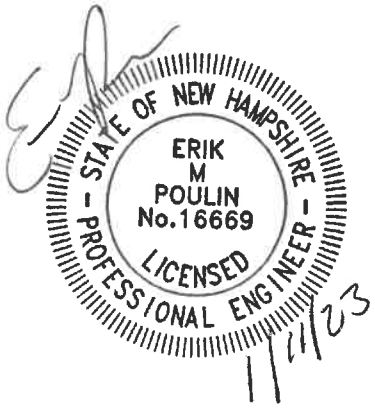
DRAINAGE ANALYSIS

EROSION AND SEDIMENT CONTROL PLAN

Industrial Building
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH 03077

Prepared for:

ONYX Partners LLC
60 Centre Street
Dover, MA 02030



Prepared by:
Jones & Beach Engineers, Inc.
85 Portsmouth Avenue
P.O. Box 219
Stratham, NH 03885
(603) 772-4746
August 18, 2022
Revision #1: September 30, 2022
Revision #2: November 10, 2022
Revision#3: December 15, 2022
Revision #4: January 11, 2023
JBE Project No. 21130

Summary Items

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8. NHB Letter
9. Web Soil Survey Map
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11. Representative Photographs of Site
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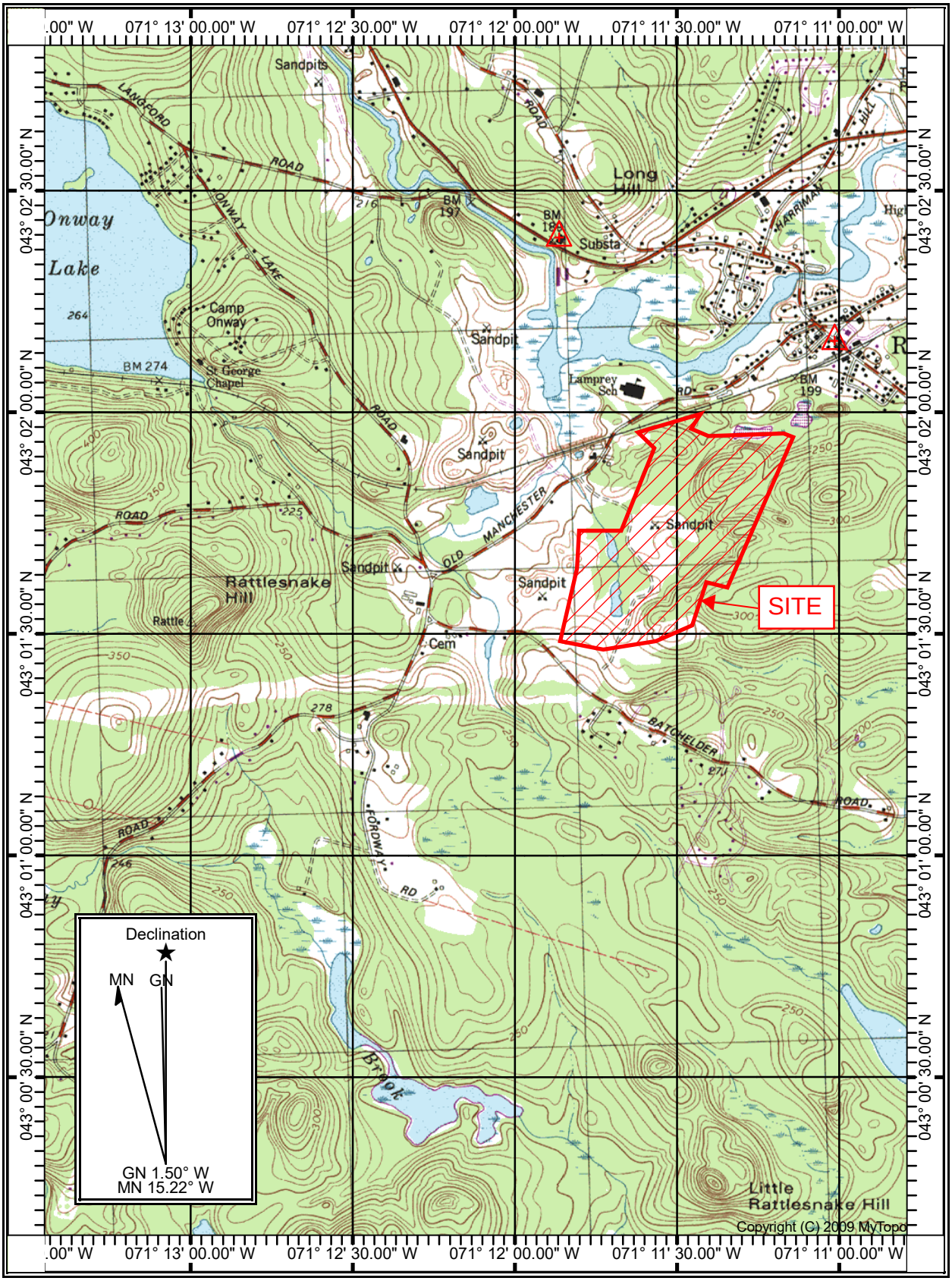
22. Attachments



SCALE 1:24000

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FEET

ALTERATION OF TERRAIN PERMIT APPLICATION

Water Division/ Alteration of Terrain Bureau/ Land Resources Management
Check the Status of your Application: www.des.nh.gov/onestop

RSA/ Rule: RSA 485-A:17, Env-Wq 1500

Administrative Use Only	Administrative Use Only	Administrative Use Only	File Number:
			Check No.
			Amount:
			Initials:

1. APPLICANT INFORMATION (INTENDED PERMIT HOLDER)		
Applicant Name: Onyx Partners LTD	Contact Name: Anton Melchionda	
Email: anton@onyxpartnersltd.com	Daytime Telephone: 617-680-9308	
Mailing Address: 60 Center Street		
Town/City: Dover	State: MA	Zip Code: 02030
2. APPLICANT'S AGENT INFORMATION If none, check here: ☒		
Business Name: Jones and Beach Engineers Inc.	Contact Name: Erik Poulin	
Email: epoulin@jonesandbeach.com	Daytime Telephone: (603) 772-4746	
Address: 85 Portsmouth Ave.		
Town/City: Stratham	State: NH	Zip Code: 03885
3. PROPERTY OWNER INFORMATION (IF DIFFERENT FROM APPLICANT)		
Applicant Name: Onyx Partners LTD	Contact Name: Anton Melchionda	
Email: anton@onyxpartnersltd.com	Daytime Telephone: 617-680-9308	
Mailing Address: 60 Center Street		
Town/City: Dover	State: MA	Zip Code: 02030
4. PROPERTY OWNER'S AGENT INFORMATION If none, check here: ☒		
Business Name:	Contact Name:	
Email:	Daytime Telephone:	
Address:		
Town/City:	State:	Zip Code:
5. CONSULTANT INFORMATION If none, check here: ☐		
Engineering Firm: Jones and Beach Engineers Inc.	Contact Name: Wayne Morrill	
Email: wmorrill@Jonesandbeach.com	Daytime Telephone: (603) 772-4746	
Address: 85 Portsmouth Ave.		
Town/City: Stratham	State: NH	Zip Code: 03885

6. PROJECT TYPE

☐ Excavation Only ☐ Residential ☒ Commercial ☐ Golf Course ☐ School ☐ Municipal
☐ Agricultural ☐ Land Conversion ☐ Other:

7. PROJECT LOCATION INFORMATION

Project Name: Raymond Distribution

Street/Road Address: Industrial Drive

Town/City: Raymond	County: Rockingham

Tax Map: 22 & 28	Block: 3	Lot Number: 44-47, 120-1	Unit: N/A

Location Coordinates: 43.031185, -71.18713 ☒ Latitude/Longitude ☐ UTM ☐ State Plane

Post-development, will the proposed project withdraw from or directly discharge to any of the following? If yes, identify the purpose.

1. Stream or Wetland Purpose: Drainage	☒ Yes ☐ No	☐ Withdrawal	☒ Discharge
2. Man-made pond created by impounding a stream or wetland Purpose:	☐ Yes ☒ No	☐ Withdrawal	☐ Discharge
3. Unlined pond dug into the water table Purpose:	☐ Yes ☒ No	☐ Withdrawal	☐ Discharge

Post-development, will the proposed project discharge to:

- A surface water impaired for phosphorus and/or nitrogen? ☒ No ☐ **Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen**
- A Class A surface water or Outstanding Resource Water? ☒ No ☐ **Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen**
- A lake or pond not covered previously? ☐ No ☒ **Yes - include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond**

Is the project a High Load area? ☒ Yes ☐ No
If yes, specify the type of high load land use or activity: Fleet storage

Is the project within a Water Supply Intake Protection Area (WSIPA)? ☐ Yes ☒ No
Is the project within a Groundwater Protection Area (GPA)? ☐ Yes ☒ No
Will the well setbacks identified in Env-Wq 1508.02 be met? ☒ Yes ☐ No

Note: Guidance document titled "*Using NHDES's OneStop WebGIS to Locate Protection Areas*" is available online. For more details on the restrictions in these areas, read Chapter 3.1 in Volume 2 of the NH Stormwater Manual.

Is any part of the property within the 100-year floodplain? ☐ Yes ☒ No
If yes: Cut volume: _____ cubic feet within the 100-year floodplain
Fill volume: _____ cubic feet within the 100-year floodplain

☒ Project **IS** within **¼ mile of a designated river** Name of River: Lamprey
☐ Project is **NOT** within ¼ mile of a designated river

☐ Project **IS** within **a Coastal/Great Bay Region community** - **include info required by Env-Wq 1503.08(l) if applicable**
☒ Project is **NOT** within a Coastal/Great Bay Region community

8. BRIEF PROJECT DESCRIPTION (PLEASE DO NOT REPLY "SEE ATTACHED")

This project creates a 12 acre building to serve as a distribution center. The distribution center will accommodate 158 loading docks, 244 trailer spaces, and 326 vehicle spaces.

9. IF APPLICABLE, DESCRIBE ANY WORK STARTED PRIOR TO RECEIVING PERMIT

10. ADDITIONAL REQUIRED INFORMATION

A. Date a copy of the application was sent to the municipality as required by Env-Wq 1503.05(e)[1]: 8/22/22.
(Attach proof of delivery)

B. Date a copy of the application was sent to the local river advisory committee if required by Env-Wq 1503.05(e)[2]: 8/22/22.
(Attach proof of delivery)

C. Type of plan required: ☒ Land Conversion ☐ Detailed Development ☐ Excavation, Grading & Reclamation ☐ Steep Slope

D. Additional plans required: ☐ Stormwater Drainage & Hydrologic Soil Groups ☐ Source Control ☐ Chloride Management

E. Total area of disturbance: 1,783,333± square feet

F. Additional impervious cover as a result of the project: 1,324,729 square feet (use the "-" symbol to indicate a net reduction in impervious coverage).
Total final impervious cover: 1,324,729 square feet

G. Total undisturbed cover: 4,055,802 square feet

H. Number of lots proposed: 5 existing lots

I. Total length of roadway: 2,764 linear feet

J. Name(s) of receiving water(s): Lamprey River

K. Identify all other NHDES permits required for the project, and for each indicate whether an application has been filed and is pending, or if the required approval has been issued provide the permit number, registration date, or approval letter number, as applicable.

Type of Approval	Application Filed?	Status	
		Pending	If Issued:
1. Water Supply Approval	☐ Yes ☒ No ☒ N/A	☐	Permit number:
2. Wetlands Permit	☒ Yes ☐ No ☐ N/A	☒	Permit number:
3. Shoreland Permit	☐ Yes ☒ No ☒ N/A	☐	Permit number:
4. UIC Registration	☐ Yes ☒ No ☒ N/A	☐	Registration date:
5. Large/Small Community Well Approval	☐ Yes ☒ No ☒ N/A	☐	Approval letter date:
6. Large Groundwater Withdrawal Permit	☐ Yes ☒ No ☒ N/A	☐	Permit number:
7. Other:	☐ Yes ☐ No	☐	Permit number:

L. List all species identified by the Natural Heritage Bureau as threatened or endangered or of concern: See NHB report

M. Using NHDES's Web GIS OneStop program (www2.des.state.nh.us/gis/onestop/), with the Surface Water Impairment layer turned on, list the impairments identified for each receiving water. If no pollutants are listed, enter "N/A."
N/A

N. Did the applicant/applicant's agent have a pre-application meeting with AOT staff? ☒ Yes ☐ No
If yes, name of staff member: Ridgely Mauck

O. Will blasting of bedrock be required? ☒ Yes ☐ No If yes, estimated quantity of blast rock: 750,000 cubic yards
If yes, standard blasting BMP notes must be placed on the plans, available at:
http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-10-12.pdf

NOTE: If greater than 5,000 cubic yards of blast rock will be generated, a groundwater monitoring program must be developed and submitted to NHDES. Contact AOT staff for additional detail.

[1] Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the governing body of each municipality in which the project is proposed.

[2] Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the Local River Advisory Committee, if the project is within ¼ mile of a designated river.

11. CHECK ALL APPLICATION ATTACHMENTS THAT APPLY (SUBMIT WITH APPLICATION IN ORDER LISTED)

LOOSE:

- ☒ Signed application form: des.nh.gov/organization/divisions/water/aot/index.htm (with attached proof(s) of delivery)
- ☒ Check for the application fee: des.nh.gov/organization/divisions/water/aot/fees.htm
- ☒ Color copy of a USGS map with the property boundaries outlined (1" = 2,000' scale)
- ☐ If Applicant is not the property owner, proof that the applicant will have a legal right to undertake the project on the property if a permit is issued to the applicant.

BIND IN A REPORT IN THE FOLLOWING ORDER:

- ☒ Copy of the signed application form & application checklist (des.nh.gov/organization/divisions/water/aot/index.htm)
- ☒ Copy of the check
- ☒ Copy of the USGS map with the property boundaries outlined (1" = 2,000' scale)
- ☒ Narrative of the project with a summary table of the peak discharge rate for the off-site discharge points
- ☒ Web GIS printout with the "Surface Water Impairments" layer turned on - http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
- ☒ Web GIS printouts with the AOT screening layers turned on - http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
- ☒ NHB letter using DataCheck Tool – www.nhdfl.org/about-forests-and-lands/bureaus/natural-heritage-bureau/
- ☒ The Web Soil Survey Map with project's watershed outlined – websoilsurvey.nrcs.usda.gov
- ☒ Aerial photograph (1" = 2,000' scale with the site boundaries outlined)
- ☐ Photographs representative of the site
- ☒ Groundwater Recharge Volume calculations (one worksheet for each permit application): des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
- ☒ BMP worksheets (one worksheet for each treatment system): des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
- ☒ Drainage analysis, stamped by a professional engineer (see Application Checklist for details)
- ☒ Riprap apron or other energy dissipation or stability calculations
- ☐ Site Specific Soil Survey report, stamped and with a certification note prepared by the soil scientist that the survey was done in accordance with the Site Specific Soil Mapping standards, *Site-Specific Soil Mapping Standards for NH & VT, SSSNNE Special Publication No. 3*.
- ☒ Infiltration Feasibility Report (example online) [Env-Wq 1503.08(f)(3)]
- ☒ Registration and Notification Form for Storm Water Infiltration to Groundwater (UIC Registration-for underground systems only, including drywells and trenches): (http://des.nh.gov/organization/divisions/water/dwgb/dwspp/gw_discharge)
- ☒ Inspection and maintenance manual with, if applicable, long term maintenance agreements [Env-Wq 1503.08(g)]
- ☒ Source control plan

PLANS:

- ☒ One set of design plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for details)
- ☒ Pre & post-development color coded soil plans on 11" x 17" (see Application Checklist for details)
- ☒ Pre & post-development drainage area plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for details)

100-YEAR FLOODPLAIN REPORT:

- ☐ All information required in Env-Wq 1503.09, submitted as a separate report.

ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE

- ☐ See Checklist for Details

☒ **REVIEW APPLICATION FOR COMPLETENESS & CONFIRM INFORMATION LISTED ON THE APPLICATION IS INCLUDED WITH SUBMITTAL.**

12. REQUIRED SIGNATURES

AM By initialing here, I acknowledge that I am required by Env-Wq 1503.20(e) to submit a copy of all approved documents to the department in PDF format on a CD within one week after permit approval.

By signing below, I certify that:

- The information contained in or otherwise submitted with this application is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the application, revoke any permit that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and
- I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

☒ **APPLICANT** ☐ **APPLICANT'S AGENT:**

Signature: _____ Date: 8/9/22

Name (print or type): Anton Melchionda Title: Owner

☒ PROPERTY OWNER ☐ PROPERTY OWNER'S AGENT:

Signature: _____ Date: 8/9/22

Name (print or type): Anton Melchionda Title: Owner

ATTACHMENT A:
ALTERATION OF TERRAIN PERMIT APPLICATION CHECKLIST

Check the box to indicate the item has been provided or provide an explanation why the item does not apply.

DESIGN PLANS

☒ Plans printed on 34 - 36" by 22 - 24" white paper

☒ PE stamp

☒ Wetland delineation

☒ Temporary erosion control measures

☒ Treatment for all stormwater runoff from impervious surfaces such as roadways (including gravel roadways), parking areas, and non-residential roof runoff. Guidance on treatment BMPs can be found in Volume 2, Chapter 4 of the NH Stormwater Management Manual.

☒ Pre-existing 2-foot contours

☒ Proposed 2-foot contours

☐ Drainage easements protecting the drainage/treatment structures All treatment structures will be owned and operated by land owner.

☒ Compliance with the Wetlands Bureau, RSA 482- A http://des.nh.gov/organization/divisions/water/wetlands/index.htm. Note that artificial detention in wetlands is not allowed.

☒ Compliance with the Comprehensive Shoreland Protection Act, RSA 483-B. http://des.nh.gov/organization/divisions/water/wetlands/cspa

☐ Benches. Benching is needed if you have more than 20 feet change in elevation on a 2:1 slope, 30 feet change in elevation on a 3:1 slope, 40 feet change in elevation on a 4:1 slope. Proposed engineered slopes to be utilized, cut areas to sides and rear of building are anticipated to be bedrock.

☒ Check to see if any proposed ponds need state Dam permits. http://des.nh.gov/organization/divisions/water/dam/documents/damdef.pdf

DETAILS

☒ Typical roadway x-section

☒ Detention basin with inverts noted on the outlet structure

☒ Stone berm level spreader

☒ Outlet protection – riprap aprons

☒ A general installation detail for an erosion control blanket

☒ Silt fences or mulch berm

☒ Storm drain inlet protection. Note that since hay bales must be embedded 4 inches into the ground, they are not to be used on hard surfaces such as pavement.

☒ Hay bale barriers

☒ Stone check dams

☒ Gravel construction exit

☒ Temporary sediment trap

☒ The treatment BMP's proposed

☒ Any innovative BMP's proposed

CONSTRUCTION SEQUENCE/EROSION CONTROL

☒ Note that the project is to be managed in a manner that meets the requirements and intent of RSA 430:53 and Chapter Agr 3800 relative to invasive species.

☒ Note that perimeter controls shall be installed prior to earth moving operations.

☒ Note that temporary water diversion (swales, basins, etc) must be used as necessary until areas are stabilized.

☒ Note that ponds and swales shall be installed early on in the construction sequence (before rough grading the site).

☒ Note that all ditches and swales shall be stabilized prior to directing runoff to them.

☒ Note that all roadways and parking lots shall be stabilized within 72 hours of achieving finished grade.

☒ Note that all cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade

☒ Note that all erosion controls shall be inspected weekly AND after every half-inch of rainfall.

☐ Note the limits on the open area allowed, see Env-Wq 1505.02 for detailed information.

Example note: The smallest practical area shall be disturbed during construction, but in no case shall exceed 5 acres at any one time before disturbed areas are stabilized.

Environmental monitoring proposed due to disturbance over 5 acres.

☒ Note the definition of the word "stable"

Example note: An area shall be considered stable if one of the following has occurred:

- Base course gravels have been installed in areas to be paved.
- A minimum of 85 percent vegetated growth has been established.
- A minimum of 3 inches of non-erosive material such stone or riprap has been installed.
- Or, erosion control blankets have been properly installed.

☒ Note the limit of time an area may be exposed
Example note: All areas shall be stabilized within 45 days of initial disturbance.

☒ Provide temporary and permanent seeding specifications. (Reed canary grass is listed in the Green Book; however, this is a problematic species according to the Wetlands Bureau and therefore should not be specified)

☒ Provide winter construction notes that meet or exceed our standards.

Standard Winter Notes:

- All proposed vegetated areas that do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting, elsewhere. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events.
- All ditches or swales which do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions.
- After October 15, incomplete road or parking surfaces, where work has stopped for the winter season, shall be protected with a minimum of 3 inches of crushed gravel per NHDOT item 304.3.

☒ Note at the end of the construction sequence that "Lot disturbance, other than that shown on the approved plans, shall not commence until after the roadway has the base course to design elevation and the associated drainage is complete and stable." – This note is applicable to single/duplex family subdivisions, when lot development is not part of the permit.

DRAINAGE ANALYSES

Please double-side 8 ½" × 11" sheets where possible but, **do not** reduce the text such that more than one page fits on one side.

☒ PE stamp

☒ Rainfall amount obtained from the Northeast Regional Climate Center- http://precip.eas.cornell.edu/. Include extreme precipitation table as obtained from the above referenced website.

☒ Drainage analyses, in the following order:

- Pre-development analysis: Drainage diagram.
- Pre-development analysis: Area Listing and Soil Listing.
- Pre-development analysis: Node listing 1-year (if applicable), 2-year, 10-year and 50-year.
- Pre-development analysis: Full summary of the 10-year storm.
- Post-development analysis: Drainage diagram.
- Post-development analysis: Area Listing and Soil Listing.
- Post-development analysis: Node listing for the 2-year, 10-year and 50-year.
- Post-development analysis: Full summary of the 10-year storm.

☒ Review the Area Listing and Soil Listing reports

- Hydrologic soil groups (HSG) match the HSGs on the soil maps provided.
- There is the same or less HSG A soil area after development (check for each HSG).
- There is the same or less "woods" cover in the post-development.
- Undeveloped land was assumed to be in "good" condition.
- The amount of impervious cover in the analyses is correct.

Note: A good check is to subtract the total impervious area used in the pre analysis from the total impervious area used in the post-analysis. For residential projects without demolition occurring, a good check is to take this change in impervious area, subtract out the roadway and divide the remaining by the number of houses/units proposed. Do these numbers make sense?

☒ Check the storage input used to model the ponds.

☒ Check to see if the artificial berms pass the 50-year storm, i.e., make sure the constructed berms on ponds are not overtopped.

☒ Check the outlet structure proposed and make sure it matches that modeled.

☒ Check to see if the total areas in the pre and post analyses are same.

☒ Confirm the correct NRCS storm type was modeled (Coos, Carroll & Grafton counties are Type II, all others Type III).

.

PRE- AND POST-DEVELOPMENT DRAINAGE AREA PLANS

☒ Plans printed on 34 - 36" by 22 - 24" on white paper.

☒ Submit these plans separate from the soil plans.

☒ A north arrow.

☒ A scale.

☒ Labeled subcatchments, reaches and ponds.

☒ Tc lines.

☒ A clear delineation of the subcatchment boundaries.

☒ Roadway station numbers.

☒ Culverts and other conveyance structures.

PRE AND POST-DEVELOPMENT COLOR-CODED SOIL PLANS

☒ 11" × 17"sheets suitable, as long as it is readable.

☒ Submit these plans separate from the drainage area plans.

☒ A north arrow.

☒ A scale.

☒ Name of the soil scientist who performed the survey and date the soil survey took place.

☒ 2-foot contours (5-foot contours if application is for a gravel pit) as well as other surveyed features.

☒ Delineation of the soil boundaries and wetland boundaries.

☒ Delineation of the subcatchment boundaries.

☒ Soil series symbols (e.g., 26).

☒ A key or legend which identifies each soil series symbol and its associated soil series name (e.g., 26 = Windsor).

☒ The hydrologic soil group color coding (A = Green, B = yellow, C= orange, D=red, Water=blue, & Impervious = gray).

Please note that excavation projects (e.g., gravel pits) have similar requirements to that above, however the following are common exceptions/additions:

☐ Drainage report is not needed if site does not have off-site flow.

☐ 5 foot contours allowed rather than 2 foot.

☐ No PE stamp needed on the plans.

☐ Add a note to the plans that the applicant must submit to the Department of Environmental Services a written update of the project and revised plans documenting the project status every five years from the date of the Alteration of Terrain permit.

☐ Add reclamation notes.

See NRCS publication titled: *Vegetating New Hampshire Sand and Gravel Pits* for a good resource, it is posted online at: http://des.nh.gov/organization/divisions/water/aot/categories/publications.

ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE

☐ If project will discharge stormwater to a surface water impaired for phosphorus and/or nitrogen, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.

☐ If project will discharge stormwater to a Class A surface water or Outstanding Resource Water, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.

☐ If project will discharge stormwater to a lake or pond not covered previously, include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond.

☐ If project is within a Coastal/Great Bay Region community, include info required by Env-Wq 1503.08(l) if applicable.

CALMS LLC
60 CENTRE ST
DOVER, MA 02030

1017

53-7353/2113
17234

CHECK ARMOR FRAUD PROTECTION

DATE 8/15/22

PAY TO THE ORDER OF TREASURER STATE OF NEW HAMPSHIRE $ 21,875.00

TWENTY ONE THOUSAND EIGHT HUNDRED SEVENTY FIVE 00/100 DOLLARS

Photo Safe Deposit® Details on back

NB NeedhamBank

FOR AOT PERMIT APPLICATION FEE

Aaron K Hinchliffe MP

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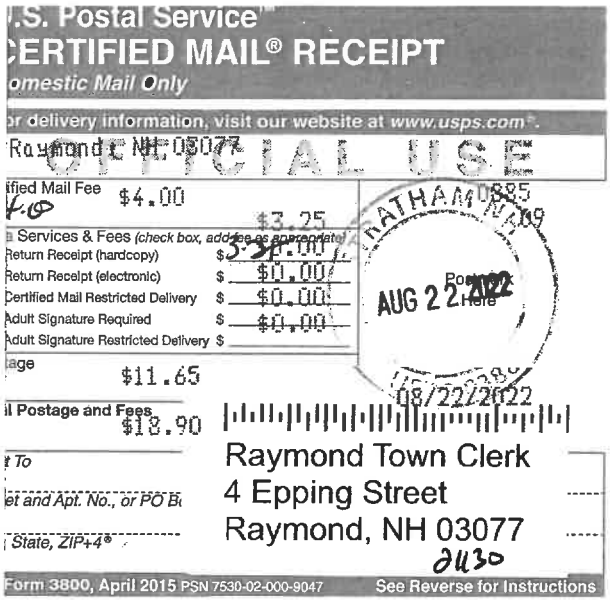

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7021 0350 0001 4944 4044

5. EXECUTIVE SUMMARY

This project proposes to construct an industrial building in the Town of Raymond Tax Map 22, Lots 44, 45, 46, 47, and Tax Map 28, Block 3, Lot 120-1.
. Two models were compiled, one for the area in its existing (pre-development) condition, and a second for its proposed (post-development) condition. The analysis was conducted using the USDA SCS TR-20 method within the HydroCAD Stormwater Modeling System environment. A summary of the existing and proposed conditions peak rates of runoff is as follows:

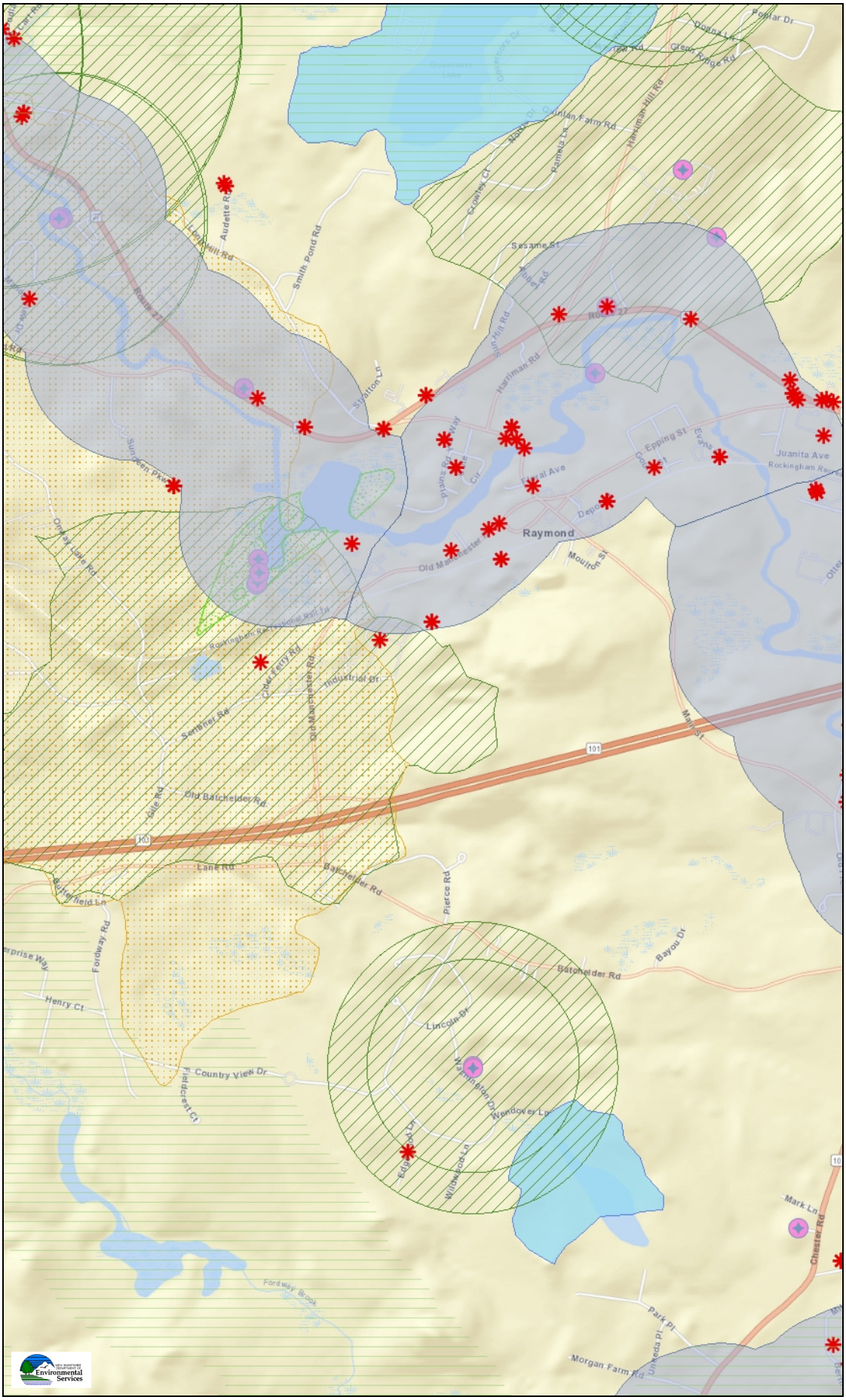
PEAK RATE OF RUNOFF (CUBIC FEET/SECOND)								
Analysis Point	2-Year		10-Year		25-Year		50-Year	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
AP #1	9.31	5.60	29.84	19.22	49.86	32.74	70.49	50.61
AP #2	5.28	4.23	25.01	19.57	50.60	39.99	80.14	63.33

The drainage design intent for this site is to maintain the post-development peak flow to the pre-development peak flow conditions to the extent practicable and to effectively treat stormwater from the development of this project. This has been accomplished through the use of one (3) above ground infiltration basins. Two (2) Subsurface Infiltration / Detention Systems, and (4) tree well treatment systems to maintain the peak discharge, and treat and infiltrate stormwater.

In addition, the potential for increased erosion and sedimentation is handled by way of erosion control blankets, vegetated swales, sedimentation sumps, and riprap inlet and outlet protection aprons. The use of Best Management Practices per the NHDES Stormwater Manual have been applied to the design of this drainage system and will be observed during all stages of construction. Existing wetlands and abutting property owners will suffer minimal impact resultant from this development.

This project complies with Env-Wq 1507.05 Channel Protection Requirements by meeting criteria 1507.05(b)(1)(a). Per these criteria the 2-year, 24-hour pre-development peak flow rate total (14.59 cfs) is greater than the 2-year, 24-hour post-development peak flow rate (9.83 cfs), and the post-development storm volume (3.300 acre-ft) does not increase over 0.1 acre-ft from the pre-development storm volume (4.7.35 acre-ft).

JBE21130 AOT Screening Layers



Legend

- Surface Waters with Impairm 2016 with Quarter Mile Buffe
- Remediation Sites
- Coastal and Great Bay Regi Communities
- Designated Rivers Quarterm Buffer
- Public Water Supply Wells
- Groundwater Classification / GA1
- Groundwater Classification / GA2
- Water Supply Intake Protect Areas
- Wellhead Protection Areas
- Class A Lakes with a Quarte Buffer
- Class A - All Features
- All Lakes, with a Quarter Mil Buffer
- Outstanding Resource Wate Watersheds
- Watersheds with Chloride Impairments 2016

Map Scale

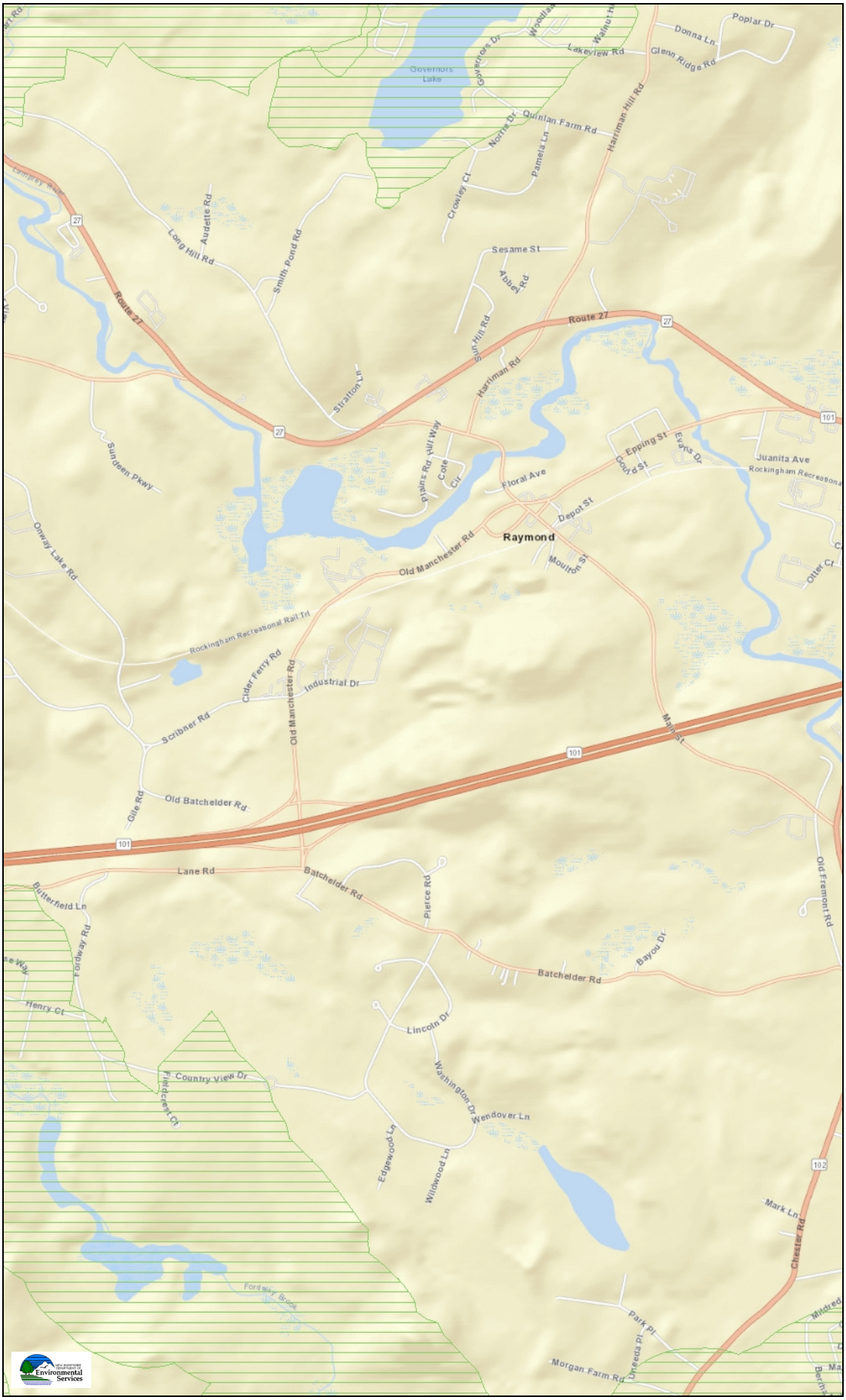
1: 24,000

© NH DES, http://des.nh.gov

Map Generated: 8/15/2022

Notes

JBE21130 SW Impairments



Legend

Surface Waters with Impairn
2016 with Quarter Mile Buffe

Map Scale

1: 24,000

© NH DES, http://des.nh.gov

Map Generated: 8/15/2022

Notes

No impairments within project site.

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

To: Luke Hurley, Gove Environmental Services, Inc.
8 Continental Drive
Exeter, NH 03833

From: Jessica Bouchard, NH Natural Heritage Bureau
Date: 9/29/2021 (valid until 09/29/2022)
Re: Review by NH Natural Heritage Bureau
Permits: NHDES - Alteration of Terrain Permit, NHDES - Wetland Standard Dredge & Fill - Major

NHB ID: **NHB21-3049** Town: Raymond Location: Industrial Drive
Description: The proposed project is for a warehouse facility with associated access roads/driveways, parking and loading docks.
cc: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments **NHB: No Comments At This Time**
F&G: Please conduct a preliminary vernal pool survey this fall. Please check for evidence of hatched or predated turtle nests in exposed mineral soils before freeze up. Please submit AoT-related documents for NHFG review, AoT review inquiries or wildlife biologist questions to NHFGreview@wildlife.nh.gov. If project related: Include the NHB datacheck results letter number (i.e. NHB21-3049) in the email subject line at a minimum. Not including this number will affect our response time and delays of our review. Please include the NHB number in the title of the assessment along with a date (year,month,day).

Vertebrate species	State[1]	Federal	Notes
Blanding's Turtle (*Emydoidea blandingii*)	E	--	Contact the NH Fish & Game Dept (see below).
Northern Black Racer (*Coluber constrictor constrictor*)	T	--	Contact the NH Fish & Game Dept (see below).
Spotted Turtle (*Clemmys guttata*)	T	--	Contact the NH Fish & Game Dept (see below).
Wood Turtle (*Glyptemys insculpta*)	SC	--	Contact the NH Fish & Game Dept (see below).

[1]Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

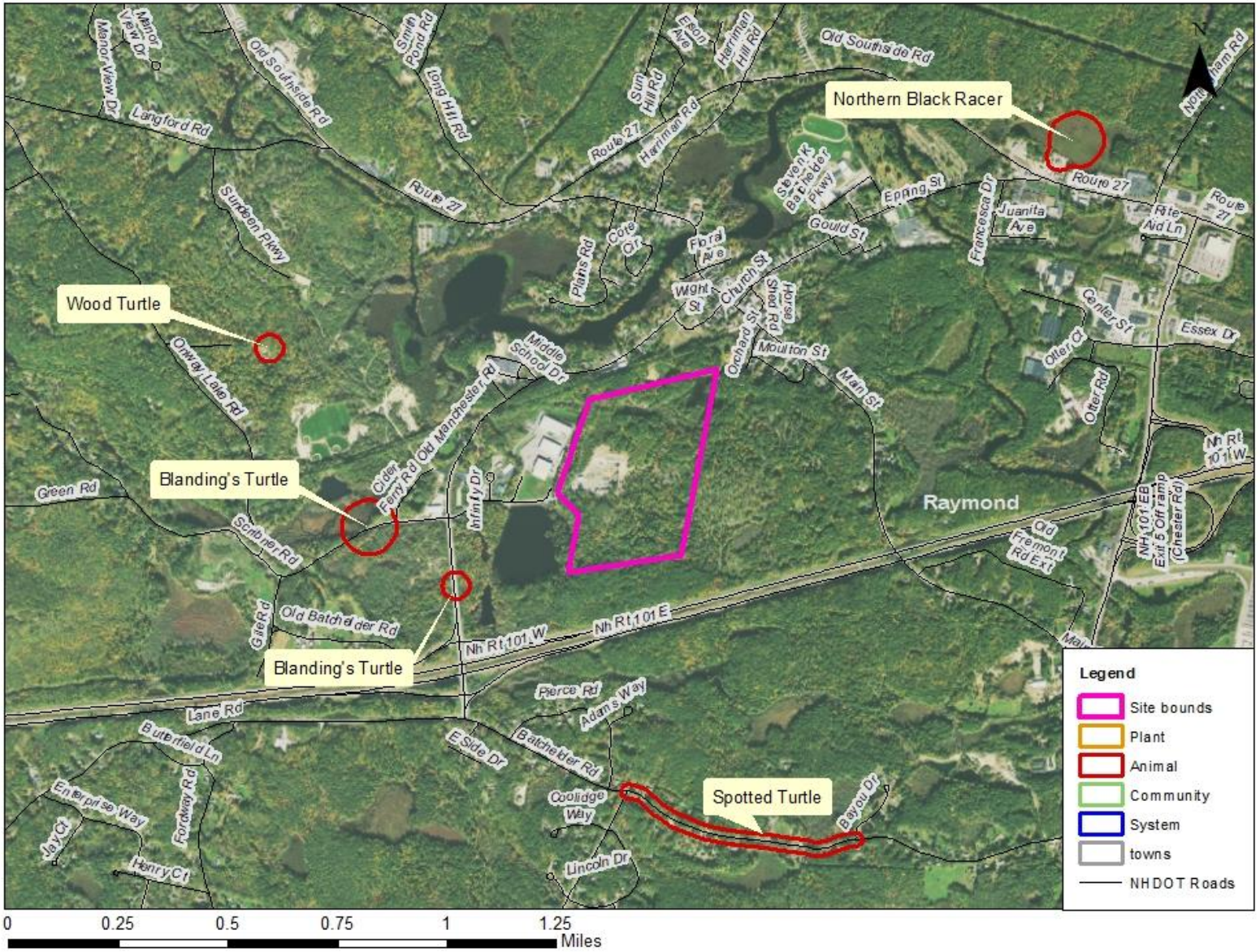
A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB21-3049



New Hampshire Natural Heritage Bureau - Animal Record

Blanding's Turtle (*Emydoidea blandingii*)

Legal Status	Conservation Status
Federal: Not listed	Global: Apparently secure but with cause for concern
State: Listed Endangered	State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2008: Area 11564: 1 adult male seen.
General Area: --
General Comments: --
Management Comments: --

Location

Survey Site Name: Rattlesnake Hill, east of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 7.7 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2008: Area 11564: Exit 4 off Route 101. Approx 1/4 mile down Scribner Road, where Lamprey comes close to road.

Dates documented

First reported: 2008-05-20 Last reported: 2008-05-20

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Blanding's Turtle (*Emydoidea blandingii*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Apparently secure but with cause for concern
State:	Listed Endangered	State:	Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2017: Area 14399: 1 adult observed, sex unknown.
General Area: 2017: Area 14399: Roadside. Forest on either side of road.
General Comments: --
Management Comments: --

Location

Survey Site Name: Rattlesnake Hill, east of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 1.9 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2017: Area 14399: Old Manchester Road, Raymond, between the Safety Complex and the Exit 4 ramp. Right by the Route 101 sign.

Dates documented

First reported:	2017-05-31	Last reported:	2017-05-31

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Northern Black Racer (*Coluber constrictor constrictor*)

Legal Status	Conservation Status
Federal: Not listed	Global: Demonstrably widespread, abundant, and secure
State: Listed Threatened	State: Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank:	Not ranked
Comments on Rank:	--
Detailed Description:	2012: Area 12799M: 1 adult observed. 2010: Area 12799M: 1 adult observed. 1993: Area 11938M: 2 observed. 1992: Area 11940: 1 observed. 1991: Area 11938M: 6 eggs found and collected. 2 hatched and released at original location on 8/23.
General Area:	2010: Area 12799M: Mixed forest. 1993: Area 11938M: Old sawmill site behind town shed. 1992: Area 11940: Swamp. 1991: Area 11938M: Sunny, sandy conditions adjacent to swamp. Under old plywood.
General Comments:	--
Management Comments:	--

Location

Survey Site Name: Flint Hill, south of
Managed By:

County: Rockingham
Town(s): Raymond
Size: 10.3 acres Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2010: Area 12799M: 8 Sherwood Drive, Raymond. 1992: Area 11940: Swamp behind Raymond town shed. 1991: Area 11938M: Old sawmill site behind Raymond town shed [Rte. 27/107 in Raymond across from intersection with Epping St.]

Dates documented

First reported: 1991-06-26 Last reported: 2012-04-16

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Spotted Turtle (*Clemmys guttata*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Demonstrably widespread, abundant, and secure
State:	Listed Threatened	State:	Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank: --

Detailed Description: 2007: Area 11749: 1 adult female seen, about 5".
General Area: --
General Comments: --
Management Comments: --

Location

Survey Site Name: Batchelder Road, Raymond
Managed By:

County: Rockingham
Town(s): Raymond
Size: 11.4 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2007: Area 11749: Batchelder Road, unknown exact location.

Dates documented

First reported:	2007-07-22	Last reported:	2007-07-22

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Animal Record

Wood Turtle (*Glyptemys insculpta*)

Legal Status		Conservation Status	
Federal:	Not listed	Global:	Rare or uncommon
State:	Special Concern	State:	Rare or uncommon

Description at this Location

Conservation Rank: Not ranked
Comments on Rank: --

Detailed Description: 2021: Area 14704: 1 adult observed, sex unknown.
General Area: 2021: Area 14704: Sports field complex surrounded by forest and wetlands.
General Comments: --
Management Comments: --

Location

Survey Site Name: Lamprey River, Raymond
Managed By:

County: Rockingham
Town(s): Raymond
Size: 1.9 acres
Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: 2021: Area 14704: Riverside Park, Raymond.

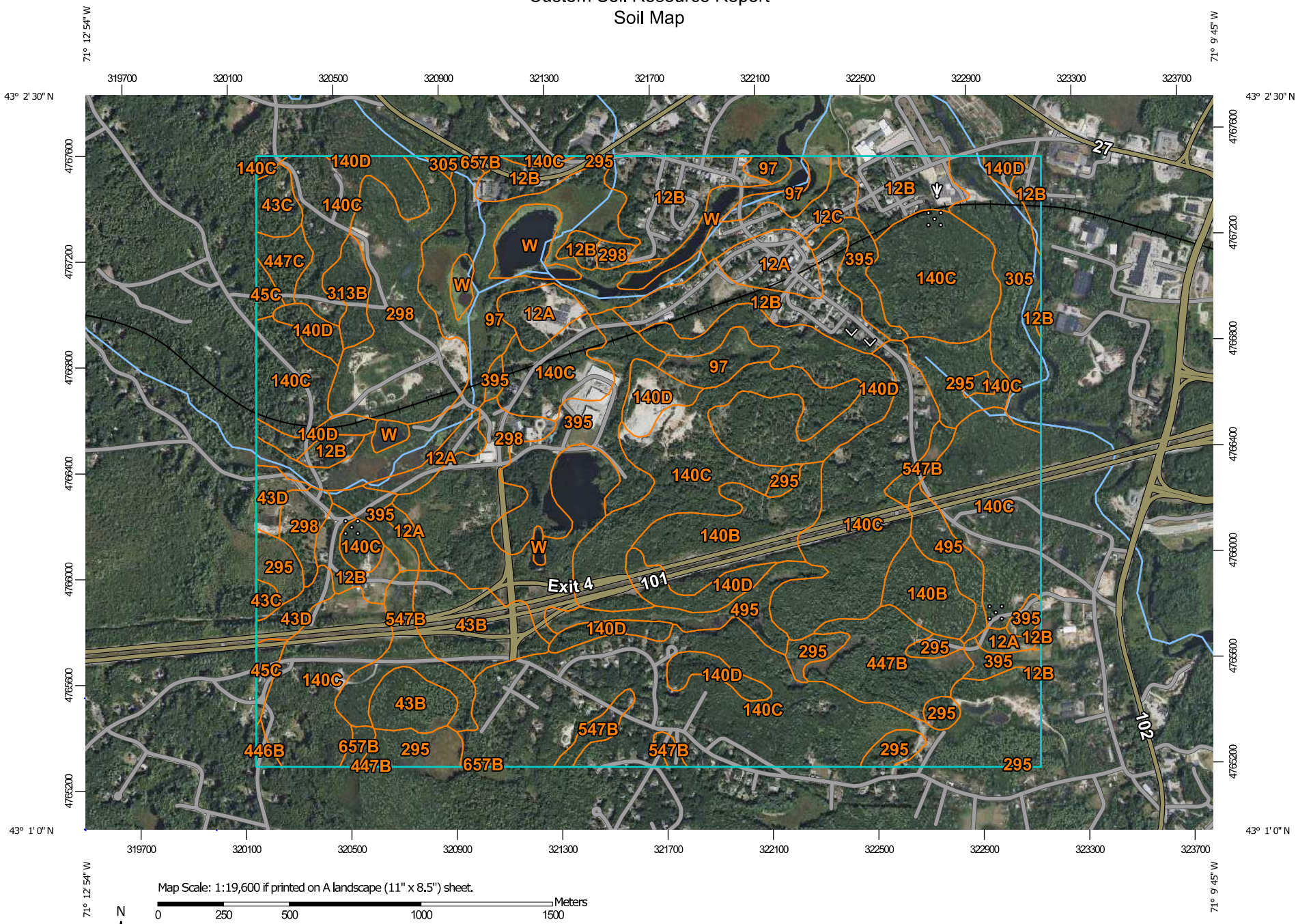
Dates documented

First reported:	2021-05-23	Last reported:	2021-05-23

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

CONFIDENTIAL – NH Dept. of Environmental Services review

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockingham County, New Hampshire
Survey Area Data: Version 22, May 29, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 13, 2020—Sep 15, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12A	Hinckley loamy sand, 0 to 3 percent slopes	47.5	2.8%
12B	Hinckley loamy sand, 3 to 8 percent slopes	136.7	8.0%
12C	Hinckley loamy sand, 8 to 15 percent slopes	16.7	1.0%
43B	Canton fine sandy loam, 0 to 8 percent slopes, very stony	47.7	2.8%
43C	Canton fine sandy loam, 8 to 15 percent slopes, very stony	11.7	0.7%
43D	Canton fine sandy loam, 15 to 25 percent slopes, very stony	15.5	0.9%
45C	Montauk fine sandy loam, 8 to 15 percent slopes, very stony	8.2	0.5%
97	Freetown and Natchaug mucky peats, ponded, 0 to 2 percent slopes	120.0	7.0%
140B	Chatfield-Hollis-Canton complex, 0 to 8 percent slopes, rocky	63.5	3.7%
140C	Chatfield-Hollis-Canton complex, 8 to 15 percent slopes, rocky	588.2	34.5%
140D	Chatfield-Hollis-Canton complex, 15 to 35 percent slopes, rocky	119.0	7.0%
295	Freetown mucky peat, 0 to 2 percent slopes	62.0	3.6%
298	Pits, sand and gravel	167.1	9.8%
305	Lim-Pootatuck complex	44.4	2.6%
313B	Deerfield loamy fine sand, 3 to 8 percent slopes	11.6	0.7%
395	Swansea mucky peat, 0 to 2 percent slopes	80.8	4.7%
446B	Scituate-Newfields complex, 3 to 8 percent slopes	2.2	0.1%
447B	Scituate-Newfields complex, 3 to 8 percent slopes, very stony	36.0	2.1%
447C	Scituate-Newfields complex, 8 to 15 percent slopes, very stony	9.2	0.5%
495	Natchaug mucky peat, 0 to 2 percent slopes	36.0	2.1%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
547B	Walpole very fine sandy loam, 3 to 8 percent slopes, very stony	40.5	2.4%
657B	Ridgebury fine sandy loam, 3 to 8 percent slopes, very stony	4.4	0.3%
W	Water	36.4	2.1%
Totals for Area of Interest		**1,705.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Google Maps

Imagery ©2022 CNES / Airbus, Landsat / Copernicus, MassGIS, Commonwealth of Massachusetts EOEA, Maxar Technologies, USDA/FPAC/GEO, Map data ©2022

2000 ft

Representative Photographs of Site

Raymond Distribution Center (JBE21130)

Figure 1: View of existing gravel pit

Figure 2: View of site entrance from Industrial Drive, showing Raymond Pond (AP1)

Figure 3: Beaver dam modeled as reach 2

Figure 4: Beaver dam modeled as reach 2

Figure 5: View of analysis point 2 (AP2) adjacent to existing rail trail

Figure 6: Wooded terrain typical of majority of site

14. DRAINAGE ANALYSIS

14.1 INTRODUCTION

This project proposes to construct an industrial building in the Town of Raymond Tax Map 22, Lots 44, 45, 46, 47, and Tax Map 28, Block 3, Lot 120-1.

14.2 METHODOLOGY

The existing and proposed watersheds were modeled utilizing HydroCad stormwater software, version 9.10. The watersheds were analyzed utilizing the SCS TR-20 methodology for hydrograph development and the TR-55 methodology for Time of Concentration (Tc) determination. The Dynamic-Storage-Indicating method for reach and pond routing was utilized. Type III, 24-hour hydrographs were developed for the 2-year, 10-year, 25-year, and 50-year corresponding to rainfall events of 3.20", 4.88" 6.22", 7.48", respectively.

Existing topography and site features were obtained through on-ground topography completed by Jones & Beach Engineers. Existing soil conditions were derived from NRCS Web Soil Survey and a soil survey conducted by Gove Environmental Inc.

14.3 EXISTING CONDITIONS ANALYSIS

The study area consists of the subject property and upstream contributing area. The study area consists of 116.330± acres including offsite contributing areas. The existing site is currently partially developed with an active rock quarry, with the remaining area covered by wooded terrain. Half of the site drains North across the site through these wooded areas to the rear of the site to an existing wetland system. The remaining area drains Southwest through an existing wetland system along Southwest side of the rock quarry. Both analysis points drain into the Lamprey River.

Soils on site are described as Hydrological Soils "A", "B", "C, and D" soils.

Two (2) Analysis Points (AP) were defined for this project. Analysis Points are described as below:

Analysis Point #1 is an existing pond to the Southwest of the project. This analysis point receives runoff from the south side of the project site, abutting properties, and woodland/grassland areas on site. This analysis point also included the majority of the rock quarry operation. This stormwater drains south though the property to the existing wetland system, this wetland system then discharges to Analysis Point #1. This is assessed as the edge of the existing point.

Analysis Point #2 is an existing box culvert to the Northwest of the project within an old railroad bed. This analysis point receives runoff from a large portion of the project area, abutting properties, and woodland/grassland areas on site. This stormwater drains West though the property to the existing wetland system. This wetland then drains into an existing ponding area. This pond then discharges into another wetland system, down to the existing box culvert.

14.4 PROPOSED CONDITIONS ANALYSIS

This project proposes to construct a 550,025 S.F. industrial building in the Town of Raymond Tax Map 22, Lots 44, 45, 46, 47, and Tax Map 28, Block 3, Lot 120-1.

The addition of the proposed impervious paved areas and buildings causes an increase in the curve number (C_n) and a decrease in the time of concentration (T_c), the net result being a potential increase in peak rates of runoff from the site. To mitigate the potential increase in the peak rate of runoff and to effectively treat the subsequent stormwater runoff the following Best Management Practices (BMP's) have been employed at the Analysis Points as follows:

Analysis Point #1 – Several Drainage systems were added to the proposed design to mitigate peak runoff and provide stormwater treatment to Analysis Point #1. The South and East sides of the truck parking area is directed towards a proposed infiltration pond #1. The area includes pavement and grass areas. Stormwater is collected via a closed drainage system and then discharges into a proposed forebay. The stormwater then discharges over a weir to the infiltration basin which then discharges into the existing wetland system.

A section of the driveway on the west side of the project and a section of the driveway on the south side of the project is directed towards a proposed infiltration pond #5. The area includes pavement and grass areas. Stormwater is collected via a closed drainage system and then discharges into a proposed forebay. The stormwater then discharges over a weir to the infiltration basin which then discharges into the existing wetland system. This then flows through an existing box culvert under the driveway entrance. This flow then travels though an existing wetland system to Analysis Point #1.

Tree Wells #1 & #2 are located at the entrance of the project. These systems provide treatment to the remaining proposed pavement at the entrance area and then discharge to Analysis Point #1.

Analysis Point #2 – Several Drainage systems were added to the proposed design to mitigate peak runoff and provide stormwater treatment to Analysis Point #2. The North and East sides of the truck parking area is directed towards a proposed infiltration pond #2. The area includes pavement and grass areas. Stormwater is collected via a closed drainage system and then discharges into a proposed forebay. The stormwater then discharges over a weir to the infiltration basin which then discharges into the existing wetland pond system. This then discharges though a wetland system to Analysis Point #2.

The Westerly car parking area and the South side of the truck parking area is directed towards a proposed subsurface infiltration pond #4. This pond is a Storm Tech MC4500 chamber system. The area includes pavement and grass areas. Stormwater is collected via a closed drainage system and then discharges into two isolation rows for pretreatment. The stormwater then discharges over a weir to the infiltration basin which then discharges into a proposed infiltration / Detention Stone subsurface pond. This then discharges to an existing wetland system to Analysis Point #2.

The roof runoff is directed via a closed drainage system to perforated corrugated metal pipe to provide pretreatment. This flow then discharges towards an Infiltration / Detention Stone Subsurface Pond #3. This pond will consist of clean crushed stone that will be graded in order to provide 40% void space for detention. Stormwater is collected via a closed drainage system and then discharges into the pond. The stormwater will be distributed though the stone with a network of 12" HDPE perforated pipe. The stormwater then discharges to an existing wetland system to Analysis Point #2.

Tree Wells #3 & #4 are located at the entrance of the project. These systems provide treatment to the remaining proposed pavement at the entrance area and then discharge to Analysis Point #2.

14.5 CONCLUSION

The proposed site development will have minimal adverse effect on abutting infrastructures or properties by way of stormwater runoff or siltation if properly constructed in accordance with this Drainage Analysis and approved project plan set. The post-construction peak rates of runoff for the site will be lower than or equal to the existing conditions for all analyzed storm events. Appropriate steps will be taken to control erosion and sedimentation; these will be accomplished through the construction of a drainage system consisting of site grading, catch basins with sedimentation sumps, jute matting, swales, infiltration basin, and riprap outlet protection aprons. The use of Best Management Practices developed by the State of New Hampshire have been utilized in the design of this system and their application will be enforced with regular inspections throughout the construction process.

Respectfully Submitted,
JONES & BEACH ENGINEERS, INC.

Erik Poulin, P.E.
Project Manager

SITE-SPECIFIC SOIL SURVEY REPORT
For
Industrial Drive, Raymond

1. MAPPING STANDARDS

Site-Specific Soil Mapping Standards for New Hampshire and Vermont. SSSNNE Special Publication No. 3, Version 5.0, December 2017. This map product is within the technical standards of the National Cooperative Soil Survey. It is a special product, intended for the submission to NH DES Alteration of Terrain. It was produced by a professional soil scientist and is not a product of the USDA Natural Resource Conservation Service.

Hydrologic Soil Group was determined using SSSNNE Special Publication No. 5.
Scale of soil map:
Approximately 1" equals
Contours:
Intervals of 2 feet

2. DATE SOIL MAP PRODUCED

Date(s) of on-site field work: 5/11/22
Date(s) of test pits: 12/20/21
Test pits recorded by: Wayne Morrill, JBE, Inc..

3. GEOGRAPHIC LOCATION AND SIZE OF SITE

City or town where soil mapping was conducted: Raymond
Location: Industrial Drive
Size of area: approximately 80 acres
Was the map for the entire lot? Yes
If no, where was the mapping conducted on the parcel:

4. PURPOSE OF THE SOIL MAP

Was the map prepared to meet the requirement of Alteration of Terrain? Yes
If no, what was the purpose of the map? NHAoT
Who was the map prepared for? JBE Inc.

5. SOIL IDENTIFICATION LEGEND

SSSM SYM.	SSS MAP NAME	HISS SYM.	HYDROLOGIC SOIL GRP.
42	Canton	221	B
135	Chatfield Variant Newfields Comp	328	B
444/445	Newfields/Newfields v Stony	321/328	B
447	Scituate Newfields Complex	323	C
86	Hollis	224	C
400hafde	Udorthents sandy/gravelly	766	A/C
656/P	Walpole Poorly Drained	523	C
115/VP	Ridgebury Poorly Drained V Stony	528	C

SLOPE PHASE:
0-8% B 8-15% C 15-25% D 25%+ E

6. SOIL MAP UNIT DESCRIPTIONS HISS Hydrologic Soil Group

42 Canton 221 B

The Canton series consists of very deep, well drained soils formed in a loamy mantle underlain by sandy till. They are on nearly level to very steep moraines, hills, and ridges. Slope ranges from 0 to 45 percent. Saturated hydraulic conductivity is moderately high or high in the solum and high or very high in the substratum. These soils are found on site in the higher reaches on the southern side of the existing quarry in sporadic areas. These soils are dominated by sandy loam in the upper layers and underlain by sand and gravel in the lower layers. No ESHWT was encountered within 40", nor was any significant ledge encountered.

135 Chatfield Variant Newfields Complex 328 B

The Chatfield Variant Newfields complex series consists of moderately well drained soils formed in loamy melt-out till. They are moderately deep to bedrock. They are nearly level to very steep soils on bedrock-controlled hills and ridges. Slope ranges from 0 to 70 percent. Crystalline bedrock is at depths of 50 to 100 cm. Saturated hydraulic conductivity is moderately high or high in the mineral soil. The Newfields component of this complex represents well drained soils with sandy loam material and an ESHWT between 15-40 inches. These soils are found on the rear portion of the site on the side slopes.

444/445 Newfields/Newfields V Stony 321 B

The Newfields series consists of very deep, moderately well drained soils formed in a loamy mantle underlain by sandy till on upland hills, moraines, till plains, and mountain side slopes. Saturated hydraulic conductivity is moderately high to very high. These soils are found on the site on the low lying areas of the site on both the east and western sides of the site. These are in the lower and mid slopes. ESHWT is between 15-40" and no significant ledge was encountered. However significant stones were found through the stony phase areas..

447 Scituate-Newfields Complex 323 C

The Scituate series consists of moderately well drained soils formed in a loamy eolian influenced mantle of till underlain by sandy lodgement till. The soils are very deep to bedrock and moderately deep to a densic contact. They are nearly level through moderately steep soils on glaciated uplands. Saturated hydraulic conductivity is moderately high or high in the solum and moderately low or moderately high in the substratum. The Newfields series consists of very deep, moderately well drained soils formed in a loamy mantle underlain by sandy till on upland hills, moraines, till plains, and mountain side slopes. Saturated hydraulic conductivity is moderately high to very high. Slope ranges from 0 through 25 percent. The scituate soil type is the driving factor in this complex. These soils have a mineral restrictive layer in the C layer. These soils are found over all on the site in the lower areas along the edge of the pit with an ESHWT between 15-40"

86 Hollis 223 C

The Hollis series consists of well drained and somewhat excessively drained soils formed in a thin mantle of till. They are shallow to bedrock. They are nearly level to very steep upland soils on bedrock-controlled hills and ridges. Slope ranges from 0 through 60 percent. Saturated hydraulic conductivity is moderately high or high. These soils have a typical profile of fine sandy loam over gravelly sand. Bedrock is present within 20 inches of the soil surface.

400hafde Udorthents sandy/gravelly 766 A/C
These soils are found in the area of the open quarry. These soils represent areas of active quarry excavation and open level, flat and/or excavated areas. Some areas are open and have an HSG of c because of their shallow depth to ESHWT and other areas are HSG a, as they are higher, excavated areas with no ESHWT encountered.

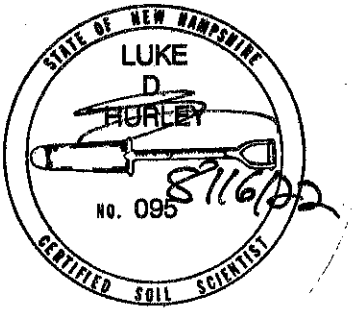
514/P Leicester Poorly Drained 521 C
The Leicester series consists of very deep, poorly drained soils formed in coarse-loamy till. They are nearly level or gently sloping soils in drainageways and low-lying positions on hills. Slope ranges from 0 to 8 percent. Permeability is moderate or moderately rapid in the surface layer and subsoil and moderate to rapid in the substratum. These soils are found in the smaller, poorly drained wetlands on site.

115/VP Scarboro Very Poorly Drained V Stony 528 C
The Scarboro series consists of very deep, very poorly drained soils in sandy glaciofluvial deposits on outwash plains, deltas, and terraces. They are nearly level soils in depressions. Slope ranges from 0 through 3 percent. Saturated hydraulic conductivity is high or very high. These are in the larger very poorly drained wetlands on site to the rear and front of the site.

7. RESPONSIBLE SOIL SCIENTIST
Name: Luke Hurley
Certified Soil Scientist Number: 095

8. OTHER DISTINGUISHING FEATURES OF SITE
Is the site in a natural condition? No

If no, what is the nature of the disturbance? Open active quarry



JONES & BEACH ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

SITE EVALUATION and INFILTRATION FEASIBILITY REPORT

Raymond Distribution Center
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH 03077

Prepared for:

Onyx Partners LTD
200 Reservoir Street
Needham, MA 02494

August 18, 2022
JBE Project No. 21130

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VII. Soil Plans in the Area of the Proposed Practice(s)

VIII. Amoozemeter Testing Report

I. Project Summary

This project proposes to construct a one building distribution center in the Town of Raymond, Tax Map 22, Lots 44, 45, 46, & 47, and Tax Map 28, Block 3, Lot 120-1.

The project site is located in the Industrial Zone. Soil information for the site was gathered from Web Soil Survey, Site Specific Soil Analysis, and on-site test pits. Soils were identified as:

Symbol	Soil Taxonomic Name	Hydrologic Soil Group
44	Newfields	B
86	Hollis well drained	C
135	Chatfield Variant	B
40	Chatfield Hollis Canton	B
42	Canton	B
400	Udorthents, sandy gravelly	A/C
514/P	Licester	C
115VP	Scarboro	D
89	Chatfield	B
445	Newfields, very stony	B
447	Scituate-Newfields Complex	C
97	Greenwood & Ossipee ponded	D
12B	Hinckley	A

Groundwater recharge will be accomplished through the utilization of one (1) underground infiltration basin.

II. Location of Practice(s)

Infiltration Basin 1 (Pond #1) - Infiltration Basin 1 is located outside the drive lane near the southwest corner of the building.

Infiltration Basin 2 (Pond #2) – Infiltration Basin 2 is located on the northeast side of the building, adjacent to the parking lot.

Underground Gravel Infiltration Pond (Pond #3) – The gravel infiltration pond is located in front of the west side of the building underneath the parking lot.

Stormtech 740 (Pond #4) – This system is located on the south side of the gravel infiltration pond, near the southwest corner of the building.

Infiltration Basin 3 (Pond #5) – This infiltration basin is located on the inside of the drive lane intersection at the property entrance.

III. Existing Topography at the Location of the Practice(s)

Infiltration Basin 1 (Pond #1) – The topography contributing to the proposed pond Infiltration Basin 1 is currently forested woodland with a moderate grade.

Infiltration Basin 2 (Pond #2) – The topography within the area contributing to the proposed pond Infiltration Basin 2 is currently forested woodland with a moderate grade leading to an existing wetland.

Underground Gravel Infiltration Pond (Pond #3) – The topography within the area contributing to the proposed gravel infiltration pond is currently a combination of forested woodland with a moderate grade, and an existing sand/gravel pit.

Stormtech 740 (Pond #4) – The topography within the area contributing to the proposed system is currently a combination of forested woodland with a moderate grade, and an existing sand/gravel pit.

Infiltration Basin 3 (Pond #5) – The topography within the area contributing to the proposed pond is currently forested woodland with a minor grade.

IV. Test Pit/Boring Location(s)

Infiltration Basin 1 (Pond #1) – The infiltration practice is approximately 32,680 S.F. in area. Two test pits were dug for the system. Test pits were done on August 3, 2022 & December 21, 2021. Test pit log information is included with this report.

Infiltration Basin 2 (Pond #2) – The infiltration practice is approximately 30,830 S.F. in area. Two test pits were dug for the system. Test pits were done on August 3, 2022. Test pit log information is included with this report.

Underground Gravel Infiltration Pond (Pond #3) – The infiltration practice is approximately 68,154 S.F. in area. One test pit was dug for the system. Test pit was done on August 3, 2022. Test pit log information is included with this report.

Stormtech 740 (Pond #4) – The infiltration practice is approximately 9,768 S.F. in area. One test pit was dug for the system. Test pit was done on December 21, 2021. Test pit log information is included with this report.

Infiltration Basin 3 (Pond #5) – The infiltration practice is approximately 5,126 S.F. in area. One test pit was dug for the system. Test pit was done on August 8, 2022. Test pit log information is included with this report.

See Section VII for Grading & Drainage detail plans for test pit locations.

V. Seasonal High Water Table (SHWT) and Bedrock Elevations

Infiltration Basin (Pond #1):

Bottom of System Elevation = 211.50

TP 3
Existing Surface Elevation of Pond: 212.0
Estimated Seasonal High-Water Table: 44" (208.33)
Bedrock = NA
Deepest Elevation = 203.25

TP 206
Existing Surface Elevation of Pond: 212.50
Estimated Seasonal High-Water Table: 54" (208.0)
Bedrock = NA
Deepest Elevation = 206.91

Infiltration Basin (Pond #2):

Bottom of System Elevation = 220.0

TP 202
Existing Surface Elevation of Pond: 214.71
Estimated Seasonal High-Water Table: 55" (210.12)
Bedrock = NA
Deepest Elevation = 209.04

TP 203
Existing Surface Elevation of Pond: 215.00
Estimated Seasonal High-Water Table: 50" (210.83)
Bedrock = NA
Deepest Elevation = 207.0

Underground Gravel Infiltration Pond (Pond #3):

Bottom of System Elevation = 223.0

TP 204
Existing Surface Elevation of Pond: 228.00
Estimated Seasonal High-Water Table: None.
Bedrock = NA
Deepest Elevation = 223.0

Stormtech 740 (Pond #4):

Bottom of System Elevation = 223.70

TP 1
Existing Surface Elevation of Pond: 215.0
Estimated Seasonal High-Water Table: None.

Bedrock = NA
Deepest Elevation = 209.83

Infiltration Basin (Pond #5):
Bottom of System Elevation = 208.00

TP 205 Existing Surface Elevation of Pond: 208.74
Estimated Seasonal High-Water Table: 46" (204.90)
Bedrock = NA
Deepest Elevation = 203.49

VI. Profile Descriptions

Test Pit #1

0"-20"		fill
20"-62"	10YR 5/4	yellowish brown fine sandy loam boulders

SHWT = None
Roots to 48"
NO H_2O
Refusal = 62"

Test Pit #2

0"-22"		fill
22"-42"	2.5Y 4/3	olive brown fine sandy loam
42"-68"	2.5Y 5/6	light olive brown single grain sand

SHWT = None
Roots to 42"
NO H_2O
No Refusal observed

Test Pit #3

0”-8”		top soil
8”-24”	10YR 4/6	dark yellowish brown coarse sand
24”-44”	2.5Y 6/3	light yellowish brown loamy sand
44”-105”	2.5Y 5/3	light olive brown fine sand

SHWT = 44”
Roots to 62”
NO H_2O
No Refusal observed

Test Pit #4

0”- 11”		top soil
11”- 28”	2.5Y 5/6	light olive brown fine sandy loam
28”- 74”	2.5Y 5/3	light olive brown loamy sand cobbles

SHWT = 75”
Roots to 75”
NO H_2O
No Refusal observed

Test Pit #5

0”-12”		top soil
12”-70”	2.5Y 6/6	olive yellow loamy sand

SHWT = None
No Refusal observed

Test Pit #201

loamy sand

SHWT = 43”
Bottom = 60”

Test Pit #202

fine sand

SHWT = 55”
Bottom = 68”

Test Pit #203

fine sand

SHWT = 50”
Bottom = 96”

Test Pit #204

0”- 4”		top soil
4”- 26”	10YR 5/6	yellowish brown loamy sand granular, friable
26”- 60”	10YR 3/6	dark yellowish brown fine sandy loam granular, friable cobbles

SHWT = None
Roots to 60”
NO H_2O
Refusal = 60”

Test Pit #205

sand

SHWT = 46”
Bottom = 63”
No Refusal observed

Test Pit #206

sand

SHWT = 54”
Bottom = 67”

VII. Soil Plans in the Area of the Proposed Practice(s)

See attached Grading & Drainage Detail Plans.

VIII. Amoozemeter Testing Report

See attached amoozemeter report.

JONES & BEACH ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

November 15, 2021

New Hampshire Department of Environmental Services
Alteration of Terrain Bureau
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095

RE: Alteration of Terrain Application
Sippican Warehouse Site Plan
Industrial Drive, Raymond, NH
Tax Map 22, Lot 47
Contract No. 2

To whom it may concern,

The following remarks summarize the results of permeability testing of soils for saturated hydraulic conductivity (Ksat) at the above-referenced location, as conducted on November 15, 2021 using a Compact Constant Head Permeameter (CCHP).

The project site is 124 acres. The site has a large portion of the site is undisturbed wood land, and the remaining area is an active gravel pit. Soils on the entire property were mapped by New England Environmental, Inc. and the predominant soil in the area was found to be sandy textures that have been excavated down to at or below the water table. The majority of the site consist of B type soils including Chatfield and Newfields, which are found to have moderate saturated hydraulic conductivity. The remaining major soil groups are Hollis C/D type soils.

Ksat

On November 15, 2021, seven (6) backhoe soil test pits were excavated and three (3) Ksat tests were performed in each pit. The test was conducted at various depths within the B & Cs horizons. Please refer to the attached sketch for the location of the various tests.

The results of the permeability testing is summarized below. Please note that due to the very coarse nature of the soils, the CCHP was unable to reach a steady state condition in some of the tests.

Testing Summary Table			
	Mean Ksat (cm/hr)	Mean Ksat (in/hr)	Depth (in)
Pit #1, Test #1	8.98	3.54	26.4
Pit #1, Test #2	NA*	NA*	32.4
Pit #1, Test #3	NA*	NA*	24
Pit #2, Test #1	NA*	NA*	15.6
Pit #2, Test #2	NA*	NA*	15.6
Pit #2, Test #3	NA*	NA*	16.8
Pit #3, Test #1	NA*	NA*	30
Pit #3, Test #2	7.33	2.89	30
Pit #3, Test #3	16.49	6.49	36
Pit #4, Test #1	2.15	0.85	8
Pit #4, Test #2	2.00	0.79	8
Pit #4, Test #3	7.32	2.88	10
Pit #5, Test #1	2.05	0.81	12
Pit #5, Test #2	2.96	1.16	8
Pit #5, Test #3	7.86	3.10	12
Pit #6, Test #1	10.28	4.04	14
Pit #6, Test #2	3.50	1.38	14
Pit #6, Test #3	4.45	1.75	14

*Due to the very coarse nature of the soils, the CCHP was unable to reach a steady state condition in these tests.

Ksat Average Table		
Test Pit	Ksat Average (in/hr)	Ksat Average (in/hr)(*0.5)
Pit #1	14.51	7.26
Pit #2	20.00	10.00
Pit #3	9.79	4.89
Pit #4	1.51	0.75
Pit #5	0.76	2.15
Pit #6	2.39	1.51

The design has been based off of In situ soils done by New England Environmental, Inc. which shows a majority of the site as Chatfield and Newfields, the remaining soils are Hollis. According to "Ksat Values for New Hampshire Soils" sponsored by the Society of Soil Scientists of Northern New England SSSNNE Special Publication No. 5, the Ksat value for all of these soil types is .6 inches/hour within the B or C horizon. This infiltration rate has been replaced with the onsite soil testing reflected in this report.

If you have any questions, please feel free to contact our office. Thank you for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Erik Poulin
Project Engineer

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

REGISTRATION AND NOTIFICATION FORM FOR STORMWATER INFILTRATION TO GROUNDWATER (5H1)

Groundwater Discharge Program

RSA/Rule: RSA 485-A:6, VII; 485:3, X; Env-Wq 402

Applicant Information

Name: Jones and Beach Engineers	Daytime Phone: 603-772-4746	
Mailing Address: PO BOX 219		
City: Stratham	State: NH	ZIP: 03885
Contact Person Name: Erik Poulin	Email: epoulin@jonesandbeach.com	
Contact Person Phone Number: 603-772-4746	Fax Number:	

Facility Information

Name: Raymond Distribution Center		
Address: Industrial Drive, Raymond		
City: Raymond	State: NH	ZIP: 03077
Property Tax Map: 22 & 28	Lot Number: 44, 45, 46, & 47, 120-1	
Latitude & Longitude of discharge point(s):		

Facility Owner Information (complete only if different than applicant)

Owner Name: Anton Melchionda	Daytime Phone: 617-835-4770	
Mailing Address: 200 Reservoir St.		
City/Town: Needham	State: MA	ZIP: 02494
Contact Person Name:	Email: investments@onyxpartnersltd.com	
Contact Person Phone Number:	Fax Number:	

Property Owner (complete only if different then Applicant)

Name:	Daytime Phone:	
Mailing Address:		
City:	State:	ZIP:
Contact Person Name:	Email:	
Contact Person Phone Number:	Fax Number:	

Facility Operator's Information (complete only if different than applicant)

Facility Operator Name:	Daytime Phone:	
Mailing Address:		
City:	State:	ZIP:

Complete this form if you are using a drywell or other subsurface infiltration structures to recharge stormwater to the ground or groundwater. If a completed Underground Injection Control (UIC) registration form was submitted to the Alteration of Terrain Bureau for this project, then one is not required to be sent directly to the Drinking Water and Groundwater Bureau (DWGB).

REGISTRATION AND NOTIFICATION FORM FOR STORMWATER INFILTRATION TO GROUNDWATER (attach additional sheets, as necessary, for responses to questions below)

Please provide a complete description of the facility including historic uses, any former contamination and/or ongoing remedial action at the site.
A portion of the existing site was previously a sand and gravel pit, with the majority of the site being standing forest. There are no listed contaminations or remedial actions for the property.

Please provide information concerning the location of the infiltration activity, include Locus map (i.e. USGS map).
The basins are located on the west side of the distribution building, please see attached plans, USGS, and google image for site location.

Please describe the pretreatment system, if any, and capacity of the system.
Underground stone detention/infiltration pond #3 only treats clean roof runoff and therefore does not require pre-treatment. The MC4500 Stormtech system utilizes an isolation row.

Please describe the materials and products used for the subsurface infiltration structure (i.e., pipe and stone leachfield, plastic chamber units, concrete drywell, etc.).
The MC4500 Stormtech Chamber is to be constructed with off the shelf plastic chamber components. The underground gravel infiltration pond will be constructed with AASHTO #4 crushed stone and HDPE perforated pipe.

Please describe the disposal method and location. Include a site plan showing: the infiltration structure, any other on-site infiltration structures, dimensions, depth to groundwater (if known), adjacent septic system(s), and drinking water source(s).
Infiltration discharges to the North of the proposed project and then flows into the Lamprey River. The seasonal high water table (SHWT) was located at 209.83, which is 13.12’ below elevation 222.92, the bottom of the proposed Stormtech system. The SHWT was found at elevation 218.00, which is 5’ below elevation 223.00, the bottom of the gravel infiltration pond. Please see attached plans for additional information.

Please provide information concerning methods and schedule for periodic inspection and/or maintenance.
An operation and maintenance manual has been prepared for the project including information on the inspection and maintenance of the chamber systems.

STORMWATER MANAGEMENT OPERATION AND MAINTENANCE MANUAL

Raymond Distribution Center
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH 03077

Prepared for:

Onyx Partners LTD
200 Reservoir Street
Needham, MA 02494

Prepared by:
Jones & Beach Engineers, Inc.
85 Portsmouth Avenue
P.O. Box 219
Stratham, NH 03885
(603) 772-4746
August 18, 2022
Rev #1: October 21, 2022
Rev #2: November 10, 2022
JBE Project No. 21130

Inspection and Maintenance of Facilities and Property

A. Maintenance of Common Facilities or Property

1. The Property Owner (Onyx Partners LTD) is responsible for maintenance of all stormwater infrastructure associated with this site, until such time as maintenance is assumed by the new property owner. This includes all temporary and permanent stormwater and erosion control facilities both during and after construction.

B. General Inspection and Maintenance Requirements

1. The Owner shall perform all inspections and maintenance with greater than annual frequency as required by this report.

2. Inspection reports must be provided to the DES upon request.

3. During the inspections, a photograph should be taken of each BMP.

4. Permanent stormwater and sediment and erosion control facilities to be maintained on the site include, but are not limited to, the following:

    a. Catch basins and drain manholes
    b. Culverts
    c. Erosion
    d. Aboveground infiltration basin
    e. Underground detention/infiltration basin
    f. Vegetation and landscaping
    g. Riprap inlet and outlet protection aprons
    h. Tree Box Filters

3. Maintenance of permanent measures shall follow the following schedule:

   a. **Catch basins and Drain Manholes: Annual inspection** of catch basins and drain manholes to determine if they need to be cleaned. Catch basins are to be cleaned if the depth of deposits is greater than one-third the depth from the basin bottom to the invert of the lowest pipe or opening into or out of the basin. If a catch basin significantly exceeds the one-third depth standard during the inspection, then it should be cleaned more frequently. If woody debris or trash accumulates in a catch basin, then it should be cleaned on a weekly basis. Manholes should be cleaned of any material upon inspection. Catch basins and manholes can be cleaned either manually or by specially designed equipment including, but not limited to, bucket loaders and vacuum pumps. Before any materials can be disposed, it is necessary to perform a detailed chemical analysis to determine if the materials meet the EPA criteria for hazardous waste. This will help determine how the materials should be stored, treated, and disposed.

   b. **Culverts: Inspection** of culvert inlets and outlets at least **once per month** during the rainy season (March to November). Any debris is to be removed and disposed of properly.

   c. **Erosion: Annual inspection** of the site for erosion, destabilization, settling, and sloughing. Any needed repairs are to be conducted immediately.

   d. **Vegetation and Landscaping: Annual inspection** of site's vegetation and landscaping. Any areas that are bare shall be reseeded and mulched with hay or, if the case is extreme, loamed and seeded or sodded to ensure adequate vegetative cover. Landscape specimens shall be replaced in kind, if they are found to be dead or dying.

   e. **Catch basins and Drain Manholes: Annual inspection** of catch basins and drain manholes to determine if they need to be cleaned. Catch basins are to be cleaned if the depth of deposits is greater than one-third the depth from the basin bottom to the invert of the lowest pipe or opening into or out of the basin. If a catch basin significantly exceeds the one-third depth standard during the inspection, then it should be cleaned more frequently. If woody debris or trash accumulates in a catch basin, then it should be cleaned on a weekly basis. Manholes should be cleaned of any material upon inspection. Catch basins and manholes can be cleaned either manually or by specially designed equipment including, but not limited to, bucket loaders and vacuum pumps. Before any materials can be disposed, it is necessary to perform a detailed chemical analysis to determine if the materials meet the EPA criteria for hazardous waste. This will help determine how the materials should be stored, treated, and disposed.

f. **Riprap**: Rock riprap should be **inspected annually** and after every major storm event in order to ensure that it has not been displaced, undermined, or otherwise damaged. Displaced rock should be replaced, or additional rock added in order to maintain the structure(s) in their undamaged state. Woody vegetation should not be allowed to become established in riprap areas, and/or any debris removed from the void spaces between the rocks. If the riprap is adjacent to a stream or other waterbody, the water should be kept clear of obstructions, debris, and sediment deposits.

g. **Tree Box Filter**:

- Each correctly installed Filterra® unit is to be maintained by the Supplier, or a Supplier approved contractor for a minimum period of 1 year. The cost of this service is to be included in the price of each Filterra® unit. Extended maintenance contracts are available at extra cost upon request.
- Annual included maintenance consists of a maximum of (2) scheduled visits. The visits are scheduled seasonally; the spring visit aims to clean up after winter loads that may include salts and sands. The fall visit helps the system by removing excessive leaf litter.
- Each Included Maintenance visit consists of the following tasks.
    1. Filterra® unit inspection
    2. Foreign debris, silt, mulch & trash removal
    3. Filter media evaluation and recharge as necessary
    4. Plant health evaluation and pruning or replacement as necessary
    5. Replacement of mulch
    6. Disposal of all maintenance refuse items
    7. Maintenance records updated and stored (reports available upon request)
- The beginning and ending date of Supplier's obligation to maintain the installed system shall be determined by the Supplier at the time the system is activated. Owners must promptly notify the Supplier of any damage to the plant(s), which constitute(s) an integral part of the bioretention technology.

h. **Underground Detention Basin**: Basins should be inspected twice annually and after every rainfall event of 2.5" or greater within a 24-hour period at a minimum. The underground detention basin areas designed to collect stormwater will need only minimal maintenance. Traffic over the basin areas should be kept to a minimum prior to construction to prevent compaction of the soil reducing infiltration.

Basins shall be inspected for effectiveness at a minimum of twice annually. If basin has not completely drained 72-hours after a rainfall event, the existing clogged layer of soil shall be removed and replaced with new material as specified within the design plans.

C. Invasive Species

An invasive plant is a non-native plant that is able to persist and proliferate outside of cultivation, resulting in ecological and/or economic harm. These plants readily colonize disturbed areas and habitat edges, such as transportation and river corridors. Once established in these areas, invasive plants often continue to spread to adjacent habitats. All invasive plant species are aggressive competitors with the ability to significantly reduce diversity of native plant and animal species.

For additional information refer to the "New Hampshire Department of Transportation: *Best Management Practices for Roadside Invasive Plants*"

1. Invasive Plant Prevention:

Invasive plants spread by a variety of mechanisms, including birds, wind, and water. Human activities are also a major factor in the spread of these plants, from gardening and transport of nursery stock to erosion control and wildlife plantings. Routine maintenance and construction activities along transportation corridors can also play a significant role in the spread of invasive plants by dispersing or introducing seeds and other viable plant materials.

Eliminating or reducing the spread and establishment of invasive plants requires a proactive approach, in which there are two key elements. First, new introductions, especially those that occur due to human activities, must be avoided to the maximum extent possible. Second, there must be an emphasis on early detection and eradication of new populations. Control measures are far more likely to be successful, as well as significantly less expensive, on small, young populations rather than on larger, more established populations, as shown in Figure 1.

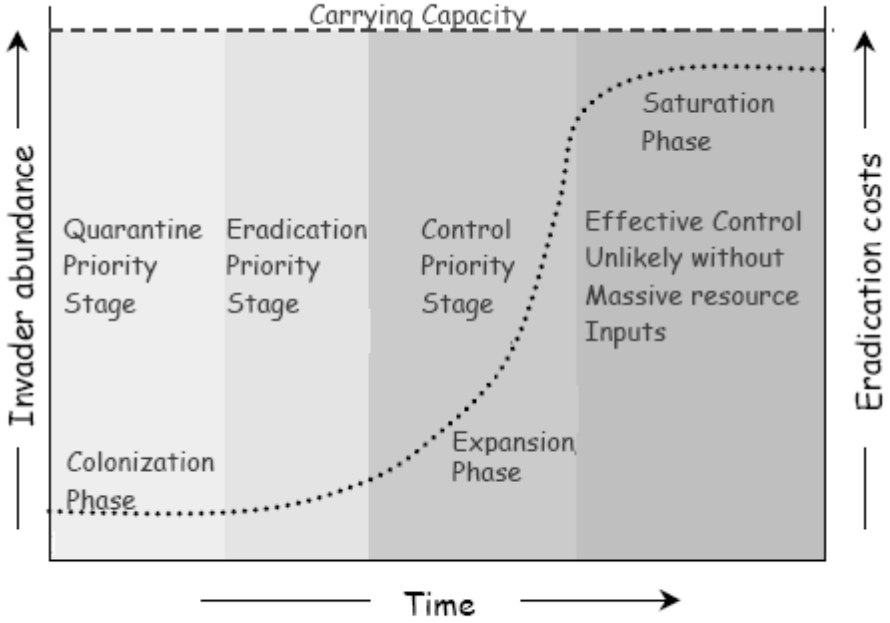


Figure 1. Typical invasive species population curve (from the University of Arizona and USGS Desert Laboratory http://wwwpaztcn.wr.usgs.gov)

2. Best Management Practices

Soil Disturbance and Stabilization:

• BMP #1: Minimize soil disturbance whenever possible. Invasive plants readily colonize areas of disturbed soil. Monitor recent work sites for the emergence of invasive plants for a minimum of two years after project completion.

• BMP #2: Stabilize disturbed soils as soon as possible by seeding and/or using mulch, hay, rip-rap, or gravel that is free of invasive plant material. Seeds of native species should be used whenever possible. Species on the prohibited invasive plant list should never be planted.

• BMP #3: Materials such as fill, loam, mulch, hay, rip-rap, and gravel should not be brought into project areas from sites where invasive plants are known to occur. If the absence of invasive plant parts in these materials cannot be guaranteed, recent work sites should be monitored for the emergence of invasive plants for a minimum of two years after project completion.

Movement and Maintenance of Equipment:

• BMP #4: If work in areas containing invasive plants cannot be avoided, then the movement of maintenance and construction equipment should be

from areas not infested by invasive plants to areas infested by invasive plants whenever possible. This is especially important during ditch cleaning and shoulder scraping activities.

• BMP #5: Locate and use staging areas that are free of invasive plants to avoid spreading seeds and other viable plant parts.

• BMP #6: If equipment must be used in areas where invasive plants occur, all equipment, machinery, and hand tools should be cleaned of all visible soil and plant material before leaving the project site. Equipment should be cleaned at the site of infestation. Acceptable methods of cleaning include, but are not limited to: *ƒ* Portable wash station that contains runoff from washing equipment (containment must be in compliance with wastewater discharge regulations); *ƒ* High pressure air; Brush, broom, or other hand tools (used without water).

• BMP #7: If equipment must be used in areas containing Japanese knotweed, phragmites, or purple loosestrife, aboveground plant material should be cut and properly disposed of (see BMP #11) prior to the start of work. If excavation occurs in these areas, see BMPs #13-16.

Mowing:

• BMP #8: These invasive plants have the ability to sprout from stem and root fragments: purple loosestrife, phragmites, and Japanese knotweed. Mowing these plants should be avoided whenever possible. Staking roadside populations of these plants as “do not mow” is one way to accomplish this. If these plants are cut, all plant material must be rendered nonviable and extra care should be taken to avoid spreading plant fragments (see BMP #11).

• BMP #9: In areas where invasive plants occur and the plants listed in BMP #8 (purple loosestrife, phragmites, and Japanese knotweed) are not present, an attempt should be made to mow the right-of-way prior to seed maturation (approximately August 1st). This could be accomplished by identifying specific roads that are either heavily infested with invasive plants or roads that are in sensitive habitat areas, and making those roads a priority in the mowing schedule.

• BMP #10: Mowing equipment should be cleaned at least daily, as well as prior to transport (see BMP #6). This is particularly important if mowing occurs after seed maturation (after August 1st).

Disposal of Plants:

• BMP #11: When invasive plants are cut or removed for roadside maintenance, construction, or control of plants, the spread of viable plant material must be avoided by rendering plant material nonviable. The following methods can be used to destroy plant material:

- Drying/Liquefying: For large amounts of plant material or for plants with rigid stems, place the material on asphalt, tarps, or heavy plastic, and cover with tarps or heavy plastic to prevent the material from blowing away. For smaller amounts of plant material or for plants with pliable stems, bag the material in heavyduty (3-mil or thicker) garbage bags. Keep plant material covered or bagged for at least one month. Material is nonviable when it is partially decomposed, very slimy, or brittle. Once material is nonviable, it can be disposed of in a landfill or brush pile. Recommended for: Japanese knotweed, purple loosestrife, phragmites.
- Brush Piles: Plant material from most invasive plants can be piled on site to dry out. However, when piling purple loosestrife, phragmites, and Japanese knotweed, care must be taken to pile stems so that cut surfaces are not in contact with the soil. Recommended for: Woody shrubs, trees, and vines; spotted knapweed; large quantities of purple loosestrife, phragmites, and Japanese knotweed. NOT recommended for: any invasive plant with seeds or fruit attached, unless plants can be piled within the limits of the infestation.
- Burying: Plant material from most invasive plants can be buried a minimum of three feet below grade. This method is best used on a job site that already has disturbed soils. Recommended for: any invasive plant. NOT recommended for: Japanese knotweed, unless other options are not feasible and knotweed can be buried at the site of infestation at least five feet below grade. *f*
- Burning: Plant material should be taken to a designated burn pile. (All necessary permits must be obtained before burning.) Recommended for: any invasive plant, especially purple loosestrife, phragmites, Japanese knotweed.
- Herbicide: Herbicide applications must be carried out by a licensed applicator with a permit from the NH Department of Agriculture Division of Pesticide Control. Recommended for: any invasive plant, especially purple loosestrife, phragmites, Japanese knotweed.

• BMP #12: Invasive plant material must be covered during transport.

Excavated Material:

• BMP #13: Excavated material taken from sites that contain invasive plants cannot be used away from the site of infestation until all viable plant material is destroyed. Excavated material from areas containing invasive plants may be reused within the exact limits of the infestation.

• BMP #14: Any excavated material that contains viable plant material and is not reused within the limits of the infestation must be stockpiled on an impervious surface until viable plant material is destroyed OR the material must be disposed of by burying a minimum of three feet below grade. Japanese knotweed must be buried at least five feet below grade.

• BMP #15: Whenever possible, excavation should be avoided in areas containing Japanese knotweed, purple loosestrife, and phragmites. If excavation does occur in these areas, the BMPs described in Section II must be followed.

• BMP #16: Soil and other materials containing invasive plants must be covered during transport.

See attached sample forms as a guideline.

Any inquiries in regards to the design, function, and/or maintenance of any one of the above mentioned facilities or tasks shall be directed to the project engineer:

Jones & Beach Engineers, Inc.
85 Portsmouth Avenue
P.O. Box 219
Stratham, NH 03885

T#: (603) 772-4746
F#: (603) 772-0227

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION PERIOD AND CRITERIA
Raymond Distribution Center
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH 03077

Stormwater Component	Inspection Period	Inspection Criteria/Methods
Culverts	Once per month	Inspect inlet/outlet. Remove debris.
Erosion	Annually	Repair site erosion.
Vegetation	Annually	Repair bare unvegetated areas.
Catch Basins and Drain Manholes	Annually (or more as required)	Remove trash and debris. Inspect for sediment. Remove if sediment greater than 1/3 sump depth.
Riprap	Annually	Relocate displaced rocks, remove woody vegetation and debris
Detention Basin	Bi-annually	Inspect for standing water, sediment/debris collection, see item f.
Underground Detention Basin	Bi-annually	Inspect for standing water, sediment/debris collection, see item h.
Tree Box Filter	Bi-annually	Inspection for sediment/debris, inspect for erosion, inspection for invasives.

STORM WATER OPERATIONS AND MAINTENANCE PLAN
INSPECTION REPORT
Raymond Distribution Center
Tax Map 22, Lots 44, 45, 46, 47
Tax Map 28, Block 3, Lot 120-1
Industrial Drive
Raymond, NH 03077

Yearly Inspection Form			
Inspected Component	**Date of Inspection**	**Inspector**	**Issue Detected / Action Taken**
Culverts			
Erosion			
Vegetation			
Catch Basins and Drain Manholes			
Riprap			
Detention Basins			
Underground detention Basins			
Tree Box Filter			

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

INFILTRATION POND #2 (SEE DTL SHT D4)

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

UNDERGROUND STONE INFILTRATION / DETENTION SYSTEM (SEE DTL SHT D7)

PROP. WAREHOUSE 550,025 S.F. F.F.=240.00

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

UNDERGROUND INFILTRATION SYSTEM – POND #3 STORMTECH SC 740 CHAMBERS (SEE DTL SHT D5)

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

INFILTRATION POND #5 (SEE DTL SHT D9)

INFILTRATION POND #1 (SEE DTL SHT D4)

RAYMOND POND

INDUSTRIAL ROAD (PUBLIC WAY)

OLD MANCHESTER ROAD

SCRIBNER ROAD

NH ROUTE 101 (WESTBOUND)

NH ROUTE 101 (EASTBOUND)

ZONE LINE "D" (INDUSTRIAL)

SHEET 1 SHEET 2 SHEET 3 SHEET 4

GRADING AND DRAINAGE NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES AND/OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 888-DIG-SAFE (888-344-7233).
2. ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
3. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. SEE CONSTRUCTION SEQUENCE ON SHEET E1.
4. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO HAVE THE PROJECT'S LAND SURVEYOR STAKE OR FLAG CLEARING LIMITS. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED.
5. ALL ROOF DRAINS FROM BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AND WITNESS AT THE END. ALL EXTERIOR ROOF DOWNSPOUTS ARE TO BE INSTALLED WITH OVERFLOW DEVICES.
6. ALL SWALES AND DETENTION PONDS ARE TO BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
7. PROPOSED RIM ELEVATIONS OF DRAINAGE STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES.
8. ALL SWALES AND ANY SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S150 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER), UNLESS OTHERWISE SPECIFIED.
9. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS. CATCH BASINS SHALL HAVE 3' DEEP SUMPS WITH GREASE HOODS, UNLESS OTHERWISE NOTED.
10. ALL DRAINAGE STRUCTURES SHALL BE PRECAST, UNLESS OTHERWISE SPECIFIED. SEE SHEET D2 FOR DRAINAGE STRUCTURE SCHEDULE AND SHEET D4–D9 FOR DRAINAGE DETAILS.
11. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC H20 LOADING AND SHALL BE INSTALLED ACCORDINGLY.
12. IMMEDIATELY APPLY AND COMPACT STONE BASE FOR BUILDING PAD TO +/–½" PRIOR TO EXCAVATING INTERIOR AND PERIMETER FOOTINGS.
13. IN AREAS WHERE CONSTRUCTION IS PROPOSED ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING ALONG PROPERTY LINES IN ALL AREAS WHERE SILT FENCING IS NOT REQUIRED.
14. ALL DRAINAGE PIPE SHALL BE NON-PERFORATED ADS N-12 OR APPROVED EQUAL, UNLESS OTHERWISE NOTED.
15. STONE INLET PROTECTION SHALL BE PLACED AT ALL CATCH BASINS. SEE DETAIL WITHIN THE DETAIL SHEETS.
16. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY ALL GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE EPA SWPPP DURING CONSTRUCTION OPERATIONS.
17. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
18. ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 3 DAYS OF FINAL GRADING.
19. SHOULD CONSTRUCTION STOP FOR LONGER THAN 3 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
20. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN EVENT OF 0.5" OR GREATER IN A 24 HOUR PERIOD AND AT LEAST ONCE A WEEK.
21. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE, AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.
22. CONSTRUCTION VEHICLES SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE TO THE EXTENT POSSIBLE THROUGHOUT CONSTRUCTION.
23. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
24. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
25. SEDIMENT SHALL BE REMOVED FROM ALL SEDIMENT BASINS BEFORE THEY ARE 25% FULL.
26. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
27. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, IF DEEMED NECESSARY BY ON-SITE INSPECTION BY ENGINEER AND/OR REGULATORY OFFICIALS.
28. SEE ALSO EROSION AND SEDIMENT CONTROL SPECIFICATIONS ON SHEET E1–E2.
29. SOME DRAINAGE STRUCTURES ARE DETAILED ON THE PROFILES SHEETS.

- A CATCH BASINS AND DRAIN MANHOLES
- B CULVERTS - INLETS AND OUTLETS
- C EROSION
- D VEGETATION AND LANDSCAPING
- E RIP-RAP
- F TREE BOX FILTER
- G UNDERGROUND DETENTION BASIN

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR	Date: 8/19/21	
Checked: WGM	Scale: AS NOTED	Project No.: 21130	
Drawing Name: 21130-PLAN.dwg			

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	GRADING AND DRAINAGE PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C3
SHEET 8 OF44
JBE PROJECT NO. 21130

22. Attachments:

TEST PITS
FOR
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE
Date?
JBE Project No. 21130

Performed by: Wayne Morrill, Jones & Beach Engineers, Inc., SSD #1358
Witnessed by:

Test Pit #1

0"-20"		fill
20"-62"	10YR 5/4	yellowish brown fine sandy loam boulders

SHWT = None
Roots to 48"
NO H_2O
Refusal = 62"

Test Pit #2

0"-22"		fill
22"-42"	2.5Y 4/3	olive brown fine sandy loam
42"-68"	2.5Y 5/6	light olive brown single grain sand

SHWT = None
Roots to 42"
NO H_2O
No Refusal observed

Test Pit #3

0"-8"		top soil
8"-24"	10YR 4/6	dark yellowish brown coarse sand
24"-44"	2.5Y 6/3	light yellowish brown loamy sand
44"-105"	2.5Y 5/3	light olive brown fine sand

SHWT = 44"
Roots to 62"
NO H_2O
No Refusal observed

Test Pit #4

0"- 11"		top soil
11"- 28"	2.5Y 5/6	light olive brown fine sandy loam
28"- 74"	2.5Y 5/3	light olive brown loamy sand cobbles

SHWT = 75"
Roots to 75"
NO H_2O
No Refusal observed

Test Pit #5

0"-12"		top soil
12"-70"	2.5Y 6/6	olive yellow loamy sand

SHWT = None
No Refusal observed

TEST PITS
FOR
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE
August 3, 2022
JBE Project No. 21130

Performed by: Wayne Morrill, Jones & Beach Engineers, Inc., SSD #1358
Witnessed by:

Test Pit #201

loamy sand

SHWT = 43"
Bottom = 60"

Test Pit #202

fine sand

SHWT = 55"
Bottom = 68"

Test Pit #203

fine sand

SHWT = 50"
Bottom = 96"

Test Pit #204

0"- 4"		top soil
4"- 26"	10YR 5/6	yellowish brown loamy sand granular, friable
26"- 60"	10YR 3/6	dark yellowish brown fine sandy loam granular, friable cobbles

SHWT = None
Roots to 60"
NO H_2O
Refusal = 60"

Test Pit #205

sand

SHWT = 46"
Bottom = 63"
No Refusal observed

Test Pit #206

sand

SHWT = 54”
Bottom = 67”

Table 1: Filterra® Quick Sizing Table (Northeast Region - v04)

Available Filterra® Box Sizes (feet)	Recommended Commercial Contributing Drainage Area (acres) where C = 0.85	Outlet Pipe
4x6 or 6x4	up to 0.32	4” SDR-35 PVC
4x8 or 8x4	0.33 to 0.42	4” SDR-35 PVC
Standard 6x6	0.43 to 0.47	4” SDR-35 PVC
6x8 or 8x6 or 4x12 or 12x4	0.48 to 0.64	4” SDR-35 PVC
6x10 or 10x6	0.65 to 0.79	6” SDR-35 PVC
6x12 or 12x6	0.80 to 0.95	6” SDR-35 PVC
7x13 or 13x7	0.96 to 1.20	6” SDR-35 PVC

Available Filterra® Box Sizes (feet)	Recommended Residential Contributing Drainage Area (acres) where C = 0.50	Outlet Pipe
4x6 or 6x4	up to 0.54	4” SDR-35 PVC
4x8 or 8x4	0.56 to 0.72	4” SDR-35 PVC
Standard 6x6	0.73 to 0.80	4” SDR-35 PVC
6x8 or 8x6 or 4x12 or 12x4	0.81 to 1.08	4” SDR-35 PVC
6x10 or 10x6	1.09 to 1.34	6” SDR-35 PVC
6x12 or 12x6	1.35 to 1.62	6” SDR-35 PVC
7x13 or 13x7	1.63 to 2.04	6” SDR-35 PVC

Notes:

1. All boxes are a standard 3.5 feet depth (INV to TC)
2. A standard SDR-35 PVC pipe coupling is cast into the wall for easy connection to discharge drain
3. Dimensions shown are internal. Please add 1’ to each external dimensions (using 6” walls)
4. In line with TR55 data, for Commercial Developments a minimum (runoff coefficient) C factor of 0.85 is recommended. For Residential Developments, use of C factors less than 0.5 require individual site review by Filterra.
5. Please ask for Sizing Tables for other target treatment goals, e.g. 0.3 in/hr
6. This sizing table is valid for MA (treating 90% of annual runoff) and typical for the Northeast region.

Filterra Vault Configuration Plant List - Northeast Atlantic Region
(States of CT, MA, ME, NH, NY, RI, VT)

Common Name	Latin Name	Plant Type	Sun	Hardy Range	Height	Spread	Sizing	Region Availability
Buttonbush	*Cephalanthus occidentalis*	Deciduous	Partial Shade to Full Sun	4A – 10A	4’ – 6’	6’ – 10’	L	MA, NE, NW, SE, SC
Chokeberry, Black	*Aronia melanocarpa*	Deciduous	Full Shade to Full Sun	3B – 8B	3’ – 6’	4’ – 6’	M	GL, MA, NE, NW, SE, NoCA, SoCA
Chokeberry, Red	*Aronia arbutifolia*	Deciduous	Partial Shade to Full Sun	4B – 9A	6’ – 10’	4’ – 6’	M	GL, MA, NE, NW, SE, NoCA, SoCA
Crabapple, American	*Malus coronaria*	Deciduous	Full Sun	3B - 8A	15’ - 25’	10’ - 25’	Tree	GL, MA, NE, NW, SE, NoCA, SoCA
Dogwood, Chinese	*Cornus kousa*	Deciduous	Partial Shade to Full Sun	4B - 8A	15’ - 25’	20’ - 30’	Tree	GL, MA, NE, NW, SE
Dogwood, Cornelian Cherry	*Cornus mas*	Deciduous	Partial Shade to Full Sun	4B - 8A	15’ - 20’	15’ - 20’	Tree	GL, MA, NE, NW, SE
Franklin Tree	*Franklinia alatamaha*	Deciduous	Partial Shade to Full Sun	5A - 8A	15’ - 25’	10’ - 15’	Tree	GL, MA, NE, NW, SC, SE
Fringe Tree, Chinese	*Chionanthus retusus*	Deciduous	Full Shade to Full Sun	5B - 9A	15’ - 25’	10’ - 15’	Tree	GL, MA, NW, NE, SC, SE, NoCA, SoCA
Fringe Tree, White	*Chionanthus virginicus*	Deciduous	Full Shade to Full Sun	4A - 9A	12’ - 20’	10’ - 15’	Tree	GL, MA, NE, NW, SC, SE
Lilac, Dwarf	*Syringa meyeri*	Deciduous	Full Sun	3B – 8A	5’ – 8’	8’ – 10’	L	GL, MA, NE, NW, SC, SE, NoCA, SoCA
Lilac, Japanese Tree	*Syringa reticulata*	Deciduous	Full Sun	3A - 7A	15’ - 25’	10’ - 15’	XL	GL, MA, NE, NW, SC, SE
Maackia, Amur	*Maackia amurensis*	Deciduous	Full sun	4A - 7A	15’ - 25’	15’ - 25’	Tree	GL, MA, NE, NW, SE, SC
Magnolia, Galaxy	*Magnolia x ‘Galaxy’*	Deciduous	Partial Shade to Full Sun	5A - 8B	15’ - 20’	15’ - 25’	Tree	GL, MA, NE, NW, SC, SE, NoCA, SoCA
Magnolia, Saucer	*Magnolia x soulangiana*	Deciduous	Partial Shade to Full Sun	5A - 9A	15’ - 25’	15’ - 25’	Tree	MA, NE, NW, SC, SE, NoCA, SoCA
Magnolia, Star	*Magnolia stellata*	Deciduous	Partial Shade to Full Sun	4A - 8B	10’ - 20’	10’ - 15’	XL	GL, MA, NE, NW, SC, SE
Northern Bayberry	*Myrica pensylvanica*	Deciduous	Partial Shade to Full Sun	3A – 7A	10’ – 15’	6’ – 10’	L	GL, MA, NE, SE
Redbud, Eastern	*Cercis canadensis*	Deciduous	Partial Shade to Full Sun	4B - 9A	15’ - 25’	15’ - 25’	Tree	GL, GP, MA, NE, NW, SE, NoCA, SoCA
Serviceberry	*Amelanchier x grandiflora*	Deciduous	Partial Shade to Full Sun	4A - 7A	15’ - 25’	15’ - 25’	Tree	GL, MA, NE, NW, SC, SE
Smoketree, American	*Cotinus obovatus*	Deciduous	Partial Shade to Full Sun	4B - 8A	20’ - 25’	20’ – 25’	Tree	GL, MA, NE, NW, SC, SE
Viburnum, American Cranberrybush	*Viburnum trilobum*	Deciduous	Partial Shade to Full Sun	2A - 7B	8’ - 12’	8’ - 15’	XL	MA, NE, SE
Viburnum, Arrowwood	*Viburnum dentatum*	Deciduous	Full Shade to Full Sun	2B – 8B	5’ – 15’	5’ – 12’	L	GL, MA, NE, NW, SC, SE
Viburnum, Blackhaw	*Viburnum prunifolium*	Deciduous	Full Shade to Full Sun	3B – 9A	12’ – 15’	15’ – 20’	Tree	GL, MA, NE, NW, SE
Holly, Chinese	*Ilex cornuta*	Evergreen	Partial Shade to Full Sun	7A - 9A	15’ - 25’	15’ - 25’	Tree	MA, NE, NW, SE, NoCA, SoCA
Holly, Foster’s	*Ilex x attenuata ‘Fosteri’*	Evergreen	Partial Shade to Full Sun	6A - 9A	20’ - 25’	6’ - 10’	L	MA, NE, NW, SC, SE, NoCA, SoCA
Holly, Nellie Stevens	*Ilex x*	Evergreen	Partial Shade to Full Sun	6A - 9A	15’ - 25’	6’ - 10’	L	MA, NE, NW, SC, SE, NoCA, SoCA

Common Name	Latin Name	Plant Type	Sun	Hardy Range	Height	Spread	Sizing	Region Availability
Magnolia, Sweetbay or Swamp	*Magnolia virginiana*	Evergreen	Full Shade to Full Sun	5A - 10A	12' - 20'	15' - 25'	Tree	MA, NE, NW, SE
Spruce, Blue Totem	*Picea pungens Fastiglata Wells ' Blue Totem'*	Evergreen	Partial Shade to Full Sun	3A - 7A	12' - 15'	2' - 3'	S	GP, NE
Spruce, Dwarf Bakeri	*Picea pungens*	Evergreen	Partial Shade to Full Sun	3A - 7A	12'	6'	M	GP, NE

Notes:

1. The species listed are drought tolerant and have applicability to bioretention due to shallow root zones.

2. The plants highlighted in green are typically more readily available in the noted regions as the listed species or another similar cultivar.

3. This list is subject to availability and Contech reserves the right to make appropriate substitutions when necessary.

4. For species not listed, please contact Contech for suitability.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles, Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' National Geodetic Vertical Datum of 1929 (NGVD 29). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

The **projection** used in the preparation of this map was New Hampshire State Plane, FIPSZONE 2800. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the National Geodetic Vertical Datum of 1929. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

Spatial Reference System Division
National Geodetic Survey, NOAA
Silver Spring Metro Center
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3191

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit their website at www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles (DOQs) produced at a scale of 1:12,000 from photography dated 1998 or later.

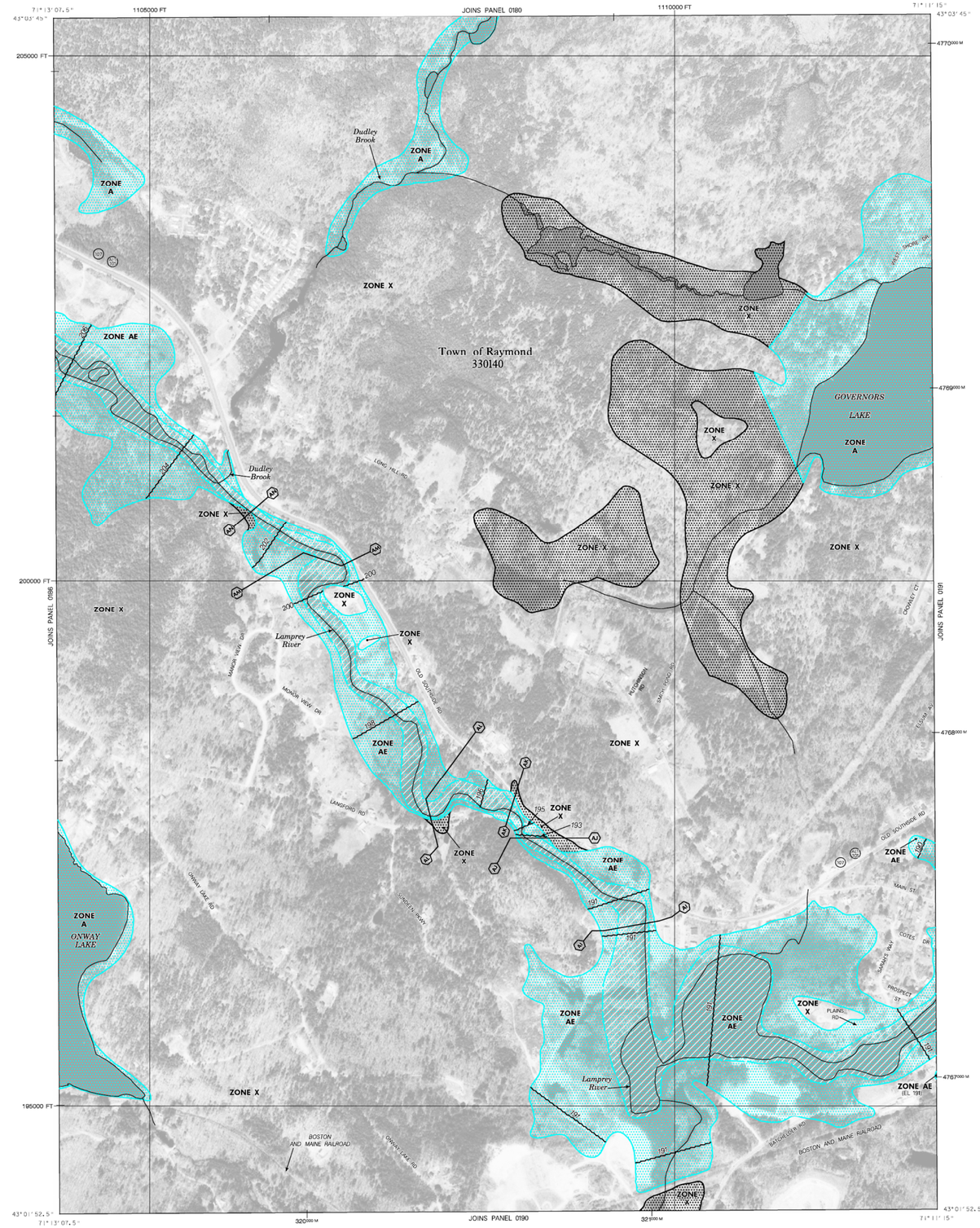
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and their website at www.fema.gov/msc.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** No Base Flood Elevations determined.
- **ZONE AE** Base Flood Elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the National Geodetic Vertical Datum of 1929

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4276000 M — 1000-meter Universal Transverse Mercator grid tick values, zone 19
- 600000 FT — 5000-foot grid: New Hampshire State Plane coordinate system, (FIPSZONE 2800), Transverse Mercator projection.
- DX5510 X — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
MAY 17, 2006

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

PANEL 0187E

FIRM
FLOOD INSURANCE RATE MAP

ROCKINGHAM COUNTY, NEW HAMPSHIRE
(ALL JURISDICTIONS)

PANEL 187 OF 681

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
RAYMOND, TOWN OF	330140	0187	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
33015C0187E

EFFECTIVE DATE
MAY 17, 2005

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles, Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' National Geodetic Vertical Datum of 1929 (NGVD 29). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in this jurisdiction.

The **projection** used in the preparation of this map was New Hampshire State Plane, FIPSZONE 2800. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the National Geodetic Vertical Datum of 1929. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

Spatial Reference System Division
National Geodetic Survey, NOAA
Silver Spring Metro Center
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3191

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit their website at www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles (DOQs) produced at a scale of 1:12,000 from photography dated 1998 or later.

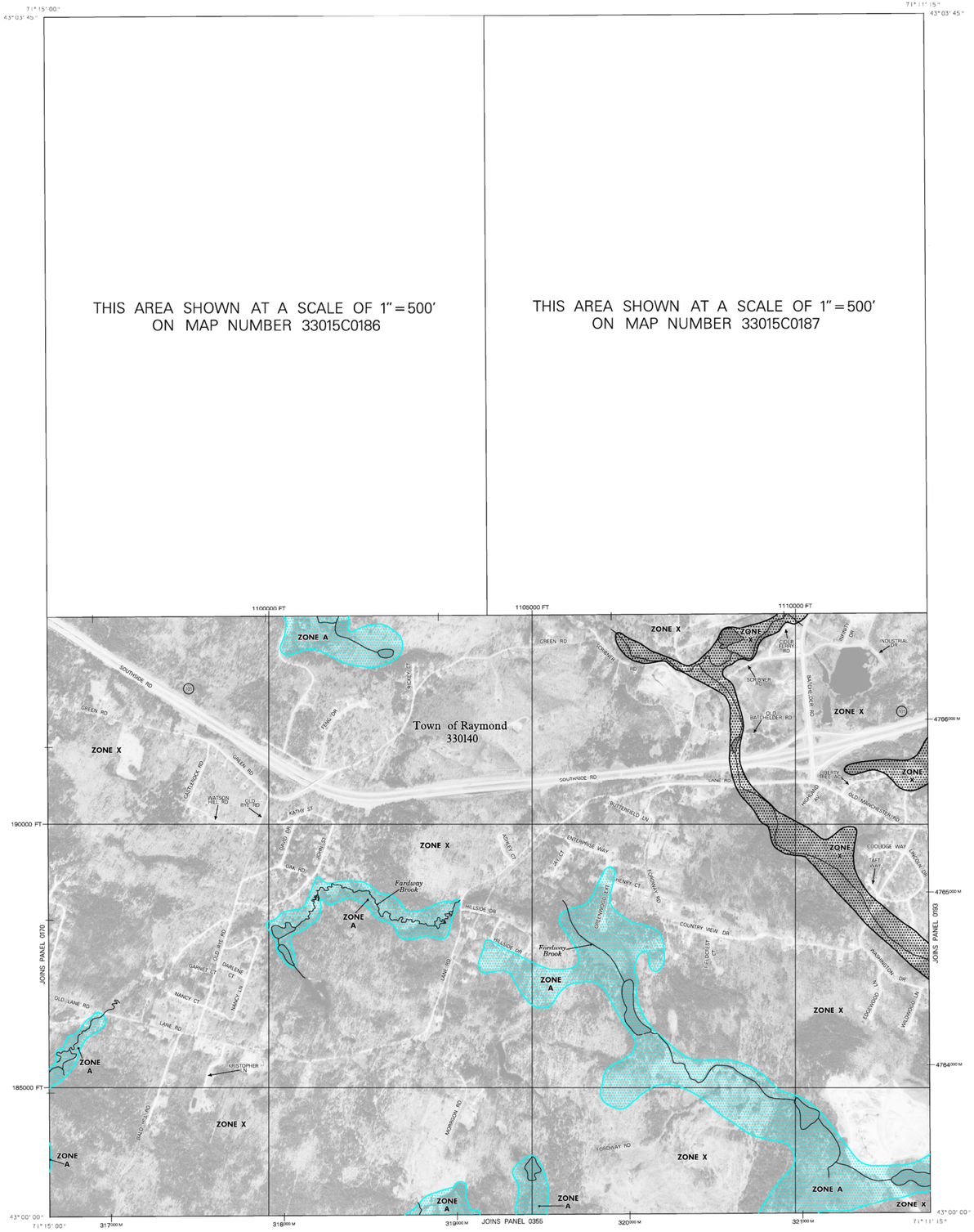
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and their website at www.fema.gov/msc.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513 — Base Flood Elevation line and value; elevation in feet*

(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the National Geodetic Vertical Datum of 1929

A — A — Cross section line

23 — 23 — Transect line

97° 07' 30", 32° 22' 30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)

4276000 M — 1000-meter Universal Transverse Mercator grid tick values, zone 19

600000 FT — 5000-foot grid: New Hampshire State Plane coordinate system, (FIPSZONE 2800), Transverse Mercator projection.

DX5510 X — Bench mark (see explanation in Notes to Users section of this FIRM panel)

M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
MAY 17, 2005

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0190E

FIRM
FLOOD INSURANCE RATE MAP

ROCKINGHAM COUNTY, NEW HAMPSHIRE
(ALL JURISDICTIONS)

PANEL 190 OF 681

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
RAYMOND, TOWN OF	330140	0190	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 33015C0190E

EFFECTIVE DATE MAY 17, 2005

Federal Emergency Management Agency

S.W.COLE ENGINEERING, INC.

Bulk Density and Void Content of Aggregate

PROJECT NAME:	Candia, NH - 2011 Laboratory Testing	**PROJ. NO:**	11-0052 M
CLIENT:	Severino Trucking Co., Inc.	**DATE:**	3/10/2011
		TESTED BY:	S. Benoit

LAB ID: 8163S
SAMPLE DESCRIPTION: 1 1/2-inch Crushed Stone (screened in lab over #4 sieve)
SAMPLE SOURCE Route 11 - Rochester, NH

Dry Rodded Weight

Mold & Agg	31.25	30.8	31.9
Mold Wt.	6.45		
Volume of Mold	0.25		
Unit Wt. (pcf)	*99.2*	*97.4*	*101.8*
AVE	**99.5**		

Bulk Specific Density

Agg Dry Wt.	25.5
Weight in H2O	20.3
Tare in H2O	4.0
Gsb	*2.79*

Combined Test Results

Bulk Specific Density	**173.7 pcf**
Bulk Density	**99.5 pcf**
Void Content	**42.7 %**

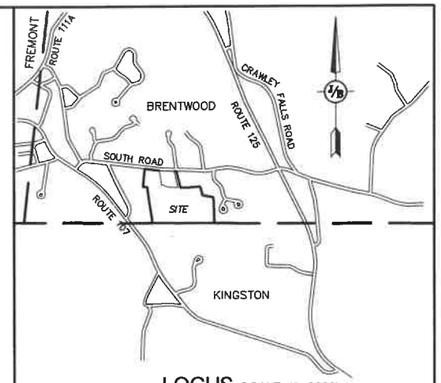
Water Volume Per Cubic Foot (Gals)	**3.2**
Per Cubic Yard (Gals)	**86.4**

S. W. COLE ENGINEERING, INC.
*10 Centre Road, Somersworth, New Hampshire 03878-2926 * Tel (603) 692-0088 * Fax (603) 692-0044 * www.swcole.com*

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafdc	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0-8%; C SLOPE = 8-15%; D SLOPE = 15-25%



LOCUS SCALE: 1"=2000'

SLOPE PHASES

ALPHA SLOPE SYMBOL	RANGE
A	0-3%
B	3-8%
C	8-15%
D	15-25%
E	25-50%
F	>50%

HYDROLOGIC SOIL GROUP 'A'

HYDROLOGIC SOIL GROUP 'B'

HYDROLOGIC SOIL GROUP 'C'

HYDROLOGIC SOIL GROUP 'D'

IMPERVIOUS

LEGEND

SUBCATCHMENT BOUNDARY

SUBCATCHMENT

REACH

POND

TC PATH

WETLANDS

SITE SPECIFIC SOILS

FLOW ARROW

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1"=200'

Design: EJP	Draft: GAP
Checked: WJM	Scale: AS NOTED
Drawing Name: 21130-WATERSHEDS.dwg	Date: 08/12/22
Project No.: 21130	

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
0	8/12/22	ISSUED FOR REVIEW	GAP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

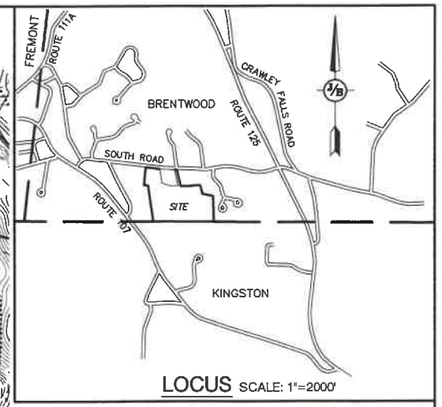
Plan Name:	EXISTING SOIL PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
S1
SHEET 1 OF 2
JBE PROJECT NO. 21130

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafdc	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0–8% C SLOPE = 8–15% D SLOPE = 15–25%



LOCUS SCALE: 1"=2000'

HYDROLOGIC SOIL GROUP 'A'

HYDROLOGIC SOIL GROUP 'B'

HYDROLOGIC SOIL GROUP 'C'

HYDROLOGIC SOIL GROUP 'D'

IMPERVIOUS

LEGEND

SUBCATCHMENT BOUNDARY

SUBCATCHMENT

REACH

POND

TC PATH

WETLANDS

SITE SPECIFIC SOILS

FLOW ARROW

GRAPHIC SCALE

(IN FEET)
1"=100'

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Checked: WJM	Scale: AS NOTED
Drawing Name: 21130-WATERSHEDS.dwg	

Date: 08/12/22
Project No.: 21130

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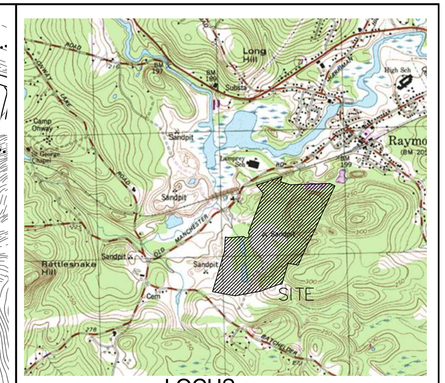
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
S2
SHEET 2 OF 2
JBE PROJECT NO. 21130



LOCUS SCALE: 1"=2000'

LEGEND

- SUBCATCHMENT BOUNDARY
- SUBCATCHMENT (X)
- REACH (X)
- POND (X)
- TC PATH
- WETLANDS
- HISS SOILS
- FLOW ARROW

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

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Design: EJP	Draft: GAP
Checked: WJM	Scale: AS NOTED
Drawing Name: 21130-WATERSHEDS.dwg	Date: 08/12/22
Project No.: 21130	

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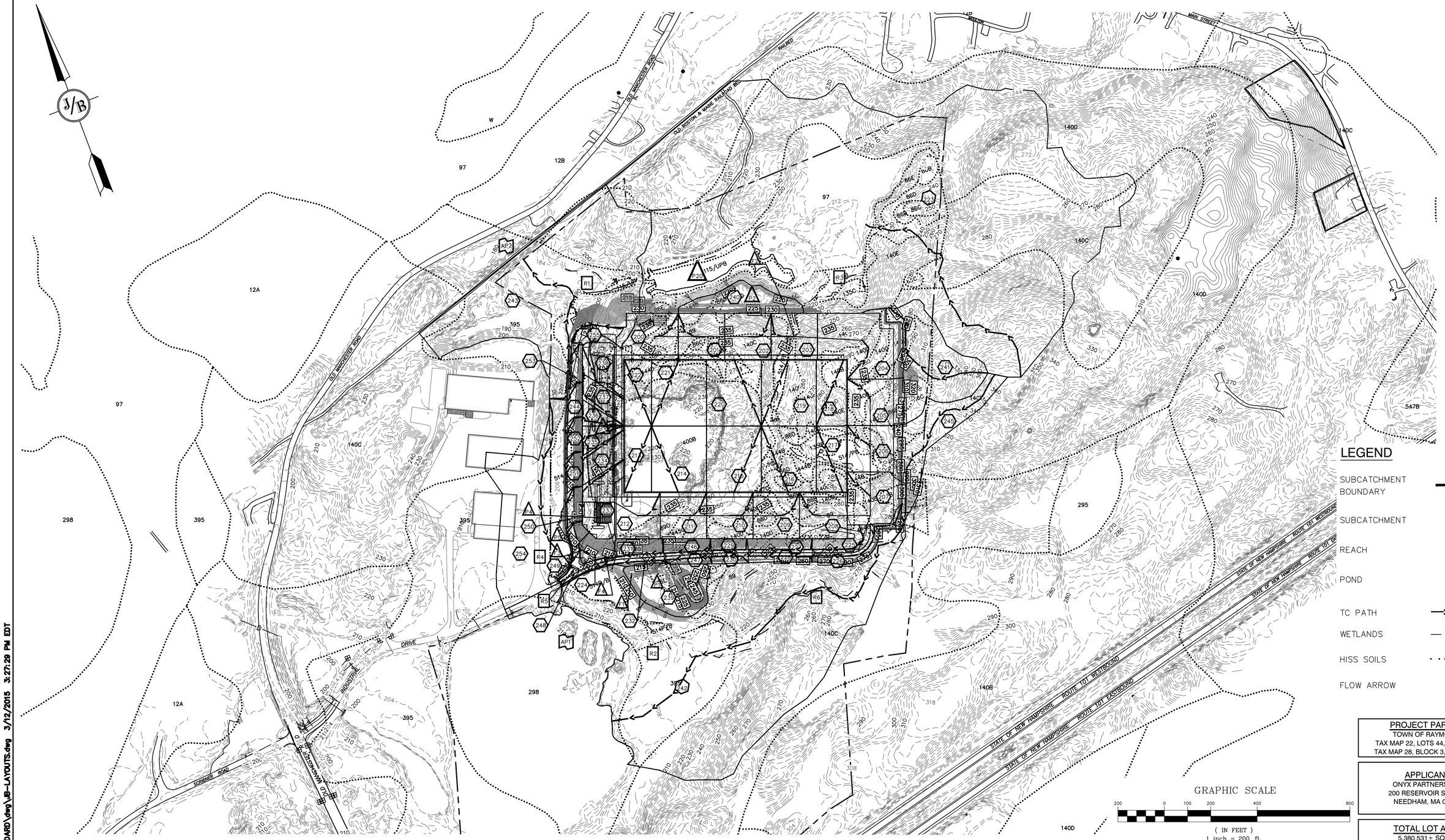
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING WATERSHED PLAN

Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH

Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
W1
SHEET 1 OF 6
JBE PROJECT NO. 21130



PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
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Plan Name: PROPOSED WATERSHED PLAN
Project: RAYMOND DISTRIBUTION
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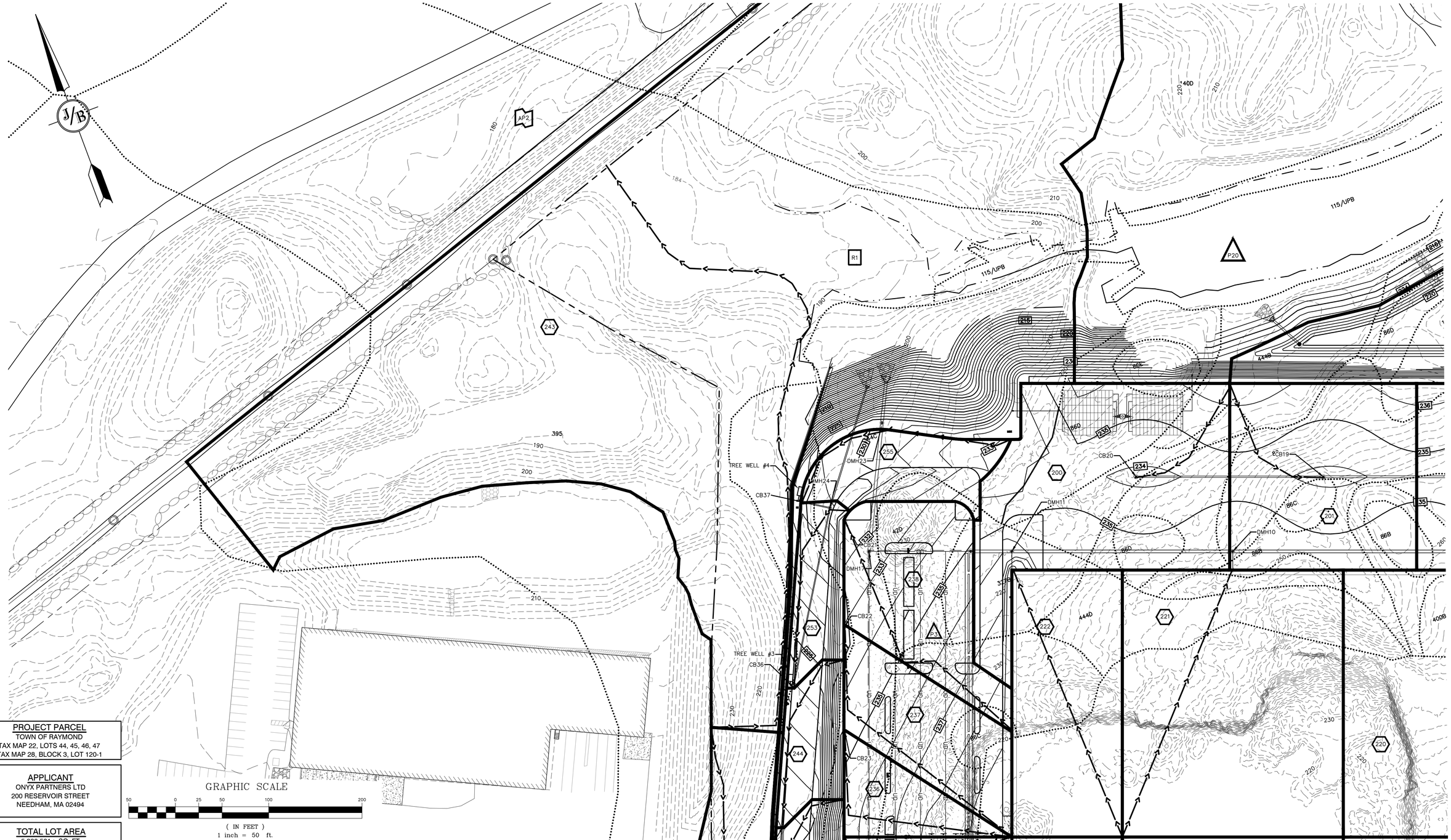
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
W2-0
SHEET 2 OF 6
JBE PROJECT NO. 21130



PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

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NEEDHAM, MA 02494

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Design: EJP	Draft: GAP	Date: 08/12/22
Checked: WJM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-WATERSHEDS.dwg		

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Stratham, NH 03885
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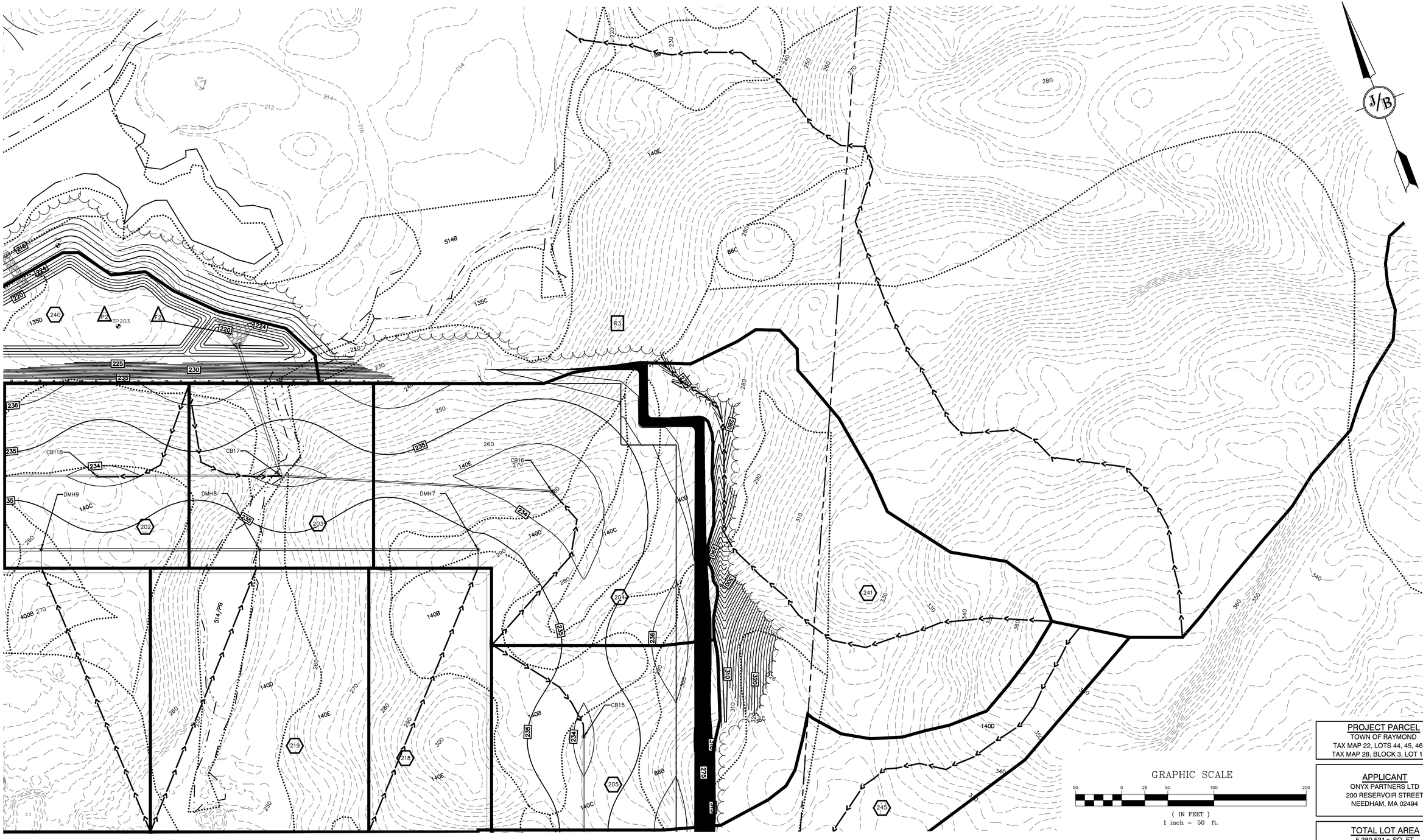
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	PROPOSED WATERSHED PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
W2-1
SHEET 3 OF 6
JBE PROJECT NO. 21130



PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
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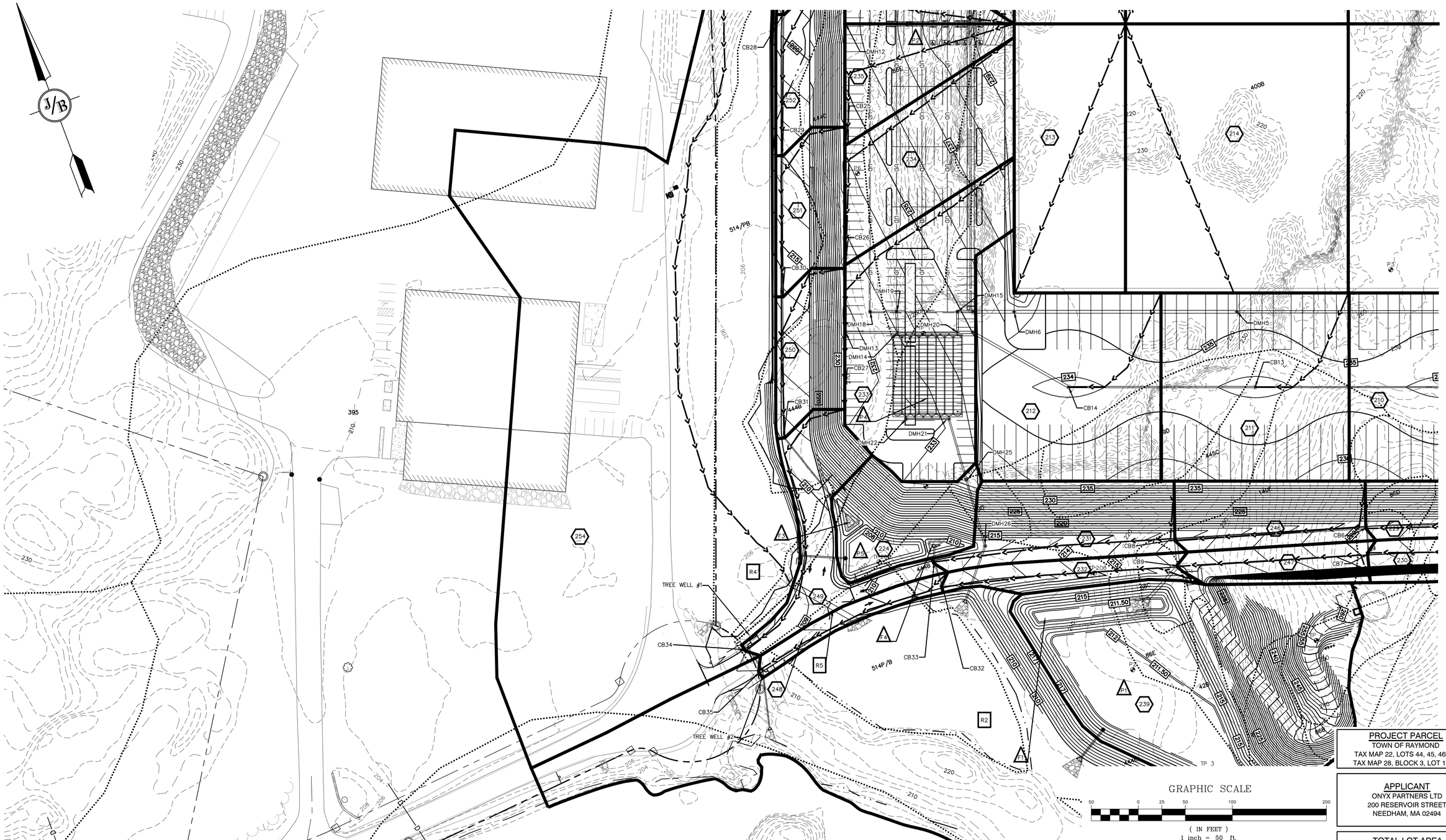
DRAWING No.
W2-2
SHEET 4 OF 6
JBE PROJECT NO. 21130



PROJECT PARCEL
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TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

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ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
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Design: EJP	Draft: GAP	Date: 08/12/22
Checked: WJM	Scale: AS NOTED	Project No.:21130
Drawing Name: 21130-WATERSHEDS.dwg		

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603-772-4746 FAX: 603-772-0227
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Plan Name:	PROPOSED WATERSHED PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
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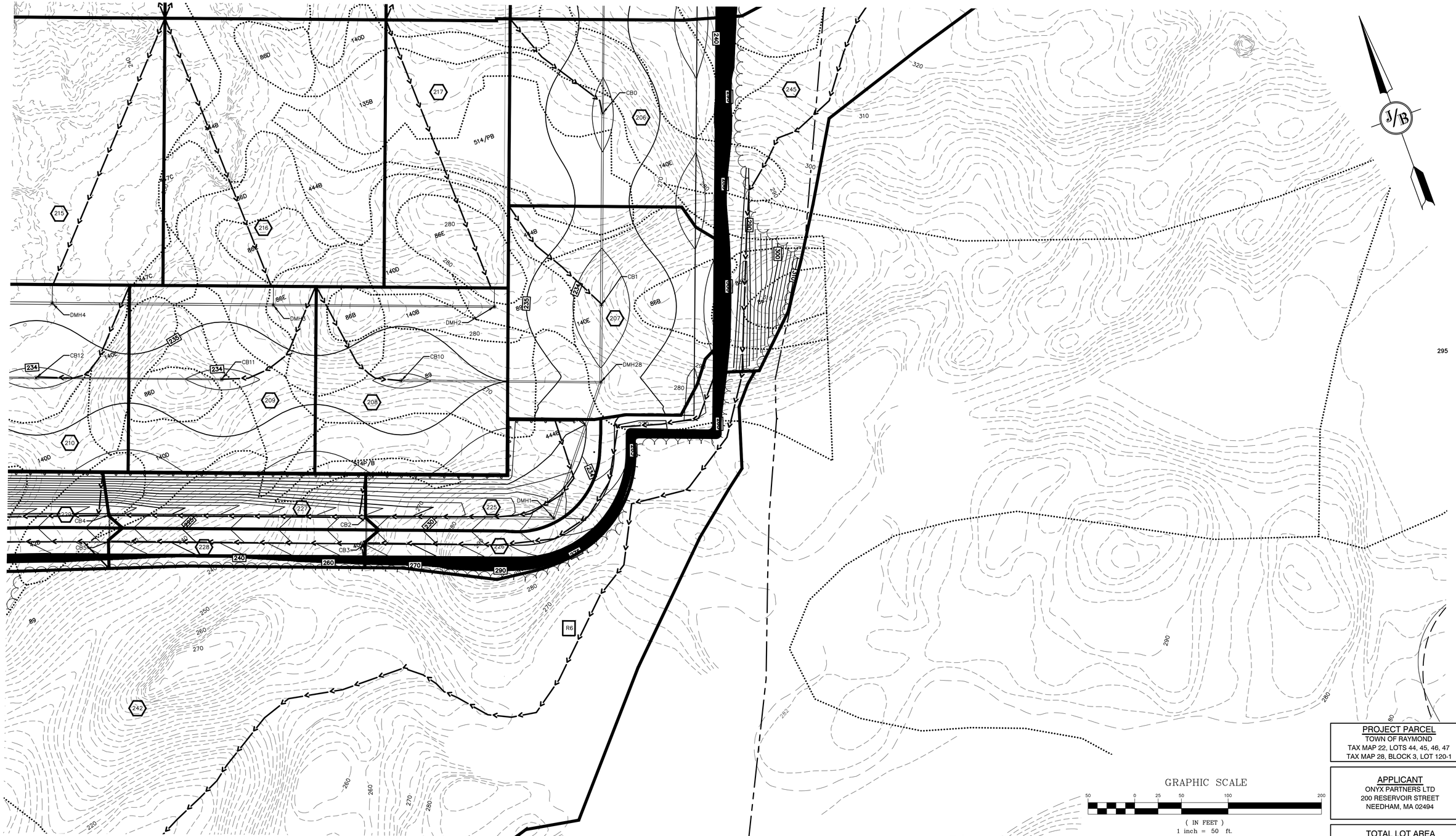
DRAWING No.
W2-3
SHEET 5 OF 6
JBE PROJECT NO. 21130



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Design: EJP	Draft: GAP	Date: 08/12/22
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THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
1	11/10/22	REVISED PER AOT/TRC/TOWN ENGINEER COMMENTS	EMP
0	8/12/22	ISSUED FOR REVIEW	GAP

Designed and Produced in NH

Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Plan Name:	PROPOSED WATERSHED PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
W2-4
SHEET 6 OF 6
JBE PROJECT NO. 21130

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ITEM:	DATE:
1. DuBois and King No Further Comment Letter	11/02/2022
2. Traffic Report Revised – VAI	11/01/2022
3. DuBois and King Comment Letter	10/25/2022
4. Traffic Report – VAI	09/16/2022

November 2, 2022

Ms. Christina McCarthy
Raymond Community Development
4 Epping Street
Raymond, New Hampshire 03077

Subject: Old Manchester Road at Industrial Drive and Scribner Road Intersection Improvement Study
Engineering Review of Traffic Impact Assessment - ONYX (Revised November 1, 2022)

Dear Ms. McCarthy:

As requested, DuBois & King, Inc. (D&K) has completed a review of the Intersection Improvement Study submitted by Vanasse & Associates, Inc., dated September 15, 2022 (Revised November 1, 2022), for the above referenced project, as it relates to the comments provided by D&K in a letter dated October 25, 2022. It is our judgment that D&K's comments in the review letter dated October 25, 2022 have been adequately addressed.

One clarification that was not noted in the original comment letter dated October 25, 2022 is the consultant's reference to "operating conditions on the Industrial Drive approach were shown to degrade to LOS E during the weekday evening peak hour". However, it is the Industrial Drive left turn lane that is expected to operate at LOS E during this peak hour period with the proposed development. The westbound approach as a whole (considering both the left turn lane and through/right turn lane) is anticipated to operate at LOS D. Therefore, for the 2032 weekday evening peak hour, the westbound approach is expected to operate at LOS E during the 2032 Build scenario and at LOS D during the 2032 Build with Mitigation scenario (as suggested by the Capacity Analysis Worksheets in the Appendices).

If you have any questions or comments, please do not hesitate to contact us.

Very truly yours,
DuBOIS & KING, Inc.

Jenny Austin, P.E.
Project Engineer

MEMORANDUM

TO: Mr. Wayne Morrill
President
Jones & Beach Engineers, Inc.
85 Portsmouth Avenue
PO Box 219
Stratham, NH 03885

FROM: Mr. Jeffrey S. Dirk, P.E., PTOE, FITE
Managing Partner
Vanasse & Associates, Inc.
35 New England Business Center Drive
Suite 140
Andover, MA 01810
(978) 269-6830
jdirk@rdva.com
Professional Engineer in CT, MA, ME, NH, RI and VA

DATE: September 15, 2022
Revised November 1, 2022

RE: 9419

SUBJECT: Intersection Improvement Study
Old Manchester Road at Industrial Drive and Scribner Road
Raymond, New Hampshire

Vanasse & Associates, Inc. (VAI) has completed an Intersection Improvement Study for the intersection of Old Manchester Road at Industrial Drive and Scribner Road, in Raymond, New Hampshire. This study is responsive to a request from the Town of Raymond Planning Board to assess the need for improvements at the subject intersection to accommodate the development of a warehouse/distribution facility to be located at the east end of Industrial Drive (hereafter referred to as the "Project"), and has been revised to address the comments that were raised in the October 25, 2022 *Engineering Review of Traffic Impact Assessment* letter prepared by DuBois & King, Inc. expanding the scope of the assessment to provide information and analyses that are consistent with a formal Traffic Impact Study (TIS). This study has been prepared in consultation with the Town of Raymond and the New Hampshire Department of Transportation (NHDOT), and was completed in general accordance with NHDOT standards for the preparation of a TIS. Based on this assessment, we have concluded the following with respect to the Project and the Old Manchester Road/Industrial Drive/Scribner Road intersection:

1. With the construction of the warehouse/distribution facility, traffic volumes on the Industrial Drive approach are expected to increase from 53 vehicles per hour (vph) to 115 vph during the weekday evening peak-hour (critical analysis period), with left-turn movements expected to increase from 39 vph to 85 vph;

2. The Industrial Drive approach to the intersection is predicted to operate at a level-of-service (LOS) C during weekday evening peak-hour under 2022 Opening Year conditions with the construction of the warehouse/distribution facility, where an LOS of "D" or better is generally defined as "acceptable" traffic operations. Under 2032 Build conditions with the construction of the warehouse/distribution facility, operating conditions on the Industrial Drive approach were shown to degrade to LOS E during the weekday evening peak-hour, which indicates that the approach is operating at its design capacity;

3. No apparent safety deficiencies were noted at or in the immediate proximity of the intersection based on a review of motor vehicle crash information provided by the Raymond Police Department;

4. A review of the criteria for the installation of a traffic control signal at the intersection indicates that the installation of a traffic signal is not warranted; and

5. A review of the criteria for the installation of auxiliary turn lanes indicates that the addition of a left or right-turn lane on the Old Manchester Road approaches to the intersection is not justified.

In consideration of the above, it does not appear that specific improvements are required at the Old Manchester Road/Industrial Drive/Scribner Road intersection to accommodate the initial opening of the warehouse distribution facility; however, consideration should be given to widening the Industrial Drive approach in the future to accommodate the increased delay and associated vehicle queuing that may be experienced on the approach as a result of future traffic growth.

The following details our assessment.

PROJECT DESCRIPTION

The Project will entail the construction of a 500,025± square foot (sf) warehouse building to be located off Industrial Drive Road in Raymond, New Hampshire. The Project site encompasses approximately 123.52± acres of land that is bounded by the Rockingham Recreational Trail and areas of open and wooded space to the north; NH Route 101 and areas of open and wooded space to the south; residential properties and areas of open and wooded space to the east; and commercial properties and Industrial Road to the west. The Project site currently operates as a sand and gravel quarry. Access to the Project site will be continue to be provided by way of the driveway that connects to the existing cul-de-sac at the end of Industrial Drive.

EXISTING CONDITIONS

A comprehensive field inventory of existing conditions at the intersection of Old Manchester Road at Industrial Drive and Scribner Road was conducted in July 2022. The field investigation consisted of an inventory of existing roadway geometrics; pedestrian and bicycle facilities; public transportation services; traffic volumes; and operating characteristics; as well as posted speed limits and land use information within the study area. The following describes existing conditions within the study area.

Roadways

Old Manchester Road

- Two-lane major collector roadway (Tier 5, Class V) under Town jurisdiction;
- Traverses a general northeast-southwest alignment between Lane Road/Batchelder Road and Main Street, and provides a full access interchange with NH Route 101 to the south;
- Provides two 18 to 20-foot wide travel lanes that are separated by a double-yellow centerline with 1 to 4-foot wide shoulders provided;
- The posted speed limit is 35 miles per hour (mph) south of Industrial Drive and 30 mph to the north;
- Sidewalks are provided along both sides of the roadway south of Industrial Drive and along the west side of the roadway to the north;
- Illumination is provided by way of street lights mounted on wood poles;

- Land use along Old Manchester Road area consists of the Raymond Police Department and Fire Department, the Lamprey River Elementary School, residential and commercial properties, and areas of open and wooded space.

Industrial Drive

- Two-lane local access roadway (Tier 5, Class V) under Town jurisdiction;
- Traverses the study area in a general east-west direction for a distance of approximately 1,250 feet east of Old Manchester Road;
- Provides two 12 to 14-foot wide travel lanes that are separated by a double-yellow centerline with 1 to 2-foot wide shoulders provided;
- A posted speed limit is not provided;
- Sidewalks and illumination are not provided;
- Land along Industrial Drive consists of commercial properties and areas of open and wooded space.

Scribner Road

- Two-lane local access roadway (Tier 5, Class V) under Town jurisdiction;
- Traverses the study area in a general east-west direction;
- Provides two 11 to 13-foot wide travel lanes that are separated by a double-yellow centerline with 3 to 4-foot wide shoulders provided;
- A posted speed limit is not provided;
- Sidewalks and illumination are not provided;
- Land along Scribner Road area consists of the Raymond Police Department and Fire Department, residential properties and areas of open and wooded space.

Intersection

Table 1 summarizes lane use, traffic control, and pedestrian and bicycle accommodations at the study area intersection as observed in July 2022.

Table 1
STUDY AREA INTERSECTION DESCRIPTION

Intersection	Traffic Control Type[a]	No. of Travel Lanes Provided	Shoulder Provided? (Yes/No/Width)	Pedestrian Accommodations? (Yes/No/Description)	Bicycle Accommodations? (Yes/No/Description)
Old Manchester Rd./ Industrial Dr. / Scribner Rd.	S	1 general-purpose travel lane on all approaches	Yes, 1 to 4-feet along Old Manchester Rd.; 1 to 2-feet along Industrial Dr.; 3 to 4-feet along Scribner Rd.;	Yes, both sides of Old Manchester Rd. south of the intersection and west side of Old Manchester Rd. north of the intersection	Yes, shared traveled-way[b]

[a]S = STOP-sign control.
[b]Combined shoulder and travel lane width equal to or exceed 14 feet.

Existing Traffic Volumes

In order to determine existing traffic-volume demands and flow patterns within the study area, and to afford sufficient data to conduct a Traffic Signal Warrants Analysis (TSWA), a 12-hour (7:00 AM to 7:00 PM) turning movement count (TMC) was performed at the Old Manchester Road/Industrial Drive/ Scribner Road intersection on July 14, 2022 (Thursday).

In order to evaluate the potential for seasonal fluctuation of traffic volumes within the study area, traffic volume data from NHDOT count station No. 02071090, which is located on NH Route 101 between Exits 3 and 4 (Milepost 106.7) in Candia, was reviewed. Based on a review of this data, it was determined that traffic volumes for the month of July are approximately 1.3 percent below peak-month (August) conditions and, therefore, the raw traffic count data that forms the basis of this assessment was adjusted upward accordingly to represent peak-month conditions in accordance with NHDOT standards.

In order to account for the impact on traffic volumes and trip patterns resulting from the COVID-19 pandemic, traffic volume data collected at NHDOT Continuous Count Station No. 02071090 in July 2022 was compared to July 2019 traffic volumes that were collected at the same location. Based on this pre and post COVID-19 traffic-volume comparison, the traffic-volume data that was collected as a part of this assessment was adjusted upward by an additional 10.0 percent in order to account for the reduced traffic volumes resulting from the COVID-19 pandemic.

The 2022 Existing weekday morning and evening peak-month peak-hour traffic volumes are graphically depicted on Figure 1.

Pedestrian and Bicycle Facilities

A comprehensive field inventory of pedestrian and bicycle facilities within the study area was undertaken in July 2022. The field inventory consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadways and at the study intersection, as well as the location of existing and planned future bicycle facilities. Sidewalks are provided along one or both sides of Old Manchester Road. Formal bicycle facilities were not identified within the study area; however, Old Manchester Road, Industrial Drive and Scribner Road generally provide sufficient width to support bicycle travel in a shared traveled-way condition (i.e., bicyclists and motor vehicles sharing the traveled way).[1] To the north of the study intersection, the Rockingham Recreational Trail, an unimproved gravel path, crosses Old Manchester Road with a trail-head located approximately 1,300 feet north of the Old Manchester Road/Industrial Drive/ Scribner Road intersection.

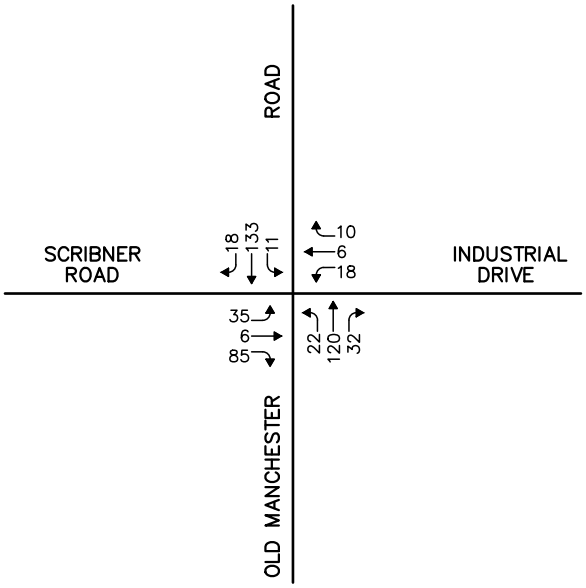
Motor Vehicle Crash Data

Motor vehicle crash information for the Old Manchester Road/Industrial Drive/Scribner Road intersection was provided by the Raymond Police Department for the most recent five-year period available (2017 through 2021, inclusive) in order to examine motor vehicle crash trends. Based on a review of this data, one (1) motor vehicle crash was reported to have occurred at or in the vicinity of the intersection over the five-year period. This crash involved ice falling from a vehicle that struck another vehicle in traffic resulting in property damage and was not associated with a specific roadway or intersection defect.

Based on a review of the motor vehicle crash data, no discernable safety deficiencies were apparent at or in the vicinity of the Old Manchester Road/Industrial Drive/Scribner Road intersection.

[1] A minimum combined travel lane and paved shoulder width of 14-feet is required to support bicycle travel in a shared traveled-way condition.

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)

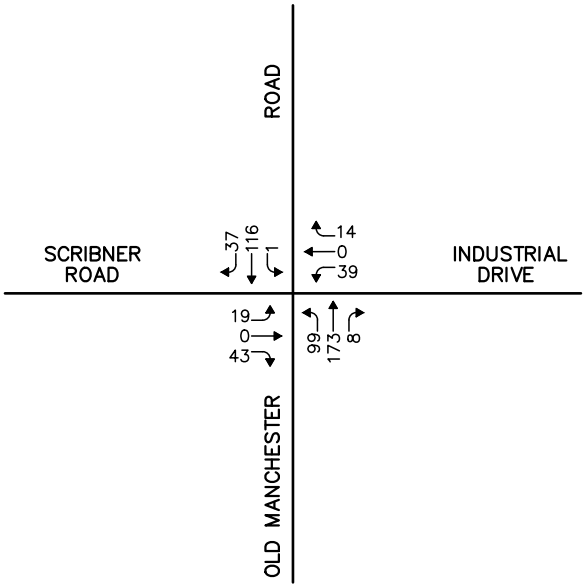


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Figure 1

2022 Existing Peak-Month Peak-Hour Traffic Volumes

Vanasse & Associates inc

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DESIGN YEAR CONDITIONS

Two (2) design-year conditions were assessed for the study intersection in order to determine the need for improvements to accommodate future traffic volumes, including those associated with the construction of the warehouse/distribution facility. These conditions included a 2022 Baseline condition and a 2032 Horizon Year condition.

The Town of Raymond Community Development and Planning Department and the Rockingham Planning Commission (RPC) were contacted in order to determine if there were any projects planned within the study area that would have an impact on future traffic volumes at the study intersection. Based on this consultation, the following project was identified for inclusion in this assessment:

- ***Convenience Store and Fueling Facility, Old Manchester Road, Raymond, New Hampshire.*** This project consists of the construction of a 6,500± sf convenience store (containing a 1,200± sf coffee shop with a drive-through window) with an accompanying 18-pump vehicle fueling facility to be located off Old Manchester Road.

Traffic volumes associated with this project were obtained from the traffic study conducted for the specific development[2] and were included in both the 2022 Baseline and 2032 Horizon Year traffic volumes.

The 2032 Horizon Year traffic volumes were developed by applying a 1.0 percent per year compounded annual background traffic growth rate to the 2022 Existing peak-month, peak-hour traffic volumes and then adding the peak-hour traffic volumes that are expected to be generated by the aforementioned development project. The background traffic growth rate was developed based on a review of traffic-volume data compiled by NHDOT from permanent count stations located in Raymond.[3]

The 2022 Baseline weekday morning and evening peak-month, peak-hour traffic volumes are summarized on Figure 2, with Figure 3 summarizing the corresponding 2032 Horizon Year peak-month, peak-hour traffic volumes.

Roadway Improvement Projects

The Town of Raymond and NHDOT were contacted in order to determine if there were any planned roadway improvement projects expected to be completed within the study area. Based on these discussions, the following roadway improvement project was identified within the study area:

- ***Intersection Improvements, Old Manchester Road at Industrial Drive and Scribner Road, Raymond.*** This project is being undertaken by the proponent of the convenience store/fueling facility and involves restriping the Old Manchester Road northbound approach to provide a left-turn lane and a shared through/right-turn lane. Given that These improvements are associated with the convenience store/fueling facility, they were assumed to be complete commensurate with the opening of that project are included in both the 2022 Baseline and 2032 Horizon Year analyses.

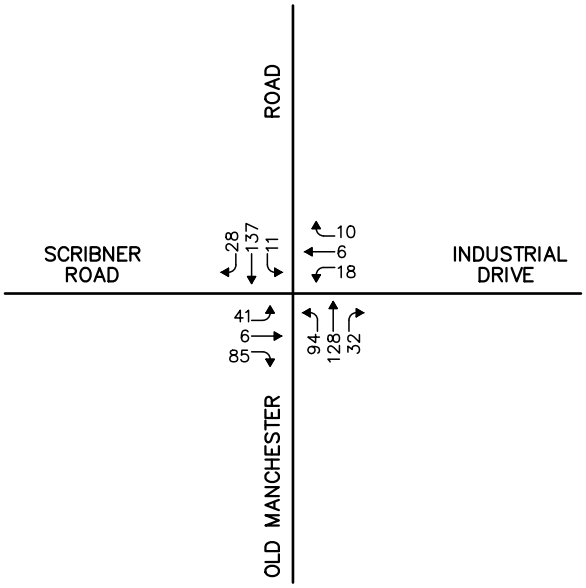
No other roadway improvement projects aside from routine maintenance activities were identified to be planned within the study area at this time.

---

[2] *Traffic Impact and Access Study*; Proposed MEGA-X Convenience Store (With Gas); Old Manchester Road; Raymond, New Hampshire; Tetra Tech; August 28, 2019.

[3] This data indicates that traffic volumes have fluctuated over the 10-year period between 2009 and 2019, with an average increase in the traffic growth rate of 0.92 percent.

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)

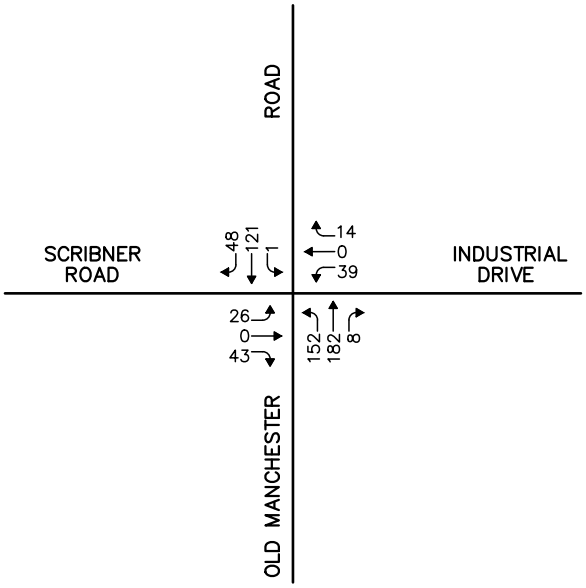


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Figure 2

2022 Baseline Peak-Month Peak-Hour Traffic Volumes

Vanasse & Associates inc

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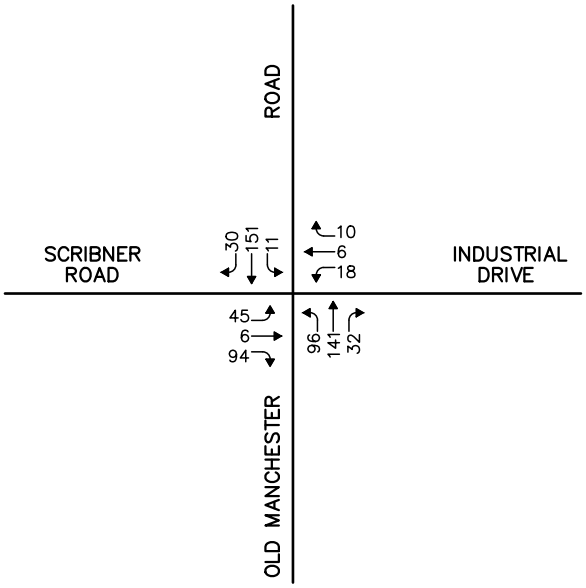
WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)

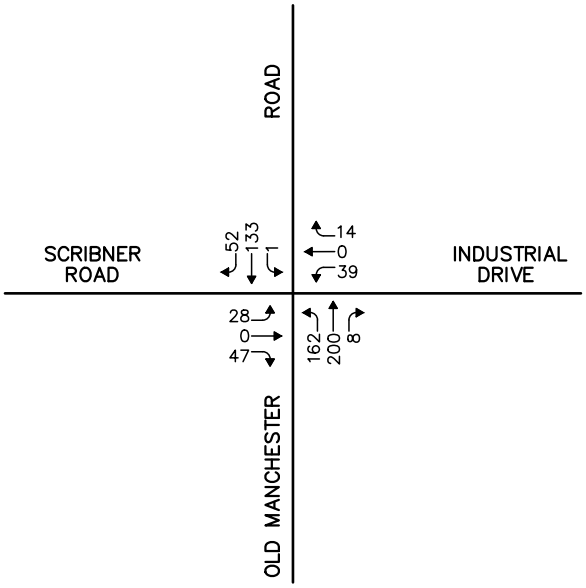


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Figure 3

2032 Horizon Year
Peak-Month
Peak-Hour Traffic Volumes

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PROJECT-GENERATED TRAFFIC

As proposed, the Project will entail the construction of a 500,025± sf warehouse building. In order to develop the traffic characteristics of the Project, trip-generation statistics published by the Institute of Transportation Engineers (ITE)[4] for various warehouse uses were reviewed, including those for a general warehouse and both sortation and non-sortation type warehouses. Based on this review and the relative size of the warehouse building, ITE Land Use Code (LUC) 150, *Warehousing*, was used to develop the traffic characteristics of the Project as this use produced larger overall traffic volumes for the Project vs. the use of trip-generation data for a non-sortation warehouse given that an end user of the warehouse buildings has not been identified; the sortation-type warehouse produced a disproportionate volume of traffic in relation to the overall size of the buildings that are proposed. The resulting traffic volumes are summarized in Table 2 and have been disseminated into passenger car trips and truck trips.

Table 2
TRIP-GENERATION SUMMARY[a]

Time Period/Direction	(A) Passenger Car Trips	(B) Truck Trips	(A+B) Vehicle Trips
Average Weekday Daily:			
Entering	264	150	414
Exiting	264	150	414
Total	528	300	828
Weekday Morning Peak Hour:			
Entering	60	5	65
Exiting	14	5	19
Total	74	10	84
Weekday Evening Peak Hour:			
Entering	16	8	24
Exiting	55	7	62
Total	71	15	86

[a]Based on ITE LUC 150, *Warehousing* (500,025 sf).

Project-Generated Traffic-Volume Summary

As can be seen in Table 2, using the higher trip rates associated with a general warehouse, the Project is expected to generate 828 vehicle trips on an average weekday (two-way volume over the operational day of the Project, or 414 vehicles entering and 414 exiting), consisting of 528 passenger car trips and 300 truck trips. During the weekday morning peak-hour, the Project is expected to generate 84 vehicle trips (65 vehicles entering and 19 exiting), consisting of 74 passenger car trips and 10 truck trips. During the weekday evening peak-hour, the Project is expected to generate 86 vehicle trips (24 vehicles entering and 62 exiting), consisting of 71 passenger car trips and 15 truck trips.

[4]*Trip Generation*, 11th Edition; Institute of Transportation Engineers; Washington, DC; 2021.

Trip Distribution and Assignment

Separate trip-distribution patterns were developed for passenger car trips and truck trips given the differing nature and purpose of these trips. For passenger car trips, the directional distribution was determined based on a review of existing traffic patterns within the study area. For truck trips, the directional distribution was developed based on a review of existing traffic patterns within the study area and the location of connections to the Interstate Highway System (IHS). Figures depiction of the trip generation pattern for passenger car and truck trips and the assignment of Project-related traffic to the study area intersection are provided as an attachment.

FUTURE TRAFFIC VOLUMES - BUILD CONDITION

The 2022 Opening Year and 2032 Build peak-month condition traffic volumes were developed by adding Project-generated traffic to the corresponding 2022 Baseline and 2032 Horizon Year peak-month peak-hour traffic volumes, respectively. The resulting 2022 Opening Year Build condition weekday morning, and weekday evening peak-month peak-hour traffic volumes are graphically depicted on Figure 4, with the corresponding 2032 Build condition peak-month peak-hour traffic volumes depicted on Figure 5.

TRAFFIC SIGNAL WARRANTS ANALYSIS

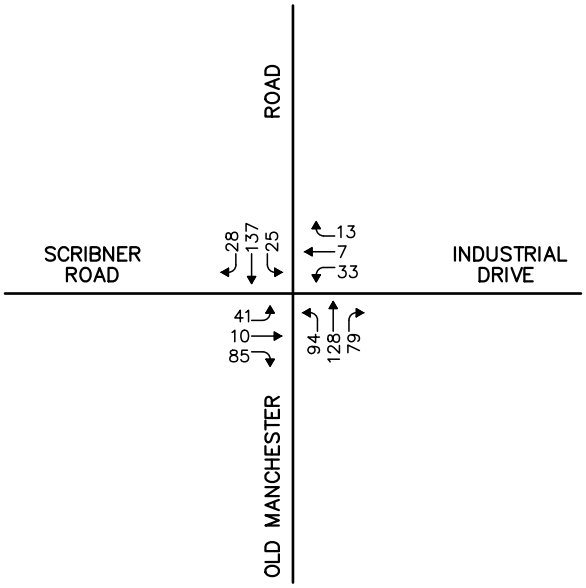
A detailed Traffic Signal Warrants Analysis (TSWA) was performed for the Old Manchester Road/ Industrial Drive/Scribner Road intersection under 2022 Existing, 2022 Baseline and 2032 Horizon Year conditions, following the methodology defined in the Manual on Uniform Traffic Control Devices (MUTCD).[5] The MUTCD establishes nine warrants or criteria to evaluate a location for the installation (or retention) of a traffic signal; however, satisfaction of a warrant in and of itself does not necessarily indicate that the installation of a traffic signal is the best traffic control solution. An engineering evaluation of the location in question should indicate that the establishment of traffic signal control will improve the overall safety and/or operation of the intersection. Table 3 lists the nine warrants used to evaluate an intersection for traffic signal control as presented in the MUTCD.

Table 3
TRAFFIC SIGNAL WARRANTS

Warrant No.	Description
1	Eight-Hour Vehicular Volume
2	Four-Hour Vehicular Volume
3	Peak-Hour
4	Pedestrian Volume
5	School Crossing
6	Coordinated Signal System
7	Crash Experience
8	Roadway Network
9	Intersection Near a Grade Crossing

[5] *Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009.

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)

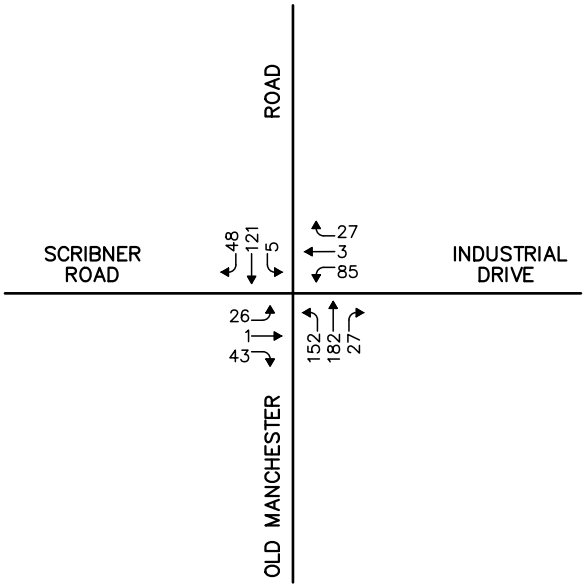


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Figure 4

2022 Opening Year
Peak-Month
Peak-Hour Traffic Volumes

Vanasse & Associates inc

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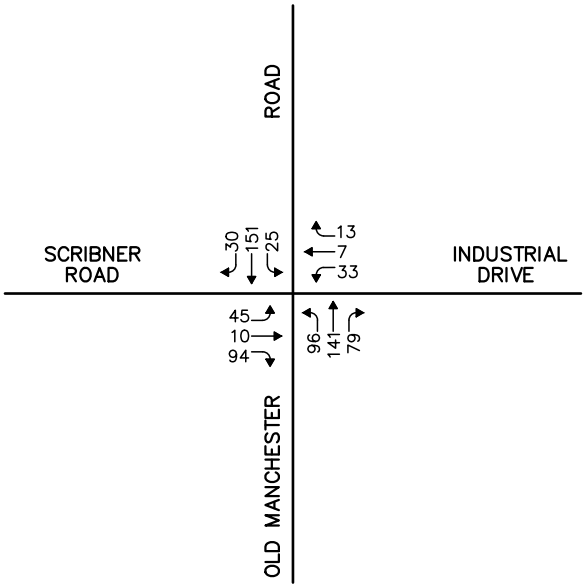
WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



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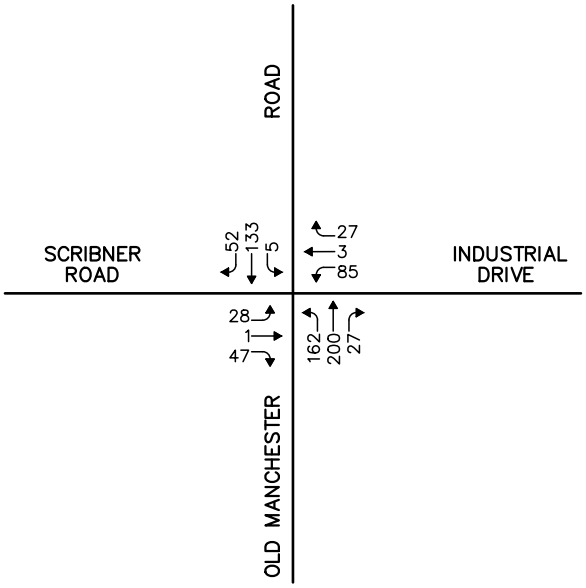

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Figure 5

2032 Build
Peak-Month
Peak-Hour Traffic Volumes

Vanasse & Associates inc

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Each of the nine traffic signal warrants listed in Table 3 were evaluated for the subject intersection using the 12-hour TMC collected at the intersection under the following conditions:

- ***Design Speed:*** 40 mph
- ***Traffic Volumes:*** 2022 Existing, 2022 Baseline and 2032 Horizon Year average-month conditions
- ***Geometry:***
  - *Old Manchester Road Northbound:* One (1) general-purpose travel lane (2022 Existing and 2022 Baseline conditions); and One (1) left-turn lane and One (1) through/right-turn lane (2032 Horizon Year conditions)
  - *Old Manchester Road Southbound:* One (1) general-purpose travel lane
  - *Industrial Drive:* One (1) general-purpose travel lane
  - *Scribner Road:* One (1) general-purpose travel lane
- ***Crash Data:*** 0 crashes between 2017-2021

Table 4 summarizes the results of the TSWA for the subject intersection, with the detailed TSWA worksheets and supporting materials attached.

Table 4
TRAFFIC SIGNAL WARRANTS ANALYSIS
OLD MANCHESTER ROAD AT INDUSTRIAL DRIVE AND SCRIBNER ROAD

Warrant No.	Description	2022 Existing Satisfied?	2022 Baseline Satisfied?	2022 Build Satisfied?	2032 Horizon Year Satisfied?	2032 Build Satisfied?
1	Eight-Hour Vehicular Volume	No	No	No	No	No
2	Four-Hour Vehicular Volume	No	No	No	No	No
3	Peak-Hour	No	No	No	No	No
4	Pedestrian Volume	No	No	No	No	No
5	School Crossing	No	No	No	No	No
6	Coordinated Signal System	No	No	No	No	No
7	Crash Experience	No	No	No	No	No
8	Roadway Network	No	No	No	No	No
9	Intersection Near a Grade Crossing	No	No	No	No	No

As can be seen in Table 4, the installation of a traffic control signal at the Old Manchester Road/ Industrial Drive/Scribner Road intersection was not found to be warranted under 2022 Existing, 2022 Baseline, 2022 Opening Year, 2032 Horizon Year, or 2032 Build conditions.

TURN LANE WARRANTS ANALYSIS

An auxiliary turn lane warrants analysis was conducted for the Old Manchester Road approaches to Industrial Drive in accordance with the methodology and procedures outlined in *NCHRP Report 457*[6] published by the National Cooperative Highway Research Program (NCHRP).

Left-Turn Lane

Determination of the need for a left-turn lane of adequate storage length is a function of the volume of left-turning vehicles at the intersection under study and the magnitude of opposing or conflicting traffic volumes along the roadway. Based on a review of this criteria under the 2022 Existing, 2022 Baseline, 2022 Opening Year, 2032 Horizon Year, and 2032 Build conditions, provision of a left-turn lane on the Old Manchester Road southbound approach to Industrial Drive is not warranted. The detailed analysis of the left-turn lane criteria is presented as an attachment.

Right-Turn Lane

Consideration of the need for a right-turn lane is a function of the volume of right-turning vehicles at the intersection and the total volume of traffic on the same approach (advancing volume). Based on a review of this criteria under the 2022 Existing, 2022 Baseline, 2022 Opening Year, 2032 Horizon Year, and 2032 Build conditions, provision of a right-turn lane on the Old Manchester Road northbound approach to Industrial Drive or the Old Manchester Road southbound approach to Scribner Road is not warranted. The detailed analysis of the right-turn lane criteria is presented as an attachment.

TRAFFIC OPERATIONS ANALYSIS

In order to assess operating conditions at the Old Manchester Road/Industrial Drive/Scribner Road intersection, a detailed traffic operations analysis (motorist delays, vehicle queuing and level-of-service) was performed. Capacity analyses provide an indication of how well transportation facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

In brief, six levels of service are defined for each type of facility. They are given letter designations ranging from A to F, with level-of-service (LOS) "A" representing the best operating conditions and LOS "F" representing congested or constrained operations. An LOS of "E" is representative of a transportation facility that is operating at its design capacity with an LOS of "D" generally defined as the limit of "acceptable" traffic operations. Since the level-of-service of a traffic facility is a function of the flows placed upon it, such a facility may operate at a wide range of levels of service depending on the time of day, day of week, or period of the year. The Synchro® intersection capacity analysis software, which is based on the analysis methodologies and procedures presented in the 2010 *Highway Capacity Manual* (HCM)[7] for unsignalized intersections, was used to complete the level-of-service and vehicle queue analyses. The results of the intersection capacity and vehicle queue analyses for the study intersection is summarized in Table 5, with the detailed analysis results provided as an attachment.

---

[6] *NCHRP Report 457 – Evaluating Intersection Improvement: An Engineering Study Guide*, National Cooperative Highway Research Program; 2001.

[7] *Highway Capacity Manual*, Transportation Research Board; Washington, DC; 2010.

Table 5
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/ Peak Hour/Movement	2022 Existing				2022 Baseline				2022 Opening Year				2032 Horizon Year				2032 Build				2032 Build with Mitigation			
	Demand[a]	Delay[b]	LOS[c]	Queue[d] 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
Old Manchester Road at Industrial Drive and Scribner Road																								
Weekday Morning:																								
Scribner Road EB LT/TH/RT	126	11.6	B	1	132	13.7	B	1	136	15.2	C	2	145	14.6	B	2	149	16.3	C	2	149	16.3	C	2
Industrial Drive WB LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	33	29.6	D	1
Industrial Drive WB LT/TH/RT	34	14.4	B	1	34	18.2	C	1	53	23.5	C	1	34	19.5	C	1	53	25.8	D	1	--	--	--	--
Industrial Drive WB TH/RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20	13.4	B	0
Old Manchester Road NB LT	--	--	--	--	94	7.9	A	1	94	7.9	A	1	96	8.0	A	1	96	8.0	A	1	96	8.0	A	1
Old Manchester Road NB LT/TH/RT	174	1.0	A	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Old Manchester Road NB TH/RT	--	--	--	--	160	0.0	A	0	207	0.0	A	0	173	0.0	A	0	220	0.0	A	0	220	0.0	A	0
Old Manchester Road SB LT/TH/RT	162	0.5	A	0	176	0.5	A	0	190	1.0	A	0	192	0.4	A	0	206	1.0	A	0	206	1.0	A	0
Weekday Evening:																								
Scribner Road EB LT/TH/RT	62	12.2	B	1	69	14.6	B	1	70	15.5	C	1	75	15.8	C	1	76	16.9	C	1	76	16.9	C	1
Industrial Drive WB LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	85	42.0	E	3
Industrial Drive WB LT/TH/RT	53	16.5	C	1	53	20.4	C	1	115	32.2	D	3	53	22.9	C	1	115	40.2	E	4	--	--	--	--
Industrial Drive WB TH/RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30	10.9	B	0
Old Manchester Road NB LT	--	--	--	--	152	8.2	A	1	152	8.2	A	1	162	8.4	A	1	162	8.4	A	1	162	8.4	A	1
Old Manchester Road NB LT/TH/RT	280	2.8	A	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Old Manchester Road NB TH/RT	--	--	--	--	190	0.0	A	0	209	0.0	A	0	208	0.0	A	0	227	0.0	A	0	227	0.0	A	0
Old Manchester Road SB LT/TH/RT	154	0.0	A	0	170	0.0	A	0	174	0.2	A	0	186	0.0	A	0	190	0.2	A	0	190	0.2	A	0

[a]Demand in vehicles per hour.
[b]Average control delay per vehicle (in seconds).
[c]Level of service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

As shown in Table 4, under 2022 Existing peak-month conditions, the critical movements at this unsignalized intersection (westbound movements from Industrial Drive) were shown to operate at LOS B during the weekday morning peak-hour and at LOS C during the weekday evening peak-hour, with minor (up to one (1) vehicle) vehicle queuing.

Under 2022 Baseline peak-month conditions, the critical movements at this unsignalized intersection were shown to degrade from LOS B to LOS C during the weekday morning peak-hour and to continue to operate at LOS C during the weekday evening peak-hour. Vehicle queues at the intersection was shown to increase by one (1) vehicle (Old Manchester Road northbound approach during the weekday morning peak-hour).

Under 2022 Opening Year (with the Project) peak-month conditions, the critical movements at this unsignalized intersection were shown to continue to operate at LOS C during the weekday morning peak-hour and to degrade from LOS C (2022 Baseline) to LOS D during the weekday evening peak-hour. Vehicle queues at the intersection was shown to increase by two (2) vehicles (Industrial Drive approach during the weekday evening peak-hour). As such, no improvements were found to be necessary under 2022 Baseline or 2022 Opening Year traffic volume conditions.

Under 2032 Horizon Year peak-month conditions, all movements from the Scribner Road approach were shown to degrade from LOS B (2022 Baseline) to LOS C during the weekday evening peak-hour. Vehicle queues at the intersection was shown to increase by up to one (1) vehicle (Scribner Road approach during the weekday morning peak-hour).

Under 2032 Build (with the Project) peak-month conditions, the critical movements at this unsignalized intersection were shown to degrade from LOS C (2032 Horizon Year) to LOS D during the weekday morning peak-hour and from LOS C to LOS E during the weekday evening peak-hour. Vehicle queues at the intersection was shown to increase by up to three (3) vehicles (Industrial Drive approach during the weekday evening peak-hour).

All movements along Old Manchester Road are expected to operate at LOS A during the peak periods under all analysis conditions with minor (up to one (1) vehicle) queuing predicted.

Future Intersection Improvement Review

In order to improve operating conditions under the 2032 Build conditions, an assessment of adding a left-turn lane on the Industrial Drive approach was completed. As can be seen in Table 4 under 2032 Build with Mitigation conditions, the addition of a left-turn lane on the Industrial Drive approach was shown to reduce overall delay with a slight (one (1) vehicle) reduction in vehicle queuing on the approach by separating the left-turn movements from through/right-turn movements. Figure 6 conceptually depicts the suggested future improvements on the Industrial Drive approach to the intersection.

DRAFT

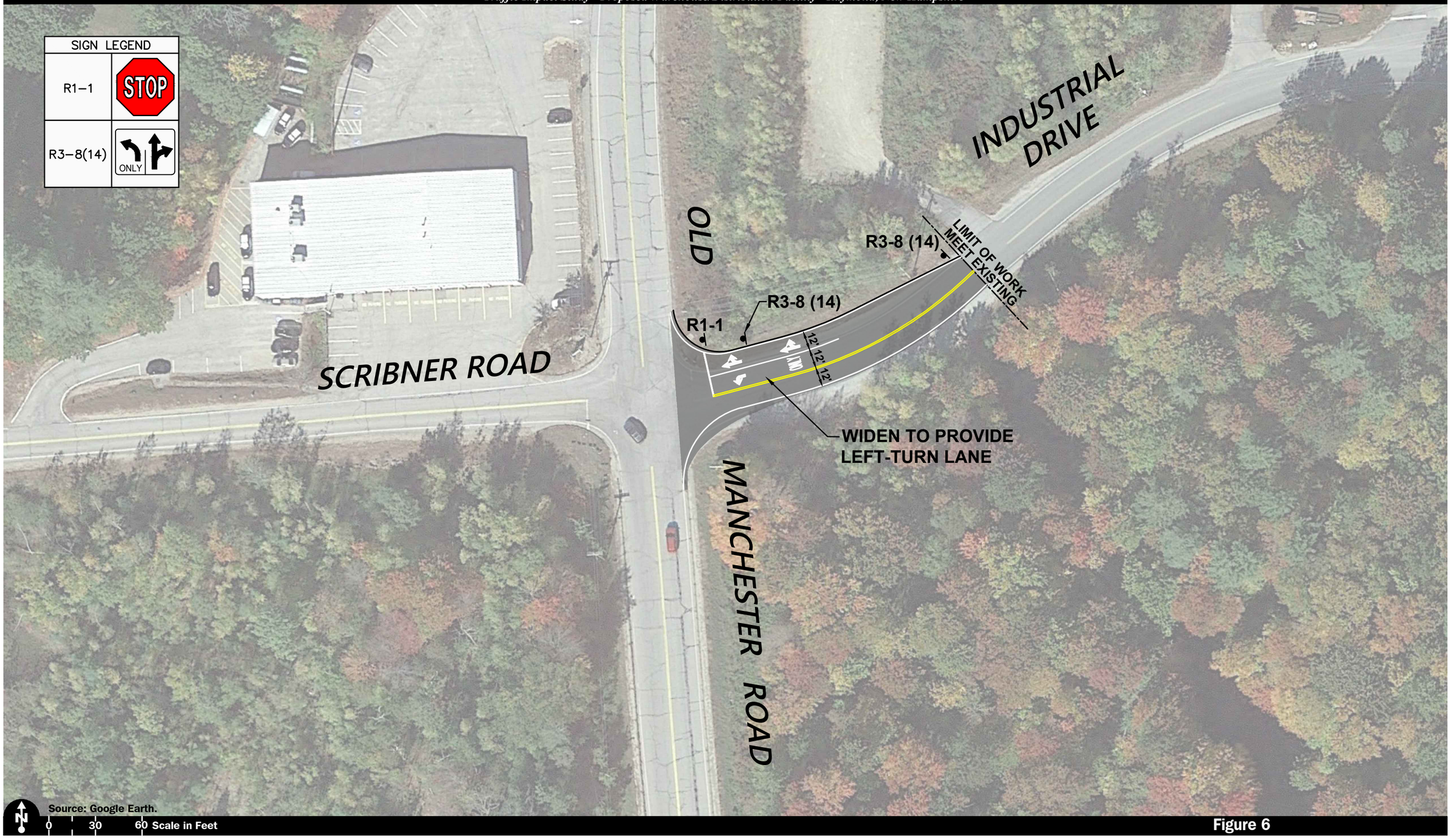

Figure 6

Conceptual Improvement Plan
Old Manchester Road at Industrial Drive and Scribner Road

Vanasse & Associates inc

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SUMMARY

VAI has completed an Intersection Improvement Study for the intersection of Old Manchester Road at Industrial Drive and Scribner Road, in Raymond, New Hampshire. This study is responsive to a request from the Town of Raymond Planning Board to assess the need for improvements at the subject intersection to accommodate the development of a warehouse/distribution facility to be located at the east end of Industrial Drive, and has been revised to address the comments that were raised in the October 25, 2022 *Engineering Review of Traffic Impact Assessment* letter prepared by DuBois & King, Inc. expanding the scope of the assessment to provide information and analyses that are consistent with a formal TIS. Based on this assessment, we have concluded the following with respect to the Old Manchester Road/Industrial Drive/Scribner Road intersection:

1. With the construction of the warehouse/distribution facility, traffic volumes on the Industrial Drive approach are expected to increase from 62 vehicles per hour (vph) to 148 vph during the weekday evening peak-hour (critical analysis period), with left-turn movements expected to increase from 39 vph to 85 vph;

2. The Industrial Drive approach to the intersection is predicted to operate at LOS C during weekday evening peak-hour under 2022 Opening Year conditions with the construction of the warehouse/distribution facility, where an LOS of "D" or better is generally defined as "acceptable" traffic operations. Under 2032 Build conditions, operating conditions on the Industrial Drive approach were shown to degrade to LOS E during the weekday evening peak-hour, which indicates that the approach is operating at its design capacity;

3. No apparent safety deficiencies were noted at or in the immediate proximity of the intersection based on a review of motor vehicle crash information provided by the Raymond Police Department;

4. A review of the criteria for the installation of a traffic control signal at the intersection indicates that the installation of a traffic signal is not warranted; and

5. A review of the criteria for the installation of auxiliary turn lanes indicates that the addition of a left or right-turn lane on the Old Manchester Road approaches to the intersection is not justified.

In consideration of the above, it does not appear that specific improvements are required at the Old Manchester Road/Industrial Drive/Scribner Road intersection to accommodate the initial opening of the warehouse distribution facility; however, consideration should be given to widening the Industrial Drive approach in the future to accommodate the increased delay and associated vehicle queuing that may be experienced on the approach as a result of future traffic growth.

cc: File

Attachments

ATTACHMENTS

TURNING MOVEMENT COUNT DATA
MOTOR VEHICLE CRASH DATA
BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS AND CALCULATIONS
GENERAL BACKGROUND TRAFFIC GROWTH
TRIP GENERATION CALCULATIONS
TRAFFIC SIGNAL WARRANTS ANALYSIS
AUXILLIARY TURN LANE WARRANTS ANALYSIS
CAPACITY ANALYSIS WORKSHEETS

TURNING MOVEMENT COUNT DATA

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 1

Groups Printed- Cars - Trucks

	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	7	22	1	2	2	0	5	16	5	10	0	24	94
07:15 AM	3	26	3	5	1	4	5	25	12	6	1	25	116
07:30 AM	2	33	2	4	0	3	5	20	8	4	1	16	98
07:45 AM	0	24	4	5	2	2	4	34	5	11	3	20	114
Total	12	105	10	16	5	9	19	95	30	31	5	85	422
08:00 AM	5	36	7	2	2	0	6	29	4	10	0	15	116
08:15 AM	1	23	7	2	0	4	4	12	5	9	0	10	77
08:30 AM	1	28	5	4	1	0	3	16	4	7	2	8	79
08:45 AM	1	14	4	4	2	2	3	13	6	1	1	10	61
Total	8	101	23	12	5	6	16	70	19	27	3	43	333
09:00 AM	0	12	3	2	0	1	9	14	5	4	0	7	57
09:15 AM	1	12	2	4	0	1	5	11	4	7	3	16	66
09:30 AM	1	21	0	4	3	1	6	20	5	2	1	7	71
09:45 AM	2	15	5	4	1	1	9	17	6	6	0	11	77
Total	4	60	10	14	4	4	29	62	20	19	4	41	271
10:00 AM	2	26	5	4	1	2	6	11	4	4	3	7	75
10:15 AM	2	16	6	8	2	0	4	13	3	4	3	10	71
10:30 AM	2	21	2	1	2	0	4	12	9	7	1	8	69
10:45 AM	0	11	4	4	2	4	8	18	4	5	1	10	71
Total	6	74	17	17	7	6	22	54	20	20	8	35	286
11:00 AM	2	20	7	5	1	1	8	10	2	6	1	9	72
11:15 AM	0	19	9	5	3	1	12	7	6	7	1	8	78
11:30 AM	3	21	6	5	0	2	7	9	2	4	1	8	68
11:45 AM	1	21	6	4	2	6	9	16	0	3	1	6	75
Total	6	81	28	19	6	10	36	42	10	20	4	31	293
12:00 PM	4	17	9	8	4	12	10	13	1	2	3	7	90
12:15 PM	4	15	3	5	0	2	11	13	14	5	1	11	84
12:30 PM	5	21	3	4	2	4	9	11	5	8	1	6	79
12:45 PM	6	14	5	6	1	1	2	17	6	5	2	8	73
Total	19	67	20	23	7	19	32	54	26	20	7	32	326
01:00 PM	1	18	2	11	1	0	12	19	11	5	2	3	85
01:15 PM	2	17	6	7	2	0	8	11	8	5	2	6	74
01:30 PM	2	13	12	7	0	0	7	11	3	1	0	9	65
01:45 PM	0	9	5	5	0	1	8	14	4	5	1	9	61
Total	5	57	25	30	3	1	35	55	26	16	5	27	285
02:00 PM	0	21	4	4	2	2	12	10	3	5	1	12	76
02:15 PM	3	19	4	4	1	2	12	10	2	1	1	3	62
02:30 PM	3	15	4	6	0	6	14	23	7	0	1	15	94
02:45 PM	1	24	3	9	2	3	15	34	4	7	1	6	109
Total	7	79	15	23	5	13	53	77	16	13	4	36	341
03:00 PM	0	30	10	3	1	3	11	20	7	3	1	9	98
03:15 PM	1	22	10	11	1	2	11	29	5	5	1	11	109
03:30 PM	0	21	7	12	0	3	18	33	2	4	2	17	119
03:45 PM	0	24	3	8	3	3	10	25	4	7	0	15	102
Total	1	97	30	34	5	11	50	107	18	19	4	52	428
04:00 PM	0	22	3	14	0	3	24	28	4	2	0	15	115
04:15 PM	1	21	9	12	0	3	20	40	2	6	0	8	122
04:30 PM	0	17	5	8	0	6	19	49	0	6	0	8	118
04:45 PM	0	44	16	1	0	1	26	38	1	3	0	8	138
Total	1	104	33	35	0	13	89	155	7	17	0	39	493
05:00 PM	0	30	9	3	0	1	16	36	1	5	0	11	112

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022

Groups Printed- Cars - Trucks

	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
05:15 PM	0	28	11	1	0	0	20	28	1	6	0	7	102
05:30 PM	1	18	12	0	0	0	27	40	1	4	1	14	118
05:45 PM	0	13	10	1	1	2	14	21	1	2	2	16	83
Total	1	89	42	5	1	3	77	125	4	17	3	48	415
06:00 PM	1	13	2	1	0	2	16	20	2	4	0	10	71
06:15 PM	1	18	6	1	2	0	12	21	0	1	0	12	74
06:30 PM	0	20	9	0	0	0	7	13	0	6	0	12	67
06:45 PM	1	8	5	0	0	1	5	12	0	5	0	8	45
Total	3	59	22	2	2	3	40	66	2	16	0	42	257
07:00 PM	0	0	0	0	0	0	2	1	0	0	0	0	3
Grand Total	73	973	275	230	50	98	500	963	198	235	47	511	4153
Apprch %	5.5	73.7	20.8	60.8	13.2	25.9	30.1	58	11.9	29.6	5.9	64.4	
Total %	1.8	23.4	6.6	5.5	1.2	2.4	12	23.2	4.8	5.7	1.1	12.3	
Cars	63	965	272	170	20	92	496	957	128	235	20	506	3924
% Cars	86.3	99.2	98.9	73.9	40	93.9	99.2	99.4	64.6	100	42.6	99	94.5
Trucks	10	8	3	60	30	6	4	6	70	0	27	5	229
% Trucks	13.7	0.8	1.1	26.1	60	6.1	0.8	0.6	35.4	0	57.4	1	5.5

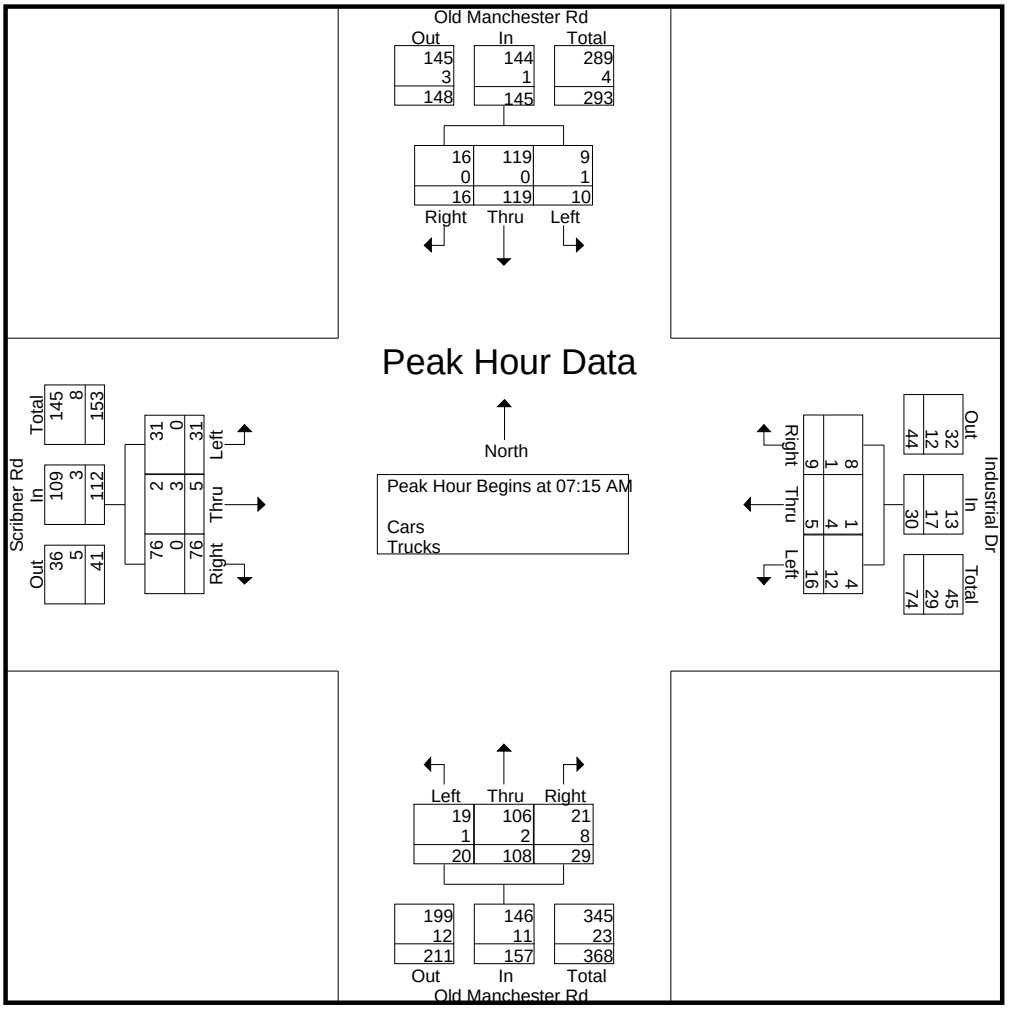
	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	26	3	32	**5**	1	**4**	**10**	5	25	**12**	42	6	1	**25**	32	**116**
07:30 AM	2	33	2	37	4	0	3	7	5	20	8	33	4	1	16	21	98
07:45 AM	0	24	4	28	5	**2**	2	9	4	**34**	5	**43**	**11**	**3**	20	**34**	114
08:00 AM	**5**	**36**	**7**	**48**	2	2	0	4	**6**	29	4	39	10	0	15	25	116
Total Volume	10	119	16	145	16	5	9	30	20	108	29	157	31	5	76	112	444
% App. Total	6.9	82.1	11		53.3	16.7	30		12.7	68.8	18.5		27.7	4.5	67.9		
PHF	.500	.826	.571	.755	.800	.625	.563	.750	.833	.794	.604	.913	.705	.417	.760	.824	.957
Cars	9	119	16	144	4	1	8	13	19	106	21	146	31	2	76	109	412
% Cars	90.0	100	100	99.3	25.0	20.0	88.9	43.3	95.0	98.1	72.4	93.0	100	40.0	100	97.3	92.8
Trucks	1	0	0	1	12	4	1	17	1	2	8	11	0	3	0	3	32
% Trucks	10.0	0	0	0.7	75.0	80.0	11.1	56.7	5.0	1.9	27.6	7.0	0	60.0	0	2.7	7.2

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 3



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

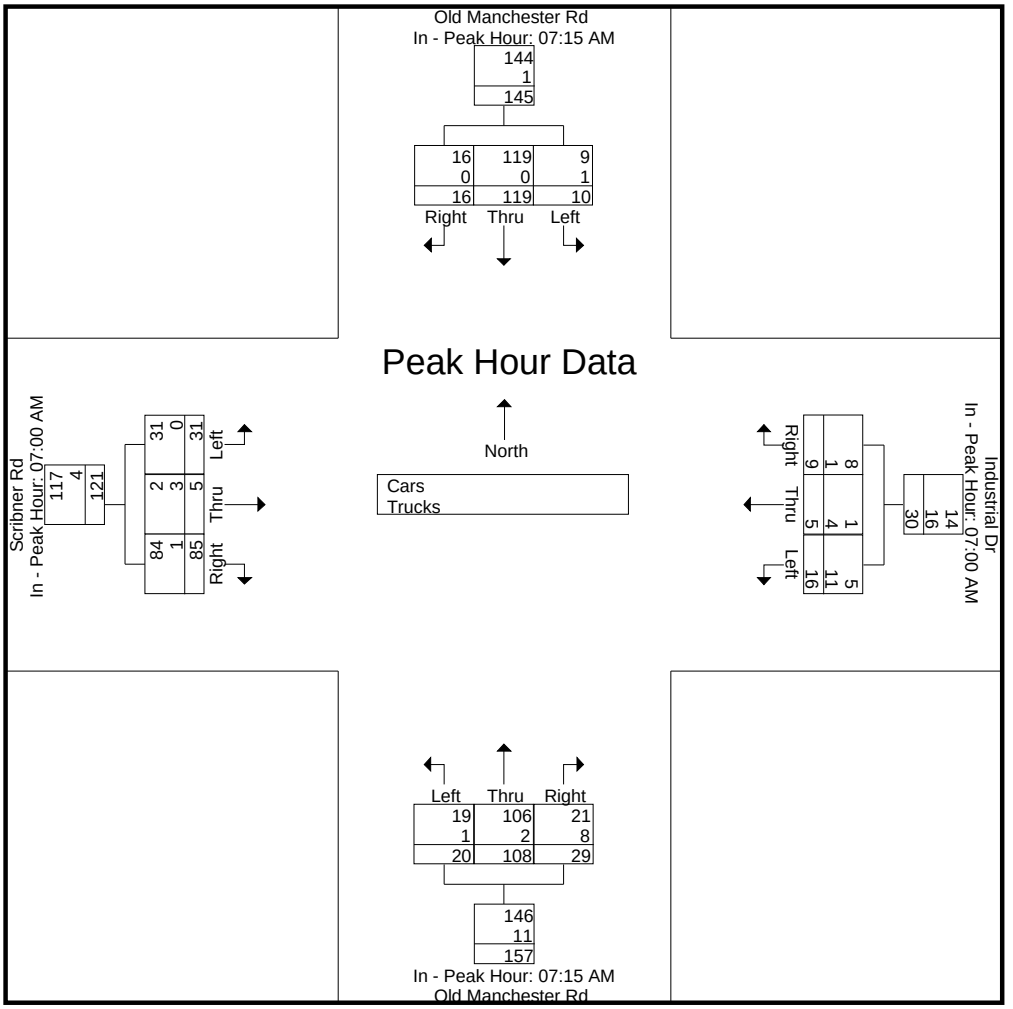
	07:15 AM				07:00 AM				07:15 AM				07:00 AM			
+0 mins.	3	26	3	32	2	**2**	0	4	5	25	**12**	42	10	0	24	**34**
+15 mins.	2	33	2	37	**5**	1	**4**	**10**	5	20	8	33	6	1	**25**	32
+30 mins.	0	24	4	28	4	0	3	7	4	**34**	5	**43**	4	1	16	21
+45 mins.	**5**	**36**	**7**	**48**	5	2	2	9	**6**	29	4	39	**11**	**3**	20	34
Total Volume	10	119	16	145	16	5	9	30	20	108	29	157	31	5	85	121
% App. Total	6.9	82.1	11		53.3	16.7	30		12.7	68.8	18.5		25.6	4.1	70.2	
PHF	.500	.826	.571	.755	.800	.625	.563	.750	.833	.794	.604	.913	.705	.417	.850	.890
Cars	9	119	16	144	5	1	8	14	19	106	21	146	31	2	84	117
% Cars	90	100	100	99.3	31.2	20	88.9	46.7	95	98.1	72.4	93	100	40	98.8	96.7
Trucks	1	0	0	1	11	4	1	16	1	2	8	11	0	3	1	4
% Trucks	10	0	0	0.7	68.8	80	11.1	53.3	5	1.9	27.6	7	0	60	1.2	3.3

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 4



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:45 AM

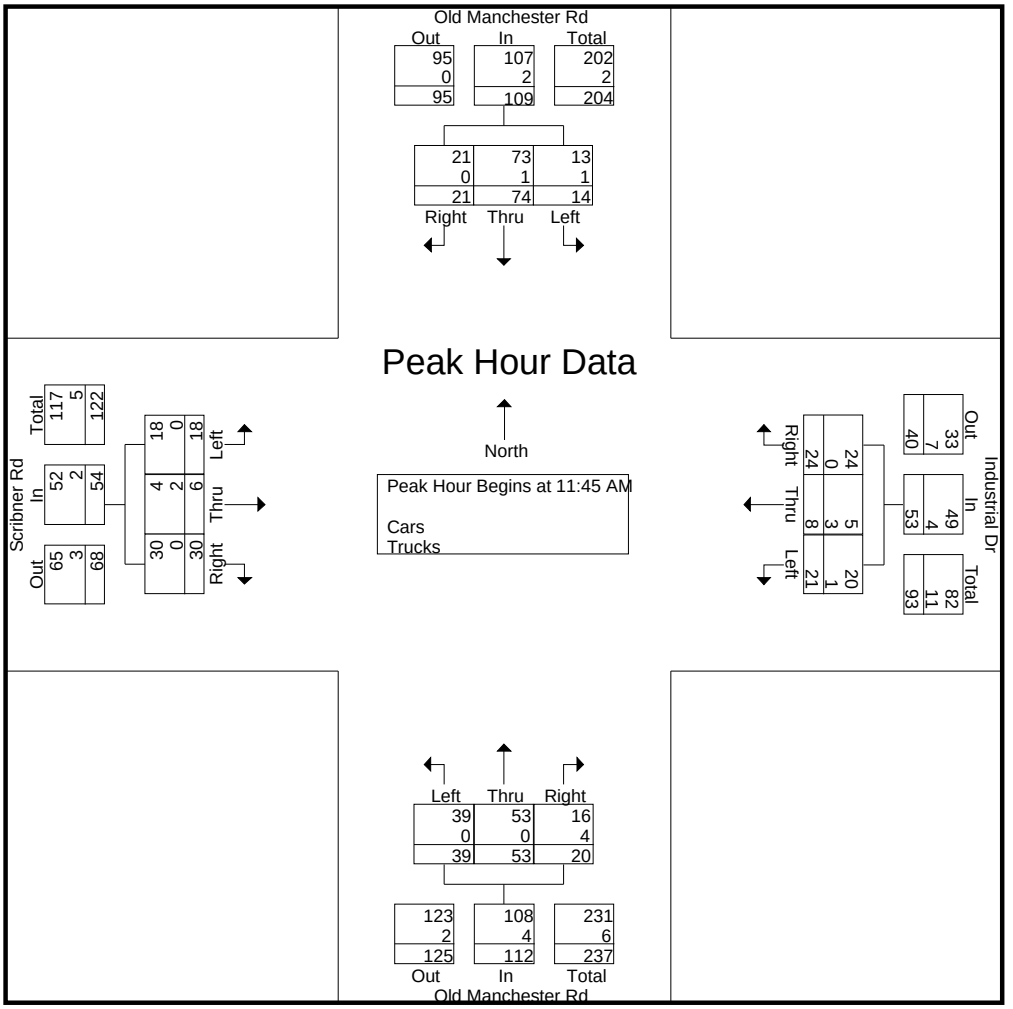
11:45 AM	1	**21**	6	28	4	2	6	12	9	**16**	0	25	3	1	6	10	75
12:00 PM	4	17	**9**	**30**	**8**	**4**	**12**	**24**	10	13	1	24	2	**3**	7	12	**90**
12:15 PM	4	15	3	22	5	0	2	7	**11**	13	**14**	**38**	5	1	**11**	**17**	84
12:30 PM	**5**	21	3	29	4	2	4	10	9	11	5	25	**8**	1	6	15	79
Total Volume	14	74	21	109	21	8	24	53	39	53	20	112	18	6	30	54	328
% App. Total	12.8	67.9	19.3		39.6	15.1	45.3		34.8	47.3	17.9		33.3	11.1	55.6		
PHF	.700	.881	.583	.908	.656	.500	.500	.552	.886	.828	.357	.737	.563	.500	.682	.794	.911
Cars	13	73	21	107	20	5	24	49	39	53	16	108	18	4	30	52	316
% Cars	92.9	98.6	100	98.2	95.2	62.5	100	92.5	100	100	80.0	96.4	100	66.7	100	96.3	96.3
Trucks	1	1	0	2	1	3	0	4	0	0	4	4	0	2	0	2	12
% Trucks	7.1	1.4	0	1.8	4.8	37.5	0	7.5	0	0	20.0	3.6	0	33.3	0	3.7	3.7

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 5



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

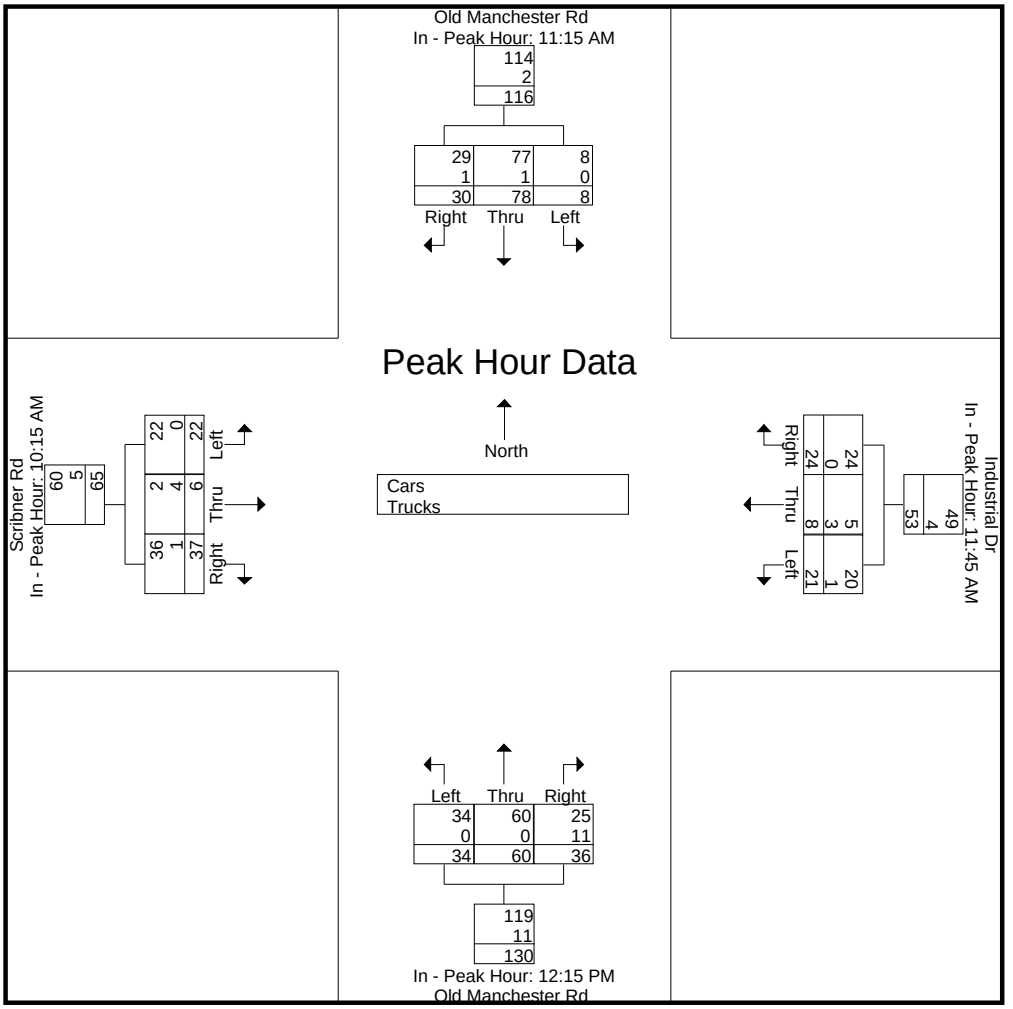
	11:15 AM				11:45 AM				12:15 PM				10:15 AM			
+0 mins.	0	19	**9**	28	4	2	6	12	11	13	**14**	38	4	**3**	**10**	**17**
+15 mins.	3	**21**	6	**30**	**8**	**4**	**12**	**24**	9	11	5	25	**7**	1	8	16
+30 mins.	1	21	6	28	5	0	2	7	2	17	6	25	5	1	10	16
+45 mins.	**4**	17	9	30	4	2	4	10	**12**	**19**	11	**42**	6	1	9	16
Total Volume	8	78	30	116	21	8	24	53	34	60	36	130	22	6	37	65
% App. Total	6.9	67.2	25.9		39.6	15.1	45.3		26.2	46.2	27.7		33.8	9.2	56.9	
PHF	.500	.929	.833	.967	.656	.500	.500	.552	.708	.789	.643	.774	.786	.500	.925	.956
Cars	8	77	29	114	20	5	24	49	34	60	25	119	22	2	36	60
% Cars	100	98.7	96.7	98.3	95.2	62.5	100	92.5	100	100	69.4	91.5	100	33.3	97.3	92.3
Trucks	0	1	1	2	1	3	0	4	0	0	11	11	0	4	1	5
% Trucks	0	1.3	3.3	1.7	4.8	37.5	0	7.5	0	0	30.6	8.5	0	66.7	2.7	7.7

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 6



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

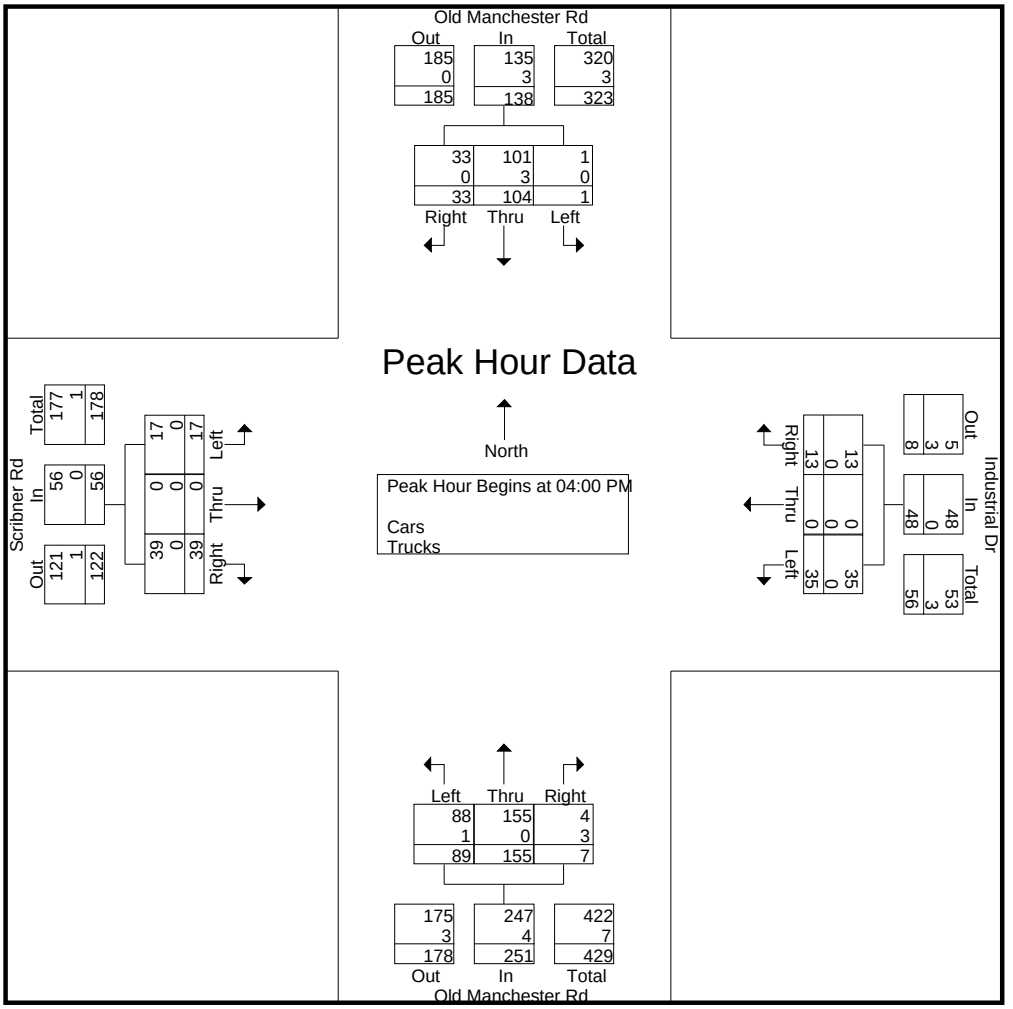
04:00 PM	0	22	3	25	**14**	0	3	**17**	24	28	**4**	56	2	0	**15**	**17**	115
04:15 PM	**1**	21	9	31	12	0	3	15	20	40	2	62	**6**	0	8	14	122
04:30 PM	0	17	5	22	8	0	**6**	14	19	**49**	0	**68**	6	0	8	14	118
04:45 PM	0	**44**	**16**	**60**	1	0	1	2	**26**	38	1	65	3	0	8	11	**138**
Total Volume	1	104	33	138	35	0	13	48	89	155	7	251	17	0	39	56	493
% App. Total	0.7	75.4	23.9		72.9	0	27.1		35.5	61.8	2.8		30.4	0	69.6		
PHF	.250	.591	.516	.575	.625	.000	.542	.706	.856	.791	.438	.923	.708	.000	.650	.824	.893
Cars	1	101	33	135	35	0	13	48	88	155	4	247	17	0	39	56	486
% Cars	100	97.1	100	97.8	100	0	100	100	98.9	100	57.1	98.4	100	0	100	100	98.6
Trucks	0	3	0	3	0	0	0	0	1	0	3	4	0	0	0	0	7
% Trucks	0	2.9	0	2.2	0	0	0	0	1.1	0	42.9	1.6	0	0	0	0	1.4

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 7



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

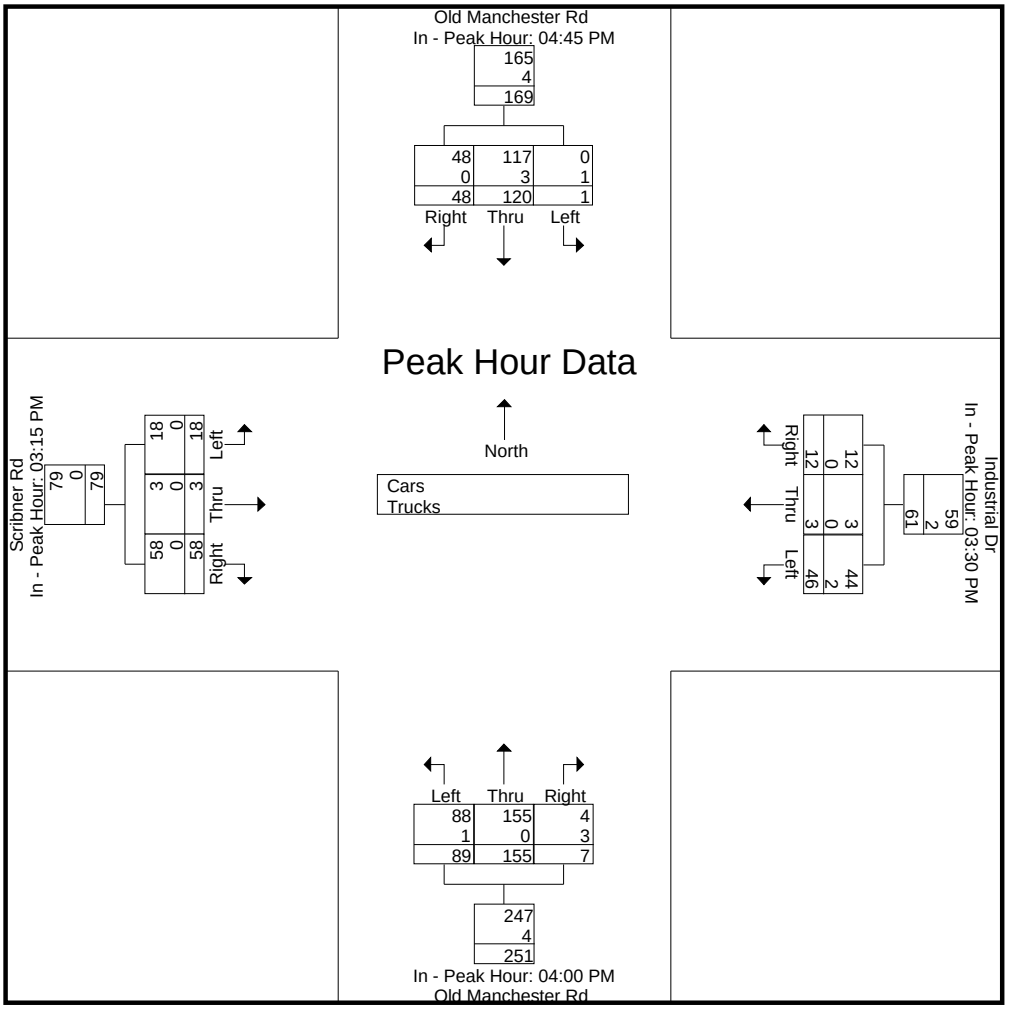
	04:45 PM				03:30 PM				04:00 PM				03:15 PM			
+0 mins.	0	**44**	**16**	**60**	12	0	**3**	15	24	28	**4**	56	5	1	11	17
+15 mins.	0	30	9	39	8	**3**	3	14	20	40	2	62	4	**2**	**17**	**23**
+30 mins.	0	28	11	39	**14**	0	3	**17**	19	**49**	0	**68**	**7**	0	15	22
+45 mins.	**1**	18	12	31	12	0	3	15	**26**	38	1	65	2	0	15	17
Total Volume	1	120	48	169	46	3	12	61	89	155	7	251	18	3	58	79
% App. Total	0.6	71	28.4		75.4	4.9	19.7		35.5	61.8	2.8		22.8	3.8	73.4	
PHF	.250	.682	.750	.704	.821	.250	1.000	.897	.856	.791	.438	.923	.643	.375	.853	.859
Cars	0	117	48	165	44	3	12	59	88	155	4	247	18	3	58	79
% Cars	0	97.5	100	97.6	95.7	100	100	96.7	98.9	100	57.1	98.4	100	100	100	100
Trucks	1	3	0	4	2	0	0	2	1	0	3	4	0	0	0	0
% Trucks	100	2.5	0	2.4	4.3	0	0	3.3	1.1	0	42.9	1.6	0	0	0	0

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 8



Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 9

Groups Printed- Cars

	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	6	22	1	1	0	0	5	16	3	10	0	23	87
07:15 AM	3	26	3	0	0	4	5	25	9	6	1	25	107
07:30 AM	2	33	2	2	0	2	5	20	6	4	1	16	93
07:45 AM	0	24	4	2	1	2	4	33	4	11	0	20	105
Total	11	105	10	5	1	8	19	94	22	31	2	84	392
08:00 AM	4	36	7	0	0	0	5	28	2	10	0	15	107
08:15 AM	0	23	7	1	0	3	4	12	5	9	0	10	74
08:30 AM	1	27	5	4	0	0	3	13	3	7	0	8	71
08:45 AM	1	14	4	3	0	1	3	13	4	1	0	10	54
Total	6	100	23	8	0	4	15	66	14	27	0	43	306
09:00 AM	0	12	3	1	0	1	9	14	4	4	0	7	55
09:15 AM	0	12	2	3	0	1	5	11	3	7	1	16	61
09:30 AM	1	20	0	2	0	1	6	20	3	2	0	7	62
09:45 AM	2	15	5	4	1	1	9	17	6	6	0	11	77
Total	3	59	10	10	1	4	29	62	16	19	1	41	255
10:00 AM	2	26	5	4	1	2	5	11	1	4	2	7	70
10:15 AM	2	16	6	4	0	0	4	13	1	4	1	9	60
10:30 AM	2	21	2	0	1	0	4	12	4	7	1	8	62
10:45 AM	0	10	4	1	1	4	8	18	2	5	0	10	63
Total	6	73	17	9	3	6	21	54	8	20	4	34	255
11:00 AM	2	20	7	2	0	1	8	10	0	6	0	9	65
11:15 AM	0	19	9	2	1	1	12	7	6	7	0	7	71
11:30 AM	3	21	5	5	0	2	7	9	2	4	0	8	66
11:45 AM	1	21	6	3	1	6	9	16	0	3	0	6	72
Total	6	81	27	12	2	10	36	42	8	20	0	30	274
12:00 PM	4	16	9	8	2	12	10	13	1	2	2	7	86
12:15 PM	4	15	3	5	0	2	11	13	11	5	1	11	81
12:30 PM	4	21	3	4	2	4	9	11	4	8	1	6	77
12:45 PM	6	14	5	2	1	1	2	17	3	5	2	8	66
Total	18	66	20	19	5	19	32	54	19	20	6	32	310
01:00 PM	1	18	2	6	1	0	12	19	7	5	1	3	75
01:15 PM	2	17	6	5	0	0	8	11	6	5	1	6	67
01:30 PM	1	13	12	3	0	0	7	11	1	1	0	9	58
01:45 PM	0	9	5	3	0	0	8	14	1	5	0	9	54
Total	4	57	25	17	1	0	35	55	15	16	2	27	254
02:00 PM	0	21	4	3	0	2	12	10	2	5	0	11	70
02:15 PM	2	19	3	3	0	2	12	10	1	1	0	3	56
02:30 PM	1	15	3	5	0	4	14	23	4	0	0	14	83
02:45 PM	1	24	3	7	0	3	15	34	2	7	0	6	102
Total	4	79	13	18	0	11	53	77	9	13	0	34	311
03:00 PM	0	29	10	2	0	3	11	20	3	3	0	9	90
03:15 PM	1	22	10	10	1	2	11	29	1	5	1	11	104
03:30 PM	0	21	7	12	0	3	18	33	0	4	2	17	117
03:45 PM	0	24	3	6	3	3	9	25	3	7	0	15	98
Total	1	96	30	30	4	11	49	107	7	19	3	52	409
04:00 PM	0	22	3	14	0	3	24	28	1	2	0	15	112
04:15 PM	1	21	9	12	0	3	20	40	2	6	0	8	122
04:30 PM	0	17	5	8	0	6	18	49	0	6	0	8	117
04:45 PM	0	41	16	1	0	1	26	38	1	3	0	8	135
Total	1	101	33	35	0	13	88	155	4	17	0	39	486
05:00 PM	0	30	9	3	0	1	16	36	1	5	0	11	112
05:15 PM	0	28	11	1	0	0	20	28	1	6	0	7	102
05:30 PM	0	18	12	0	0	0	27	40	1	4	0	14	116

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 10

Groups Printed- Cars

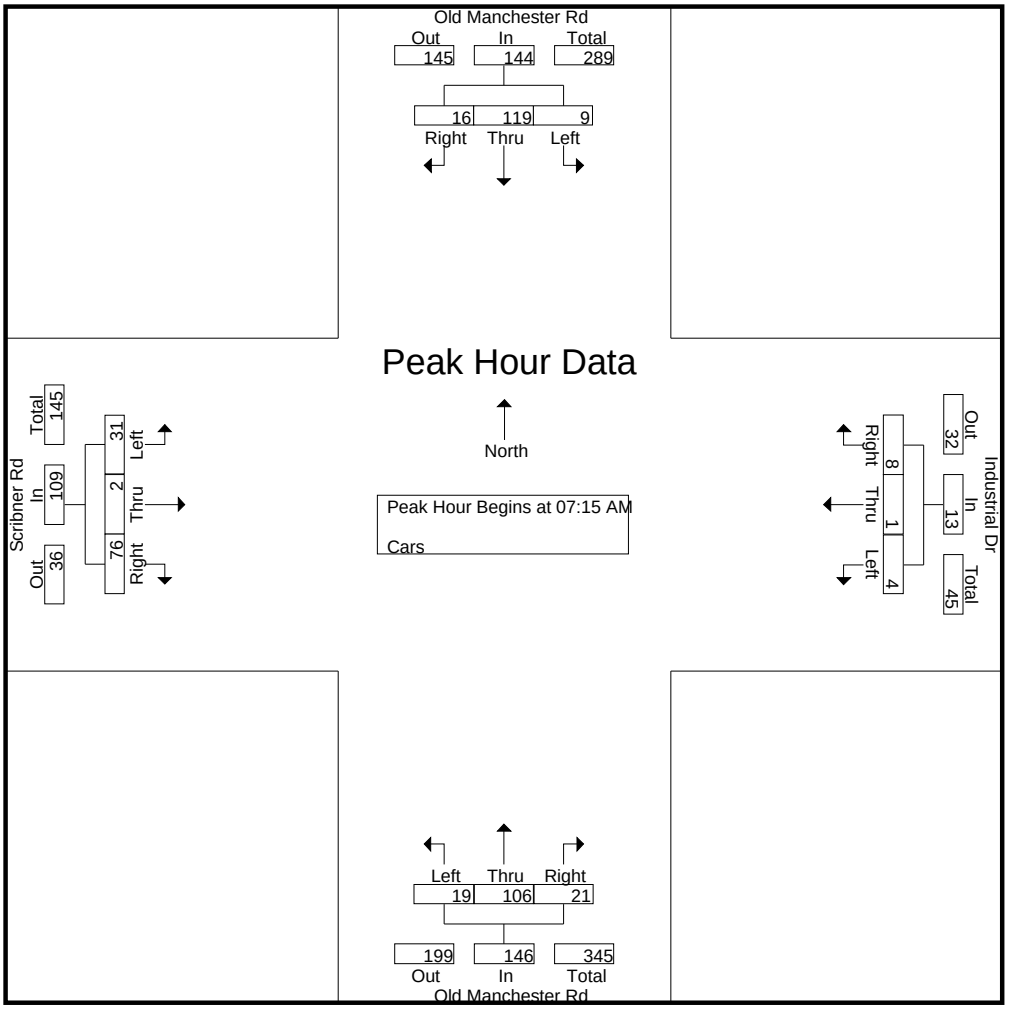
	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
05:45 PM	0	13	10	1	1	2	14	20	1	2	2	16	82
Total	0	89	42	5	1	3	77	124	4	17	2	48	412
06:00 PM	1	13	2	1	0	2	16	20	2	4	0	10	71
06:15 PM	1	18	6	1	2	0	12	21	0	1	0	12	74
06:30 PM	0	20	9	0	0	0	7	13	0	6	0	12	67
06:45 PM	1	8	5	0	0	1	5	12	0	5	0	8	45
Total	3	59	22	2	2	3	40	66	2	16	0	42	257
07:00 PM	0	0	0	0	0	0	2	1	0	0	0	0	3
Grand Total	63	965	272	170	20	92	496	957	128	235	20	506	3924
Apprch %	4.8	74.2	20.9	60.3	7.1	32.6	31.4	60.5	8.1	30.9	2.6	66.5	
Total %	1.6	24.6	6.9	4.3	0.5	2.3	12.6	24.4	3.3	6	0.5	12.9	

	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	26	3	32	0	0	**4**	4	**5**	25	**9**	39	6	**1**	**25**	**32**	**107**
07:30 AM	2	33	2	37	**2**	0	2	4	5	20	6	31	4	1	16	21	93
07:45 AM	0	24	4	28	2	**1**	2	**5**	4	**33**	4	**41**	**11**	0	20	31	105
08:00 AM	**4**	**36**	**7**	**47**	0	0	0	0	5	28	2	35	10	0	15	25	107
Total Volume	9	119	16	144	4	1	8	13	19	106	21	146	31	2	76	109	412
% App. Total	6.2	82.6	11.1		30.8	7.7	61.5		13	72.6	14.4		28.4	1.8	69.7		
PHF	.563	.826	.571	.766	.500	.250	.500	.650	.950	.803	.583	.890	.705	.500	.760	.852	.963

Accurate Counts
978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022

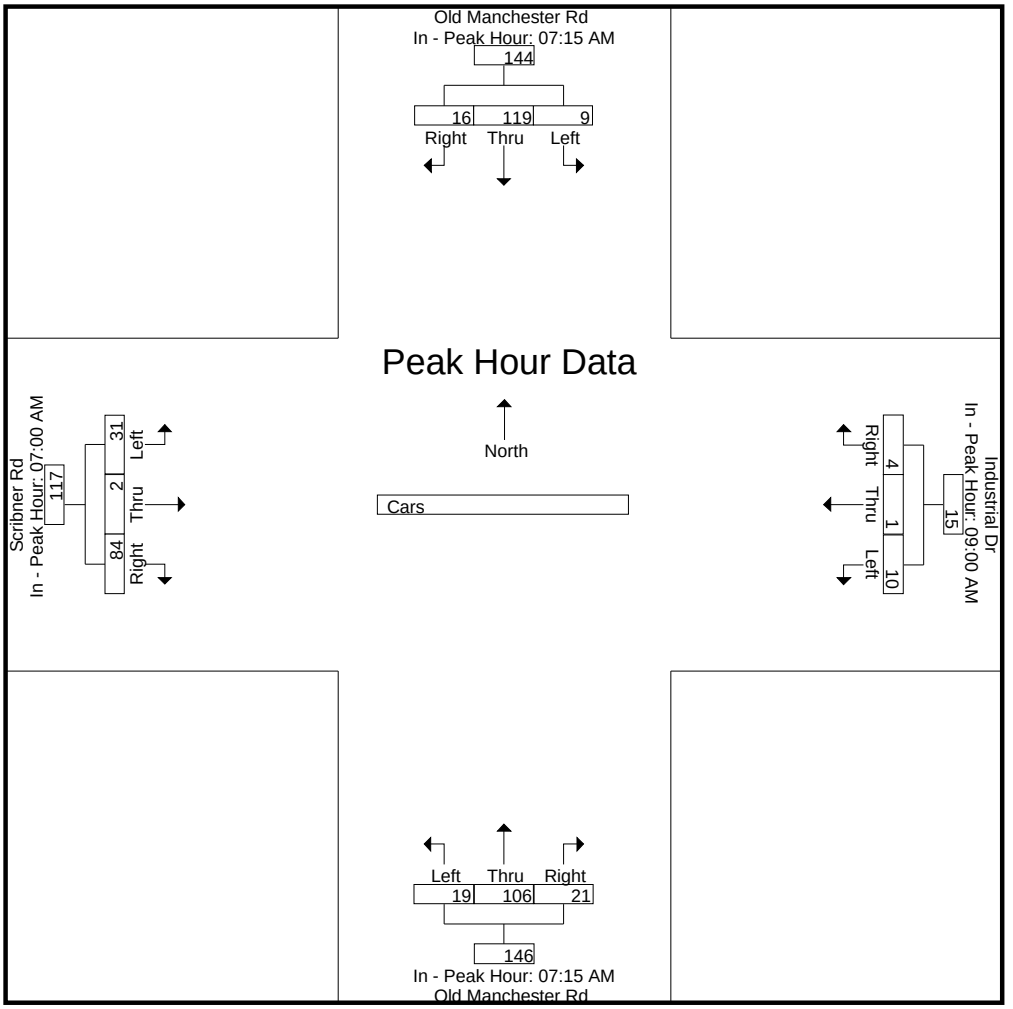


Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				09:00 AM				07:15 AM				07:00 AM			
+0 mins.	3	26	3	32	1	0	**1**	2	**5**	25	**9**	39	10	0	23	**33**
+15 mins.	2	33	2	37	3	0	1	4	5	20	6	31	6	**1**	**25**	32
+30 mins.	0	24	4	28	2	0	1	3	4	**33**	4	**41**	4	1	16	21
+45 mins.	**4**	**36**	**7**	**47**	**4**	**1**	1	**6**	5	28	2	35	**11**	0	20	31
Total Volume	9	119	16	144	10	1	4	15	19	106	21	146	31	2	84	117
% App. Total	6.2	82.6	11.1		66.7	6.7	26.7		13	72.6	14.4		26.5	1.7	71.8	
PHF	.563	.826	.571	.766	.625	.250	1.000	.625	.950	.803	.583	.890	.705	.500	.840	.886

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 12



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:45 AM

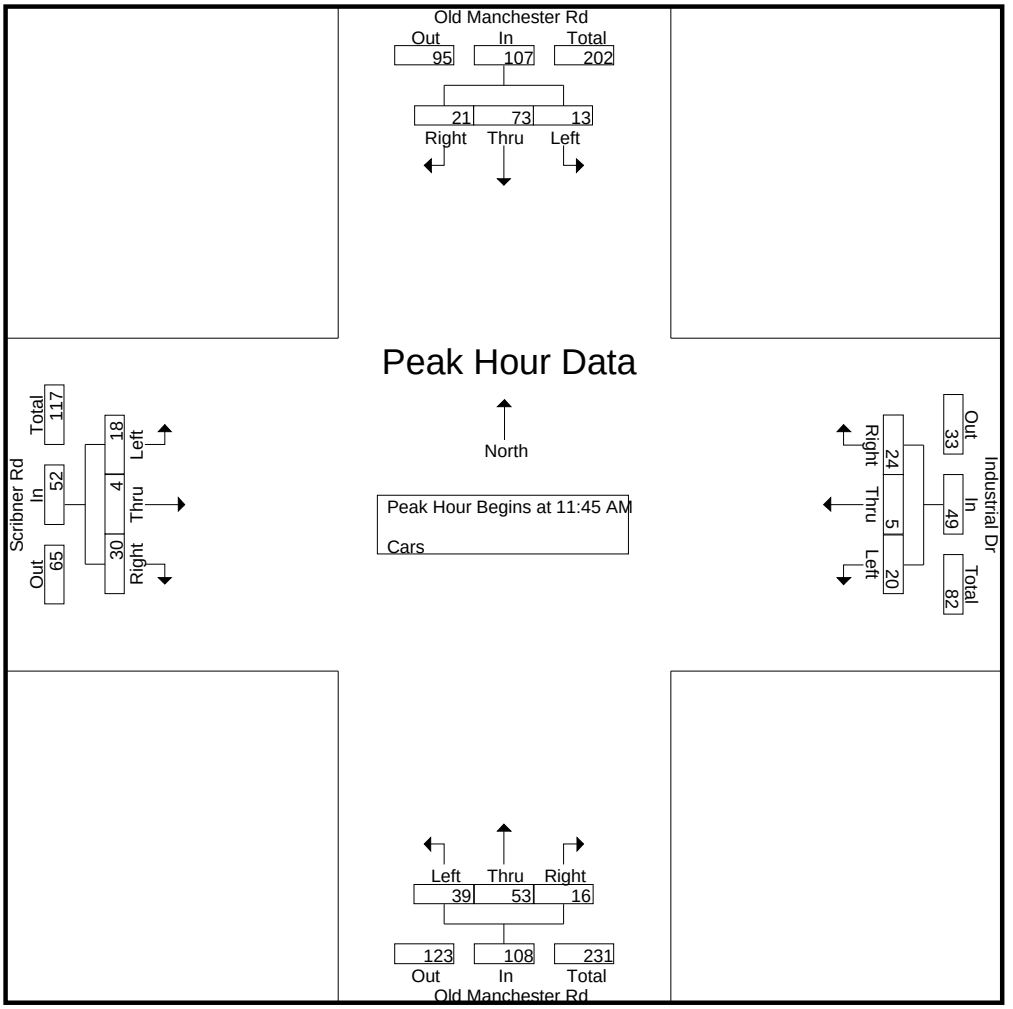
11:45 AM	1	**21**	6	28	3	1	6	10	9	**16**	0	25	3	0	6	9	72
12:00 PM	**4**	16	**9**	**29**	**8**	**2**	**12**	**22**	10	13	1	24	2	**2**	7	11	**86**
12:15 PM	4	15	3	22	5	0	2	7	**11**	13	**11**	**35**	5	1	**11**	**17**	81
12:30 PM	4	21	3	28	4	2	4	10	9	11	4	24	**8**	1	6	15	77
Total Volume	13	73	21	107	20	5	24	49	39	53	16	108	18	4	30	52	316
% App. Total	12.1	68.2	19.6		40.8	10.2	49		36.1	49.1	14.8		34.6	7.7	57.7		
PHF	.813	.869	.583	.922	.625	.625	.500	.557	.886	.828	.364	.771	.563	.500	.682	.765	.919

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 13



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

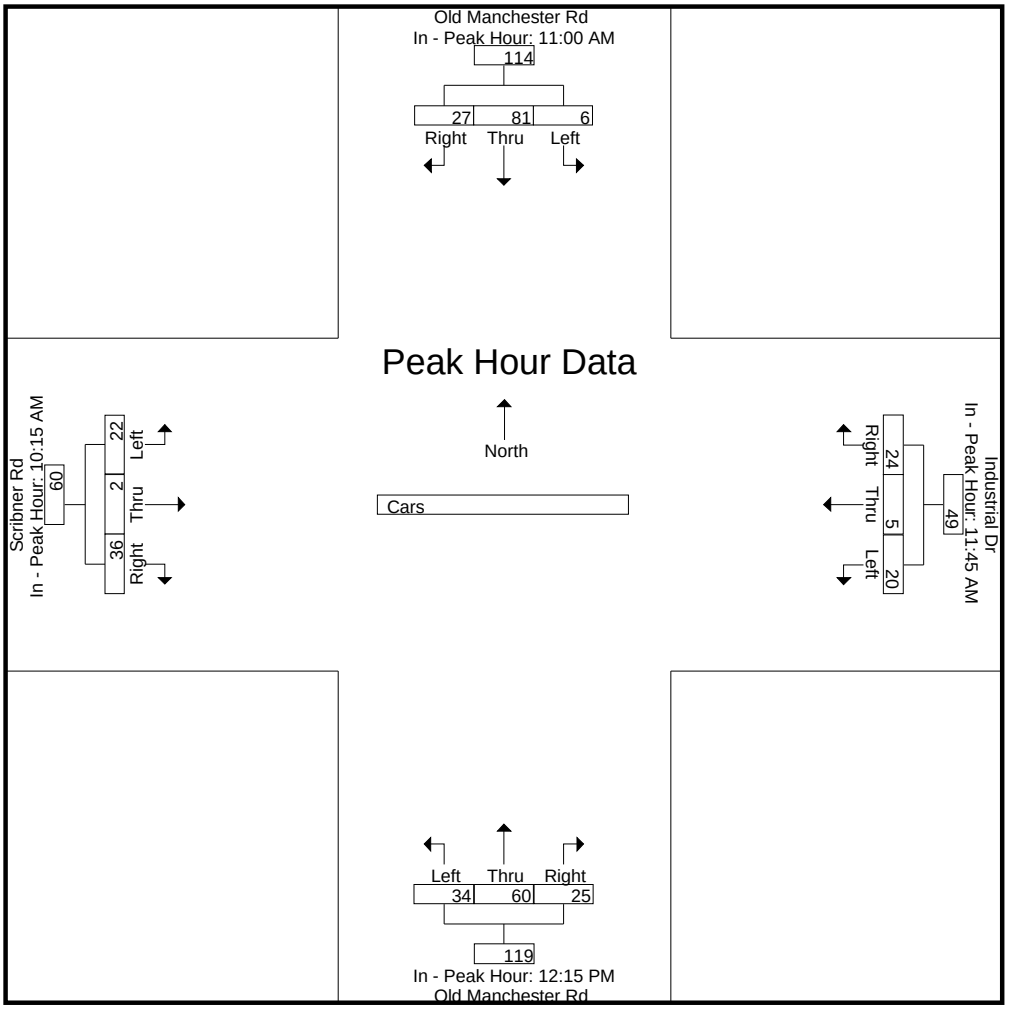
	11:00 AM				11:45 AM				12:15 PM				10:15 AM			
+0 mins.	2	20	7	**29**	3	1	6	10	11	13	**11**	35	4	**1**	9	14
+15 mins.	0	19	**9**	28	**8**	**2**	**12**	**22**	9	11	4	24	**7**	1	8	**16**
+30 mins.	**3**	**21**	5	29	5	0	2	7	2	17	3	22	5	0	**10**	15
+45 mins.	1	21	6	28	4	2	4	10	**12**	**19**	7	**38**	6	0	9	15
Total Volume	6	81	27	114	20	5	24	49	34	60	25	119	22	2	36	60
% App. Total	5.3	71.1	23.7		40.8	10.2	49		28.6	50.4	21		36.7	3.3	60	
PHF	.500	.964	.750	.983	.625	.625	.500	.557	.708	.789	.568	.783	.786	.500	.900	.938

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 14

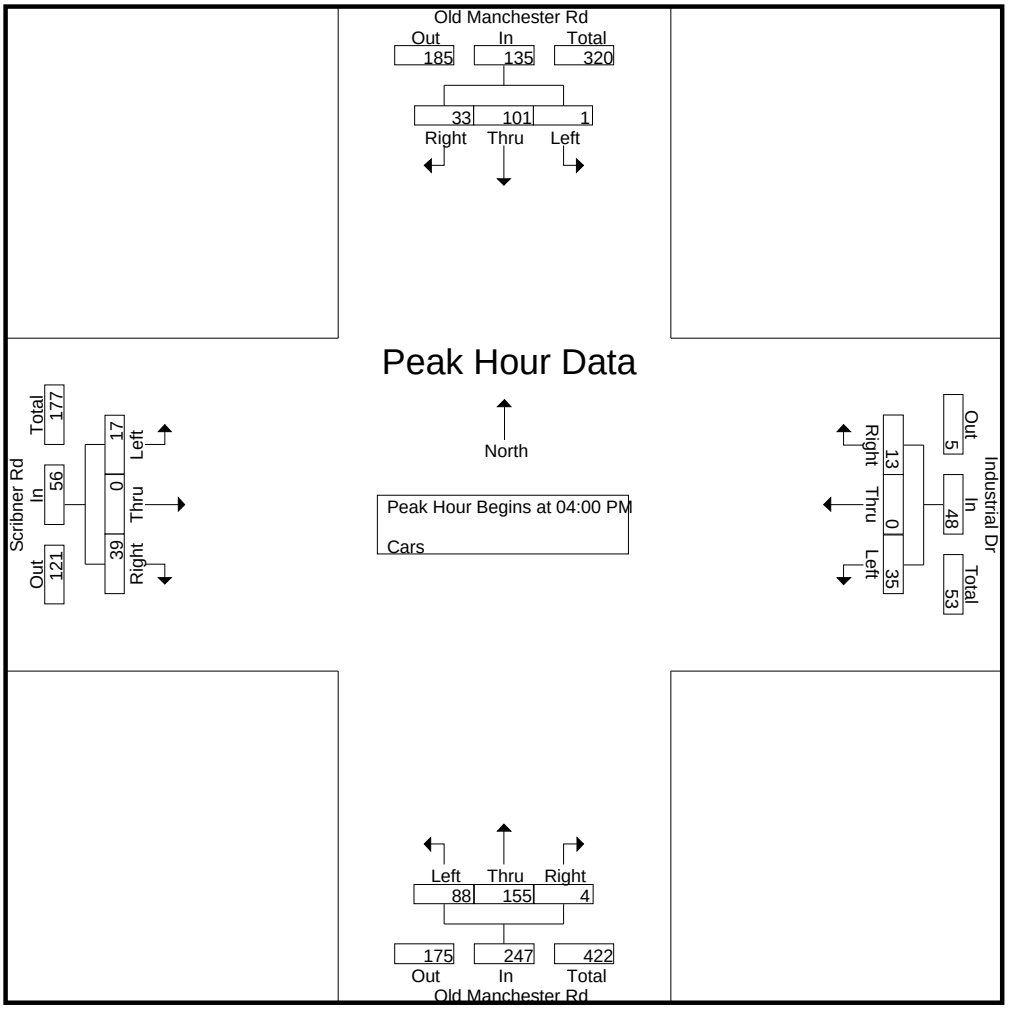


Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	0	22	3	25	**14**	0	3	**17**	24	28	1	53	2	0	**15**	**17**	112
04:15 PM	**1**	21	9	31	12	0	3	15	20	40	**2**	62	**6**	0	8	14	122
04:30 PM	0	17	5	22	8	0	**6**	14	18	**49**	0	**67**	6	0	8	14	117
04:45 PM	0	**41**	**16**	**57**	1	0	1	2	**26**	38	1	65	3	0	8	11	**135**
Total Volume	1	101	33	135	35	0	13	48	88	155	4	247	17	0	39	56	486
% App. Total	0.7	74.8	24.4		72.9	0	27.1		35.6	62.8	1.6		30.4	0	69.6		
PHF	.250	.616	.516	.592	.625	.000	.542	.706	.846	.791	.500	.922	.708	.000	.650	.824	.900

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 15



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

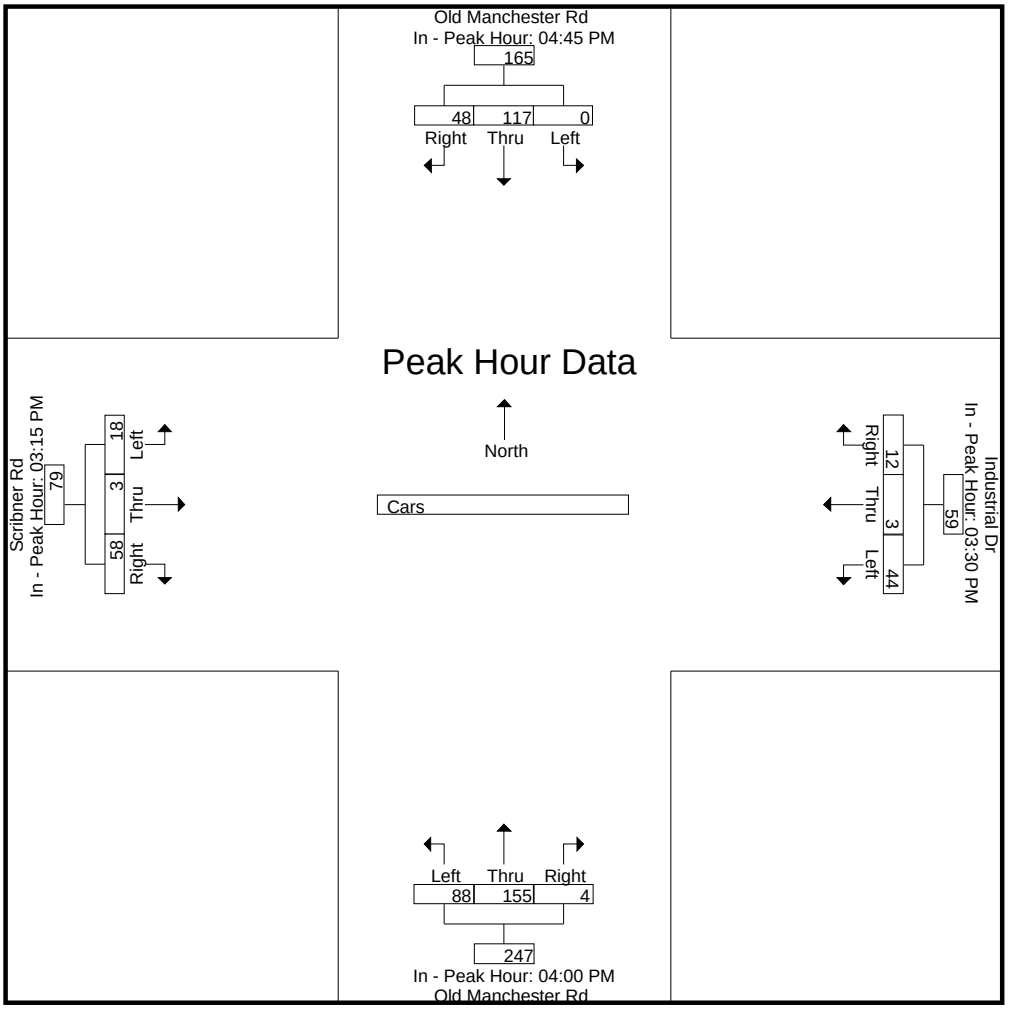
	04:45 PM				03:30 PM				04:00 PM				03:15 PM			
+0 mins.	0	**41**	**16**	**57**	12	0	**3**	15	24	28	1	53	5	1	11	17
+15 mins.	0	30	9	39	6	**3**	3	12	20	40	**2**	62	4	**2**	**17**	**23**
+30 mins.	0	28	11	39	**14**	0	3	**17**	18	**49**	0	**67**	**7**	0	15	22
+45 mins.	0	18	12	30	12	0	3	15	**26**	38	1	65	2	0	15	17
Total Volume	0	117	48	165	44	3	12	59	88	155	4	247	18	3	58	79
% App. Total	0	70.9	29.1		74.6	5.1	20.3		35.6	62.8	1.6		22.8	3.8	73.4	
PHF	.000	.713	.750	.724	.786	.250	1.000	.868	.846	.791	.500	.922	.643	.375	.853	.859

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 16



Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022

Groups Printed- Trucks

	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	1	0	0	1	2	0	0	0	2	0	0	1	7
07:15 AM	0	0	0	5	1	0	0	0	3	0	0	0	9
07:30 AM	0	0	0	2	0	1	0	0	2	0	0	0	5
07:45 AM	0	0	0	3	1	0	0	1	1	0	3	0	9
Total	1	0	0	11	4	1	0	1	8	0	3	1	30
08:00 AM	1	0	0	2	2	0	1	1	2	0	0	0	9
08:15 AM	1	0	0	1	0	1	0	0	0	0	0	0	3
08:30 AM	0	1	0	0	1	0	0	3	1	0	2	0	8
08:45 AM	0	0	0	1	2	1	0	0	2	0	1	0	7
Total	2	1	0	4	5	2	1	4	5	0	3	0	27
09:00 AM	0	0	0	1	0	0	0	0	1	0	0	0	2
09:15 AM	1	0	0	1	0	0	0	0	1	0	2	0	5
09:30 AM	0	1	0	2	3	0	0	0	2	0	1	0	9
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	4	3	0	0	0	4	0	3	0	16
10:00 AM	0	0	0	0	0	0	1	0	3	0	1	0	5
10:15 AM	0	0	0	4	2	0	0	0	2	0	2	1	11
10:30 AM	0	0	0	1	1	0	0	0	5	0	0	0	7
10:45 AM	0	1	0	3	1	0	0	0	2	0	1	0	8
Total	0	1	0	8	4	0	1	0	12	0	4	1	31
11:00 AM	0	0	0	3	1	0	0	0	2	0	1	0	7
11:15 AM	0	0	0	3	2	0	0	0	0	0	1	1	7
11:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	2
11:45 AM	0	0	0	1	1	0	0	0	0	0	1	0	3
Total	0	0	1	7	4	0	0	0	2	0	4	1	19
12:00 PM	0	1	0	0	2	0	0	0	0	0	1	0	4
12:15 PM	0	0	0	0	0	0	0	0	3	0	0	0	3
12:30 PM	1	0	0	0	0	0	0	0	1	0	0	0	2
12:45 PM	0	0	0	4	0	0	0	0	3	0	0	0	7
Total	1	1	0	4	2	0	0	0	7	0	1	0	16
01:00 PM	0	0	0	5	0	0	0	0	4	0	1	0	10
01:15 PM	0	0	0	2	2	0	0	0	2	0	1	0	7
01:30 PM	1	0	0	4	0	0	0	0	2	0	0	0	7
01:45 PM	0	0	0	2	0	1	0	0	3	0	1	0	7
Total	1	0	0	13	2	1	0	0	11	0	3	0	31
02:00 PM	0	0	0	1	2	0	0	0	1	0	1	1	6
02:15 PM	1	0	1	1	1	0	0	0	1	0	1	0	6
02:30 PM	2	0	1	1	0	2	0	0	3	0	1	1	11
02:45 PM	0	0	0	2	2	0	0	0	2	0	1	0	7
Total	3	0	2	5	5	2	0	0	7	0	4	2	30
03:00 PM	0	1	0	1	1	0	0	0	4	0	1	0	8
03:15 PM	0	0	0	1	0	0	0	0	4	0	0	0	5
03:30 PM	0	0	0	0	0	0	0	0	2	0	0	0	2
03:45 PM	0	0	0	2	0	0	1	0	1	0	0	0	4
Total	0	1	0	4	1	0	1	0	11	0	1	0	19
04:00 PM	0	0	0	0	0	0	0	0	3	0	0	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
04:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	3	0	0	0	0	1	0	3	0	0	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	0	0	0	0	0	0	0	0	1	0	2

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022

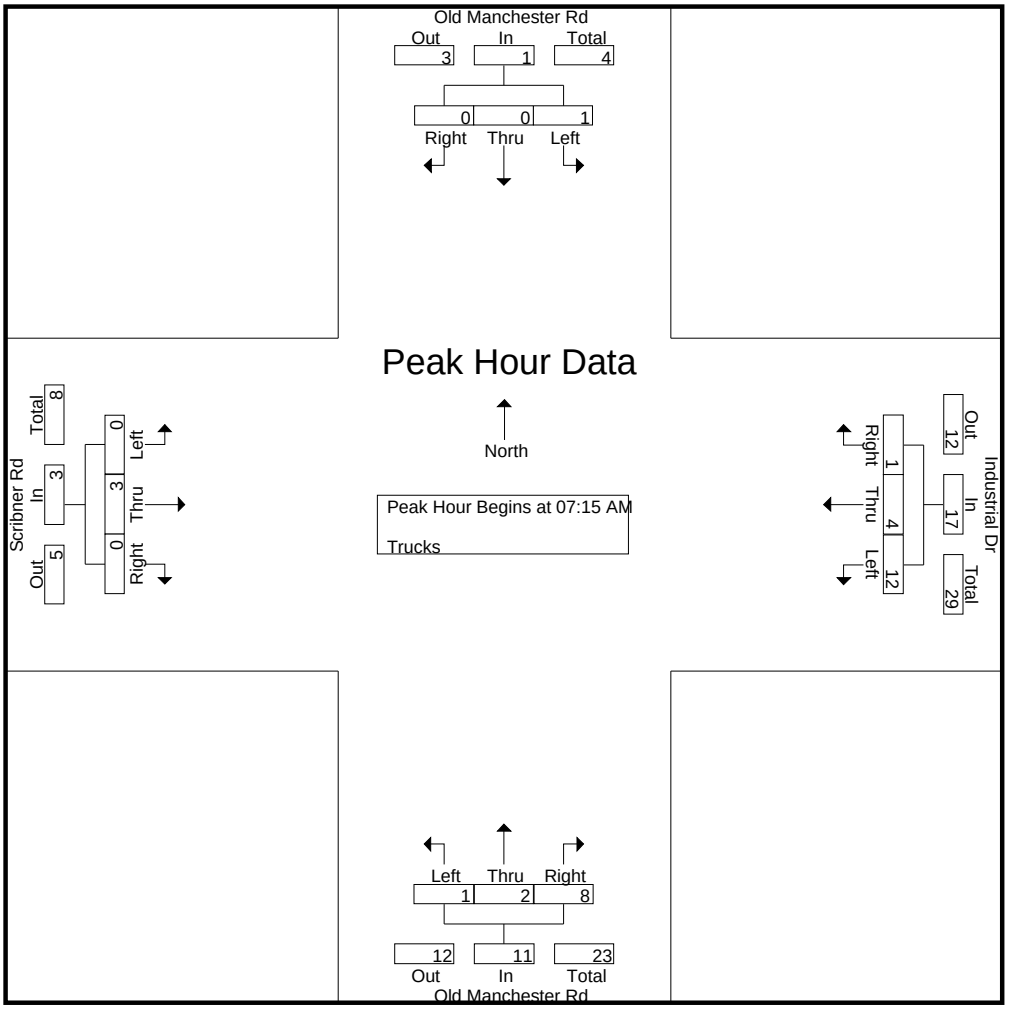
Groups Printed- Trucks

	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
05:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	1	0	0	0	0	0	0	1	0	0	1	0	3
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	10	8	3	60	30	6	4	6	70	0	27	5	229
Apprch %	47.6	38.1	14.3	62.5	31.2	6.2	5	7.5	87.5	0	84.4	15.6	
Total %	4.4	3.5	1.3	26.2	13.1	2.6	1.7	2.6	30.6	0	11.8	2.2	

	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	**5**	1	0	**6**	0	0	**3**	3	0	0	0	0	**9**
07:30 AM	0	0	0	0	2	0	**1**	3	0	0	2	2	0	0	0	0	5
07:45 AM	0	0	0	0	3	1	0	4	0	**1**	1	2	0	**3**	0	**3**	9
08:00 AM	**1**	0	0	**1**	2	**2**	0	4	**1**	1	2	**4**	0	0	0	0	9
Total Volume	1	0	0	1	12	4	1	17	1	2	8	11	0	3	0	3	32
% App. Total	100	0	0		70.6	23.5	5.9		9.1	18.2	72.7		0	100	0		
PHF	.250	.000	.000	.250	.600	.500	.250	.708	.250	.500	.667	.688	.000	.250	.000	.250	.889

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 19

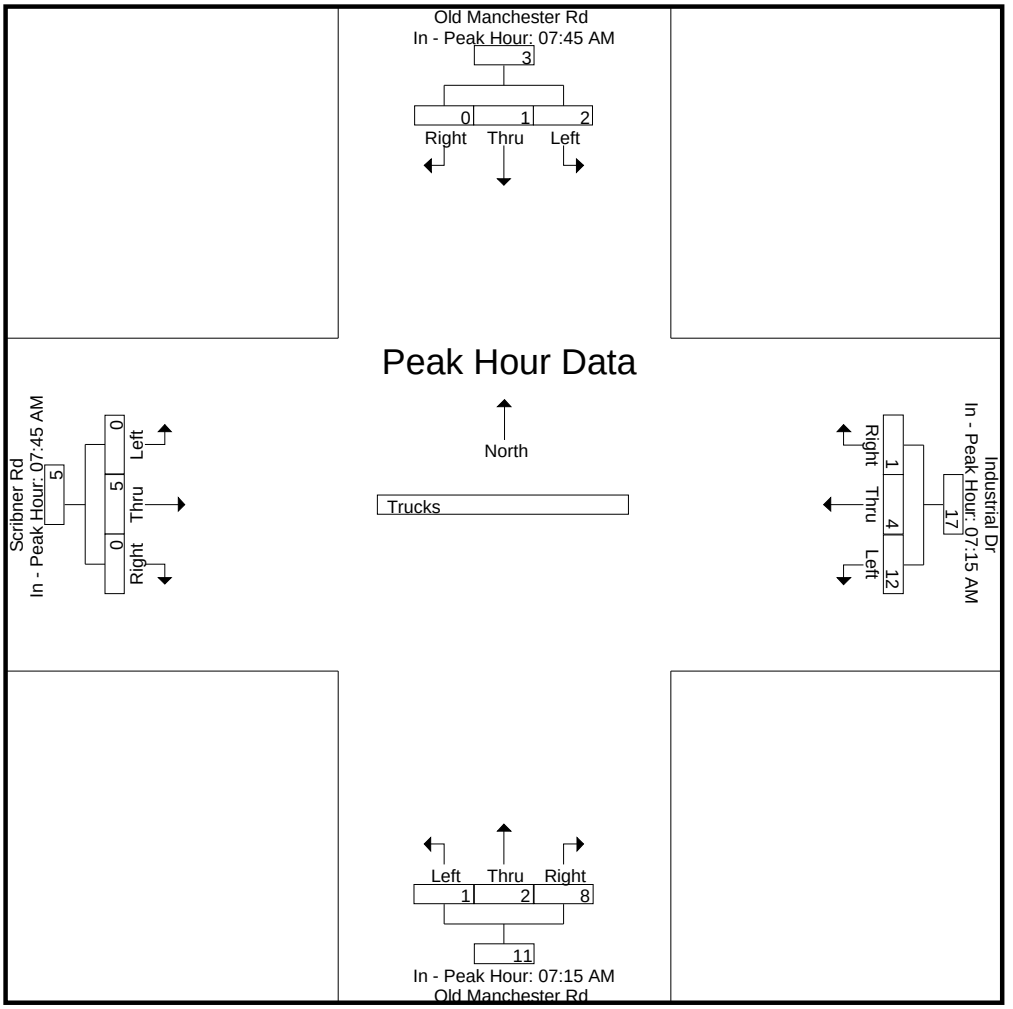


Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:15 AM				07:15 AM				07:45 AM			
+0 mins.	0	0	0	0	**5**	1	0	**6**	0	0	**3**	3	0	**3**	0	**3**
+15 mins.	**1**	0	0	**1**	2	0	**1**	3	0	0	2	2	0	0	0	0
+30 mins.	1	0	0	1	3	1	0	4	0	**1**	1	2	0	0	0	0
+45 mins.	0	**1**	0	1	2	**2**	0	4	**1**	1	2	**4**	0	2	0	2
Total Volume	2	1	0	3	12	4	1	17	1	2	8	11	0	5	0	5
% App. Total	66.7	33.3	0		70.6	23.5	5.9		9.1	18.2	72.7		0	100	0	
PHF	.500	.250	.000	.750	.600	.500	.250	.708	.250	.500	.667	.688	.000	.417	.000	.417

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 20

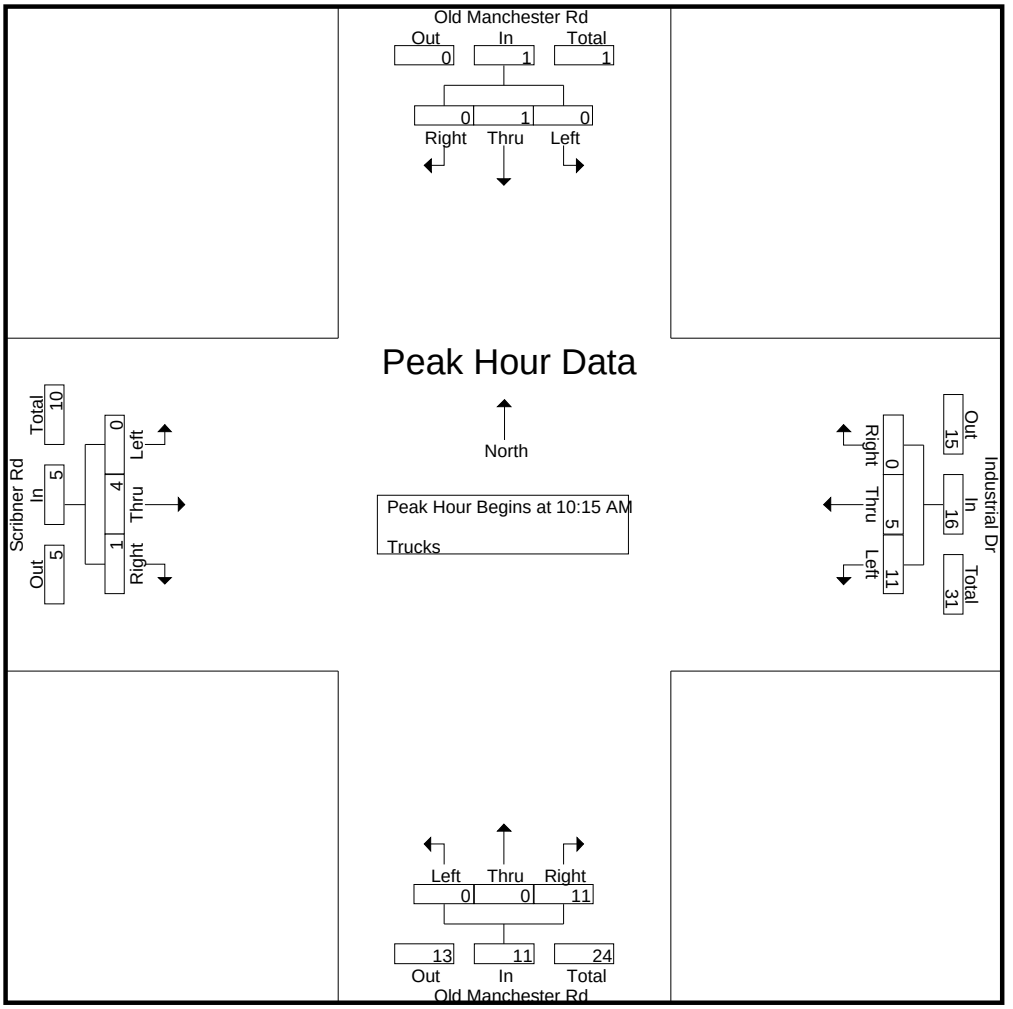


Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 10:15 AM

10:15 AM	0	0	0	0	**4**	**2**	0	**6**	0	0	2	2	0	**2**	**1**	**3**	**11**
10:30 AM	0	0	0	0	1	1	0	2	0	0	**5**	**5**	0	0	0	0	7
10:45 AM	0	**1**	0	**1**	3	1	0	4	0	0	2	2	0	1	0	1	8
11:00 AM	0	0	0	0	3	1	0	4	0	0	2	2	0	1	0	1	7
Total Volume	0	1	0	1	11	5	0	16	0	0	11	11	0	4	1	5	33
% App. Total	0	100	0		68.8	31.2	0		0	0	100		0	80	20		
PHF	.000	.250	.000	.250	.688	.625	.000	.667	.000	.000	.550	.550	.000	.500	.250	.417	.750

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 21

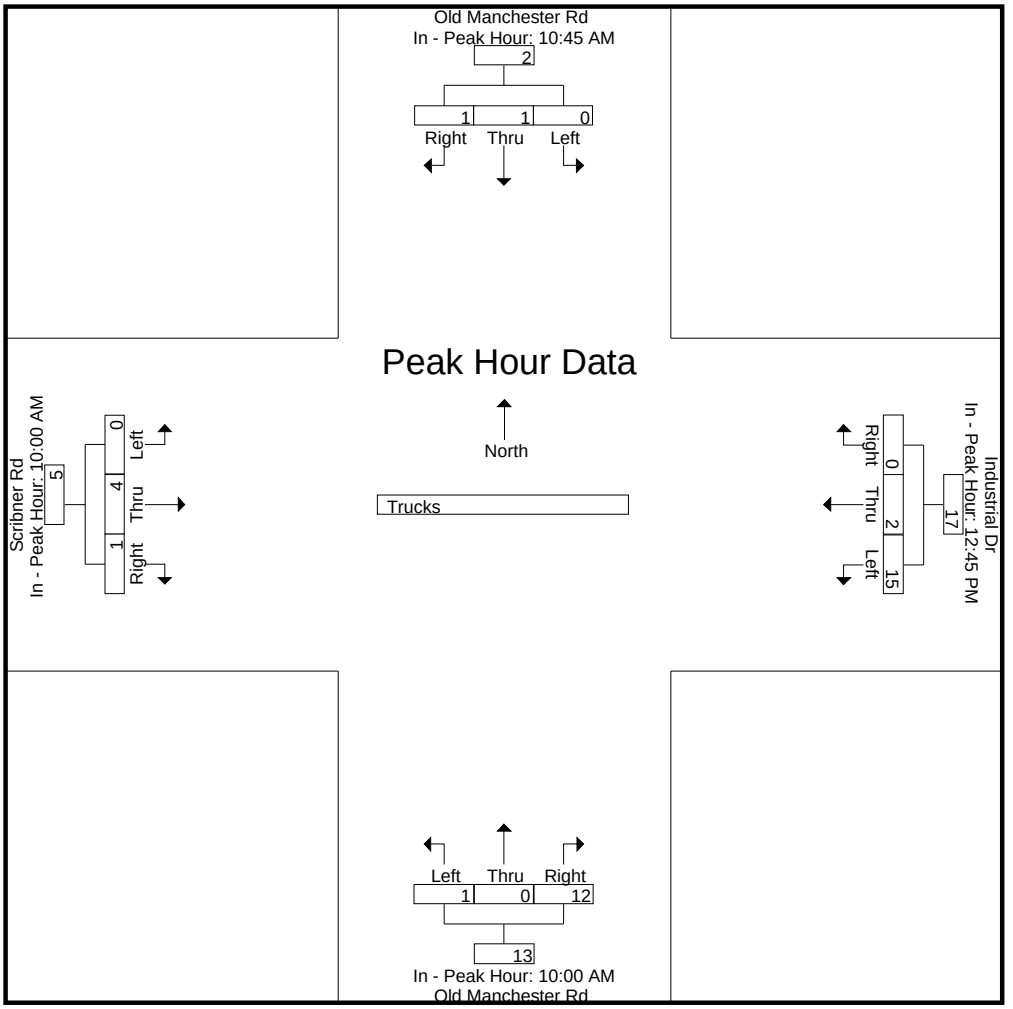


Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	10:45 AM				12:45 PM				10:00 AM				10:00 AM			
+0 mins.	0	**1**	0	**1**	4	0	0	4	**1**	0	3	4	0	1	0	1
+15 mins.	0	0	0	0	**5**	0	0	**5**	0	0	2	2	0	**2**	**1**	**3**
+30 mins.	0	0	0	0	2	**2**	0	4	0	0	**5**	**5**	0	0	0	0
+45 mins.	0	0	**1**	1	4	0	0	4	0	0	2	2	0	1	0	1
Total Volume	0	1	1	2	15	2	0	17	1	0	12	13	0	4	1	5
% App. Total	0	50	50		88.2	11.8	0		7.7	0	92.3		0	80	20	
PHF	.000	.250	.250	.500	.750	.250	.000	.850	.250	.000	.600	.650	.000	.500	.250	.417

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 22

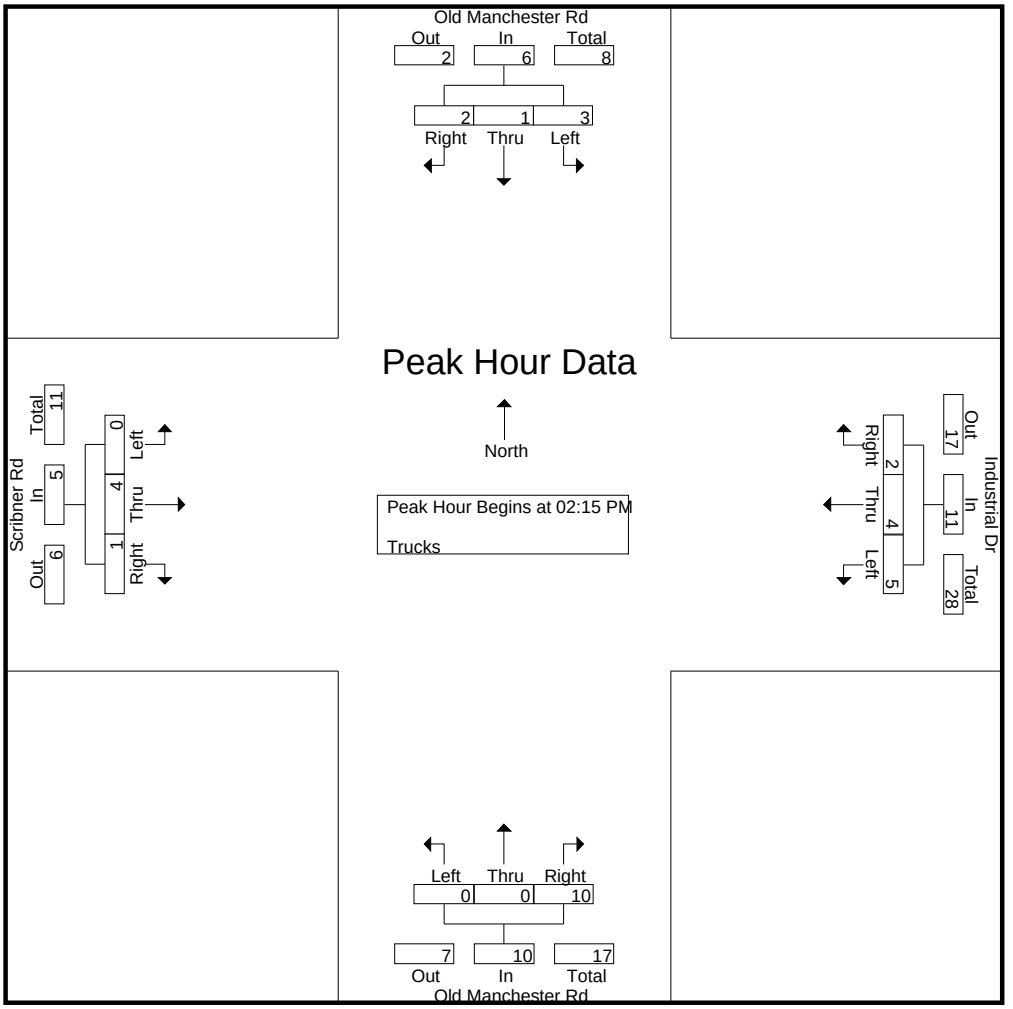


Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 02:15 PM

02:15 PM	1	0	**1**	2	1	1	0	2	0	0	1	1	0	**1**	0	1	6
02:30 PM	**2**	0	1	**3**	1	0	**2**	3	0	0	3	3	0	1	**1**	**2**	**11**
02:45 PM	0	0	0	0	**2**	**2**	0	**4**	0	0	2	2	0	1	0	1	7
03:00 PM	0	**1**	0	1	1	1	0	2	0	0	**4**	**4**	0	1	0	1	8
Total Volume	3	1	2	6	5	4	2	11	0	0	10	10	0	4	1	5	32
% App. Total	50	16.7	33.3		45.5	36.4	18.2		0	0	100		0	80	20		
PHF	.375	.250	.500	.500	.625	.500	.250	.688	.000	.000	.625	.625	.000	1.00	.250	.625	.727

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 23



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

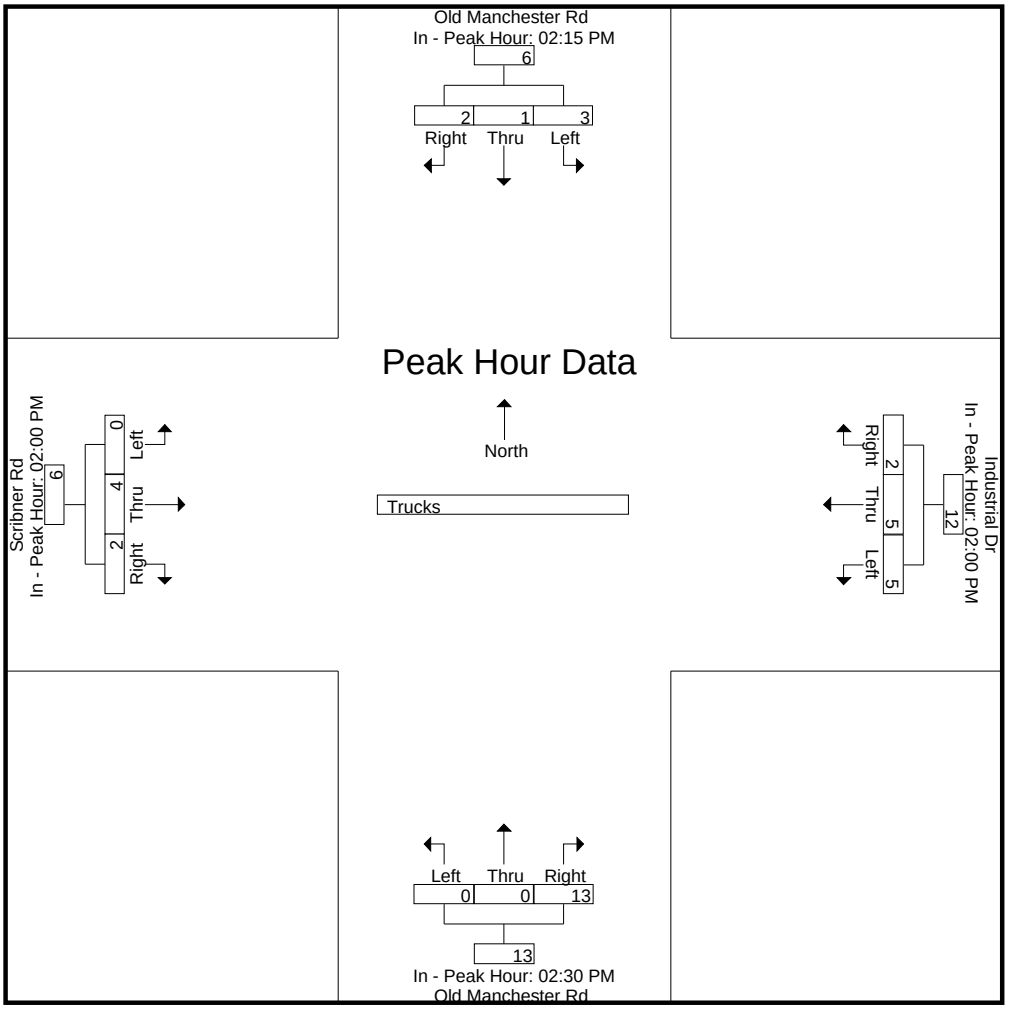
	02:15 PM				02:00 PM				02:30 PM				02:00 PM			
+0 mins.	1	0	**1**	2	1	**2**	0	3	0	0	3	3	0	**1**	**1**	**2**
+15 mins.	**2**	0	1	**3**	1	1	0	2	0	0	2	2	0	1	0	1
+30 mins.	0	0	0	0	1	0	**2**	3	0	0	**4**	**4**	0	1	1	2
+45 mins.	0	**1**	0	1	**2**	2	0	**4**	0	0	4	4	0	1	0	1
Total Volume	3	1	2	6	5	5	2	12	0	0	13	13	0	4	2	6
% App. Total	50	16.7	33.3		41.7	41.7	16.7		0	0	100		0	66.7	33.3	
PHF	.375	.250	.500	.500	.625	.625	.250	.750	.000	.000	.813	.813	.000	1.000	.500	.750

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 24



Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022

Groups Printed- Bikes Peds

	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2	2
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	0	2
Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	0	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 26

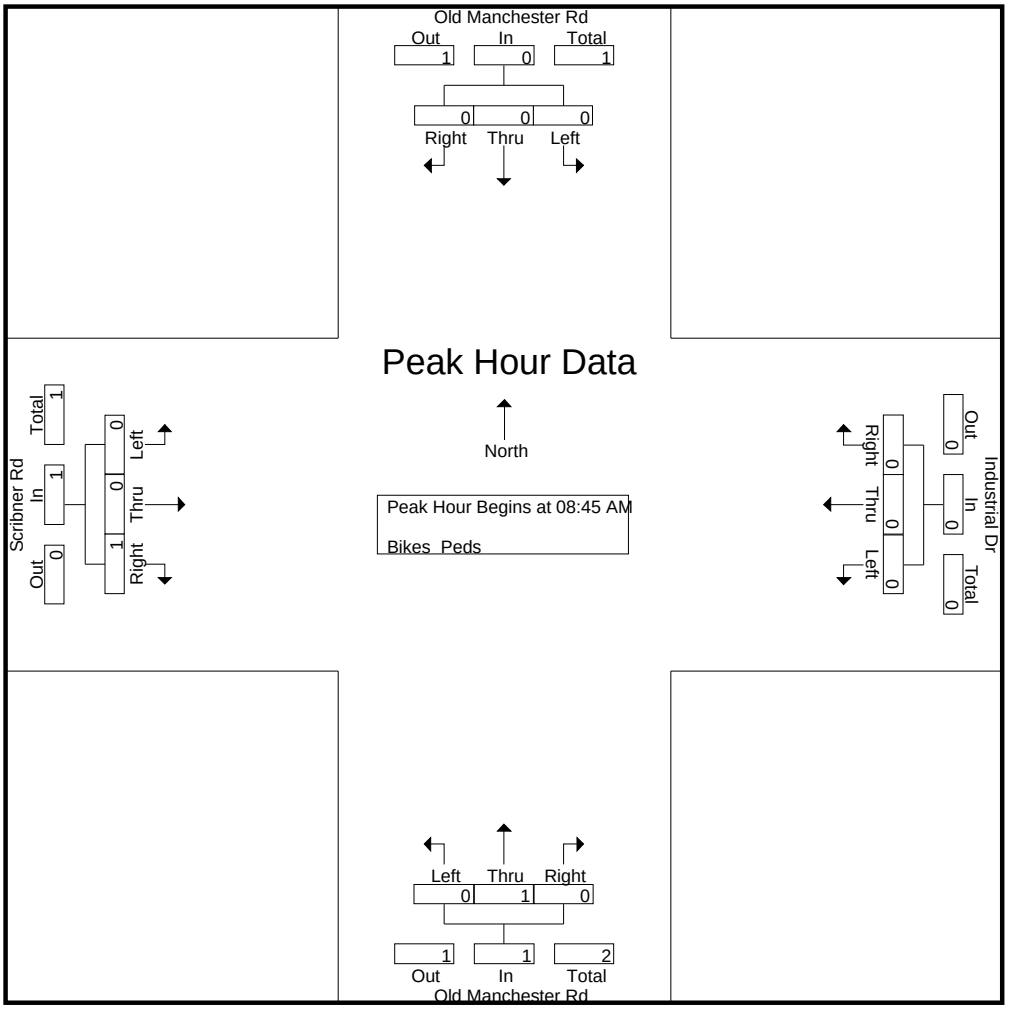
Groups Printed- Bikes Peds

	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	2	4	6
Apprch %	0	100	0		0	0	0		0	100	0		0	0	100				
Total %	0	25	0		0	0	0		0	50	0		0	0	25		33.3	66.7	

	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:45 AM																	
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	1
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
% App. Total	0	0	0		0	0	0		0	100	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.250	.250	.500

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 27

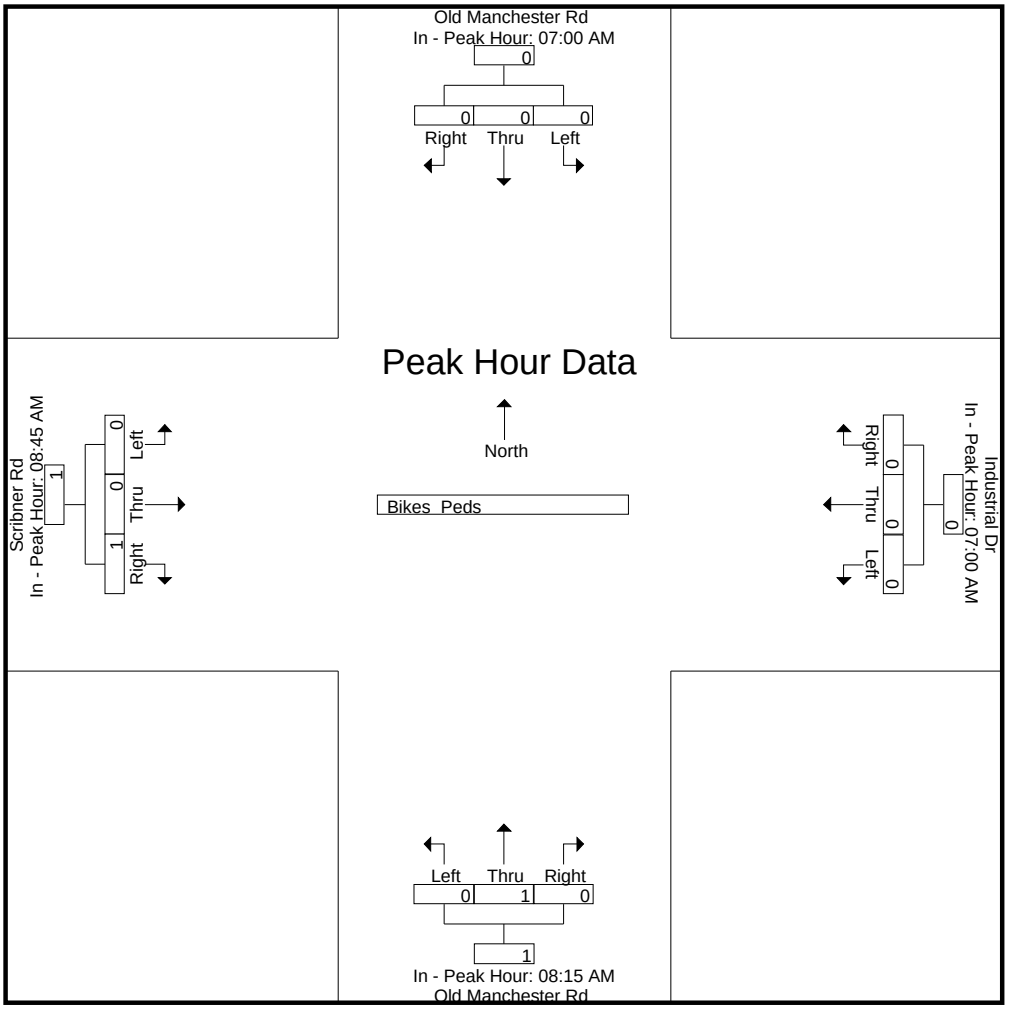


Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				08:15 AM				08:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	**1**	**1**
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1
% App. Total	0	0	0		0	0	0		0	100	0		0	0	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.250	.250

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 28

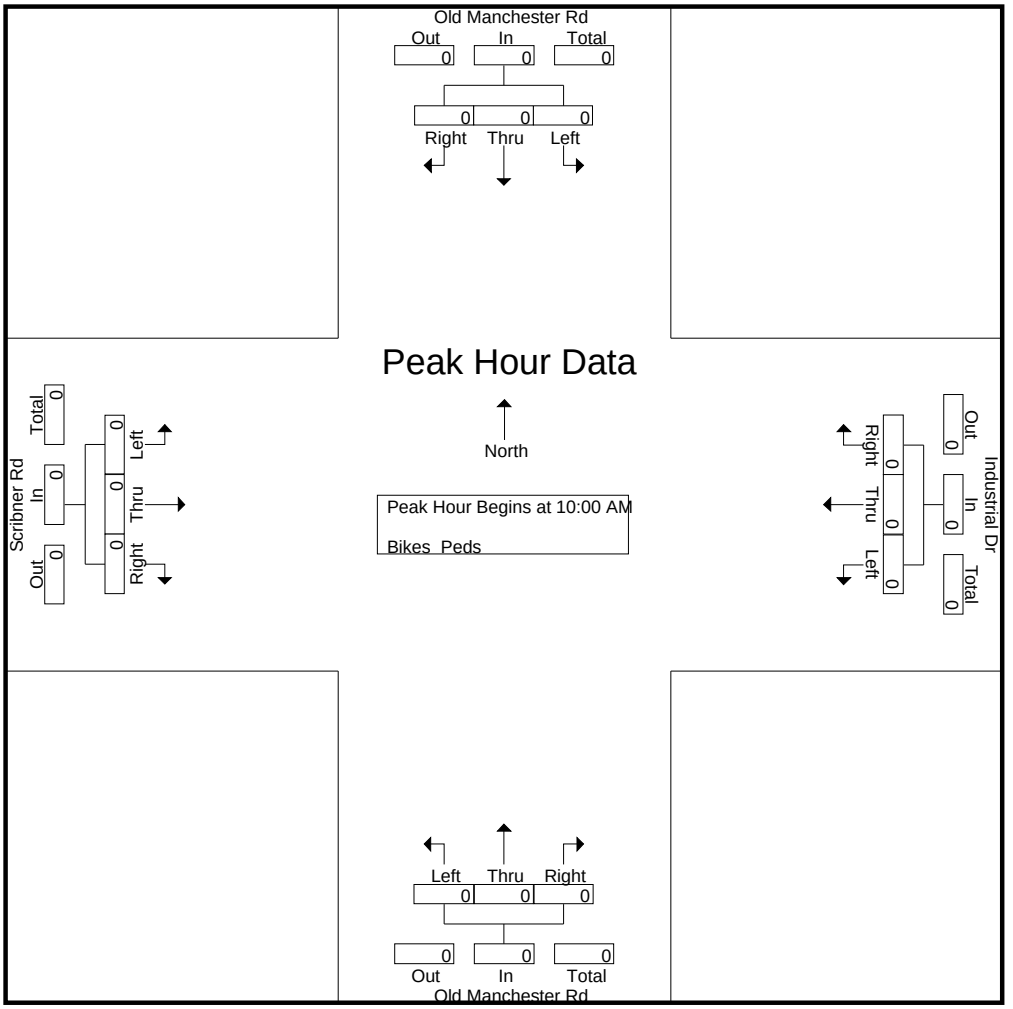


Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 10:00 AM

10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 29

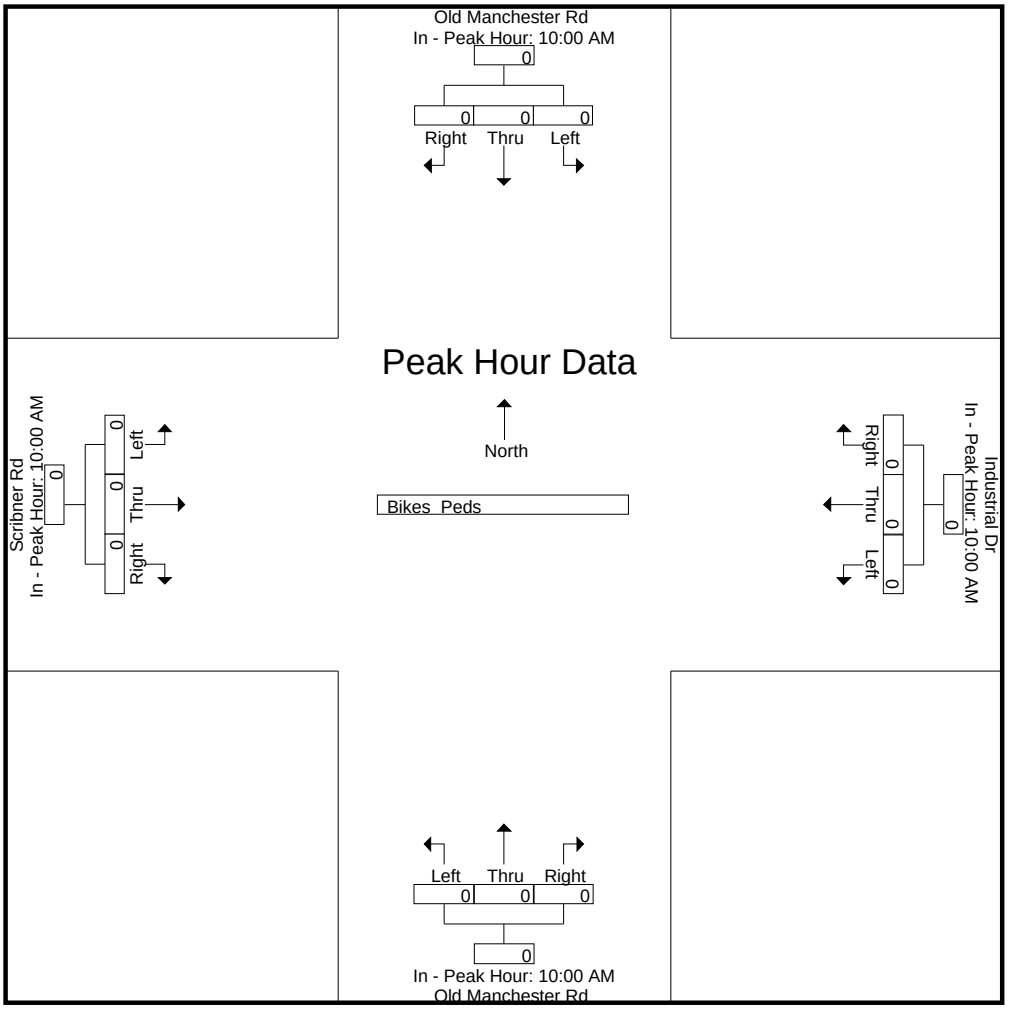


Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	10:00 AM				10:00 AM				10:00 AM				10:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 30



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 02:30 PM

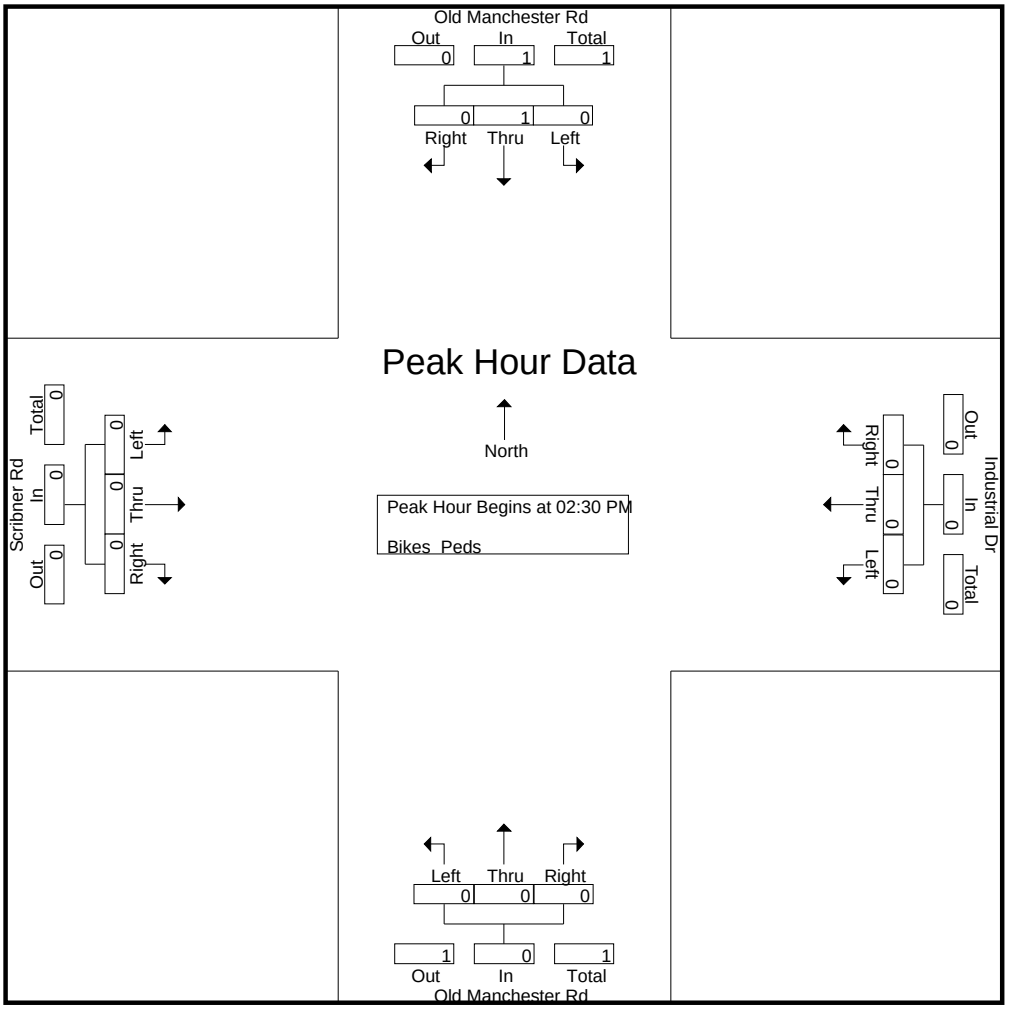
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 31



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

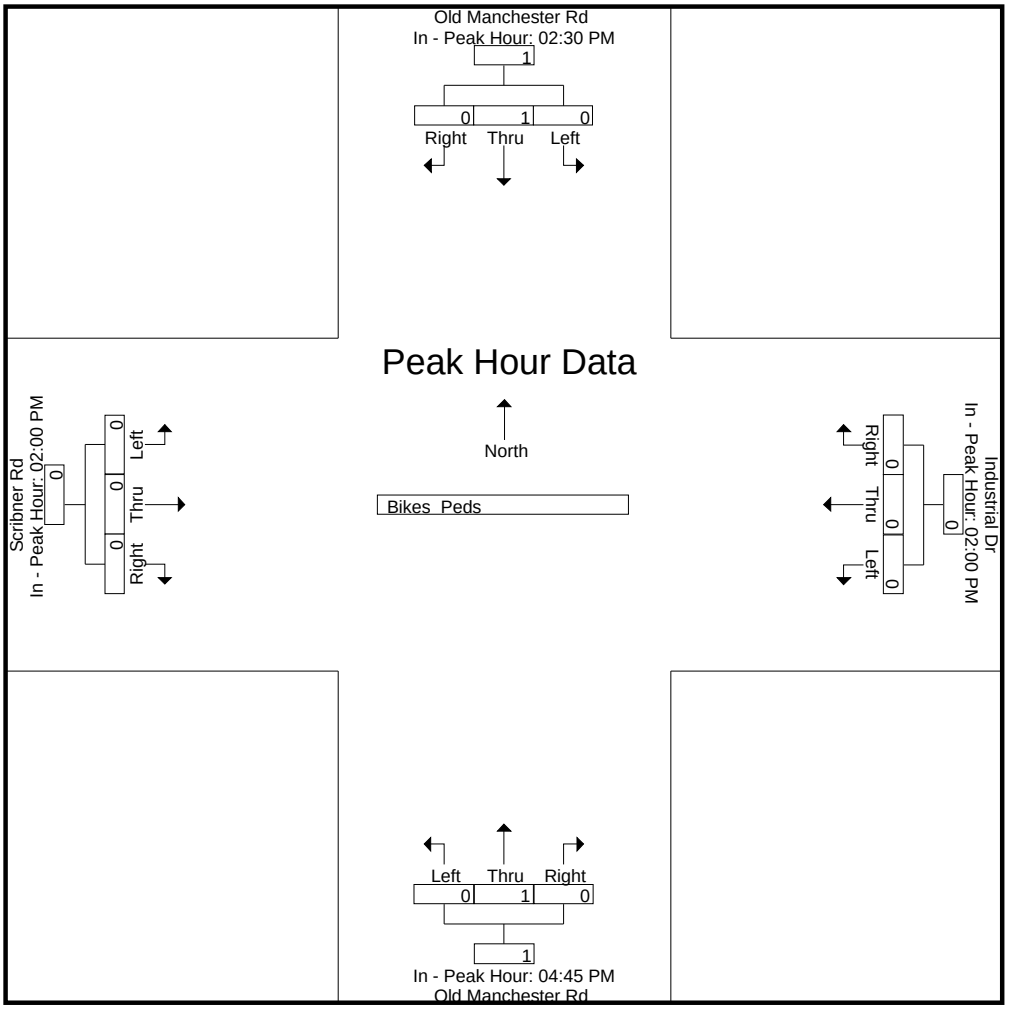
	02:30 PM				02:00 PM				04:45 PM				02:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 32



MOTOR VEHICLE CRASH DATA

For Date: 02/13/2019 - Wednesday

Call Number	Time	Call Reason	Action	Priority	Duplicate
19-2739	0850	911 - Accident - Property Damage	Summons issued	2	

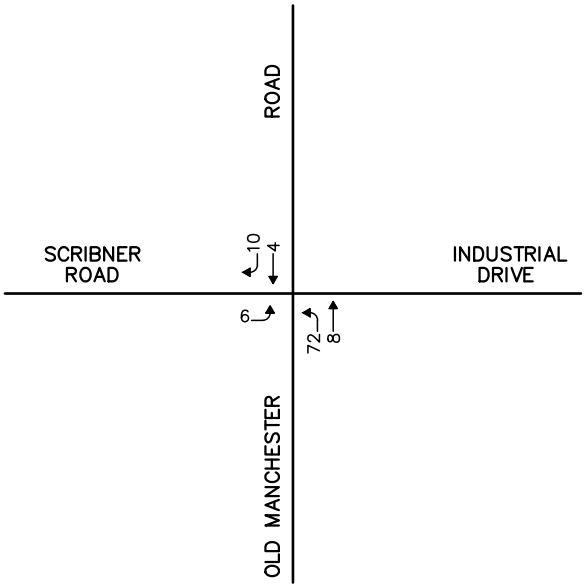
Call Taker: 1685 - MEALEY, EDWARD
Call Modified By: 1822 - CROSS, ASHLEY
Location/Address: HEADING TOWARD OLD MANCHESTER RD - BATCHELDER RD
Party Entered By: 02/13/2019 0857 1685 - MEALEY, EDWARD
Modified By: 02/13/2019 0900 1685 - MEALEY, EDWARD
Calling Party: CARNEVALE, KEVIN @ 355 HAVERHILL RD - CHESTER, NH 03036 603-418-5364
SSN: DOB: Race: W Sex: M
ID: 1929 - DRAKE, MICHAEL
Disp-08:50:00 Arvd-08:54:55 Clrd-09:19:13
Vehicle Entered By: 02/13/2019 0859 1685 - MEALEY, EDWARD
Modified By: 02/13/2019 0904 1685 - MEALEY, EDWARD
Vehicle: WHI 2015 FORD VN TRANSIT Reg: PC NH 3202732 VIN: 1FTNR2CG7FKA16774
Operator: KING, SHAWN @ 3 CENTURY DR - RAYMOND, NH 03077
SSN: DOB: Race: W Sex: M
Refer To Citation: DS033405
Owner: ADEK TECHNICAL SALES INC @ 3 INFINITY DR - RAYMOND, NH 03077
Vehicle Entered By: 02/13/2019 0859 1685 - MEALEY, EDWARD
Modified By: 02/13/2019 0901 1685 - MEALEY, EDWARD
Vehicle: SIL 2017 GMC CANYON Reg: PC NH 2622842 VIN: 1GTG6CEN1H1168237
Operator: CARNEVALE, KEVIN @ 355 HAVERHILL RD - CHESTER, NH 03036
SSN: DOB: Race: W Sex: M
Owner: RB ALLEN COMPANY INC @ 131 LAFAYETTE RD - N HAMPTON, NH 03862
Narrative: **02/13/2019 0857 MEALEY, EDWARD**
Modified By: **02/13/2019 0900 MEALEY, EDWARD**

CALLER REPORTING THAT HE IS BEHIND A VAN THAT HAS ICE ON THE ROOF THAT FLEW OFF AND DAMAGED HIS WINDSHIELD, LAST SEEN TURNING DOWN INDUSTRIAL DR AND STOPPED AT ADEK

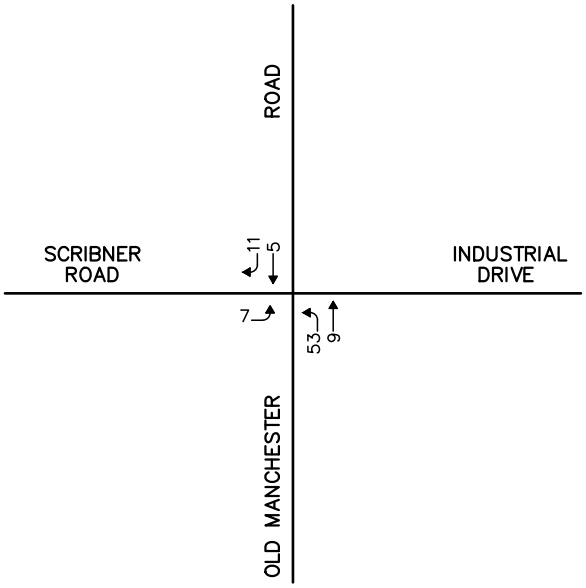
Refer To Incident: 19-135-OF

BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS AND CALCULATIONS

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)



Not To Scale

Figure A-1

Proposed Convenience Store and Fueling Facility
Peak-Hour Traffic Volumes

Vanasse & Associates inc

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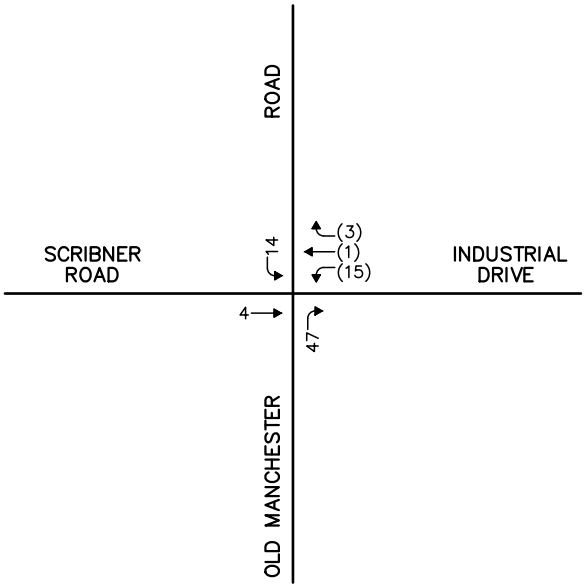
GENERAL BACKGROUND TRAFFIC GROWTH

General Background Traffic Growth - Daily Traffic Volumes

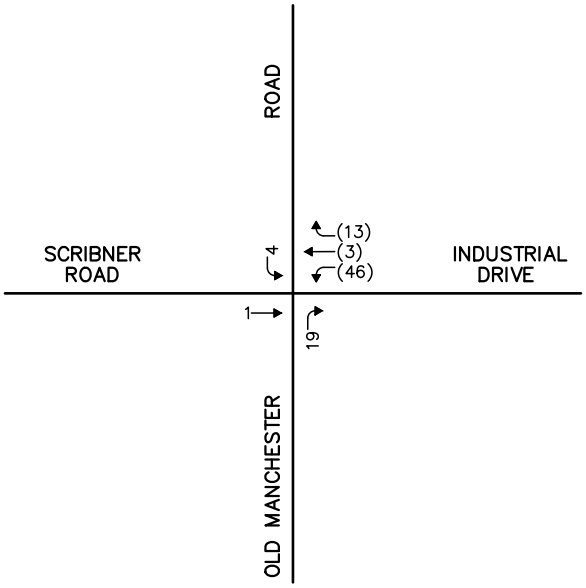
CITY/TOWN	ROUTE/STREET	LOCATION	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Annual Growth Rate
Raymond	Scribner Road	East of Gile Road		1,500			1,600	1,635	1,684	1,661	1,694	1,728	1,533	**0.37%**
Raymond	Old Manchester Road	West of Wight Street	2,900			3,200			2,900	2,958	3,017	3,061	3,098	**0.69%**
Raymond	Main Street	Over Lamprey River		3,600			3,500	3,577	3,684	3,687	3,761	3,836	3,432	**0.25%**
Raymond	NH Route 101 E	Between Exits 4-5	36,600			37,000			41,000	41,820	42,656	43,951	44,478	**2.22%**
Raymond	Langford Road	Over Lamprey River		1,200			1,100	1,124	1,158	1,359	1,386	1,414	1,192	**2.36%**
Raymond	NH Route 27	East of Main Street							6,500	6,630	6,763	6,397	6,474	**-0.36%**
														0.92%

TRIP GENERATION CALCULATIONS

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)



Not To Scale

Figure A-2

Project-Generated Peak-Hour Traffic Volumes

Vanasse & Associates inc

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Warehousing
(150)

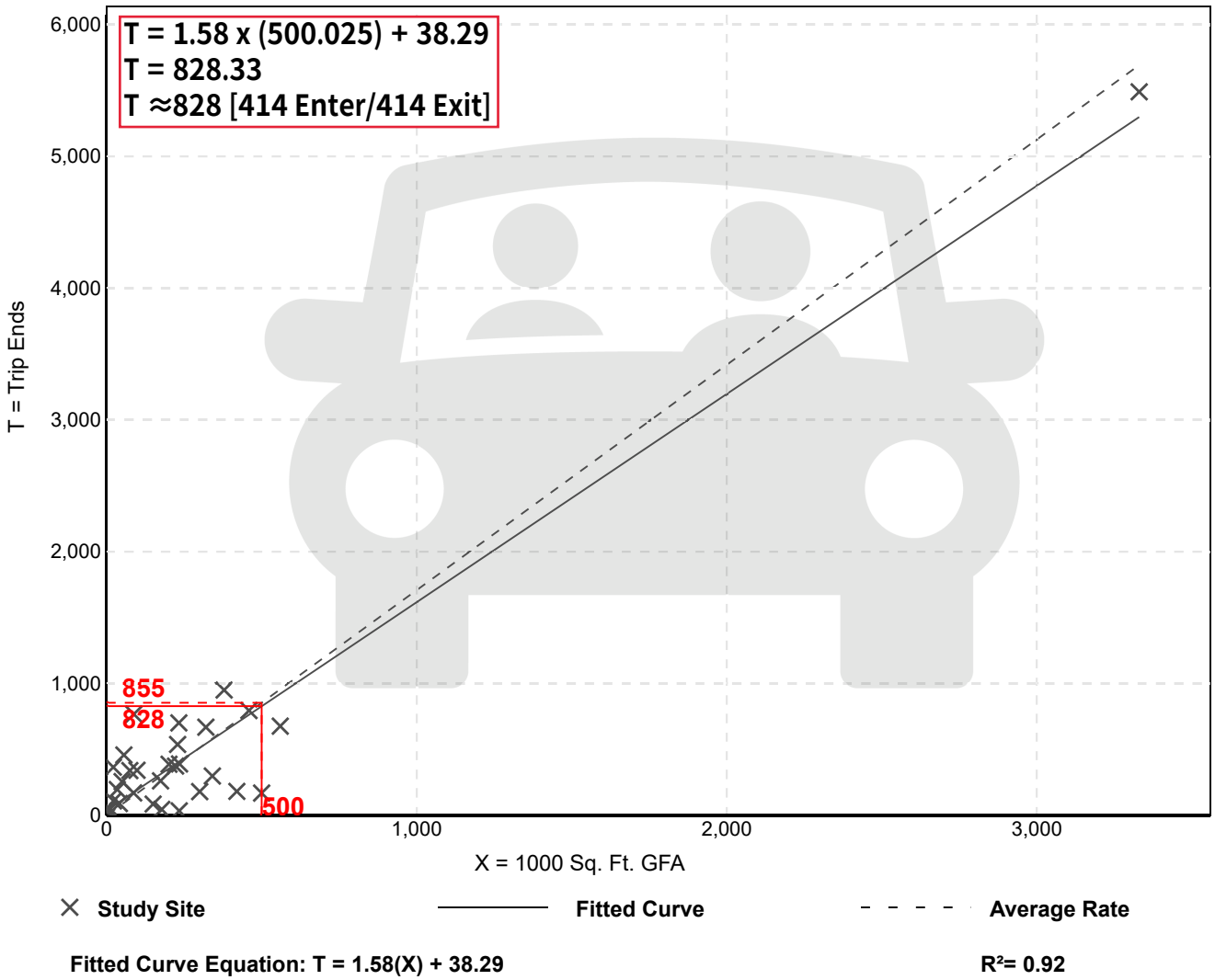
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. 1000 Sq. Ft. GFA: 292
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.71	0.15 - 16.93	1.48

Data Plot and Equation



Fitted Curve Equation: T = 1.58(X) + 38.29

R^2= 0.92

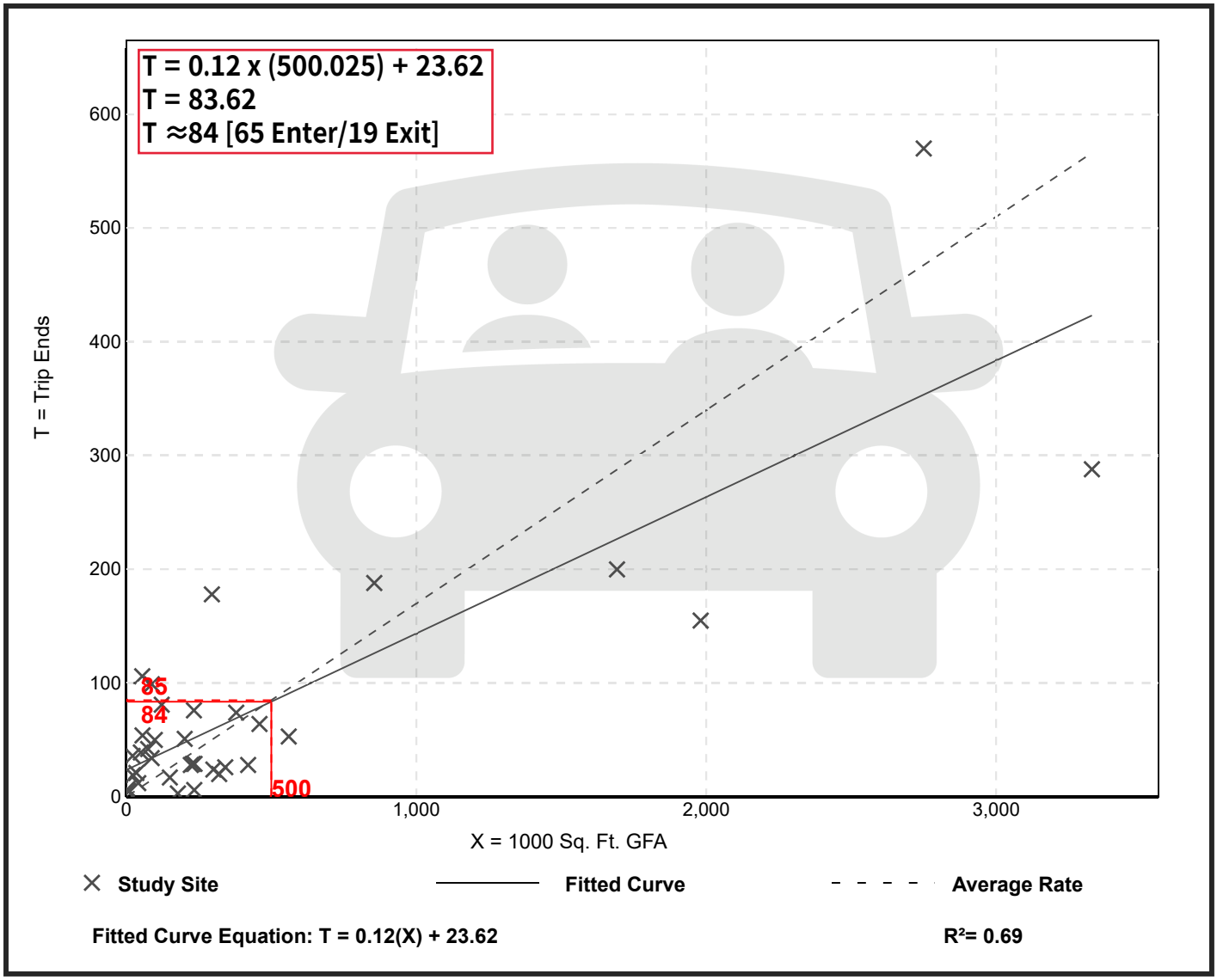
Warehousing
(150)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	36
Avg. 1000 Sq. Ft. GFA:	448
Directional Distribution:	77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

Data Plot and Equation



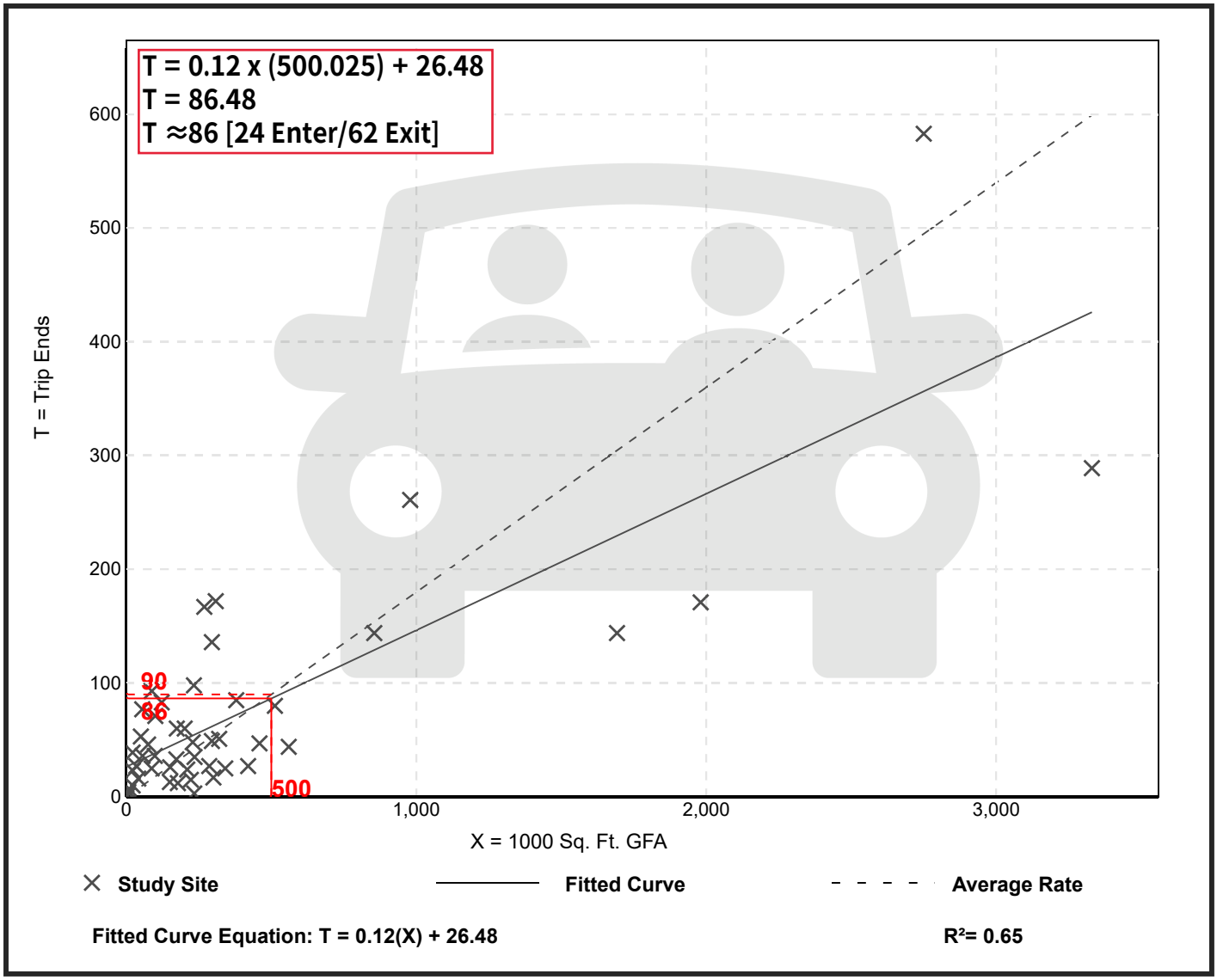
Warehousing
(150)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	49
Avg. 1000 Sq. Ft. GFA:	400
Directional Distribution:	28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

Data Plot and Equation



Warehousing
(150)

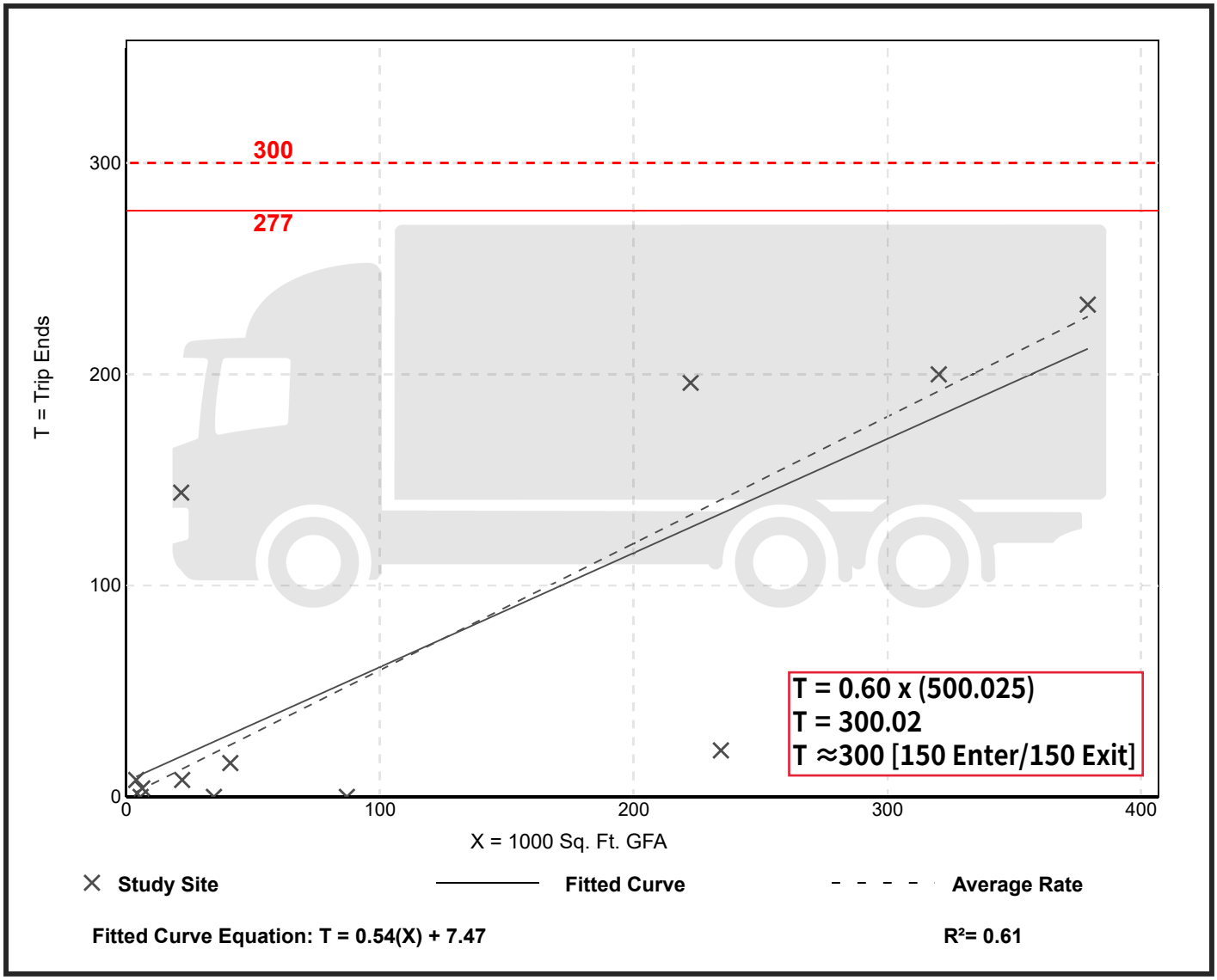
Truck Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 12
Avg. 1000 Sq. Ft. GFA: 115
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.60	0.00 - 6.66	0.86

Data Plot and Equation



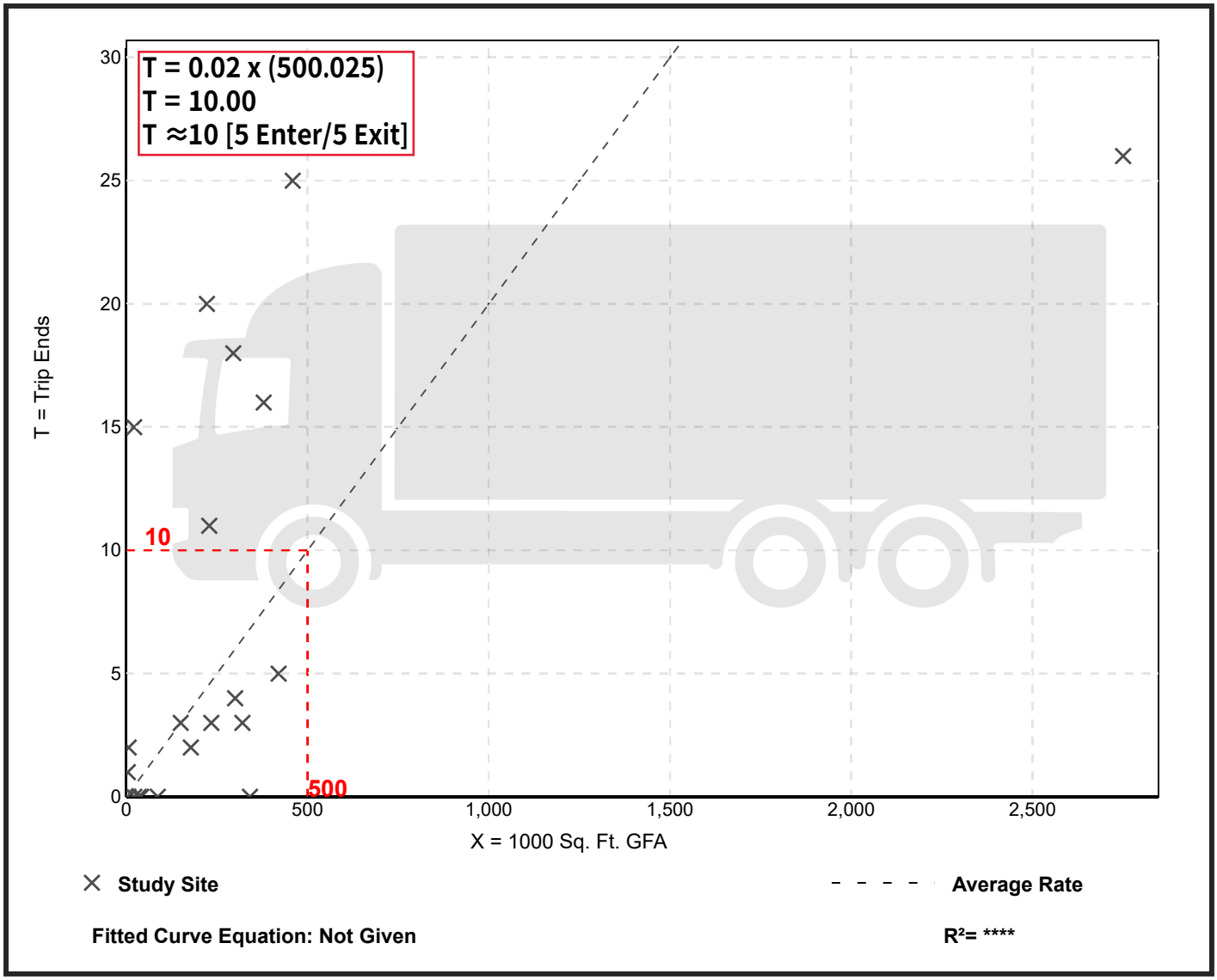
Warehousing
(150)

Truck Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	21
Avg. 1000 Sq. Ft. GFA:	309
Directional Distribution:	52% entering, 48% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.02	0.00 - 0.69	0.05

Data Plot and Equation



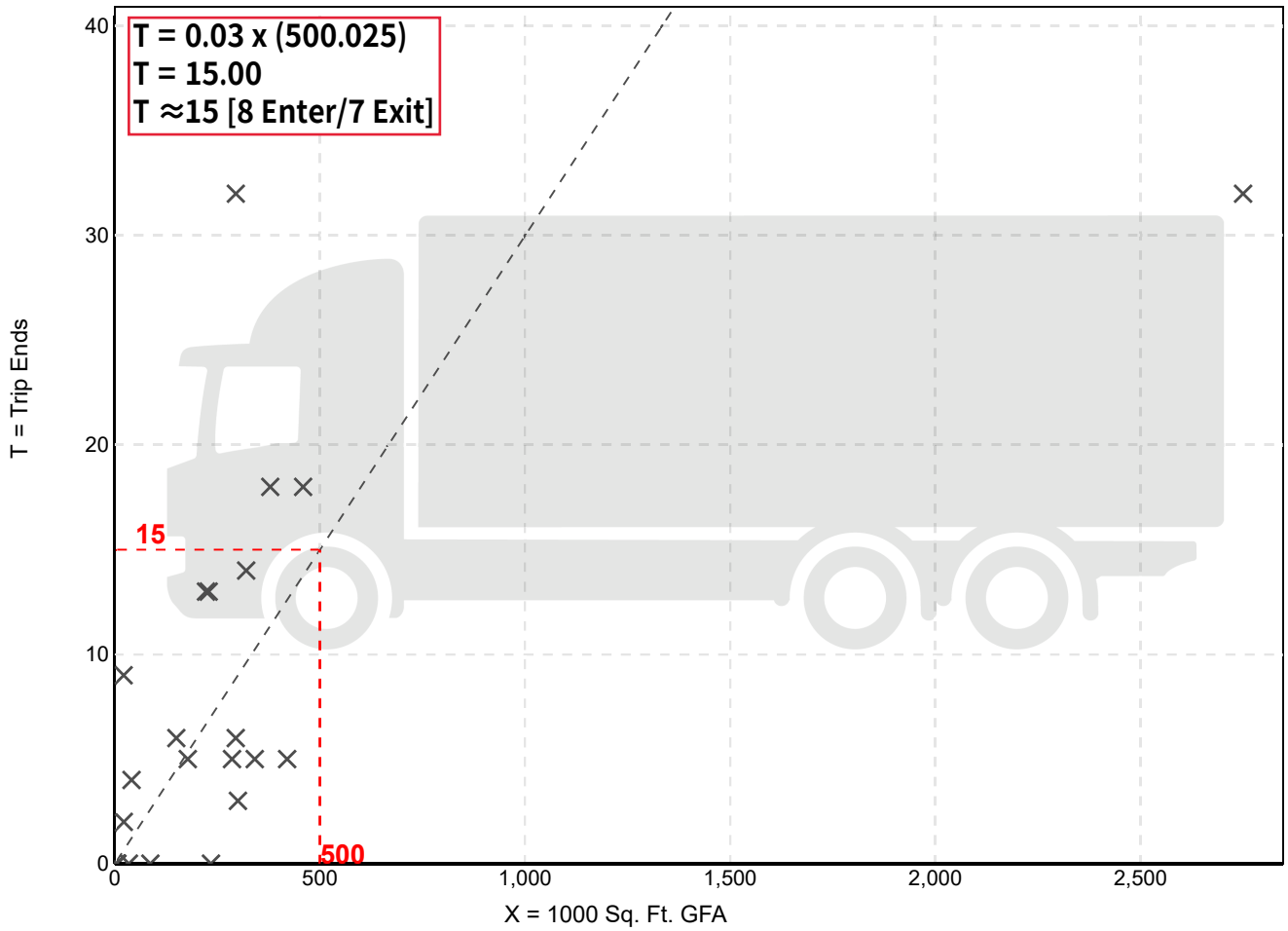
Warehousing
(150)

Truck Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	23
Avg. 1000 Sq. Ft. GFA:	308
Directional Distribution:	52% entering, 48% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.03	0.00 - 0.42	0.03

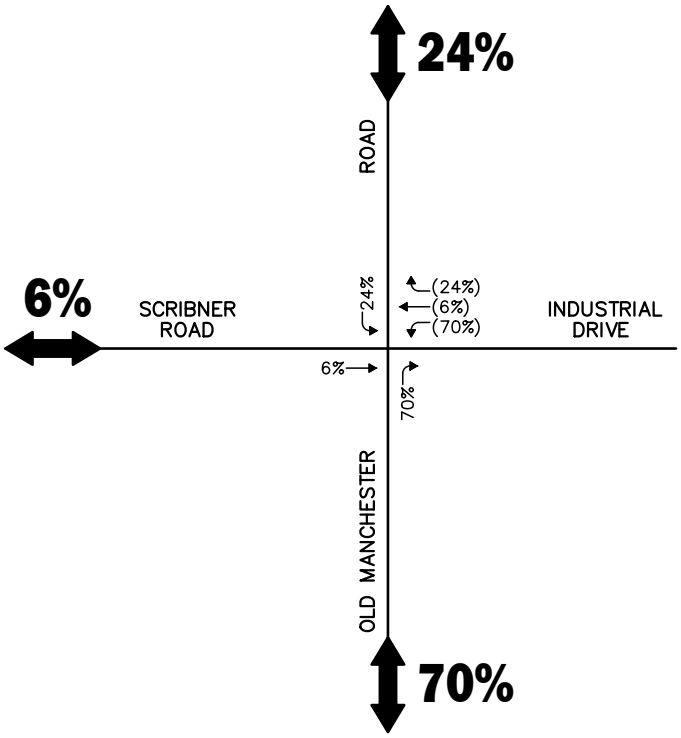
Data Plot and Equation



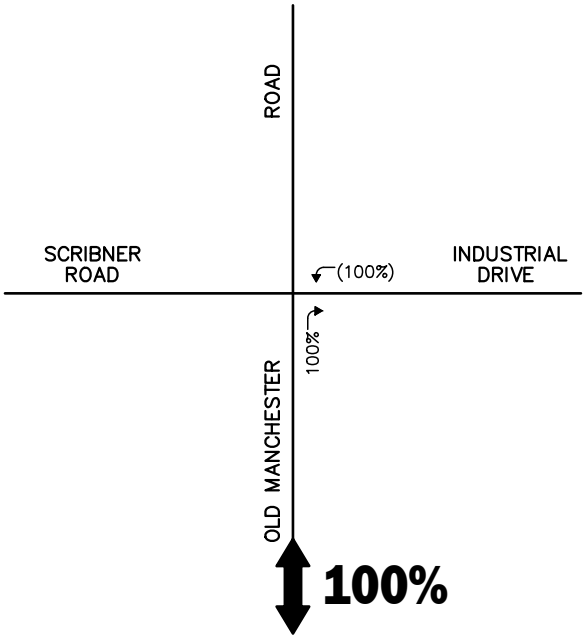
Fitted Curve Equation: Not Given

R^2= ****

VEHICLE TRIP DISTRIBUTION



TRUCK TRIP DISTRIBUTION



Not To Scale

Figure A-3

Trip Distribution Maps

Vanasse & Associates inc

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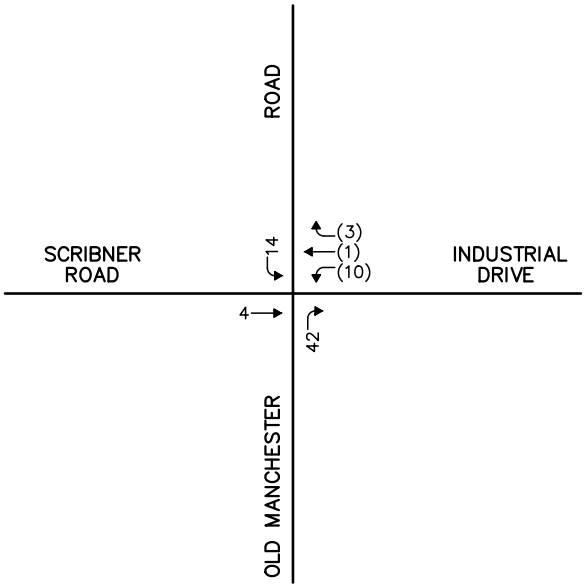
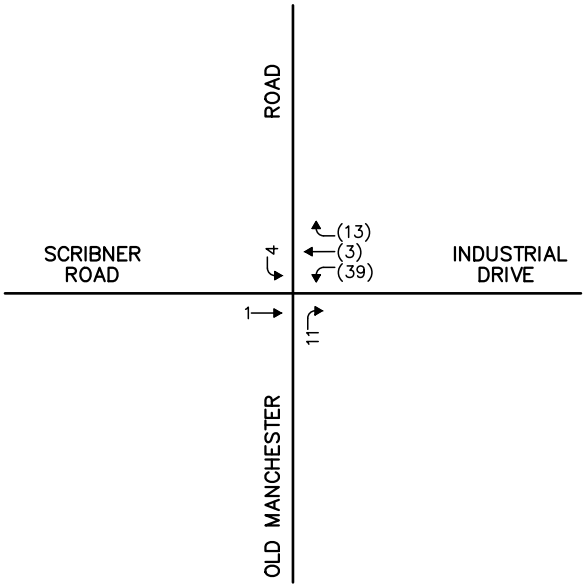
WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)



Not To Scale

Figure A-4

Project-Generated Peak-Hour Passenger Car Trips

Vanasse & Associates inc

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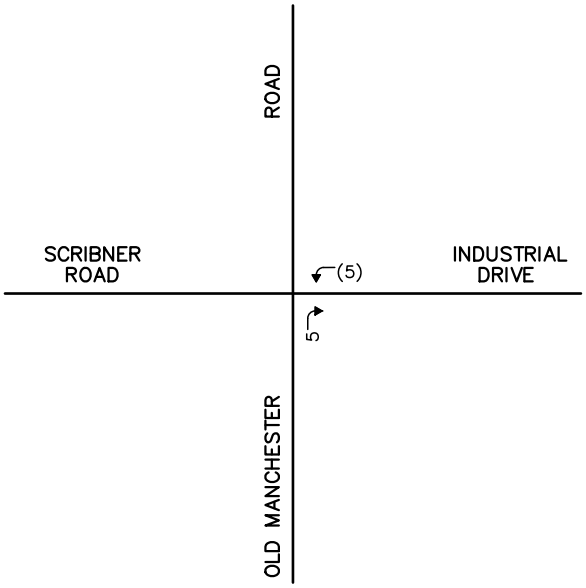
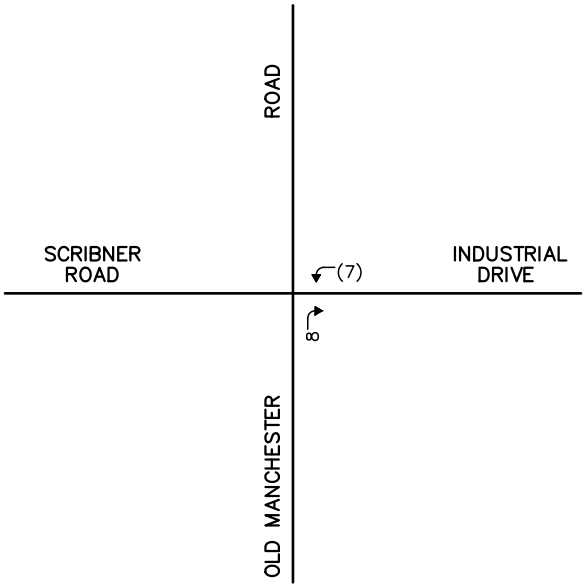
WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)



Not To Scale

Figure A-5

Project-Generated Peak-Hour Truck Trips

Vanasse & Associates inc

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TRAFFIC SIGNAL WARRANTS ANALYSIS

HCS7 Warrants Report

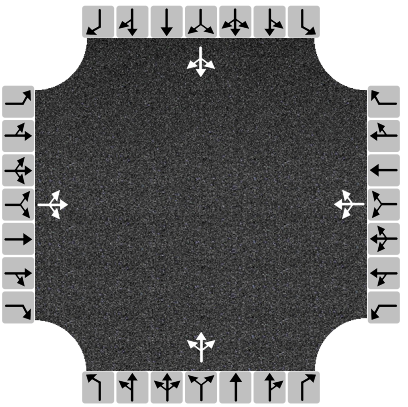
Project Information

Analyst	AJA	Date	9/15/2022
Agency	Vanasse & Assoc., Inc.	Analysis Year	2022
Jurisdiction	Raymond, NH	Time Period Analyzed	2022 Existing
Project Description	Proposed Warehouse/Distribution Facility – Industrial Drive		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	40	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	0		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane Usage		LTR			LTR			LTR			LTR	
Vehicle Volumes Averages (veh/h)	18	3	39	18	4	7	39	75	15	5	76	21
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)		Tractor-Trailer Trucks (%)	10

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HCS7 Warrants Report

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)	4A (100%)	4B (100%)
07 - 08	254	114	396	0	0	No	No	No	No	No	No	No	No	No
08 - 09	224	68	314	0	0	No	No	No	No	No	No	No	No	No
09 - 10	173	60	254	0	0	No	No	No	No	No	No	No	No	No
10 - 11	182	60	271	0	0	No	No	No	No	No	No	No	No	No
11 - 12	190	52	275	0	0	No	No	No	No	No	No	No	No	No
12 - 13	205	56	308	0	0	No	No	No	No	No	No	No	No	No
13 - 14	190	45	267	0	0	No	No	No	No	No	No	No	No	No
14 - 15	232	50	321	0	0	No	No	No	No	No	No	No	No	No
15 - 16	284	71	402	0	0	No	No	No	No	No	No	No	No	No
16 - 17	366	53	464	0	0	No	No	No	No	No	No	No	No	No
17 - 18	317	64	390	0	0	No	No	No	No	No	No	No	No	No
18 - 19	181	54	242	0	0	No	No	No	No	No	No	No	No	No
Total	2798	747	3904	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

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HCS7 Warrants Report

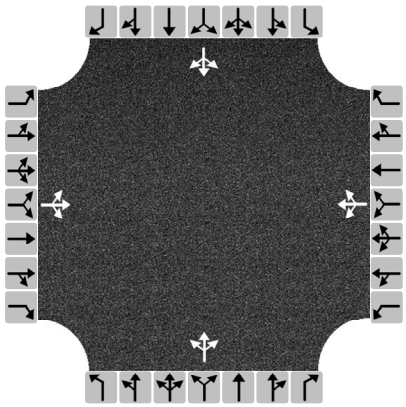
Project Information

Analyst	AJA	Date	9/15/2022
Agency	Vanasse & Assoc., Inc.	Analysis Year	2022
Jurisdiction	Raymond, NH	Time Period Analyzed	2022 Baseline
Project Description	Proposed Warehouse/Distribution Facility – Industrial Drive		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	40	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	0		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane Usage		LTR			LTR			LTR			LTR	
Vehicle Volumes Averages (veh/h)	18	3	57	18	4	7	62	99	15	5	87	51
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)		Tractor-Trailer Trucks (%)	10

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HCS7 Warrants Report

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)	4A (100%)	4B (100%)
07 - 08	342	131	501	0	0	No	No	No	No	No	No	No	No	No
08 - 09	319	87	428	0	0	No	No	No	No	No	No	No	No	No
09 - 10	255	77	353	0	0	No	No	No	No	No	No	No	No	No
10 - 11	258	75	362	0	0	No	No	No	No	No	No	No	No	No
11 - 12	274	69	376	0	0	No	No	No	No	No	No	No	No	No
12 - 13	302	75	424	0	0	No	No	No	No	No	No	No	No	No
13 - 14	279	62	373	0	0	No	No	No	No	No	No	No	No	No
14 - 15	320	68	427	0	0	No	No	No	No	No	No	No	No	No
15 - 16	385	91	523	0	0	No	No	No	No	No	No	No	No	No
16 - 17	458	72	575	0	0	No	No	No	No	No	No	No	No	No
17 - 18	416	84	509	0	0	No	No	No	No	No	No	No	No	No
18 - 19	258	70	335	0	0	No	No	No	No	No	No	No	No	No
Total	3866	961	5186	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

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HCS7 Warrants Report

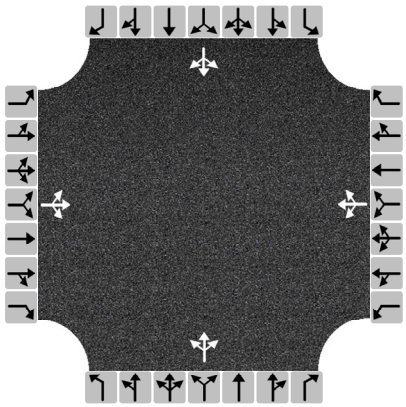
Project Information

Analyst	AJA	Date	9/15/2022
Agency	Vanasse & Assoc., Inc.	Analysis Year	2022
Jurisdiction	Raymond, NH	Time Period Analyzed	2022 Build
Project Description	Proposed Warehouse/Distribution Facility – Industrial Drive		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	40	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	0		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane Usage		LTR			LTR			LTR			LTR	
Vehicle Volumes Averages (veh/h)	18	4	57	40	5	12	62	99	39	10	87	51
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)		Tractor-Trailer Trucks (%)	10

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HCS7 Warrants Report

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)	4A (100%)	4B (100%)
07 - 08	369	132	552	0	0	No	No	No	No	No	No	No	No	No
08 - 09	345	88	477	0	0	No	No	No	No	No	No	No	No	No
09 - 10	297	78	422	0	0	No	No	No	No	No	No	No	No	No
10 - 11	286	76	423	0	0	No	No	No	No	No	No	No	No	No
11 - 12	310	70	449	0	0	No	No	No	No	No	No	No	No	No
12 - 13	339	77	491	0	0	No	No	No	No	No	No	No	No	No
13 - 14	310	63	431	0	0	No	No	No	No	No	No	No	No	No
14 - 15	350	69	482	0	0	No	No	No	No	No	No	No	No	No
15 - 16	419	92	598	0	0	No	No	No	No	No	No	No	No	No
16 - 17	482	79	634	0	0	No	No	No	No	No	No	No	No	No
17 - 18	433	85	556	0	0	No	No	No	No	No	No	No	No	No
18 - 19	264	70	358	0	0	No	No	No	No	No	No	No	No	No
Total	4204	979	5873	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

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HCS7 Warrants Report

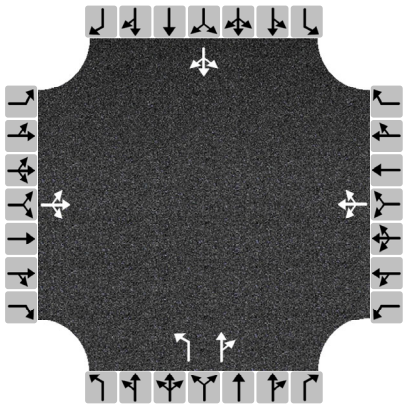
Project Information

Analyst	AJA	Date	9/15/2022
Agency	Vanasse & Assoc., Inc.	Analysis Year	2022
Jurisdiction	Raymond, NH	Time Period Analyzed	2032 Horizon Year
Project Description	Proposed Warehouse/Distribution Facility – Industrial Drive		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	40	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	0		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	1	1	0	0	1	0
Lane Usage		LTR			LTR		L	TR			LTR	
Vehicle Volumes Averages (veh/h)	20	4	61	19	4	8	66	106	17	6	96	53
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)		Tractor-Trailer Trucks (%)	10

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HCS7 Warrants Report

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)	4A (100%)	4B (100%)
07 - 08	367	143	542	0	0	No	No	No	No	No	No	No	No	No
08 - 09	343	94	462	0	0	No	No	No	No	No	No	No	No	No
09 - 10	273	83	378	0	0	No	No	No	No	No	No	No	No	No
10 - 11	277	81	391	0	0	No	No	No	No	No	No	No	No	No
11 - 12	295	74	406	0	0	No	No	No	No	No	No	No	No	No
12 - 13	324	81	457	0	0	No	No	No	No	No	No	No	No	No
13 - 14	299	68	402	0	0	No	No	No	No	No	No	No	No	No
14 - 15	345	73	461	0	0	No	No	No	No	No	No	No	No	No
15 - 16	412	98	561	0	0	No	No	No	No	No	No	No	No	No
16 - 17	496	78	623	0	0	No	No	No	No	No	No	No	No	No
17 - 18	449	91	550	0	0	No	No	No	No	No	No	No	No	No
18 - 19	276	76	359	0	0	No	No	No	No	No	No	No	No	No
Total	4156	1040	5592	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

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HCS7 Warrants Report

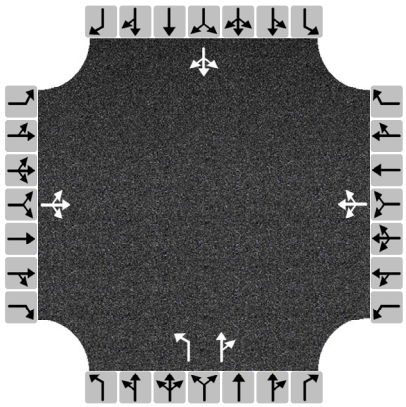
Project Information

Analyst	AJA	Date	9/15/2022
Agency	Vanasse & Assoc., Inc.	Analysis Year	2022
Jurisdiction	Raymond, NH	Time Period Analyzed	2032 Build
Project Description	Proposed Warehouse/Distribution Facility – Industrial Drive		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	40	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	0		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	1	1	0	0	1	0
Lane Usage		LTR			LTR		L	TR			LTR	
Vehicle Volumes Averages (veh/h)	20	5	61	42	5	13	66	106	41	10	96	53
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)		Tractor-Trailer Trucks (%)	10

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HCS7 Warrants Report

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)	4A (100%)	4B (100%)
07 - 08	394	144	593	0	0	No	No	No	No	No	No	No	No	No
08 - 09	369	95	511	0	0	No	No	No	No	No	No	No	No	No
09 - 10	315	84	447	0	0	No	No	No	No	No	No	No	No	No
10 - 11	305	82	452	0	0	No	No	No	No	No	No	No	No	No
11 - 12	331	75	479	0	0	No	No	No	No	No	No	No	No	No
12 - 13	361	83	524	0	0	No	No	No	No	No	No	No	No	No
13 - 14	330	69	460	0	0	No	No	No	No	No	No	No	No	No
14 - 15	375	74	516	0	0	No	No	No	No	No	No	No	No	No
15 - 16	446	99	637	0	0	No	No	No	No	No	No	No	No	No
16 - 17	520	83	682	0	0	No	No	No	No	No	No	No	No	No
17 - 18	466	92	597	0	0	No	No	No	No	No	No	No	No	No
18 - 19	282	76	382	0	0	No	No	No	No	No	No	No	No	No
Total	4494	1056	6280	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

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AUXILLIARY TURN LANE WARRANTS ANALYSIS

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

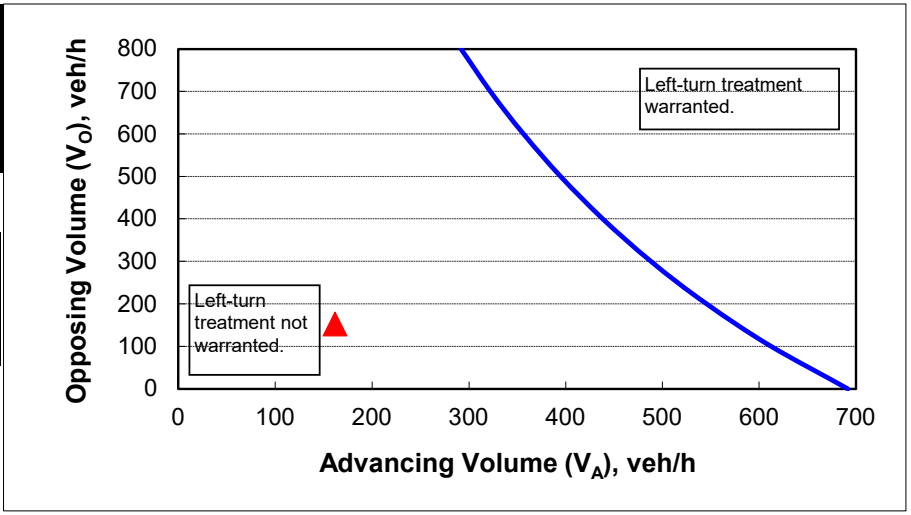
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	7%
Advancing volume (V_A), veh/h:	162
Opposing volume (V_O), veh/h:	152

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	576
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

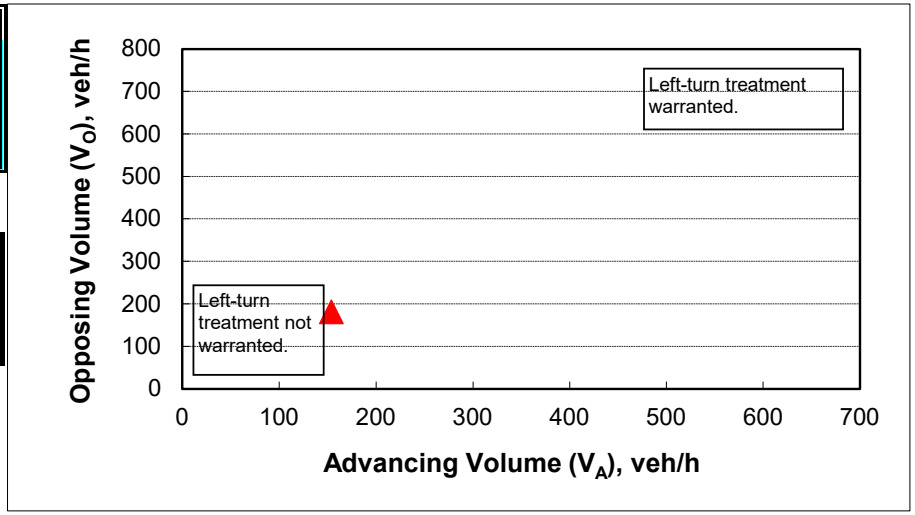
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	154
Opposing volume (V_O), veh/h:	181

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1817
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

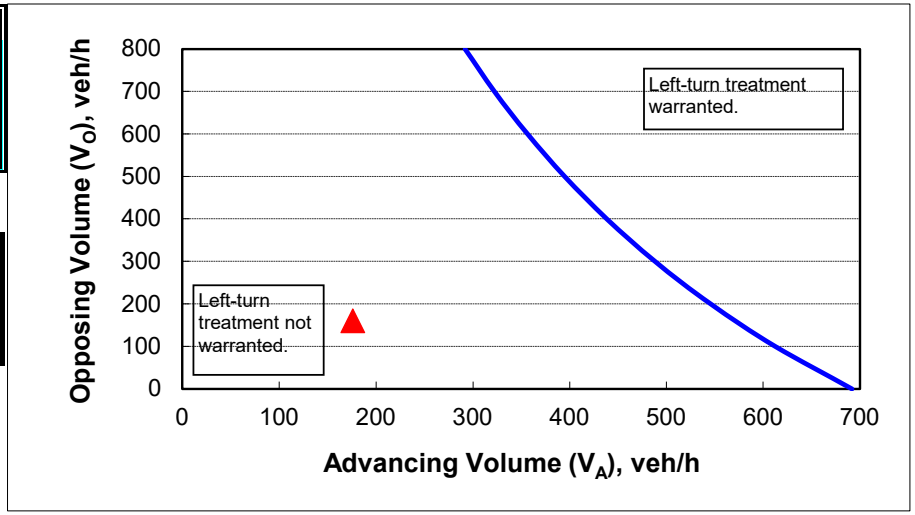
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	6%
Advancing volume (V_A), veh/h:	176
Opposing volume (V_O), veh/h:	160

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	576
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

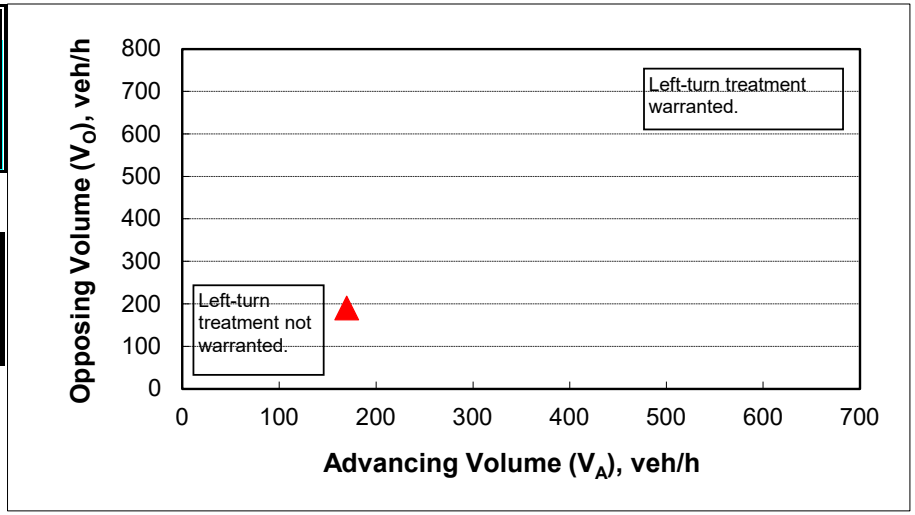
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	170
Opposing volume (V_O), veh/h:	190

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1798
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

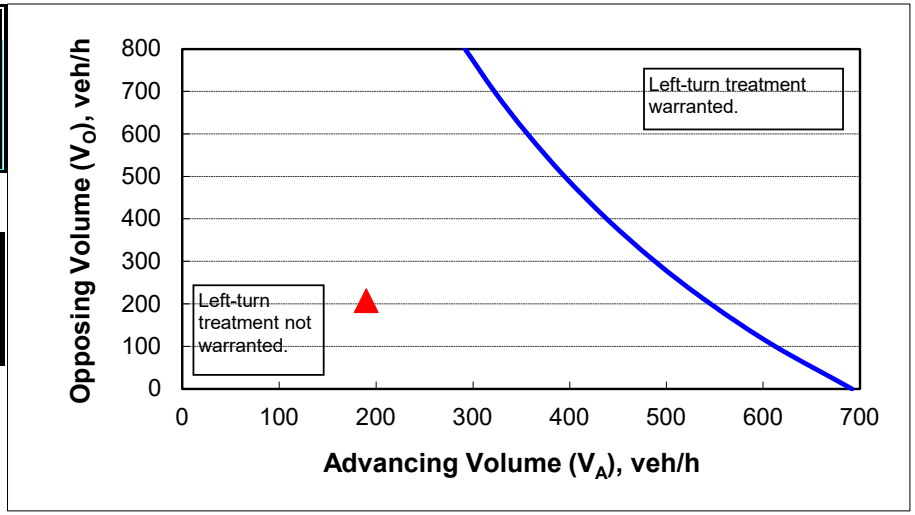
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	13%
Advancing volume (V_A), veh/h:	190
Opposing volume (V_O), veh/h:	207

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	576
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

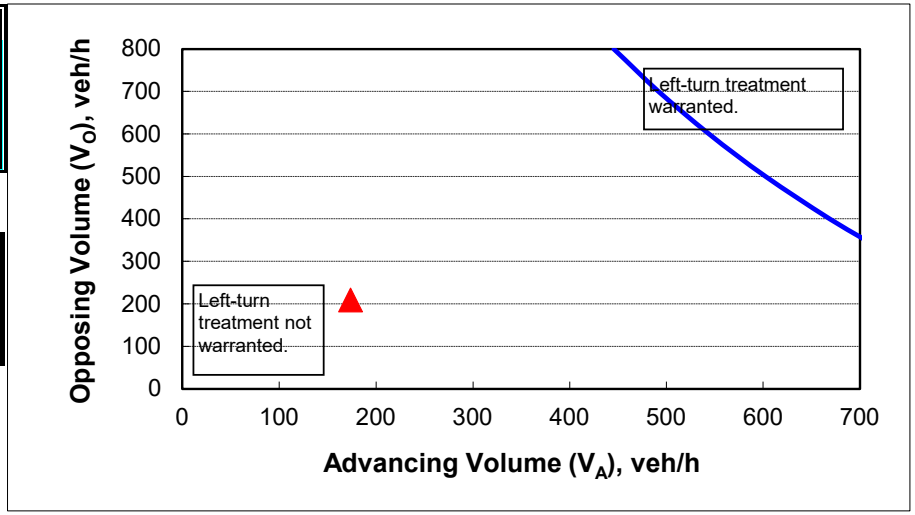
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	174
Opposing volume (V_O), veh/h:	209

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	824
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

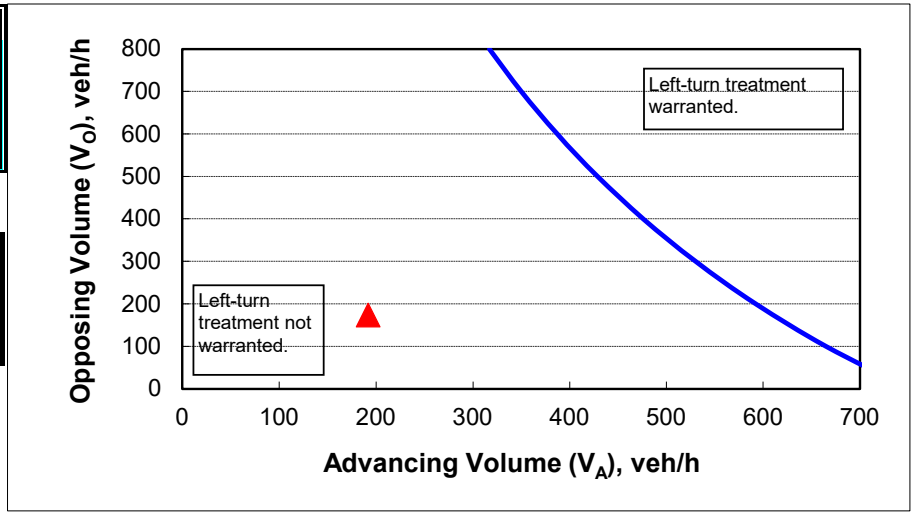
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	6%
Advancing volume (V_A), veh/h:	192
Opposing volume (V_O), veh/h:	173

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	611
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

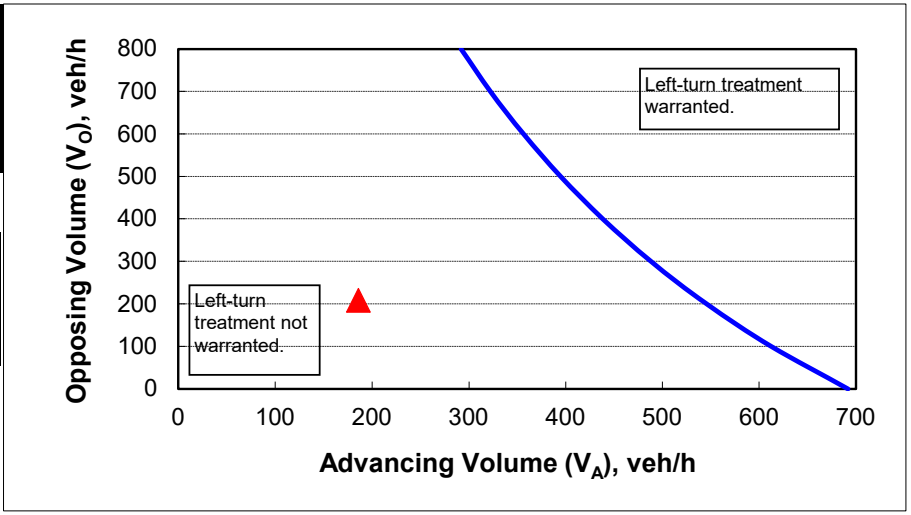
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	186
Opposing volume (V_O), veh/h:	208

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	576
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

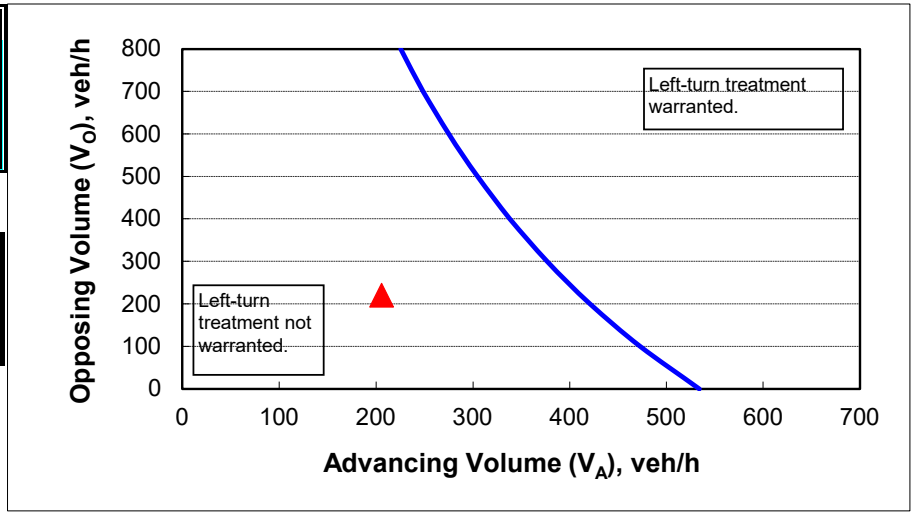
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	12%
Advancing volume (V_A), veh/h:	206
Opposing volume (V_O), veh/h:	220

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	412
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

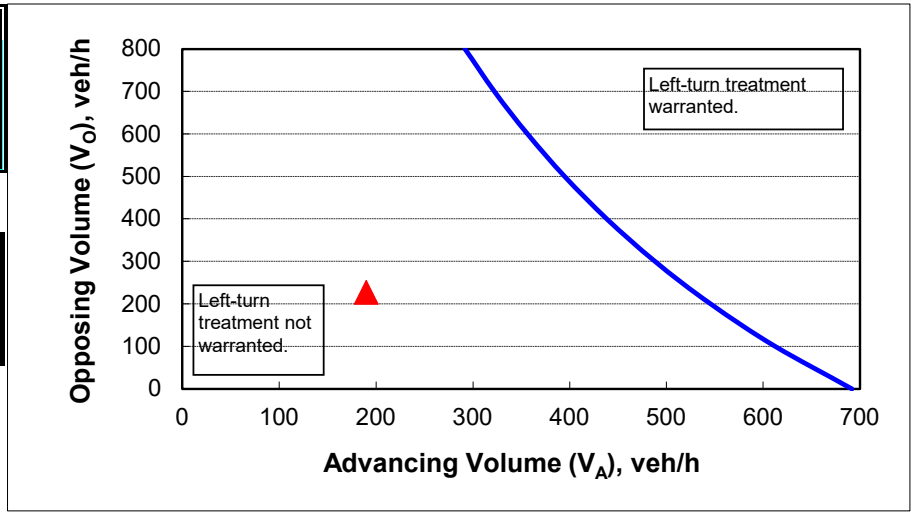
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	190
Opposing volume (V_O), veh/h:	227

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	576
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane , s:	1.9

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	174
Right-turn volume, veh/h:	32

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1428
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

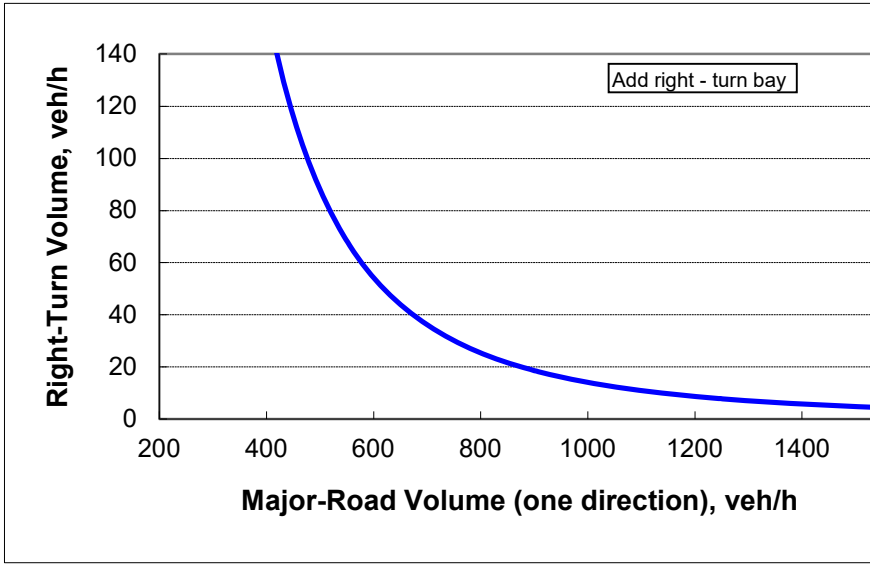


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	280
Right-turn volume, veh/h:	8

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	406
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

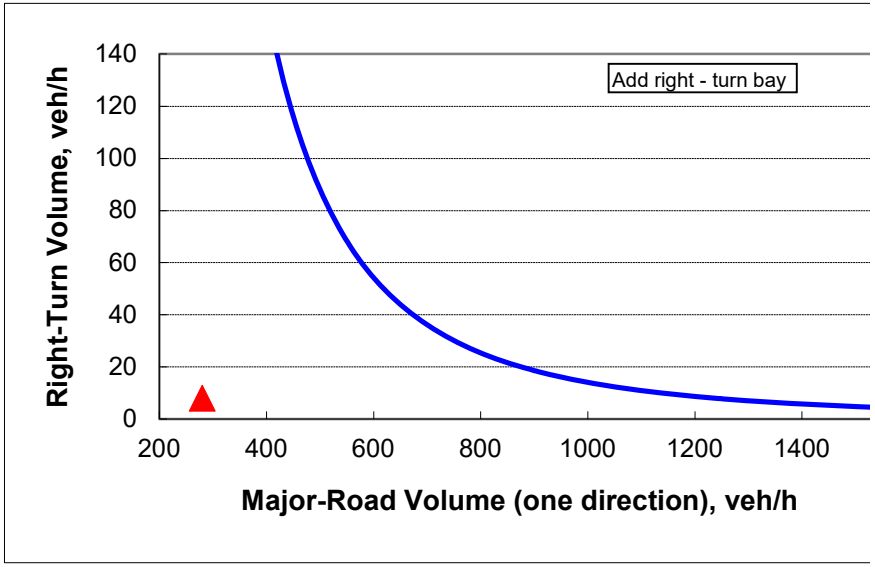


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	254
Right-turn volume, veh/h:	32

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1428
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

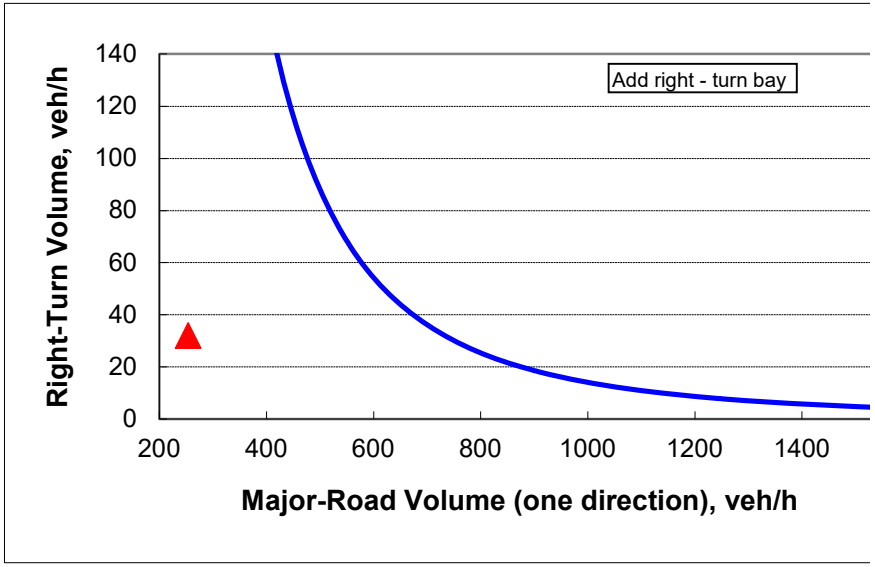


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	342
Right-turn volume, veh/h:	8

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	240
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

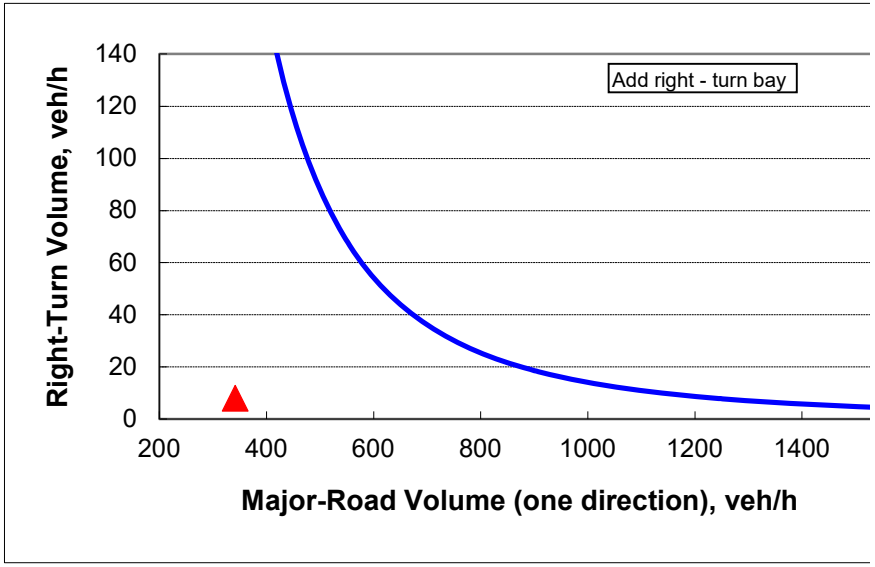


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	301
Right-turn volume, veh/h:	79

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1428
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

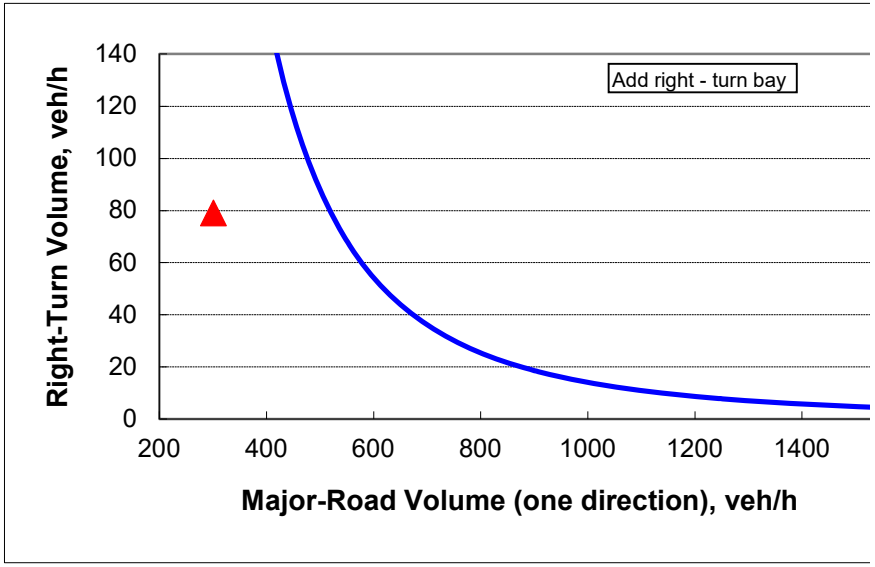


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	361
Right-turn volume, veh/h:	27

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	208
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

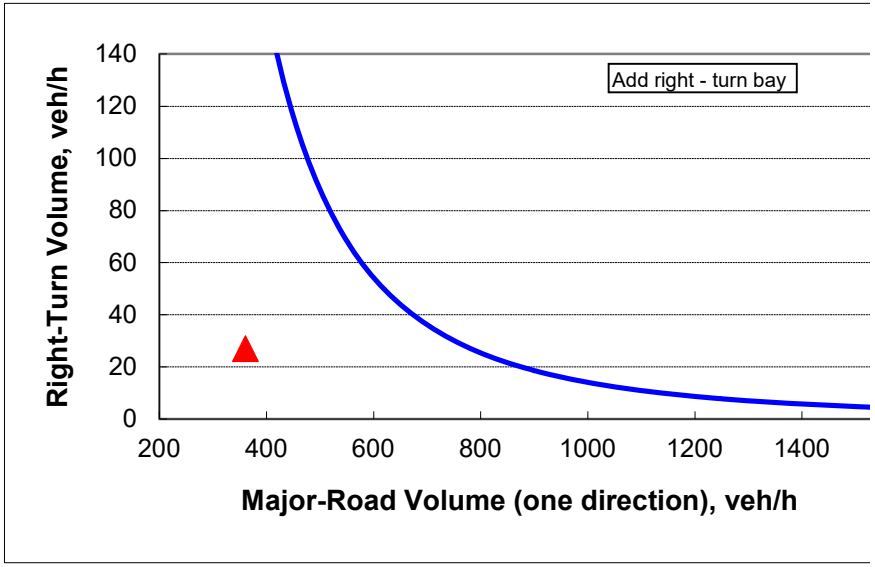


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	269
Right-turn volume, veh/h:	32

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	452
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

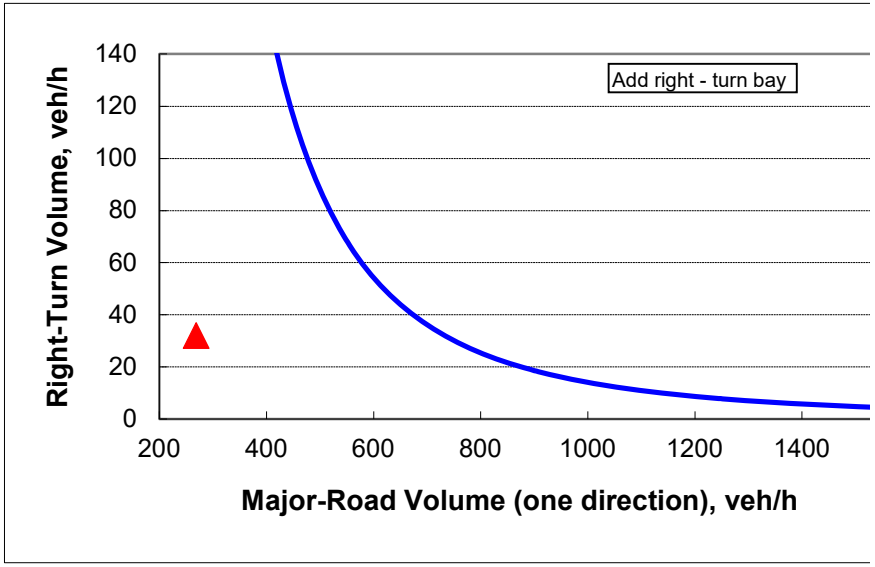


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	370
Right-turn volume, veh/h:	8

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	195
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

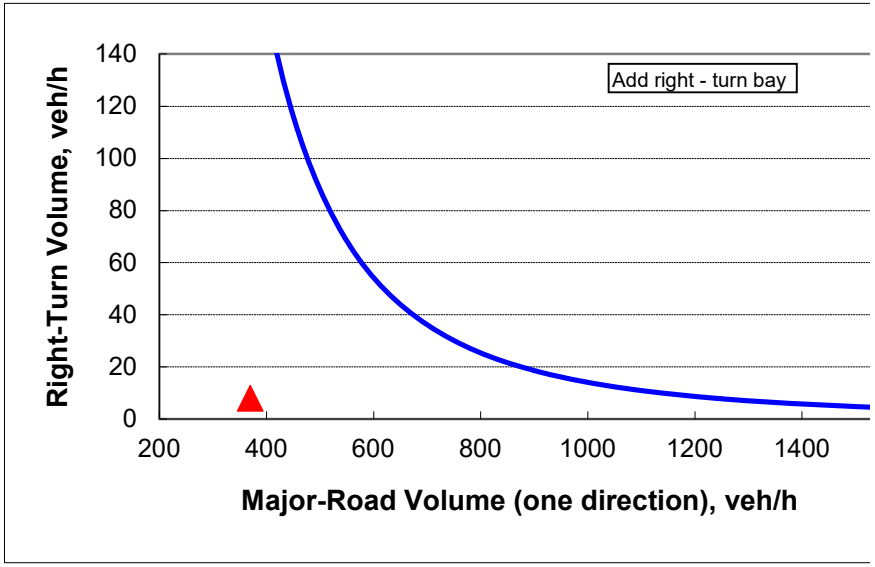


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	316
Right-turn volume, veh/h:	79

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	295
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

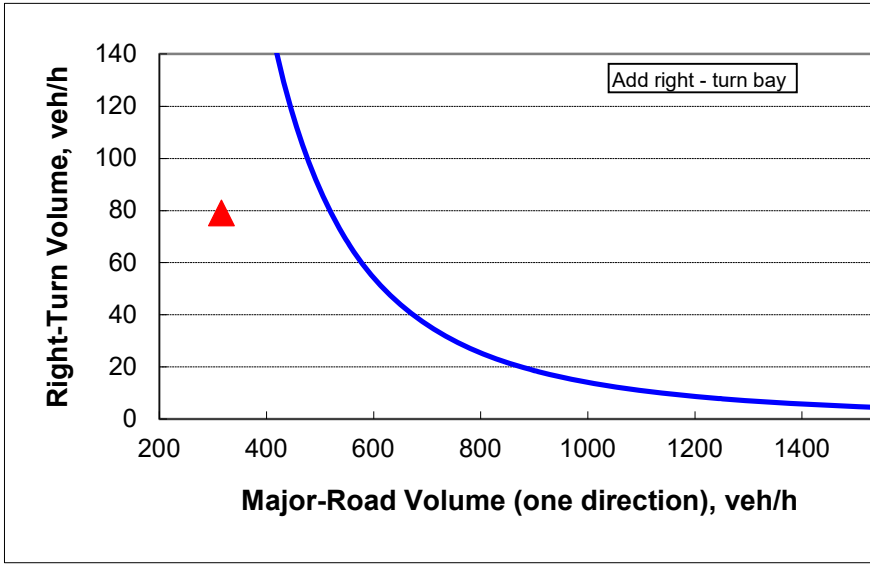


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

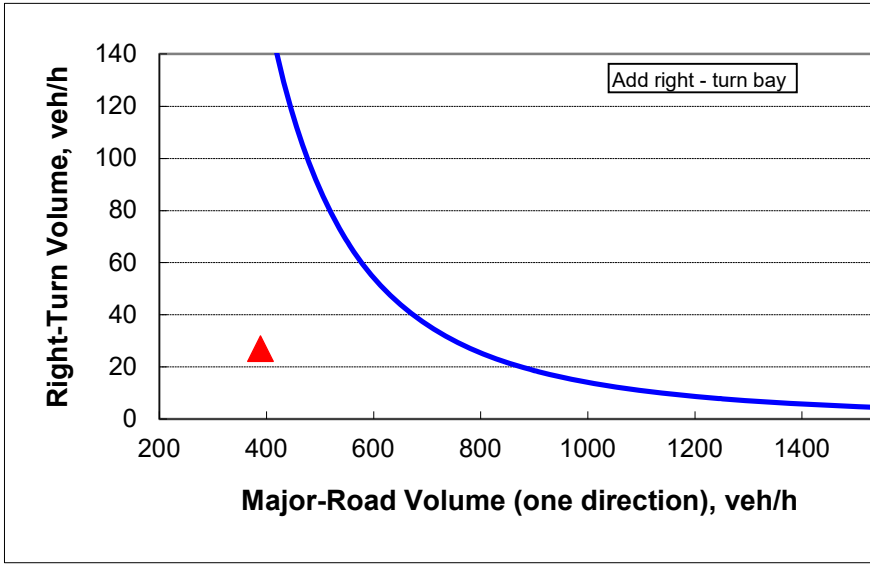
INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	389
Right-turn volume, veh/h:	27

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	171
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



CAPACITY ANALYSIS WORKSHEETS

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	6	85	18	6	10	22	120	32	11	133	18
Future Vol, veh/h	35	6	85	18	6	10	22	120	32	11	133	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	75	75	75	91	91	91	76	76	76
Heavy Vehicles, %	0	60	0	75	80	11	5	2	28	10	0	0
Mvmt Flow	43	7	104	24	8	13	24	132	35	14	175	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	423	430	187	469	425	150	199	0	0	167	0	0
Stage 1	215	215	-	198	198	-	-	-	-	-	-	-
Stage 2	208	215	-	271	227	-	-	-	-	-	-	-
Critical Hdwy	7.1	7.1	6.2	7.85	7.3	6.31	4.15	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.54	3.3	4.175	4.72	3.399	2.245	-	-	2.29	-	-
Pot Cap-1 Maneuver	545	440	860	402	420	873	1356	-	-	1364	-	-
Stage 1	792	629	-	662	612	-	-	-	-	-	-	-
Stage 2	799	629	-	600	593	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	516	426	860	340	407	873	1356	-	-	1364	-	-
Mov Cap-2 Maneuver	516	426	-	340	407	-	-	-	-	-	-	-
Stage 1	776	621	-	649	600	-	-	-	-	-	-	-
Stage 2	761	616	-	515	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	14.4	1	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1356	-	-	697	430	1364	-	-
HCM Lane V/C Ratio	0.018	-	-	0.22	0.105	0.011	-	-
HCM Control Delay (s)	7.7	0	-	11.6	14.4	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.4	0	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	19	0	43	39	0	14	99	173	8	1	116	37
Future Vol, veh/h	19	0	43	39	0	14	99	173	8	1	116	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	71	71	71	92	92	92	58	58	58
Heavy Vehicles, %	0	0	0	0	0	0	1	0	43	0	3	0
Mvmt Flow	23	0	52	55	0	20	108	188	9	2	200	64

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	655	649	232	671	677	193	264	0	0	197	0	0
Stage 1	236	236	-	409	409	-	-	-	-	-	-	-
Stage 2	419	413	-	262	268	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	382	391	812	373	377	854	1306	-	-	1388	-	-
Stage 1	772	713	-	623	600	-	-	-	-	-	-	-
Stage 2	616	597	-	747	691	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	346	354	812	324	341	854	1306	-	-	1388	-	-
Mov Cap-2 Maneuver	346	354	-	324	341	-	-	-	-	-	-	-
Stage 1	700	712	-	565	544	-	-	-	-	-	-	-
Stage 2	546	541	-	697	690	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	16.5	2.8	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1306	-	-	575	388	1388	-	-
HCM Lane V/C Ratio	0.082	-	-	0.131	0.192	0.001	-	-
HCM Control Delay (s)	8	0	-	12.2	16.5	7.6	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5	0.7	0	-	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱			↕	
Traffic Vol, veh/h	41	6	85	18	6	10	94	128	32	11	137	28
Future Vol, veh/h	41	6	85	18	6	10	94	128	32	11	137	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	75	75	75	91	91	91	76	76	76
Heavy Vehicles, %	0	60	0	75	80	11	5	2	28	10	0	0
Mvmt Flow	50	7	104	24	8	13	103	141	35	14	180	37

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	602	609	199	647	610	159	217	0	0	176	0	0
Stage 1	227	227	-	365	365	-	-	-	-	-	-	-
Stage 2	375	382	-	282	245	-	-	-	-	-	-	-
Critical Hdwy	7.1	7.1	6.2	7.85	7.3	6.31	4.15	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.54	3.3	4.175	4.72	3.399	2.245	-	-	2.29	-	-
Pot Cap-1 Maneuver	414	342	847	299	322	863	1335	-	-	1353	-	-
Stage 1	780	621	-	528	507	-	-	-	-	-	-	-
Stage 2	650	523	-	591	581	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	372	312	847	240	294	863	1335	-	-	1353	-	-
Mov Cap-2 Maneuver	372	312	-	240	294	-	-	-	-	-	-	-
Stage 1	720	614	-	487	468	-	-	-	-	-	-	-
Stage 2	580	483	-	506	574	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.7	18.2	2.9	0.5
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1335	-	-	574	318	1353	-	-
HCM Lane V/C Ratio	0.077	-	-	0.28	0.143	0.011	-	-
HCM Control Delay (s)	7.9	-	-	13.7	18.2	7.7	0	-
HCM Lane LOS	A	-	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.1	0.5	0	-	-

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱			↕	
Traffic Vol, veh/h	26	0	43	39	0	14	152	182	8	1	121	48
Future Vol, veh/h	26	0	43	39	0	14	152	182	8	1	121	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	71	71	71	92	92	92	58	58	58
Heavy Vehicles, %	0	0	0	0	0	0	1	0	43	0	3	0
Mvmt Flow	32	0	52	55	0	20	165	198	9	2	209	83

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	798	792	251	814	829	203	292	0	0	207	0	0
Stage 1	255	255	-	533	533	-	-	-	-	-	-	-
Stage 2	543	537	-	281	296	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	306	324	793	299	308	843	1275	-	-	1376	-	-
Stage 1	754	700	-	534	528	-	-	-	-	-	-	-
Stage 2	528	526	-	730	672	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	269	282	793	251	268	843	1275	-	-	1376	-	-
Mov Cap-2 Maneuver	269	282	-	251	268	-	-	-	-	-	-	-
Stage 1	657	699	-	465	460	-	-	-	-	-	-	-
Stage 2	449	458	-	680	671	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	20.4	3.7	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1275	-	-	457	308	1376	-	-
HCM Lane V/C Ratio	0.13	-	-	0.184	0.242	0.001	-	-
HCM Control Delay (s)	8.2	-	-	14.6	20.4	7.6	0	-
HCM Lane LOS	A	-	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.7	0.9	0	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	10	85	33	7	13	94	128	79	25	137	28
Future Vol, veh/h	41	10	85	33	7	13	94	128	79	25	137	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	75	75	75	91	91	91	76	76	76
Heavy Vehicles, %	0	60	0	75	80	11	5	2	28	10	0	0
Mvmt Flow	50	12	104	44	9	17	103	141	87	33	180	37

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	669	699	199	714	674	185	217	0	0	228	0	0
Stage 1	265	265	-	391	391	-	-	-	-	-	-	-
Stage 2	404	434	-	323	283	-	-	-	-	-	-	-
Critical Hdwy	7.1	7.1	6.2	7.85	7.3	6.31	4.15	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.54	3.3	4.175	4.72	3.399	2.245	-	-	2.29	-	-
Pot Cap-1 Maneuver	374	301	847	267	293	835	1335	-	-	1294	-	-
Stage 1	745	595	-	510	492	-	-	-	-	-	-	-
Stage 2	627	494	-	559	556	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	328	270	847	208	263	835	1335	-	-	1294	-	-
Mov Cap-2 Maneuver	328	270	-	208	263	-	-	-	-	-	-	-
Stage 1	688	578	-	471	454	-	-	-	-	-	-	-
Stage 2	555	456	-	466	540	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.2	23.5	2.5	1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1335	-	-	518	264	1294	-	-
HCM Lane V/C Ratio	0.077	-	-	0.32	0.268	0.025	-	-
HCM Control Delay (s)	7.9	-	-	15.2	23.5	7.9	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.4	1.1	0.1	-	-

Intersection	
Int Delay, s/veh	8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	1	43	85	3	27	152	182	27	5	121	48
Future Vol, veh/h	26	1	43	85	3	27	152	182	27	5	121	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	71	71	71	92	92	92	58	58	58
Heavy Vehicles, %	0	0	0	0	0	0	1	0	43	0	3	0
Mvmt Flow	32	1	52	120	4	38	165	198	29	9	209	83

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	833	826	251	838	853	213	292	0	0	227	0	0
Stage 1	269	269	-	543	543	-	-	-	-	-	-	-
Stage 2	564	557	-	295	310	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	290	310	793	288	299	832	1275	-	-	1353	-	-
Stage 1	741	690	-	528	523	-	-	-	-	-	-	-
Stage 2	514	515	-	718	663	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	245	268	793	240	258	832	1275	-	-	1353	-	-
Mov Cap-2 Maneuver	245	268	-	240	258	-	-	-	-	-	-	-
Stage 1	645	684	-	460	456	-	-	-	-	-	-	-
Stage 2	423	449	-	664	658	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	32.2	3.5	0.2
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1275	-	-	427	289	1353	-	-
HCM Lane V/C Ratio	0.13	-	-	0.2	0.56	0.006	-	-
HCM Control Delay (s)	8.2	-	-	15.5	32.2	7.7	0	-
HCM Lane LOS	A	-	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.7	3.2	0	-	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱			↕	
Traffic Vol, veh/h	45	6	94	18	6	10	96	141	32	11	151	30
Future Vol, veh/h	45	6	94	18	6	10	96	141	32	11	151	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	75	75	75	91	91	91	76	76	76
Heavy Vehicles, %	0	60	0	75	80	11	5	2	28	10	0	0
Mvmt Flow	55	7	115	24	8	13	105	155	35	14	199	39

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	640	647	219	691	649	173	238	0	0	190	0	0
Stage 1	247	247	-	383	383	-	-	-	-	-	-	-
Stage 2	393	400	-	308	266	-	-	-	-	-	-	-
Critical Hdwy	7.1	7.1	6.2	7.85	7.3	6.31	4.15	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.54	3.3	4.175	4.72	3.399	2.245	-	-	2.29	-	-
Pot Cap-1 Maneuver	391	324	826	278	304	848	1311	-	-	1337	-	-
Stage 1	761	607	-	515	496	-	-	-	-	-	-	-
Stage 2	636	513	-	571	567	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	350	295	826	219	276	848	1311	-	-	1337	-	-
Mov Cap-2 Maneuver	350	295	-	219	276	-	-	-	-	-	-	-
Stage 1	700	600	-	474	456	-	-	-	-	-	-	-
Stage 2	566	472	-	480	560	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	19.5	2.9	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1311	-	-	552	294	1337	-	-
HCM Lane V/C Ratio	0.08	-	-	0.32	0.154	0.011	-	-
HCM Control Delay (s)	8	-	-	14.6	19.5	7.7	0	-
HCM Lane LOS	A	-	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.4	0.5	0	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	0	47	39	0	14	162	200	8	1	133	52
Future Vol, veh/h	28	0	47	39	0	14	162	200	8	1	133	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	71	71	71	92	92	92	58	58	58
Heavy Vehicles, %	0	0	0	0	0	0	1	0	43	0	3	0
Mvmt Flow	34	0	57	55	0	20	176	217	9	2	229	90

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	862	856	274	881	897	222	319	0	0	226	0	0
Stage 1	278	278	-	574	574	-	-	-	-	-	-	-
Stage 2	584	578	-	307	323	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	277	297	770	269	281	823	1247	-	-	1354	-	-
Stage 1	733	684	-	507	506	-	-	-	-	-	-	-
Stage 2	501	504	-	707	654	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	241	255	770	222	241	823	1247	-	-	1354	-	-
Mov Cap-2 Maneuver	241	255	-	222	241	-	-	-	-	-	-	-
Stage 1	630	683	-	436	435	-	-	-	-	-	-	-
Stage 2	420	433	-	653	653	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.8	22.9	3.7	0
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1247	-	-	423	275	1354	-	-
HCM Lane V/C Ratio	0.141	-	-	0.216	0.271	0.001	-	-
HCM Control Delay (s)	8.4	-	-	15.8	22.9	7.7	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.8	1.1	0	-	-

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	10	94	33	7	13	96	141	79	25	151	30
Future Vol, veh/h	45	10	94	33	7	13	96	141	79	25	151	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	75	75	75	91	91	91	76	76	76
Heavy Vehicles, %	0	60	0	75	80	11	5	2	28	10	0	0
Mvmt Flow	55	12	115	44	9	17	105	155	87	33	199	39

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	707	737	219	757	713	199	238	0	0	242	0	0
Stage 1	285	285	-	409	409	-	-	-	-	-	-	-
Stage 2	422	452	-	348	304	-	-	-	-	-	-	-
Critical Hdwy	7.1	7.1	6.2	7.85	7.3	6.31	4.15	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.54	3.3	4.175	4.72	3.399	2.245	-	-	2.29	-	-
Pot Cap-1 Maneuver	353	285	826	249	277	820	1311	-	-	1279	-	-
Stage 1	727	582	-	497	482	-	-	-	-	-	-	-
Stage 2	613	484	-	540	543	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	308	254	826	190	247	820	1311	-	-	1279	-	-
Mov Cap-2 Maneuver	308	254	-	190	247	-	-	-	-	-	-	-
Stage 1	669	565	-	457	443	-	-	-	-	-	-	-
Stage 2	540	445	-	441	527	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	25.8	2.4	1
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1311	-	-	498	243	1279	-	-
HCM Lane V/C Ratio	0.08	-	-	0.365	0.291	0.026	-	-
HCM Control Delay (s)	8	-	-	16.3	25.8	7.9	0	-
HCM Lane LOS	A	-	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.7	1.2	0.1	-	-

Intersection	
Int Delay, s/veh	9.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	1	47	85	3	27	162	200	27	5	133	52
Future Vol, veh/h	28	1	47	85	3	27	162	200	27	5	133	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	71	71	71	92	92	92	58	58	58
Heavy Vehicles, %	0	0	0	0	0	0	1	0	43	0	3	0
Mvmt Flow	34	1	57	120	4	38	176	217	29	9	229	90

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	897	890	274	905	921	232	319	0	0	246	0	0
Stage 1	292	292	-	584	584	-	-	-	-	-	-	-
Stage 2	605	598	-	321	337	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	263	284	770	260	273	812	1247	-	-	1332	-	-
Stage 1	720	675	-	501	501	-	-	-	-	-	-	-
Stage 2	488	494	-	695	645	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	219	242	770	212	233	812	1247	-	-	1332	-	-
Mov Cap-2 Maneuver	219	242	-	212	233	-	-	-	-	-	-	-
Stage 1	618	670	-	430	430	-	-	-	-	-	-	-
Stage 2	396	424	-	637	640	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.9	40.2	3.5	0.2
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1247	-	-	394	257	1332	-	-
HCM Lane V/C Ratio	0.141	-	-	0.235	0.63	0.006	-	-
HCM Control Delay (s)	8.4	-	-	16.9	40.2	7.7	0	-
HCM Lane LOS	A	-	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.9	3.9	0	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	10	94	33	7	13	96	141	79	25	151	30
Future Vol, veh/h	45	10	94	33	7	13	96	141	79	25	151	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	75	75	75	91	91	91	76	76	76
Heavy Vehicles, %	0	60	0	75	80	11	5	2	28	10	0	0
Mvmt Flow	55	12	115	44	9	17	105	155	87	33	199	39

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	707	737	219	757	713	199	238	0	0	242	0	0
Stage 1	285	285	-	409	409	-	-	-	-	-	-	-
Stage 2	422	452	-	348	304	-	-	-	-	-	-	-
Critical Hdwy	7.1	7.1	6.2	7.85	7.3	6.31	4.15	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.54	3.3	4.175	4.72	3.399	2.245	-	-	2.29	-	-
Pot Cap-1 Maneuver	353	285	826	249	277	820	1311	-	-	1279	-	-
Stage 1	727	582	-	497	482	-	-	-	-	-	-	-
Stage 2	613	484	-	540	543	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	308	254	826	190	247	820	1311	-	-	1279	-	-
Mov Cap-2 Maneuver	308	254	-	190	247	-	-	-	-	-	-	-
Stage 1	669	565	-	457	443	-	-	-	-	-	-	-
Stage 2	540	445	-	441	527	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	23.5	2.4	1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1311	-	-	498	190	453	1279	-	-
HCM Lane V/C Ratio	0.08	-	-	0.365	0.232	0.059	0.026	-	-
HCM Control Delay (s)	8	-	-	16.3	29.6	13.4	7.9	0	-
HCM Lane LOS	A	-	-	C	D	B	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.7	0.9	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	1	47	85	3	27	162	200	27	5	133	52
Future Vol, veh/h	28	1	47	85	3	27	162	200	27	5	133	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	71	71	71	92	92	92	58	58	58
Heavy Vehicles, %	0	0	0	0	0	0	1	0	43	0	3	0
Mvmt Flow	34	1	57	120	4	38	176	217	29	9	229	90

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	897	890	274	905	921	232	319	0	0	246	0	0
Stage 1	292	292	-	584	584	-	-	-	-	-	-	-
Stage 2	605	598	-	321	337	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	263	284	770	260	273	812	1247	-	-	1332	-	-
Stage 1	720	675	-	501	501	-	-	-	-	-	-	-
Stage 2	488	494	-	695	645	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	219	242	770	212	233	812	1247	-	-	1332	-	-
Mov Cap-2 Maneuver	219	242	-	212	233	-	-	-	-	-	-	-
Stage 1	618	670	-	430	430	-	-	-	-	-	-	-
Stage 2	396	424	-	637	640	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.9	33.9	3.5	0.2
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1247	-	-	394	212	650	1332	-	-
HCM Lane V/C Ratio	0.141	-	-	0.235	0.565	0.065	0.006	-	-
HCM Control Delay (s)	8.4	-	-	16.9	42	10.9	7.7	0	-
HCM Lane LOS	A	-	-	C	E	B	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.9	3.1	0.2	0	-	-

October 25, 2022

Ms. Christina McCarthy
Raymond Community Development
4 Epping Street
Raymond, New Hampshire 03077

Subject: Old Manchester Road at Industrial Drive and Scribner Road Intersection Improvement Study
Engineering Review of Traffic Impact Assessment - ONYX

Dear Ms. McCarthy:

As requested, DuBois & King has completed a review of the Intersection Improvement Study submitted by Vanasse & Associates, Inc., dated September 15, 2022, for the above referenced project:

The following are comments noted during the engineering review:

1. We recommend in the introductory section to include information regarding the size of the proposed warehouse/distribution facility.

2. Reading through the memo it is our understanding that the convenience store and fueling facility are not part of the warehouse / distribution facility project (based on the footer on page 5). However, this is not clear in the memo. For example, in the Design Year Conditions section the warehouse/distribution facility is grouped in the same bulleted list as the convenience store and fueling facility, making it unclear as to what is considered as part of this project and what is considered an “other development”. We suggest rewording as needed to clarify what is part of the proposed project and what is considered an “other development”.

3. There is no separation in analyses isolating the warehouse/distribution facility between evaluations (assuming the convenience store and fueling facility is not part of this project). We recommend the analyses be modified to include (1) one 2022 scenario without the proposed warehouse/distribution facility and one scenario with the warehouse/distribution facility (it is unclear from the text if the convenience store and fueling facility is included into 2022 baseline numbers) to represent “no build” and “build” scenarios; and (2) similar scenarios for year 2032. As shown in the report, it is unclear how much of the change in delay and LOS is due to the proposed development and how much is due to the convenience store and fueling facility.

4. We recommend adding a section in the memo summarizing trip generation of the proposed site.

If you have any questions or comments, please do not hesitate to contact us.

Very truly yours,
DuBOIS & KING, Inc.

Jenny Austin, P.E.
Project Engineer

MEMORANDUM

TO: Mr. Wayne Morrill
President
Jones & Beach Engineers, Inc.
85 Portsmouth Avenue
PO Box 219
Stratham, NH 03885

FROM: Mr. Jeffrey S. Dirk, P.E., PTOE, FITE
Managing Partner
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35 New England Business Center Drive
Suite 140
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(978) 269-6830
jdirk@rdva.com
Professional Engineer in CT, MA, ME, NH, RI and VA

DATE: September 15, 2022

RE: 9419

SUBJECT: Intersection Improvement Study
Old Manchester Road at Industrial Drive and Scribner Road
Raymond, New Hampshire

Vanasse & Associates, Inc. (VAI) has completed an Intersection Improvement Study for the intersection of Old Manchester Road at Industrial Drive and Scribner Road, in Raymond, New Hampshire. This study is responsive to a request from the Town of Raymond Planning Board to assess the need for improvements at the subject intersection to accommodate the development of a warehouse/distribution facility to be located at the east end of Industrial Drive. This study has been prepared in consultation with the Town of Raymond and the New Hampshire Department of Transportation (NHDOT), and was completed in accordance with NHDOT standards for the preparation of a Traffic Impact Study. Based on this assessment, we have concluded the following with respect to the Old Manchester Road/Industrial Drive/Scribner Road intersection:

1. With the construction of the warehouse/distribution facility, traffic volumes on the Industrial Drive approach are expected to increase from 62 vehicles per hour (vph) to 148 vph during the weekday evening peak-hour (critical analysis period), with left-turn movements expected to increase from 39 vph to 85 vph;

2. The Industrial Drive approach to the intersection is predicted to operate at a level-of-service (LOS) C during weekday evening peak-hour under 2022 Baseline conditions with the construction of the warehouse/distribution facility, where an LOS of "D" or better is generally defined as "acceptable" traffic operations. Under 2032 Horizon-Year conditions, operating conditions on the Industrial Drive approach were shown to degrade to LOS E during the weekday evening peak-hour, which indicates that the approach is operating at its design capacity;

3. No apparent safety deficiencies were noted at or in the immediate proximity of the intersection based on a review of motor vehicle crash information provided by the Raymond Police Department;

4. A review of the criteria for the installation of a traffic control signal at the intersection indicates that the installation of a traffic signal is not warranted; and

5. A review of the criteria for the installation of auxiliary turn lanes indicates that the addition of a left or right-turn lane on the Old Manchester Road approaches to the intersection is not justified.

In consideration of the above, it does not appear that specific improvements are required at the Old Manchester Road/Industrial Drive/Scribner Road intersection to accommodate the initial opening of the warehouse distribution facility; however, consideration should be given to widening the Industrial Drive approach in the future to accommodate the increased delay and associated vehicle queuing that may be experienced on the approach as a result of future traffic growth.

The following details our assessment.

EXISTING CONDITIONS

A comprehensive field inventory of existing conditions at the intersection of Old Manchester Road at Industrial Drive and Scribner Road was conducted in July 2022. The field investigation consisted of an inventory of existing roadway geometrics; pedestrian and bicycle facilities; public transportation services; traffic volumes; and operating characteristics; as well as posted speed limits and land use information within the study area. The following describes existing conditions within the study area.

Roadways

Old Manchester Road

- Two-lane major collector roadway (Tier 5, Class V) under Town jurisdiction;
- Traverses a general northeast-southwest alignment between Lane Road/Batchelder Road and Main Street, and provides a full access interchange with NH Route 101 to the south;
- Provides two 18 to 20-foot wide travel lanes that are separated by a double-yellow centerline with 1 to 4-foot wide shoulders provided;
- The posted speed limit is 35 miles per hour (mph) south of Industrial Drive and 30 mph to the north;
- Sidewalks are provided along both sides of the roadway south of Industrial Drive and along the west side of the roadway to the north;
- Illumination is provided by way of street lights mounted on wood poles;
- Land use along Old Manchester Road area consists of the Raymond Police Department and Fire Department, the Lamprey River Elementary School, residential and commercial properties, and areas of open and wooded space.

Industrial Drive

- Two-lane local access roadway (Tier 5, Class V) under Town jurisdiction;
- Traverses the study area in a general east-west direction for a distance of approximately 1,250 feet east of Old Manchester Road;
- Provides two 12 to 14-foot wide travel lanes that are separated by a double-yellow centerline with 1 to 2-foot wide shoulders provided;
- A posted speed limit is not provided;
- Sidewalks and illumination are not provided;
- Land along Industrial Drive consists of commercial properties and areas of open and wooded space.

Scribner Road

- Two-lane local access roadway (Tier 5, Class V) under Town jurisdiction;
- Traverses the study area in a general east-west direction;
- Provides two 11 to 13-foot wide travel lanes that are separated by a double-yellow centerline with 3 to 4-foot wide shoulders provided;
- A posted speed limit is not provided;
- Sidewalks and illumination are not provided;
- Land along Scribner Road area consists of the Raymond Police Department and Fire Department, residential properties and areas of open and wooded space.

Intersection

Table 1 summarizes lane use, traffic control, and pedestrian and bicycle accommodations at the study area intersection as observed in July 2022.

Table 1
STUDY AREA INTERSECTION DESCRIPTION

Intersection	Traffic Control Type[a]	No. of Travel Lanes Provided	Shoulder Provided? (Yes/No/Width)	Pedestrian Accommodations? (Yes/No/Description)	Bicycle Accommodations? (Yes/No/Description)
Old Manchester Rd./ Industrial Dr. / Scribner Rd.	S	1 general-purpose travel lane on all approaches	Yes, 1 to 4-feet along Old Manchester Rd.; 1 to 2-feet along Industrial Dr.; 3 to 4-feet along Scribner Rd.;	Yes, both sides of Old Manchester Rd. south of the intersection and west side of Old Manchester Rd. north of the intersection	Yes, shared traveled-way[b]

[a]S = STOP-sign control.
[b]Combined shoulder and travel lane width equal to or exceed 14 feet.

Existing Traffic Volumes

In order to determine existing traffic-volume demands and flow patterns within the study area, and to afford sufficient data to conduct a Traffic Signal Warrants Analysis (TSWA), a 12-hour (7:00 AM to 7:00 PM) turning movement count (TMC) was performed at the Old Manchester Road/Industrial Drive/ Scribner Road intersection on July 14, 2022 (Thursday).

In order to evaluate the potential for seasonal fluctuation of traffic volumes within the study area, traffic volume data from NHDOT count station No. 02071090, which is located on NH Route 101 between Exits 3 and 4 (Milepost 106.7) in Candia, was reviewed. Based on a review of this data, it was determined that traffic volumes for the month of July are approximately 1.3 percent below peak-month (August) conditions and, therefore, the raw traffic count data that forms the basis of this assessment was adjusted upward accordingly to represent peak-month conditions in accordance with NHDOT standards.

In order to account for the impact on traffic volumes and trip patterns resulting from the COVID-19 pandemic, traffic volume data collected at NHDOT Continuous Count Station No. 02071090 in July 2022

was compared to July 2019 traffic volumes that were collected at the same location. Based on this pre and post COVID-19 traffic-volume comparison, the traffic-volume data that was collected as a part of this assessment was adjusted upward by an additional 10.0 percent in order to account for the reduced traffic volumes resulting from the COVID-19 pandemic.

The 2022 Existing weekday morning and evening peak-month peak-hour traffic volumes are graphically depicted on Figure 1.

Pedestrian and Bicycle Facilities

A comprehensive field inventory of pedestrian and bicycle facilities within the study area was undertaken in July 2022. The field inventory consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadways and at the study intersection, as well as the location of existing and planned future bicycle facilities. Sidewalks are provided along one or both sides of Old Manchester Road. Formal bicycle facilities were not identified within the study area; however, Old Manchester Road, Industrial Drive and Scribner Road generally provide sufficient width to support bicycle travel in a shared traveled-way condition (i.e., bicyclists and motor vehicles sharing the traveled way).[1] To the north of the study intersection, the Rockingham Recreational Trail, an unimproved gravel path, crosses Old Manchester Road with a trail-head located approximately 1,300 feet north of the Old Manchester Road/Industrial Drive/ Scribner Road intersection.

Motor Vehicle Crash Data

Motor vehicle crash information for the Old Manchester Road/Industrial Drive/Scribner Road intersection was provided by the Raymond Police Department for the most recent five-year period available (2017 through 2021, inclusive) in order to examine motor vehicle crash trends. Based on a review of this data, one (1) motor vehicle crash was reported to have occurred at or in the vicinity of the intersection over the five-year period. This crash involved ice falling from a vehicle that struck another vehicle in traffic resulting in property damage and was not associated with a specific roadway or intersection defect.

Based on a review of the motor vehicle crash data, no discernable safety deficiencies were apparent at or in the vicinity of the Old Manchester Road/Industrial Drive/Scribner Road intersection.

DESIGN YEAR CONDITIONS

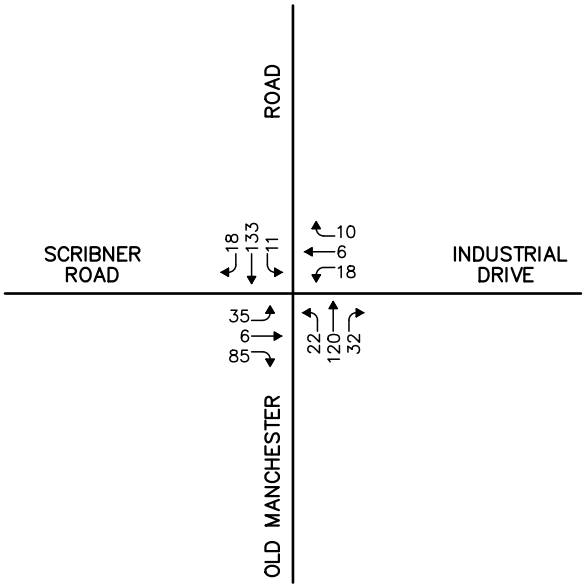
Two (2) design-year conditions were assessed for the study intersection in order to determine the need for improvements to accommodate future traffic volumes, including those associated with the construction of the warehouse/distribution facility. These conditions included a 2022 Baseline condition and a 2032 Horizon Year condition.

The 2022 Baseline traffic volumes consist of the 2022 Existing peak-month traffic volumes with the addition of traffic from the following projects as identified by the Town of Raymond Community Development and Planning Department and the Rockingham Planning Commission (RPC):

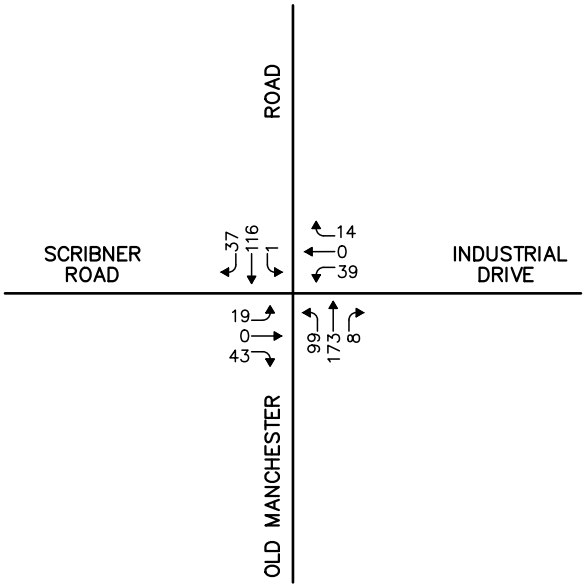
- ***Convenience Store and Fueling Facility, Old Manchester Road, Raymond, New Hampshire.*** This project consists of the construction of a 6,500± square foot (sf) convenience store (containing

[1] A minimum combined travel lane and paved shoulder width of 14-feet is required to support bicycle travel in a shared traveled-way condition.

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)



Not To Scale

Figure 1

2022 Existing Peak-Month Peak-Hour Traffic Volumes

Vanasse & Associates inc

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a 1,200± sf coffee shop with a drive-through window) with an accompanying 18-pump vehicle fueling facility to be located off Old Manchester Road.

- ***Warehouse/Distribution Facility, Industrial Drive, Raymond, New Hampshire.*** This project consists of the construction of a 500,025± sf warehouse to be located off Industrial Drive Road.

Traffic volumes associated with these projects were either estimated using trip generation statistics published by the Institute of Transportation Engineers (ITE)[2] for the appropriate land use(s) or were obtained from the traffic study conducted for the specific development.[3]

The 2032 Horizon Year traffic volumes were developed by applying a 1.0 percent per year compounded annual background traffic growth rate to the 2022 Existing peak-month, peak-hour traffic volumes and then adding the peak-hour traffic volumes that are expected to be generated by the aforementioned development projects. The background traffic growth rate was developed based on a review of traffic-volume data compiled by NHDOT from permanent count stations located in Raymond.[4]

The 2022 Baseline weekday morning and evening peak-month, peak-hour traffic volumes are summarized on Figure 2, with Figure 3 summarizing the corresponding 2032 Horizon Year peak-month, peak-hour traffic volumes.

Roadway Improvement Projects

The Town of Raymond and NHDOT were contacted in order to determine if there were any planned roadway improvement projects expected to be completed within the study area. Based on these discussions, the following roadway improvement project was identified within the study area:

- ***Intersection Improvements, Old Manchester Road at Industrial Drive and Scribner Road, Raymond.*** This project is being undertaken by the proponent of the convenience store/fueling facility and involves restriping the Old Manchester Road northbound approach to provide a left-turn lane and a shared through/right-turn lane. These improvements are expected to be complete by 2032, the horizon year of this assessment.

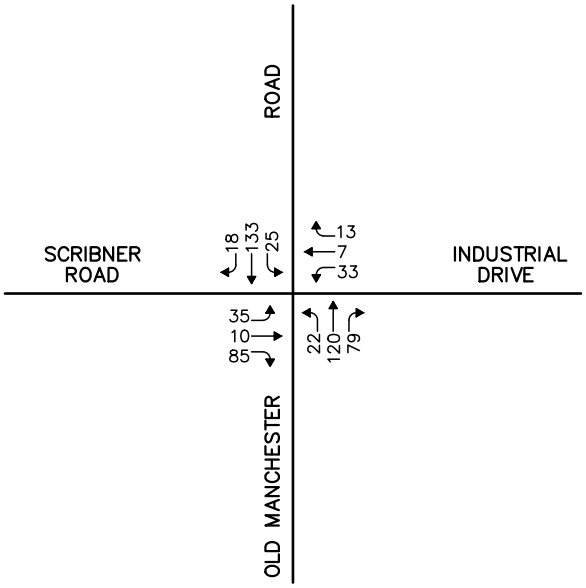
No other roadway improvement projects aside from routine maintenance activities were identified to be planned within the study area at this time.

[2] *Trip Generation*, 11th Edition; Institute of Transportation Engineers; Washington, DC; 2021.

[3] *Traffic Impact and Access Study*; Proposed MEGA-X Convenience Store (With Gas); Old Manchester Road; Raymond, New Hampshire; Tetra Tech; August 28, 2019.

[4] This data indicates that traffic volumes have fluctuated over the 10-year period between 2009 and 2019, with an average increase in the traffic growth rate of 0.92 percent.

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)

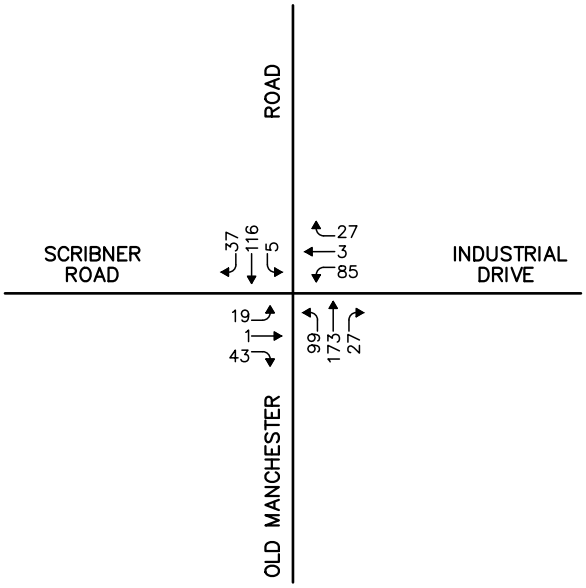


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Figure 2

2022 Baseline
Peak-Month
Peak-Hour Traffic Volumes

Vanasse & Associates inc

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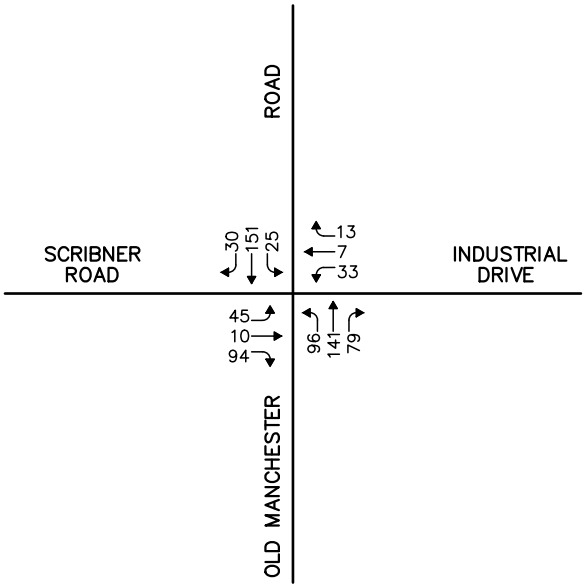
WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)

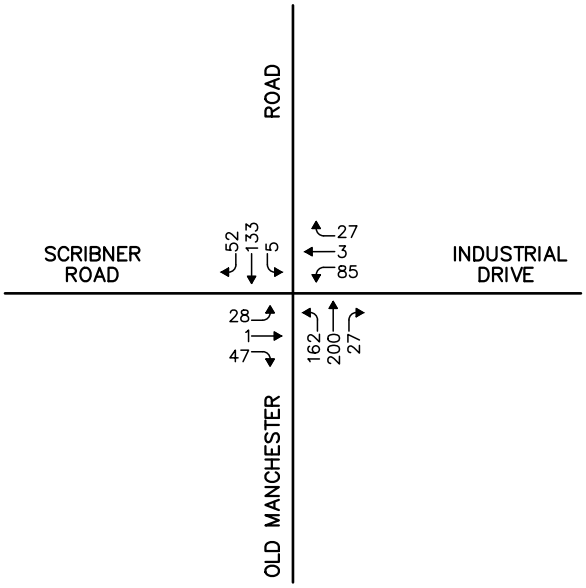


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Figure 3

2032 Horizon Year
Peak-Month
Peak-Hour Traffic Volumes

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TRAFFIC SIGNAL WARRANTS ANALYSIS

A detailed Traffic Signal Warrants Analysis (TSWA) was performed for the Old Manchester Road/ Industrial Drive/Scribner Road intersection under 2022 Existing, 2022 Baseline and 2032 Horizon Year conditions, following the methodology defined in the Manual on Uniform Traffic Control Devices (MUTCD).[5] The MUTCD establishes nine warrants or criteria to evaluate a location for the installation (or retention) of a traffic signal; however, satisfaction of a warrant in and of itself does not necessarily indicate that the installation of a traffic signal is the best traffic control solution. An engineering evaluation of the location in question should indicate that the establishment of traffic signal control will improve the overall safety and/or operation of the intersection. Table 2 lists the nine warrants used to evaluate an intersection for traffic signal control as presented in the MUTCD.

Table 2
TRAFFIC SIGNAL WARRANTS

Warrant No.	Description
1	Eight-Hour Vehicular Volume
2	Four-Hour Vehicular Volume
3	Peak-Hour
4	Pedestrian Volume
5	School Crossing
6	Coordinated Signal System
7	Crash Experience
8	Roadway Network
9	Intersection Near a Grade Crossing

Each of the nine traffic signal warrants listed in Table 2 were evaluated for the subject intersection using the 12-hour TMC collected at the intersection under the following conditions:

- ***Design Speed:*** 40 mph
- ***Traffic Volumes:*** 2022 Existing, 2022 Baseline and 2032 Horizon Year average-month conditions
- ***Geometry:***
  - *Old Manchester Road Northbound:* One (1) general-purpose travel lane (2022 Existing and 2022 Baseline conditions); and One (1) left-turn lane and One (1) through/right-turn lane (2032 Horizon Year conditions)
  - *Old Manchester Road Southbound:* One (1) general-purpose travel lane
  - *Industrial Drive:* One (1) general-purpose travel lane
  - *Scribner Road:* One (1) general-purpose travel lane
- ***Crash Data:*** 0 crashes between 2017-2021

Table 3 summarizes the results of the TSWA for the subject intersection, with the detailed TSWA worksheets and supporting materials attached.

[5] *Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009.

Table 3
TRAFFIC SIGNAL WARRANTS ANALYSIS
OLD MANCHESTER ROAD AT INDUSTRIAL DRIVE AND SCRIBNER ROAD

Warrant No.	Description	2022 Existing Satisfied?	2022 Baseline Satisfied?	2032 Horizon Year Satisfied?
1	Eight-Hour Vehicular Volume	No	No	No
2	Four-Hour Vehicular Volume	No	No	No
3	Peak-Hour	No	No	No
4	Pedestrian Volume	No	No	No
5	School Crossing	No	No	No
6	Coordinated Signal System	No	No	No
7	Crash Experience	No	No	No
8	Roadway Network	No	No	No
9	Intersection Near a Grade Crossing	No	No	No

As can be seen in Table 3, the installation of a traffic control signal at the Old Manchester Road/ Industrial Drive/Scribner Road intersection was not found to be warranted under 2022 Existing, 2022 Baseline or 2032 Horizon Year conditions.

TURN LANE WARRANTS ANALYSIS

An auxiliary turn lane warrants analysis was conducted for the Old Manchester Road approaches to Industrial Drive in accordance with the methodology and procedures outlined in *NCHRP Report 457*[6] published by the National Cooperative Highway Research Program (NCHRP).

Left-Turn Lane

Determination of the need for a left-turn lane of adequate storage length is a function of the volume of left-turning vehicles at the intersection under study and the magnitude of opposing or conflicting traffic volumes along the roadway. Based on a review of this criteria under the 2022 Existing, 2022 Baseline and 2032 Future Year conditions, provision of a left-turn lane on the Old Manchester Road southbound approach to Industrial Drive is not warranted. The detailed analysis of the left-turn lane criteria is presented as an attachment.

Right-Turn Lane

Consideration of the need for a right-turn lane is a function of the volume of right-turning vehicles at the intersection and the total volume of traffic on the same approach (advancing volume). Based on a review of this criteria under the 2022 Existing, 2022 Baseline and 2032 Horizon Year conditions, provision of a right-turn lane on the Old Manchester Road northbound approach to Industrial Drive or the Old Manchester Road southbound approach to Scribner Road is not warranted. The detailed analysis of the right-turn lane criteria is presented as an attachment.

[6] *NCHRP Report 457 – Evaluating Intersection Improvement: An Engineering Study Guide*, National Cooperative Highway Research Program; 2001.

TRAFFIC OPERATIONS ANALYSIS

In order to assess operating conditions at the Old Manchester Road/Industrial Drive/Scribner Road intersection, a detailed traffic operations analysis (motorist delays, vehicle queuing and level-of-service) was performed. Capacity analyses provide an indication of how well transportation facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

In brief, six levels of service are defined for each type of facility. They are given letter designations ranging from A to F, with level-of-service (LOS) "A" representing the best operating conditions and LOS "F" representing congested or constrained operations. An LOS of "E" is representative of a transportation facility that is operating at its design capacity with an LOS of "D" generally defined as the limit of "acceptable" traffic operations. Since the level-of-service of a traffic facility is a function of the flows placed upon it, such a facility may operate at a wide range of levels of service depending on the time of day, day of week, or period of the year. The Synchro® intersection capacity analysis software, which is based on the analysis methodologies and procedures presented in the 2010 *Highway Capacity Manual* (HCM)[7] for unsignalized intersections, was used to complete the level-of-service and vehicle queue analyses.

Analysis Results

The results of the intersection capacity and vehicle queue analyses for the study intersection is summarized in Table 4, with the detailed analysis results provided as an attachment.

[7] *Highway Capacity Manual*, Transportation Research Board; Washington, DC; 2010.

Table 4
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/ Peak Hour/Movement	2022 Existing				2022 Baseline				2032 Horizon Year				2032 Horizon Year with Mitigation			
	Demand[a]	Delay[b]	LOS[c]	Queue[d] 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th	Demand	Delay	LOS	Queue 95th
Old Manchester Road at Industrial Drive and Scribner Road																
Weekday Morning:																
Scribner Road EB LT/TH/RT	126	11.6	B	1	130	12.5	B	1	149	16.3	C	2	149	16.3	C	2
Industrial Drive WB LT	--	--	--	--	--	--	--	--	--	--	--	--	33	29.6	D	1
Industrial Drive WB LT/TH/RT	34	14.4	B	1	53	17.3	C	1	53	25.8	D	1	--	--	--	--
Industrial Drive WB TH/RT	--	--	--	--	--	--	--	--	--	--	--	--	20	13.4	B	0
Old Manchester Road NB LT	--	--	--	--	--	--	--	--	96	8.0	A	1	96	8.0	A	1
Old Manchester Road NB LT/TH/RT	174	1.0	A	0	221	1.0	A	0	--	--	--	--	--	--	--	--
Old Manchester Road NB TH/RT	--	--	--	--	--	--	--	--	220	0.0	A	0	220	0.0	A	0
Old Manchester Road SB LT/TH/RT	162	0.5	A	0	176	1.1	A	0	206	1.0	A	0	206	1.0	A	0
Weekday Evening:																
Scribner Road EB LT/TH/RT	62	12.2	B	1	63	12.7	B	1	76	16.9	C	1	76	16.9	C	1
Industrial Drive WB LT	--	--	--	--	--	--	--	--	--	--	--	--	85	42.0	E	3
Industrial Drive WB LT/TH/RT	53	16.5	C	1	115	22.6	C	2	115	40.2	E	4	--	--	--	--
Industrial Drive WB TH/RT	--	--	--	--	--	--	--	--	--	--	--	--	30	10.9	B	0
Old Manchester Road NB LT	--	--	--	--	--	--	--	--	162	8.4	A	1	162	8.4	A	1
Old Manchester Road NB LT/TH/RT	280	2.8	A	1	299	2.8	A	1	--	--	--	--	--	--	--	--
Old Manchester Road NB TH/RT	--	--	--	--	--	--	--	--	227	0.0	A	0	227	0.0	A	0
Old Manchester Road SB LT/TH/RT	154	0.0	A	0	158	0.2	A	0	190	0.2	A	0	190	0.2	A	0

[a]Demand in vehicles per hour.
[b]Average control delay per vehicle (in seconds).
[c]Level of service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

As shown in Table 4, under 2022 Existing peak-month conditions, the critical movements at this unsignalized intersection (westbound movements from Industrial Drive) were shown to operate at LOS B during the weekday morning peak-hour and at LOS C during the weekday evening peak-hour, with minor (up to one (1) vehicle) vehicle queuing.

Under 2022 Baseline peak-month conditions, the critical movements at this unsignalized intersection were shown to degrade from LOS B to LOS C during the weekday morning peak-hour and to continue to operate at LOS C during the weekday evening peak-hour. Vehicle queuing at the intersection was shown to increase by one (1) vehicle (Industrial Drive approach during the weekday evening peak-hour). As such, no improvements were found to be necessary under 2022 Baseline traffic volume conditions.

Under 2032 Horizon Year peak-month conditions, the critical movements at this unsignalized intersection were shown to degrade from LOS B (2022 Existing) to LOS D during the weekday morning peak-hour and from LOS C to LOS E during the weekday evening peak-hour. Vehicle queuing at the intersection was shown to increase by up to three (3) vehicles (Industrial Drive approach during the weekday evening peak-hour). In order to improve operating conditions under the 2032 Horizon Year, an assessment of adding a left-turn lane on the Industrial Drive approach was completed. As can be seen in Table 4 under 2032 Horizon Year with Mitigation conditions, the addition of a left-turn lane on the Industrial Drive approach was shown to reduce overall delay on the approach by separating the left-turn movements from through/right-turn movements. Figure 4 conceptually depicts the suggested future improvements on the Industrial Drive approach to the intersection.

All movements along Old Manchester Road are expected to operate at LOS A during the peak periods under all analysis conditions with minor (up to one (1) vehicle) queuing predicted.

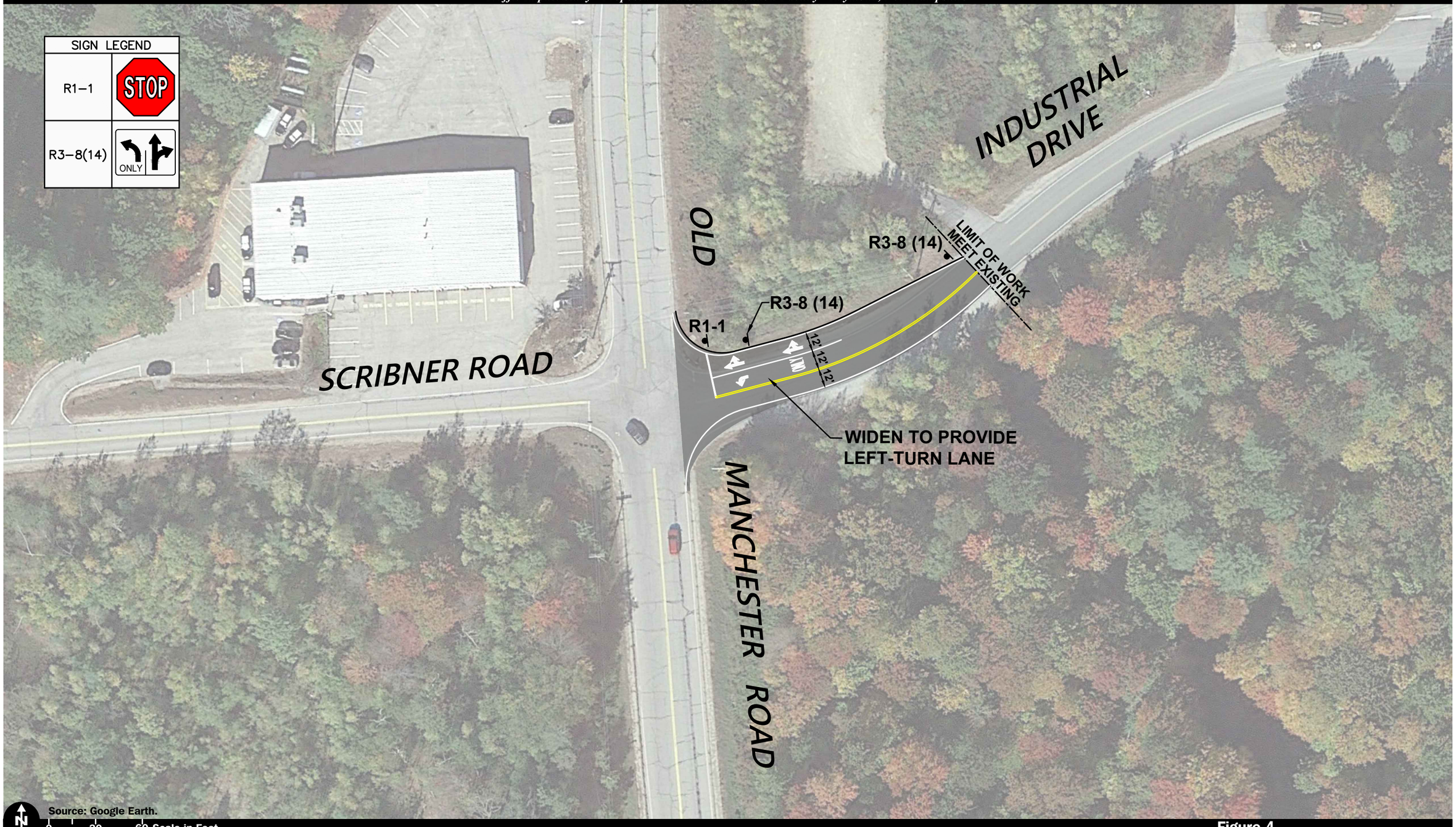

Figure 4

Conceptual Improvement Plan
Old Manchester Road at
Industrial Drive and
Scribner Road

Vanasse & Associates inc

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SUMMARY

VAI has completed an Intersection Improvement Study for the intersection of Old Manchester Road at Industrial Drive and Scribner Road, in Raymond, New Hampshire. This study is responsive to a request from the Town of Raymond Planning Board to assess the need for improvements at the subject intersection to accommodate the development of a warehouse/distribution facility to be located at the east end of Industrial Drive. Based on this assessment, we have concluded the following with respect to the Old Manchester Road/Industrial Drive/Scribner Road intersection:

1. With the construction of the warehouse/distribution facility, traffic volumes on the Industrial Drive approach are expected to increase from 62 vehicles per hour (vph) to 148 vph during the weekday evening peak-hour (critical analysis period), with left-turn movements expected to increase from 39 vph to 85 vph;

2. The Industrial Drive approach to the intersection is predicted to operate at LOS C during weekday evening peak-hour under 2022 Baseline conditions with the construction of the warehouse/distribution facility, where an LOS of "D" or better is generally defined as "acceptable" traffic operations. Under 2032 Horizon-Year conditions, operating conditions on the Industrial Drive approach were shown to degrade to LOS E during the weekday evening peak-hour, which indicates that the approach is operating at its design capacity;;

3. No apparent safety deficiencies were noted at or in the immediate proximity of the intersection based on a review of motor vehicle crash information provided by the Raymond Police Department;

4. A review of the criteria for the installation of a traffic control signal at the intersection indicates that the installation of a traffic signal is not warranted; and

5. A review of the criteria for the installation of auxiliary turn lanes indicates that the addition of a left or right-turn lane on the Old Manchester Road approaches to the intersection is not justified.

In consideration of the above, it does not appear that specific improvements are required at the Old Manchester Road/Industrial Drive/Scribner Road intersection to accommodate the initial opening of the warehouse distribution facility; however, consideration should be given to widening the Industrial Drive approach in the future to accommodate the increased delay and associated vehicle queuing that may be experienced on the approach as a result of future traffic growth.

cc: File

Attachments

ATTACHMENTS

TURNING MOVEMENT COUNT DATA
MOTOR VEHICLE CRASH DATA
BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS AND CALCULATIONS
GENERAL BACKGROUND TRAFFIC GROWTH
TRAFFIC SIGNAL WARRANTS ANALYSIS
AUXILLIARY TURN LANE WARRANTS ANALYSIS
CAPACITY ANALYSIS WORKSHEETS

TURNING MOVEMENT COUNT DATA

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 1

Groups Printed- Cars - Trucks

	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	7	22	1	2	2	0	5	16	5	10	0	24	94
07:15 AM	3	26	3	5	1	4	5	25	12	6	1	25	116
07:30 AM	2	33	2	4	0	3	5	20	8	4	1	16	98
07:45 AM	0	24	4	5	2	2	4	34	5	11	3	20	114
Total	12	105	10	16	5	9	19	95	30	31	5	85	422
08:00 AM	5	36	7	2	2	0	6	29	4	10	0	15	116
08:15 AM	1	23	7	2	0	4	4	12	5	9	0	10	77
08:30 AM	1	28	5	4	1	0	3	16	4	7	2	8	79
08:45 AM	1	14	4	4	2	2	3	13	6	1	1	10	61
Total	8	101	23	12	5	6	16	70	19	27	3	43	333
09:00 AM	0	12	3	2	0	1	9	14	5	4	0	7	57
09:15 AM	1	12	2	4	0	1	5	11	4	7	3	16	66
09:30 AM	1	21	0	4	3	1	6	20	5	2	1	7	71
09:45 AM	2	15	5	4	1	1	9	17	6	6	0	11	77
Total	4	60	10	14	4	4	29	62	20	19	4	41	271
10:00 AM	2	26	5	4	1	2	6	11	4	4	3	7	75
10:15 AM	2	16	6	8	2	0	4	13	3	4	3	10	71
10:30 AM	2	21	2	1	2	0	4	12	9	7	1	8	69
10:45 AM	0	11	4	4	2	4	8	18	4	5	1	10	71
Total	6	74	17	17	7	6	22	54	20	20	8	35	286
11:00 AM	2	20	7	5	1	1	8	10	2	6	1	9	72
11:15 AM	0	19	9	5	3	1	12	7	6	7	1	8	78
11:30 AM	3	21	6	5	0	2	7	9	2	4	1	8	68
11:45 AM	1	21	6	4	2	6	9	16	0	3	1	6	75
Total	6	81	28	19	6	10	36	42	10	20	4	31	293
12:00 PM	4	17	9	8	4	12	10	13	1	2	3	7	90
12:15 PM	4	15	3	5	0	2	11	13	14	5	1	11	84
12:30 PM	5	21	3	4	2	4	9	11	5	8	1	6	79
12:45 PM	6	14	5	6	1	1	2	17	6	5	2	8	73
Total	19	67	20	23	7	19	32	54	26	20	7	32	326
01:00 PM	1	18	2	11	1	0	12	19	11	5	2	3	85
01:15 PM	2	17	6	7	2	0	8	11	8	5	2	6	74
01:30 PM	2	13	12	7	0	0	7	11	3	1	0	9	65
01:45 PM	0	9	5	5	0	1	8	14	4	5	1	9	61
Total	5	57	25	30	3	1	35	55	26	16	5	27	285
02:00 PM	0	21	4	4	2	2	12	10	3	5	1	12	76
02:15 PM	3	19	4	4	1	2	12	10	2	1	1	3	62
02:30 PM	3	15	4	6	0	6	14	23	7	0	1	15	94
02:45 PM	1	24	3	9	2	3	15	34	4	7	1	6	109
Total	7	79	15	23	5	13	53	77	16	13	4	36	341
03:00 PM	0	30	10	3	1	3	11	20	7	3	1	9	98
03:15 PM	1	22	10	11	1	2	11	29	5	5	1	11	109
03:30 PM	0	21	7	12	0	3	18	33	2	4	2	17	119
03:45 PM	0	24	3	8	3	3	10	25	4	7	0	15	102
Total	1	97	30	34	5	11	50	107	18	19	4	52	428
04:00 PM	0	22	3	14	0	3	24	28	4	2	0	15	115
04:15 PM	1	21	9	12	0	3	20	40	2	6	0	8	122
04:30 PM	0	17	5	8	0	6	19	49	0	6	0	8	118
04:45 PM	0	44	16	1	0	1	26	38	1	3	0	8	138
Total	1	104	33	35	0	13	89	155	7	17	0	39	493
05:00 PM	0	30	9	3	0	1	16	36	1	5	0	11	112

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022

Groups Printed- Cars - Trucks

	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
05:15 PM	0	28	11	1	0	0	20	28	1	6	0	7	102
05:30 PM	1	18	12	0	0	0	27	40	1	4	1	14	118
05:45 PM	0	13	10	1	1	2	14	21	1	2	2	16	83
Total	1	89	42	5	1	3	77	125	4	17	3	48	415
06:00 PM	1	13	2	1	0	2	16	20	2	4	0	10	71
06:15 PM	1	18	6	1	2	0	12	21	0	1	0	12	74
06:30 PM	0	20	9	0	0	0	7	13	0	6	0	12	67
06:45 PM	1	8	5	0	0	1	5	12	0	5	0	8	45
Total	3	59	22	2	2	3	40	66	2	16	0	42	257
07:00 PM	0	0	0	0	0	0	2	1	0	0	0	0	3
Grand Total	73	973	275	230	50	98	500	963	198	235	47	511	4153
Apprch %	5.5	73.7	20.8	60.8	13.2	25.9	30.1	58	11.9	29.6	5.9	64.4	
Total %	1.8	23.4	6.6	5.5	1.2	2.4	12	23.2	4.8	5.7	1.1	12.3	
Cars	63	965	272	170	20	92	496	957	128	235	20	506	3924
% Cars	86.3	99.2	98.9	73.9	40	93.9	99.2	99.4	64.6	100	42.6	99	94.5
Trucks	10	8	3	60	30	6	4	6	70	0	27	5	229
% Trucks	13.7	0.8	1.1	26.1	60	6.1	0.8	0.6	35.4	0	57.4	1	5.5

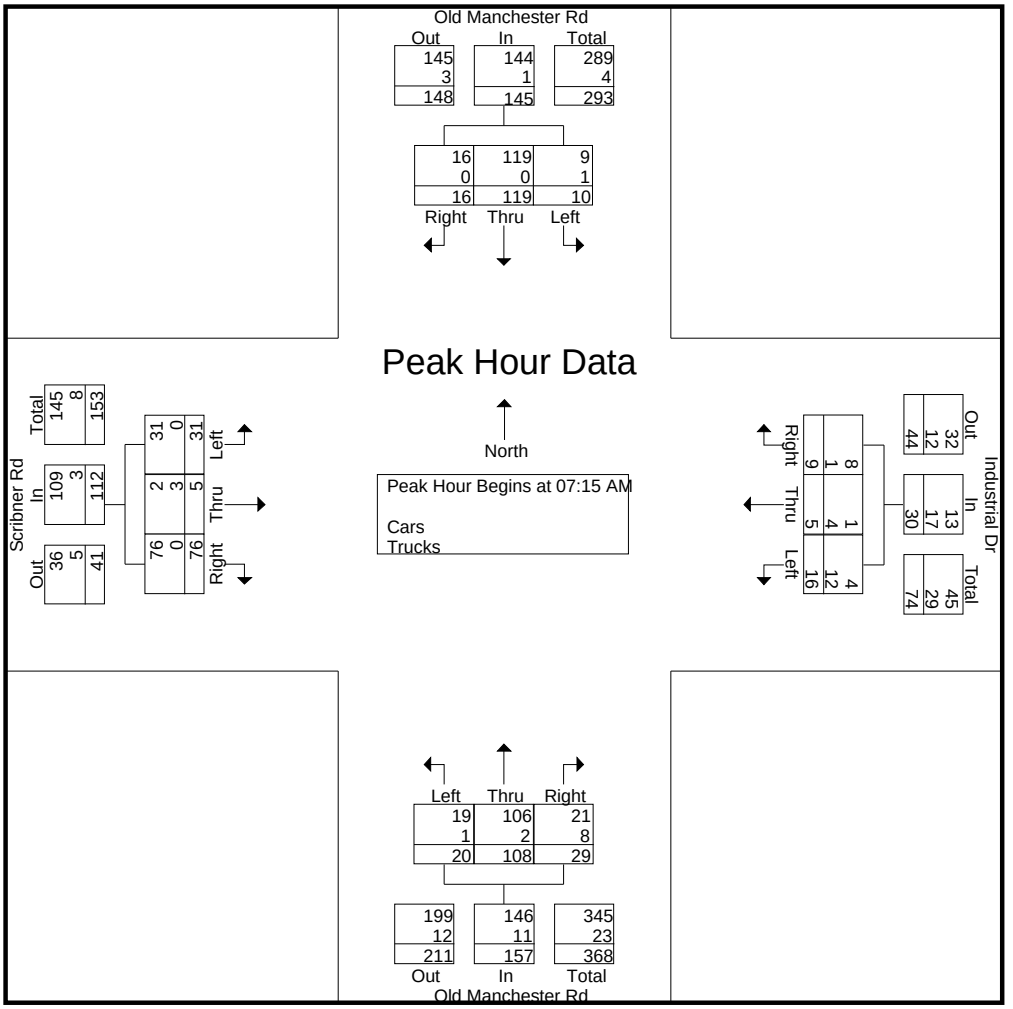
	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	26	3	32	**5**	1	**4**	**10**	5	25	**12**	42	6	1	**25**	32	**116**
07:30 AM	2	33	2	37	4	0	3	7	5	20	8	33	4	1	16	21	98
07:45 AM	0	24	4	28	5	**2**	2	9	4	**34**	5	**43**	**11**	**3**	20	**34**	114
08:00 AM	**5**	**36**	**7**	**48**	2	2	0	4	**6**	29	4	39	10	0	15	25	116
Total Volume	10	119	16	145	16	5	9	30	20	108	29	157	31	5	76	112	444
% App. Total	6.9	82.1	11		53.3	16.7	30		12.7	68.8	18.5		27.7	4.5	67.9		
PHF	.500	.826	.571	.755	.800	.625	.563	.750	.833	.794	.604	.913	.705	.417	.760	.824	.957
Cars	9	119	16	144	4	1	8	13	19	106	21	146	31	2	76	109	412
% Cars	90.0	100	100	99.3	25.0	20.0	88.9	43.3	95.0	98.1	72.4	93.0	100	40.0	100	97.3	92.8
Trucks	1	0	0	1	12	4	1	17	1	2	8	11	0	3	0	3	32
% Trucks	10.0	0	0	0.7	75.0	80.0	11.1	56.7	5.0	1.9	27.6	7.0	0	60.0	0	2.7	7.2

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 3



Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

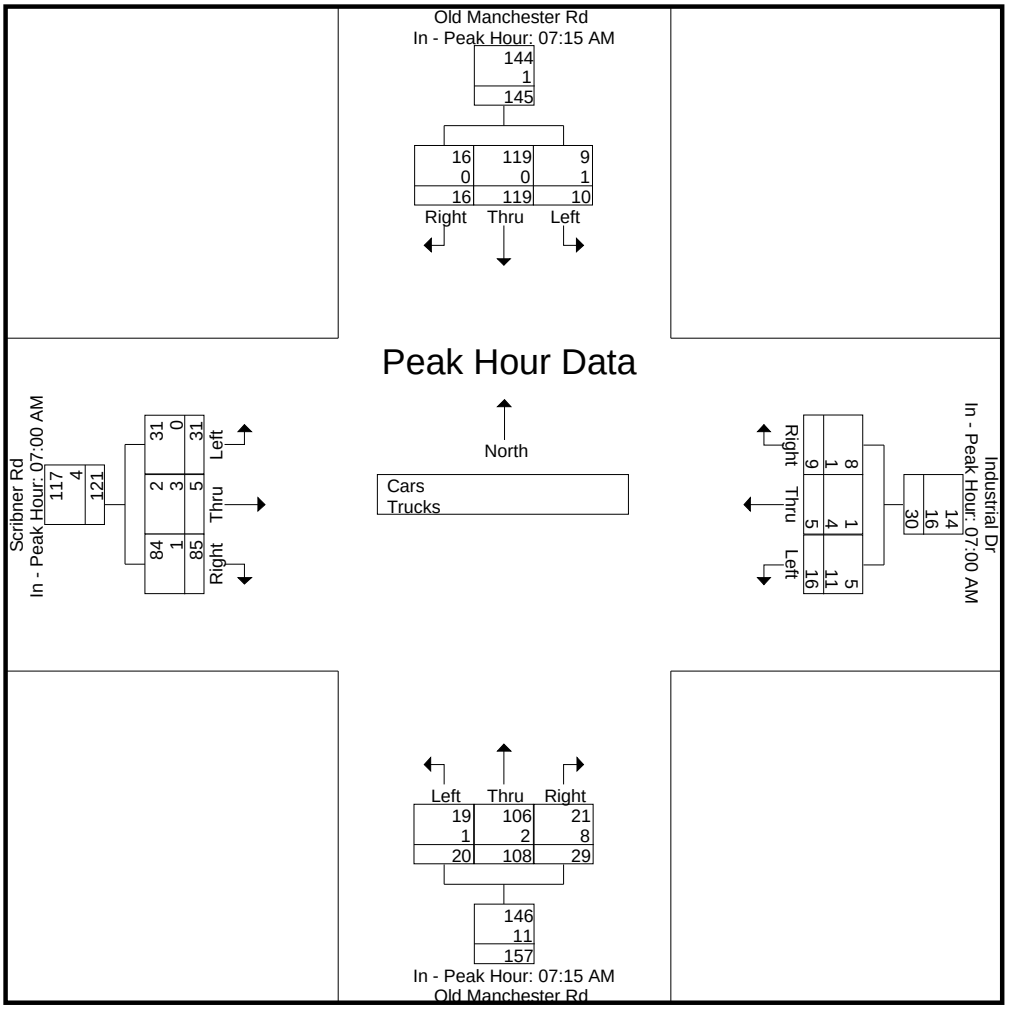
	07:15 AM				07:00 AM				07:15 AM				07:00 AM			
+0 mins.	3	26	3	32	2	**2**	0	4	5	25	**12**	42	10	0	24	**34**
+15 mins.	2	33	2	37	**5**	1	**4**	**10**	5	20	8	33	6	1	**25**	32
+30 mins.	0	24	4	28	4	0	3	7	4	**34**	5	**43**	4	1	16	21
+45 mins.	**5**	**36**	**7**	**48**	5	2	2	9	**6**	29	4	39	**11**	**3**	20	34
Total Volume	10	119	16	145	16	5	9	30	20	108	29	157	31	5	85	121
% App. Total	6.9	82.1	11		53.3	16.7	30		12.7	68.8	18.5		25.6	4.1	70.2	
PHF	.500	.826	.571	.755	.800	.625	.563	.750	.833	.794	.604	.913	.705	.417	.850	.890
Cars	9	119	16	144	5	1	8	14	19	106	21	146	31	2	84	117
% Cars	90	100	100	99.3	31.2	20	88.9	46.7	95	98.1	72.4	93	100	40	98.8	96.7
Trucks	1	0	0	1	11	4	1	16	1	2	8	11	0	3	1	4
% Trucks	10	0	0	0.7	68.8	80	11.1	53.3	5	1.9	27.6	7	0	60	1.2	3.3

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 4



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:45 AM

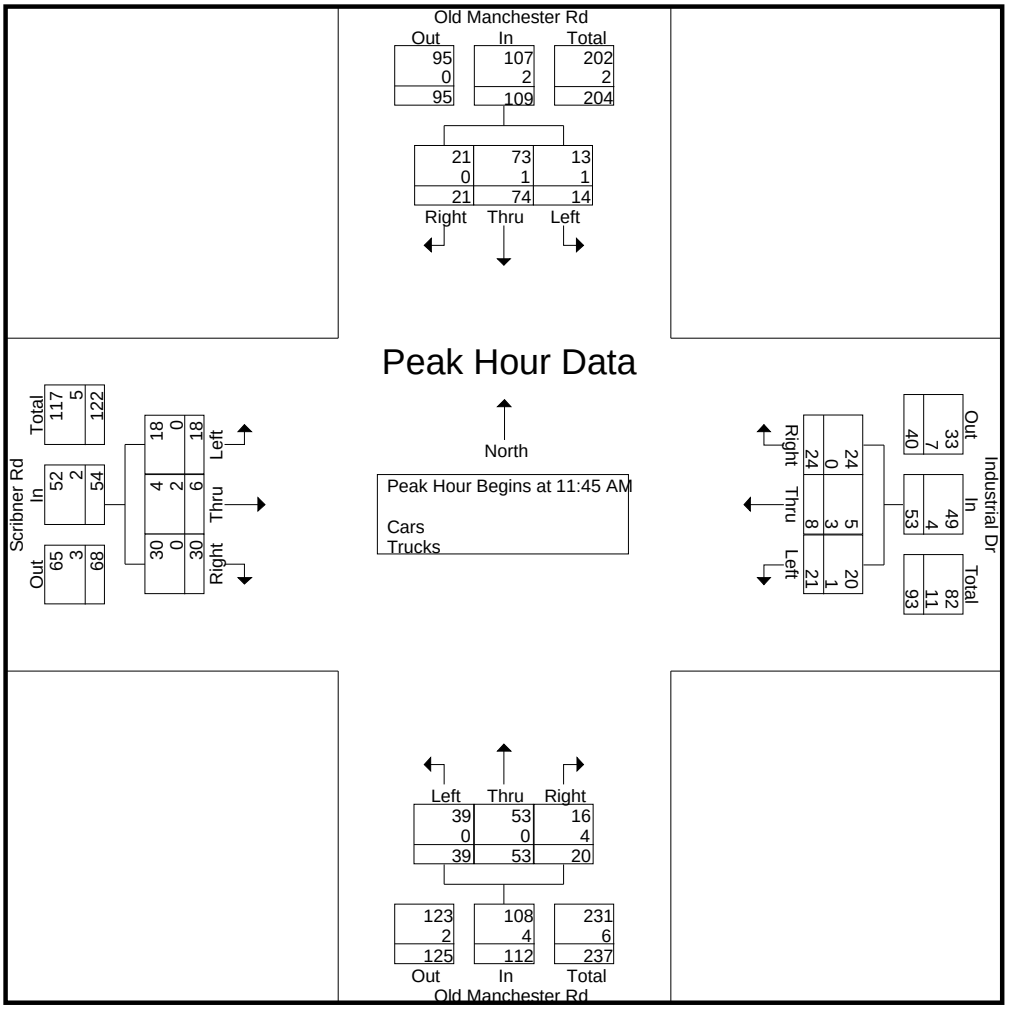
11:45 AM	1	**21**	6	28	4	2	6	12	9	**16**	0	25	3	1	6	10	75
12:00 PM	4	17	**9**	**30**	**8**	**4**	**12**	**24**	10	13	1	24	2	**3**	7	12	**90**
12:15 PM	4	15	3	22	5	0	2	7	**11**	13	**14**	**38**	5	1	**11**	**17**	84
12:30 PM	**5**	21	3	29	4	2	4	10	9	11	5	25	**8**	1	6	15	79
Total Volume	14	74	21	109	21	8	24	53	39	53	20	112	18	6	30	54	328
% App. Total	12.8	67.9	19.3		39.6	15.1	45.3		34.8	47.3	17.9		33.3	11.1	55.6		
PHF	.700	.881	.583	.908	.656	.500	.500	.552	.886	.828	.357	.737	.563	.500	.682	.794	.911
Cars	13	73	21	107	20	5	24	49	39	53	16	108	18	4	30	52	316
% Cars	92.9	98.6	100	98.2	95.2	62.5	100	92.5	100	100	80.0	96.4	100	66.7	100	96.3	96.3
Trucks	1	1	0	2	1	3	0	4	0	0	4	4	0	2	0	2	12
% Trucks	7.1	1.4	0	1.8	4.8	37.5	0	7.5	0	0	20.0	3.6	0	33.3	0	3.7	3.7

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 5



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

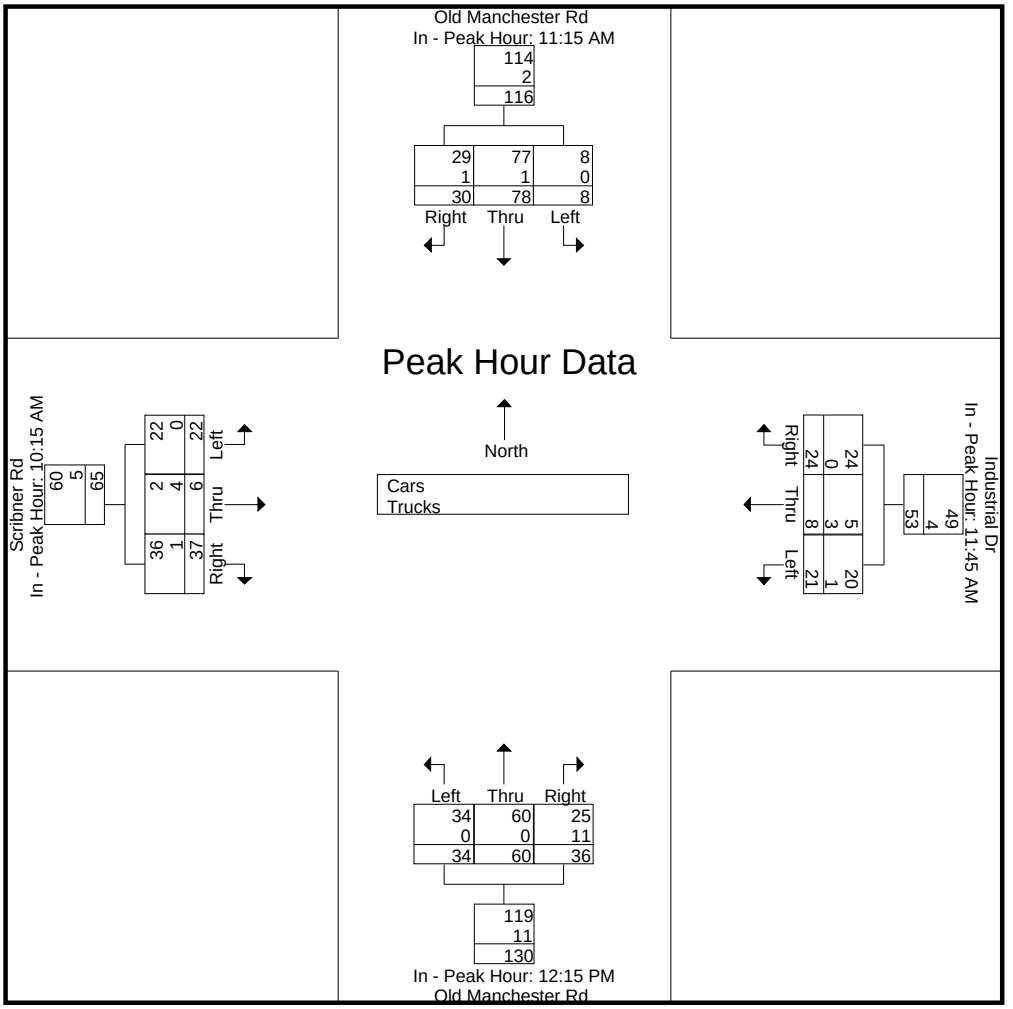
	11:15 AM				11:45 AM				12:15 PM				10:15 AM			
+0 mins.	0	19	**9**	28	4	2	6	12	11	13	**14**	38	4	**3**	**10**	**17**
+15 mins.	3	**21**	6	**30**	**8**	**4**	**12**	**24**	9	11	5	25	**7**	1	8	16
+30 mins.	1	21	6	28	5	0	2	7	2	17	6	25	5	1	10	16
+45 mins.	**4**	17	9	30	4	2	4	10	**12**	**19**	11	**42**	6	1	9	16
Total Volume	8	78	30	116	21	8	24	53	34	60	36	130	22	6	37	65
% App. Total	6.9	67.2	25.9		39.6	15.1	45.3		26.2	46.2	27.7		33.8	9.2	56.9	
PHF	.500	.929	.833	.967	.656	.500	.500	.552	.708	.789	.643	.774	.786	.500	.925	.956
Cars	8	77	29	114	20	5	24	49	34	60	25	119	22	2	36	60
% Cars	100	98.7	96.7	98.3	95.2	62.5	100	92.5	100	100	69.4	91.5	100	33.3	97.3	92.3
Trucks	0	1	1	2	1	3	0	4	0	0	11	11	0	4	1	5
% Trucks	0	1.3	3.3	1.7	4.8	37.5	0	7.5	0	0	30.6	8.5	0	66.7	2.7	7.7

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 6



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

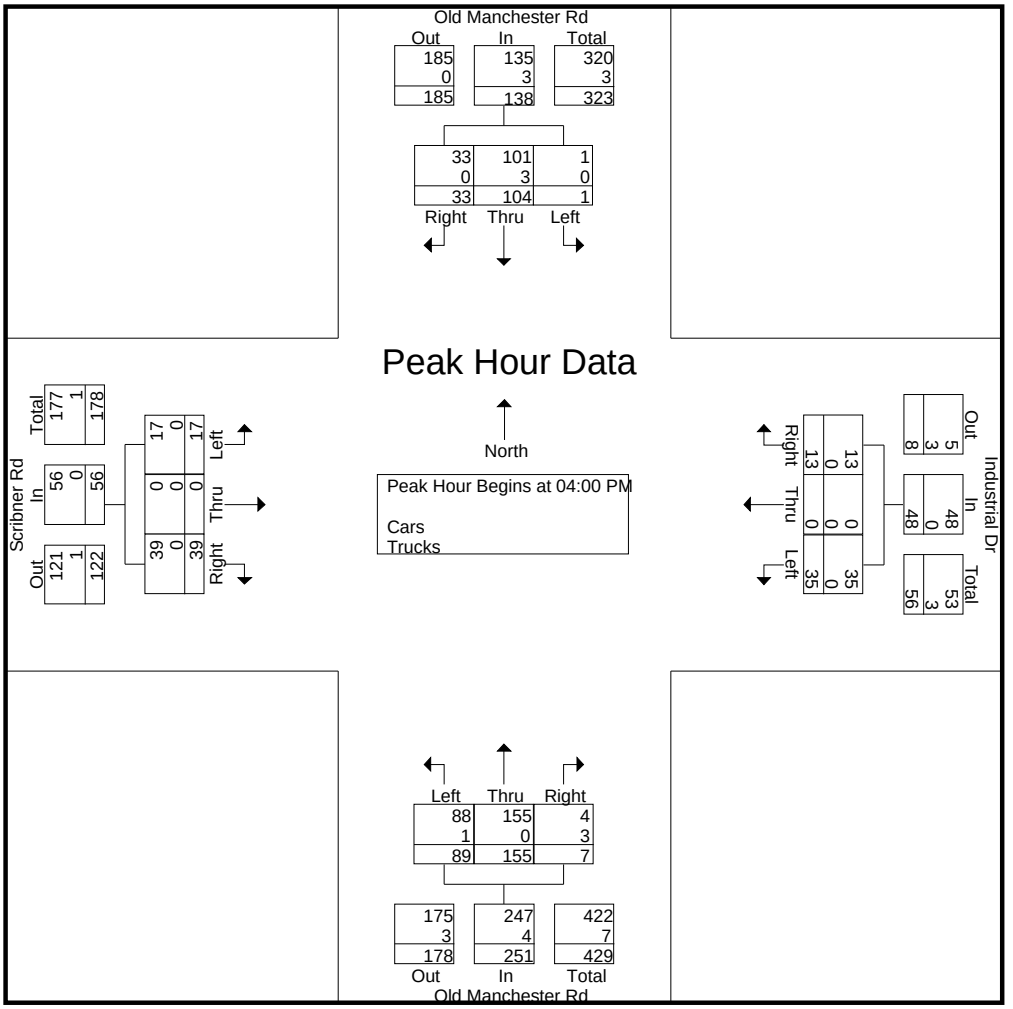
04:00 PM	0	22	3	25	**14**	0	3	**17**	24	28	**4**	56	2	0	**15**	**17**	115
04:15 PM	**1**	21	9	31	12	0	3	15	20	40	2	62	**6**	0	8	14	122
04:30 PM	0	17	5	22	8	0	**6**	14	19	**49**	0	**68**	6	0	8	14	118
04:45 PM	0	**44**	**16**	**60**	1	0	1	2	**26**	38	1	65	3	0	8	11	**138**
Total Volume	1	104	33	138	35	0	13	48	89	155	7	251	17	0	39	56	493
% App. Total	0.7	75.4	23.9		72.9	0	27.1		35.5	61.8	2.8		30.4	0	69.6		
PHF	.250	.591	.516	.575	.625	.000	.542	.706	.856	.791	.438	.923	.708	.000	.650	.824	.893
Cars	1	101	33	135	35	0	13	48	88	155	4	247	17	0	39	56	486
% Cars	100	97.1	100	97.8	100	0	100	100	98.9	100	57.1	98.4	100	0	100	100	98.6
Trucks	0	3	0	3	0	0	0	0	1	0	3	4	0	0	0	0	7
% Trucks	0	2.9	0	2.2	0	0	0	0	1.1	0	42.9	1.6	0	0	0	0	1.4

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 7



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

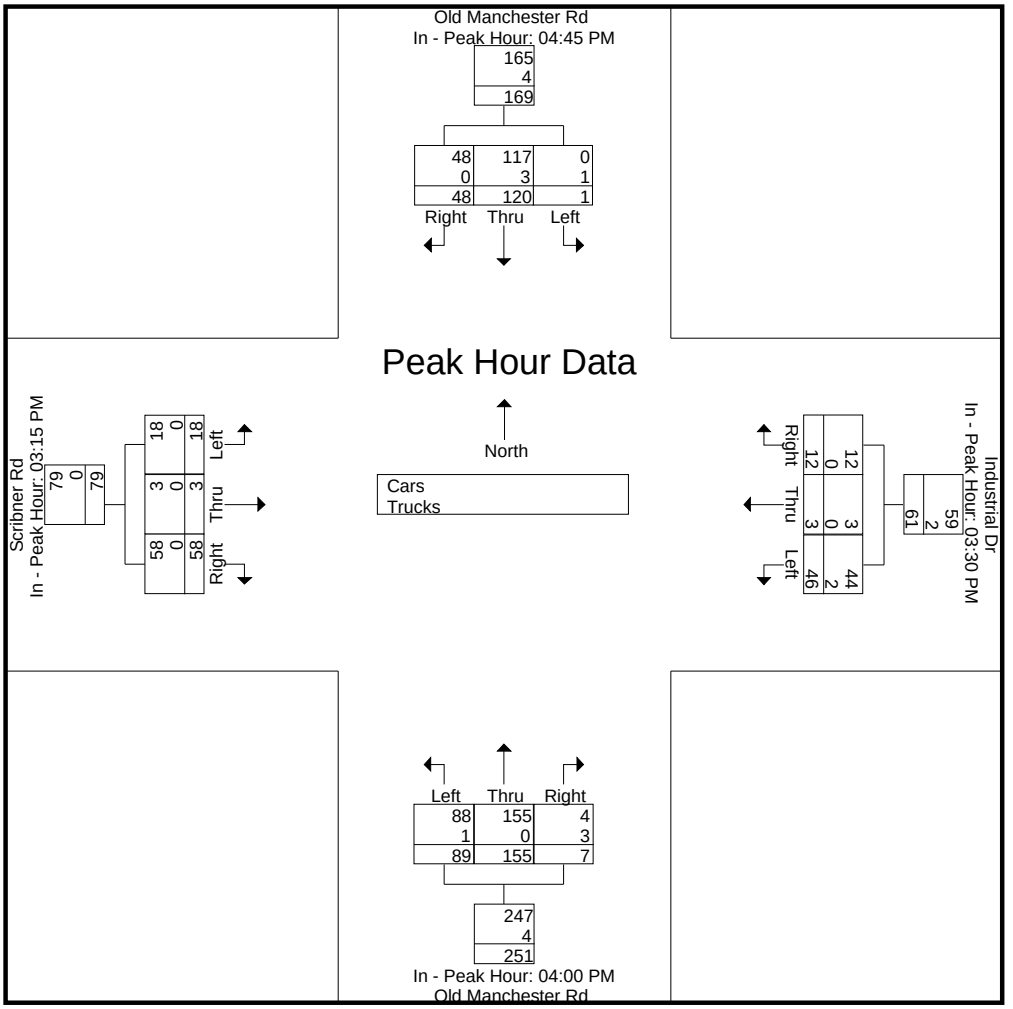
	04:45 PM				03:30 PM				04:00 PM				03:15 PM			
+0 mins.	0	**44**	**16**	**60**	12	0	**3**	15	24	28	**4**	56	5	1	11	17
+15 mins.	0	30	9	39	8	**3**	3	14	20	40	2	62	4	**2**	**17**	**23**
+30 mins.	0	28	11	39	**14**	0	3	**17**	19	**49**	0	**68**	**7**	0	15	22
+45 mins.	**1**	18	12	31	12	0	3	15	**26**	38	1	65	2	0	15	17
Total Volume	1	120	48	169	46	3	12	61	89	155	7	251	18	3	58	79
% App. Total	0.6	71	28.4		75.4	4.9	19.7		35.5	61.8	2.8		22.8	3.8	73.4	
PHF	.250	.682	.750	.704	.821	.250	1.000	.897	.856	.791	.438	.923	.643	.375	.853	.859
Cars	0	117	48	165	44	3	12	59	88	155	4	247	18	3	58	79
% Cars	0	97.5	100	97.6	95.7	100	100	96.7	98.9	100	57.1	98.4	100	100	100	100
Trucks	1	3	0	4	2	0	0	2	1	0	3	4	0	0	0	0
% Trucks	100	2.5	0	2.4	4.3	0	0	3.3	1.1	0	42.9	1.6	0	0	0	0

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 8



Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 9

Groups Printed- Cars

	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	6	22	1	1	0	0	5	16	3	10	0	23	87
07:15 AM	3	26	3	0	0	4	5	25	9	6	1	25	107
07:30 AM	2	33	2	2	0	2	5	20	6	4	1	16	93
07:45 AM	0	24	4	2	1	2	4	33	4	11	0	20	105
Total	11	105	10	5	1	8	19	94	22	31	2	84	392
08:00 AM	4	36	7	0	0	0	5	28	2	10	0	15	107
08:15 AM	0	23	7	1	0	3	4	12	5	9	0	10	74
08:30 AM	1	27	5	4	0	0	3	13	3	7	0	8	71
08:45 AM	1	14	4	3	0	1	3	13	4	1	0	10	54
Total	6	100	23	8	0	4	15	66	14	27	0	43	306
09:00 AM	0	12	3	1	0	1	9	14	4	4	0	7	55
09:15 AM	0	12	2	3	0	1	5	11	3	7	1	16	61
09:30 AM	1	20	0	2	0	1	6	20	3	2	0	7	62
09:45 AM	2	15	5	4	1	1	9	17	6	6	0	11	77
Total	3	59	10	10	1	4	29	62	16	19	1	41	255
10:00 AM	2	26	5	4	1	2	5	11	1	4	2	7	70
10:15 AM	2	16	6	4	0	0	4	13	1	4	1	9	60
10:30 AM	2	21	2	0	1	0	4	12	4	7	1	8	62
10:45 AM	0	10	4	1	1	4	8	18	2	5	0	10	63
Total	6	73	17	9	3	6	21	54	8	20	4	34	255
11:00 AM	2	20	7	2	0	1	8	10	0	6	0	9	65
11:15 AM	0	19	9	2	1	1	12	7	6	7	0	7	71
11:30 AM	3	21	5	5	0	2	7	9	2	4	0	8	66
11:45 AM	1	21	6	3	1	6	9	16	0	3	0	6	72
Total	6	81	27	12	2	10	36	42	8	20	0	30	274
12:00 PM	4	16	9	8	2	12	10	13	1	2	2	7	86
12:15 PM	4	15	3	5	0	2	11	13	11	5	1	11	81
12:30 PM	4	21	3	4	2	4	9	11	4	8	1	6	77
12:45 PM	6	14	5	2	1	1	2	17	3	5	2	8	66
Total	18	66	20	19	5	19	32	54	19	20	6	32	310
01:00 PM	1	18	2	6	1	0	12	19	7	5	1	3	75
01:15 PM	2	17	6	5	0	0	8	11	6	5	1	6	67
01:30 PM	1	13	12	3	0	0	7	11	1	1	0	9	58
01:45 PM	0	9	5	3	0	0	8	14	1	5	0	9	54
Total	4	57	25	17	1	0	35	55	15	16	2	27	254
02:00 PM	0	21	4	3	0	2	12	10	2	5	0	11	70
02:15 PM	2	19	3	3	0	2	12	10	1	1	0	3	56
02:30 PM	1	15	3	5	0	4	14	23	4	0	0	14	83
02:45 PM	1	24	3	7	0	3	15	34	2	7	0	6	102
Total	4	79	13	18	0	11	53	77	9	13	0	34	311
03:00 PM	0	29	10	2	0	3	11	20	3	3	0	9	90
03:15 PM	1	22	10	10	1	2	11	29	1	5	1	11	104
03:30 PM	0	21	7	12	0	3	18	33	0	4	2	17	117
03:45 PM	0	24	3	6	3	3	9	25	3	7	0	15	98
Total	1	96	30	30	4	11	49	107	7	19	3	52	409
04:00 PM	0	22	3	14	0	3	24	28	1	2	0	15	112
04:15 PM	1	21	9	12	0	3	20	40	2	6	0	8	122
04:30 PM	0	17	5	8	0	6	18	49	0	6	0	8	117
04:45 PM	0	41	16	1	0	1	26	38	1	3	0	8	135
Total	1	101	33	35	0	13	88	155	4	17	0	39	486
05:00 PM	0	30	9	3	0	1	16	36	1	5	0	11	112
05:15 PM	0	28	11	1	0	0	20	28	1	6	0	7	102
05:30 PM	0	18	12	0	0	0	27	40	1	4	0	14	116

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 10

Groups Printed- Cars

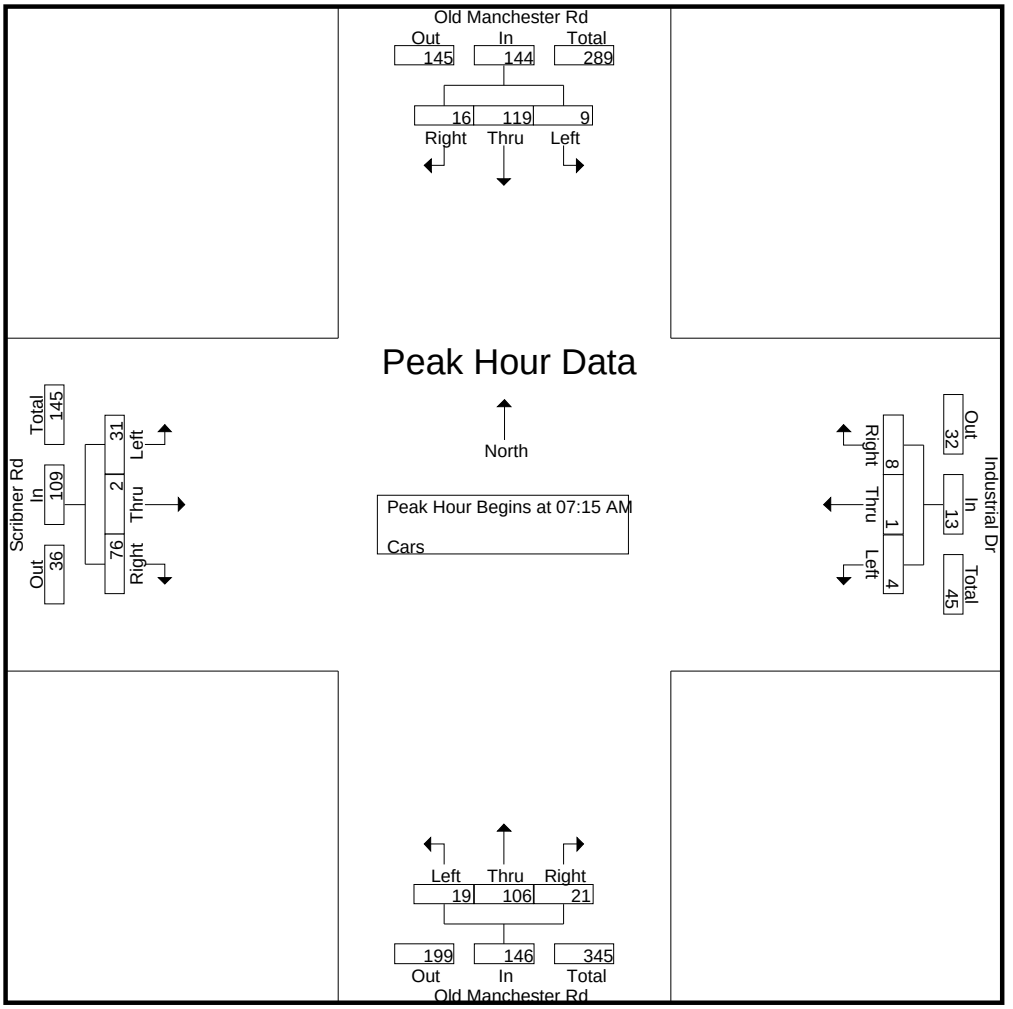
	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
05:45 PM	0	13	10	1	1	2	14	20	1	2	2	16	82
Total	0	89	42	5	1	3	77	124	4	17	2	48	412
06:00 PM	1	13	2	1	0	2	16	20	2	4	0	10	71
06:15 PM	1	18	6	1	2	0	12	21	0	1	0	12	74
06:30 PM	0	20	9	0	0	0	7	13	0	6	0	12	67
06:45 PM	1	8	5	0	0	1	5	12	0	5	0	8	45
Total	3	59	22	2	2	3	40	66	2	16	0	42	257
07:00 PM	0	0	0	0	0	0	2	1	0	0	0	0	3
Grand Total	63	965	272	170	20	92	496	957	128	235	20	506	3924
Apprch %	4.8	74.2	20.9	60.3	7.1	32.6	31.4	60.5	8.1	30.9	2.6	66.5	
Total %	1.6	24.6	6.9	4.3	0.5	2.3	12.6	24.4	3.3	6	0.5	12.9	

	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	26	3	32	0	0	**4**	4	**5**	25	**9**	39	6	**1**	**25**	**32**	**107**
07:30 AM	2	33	2	37	**2**	0	2	4	5	20	6	31	4	1	16	21	93
07:45 AM	0	24	4	28	2	**1**	2	**5**	4	**33**	4	**41**	**11**	0	20	31	105
08:00 AM	**4**	**36**	**7**	**47**	0	0	0	0	5	28	2	35	10	0	15	25	107
Total Volume	9	119	16	144	4	1	8	13	19	106	21	146	31	2	76	109	412
% App. Total	6.2	82.6	11.1		30.8	7.7	61.5		13	72.6	14.4		28.4	1.8	69.7		
PHF	.563	.826	.571	.766	.500	.250	.500	.650	.950	.803	.583	.890	.705	.500	.760	.852	.963

Accurate Counts
978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022

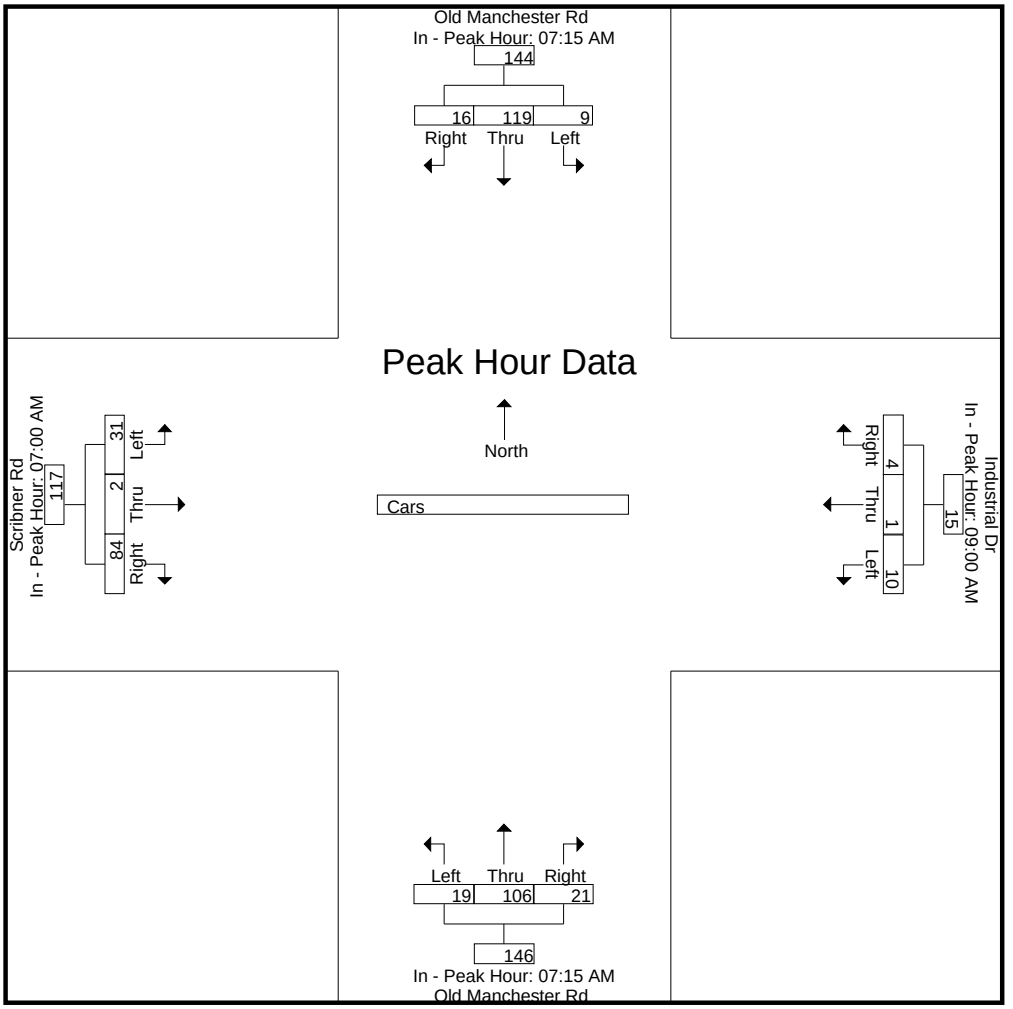


Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				09:00 AM				07:15 AM				07:00 AM			
+0 mins.	3	26	3	32	1	0	**1**	2	**5**	25	**9**	39	10	0	23	**33**
+15 mins.	2	33	2	37	3	0	1	4	5	20	6	31	6	**1**	**25**	32
+30 mins.	0	24	4	28	2	0	1	3	4	**33**	4	**41**	4	1	16	21
+45 mins.	**4**	**36**	**7**	**47**	**4**	**1**	1	**6**	5	28	2	35	**11**	0	20	31
Total Volume	9	119	16	144	10	1	4	15	19	106	21	146	31	2	84	117
% App. Total	6.2	82.6	11.1		66.7	6.7	26.7		13	72.6	14.4		26.5	1.7	71.8	
PHF	.563	.826	.571	.766	.625	.250	1.000	.625	.950	.803	.583	.890	.705	.500	.840	.886

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 12



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:45 AM

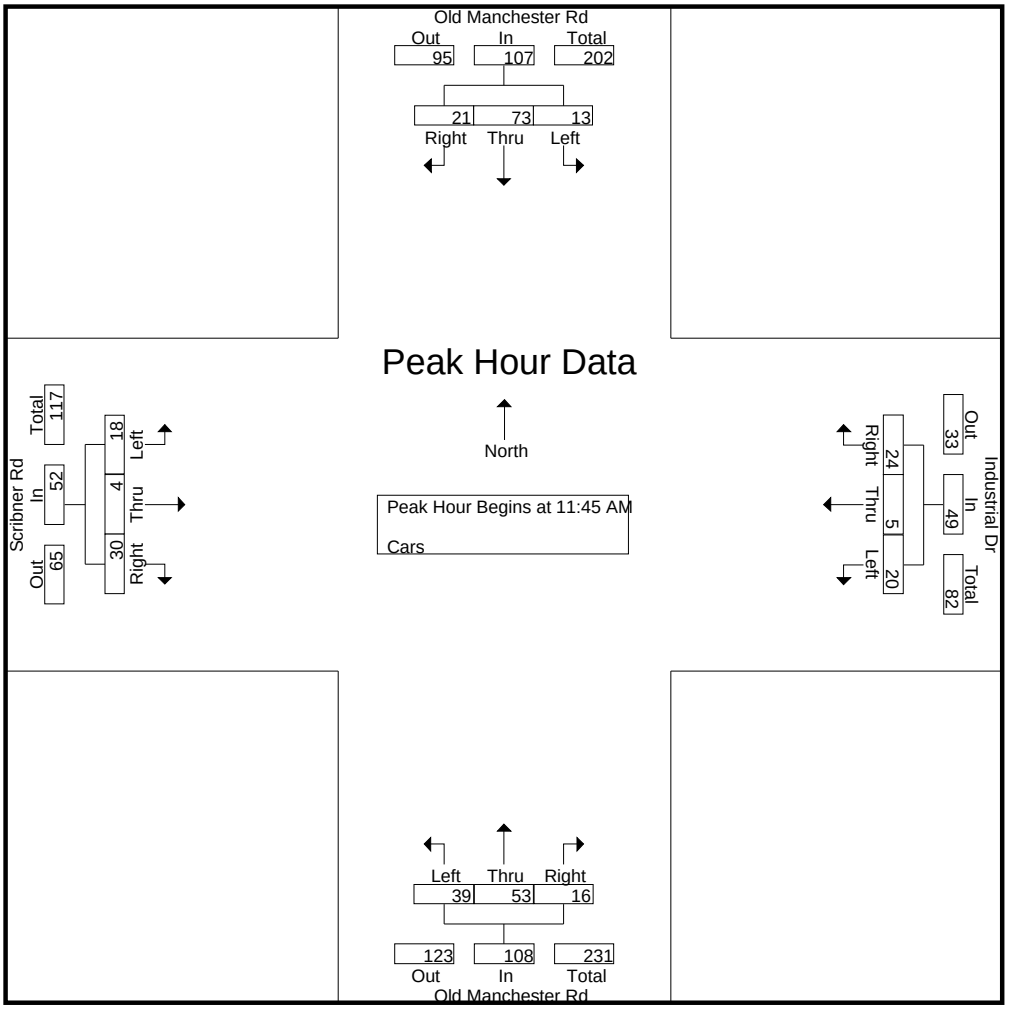
11:45 AM	1	**21**	6	28	3	1	6	10	9	**16**	0	25	3	0	6	9	72
12:00 PM	**4**	16	**9**	**29**	**8**	**2**	**12**	**22**	10	13	1	24	2	**2**	7	11	**86**
12:15 PM	4	15	3	22	5	0	2	7	**11**	13	**11**	**35**	5	1	**11**	**17**	81
12:30 PM	4	21	3	28	4	2	4	10	9	11	4	24	**8**	1	6	15	77
Total Volume	13	73	21	107	20	5	24	49	39	53	16	108	18	4	30	52	316
% App. Total	12.1	68.2	19.6		40.8	10.2	49		36.1	49.1	14.8		34.6	7.7	57.7		
PHF	.813	.869	.583	.922	.625	.625	.500	.557	.886	.828	.364	.771	.563	.500	.682	.765	.919

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 13



Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

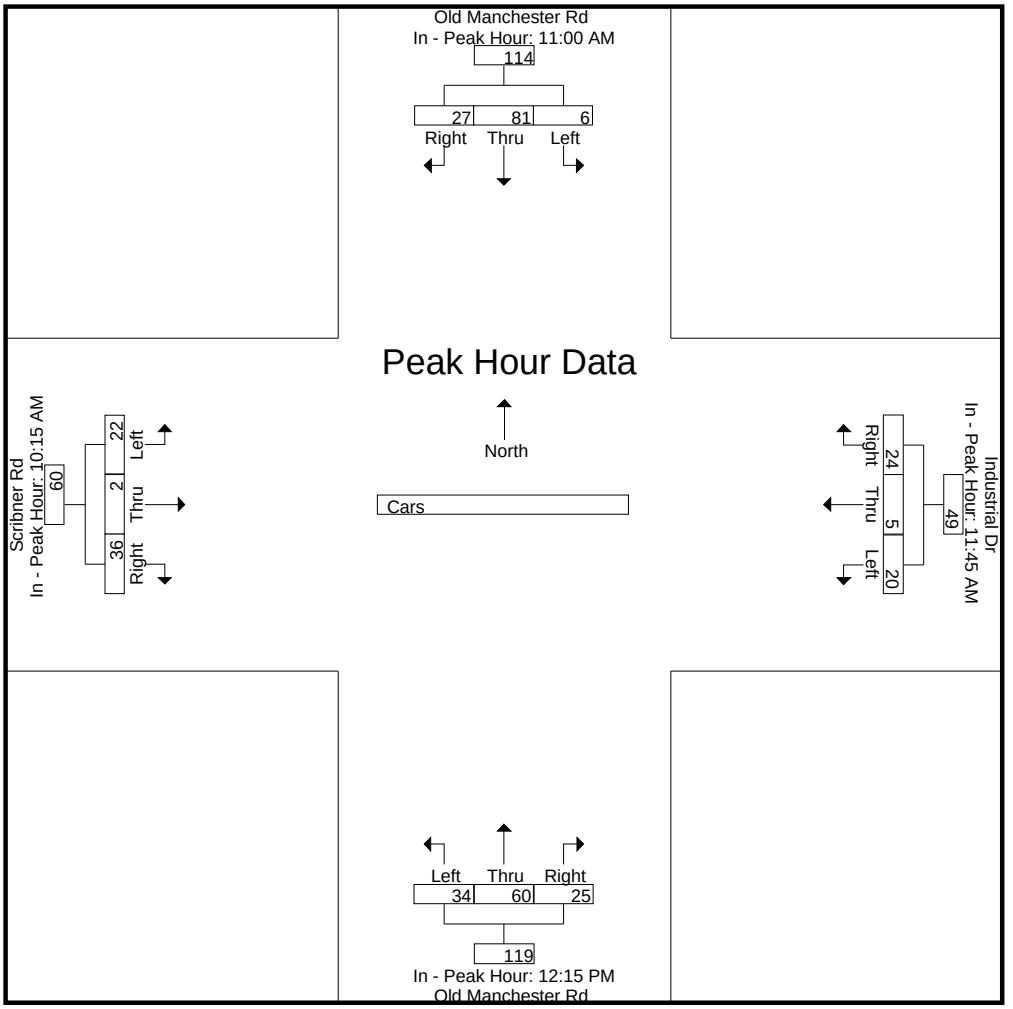
	11:00 AM				11:45 AM				12:15 PM				10:15 AM			
+0 mins.	2	20	7	**29**	3	1	6	10	11	13	**11**	35	4	**1**	9	14
+15 mins.	0	19	**9**	28	**8**	**2**	**12**	**22**	9	11	4	24	**7**	1	8	**16**
+30 mins.	**3**	**21**	5	29	5	0	2	7	2	17	3	22	5	0	**10**	15
+45 mins.	1	21	6	28	4	2	4	10	**12**	**19**	7	**38**	6	0	9	15
Total Volume	6	81	27	114	20	5	24	49	34	60	25	119	22	2	36	60
% App. Total	5.3	71.1	23.7		40.8	10.2	49		28.6	50.4	21		36.7	3.3	60	
PHF	.500	.964	.750	.983	.625	.625	.500	.557	.708	.789	.568	.783	.786	.500	.900	.938

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 14

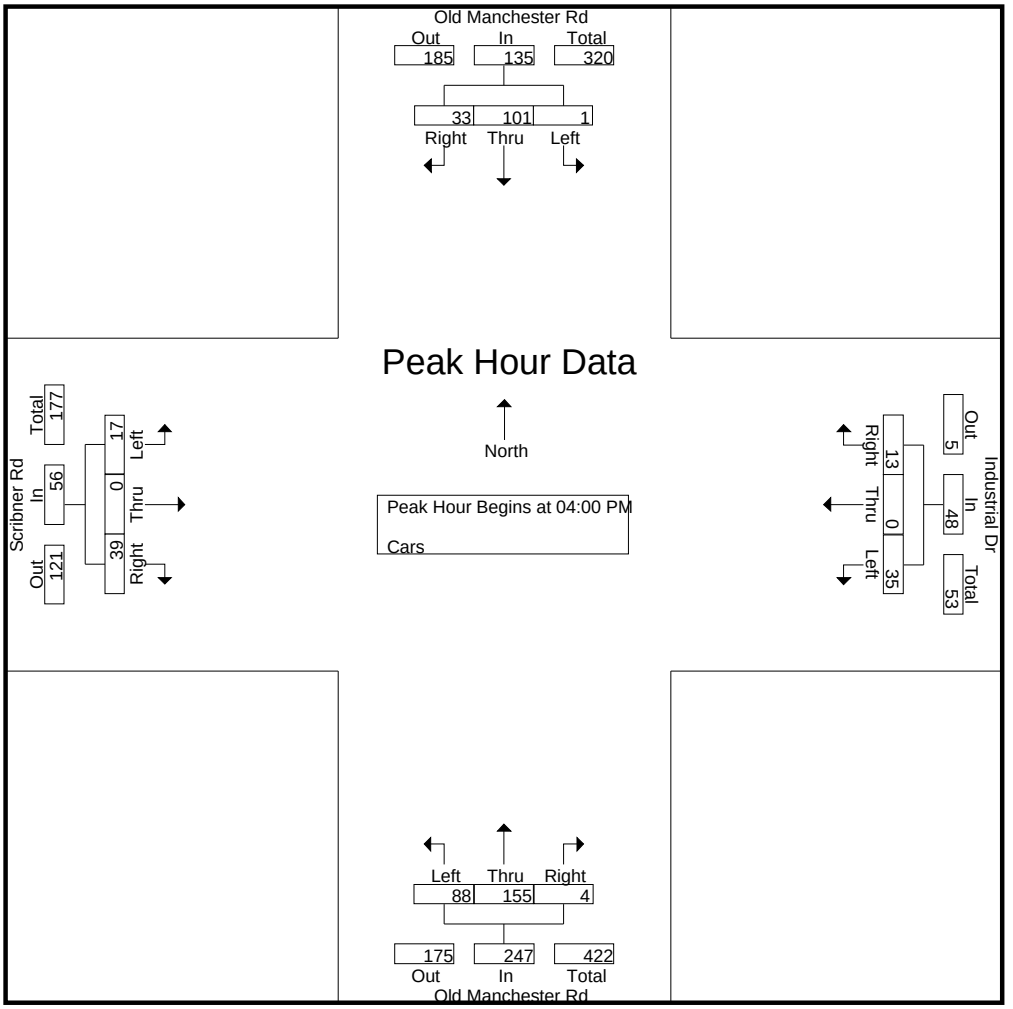


Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	0	22	3	25	**14**	0	3	**17**	24	28	1	53	2	0	**15**	**17**	112
04:15 PM	**1**	21	9	31	12	0	3	15	20	40	**2**	62	**6**	0	8	14	122
04:30 PM	0	17	5	22	8	0	**6**	14	18	**49**	0	**67**	6	0	8	14	117
04:45 PM	0	**41**	**16**	**57**	1	0	1	2	**26**	38	1	65	3	0	8	11	**135**
Total Volume	1	101	33	135	35	0	13	48	88	155	4	247	17	0	39	56	486
% App. Total	0.7	74.8	24.4		72.9	0	27.1		35.6	62.8	1.6		30.4	0	69.6		
PHF	.250	.616	.516	.592	.625	.000	.542	.706	.846	.791	.500	.922	.708	.000	.650	.824	.900

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 15



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

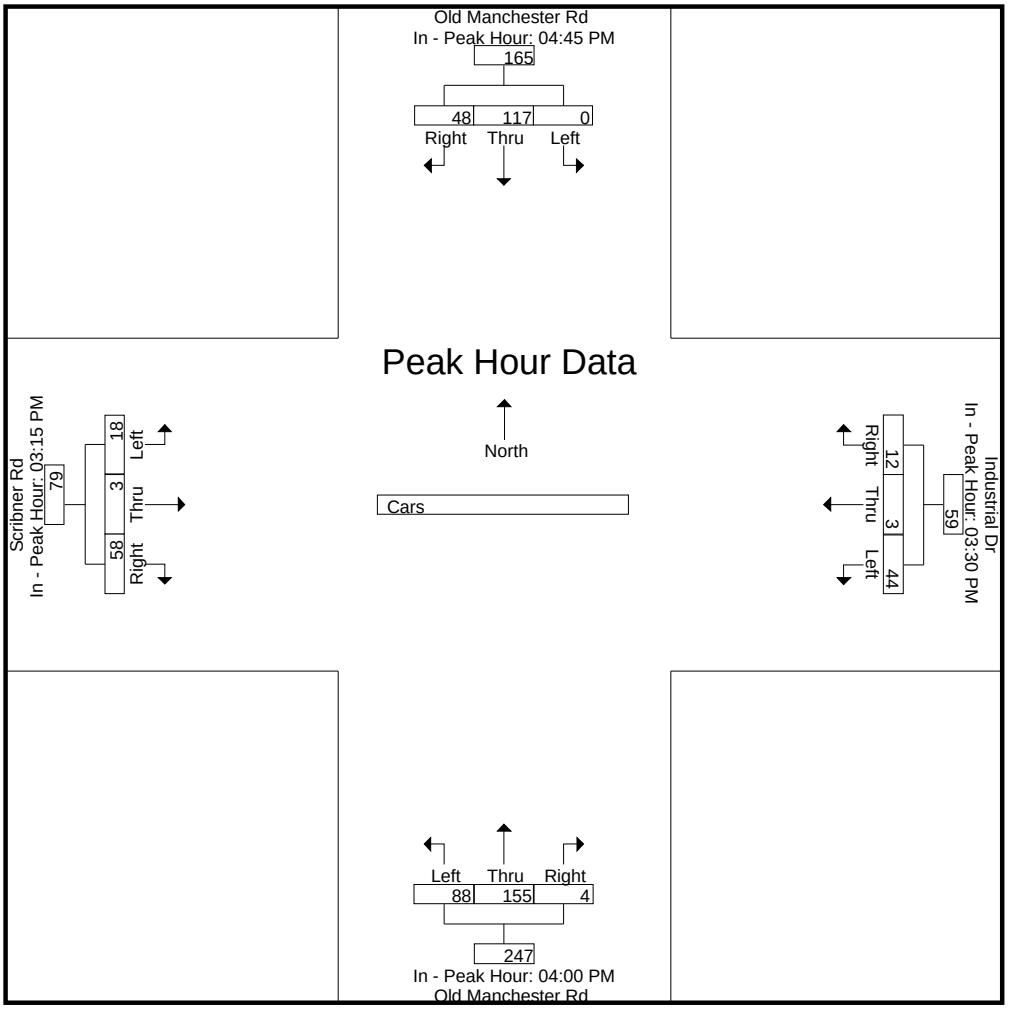
	04:45 PM				03:30 PM				04:00 PM				03:15 PM			
+0 mins.	0	**41**	**16**	**57**	12	0	**3**	15	24	28	1	53	5	1	11	17
+15 mins.	0	30	9	39	6	**3**	3	12	20	40	**2**	62	4	**2**	**17**	**23**
+30 mins.	0	28	11	39	**14**	0	3	**17**	18	**49**	0	**67**	**7**	0	15	22
+45 mins.	0	18	12	30	12	0	3	15	**26**	38	1	65	2	0	15	17
Total Volume	0	117	48	165	44	3	12	59	88	155	4	247	18	3	58	79
% App. Total	0	70.9	29.1		74.6	5.1	20.3		35.6	62.8	1.6		22.8	3.8	73.4	
PHF	.000	.713	.750	.724	.786	.250	1.000	.868	.846	.791	.500	.922	.643	.375	.853	.859

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 16



Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022

Groups Printed- Trucks

	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	1	0	0	1	2	0	0	0	2	0	0	1	7
07:15 AM	0	0	0	5	1	0	0	0	3	0	0	0	9
07:30 AM	0	0	0	2	0	1	0	0	2	0	0	0	5
07:45 AM	0	0	0	3	1	0	0	1	1	0	3	0	9
Total	1	0	0	11	4	1	0	1	8	0	3	1	30
08:00 AM	1	0	0	2	2	0	1	1	2	0	0	0	9
08:15 AM	1	0	0	1	0	1	0	0	0	0	0	0	3
08:30 AM	0	1	0	0	1	0	0	3	1	0	2	0	8
08:45 AM	0	0	0	1	2	1	0	0	2	0	1	0	7
Total	2	1	0	4	5	2	1	4	5	0	3	0	27
09:00 AM	0	0	0	1	0	0	0	0	1	0	0	0	2
09:15 AM	1	0	0	1	0	0	0	0	1	0	2	0	5
09:30 AM	0	1	0	2	3	0	0	0	2	0	1	0	9
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	4	3	0	0	0	4	0	3	0	16
10:00 AM	0	0	0	0	0	0	1	0	3	0	1	0	5
10:15 AM	0	0	0	4	2	0	0	0	2	0	2	1	11
10:30 AM	0	0	0	1	1	0	0	0	5	0	0	0	7
10:45 AM	0	1	0	3	1	0	0	0	2	0	1	0	8
Total	0	1	0	8	4	0	1	0	12	0	4	1	31
11:00 AM	0	0	0	3	1	0	0	0	2	0	1	0	7
11:15 AM	0	0	0	3	2	0	0	0	0	0	1	1	7
11:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	2
11:45 AM	0	0	0	1	1	0	0	0	0	0	1	0	3
Total	0	0	1	7	4	0	0	0	2	0	4	1	19
12:00 PM	0	1	0	0	2	0	0	0	0	0	1	0	4
12:15 PM	0	0	0	0	0	0	0	0	3	0	0	0	3
12:30 PM	1	0	0	0	0	0	0	0	1	0	0	0	2
12:45 PM	0	0	0	4	0	0	0	0	3	0	0	0	7
Total	1	1	0	4	2	0	0	0	7	0	1	0	16
01:00 PM	0	0	0	5	0	0	0	0	4	0	1	0	10
01:15 PM	0	0	0	2	2	0	0	0	2	0	1	0	7
01:30 PM	1	0	0	4	0	0	0	0	2	0	0	0	7
01:45 PM	0	0	0	2	0	1	0	0	3	0	1	0	7
Total	1	0	0	13	2	1	0	0	11	0	3	0	31
02:00 PM	0	0	0	1	2	0	0	0	1	0	1	1	6
02:15 PM	1	0	1	1	1	0	0	0	1	0	1	0	6
02:30 PM	2	0	1	1	0	2	0	0	3	0	1	1	11
02:45 PM	0	0	0	2	2	0	0	0	2	0	1	0	7
Total	3	0	2	5	5	2	0	0	7	0	4	2	30
03:00 PM	0	1	0	1	1	0	0	0	4	0	1	0	8
03:15 PM	0	0	0	1	0	0	0	0	4	0	0	0	5
03:30 PM	0	0	0	0	0	0	0	0	2	0	0	0	2
03:45 PM	0	0	0	2	0	0	1	0	1	0	0	0	4
Total	0	1	0	4	1	0	1	0	11	0	1	0	19
04:00 PM	0	0	0	0	0	0	0	0	3	0	0	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
04:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	3	0	0	0	0	1	0	3	0	0	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	0	0	0	0	0	0	0	0	1	0	2

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022

Groups Printed- Trucks

	Old Manchester Rd From North			Industrial Dr From East			Old Manchester Rd From South			Scribner Rd From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
05:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	1	0	0	0	0	0	0	1	0	0	1	0	3
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	10	8	3	60	30	6	4	6	70	0	27	5	229
Apprch %	47.6	38.1	14.3	62.5	31.2	6.2	5	7.5	87.5	0	84.4	15.6	
Total %	4.4	3.5	1.3	26.2	13.1	2.6	1.7	2.6	30.6	0	11.8	2.2	

	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	**5**	1	0	**6**	0	0	**3**	3	0	0	0	0	**9**
07:30 AM	0	0	0	0	2	0	**1**	3	0	0	2	2	0	0	0	0	5
07:45 AM	0	0	0	0	3	1	0	4	0	**1**	1	2	0	**3**	0	**3**	9
08:00 AM	**1**	0	0	**1**	2	**2**	0	4	**1**	1	2	**4**	0	0	0	0	9
Total Volume	1	0	0	1	12	4	1	17	1	2	8	11	0	3	0	3	32
% App. Total	100	0	0		70.6	23.5	5.9		9.1	18.2	72.7		0	100	0		
PHF	.250	.000	.000	.250	.600	.500	.250	.708	.250	.500	.667	.688	.000	.250	.000	.250	.889

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
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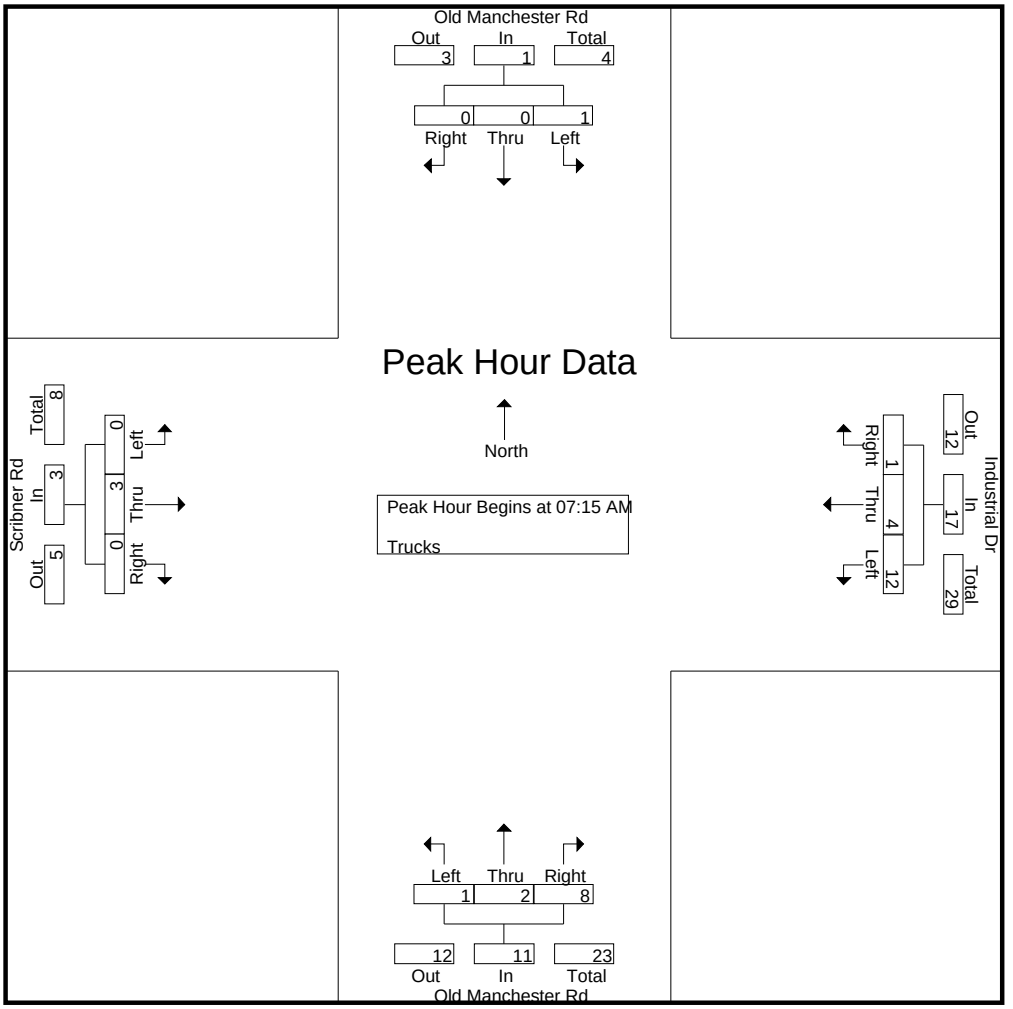
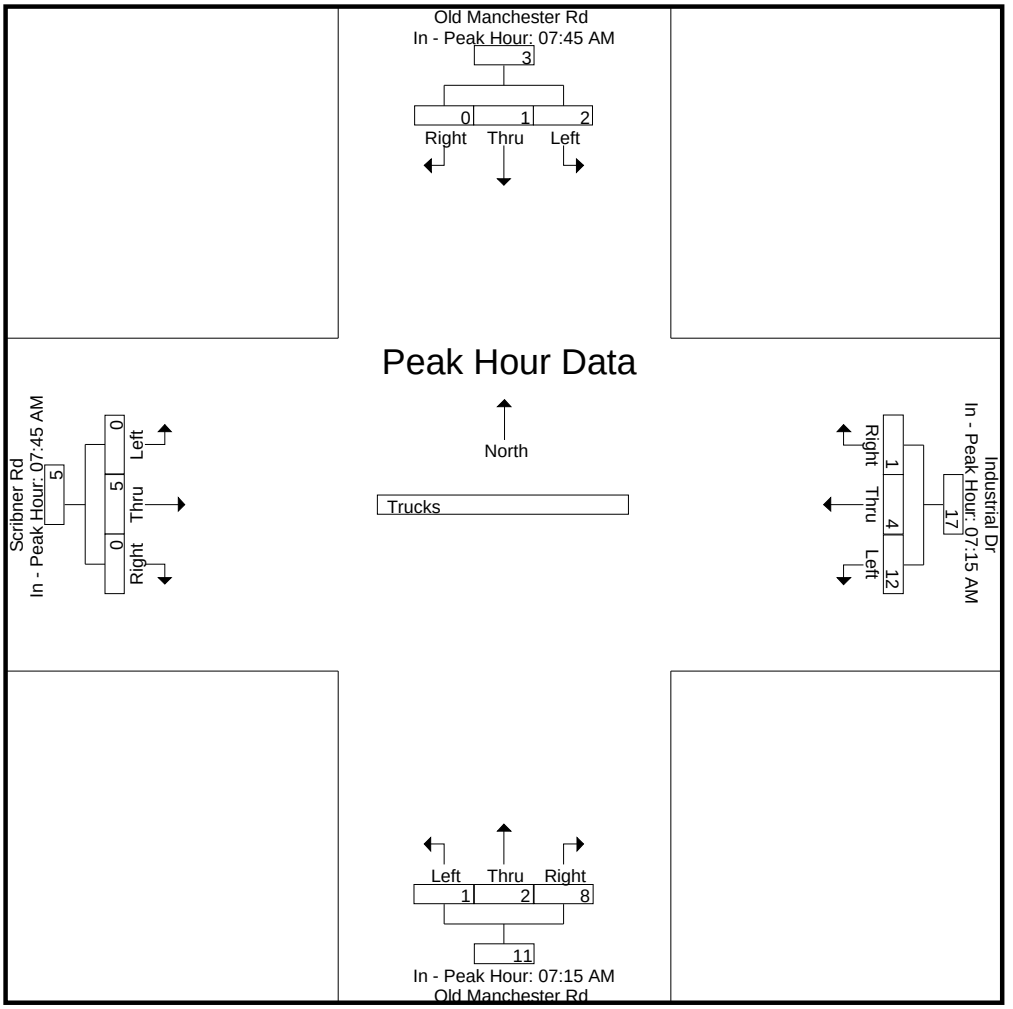


Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:15 AM				07:15 AM				07:45 AM			
+0 mins.	0	0	0	0	**5**	1	0	**6**	0	0	**3**	3	0	**3**	0	**3**
+15 mins.	**1**	0	0	**1**	2	0	**1**	3	0	0	2	2	0	0	0	0
+30 mins.	1	0	0	1	3	1	0	4	0	**1**	1	2	0	0	0	0
+45 mins.	0	**1**	0	1	2	**2**	0	4	**1**	1	2	**4**	0	2	0	2
Total Volume	2	1	0	3	12	4	1	17	1	2	8	11	0	5	0	5
% App. Total	66.7	33.3	0		70.6	23.5	5.9		9.1	18.2	72.7		0	100	0	
PHF	.500	.250	.000	.750	.600	.500	.250	.708	.250	.500	.667	.688	.000	.417	.000	.417

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 20

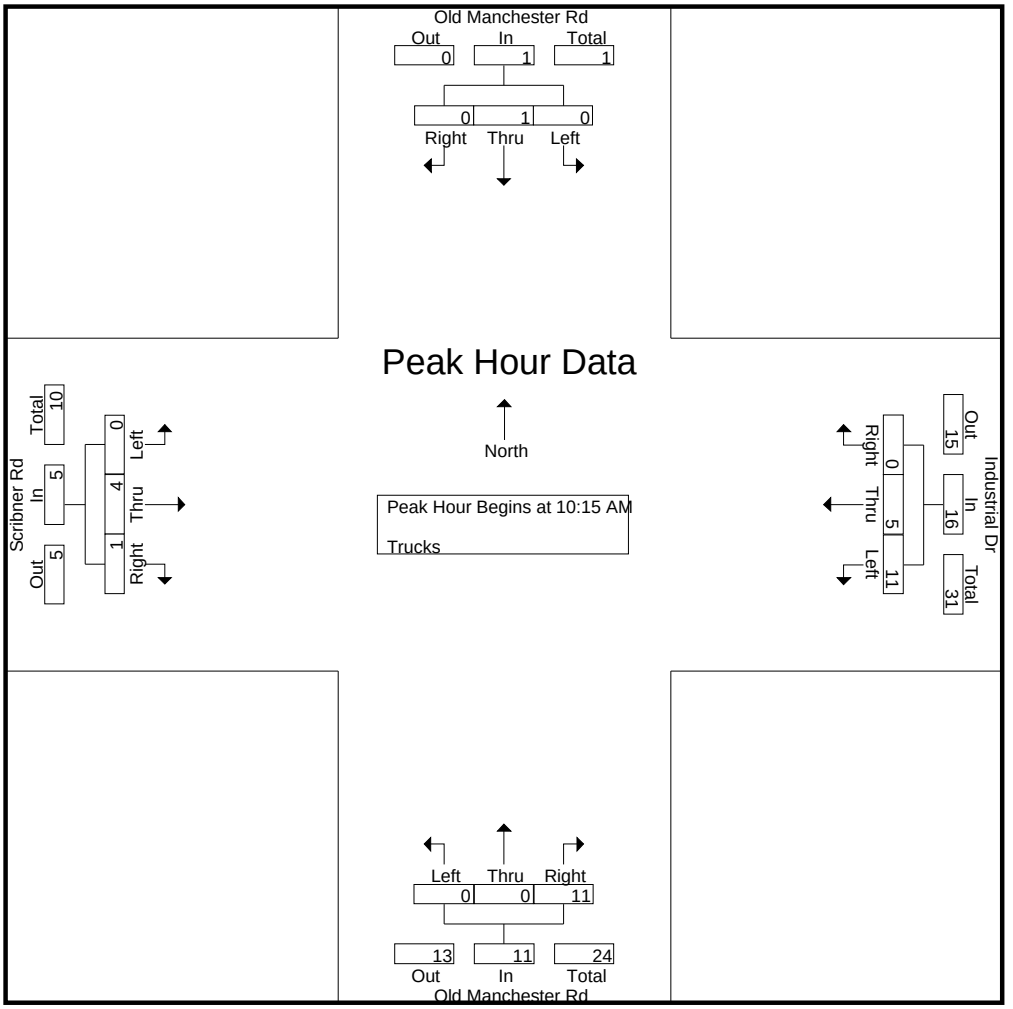


Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 10:15 AM

10:15 AM	0	0	0	0	**4**	**2**	0	**6**	0	0	2	2	0	**2**	**1**	**3**	**11**
10:30 AM	0	0	0	0	1	1	0	2	0	0	**5**	**5**	0	0	0	0	7
10:45 AM	0	**1**	0	**1**	3	1	0	4	0	0	2	2	0	1	0	1	8
11:00 AM	0	0	0	0	3	1	0	4	0	0	2	2	0	1	0	1	7
Total Volume	0	1	0	1	11	5	0	16	0	0	11	11	0	4	1	5	33
% App. Total	0	100	0		68.8	31.2	0		0	0	100		0	80	20		
PHF	.000	.250	.000	.250	.688	.625	.000	.667	.000	.000	.550	.550	.000	.500	.250	.417	.750

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 21

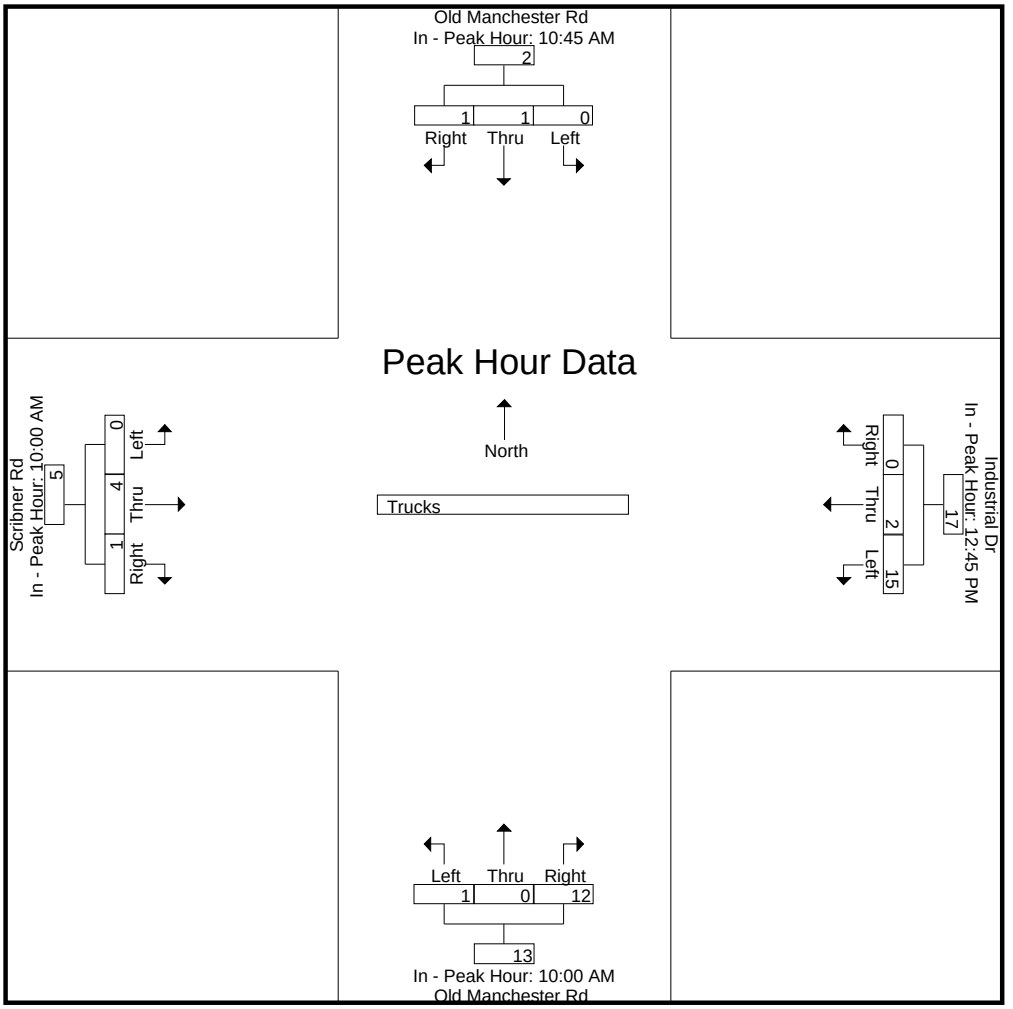


Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	10:45 AM				12:45 PM				10:00 AM				10:00 AM			
+0 mins.	0	**1**	0	**1**	4	0	0	4	**1**	0	3	4	0	1	0	1
+15 mins.	0	0	0	0	**5**	0	0	**5**	0	0	2	2	0	**2**	**1**	**3**
+30 mins.	0	0	0	0	2	**2**	0	4	0	0	**5**	**5**	0	0	0	0
+45 mins.	0	0	**1**	1	4	0	0	4	0	0	2	2	0	1	0	1
Total Volume	0	1	1	2	15	2	0	17	1	0	12	13	0	4	1	5
% App. Total	0	50	50		88.2	11.8	0		7.7	0	92.3		0	80	20	
PHF	.000	.250	.250	.500	.750	.250	.000	.850	.250	.000	.600	.650	.000	.500	.250	.417

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 22

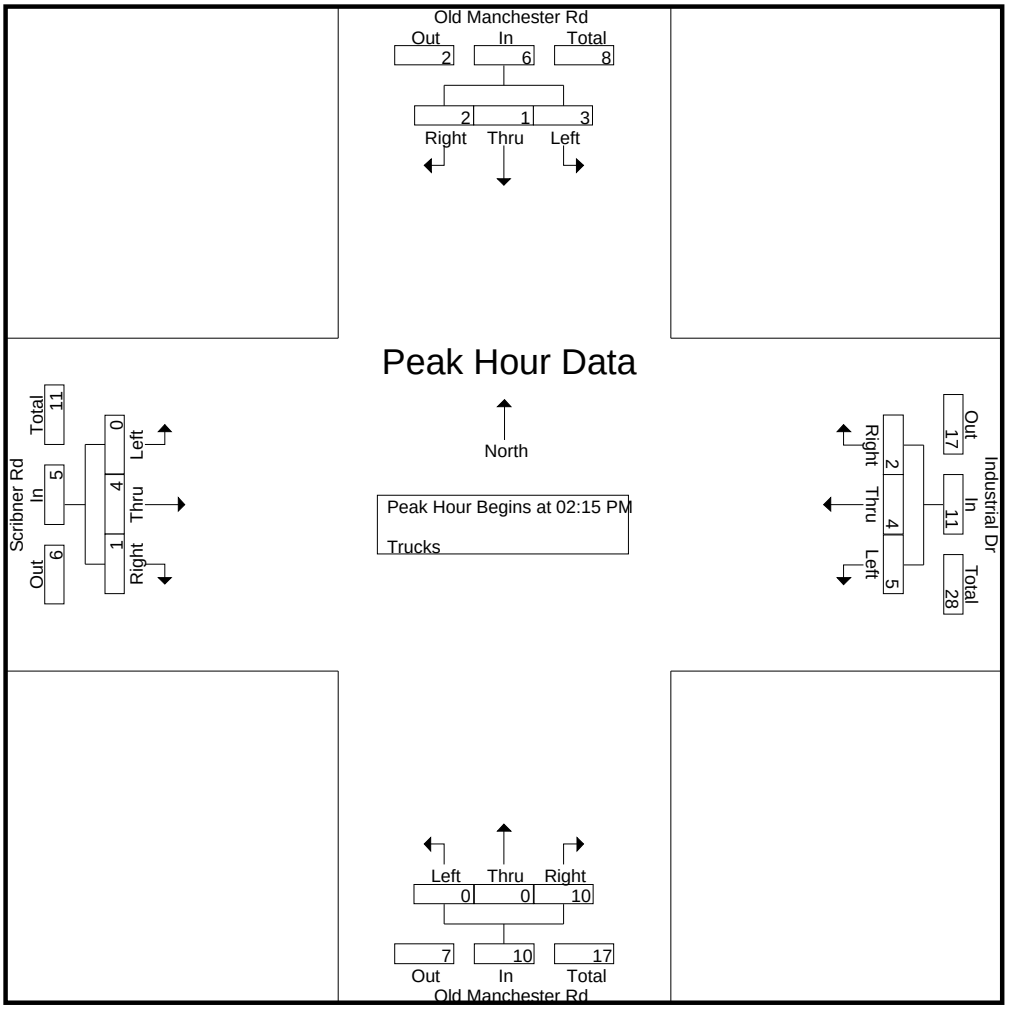


Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 02:15 PM

02:15 PM	1	0	**1**	2	1	1	0	2	0	0	1	1	0	**1**	0	1	6
02:30 PM	**2**	0	1	**3**	1	0	**2**	3	0	0	3	3	0	1	**1**	**2**	**11**
02:45 PM	0	0	0	0	**2**	**2**	0	**4**	0	0	2	2	0	1	0	1	7
03:00 PM	0	**1**	0	1	1	1	0	2	0	0	**4**	**4**	0	1	0	1	8
Total Volume	3	1	2	6	5	4	2	11	0	0	10	10	0	4	1	5	32
% App. Total	50	16.7	33.3		45.5	36.4	18.2		0	0	100		0	80	20		
PHF	.375	.250	.500	.500	.625	.500	.250	.688	.000	.000	.625	.625	.000	1.00	.250	.625	.727

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 23



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

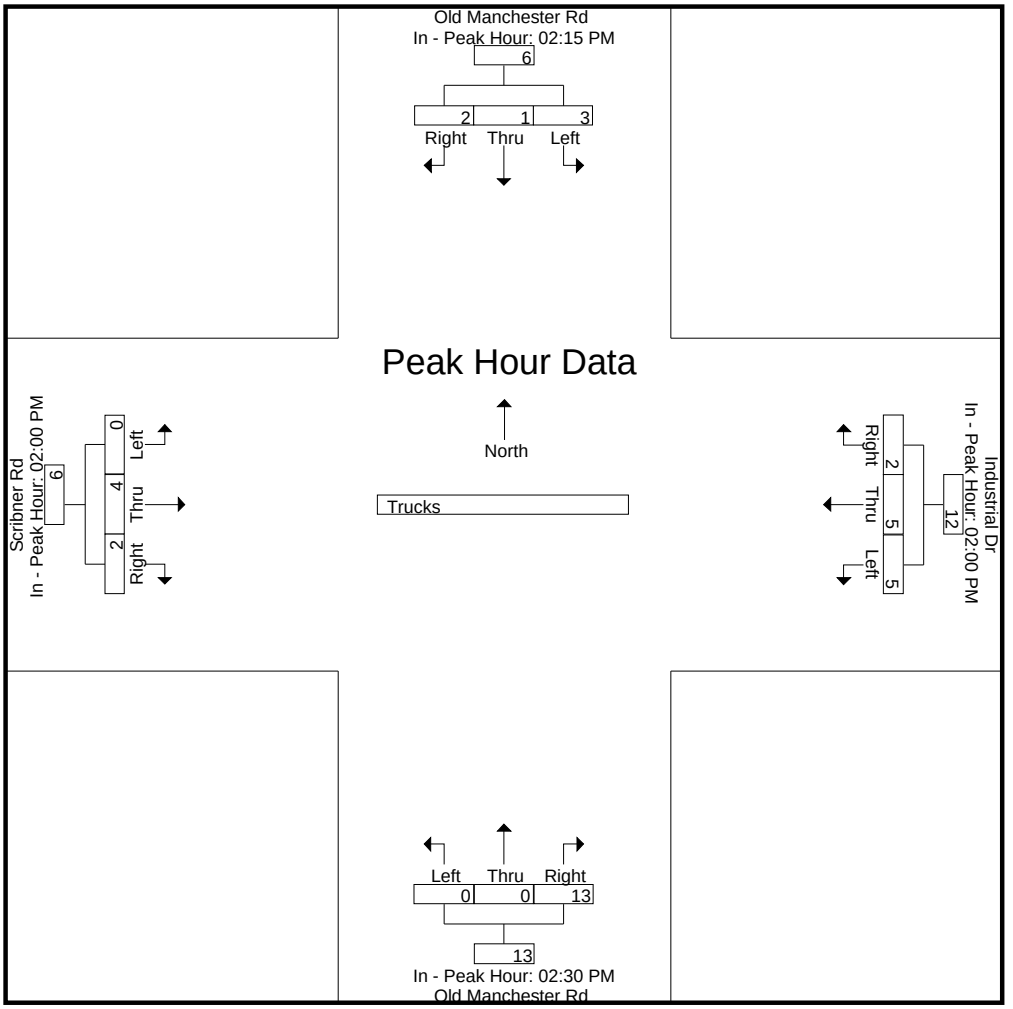
	02:15 PM				02:00 PM				02:30 PM				02:00 PM			
+0 mins.	1	0	**1**	2	1	**2**	0	3	0	0	3	3	0	**1**	**1**	**2**
+15 mins.	**2**	0	1	**3**	1	1	0	2	0	0	2	2	0	1	0	1
+30 mins.	0	0	0	0	1	0	**2**	3	0	0	**4**	**4**	0	1	1	2
+45 mins.	0	**1**	0	1	**2**	2	0	**4**	0	0	4	4	0	1	0	1
Total Volume	3	1	2	6	5	5	2	12	0	0	13	13	0	4	2	6
% App. Total	50	16.7	33.3		41.7	41.7	16.7		0	0	100		0	66.7	33.3	
PHF	.375	.250	.500	.500	.625	.625	.250	.750	.000	.000	.813	.813	.000	1.000	.500	.750

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 24



Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022

Groups Printed- Bikes Peds

	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2	2
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	0	2
Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2	0	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 26

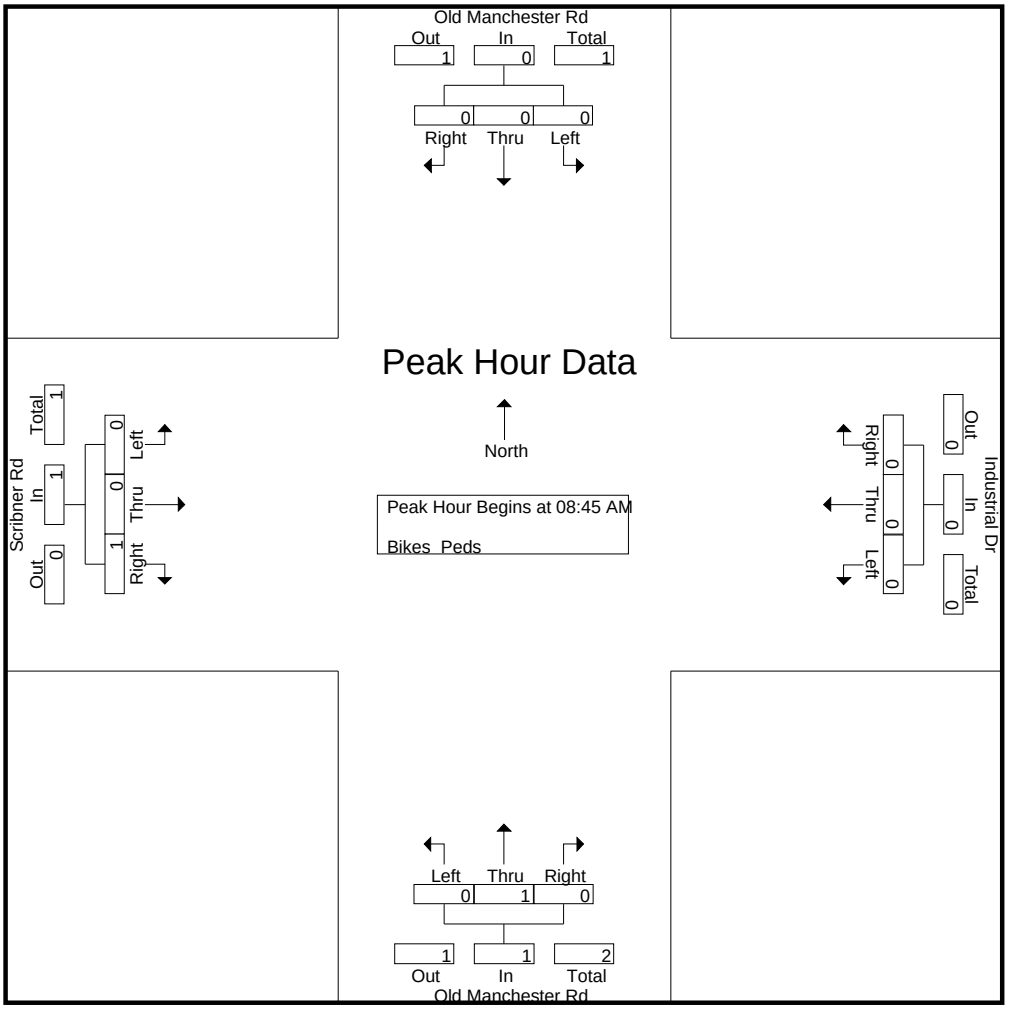
Groups Printed- Bikes Peds

	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	1	2	4	6
Apprch %	0	100	0		0	0	0		0	100	0		0	0	100				
Total %	0	25	0		0	0	0		0	50	0		0	0	25		33.3	66.7	

	Old Manchester Rd From North				Industrial Dr From East				Old Manchester Rd From South				Scribner Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:45 AM																	
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	1
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
% App. Total	0	0	0		0	0	0		0	100	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.250	.250	.500

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 27

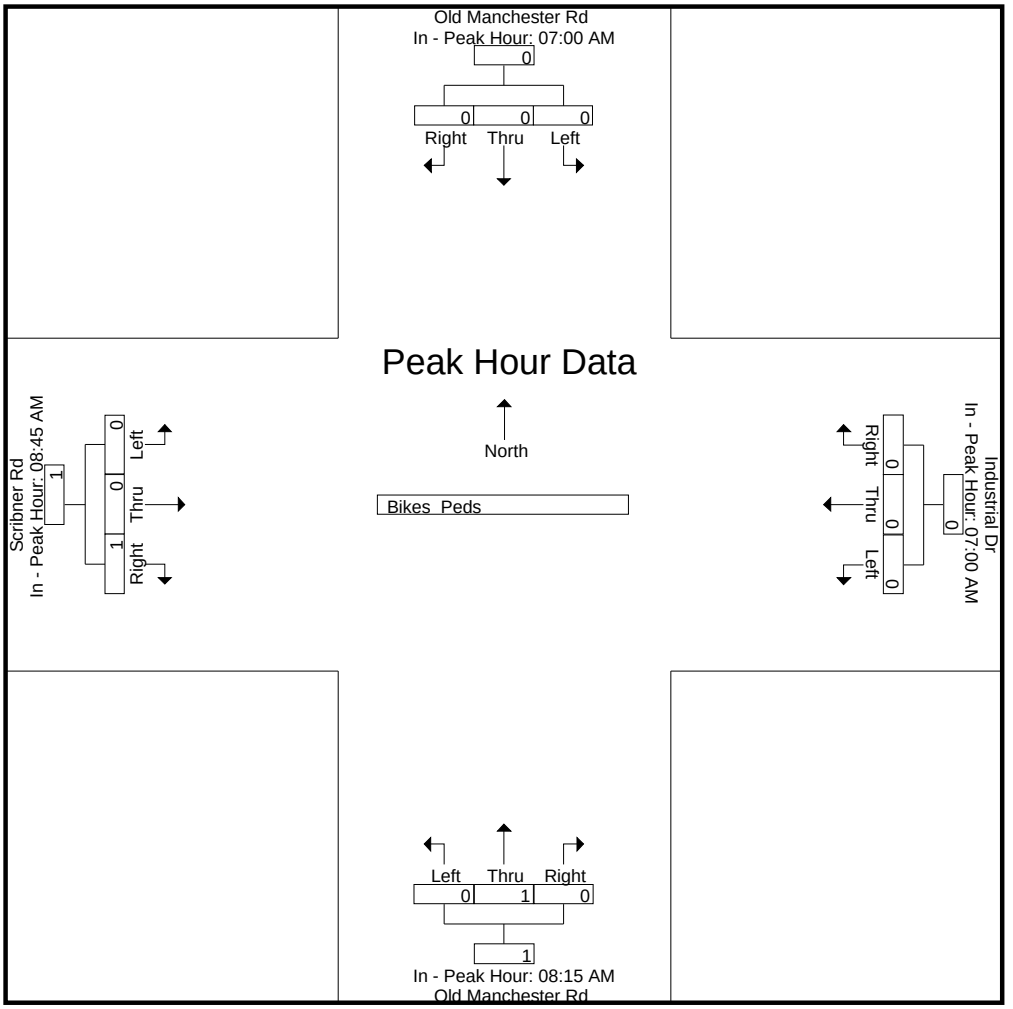


Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				08:15 AM				08:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	**1**	**1**
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1
% App. Total	0	0	0		0	0	0		0	100	0		0	0	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.250	.250

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 28

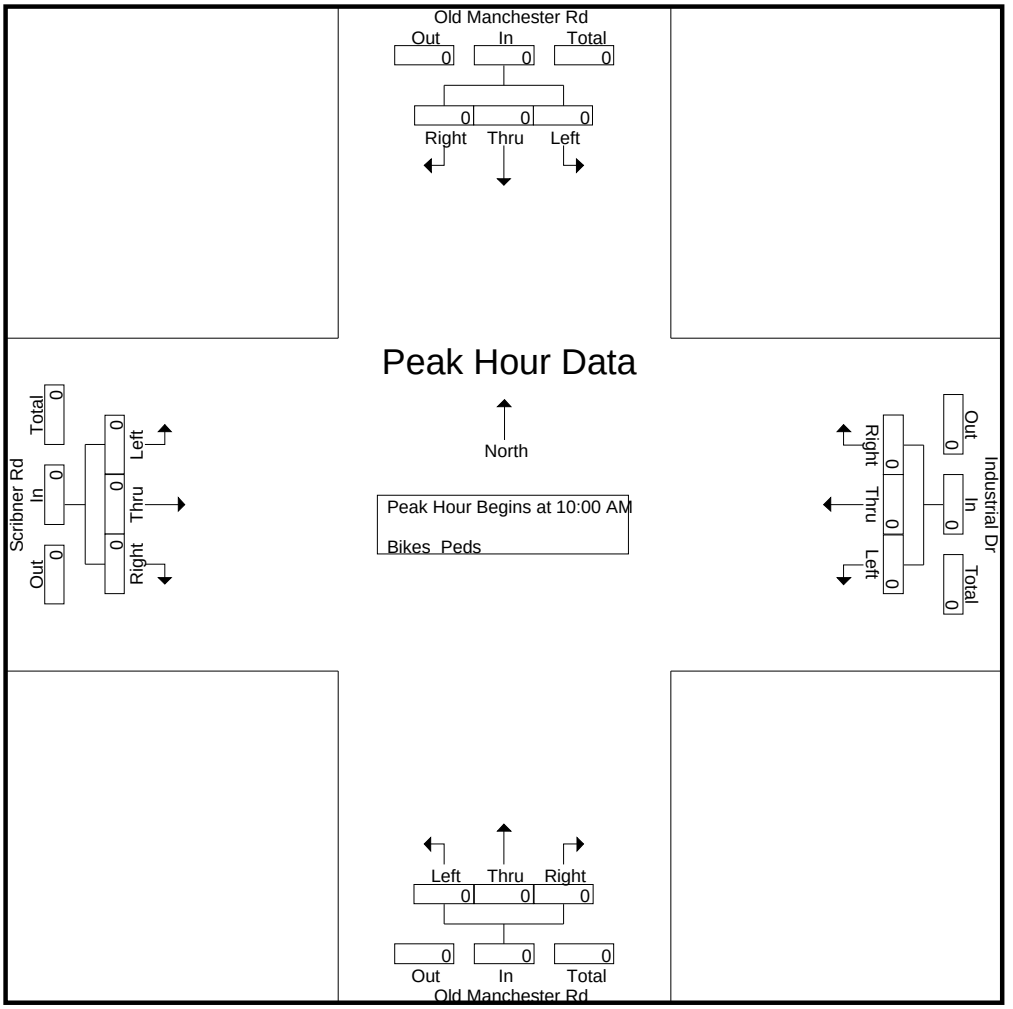


Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 10:00 AM

10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 29

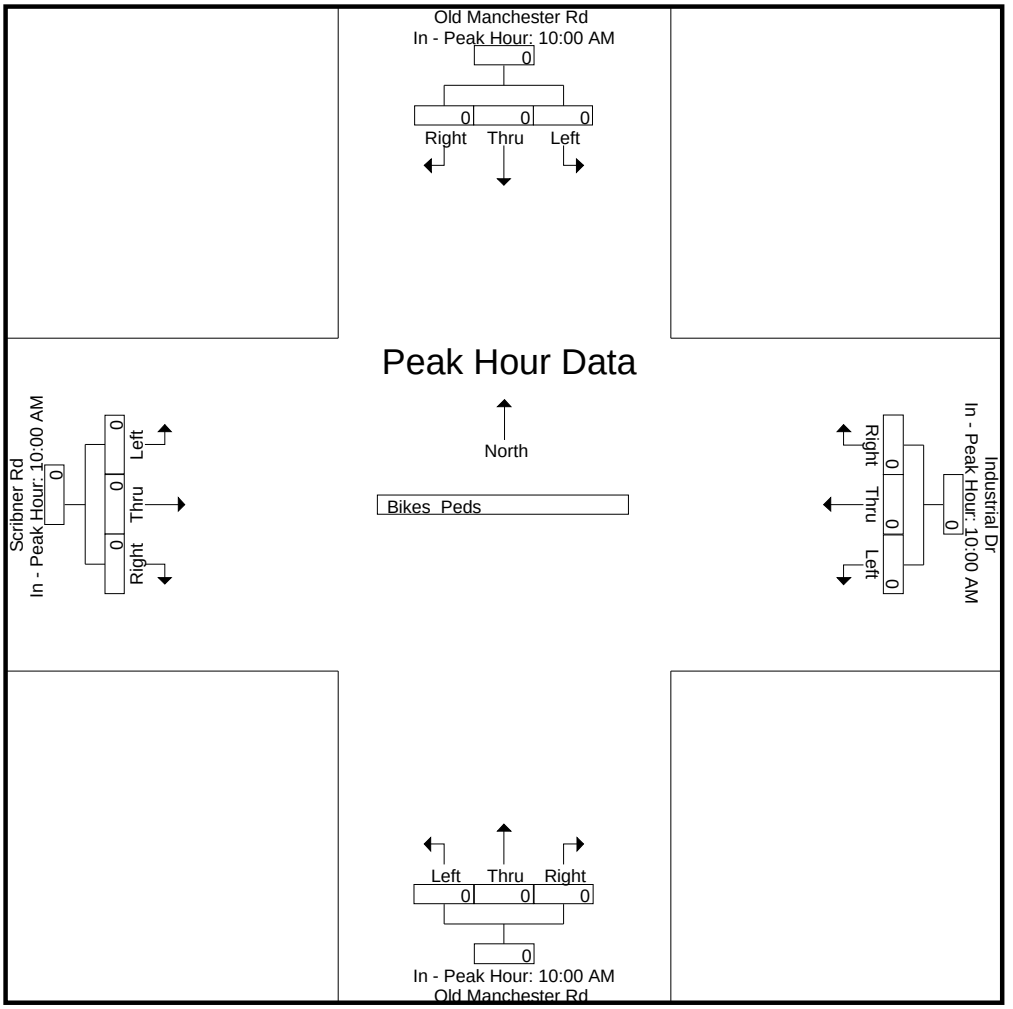


Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	10:00 AM				10:00 AM				10:00 AM				10:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 30



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 02:30 PM

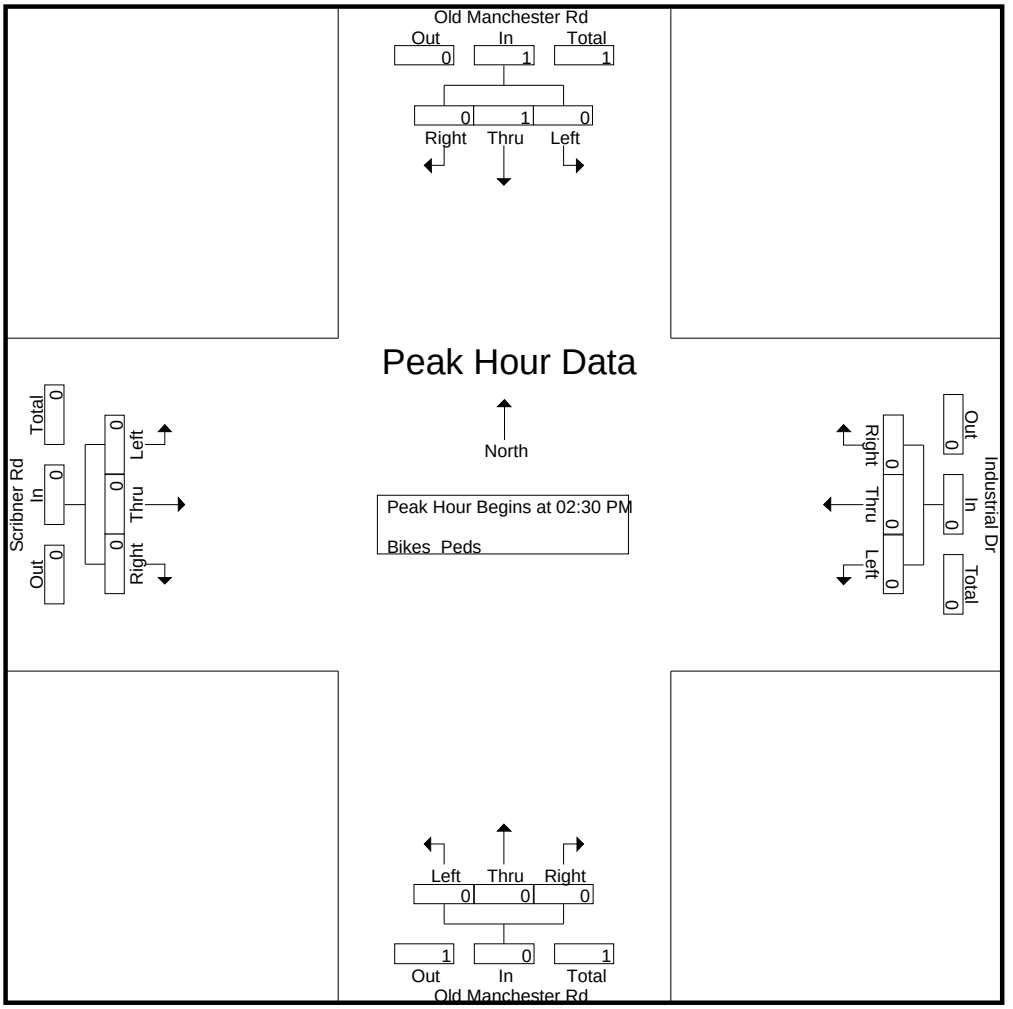
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 31



Peak Hour Analysis From 02:00 PM to 07:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

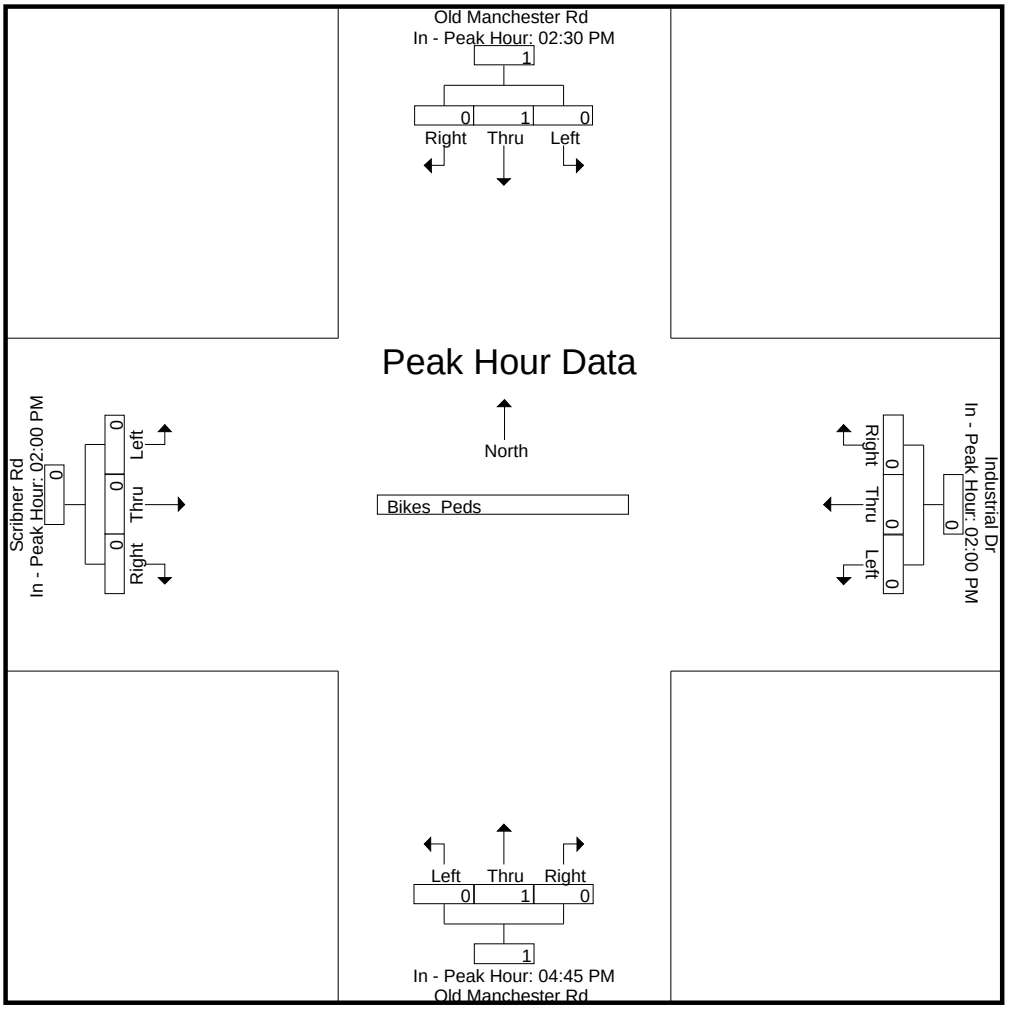
	02:30 PM				02:00 PM				04:45 PM				02:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	**1**	0	**1**	0	0	0	0	0	**1**	0	**1**	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

Accurate Counts

978-664-2565

N/S Street : Old Manchester Road
E/W Street : Industrial Dr / Scribner Rd
City/State : Raymond, NH
Weather : Clear

File Name : 94190001
Site Code : 94190001
Start Date : 7/14/2022
Page No : 32



MOTOR VEHICLE CRASH DATA

For Date: 02/13/2019 - Wednesday

Call Number	Time	Call Reason	Action	Priority	Duplicate
19-2739	0850	911 - Accident - Property Damage	Summons issued	2	

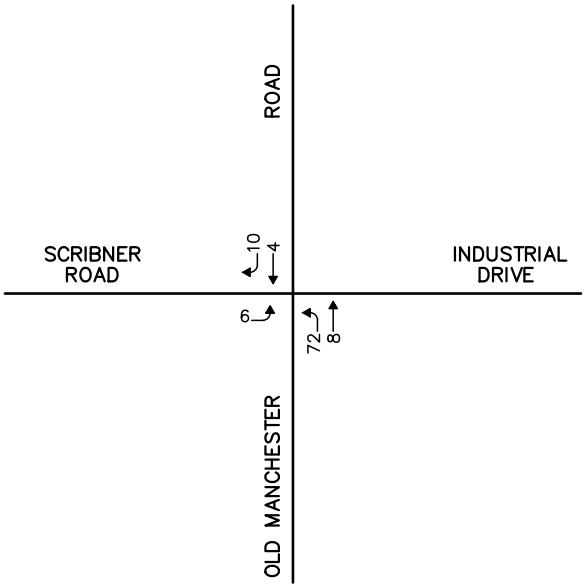
Call Taker: 1685 - MEALEY, EDWARD
Call Modified By: 1822 - CROSS, ASHLEY
Location/Address: HEADING TOWARD OLD MANCHESTER RD - BATCHELDER RD
Party Entered By: 02/13/2019 0857 1685 - MEALEY, EDWARD
Modified By: 02/13/2019 0900 1685 - MEALEY, EDWARD
Calling Party: CARNEVALE, KEVIN @ 355 HAVERHILL RD - CHESTER, NH 03036 603-418-5364
SSN: DOB: Race: W Sex: M
ID: 1929 - DRAKE, MICHAEL
Disp-08:50:00 Arvd-08:54:55 Clrd-09:19:13
Vehicle Entered By: 02/13/2019 0859 1685 - MEALEY, EDWARD
Modified By: 02/13/2019 0904 1685 - MEALEY, EDWARD
Vehicle: WHI 2015 FORD VN TRANSIT Reg: PC NH 3202732 VIN: 1FTNR2CG7FKA16774
Operator: KING, SHAWN @ 3 CENTURY DR - RAYMOND, NH 03077
SSN: DOB: Race: W Sex: M
Refer To Citation: DS033405
Owner: ADEK TECHNICAL SALES INC @ 3 INFINITY DR - RAYMOND, NH 03077
Vehicle Entered By: 02/13/2019 0859 1685 - MEALEY, EDWARD
Modified By: 02/13/2019 0901 1685 - MEALEY, EDWARD
Vehicle: SIL 2017 GMC CANYON Reg: PC NH 2622842 VIN: 1GTG6CEN1H1168237
Operator: CARNEVALE, KEVIN @ 355 HAVERHILL RD - CHESTER, NH 03036
SSN: DOB: Race: W Sex: M
Owner: RB ALLEN COMPANY INC @ 131 LAFAYETTE RD - N HAMPTON, NH 03862
Narrative: **02/13/2019 0857 MEALEY, EDWARD**
Modified By: **02/13/2019 0900 MEALEY, EDWARD**

CALLER REPORTING THAT HE IS BEHIND A VAN THAT HAS ICE ON THE ROOF THAT FLEW OFF AND DAMAGED HIS WINDSHIELD, LAST SEEN TURNING DOWN INDUSTRIAL DR AND STOPPED AT ADEK

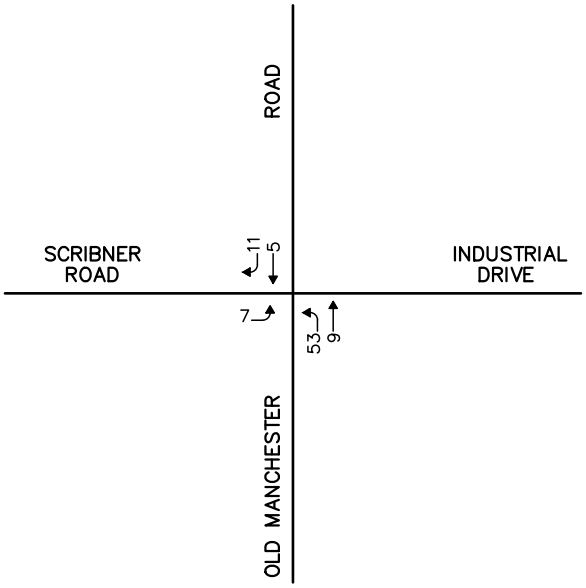
Refer To Incident: 19-135-OF

BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS AND CALCULATIONS

WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)



Not To Scale

Figure A-1

Proposed Convenience Store and Fueling Facility
Peak-Hour Traffic Volumes

Vanasse & Associates inc

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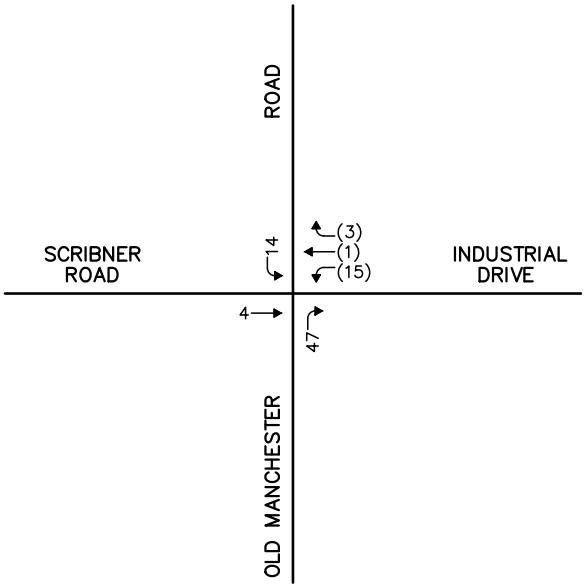
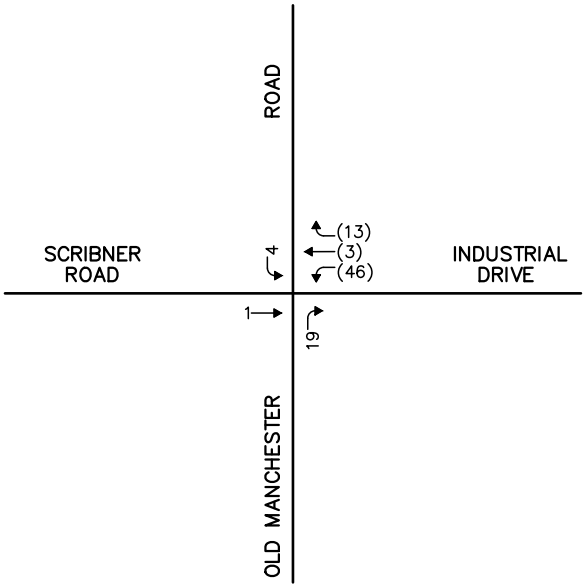
WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)



Not To Scale

Figure A-2

Project-Generated Peak-Hour Traffic Volumes

Vanasse & Associates inc

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Warehousing
(150)

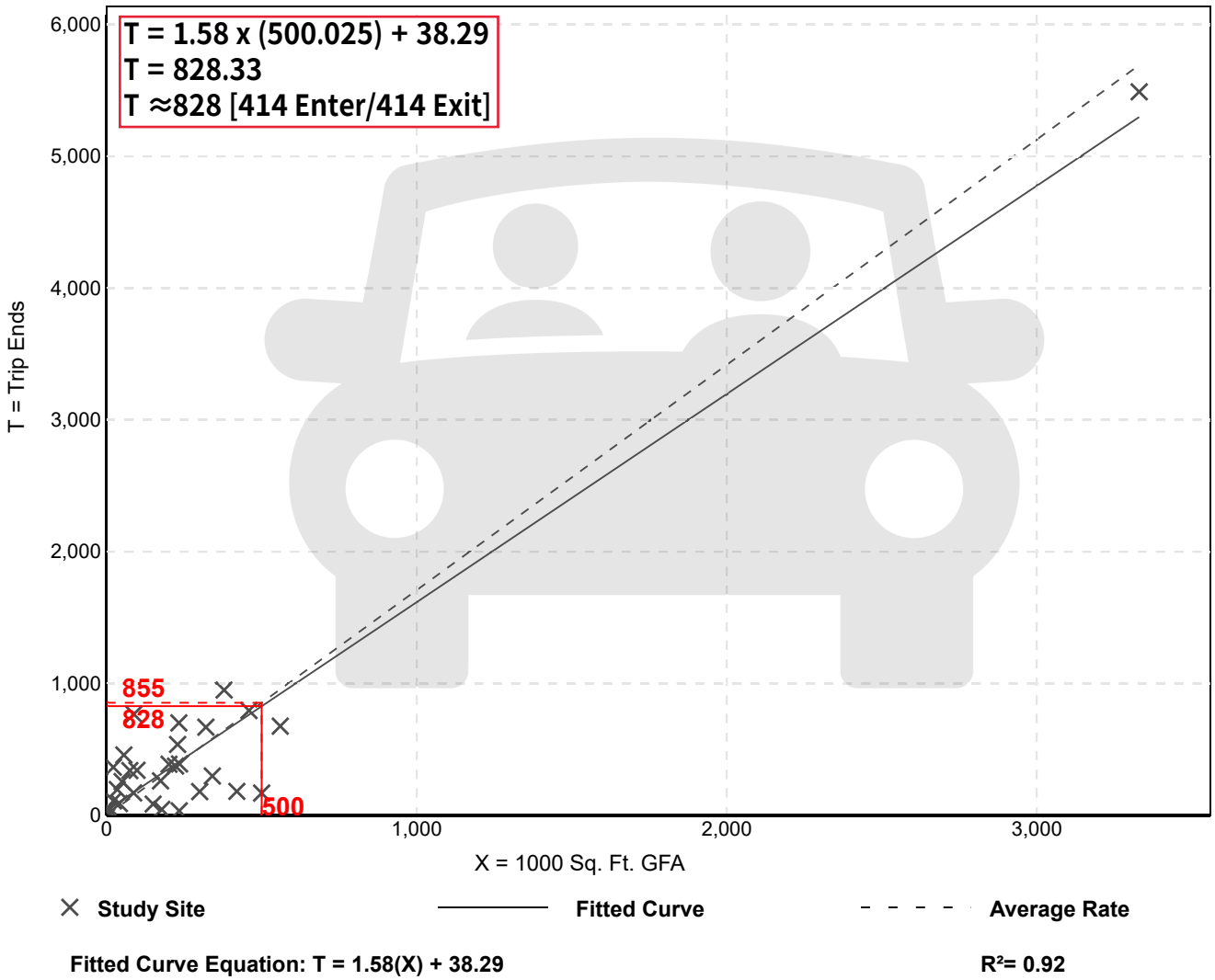
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. 1000 Sq. Ft. GFA: 292
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.71	0.15 - 16.93	1.48

Data Plot and Equation



Fitted Curve Equation: T = 1.58(X) + 38.29

R^2= 0.92

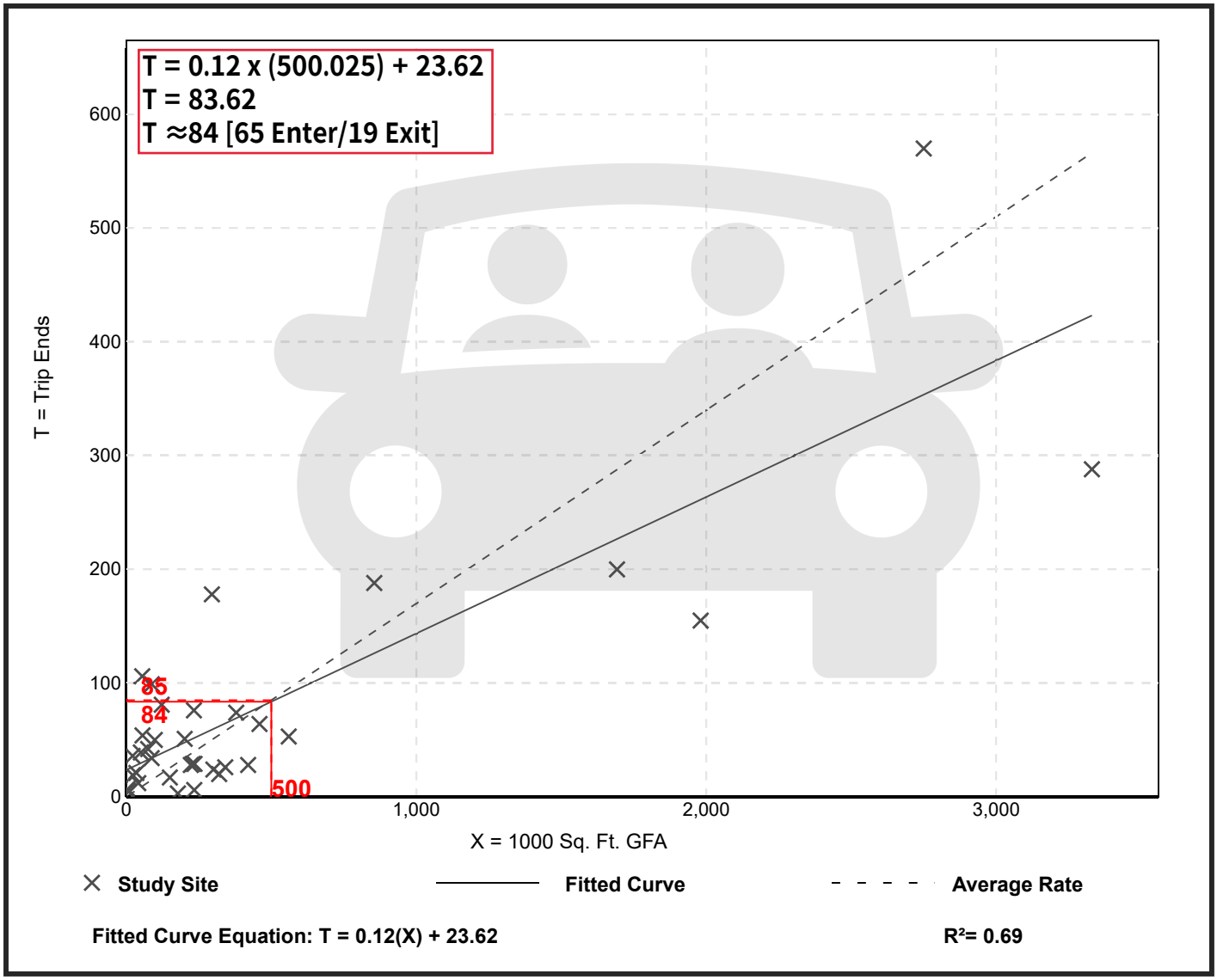
Warehousing
(150)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	36
Avg. 1000 Sq. Ft. GFA:	448
Directional Distribution:	77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

Data Plot and Equation



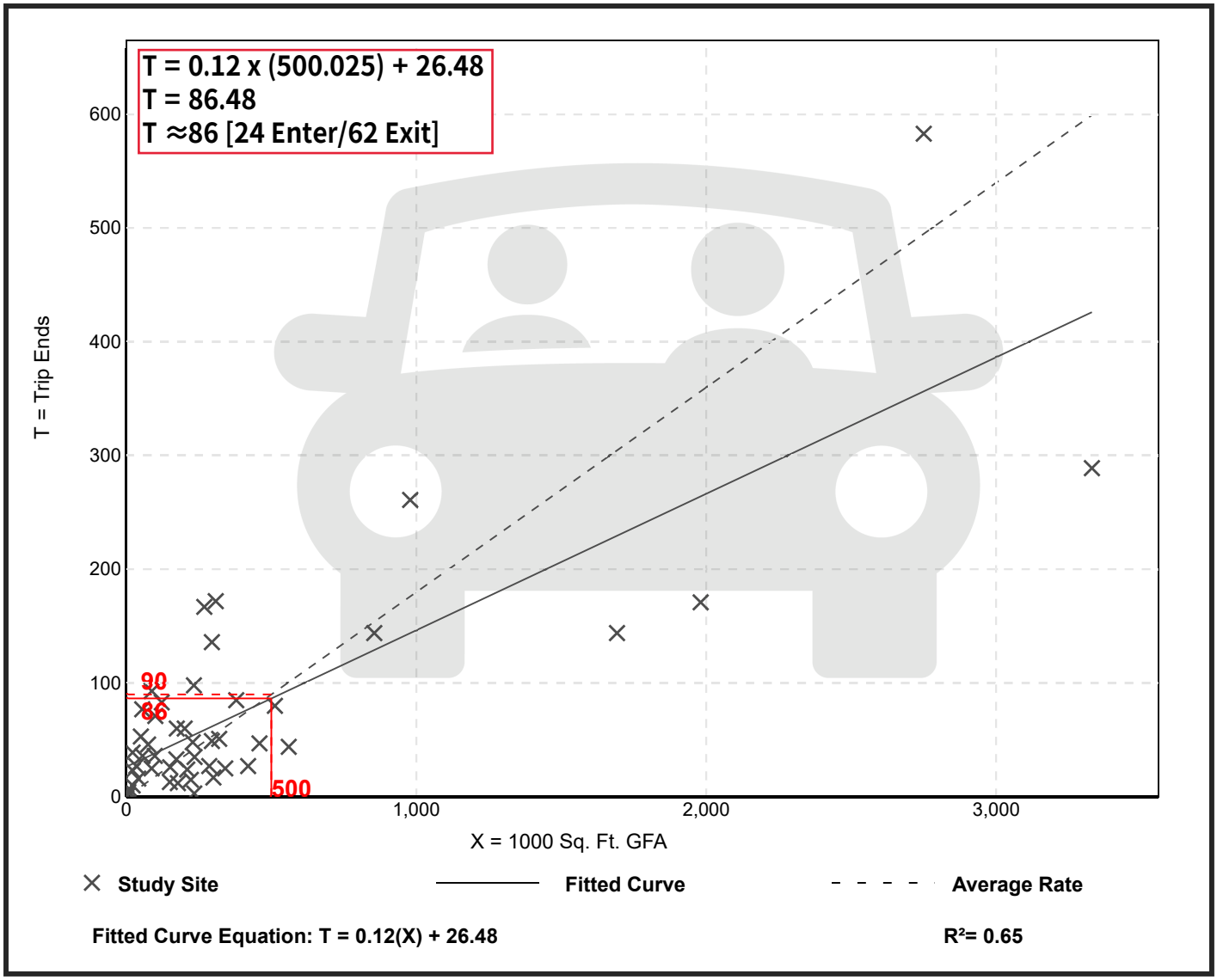
Warehousing
(150)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	49
Avg. 1000 Sq. Ft. GFA:	400
Directional Distribution:	28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

Data Plot and Equation



Warehousing
(150)

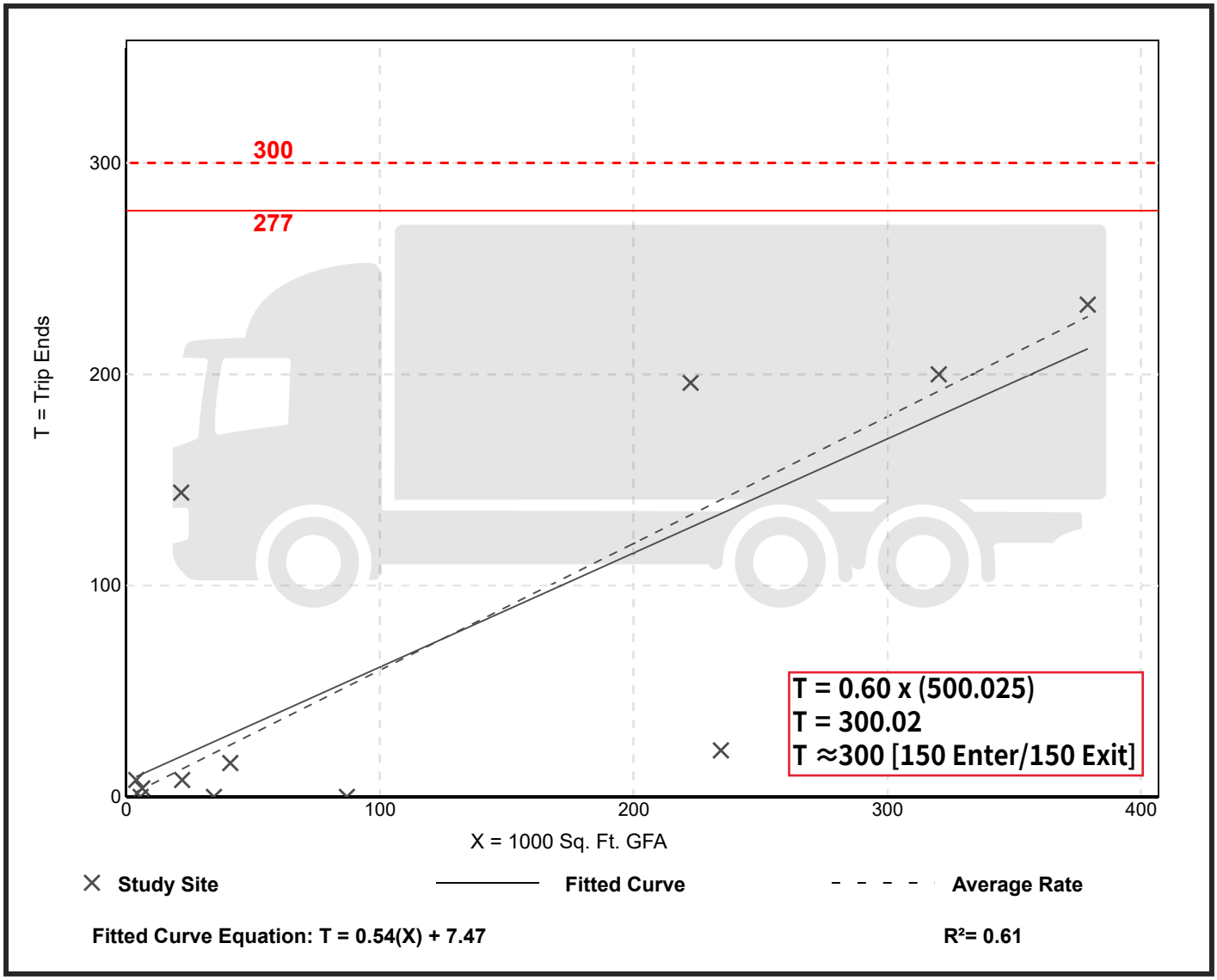
Truck Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 12
Avg. 1000 Sq. Ft. GFA: 115
Directional Distribution: 50% entering, 50% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.60	0.00 - 6.66	0.86

Data Plot and Equation



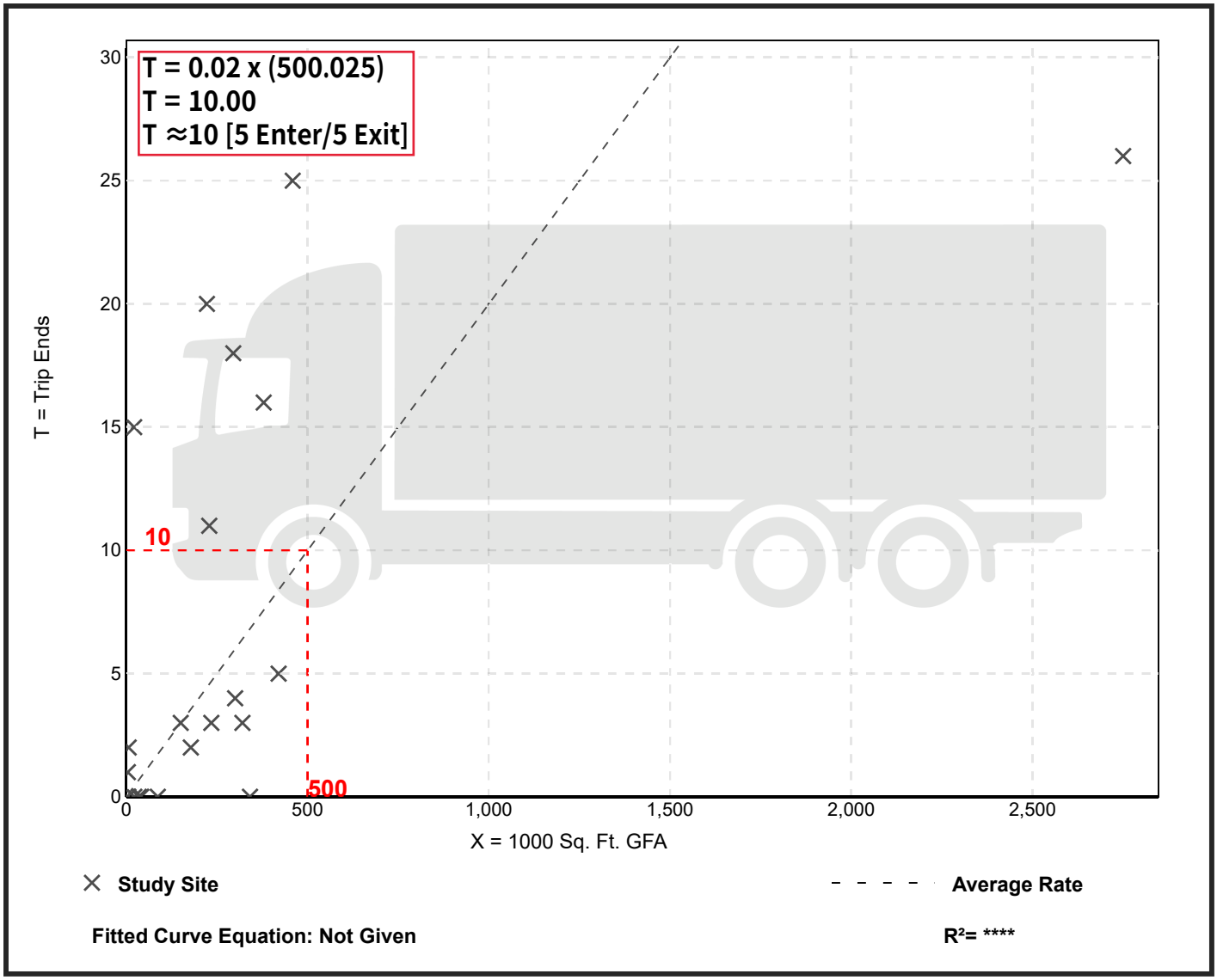
Warehousing
(150)

Truck Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	21
Avg. 1000 Sq. Ft. GFA:	309
Directional Distribution:	52% entering, 48% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.02	0.00 - 0.69	0.05

Data Plot and Equation



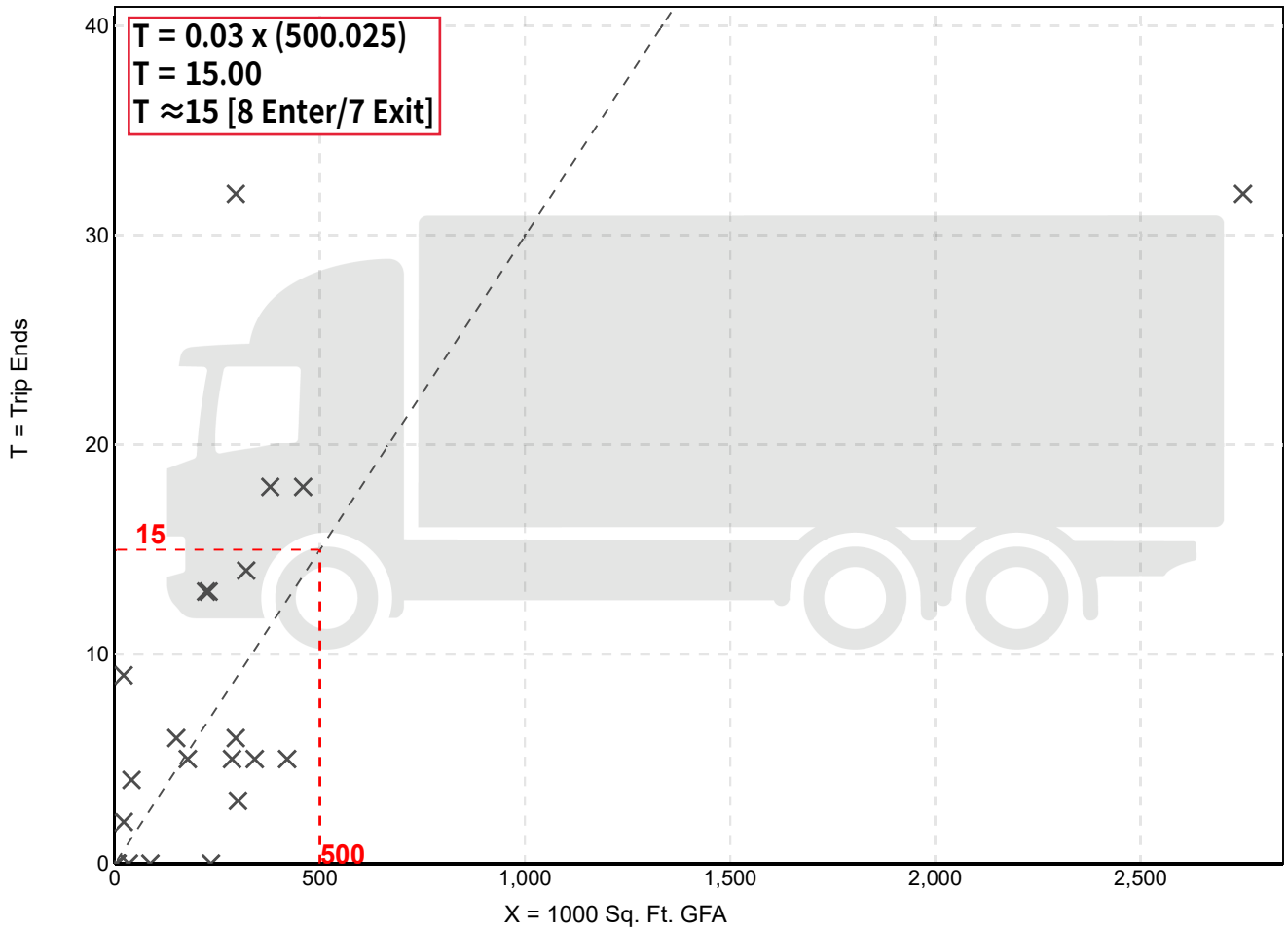
Warehousing
(150)

Truck Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	23
Avg. 1000 Sq. Ft. GFA:	308
Directional Distribution:	52% entering, 48% exiting

Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.03	0.00 - 0.42	0.03

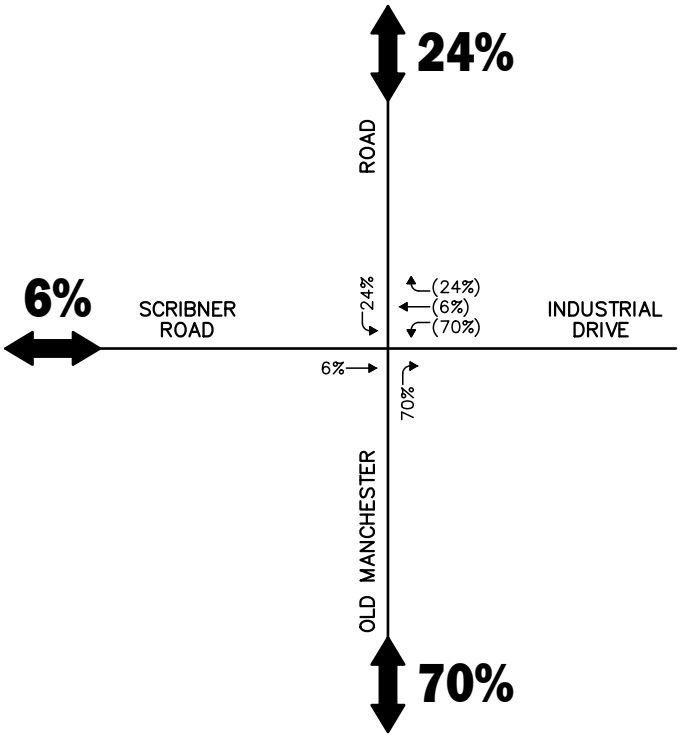
Data Plot and Equation



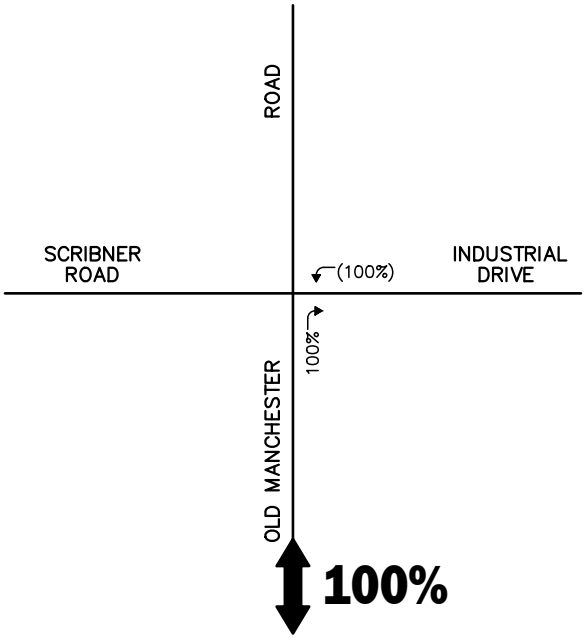
Fitted Curve Equation: Not Given

R^2= ****

VEHICLE TRIP DISTRIBUTION



TRUCK TRIP DISTRIBUTION



Not To Scale

Figure A-3

Trip Distribution Maps

Vanasse & Associates inc

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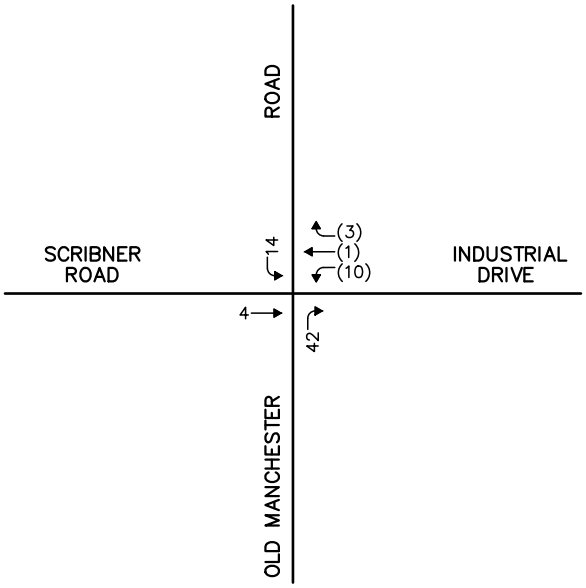
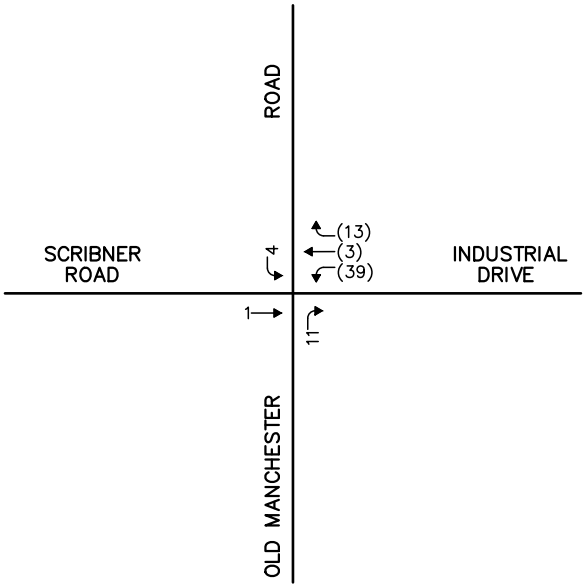
WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)



Not To Scale

Figure A-4

Project-Generated Peak-Hour Passenger Car Trips

Vanasse & Associates inc

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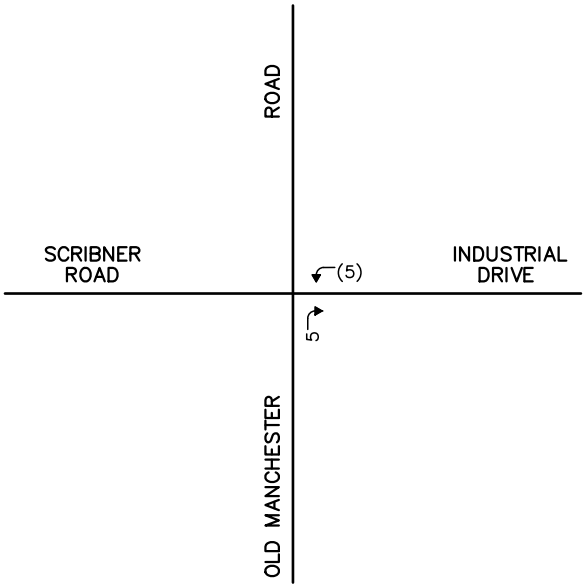
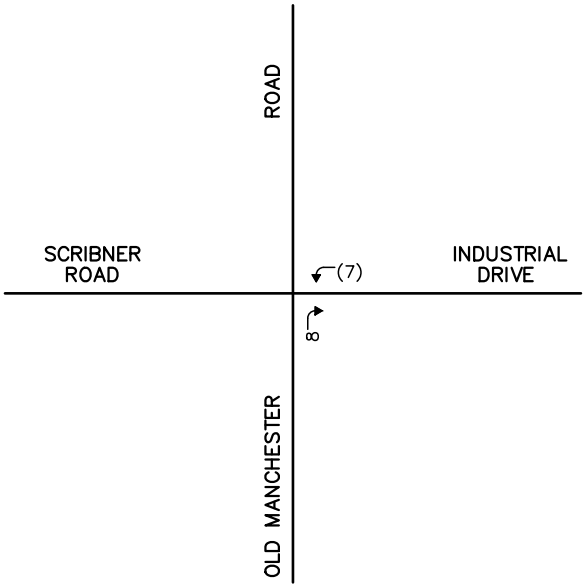
WEEKDAY MORNING PEAK HOUR (7:15 - 8:15 AM)



WEEKDAY EVENING PEAK HOUR (4:00 - 5:00 PM)



Not To Scale

Figure A-5

Project-Generated Peak-Hour Truck Trips

Vanasse & Associates inc

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GENERAL BACKGROUND TRAFFIC GROWTH

General Background Traffic Growth - Daily Traffic Volumes

CITY/TOWN	ROUTE/STREET	LOCATION	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Annual Growth Rate
Raymond	Scribner Road	East of Gile Road		1,500			1,600	1,635	1,684	1,661	1,694	1,728	1,533	**0.37%**
Raymond	Old Manchester Road	West of Wight Street	2,900			3,200			2,900	2,958	3,017	3,061	3,098	**0.69%**
Raymond	Main Street	Over Lamprey River		3,600			3,500	3,577	3,684	3,687	3,761	3,836	3,432	**0.25%**
Raymond	NH Route 101 E	Between Exits 4-5	36,600			37,000			41,000	41,820	42,656	43,951	44,478	**2.22%**
Raymond	Langford Road	Over Lamprey River		1,200			1,100	1,124	1,158	1,359	1,386	1,414	1,192	**2.36%**
Raymond	NH Route 27	East of Main Street							6,500	6,630	6,763	6,397	6,474	**-0.36%**
														0.92%

TRAFFIC SIGNAL WARRANTS ANALYSIS

HCS7 Warrants Report

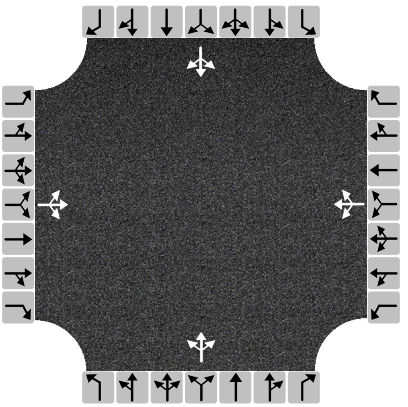
Project Information

Analyst	AJA	Date	9/15/2022
Agency	Vanasse & Assoc., Inc.	Analysis Year	2022
Jurisdiction	Raymond, NH	Time Period Analyzed	2022 Existing
Project Description	Proposed Warehouse/Distribution Facility – Industrial Drive		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	40	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	0		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane Usage		LTR			LTR			LTR			LTR	
Vehicle Volumes Averages (veh/h)	18	3	39	18	4	7	39	75	15	5	76	21
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)		Tractor-Trailer Trucks (%)	10

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HCS7 Warrants Report

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)	4A (100%)	4B (100%)
07 - 08	254	114	396	0	0	No	No	No	No	No	No	No	No	No
08 - 09	224	68	314	0	0	No	No	No	No	No	No	No	No	No
09 - 10	173	60	254	0	0	No	No	No	No	No	No	No	No	No
10 - 11	182	60	271	0	0	No	No	No	No	No	No	No	No	No
11 - 12	190	52	275	0	0	No	No	No	No	No	No	No	No	No
12 - 13	205	56	308	0	0	No	No	No	No	No	No	No	No	No
13 - 14	190	45	267	0	0	No	No	No	No	No	No	No	No	No
14 - 15	232	50	321	0	0	No	No	No	No	No	No	No	No	No
15 - 16	284	71	402	0	0	No	No	No	No	No	No	No	No	No
16 - 17	366	53	464	0	0	No	No	No	No	No	No	No	No	No
17 - 18	317	64	390	0	0	No	No	No	No	No	No	No	No	No
18 - 19	181	54	242	0	0	No	No	No	No	No	No	No	No	No
Total	2798	747	3904	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

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HCS7 Warrants Report

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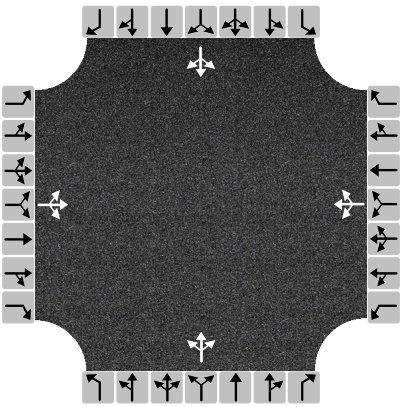
Nearest Signal (ft)	0		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	0	1	0	0	1	0
Lane Usage		LTR			LTR			LTR			LTR	
Vehicle Volumes Averages (veh/h)	18	4	57	40	5	12	62	99	39	10	87	51
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)		Tractor-Trailer Trucks (%)	10

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HCS7 Warrants Report

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)	4A (100%)	4B (100%)
07 - 08	369	132	552	0	0	No	No	No	No	No	No	No	No	No
08 - 09	345	88	477	0	0	No	No	No	No	No	No	No	No	No
09 - 10	297	78	422	0	0	No	No	No	No	No	No	No	No	No
10 - 11	286	76	423	0	0	No	No	No	No	No	No	No	No	No
11 - 12	310	70	449	0	0	No	No	No	No	No	No	No	No	No
12 - 13	339	77	491	0	0	No	No	No	No	No	No	No	No	No
13 - 14	310	63	431	0	0	No	No	No	No	No	No	No	No	No
14 - 15	350	69	482	0	0	No	No	No	No	No	No	No	No	No
15 - 16	419	92	598	0	0	No	No	No	No	No	No	No	No	No
16 - 17	482	79	634	0	0	No	No	No	No	No	No	No	No	No
17 - 18	433	85	556	0	0	No	No	No	No	No	No	No	No	No
18 - 19	264	70	358	0	0	No	No	No	No	No	No	No	No	No
Total	4204	979	5873	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

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HCS7 Warrants Report

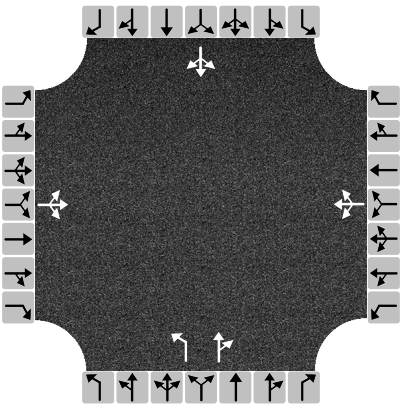
Project Information

Analyst	AJA	Date	9/15/2022
Agency	Vanasse & Assoc., Inc.	Analysis Year	2022
Jurisdiction	Raymond, NH	Time Period Analyzed	2022 Existing
Project Description	Proposed Warehouse/Distribution Facility – Industrial Drive		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	40	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	0		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	1	1	0	0	1	0
Lane Usage		LTR			LTR		L	TR			LTR	
Vehicle Volumes Averages (veh/h)	20	5	61	42	5	13	66	106	41	10	96	53
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)		Tractor-Trailer Trucks (%)	10

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HCS7 Warrants Report

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (100%)	4A (100%)	4B (100%)
07 - 08	394	144	593	0	0	No	No	No	No	No	No	No	No	No
08 - 09	369	95	511	0	0	No	No	No	No	No	No	No	No	No
09 - 10	315	84	447	0	0	No	No	No	No	No	No	No	No	No
10 - 11	305	82	452	0	0	No	No	No	No	No	No	No	No	No
11 - 12	331	75	479	0	0	No	No	No	No	No	No	No	No	No
12 - 13	361	83	524	0	0	No	No	No	No	No	No	No	No	No
13 - 14	330	69	460	0	0	No	No	No	No	No	No	No	No	No
14 - 15	375	74	516	0	0	No	No	No	No	No	No	No	No	No
15 - 16	446	99	637	0	0	No	No	No	No	No	No	No	No	No
16 - 17	520	83	682	0	0	No	No	No	No	No	No	No	No	No
17 - 18	466	92	597	0	0	No	No	No	No	No	No	No	No	No
18 - 19	282	76	382	0	0	No	No	No	No	No	No	No	No	No
Total	4494	1056	6280	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

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AUXILLIARY TURN LANE WARRANTS ANALYSIS

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

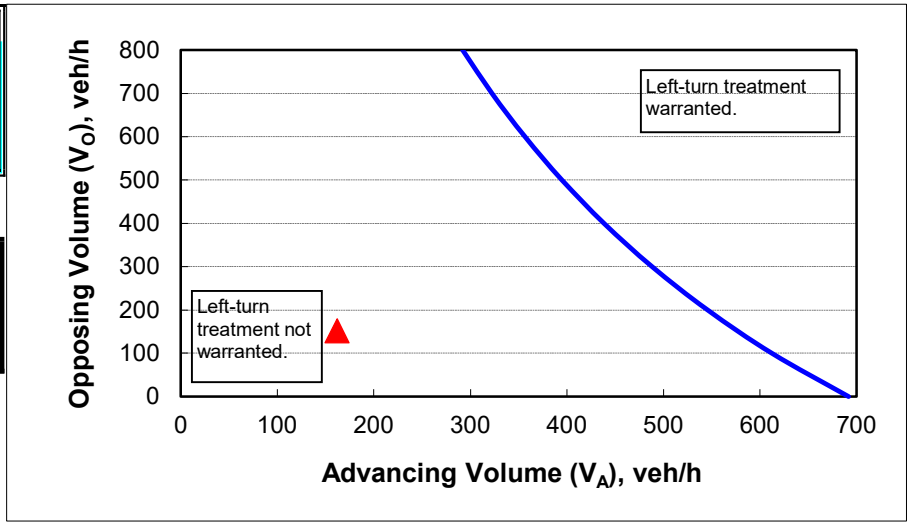
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	7%
Advancing volume (V_A), veh/h:	162
Opposing volume (V_O), veh/h:	152

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	576
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

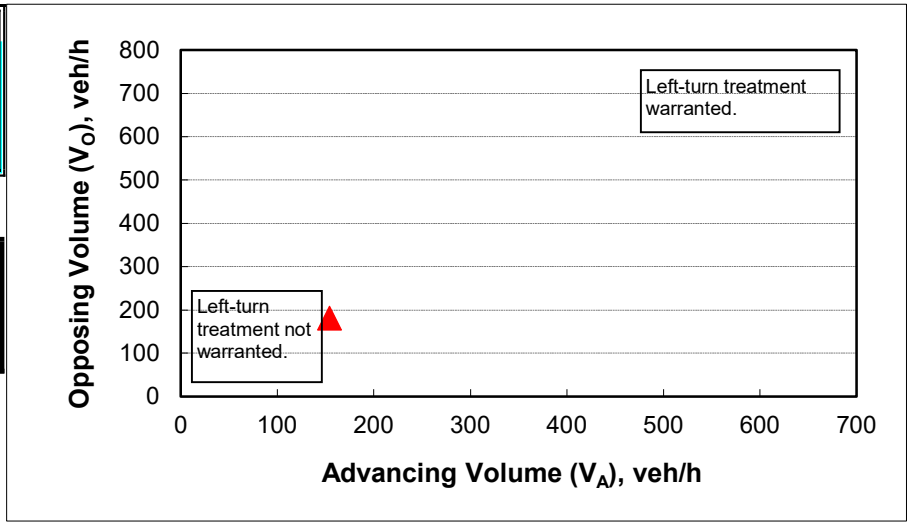
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	154
Opposing volume (V_O), veh/h:	181

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1817
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

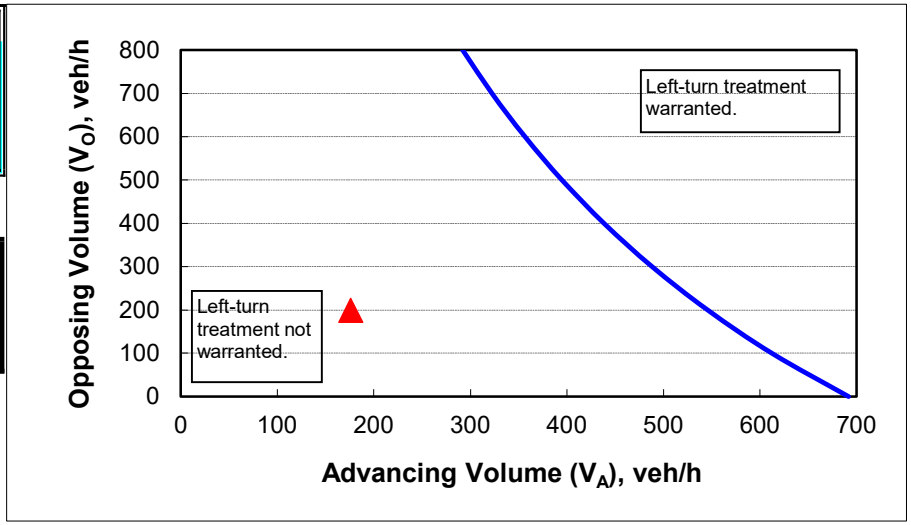
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	14%
Advancing volume (V_A), veh/h:	176
Opposing volume (V_O), veh/h:	199

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	576
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

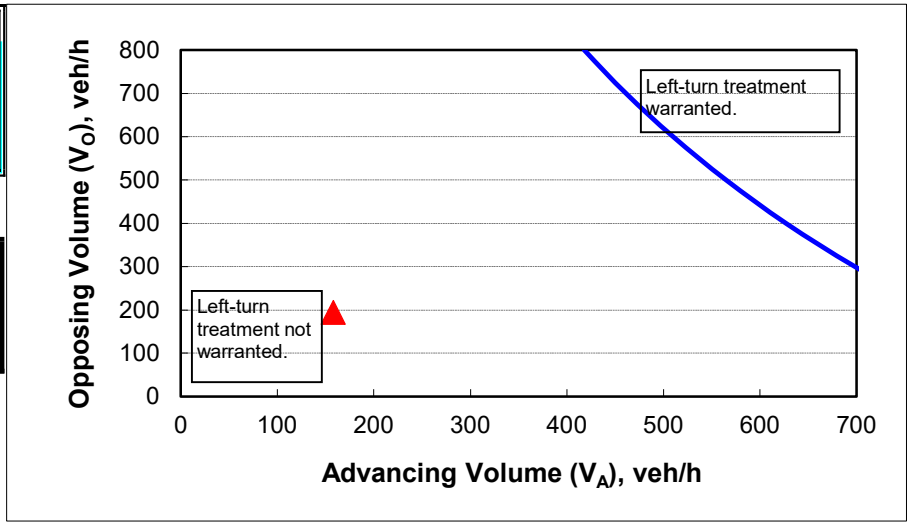
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	158
Opposing volume (V_O), veh/h:	194

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	785
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

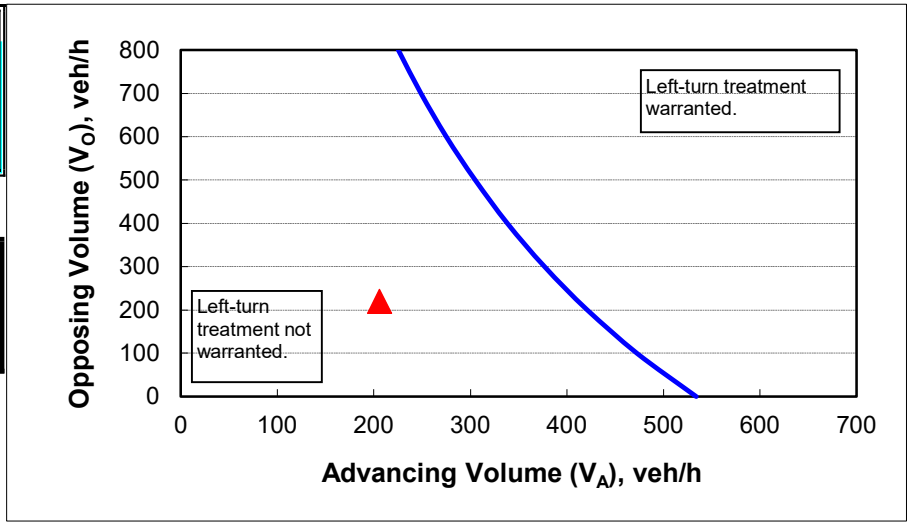
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	12%
Advancing volume (V_A), veh/h:	206
Opposing volume (V_O), veh/h:	220

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	412
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

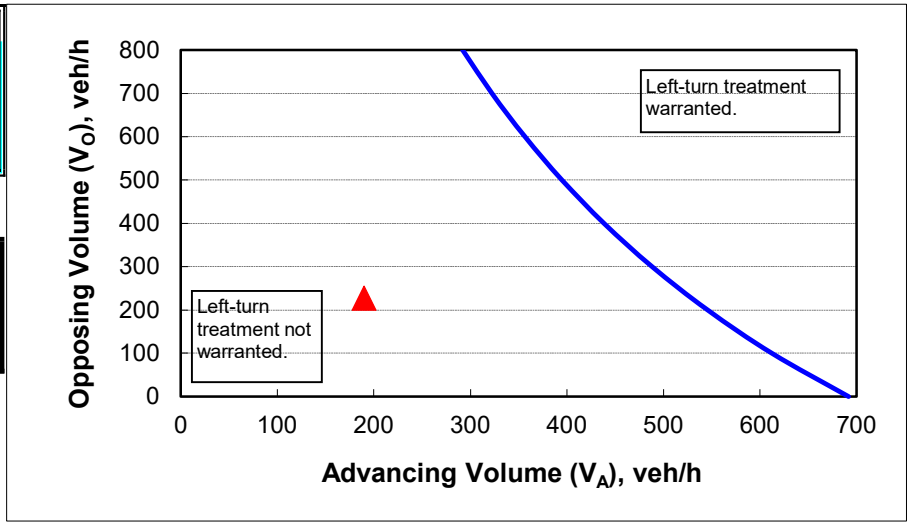
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	40
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	190
Opposing volume (V_O), veh/h:	227

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	576
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	174
Right-turn volume, veh/h:	32

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1428
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

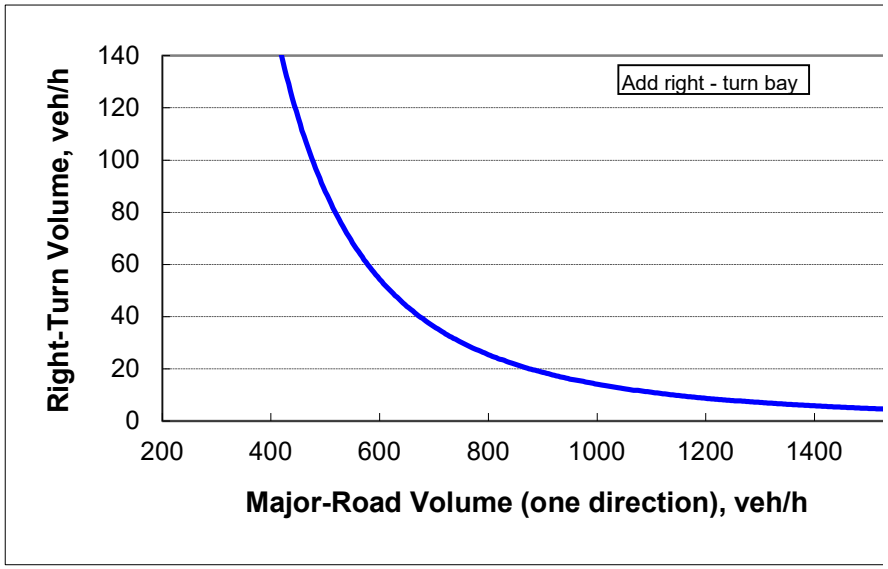


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadw ay

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	280
Right-turn volume, veh/h:	8

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	406
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

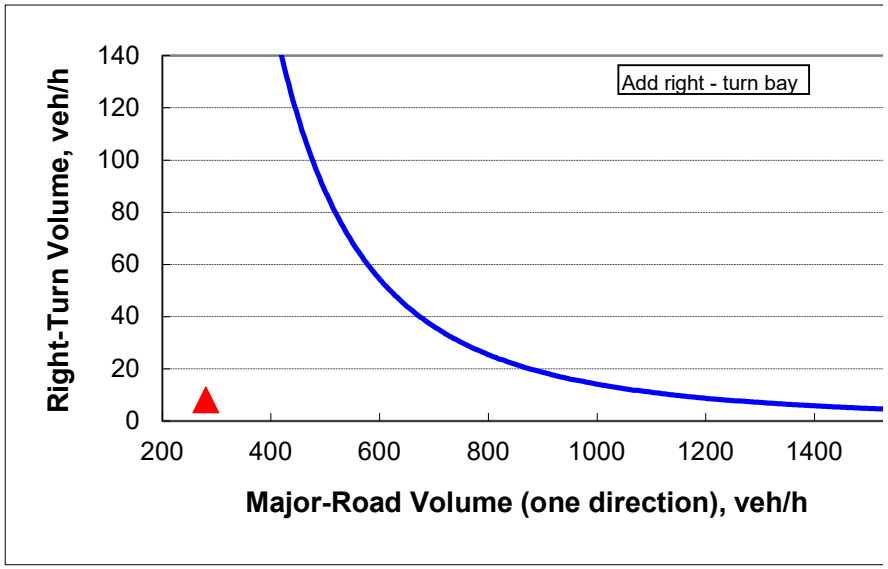


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	221
Right-turn volume, veh/h:	79

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1428
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

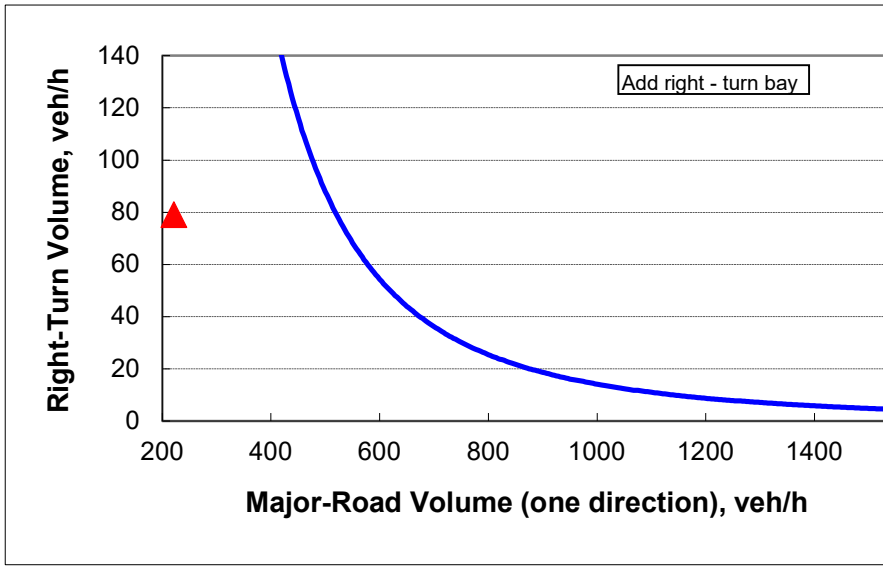


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	299
Right-turn volume, veh/h:	27

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	342
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

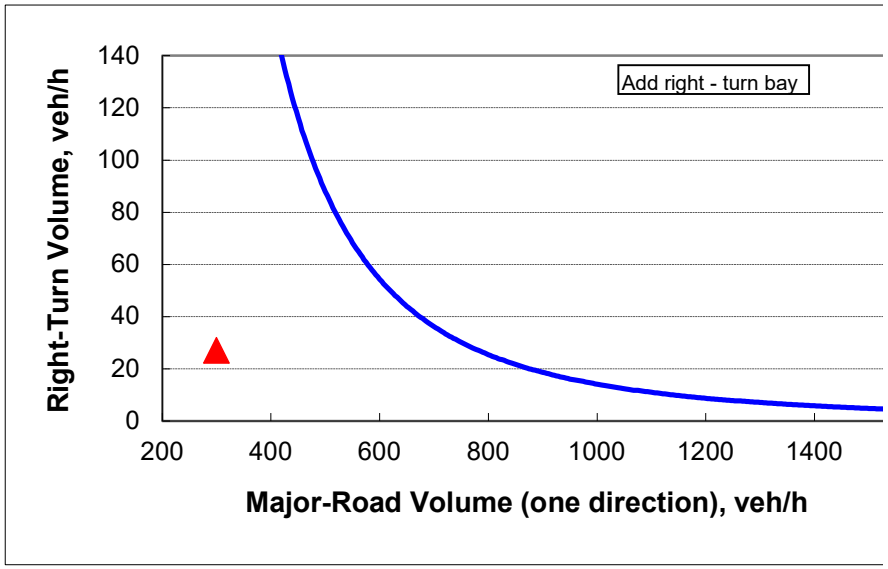


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	316
Right-turn volume, veh/h:	79

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	295
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

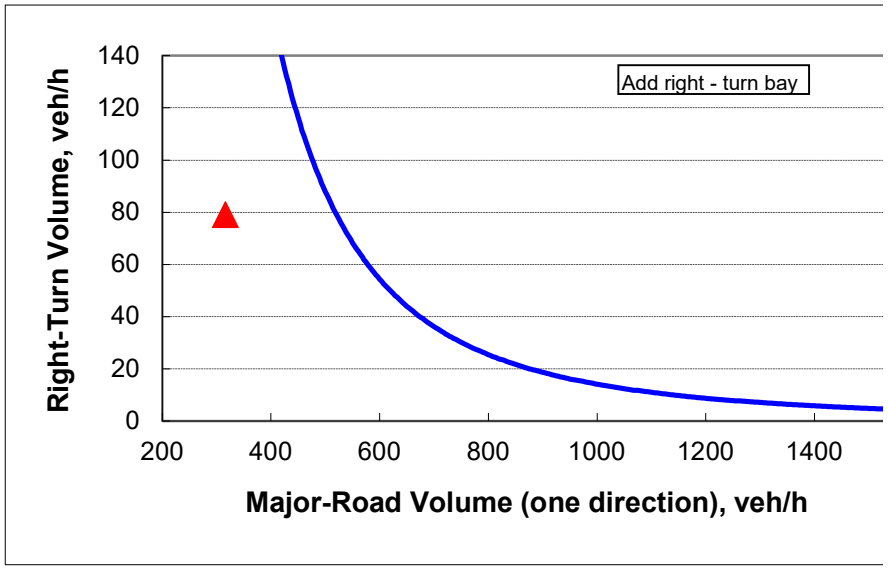


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

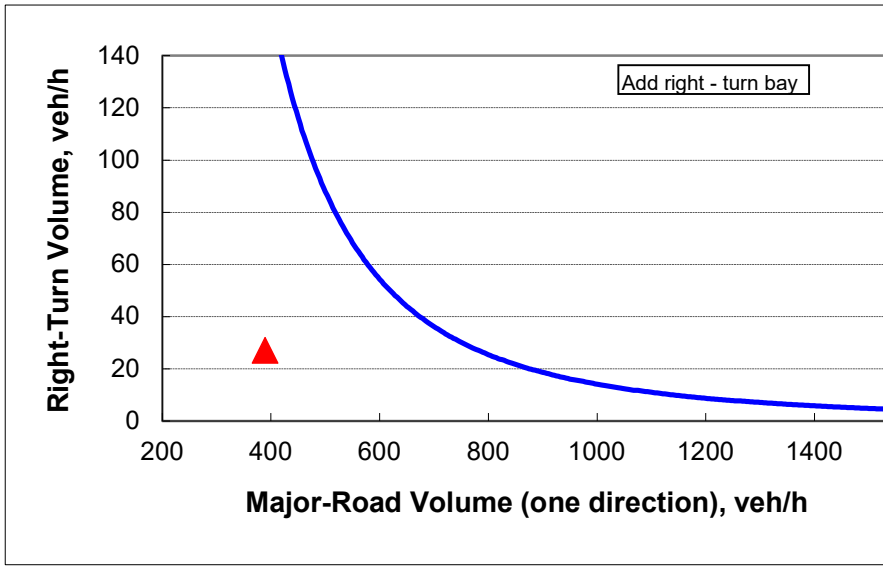
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	40
Major-road volume (one direction), veh/h:	389
Right-turn volume, veh/h:	27

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	171
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



CAPACITY ANALYSIS WORKSHEETS

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	6	85	18	6	10	22	120	32	11	133	18
Future Vol, veh/h	35	6	85	18	6	10	22	120	32	11	133	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	75	75	75	91	91	91	76	76	76
Heavy Vehicles, %	0	60	0	75	80	11	5	2	28	10	0	0
Mvmt Flow	43	7	104	24	8	13	24	132	35	14	175	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	423	430	187	469	425	150	199	0	0	167	0	0
Stage 1	215	215	-	198	198	-	-	-	-	-	-	-
Stage 2	208	215	-	271	227	-	-	-	-	-	-	-
Critical Hdwy	7.1	7.1	6.2	7.85	7.3	6.31	4.15	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.54	3.3	4.175	4.72	3.399	2.245	-	-	2.29	-	-
Pot Cap-1 Maneuver	545	440	860	402	420	873	1356	-	-	1364	-	-
Stage 1	792	629	-	662	612	-	-	-	-	-	-	-
Stage 2	799	629	-	600	593	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	516	426	860	340	407	873	1356	-	-	1364	-	-
Mov Cap-2 Maneuver	516	426	-	340	407	-	-	-	-	-	-	-
Stage 1	776	621	-	649	600	-	-	-	-	-	-	-
Stage 2	761	616	-	515	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	14.4	1	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1356	-	-	697	430	1364	-	-
HCM Lane V/C Ratio	0.018	-	-	0.22	0.105	0.011	-	-
HCM Control Delay (s)	7.7	0	-	11.6	14.4	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.4	0	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	19	0	43	39	0	14	99	173	8	1	116	37
Future Vol, veh/h	19	0	43	39	0	14	99	173	8	1	116	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	71	71	71	92	92	92	58	58	58
Heavy Vehicles, %	0	0	0	0	0	0	1	0	43	0	3	0
Mvmt Flow	23	0	52	55	0	20	108	188	9	2	200	64

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	655	649	232	671	677	193	264	0	0	197	0	0
Stage 1	236	236	-	409	409	-	-	-	-	-	-	-
Stage 2	419	413	-	262	268	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	382	391	812	373	377	854	1306	-	-	1388	-	-
Stage 1	772	713	-	623	600	-	-	-	-	-	-	-
Stage 2	616	597	-	747	691	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	346	354	812	324	341	854	1306	-	-	1388	-	-
Mov Cap-2 Maneuver	346	354	-	324	341	-	-	-	-	-	-	-
Stage 1	700	712	-	565	544	-	-	-	-	-	-	-
Stage 2	546	541	-	697	690	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	16.5	2.8	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1306	-	-	575	388	1388	-	-
HCM Lane V/C Ratio	0.082	-	-	0.131	0.192	0.001	-	-
HCM Control Delay (s)	8	0	-	12.2	16.5	7.6	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5	0.7	0	-	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	10	85	33	7	13	22	120	79	25	133	18
Future Vol, veh/h	35	10	85	33	7	13	22	120	79	25	133	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	75	75	75	91	91	91	76	76	76
Heavy Vehicles, %	0	60	0	75	80	11	5	2	28	10	0	0
Mvmt Flow	43	12	104	44	9	17	24	132	87	33	175	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	490	520	187	535	489	176	199	0	0	219	0	0
Stage 1	253	253	-	224	224	-	-	-	-	-	-	-
Stage 2	237	267	-	311	265	-	-	-	-	-	-	-
Critical Hdwy	7.1	7.1	6.2	7.85	7.3	6.31	4.15	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.54	3.3	4.175	4.72	3.399	2.245	-	-	2.29	-	-
Pot Cap-1 Maneuver	492	388	860	360	383	844	1356	-	-	1304	-	-
Stage 1	756	603	-	639	595	-	-	-	-	-	-	-
Stage 2	771	594	-	568	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	455	369	860	297	365	844	1356	-	-	1304	-	-
Mov Cap-2 Maneuver	455	369	-	297	365	-	-	-	-	-	-	-
Stage 1	741	586	-	626	583	-	-	-	-	-	-	-
Stage 2	728	582	-	475	552	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	17.3	0.8	1.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1356	-	-	641	364	1304	-	-
HCM Lane V/C Ratio	0.018	-	-	0.247	0.194	0.025	-	-
HCM Control Delay (s)	7.7	0	-	12.5	17.3	7.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	1	43	85	3	27	99	173	27	5	116	37
Future Vol, veh/h	19	1	43	85	3	27	99	173	27	5	116	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	71	71	71	92	92	92	58	58	58
Heavy Vehicles, %	0	0	0	0	0	0	1	0	43	0	3	0
Mvmt Flow	23	1	52	120	4	38	108	188	29	9	200	64

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	690	683	232	696	701	203	264	0	0	217	0	0
Stage 1	250	250	-	419	419	-	-	-	-	-	-	-
Stage 2	440	433	-	277	282	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	362	374	812	359	365	843	1306	-	-	1365	-	-
Stage 1	759	704	-	616	593	-	-	-	-	-	-	-
Stage 2	600	585	-	734	681	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	316	336	812	309	328	843	1306	-	-	1365	-	-
Mov Cap-2 Maneuver	316	336	-	309	328	-	-	-	-	-	-	-
Stage 1	688	698	-	558	537	-	-	-	-	-	-	-
Stage 2	515	530	-	680	676	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	22.6	2.7	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1306	-	-	543	364	1365	-	-
HCM Lane V/C Ratio	0.082	-	-	0.141	0.445	0.006	-	-
HCM Control Delay (s)	8	0	-	12.7	22.6	7.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5	2.2	0	-	-

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱			↕	
Traffic Vol, veh/h	45	10	94	33	7	13	96	141	79	25	151	30
Future Vol, veh/h	45	10	94	33	7	13	96	141	79	25	151	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	75	75	75	91	91	91	76	76	76
Heavy Vehicles, %	0	60	0	75	80	11	5	2	28	10	0	0
Mvmt Flow	55	12	115	44	9	17	105	155	87	33	199	39

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	707	737	219	757	713	199	238	0	0	242	0	0
Stage 1	285	285	-	409	409	-	-	-	-	-	-	-
Stage 2	422	452	-	348	304	-	-	-	-	-	-	-
Critical Hdwy	7.1	7.1	6.2	7.85	7.3	6.31	4.15	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.54	3.3	4.175	4.72	3.399	2.245	-	-	2.29	-	-
Pot Cap-1 Maneuver	353	285	826	249	277	820	1311	-	-	1279	-	-
Stage 1	727	582	-	497	482	-	-	-	-	-	-	-
Stage 2	613	484	-	540	543	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	308	254	826	190	247	820	1311	-	-	1279	-	-
Mov Cap-2 Maneuver	308	254	-	190	247	-	-	-	-	-	-	-
Stage 1	669	565	-	457	443	-	-	-	-	-	-	-
Stage 2	540	445	-	441	527	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	25.8	2.4	1
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1311	-	-	498	243	1279	-	-
HCM Lane V/C Ratio	0.08	-	-	0.365	0.291	0.026	-	-
HCM Control Delay (s)	8	-	-	16.3	25.8	7.9	0	-
HCM Lane LOS	A	-	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.7	1.2	0.1	-	-

Intersection	
Int Delay, s/veh	9.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	1	47	85	3	27	162	200	27	5	133	52
Future Vol, veh/h	28	1	47	85	3	27	162	200	27	5	133	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	71	71	71	92	92	92	58	58	58
Heavy Vehicles, %	0	0	0	0	0	0	1	0	43	0	3	0
Mvmt Flow	34	1	57	120	4	38	176	217	29	9	229	90

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	897	890	274	905	921	232	319	0	0	246	0	0
Stage 1	292	292	-	584	584	-	-	-	-	-	-	-
Stage 2	605	598	-	321	337	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	263	284	770	260	273	812	1247	-	-	1332	-	-
Stage 1	720	675	-	501	501	-	-	-	-	-	-	-
Stage 2	488	494	-	695	645	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	219	242	770	212	233	812	1247	-	-	1332	-	-
Mov Cap-2 Maneuver	219	242	-	212	233	-	-	-	-	-	-	-
Stage 1	618	670	-	430	430	-	-	-	-	-	-	-
Stage 2	396	424	-	637	640	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.9	40.2	3.5	0.2
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1247	-	-	394	257	1332	-	-
HCM Lane V/C Ratio	0.141	-	-	0.235	0.63	0.006	-	-
HCM Control Delay (s)	8.4	-	-	16.9	40.2	7.7	0	-
HCM Lane LOS	A	-	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.9	3.9	0	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	10	94	33	7	13	96	141	79	25	151	30
Future Vol, veh/h	45	10	94	33	7	13	96	141	79	25	151	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	75	75	75	91	91	91	76	76	76
Heavy Vehicles, %	0	60	0	75	80	11	5	2	28	10	0	0
Mvmt Flow	55	12	115	44	9	17	105	155	87	33	199	39

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	707	737	219	757	713	199	238	0	0	242	0	0
Stage 1	285	285	-	409	409	-	-	-	-	-	-	-
Stage 2	422	452	-	348	304	-	-	-	-	-	-	-
Critical Hdwy	7.1	7.1	6.2	7.85	7.3	6.31	4.15	-	-	4.2	-	-
Critical Hdwy Stg 1	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	6.1	-	6.85	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.54	3.3	4.175	4.72	3.399	2.245	-	-	2.29	-	-
Pot Cap-1 Maneuver	353	285	826	249	277	820	1311	-	-	1279	-	-
Stage 1	727	582	-	497	482	-	-	-	-	-	-	-
Stage 2	613	484	-	540	543	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	308	254	826	190	247	820	1311	-	-	1279	-	-
Mov Cap-2 Maneuver	308	254	-	190	247	-	-	-	-	-	-	-
Stage 1	669	565	-	457	443	-	-	-	-	-	-	-
Stage 2	540	445	-	441	527	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	23.5	2.4	1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1311	-	-	498	190	453	1279	-	-
HCM Lane V/C Ratio	0.08	-	-	0.365	0.232	0.059	0.026	-	-
HCM Control Delay (s)	8	-	-	16.3	29.6	13.4	7.9	0	-
HCM Lane LOS	A	-	-	C	D	B	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.7	0.9	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	1	47	85	3	27	162	200	27	5	133	52
Future Vol, veh/h	28	1	47	85	3	27	162	200	27	5	133	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	71	71	71	92	92	92	58	58	58
Heavy Vehicles, %	0	0	0	0	0	0	1	0	43	0	3	0
Mvmt Flow	34	1	57	120	4	38	176	217	29	9	229	90

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	897	890	274	905	921	232	319	0	0	246	0	0
Stage 1	292	292	-	584	584	-	-	-	-	-	-	-
Stage 2	605	598	-	321	337	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	263	284	770	260	273	812	1247	-	-	1332	-	-
Stage 1	720	675	-	501	501	-	-	-	-	-	-	-
Stage 2	488	494	-	695	645	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	219	242	770	212	233	812	1247	-	-	1332	-	-
Mov Cap-2 Maneuver	219	242	-	212	233	-	-	-	-	-	-	-
Stage 1	618	670	-	430	430	-	-	-	-	-	-	-
Stage 2	396	424	-	637	640	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.9	33.9	3.5	0.2
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1247	-	-	394	212	650	1332	-	-
HCM Lane V/C Ratio	0.141	-	-	0.235	0.565	0.065	0.006	-	-
HCM Control Delay (s)	8.4	-	-	16.9	42	10.9	7.7	0	-
HCM Lane LOS	A	-	-	C	E	B	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.9	3.1	0.2	0	-	-

TABLE OF CONTENTS

ITEM:	DATE:
1. Site Walk Route Map	01/10/2023
2. Fuel Storage Memo	01/09/2023
3. Jones Brook NH Map	01/09/2023
4. Off Site NH Well Map	01/03/2023

The items contained within this section are in response to questions asked by Board Members during the January 2nd site walk.

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

INFILTRATION POND #2 (SEE DTL SHT D4)

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

UNDERGROUND STONE INFILTRATION / DETENTION SYSTEM (SEE DTL SHT D7)

PROP. WAREHOUSE 550,025 S.F. F.F.=240.00

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

UNDERGROUND INFILTRATION SYSTEM — POND #3 STORMTECH SC 740 CHAMBERS (SEE DTL SHT D5)

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

INFILTRATION POND #5 (SEE DTL SHT D9)

INFILTRATION POND #1 (SEE DTL SHT D4)

RAYMOND POND

INDUSTRIAL ROAD (PUBLIC WAY)

OLD MANCHESTER ROAD

SCRIBNER ROAD

NH ROUTE 101 (WESTBOUND)

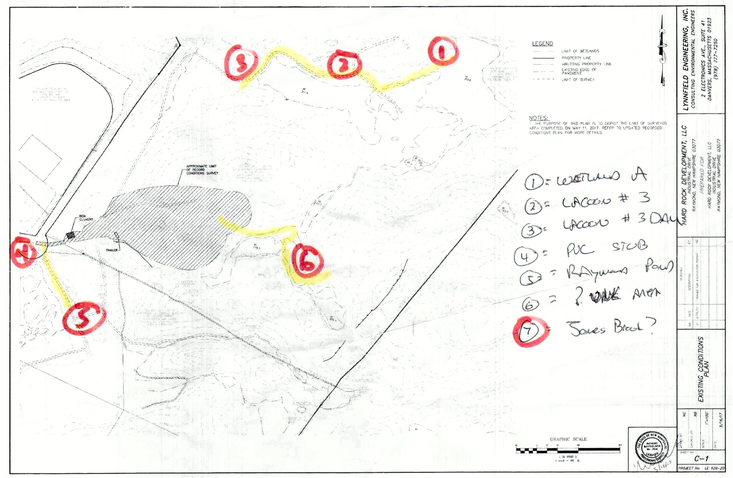
NH ROUTE 101 (EASTBOUND)

SHEET 1 SHEET 2 SHEET 3 SHEET 4

Site Walk 1-2-25

GRADING AND DRAINAGE NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES AND/OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 888-DIG-SAFE (888-344-7233).
2. ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
3. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. SEE CONSTRUCTION SEQUENCE ON SHEET E1.
4. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO HAVE THE PROJECT'S LAND SURVEYOR STAKE OR FLAG CLEARING LIMITS. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED.
5. ALL ROOF DRAINS FROM BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AND WITNESS AT THE END. ALL EXTERIOR ROOF DOWNSPOUTS ARE TO BE INSTALLED WITH OVERFLOW DEVICES.
6. ALL SWALES AND DETENTION PONDS ARE TO BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
7. PROPOSED RIM ELEVATIONS OF DRAINAGE STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES.
8. ALL SWALES AND ANY SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S150 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER), UNLESS OTHERWISE SPECIFIED.
9. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS. CATCH BASINS SHALL HAVE 3' DEEP SUMPS WITH GREASE HOODS, UNLESS OTHERWISE NOTED.
10. ALL DRAINAGE STRUCTURES SHALL BE PRECAST, UNLESS OTHERWISE SPECIFIED. SEE SHEET D2 FOR DRAINAGE STRUCTURE SCHEDULE AND SHEET D4–D9 FOR DRAINAGE DETAILS.
11. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC H20 LOADING AND SHALL BE INSTALLED ACCORDINGLY.
12. IMMEDIATELY APPLY AND COMPACT STONE BASE FOR BUILDING PAD TO +/–½" PRIOR TO EXCAVATING INTERIOR AND PERIMETER FOOTINGS.
13. IN AREAS WHERE CONSTRUCTION IS PROPOSED ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING ALONG PROPERTY LINES IN ALL AREAS WHERE SILT FENCING IS NOT REQUIRED.
14. ALL DRAINAGE PIPE SHALL BE NON-PERFORATED ADS N-12 OR APPROVED EQUAL, UNLESS OTHERWISE NOTED.
15. STONE INLET PROTECTION SHALL BE PLACED AT ALL CATCH BASINS. SEE DETAIL WITHIN THE DETAIL SHEETS.
16. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY ALL GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE EPA SWPPP DURING CONSTRUCTION OPERATIONS.
17. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
18. ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 3 DAYS OF FINAL GRADING.
19. SHOULD CONSTRUCTION STOP FOR LONGER THAN 3 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
20. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN EVENT OF 0.5" OR GREATER IN A 24 HOUR PERIOD AND AT LEAST ONCE A WEEK.
21. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE, AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.
22. CONSTRUCTION VEHICLES SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE TO THE EXTENT POSSIBLE THROUGHOUT CONSTRUCTION.
23. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
24. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
25. SEDIMENT SHALL BE REMOVED FROM ALL SEDIMENT BASINS BEFORE THEY ARE 25% FULL.
26. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
27. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, IF DEEMED NECESSARY BY ON-SITE INSPECTION BY ENGINEER AND/OR REGULATORY OFFICIALS.
28. SEE ALSO EROSION AND SEDIMENT CONTROL SPECIFICATIONS ON SHEET E1–E2.
29. SOME DRAINAGE STRUCTURES ARE DETAILED ON THE PROFILES SHEETS.



Design: WGM	Draft: GDR	Date: 8/19/21	
Checked: WGM	Scale: AS NOTED	Project No.: 21130	
Drawing Name: 21130-PLAN.dwg			

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

STATE OF NEW HAMPSHIRE — ERIK M POULIN No.16669 — LICENSED PROFESSIONAL ENGINEER

REV.	DATE	REVISION	BY
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	GRADING AND DRAINAGE PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C3
SHEET 8 OF 44
JBE PROJECT NO. 21130

SITE WALK - FUEL TANK

Wayne Morrill

Subject: FW: Hard rock, Raymond NH

From: Rick Hartmann <Rick@hartmannenterprises.com>
Sent: Monday, January 9, 2023 9:22 AM
To: Wayne Morrill <wmorrill@Jonesandbeach.com>
Subject: Re: Hard rock, Raymond NH

Good morning, The fuel tank on-site is generally filled once per week; at which time each machine is topped up too. We do this to limit the number of times the delivery truck comes. The tank is a Double Wall, HD, steel 500 gallon unit and there is no redundant containment. There is a spill kit on site. We also have a couple"drip/leak" pans on-site in case a customer comes in a develops a problem. We have never had a fuel spill problem since we started over ten years ago. Rick

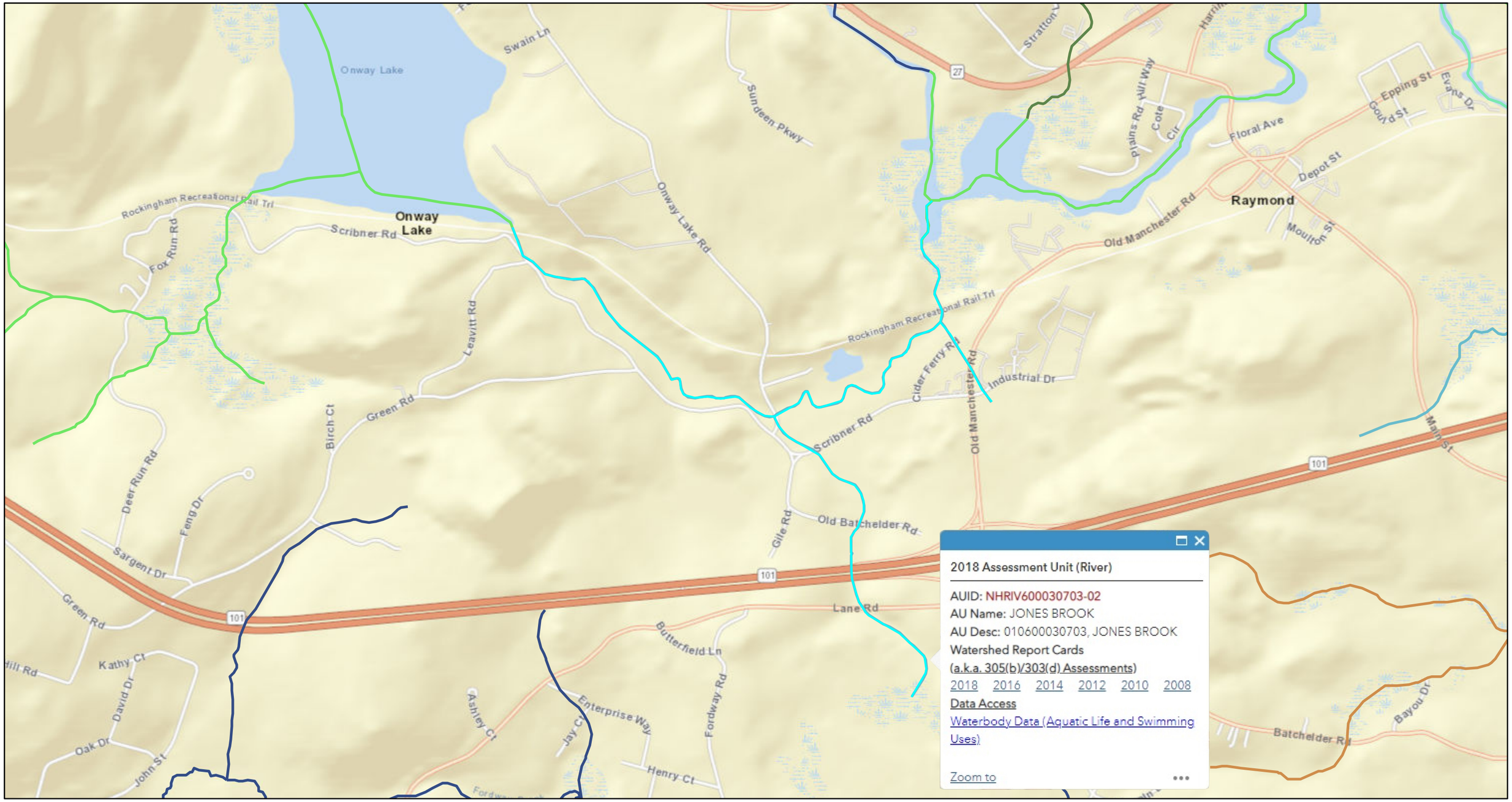
From: Wayne Morrill
Sent: Wednesday, January 4, 2023 5:22 PM
To: Rick@hartmannenterprises.com
Cc: Douglas Richardson <doug@onyxpartnersltd.com>; Erik Poulin <epoulin@jonesandbeach.com>; Front Desk <frontdesk@jonesandbeach.com>
Subject: Hard rock, Raymond NH

21130

Rick,
On Monday we did a site walk with the planning board and they had questions about the fuel storage tank on-site.
How much fuel is stored on site, is there and spill containment in place?
Does a fuel truck come on site to fill the tank or is the tank taken off-site to fill?
If filled on-site, what is the frequency of filling the tank?
These are questions we told the board that we would have answers at the 1/19 planning board hearing.
Thank you.

Wayne Morrill
President
Jones&Beach Engineers, Inc.
85 Portsmouth Avenue
PO Box 219
Stratham, NH 03885
(603) 772-4746 (ext. #122)
wmorrill@jonesandbeach.com
http://www.jonesandbeach.com
SAVE A TREE. PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING.
Think Green and view the Screen
Thank You
LEGAL NOTICE

Jones Brook NHDES ARCGIS MAP



1/6/2023, 10:34:47 AM

2018 Assessment Unit IDs (Rivers)

1
2
3
5
6
9

1:18,056

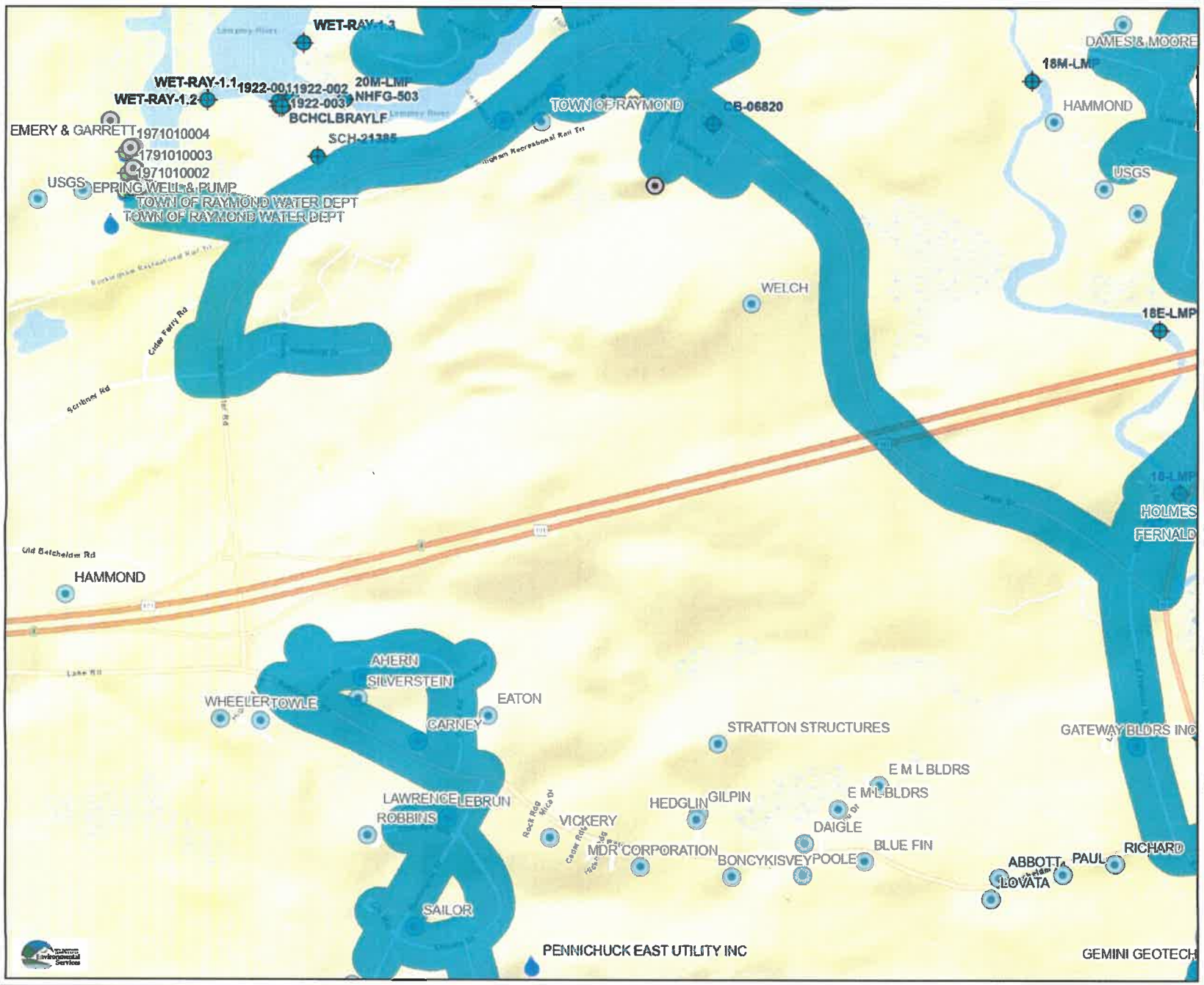
0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

Esri, HERE, Garmin, INCREMENT P, NGA, USGS

Web AppBuilder for ArcGIS
Esri, HERE, Garmin, INCREMENT P, NGA, USGS | The New Hampshire Department of Environmental Services, Watershed Management Bureau,

Map By



Legend

- Surface Waters with Impairn 2016 with Quarter Mile Buffe
- Public_Water_Supply_Entiti
- Water and Sewer Lines
  - Both
  - Sewer
  - Water
- Environmental Monitoring Si Secure
- Public Water Supply Wells
- Registered Water Users
- Water Well Inventory
- Environmental Monitoring Si Nonsecure

Map Scale

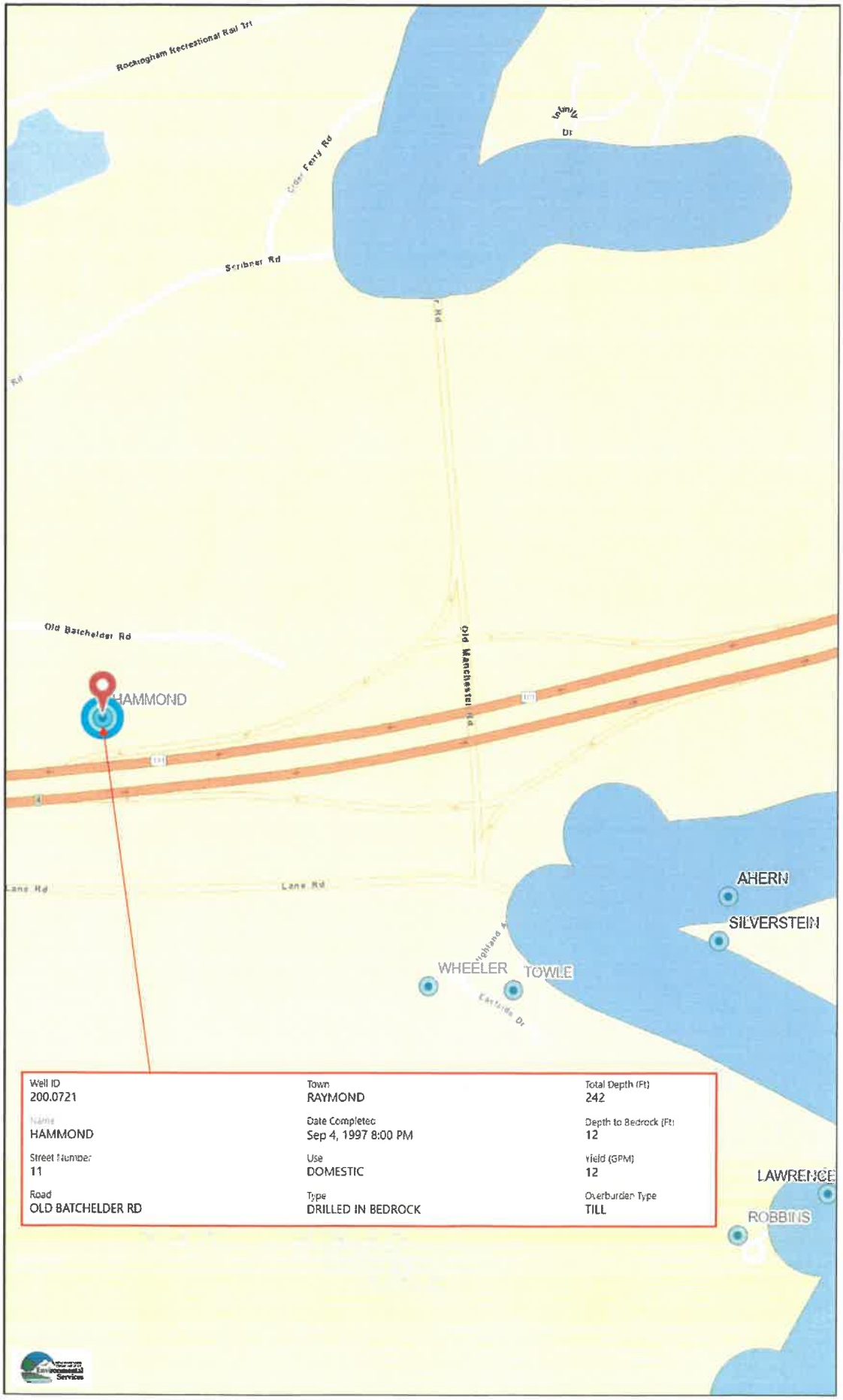
1: 12,988

© NH DES, http://des.nh.gov

Map Generated: 1/6/2023

Notes

Hammond Well



Well ID	Town	Total Depth (Ft)
200.0721	RAYMOND	242
Name	Date Completed	Depth to Bedrock (Ft)
HAMMOND	Sep 4, 1997 8:00 PM	12
Street Number	Use	Yield (GPM)
11	DOMESTIC	12
Road	Type	Overburden Type
OLD BATCHELDER RD	DRILLED IN BEDROCK	TILL

Legend

- Public Water Supply Wells
- Registered Water Users
- Water Well Inventory
- Public_Water_Supply_Entiti

Water and Sewer Lines

- Both
- Sewer
- Water

Map Scale

1: 6,494

© NH DES, http://des.nh.gov

Map Generated: 1/9/2023

Notes

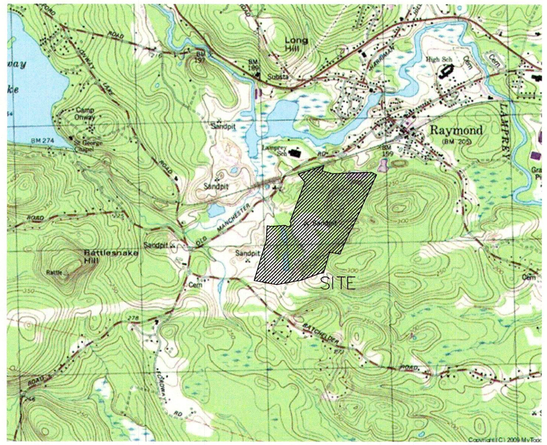
WAREHOUSE BUILDING
"RAYMOND DISTRIBUTION"
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1
INDUSTRIAL DRIVE, RAYMOND, NH

GENERAL LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINES
		SETBACK LINES
		CENTERLINE
		FRESHWATER WETLANDS LINE
		TIDAL WETLANDS LINE
		STREAM CHANNEL
		TREE LINE
		STONEWALL
		BARBED WIRE
		FENCE
		STOCKADE FENCE
		SOIL BOUNDARY
		AQUIFER PROTECTION LINE
		FLOOD PLAIN LINE
		ZONELINE
		EASEMENT
100	100	MAJOR CONTOUR
98	98	MINOR CONTOUR
		EDGE OF PAVEMENT
VGC	VGC	VERTICAL GRANITE CURB
SGC	SGC	SLOPE GRANITE CURB
CCB	CCB	CAPE COD BERM
PCC	PCC	POURED CONCRETE CURB
X	X	SILT FENCE
D		DRAINAGE LINE
S	S	SEWER LINE
FM	FM	SEWER FORCE MAIN
G	G	GAS LINE
W	W	WATER LINE
WS	WS	WATER SERVICE
OHE	OHE	OVERHEAD ELECTRIC
UGE	UGE	UNDERGROUND ELECTRIC
		GUARDRAIL
UD	UD	UNDERDRAIN
F	F	FIRE PROTECTION LINE
	W	THRUST BLOCK
		IRON PIPE/IRON ROD
		DRILL HOLE
		IRON ROD/DRILL HOLE
		STONE/GRANITE BOUND
100x0	100x0	SPOT GRADE
100.00	100.00	PAVEMENT SPOT GRADE
100.00 / 99.50	100.00 / 99.50	CURB SPOT GRADE
		BENCHMARK (TBM)
		DOUBLE POST SIGN
		SINGLE POST SIGN
		WELL
TP1		TEST PIT
PT	M	FAILED TEST PIT
M		MONITORING WELL
1		PERC TEST
		PHOTO LOCATION
		TREES AND BUSHES
		UTILITY POLE
		LIGHT POLES
D	D	DRAIN MANHOLE
S	S	SEWER MANHOLE
		HYDRANT
		WATER GATE
		WATER SHUT OFF
		REDUCER
		SINGLE GRATE CATCH BASIN
		DOUBLE GRATE CATCH BASIN
		TRANSFORMER
		CULVERT W/WINGWALLS
		CULVERT W/FLARED END SECTION
		CULVERT W/STRAIGHT HEADWALL
		STONE CHECK DAM
		DRAINAGE FLOW DIRECTION
		4K SEPTIC AREA
		WETLAND IMPACT
		VEGETATED FILTER STRIP
		RIPRAP
		OPEN WATER
		FRESHWATER WETLANDS
		TIDAL WETLANDS
		STABILIZED CONSTRUCTION ENTRANCE
		CONCRETE
		GRAVEL
		SNOW STORAGE
		RETAINING WALL

SHEET INDEX

CS	COVER SHEET
C1	EXISTING CONDITIONS PLAN
C2	OVERALL SITE PLAN
C2-1 - C2-4	SITE PLANS
C3	OVERALL GRADING AND DRAINAGE PLAN
C3-1 - C3-4	GRADING AND DRAINAGE PLANS
C4	OVERALL UTILITY PLAN
C4-1 - C4-4	UTILITY PLANS
C4-5	INDUSTRIAL DRIVE PLAN
L1	OVERALL LIGHTING PLAN
L1-1 - L1-4	LIGHTING PLANS
L2	LANDSCAPE PLAN
P1 - P5	ROAD PLAN AND PROFILES
D1 - D10	DETAIL SHEETS
E1-E2	EROSION AND SEDIMENT CONTROL DETAILS
W1	WETLAND MITIGATION PLAN
	ARCHITECTURAL ELEVATIONS/RENDERINGS



LOCUS MAP
SCALE 1" = 2000'

APPLICANT / DEVELOPER
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494
(617) 835-4770
CONTACT: ANTON MELCHIONDA

OWNER OF RECORD
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

CIVIL ENGINEER / SURVEYOR
JONES & BEACH ENGINEERS, INC.
85 PORTSMOUTH AVENUE
PO BOX 219
STRATHAM, NH 03885
(603) 772-4746
CONTACT: WAYNE MORRILL
EMAIL: WMORRILL@JONESANDBEACH.COM

ELECTRIC
EVERSOURCE
740 N COMMERCIAL ST
PO BOX 330
MANCHESTER, NH 03105-0330
(800) 662-7764

TELEPHONE
CONSOLIDATED COMMUNICATIONS
1575 GREENLAND ROAD
GREENLAND, NH 03840
(603) 427-5525
CONTACT: JOE CONSIDINE

PERMITS

TYPE OF PERMIT	STATUS
NHDES ALTERATION OF TERRAIN PERMIT: NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES - WATER DIVISION 29 HAZEN DRIVE, P.O. BOX 95 CONCORD, NEW HAMPSHIRE 03302-0095 (603) 271-3503 RESPONSIBLE CONSULTANT: JONES & BEACH ENGINEERS, INC.	SUBMITTED: 08-18-2022 PERMIT NO. DATED: EXPIRATION:
NHDES WETLAND PERMIT: NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES- WETLANDS BUREAU 29 HAZEN DRIVE, P.O. BOX 95 CONCORD, NEW HAMPSHIRE 03302 (603) 271-2147 RESPONSIBLE CONSULTANT- JONES & BEACH ENGINEERS, INC.	SUBMITTED: 08-23-2022 PERMIT NO. DATED: EXPIRATION:
USEPA NPDES PHASE II CONSTRUCTION GENERAL PERMIT, NOTICE OF INTENT (NOI), AND NOTICE OF TERMINATION (NOT) TO BE FILED IN ACCORDANCE WITH FEDERAL AND LOCAL REGULATIONS PRIOR TO AND FOLLOWING CONSTRUCTION: EPA STORMWATER NOTICE PROCESSING CENTER MAIL CODE 4203M, US EPA 1200 PENNSYLVANIA AVENUE, NW WASHINGTON, DC 20460 RESPONSIBLE CONSULTANT: JONES & BEACH ENGINEERS, INC.	

TYPE OF PERMIT	STATUS
U.S. ARMY CORPS OF ENGINEERS: NEW ENGLAND DIVISION: 424 TRAPELO ROAD WALTHAM, MA 02254-9149 (800) 343-4789 RESPONSIBLE CONSULTANT: JONES & BEACH ENGINEERS, INC.	SUBMITTED: 08-23-2022 PERMIT NO. DATED: EXPIRATION:
RAYMOND SITE PLAN APPROVAL: TOWN OF RAYMOND PLANNING BOARD 4 EPPING STREET RAYMOND, NEW HAMPSHIRE 03077 (603) 895-4735 RESPONSIBLE CONSULTANT: JONES & BEACH ENGINEERS, INC.	SUBMITTED: 08-18-2022 CASE NO. 2022-008 DATED: EXPIRATION:

RAYMOND ZONING APPROVAL FOR BUILDING HEIGHT:
CASE NO. 2022-004
APPROVED 11-16-2022

APPLICATION #2022-008

NEW HAMPSHIRE FISH & GAME AoT PERMIT CONDITIONS RELATED TO THREATENED AND ENDANGERED SPECIES:

- THERE IS A POTENTIAL FOR BLANDING'S TURTLE (STATE-ENDANGERED), SPOTTED TURTLES (STATE-THREATENED) AND WOOD TURTLES (STATE SPECIES OF SPECIAL CONCERN). OBSERVATIONS OF THESE SPECIES SHOULD BE REPORTED IMMEDIATELY, PARTICULARLY DURING NESTING SEASON (MID-MAY THROUGH THE END OF JUNE) TO NHFG TO MELISSA DOPERALSKI (CELL/TEXT) 603-479-1129 OR JOSH MEGYESY AT (978) 578-0802. SEE PLAN SHEET C3 FOR SPECIES IDENTIFICATION INFORMATION.
- 2 ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: NHB21-3049, RAYMOND INDUSTRIAL DRIVE, WILDLIFE SPECIES OBSERVATION. PHOTOGRAPHS SHALL BE PROVIDED FOR VERIFICATION AS FEASIBLE.
- THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.
- ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, AND INLET PROTECTION, CHECK DAMS, SEDIMENT TRAPS, AND SILT FENCE INSTALLED IN ACCORDANCE WITH ENV-WQ 1506.04, SHALL NOT CONTAIN WELDED PLASTIC, PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH. SEE PLAN SHEET E1.

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

APPROVED - RAYMOND, NH
PLANNING BOARD

DATE:

Design: WGM	Draft: GDR
Checked: WGM	Scale: AS NOTED
Drawing Name: 21130-PLAN.dwg	Date: 8/19/21 Project No.:21130

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

STATE OF NEW HAMPSHIRE – ERIK M POULIN No. 16669 – LICENSED PROFESSIONAL ENGINEER – 8/19/21

REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: COVER SHEET
Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

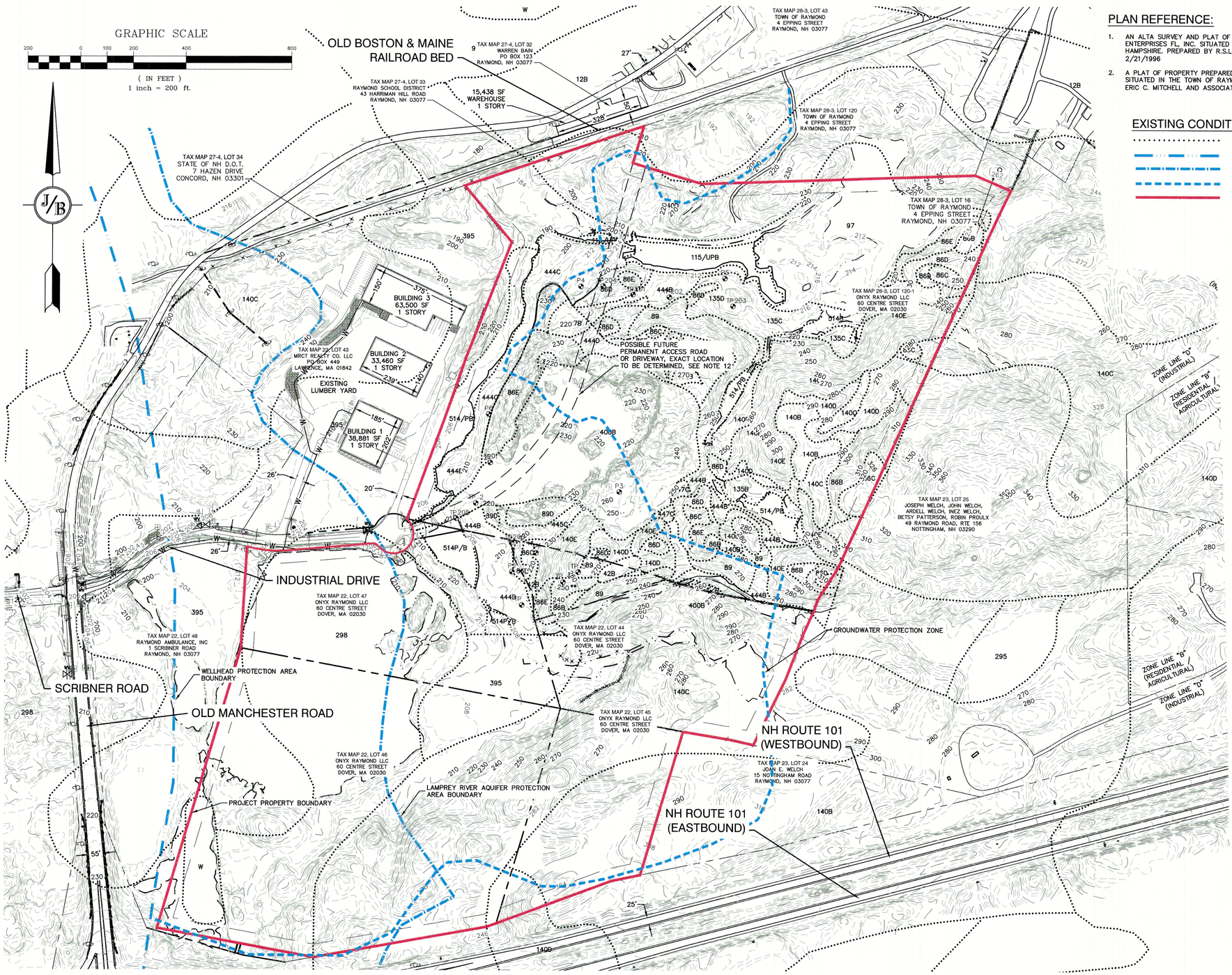
DRAWING No.
CS
SHEET 1 OF45
JBE PROJECT NO. 21130

RAYMOND DISTRIBUTION, RAYMOND, NH
JBE # 21130 REVISION 0, 08/18/2022

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

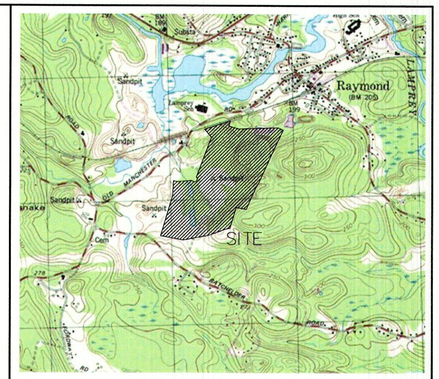


PLAN REFERENCE:

1. AN ALTA SURVEY AND PLAT OF PROPERTY PREPARED FOR M-O-H ENTERPRISES FL, INC. SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY R.S.L. LAYOUT & DESIGN, INC. DATED 2/21/1996
2. A PLAT OF PROPERTY PREPARED FOR THE TOWN OF RAYMOND SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY ERIC C. MITCHELL AND ASSOCIATES, INC. DATED 7/03/2007.

EXISTING CONDITIONS LEGEND:

- SOIL BOUNDARY
- WELLHEAD PROTECTION AREA
- LAMPREY RIVER PROTECTION AREA
- GROUNDWATER PROTECTION AREA
- PROJECT PROPERTY BOUNDARY



LOCUS SCALE: 1"=2000'

EXISTING CONDITIONS NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
2. BASE ELEVATION WAS ESTABLISHED THROUGH MULTIPLE GPS POST PROCESS OBSERVATIONS AND WAS REDUCED TO THE NAVD88 DATUM BY THE NATIONAL GEODETIC SURVEY OPUS SOFTWARE.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN WALDEN C.W.S., DURING SUMMER, 2021, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
   a. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
   b. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
   c. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
   d. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
7. SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING SPRING, 2022, AND IS BASED ON THE STANDARDS OF SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 2.0 (1999: SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND). THE MAP IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR THE USE(S) REQUIRING THE SITE SPECIFIC SOIL SURVEY AND IS PRODUCED BY A CERTIFIED SOIL SCIENTIST. IT IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. A NARRATIVE REPORT IS A COMPONENT OF THE MAP.
8. A TEMPORARY CULVERT AND ROADBED SHALL BE IN PLACE PRIOR TO ANY USE OF A WETLAND CROSSING.
9. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
10. TEST PITS PERFORMED BY WAYNE MORRILL, JONES & BEACH ENGINEERS, INC., 12/20/21.
11. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.
12. THE LOCATION OF THE PROPOSED FUTURE RIGHT-OF-WAY, BEGINNING FROM THE CUL-DE-SAC AT THE END OF INDUSTRIAL DRIVE AND EXTENDING NORTHEAST THROUGH LOTS 120 AND 120-1 ACROSS THE RAIL RIGHT OF WAY, THEN LOT 43 TO OLD MANCHESTER ROAD IS REPRESENTATIVE ONLY AND IS SUBJECT TO CHANGE, WHICH WILL BE MUTUALLY AGREED UPON BY THE TOWN AND OWNER, AS NEEDED, THROUGH THE UNIFIED DEVELOPMENT PLAN PROCESS AND APPLICABLE SITE PLAN REVIEW HEARINGS WITH THE PLANNING BOARD.

STATE OF NEW HAMPSHIRE JAMES P. GOVE 11/1/23 No. 0051 CERTIFIED WETLAND SCIENTIST

STATE OF NEW HAMPSHIRE JAMES P. GOVE 11/1/23 NO. 004 CERTIFIED SOIL SCIENTIST

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafdc	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0-8%; C SLOPE = 8-15%; D SLOPE = 15-25%

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.:21130
Drawing Name: 21130-PLAN.dwg		

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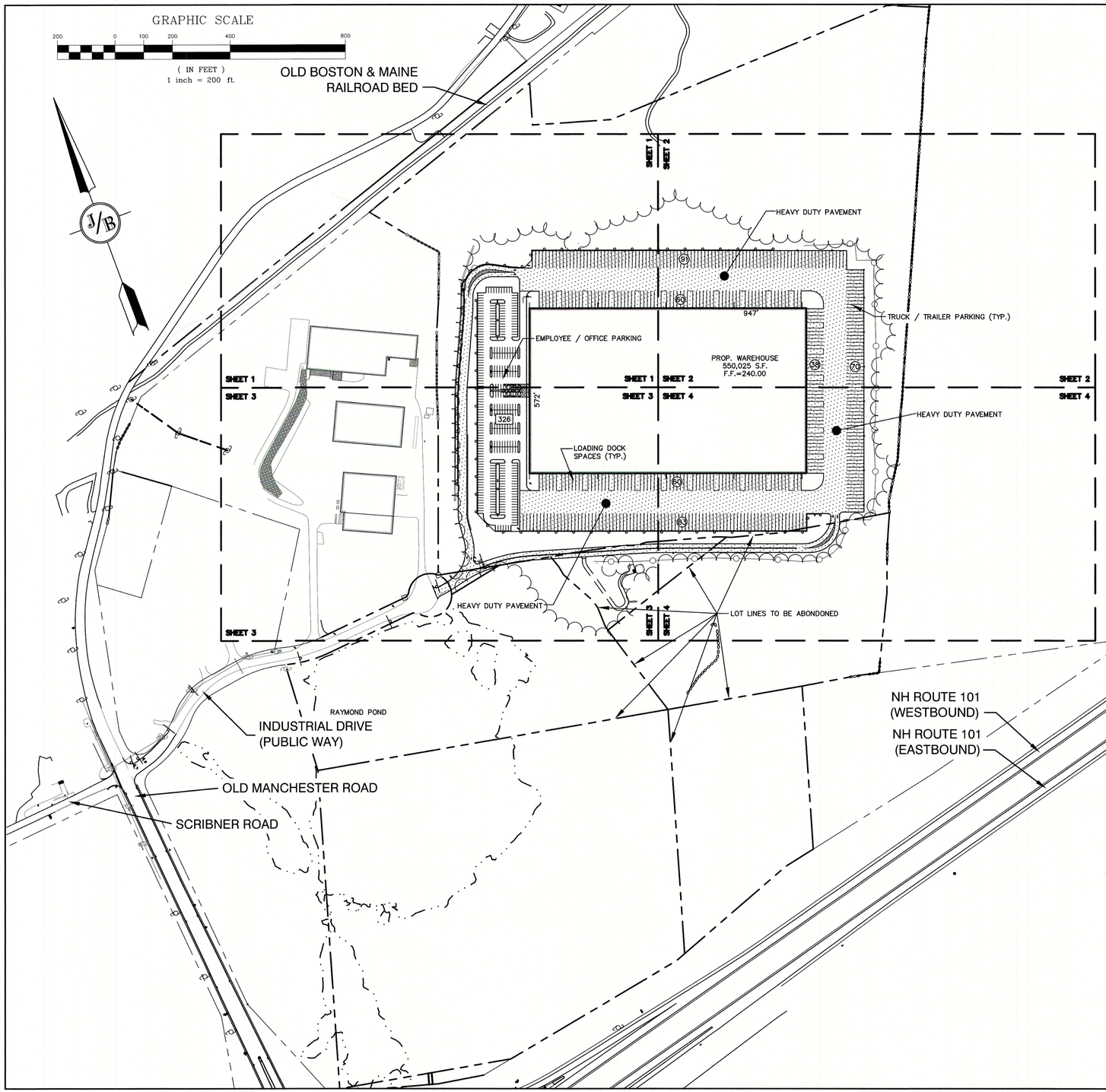
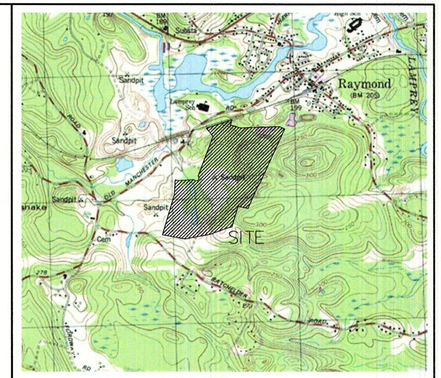
REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN
Project: RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No. C1
SHEET 2 OF45
JBE PROJECT NO. 21130





LOCUS SCALE: 1"=2000'

SITE NOTES:

1. THE INTENT OF THIS PLAN IS TO SHOW THE PROPOSED CONSTRUCTION OF A DISTRIBUTION CENTER WITH ASSOCIATED LOADING DOCKS, TRUCK PARKING, AND EMPLOYEE VEHICLE PARKING.
2. ZONING DISTRICT: D–INDUSTRIAL
   LOT AREA MINIMUM = 21,780 SF (0.5 AC)
   LOT AREA PROPOSED = 5,380,531± SF (123.52± AC)
   LOT FRONTAGE MINIMUM = 50'
   BUILDING HEIGHT = 48' (VARIANCE REQUESTED)
   BUILDING SETBACKS (MINIMUM):
   FRONT SETBACK = 15'
   SIDE SETBACK = 15'
   REAR SETBACK = 10'
   PRE–EXISTING LOT, ALL SETBACKS = 25'
   ABUTTING RESIDENTIAL ZONE = 50'
   *20' VEGETATED WITH FENCE OR 50' VEGETATED
   WETLAND SETBACK = 25'
3. PARKING CALCULATIONS:
   VEHICLE SPACES PROVIDED = 326
   TRAILER SPACES PROVIDED = 244
   LOADING DOCK SPACES PROVIDED = 158
4. TOTAL BUILDING FOOTPRINT = 550,025 S.F.
   TOTAL PAVED AREA = 775,185 S.F.
   TOTAL DISTURBANCE = 1,774,358 S.F.
5. THIS PLAN SET HAS BEEN PREPARED BY JONES & BEACH ENGINEERS, INC., FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON–SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS, INCLUDING ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS ON THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON–SITE CONDITIONS, MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED. CONTRACTOR TO ALWAYS CONTACT DIG SAFE PRIOR TO DIGGING ONSITE OR OFFSITE TO ENSURE SAFETY AND OBEY THE LAW.
6. ALL CONSTRUCTION SHALL CONFORM TO TOWN STANDARDS AND REGULATIONS, AND NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WHICHEVER IS MORE STRINGENT.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. LANDOWNERS ARE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING PERMITTING REQUIRED UNDER THESE REGULATIONS.
5. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.). THIS DOCUMENT IS TO BE KEPT ONSITE AT ALL TIMES AND UPDATED AS REQUIRED.
6. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, FEES AND BONDS.
7. ALL PROPOSED SIGNAGE SHALL CONFORM WITH THE TOWN ZONING REGULATIONS, UNLESS A VARIANCE IS OTHERWISE REQUESTED.
8. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND NHDOT STANDARDS AND SPECIFICATIONS (NON–REFLECTORIZED PAVEMENT MARKINGS), UNLESS OTHERWISE NOTED.
9. ALL PARKING STALLS SHALL BE SEPARATED USING 4" WIDE SOLID STRIPES. STRIPING SHALL BE 100% ACRYLIC TYPE, LOW VOC, FAST DRYING, IN A COLOR OF WHITE.
10. ALL STOP BARS SHALL BE 18" IN WIDTH IN A COLOR OF WHITE; ALL TRAFFIC ARROWS SHALL BE PAINTED IN A COLOR OF WHITE.
11. ALL CURBING TO BE CAPE CAD BERM WITH A MINIMUM RADIUS OF 2', UNLESS OTHERWISE NOTED.
12. ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PROVIDED BY THE OWNER. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND OWNER PRIOR TO THE START OF CONSTRUCTION. BUILDING DIMENSIONS AND AREAS TO BE TO OUTSIDE OF MASONRY, UNLESS OTHERWISE NOTED.
13. SNOW TO BE STORED AT EDGE OF PAVEMENT AND IN AREAS SHOWN ON THE PLANS, OR TRUCKED OFFSITE TO AN APPROVED SNOW DUMPING LOCATION.
14. ROOF TOP HEATING AND AIR CONDITIONING UNITS (RTU's) SHALL BE DESIGNED TO VENT UPWARDS AND AIR INTAKES SHALL BE DIRECTED AWAY FROM ABUTTING NEIGHBORS.
15. ALL ARCHITECTURAL BLOCK RETAINING WALLS ARE TO BE DESIGNED AND STAMPED BY THE MANUFACTURER'S STRUCTURAL ENGINEER. CONTRACTOR TO COORDINATE WITH APPROVED MANUFACTURER PRIOR TO INSTALLATION.
16. DUMPSTERS AND/OR ROLL–OFFS ARE NOT TO BE PICKED UP BETWEEN 7:00 PM AND 7:00 AM.
17. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
18. ALL PRECAST CONCRETE PRODUCTS WILL BE SOURCED FROM MANUFACTURING FACILITIES IN COMPLIANCE WITH THE NATIONAL PRECAST CONCRETE ASSOCIATION (NPCA) PLANT CERTIFICATION PROGRAM. EVIDENCE OF COMPLIANCE WILL BE PROVIDED FOR THE CURRENT CALENDAR YEAR THE PRODUCTS WERE MANUFACTURED WITHIN.
19. DUMPSTER TO BE LOCATED WITHIN BUILDING.
20. AS A CONDITION OF THE TOWN APPROVAL, THE TENANT THAT OCCUPIES THIS SITE WILL BE REQUIRED TO HAVE A PORTABLE SNOW SCRAPPER FOR REMOVAL OF SNOW FROM TRAILERS.
21. HOURS OF OPERATION: 7:00 AM – 9:00 PM

APPROVED - RAYMOND, NH
PLANNING BOARD

DATE:

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

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STATE OF NEW HAMPSHIRE
ERIK M POULIN No.16669
LICENSED PROFESSIONAL ENGINEER

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PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: SITE PLAN
TAX MAP 22, LOTS 44, 45, 46, 47 & TAX MAP 28, BLOCK 3, LOT 120-1

Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH

Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C2
SHEET 3 OF45
JBE PROJECT NO. 21130

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

OLD MANCHESTER ROAD

RAIL TRAIL

MINIMUM BUILDING SETBACK LINE

48.00'

30'

PROP. LIGHT POLE (TYP.)

PROPOSED 4' FENCE ALONG WALL

SNOW STORAGE

PROPOSED RETAINING WALL (BY OTHERS)

PROPOSED 4' FENCE

PROPOSED GUARD RAIL

PROPOSED GUARD RAIL

HEAVY DUTY PAVEMENT

CCB

SSWL

SNOW STORAGE

PROPOSED GUARD RAIL

PROPOSED STOP BAR AND DYL

R1-1

SNOW STORAGE

PROP. WALL MOUNTED LIGHT (TYP.)

947'

PROP. WAREHOUSE
550,025 S.F.
F.F.=240.00

572'

END CCB

10' CONC. SIDEWALK

PROPOSED MAIN ENTRANCE DOOR

SHEET 1
SHEET 2
SHEET 3

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INDUSTRIAL DRIVE, RAYMOND, NH

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60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C2-1
SHEET 4 OF45
JBE PROJECT NO. 21130

SHEET 1
SHEET 2

GRAPHIC SCALE

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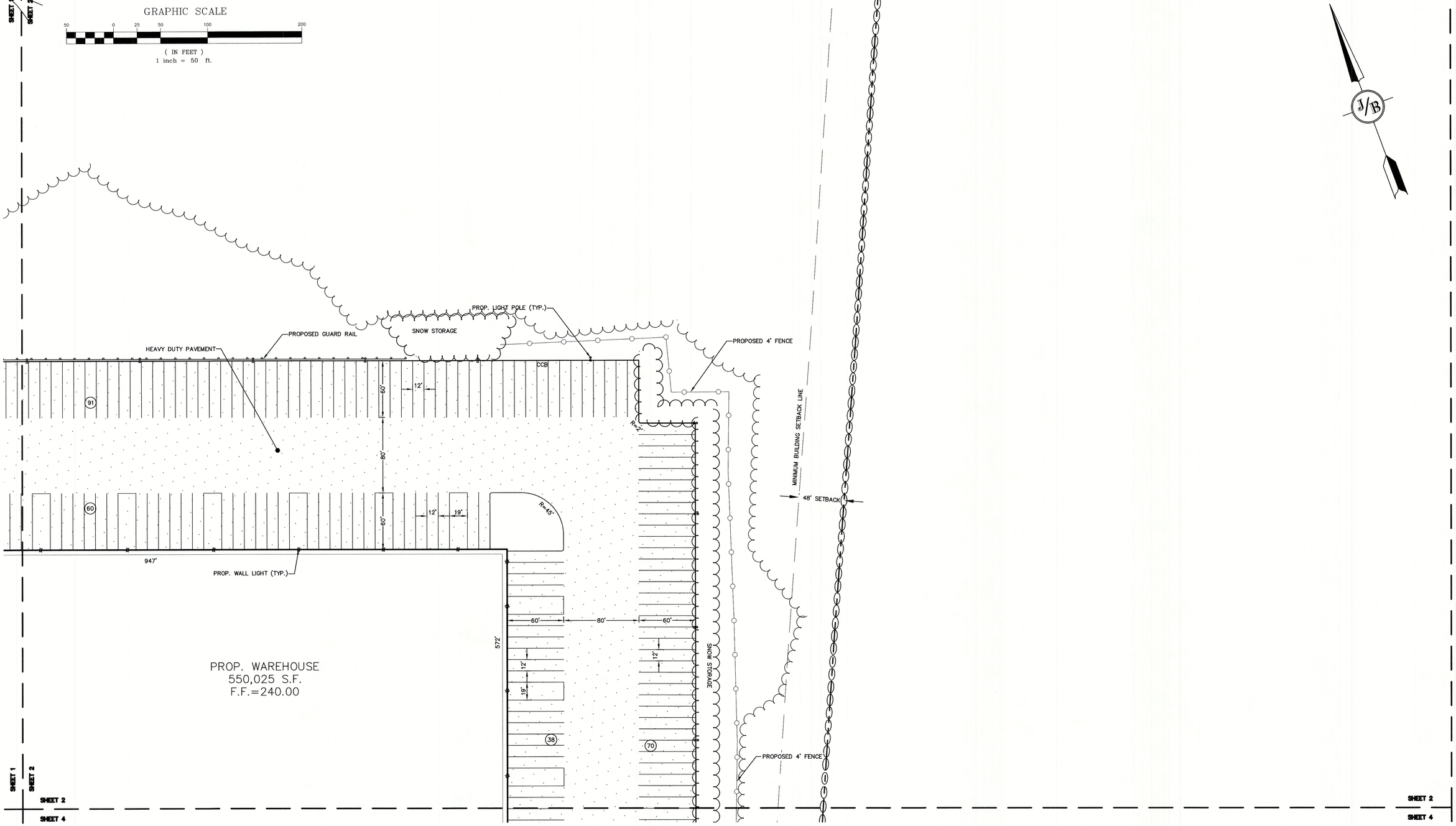
(IN FEET)
1 inch = 50 ft.



SHEET 1
SHEET 2
SHEET 2
SHEET 4
SHEET 2
SHEET 4

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Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH

Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C2-2
SHEET 5 OF45
JBE PROJECT NO.21130

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

PROP. ACCESS ROAD

PROPOSED RETAINING WALL (BY OTHERS)

PROPOSED LIGHT POLE (TYP.)

PROPOSED GUARD RAIL

MINIMUM BUILDING SETBACK LINE

PROPOSED MAIN ENTRANCE DOOR

R7-8 "HANDICAP SIGN" WITH R7-8A "VAN ACCESSIBLE SIGN"

END CCB

R7-8 "HANDICAP SIGN" (TYPICAL)

PROP. WAREHOUSE
550,025 S.F.
F.F.=240.00

PROPOSED WALL LIGHT (TYP.)

LOADING DOCK SPACES (TYP.)

HEAVY DUTY PAVEMENT

PROPOSED GUARD RAIL

PROPOSED RETAINING WALL (BY OTHERS)

PROP. MONUMENT SIGN

R1-1 "STOP SIGN"; STOP BAR

PROP. ACCESS ROAD

R1-1 "STOP SIGN"

PROP. 18" STOP BAR

SNOW STORAGE

PROPOSED FENCE

PROPOSED 12' WATER TANK GRAVEL ACCESS ROAD

PROPOSED WATER TANK PAD

INFINITY DRIVE

INDUSTRIAL DRIVE

SHEET 1
SHEET 3
SHEET 3
SHEET 4
SHEET 3
SHEET 4
SHEET 3

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DRAWING No.
C2-3
SHEET 6 OF 45
JBE PROJECT NO. 21130

SHEET 2
SHEET 4
SHEET 3
SHEET 4

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

PROP. WAREHOUSE
550,025 S.F.
F.F.=240.00

572'

38

70

60' 80' 60'

19'

12'

SNOW STORAGE

HEAVY DUTY PAVEMENT

947'

60

19' 12' 60' 60' 19' 12'

R=45'

80'

80'

83

12' 60' 60' 12'

R=2'

R=2'

30'

R=12'

PROPOSED 4' FENCE

SNOW STORAGE

PROPOSED GUARD RAIL

R=94'

SSWL

R=100'

PROP. ACCESS ROAD

30'

SSWL

PROPOSED 4' FENCE

MINIMUM BUILDING SETBACK LINE

48.00'

SHEET 2
SHEET 4
SHEET 3
SHEET 4

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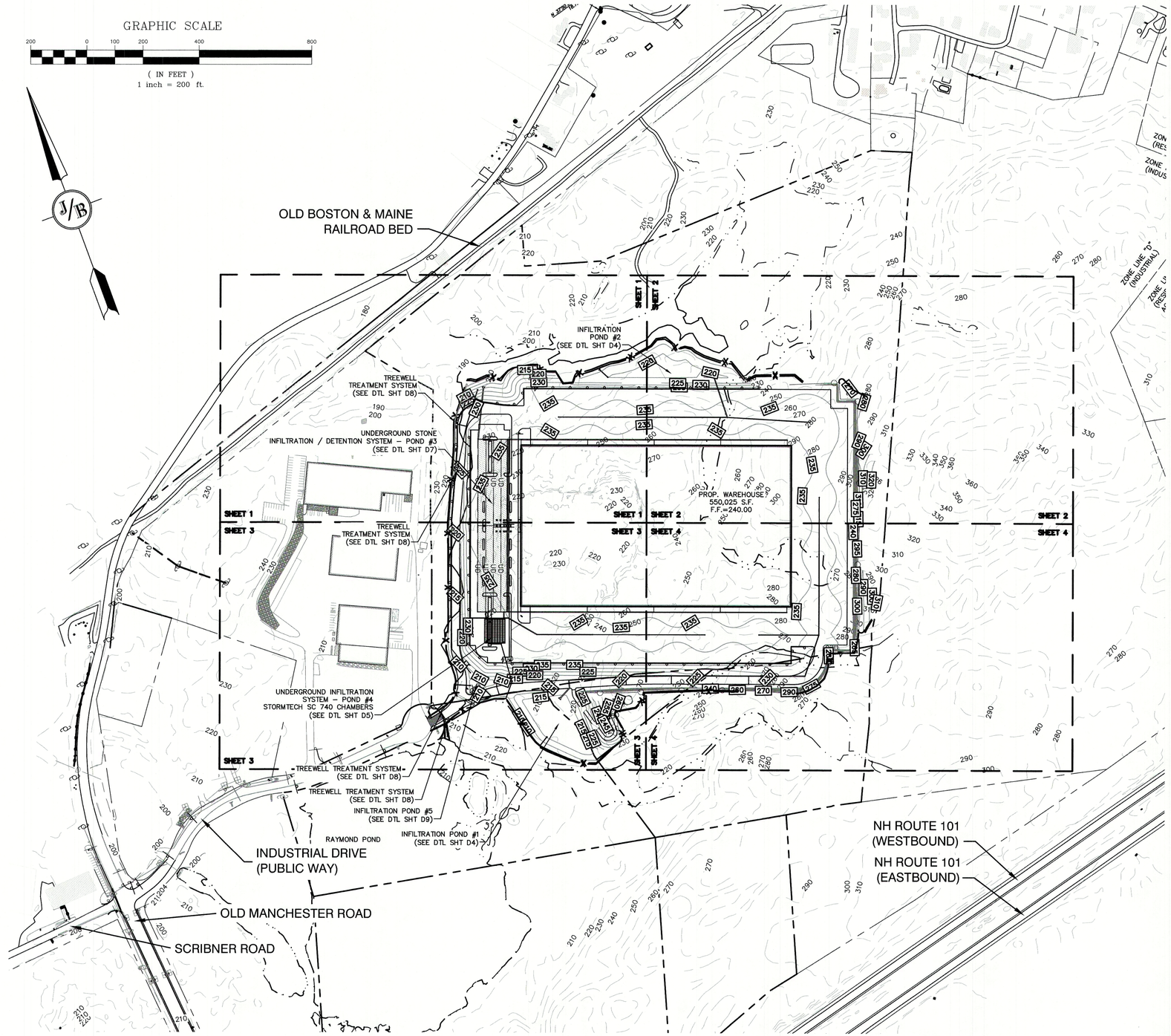
DRAWING No.
C2-4
SHEET 7 OF45
JBE PROJECT NO. 21130

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)

1 inch = 200 ft.

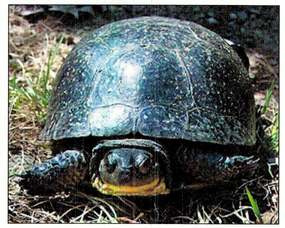


GRADING AND DRAINAGE NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES AND/OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 888-DIG-SAFE (888-344-7233).
2. ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
3. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. SEE CONSTRUCTION SEQUENCE ON SHEET E1.
4. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO HAVE THE PROJECT'S LAND SURVEYOR STAKE OR FLAG CLEARING LIMITS. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED.
5. ALL ROOF DRAINS FROM BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AND WITNESS AT THE END. ALL EXTERIOR ROOF DOWNSPOUTS ARE TO BE INSTALLED WITH OVERFLOW DEVICES.
6. ALL SWALES AND DETENTION PONDS ARE TO BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
7. PROPOSED RIM ELEVATIONS OF DRAINAGE STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES.
8. ALL SWALES AND ANY SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S150 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER), UNLESS OTHERWISE SPECIFIED.
9. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS. CATCH BASINS SHALL HAVE 3' DEEP SUMPS WITH GREASE HOODS, UNLESS OTHERWISE NOTED.
10. ALL DRAINAGE STRUCTURES SHALL BE PRECAST, UNLESS OTHERWISE SPECIFIED. SEE SHEET D2 FOR DRAINAGE STRUCTURE SCHEDULE AND SHEET D4–D9 FOR DRAINAGE DETAILS.
11. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC H20 LOADING AND SHALL BE INSTALLED ACCORDINGLY.
12. IMMEDIATELY APPLY AND COMPACT STONE BASE FOR BUILDING PAD TO +/–½" PRIOR TO EXCAVATING INTERIOR AND PERIMETER FOOTINGS.
13. IN AREAS WHERE CONSTRUCTION IS PROPOSED ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING ALONG PROPERTY LINES IN ALL AREAS WHERE SILT FENCING IS NOT REQUIRED.
14. ALL DRAINAGE PIPE SHALL BE NON-PERFORATED ADS N-12 OR APPROVED EQUAL, UNLESS OTHERWISE NOTED.
15. STONE INLET PROTECTION SHALL BE PLACED AT ALL CATCH BASINS. SEE DETAIL WITHIN THE DETAIL SHEETS.
16. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY ALL GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE EPA SWPPP DURING CONSTRUCTION OPERATIONS.
17. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
18. ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 3 DAYS OF FINAL GRADING.
19. SHOULD CONSTRUCTION STOP FOR LONGER THAN 3 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
20. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN EVENT OF 0.5" OR GREATER IN A 24 HOUR PERIOD AND AT LEAST ONCE A WEEK.
21. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE, AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.
22. CONSTRUCTION VEHICLES SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE TO THE EXTENT POSSIBLE THROUGHOUT CONSTRUCTION.
23. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
24. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
25. SEDIMENT SHALL BE REMOVED FROM ALL SEDIMENT BASINS BEFORE THEY ARE 25% FULL.
26. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
27. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, IF DEEMED NECESSARY BY ON-SITE INSPECTION BY ENGINEER AND/OR REGULATORY OFFICIALS.
28. SEE ALSO EROSION AND SEDIMENT CONTROL SPECIFICATIONS ON SHEET E1–E2.
29. SOME DRAINAGE STRUCTURES ARE DETAILED ON THE PROFILES SHEETS.
30. (2) IF ANY VISIBLE SIGNS OF CONTAMINATION ARE ENCOUNTERED DURING EARTHWORK ACTIVITIES (I.E. SKINS/HIDES, DISCOLORED SOIL, ODORS ECT.) THE CONTRACTOR SHOULD CONTACT THE PROJECT ENGINEER SO COORDINATION WITH NH DES CAN OCCUR TO REVIEW THE FINDINGS.
31. SEE PLAN & PROFILE SHEETS FOR DRAINAGE STRUCTURES ALONG ROADWAYS.
32. CONTRACTOR SHALL ADHERE TO ANY SITE SPECIFIC PROVISIONS FOUND IN GEOTECHNICAL REPORT BY S.W. COLE ENGINEERS. SOIL PREPARATION SHOULD FOLLOW REQUIREMENTS OF THE GEOTECHNICAL REPORT.

IF SPOTTED, WOOD OR BLANDING'S TURTLES ARE FOUND LAYING EGGS IN THE WORK AREA, PLEASE CONTACT MELISSA DOPERALSKI AT 603-479-1129 OR JOSH MEGYESY AT 978-578-0802 FOR FURTHER INSTRUCTIONS.

(2)



PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR
Checked: WGM	Scale: AS NOTED
Drawing Name: 21130-PLAN.dwg	

Date: 8/19/21
Project No.: 21130

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STATE OF NEW HAMPSHIRE – ERIK POULIN No.16669 – LICENSED PROFESSIONAL ENGINEER

REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
(2)	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: GRADING AND DRAINAGE PLAN
Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C3
SHEET 8 OF45
JBE PROJECT NO. 21130

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

OLD MANCHESTER ROAD

RAIL TRAIL

J/B

SHEET 1
SHEET 2

RIPRAP #7
L=12' W1=3.75'
W2=16' D50=3"
T=7.5"

FES 007
INVout=218.25 (P-265)

RIP RAP #8
L=23' W1=9'
W2=32' D50=3"
T=7.5"

FES 008
INVout=217.00 (P-242)

SFW-1
PROPOSED DOUBLE SILT FENCE
OR MULCH BERM

WETLAND SETBACK

INFILTRATION
POND #2
(SEE DTL SHT D4)

DMH 023
RIM=230.00
INVin=221.15 (P-241)
INVout=221.05 (P-242)

TW=211.00
BW=209.00

P-265

P-242
44' - 36" HDPE
S=0.086 FT/FT

234.70
234.20

234.10
233.60

TW=228.00
BW=209.00

TW #4
TW=228.00
BW=209.00

P-241

DMH 016

DMH 024

232.40
231.90

232.20
231.70

DMH
017

233.80
233.30

233.35
232.85

234.55
234.05

235.00
234.50

234.60
234.10

P-263

CB 137

SFW-

P-264

CB 121
RIM=231.50
INVout=228.25 (P-221)

P-262

P-221
112' - 12" HDPE
S=0.006 FT/FT

CB 122
RIM=233.00
INVin=227.55(P-221)
INVout=227.45 (P-222)

P-222
112' - 12" HDPE
S=0.006 FT/FT

TW=225.00
BW=209.00

TW #3

235.35
234.85

235.65
235.15

237.00
236.50

P-261

CB 136

CB 123
RIM=234.60
INVin=226.75(P-222)
INVout=226.65 (P-223)

236.35
235.85

236.55
236.05

P-223
112' - 15" HDPE
S=0.005 FT/FT

237.05
236.55

237.40
236.90

DMH 012
RIM=236.00
INVin=226.05(P-223)
INVout=225.95 (P-224)

DMH
030

236.70

CB 128

UNDERGROUND STONE
INFILTRATION/DETENTION
SYSTEM 3
(SEE DTL SHT. D7)

PROP. WAREHOUSE
550,025 S.F.
F.F.=240.00

CB 120

P-220

CB 119

DMH 011
RIM=236.50
INVin=226.60 (P-239)
INVout=226.50 (P-240)

P-239
237' - 36" HDPE
S=0.006 FT/FT

DMH 010
RIM=235.50
INVin=228.20 (P-238)
INVout=228.10 (P-239)

P-238
237' - 36" HDPE
S=0.005 FT/FT

235.50
235.00

234.60
234.10

240.00

12"-20' HDPE ROOF DRAIN
S=0.02 FT/FT

12"-20' HDPE ROOF DRAIN
S=0.05 FT/FT

237.70
237.50
237.00

238.70
238.50
238.00

239.20
239.00
238.50

239.70
239.50
239.00

239.80
239.30
240.00

239.10
238.60

239.60
239.10

238.95
238.45

239.45
238.95

239.80
239.30
240.00

239.80
240.00

DMH
029

TP204

TP201

TP202

SHEET 1
SHEET 3

SHEET 1
SHEET 2

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.:21130
Drawing Name: 21130-PLAN.dwg		

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STATE OF NEW HAMPSHIRE
ERIK M POULIN
No. 16669
LICENSED PROFESSIONAL ENGINEER

REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
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0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH

J/B Jones & Beach Engineers, Inc.

85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885

Civil Engineering Services

603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	GRADING AND DRAINAGE PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.

C3-1

SHEET 9 OF45
JBE PROJECT NO.21130

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

SHEET 1
SHEET 2

INFILTRATION POND #2 (SEE DTL SHT D4)

METLAND SETBACK

PROPOSED DOUBLE SILT FENCE

PROP. FILTREXX SEDIMENT TRAP

TW=264.00
BW=236.00

TW=269.00
BW=236.00

TW=275.00
BW=236.00

237.00
236.50

P-217

P-219

CB 118

P-218

CB 117 (5' DIAM.)

P-216

CB 116
235.45
234.95

237.00
236.50

DMH 009
RIM=235.50
INVin=229.50 (P-237)
INVout=229.40 (P-238)

P-237
237' - 30" HDPE
S=0.005 FT/FT

DMH 008
RIM=235.50
INVin=230.80 (P-236)
INVout=230.70 (P-237)

P-236
237' - 24" HDPE
S=0.005 FT/FT

DMH 007
RIM=235.50
INVout=232.00 (P-236)

12"-20' HDPE ROOF DRAIN
S=0.05 FT/FT

12"-20' HDPE ROOF DRAIN
S=0.05 FT/FT

12"-20' HDPE ROOF DRAIN
S=0.05 FT/FT

240.00

240.00

PROP. WAREHOUSE
550,025 S.F.
F.F.=240.00

CB 115

PROP. SWALE
L=430', BOT. WIDTH=2'
SLOPE=VARIES

3:1 SLOPE

TW=308.00
BW=236.00

SOLID BEDROCK WALL
SLOPE = 0.25:1

TW=319.00
BW=236.00

SHEET 2
SHEET 4

SHEET 1
SHEET 2

SHEET 2
SHEET 4

3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
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ERIK M POULIN No. 16669 LICENSED PROFESSIONAL ENGINEER - STATE OF NEW HAMPSHIRE

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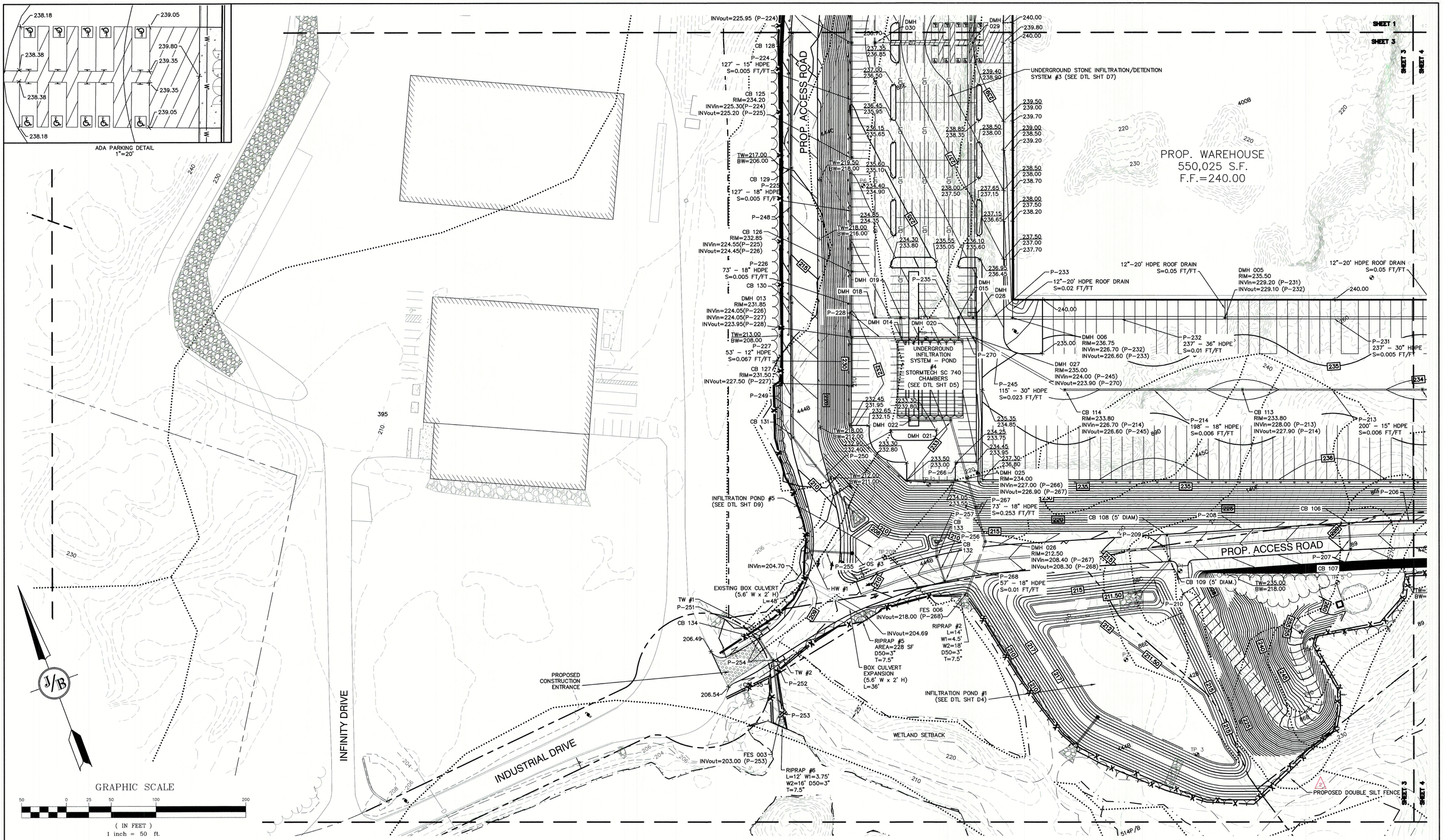
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: GRADING AND DRAINAGE PLAN
Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C3-2
SHEET 10 OF45
JBE PROJECT NO. 21130

ADA PARKING DETAIL
1"=20'



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STATE OF NEW HAMPSHIRE - ERIK M POULIN No.16669 - LICENSED PROFESSIONAL ENGINEER

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Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C3-3
SHEET 11 OF45
JBE PROJECT NO.21130

PROP. WAREHOUSE
550,025 S.F.
F.F.=240.00

PROP. ACCESS ROAD

SOLID BEDROCK WALL
SLOPE = 0.25:1

3:1 SLOPE

2:1 SLOPE

PROPOSED SWALE
L=215', BOT. WIDTH=2'
SLOPE=0.01 FT/FT

PROPOSED FILTREXX
SEDIMENT TRAP

PROPOSED DOUBLE
SILT FENCE

WETLAND SETBACK

DMH 004
RIM=235.50
INVin=230.50 (P-230)
INVout=230.40 (P-231)

DMH 003
RIM=235.50
INVin=231.80 (P-229)
INVout=231.70 (P-230)

DMH 002
RIM=235.50
INVout=233.00 (P-229)

DMH 001

DMH 028
237.00
236.50

12"-20' HDPE ROOF DRAIN
S=0.05 FT/FT

12"-20' HDPE ROOF DRAIN
S=0.05 FT/FT

P-230
237' - 24" HDPE
S=0.005 FT/FT

P-229
237' - 18" HDPE
S=0.005 FT/FT

P-212
198' - 12" HDPE
S=0.006 FT/FT

P-211
236.35
235.85

P-201
237.30
236.80

CB 100
CB 101
CB 102
CB 103
CB 104
CB 105
CB 110
CB 111
RIM=233.80
INVout=230.50 (P-212)
CB 112
RIM=233.80
INVin=229.30 (P-212)
INVout=229.20 (P-213)

P-200
P-202
P-203
P-204
P-205
P-215
P-269

235.00
234.50

235.00
234.50

TW=302.00
BW=236.00

TW=282.00
BW=236.00

TW=303.00
BW=236.00

TW=266.00
BW=236.00

TW=268.00
BW=236.00

TW=278.00
BW=233.00

TW=296.00
BW=231.00

TW=243.00
BW=227.00

TW=237.00
BW=225.00

TW=260.00
BW=222.00

SHEET 1
SHEET 2
SHEET 3
SHEET 4

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

Design: WGM	Draft: GDR	Date: 8/19/21
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Drawing Name: 21130-PLAN.dwg		

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STATE OF NEW HAMPSHIRE
ERIK M POULIN No.16669 LICENSED
PROFESSIONAL ENGINEER
1/11/23

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Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C3-4
SHEET 12 OF45
JBE PROJECT NO. 21130

APPROVED - RAYMOND, NH
PLANNING BOARD

_____

_____

_____

_____

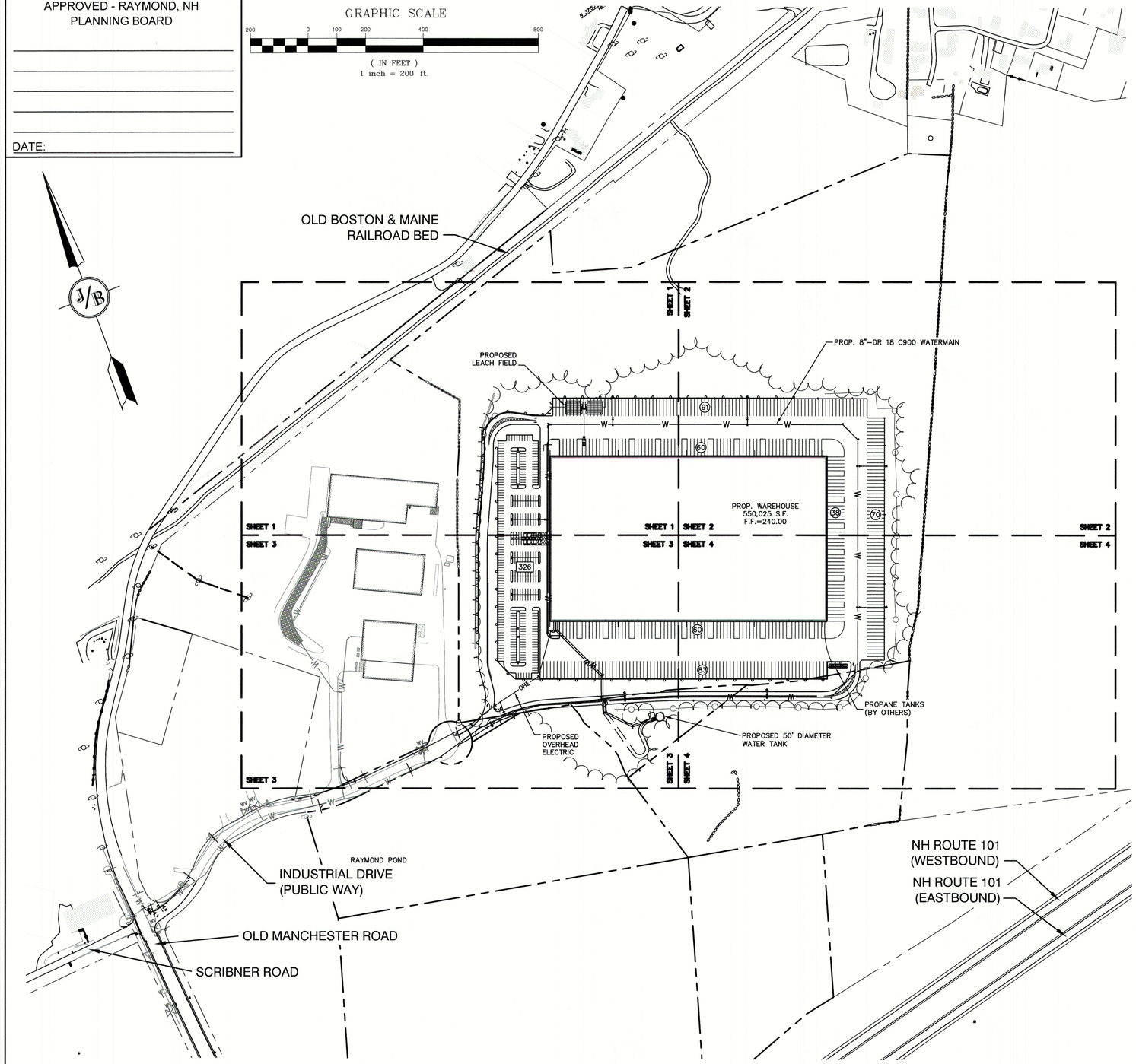
_____

DATE: _____

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.



UTILITY NOTES:

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, CONNECTION FEES AND BONDS.
2. THE CONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF FOURTEEN (14) DAYS TO ALL CORPORATIONS, COMPANIES AND/OR LOCAL AUTHORITIES OWNING OR HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
3. THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANY (ELECTRIC, TELEPHONE, CABLE TELEVISION, FIRE ALARM, GAS, WATER, AND SEWER).
4. A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER, ENGINEER, ARCHITECT, CONTRACTOR, LOCAL OFFICIALS, AND ALL PROJECT-RELATED UTILITY COMPANIES (PUBLIC AND PRIVATE) PRIOR TO START OF CONSTRUCTION.
5. ALL CONSTRUCTION SHALL CONFORM TO THE TOWN STANDARDS AND REGULATIONS, AND NHDES STANDARDS AND SPECIFICATIONS, WHICHEVER ARE MORE STRINGENT, UNLESS OTHERWISE SPECIFIED.
6. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
7. BUILDING TO BE SERVICED BY UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS. ENGINEER TO BE NOTIFIED.
9. AS-BUILT PLANS SHALL BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS.
10. INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW AT CHANGES IN DIRECTION. THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE THROUGH CHANNEL UNDERLAYMENT OF INVERT, AND SHELF SHALL CONSIST OF BRICK MASONRY.
11. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30 INCH DIA, CLEAR OPENING. THE WORD "SEWER" OR DRAIN" SHALL BE CAST INTO THE CENTER OF THE UPPER FACE OF EACH COVER WITH RAISED, 3" LETTERS.
12. SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H20 LOADS.
13. CONTRACTOR SHALL PLACE 2" WIDE METAL WIRE IMPREGNATED RED PLASTIC WARNING TAPE OVER ENTIRE LENGTH OF ALL GRAVITY SEWERS, SERVICES, AND FORCE MAINS.
14. SANITARY SEWER FLOW CALCULATIONS:
    15 GPD/EMPLOYEE = 15 GPD X 326 = 4890 GPD
15. ALL SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS.
16. PROPOSED RIM ELEVATIONS OF DRAINAGE AND SANITARY MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES AND OTHER UTILITIES TO FINISH GRADE AS SHOWN ON THE GRADING AND DRAINAGE PLAN.
17. ALL WATER MAINS AND SERVICE PIPES SHALL HAVE A MINIMUM 12" VERTICAL AND 24" HORIZONTAL SEPARATION TO MANHOLES, OR CONTRACTOR SHALL INSTALL BOARD INSULATION FOR FREEZING PROTECTION.
18. WATER MAINS SHALL BE HYDROSTATICALLY PRESSURE TESTED FOR LEAKAGE PRIOR TO ACCEPTANCE. WATERMAINS SHALL BE TESTED AT 1.5 TIMES THE WORKING PRESSURE OR 150 PSI, WHICH EVER IS GREATER. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 4 OF AWWA STANDARD C 600. WATERMAINS SHALL BE DISINFECTED AFTER THE ACCEPTANCE OF THE PRESSURE AND LEAKAGE TESTS ACCORDING TO AWWA STANDARD C 651.
19. ALL WATER AND SANITARY LEADS TO BUILDING(S) SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLANS AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AND WITNESS AT END.
20. IF THE BUILDING IS REQUIRED TO HAVE A SPRINKLER SYSTEM, A PRECONSTRUCTION MEETING SHALL BE HELD BETWEEN THE CONTRACTOR, OWNER, ARCHITECT AND THE LOCAL FIRE DEPARTMENT PRIOR TO THE INSTALLATION.
21. THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, MECHANICAL JOINTS AND FIRE HYDRANTS.
22. DIMENSIONS ARE SHOWN TO CENTERLINE OF PIPE OR FITTING.
23. REFER TO FIRE PROTECTION SHEETS FOR LOCATION AND DETAIL OF FIRE LINE LEAD IN TO BUILDING. FIRE LINE SHALL BE STUBBED UP 1' ABOVE FINISH FLOOR ELEVATION IN SPRINKLER ROOM. AN APPROVED AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH 101 LIFE SAFETY CODE/NFPA 1 AND LOCAL REGULATIONS. FIRE DEPARTMENT CONNECTION SHALL BE FIELD VERIFIED BY LOCAL FIRE DEPARTMENT TO ENSURE OPTIMUM PLACEMENT.
24. THE CONTRACTOR SHALL HAVE THE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER FIRE PROTECTION SYSTEM PRIOR TO INSTALLATION.
25. CONTRACTOR TO FURNISH SHOP DRAWINGS FOR UTILITY RELATED ITEMS TO ENSURE CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SHOULD BE SENT IN TRIPLICATE TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
26. EXISTING UTILITIES SHALL BE DIGSAFED BEFORE CONSTRUCTION.
27. ALL WATER LINES SHOULD HAVE TESTABLE BACKFLOW PREVENTERS AT THE ENTRANCE TO EACH BUILDING.
28. ALL GRAVITY SEWER PIPE, MANHOLES, AND FORCE MAINS SHALL BE TESTED ACCORDING TO NHDES STANDARDS OF DESIGN AND CONSTRUCTION FOR SEWAGE AND WASTEWATER TREATMENT FACILITIES, CHAPTER ENV-WQ 700. ADOPTED ON 10-15-14.
29. ENV-WQ 704.06 GRAVITY SEWER PIPE TESTING: GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY USE OF LOW-PRESSURE AIR TESTS CONFORMING WITH ASTM F1417-92(2005) OR UNI-BELL PVC PIPE ASSOCIATION UNI-B-6. LINES SHALL BE CLEANED AND VISUALLY INSPECTED AND TRUE TO LINE AND GRADE. DEFLECTION TESTS SHALL TAKE PLACE AFTER 30 DAYS FOLLOWING INSTALLATION AND THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5% OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANDREL WITH A DIAMETER OF AT LEAST 95% OF THE AVERAGE INSIDE PIPE DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES.
30. ENV-WQ 704.17 SEWER MANHOLE TESTING: SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST PRIOR TO BACKFILLING AND PLACEMENT OF SHELVES AND INVERTS.
31. SANITARY SEWER LINES SHALL BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM AN EXISTING OR PROPOSED WATER LINE. WHEN A SEWER LINE CROSSES UNDER A WATER LINE, THE SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATERMAIN. THE SEWER LINE SHALL ALSO MAINTAIN A VERTICAL SEPARATION OF NOT LESS THAN 18 INCHES.
32. SEWERS SHALL BE BURIED TO A MINIMUM DEPTH OF 6 FEET BELOW GRADE IN ALL ROADWAY LOCATIONS, AND TO A MINIMUM DEPTH OF 4 FEET BELOW GRADE IN ALL CROSS-COUNTRY LOCATIONS. PROVIDE TWO-INCHES OF R-10 FOAM BOARD INSULATION 2-FOOT WIDE TO BE INSTALLED 6-INCHES OVER SEWER PIPE IN AREAS WHERE DEPTH IS NOT ACHIEVED. A WAIVER FROM THE DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER ENGINEERING BUREAU IS REQUIRED PRIOR TO INSTALLING SEWER AT LESS THAN MINIMUM COVER.
33. ALL WATER AND SANITARY LEADS TO BUILDING(S) SHALL END AT RIGHT OF WAY AS SHOWN ON PLANS AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AND WITNESS AT END.
34. THE CONTRACTOR SHALL MINIMIZE THE DISRUPTIONS TO THE EXISTING SEWER FLOWS AND THOSE INTERRUPTIONS SHALL BE LIMITED TO FOUR (4) HOURS OR LESS AS DESIGNATED BY THE TOWN SEWER DEPARTMENT.
35. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRIC CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
36. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
37. DISINFECTION OF WATER MAINS SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH AWWA STANDARD C651, LATEST EDITION. THE BASIC PROCEDURE TO BE FOLLOWED FOR DISINFECTING WATER MAINS IS AS FOLLOWS:
    a. PREVENT CONTAMINATING MATERIALS FROM ENTERING THE WATER MAIN DURING STORAGE, CONSTRUCTION, OR REPAIR.
    b. REMOVE, BY FLUSHING OR OTHER MEANS, THOSE MATERIALS THAT MAY HAVE ENTERED THE WATER MAINS.
    c. CHLORINATE ANY RESIDUAL CONTAMINATION THAT MAY REMAIN, AND FLUSH THE CHLORINATED WATER FROM THE MAIN.
    d. PROTECT THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW DUE TO HYDROSTATIC PRESSURE TEST AND DISINFECTION PROCEDURES.
    e. DETERMINE THE BACTERIOLOGICAL QUALITY BY LABORATORY TEST AFTER DISINFECTION.
    f. MAKE FINAL CONNECTION OF THE APPROVED NEW WATER MAIN TO THE ACTIVE DISTRIBUTION SYSTEM
38. PROPOSED WATER TANK TO BE DESIGNED BY OTHERS.
39. FIRE SUPPRESSION SYSTEM TO CONFORM TO DESIGN REQUIREMENTS REPORT, CREATED BY CODE RED CONSULTANTS, LLC, NOVEMBER 15, 2022. CONTRACTOR TO ENSURE HYDRANT COLOR CONFORMS TO DESIGN REQUIREMENTS.

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR
Checked: WGM	Scale: AS NOTED
Drawing Name: 21130-PLAN.dwg	Date: 8/19/21
	Project No.:21130

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

STATE OF NEW HAMPSHIRE – ERIK M POULIN No.16669 – LICENSED PROFESSIONAL ENGINEER

REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	UTILITY PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C4
SHEET 13 OF45
JBE PROJECT NO. 21130

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

OLD MANCHESTER ROAD

RAIL TRAIL

PROP. LIGHT POLE (TYP.)

PROPOSED LEACH FIELD

P-403
5' - 6" SDR21 PVC
S=0.005 FT/FT

PROP. HYDRANT

PROP. 10"x10" TEE W/ GATE VALVES

P-402
98' - 6" SDR21 PVC
S=0.005 FT/FT

PROP. 8" DR18 C900 WATER MAIN

PROP. 10" DR18 C900 WATER MAIN

3,000 GAL TANK #2
INVin=225.50
INVout=225.25

3,000 GAL TANK #1
INVin=225.80
INVout=225.55

PROP. 10"x10" TEE W/ GATE VALVE

P-401
5' - SDR21 PVC
S=0.01 FT/FT

P-400
36' - SDR21 PVC
S=0.006 FT/FT

PROP. 10" DR18 C900 WATER MAIN

PROP. WAREHOUSE
550,025 S.F.
F.F.=240.00

PROP. HYDRANT

PROP. 8" DR18 C900 WATER MAIN

SHEET 1
SHEET 3
SHEET 2

Design: WGM	Draft: GDR
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Drawing Name: 21130-PLAN.dwg	Date: 8/19/21 Project No.:21130

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STATE OF NEW HAMPSHIRE
ERIK N POULIN
No.16669
LICENSED
PROFESSIONAL ENGINEER

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DRAWING No.

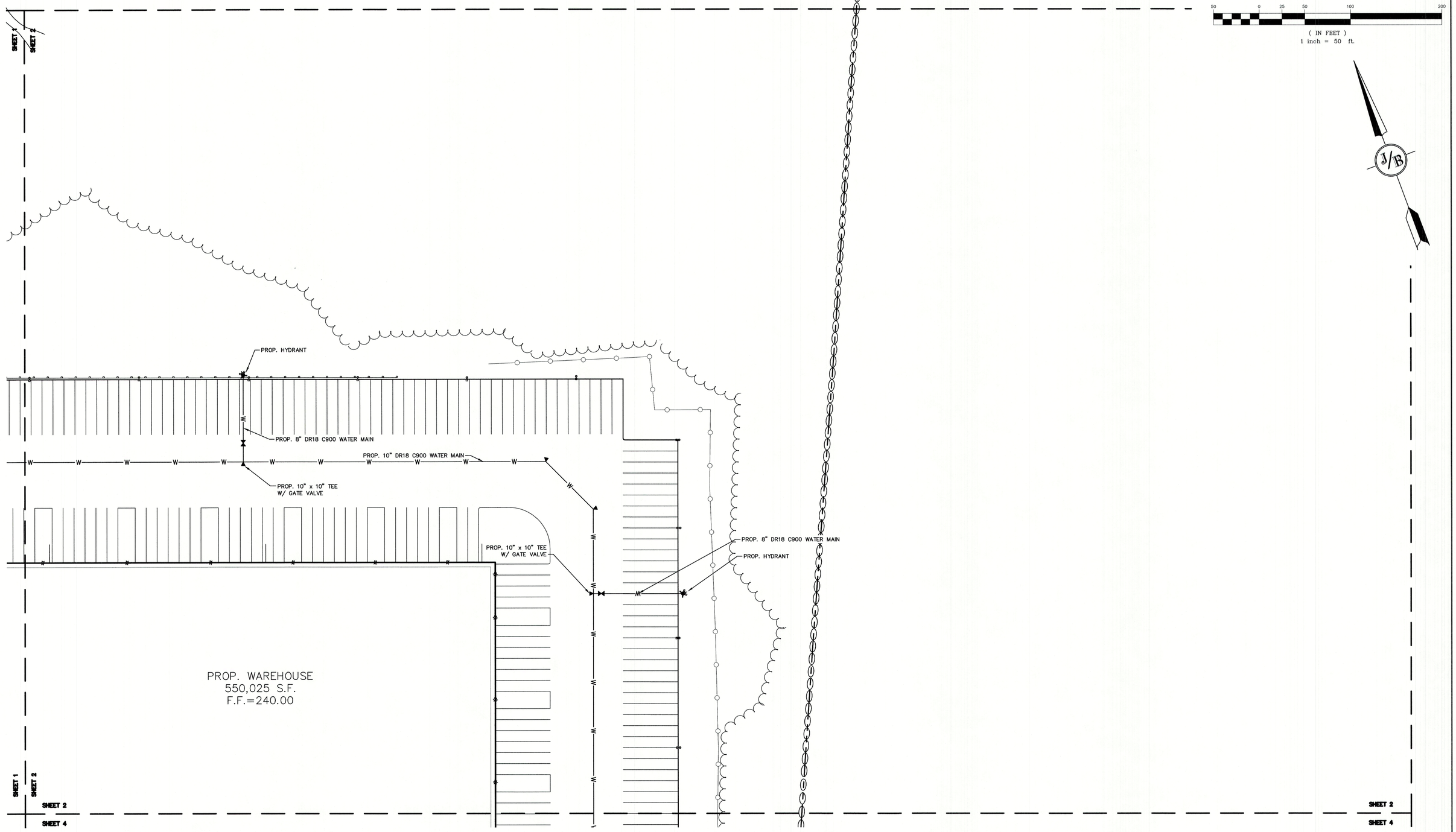
C4-1

SHEET 14 OF 45
JBE PROJECT NO. 21130

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



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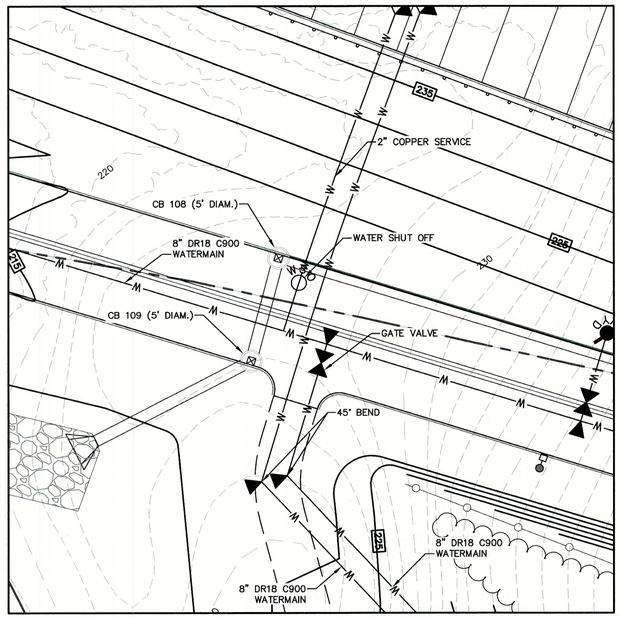
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C4-2
SHEET 15 OF45
JBE PROJECT NO. 21130



WATERLINE INTERSECTION DETAIL
1"=20'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

Design: WGM	Draft: GDR
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Drawing Name: 21130-PLAN.dwg	

Date: 8/19/21
Project No.:21130

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ERIK M POULIN No.16669 LICENSED
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Plan Name:	UTILITY PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C4-3
SHEET 16 OF45
JBE PROJECT NO.21130

SHEET 2
SHEET 4
SHEET 3
SHEET 4

PROP. WAREHOUSE
550,025 S.F.
F.F.=240.00

PROP. HYDRANT

PROP. TEE 8"x 8"
W/ GATE VALVE

PROP. 1" GAS LINE

PROPOSED GUARDRAIL (TYP.)

UNDERGROUND PROPANE TANKS (BY OTHERS)

C900

PROP. HYDRANT

PROP. ACCESS ROAD

PROP. TEE 10" x 10"
W/ GATE VALVE

PROP. LIGHT POLE (TYP.)

SHEET 3
SHEET 4

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.:21130
Drawing Name: 21130-PLAN.dwg		

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Plan Name:	UTILITY PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C4-4
SHEET 17 OF45
JBE PROJECT NO.21130

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

SCRIBNER ROAD

OLD MANCHESTER ROAD

EXISTING 12" D.I. WATERMAIN

RELOCATED HYDANT

RELOCATED R1-1 "STOP SIGN"

R3-8 (14)

INV=194.83

205.01

R3-8 (14)

205.82

12'

R=231'

R=267'

12'

12'

205.77

205.54

205.41

205.91

205.42

205.65

PROPOSED MILLING (LIMIT OF WORK)

PROPOSED MILLING

EX. DRAINAGE 24" CPP INV=195.61

SHEET 3

PROPOSED SIGN "TRUCKS NO RIGHT TURN"

CONNECT TO EXISTING POLE

PROPOSED 3-PHASE OVERHEAD POWER

PROPOSED UTILITY POLE

INFINITY DRIVE

EX. 8" WATER LINE

PROPOSED UTILITY POLE

INV=203.32

EX. HYDRANT

PROPOSED UTILITY POLE

INDUSTRIAL DRIVE

206.49

206.54

PROP. ROAD

PROP. HYDRANT

PROP. 8" TEE W/ GATE VALVES

PROP. 8" D.I. WATER MAIN L=188'

D.I. X D18 C900 D.J. TRANSITION JOINT

PROPOSED SIGN "NO TRUCK IDLE"

EX. 8" D.I. WATERMAIN

EX. DRAINAGE 15" CPP FES INV=202.91

PROPOSED SIGN "NO TRUCK IDLE"

EX. WATER VALVE CONNECT TO EXISTING 8" WATER MAIN

EXISTING POND

Design: WGM	Draft: GDR
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Drawing Name: 21130-PLAN.dwg	

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Plan Name:	INDUSTRIAL DRIVE PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.

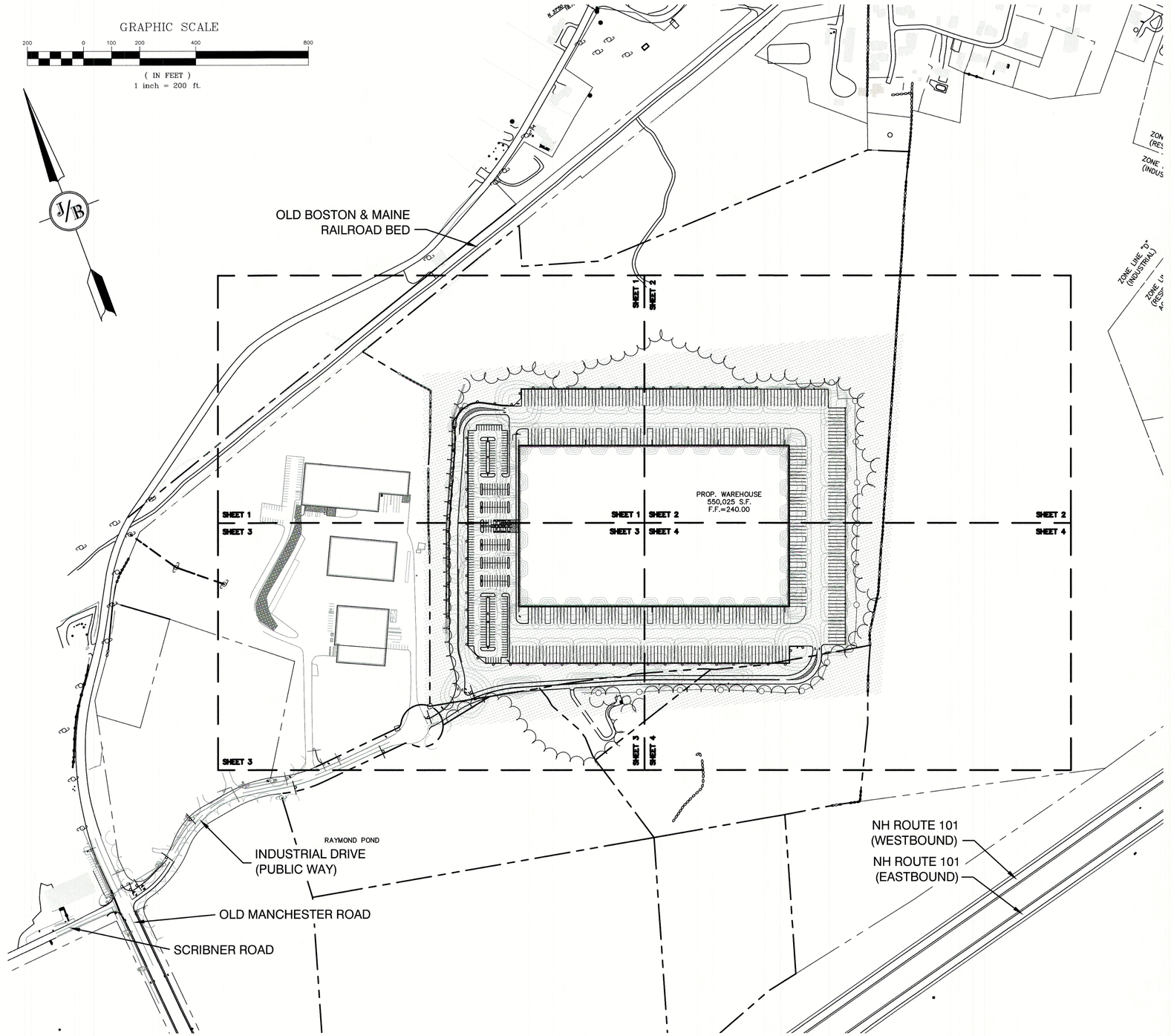
C4-5

SHEET 18 OF45
JBE PROJECT NO. 21130

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.



LIGHTING AND ELECTRICAL NOTES:

1. SITE ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
2. CONTRACTOR SHALL INSTALL PROPOSED LIGHT POLES ACCORDING TO TOWN REGULATIONS.
3. ALL OUTDOOR LIGHTING SYSTEMS SHALL BE EQUIPPED WITH TIMERS TO REDUCE ILLUMINATION LEVELS TO NON-OPERATIONAL VALUES PER TOWN REGULATIONS.
4. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
5. ILLUMINATION READINGS SHOWN ARE BASED ON A TOTAL LLF OF 0.75 AT GRADE. ILLUMINATION READINGS SHOWN ARE IN UNITS OF FOOT-CANDLES.
6. LIGHTING CALCULATIONS SHOWN ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM AND SAFETY.
7. ALL LIGHTING FIXTURES SHALL BE FULL CUT-OFF DARK-SKY COMPLIANT, UNLESS OTHERWISE NOTED.
8. SEE SHEET D1 FOR LIGHTING DETAILS.
9. EXTEND A 480/277V, 3" DIAMETER SERVICE TO ROAD SIGN. INSTALL A 30A 3P NEMA 3R DISC. SWITCH (EACH LEG FUSED @ 20A). SIGN REQUIRES (3) 20A 277V CIRCUITS.
10. THE PROPOSED LIGHTING CALCULATIONS AND DESIGN WAS PERFORMED BY CHARRON, INC., P.O. BOX 4550, MANCHESTER, NH 03108, ATTENTION KEN SWEENEY. ALL LIGHTS SHOULD BE PURCHASED FROM THIS COMPANY, OR AN EQUAL LIGHTING DESIGN SHOULD BE SUBMITTED FOR REVIEW IF EQUAL SUBSTITUTIONS ARE PROPOSED BY THE CONTRACTOR OR OWNER.

Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
	8	S3	Single	GLEON-SA2C-740-U-SL3 / SSS4A20SFN1 MTD ON 2.5' BASE (23.5' AFG)
	25	S4	Single	GLEON-SA3C-740-U-T4FT-HSS / SSS4A20SFN1 MTD ON 2.5' BASE (23.5' AFG)
	10	S5-2	Back-Back	GLEON-SA2C-740-U-5WQ / SSS4A20SFN2 MTD ON 2.5' BASE (23.5' AFG)
☼	36	W4	Single	GWC-SA2C-740-U-T4FT / WALL MTD 20' AFG

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
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123.52± ACRES

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STATE OF NEW HAMPSHIRE
ERIK M POULIN
No. 16669
LICENSED PROFESSIONAL ENGINEER

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Civil Engineering Services
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FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: LIGHTING PLAN
Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
L1
SHEET 19 OF45
JBE PROJECT NO. 21130

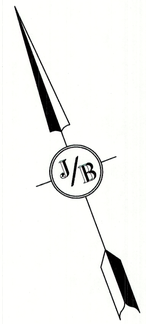
GRAPHIC SCALE

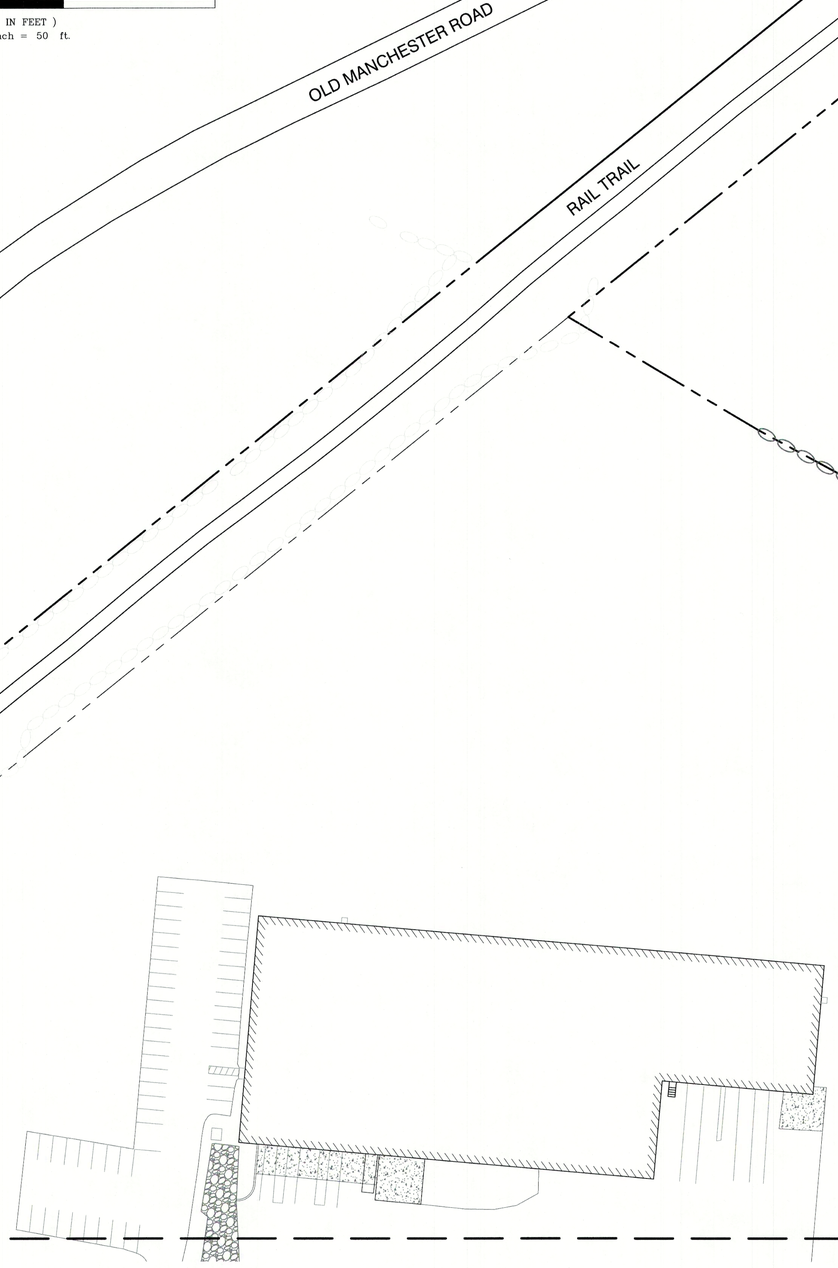
50 0 25 50 100 200

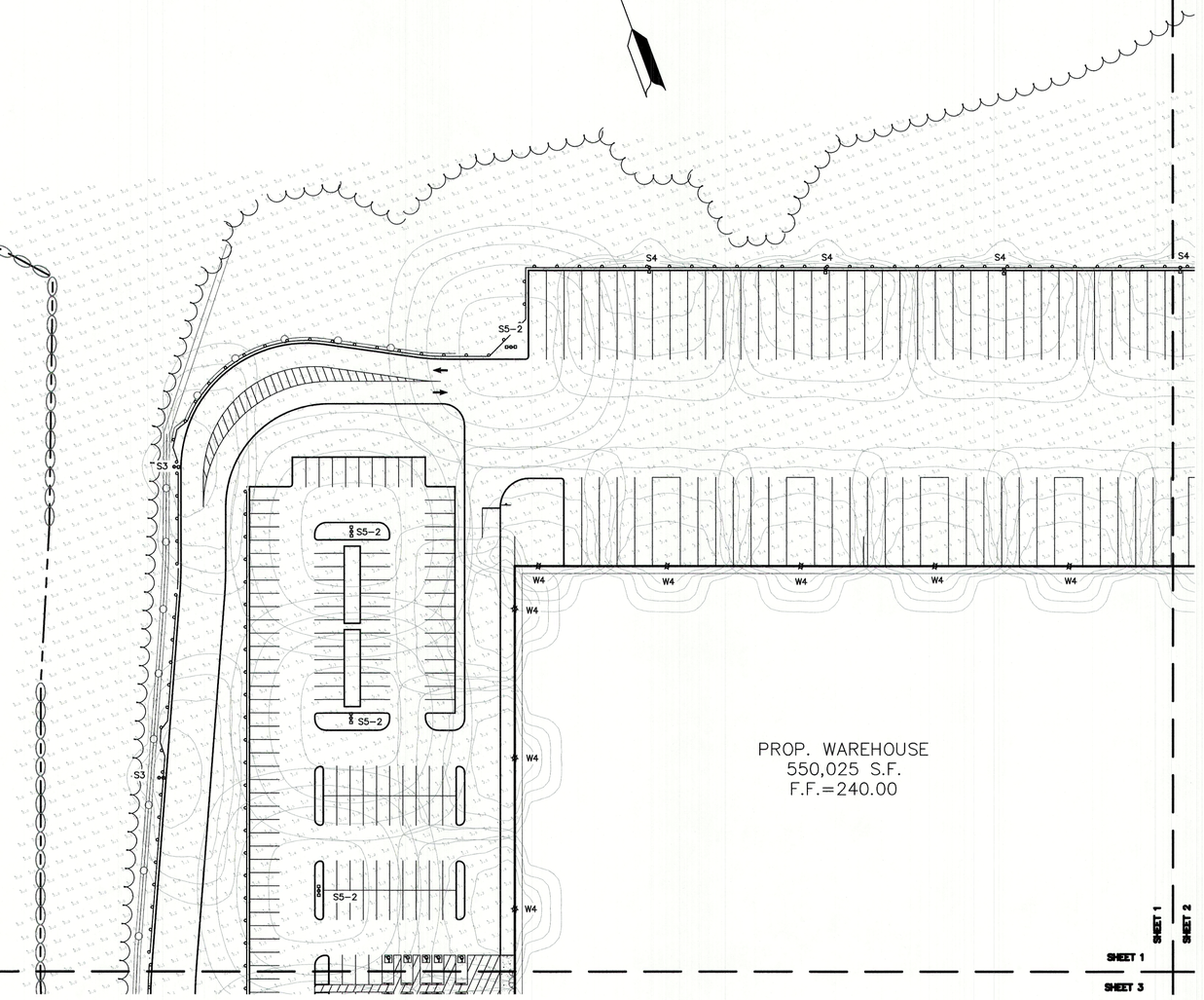
(IN FEET)
1 inch = 50 ft.

OLD MANCHESTER ROAD

RAIL TRAIL







SHEET 1
SHEET 2
SHEET 3

Design: WGM	Draft: GDR
Checked: WGM	Scale: AS NOTED
Drawing Name: 21130-PLAN.dwg	

Date: 8/19/21
Project No.:21130

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REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: LIGHTING PLAN

Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH

Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

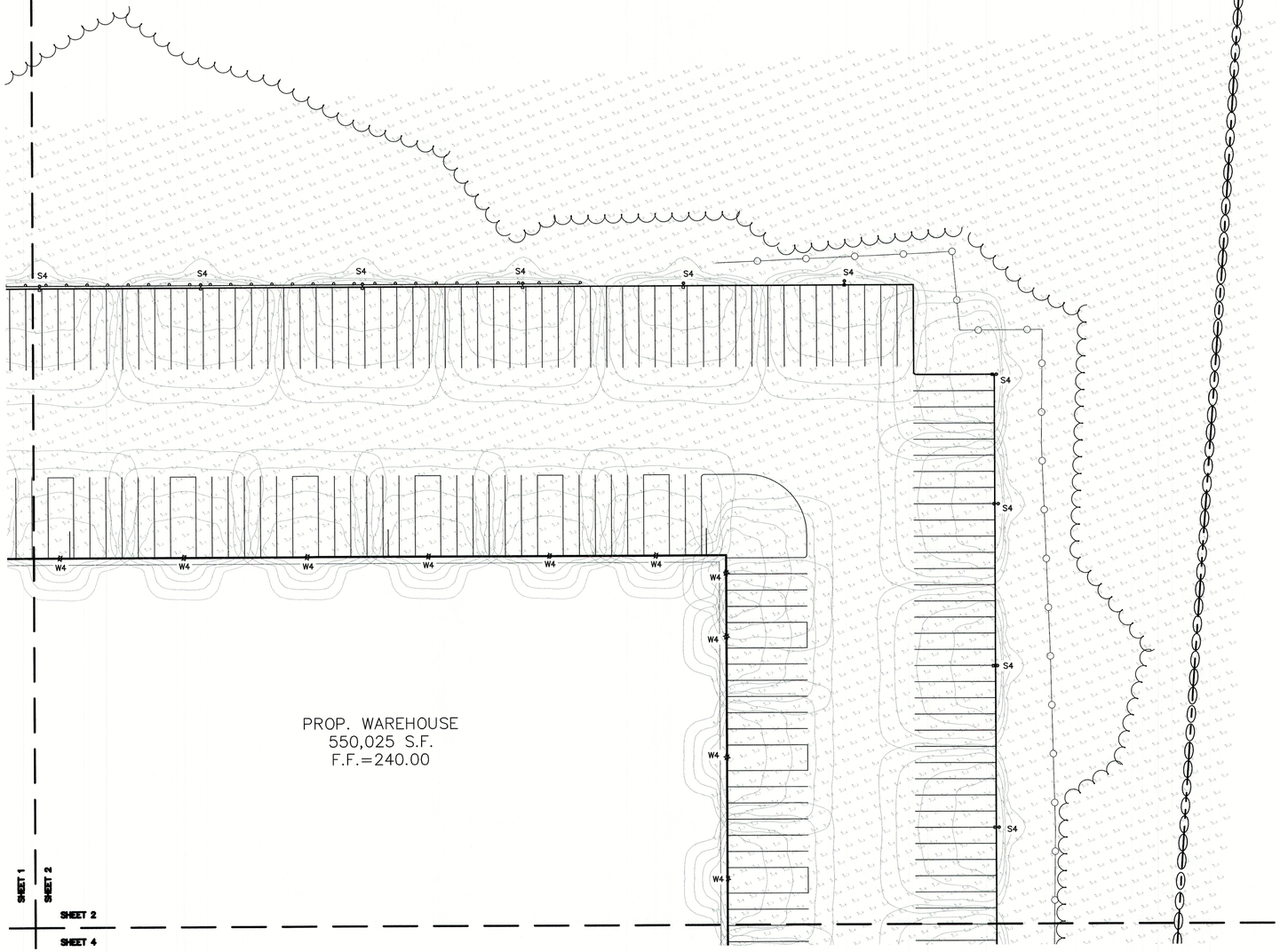
DRAWING No.
L1-1
SHEET 20 OF45
JBE PROJECT NO.21130

SHEET 1
SHEET 2

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



J/B

SHEET 1
SHEET 2
SHEET 2
SHEET 4
SHEET 2
SHEET 4

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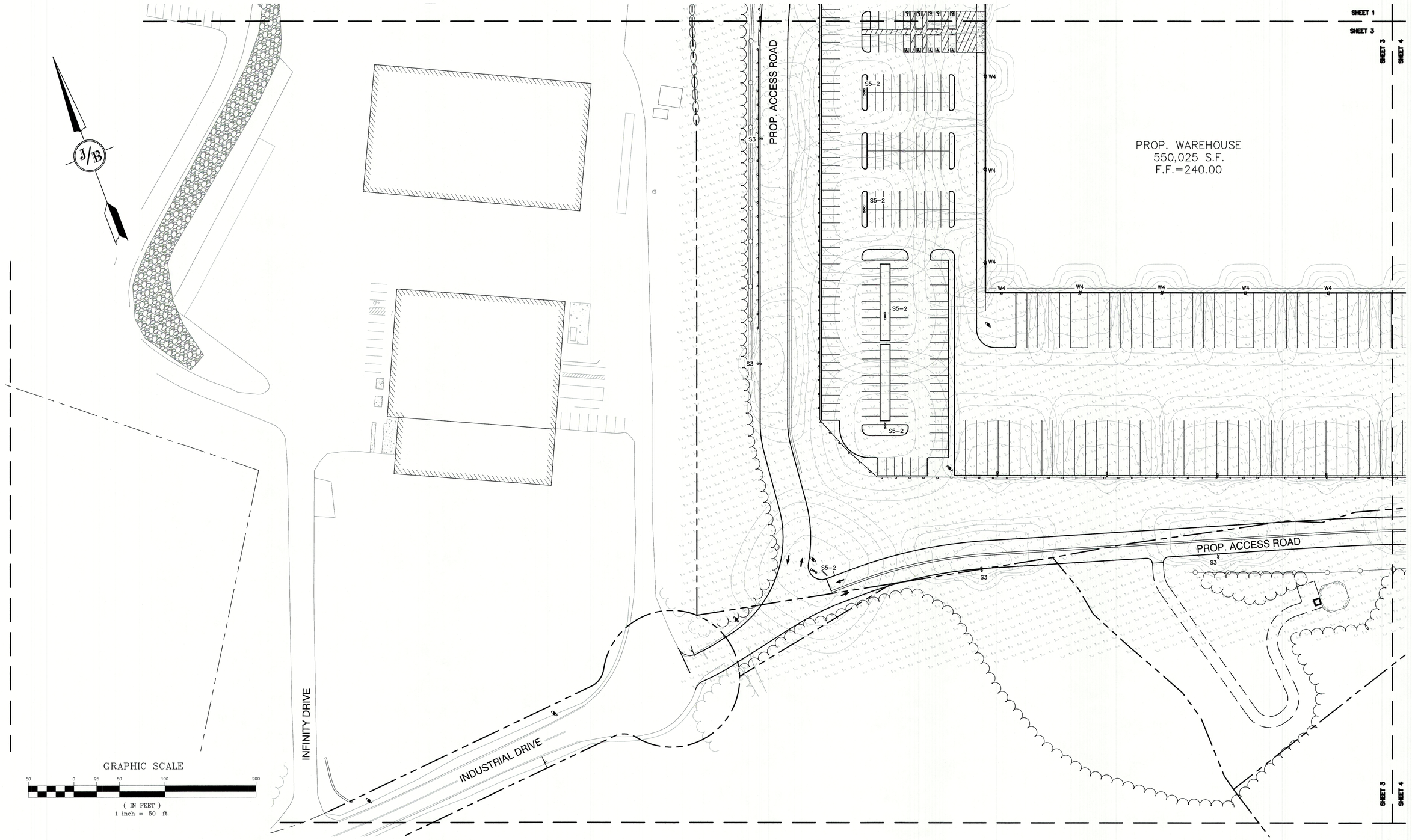
DRAWING No.
L1-2
SHEET 21 OF45
JBE PROJECT NO. 21130



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Plan Name:	LIGHTING PLAN
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Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.

L1-3

SHEET 22 OF45
JBE PROJECT NO.21130

SHEET 2
SHEET 4
SHEET 3
SHEET 4

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

PROP. WAREHOUSE
550,025 S.F.
F.F.=240.00

W4 W4 W4 W4 W4 W4 W4 W4 W4 W4

S4 S4 S4 S4 S4 S4 S4 S4

S5-2

PROP. ACCESS ROAD

S3 S3

SHEET 2
SHEET 4

J/B

SHEET 3
SHEET 4

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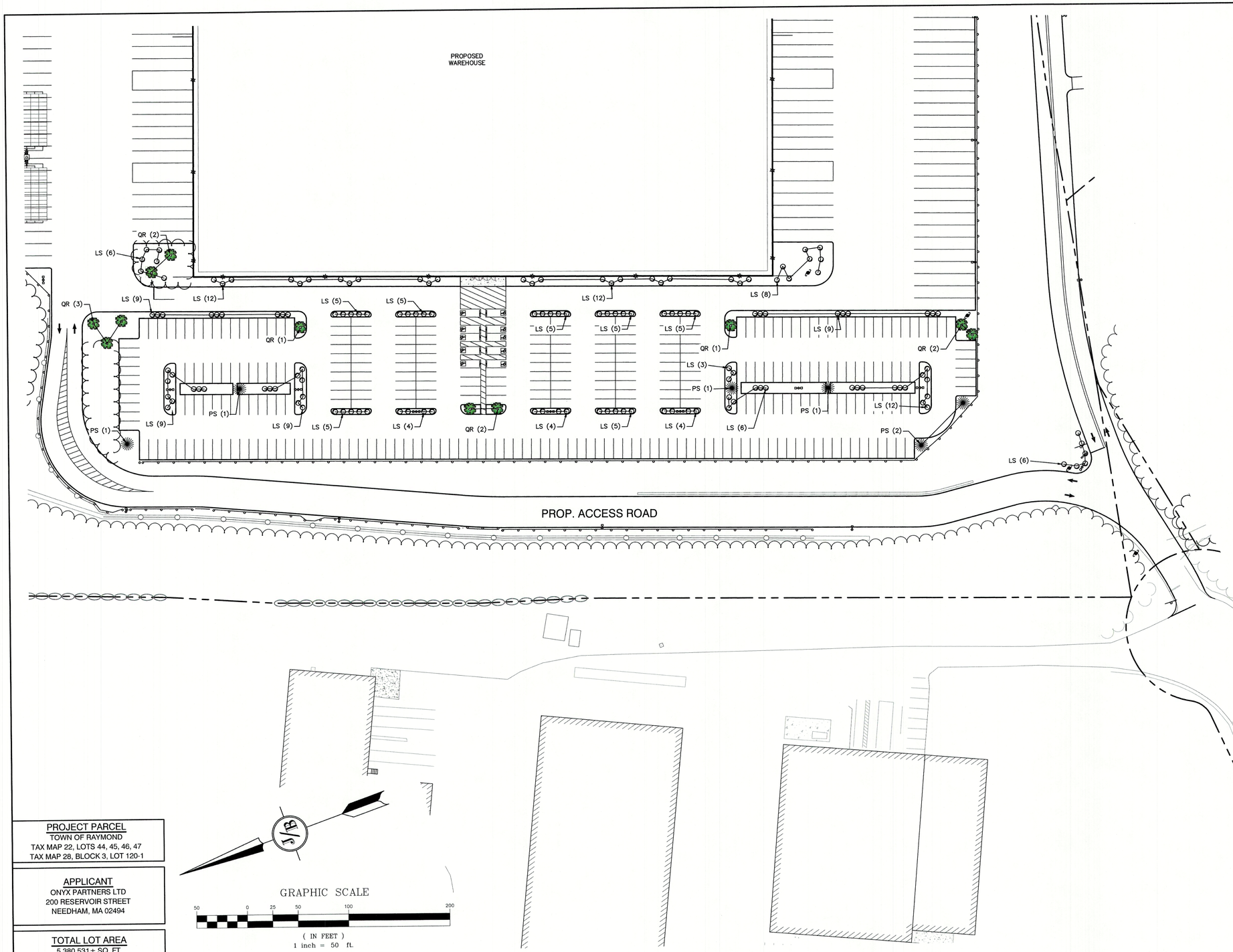
DRAWING No.
L1-4
SHEET 23 OF45
JBE PROJECT NO. 21130



LANDSCAPE NOTES:

1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS.
3. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
4. ALL PLANT SUBSTITUTIONS MUST BE APPROVED THE LANDSCAPE DESIGNER.
5. ALL PLANT MATERIALS SHALL BE EXACTLY AS SPECIFIED BY THE LANDSCAPE DESIGNER. IF PLANT SPECIES CULTIVARS ARE FOUND TO VARY FROM THAT SPECIFIED AT ANY TIME DURING THE GUARANTEE PERIOD, THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO HAVE THE CONTRACTOR REPLACE THAT PLANT MATERIAL.
6. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, UPON DELIVERY OR AT THE JOB SITE WHILE WORK IS ON–GOING FOR CONFORMITY TO SPECIFIED QUALITY, SIZE AND VARIETY.
7. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE AT LEAST ONE (1) GROWING SEASON. ROOT–BOUND PLANTS OR INADEQUATELY SIZED CONTAINERS TO SUPPORT THE PLANT MAY BE DEEMED UNACCEPTABLE.
8. NO PLANT SHALL BE PUT IN THE GROUND BEFORE GRADING HAS BEEN FINISHED AND APPROVED BY THE LANDSCAPE DESIGNER.
9. ALL WORK AND PLANTS SHALL BE DONE, INSTALLED AND DETAILED IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
10. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24–HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN IF NECESSARY, DURING THE FIRST GROWING SEASON.
11. ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR FOR NOT LESS THAN ONE FULL YEAR FROM THE TIME OF PROVISIONAL ACCEPTANCE. DURING THIS TIME, THE OWNER SHALL MAINTAIN ALL PLANT MATERIALS IN THE ABOVE MANNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT THE PLANTS TO ENSURE PROPER CARE. IF THE CONTRACTOR IS DISSATISFIED WITH THE CARE GIVEN, HE SHALL IMMEDIATELY, AND IN SUFFICIENT TIME TO PERMIT THE CONDITION TO BE RECTIFIED, NOTIFY THE LANDSCAPE DESIGNER IN WRITING OR OTHERWISE FORFEIT HIS CLAIM.
12. FINAL ACCEPTANCE BY THE LANDSCAPE DESIGNER WILL BE MADE UPON THE CONTRACTOR'S REQUEST AFTER ALL CORRECTIVE WORK HAS BEEN COMPLETED.
13. BY THE END OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL HAVE REPLACED ANY PLANT MATERIAL THAT IS MISSING, NOT TRUE TO SIZE AS SPECIFIED, THAT HAS DIED, LOST NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESSIVE PRUNING OR INADEQUATE OR IMPROPER CARE, OR THAT IS, IN THE OPINION OF THE LANDSCAPE DESIGNER, IN UNHEALTHY OR UNSIGHTLY CONDITION.
14. ALL LANDSCAPE AREAS TO BE GRASS COMMON TO REGION, EXCEPT FOR INTERIOR LANDSCAPED ISLANDS OR WHERE OTHER PLANT MATERIAL IS SPECIFIED.
15. ALL TREES AND SHRUBS SHALL BE PLANTED IN MULCH BEDS WITH EDGE STRIPS TO SEPARATE TURF GRASS AREAS.
16. THE CONTRACTOR SHALL REMOVE WEEDS, ROCKS, CONSTRUCTION ITEMS, ETC. FROM ANY LANDSCAPE AREA SO DESIGNATED TO REMAIN, WHETHER ON OR OFF–SITE. GRASS SEED OR PINE BARK MULCH SHALL BE APPLIED AS DEPICTED ON PLANS.
17. FINISHED GRADES IN LANDSCAPED ISLANDS SHALL BE INSTALLED SO THAT THEY ARE 1" HIGHER THAN THE TOP OF THE SURROUNDING CURB.
18. ALL LANDSCAPING SHALL MEET THE TOWN STANDARDS AND REGULATIONS.
19. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY SNOW FENCING AT THE DRIPLINE OF THE TREE. THE CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS WITHIN THE LANDSCAPED AREAS. ANY DAMAGE TO EXISTING TREES, SHRUBS OR LAWN SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
20. ALL MULCH AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER A 10 MIL WEED MAT EQUAL TO 'WEEDBLOCK' BY EASY GARDENER OR DEWITT WEED BARRIER.
21. ALL LANDSCAPED AREAS SHALL HAVE SELECT MATERIALS REMOVED TO A DEPTH OF AT LEAST 9" BELOW FINISH GRADE. THE RESULTING VOID IS TO BE FILLED WITH A MINIMUM OF 9" HIGH–QUALITY SCREENED LOAM AMENDED WITH 3" OF AGED ORGANIC COMPOST.
22. THIS PLAN IS INTENDED FOR LANDSCAPING PURPOSES ONLY. REFER TO CIVIL/SITE DRAWINGS FOR OTHER SITE CONSTRUCTION INFORMATION.
23. IRRIGATION PIPING SYSTEM SHALL BE REVIEWED AND APPROVED BY OWNER AND ENGINEER PRIOR TO INSTALLATION.

PLANT LEGEND:

SYMBOL	KEY	QTY	DESCRIPTION
	PS	6	PINUS STROBUS – EASTERN WHITE PINE
	QR	11	QUERCUS RUBRA – RED OAK
	LS	148	LANDSCAPE SHRUB (COMMON LILAC, VANHOUTTE SPIREA, COMMON BOXWOOD, RHODODENDRON, OR APPROVED EQUAL)

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

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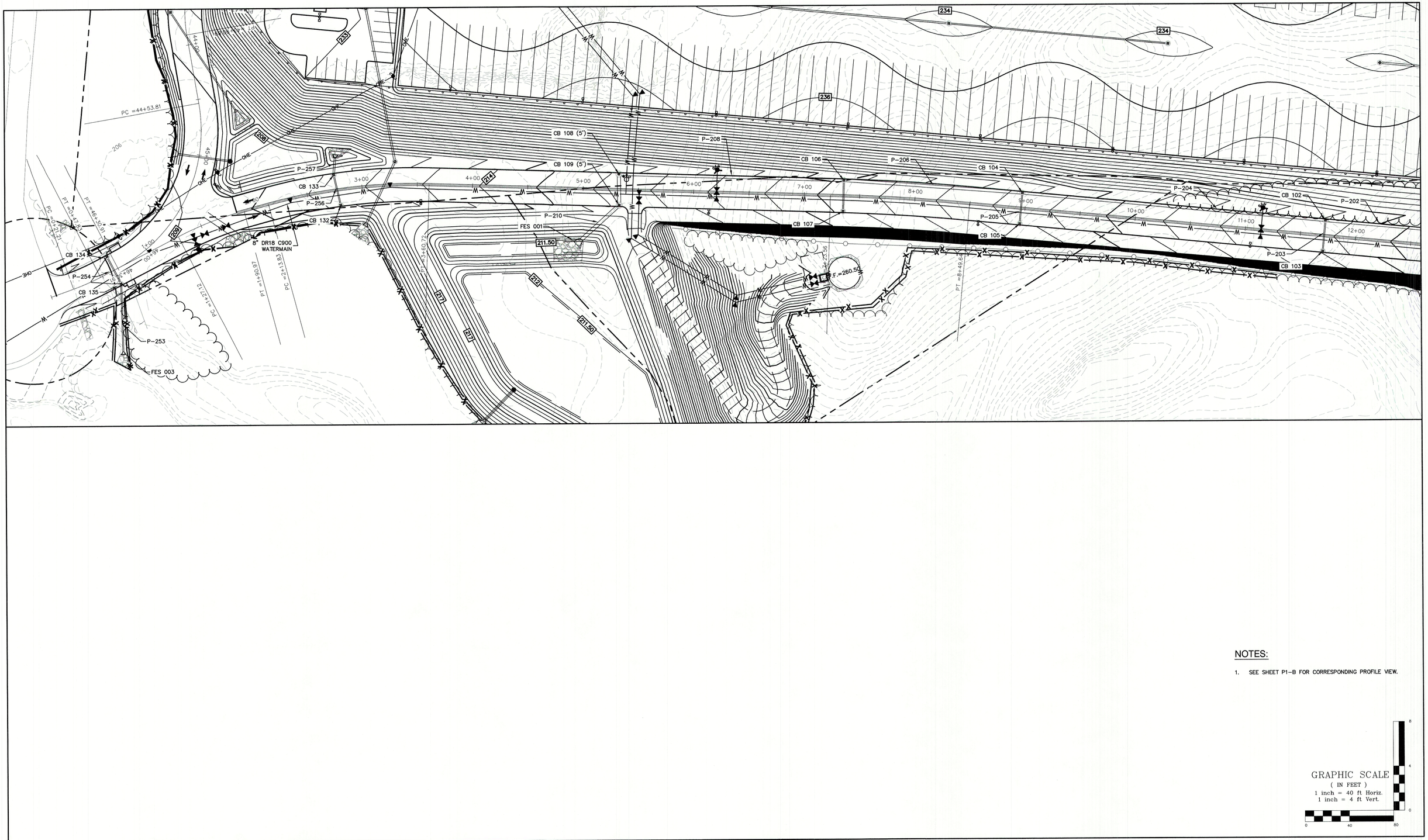
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	LANDSCAPE PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
L2
SHEET 24 OF45
JBE PROJECT NO.**21130**



NOTES:

1. SEE SHEET P1-B FOR CORRESPONDING PROFILE VIEW.

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft Horiz.
1 inch = 4 ft Vert.

0 40 80
0 4 8

Design: WGM	Draft: GDR
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Drawing Name: 21130-PLAN.dwg	

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STATE OF NEW HAMPSHIRE
ERIK M POULIN
No. 16669
LICENSED PROFESSIONAL ENGINEER

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Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
P1-A
SHEET 25 OF45
JBE PROJECT NO.21130

NOTES:

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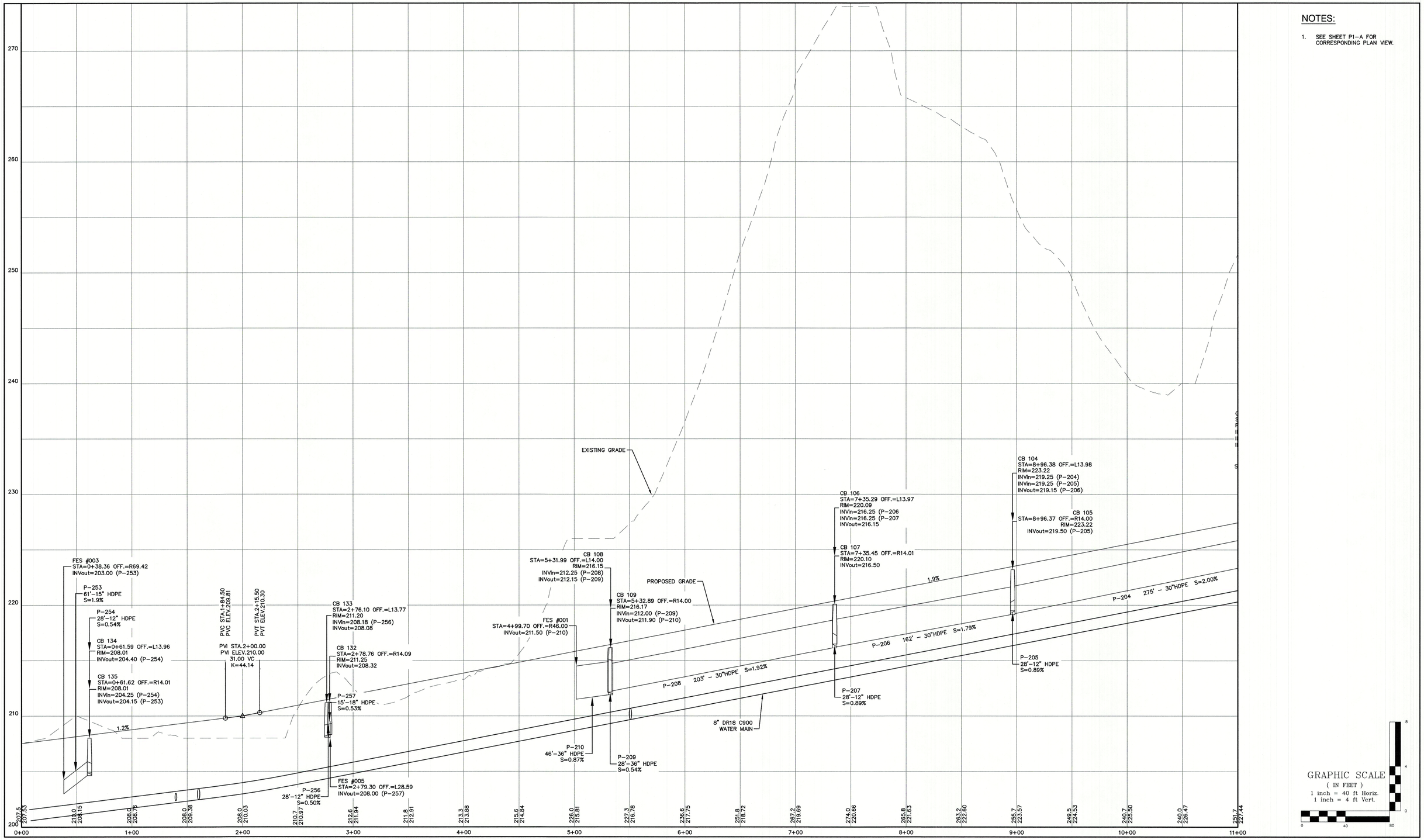

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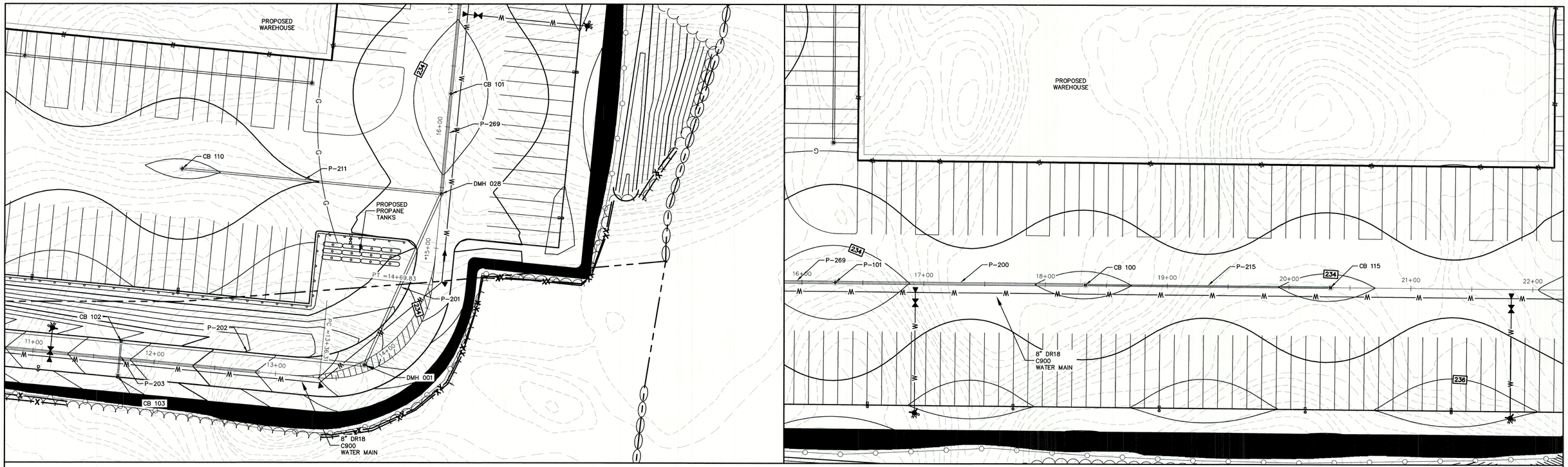
DRAWING No.
P1-B
SHEET 26 OF45
JBE PROJECT NO. 21130



NOTES:

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1 inch = 4 ft Vert.
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0 4 8

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DRAWING No.
P2-A
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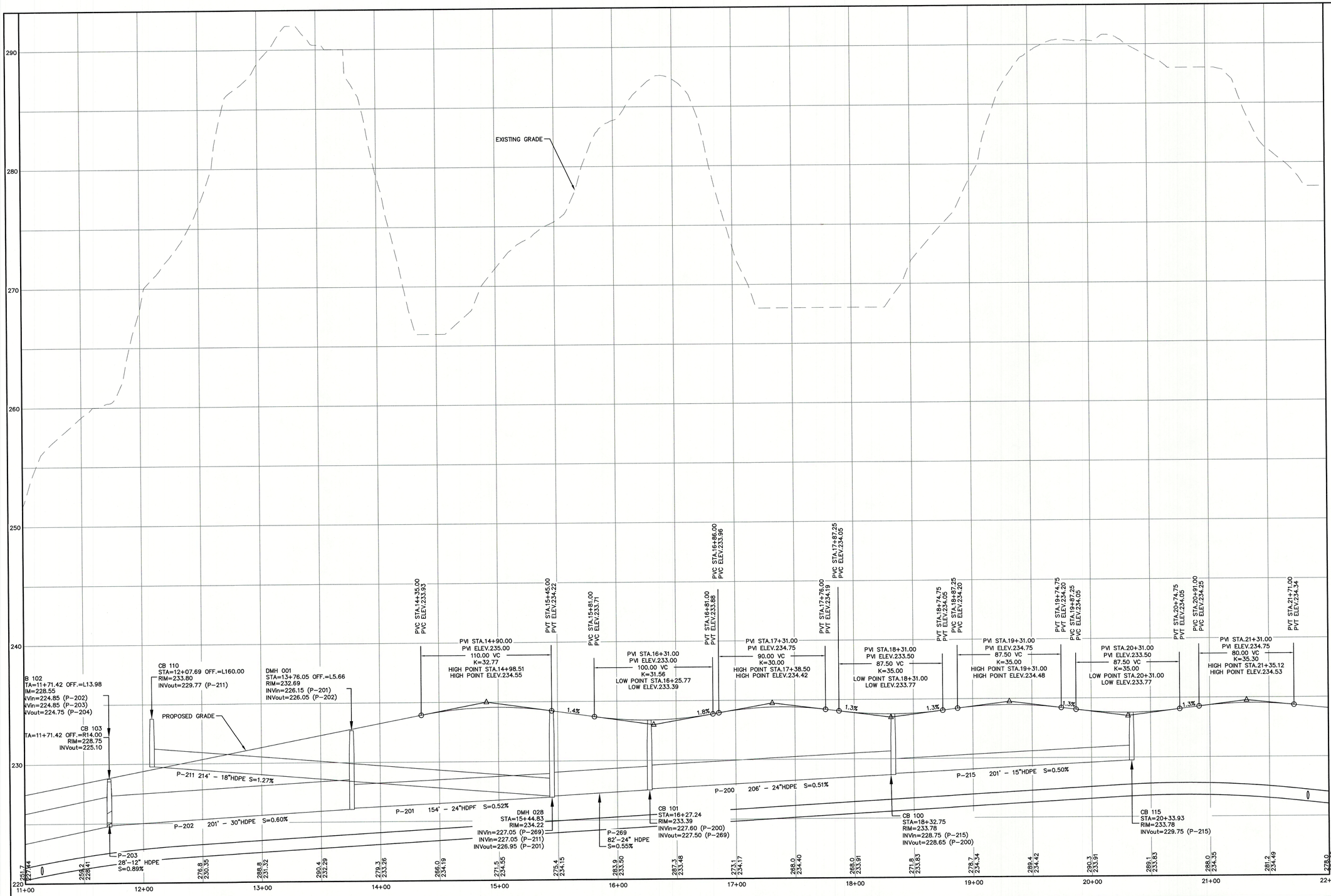

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Plan Name:	PLAN AND PROFILE
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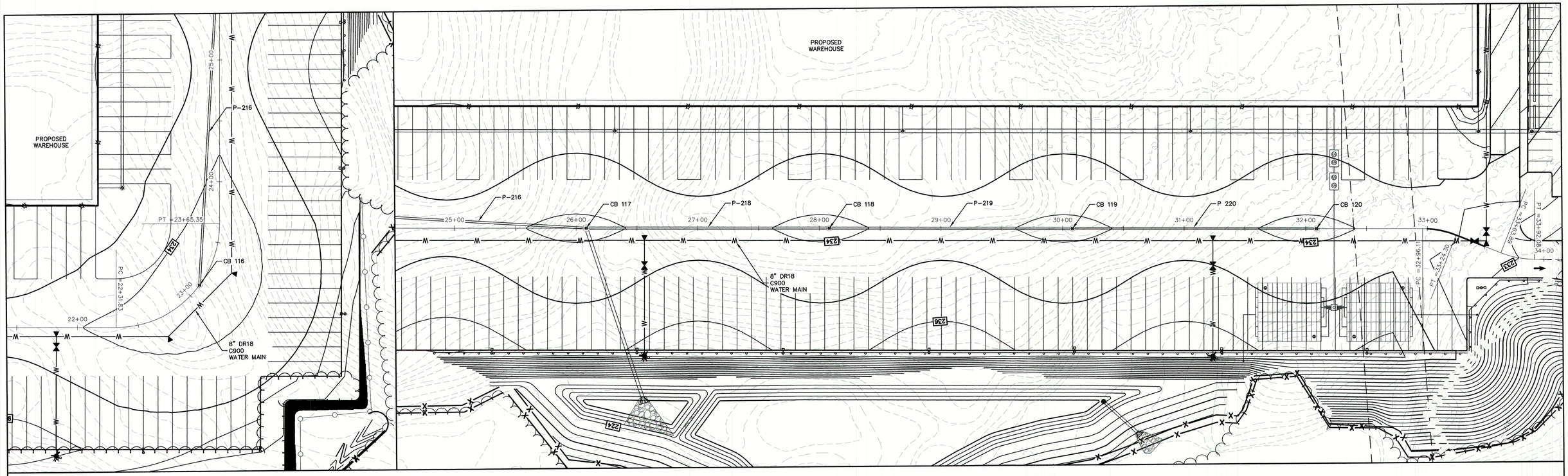
DRAWING No.
P2-B
SHEET 28 OF45
JBE PROJECT NO. 21130



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DRAWING No.
P3-A
SHEET 29 OF45
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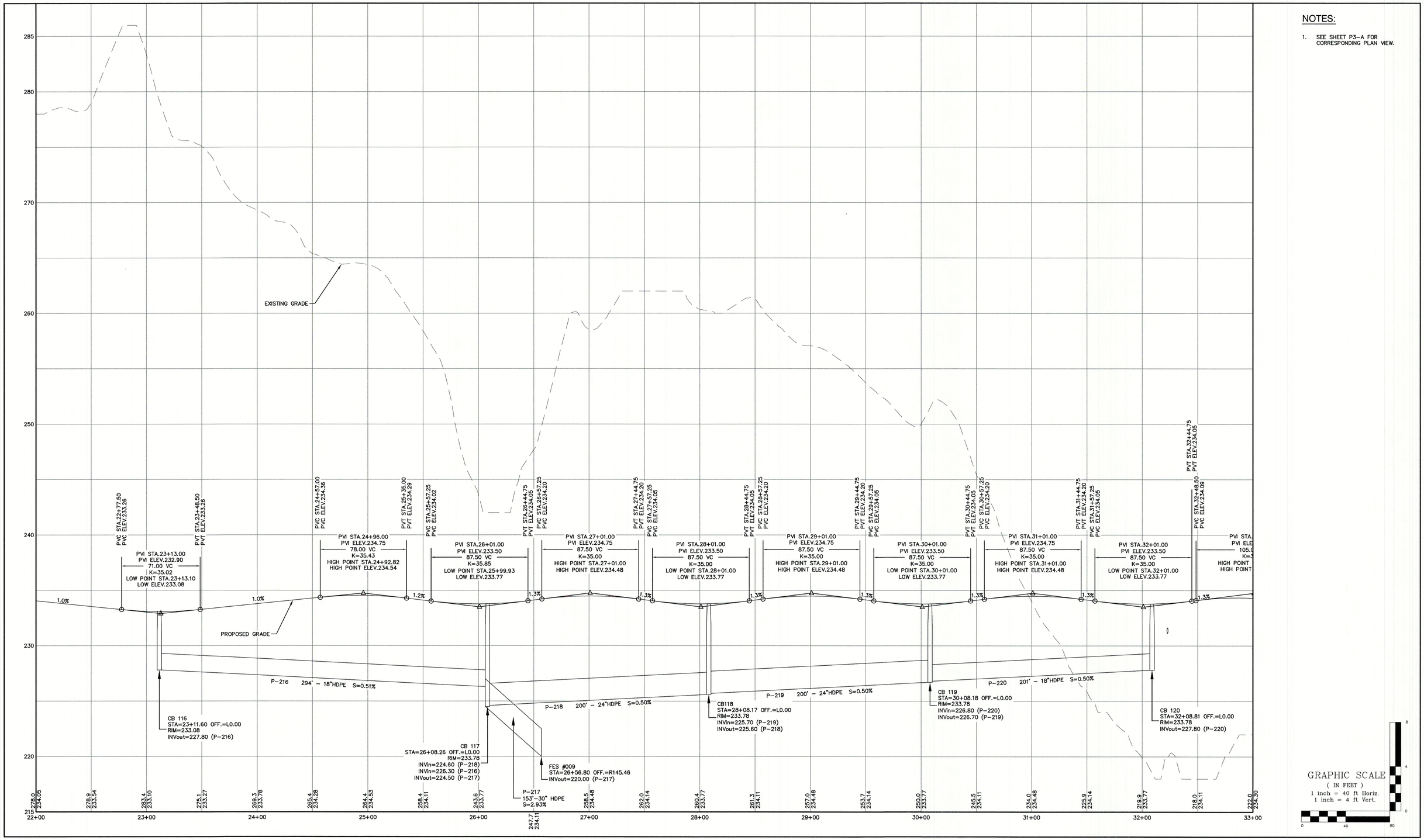
NOTES:

1. SEE SHEET P3–A FOR CORRESPONDING PLAN VIEW.



GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft Horiz.
1 inch = 4 ft Vert.

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.:21130
Drawing Name: 21130-PLAN.dwg		

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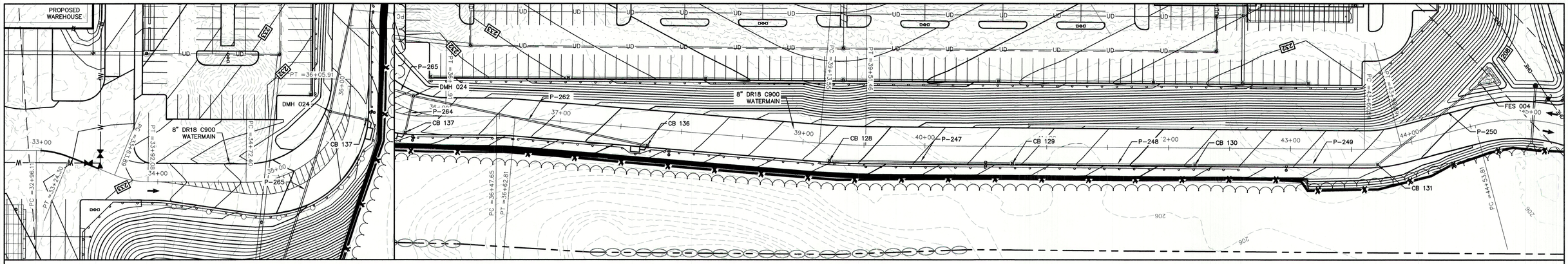
STATE OF NEW HAMPSHIRE – ERIK M POULIN No.15669 – LICENSED PROFESSIONAL ENGINEER

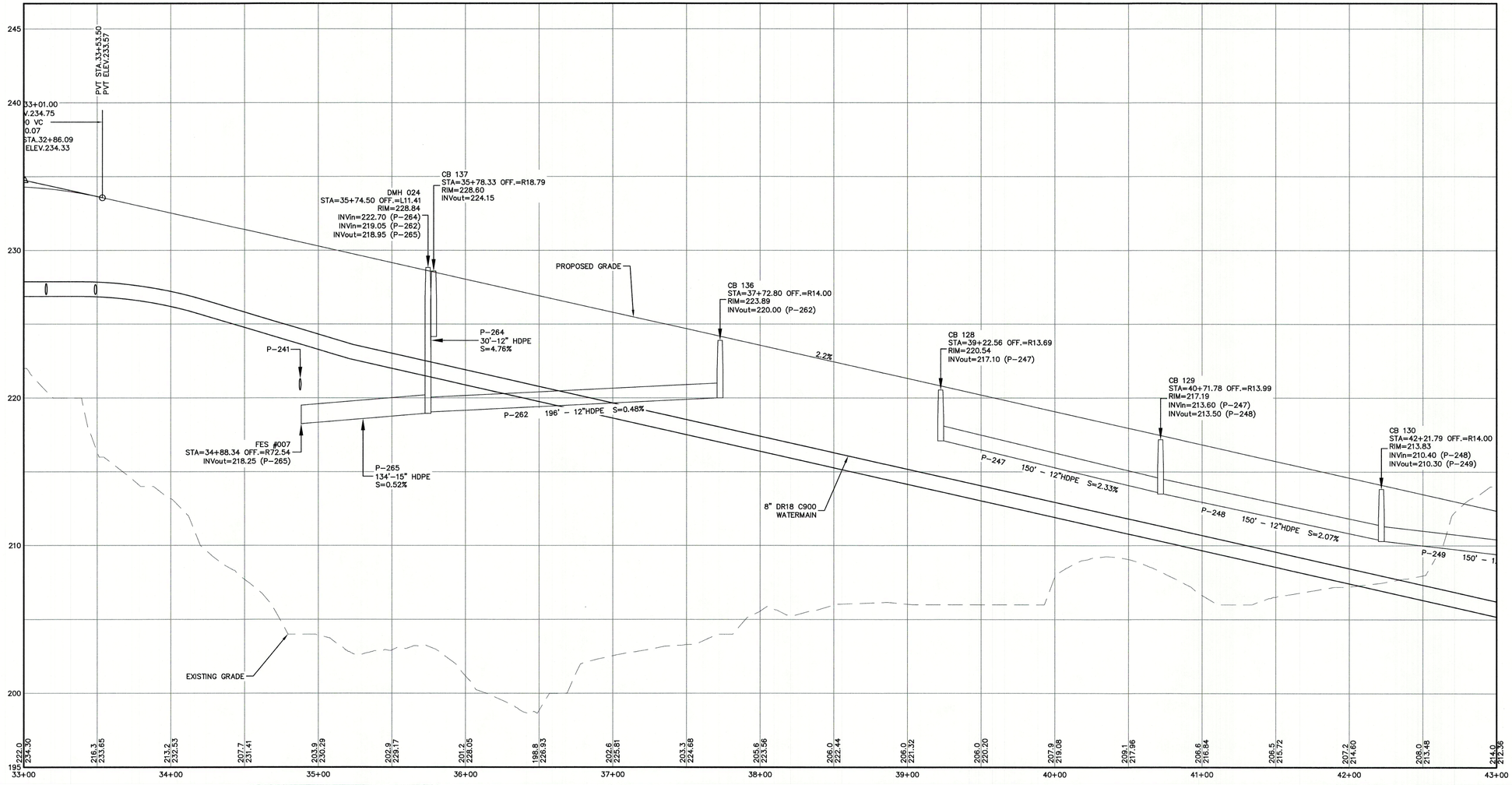
REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	PLAN AND PROFILE
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
P3-B
SHEET 30 OF45
JBE PROJECT NO. 21130





GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft Horiz.
1 inch = 4 ft Vert.
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4
0
0
40
80

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

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STATE OF NEW HAMPSHIRE
ERIK M POULIN No.16669
LICENSED PROFESSIONAL ENGINEER

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Plan Name:	PLAN AND PROFILE
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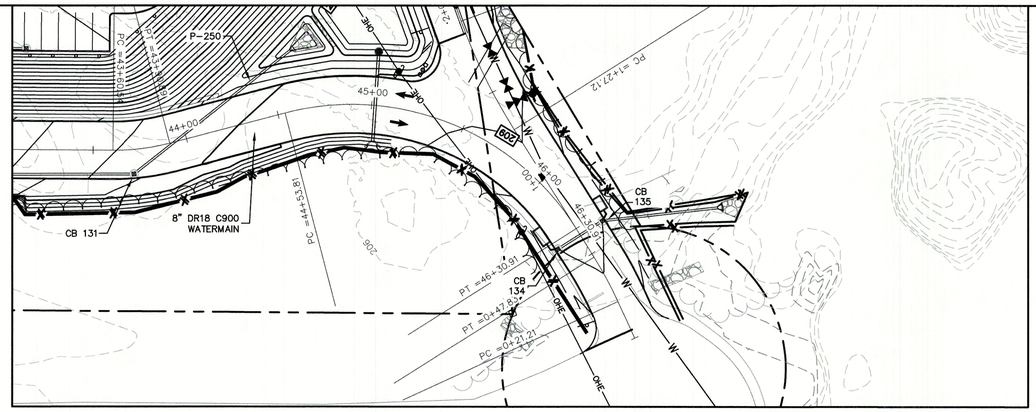
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
P4
SHEET 31 OF45
JBE PROJECT NO. 21130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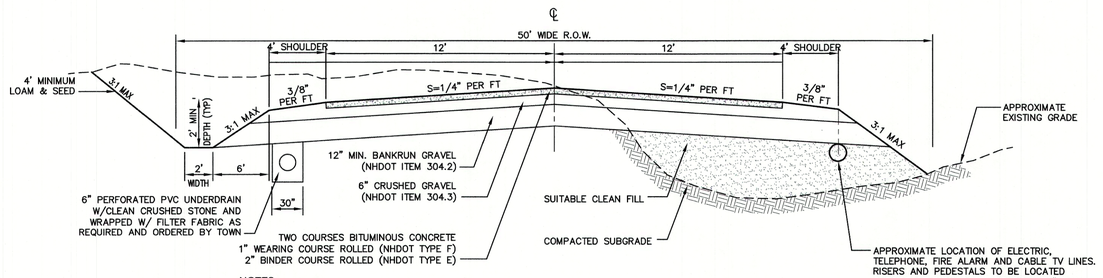
R40

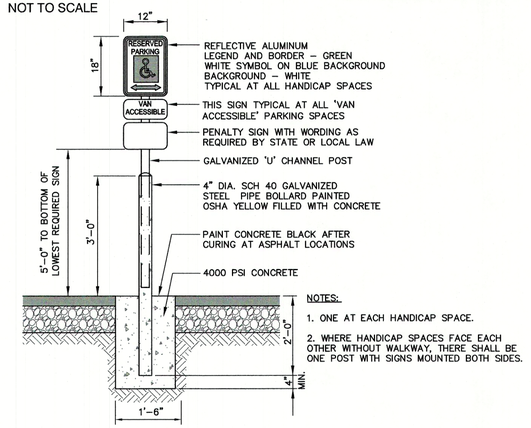


NOTES:

1. REMOVE ALL ORGANICS, TOPSOIL AND MATERIAL YIELDING TO A 10 TON ROLLER. SUBBASE AREAS THAT CONTAIN UNSUITABLE MATERIALS MUST BE EXCAVATED TO A DEPTH NO LESS THAN 48" BELOW FINISH GRADE AND BE REPLACED WITH GRAVEL COMPACTED TO 95%.
2. ALL MATERIALS TO BE AS SPECIFIED PER TOWN STANDARDS AND NHDOT, WHICHEVER IS MOST STRINGENT. GRADATION AND COMPACTION TEST RESULTS (95% MIN.) SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.
3. TOWN MAY REQUIRE UNDERDRAIN, ADDITIONAL GRAVEL AND/OR ADDITIONAL DRAINAGE IF SOIL CONDITIONS WARRANT.
4. WOVEN GEOTEXTILE FABRIC SHALL BE PLACED ABOVE SUBGRADE AT ALL WETLAND CROSSINGS.

TYPICAL ROADWAY SECTION

NOT TO SCALE

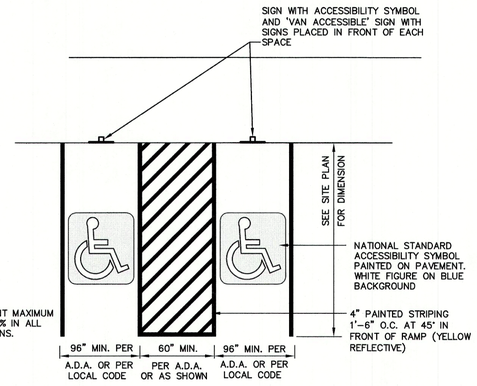


NOTES:

1. ONE AT EACH HANDICAP SPACE.
2. WHERE HANDICAP SPACES FACE EACH OTHER WITHOUT WALKWAY, THERE SHALL BE ONE POST WITH SIGNS MOUNTED BOTH SIDES.

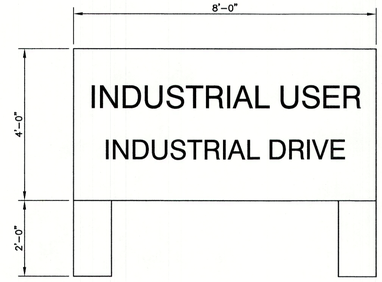
HANDICAP PARKING SIGN (R7-8)

NOT TO SCALE



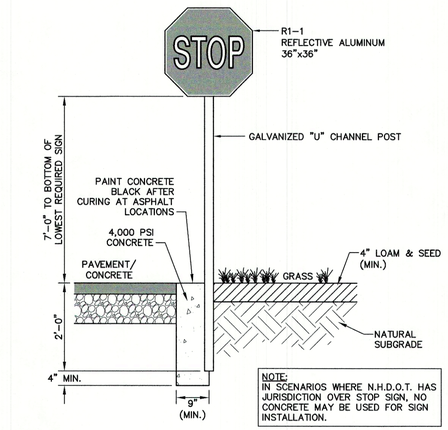
HANDICAP PARKING LAYOUT

NOT TO SCALE



MONUMENT SIGN DETAIL

NOT TO SCALE



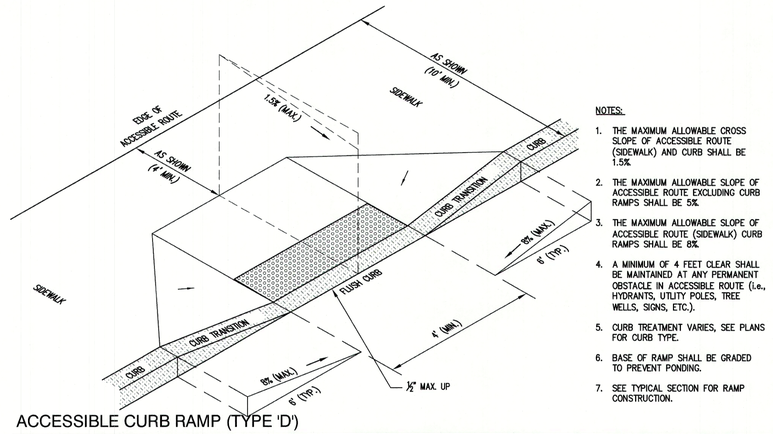
STOP SIGN (R1-1)

NOT TO SCALE

TRAFFIC CONTROL SCHEDULE

SIGN NUMBER	SIGN	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	DESCRIPTION	MOUNT TYPE	MOUNT HEIGHT	REMARKS
R1-1	STOP	30"	30"	WHITE ON RED	CHANNEL	7'-0"	REFLECTORIZED SIGN
R1-2	YIELD	36"x36"x36"		RED ON WHITE	CHANNEL	7'-0"	REFLECTORIZED SIGN
R3-2A	NO LEFT TURN	24"	30"	BLACK ON WHITE	CHANNEL	7'-0"	REFLECTORIZED SIGN
R3-8(14)		–	–	BLACK ON WHITE	CHANNEL	7'-0"	REFLECTORIZED SIGN
R7-1A	NO PARKING FIRE LANE	12"	18"	RED ON WHITE	CHANNEL	7'-0"	(MODIFIED WORDING)
R7-8	HANDICAPPED PARKING	12"	24"	BLUE & GREEN ON WHITE	CHANNEL	5'-0"	REFLECTORIZED SIGN
R7-8A	VAN ACCESSIBLE	12"	6"	BLUE & GREEN ON WHITE	CHANNEL	5'-0"	REFLECTORIZED SIGN
W11A-2		30"	30"	BLACK ON YELLOW	CHANNEL	7'-0"	REFLECTORIZED SIGN
W16-7PL		24"	12"	BLACK ON YELLOW	CHANNEL	6'-0"	REFLECTORIZED SIGN
31-466	RIGHT TURN ONLY	24"	30"	BLACK ON WHITE	CHANNEL	8'-6"	REFLECTORIZED SIGN

*MOUNTING HEIGHT IS BOTTOM OF SIGN



NOTES:

1. THE MAXIMUM ALLOWABLE CROSS SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) AND CURB SHALL BE 1.5%.
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) CURB RAMPS SHALL BE 8%.
4. A MINIMUM OF 4 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (i.e., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SECTION FOR RAMP CONSTRUCTION.

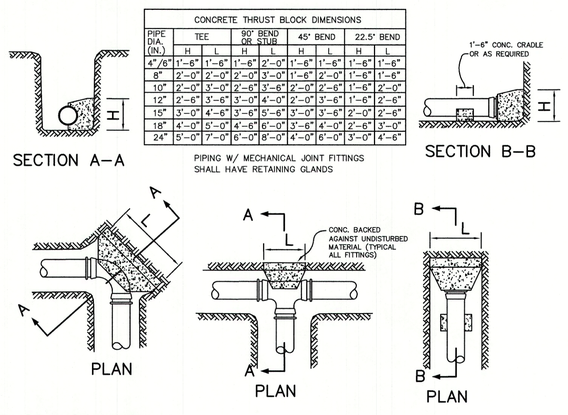
ACCESSIBLE CURB RAMP (TYPE 'D')

NOT TO SCALE

CONCRETE THRUST BLOCK DIMENSIONS

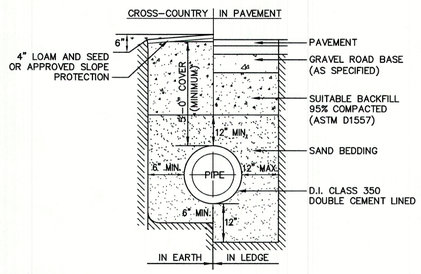
PIPE DIA. (IN.)	TEE H	TEE L	90° BEND OR STUB H	90° BEND OR STUB L	45° BEND H	45° BEND L	22.5° BEND H	22.5° BEND L
4"/6"	1'-6"	1'-6"	1'-6"	2'-0"	1'-6"	1'-6"	1'-6"	1'-6"
8"	2'-0"	2'-0"	2'-0"	3'-0"	1'-6"	2'-0"	1'-6"	1'-6"
10"	2'-0"	3'-0"	2'-6"	3'-6"	2'-0"	2'-6"	1'-6"	2'-0"
12"	2'-6"	3'-6"	3'-0"	4'-0"	2'-0"	3'-6"	1'-6"	2'-6"
15"	3'-0"	4'-6"	3'-6"	5'-6"	3'-0"	3'-6"	2'-0"	2'-6"
18"	4'-0"	5'-0"	4'-6"	6'-0"	3'-6"	4'-0"	2'-6"	3'-0"
24"	5'-0"	7'-0"	6'-0"	8'-0"	4'-0"	6'-0"	3'-0"	4'-6"

PIPING W/ MECHANICAL JOINT FITTINGS SHALL HAVE RETAINING GLANDS



THRUST BLOCK DETAILS

NOT TO SCALE



WATER SYSTEM TRENCH

NOT TO SCALE

Design: WGM	Draft: GDR
Checked: WGM	Scale: AS NOTED
Drawing Name: 21130-PLAN.dwg	Date: 8/19/21
	Project No.: 21130

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STATE OF NEW HAMPSHIRE ERIK M POULIN No.16669 LICENSED PROFESSIONAL ENGINEER

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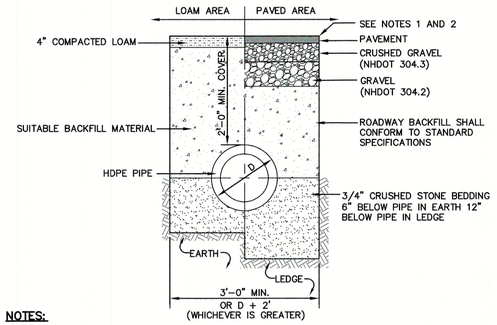
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	DETAIL SHEET
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
D1
SHEET 33 OF45
JBE PROJECT NO. 21130

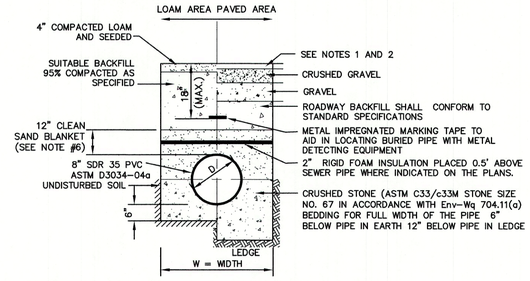


NOTES:

1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM WITH PROJECT AND TOWN SPECIFICATIONS.
3. ALL MATERIALS ARE TO BE COMPACTED TO 95% OF ASTM D-1557.

DRAINAGE TRENCH

NOT TO SCALE

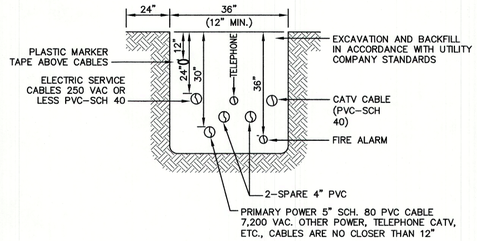


NOTES:

1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO PAVEMENT DETAILS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPECIFICATIONS.
3. TRENCH BACKFILL SHALL CONFORM WITH ENV. Wq 704.11(h) AND BE FREE OF DEBRIS, PAVEMENT, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT OR CLAY, EXCAVATED LEDGE OR ROCKS OVER SIX INCHES.
4. W= MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12" INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, WIDTH SHALL BE NO MORE THAN 36"; FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, WIDTH SHALL BE 24 INCHES PLUS PIPE O.D. WIDTH SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
5. RIGID FOAM INSULATION TO BE PROVIDED WHERE COVER IN THE ROADWAY IS LESS THAN 6' AND CROSS COUNTRY IS LESS THAN 4', PURSUANT TO DES WAIVER BEING ISSUED.
6. PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND, FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100% PASSES A 1/2 " SIEVE AND A MAXIMUM OF 15% PASSES A #200 SIEVE IN ACCORDANCE WITH Env-Wq 704.11(b).
7. JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL AND CERTIFIED BY THE MANUFACTURER AS CONFORMING TO THE ASTM D3212 STANDARD IN EFFECT WHEN THE JOINT SEALS WERE MANUFACTURED, AND SHALL BE PUSH-ON, BELL-AND-SPIGOT TYPE PER Env-Wq 704.05 (e).

SEWER TRENCH

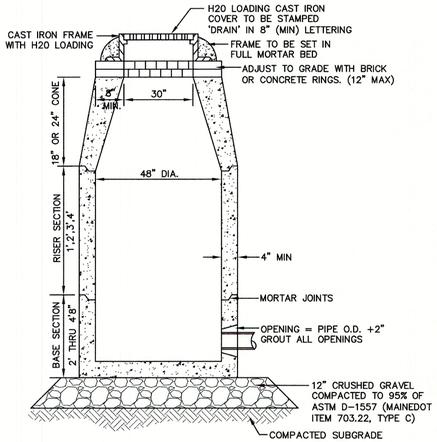
NOT TO SCALE



NOTE: ALL UTILITIES SHALL BE REVIEWED AND APPROVED BY APPROPRIATE UTILITY COMPANY.

UTILITY TRENCH

NOT TO SCALE

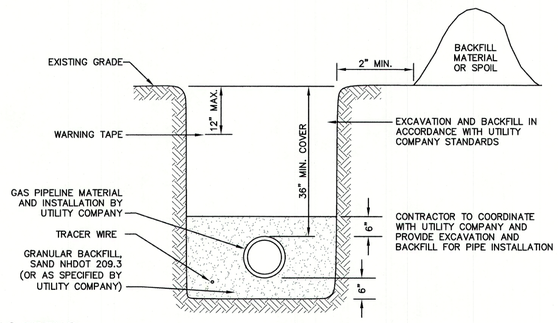


NOTES:

1. BASE SECTION SHALL BE MONOLITHIC WITH 48" INSIDE DIAMETER.
2. ALL SECTIONS SHALL BE DESIGNED FOR H20 LOADING.
3. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
4. FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H20 LOADING.
5. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
6. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
7. ALL DRAIN MANHOLE FRAMES AND GRATES SHALL BE NEENAH R-1798 OR APPROVED EQUAL (30" DIA. TYPICAL).
8. STANDARD FRAME(S) AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12"), OR PRECAST CONCRETE 'DONUTS'.

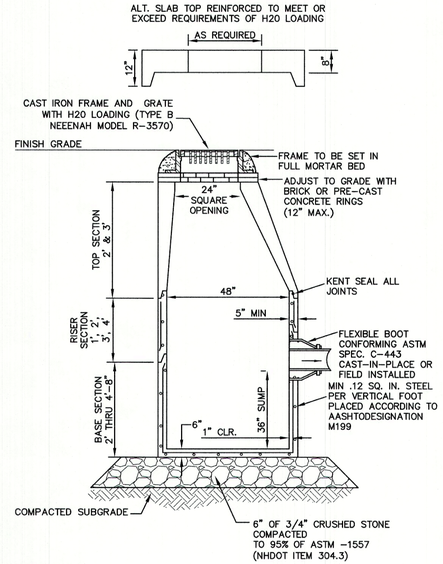
DRAIN MANHOLE (4' DIAM.)

NOT TO SCALE



GAS TRENCH

NOT TO SCALE



NOTES:

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3. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
4. FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H20 LOADING
5. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
6. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
7. ALL CATCH BASIN FRAMES AND GRATES SHALL BE NHDOT CATCH BASIN TYPE ALTERNATE 1 OR NEENAH R-3570 OR APPROVED EQUAL (24"x24" TYPICAL).
8. STANDARD CATCH BASIN FRAME AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12"), OR PRECAST CONCRETE 'DONUTS'.

CATCH BASIN

NOT TO SCALE

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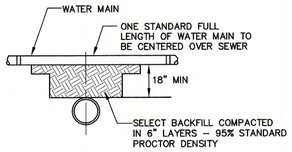
Plan Name:	DETAIL SHEET
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.

D2

SHEET 34 OF45
JBE PROJECT NO. 21130

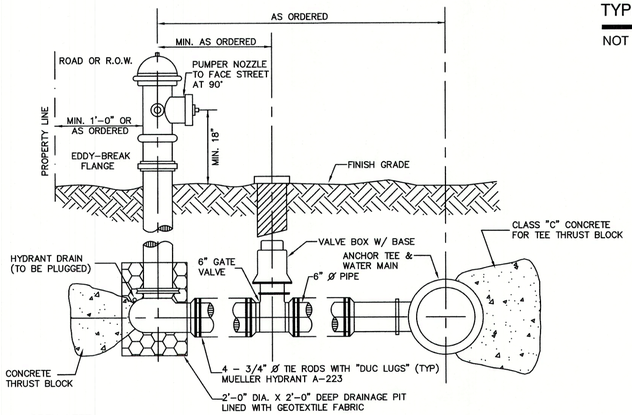


SEPARATION NOTES:

1. WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWERS. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE.
2. WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN PIPES. SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.

TYPICAL WATER / SEWER SEPARATION

NOT TO SCALE

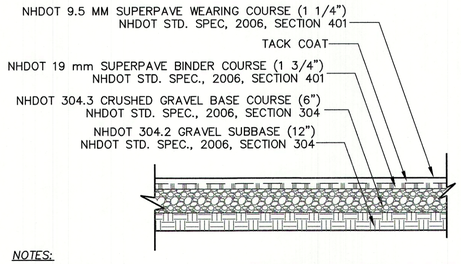


OPEN LEFT
RAYMOND WATER
DEPARTMENT SPECS.

NOTES
1. ALL PIPE FITTINGS TO BE D.I. PRESSURE CLASS 350, THICKNESS CLASS 52.
2. HYDRANT TO BE PAINTED RED WITH WHITE "REFLECTOR" PAINT ON BONNET.
3. MECHANICAL JOINTS SHALL HAVE MEGALUG RETAINING GLANDS AS MADE BY EBBA OR APPROVED EQUAL.
4. STEAMER NOZZLE TO BE "STORCH" TYPE.
5. NATIONAL STANDARD THREAD.

HYDRANT INSTALLATION

NOT TO SCALE

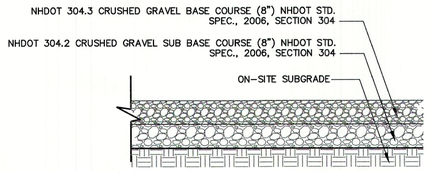


NOTES:

1. PAVEMENT SUBGRADES SHOULD BE PROOF ROLLED IN ORDER TO DENSIFY THE SUBGRADES USING A MINIMUM OF 4 PASSES WITH A 10-TON VIBRATORY DRUM COMPACTOR. THE GRAVEL BORROW SUBGRADE COURSE AND CRUSHED GRAVEL BASE COURSE SHOULD BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST (ASTM-D698).
2. PAVEMENT SECTION SUBJECT TO CHANGE BASED ON GEOTECHNICAL INVESTIGATION.

STANDARD DUTY ASPHALT PAVEMENT SECTION

NOT TO SCALE

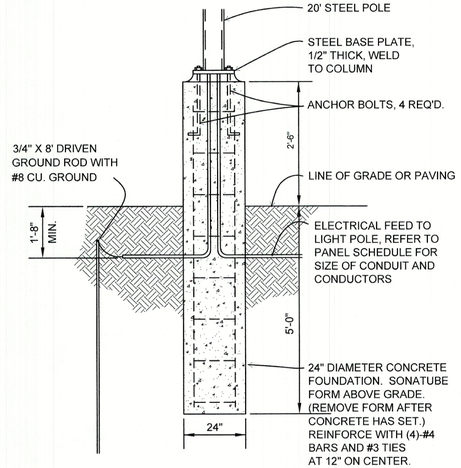


NOTES:

1. SUBGRADES SHOULD BE PROOF ROLLED IN ORDER TO DENSIFY THE SUBGRADES USING A MINIMUM OF 4 PASSES WITH A 10-TON VIBRATORY DRUM COMPACTOR. THE GRAVEL BORROW SUBGRADE COURSE AND CRUSHED GRAVEL BASE COURSE SHOULD BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST (ASTM-D1557).

GRAVEL ROAD DETAIL

NOT TO SCALE



LIGHT POLE BASE FOUNDATION

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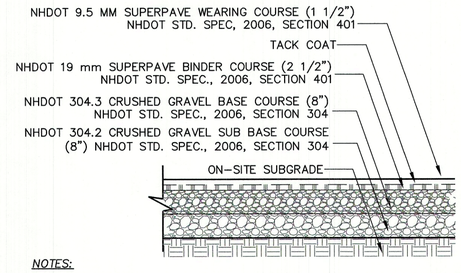

NOTES:

1. PAVEMENT SUBGRADES SHOULD BE PROOF ROLLED IN ORDER TO DENSIFY THE SUBGRADES USING A MINIMUM OF 4 PASSES WITH A 10-TON VIBRATORY DRUM COMPACTOR. THE GRAVEL BORROW SUBGRADE COURSE AND CRUSHED GRAVEL BASE COURSE SHOULD BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST (ASTM-D1557).
2. PAVEMENT SECTION SUBJECT TO CHANGE BASED ON GEOTECHNICAL INVESTIGATION.

HEAVY DUTY ASPHALT PAVEMENT SECTION

NOT TO SCALE

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

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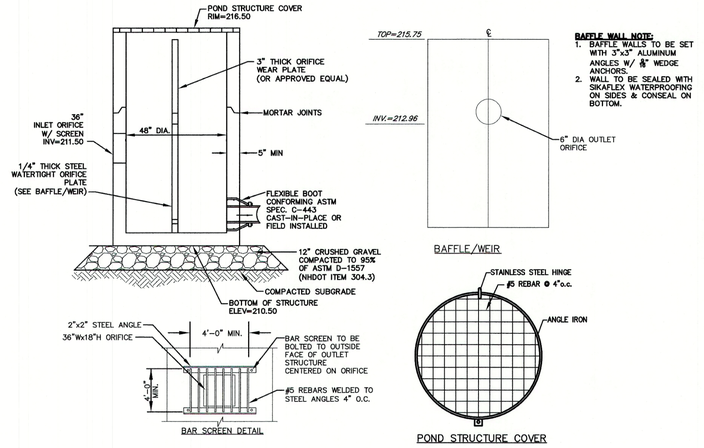
ERIK M POULIN No.16669 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE

REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

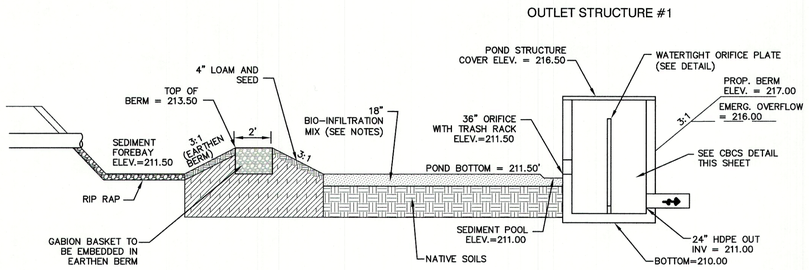
Plan Name:	DETAIL SHEET
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
D3
SHEET 35 OF 45
JBE PROJECT NO. 21130



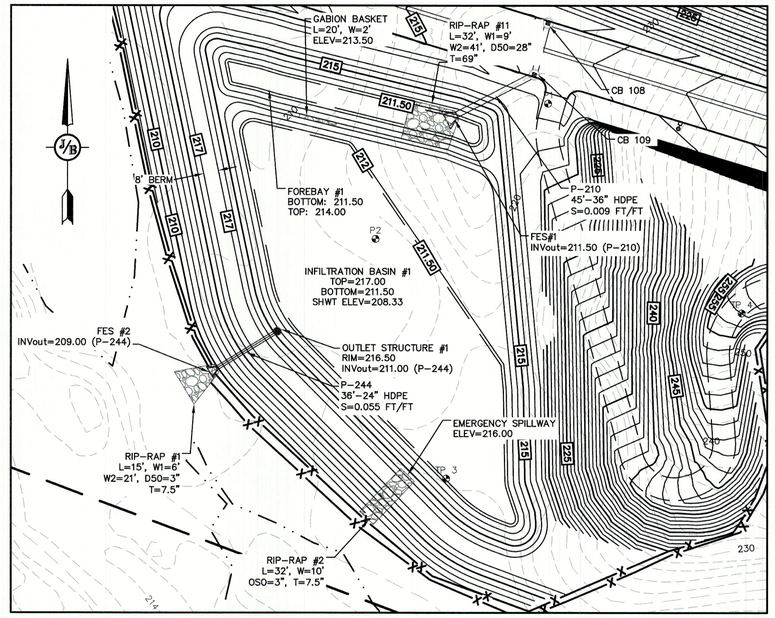
OUTLET STRUCTURE #1 (OS #1)

NOT TO SCALE



INFILTRATION BASIN #1

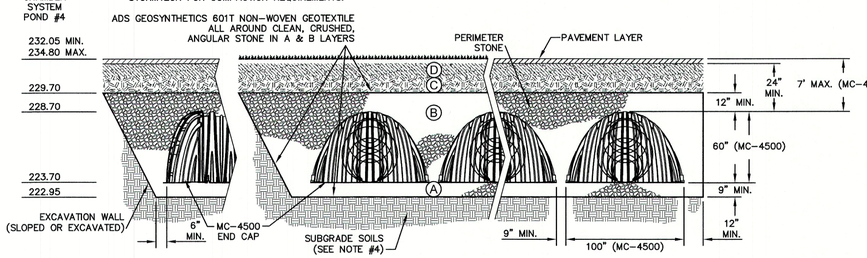
NOT TO SCALE



ACCEPTABLE FILL MATERIALS
MC-4500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION	AASHTO M145 DESIGNATION	COMPACTION/DENSITY REQUIREMENT
D	PAVEMENT SUBGRADE, DEPTH(S) PER SPECIFICATIONS	PAVEMENT SUBGRADE. MATERIALS PER SPECIFICATIONS	N/A	N/A	PREPARE PER SPECIFICATIONS AND PLANS. PAVED INSTALLATIONS HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	FILL MATERIAL FROM 1.50' ABOVE CHAMBERS TO BOTTOM OF PAVEMENT SUBGRADE	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	A-1 A-2 A-3	COMPACT IN 6" LIFTS TO A MINIMUM 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 LBS. DYNAMIC FORCE NOT TO EXCEED 20,000 LBS.
B	EMBEDMENT STONE SURROUNDING AND TO A 1.50' ELEVATION ABOVE CHAMBERS	WASHED ANGULAR STONE WITH THE MAJORITY OF PARTICLES BETWEEN ¾ - 2 INCH	3, 357, 4, 467, 5, 56, 57	N/A	NO COMPACTION REQUIRED
A	12 " FOUNDATION STONE BELOW CHAMBERS	WASHED ANGULAR STONE WITH THE MAJORITY OF PARTICLES BETWEEN ¾ - 2 INCH	3, 357, 4, 467, 5, 56, 57	N/A	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY

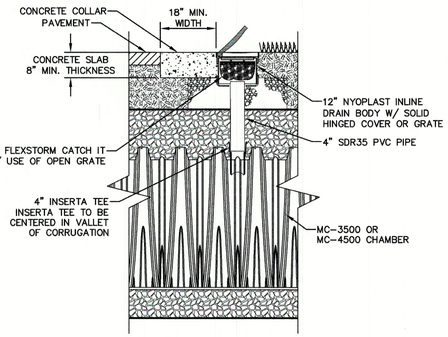
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:
1. MC-3500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
   PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

TYPICAL MC-4500 CROSS-SECTION

NOT TO SCALE

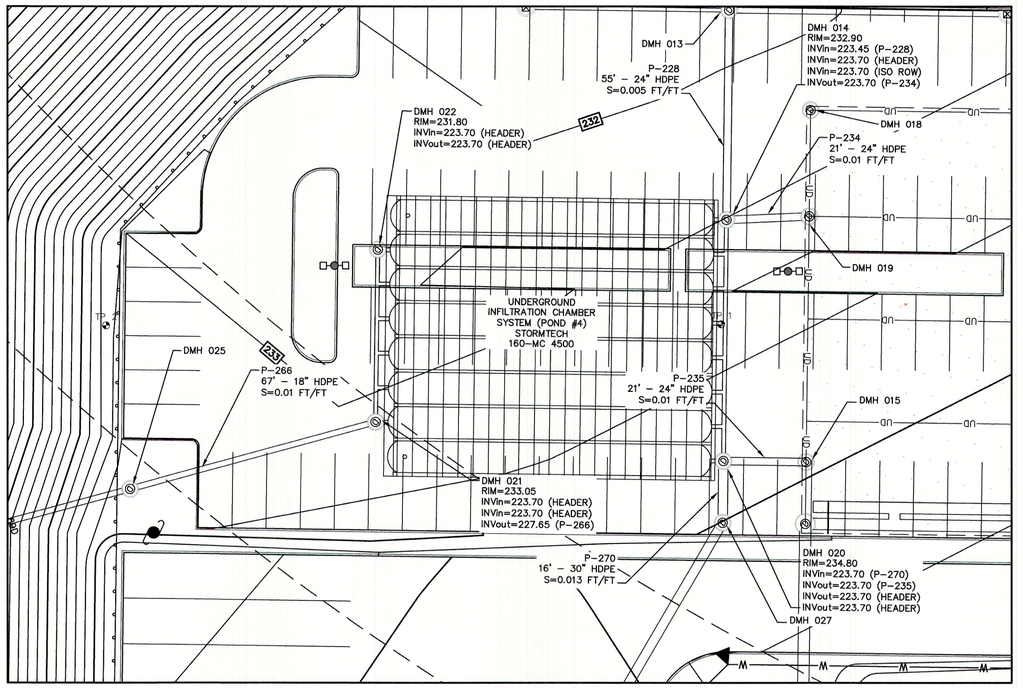


TYPICAL MC-4500 4" INSPECTION PORT

NOT TO SCALE

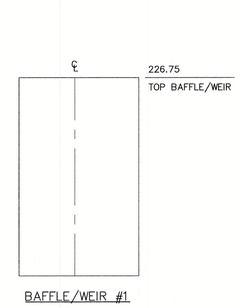
STORMTECH GENERAL NOTES

1. STORMTECH LLC ("STORMTECH") REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
2. STORMTECH OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICE DEPARTMENT OR LOCAL STORMTECH REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEM'S CONSTRUCTION. CALL 860-529-8188 TO SPEAK TO A TECHNICAL SERVICE REPRESENTATIVE OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
3. STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.): MINIMUM COVER IS 24 INCHES NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 6.5 FEET INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24 INCHES, MAXIMUM COVER IS 6.5 FEET.
4. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
5. AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
6. STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
7. BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
8. THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: WWW.STORMTECH.COM. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
9. THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
10. STORMTECH PRODUCT WARRANTY IS LIMITED. CONTACT STORMTECH FOR WARRANTY INFORMATION.

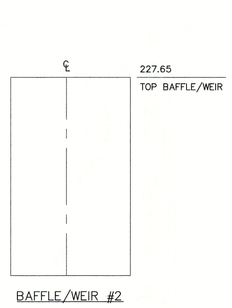


STORMTECH SC-740 CHAMBER SYSTEM (POND #4)

SCALE: 1" = 20'



BAFFLE/WEIR #1



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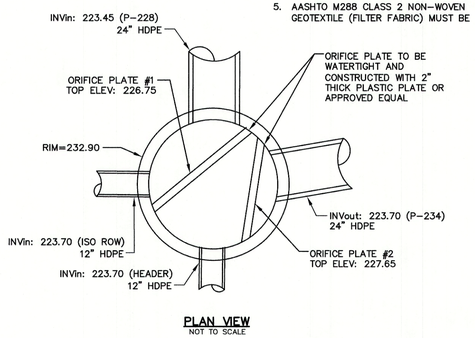
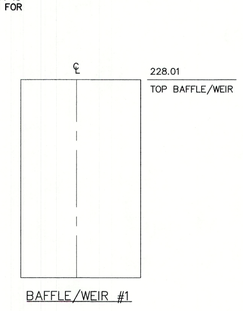


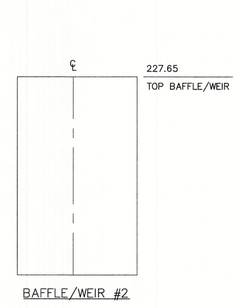
PLAN VIEW
NOT TO SCALE

OUTLET STRUCTURE (DMH 014)

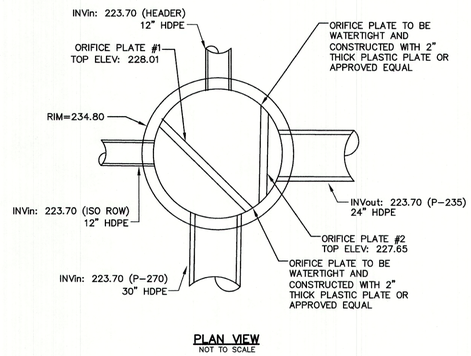
NOT TO SCALE



BAFFLE/WEIR #1



BAFFLE/WEIR #2



PLAN VIEW
NOT TO SCALE

OUTLET STRUCTURE (DMH 020)

NOT TO SCALE

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

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STATE OF NEW HAMPSHIRE — ERIK M POULIN No.16669 — LICENSED PROFESSIONAL ENGINEER

REV.	DATE	REVISION	BY
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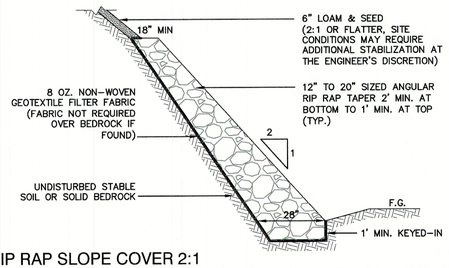
Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave. PO Box 219 Stratham, NH 03885
Civil Engineering Services
603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

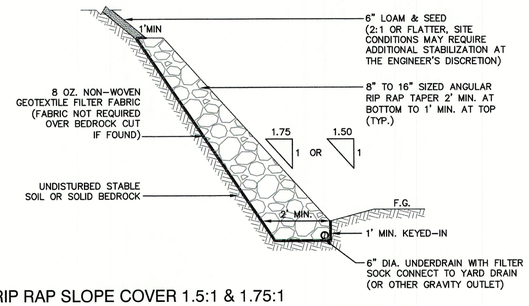
Plan Name:	DETAIL SHEET
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
D5
SHEET 37 OF45
JBE PROJECT NO. 21130



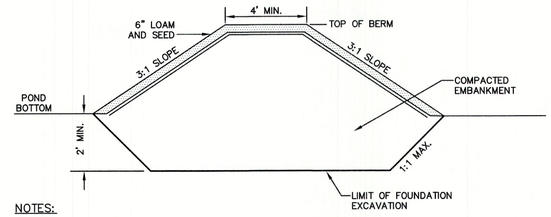
RIP RAP SLOPE COVER 2:1

NOT TO SCALE



RIP RAP SLOPE COVER 1.5:1 & 1.75:1

NOT TO SCALE

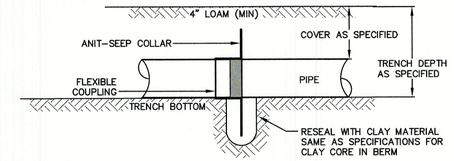


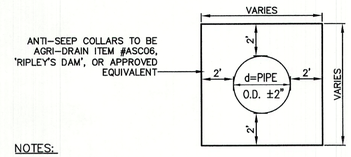
NOTES:

1. THE ENTIRE EMBANKMENT AREA OF THE POND SHALL BE EXCAVATED A MINIMUM 2' BELOW THE POND BOTTOM, STRIPPED OF ALL ORGANIC MATERIALS, COMPACTED TO AT LEAST 92% OF ASTM D-1557, AND SCARIFIED PRIOR TO THE PLACEMENT OF THE EMBANKMENT MATERIAL. PLACEMENT AND COMPACTION SHOULD OCCUR AT A MOISTURE CONTENT OF OPTIMUM PLUS OR MINUS 3%, AND NO FROZEN OR ORGANIC MATERIAL SHOULD BE PLACED FOR ANY REASON.
2. EMBANKMENT MATERIAL SHALL BE CLEAN MINERAL SOIL FREE OF ROOTS, ORGANIC MATTER, AND OTHER DELETERIOUS SUBSTANCES. IT SHALL CONTAIN NO ROCKS OR LUMPS OVER FOUR INCHES (4") IN DIAMETER. THIS MATERIAL SHALL BE INSTALLED IN 6" LIFTS COMPACTED TO 92% OF ASTM D-1557, AND SHALL MEET THE FOLLOWING SPECIFICATIONS: 6" PASSING 100%, #4 SIEVE 40-90%, #40 SIEVE 50-80%, #100 SIEVE 25-40%, #200 SIEVE 15-30% (OF THE TOTAL SAMPLE).

POND BERM DETAIL

NOT TO SCALE



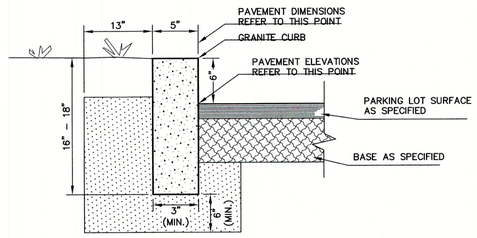


NOTES:

1. CONTRACTOR SHALL INSTALL COLLAR(S) PER MANUFACTURER'S SPECIFICATIONS.
2. CONTRACTOR SHALL ENSURE A WATERTIGHT SEAL BETWEEN THE COLLAR(S) AND PIPE(S).
3. ANTI-SEEP COLLARS SHALL BE PLACED ±15' AND ±25' DOWNSTREAM OF THE CULVERT INLETS, UNLESS OTHERWISE SPECIFIED. WHEN A CLAY CORE IS SPECIFIED, A COLLAR SHALL BE INSTALLED ON BOTH SIDES OF THE CORE.

ANTI-SEEP COLLAR

NOT TO SCALE

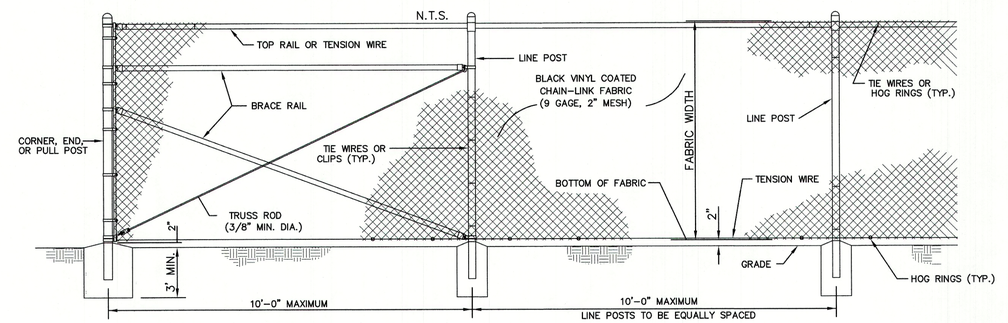


NOTES:

1. EDGING TO BE PLACED PRIOR TO PLACING TOP SURFACE COURSE.
2. JOINTS BETWEEN STONES SHALL BE MORTARED.

VERTICAL GRANITE CURB

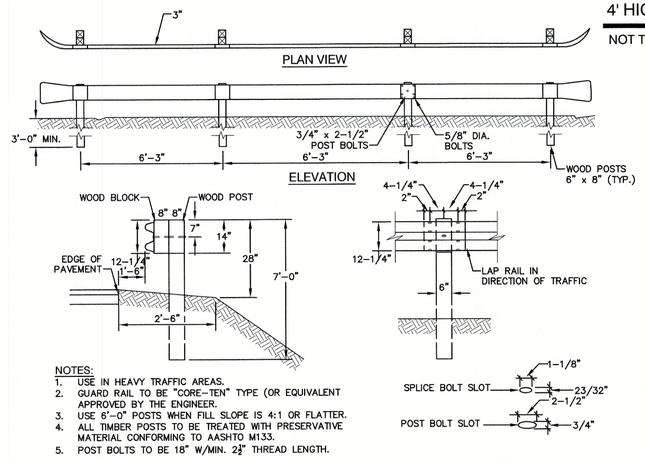
NOT TO SCALE



4' HIGH BLACK VINYL CHAIN-LINK FENCE

NOT TO SCALE

DIAM.	T	A	B	C	D	E	R2	h
12"	2"	4"	2'-0"	4'-0⅞"	6'-0⅞"	2'-0"	9"	12"
15"	2¼"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	12"
18"	2½"	9"	2'-11"	3'-2"	6'-1"	3'-0"	12"	15"
24"	3"	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	14"	18"
30"	3½"	1'-0"	4'-6"	1'-7½"	6'-1½"	5'-0"	15"	21"
36"	4"	1'-3"	5'-3"	2'-10½"	8'-1½"	6'-0"	20"	21"
48"	5"	2-0"	6'-0"	2'-2"	8'-2"	7'-0"	22"	24"

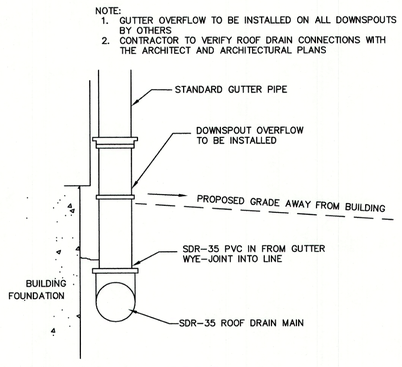


NOTES:

1. USE IN HEAVY TRAFFIC AREAS.
2. GUARD RAIL TO BE "CORE-TEN" TYPE (OR EQUIVALENT APPROVED BY THE ENGINEER.
3. USE 6'-0" POSTS WHEN FILL SLOPE IS 4:1 OR FLATTER.
4. ALL TIMBER POSTS TO BE TREATED WITH PRESERVATIVE MATERIAL CONFORMING TO AASHTO M133.
5. POST BOLTS TO BE 18" W/MIN. 2½" THREAD LENGTH.

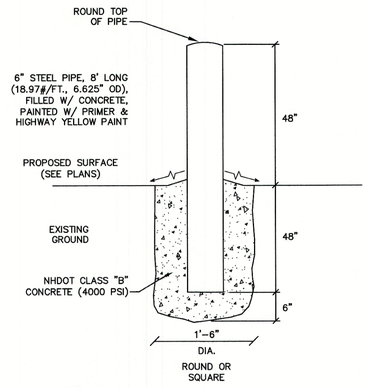
GUARD RAIL (CORE-TEN)

NOT TO SCALE



ROOF DRAIN CONNECTION

NOT TO SCALE



BOLLARD DETAIL

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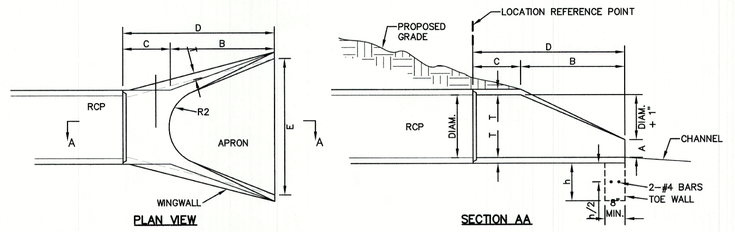

CONCRETE FLARED END SECTION

NOT TO SCALE

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

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STATE OF NEW HAMPSHIRE — ERIK M POULIN No.16669 — LICENSED PROFESSIONAL ENGINEER

REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
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1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

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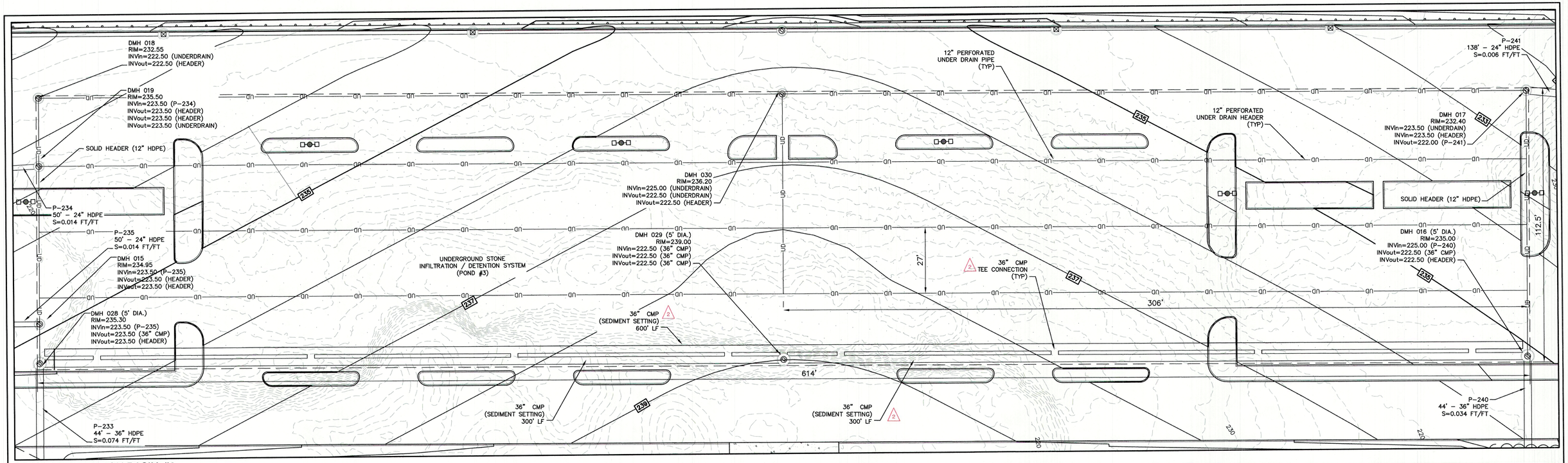
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	DETAIL SHEET
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.

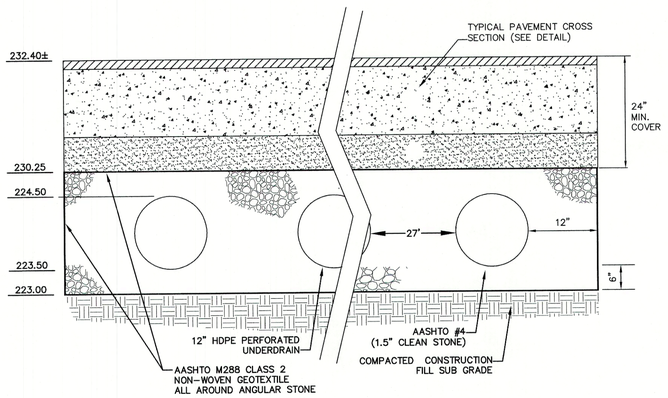
D6

SHEET 38 OF 45
JBE PROJECT NO. 21130



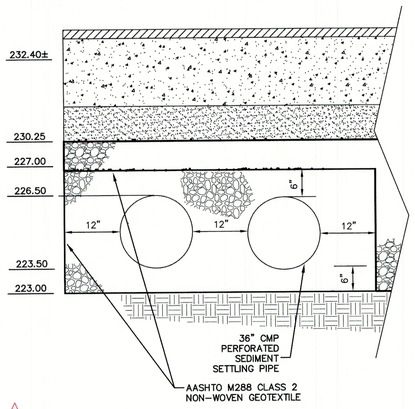
STONE INFILTRATION BASIN #3

SCALE: 1" = 20'



TYPICAL STONE INFILTRAION BASIN CROSS-SECTION

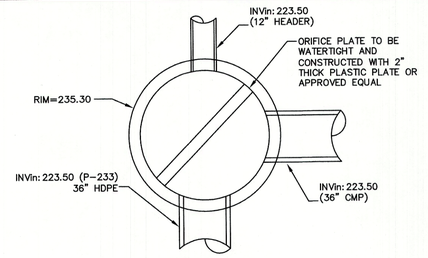
NOT TO SCALE



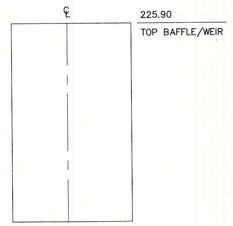
2

PRETREATMENT SETTLING PIPE CROSS-SECTION

NOT TO SCALE



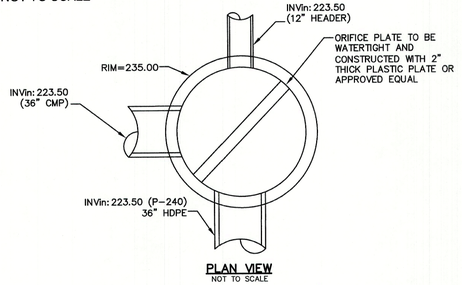
PLAN VIEW
NOT TO SCALE



BAFFLE/WEIR

5' DIA. INLET STRUCTURE (DMH 028) 2

NOT TO SCALE



PLAN VIEW
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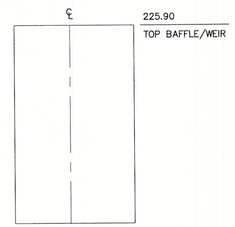
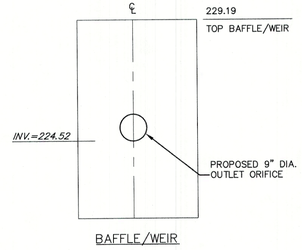


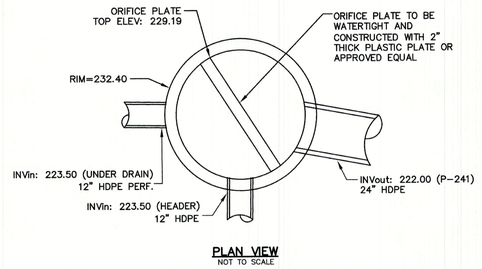
BAFFLE/WEIR

5' DIA. INLET STRUCTURE (DMH 016) 2

NOT TO SCALE



BAFFLE/WEIR



PLAN VIEW
NOT TO SCALE

OUTLET STRUCTURE (DMH 017)

NOT TO SCALE

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Drawing Name: 21130-PLAN.dwg		

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STATE OF NEW HAMPSHIRE
ERIK V POULIN No.16669
LICENSED PROFESSIONAL ENGINEER

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Plan Name:	DETAIL SHEET
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

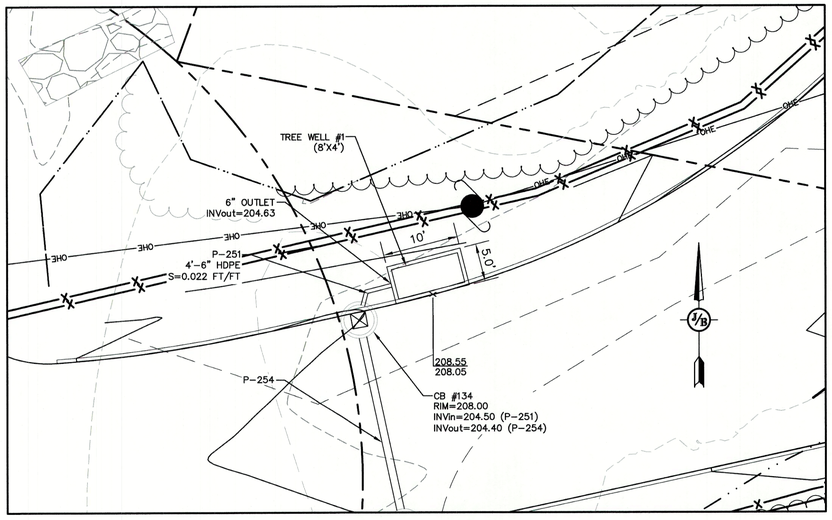
DRAWING No.

D7

SHEET 39 OF45
JBE PROJECT NO. 21130

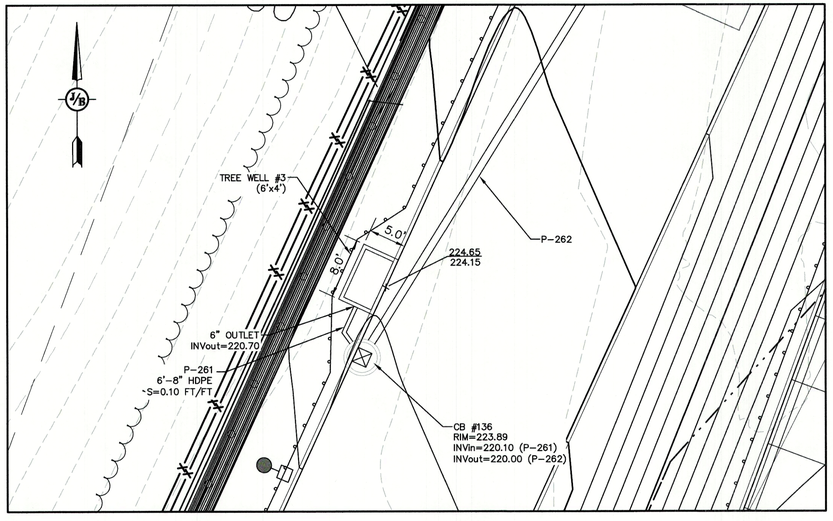
FTIBC-C LONG SIDE CURB INLET										
DESIGNATION (SHORT SIDE)	SIZE (MEDIA BAY)	VAULT LENGTH	VAULT WIDTH	MAX. BYPASS PIPE SIZE	MAX. BYPASS FLOW (CFS)	UNDERDRAIN PIPE DIA. (PERF.)	TREE GRATE QTY. & SIZE	THROAT INVERT (B)	OUTLET INVERT (A)	COVER RIM (C)
TW #1 FTIBC-C0804	8' x 4'	10'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'	208.05	204.63	208.55
TW #2 FTIBC-C0504	6' x 4'	8'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'	208.05	204.63	208.55
TW #3 FTIBC-C0504	6' x 4'	8'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'	224.15	220.70	224.65
TW #4 FTIBC-C0804	8' x 4'	10'-0"	4'-0"	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'	228.30	224.85	228.80

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING ON VAULT SIZE



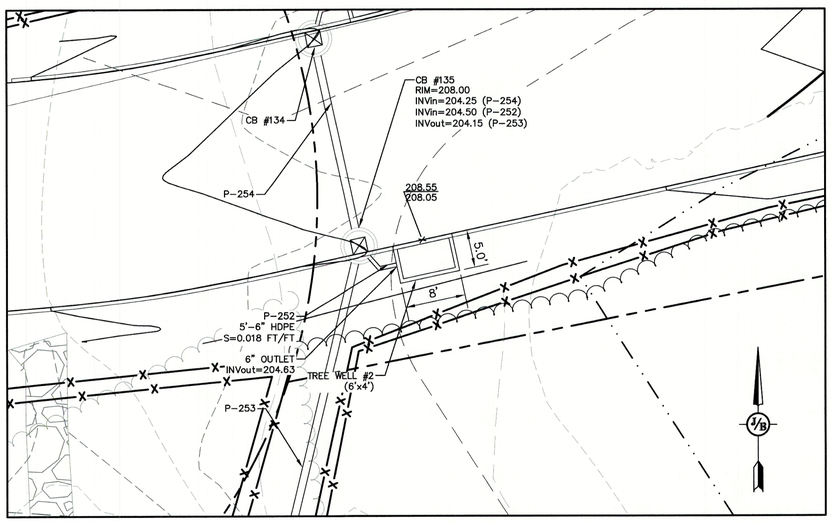
FILTERRA TREE BOX: TREEWELL #1

SCALE: 1"=10'



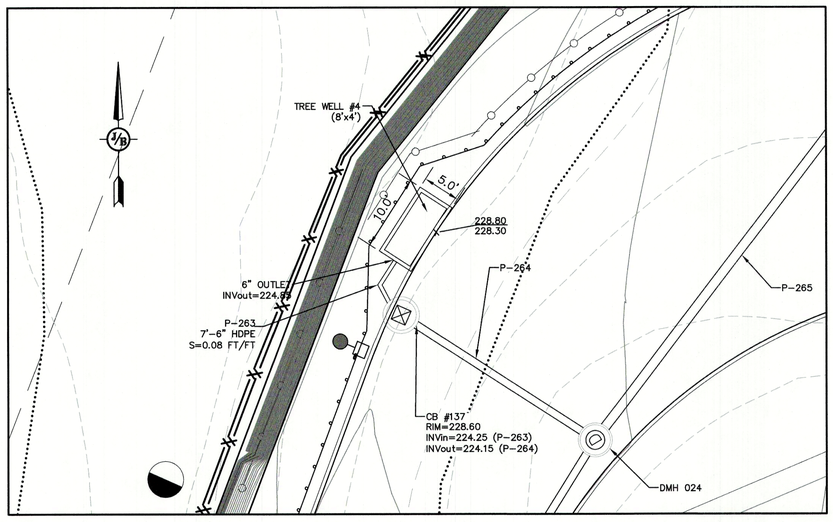
FILTERRA TREE BOX: TREEWELL #3

SCALE: 1"=10'



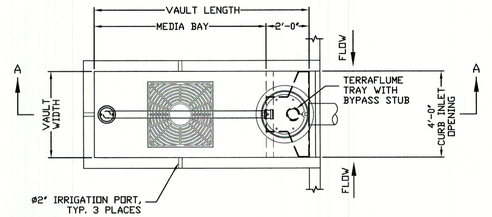
FILTERRA TREE BOX: TREEWELL #2

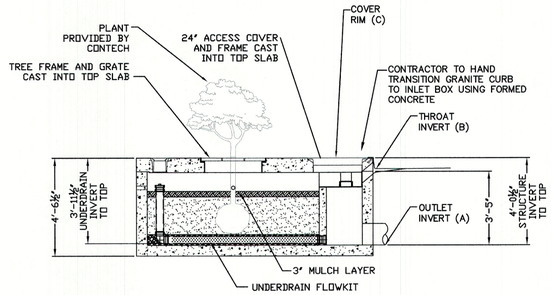
SCALE: 1"=10'



FILTERRA TREE BOX: TREEWELL #4

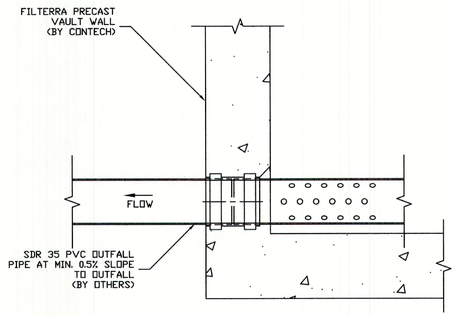
SCALE: 1"=10'





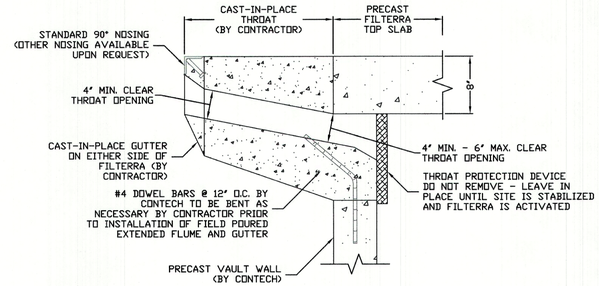
TREEWELL FILTER DETAIL (FILTERRA BIORETENTION SYSTEM)

NOT TO SCALE



FILTERRA OUTFALL PIPE CONNECTION DETAIL

NOT TO SCALE



FILTERRA INLET CONNECTION DETAIL

NOT TO SCALE

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Drawing Name: 21130-PLAN.dwg			

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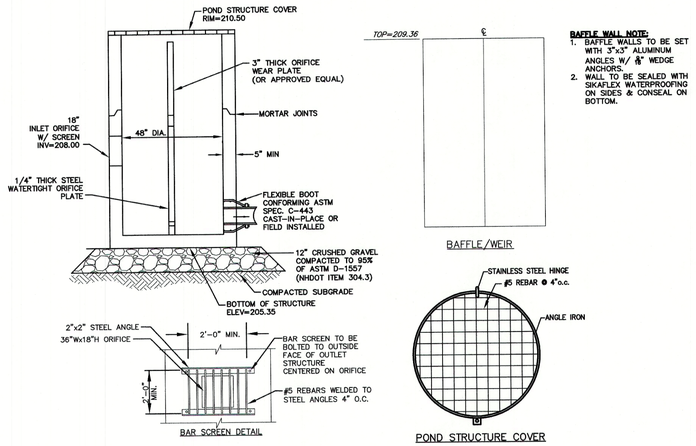
DRAWING No.

D8

SHEET 40 OF 45

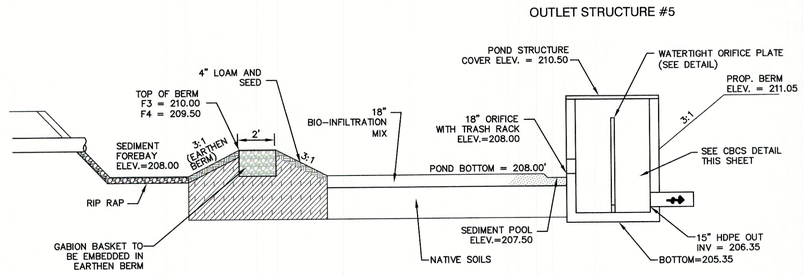
JBE PROJECT NO. 21130



BAFFLE WALL NOTE:
1. BAFFLE WALLS TO BE SET WITH 3"x3" ALUMINUM ANGLES W/ ⅜" WEDGE ANCHORS.
2. WALL TO BE SEALED WITH SIKAFLEX WATERPROOFING ON SIDES & CONSEAL ON BOTTOM.

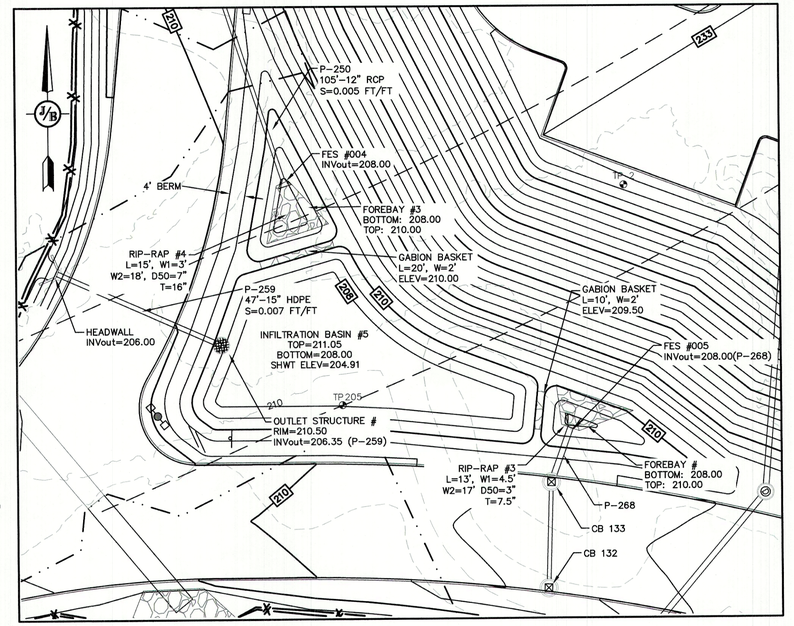
OUTLET STRUCTURE #5 (OS #5)

NOT TO SCALE



INFILTRATION BASIN #5

NOT TO SCALE

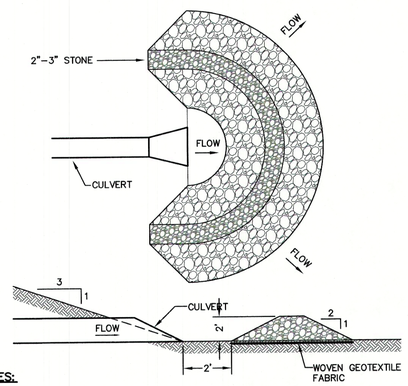


INFILTRATION BASIN (POND #5)

1" = 20'

BIO-INFILTRATION MIX AND PROCEDURE:

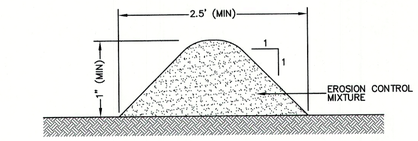
1. REMOVE EXISTING FOREST LITTER FROM INFILTRATION BASIN SITE.
2. REMOVE SANDY LOAM AND STOCKPILE (SCREEN LARGE ROOTS)
3. REMOVE SANDY LAYERS TO 18" BELOW BASIN FLOOR ELEVATION.
4. BIO-INFILTRATION MIX: (BY VOLUME)
   - 4.1. 50%-55% ASTM C-33 CONCRETE SAND.
   - 4.2. 20%-30% LOAMY SAND TOPSOIL WITH 15%-25% FINES PASSING A #200 SIEVE
   - 4.3. 20%-30% MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 5% PASSING THE #200 SIEVE.
5. INSTALL TO BIO-INFILTRATION MIX TO BASIN BOTTOM ELEVATION
6. SEED WITH "NEW ENGLAND WARM SEASON GRASS MIX" AS SOLD BY NEW ENALND WELTAND PLANTS, OR EQUAL AS APPROVED BY ENGINEER. APPLICATION RATE = 1900 SW.FT. / LB.
   - 6.1. LIGHTLY MULCH WITH WEED FREE STRAW.



NOTES:
1. TEMPORARY CULVERT INLET PROTECTION CHECK DAMS SHALL BE CONSTRUCTED OF 2-3" STONE OVER WOVEN GEOTEXTILE FABRIC.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURE WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE STRUCTURE.
4. STRUCTURE SHALL BE REMOVED WHEN THE SITE IS STABILIZED WITH THE PROPOSED RIP RAP FIELD. AREAS OUTSIDE THE RIP RAP FIELD ARE TO BE VEGETATED AND SMOOTHED.
5. SEE COVER SHEET "NH FISH & GAME & AOT PERMIT CONDITIONS RELATED TO THREATENED AND ENDANGERED SPECIES".

TEMPORARY CULVERT OUTLET PROTECTION CHECK DAM

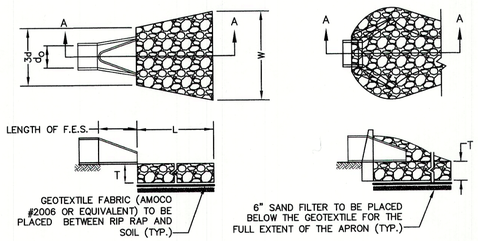
NOT TO SCALE



NOTES:
1. ORGANIC FILTER BERMS MAY BE UTILIZED IN LIEU OF SILT FENCE, UNLESS OTHERWISE SPECIFIED.
2. THE EROSION CONTROL MIX USED IN THE FILTER BERMS SHALL BE A WELL-GRADED MIXTURE OF PARTICLE SIZES, MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, STUMP GRINDINGS, SHREDDED OR COMPOSTED BARK, OR ACCEPTABEL MANUFACTURED PRODUCTS, AND SHALL BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH, AND SHALL MEET THE FOLLOWING STANDARDS:
   - a) THE ORGANIC CONTENT SHALL BE 80-100% OF DRY WEIGHT.
   - b) PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN, AND 70-85% PASSING A 0.75" SCREEN.
   - c) THE ORGANIC PORTION SHALL BE FIBROUS AND ELONGATED.
   - d) LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS SHALL NOT BE INCLUDED IN THE MIXTURE.
   - e) SOLUBLE SALTS CONTENT SHALL BE >4.0mmhos/cm.
   - f) THE pH SHALL BE BETWEEN 5.0 AND 8.0.
3. ORGANIC FILTER BERMS SHALL BE INSTALLED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BERM.
4. ON SLOPES LESS THAN 5%, OR AT THE BOTTOM OF SLOPES STEEPER THAN 3:1, UP TO 20' LONG, THE BERM SHALL BE A MINIMUM OF 12" HIGH (AS MEASURED ON THE UPHILL SIDE), AND A MINIMUM OF 36" WIDE. ON LONGER OR STEEPER SLOPES, THE BERM SHALL BE WIDER TO ACCOMMODATE THE POTENTIAL ADDITIONAL RUNOFF.
5. FROZEN GROUND, OUTCROPS OF BEDROCK, AND VERY ROOTED FORESTED AREAS PRESENT THE MOST PRACTICAL AND EFFECTIVE LOCATIONS FOR ORGANIC FILTER BERMS. OTHER BMP'S SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT HAVE A LARGE CONTRIBUTING AREA.
6. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE STRUCTURE.
7. STRUCTURES MAY BE LEFT IN PLACE ONCE THE SITE IS STABILIZED.

ORGANIC FILTER BERM

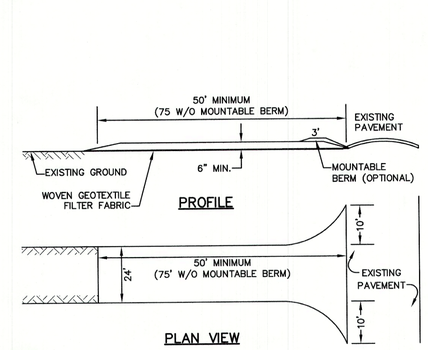
NOT TO SCALE



NOTES:
1. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
5. OUTLETS TO A DEFINED CHANNEL SHALL HAVE 2:1 OR FLATTER SIDE SLOPES AND SHOULD BEGIN AT THE TOP OF THE CULVERT AND TAPER DOWN TO THE CHANNEL BOTTOM THROUGH THE LENGTH OF THE APRON.
6. MAINTENANCE: THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO OUTLET PROTECTION.
7. SPECIFIC RIP RAP APRON SIZING FOR EACH INDIVIDUAL LOCATION ARE SHOWN ON THE GRADING AND DRAINAGE PLANS.

RIP RAP OUTLET PROTECTION APRON

NOT TO SCALE



NOTES:
1. STONE FOR STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, 75' WITHOUT A MOUNTABLE BERM, AND EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS, OR 10 FEET, WHICHEVER IS GREATER.
5. GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER FABRIC IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENTIAL LOT.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A STONE BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP
REV.	DATE	REVISION	BY

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

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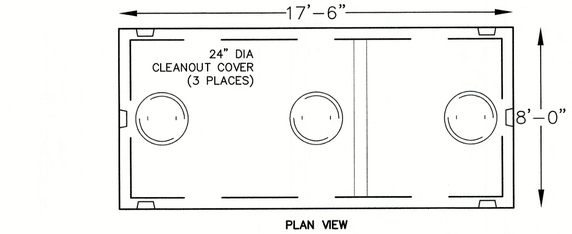
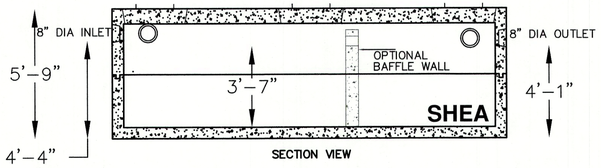
Plan Name:	DETAIL SHEET
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
D9
SHEET 41 OF45
JBE PROJECT NO. 21130



PLAN VIEW



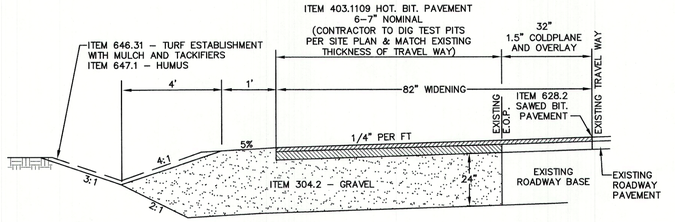
SECTION VIEW

NOTES:

1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00 DEP TITLE 5 REGS FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227-93.
4. DESIGNED FOR H-20 LOADING, COVER 1-5 FT.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN. INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.
6. TEES AND BAFFLES SOLD SEPARATELY.

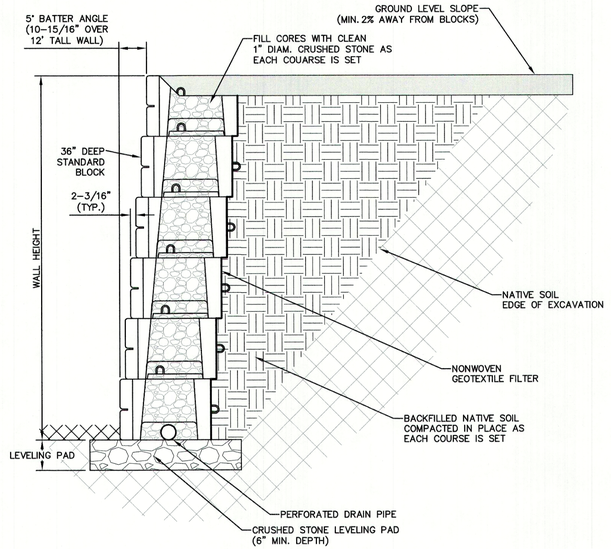
COMMERCIAL LINE TANK 3000 GALLON

NOT TO SCALE



TYPICAL SECTION - SHOULDER WIDENING (NHDOT)

NOT TO SCALE



VERTI-BLOCK RETAINING WALL

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Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.:21130
Drawing Name: 21130-PLAN.dwg		

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STATE OF NEW HAMPSHIRE
ERIK M POULIN No.16669
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DRAWING No.

D10

SHEET 42 OF45
JBE PROJECT NO.21130

TEMPORARY EROSION CONTROL NOTES

1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME. AT NO TIME SHALL AN AREA IN EXCESS OF 5 ACRES BE EXPOSED AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.

2. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.

3. ALL DISTURBED AREAS (INCLUDING POND AREAS BELOW THE PROPOSED WATERLINE) SHALL BE RETURNED TO PROPOSED GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 6" OF SCREENED ORGANIC LOAM AND SEEDED WITH SEED MIXTURE 'C' AT A RATE NOT LESS THAN 1.10 POUNDS OF SEED PER 1,000 S.F. OF AREA (48 LBS. / ACRE).

4. SILT FENCES AND OTHER BARRIERS SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR GREATER. ALL DAMAGED AREAS SHALL BE REPAIRED, AND SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.

5. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.

6. AREAS MUST BE SEEDED AND MULCHED OR OTHERWISE PERMANENTLY STABILIZED WITHIN 3 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED WITHIN 14 DAYS OF THE INITIAL DISTURBANCE OF SOIL. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

7. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING NORTH AMERICAN GREEN S75 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER) ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

8. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

9. AFTER OCTOBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

10. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
    a. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
    b. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
    c. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED; OR
    d. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

11. FUGITIVE DUST CONTROL IS REQUIRED TO BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000, AND THE PROJECT IS TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.

12. PRIOR TO CONSTRUCTION, A PHASING PLAN THAT DELINEATES EACH PHASE OF THE PROJECT SHALL BE SUBMITTED. ALL TEMPORARY SEDIMENT BASINS THAT WILL BE NEEDED FOR DEWATERING WORK AREAS SHALL BE LOCATED AND IDENTIFIED ON THIS PLAN.

13. IN ORDER TO ENSURE THE STABILITY OF THE SITE AND EFFECTIVE IMPLEMENTATION OF THE SEDIMENT AND EROSION CONTROL MEASURES SPECIFIED IN THE PLANS FOR THE DURATION OF CONSTRUCTION, THE CONTRACTOR SHALL BE IN STRICT COMPLIANCE WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS IN ADDITION TO THOSE CALLED FOR IN THE SWPPP:
    a. A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL OR A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE ("MONITOR") SHALL BE EMPLOYED TO INSPECT THE SITE FROM THE START OF ALTERATION OF TERRAIN ACTIVITIES UNTIL THE SITE IS IN FULL COMPLIANCE WITH THE SITE SPECIFIC PERMIT ("PERMIT").
    b. DURING THIS PERIOD, THE MONITOR SHALL INSPECT THE SUBJECT SITE AT LEAST ONCE A WEEK, AND IF POSSIBLE, DURING ANY ½ INCH OR GREATER RAIN EVENT (I.E. ½ INCH OF PRECIPITATION OR MORE WITHIN A 24 HOUR PERIOD). IF UNABLE TO BE PRESENT DURING SUCH A STORM, THE MONITOR SHALL INSPECT THE SITE WITHIN 24 HOURS OF THIS EVENT.
    c. THE MONITOR SHALL PROVIDE TECHNICAL ASSISTANCE AND RECOMMENDATIONS TO THE CONTRACTOR ON THE APPROPRIATE BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROLS REQUIRED TO MEET THE REQUIREMENTS OF RSA 485 A:17 AND ALL APPLICABLE DES PERMIT CONDITIONS.

2 14. THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN ⅛ INCHES MATERIAL UTILIZED.

2 15. TURF REINFORCEMENT MATS SHALL BE COVERED WITH SOIL TO PREVENT EXPOSURE OF THE MATS TO THE SURFACE.

SEEDING SPECIFICATIONS

1. GRADING AND SHAPING
   A. SLOPES SHALL NOT BE STEEPER THAN 2:1 WITHOUT APPROPRIATE EROSION CONTROL MEASURES AS SPECIFIED ON THE PLANS (3:1 SLOPES OR FLATTER ARE PREFERRED).
   B. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.

2. SEEDBED PREPARATION
   A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
   B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND FERTILIZER AND LIME MIXED INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.

3. ESTABLISHING A STAND
   A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. TYPES AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
   AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ.FT.
   NITROGEN(N), 50 LBS. PER ACRE OR 1.1 LBS. PER 1,000 SQ.FT.
   PHOSPHATE(P2O5), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
   POTASH(K2O), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
   (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10.)
   B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
   C. REFER TO THE 'SEEDING GUIDE' AND 'SEEDING RATES' TABLES ON THIS SHEET FOR APPROPRIATE SEED MIXTURES AND RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT, TREFOIL AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT PRIOR TO THEIR INTRODUCTION TO THE SITE.
   D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20th OR FROM AUGUST 10th TO SEPTEMBER 1st.

4. MULCH
   A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
   B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90 LBS PER 1000 S.F.

5. MAINTENANCE TO ESTABLISH A STAND
   A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
   B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME FULLY ESTABLISHED.
   C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, ANNUAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	E	FAIR	EXCELLENT	EXCELLENT	2/
	F	FAIR	EXCELLENT	EXCELLENT	2/

GRAVEL PIT, SEE NH-PM-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.

1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE BELOW.
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR OATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCTOBER 15th, IF PERMANENT SEEDING NOT YET COMPLETE.

BLASTING NOTES

ALL ACTIVITIES RELATED TO BLASTING SHALL FOLLOW BEST MANAGEMENT PRACTICES (BMPS) TO PREVENT CONTAMINATION OF GROUNDWATER INCLUDING PREPARING, REVIEWING AND FOLLOWING AN APPROVED BLASTING PLAN; PROPER DRILLING, EXPLOSIVE HANDLING AND LOADING PROCEDURES; OBSERVING THE ENTIRE BLASTING PROCEDURES; EVALUATING BLASTING PERFORMANCE; AND HANDLING AND STORAGE OF BLASTED ROCK.

1. LOADING PRACTICES. THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
   A. DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
   B. EXPLOSIVE PRODUCTS SHALL BE MANAGED ON-SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL.
   C. SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL.
   D. LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
   E. LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
   F. EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.

2. EXPLOSIVE SELECTION. THE FOLLOWING BMPS SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
   A. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
   B. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.

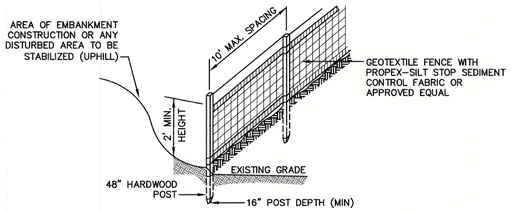
3. PREVENTION OF MISFIRES. APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.

4. MUCK PILE MANAGEMENT. MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
   A. REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
   B. MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.

5. SPILL PREVENTION MEASURES AND SPILL MITIGATION. SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:
   A. THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
      1. STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
      2. SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
      3. LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY.
      4. INSPECT STORAGE AREAS WEEKLY.
      5. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
      6. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS.
      7. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
   B. THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
      1. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
      2. PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS.
      3. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
      4. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
      5. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
   C. THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
   D. FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES [NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT" OR ITS SUCCESSOR DOCUMENT.

CONSTRUCTION SEQUENCE

1. PRIOR TO THE START OF ANY ACTIVITY, IT IS THE RESPONSIBILITY OF THE SITE'S SITE DEVELOPER (OR OWNER) TO FILE A NOTICE OF INTENT (NOI) FORM WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) IN ORDER TO GAIN COVERAGE UNDER THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. A PRE CONSTRUCTION MEETING IS TO BE HELD WITH ALL DEPARTMENT HEADS PRIOR TO THE START OF CONSTRUCTION.
2. WETLAND BOUNDARIES ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION. AT LEAST A TEMPORARY CULVERT OR ROADBED TO BE IN PLACE PRIOR TO THE START OF CONSTRUCTION.
3. CUT AND REMOVE TREES IN CONSTRUCTION AREA AS REQUIRED OR DIRECTED.
4. INSTALL SILT FENCING, HAY BALES AND CONSTRUCTION ENTRANCES PRIOR TO THE START OF CONSTRUCTION. THESE ARE TO BE MAINTAINED UNTIL THE FINAL PAVEMENT SURFACING AND LANDSCAPING AREAS ARE ESTABLISHED.
5. CLEAR, CUT, GRUB AND DISPOSE OF DEBRIS IN APPROVED FACILITIES. THIS INCLUDES ANY REQUIRED DEMOLITION OF EXISTING STRUCTURES, UTILITIES, ETC.
6. CONSTRUCT AND/OR INSTALL TEMPORARY OR PERMANENT SEDIMENT AND/OR DETENTION BASIN(S) AS REQUIRED. THESE FACILITIES SHALL BE INSTALLED AND STABILIZED PRIOR TO DIRECTING RUN-OFF TO THEM.
7. STRIP LOAM AND PAVEMENT, OR RECLAIM EXISTING PAVEMENT WITHIN LIMITS OF WORK PER THE RECOMMENDATIONS OF THE PROJECT ENGINEER AND STOCKPILE EXCESS MATERIAL. STABILIZE STOCKPILE AS NECESSARY.
8. PERFORM PRELIMINARY SITE GRADING IN ACCORDANCE WITH THE PLANS, INCLUDING THE CONSTRUCTION OF ANY RETAINING WALLS AND SOUND WALLS.
9. PREPARE BUILDING PAD(S) TO ENABLE BUILDING CONSTRUCTION TO BEGIN.
10. INSTALL THE SEWER AND DRAINAGE SYSTEMS FIRST, THEN ANY OTHER UTILITIES IN ACCORDANCE WITH THE PLAN AND DETAILS. ANY CONFLICTS BETWEEN UTILITIES ARE TO BE RESOLVED WITH THE INVOLVEMENT AND APPROVAL OF THE ENGINEER.
11. INSTALL INLET PROTECTION AT ALL CATCH BASINS AS THEY ARE CONSTRUCTED IN ACCORDANCE WITH DETAILS.
12. ALL SWALES AND DRAINAGE STRUCTURES ARE TO BE CONSTRUCTED AND STABILIZED PRIOR TO HAVING RUN-OFF DIRECTED TO THEM.
13. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINAGE DITCHES, CHECK DAMS, SEDIMENT TRAPS, ETC., TO PREVENT EROSION ON THE SITE AND PREVENT ANY SILTATION OF ABUTTING WATERS AND/OR PROPERTY.
14. PERFORM FINAL FINE GRADING, INCLUDING PLACEMENT OF 'SELECT' SUBGRADE MATERIALS.
15. PAVE ALL PARKING LOTS AND ROADWAYS WITH INITIAL 'BASE COURSE'.
16. PERFORM ALL REMAINING SITE CONSTRUCTION (I.E. BUILDING, CURBING, UTILITY CONNECTIONS, ETC.).
17. LOAM AND SEED ALL DISTURBED AREAS AND INSTALL ANY REQUIRED SEDIMENT AND EROSION CONTROL FACILITIES (I.E. RIP RAP, EROSION CONTROL BLANKETS, ETC.).
18. FINISH PAVING ALL ROADWAYS AND PARKING AREAS WITH 'FINISH' COURSE.
19. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
20. ALL CUT AND FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
21. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
22. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE BEEN 75%-85% ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE. SMOOTH AND RE-VEGETATE ALL DISTURBED AREAS.
23. CLEAN SITE AND ALL DRAINAGE STRUCTURES, PIPES AND SUMPS OF ALL SILT AND DEBRIS.
24. INSTALL ALL PAINTED PAVEMENT MARKINGS AND SIGNAGE PER THE PLANS AND DETAILS.
25. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL.
26. UPON COMPLETION OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ANY RELEVANT PERMITTING AGENCIES THAT THE CONSTRUCTION HAS BEEN FINISHED IN A SATISFACTORY MANNER.



CONSTRUCTION SPECIFICATIONS:

1. WOVEN FABRIC FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP, MID AND BOTTOM AND EMBEDDED IN THE GROUND A MINIMUM OF 8" AND THEN COVERED WITH SOIL.
2. THE FENCE POSTS SHALL BE A MINIMUM OF 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED 6", FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED AND PROPERLY DISPOSED OF WHEN IT IS 6" DEEP OR VISIBLE 'BULGES' DEVELOP IN THE SILT FENCE.
5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.
6. SILT FENCE SHALL REMAIN IN PLACE FOR 24 MONTHS.

SILT FENCE

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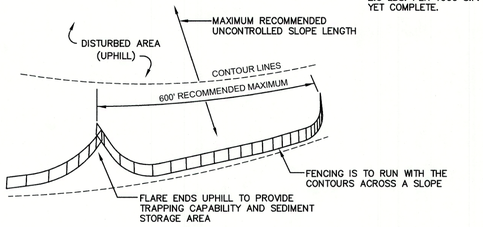

7. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND REVEGETATED.

MAINTENANCE:

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE DONE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
4. SEDIMENT DEPOSITS THAT ARE REMOVED, OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED, SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

SEEDING GUIDE

MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft.
A. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREEPING RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR		
FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
* C. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
BIRDS FOOT TREFOIL	8	0.20
TOTAL	48	1.10
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREEPING RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	50	1.15
TOTAL	100	2.30
F. TALL FESCUE 1	150	3.60

1/ FOR HEAVY USE ATHLETIC FIELDS CONSULT THE UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION TURF SPECIALIST FOR CURRENT VARIETIES AND SEEDING RATES.

SEEDING RATES

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

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ERIK M POULIN No.16669 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE

REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
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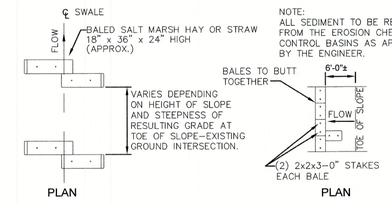
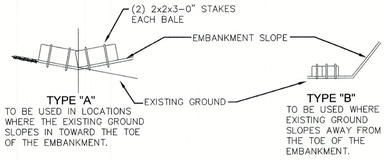
603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	EROSION AND SEDIMENT CONTROL DETAILS
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No. E1
SHEET 43 OF 45
JBE PROJECT NO. 21130





BALED HAY OR STRAW EROSION CHECK DETAIL

NOT TO SCALE

BEST MANAGEMENT PRACTICES FOR BLASTING.

1. ALL ACTIVITIES RELATED TO BLASTING SHALL FOLLOW BEST MANAGEMENT PRACTICES (BMPS) TO PREVENT CONTAMINATION OF GROUNDWATER INCLUDING: PREPARING, REVIEWING AND FOLLOWING AN APPROVED BLASTING PLAN; PROPER DRILLING, EXPLOSIVE HANDING AND LOADING PROCEDURES; OBSERVING THE ENTIRE BLASTING PROCEDURES; EVALUATING BLASTING PERFORMANCE; AND HANDLING AND STORAGE OF BLASTED ROCK.

2. LOADING PRACTICES. THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:

(a) DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
(b) EXPLOSIVE PRODUCTS SHALL BE MANAGED ON□SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF□SITE DISPOSAL.
(c) SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF□SITE DISPOSAL.
(d) LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
(e) LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
(f) EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.

3. EXPLOSIVE SELECTION. THE FOLLOWING BMPS SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
(a) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
(b) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.

4. PREVENTION OF MISFIRES. APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.

5. MUCK PILE MANAGEMENT. MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
(a) REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
(b) MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.

6. SPILL PREVENTION MEASURES AND SPILL MITIGATION. SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:

(a) THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
- STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
- SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
- LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY.
- INSPECT STORAGE AREAS WEEKLY.
- COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
- WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS.
- SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.

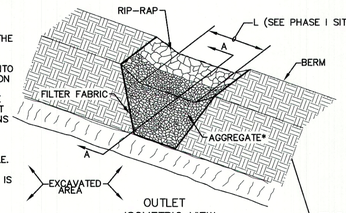
(b) THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
- EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
- PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS.
- HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
- USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
- PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.

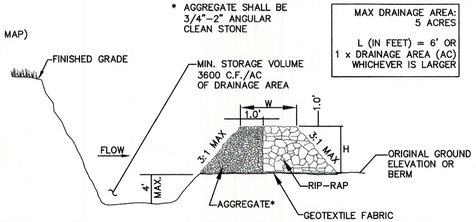
(c) THE TRAINING OF ON□SITE EMPLOYEES AND THE ON□SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.

(d) FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES [NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD□DWGB□22□6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT" OR ITS SUCCESSOR DOCUMENT.

MAINTENANCE NOTES:

1. SEDIMENT TRAPS MUST BE INSPECTED AND MUST BE CLEANED WHEN THE ORIGINAL CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR LESS, AS REQUIRED BY THE GOVERNING AGENCY.
2. ALL MATERIAL EXCAVATED FROM BEHIND SEDIMENT BARRIERS OR FROM TRAPS SHALL BE INCORPORATED INTO ON–SITE SOILS OR SPREAD OUT ON AN UPLAND PORTION OF THE SITE AND STABILIZED.
3. VERIFY THAT NO EROSION IS OCCURRING AT DISCHARGE POINTS TO AND FROM IMPOUNDMENTS AND VERIFY THAT TRAP SIDE SLOPES ARE STABILIZED AND SHOW NO SIGNS OF EROSION.
4. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE.
5. TRAP TO BE CLEANED WHEN 50% OF ORIGINAL VOLUME IS FILLED.
6. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.
7. SEE COVER SHEET "NH FISH & GAME & AOT PERMIT CONDITIONS RELATED TO THREATENED AND ENDANGERED SPECIES".





TEMPORARY SEDIMENT TRAP

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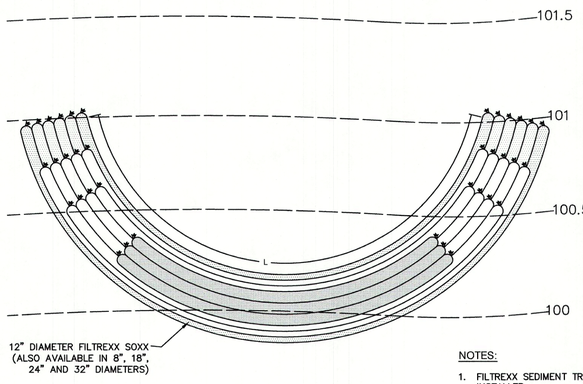
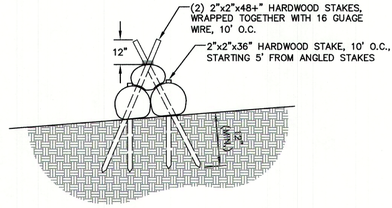


GENERAL NOTES:

1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE.
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN 5 ACRES.
3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
4. THE SIDE SLOPES OF THE TRAP SHALL BE 3:1 OR FLATTER, AND SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
5. THE OUTLET OF THE TRAP SHALL BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP AND SHALL DISCHARGE TO A STABILIZED AREA.
6. THE TRAP SHALL BE CLEANED WHEN 50% OF THE ORIGINAL VOLUME IS FILLED.
7. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OFF AND STABILIZED.

NOTES:

1. FILTREXX SEDIMENT TRAP MUST BE INSTALLED BY FILTREXX CERTIFIED INSTALLER.
2. FILTREXX SEDIMENT TRAP MUST BE COMPLY WITH ALL FILTREXX STANDARD SPECIFICATIONS.
3. FILTREXX SEDIMENT TRAP MUST USE FILTREXX FILTERMEDIA.
4. FILTREXX SEDIMENT TRAP BARRIER FACE SIZING SHALL USE Q/0.98CFM(PER SF OF AREA FACE) = A (Q=5L/SEC/SQ.M)
5. FILTREXX SEDIMENT TRAP BARRIER FACE SHALL BE MEASURED AS A=L*D.
6. FILTREXX SEDIMENT TRAP SHALL BE CONSTRUCTED SO THAT THE MINIMUM BASE WIDTH IS EQUIVALENT TO THE HEIGHT (1H:1V).
7. SEDIMENT ACCUMULATION SHALL NOT EXCEED ½ THE HEIGHT OF THE BARRIER.
8. FILTREXX SEDIMENT TRAP SHALL BE INSPECTED AND MAINTAINED AFTER STORM EVENTS.
9. SOXX SHALL BE OF LARGER DIAMETER AT THE BASE OF THE SEDIMENT TRAP AND DECREASE IN DIAMETER FOR SUCCESSIVE LAYERS.
10. ENDS OF THE SEDIMENT TRAP SHALL BE A MINIMUM 1 FT (30 CM) HIGHER IN ELEVATION THAN THE MID–SECTION, WHICH SHALL BE AT THE LOWEST ELEVATION.
11. BOTTOM LAYER OF SOXX SHALL BE STAKED WITH 2X2X36" WOODEN STAKES. SUCCESSIVE LAYERS SHALL BE STAKED WITH ½" REBAR AT A 45 DEGREE ANGLE.
12. SEE COVER SHEET "NH FISH & GAME & AOT PERMIT CONDITIONS RELATED TO THREATENED AND ENDANGERED SPECIES".



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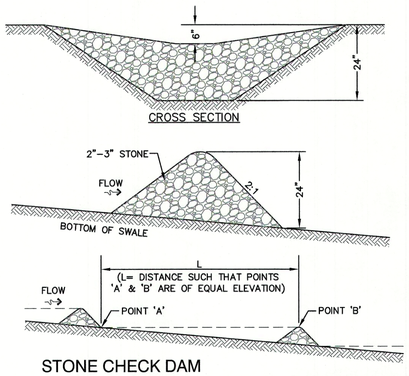

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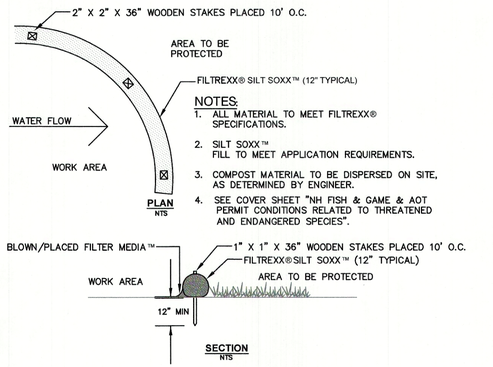
MAINTENANCE NOTE:

1. STONE CHECK DAMS SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.



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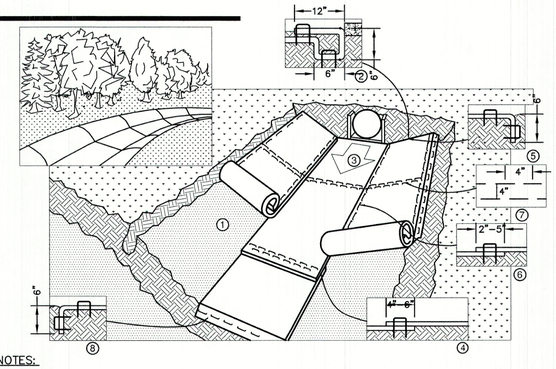


NOTES:

1. EROSION CONTROL BLANKET SHALL BE BIONET S150 AS PRODUCED BY NORTH AMERICAN GREEN (OR AN EQUIVALENT NATURAL MATERIAL MATTING APPROVED IN WRITING BY THE ENGINEER).
2. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
3. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
4. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
5. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"–6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS.
6. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
7. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"–5" (DEPENDING ON BLANKET TYPE) AND STAPLED. TO INSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
8. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
9. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
10. SEE COVER SHEET "NH FISH & GAME & AOT PERMIT CONDITIONS RELATED TO THREATENED AND ENDANGERED SPECIES".

NOTES:

1. EROSION CONTROL BLANKET SHALL BE BIONET S75 AS PRODUCED BY NORTH AMERICAN GREEN (OR AN EQUIVALENT NATURAL MATERIAL MATTING APPROVED IN WRITING BY THE ENGINEER).
2. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
3. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
4. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
5. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"–5" OVERLAP. DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
6. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
7. SEE COVER SHEET "NH FISH & GAME & AOT PERMIT CONDITIONS RELATED TO THREATENED AND ENDANGERED SPECIES".

NORTH AMERICAN GREEN
14649 HIGHWAY 41 NORTH
EVANSVILLE, INDIANA 47725
1–800–772–2040

(North American Green)

EROSION CONTROL BLANKET SLOPE INSTALLATION

NOT TO SCALE

NORTH AMERICAN GREEN
14649 HIGHWAY 41 NORTH
EVANSVILLE, INDIANA 47725
1–800–772–2040

CRITICAL POINTS:

A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTES:

* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

EROSION CONTROL BLANKET SWALE INSTALLATION (North American Green)

NOT TO SCALE

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

STATE OF NEW HAMPSHIRE – ERIK M POULIN No.16669 – LICENSED PROFESSIONAL ENGINEER

REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	EROSION AND SEDIMENT CONTROL DETAILS
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
E2
SHEET 44 OF 45
JBE PROJECT NO. 21130

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)

1 inch = 200 ft.

TAX MAP 28-3, LOT 43
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 46
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

TAX MAP 23, LOT 24
JOAN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

CONSERVATION RESTRICTION (B) = 14.15 AC

CONSERVATION RESTRICTION (A) = 22.54 AC

OLD MANCHESTER ROAD

OLD BOSTON & MAINE RAILROAD BED

RAILBED

INDUSTRIAL DRIVE

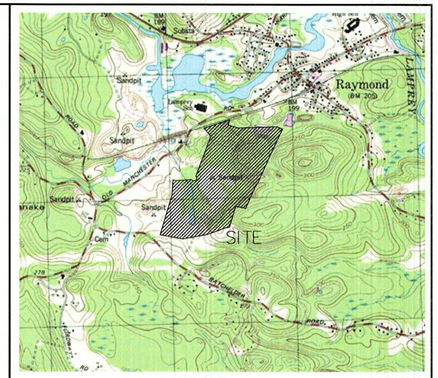
SCRIBNER POND

STATE OF NEW HAMPSHIRE ROUTE 101 WESTBOUND

STATE OF NEW HAMPSHIRE ROUTE 101 EASTBOUND

PLAN REFERENCE:

1. AN ALTA SURVEY AND PLAT OF PROPERTY PREPARED FOR M-O-H ENTERPRISES FL, INC. SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY R.S.L. LAYOUT & DESIGN, INC. DATED 2/21/1996



LOCUS SCALE: 1"=2000'

EXISTING CONDITIONS NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
2. BASE ELEVATION WAS ESTABLISHED THROUGH MULTIPLE GPS POST PROCESS OBSERVATIONS AND WAS REDUCED TO THE NAVD88 DATUM BY THE NATIONAL GEODETIC SURVEY OPUS SOFTWARE.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN WALDEN C.W.S., DURING SUMMER, 2021, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:

   a. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.

   b. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.

   c. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.

   d. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
5. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
6. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.

CONSERVATION NOTES:

1. CONSERVATION RESTRICTION AREA A – RAYMOND POND
THERE SHALL BE NO REMOVAL, FILLING, OR OTHER DISTURBANCE OF SOIL SURFACES INCLUDING THE CONSTRUCTION OF STRUCTURES OR ADDITIONAL UTILITIES, NOR ANY CHANGES IN TOPOGRAPHY, SURFACE OR SUBSURFACE WATER SYSTEMS, WETLANDS, OR NATURAL HABITAT OF THE 75-FOOT WETLAND BUFFER; EXCEPT FOR WILDLIFE HABITAT RESTORATION OR IMPROVEMENT, ROUTINE MAINTENANCE SUCH AS FALLEN TREES OR TRAIL MAINTENANCE, OR REMOVAL OF INVASIVE SPECIES. BRIDGES, BOARDWALKS, OR DRAINAGE IMPROVEMENTS ARE ALLOWED ON THE TRAIL TO MINIMIZE OR AVOID SOIL EROSION OR FURTHER DEGRADATION. THE CONSERVATION AREA AND EXISTING FOOT TRAIL AROUND RAYMOND POND TO REMAIN OPEN TO RAYMOND RESIDENTS TO USE FOR NON-MOTORIZED RECREATIONAL PURPOSES. SIGNAGE SHALL BE INSTALLED AROUND THE POND TO EDUCATE RESIDENTS ABOUT THE CONSERVATION RESTRICTIONS, AND THE USE OF THE CONSERVATION AREA WILL BE AT THE USER'S OWN RISK. THERE SHALL BE NO CHANGES TO THE USE OUTLINED WITHOUT PERMISSION OF THE NH FISH & GAME, NH DES AND THE TOWN OF RAYMOND PLANNING BOARD WITH INPUT FROM THE RAYMOND CONSERVATION COMMISSION.

2. CONSERVATION RESTRICTION AREA B – BEAVER POND
THERE SHALL BE NO REMOVAL, FILLING, OR OTHER DISTURBANCE OF SOIL SURFACES INCLUDING THE CONSTRUCTION OF STRUCTURES OR ADDITIONAL UTILITIES, NOR ANY CHANGES IN TOPOGRAPHY, SURFACE OR SUBSURFACE WATER SYSTEMS, WETLANDS, OR NATURAL HABITAT, EXCEPT FOR WILDLIFE HABITAT RESTORATION OR IMPROVEMENT, ROUTINE MAINTENANCE, OR REMOVAL OF INVASIVE SPECIES. THERE SHALL BE NO CHANGES TO THE USE OUTLINED WITHOUT PERMISSION OF THE NH FISH & GAME, NH DES AND THE TOWN OF RAYMOND PLANNING BOARD WITH INPUT FROM THE RAYMOND CONSERVATION COMMISSION. NO PUBLIC ACCESS SHALL BE ALLOWED. SIGNAGE SHALL BE INSTALLED AROUND THE AREA NOTING RESTRICTIONS.

LEGEND:

- CONSERVATION RESTRICTION AREA
- WETLAND
- PROJECT BOUNDARY

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT/OWNER
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR
Checked: WGM	Scale: AS SHOWN
Drawing Name: 21130-PLAN.dwg	Date: 8/19/21 Project No.:21130

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
3	1/11/23	REVISED PER PLANNING BOARD COMMENTS	EMP
2	11/10/22	REVISED PER AOT/TOWN ENGINEER COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: WETLAND MITIGATION PLAN

Project: INDUSTRIAL BUILDING
INDUSTRIAL DRIVE, RAYMOND, NH

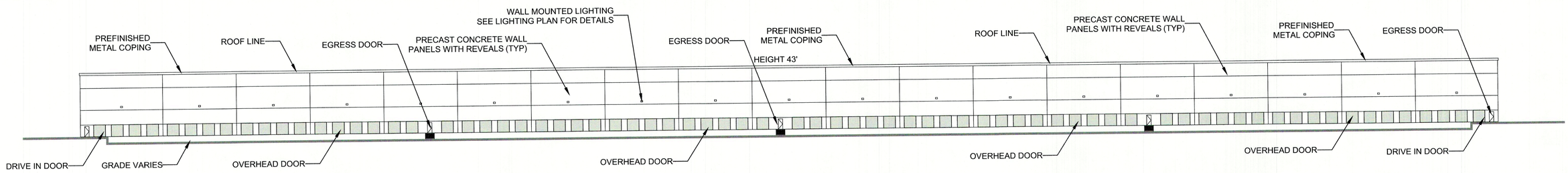
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
WM1
SHEET 45 OF45
JBE PROJECT NO. 21130

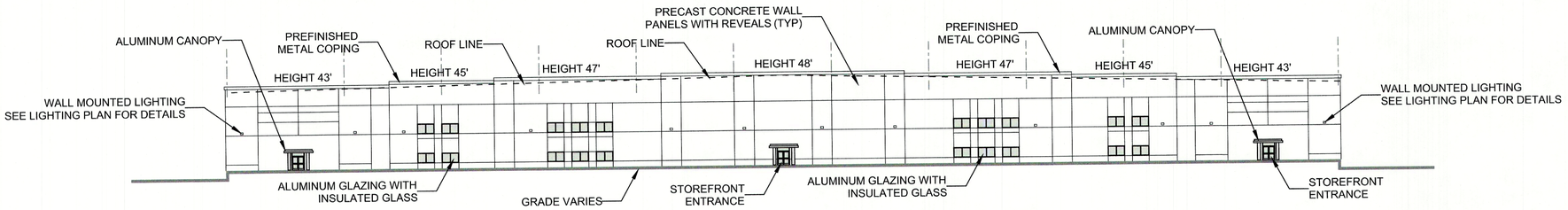
ONYX PARTNERS LTD

BUILDING ELEVATIONS

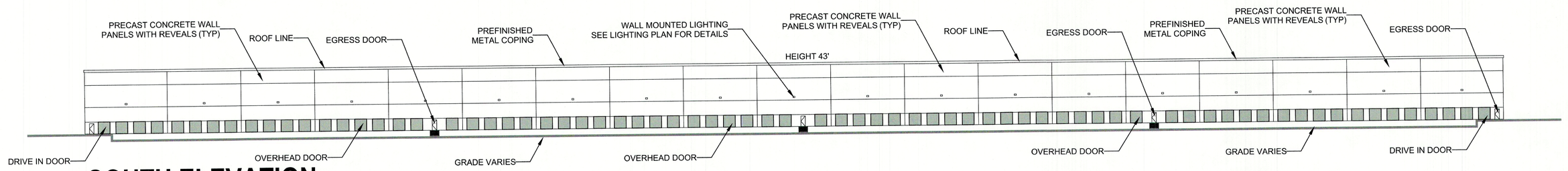
RAYMOND, NH



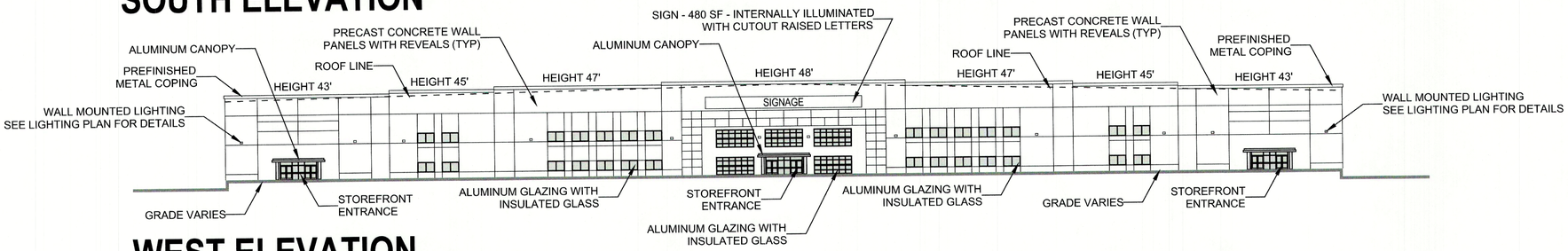
NORTH ELEVATION



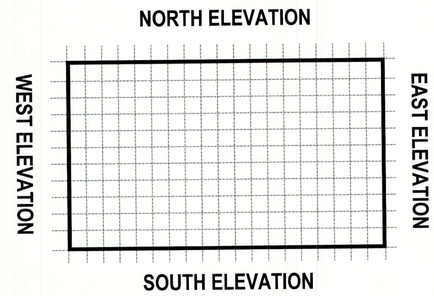
EAST ELEVATION



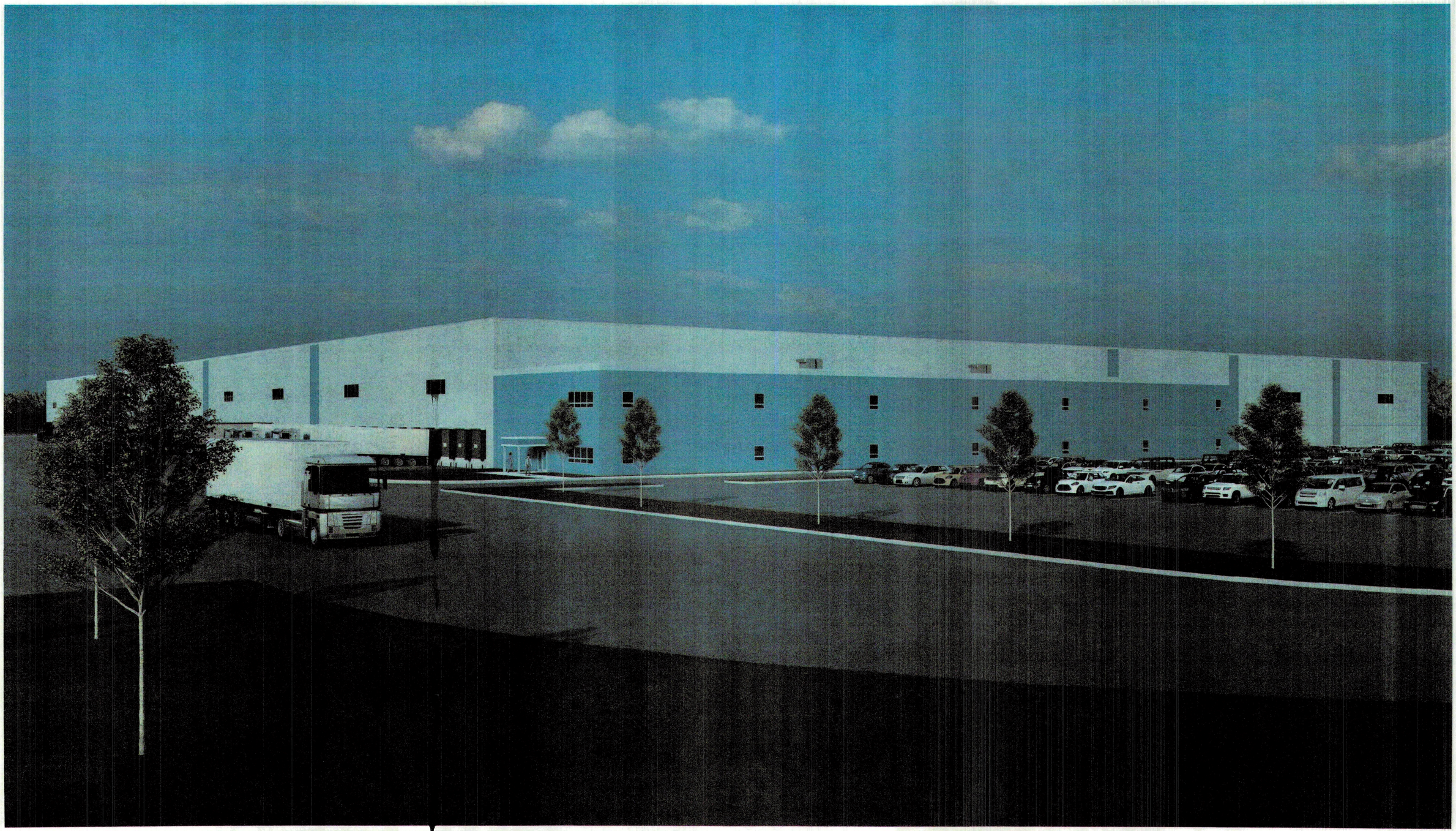
SOUTH ELEVATION



WEST ELEVATION



AUGUST 8, 2022



INDUSTRIAL BUILDING CONCEPT - RAYMOND, NH

24
AUGUST
2021

PROCON
CONNECT · CREATE · CONSTRUCT

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

January 12, 2023

Raymond Planning Board
Attn. Brad Reed, Chair
4 Epping Street
Raymond, NH 03077

RE: Application to Amend Earth Excavation Permit
Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46 7 47
Tax Map 28, Block 3, Lot 120-1
JBE Project No. 21130
Application # 2022-010

Dear Mr. Reed,

Jones & Beach Engineers, Inc. respectfully submits an application to amend Earth Excavation Permit for the above-referenced parcels on behalf of our client, ONYX Partners LTD. The intent of this application is to proposed a continuation of the existing quarry operated by Hartmann Enterprises located on the properties listed above.

The excavation permit was initially approved by the Town of Raymond on June 14, 2014. The project also received a NH Alteration of Terrain Permit (AoT-0195) on Nov 30, 2010. At the time of the initial approval the property was owned by Hard Rock Development LLC. Given the AoT permit is still valid and active, the approved plan set prepared by Lynnfield Engineering Inc. latest revision date May 16, 2017 has been provided within this submission.

Since the initial approvals were secured, the property has transferred to the current owner ONYX Raymond LLC. The AoT permit was amended to reflect ONYX Raymond LLC as the current owner of the property, and an EPA NOI was filed. In support of this filing Jones and Beach Engineers has prepared a supplemental plan set to the Lynnfield Engineering plans to show current existing conditions, wetland delineations, and current excavation plan. Hartmann Enterprises are the current operation of the quarry operation on site and a letter of support has been provided with the submission.

A site walk was conducted with members of the Raymond Planning Board on January 2nd, 2023. Additional information was added to the package following requests for additional information during the site walk. These items are located in Section 2 of your packet.

The following items are provided in support of this Application:

1. Earth Excavation Package Booklet
2. Eight (8) Full Size Plan Sets.
3. Eleven (11) Half Size Plan Sets.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Erik Poulin
Project Manager

cc: Anton Melchionda, ONYX Partners LTD (application and plans via email)

JONES & BEACH ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

Excavation Package

"Raymond Distribution"
Onyx Partners LTD
Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46 & 47
Tax Map 28, Block 3, Lot 120-1

Application # 2022-010

Table of Contents

Section 1 - Applications – Town & State

Section 2 - Site Walk Documents

Section 3 – Supporting Documents

Section 4 – Environmental

Section 5 - Current Site Plans

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ITEM:	DATE:
1. Excavation Permit Application	11/21/2022
2. Abutters List	11/21/2022
3. AoT Permit Amendment Application	02/23/2022
4. AoT Permit (AoT-0195)	11/30/2010

Application # 2022-010

TOWN OF RAYMOND

Community Development Department
Office of Planning & Zoning
4 Epping Street
Raymond, NH 03077
Tel: (603) 895-7016 • Fax: (603) 895-7064

Application for Earth Excavation Permit

Tax Map 22, Lots 44,45,46,47
Tax Map 28, Block 3, Lot 120-1

Site Information

Tax Map: _____ Lot: _____ Zone: D-Industrial

Location of Proposed and/or Existing Excavation: 12 Industrial Drive, Raymond, NH 03077

Existing quarry operation by Hartmann Enterprises

Refer to plan submission plans for extent of work

Type of Operation: _____

Property Owner Information

Name: Anton Melchionda Phone: 617-448-7948 Fax: _____

Company Name: Onyx Raymond LLC

Company Address: 200 Reservior Street, Needham, MA 02494, Suite 306

Applicant/Agent Information

Name: Wayne Morrill Phone: 603-772-4746 Fax: _____

Company Name: Jones and Beach Engineers Inc.

Company Address: 85 Portsmouth Ave, Stratham, NH 03885

By signing this application, you are agreeing to all rules and regulations of the Town of Raymond, and are agreeing to allow agents of the Town of Raymond to conduct inspections of your property during normal business hours to ensure compliance with all Raymond Zoning and Earth Excavation Regulations while your application is under consideration and during any construction and operational phases after approval is granted.

Signed* _____ Date: 11/21/22

*Requires notarized letter of permission from the property owner.

Application Submittals Must Include:

- Completed Application Form
- Notarized Letter of Permission from Property Owner
- Application Fee ($150.00) and Notice Fees for Abutters and Associated Professionals ($10.00 each)
- Escrow Deposit (separate from application fee)
- List of Abutters & Associated Professionals
- Eight (8) full-size copies of plans
- Ten (10) IIx17 copies of plans

0 foot Abutters List Report

Raymond, NH
October 05, 2022

Subject Properties:

Parcel Number:	022-000-044-000	Mailing Address:	ONYX RAYMOND LLC. 200 RESERVOIR STREET SUITE 306 NEEDHAM, MA 02494
CAMA Number:	022-000-044-000-000		
Property Address:	INDUSTRIAL DRIVE		
Parcel Number:	022-000-045-000	Mailing Address:	ONYX RAYMOND LLC. 200 RESERVOIR STREET SUITE 306 NEEDHAM, MA 02494
CAMA Number:	022-000-045-000-000		
Property Address:	INDUSTRIAL DRIVE		
Parcel Number:	022-000-046-000	Mailing Address:	ONYX RAYMOND LLC. 200 RESERVOIR STREET SUITE 306 NEEDHAM, MA 02494
CAMA Number:	022-000-046-000-000		
Property Address:	BATCHELDER ROAD		
Parcel Number:	022-000-047-000	Mailing Address:	ONYX RAYMOND LLC. 200 RESERVOIR STREET SUITE 306 NEEDHAM, MA 02494
CAMA Number:	022-000-047-000-000		
Property Address:	INDUSTRIAL DRIVE		
Parcel Number:	028-003-120-001	Mailing Address:	ONYX RAYMOND LLC. 200 RESERVOIR STREET SUITE 306 NEEDHAM, MA 02494
CAMA Number:	028-003-120-001-000		
Property Address:	INDUSTRIAL DRIVE		

Abutters:

Parcel Number:	022-000-043-000	Mailing Address:	MRCT REALTY CO. , LLC P.O. BOX 449 LAWRENCE, MA 01842
CAMA Number:	022-000-043-000-000		
Property Address:	10 INDUSTRIAL DRIVE		
Parcel Number:	022-000-048-000	Mailing Address:	RAYMOND AMBULANCE, INC 1 SCRIBNER ROAD RAYMOND, NH 03077
CAMA Number:	022-000-048-000-000		
Property Address:	OLD MANCHESTER ROAD		
Parcel Number:	023-000-024-000	Mailing Address:	TUCK REALTY CORPORATION P.O. BOX 190 EXETER, NH 03833
CAMA Number:	023-000-024-000-000		
Property Address:	ROUTE 101		
Parcel Number:	023-000-025-000	Mailing Address:	WELCH,JOSEPH & JOHN & ARDELL & INEZ BETSY PATTERSON & ROBIN PROULX 49 RAYMOND ROAD, ROUTE 156 NOTTINGHAM, NH 03290
CAMA Number:	023-000-025-000-000		
Property Address:	MAIN STREET		
Parcel Number:	027-004-032-000	Mailing Address:	BAIN, WARREN P.O. BOX 123 RAYMOND, NH 03077
CAMA Number:	027-004-032-000-000		
Property Address:	24 OLD MANCHESTER ROAD		

0 foot Abutters List Report

Raymond, NH
October 05, 2022

Parcel Number:	027-004-033-000	Mailing Address:	RAYMOND SCHOOL DISTRICT
CAMA Number:	027-004-033-000-000		43 HARRIMAN HILL ROAD
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077

Parcel Number:	028-003-016-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-016-000-000		4 EPPING STREET
Property Address:	ORCHARD STREET		RAYMOND, NH 03077

Parcel Number:	028-003-043-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-043-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077

Parcel Number:	028-003-120-000	Mailing Address:	RAYMOND, TOWN OF
CAMA Number:	028-003-120-000-000		4 EPPING ST
Property Address:	OLD MANCHESTER ROAD		RAYMOND, NH 03077

STATE OF NEW HAMPSHIRE, DEPT. OF TRANSPORTATION, 7 HAZEN DR, CONCORD, NH 03301

JONES & BEACH ENGINEERS, INC., ATTN. WAYNE MORRILL, PO BOX 219, STRATHAM, NH 03385

ONYX PARTNERS LTD., ATTN. ANTON MELCHIONDA, 200 RESERVOIR ST, NEEDHAM, MA 02494

GOVE ENVIRONMENTAL SERVICES, ATTN. LUKE HURLEY, 8 CONTINENTAL DR, UNIT H, EXETER, NH 03833

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

LETTER OF TRANSMITTAL

Date:	2/23/2022	**JBE Project No:**	21130
Company:	NHDES Alteration of Terrain Bureau	**RE:**	Industrial Drive Raymond, NH
Attn:	Craig Rennie		**AoT -0195**
	PO Box 95 Concord, NH 03302-0095		

Delivery Type: US Mail

We are sending you ☒ Attached ☐ Under separate cover via the following:

COPIES	DOC. DATE	NO.	DESCRIPTION
1	2/22/22	1	AoT Amendment Form
1	11/30/10	2	AoT Permit 0195

THESE ARE TRANSMITTED as checked below:

☒ For approval ☒ For your use ☐ As requested ☒ For review/comment

COMMENTS:

Please call if you have any questions. Thank you for your time.

Signed:
JONES & BEACH ENGINEERS, INC.

Wayne Morrill SM

Wayne Morrill
President

cc:

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

ALTERATION OF TERRAIN AMENDMENT REQUEST FORM

Water Division/ Alteration of Terrain Bureau/ Land Resources Management

Check the Status of your Application: https://www4.des.state.nh.us/DESOnestop

RSA/ Rule: RSA 485-A:17, Env-Wq 1500

Administrative Use Only	Administrative Use Only	Administrative Use Only	File Number: Check No.: Amount: Initials:

1. TYPE OF AMENDMENT REQUESTED [See Env-Wq 1503.27(a)]			
☒ Permit Transfer [use Section 7]	☐ Time Extension [use Section 8]	☐ Project/Plan Change [use Section 9]	
2. PROJECT INFORMATION [See Env-Wq 1503.27(b)]			
Project Name: Hard Rock Development Excavation			
Street/Road Address: Industrial Drive			
Town/City: Raymond		County: Rockingham	
Tax Map: 28.3 & 22	Block:	Lot Number: 120 & 44	Unit:
3. CURRENT PERMIT INFORMATION [See Env-Wq 1503.27(c)-(d)]			
Permit No.: AoT-0195		Current Expiration Date[1]:	
Name of NHDES Signatory: Craig D. Rennie			
Current Permit Holder Name: Hard Rock Development, LLC		Contact Name: James Watkins	
Email: jamey@jamcoexcavators.com		Daytime Telephone: 603-394-7664	
Mailing Address: 84 Exeter Road			
Town/City: South Hampton		State: NH	Zip Code: 03876
4. CURRENT PERMIT HOLDER'S AGENT [See Env-Wq 1503.27(d)] If none, check here: ☒			
Business Name:		Contact Name:	
Email:		Daytime Telephone:	
Mailing Address:			
Town/City:		State:	Zip Code:
5. CURRENT PROPERTY OWNER INFORMATION (IF DIFFERENT FROM PERMIT HOLDER) [See Env-Wq 1503.27(e)]			
Name: Onyx Partners LTD		Contact Name: Anton Melchionda	
Email: anton@onyxpartnersltd.com		Daytime Telephone: 617-680-9308	
Mailing Address: 60 Center Street			
Town/City: Dover		State: MA	Zip Code: 02030

[1] Expired permits cannot be extended.

6. CURRENT PROPERTY OWNER'S AGENT INFORMATION [See Env-Wq 1503.27(e)] If none, check here: ☐		
Business Name:	Contact Name:	
Email:	Daytime Telephone:	
Address:		
Town/City:	State:	Zip Code:

7. COMPLETE THIS SECTION IF THERE IS A CHANGE IN PERMIT HOLDER OR PROPERTY OWNER [See Env-Wq 1503.23 and Env-Wq 1503.27(f)]		
A. Transferee Information		
Name: Onyx Partners LTD	Contact Name: Anton Melchionda	
Email: anton@onyxpartnersltd.com	Daytime Telephone: 617-680-9308	
Mailing Address: 60 Center Street		
Town/City: Dover	State: MA	Zip Code: 02030

B. Transferee Signature and Certification

By signing below, I certify that:

- I have received a copy of the permit and all approved plans and specifications;
- I agree to comply with RSA 485-A:17, Env-Wq 1500, the permit, and all conditions contained in the permit, including the requirement for on-going inspection and maintenance of the stormwater management system(s);
- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and
- I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

Transferee:	Print Name Legibly: Anton Melchionda	Date: 2/22/22

C. Transferor Signature and Certification

By signing below, I certify that:

- I have provided a copy of the permit and all approved plans and specifications to the transferee;
- I am relinquishing all rights to the permit as originally issued;
- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and

I have provided a copy of the permit and all approved plans and specifications to the new owner and .

Transferor:	Print Name Legibly: James Watkins	Date: Feb 23, 2022

8. COMPLETE THIS SECTION IF YOU ARE REQUESTING A TIME EXTENSION [See Env-Wq 1503.25 and Env-Wq 1503.27(g)]

A. Timing of Request

Is this request being submitted not more than 90 days prior to the permit expiration date? ☐ Yes ☐ No

Any request submitted more than 90 days prior to the permit expiration date will be denied.

B. Activity to Date

Has any terrain alteration occurred to date? ☐ Yes ☐ No

If Yes: Attach the inspection report required by Env-Wq 1503.27(g)

C. Other Changes

Are changes to the project or project plans being made? ☐ Yes ☐ No

If Yes:

Do the changes meet the criteria of Env-Wq 1503.21(d) for deviations allowed without a permit amendment? ☐ Yes ☐ No

If Yes: Submit the plans and narrative required by Env-Wq 1503.21(d)(9)

If No: Submit a request for a permit amendment under Env-Wq 1503.22 in addition to a request for a permit extension.

D. Basis for Request

Why is an extension being requested?

D. PERMIT HOLDER SIGNATURE

By signing below, I certify that:

- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and
- I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

☐ **PERMIT HOLDER** ☐ **PERMIT HOLDER'S AGENT:**

Signature:_____ Date: _____

Name (print or type): _____ Title: _____

9. COMPLETE THIS SECTION IF THERE IS A CHANGE TO THE PLAN OR PROJECT [See Env-Wq 1503.22 and Env-Wq 1503.27(h)

A. Type and Extent of Proposed Changes

Do the proposed changes meet the criteria of Env-Wq 1503.22(c)? ☐ Yes ☐ No

If No: The changes do not qualify for an amendment and a new application must be filed.

Area of disturbance associated with proposed changes: square feet

Are revised calculations needed? ☐ Yes ☐ No

If Yes: Attach the revised calculations.

Is the area proposed to be disturbed outside the area allowed to be disturbed under the original permit? ☐ Yes ☐ No

If Yes: Attach an NHB report for the area proposed to be disturbed.

B. Revisions to Plan Sheets

Identify which plan sheets reflect the proposed changes:

Briefly summarize the plan changes (DO NOT attach a separate page):

Attach the identified revised plan sheets with changes highlighted.

C. Fee Calculation

Per RSA 485-A:17, II:

Area of disturbance (square feet) × $0.10/ square foot = $ + $500 Base Fee = $

Fee must be submitted with request.

D. Submission Requirements

Date a copy of the application was sent to the municipality as required by Env-Wq 1503.05(e)[2]: __/__/____.

(Attach proof of delivery)

Date a copy of the application was sent to the local river advisory committee if required by Env-Wq 1503.05(f)[2]: __/__/____.

(Attach proof of delivery)

By signing below, I certify that:

- The information contained in or otherwise submitted with this request is true, complete, and not misleading to the best of my knowledge and belief;
- I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the request, revoke any permit amendment that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 if I am a professional engineer; and
- I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

☐ **PERMIT HOLDER** ☐ **PERMIT HOLDER'S AGENT:**

Signature:_____ Date: _____

Name (print or type): _____ Title: _____

[2] Env-Wq 1503.22(d)(3) requires proof that a copy of the complete amendment request has been sent or delivered to the governing body of each municipality in which the project is located and, if the project is within ¼ mile of a designated river, to the Local River Advisory Committee.

415-20

The State of New Hampshire

DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

November 30, 2010

Hard Rock Development, LLC
Attn: James Watkins
84 Exeter Road
South Hampton, NH 03876

Re: Hard Rock Development Excavation
Raymond, NH
Tax Map/Lot #: 28.3/120 & 22/44

Permit: AoT-0195

Dear Mr. Watkins:

Based upon the revised plans and application, we are hereby issuing RSA 485-A:17 Alteration of Terrain Permit AoT-0195 subject to the following conditions:

1. Activities shall not cause or contribute to any violations of the surface water quality standards established in Administrative Rule Env-Wq 1700.

2. You must submit revised plans for permit amendment prior to any changes in construction details or sequences. You must notify the Department in writing within ten days of a change in ownership.

3. You must notify the Department in writing prior to the start of construction and upon completion of construction. Forms are available at: http://des.nh.gov/organization/divisions/water/aot/categories/forms.htm.

4. The revised plans dated November 5, 2010 and supporting documentation in the permit file are a part of this approval.

5. **The Permittee must provide the Department a written update of, and revised plans documenting, the project status every five years from the issuance of this permit.**

6. This permit does not relieve the applicant from the obligation to obtain other local, state or federal permits that may be required (e.g., from US EPA, US Army Corps of Engineers, etc.). Projects disturbing over 1 acre may require a federal stormwater permit from EPA. Information regarding this permitting process can be obtained at: http://des.nh.gov/organization/divisions/water/stormwater/construction.htm.

7. No construction activity shall occur until a Wetlands Permit is obtained from the Department, if applicable.

Sincerely,

Craig D Rennie, CWS, CWB
Land Resource Specialist

cc: Raymond Planning Board
Lynnfield Engineering, Inc. (email)

Application # 2022-010

415-20

The State of New Hampshire

DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

November 30, 2010

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Attn: James Watkins
84 Exeter Road
South Hampton, NH 03876

Re: Hard Rock Development Excavation
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Tax Map/Lot #: 28.3/120 & 22/44

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Sincerely,

Craig D Rennie, CWS, CWB
Land Resource Specialist

cc: Raymond Planning Board
Lynnfield Engineering, Inc. (email)

TABLE OF CONTENTS

ITEM:	DATE:
1. Site Walk Route Map	01/10/2023
2. Fuel Storage Memo	01/09/2023
3. Jones Brook NH Map	01/09/2023
4. Off Site NH Well Map	01/03/2023

The items contained within this section are in response to questions asked by Board Members during the January 2nd site walk.

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

INFILTRATION POND #2 (SEE DTL SHT D4)

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

UNDERGROUND STONE INFILTRATION / DETENTION SYSTEM (SEE DTL SHT D7)

PROP. WAREHOUSE 550,025 S.F. F.F.=240.00

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

UNDERGROUND INFILTRATION SYSTEM — POND #3 STORMTECH SC 740 CHAMBERS (SEE DTL SHT D5)

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

TREEWELL TREATMENT SYSTEM (SEE DTL SHT D8)

INFILTRATION POND #5 (SEE DTL SHT D9)

INFILTRATION POND #1 (SEE DTL SHT D4)

RAYMOND POND

INDUSTRIAL ROAD (PUBLIC WAY)

OLD MANCHESTER ROAD

SCRIBNER ROAD

NH ROUTE 101 (WESTBOUND)

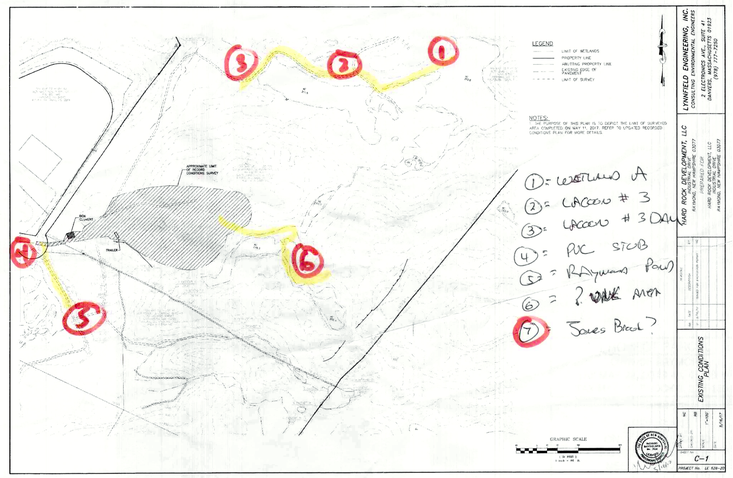
NH ROUTE 101 (EASTBOUND)

SHEET 1 SHEET 2 SHEET 3 SHEET 4

Site Walk 1-2-25

GRADING AND DRAINAGE NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES AND/OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 888-DIG-SAFE (888-344-7233).
2. ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
3. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. SEE CONSTRUCTION SEQUENCE ON SHEET E1.
4. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO HAVE THE PROJECT'S LAND SURVEYOR STAKE OR FLAG CLEARING LIMITS. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED.
5. ALL ROOF DRAINS FROM BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AND WITNESS AT THE END. ALL EXTERIOR ROOF DOWNSPOUTS ARE TO BE INSTALLED WITH OVERFLOW DEVICES.
6. ALL SWALES AND DETENTION PONDS ARE TO BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
7. PROPOSED RIM ELEVATIONS OF DRAINAGE STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES.
8. ALL SWALES AND ANY SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S150 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER), UNLESS OTHERWISE SPECIFIED.
9. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS. CATCH BASINS SHALL HAVE 3' DEEP SUMPS WITH GREASE HOODS, UNLESS OTHERWISE NOTED.
10. ALL DRAINAGE STRUCTURES SHALL BE PRECAST, UNLESS OTHERWISE SPECIFIED. SEE SHEET D2 FOR DRAINAGE STRUCTURE SCHEDULE AND SHEET D4–D9 FOR DRAINAGE DETAILS.
11. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC H20 LOADING AND SHALL BE INSTALLED ACCORDINGLY.
12. IMMEDIATELY APPLY AND COMPACT STONE BASE FOR BUILDING PAD TO +/–½" PRIOR TO EXCAVATING INTERIOR AND PERIMETER FOOTINGS.
13. IN AREAS WHERE CONSTRUCTION IS PROPOSED ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING ALONG PROPERTY LINES IN ALL AREAS WHERE SILT FENCING IS NOT REQUIRED.
14. ALL DRAINAGE PIPE SHALL BE NON-PERFORATED ADS N-12 OR APPROVED EQUAL, UNLESS OTHERWISE NOTED.
15. STONE INLET PROTECTION SHALL BE PLACED AT ALL CATCH BASINS. SEE DETAIL WITHIN THE DETAIL SHEETS.
16. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY ALL GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE EPA SWPPP DURING CONSTRUCTION OPERATIONS.
17. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
18. ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 3 DAYS OF FINAL GRADING.
19. SHOULD CONSTRUCTION STOP FOR LONGER THAN 3 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
20. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN EVENT OF 0.5" OR GREATER IN A 24 HOUR PERIOD AND AT LEAST ONCE A WEEK.
21. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE, AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.
22. CONSTRUCTION VEHICLES SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE TO THE EXTENT POSSIBLE THROUGHOUT CONSTRUCTION.
23. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
24. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
25. SEDIMENT SHALL BE REMOVED FROM ALL SEDIMENT BASINS BEFORE THEY ARE 25% FULL.
26. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
27. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, IF DEEMED NECESSARY BY ON-SITE INSPECTION BY ENGINEER AND/OR REGULATORY OFFICIALS.
28. SEE ALSO EROSION AND SEDIMENT CONTROL SPECIFICATIONS ON SHEET E1–E2.
29. SOME DRAINAGE STRUCTURES ARE DETAILED ON THE PROFILES SHEETS.



Design: WGM	Draft: GDR	Date: 8/19/21	
Checked: WGM	Scale: AS NOTED	Project No.: 21130	
Drawing Name: 21130-PLAN.dwg			

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

STATE OF NEW HAMPSHIRE — ERIK M POULIN No.16669 — LICENSED PROFESSIONAL ENGINEER

REV.	DATE	REVISION	BY
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	GRADING AND DRAINAGE PLAN
Project:	RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C3
SHEET 8 OF 44
JBE PROJECT NO. 21130

SITE WALK - FUEL TANK

Wayne Morrill

Subject: FW: Hard rock, Raymond NH

From: Rick Hartmann <Rick@hartmannenterprises.com>
Sent: Monday, January 9, 2023 9:22 AM
To: Wayne Morrill <wmorrill@Jonesandbeach.com>
Subject: Re: Hard rock, Raymond NH

Good morning, The fuel tank on-site is generally filled once per week; at which time each machine is topped up too. We do this to limit the number of times the delivery truck comes. The tank is a Double Wall, HD, steel 500 gallon unit and there is no redundant containment. There is a spill kit on site. We also have a couple"drip/leak" pans on-site in case a customer comes in a develops a problem. We have never had a fuel spill problem since we started over ten years ago. Rick

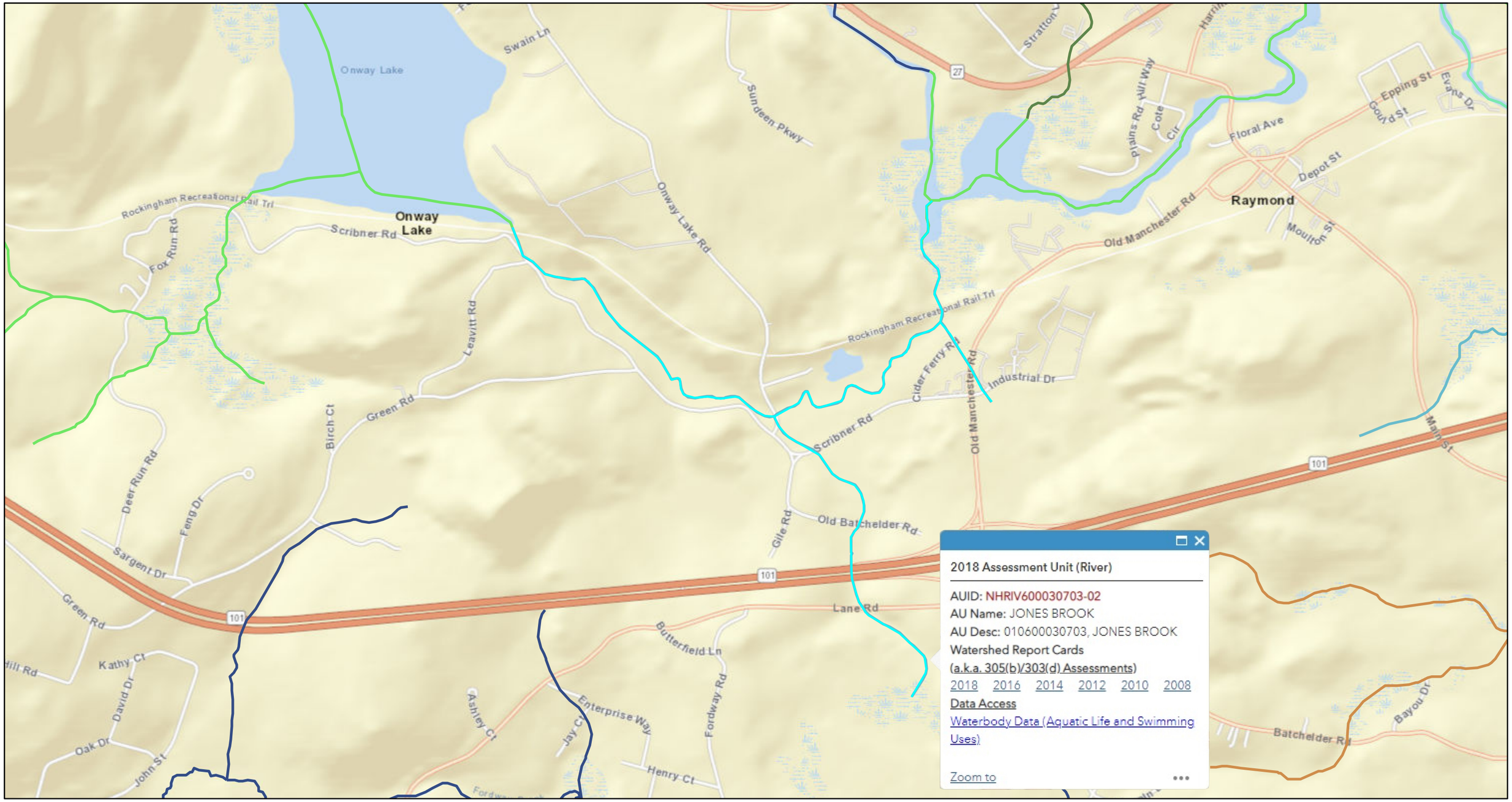
From: Wayne Morrill
Sent: Wednesday, January 4, 2023 5:22 PM
To: Rick@hartmannenterprises.com
Cc: Douglas Richardson <doug@onyxpartnersltd.com>; Erik Poulin <epoulin@jonesandbeach.com>; Front Desk <frontdesk@jonesandbeach.com>
Subject: Hard rock, Raymond NH

21130

Rick,
On Monday we did a site walk with the planning board and they had questions about the fuel storage tank on-site.
How much fuel is stored on site, is there and spill containment in place?
Does a fuel truck come on site to fill the tank or is the tank taken off-site to fill?
If filled on-site, what is the frequency of filling the tank?
These are questions we told the board that we would have answers at the 1/19 planning board hearing.
Thank you.

Wayne Morrill
President
Jones&Beach Engineers, Inc.
85 Portsmouth Avenue
PO Box 219
Stratham, NH 03885
(603) 772-4746 (ext. #122)
wmorrill@jonesandbeach.com
http://www.jonesandbeach.com
SAVE A TREE. PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING.
Think Green and view the Screen
Thank You
LEGAL NOTICE

Jones Brook NHDES ARCGIS MAP



1/6/2023, 10:34:47 AM

2018 Assessment Unit IDs (Rivers)

1
2
3
5
6
9

1:18,056

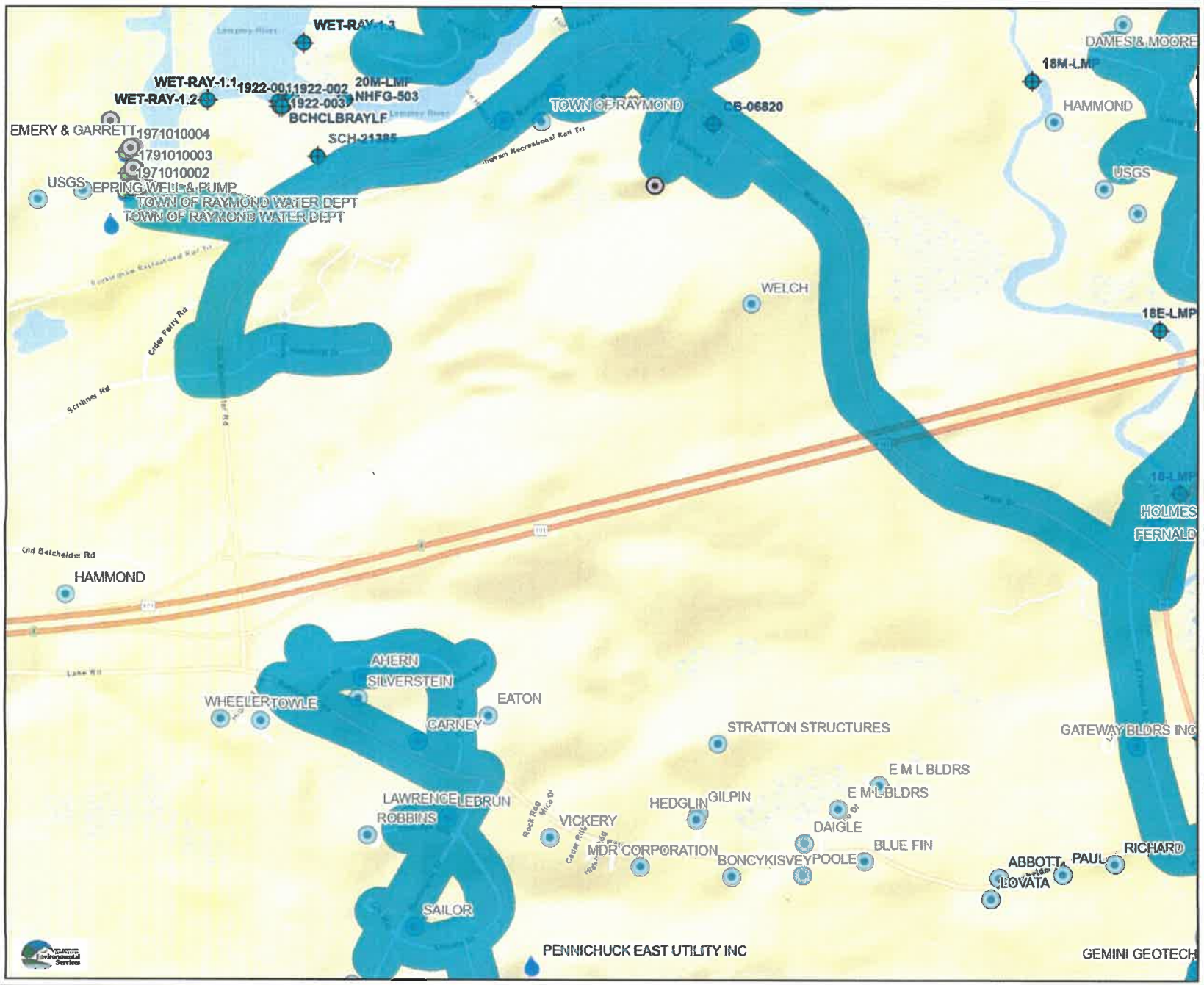
0 0.15 0.3 0.6 mi

0 0.25 0.5 1 km

Esri, HERE, Garmin, INCREMENT P, NGA, USGS

Web AppBuilder for ArcGIS
Esri, HERE, Garmin, INCREMENT P, NGA, USGS | The New Hampshire Department of Environmental Services, Watershed Management Bureau,

Map By



Legend

- Surface Waters with Impairn 2016 with Quarter Mile Buffe
- Public_Water_Supply_Entiti
- Water and Sewer Lines
  - Both
  - Sewer
  - Water
- Environmental Monitoring Si Secure
- Public Water Supply Wells
- Registered Water Users
- Water Well Inventory
- Environmental Monitoring Si Nonsecure

Map Scale

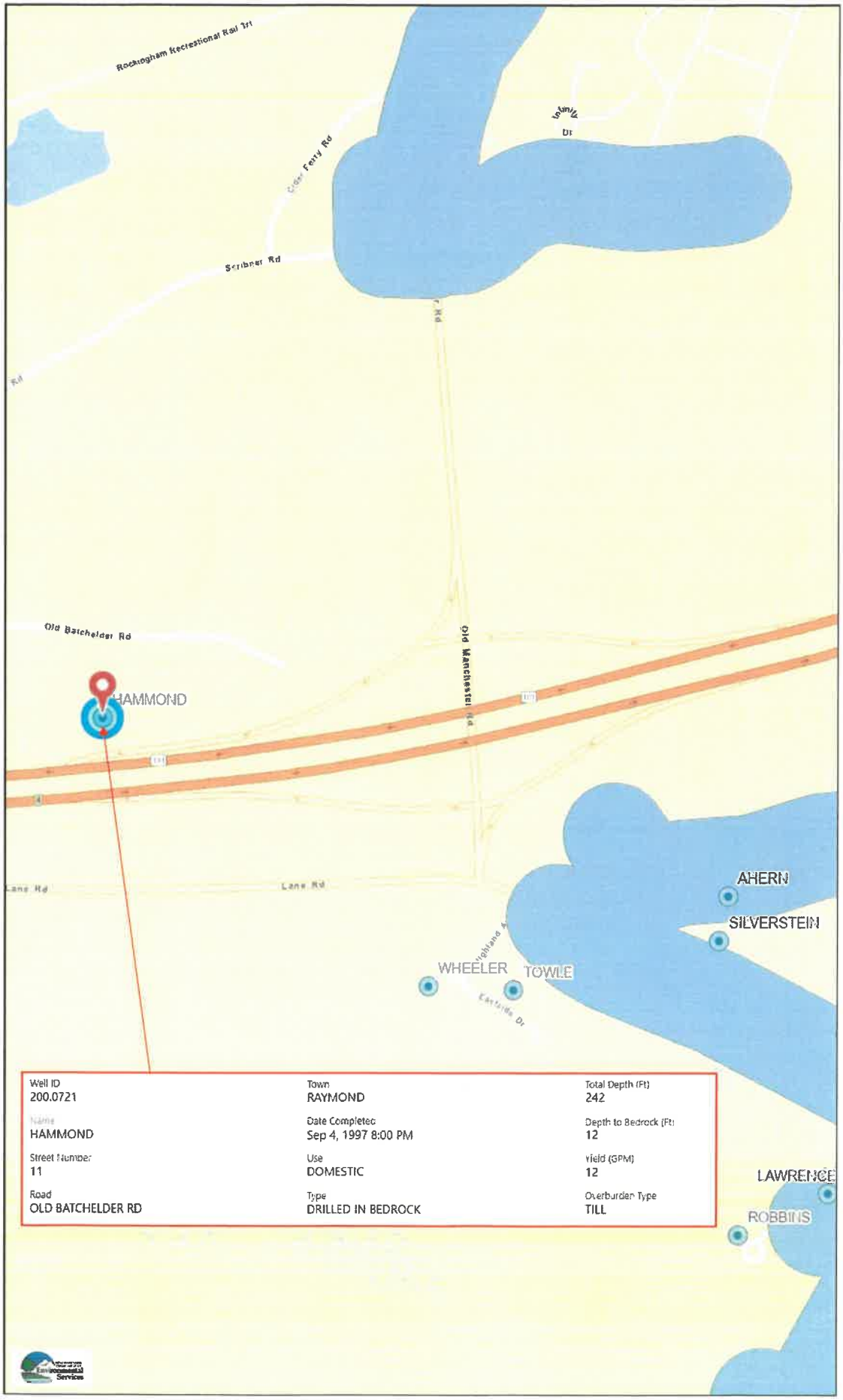
1: 12,988

© NH DES, http://des.nh.gov

Map Generated: 1/6/2023

Notes

Hammond Well



Well ID	Town	Total Depth (Ft)
200.0721	RAYMOND	242
Name	Date Completed	Depth to Bedrock (Ft)
HAMMOND	Sep 4, 1997 8:00 PM	12
Street Number	Use	Yield (GPM)
11	DOMESTIC	12
Road	Type	Overburden Type
OLD BATCHELDER RD	DRILLED IN BEDROCK	TILL

Legend

- Public Water Supply Wells
- Registered Water Users
- Water Well Inventory
- Public_Water_Supply_Entiti

Water and Sewer Lines

- Both
- Sewer
- Water

Map Scale

1: 6,494

© NH DES, http://des.nh.gov

Map Generated: 1/9/2023

Notes

TABLE OF CONTENTS

ITEM:	DATE:
1. Waiver Request Letter	11/18/2022
2. Deeds	
3. Hartmann Letter	11/21/2022
4. Letters of Authorization	10/20/2021
5. Test Pit Logs	01/23/2022
6. Performance Agreement	08/27/2017
7. Performance Agreement	05/10/2011
8. Zoning Opinion Letter	
9. Raymond PB Notice of Decision	06/14/2012

JONES&BEACH
ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

November 18, 2022

Raymond Planning Board
Attn. Brad Reed, Chair
4 Epping Street
Raymond, NH 03077

RE: Application to Amend Earth Excavation Permit
Industrial Drive, Raymond, NH
Tax Map 22, Lots 44, 45, 46 7 47
Tax Map 28, Block 3, Lot 120-1
JBE Project No. 21130
Application # 2022-010

Dear Board Members:

Jones & Beach Engineers, Inc. respectfully submits a Waiver Request for the above-referenced parcel on behalf of applicant, ONYX Partners LTD.

- **Waiver Request from the Town of Raymond Earth Excavation Regulations, Adopted October 5, 1989, Amended March 1, 2001 and May 20, 2010**

    - Article XIII – Application for Excavation, Section A.6.i – Stormwater Management Plan including calculations, models showing pre and post development flow
      RESPONSE: Upon transfer of the property to ONYX Raymond LLC, Severino Trucking Company was mobilized on site to revamp existing stormwater erosion and sediment controls on site. Mulch berms, clean crushed detention stone, and check dams were added to the property. A active EPA SWPPP exists for the property and regular inspections are taking place on site. Given these measures and the fact that the excavation in question is an existing quarry, we request a waiver to this requirement.

    - Article XIII – Application for Excavation, Section A.6.ii – Traffic Study, the scope of which to be proposed by developer and reviewed by the towns traffic engineer
      RESPONSE: To date no complaints have been reported to Hartmann Enterprises due to traffic, the operation has been in on going since 2012, and all trucks enter and exist directly to NH Route 101, greatly reducing impacts to town road infrastructure. Given these facts, we request a waiver to this requirement.

    - Article XIII – Application for Excavation, Section A.6.iii – Noise Control Study and Abatement Plan
      RESPONSE: To date no complaints have been reports to Hartmann Enterprises regarding noise. The site is located within the industrial zone, with primarily non-residential abutters. Residential zones are currently buffered by large wooded areas which are still in place. Given these facts, we request a waiver to this requirement.

- Article XIII – Application for Excavation, Section A.6.iv – Hydro geologic Study
  RESPONSE: This regulation was waived for this excavation operation by the Planning Board on June 15, 2012. Given the excavation site has been in continual operation since the issuance of this waiver, we request relief from this regulation.

If you have any questions or need any additional information, please feel free to contact our office. Thank you very much for your time.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Wayne Morrill
President

cc: Doug Richardson

Book:6373 Page:1280

E # 22001648 01/11/2022 08:25:51 AM
Book 6373 Page 1280 Page 1 of 2
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA403938	25.00
TRANSFER TAX	RO112755	285.00
RECORDING		34.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **STOLI PROPERTIES, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, pursuant to the provisions of NH RSA 304-C:139 for winding up the business of said company, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain piece of wood land situated in Raymond, County of Rockingham, State of New Hampshire, bounded and described as follows:

Commencing at land now or formerly of Aaron G. Whittier running northeast by a cart north 34 rods to a stone wall on the Blake land, so-called; thence northwest by a stone wall 38 rods to land now or formerly of Aaron O. Whittier land by a stone wall southeast 20¼ rods to the first bound mentioned; containing two and one half (2½) acres, be the same more or less.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of Robert Sinclair and Lorraine Sinclair dated May 16, 2005 and recorded in the Rockingham County Registry of Deeds at Book 4481, Page 108 and being shown on Tax Map 22, Lot 44 on the Town of Raymond tax maps.

This is not homestead property.

Signed this 5 day of January, 2022.

Stoli Properties, LLC

By:
Name: Ashish B Greene
Title: Manager

E # 22001649 01/11/2022 09:25:52 AM
Book 6373 Page 1282 Page 1 of 2
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602939	25.00
TRANSFER TAX	RO112756	15,000.00
RECORDING		14.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **WEST RIVER ROAD, L.L.C.**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain tract or parcel of land with any buildings thereon situate northerly of State of N.H. Route 101, a limited access highway in Raymond, Rockingham County, New Hampshire, and shown as Tax Map 22, Lot 45 on a plan entitled "A Survey and Plat of Properties prepared for Hard Rock Development, LLC" dated May 26, 2005, prepared by RSA Layout & Design, Inc. and recorded or to be recorded in the Rockingham County Registry of Deeds, more particularly bounded and described as follows:

Beginning at a steel reinforcing rod on the northerly side of said State of N.H. Route 101 at the westernmost point of Tax Map 23, Lot 24; thence running N 16° 32' 12" E a distance of 566.59 feet to a granite/concrete bound; thence turning and running S 80° 25' 28" E a distance of 166.45 feet to a drill hole in a stone wall; thence running S 77° 51' 08" E a distance of 104.68 feet to a drill hole in a stone wall at land now or formerly of Est. of Josephine F. Welch; thence turning and running N 25° 21' 27" E a distance of 41.75 feet to a drill hole in a stone wall; thence running N 26° 13' 24" E a distance of 236.03 feet to a tree w/wire; thence running N 20° 52' 59" E a distance of 109.97 feet to a drill hole in a stone wall; thence running N 21° 25' 01" E a distance of 65.44 feet to a drill hole in a stone wall; thence running N 24° 23' 29" E a distance of 103.77 feet to a drill hole in a stone wall at land now or formerly of Hard Rock Development, LLC; thence turning and running N 80° 16' 26" W a distance of 195.99 feet to a drill hole in a stone wall; thence running N 79° 24' 32" W a distance of 203.68 feet to a drill hole in a stone wall; thence running N 75° 01' 56" W a distance of 156.10 feet to a drill hole in a stone wall; thence running N 66° 33' 02" W a distance of 18.18 feet to a drill hole in a stone wall at land now or formerly of Robert & Lorraine Sinclair; thence turning and running S 72° 23' 47" W a distance of 521. 89 feet to a drill hole in a stone wall at land now or formerly of the Town of Raymond; thence turning and running S 16° 35' 24" E a distance of 346.11 feet to a steel reinforcing rod at other land now or formerly of the Town of Raymond; thence turning and running S 16° 32' 12" W a distance of 848.67 feet to a point on the northerly side of State of N.H. Route 101; thence turning and running N 69° 40' 56" E a distance

of 463.91 feet to a granite/concrete bound; thence turning and running N 78° 16' 37" E a distance of 112.49 feet to a steel reinforcing rod at the point of beginning. Containing 17.8768 acres.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of Inez S. Welch dated June 23, 2005 and recorded in the Rockingham County Registry of Deeds at Book 4500, Page 1939.

This is not homestead property.

Signed this 5 day of January, 2022.

West River Road, L.L.C.

By: _____
Name: Arleigh B. Greene
Title: Sole Member

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5th day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh B. Greene, as Sole Member of West River Road, L.L.C., known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

_____
Justice of the Peace/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

E # 22001646 01/11/2022 09:25:49 AM
Book 6373 Page 1273 Page 1 of 3
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602936	25.00
TRANSFER TAX	RO112753	773.00
RECORDING		18.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **BBOC DEVELOPMENT, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC,** a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

A certain parcel of land with the buildings thereon situated in Raymond, in the County of Rockingham and State of New Hampshire, identified as Town of Raymond Tax Map 22, Lot 46, bounded and described as follows:

Beginning at an iron monument set into the ground at the end of the Blake passway, so-called, by land of Everett E. Goodwin; thence Westerly by land of the Concord & Portsmouth Railroad 150 rods, more or less, to land formerly of Horatio D. Page; thence turning and running Southwesterly by land formerly of said Page 120 rods; thence Southeasterly by land of Plummer B. Carson 120 rods to land now or formerly of the heirs of Levi Moulton; thence Northeasterly by land of heirs of said Moulton 124 rods to land now or formerly of the Town of Raymond; thence Northwesterly 10 rods, more or less, by land of said Town of Raymond and land now or formerly of Edwin S. Poore to a stone monument; thence Northeasterly by land now or formerly of Edwin S. Poore, land of Stevens, land of Fellows & Abbott, land of heirs of Octavous W. Fellows and land of Everett E. Goodwin to the bound begun at. Containing 112 acres be the same more or less.

Excepting and reserving to the Town of Raymond the right of passing over the land above described or any part thereof which have heretofore been conveyed to said Town which are not to be conveyed or enlarged by this deed. Also a certain other parcel of land situated in said Raymond containing 40 acres be the same more or less, being known as and called the "Bean Land", bounded and described as follows: Southeasterly by land now or formerly of heirs of Daniel Robie; Southwesterly by land now or formerly of Joseph Davis, so-called; Westerly by land now or formerly of heirs of Horatio D. Page; Easterly, so-called, by land now or formerly of Daniel T. Wendell, and Northerly of land of Horatio D. Page.

EXCEPTED from the above-described premises those premises conveyed to Regis Tanning Company, Inc. by deed of Cora P. Falconer dated July 25, 1958 recorded at the Rockingham

County Registry of Deeds at Book 1474, Page 299, more particularly bounded and described as follows:

Two tracts of land with the buildings thereon situated in Raymond, County of Rockingham and State of New Hampshire, bounded and described as follows:

First Tract: Beginning at an iron pipe driven into the ground about 60 feet Westerly from Orchard Street, so-called, in Raymond Village by land now or formerly of the heirs of James L. Jones and land now or formerly of the Concord and Portsmouth Railroad; thence Westerly by land of said Railroad to the end of a stone wall by land now or formerly of Lewis A. Clough; thence Southeasterly by said Clough land to a large oak tree by land now or formerly of Edwin S. Poore; thence Northeasterly by a stone wall by said Poore land and land now or formerly of Fellows and Abbott to land now or formerly of the heirs of Octavous M. Fellows; thence in the same direction by land of the heirs of said Fellows to the bound first mentioned. Containing two acres, more or less.

The grantor also conveys the right of passing on foot and with vehicles for said grantee and his heirs and assigns between the land above described and the highway leading from Packer's Bridge, so-called, and Fremont as heretofore used, over land now or formerly of the Concord and Portsmouth Railroad. Said tract is also subject to rights of passage over a portion of the same for the owners of the land now or formerly of Lewis A. Clough and his assigns to pass from the land of said Clough to said highway as heretofore used by the owners of said land.

Second Tract: Beginning at the Northwest corner of land now or formerly of Aaron G. Whittier; thence North 70 degrees West 12 rods and 50 links to a spotted yellow oak tree; thence North 52 1/2° West 21 rods and 3 links to land now or formerly of the Concord and Portsmouth Railroad; thence by said Railroad Southwesterly 120 rods to land now or formerly of Horatio D. Page; thence turning and running Southwesterly by said Page land 120 rods; thence Southeasterly by land now or formerly of Daniel T. Wendell 120 rods to land now or formerly of Levie Moulton; thence Northeasterly by said Moulton land 124 rods to land now or formerly of said Aaron G. Whittier; thence Northwesterly 10 rods to the bound begun at.

Said premises referenced as contain 110 acres, more or less. There is an unobstructed passage to said tract or lot 2 rods wide agreeable to the reservation in the deed of Sherburne Blake to the Concord and Portsmouth Railroad. Reserving and excepting from said tract about 1 acre of land with the rights of way thereto that has been heretofore deeded to the Town of Raymond for its water works.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated June 30, 2006 and recorded in the Rockingham County Registry of Deeds at Book 4676, Page 1415.

This is not homestead property.

Signed this 5th day of January, 2022.

BBOC Development, LLC

By: _____
Name: Arleigh B. Greene
Title: Manager

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5 day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh B. Greene, as Manager of BBOC Development, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

_____
~~Justice of the~~ Peace/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

E # 22001647 01/11/2022 09:25:50 AM
Book 6373 Page 1276 Page 1 of 4
Register of Deeds, Rockingham County

Return to:

LCHIP	ROA602937	25.00
TRANSFER TAX	RO112754	44,040.00
RECORDING		22.00
SURCHARGE		2.00

WARRANTY DEED

KNOW ALL BY THESE PRESENTS, that **HARD ROCK DEVELOPMENT, LLC**, a New Hampshire limited liability company with an address of P.O. Box 2750, Seabrook, New Hampshire 03874, for consideration paid, hereby grant to **ONYX RAYMOND LLC**, a Massachusetts limited liability company with an address of 60 Centre Street, Dover, Massachusetts 02030 with WARRANTY COVENANTS, the following described premises:

TRACT 1

A certain tract or parcel of land located off of Old Manchester Road and Industrial Drive in the Town of Raymond, County of Rockingham and State of New Hampshire depicted as "Proposed Lot 120-1" on a plan of land entitled "Subdivision Plan of Land, Tax Map 28-3, Lot 120, Old Manchester Road & Industrial Drive, Raymond, NH" prepared by Eric C. Mitchell & Assoc, Inc. dated July 3, 2007 through revision E dated 4/23/13 recorded at the Rockingham County Registry of Deeds as Plan #D-37834 (hereinafter "Plan"); said parcel is more particularly bounded and described as follows:

Beginning at an iron pin at the southerly boundary of the abandoned railroad bed at the northeasterly corner of land now or formerly of MRCT Realty Co., LLC being the northwesterly corner of the within described premises as shown on said Plan; thence running along said abandoned railroad bed N71°36'16"E a distance of 715.25 feet to an iron pin at Proposed Lot 120 as shown on said Plan; thence turning and running along said Lot 120 S31°13'07"W a distance of 151.62 feet to an iron pin; thence turning and running still along said Lot 120 S58°46'53"E a distance of 273.87 feet to an iron pin; thence continuing along said Lot 120 S77°11'24"E a distance of 1036.64 feet to an iron pipe at Tax Map 28-3, Lot 16 as shown on said Plan; thence turning and running S67°09'04"E a distance of 147.35 feet to a drill hole in a stone wall at Tax Map 23, Lot 25 as shown on said Plan; thence turning and running along said Lot 25 and said stone wall the following eleven (11) courses and distances: S26°10'49"W, 101.34 feet; S24°17'47"W, 184.91 feet; S22°19'55"W, 52.48 feet; S24°22'25"W, 468.12 feet; S24°36'24"W, 337.71 feet; S24°14'00"W, 211.15 feet; S24°38'51"W, 213.98 feet; S33°16'21"W, 113.46 feet; S30°11'49"W, 33.21 feet; S19°03'38"W, 28.80 feet; S15°18'27"W, 14.64 feet to a drill hole at an intersection of stone walls at land now or formerly of West River Road, LLC as shown on said Plan; thence turning and running along said stone wall the following twelve (12) courses and distances:

N80°16'26"W, 195.99 feet; N79°24'32"W, 203.68 feet; N75°01'56"W, 156.10 feet; N66°33'02'W, 18.18 feet; N68°14'32"W, 36.67 feet; N73°57'31"W, 241.16 feet; N87°27'00"W, 39.02 feet; N66°33'27"W, 37.71 feet; N77°46'13"W, 148.15 feet; N79°22'58"W, 112.59 feet; N78°45'03"W, 179.83 feet; N78°45'03"W, 216.16 feet to a stone bound at land now or formerly of MRCT Realty Co., LLC as shown on said Plan; thence turning and running along said MRCT land the following eight (8) courses and distances: N20°24'26"E, 536.20 feet; N17°54'53"E, 108.93 feet; N20°30'13"E, 201.41 feet; N23°40'05"E, 106.20 feet; N21°10'51"E, 168.79 feet; N41°53'34"W, 73.21 feet; N40°25'45"W, 59.21 feet; N38°49'14"W, 146.11 feet to the iron pin at the point of beginning.

Said parcel containing 2,666,114 sq. ft. (61.21 acres), more or less, according to said Plan.

SUBJECT TO AND TOGETHER WITH the burden and benefit of certain rights of the Town of Raymond ("Raymond"), and Hardrock Development, LLC ("Hardrock") and BBOC Development, LLC ("BBOC") (collectively, the "Owners") as set forth in a written Agreement entitled "Second Amendment to Further Agreement re: Exercise of Option and Participation in Clean Up" dated May 2, 2013 and on file with the Raymond Town Clerk's office (the "Agreement"), as follows:

1. License of Raymond to use temporary construction road, to be constructed by the Owners or its assigns upon written notice from Raymond, from Industrial Drive over Lot 120-1 along the old logging road shown on the subdivision plan.

2. The right of Raymond for fifteen (15) years from the date of the Agreement to construct a permanent access road or driveway in a location reasonably and mutually agreed upon and tentatively shown on the Subdivision Plan on Lot 120-1 as "Possible Future Permanent Access Road or Driveway" (See Note 9 on the Plan) and "Proposed 50' Right of Way" on Lot 120 subject to the Reciprocal Option of the Owners or its assigns to upgrade to a Town accepted Road at Owners or its assigns' expense.

The foregoing reserved rights, unless earlier exercised, shall terminate at the earlier of fifteen (15) years from the date of the Agreement or three (3) years after the completion of a municipal waste water treatment facility on Lot 120.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated November 4, 2013 and recorded in the Rockingham County Registry of Deeds at Book 5577, Page 0135 and being shown on Tax Map 28, Block 3, Lot 120-1 on the Town of Raymond tax maps.

TRACT 2

A certain tract of land (with improvements and buildings thereon) located in Raymond, Rockingham County, New Hampshire, described as follows:

All of Lot 52-3 as identified and described on a Plan of Land entitled "Revised Subdivision Plan for Pike Industries, Inc. situated in the town of Raymond" by R.S.L. Layout & Design, Inc.,

Raymond, New Hampshire dated November 17, 1987 and recorded in the Rockingham County Registry of Deeds as Plan# D-17579, Said Lot 52-3 contains 12.8 acres, more or less.

SUBJECT TO any easements of record and the easements, conditions and restrictions shown and noted on the Plan including, but not limited to the following:

1. Easement to New England Telephone & Telegraph Company dated March 27, 1962, recorded in the Rockingham County Registry of Deeds at Book 1640, Page 39.

2. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 659.

3. Easement to New Hampshire Electric Cooperative, Inc. and New England Telephone Company dated May 22, 1974, recorded in said Registry at Book 2227, Page 660.

4. Easement to Public Service Company of New Hampshire and New England Telephone and Telegraph Company dated March 29, 1988, recorded in said Registry at Book 2760, Page 2530.

Meaning and intending to convey the same premises conveyed to the Grantor by Warranty Deed of the Town of Raymond dated June 30, 2006 and recorded in the Rockingham County Registry of Deeds at Book 4676, Page 1418 and being shown on Tax Map 22, Lot 47 on the Town of Raymond tax maps.

This is not homestead property.

Signed this 5 day of January, 2022.

Hard Rock Development, LLC

By: _____
Name: Arleigh Greene
Title: Manager

STATE OF NEW HAMPSHIRE
COUNTY OF ROCKINGHAM

On this, the 5th day of January, 2022, before me, the undersigned Officer, personally appeared Arleigh Greene, as Manager of Hard Rock Development, LLC, known to me, or satisfactorily proven, to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he/she executed the same for the purposes set forth therein.

~~Justice of the~~ Peace/Notary Public
My commission expires: _____

KEVIN MICHAEL BAUM
MY COMMISSION EXPIRES FEB. 1, 2022
NOTARY PUBLIC
NEW HAMPSHIRE

21 November 2022

To Whom it May concern,

I, Richard C. Hartmann, the Managing General Partner of Hartmann Enterprises of Exeter, NH do hereby state, that I am the operator of the gravel/stone extraction operations located on Industrial Drive, Raymond, NH and have been for nearly ten years for the original owner. I will continue to operate under the same set of Town of Raymond, NH rules for the new owner (Onyx Raymond, LLC).

Faithfully Submitted

Richard C. Hartmann.

Application # 2022-010

Letter of Authorization

I, Anton Melchionda, ONYX Partners LTD, 200 Reservoir Street, Needham, MA 02494, developer of property located in Raymond, NH, known as Tax Map 22, Lots 44, 45, 46 & 47 and Tax Map 28, Block 3, Lot 120-1, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously mentioned property. The parcels are located on Industrial Drive in Raymond, NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

Anton Melchionda
ONYX Partners LTD

5/3/22
Date

Personally, appeared the above-named Anton Melchionda, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information, and belief. Before me,

Notary Public/Justice of the Peace

My commission expires 9/26/25

AARON K. HINCHLIFFE
MY COMMISSION EXPIRES
SEPTEMBER 26, 2025
NOTARY PUBLIC
COMMONWEALTH OF
MASSACHUSETTS

Letter of Authorization

ONYX Raymond LLC, 60 Centre Street, Dover, MA 02030, owner of property located in Raymond, NH, known as Tax Map 22, Lots 44, 45, 46 & 47 and Tax Map 28, Block 3, Lot 120-1, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously mentioned property. The parcels are located on Industrial Drive in Raymond, NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness | ONYX Raymond LLC | Date 5/3/22

Personally, appeared the above-named ONYX Raymond LLC, known to me or satisfactorily proven to be the person whose signature appears on this letter of authorization and acknowledged that the facts contained in the letter of authorization are true based upon their knowledge, information, and belief. Before me,

Notary Public/Justice of the Peace

My commission expires 9/26/25

TEST PITS
FOR
INDUSTRIAL DRIVE
RAYMOND. NEW HAMPSHIRE
10-20-21
JBE Project No. 21130

Performed by: Wayne Morrill, Jones & Beach Engineers, Inc., SSD #1358
Witnessed by:

Test Pit #1

0"-20"		fill
20"-62"	10YR 5/4	yellowish brown fine sandy loam boulders

SHWT = None
Roots to 48"
NO H_2O
Refusal = 62"

Test Pit #2

0"-22"		fill
22"-42"	2.5Y 4/3	olive brown fine sandy loam
42"-68"	2.5Y 5/6	light olive brown single grain sand

SHWT = None
Roots to 42"
NO H_2O
No Refusal observed

Test Pit #3

0”-8”		top soil
8”-24”	10YR 4/6	dark yellowish brown coarse sand
24”-44”	2.5Y 6/3	light yellowish brown loamy sand
44”-105”	2.5Y 5/3	light olive brown fine sand

SHWT = 44”
Roots to 62”
NO H_2O
No Refusal observed

Test Pit #4

0”- 11”		top soil
11”- 28”	2.5Y 5/6	light olive brown fine sandy loam
28”- 74”	2.5Y 5/3	light olive brown loamy sand cobbles

SHWT = 75”
Roots to 75”
NO H_2O
No Refusal observed

Test Pit #5

0”-12”		top soil
12”-70”	2.5Y 6/6	olive yellow loamy sand

SHWT = None
No Refusal observed

TEST PITS
FOR
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE
August 3, 2022
JBE Project No. 21130

Performed by: Wayne Morrill, Jones & Beach Engineers, Inc., SSD #1358
Witnessed by:

Test Pit #201

loamy sand

SHWT = 43"
Bottom = 60"

Test Pit #202

fine sand

SHWT = 55"
Bottom = 68"

Test Pit #203

fine sand

SHWT = 50"
Bottom = 96"

Test Pit #204

0"- 4"		top soil
4"- 26"	10YR 5/6	yellowish brown loamy sand granular, friable
26"- 60"	10YR 3/6	dark yellowish brown fine sandy loam granular, friable cobbles

SHWT = None
Roots to 60"
NO H_2O
Refusal = 60"

Test Pit #205

sand

SHWT = 46"
Bottom = 63"
No Refusal observed

Test Pit #206

sand

SHWT = 54”
Bottom = 67”

TOWN OF RAYMOND

Community Development Department
Office of Planning & Zoning
4 Epping Street
Raymond, NH 03077
Tel: (603) 895-4735 • Fax: (603) 895-0903

PERFORMANCE AGREEMENT

Hard Rock Development, LLC
Stoli Properties, LLC
Raymond Tax Map 28-3, Lot 120
Map 22, Lot 44
Accessed via Industrial Drive

This Performance Agreement for the EARTH EXCAVATION PERMIT conditionally approved on JUNE 14, 2012, by and between HARD ROCK DEVELOPMENT, LLC & STOLI PROPERTIES, LLC (hereinafter referred to as "PETITIONERS"), A LIMITED LIABILITY COMPANY with a principal address of 84 EXETER ROAD, SOUTH HAMPTON, NEW HAMPSHIRE, 03827 (HARD ROCK DEVELOPMENT) & 180 LOCUST STREET, DOVER, NEW HAMPSHIRE, 03820 (STOLI PROPERTIES), their heirs, successors and assigns, and the Raymond Planning Board, with participation of the Selectmen of the Town in their capacity as bearing responsibility for the maintenance of all roads and other pubic improvements, with a mailing address of 4 Epping Street, Raymond, New Hampshire 03077 (hereinafter referred to as "TOWN") represents the understanding between the parties with regard to the Raymond Planning Board granting conditional approval of a certain EARTH EXCAVATION PERMIT for the PETITIONERS for property located on RAYMOND TAX MAP 28-3, LOT 120 AND MAP 22, LOT 44; ACCESSED VIA INDUSTRIAL DRIVE.

WHEREAS, the Raymond Planning Board is duly authorized to review and regulate EARTH EXCAVATION OPERATIONS and has established regulations relating thereto, and;

WHEREAS, the PETITIONERS have applied for approval of an EARTH EXCAVATION PERMIT all in compliance with the Town of Raymond Zoning Ordinance, EARTH EXCAVATION REGULATIONS and Rules and Regulations of the Raymond Planning Board, and;

WHEREAS, the PETITIONERS have agreed to certain conditions and commitments for the development of the plan identified as:

> *Hard Rock Development, LLC; Industrial Drive; Raymond, New Hampshire 03077; Tax Map 28-3, Lot 120 & Map 22, Lot 44; Prepared by Lynnfield Engineering, Inc.; Plan Date July 27, 2010, the plan bearing no revisions; Stamped by Richard Barthelmes and signed May 15, 2012.*

NOW, THEREFORE, in consideration of the Raymond Planning Board granting conditional EARTH EXCAVATION approval on plans prepared by LYNNFIELD ENGINEERING, INC., it is agreed:

- That the PETITIONERS shall abide by all EARTH EXCAVATION REGULATIONS, Building Codes and the Town of Raymond Zoning Ordinance in effect as of the date herein and made a part of this agreement.

- The PETITIONERS will be responsible for obtaining such State and Federal permits as may be necessary or occasioned by the proposed development.

The PETITIONERS' representations to the Raymond Planning Board, made by the PETITIONERS at the various Raymond Planning Board meetings as documented in the minutes of those meetings, were relied on by the TOWN in approving the PETITIONERS' proposal and material compliance with same is required as a condition of the Agreement.

The following conditions shall apply:

1. Applicant must receive all required local, state and federal permitting for the project prior to the commencement of any work on the site.

2. All fees authorized to be charged to applicant pursuant to Town of Raymond Earth Excavation Regulations including, but not limited to, application fees, costs of special studies and legal review, shall be paid by the applicant prior to commencement of any work on the site.

3. Inspection Escrow in the initial amount of $1,000.00 shall be posted by the applicant prior to the commencement of any work on the site; this escrow amount shall be replenished if necessary.

4. The reclamation plan includes a conceptual lot development plan for roadways and is not considered a site plan. The applicant must present a site plan(s) for the properties, such plan(s) to be reviewed by the Planning Board pursuant to the site review regulations.

5. This Excavation Permit shall be issued for a period of five (5) years, starting after the expiration of the appeal period under RSA 155-E:9 (30 days from the date of this decision). On or before the expiration of the permit period, the applicant shall apply for a new excavation permit.

6. Temporary Construction Access for Wastewater Treatment Facility: Consistent with the provisions of paragraphs one (1) through three (3) of Second Amendment to Further Agreement Re: Exercise of Option and Participation in Clean Up, applicant will construct, at its sole expense, a temporary construction access outside of the proposed excavation area along the westerly boundary of the property. The purpose of the temporary access is twofold; first, to provide access for construction vehicles from Old Manchester Road and Industrial Drive to the Raymond Wastewater Treatment Facility construction site and two, to provide access for vehicles removing excavation material from the excavation site. The temporary road shall be constructed within 30 days after receipt of written notice from the Town; it is anticipated that such notice will be issued following the bid opening and final award for construction of the Wastewater Treatment Facility.

7. Permanent Access Road for Wastewater Treatment Facility: Pursuant to paragraph four (4) of the Second Amendment to Further Agreement Re: Exercise of Option and Participation in Clean Up, the Town has the option to for a period of fifteen (15) years from the recording of the subdivision approval to:

    a. Construct a permanent access road from the end of Industrial Drive, through Tax Map 28-3, Lot 120, in a location reasonably and mutually

agreed upon, built to then current town road standards and to be accepted by **TOWN** as a Town maintained public street for all purposes. The road shall extend from Industrial Drive through the wastewater treatment facility site, over the Boston and Maine Railroad (subject to permitting) and connecting to Old Manchester Road and will be a public road providing frontage for Applicant's potential future development of Lot 120. The road will be constructed solely at the **TOWN**'s expense, as part of the construction of the Wastewater Treatment Facility, **OR**

b. Construct a driveway access from the end of Industrial Drive, over Tax Map 28-3, Lot 120 in the location reasonable and mutually agreed upon above. The driveway access will not be built to Town standards for a public roadway but rather to a standard suitable for a driveway access to the Wastewater Treatment Facility only without a required connection to Old Manchester Road. As such, the driveway would not create frontage on a public street for the benefit of **APPLICANT**.

c. If the **TOWN** elects Option B, **APPLICANT** may at any time during the fifteen (15) year term of the above-referenced Option Agreement, exercise a reciprocal option by written notice to the **TOWN** to upgrade, at **APPLICANT'S** sole expense, the driveway access to Town road standards for a public road without interfering with the **TOWN**'s access to its Wastewater Treatment Facility.

8. Applicant shall conduct blasting and excavation activities in a general northeast direction, commencing at the southwesterly corner of Tax Map 28-3, Lot 120 and adjacent to Industrial Drive on Tax Map 22, Lot 47 and Lot 44. During the time period following the effective date of the excavation permit, the first priority of the excavation activities shall be:

   a. Work associated with the Permanent Access Road as set forth in paragraph 7 above, and

   b. The excavation of Tax Map 28-3, Lot 120 along the southerly boundary of the property and the excavation of Tax Map 22, Lot 44 along the northeasterly boundary of the property in accordance with the excavation grading plans. Applicant acknowledges that its excavation will be performed in a manner which enables the future construction of a road (hereinafter the "District Access Road") on the southerly portion of Tax Map 28-3, Lot 120 and the northwesterly corner of Tax Map 22, lot 44 as shown on the "Unified Development Plan," Tax Map 28-3, Lot 120 , Tax Map 22, Lot 44 Industrial Drive, of Raymond, NH, prepared for by Hard Rock Development, LLC by Eric C. Mitchell Associates, Inc. dated June 30, 2006, last rev. 11-14-06, (hereinafter referred to as "Amended Unified Development Plan"). Further, Applicant acknowledges that the District Access Road may be connected to proposed future road #2 as shown on the Amended Unified Development Plan. Provided that nothing in this paragraph 8 shall require Applicant to incur any expenses in conjunction with the construction of proposed future road #2 on the Amended Unified Development Plan.

9. No development proposals are currently before the Planning Board for development areas 2 through 14 as shown on the Amended UDP. However, should development proposals

be presented for any of the above referenced development areas during the five years following the effective date of the excavation permit, and such proposals require the excavation for the District Access Road to be completed prior to the end of the excavation permit, then applicant shall work in good faith with the Planning Board to determine a method whereby the excavation can be completed in a timeframe which will allow then pending proposals on development areas 2 through 14 to proceed subject to further revision of the timetable, if necessary, following approval of the proposal. Provided, however, that nothing in this paragraph 9 shall be deemed to require the Applicant to incur any expenses associated with the construction of the District Access Road (other than the excavation as set forth in the excavation and grading plans) or to convey an easement or fee simple title for any such roads absent a mutually agreeable arrangement between the Applicant, the Town and any owners of other parcels within the Sewer Overlay District.

10. If the District Access Road on Tax Map 28-3, Lot 120 and Tax Map 22, Lot 44 is not excavated within the duration of the excavation permit , then applicant shall be required to provide, as part of any request to renew the excavation permit, a timetable for completion of such excavation. Such timetable shall be reviewed by the Planning Board as part of the excavation permit renewal process, and the Planning Board shall act in good faith to determine whether the proposed timetable will encourage economic development within the Sewer Overlay District in a reasonable time frame consistent with the intent of Article III, Section 3.360 as adopted in March, 2005 of the Raymond Zoning Ordinance and consistent with any proposals relating to Development Areas 2-14 which are pending at the expiration of the permit. Provided, however, that nothing in this paragraph 10 shall be deemed to require the Applicant to incur any expenses associated with the construction of the District Access Road (other than the excavation as set forth in the excavation and grading plans) or to convey an easement or fee simple title for any such roads absent a mutually agreeable arrangement between the Applicant, the Town and any owners of other parcels within the Sewer Overlay District.

11. A Performance Guarantee Agreement shall be executed between the Town of Raymond and the Applicant in accordance with Section XII of the Town of Raymond Earth Excavation Regulations, which includes bonding for reclamation of the site and for repair of Town Roads, if damaged as a result of the excavation and compliance with excavation agreements must be posted prior to excavation work commencing on the properties.

12. If the Town of Raymond provides prior written consent to the Applicant that allows assignment of the excavation permit, which consent shall not be unreasonably withheld, the conditions set forth in this permit are applicable and binding upon any successors, assigns, receivers, trustees or any future interest holders of the Applicant.

13. Tax Map 28-3, Lot 120 and Tax Map 22, Lot 44 shall be connected to town water and sewer when they become available within 100 feet of the property line(s) of the above lots.

14. Applicant will provide a public status report to the Planning Board concerning the site work progress; such report to be provided annually from the effective date of the permit.

15. All construction and excavation related equipment shall use Exit 4 for access and egress, except for local Raymond deliveries; to allow thru trucking for municipalities only north of Raymond 10/15-04/15.

16. The hours of operation shall be consistent with the provisions of the Raymond Earth Excavation Regulations and the waiver granted by the Planning Board for Saturday operation; such hours being as follows: **such Saturday hours being excavation until noon and vehicle maintenance until 4:30 with Saturday hours to be reviewed one year following date of the waiver approval.**

17. Second Amendment to Further Agreement Re: Exercise of Option and Participation in Clean Up must be executed by all pertinent parties.

18. The following waivers have been granted by the Raymond Planning Board in accordance with Article XV(H) of the Raymond Earth Excavation Regulations:

    a. Article XIII: A.2(v) – pertaining to showing locations of property lines, public streets, etc. within 500' of property line.

    b. Article XIII: A.2(vi) – pertaining to test pits and test pit data.

    c. Article XIII: A.4(iv & v) – pertaining to the elevation of the highest annual groundwater table AND the location of test pits which extend to the seasonal high water table.

    d. Article XIII: A.6(ii) – pertaining to provision of a traffic study.

    e. Article XIII: A.6(iii) – pertaining to provision of a noise control study & abatement plan.

    f. Article XIII: A.6(iv) – pertaining to provision of a hydro geologic study.

    g. Article XIII: B.7 – pertaining to Saturday hours of operation (i.e. maintenance).

    h. Article XIV, Paragraph 3 – pertaining to length of permit.

Petitioner/Representative

Community Development Director

Witness

Witness

8/27/17
Date

07/07/2017
Date

TOWN OF RAYMOND

ORIGINAL

Community Development Department
Office of Planning & Zoning
4 Epping Street
Raymond, NH 03077
Tel: (603) 895-4735 • Fax: (603) 895-0903

PERFORMANCE AGREEMENT

Excavation Permit
Hard Rock Development, LLC
Stoli Properties, LLC
Eric C. Mitchell & Associates, Inc.
Raymond Tax Map 22, Lot 44 & Map 28-3, Lot 120

This Performance Agreement for the EXCAVATION PERMIT conditionally approved on DECEMBER 14, 2006, by and between HARD ROCK DEVELOPMENT, LLC AND STOLI PROPERTIES, LLC (hereinafter referred to as "PETITIONER"), BUSINESSES with a principal address of 84 EXETER ROAD, SOUTH HAMPTON, NEW HAMPSHIRE, 03827 (HARD ROCK) and 180 LOCUST STREET, DOVER, NEW HAMPSHIRE, 03820 (STOLI PROPERTIES), their heirs, successors and assigns, and the Raymond Planning Board, with participation of the Selectmen of the Town in their capacity as bearing responsibility for the maintenance of all roads and other pubic improvements, with a mailing address of 4 Epping Street, Raymond, New Hampshire 03077 (hereinafter referred to as "TOWN") represents the understanding between the parties with regard to the Raymond Planning Board granting conditional approval of a certain EXCAVATION PLAN for the PETITIONER for property located on RAYMOND TAX MAP 22, LOT 44 and MAP 28-3, LOT 120.

WHEREAS, the Raymond Planning Board is duly authorized to review and regulate EXCAVATION PLANS and has established regulations relating thereto, and;

WHEREAS, the PETITIONER has applied for approval of an EXCAVATION PLAN all in compliance with the Town of Raymond Zoning Ordinance, EXCAVATION REGULATIONS and Rules and Regulations of the Raymond Planning Board, and;

WHEREAS, the PETITIONER has agreed to certain conditions and commitments for the development of the plan identified as:

Excavation Plan; Prepared for Hard Rock Development, LLC; Plan date April 30, 2006; the Cover Sheet bearing a latest revision date of November 14, 2006.

NOW, THEREFORE, in consideration of the Raymond Planning Board granting conditional EXCAVATION PLAN approval on plans prepared by ERIC C. MITCHELL & ASSOCIATES, INC., it is agreed:

- That the PETITIONER shall abide by all EXCAVATION Regulations, Building Codes and the Town of Raymond Zoning Ordinance in effect as of the date herein and made a part of this agreement.

- The PETITIONER will be responsible for obtaining such State and Federal permits as may be necessary or occasioned by the proposed development.

The PETITIONER'S representations to the Raymond Planning Board, made by the PETITIONER at the various Raymond Planning Board meetings as documented in the minutes of those meetings, were relied on by the TOWN in approving the PETITIONER'S proposal and material compliance with same is required as a condition of the Agreement.

The following conditions shall apply:

1. Applicant must receive all required local, state and federal permitting for the project prior to the commencement of any work on the site.

2. All fees authorized to be charged to applicant pursuant to Town of Raymond Earth Excavation Regulations including, but not limited to, application fees, costs of special studies and legal review, shall be paid by the applicant prior to commencement of any work on the site.

3. Inspection Escrow in the initial amount of $1,000.00 shall be posted by the applicant prior to the commencement of any work on the site; this escrow amount shall be replenished if necessary.

4. The reclamation plan includes a conceptual lot development plan for roadways and is not considered a site plan. The applicant must present a site plan(s) for the properties, such plan(s) to be reviewed by the Planning Board pursuant to the site review regulations.

5. This Excavation Permit shall be issued for a period of five years, to be effective upon start of excavation activities, but in no event later than one hundred twenty (120) days after the expiration of the appeal period under RSA 155-E:9. On or before the expiration of the permit period, the applicant may request a renewal of the excavation permit. Such request shall be decided by the Planning Board following a public hearing.

6. Temporary Construction Access for Wastewater Treatment Facility: Applicant will construct temporary construction access outside of the proposed excavation area along the westerly boundary of the property. The purpose of the temporary access is twofold; first, to provide access for construction vehicles from Old Manchester Road and Industrial Drive to the Raymond Wastewater Treatment Facility construction site and two, to provide access for vehicles removing excavation material from the excavation site. The temporary road shall be constructed within 30 days after the bid opening and final award for construction of the Wastewater Treatment Facility.

7. Permanent Access Road for Wastewater Treatment Facility: The Town and the Applicant shall work cooperatively to determine the location of the Permanent Access Road from Industrial Drive to the proposed Wastewater Treatment Plant. Once the location has been determined, the Applicant shall have thirty (30) days from the date the location is finalized in writing in which to determine whether it wishes to excavate the material located within the proposed road location, or within 100feet of said location. Applicant shall provide written notification to the Town by the end of the thirty (30) day period of its intention. The Applicant shall complete any excavation to be performed pursuant to this paragraph in a time frame that is consistent with the Town's bid process associated with construction of the Wastewater Treatment Plant, so as to enable potential bidders to estimate the costs of road construction in an informed manner.

8. Applicant shall conduct blasting and excavation activities in a general northeast direction, commencing at the southwesterly corner of Tax Map 28-3, Lot 120 and adjacent to Industrial Drive on Tax Map 22, Lot 47 and Lot 44. During the time period following the effective date of the excavation permit, the first priority of the excavation activities shall be:

    a. Work associated with the Permanent Access Road as set forth in paragraph 7 above, and

    b. The excavation of Tax Map 28-3 Lot 120 along the southerly boundary of the property and the excavation of Tax Map 22, Lot 44 along the northeasterly boundary of the property in accordance with the excavation grading plans. Applicant acknowledges that its excavation will be performed in a manner which enables the future construction of a road (hereinafter the "District Access Road") on the southerly portion of Tax Map 28-3, Lot 120 and the northwesterly corner of Tax Map 22, lot 44 as shown on the "Unified Development Plan," Tax Map 28-3, Lot 120 , Tax Map 22, Lot 44 Industrial Drive, of Raymond, NH, prepared for by Hard Rock Development, LLC by Eric C. Mitchell Associates, Inc. dated June 30, 2006, last rev. 11-14-06, (hereinafter referred to as "Amended Unified Development Plan"). Further, Applicant acknowledges that the District Access Road may be connected to proposed future road #2 as shown on the Amended Unified Development Plan. Provided that nothing in this paragraph 8 shall require Applicant to incur any expenses in conjunction with the construction of proposed future road #2 on the Amended Unified Development Plan.

9. No development proposals are currently before the Planning Board for development areas 2 through 14 as shown on the Amended UDP. However, should development proposals be presented for any of the above referenced development areas during the five years following the effective date of the excavation permit, and such proposals require the excavation for the District Access Road to be completed prior to the end of the excavation permit, then applicant shall work in good faith with the Planning Board to determine a method whereby the excavation can be completed in a timeframe which will allow then pending proposals on development areas 2 through 14 to proceed subject to further revision of the timetable, if necessary, following approval of the proposal. Provided, however, that

nothing in this paragraph 9 shall be deemed to require the Applicant to incur any expenses associated with the construction of the District Access Road (other than the excavation as set forth in the excavation and grading plans) or to convey an easement or fee simple title for any such roads absent a mutually agreeable arrangement between the Applicant, the Town and any owners of other parcels within the Sewer Overlay District.

10. If the District Access Road on Tax Map 28-3, Lot 120 and Tax Map 22, Lot 44 is not excavated within the duration of the excavation permit , then applicant shall be required to provide, as part of any request to renew the excavation permit, a timetable for completion of such excavation. Such timetable shall be reviewed by the Planning Board as part of the excavation permit renewal process, and the Planning Board shall act in good faith to determine whether the proposed timetable will encourage economic development within the Sewer Overlay District in a reasonable time frame consistent with the intent of Article III, Section 3.360 as adopted in March, 2005 of the Raymond Zoning Ordinance and consistent with any proposals relating to Development Areas 2-14 which are pending at the expiration of the permit. Provided, however, that nothing in this paragraph 10 shall be deemed to require the Applicant to incur any expenses associated with the construction of the District Access Road (other than the excavation as set forth in the excavation and grading plans) or to convey an easement or fee simple title for any such roads absent a mutually agreeable arrangement between the Applicant, the Town and any owners of other parcels within the Sewer Overlay District.

11. A Performance Guarantee Agreement shall be executed between the Town of Raymond and the Applicant in accordance with Section XII of the Town of Raymond Earth Excavation Regulations, which includes bonding for reclamation of the site and for repair of Town Roads, if damaged as a result of the excavation and compliance with excavation agreements must be posted prior to excavation work commencing on the properties.

12. If the Town of Raymond provides prior written consent to the Applicant that allows assignment of the excavation permit, which consent shall not be unreasonably withheld, the conditions set forth in this permit are applicable and binding upon any successors, assigns, receivers, trustees or any future interest holders of the Applicant.

13. Tax Map 28-3, Lot 120 and Tax Map 22, Lot 44 shall be connected to town water and sewer when they become available within 100 feet of the property line(s) of the above lots.

14. Applicant will provide a public status report to the Planning Board concerning the site work progress; such report to be provided annually from the effective date of the permit.

15. All construction and excavation related equipment shall use Exit 4 for access and egress, except for local Raymond deliveries.

16. The hours of operation shall be consistent with the provisions of the Raymond Earth Excavation Regulations and the waiver granted by the Planning Board for Saturday operation; such hours being as follows: **such Saturday hours being excavation until noon and vehicle maintenance until 4:30 with Saturday hours to be reviewed one year following date of the waiver approval.**

17. The permit is approved subject to applicant obtaining approval for the Amended Unified Development Plan.

Petitioner/Representative

Petitioner/Representative

Community Development Director

Witness

Witness

5-10-2011.
Date

03/24/2011
Date

ZONING DETERMINATION
HARD ROCK DEVELOPMENT, L.L.C.

Map 28.3, Lot 120 & Map 22, Lot 44

Zoning District of the above listed parcels is Zone "D" Industrial, within which Excavation, Soil Removal and Processing are allowed uses, per Article IV, Uses and Standards, Section 4.100, Allowed Use Table, Use # 25.

A small portion of the site, at it's Western boundary along the Eastern end of Industrial Drive, is included in the Groundwater Conservation District as defined in Article 4.240 Zone I-Groundwater Conservation District, Section 4.241 Definitions, 02 "GAA" "areas within a wellhead protection area".

Other than the existing access roadway to the site, which is shown as connecting the East end of Industrial Drive to the actual excavation area, it does not appear that excavation is proposed within the Groundwater Conservation District.

I am unaware of any proposal for permanent buildings or structures on the site and would therefore not anticipate the need for a Site Plan approval, traditionally associated with permanent buildings and improvements. All activities on site are directly related to the excavation and processing and should be addressed as components of the Excavation permit being sought.

The restoration proposal has within it a conceptual plan that would include the construction of a building and the associated parking lots. If this plan is fostered as the plan of choice it would require a Site Plan approval for that construction to take place.

Sincerely,

Richard J. Mailhot
Code Enforcement Officer

TOWN OF RAYMOND

Community Development Department
Office of Planning & Zoning
4 Epping Street
Raymond, NH 03077
Tel: (603) 895-4735 • Fax: (603) 895-0903

NOTICE OF DECISION

Hard Rock Development, LLC
Stoli Properties, LLC
Raymond Tax Map 28-3, Lot 120
Map 22, Lot 44
Accessed via Industrial Drive

Date of Decision: June 14, 2012

You are hereby notified that the Raymond Planning Board has GRANTED an Earth Excavation Permit to Hard Rock Development, LLC and Stoli Properties thereby allowing the applicants to engage in a construction material quarrying/excavation project. Earth excavation, processing and screening will comprise approximately 35 of the entire 74 acres.

The following conditions shall apply:

1. Applicant must receive all required local, state and federal permitting for the project prior to the commencement of any work on the site.

2. All fees authorized to be charged to applicant pursuant to Town of Raymond Earth Excavation Regulations including, but not limited to, application fees, costs of special studies and legal review, shall be paid by the applicant prior to commencement of any work on the site.

3. Inspection Escrow in the initial amount of $1,000.00 shall be posted by the applicant prior to the commencement of any work on the site; this escrow amount shall be replenished if necessary.

4. The reclamation plan includes a conceptual lot development plan for roadways and is not considered a site plan. The applicant must present a site plan(s) for the properties, such plan(s) to be reviewed by the Planning Board pursuant to the site review regulations.

5. This Excavation Permit shall be issued for a period of five (5) years, starting after the expiration of the appeal period under RSA 155-E:9 (30 days from the date of this decision). On or before the expiration of the permit period, the applicant shall apply for a new excavation permit.

6. Temporary Construction Access for Wastewater Treatment Facility: Consistent with the provisions of paragraphs one (1) through three (3) of Second Amendment to Further Agreement Re: Exercise of Option and Participation in Clean Up, applicant will construct, at its sole expense, a temporary construction access outside of the proposed excavation area along the westerly boundary of the property. The purpose of the temporary access is

twofold; first, to provide access for construction vehicles from Old Manchester Road and Industrial Drive to the Raymond Wastewater Treatment Facility construction site and two, to provide access for vehicles removing excavation material from the excavation site. The temporary road shall be constructed within 30 days after receipt of written notice from the Town; it is anticipated that such notice will be issued following the bid opening and final award for construction of the Wastewater Treatment Facility.

7. Permanent Access Road for Wastewater Treatment Facility: Pursuant to paragraph four (4) of the Second Amendment to Further Agreement Re: Exercise of Option and Participation in Clean Up, the Town has the option to for a period of fifteen (15) years from the recording of the subdivision approval to:

    a. Construct a permanent access road from the end of Industrial Drive, through Tax Map 28-3, Lot 120, in a location reasonably and mutually agreed upon, built to then current town road standards and to be accepted by **TOWN** as a Town maintained public street for all purposes. The road shall extend from Industrial Drive through the wastewater treatment facility site, over the Boston and Maine Railroad (subject to permitting) and connecting to Old Manchester Road and will be a public road providing frontage for Applicant's potential future development of Lot 120. The road will be constructed solely at the **TOWN**'s expense, as part of the construction of the Wastewater Treatment Facility, **OR**

    b. Construct a driveway access from the end of Industrial Drive, over Tax Map 28-3, Lot 120 in the location reasonable and mutually agreed upon above. The driveway access will not be built to Town standards for a public roadway but rather to a standard suitable for a driveway access to the Wastewater Treatment Facility only without a required connection to Old Manchester Road. As such, the driveway would not create frontage on a public street for the benefit of **APPLICANT**.

    c. If the **TOWN** elects Option B, **APPLICANT** may at any time during the fifteen (15) year term of the above-referenced Option Agreement, exercise a reciprocal option by written notice to the **TOWN** to upgrade, at **APPLICANT'S** sole expense, the driveway access to Town road standards for a public road without interfering with the **TOWN**'s access to its Wastewater Treatment Facility.

8. Applicant shall conduct blasting and excavation activities in a general northeast direction, commencing at the southwesterly corner of Tax Map 28-3, Lot 120 and adjacent to Industrial Drive on Tax Map 22, Lot 47 and Lot 44. During the time period following the effective date of the excavation permit, the first priority of the excavation activities shall be:

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    b. Article XIII: A.2(vi) – pertaining to test pits and test pit data.

    c. Article XIII: A.4(iv & v) – pertaining to the elevation of the highest annual groundwater table AND the location of test pits which extend to the seasonal high water table.

    d. Article XIII: A.6(ii) – pertaining to provision of a traffic study.

    e. Article XIII: A.6(iii) – pertaining to provision of a noise control study & abatement plan.

    f. Article XIII: A.6(iv) – pertaining to provision of a hydro geologic study.

    g. Article XIII: B.7 – pertaining to Saturday hours of operation (i.e. maintenance).

    h. Article XIV, Paragraph 3 – pertaining to length of permit.

Ernest Cartier Creveling
Community Development Director

06/15/2012
Date

Any persons aggrieved by any decision of the Planning Board concerning a plat or subdivision may present to the Superior Court a petition in accordance with New Hampshire RSA 677:15, within thirty (30) days of the Date of Decision identified above. This notice has been placed on file and made available for public inspection in the records of the Planning Board.

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2. Enviro North American Consulting PFAS Letter	12/14/2022
3. Enviro North American Consulting Opinion Letter	12/08/2022
4. Enviro North American Consulting Mercury Letter	01/12/2023
5. EPA Notice of Intent Letter (NOI)	04/11/2022
6. EPA Stormwater Pollution Prevention Plan (SWPPP)	04/11/2022

ENVIRO NORTH AMERICAN
CONSULTING, LLC

Riverbend Professional Building
P.O. Box 1075 Alton, NH 03809
Ph. (603) 875-8100
Fax (603) 875-8101
www.environorthamerican.com

January 12, 2023
Project 1190-681

Douglas Richardson, Executive V.P.
Onyx Partners Ltd.
200 Reservoir Street, Suite 306
Needham, MA 02494

And

Wayne Morrill, President
Jones & Beach Engineers, Inc.
85 Portsmouth Avene
Stratham, NH 03885

Re: **Contaminant Remedial Summary Lot 120-1: Wetland A, Lagoon 3, and Connecting Trench**

Subject: **Onyx Raymond LLC.**

Industrial Drive, Raymond, NH

Dear Gentlemen:

Enviro North American Consulting, LLC (ENAC) has completed an evaluation of information and data pertaining to the proposed development of parcel(s) of land shown on an Existing Conditions Plan dated November 10, 2022 referenced as the Onyx Raymond LLC – Raymond Distribution (subject Property). The contiguous parcels of the subject Property are in the general northeast area off the end of cul-de-sac at Industrial Drive in Raymond, NH.

An abutting property to the northeast is referenced by the Town of Raymond as Lot 120 and has been impacted by subsurface contamination due to the presence of total chromium and Per- and Polyfluorinated Substances (PFAS) released to the environment during past industrial operations of a tannery known as the Former Regis Tannery, also referred to as Former Rex Leather Tannery. The New Hampshire Department of Environmental Services (NHDES) Hazardous Waste Remediation Bureau (HWRB) tracks the remedial activity of the northeast abutting property as Site #201110061 (Lot 120).

A second parcel of land is located further northeast beyond a recreational trail (former railroad easement Boston & Maine Railroad) and is associated with the former industrial use of Regis Tannery / Rex Leather Tannery and identified by the Town of Raymond as Lot 43.

Tannery related contamination released to the environment at Lot 43 is managed by the NHDES HWRB as remedial Site #198705081. Both former tannery sites are considered contaminated properties and are currently owned by the Town of Raymond. The NHDES lists the Town of Raymond as the Responsible Parties (RP) for the ongoing remedial investigation and clean-up activity.

ENAC notes the subject Property is not a remedial site managed by NHDES.

Scope of Services

The scope of service conducted by ENAC included a review of available remedial documents through the NHDES Onestop database for the Former Regis Tannery sites and telephone interview with the active NHDES Hazardous Waste Remediation Bureau's (HWRB) Project Manager, Tanya Justham who is currently managing investigations and monitoring at the Former Regis Tannery Sites.

This letter presents the remedial activities concerning sources of contamination discovered from former tannery discharges which had impacted the subject Property, specifically referenced as former Wetland A, former Lagoon #3 and a former Drainage Trench, connecting the two surface water bodies. Remedial excavations were completed to remove contaminant impacted soil and sediment from the subject Property, prior to a subdivision of land. ENAC notes that current-day Lot 120-1 had been previously subdivided from a larger Town of Raymond owned Lot 120 and known to be part of the Former Regis Tannery remedial site.

ENAC reviewed a recent Draft copy of a Phase I ESA prepared for the subject property (Lot 120-1) in December of 2022 for the identification of Recognized Environmental Conditions (RECs), Controlled Recognized Environmental Conditions (CRECs), and Historical Recognized Environmental Conditions (HRECs) associated with past and current use of the subject Property. My professional opinion regarding the subject Property's existing environmental conditions and past remedial clean-up activity is provided in this letter report.

REMEDIAL INFORMATION FORMER REGIS TANNERY - LOT 120

Remedial investigations and follow-up clean-up actions occurred at the Former Regis Tannery Sites as part of the initiatives through federal Brownfield Clean-up Grants awarded to the Town of Raymond for Lots 43 and 120, and through a subgrant available through the New Hampshire Brownfields Revolving Loan Fund and the American Recovery and Reinvestment Act of 2009. The objectives of the remedial action conducted to date provided protection to human health and the environment by removal, consolidation and capping of contaminated material, and to limit impacts of contaminated sources impacting groundwater, surface water and soil. Completion of remedial actions were conducted in accordance with specifications and pre-approval by the NHDES or the United States Environmental Protection Agency (USEPA).

During planned remedial excavations conducted under the approved RAP, Former Lagoon #1 located on Lot 120 is a remedial Consolidation Area to dispose of Lot 43 and Lot 120 buried tannery wastes encountered during past remedial excavations. The Consolidation Area (Lagoon

#1) was capped with low-permeability soil under direction of NHDES Hazardous Waste Remediation Bureau. Remedial activity conducted to date is documented in Revised Remedial Action Implementation Report dated October 23, 2012.

WETLAND A, LAGOON #3 AND CONNECTING DRAINAGE TRENCH – LOT 120-1

The wastewater discharge process from the Former Regis Tannery on Lot 43 was altered in the early 1960s and included discharging process wastewater into 3-lagoon areas located across Lot 120. Process water was pumped from lower lying areas of Lagoon #1 and #2, upslope to Lagoon #3. The process included discharging tannery process water through a wetland noted as Wetland A, where water flowed west from Wetland A across a surface trench with a final discharge into Lagoon #3.

Former process tannery discharges into Wetland A, Lagoon #3 and the connecting surface drainage trench are located on the land owned by Onyx Raymond, LLC (subject Property) referenced as current-day Lot 120-1. ENAC notes that current Lot 120-1 was part of a larger parcel of land referred to as Lot 120, until a land subdivision divided the two lots of record. Former tannery process wastewater discharges to Wetland A, Connecting Drainage Trench, and Lagoon #3 are shown on the attached Existing Conditions Plan (C1). Tannery operations reported wastewater was pumped to Wetland A and flowed west across the drainage trench discharging into Lagoon #3. This occurred only when Lagoon #1 and Lagoon #2 (located on Lot 120) capacities were full and no longer could receive tannery wastewater discharge.

Consolidation Area (former Lagoon #1) was established during the RAP and was located on current-day Lot 120. The Consolidation Area contains capped tannery sourced wastes and has been established as an Activity Use Restriction (AUR) area for future subsurface disturbances and development. Groundwater quality surrounding the Consolidation Area on Lot 120 is currently monitored under a Groundwater Management Permit (GMP) issued by the NHDES, where the Groundwater Management Zone (GMZ) is limited to the AUR boundary on Lot 120. The GMZ or AUR does not extend across the common property boundary of Lot 120-1 (subject Property) and there are no deed restrictions in-place by NHDES for Lot 120-1 limiting proposed use or development.

<u>Remedial Excavations: Drainage Trench from Wetland A to Lagoon #3</u>
Contaminated trench soil and sediment containing concentrations of metals detected above the NHDES – Soil Remediation Standards (SRS) were excavated from the connecting drainage trench from Wetland A to Lagoon #3. Approximately, 165 cubic-yards of chromium impacted soil and sediment was excavated and placed in the Former Lagoon #1 Consolidation Area located on current-day Lot 120, as the NHDES approved remedial approach for clean-up removal of chromium impacts. Reportedly, depths of chromium impacts from within the limits of the drainage trench did not exceed 1-foot in depth. Post-excavation soil samples collected and laboratory analyzed for the presence of chromium met the NHDES SRS. Also, sediment pre-excavation from the connecting trench did not result with detected metals detected above the EPA's Toxicity Characteristic Leaching Procedure (TCLP) and did not require special handling or disposal as hazardous waste.

Lagoon #3 Dam Removal and Dewatering

Former tannery operations pumped overflow wastewater into Wetland A, which flowed via surface trench in a westerly direction discharging into Lagoon #3. A former surface water dam was located within Lagoon #3 which received past discharges from Wetland A via surface drainage connecting trench. During remedial activity, a NHDES wetlands permit was authorized in December 2007 to remove the dam from Lagoon #3, it was reported that standing surface water from Lagoon #3 was dewatered prior to dam removal. The Lagoon #3 dewatering was completed under NHDES Wetland Permits and Temporary Discharge Permits issued in October of 2008. Dewatering of Lagoon #3 was conducted over a 4-week period during March of 2009. Excavation of the Lagoon #3 dam contained leather straps and debris excavated and transported to be deposited at the Consolidation Area of Lot 120 as the approved remedial approach.

Portions of Lagoon #3 dam and a soil berm located along the north edge of Lagoon #3 contained sand and gravel observed free of contamination and with no visual or olfactory evidence of oil or hazardous wastes. Excavated sands and gravel from Lagoon #3 (dam and berm) were transported for restoration of remedial excavations located at nearby Former Tannery remedial site Lot 43. Prior to utilization of the sands and gravel for restoration purposes on Lot 43, the sand and gravel material was investigated by test pits where soil samples were collected and analyzed for the presence of chromium. Table 2 of the October 12, 2012 Revised Remedial Action Implementation Report shows the chromium results were detected below the applicable NHDES SRS and USEPA TCLP.

NOTICE OF ACTIVITY USE RESTRICTION (AUR)

Remedial activity for Lot 43 and Lot 120 included separate post-excavation recorded Notice of Activity Use Restrictions (AURs) authorized by the NHDES for the landfilled areas labeled as the Deeply Buried Leather Fill Area (Lot 43) and the Consolidation Area (former Lagoon #1 Consolidation Area) on Lot 120. The AURs were authorized by NHDES and remain in-place to protect human health and as an advisory to future site disturbances or redevelopment activity. ENAC notes that the Notice for AUR boundary for Lot 120 is limited to Former Lagoon #1 – Consolidation Area. The Lot 120 AUR boundary does not extend south across the common adjoining property boundary onto current-day Lot 120-1. The Notice of AUR was recorded in the Rockingham County Registry of Deeds for Lot 120 and received by the NHDES on February 21, 2013.

CERTIFICATE OF COMPLETION – ISSUED BY NHDES FOR LOT 120

The NHDES HWRB (Brownfields Program) issued the Town of Raymond (Responsible Party) a Certificate of Completion dated March 20, 2013 based on their review of the Revised Remedial Action Implementation Report prepared for the site dated October 23, 2012. The Certificate of Completion is attached as appendices to this letter.

The NHDES Certificate of Completion outlines the Responsible Party (Town of Raymond) of the Former Regis Tannery – Lot 120 remedial Site #201110061, Hazardous Waste Project #27227 has met the obligations set forth in the approved Remedial Action Plan (RAP). The

Revised Remedial Action Implementation Report and other information concerning soil and groundwater contamination was reviewed by NHDES and compared to the NH Code of Administrative Rules Env-Or 600, Contaminated Site Management. The criteria to support issuance of the Certificate of Completion are itemized below:

- (Item 1) All activities specified in the approved remedial action plan, with the exception of groundwater monitoring, have been completed,
- (Item 2) The performance standards specified for the approved remedial action and the groundwater management permit have been achieved,
- (Item 3) All monitoring under the groundwater management permit are being met, and
- (Item 4) Any necessary activity and use restrictions (AURs) have been implemented.

The NHDES concludes that the conditions meet the Certificate of Completion criteria in accordance with information outlined in Contaminated Sites Management, subsection Env-Or 609.01. The NHDES notes that groundwater monitoring shall continue in accordance with Conditions of GWP-201110061-R-001 (Groundwater Management Permit issued to the Lot 120 remedial site for continued compliance of Ambient Groundwater Quality Standards - AGQS).

GROUNDWATER MANAGEMENT PERMIT – LOT 120

Past industrial release(s) to the environment on Lot 120 have impacted shallow area groundwater quality and the Town of Raymond is the listed responsible party (RP). Remedial activities have been completed and AURs exist on Lot 120 to protect the risk to human health. Shallow groundwater quality has been monitored under a NHDES issued Groundwater Management Permit since 2013 (for a 5-year period), the initial permit expired in 2018. A second GMP has been issued by NHDES to the Town of Raymond for Lot 120 dated July 15, 2022 for a consecutive 5-year monitoring period (2022 – 2027). A copy of the Groundwater Permit Renewal Application and the NHDES issued Groundwater Management Permit are attached as appendices.

Due to decreasing concentrations of total chromium in site groundwater, the NHDES has reduced chromium monitoring to occur during June of 2023 and June of 2026. Remaining Permit Conditions require annual monitoring (each year) in June for groundwater elevation measurements and water sample collection from 4-monitoring wells for the presence of Per- and Polyfluoroalkyl Substances (PFAS).

<u>Per- and Polyfluoroalkyl Substances (PFAS) Former Tannery Site Lot 120</u>
As directed by the NHDES HWRB, groundwater quality from the Former Tannery Site Lot 120 was screened for the presence of PFAS. Analytical results from groundwater samples have detected the presence of PFAS and associated chemical derivatives in groundwater at concentrations above the NHDES adopted AGQS. Due to the persistence of PFAS detections in site groundwater, the updated Permit issued to Lot 120 includes annual monitoring of PFAS chemicals. The NHDES has also required a Supplemental Site Investigation (SSI) as part of Permit conditions warranted at both Former Tannery Sites to further evaluate the source and

delineate the presence of PFAS. The suspected source for PFAS has been noted as the likely use of fire extinguishing foam during 1972 when fire destroyed the tannery, and the possibility of tanning processes using PFAS chemicals which discharged to the environment. To date, the request by NHDES for the SSI work has not been completed.

DRAFT PHASE I ENVIRONMENTAL SITE ASSESSMENT ONYX RAYMOND, LLC. – DECEMBER 2022

ENAC reviewed a draft copy of a Phase I Environmental Site Assessment (ESA) report dated December 8, 2022 and prepared by others for the subject Property owned by Onyx Raymond, LLC (subject property). The recent Phase I ESA report was completed in conformance with the American Society for Testing Materials (ASTM) Phase I ESA Standards of Practice E1527-13 and newly revised Standard E1527-21. ENAC notes there were no reported Data Gaps identified in the ESA process. The Phase I ESA report's Section 8.0: Findings, Opinions, and Conclusions, made the determination that the assessment has not identified Recognized Environmental Conditions (RECs), Controlled Recognized Environmental Conditions (CRECs), and Historical Recognized Environmental Conditions (HRECs), or deminimis conditions in connection with the subject property. The Phase I ESA report's Section 9.0: Recommendations – provides a basis for no further action, no additional assessment, and no subsurface investigations.

ENVIRONMENTAL SAMPLING – ONYX RAYMOND LLC.

Surface Water Quality Sampling – Onyx Raymond LLC.

ENAC representative visited the subject Property to collect surface water samples from 3-existing wetland areas containing standing water on November 22, 2022. The 3-surface water sample locations are shown on the attached Existing Conditions Plan. Grab water samples were collected from 3-selected wetland or stream bed areas of the subject Property with use of a dedicated water sample bottle connected to an extendable rod. Water samples for total chromium analysis were collected and field filtered with use of a 0.45-micron filter then placed in preserved laboratory containers. Grab water samples (raw non-filtered) were collected for PFAS analyses at each location and placed directly in laboratory prepared containers. The water samples were placed inside a cooler with ice and delivered directly to a New Hampshire certified laboratory for the analyses of total chromium by EPA Method 200.8 and 24-compound list of PFAS and derivative chemicals by EPA Method 537 modified.

Total Chromium

Total chromium was detected at concentrations below human health concerns or was not detected above laboratory detection limits from the 3-surface water samples. Resulting surface water quality concentrations for total chromium are presented in Table 1 as compared to the NHDES Maximum Contaminant Level (MCL) for water and fish ingestion for protection of human health:

TABLE 1
ONYX RAYMOND LLC.
SUMMARY OF TOTAL CHROMIUM – SURFACE WATER

Sample Designation: **(surface water samples)**	**Total Chromium Concentration:** **(surface water samples)**	**Total Chromium MCL: for water & fish ingestion human health criteria**
SFW-1	Total Chromium = 5.6 µg/L	100 µg/L
SFW-2	Total Chromium <1.0 µg/L	100 µg/L
SFW-3	Total Chromium = 24 µg/L	100 µg/L

Notes:
1. µg/L = micrograms per liter, equivalent to parts per billion (ppb).
2. SFW-1 sample designation for surface water sample location #1.
3. Total chromium Maximum Contaminant Level (MCL) from Table 1703-2A.
4. Table 1703-2A found in NH Code of Administrative Rules Env-Wq 1700.
5. Note the NHDES AGQS for total chromium = 100 µg/L.

Water samples from November 22, 2022 resulted with low concentrations of total chromium detected below the NHDES MCL for water and fish ingestion criteria of 100 micrograms per liter (µg/L). The same water quality value has been adopted as the AGQS for total chromium in drinking water at 100 µg/L.

PFAS Sampling Results – Surface Water Quality

Results of PFAS were detected at low concentrations from 3-surface water samples collected by ENAC on November 22, 2022. PFAS was detected below the NHDES adopted AGQS as shown below in Table 1A.

TABLE 1A
ONYX RAYMOND LLC
SURFACE WATER QUALITY DATA - PFAS

COMPOUND	Surface Water Sample Locations			NHDES Water Quality Standards	
PFAS by EPA Method 537M	**SFW-1**	**SFW-2**	**SFW-3**	**AGQS**	**Surface Water Standard**
Perfluorooctanesulfonic Acid (PFOS)	0.0117	ND	0.00406	***0.015***	***NSA***
Perfluoropentanoic Acid (PFPeA)	ND	ND	ND	***NSA***	
Perfluorohexanoic Acid (PFHxA)	ND	ND	ND	***NSA***	
Perfluorooctanoic Acid (PFOA)	0.00507	ND	ND	***0.012***	
Perfluorohexanesulfonic Acid ((PFHxS)	ND	ND	ND	***0.018***	
Perfluorobutanoic Acid (PFBA)	ND	ND	ND	***NSA***	
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ND	***NSA***	
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ND	***NSA***	
Perfluorononanoic Acid (PFNA)	ND	ND	ND	***0.011***	
N-ethyl-perfluorooctane Sulfonamido Acetic Acid (EtFOSAA)	0.00434	ND	ND	***NSA***	

NOTES (from Table 1A):

1. PFAS concentrations are presented as parts per billion (ppb) equivalent to micrograms per liter.
2. ND = Not detected and below laboratory reporting limits.
3. Concentrations compared to NHDES Ambient Groundwater Quality Standards (AGQSs), effective 1/1/2021.
4. NSA = No water standard for individual compounds.

CONCLUSIONS

Based on available information reviewed, the following outlines my professional opinion regarding the environmental evaluation of the subject Property - Onyx Raymond LLC., as it relates to contamination from former tannery derived wastes. It is my professional opinion that groundwater contamination from the Former Tannery sites is located and limited to the north adjoining properties (Lots 43 and 120) and the subject Property's groundwater quality has not been impacted by past discharges of tannery hazardous releases. The following itemization supports my professional opinion.

1. Past sources of contamination have been removed from current-day Lot 120-1 under an authorized NHDES Remedial Action Plan (RAP) and further described in a Revised Remedial Action Implementation Report. Sources of metals included chromium impacts to shallow sediment of a connection trench between former Wetland A and former Lagoon #3 on Lot 120-1. Sediment from the connection trench was mitigated by removal and placement in a designated landfill area labeled as Former Lagoon #1 – Consolidation Area located on Lot 120. Confirmation soil sampling post-excavation resulted with laboratory results that met the NHDES Soil Remediation Standards (SRS).

2. Former Lagoon #3 was dewatered as part of the approved NHDES remedial activity, where water was allowed to flow west draining surface water of Lagoon #3 over a 4-week period. The former Lagoon #3 contained a dam which was removed as part of approved remedial work conducted under the RAP.

3. Former Lagoon #3 located at Lot 120-1 included a dam and soil berm, both were tested for the presence of chromium and metals prior to excavation of the dam and berm materials. Soil from the dam and berm were tested for the presence of metals which met the NHDES SRS. Leather straps were observed as mixed debris in portions of the dam. The debris was excavated and disposed of in Lot 120's Consolidation Area following conditions of the RAP. Non-contaminated soil excavated from former Lagoon #3 was used for reclamation of remedial areas across Lot 120 and Lot 43 former tannery sites.

4. An Activity Use Restriction (AUR) has been established at Lot 120 for the area containing buried tannery wastes. The AUR on Lot 120 includes the Consolidation Area where impacted chromium soil and tannery wastes were buried following conditions of the RAP. The limits of the AUR include the perimeter of the buried wastes (Consolidation Area) and does not expand across common property boundary of Lot 120-1. The Notice of AUR has been recorded in the Lot 120 deed at the Rockingham Country Registry.

5. Groundwater Management Permit has been issued by the NHDES for ongoing groundwater quality monitoring for the presence of total chromium and PFAS detected beneath Lot 120. The remedial site's Permit includes a Groundwater Management Zone (GMZ) Boundary which is limited to the same AUR boundary around the Consolidation Area. The site's GMZ does not extend across property boundaries to include Lot 120-1.

To date, the NHDES has not required groundwater quality investigations beneath the adjoining and hydrogeologic upgradient Lot 120-1.

6. ENAC has reviewed the local ordinance described under Section 5.06 Groundwater Protection defined by RSA 485-C: 2 VIII. Item 2 of the Town ordinance states that property contaminated by hazardous or toxic materials shall disclose such information as part of the application process. Our application process has included review of available information and results show that remedial action is complete and the NHDES has issued a Certificate of Completion which includes remediation at current-day Lot 120-1.

7. Telecommunications conducted with Todd Greenwood of ENAC and Tanya Justham of NHDES Hazardous Waste Remediation Bureau (HWRB), acting Project Manager for the Former Regis Tannery sites. According to Ms. Justham, the past remediation activity for Former Wetland A, Former Lagoon #3 and Former Drainage Connecting Trench located on Lot 120-1 has been completed to satisfy NH Code of Administrative Rules, Contaminated Site Management Env-Or 600 and no further investigations are warranted.

8. Ms. Justham of NHDES explained the outstanding subsurface investigation (SSI) required for the Former Regis Tannery sites will be focused on hydrogeologic down-gradient properties directed toward the Lamprey River for the further evaluation of PFAS in groundwater. The NHDES has no plans to investigate groundwater quality beneath the subject property (Lot 120-1) due to its hydrogeologic up-gradient setting.

9. Ms. Justham of NHDES acknowledged the subject property (Lot 120-1) is not a listed remedial site tracked by the NHDES therefore jurisdiction for NHDES HWRB is non-applicable for limiting the planned future development.

10. ENAC reviewed a recent Draft copy of a Phase I Environmental Site Assessment (ESA) prepared by others for the subject Property in December of 2022. The Phase I ESA report findings conclude that no past or present Recognized Environmental Conditions (REC) exist, and no further environmental assessment or subsurface investigations are warranted.

11. Todd A. Greenwood, NH Licensed Geologist #715, has provided the professional review of available contaminant information and conducted recent November 2022 surface water sampling in connection with past sources of tannery wastes on behalf of Onyx Raymond, LLC. The information presented to the Town of Raymond's Planning Board with conclusions based upon facts that Lot 120-1 is not a listed contaminated remedial site. The Town of Raymond should move forward with the application processes for proposed development by Onyx Raymond LLC.

12. Bulleted items below support my conclusion based on surface water sampling conducted in November of 2022 and review of available monitoring data collected and reported from the adjoining Lot 120 tannery remedial site.

- Water quality samples have been collected by ENAC from 3-surface water sources at the subject Property and laboratory analyzed for the presence of total chromium and PFAS. Detected concentrations of total chromium in surface water at the subject Property indicate the likely source is derived as background concentrations.

- Laboratory analytical results of PFAS from 3-surface water samples collected from former Wetland A, Lagoon #3, and a third west surface stream persist below applicable drinking water quality standards (AGQS). The concentrations of detected PFAS were below NHDES adopted AGQS does not warrant additional investigations and NHDES has not adopted PFAS surface water quality standards to date.

- Past and ongoing groundwater monitoring activity at the Former Tannery Sites has measured groundwater elevations and inferred shallow groundwater flow is directed north and northwest toward the Lamprey River and away from the subject Property.

- The subject Property's setting is hydrogeologic upgradient from the Former Tannery sites with steeply sloping upward topography elevation differences (60- to 100-feet vertical elevations). Under natural conditions pathways for contaminant migration are not anticipated to impact the environment.

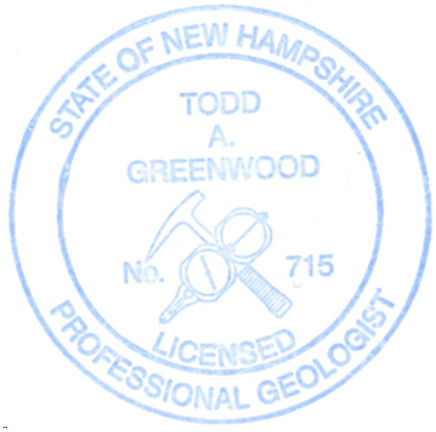
- Groundwater flow under natural conditions follows the area topography in a north direction towards the Lamprey River. The Lamprey River is located approximately 1,300-feet north of the subject Property.

- The Town of Raymond contracts with an environmental consultant who conducts routine annual groundwater quality monitoring as part of their responsibility under conditions of active Groundwater Management Permits for both Former Tannery sites. ENAC has reviewed recent monitoring reports and a 2019 Water Well Receptor Survey Summary which have been submitted to NHDES HWRB and evaluated sensitive receptors within a radius of 500-feet. The northern portion of the subject Property is located within the 500-foot receptor radius and has not been identified as a potential sensitive receptor.

- Due to the hydrogeologic upgradient setting of Lot 120-1 as compared to inferred shallow groundwater flow and anticipated contaminant migration pathways directed north towards the Lamprey River, the subject Property is considered low-risk for environmental impacts resulting from tannery contaminant migration. The application process for development of Lot 120-1 should be allowed by the Town of Raymond's Planning Board.

It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC



Todd A. Greenwood, P.G.
President

Attachments: Existing Conditions Plan
Certificate of Completion
Groundwater Permit Renewal Application – October 29, 2019
Groundwater Management Permit GWP-201110061-R-002 (2022-2027)

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

15,438 SF WAREHOUSE 1 STORY

TAX MAP 28-3, LOT 43
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

FORMER WETLAND A

SFW-1

SFW-2

SFW-3

CONNECTING TRENCH

FORMER LAGOON 3

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

BUILDING 3
63,500 SF
1 STORY

BUILDING 2
33,460 SF
1 STORY

BUILDING 1
38,881 SF
1 STORY

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

EXISTING LUMBER YARD

TAX MAP 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

ZONE LINE "D" (INDUSTRIAL)

ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

INDUSTRIAL ROAD

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

WELLHEAD PROTECTION AREA BOUNDARY

GROUNDWATER PROTECTION ZONE

SCRIBNER ROAD

OLD MANCHESTER ROAD

TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

NH ROUTE 101 (WESTBOUND)

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 24
JOHN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

LAMPREY RIVER AQUIFER PROTECTION AREA BOUNDARY

PROJECT PROPERTY BOUNDARY

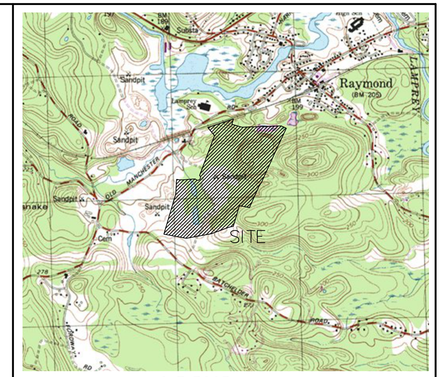
NH ROUTE 101 (EASTBOUND)

ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

ZONE LINE "D" (INDUSTRIAL)

PLAN REFERENCE:

1. AN ALTA SURVEY AND PLAT OF PROPERTY PREPARED FOR M-O-H ENTERPRISES FL, INC. SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY R.S.L. LAYOUT & DESIGN, INC. DATED 2/21/1996



LOCUS SCALE: 1"=2000'

EXISTING CONDITIONS NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
2. BASE ELEVATION WAS ESTABLISHED THROUGH MULTIPLE GPS POST PROCESS OBSERVATIONS AND WAS REDUCED TO THE NAVD88 DATUM BY THE NATIONAL GEODETIC SURVEY OPUS SOFTWARE.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN WALDEN C.W.S., DURING SUMMER, 2021, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
   a. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
   b. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
   c. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
   d. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
7. SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING SPRING, 2022, AND IS BASED ON THE STANDARDS OF SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 2.0 (1999: SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND). THE MAP IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR THE USE(S) REQUIRING THE SITE SPECIFIC SOIL SURVEY AND IS PRODUCED BY A CERTIFIED SOIL SCIENTIST. IT IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. A NARRATIVE REPORT IS A COMPONENT OF THE MAP.
8. A TEMPORARY CULVERT AND ROADBED SHALL BE IN PLACE PRIOR TO ANY USE OF A WETLAND CROSSING.
9. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
10. TEST PITS PERFORMED BY WAYNE MORRILL, JONES & BEACH ENGINEERS, INC., 12/20/21.
11. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafdc	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0-8%; C SLOPE = 8-15%; D SLOPE = 15-25%

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.: 21130
Drawing Name: 21130-PLAN.dwg		

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN
Project: RAYMOND DISTRIBUTION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C1
SHEET 2 OF44
JBE PROJECT NO. 21130

The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

March 20, 2013

Ernest M. Cartier Creveling
Town of Raymond
4 Epping Street
Raymond, NH 03077

CERTIFICATE OF COMPLETION

Subject: **Raymond** – Former Regis Tannery - Lot 120, Old Manchester Road
DES #**201110061**, Project #27227

Revised Remedial Action Implementation Report, prepared by StoneHill Environmental, Inc., dated October 23, 2012

Dear Mr. Creveling:

The Department of Environmental Services (Department) has reviewed the subject report. This report, prepared on your behalf, transmits information relative to the completion of required remedial activities at the site. A request for a Certificate of Completion is also included in the report. The Department has reviewed this report, as well as the copy of the recorded *Notice of Activity and Use Restriction* received by the Department on February 21, 2013, and determined that the required remedial activities for the site have been completed in accordance with the provisions of the approved Remedial Action Plan. This information, together with other information concerning soil and groundwater contamination at the site, was compared with the criteria for issuance of a *Certificate of Completion* contained in New Hampshire Code of Administrative Rules Env-Or 600, *Contaminated Site Management*. These criteria are listed below:

1. All activities specified in the approved remedial action plan, with the exception of groundwater monitoring, have been completed;

2. The performance standards specified for the approved remedial action and the groundwater management permit have been achieved;

3. All monitoring requirements under the groundwater management permit are being met;

4. Any necessary activity and use restrictions have been implemented;

5. All penalty(ies) or fine(s) issued under the New Hampshire Statutes for Oil Spillage, Underground Storage Facilities, or Hazardous Waste Management have been paid;

6. All invoices associated with the Department's recoverable costs have been paid or waived; and

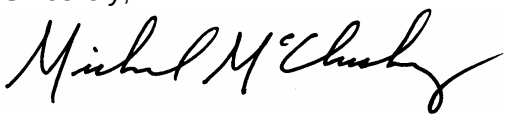
7. All fees or costs due under the Brownfields Program have been paid.

The Department has concluded that the conditions at this site meet the above certificate of completion criteria. Therefore, in accordance with Env-Or 609.01, the Department hereby issues this ***Certificate of Completion***. Groundwater monitoring **shall** continue in accordance with the conditions of Groundwater Management Permit GWP-201110061-R-001.

The Department reserves the right, under New Hampshire Code of Administrative Rules Env-Or 600, *Contaminated Site Management*, to require additional investigations or remedial measures if further information indicating the need for such work becomes known.

If you should have any questions, please contact me at the Department's Waste Management Division.

Sincerely,



Michael McCluskey, P.E.
Brownfields Program
Hazardous Waste Remediation Bureau
Tel: (603) 271-2183
Fax: (603) 271-2181
E-mail: Michael.McCluskey@des.nh.gov

ec: Town of Raymond Health Officer
Timothy Stone, P.G., StoneHill Environmental, Inc.
Chad Tomforde, P.G., StoneHill Environmental, Inc.
Rebecca Williams, P.G., Brownfields Coordinator, HWRB

DES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095

GROUNDWATER MANAGEMENT PERMIT RENEWAL APPLICATION

Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire 03077

NHDES Site # 201110061
Project Type: HAZWASTE
Project Number: 27227

Prepared For:
Town of Raymond
4 Epping Road
Raymond, New Hampshire 03077
Contact Name: Stephen Brewer, Director of Public Works
Phone Number: 603-895-7035
Email: sbrewer@raymondnh.gov

Prepared By:
StoneHill Environmental
600 State Street, Suite 2
Portsmouth, New Hampshire 03801
Contact Name: Chad G. Tomforde, P.G.
Phone Number: 603-433-1935
Email: ctomforde@stonehillenvironmental.com

Date of Report: October 29, 2019
StoneHill Project No. 14038

StoneHill
Environmental
a subsidiary of CEA

600 State Street, Suite 2
Portsmouth, NH 03801
tel 603-433-1935
fax 603-433-1942

October 29, 2019 StoneHill Project No. 14038

Groundwater Management Permits Coordinator
NHDES - Waste Management Division
P.O. Box 95, 29 Hazen Drive
Concord, New Hampshire 03302-0095

RE: Groundwater Management Permit Renewal Application
Former Regis Tannery – Lot 120, Old Manchester Road, Raymond, New Hampshire
NHDES Site #201110061; Project #27227

Dear GMP Coordinator:

On behalf of the Town of Raymond, New Hampshire, StoneHill Environmental (StoneHill) is pleased to submit the attached Groundwater Management Permit (GMP) Renewal Application and supporting documentation for the above-referenced property (Site). The GMP Renewal Application is being prepared in accordance with the New Hampshire Department of Environmental Services (NHDES) request letter dated January 14, 2019.

If you have questions, please do not hesitate to contact the undersigned at (603) 433-1935.

Sincerely,
StoneHill Environmental

Misty L. Cawthern
Senior Scientist

Chad G. Tomforde, PG
Principal Geologist

Attachment: GMP Renewal Application and Supporting Documentation

GROUNDWATER MANAGEMENT PERMIT APPLICATION
Former Regis Tannery - Lot 120
Old Manchester Road, Raymond, New Hampshire
NHDES Site # 201110061

V. SUPPORTING INFORMATION

V. (a). Summary of data trends – see Tables 1 through 3 and July 2019 Laboratory Report, attached

- General Trends: Dissolved total chromium concentrations continue to be detected below NHDES Ambient Groundwater Quality Standards (AGQS). Per- and polyfluoroalkyl substances (PFAS) analysis of the Lot 120 monitoring wells indicated that PFAS compounds exceed NHDES Ambient Groundwater Quality Standards (AGQS) at the Site. Groundwater elevations were observed to be generally consistent throughout the monitoring period.
- MW-1 (120): Several PFAS compounds were detected in samples from MW-1 (120) in August 2018 with perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) detected at concentrations above AGQS in August 2018 and July 2019.
- MW-2 (120): Several PFAS compounds were detected in samples from MW-2 (120) in August 2018 with PFOA and PFOS detected at concentrations above AGQS in August 2018 and July 2019.
- MW-3 (120): PFOS was detected at a concentration below AGQS in samples from well MW-3 (120) in August 2018 and July 2019. No other PFAS compounds were detected.
- GZ-3 (120): Several PFAS compounds were detected in samples from MW-2 (120) in August 2018 with PFOA and PFOS detected at concentrations above AGQS in August 2018 and July 2019.

V. (b). Status of remedial measures performed

- The Site was formerly operated as part of the Regis Tannery, which ceased operations circa 1970. Several Site Investigations were completed for the former tannery between 1987 and 2007. It was determined that three unlined lagoons located on the property were used as wastewater discharge locations. Leather scraps were used in the construction of the lagoon berms. During the investigations, chromium impacted soil was identified in a trench connecting Wetland A and Lagoon 3 and within Lagoons 1 and 2. Refer to Figure 2 – Site Plan and Groundwater Contour Map-Lot 120 for a visual representation of pertinent Site features.
- A remedial action plan (RAP) was prepared for the Site in 2007. In 2008 and 2009, in accordance with the RAP, impacted soils from the Wetland A/Lagoon 3 trench and impacted soils, buffing dust and leather scraps from Lagoon 2 were excavated and relocated to the Consolidation Area (Former Lagoon 1).
- Three monitoring wells were installed outside of the Consolidation Area to monitor groundwater quality. An existing monitoring well was incorporated into the monitoring program.
- An activity use restriction (AUR) was established in 2012 to restrict soil disruption and maintain the integrity of the capped Consolidation Area.
- A Groundwater Management Permit (GMP) was issued for the Site in 2013 and expired in January 2018.

Groundwater monitoring during the permit period indicated that groundwater quality continually met AGQS for chromium.

- As part of a statewide initiative, screening for the presence of PFAS was requested for the Site in October 2017. The results of the PFAS screening for the Site in August 2018 indicated that samples from three of the four wells contained concentrations of PFOS and PFOA exceeding AGQS. The presence of PFAS in the Site groundwater is believed to be the result of fire suppressant foam potentially used during a building fire in 1972 and leather conditioning products used in the former tannery operations. NHDES has requested renewal of the GMP to monitor groundwater quality related to PFAS.
- In February 2019, a survey of the Site vicinity for the presence of drinking water wells indicated that all properties within a 500 foot radius of the Site utilize the municipal drinking water supply.
- On July 5, 2019, groundwater monitoring was conducted at the Site and samples were collected from the four monitoring wells for PFOA and PFOS. The analytical results indicated that concentrations of PFOS and PFOA continue to exceed AGQS in samples from three of four monitoring wells.

V.(c). Recommendations for modifications to existing permit

The expired GMP required annual monitoring in June of dissolved chromium and static groundwater levels for monitoring wells MW-1 (120), MW-2 (120), MW-3 (120) and GZ-3 (120). The following recommended changes are being made:

- Since dissolved chromium concentrations have been below AGQS or below laboratory detection limits throughout the permit period, StoneHill recommends discontinuing dissolved chromium analysis at the Site.
- Due to the detection of PFAS at concentrations above AGQS in samples from monitoring wells MW-1 (120), MW-2 (120), and GZ-3 (120), StoneHill recommends the GMP be renewed with the following sampling protocol:
    - Monitoring wells MW-1 (120), MW-2 (120), MW-3 (120) and GZ-3 (120) will be sampled once every year in June for the analysis of PFAS for a period of five years. Static water level measurements will be collected during the sampling events.

V. (d). GMZ Map and Site Plan– see Figures 1 and 2, attached

V. (e). GMZ property information: same as previous permit renewal

Tax Map/ Lot No.	Owner and Property Address	Contact Name, Address, and Telephone Number	Deed Reference (Book/Page)
Portion of Map 28-3/ Lot 120	Town of Raymond Old Manchester Road and Wight Street Raymond, NH	Joseph Ilsley, Town Manager 4 Epping Road Raymond, NH 03077 603-895-7007	Book 4676/ Page 1411

Application for *Renewal* of Groundwater Management Permit

Waste Management Division
Site Remediation Programs

RSA 485-C:4, VIII and Env-Or 607

A GROUNDWATER MANAGEMENT PERMIT is issued under RSA 485-C:4, VIII and Env-Or 607 to a responsible party to remedy contamination associated with the past discharge of regulated contaminants, and to manage the use of the contaminated groundwater. (Examples include sites contaminated from leaking underground storage tanks, unlined landfills regulated pursuant to RSA 14-M, hazardous waste disposal, etc.)

SUBMIT:

- ONE SIGNED AND COMPLETED APPLICATION (Application shall be dated, signed and sealed by the professional of record licensed under RSA 310-A.)
- SUPPORTING INFORMATION
- $2,000 APPLICATION FEE (In the form of a check payable to the "Treasurer – State of New Hampshire." State and local government, including counties and political subdivisions, are exempt unless eligible for funding under the Petroleum Reimbursement Fund Program.)

TO: NHDES/Waste Management Division
Site Remediation Programs
Groundwater Management Permit Coordinator
P.O. Box 95, 29 Hazen Drive
Concord, NH 03302-0095

CERTIFICATION OF NOTICE TO LOCAL TOWN/CITY CLERK

In order to meet the requirements of Env-Or 607.02 (b)(3), the applicant certifies that on 10/30, 20 19 a copy of this completed permit application was given to the Town/City Clerk of _____ (the town in which the facility requesting a permit is located).

Date: 10/29/19 **Applicant Signature:** _____

Applicant Name (print or type): Joseph Ilsley

CERTIFICATION OF NOTICE TO OWNERS OF LOTS PROPOSED FOR INCLUSION IN THE GMZ
(As Applicable)

In order to meet the requirements of Env-Or 607.02 (b)(2), the applicant certifies that notification has been provided (via certified mail – return receipt requested) to all owners of lots proposed for inclusion in the Groundwater Management Zone (GMZ).

Date: 10/29/19 **Applicant Signature:** _____

Applicant Name (print or type): Joseph Ilsley

I. SITE INFORMATION

Site Name: Fmr Regis Tannery Lot 120 DES Site #: 201110061
Address: Old Manchester Road and Wight Street
City: Raymond State: NH Zip: 03077
Tax Map: 28-3 Lot Number: 120
Deed Reference: County: Rockingham Book and Page: 4676/1411

II. SITE OWNER INFORMATION

Site Owner Name: Town of Raymond Phone: 603-895-4735
Mailing Address: 4 Epping Street
City: Raymond State: NH Zip: 03077
Email: Fax: 603-895-7064

III. PERMIT APPLICANT INFORMATION (complete only if different than site owner)

Permit Applicant Name: Phone:
Mailing Address:
City: State: Zip:
Email: Fax:

IV. CONTACT PERSON INFORMATION (complete only if different than site owner)

Contact Person Name: Phone:
Mailing Address:
City: State: Zip:
Email: Fax:

V. SUPPORTING INFORMATION (required)

a) Tabular summary of all monitoring results for the 5 years immediately preceding the renewal application from existing monitoring points with an assessment of trends in the data.

b) Narrative summary of the status of remedial measures performed (e.g., landfills: active, inactive w/no closure plan submitted, closed (as per approved closure plan); petroleum release and hazardous waste release sites: active remediation on-going, remedial action plan (RAP) completed w/on-going monitoring or monitoring–only RAP) and an update on the performance of measures conducted.

c) Recommendations for any revisions to the existing Groundwater Management Permit, including an outline of proposed modifications to the monitoring program. Any proposed modifications to the monitoring program must be specific in terms of individual monitoring locations, sampling frequency and analytical parameters, and should be supported by reference to the monitoring summary.

d) Updated site plan(s) scaled to fit onto an 8-1/2 inches by 11 inches or 11 inches by 17 inches sheet, using a tax map as a base, that identifies and locates the following:
   1. Proposed groundwater management zone boundary.
   2. Any properties, including tax map and lot numbers, within and abutting the lots on which the proposed groundwater management zone is located.
   3. All proposed sampling locations.

4. Current groundwater contours referenced to a table of current water level measurements obtained from piezometers and monitoring wells used to develop the contours.
5. Water supply wells, including type of use, within 500 feet of the GMZ per Env-Or 607.03 (a) (7) f..

e) A list of properties located within the groundwater management zone including owner's name, mailing address, telephone number, property address, and deed reference including county book and page and tax map and lot number.

VI. CERTIFICATION

To the best of my knowledge, the data and information that I have submitted to renew the Groundwater Management Permit from the New Hampshire Department of Environmental Services, are true and correct.

The undersigned certifies that application has been made for all required local, state, or federal permits. If an officer of the owner, I affirm that I have been duly authorized by the corporation, LLC, LLP, or other corporate entity to bind the corporation, LLC, LLP, or other corporate entity, and to make the above declarations. I also affirm that the corporation, LLC, LLP, or other corporate entity has made all filings and paid all fees required by the New Hampshire Secretary of State.

Date: 10/29/19 **Signature:** _____ Permit Applicant

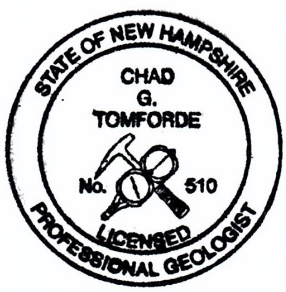
Name (print or type): Tisley, Joseph

VII. PROFESSIONAL CERTIFICATION

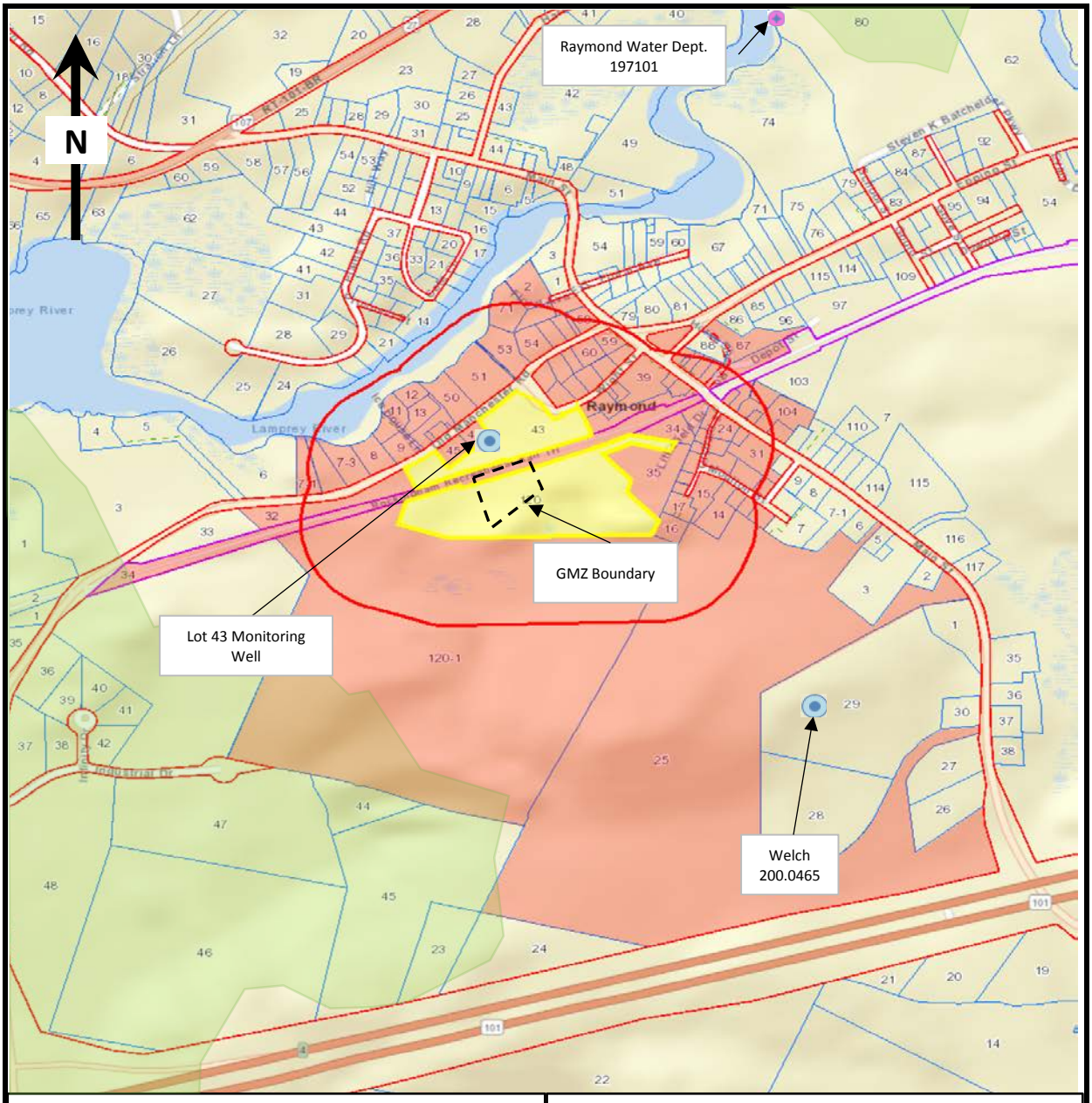
Date: 10/29/19 **Signature:** _____ Professional Engineer or Geologist

Name (print or type): Chad G. Tomforde

The New Hampshire licensed professional of record who prepared this permit application is required to apply their professional seal in the space provided below.



No liability is incurred by the State by reason of any approval for Groundwater Management Permits. Approval by the New Hampshire Department of Environmental Services is based on the information supplied by the applicant. No guarantee is intended or implied by reason of any advice given by NHDES or its staff.



Legend

- Wellhead Protection Areas
- Public Water Supply Wells
- Water Well Inventory
- Site Boundary
- Abutters within 500 ft of Site
- 500 foot Buffer

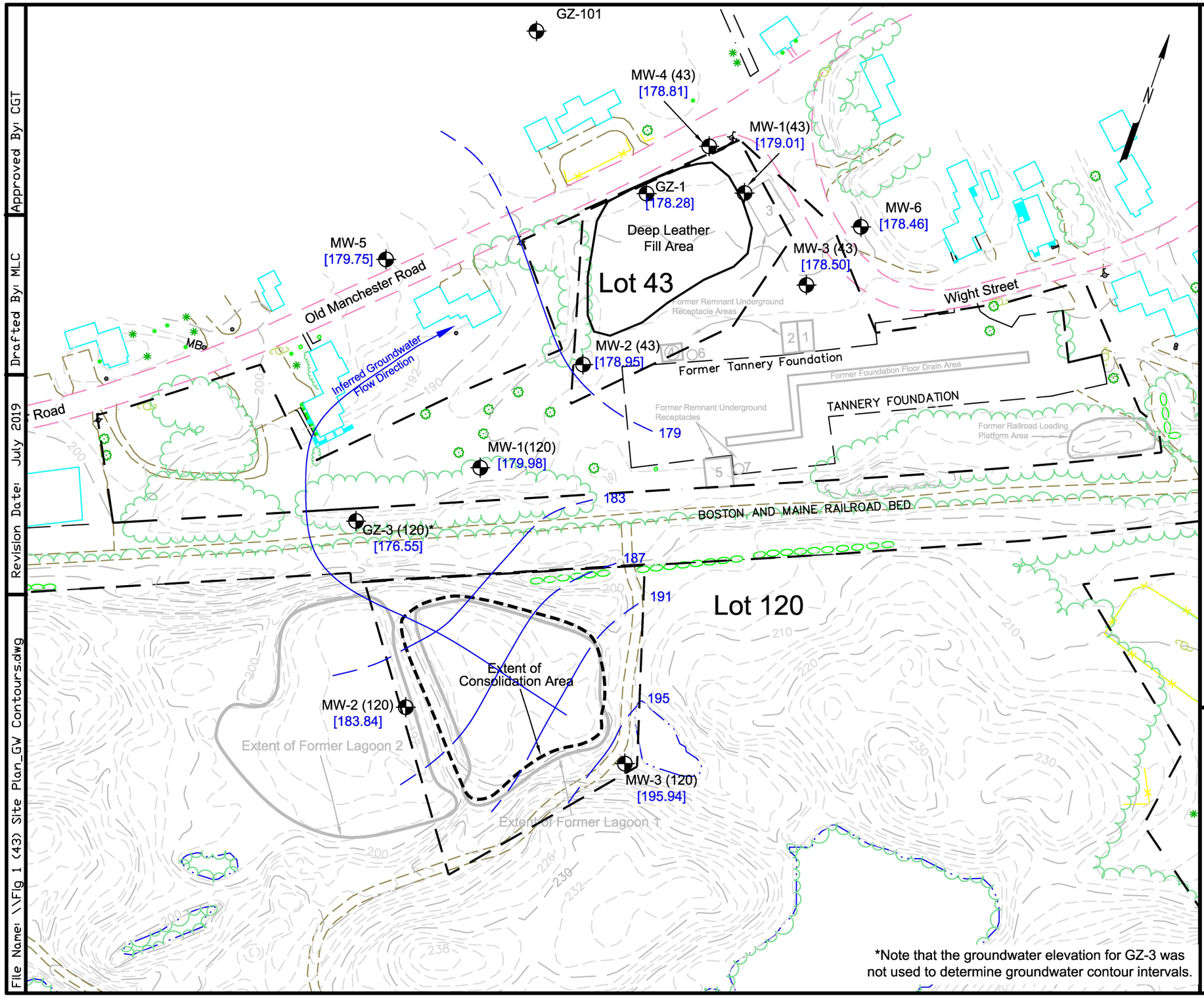
Map Sources:

1. Town of Raymond, NH Online GIS Database
2. NHDES OneStop GIS Mapper and Well Inventory Database

Figure 1
TAX MAP AND GMZ BOUNDARY
- LOT 120
500 foot Radius

Former Regis Tannery
Old Manchester Road
Raymond, NH
DES Sie No. 201110061

Prepared by:
StoneHill Environmental
Project No. 14038



LEGEND:

- Property boundary
- GMZ Boundary
- Former Remedial Action Areas
- Surface Contour (Feet)
- wetland boundary / intermittent stream

MW-1 (43) - Monitoring Well Loction

[179.01] - Groundwater elevation in feet collected by StoneHill on July 5, 2019

179 - Groundwater Elevation Contour (Feet)

- Tree Line
- Existing Building

0 50 100 200

Approximate Scale in Feet
All Locations Are Approximate

Base Map Sources:
GZA GeoEnvironmental, Inc., *Exploration Location Plan and Approximate Limits of Buried Leather,* November 2004

Figure 2
Site Plan and Groundwater Contour Map - Lots 43 / 120
July 5, 2019

Former Regis Tannery Site
Raymond, New Hampshire
NHDES Site No. 198705081 (Lot 43)
NHDES Site No. 201110061 (Lot 120)

Prepared By:
StoneHill Environmental
Project No. 14038

Approved By: CGT | Drafted By: MLC | Revision Date: July 2019 | File Name: \\Fig 1 (43) Site Plan_GW Contours.dwg

Table 1
Groundwater Elevation Data
Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire

Monitoring Well	Top of Casing Elevation	Measurement Date	Depth to Groundwater BTOC	Groundwater Elevation
MW-1 (120)	193.10	03/17/11	8.37	184.73
		04/29/11	10.44	182.66
		06/28/11	12.14	180.96
		06/14/13	11.68	181.42
		06/30/14	13.9	179.20
		06/22/15	13.5	179.60
		06/20/16	14.09	179.00
		07/12/17	13.07	180.03
		07/24/18	NM	NM
		08/28/18	11.79	181.31
		07/05/19	13.12	179.98
		09/25/19	14.38	178.72
		10/02/19	14.43	178.67
MW-2 (120)	195.30	03/17/11	4.98	190.32
		04/29/11	7.63	187.67
		06/28/11	9.83	185.47
		06/14/13	9.22	186.08
		06/30/14	12.7	182.60
		06/22/15	12.1	183.20
		06/20/16	12.90	182.40
		07/12/17	11.41	183.89
		07/24/18	NM	NM
		08/28/18	10.09	185.21
		07/05/19	11.46	183.84
		09/25/19	NM	NM
		10/02/19	14.78	180.52

Table 1
Groundwater Elevation Data
Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire

Monitoring Well	Top of Casing Elevation	Measurement Date	Depth to Groundwater BTOC	Groundwater Elevation
MW-3 (120)	208.90	03/17/11	8.59	200.31
		04/29/11	9.49	199.41
		06/28/11	11.27	197.63
		06/14/13	9.39	199.51
		06/30/14	14.6	194.30
		06/22/15	13.4	195.50
		06/20/16	14.46	194.40
		07/12/17	13.83	195.07
		07/24/18	NM	NM
		08/28/18	10.54	198.36
		07/05/19	12.96	195.94
		09/25/19	NM	NM
		10/02/19	Dry	--
GZ-3 (120)	193.10	03/17/11	11.31	181.79
		04/29/11	13.49	179.61
		06/28/11	15.43	177.67
		06/14/13	15.02	178.08
		06/30/14	17.4	175.70
		06/22/15	17	176.10
		06/20/16	17.62	175.50
		07/12/17	16.44	176.66
		07/24/18	NM	NM
		08/28/18	15.36	177.74
		07/05/19	16.55	176.55
		09/25/19	18.58	174.52
		10/02/19	18.71	174.39

Notes:

All measurements in feet.

BTOC = below top of PVC casing.

NM = Not measured

Benchmark - eastern hydrant nut on hydrant north of curve in Wight Street (194.50 feet)

TABLE 2
Summary of Groundwater Quality Data - Chromium
Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire

Monitoring Well	Measurement Date	Dissolved Total Chromium (ug/l)
AGQS		**100**
MW-1 (120)	03/17/11	ND (50)
	06/28/11	ND (50)
	06/14/13	ND (50)
	06/30/14	3
	06/22/15	3
	06/20/16	2
	07/12/17	ND (10)
MW-2 (120)	03/17/11	ND (50)
	06/28/11	ND (50)
	06/14/13	ND (50)
	06/30/14	1
	06/22/15	2
	06/20/16	ND (1)
	07/12/17	20
MW-3 (120)	03/17/11	ND (50)
	06/28/11	ND (50)
	06/14/13	ND (50)
	06/30/14	ND (1)
	06/22/15	2
	06/20/16	ND (1)
	07/12/17	ND (10)
GZ-3 (120)	03/17/11	ND (50)
	06/28/11	ND (50)
	06/14/13	ND (50)
	06/30/14	2
	06/22/15	2
	06/20/16	2
	07/12/17	ND (10)

Notes:
AGQS = Ambient Groundwater Quality Standards.
ug/l = micrograms per liter.
ND (50) = analyte not detected at concentration at or above detection limit shown in parenthesis.

TABLE 3
Summary of Groundwater Quality Data - PFAS
Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire

		PFAS EPA Method 537									
Monitoring Well	**Sampling Date**	PFBA (ng/l)	PFPeA (ng/l)	PFBS (ng/l)	PFHxA (ng/l)	PFHpA (ng/l)	PFHxS (ng/l)	PFOA (ng/l)	PFNA (ng/l)	PFOS (ng/l)	PFOA & PFOS Combined (ng/l)
NHDES AGQS		**NS**	**NS**	**NS**	**NS**	**NS**	**18**	**12**	**11**	**15**	**70**
MW-1 (120)	08/28/18	1.87	ND (1.71)	2.68	2.16	3.03	17.9	**37.5**	1.74	**146**	**183.5**
	07/05/19	--	--	--	--	--	--	**35.0**	--	**280**	**315**
MW-2 (120)	08/28/18	4.84	4.25	5.26	7.28	10.0	**24.1**	**49.5**	ND (1.84)	**74.5**	**124**
	07/05/19	--	--	--	--	--	--	**73.0**	--	**170**	**243**
MW-3 (120)	08/28/18	ND (1.73)	ND (1.73)	ND (1.73)	ND (1.73)	ND (1.73)	ND (1.73)	ND (1.73)	ND (1.73)	4.76	4.76
	07/05/19	--	--	--	--	--	--	ND (2.0)	--	3.4	3.4
GZ-3 (120)	08/28/18	2.19	ND (1.71)	3.16	3.80	4.67	**23.3**	**44.7**	ND (1.71)	**108**	**152.7**
	07/05/19	--	--	--	--	--	--	**37.0**	--	**110**	**147**

TABLE 3
Summary of Groundwater Quality Data - PFAS
Former Regis Tannery - Lot 120
Old Manchester Road
Raymond, New Hampshire

Notes:
NHDES AGQS = New Hampshire Department of Environmental Services Ambient Groundwater Quality Standard effective September 30, 2019
NS = No standard.
ng/l = nanograms per liter (parts per trillion)
ND () = analyte not detected at a concentration above laboratory detection limit shown in parenthesis.
BOLD = analyte detected at a concentration above AGQS.
-- = not analyzed
PFAS = per- and polyfluoroalkyl substances
PFBA = perluorobutanoic acid
PFPeA = perfluoropentanoic acid
PFBS = perfluorobutane sulfonic acid
PFHxA = perfluorhexonic acid
PFHpA = perfluoroheptanoic acid
PFHxS = perfluorohexane sulfonic acid
PFOA = perfluorooctanoic acid
PFNA = perfluorononanoic acid
PFOS = perfluorooctane sulfonic acid
[1]Monitoring wells MW-5 and MW-6 were mixed up in the field. The data table corrects for the error by attributing the analytical results to the correct monitoring location.

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July 30, 2019

Chad Tomforde
StoneHill Environmental, Inc.
600 State Street, Suite 2
Portsmouth, NH 03801

Project Location: Raymond, NH
Client Job Number:
Project Number: B-20190228 - Regis Tannery 14038
Laboratory Work Order Number: 19G0304

Enclosed are results of analyses for samples received by the laboratory on July 8, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy
Project Manager

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StoneHill Environmental, Inc.
600 State Street, Suite 2
Portsmouth, NH 03801
ATTN: Chad Tomforde

REPORT DATE: 7/30/2019

PURCHASE ORDER NUMBER:

PROJECT NUMBER: B-20190228 - Regis Tannery 14038

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19G0304

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Raymond, NH

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Lot 120 MW-1	19G0304-01	Water		SOP 434-PFAAS	
Lot 120 MW-2	19G0304-02	Water		SOP 434-PFAAS	
Lot 120 MW-3	19G0304-03	Water		SOP 434-PFAAS	
Lot 120 GZ-3	19G0304-04	Water		SOP 434-PFAAS	
Lot 43 MW-3	19G0304-05	Water		SOP 434-PFAAS	
Lot 43 MW-4	19G0304-06	Water		SOP 434-PFAAS	
Lot 43 MW-5	19G0304-07	Water		SOP 434-PFAAS	
Lot 43 MW-6	19G0304-08	Water		SOP 434-PFAAS	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SOP 434-PFAAS

Qualifications:

S-01

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte & Samples(s) Qualified:

13C-PFDA
19G0304-01RE1[Lot 120 MW-1], 19G0304-05RE1[Lot 43 MW-3], 19G0304-07RE1[Lot 43 MW-5]

13C-PFHxA
19G0304-01RE1[Lot 120 MW-1], 19G0304-05RE1[Lot 43 MW-3], 19G0304-07RE1[Lot 43 MW-5]

d5-NEtFOSAA
19G0304-01RE1[Lot 120 MW-1], 19G0304-05RE1[Lot 43 MW-3], 19G0304-07RE1[Lot 43 MW-5]

S-03

Surrogate recovery outside of control limits due to suspected sample matrix interference.

Analyte & Samples(s) Qualified:

13C-PFOA
19G0304-02[Lot 120 MW-2]

V-17

Internal standard area <50% of associated calibration standard internal standard area. Reanalysis yielded similar internal standard non-conformance.

Analyte & Samples(s) Qualified:

13C-PFOA
19G0304-06[Lot 43 MW-4]

13C-PFOS
19G0304-03[Lot 120 MW-3], 19G0304-07[Lot 43 MW-5]

d3-NMeFOSAA
19G0304-01[Lot 120 MW-1], 19G0304-02[Lot 120 MW-2], 19G0304-03[Lot 120 MW-3], 19G0304-05[Lot 43 MW-3], 19G0304-06[Lot 43 MW-4], 19G0304-07[Lot 43 MW-5], 19G0304-08[Lot 43 MW-6]

Z-01

Surrogate Recovery is outside of method Control limits, sample was not re-extracted due to sample hold time non-conformance. Sample was re-analyzed. Original result is reported

Analyte & Samples(s) Qualified:

13C-PFDA
19G0304-01[Lot 120 MW-1], 19G0304-02[Lot 120 MW-2], 19G0304-03[Lot 120 MW-3], 19G0304-04[Lot 120 GZ-3], 19G0304-05[Lot 43 MW-3], 19G0304-06[Lot 43 MW-4], 19G0304-07[Lot 43 MW-5]

d5-NEtFOSAA
19G0304-01[Lot 120 MW-1], 19G0304-02[Lot 120 MW-2], 19G0304-03[Lot 120 MW-3], 19G0304-04[Lot 120 GZ-3], 19G0304-05[Lot 43 MW-3], 19G0304-06[Lot 43 MW-4], 19G0304-07[Lot 43 MW-5], 19G0304-08[Lot 43 MW-6]

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The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

con-test® ANALYTICAL LABORATORY
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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 120 MW-1

Sample ID: 19G0304-01 | Start Date/Time: 7/5/2019 12:00:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 12:05:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	35	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 3:11	BLM
Perfluorooctanesulfonic acid (PFOS)	280	20	ng/L	10		SOP 434-PFAAS	7/18/19	7/28/19 3:24	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
13C-PFHxA	93.2		70-130		7/28/19 3:11
13C-PFHxA		*	70-130	S-01	7/28/19 3:24
13C-PFDA	**34.4**	*	70-130	Z-01	7/28/19 3:11
13C-PFDA		*	70-130	S-01	7/28/19 3:24
d5-NEtFOSAA	**42.0**	*	70-130	Z-01	7/28/19 3:11
d5-NEtFOSAA		*	70-130	S-01	7/28/19 3:24

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 120 MW-2

Sample ID: 19G0304-02 | Start Date/Time: 7/5/2019 12:15:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 12:20:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	73	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 1:56	BLM
Perfluorooctanesulfonic acid (PFOS)	170	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 1:56	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual		
13C-PFHxA	129		70-130		7/28/19	1:56
13C-PFDA	**41.3**	*	70-130	Z-01	7/28/19	1:56
d5-NEtFOSAA	**27.2**	*	70-130	Z-01	7/28/19	1:56

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 120 MW-3

Sample ID: 19G0304-03 | Start Date/Time: 7/5/2019 12:30:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 12:35:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:08	BLM
Perfluorooctanesulfonic acid (PFOS)	3.4	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:08	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual		
13C-PFHxA	130		70-130		7/28/19	2:08
13C-PFDA	**12.6**	*	70-130	Z-01	7/28/19	2:08
d5-NEtFOSAA	**39.8**	*	70-130	Z-01	7/28/19	2:08

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 120 GZ-3

Sample ID: 19G0304-04 | Start Date/Time: 7/5/2019 12:45:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 12:50:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	37	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:21	BLM
Perfluorooctanesulfonic acid (PFOS)	110	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:21	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual		
13C-PFHxA	89.2		70-130		7/28/19	2:21
13C-PFDA	**48.5**	*	70-130	Z-01	7/28/19	2:21
d5-NEtFOSAA	**32.9**	*	70-130	Z-01	7/28/19	2:21

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 43 MW-3

Sample ID: 19G0304-05 | Start Date/Time: 7/5/2019 1:30:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 1:35:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	130	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 3:37	BLM
Perfluorooctanesulfonic acid (PFOS)	1700	200	ng/L	100		SOP 434-PFAAS	7/18/19	7/28/19 3:49	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
13C-PFHxA	130		70-130		7/28/19 3:37
13C-PFHxA		*	70-130	S-01	7/28/19 3:49
13C-PFDA	**60.3**	*	70-130	Z-01	7/28/19 3:37
13C-PFDA		*	70-130	S-01	7/28/19 3:49
d5-NEtFOSAA	**53.4**	*	70-130	Z-01	7/28/19 3:37
d5-NEtFOSAA		*	70-130	S-01	7/28/19 3:49

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 43 MW-4

Sample ID: 19G0304-06 | Start Date/Time: 7/5/2019 1:45:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 1:50:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	200	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:46	BLM
Perfluorooctanesulfonic acid (PFOS)	170	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:46	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual		
13C-PFHxA	98.5		70-130		7/28/19	2:46
13C-PFDA	**50.1**	*	70-130	Z-01	7/28/19	2:46
d5-NEtFOSAA	**53.2**	*	70-130	Z-01	7/28/19	2:46

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 43 MW-5

Sample ID: 19G0304-07 | Start Date/Time: 7/5/2019 2:00:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 2:05:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	40	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 4:02	BLM
Perfluorooctanesulfonic acid (PFOS)	190	20	ng/L	10		SOP 434-PFAAS	7/18/19	7/28/19 4:15	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual	
13C-PFHxA	114		70-130		7/28/19 4:02
13C-PFHxA		*	70-130	S-01	7/28/19 4:15
13C-PFDA	**12.3**	*	70-130	Z-01	7/28/19 4:02
13C-PFDA		*	70-130	S-01	7/28/19 4:15
d5-NEtFOSAA	**28.2**	*	70-130	Z-01	7/28/19 4:02
d5-NEtFOSAA		*	70-130	S-01	7/28/19 4:15

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Project Location: Raymond, NH | Sample Description: | Work Order: 19G0304

Date Received: 7/8/2019

Field Sample #: Lot 43 MW-6

Sample ID: 19G0304-08 | Start Date/Time: 7/5/2019 2:15:00PM

Sample Matrix: Water | Stop Date/Time: 7/5/2019 2:20:00PM

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorooctanoic acid (PFOA)	41	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:59	BLM
Perfluorooctanesulfonic acid (PFOS)	66	2.0	ng/L	1		SOP 434-PFAAS	7/18/19	7/28/19 2:59	BLM

Surrogates	% Recovery		Recovery Limits	Flag/Qual		
13C-PFHxA	110		70-130		7/28/19	2:59
13C-PFDA	**46.1**	*	70-130		7/28/19	2:59
d5-NEtFOSAA	**22.1**	*	70-130	Z-01	7/28/19	2:59

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Sample Extraction Data

Prep Method: SOP 434-PFAAS-SOP 434-PFAAS

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
19G0304-01 [Lot 120 MW-1]	B235845	250	1.00	07/18/19
19G0304-01RE1 [Lot 120 MW-1]	B235845	250	1.00	07/18/19
19G0304-02 [Lot 120 MW-2]	B235845	250	1.00	07/18/19
19G0304-03 [Lot 120 MW-3]	B235845	250	1.00	07/18/19
19G0304-04 [Lot 120 GZ-3]	B235845	250	1.00	07/18/19
19G0304-05 [Lot 43 MW-3]	B235845	250	1.00	07/18/19
19G0304-05RE1 [Lot 43 MW-3]	B235845	250	1.00	07/18/19
19G0304-06 [Lot 43 MW-4]	B235845	250	1.00	07/18/19
19G0304-07 [Lot 43 MW-5]	B235845	250	1.00	07/18/19
19G0304-07RE1 [Lot 43 MW-5]	B235845	250	1.00	07/18/19
19G0304-08 [Lot 43 MW-6]	B235845	250	1.00	07/18/19

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QUALITY CONTROL

Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B235845 - SOP 434-PFAAS										
Blank (B235845-BLK1)				Prepared: 07/18/19 Analyzed: 07/27/19						
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							
Surrogate: 13C-PFHxA	*51.9*		ng/L	40.0		130	70-130			
Surrogate: 13C-PFDA	*40.9*		ng/L	40.0		102	70-130			
Surrogate: d5-NEtFOSAA	*172*		ng/L	160		107	70-130			
LCS (B235845-BS1)				Prepared: 07/18/19 Analyzed: 07/27/19						
Perfluorooctanoic acid (PFOA)	19.9	2.0	ng/L	20.0		99.6	70-130			
Perfluorooctanesulfonic acid (PFOS)	20.0	2.0	ng/L	18.5		108	70-130			
Surrogate: 13C-PFHxA	*45.9*		ng/L	40.0		115	70-130			
Surrogate: 13C-PFDA	*40.1*		ng/L	40.0		100	70-130			
Surrogate: d5-NEtFOSAA	*174*		ng/L	160		109	70-130			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.
S-03	Surrogate recovery outside of control limits due to suspected sample matrix interference.
V-17	Internal standard area <50% of associated calibration standard internal standard area. Reanalysis yielded similar internal standard non-conformance.
Z-01	Surrogate Recovery is outside of method Control limits, sample was not re-extracted due to sample hold time non-conformance. Sample was re-analyzed. Original result is reported

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SOP 434-PFAAS in Water	
Perfluorooctanoic acid (PFOA)	NH-P
Perfluorooctanesulfonic acid (PFOS)	NH-P

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2019
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2019
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

con-test ANALYTICAL LABORATORY

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http://www.contestlabs.com

Doc # 381 Rev 1_03242017

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

KKM

Company Name:	Stonehill Environmental
Address:	600 State St. Portsmouth, NH
Phone:	603-433-1935
Project Name:	Regis Tannery
Project Location:	Raymond, NH
Project Number:	140138
Project Manager:	C. Tomforde
Con-Test Quote Name/Number:	
Invoice Recipient:	
Sampled By:	D. Adams

Requested Turnaround Time
7-Day [X] 10-Day [ ]
Due Date:

Rush-Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [ ]
Other:
CLP Like Data Pkg Required: [ ]
Email To: ctomforde@stonehillenvironmental.com
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	PFOS	PFOA	Dissolved Chromium
1	Lot 120 MW-1	7/5/19 12:00	12:05					X	X	
2	Lot 120 MW-2	12:15	12:20					X	X	
3	Lot 120 MW-3	12:30	12:35					X	X	
4	Lot 120 GZ-3	12:45	12:50					X	X	
	Lot 43 MW-1	13:00	13:05							X
	Lot 43 MW-2	13:15	13:20							X
5	Lot 43 MW-3	13:30	13:35					X	X	X
6	Lot 43 MW-4	13:45	13:50					X	X	X
7	Lot 43 MW-5	14:00	14:05					X	X	
8	Lot 43 MW-6	14:15	14:20					X	X	

# of Containers
[2] Preservation Code
[3] Container Code

Dissolved Metals Samples
[X] Field Filtered
[ ] Lab to Filter

Orthophosphate Samples
[ ] Field Filtered
[ ] Lab to Filter

Comments:

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 7/8/19 11:25	
Received by: (signature)	Date/Time: 7/8/19 11:25	
Relinquished by: (signature)	Date/Time: 7/8/19 15:15	
Received by: (signature)	Date/Time: 7/8/19 15:15	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Detection Limit Requirements
MA
CT
Other:

Special Requirements
[ ] MA MCP Required
MCP Certification Form Required
[ ] CT RCP Required
RCP Certification Form Required
[ ] MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY www.contestlabs.com
NELAC and AIHA-LAP, LLC Accredited

Project Entity
[ ] Government [ ] Municipality [ ] MWRA [ ] WRTA
[ ] Federal [ ] 21 J [ ] School
[ ] City [ ] Brownfield [ ] MBTA

Other
[ ] Chromatogram
[ ] AIHA-LAP,LLC

PCB ONLY
[ ] Soxhlet
[ ] Non Soxhlet

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1960304

con-test ANALYTICAL LABORATORY

http://www.contestlabs.com

Doc # 381 Rev 1_03242017

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

KLM

Company Name:	Stonehill Environmental
Address:	600 State St. Portsmouth, NH
Phone:	603-433-1935
Project Name:	Regis Tannery
Project Location:	~~14038~~ Raymond, NH
Project Number:	14038
Project Manager:	C. Tomforde
Con-Test Quote Name/Number:	
Invoice Recipient:	
Sampled By:	D. Adams

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☐ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To:
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Code	Conc Code	PFOS	PFOA	Dissolved Chromium										# of Containers
	Lot 43 GZ-1	14:30	14:35							x										
9	Field Blank	12:10	12:15																	

ANALYSIS REQUESTED

[2] Preservation Code
[3] Container Code

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 7/18/19 11:25	
Received by: (signature)	Date/Time: 7/18/19 11:25	
Relinquished by: (signature)	Date/Time: 7/18/19 15:15	
Received by: (signature)	Date/Time: 7/18/19 15:15	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY
www.contestlabs.com
NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

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I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Stonehill

Received By mf Date 7/8/19 Time 15:15

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 2.7

By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? F Who was notified? _____

Is there enough Volume? T

Is there Headspace where applicable? N/A MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? N/A Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	17	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

NOTICE OF GROUNDWATER MANAGEMENT PERMIT
GWP-201110061-R-001
TO BE RECORDED AGAINST:

Town of Raymond
Book 4676 / Page 1411

027198

2013 MAY 23 AM 10: 24

NOTICE IS HEREBY GIVEN THAT: The New Hampshire Department of Environmental Services (Department) has issued Groundwater Management Permit #GWP-201110061-R-001 ("Permit") to the Town of Raymond. Pursuant to Env-Or 607.09(a) this notice is recorded for each property located within the groundwater management zone identified in the Permit at the Registry of Deeds for the county in which the property is located.

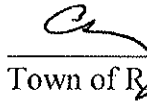
The Permit establishes a Groundwater Management Zone ("GMZ"), an area within which groundwater use must be controlled and monitored due to the presence of groundwater contaminants that exceed the State's Ambient Groundwater Quality Standards ("AGQS"). The Permit may include conditions to and restrictions upon the use of the properties within the GMZ, including restrictions on the use of groundwater.

The Permit was issued on January 8, 2013 and expires on January 7, 2018, unless renewed for subsequent five-year period(s). This Notice will remain in effect until such time as the AGQS are restored within the GMZ and the Department issues a Release of Recordation to the Permittee. The Permit is available for review at the New Hampshire Department of Environmental Services, 29 Hazen Drive, Concord, NH 03301, or can be viewed online by clicking on the green OneStop Data and Information icon located on the left side of the DES home page at: http://des.nh.gov/ .

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

The following properties are located within the GMZ:

Property Owner/Property Address	**Tax Map/Lot**	**Deed Reference Book/Page**
Town of Raymond/ Lot 120, Old Manchester and Wight Street Raymond, NH	Portion of Tax Map 28-3/ Lot 120	Book 4676 / Page 1411



_____,Permittee
Town of Raymond

05-22-2013
Date

Revised November 2010

The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Robert R. Scott, Commissioner

EMAIL ONLY

July 15, 2022

David Fredrickson
Director of Public Works
Town of Raymond
4 Epping Street
Raymond, NH 03077

Subject: Raymond – Former Regis Tannery, Lot 120, Old Manchester Road
DES Site #201110061, Project #27227

Groundwater Management Permit Renewal Application, prepared by StoneHill Environmental, dated October 29, 2019

Dear David Fredrickson:

Please find enclosed Groundwater Management Permit Number **GWP-201110061-R-002** (Permit), as approved by the New Hampshire Department of Environmental Services (NHDES). This Permit is issued for a period of 5 years to monitor the effects of past discharges to groundwater of tannery waste and per- and polyfluoroalkyl substances (PFAS) at the Former Regis Tannery, Lot 120 (site), and is a renewal of your Permit that expired on January 7, 2018. NHDES had previously requested[1] additional investigation activities to assess the nature and extent of PFAS groundwater contamination at the site prior to reissuing the Permit; however, we have reconsidered and chosen to issue the renewed Permit at this time.

Due to the long-term nature of the tannery waste contained in the consolidation area and the potential for the dissolution and mobilization of chromium should site soil and groundwater geochemistry or local precipitation chemistry change, NHDES has retained monitoring for dissolved chromium in the Permit on a twice every five years basis.

Based on the results of the PFAS screening conducted in 2018, 2019, and 2020, PFAS have been included in the monitoring schedule at Condition #7 of the attached Permit on an annual basis. In a separate letter for DES Site #198705081 (Former Regis Tannery Lot 43) dated July 1, 2022, NHDES has requested that the Town perform a Supplemental Site Investigation (SSI) to investigate the nature, location, and extent of PFAS contamination in groundwater at both of the former Regis Tannery sites (i.e., Lot 43, DES Site #198705081 and Lot 120, DES Site #201110061). Please be advised that, based on the results of the SSI, NHDES may modify the attached Permit to include additional monitoring wells and potentially expand the current Groundwater Management Zone.

NHDES recommends that monitoring well, surface water, and private drinking water well samples be analyzed for PFAS using an isotope dilution method using LC/MS/MS for a broad suite of PFAS target analytes to evaluate the potential source(s), transport, and fate of PFAS impacts. NHDES recommends that PFAS samples be analyzed using the draft CWA Method 1633. Alternatively, NHDES recommends following the protocols for PFAS by LC/MS/MS outlined in Table B-15 of the U.S. Department of Defense

[1] Email from NHDES to StoneHill Environmental dated August 26, 2021.

Quality Systems Manual 5.4 (or later version), USEPA Method 533, or USEPA Method 537.1 (with modifications). NHDES also recommends that analytical data summary tables and laboratory reports include both CAS numbers and analyte names, with PFAS ordered by carbon chain length and split by families.

NHDES requests that PFAS data for the Site be uploaded to the Environmental Monitoring Database (EMD). Guidance for PFAS EMD uploads can be found at the following link: https://www4.des.state.nh.us/nh-pfas-investigation/wp-content/uploads/pfas-emd-guidance.pdf.

Please submit all required sampling results and monitoring summaries to the NHDES Groundwater Management Permits Coordinator. Correspondence should include the appropriate Cover Sheet for Reports and completed Cover Sheet for Groundwater Monitoring Reports that clearly show the NHDES identification number for this site (i.e., DES Site #201110061, Project #27227). The submittal of documents in an electronic format through NHDES' OneStop database is preferred.

Should you have any questions, please contact me at NHDES' Waste Management Division.

Sincerely,

Tanya P. Justham
Hazardous Waste Remediation Bureau
Tel: (603) 271-6572
Email: tanya.p.justham@des.nh.gov

ec: Raymond Health Officer
Matthew Taylor, P.G., Permit Coordinator, HWRB
Kate Emma Schlosser, P.E., HWRB

The

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

hereby issues

GROUNDWATER MANAGEMENT PERMIT NO. GWP-201110061-R-002

to the permittee

TOWN OF RAYMOND

to monitor the past discharge of

Chromium and Per- and Polyfluorinated Substances

at

FORMER REGIS TANNERY – LOT 120
(Old Manchester Road)

in RAYMOND, N.H.

via the groundwater monitoring system comprised of

4 monitoring wells

as depicted on the Site Plan entitled

"Figure 2 – Site Plan and Groundwater Contour Map – Lots 43 / 120"

dated July 5, 2019, prepared by StoneHill Environmental

TO: TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

Date of Issuance: July 15, 2022
Date of Expiration: July 14, 2027

Pursuant to authority in N.H. RSA 485-C:6-a, the New Hampshire Department of Environmental Services (NHDES), hereby grants this Permit to monitor past discharges to the groundwater at the above-described location for five years, subject to the following conditions:

(continued)

STANDARD MANAGEMENT PERMIT CONDITIONS

1. The permittee shall not violate Ambient Groundwater Quality Standards adopted by NHDES (N.H. Admin. Rules Env-Or 600) in groundwater outside the boundaries of the Groundwater Management Zone, as shown on the referenced site plan.
2. The permittee shall not cause groundwater degradation that results in a violation of surface water quality standards (N.H. Admin. Rules Env-Wq 1700) in any surface water body.
3. The permittee shall allow any authorized staff of NHDES, or its agent, to enter the property covered by this Permit for the purpose of collecting information, examining records, collecting samples, or undertaking other action associated with this Permit.
4. The permittee shall apply for renewal of this Permit prior to its expiration date but no more than 90 days prior to expiration.
5. This Permit is transferable only upon written request to, and approval of, NHDES. Compliance with the existing Permit shall be established prior to Permit transfer. Transfer requests shall include the name and address of the person to whom the Permit transfer is requested, the signatures of the current and future permittees, and a summary of all monitoring results to date.
6. NHDES reserves the right, under N.H. Admin. Rules Env-Or 600, to require additional hydrogeologic studies and/or remedial measures if NHDES receives information indicating the need for such work.
7. The permittee shall maintain a water quality monitoring program and submit monitoring results to NHDES no later than 45 days after sampling. Samples shall be taken from the monitoring wells as shown and labeled on the referenced site plan and listed in the following table in accordance with the schedule outlined herein:

Monitoring Locations	Sampling Frequency	Parameters
MW-1 (Lot 120), MW-2 (Lot 120), GZ-3	June each year	Per- and Polyfluoroalkyl Substances (PFAS) and Static Water Levels
MW-3 (Lot 120)	June each odd year	PFAS and Static Water Level
MW-2 (Lot 120) and GZ-3	June 2023 and June 2026	Dissolved Chromium

Sampling shall be performed in accordance with the documents listed in Env-Or 610.02 (e). Samples shall be analyzed by a laboratory certified by the U.S. Environmental Protection Agency, or NHDES pursuant to Env-C 300. All overburden groundwater samples collected for metals analysis (i.e., chromium) shall be analyzed for dissolved metals; and therefore, must be field filtered (with a 0.45-micron filter) and acidified after filtration in the field.

Summaries of water quality shall be submitted biennially to NHDES' Waste Management Division, in the month of August, starting in 2022 and using a format acceptable to NHDES.

The Periodic Summary Report shall include the information listed in Env-Or 607.04 (a), as applicable.

The Periodic Summary Report shall be prepared and stamped by a professional engineer or professional geologist licensed in the State of New Hampshire.

8. Issuance of this Permit is based on the Groundwater Management Permit Renewal Application dated October 29, 2019, and the historical documents found in NHDES file DES #201110061. NHDES may require additional hydrogeologic studies and/or remedial measures if invalid or inaccurate data are submitted.

9. Within 30 days of discovery of a violation of an ambient groundwater quality standard at or beyond the Groundwater Management Zone boundary, the permittee shall notify NHDES in writing. Within 60 days of discovery, the permittee shall submit recommendations to correct the violation. NHDES shall approve the recommendations if NHDES determines that they will correct the violation.

10. All monitoring wells at the site shall be properly maintained and secured from unauthorized access or surface water infiltration.

SPECIAL CONDITIONS FOR THIS PERMIT

11. Recorded property within the Groundwater Management Zone shall include the lot as listed and described in the following table:

Tax Map / Lot No.	Property Address	Owner Name and Address	Deed Reference (Book / Page)
*Portion of Tax Map 28-3/ Lot 120	Old Manchester Road and Wight Street Raymond, NH	Town of Raymond 4 Epping Street Raymond, NH 03077	Book 4676/ Page 1411

*The boundaries of the Groundwater Management Zone are depicted on the plan entitled "Groundwater Management Zone and Activity and Use Restriction Boundary, A Portion of Map 28-3, Lot 120, DES Site #201110061, Raymond, Rockingham County, New Hampshire" prepared by Holden Engineering and Surveying, Inc. dated 09-21-11 (revised 07-23-12) and described as follows:

Beginning at a point in a stone wall on the southerly side of the Abandoned Railroad Bed being the northeasterly corner of the within described premises as shown on the said Plan; thence running S06°23'57"W a distance of 204.99 feet to a point; thence turning and running S61°58'31"W a distance of 98.59 feet to a point; thence running S65°37'57"W a distance of 117.00 feet to a point; thence turning and running N11°07'54"W a distance of 304.15 feet to a point at the Abandoned Railroad Bed as shown on said Plan; thence turning and running along said Railroad Bed S89°47'16"E a distance of 282.27 feet to a point of beginning.

12. The permittee shall update the ownership information required by Env-Or 607.03(a)(20) for all properties within the Groundwater Management Zone prior to renewal of the Permit, or upon a recommendation for site closure.

Jeffrey M. Marts, P.G., Administrator
Hazardous Waste Remediation Bureau
Waste Management Division

Any person aggrieved by any terms or conditions of this Permit may appeal to the N.H. Waste Management Council ("Council") by filing an appeal that meets the requirements specified in RSA 21-O:14 and the rules adopted by the Council, Env-WMC 200. The appeal must be filed **directly with the Council within 30 days** of the date of this decision and must set forth fully **every ground** upon which it is claimed that the decision complained of is unlawful or unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council.

Information about the Council, including a link to the Council's rules, is available at https://nhec.nh.gov/. Copies of the rules also are available from NHDES' Public Information Center at (603) 271-2975.

ENVIRO NORTH AMERICAN
CONSULTING, LLC

Riverbend Professional Building
P.O. Box 1075 Alton, NH 03809
Ph. (603) 875-8100
Fax (603) 875-8101
www.environorthamerican.com

December 14, 2022
Project 1190-681

Douglas Richardson, Executive V.P.
Onyx Partners Ltd.
200 Reservoir Street, Suite 306
Needham, MA 02494

And

Wayne Morrill, President
Jones & Beach Engineers, Inc.
85 Portsmouth Avene
Stratham, NH 03885

Re: **Addendum Letter for Laboratory Results of Per- and Polyfluorinated Alkyl Substances**

Subject: **Onyx Raymond LLC.**

Industrial Drive, Raymond, NH

Dear Gentlemen:

Enviro North American Consulting, LLC (ENAC) has completed an environmental evaluation of information and data pertaining to the proposed development of parcel(s) of land shown on an Existing Conditions Plan dated November 10, 2022 and referenced as the Onyx Raymond LLC – Raymond Distribution (subject Property). The contiguous parcels of the subject Property are located in the general east and northeast area off the end of cul-de-sac at Industrial Drive in Raymond, NH.

A previous letter report prepared by ENAC with Environmental Evaluation with Professional Opinion for Proposed Development dated December 8, 2022 presented detected concentrations from surface water sample locations for total chromium. This addendum letter provides the detected concentrations of Per- and Polyfluorinated Alkyl Substances (PFAS/PFOS) collected from the 3-surface water sampling locations resulting from water sample collection on November 22, 2022. The surface water sampling locations are shown on the attached Site Plan labeled as SFW-1, -2, and -3.

An abutting property to the northeast is referenced by the Town of Raymond as Lot 120 and has been impacted by subsurface contamination due to the presence of total chromium and Per- and Polyfluorinated Alkyl Substances (PFAS) released to the environment during past industrial

operations of a tannery known as the Former Regis Tannery, also referred to as Former Rex Leather Tannery. The New Hampshire Department of Environmental Services (NHDES) Hazardous Waste Remediation Bureau (HWRB) tracks the remedial activity of the northeast abutting property as Site #201110061 (Lot 120).

A second parcel of land is located further northeast beyond a recreational trail (former railroad easement Boston & Maine Railroad) and is associated with the former industrial-use of Regis Tannery / Rex Leather Tannery and identified by the Town of Raymond as Lot 43. Environmental contamination was released at Lot 43 and is tracked by the NHDES HWRB as Site #198705081. Both contaminated properties are currently owned by the Town of Raymond. The NHDES lists the Town of Raymond as the Responsible Parties (RP) for the ongoing remedial investigation and clean-up activity conducted in connection to the past tannery industrial releases to the environment.

Per- and Polyfluoroalkyl Substances (PFAS) Former Tannery Sites

As directed by the NHDES HWRB, groundwater quality from both Former Tannery Sites were screened for the presence of PFAS. Analytical results from groundwater samples have detected the presence of PFAS and associated chemical derivatives in groundwater at concentrations above the NHDES adopted AGQS. Due to the persistence of PFAS detections in area groundwater quality, the Permit issued to Lot 120 has been updated by NHDES to include annual monitoring of PFAS chemicals. The NHDES has also required a Supplemental Site Investigation (SSI) at both Former Tannery Sites to evaluate the source of PFAS in soil and groundwater. The suspected source for PFAS has been noted in past reports as the likely use of fire extinguishing foam when the tannery building was destroyed by fire in 1972 (Lot 43). To date, the SSI work has not been completed to define the source of PFAS at the Former Tannery Sites.

ENAC contacted the active Project Manager, Ms. Tanya Justham (by phone) regarding ongoing remedial investigations administered by the NHDES – HWRB on December 14, 2022. Ms. Justham indicated that the PFOA/PFOS detected in groundwater beneath Lot 120 has likely been sourced from past tannery processes as a result of treatment of hides, specifically with the use of PFOA substances. ENAC has forwarded the December 2022 testing results for total chromium and PFAS concentrations to Ms. Justham for review.

ENVIRONMENTAL SAMPLING – ONYX RAYMOND LLC.

Surface Water Quality Sampling – Onyx Raymond LLC.

ENAC representative visited the subject Property to collect surface water samples from 3-existing wetland areas containing standing water on November 22, 2022. The 3-surface water sample locations are shown on the attached Site Plan. Grab water samples were collected from 3-selected wetland or stream bed areas of the subject Property with use of a dedicated water sample bottle connected to an extendable rod. Water samples for total chromium analysis were collected and field filtered with use of a 0.45-micron filter then placed in preserved laboratory containers. Grab water samples for PFAS analyses were collected from each location and placed directly in laboratory prepared containers. The water samples were placed inside a cooler with

ice and delivered directly to a New Hampshire certified laboratory for the analyses of total chromium by EPA Method 200.8 and 24-compound list of PFAS / PFOS chemicals by EPA Method 537.1 modified.

Per- and Polyfluoroalkyl Substances (PFAS)

ENAC presents the results of water quality sampling for the November 22, 2022 for the presence of PFAS detected from 3-surface water sample locations. The attached summary table provides a comparison to the adopted groundwater quality standards referenced as the Ambient Groundwater Quality Standards (AGQS). ENAC notes the NHDES has not adopted PFAS standards for drinking water quality to date. As shown in the attached PFAS summary table, results of surface water sampling for PFAS have met the AGQS for the 4-adopted PFAS / PFOS chemicals (AGQS shown on right-side Table 1A).

It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC

Todd A. Greenwood, P.G.
President

Attachments: Sampling Site Plan
PFAS Summary Table 1A
Laboratory Water Sample Results (PFAS)

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

15,438 SF WAREHOUSE 1 STORY

TAX MAP 28-3, LOT 43
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

BUILDING 3
63,500 SF
1 STORY

BUILDING 2
33,460 SF
1 STORY

BUILDING 1
38,881 SF
1 STORY

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

EXISTING LUMBER YARD

SFW-1

SFW-2

SFW-3

INDUSTRIAL ROAD

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

SCRIBNER ROAD

OLD MANCHESTER ROAD

WELLHEAD PROTECTION AREA BOUNDARY

PROJECT PROPERTY BOUNDARY

LAMPREY RIVER AQUIFER PROTECTION AREA BOUNDARY

GROUNDWATER PROTECTION ZONE

TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 24
JOHN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

TAX MAP 23, LOT 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

NH ROUTE 101 (WESTBOUND)

NH ROUTE 101 (EASTBOUND)

ZONE LINE "D" (INDUSTRIAL)

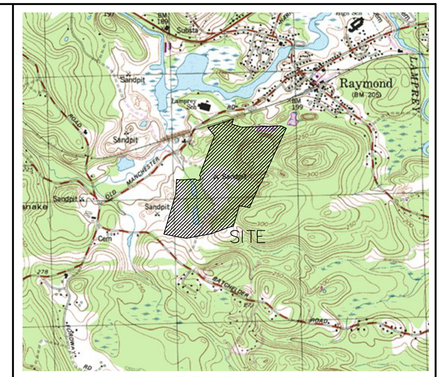
ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

ZONE LINE "D" (INDUSTRIAL)

PLAN REFERENCE:

1. AN ALTA SURVEY AND PLAT OF PROPERTY PREPARED FOR M-O-H ENTERPRISES FL, INC. SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY R.S.L. LAYOUT & DESIGN, INC. DATED 2/21/1996



LOCUS SCALE: 1"=2000'

EXISTING CONDITIONS NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
2. BASE ELEVATION WAS ESTABLISHED THROUGH MULTIPLE GPS POST PROCESS OBSERVATIONS AND WAS REDUCED TO THE NAVD88 DATUM BY THE NATIONAL GEODETIC SURVEY OPUS SOFTWARE.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN WALDEN C.W.S., DURING SUMMER, 2021, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
   a. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
   b. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
   c. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
   d. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
7. SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING SPRING, 2022, AND IS BASED ON THE STANDARDS OF SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 2.0 (1999: SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND). THE MAP IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR THE USE(S) REQUIRING THE SITE SPECIFIC SOIL SURVEY AND IS PRODUCED BY A CERTIFIED SOIL SCIENTIST. IT IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. A NARRATIVE REPORT IS A COMPONENT OF THE MAP.
8. A TEMPORARY CULVERT AND ROADBED SHALL BE IN PLACE PRIOR TO ANY USE OF A WETLAND CROSSING.
9. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
10. TEST PITS PERFORMED BY WAYNE MORRILL, JONES & BEACH ENGINEERS, INC., 12/20/21.
11. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafdc	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0-8%; C SLOPE = 8-15%; D SLOPE = 15-25%

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531 ± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR
Checked: WGM	Scale: AS NOTED
Drawing Name: 21130-PLAN.dwg	Date: 8/19/21
	Project No.: 21130

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN
Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C1
SHEET 2 OF44
JBE PROJECT NO. 21130

TABLE 1A
ONYX RAYMOND LLC
SURFACE WATER QUALITY DATA - PFAS

COMPOUND	Surface Water Sample Locations			NHDES Water Quality Standards	
PFAS by EPA Method 537M	**SFW-1**	**SFW-2**	**SFW-3**	**AGQS**	**Surface Water Standard**
Perfluorooctanesulfonic Acid (PFOS)	0.0117	ND	0.00406	***0.015***	***NSA***
Perfluoropentanoic Acid (PFPeA)	ND	ND	ND	***NSA***	
Perfluorohexanoic Acid (PFHxA)	ND	ND	ND	***NSA***	
Perfluorooctanoic Acid (PFOA)	0.00507	ND	ND	***0.012***	
Perfluorohexanesulfonic Acid ((PFHxS)	ND	ND	ND	***0.018***	
Perfluorobutanoic Acid (PFBA)	ND	ND	ND	***NSA***	
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ND	***NSA***	
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ND	***NSA***	
Perfluorononanoic Acid (PFNA)	ND	ND	ND	***0.011***	
N-ethyl-perfluorooctane Sulfonamido Acetic Acid (EtFOSAA)	0.00434	ND	ND	***NSA***	

NOTES:

1. PFAS concentrations are presented as parts per billion (ppb) equivalent to micrograms per liter.
2. ND = Not detected and below laboratory reporting limits.
3. **Bold** concentrations exceed the NHDES Ambient Groundwater Quality Standards (AGQSs), effective 1/1/2021.
4. NSA = No water standard for individual compounds listed.
5. NA = Compound Not Analyzed.

Eastern Analytical, Inc.
professional laboratory and drilling services

Todd Greenwood
Enviro North American Consulting
PO Box 1075
Alton , NH 03809

Laboratory Report for:

Eastern Analytical, Inc. ID:	252744
Client Identification:	ONYX RAYMOND
Date Received:	11/22/2022
Report revision/reissue:	Revision, replaces report dated 12/7/2022
Revision information:	Report revised to include PFAS data.

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:
- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director — 12.9.22 Date

SAMPLE CONDITIONS PAGE

EAI ID#: **252744**

Client: **Enviro North American Consulting**

Client Designation: **ONYX RAYMOND**

Temperature upon receipt (°C): 5.8 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
252744.01	SFW-1	11/22/22	11/22/22 10:20	aqueous		Adheres to Sample Acceptance Policy
252744.02	SFW-2	11/22/22	11/22/22 10:40	aqueous		Adheres to Sample Acceptance Policy
252744.03	SFW-3	11/22/22	11/22/22 11:10	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **252744**

Client: **Enviro North American Consulting**

Client Designation: **ONYX RAYMOND**

Sample ID:	SFW-1	SFW-2	SFW-3					
Lab Sample ID:	252744.01	252744.02	252744.03					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	11/22/22	11/22/22	11/22/22					
Date Received:	11/22/22	11/22/22	11/22/22	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Chromium	**0.0056**	< 0.001	**0.024**	AqDis	mg/L	11/23/22	200.8	DS

Vista
an Enthalpy Analytical Laboratory

December 08, 2022

Vista Work Order No. 2211263

Ms. Jennifer Laramie
Eastern Analytical, Inc.
51 Antrim Avenue
Concord, NH 03301

Dear Ms. Laramie,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on November 23, 2022 under your Project Name '252744 NH'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at frschwebel@enthalpy.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Frieda Schwebel
Project Manager

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 2211263
Case Narrative

Sample Condition on Receipt:

Three aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the recommended temperature requirements.

Analytical Notes:

PFAS Isotope Dilution/LC-MSMS Method Compliant with Table B-15 of DoD QSM 5.3 (Aqueous)

The samples were extracted and analyzed for a selected list of PFAS using Isotope Dilution and LC-MS/MS compliant with Table B-15 of DoD QSM 5.3. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above the Reporting Limits (RL). The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are listed in the table below. The responses of the internal standards with low recoveries were greater than 10:1 signal-to-noise, which is the limit generally considered acceptable for accurate quantitation by isotope dilution analysis.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
B22K258-BLK1	B22K258-BLK1	PFAS Isotope Dilution Table B-15	13C8-PFOSA	H	49.5

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

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Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2211263-01	SFW-1	22-Nov-22 10:20	23-Nov-22 09:51	Polypropylene, 250mL
				Polypropylene, 250mL
2211263-02	SFW-2	22-Nov-22 10:40	23-Nov-22 09:51	Polypropylene, 250mL
				Polypropylene, 250mL
2211263-03	SFW-3	22-Nov-22 11:10	23-Nov-22 09:51	Polypropylene, 250mL
				Polypropylene, 250mL

ANALYTICAL RESULTS

Vista
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Sample ID: Method Blank

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Matrix: Aqueous

Laboratory Data

Lab Sample: B22K258-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFPeA	2706-90-3	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFBS	375-73-5	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
4:2 FTS	757124-72-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHxA	307-24-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFPeS	2706-91-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHpA	375-85-9	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHxS	355-46-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
6:2 FTS	27619-97-2	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFOA	335-67-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFHpS	375-92-8	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFNA	375-95-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFOSA	754-91-6	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFOS	1763-23-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFDA	335-76-2	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
8:2 FTS	39108-34-4	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFNS	68259-12-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
MeFOSAA	2355-31-9	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
EtFOSAA	2991-50-6	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFUnA	2058-94-8	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFDS	335-77-3	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFDoA	307-55-1	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFTrDA	72629-94-8	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
PFTeDA	376-06-7	ND	2.00		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	63.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C3-PFPeA	IS	73.0	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C3-PFBS	IS	70.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-4:2 FTS	IS	73.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFHxA	IS	72.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C4-PFHpA	IS	75.4	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C3-PFHxS	IS	77.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-6:2 FTS	IS	69.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFOA	IS	73.4	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C5-PFNA	IS	72.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C8-PFOSA	IS	49.5	50 - 150	H	B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C8-PFOS	IS	71.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFDA	IS	78.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1

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Sample ID: Method Blank

PFAS Isotope Dilution Table B-15

Client Data				**Laboratory Data**			
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	B22K258-BLK1	Column:	BEH C18
Project:	252744 NH						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-8:2 FTS	IS	71.4	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
d3-MeFOSAA	IS	67.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
d5-EtFOSAA	IS	62.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFUnA	IS	72.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFDoA	IS	69.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1
13C2-PFTeDA	IS	62.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:30	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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Sample ID: OPR

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Matrix: Aqueous

Laboratory Data

Lab Sample: B22K258-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	43.6	40.0	109	73 - 129		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFPeA	2706-90-3	43.6	40.0	109	72 - 129		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFBS	375-73-5	44.4	40.4	110	72 - 130		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
4:2 FTS	757124-72-4	48.1	40.0	120	63 - 143		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFHxA	307-24-4	40.9	40.0	102	72 - 129		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFPeS	2706-91-4	45.9	40.4	114	71 - 127		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFHpA	375-85-9	41.6	40.0	104	72 - 130		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFHxS	355-46-4	40.9	40.0	102	68 - 131		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
6:2 FTS	27619-97-2	41.6	40.0	104	64 - 140		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFOA	335-67-1	43.3	40.0	108	71 - 133		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFHpS	375-92-8	41.2	40.0	103	69 - 134		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFNA	375-95-1	44.6	40.0	112	69 - 130		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFOSA	754-91-6	43.3	40.0	108	67 - 137		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFOS	1763-23-1	44.4	40.0	111	65 - 140		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFDA	335-76-2	42.2	40.0	106	71 - 129		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
8:2 FTS	39108-34-4	38.7	40.0	96.8	67 - 138		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFNS	68259-12-1	44.8	40.0	112	69 - 127		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
MeFOSAA	2355-31-9	43.4	40.0	109	65 - 136		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
EtFOSAA	2991-50-6	41.3	40.0	103	61 - 135		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFUnA	2058-94-8	40.2	40.0	101	69 - 133		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFDS	335-77-3	36.4	40.0	91.0	53 - 142		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFDoA	307-55-1	44.6	40.0	112	72 - 134		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFTrDA	72629-94-8	41.9	40.0	105	65 - 144		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
PFTeDA	376-06-7	41.9	40.0	105	71 - 132		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	57.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C3-PFPeA	IS	67.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C3-PFBS	IS	67.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-4:2 FTS	IS	71.0	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFHxA	IS	68.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C4-PFHpA	IS	71.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C3-PFHxS	IS	75.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-6:2 FTS	IS	65.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFOA	IS	71.2	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C5-PFNA	IS	67.1	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1

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Sample ID: OPR

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Matrix: Aqueous

Laboratory Data

Lab Sample: B22K258-BS1
Column: BEH C18

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C8-PFOSA	IS	50.8	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C8-PFOS	IS	69.7	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFDA	IS	72.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-8:2 FTS	IS	74.1	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
d3-MeFOSAA	IS	66.6	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
d5-EtFOSAA	IS	64.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFUnA	IS	73.9	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFDoA	IS	66.5	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1
13C2-PFTeDA	IS	64.3	50 - 150		B22K258	30-Nov-22	0.250 L	07-Dec-22 17:41	1

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Sample ID: SFW-1

PFAS Isotope Dilution Table B-15

Client Data				Laboratory Data			
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2211263-01	Column:	BEH C18
Project:	252744 NH	Date Collected:	22-Nov-22 10:20	Date Received:	23-Nov-22 09:51		
Location:	252744						

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFPeA	2706-90-3	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFBS	375-73-5	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
4:2 FTS	757124-72-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHxA	307-24-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFPeS	2706-91-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHpA	375-85-9	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHxS	355-46-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
6:2 FTS	27619-97-2	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFOA	335-67-1	5.07	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFHpS	375-92-8	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFNA	375-95-1	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFOSA	754-91-6	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFOS	1763-23-1	11.7	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFDA	335-76-2	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
8:2 FTS	39108-34-4	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFNS	68259-12-1	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
MeFOSAA	2355-31-9	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
EtFOSAA	2991-50-6	4.34	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFUnA	2058-94-8	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFDS	335-77-3	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFDoA	307-55-1	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFTrDA	72629-94-8	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
PFTeDA	376-06-7	ND	1.99		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	56.6	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C3-PFPeA	IS	71.0	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C3-PFBS	IS	60.5	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-4:2 FTS	IS	78.7	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFHxA	IS	66.8	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C4-PFHpA	IS	72.9	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C3-PFHxS	IS	75.0	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-6:2 FTS	IS	73.0	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFOA	IS	73.5	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C5-PFNA	IS	73.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C8-PFOSA	IS	59.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C8-PFOS	IS	75.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1

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Sample ID: SFW-1

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Location: 252744
Matrix: Aqueous
Date Collected: 22-Nov-22 10:20

Laboratory Data

Lab Sample: 2211263-01
Date Received: 23-Nov-22 09:51
Column: BEH C18

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFDA	IS	78.6	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-8:2 FTS	IS	65.9	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
d3-MeFOSAA	IS	78.1	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
d5-EtFOSAA	IS	74.5	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFUnA	IS	79.7	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFDoA	IS	70.8	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1
13C2-PFTeDA	IS	67.7	50 - 150		B22K258	30-Nov-22	0.251 L	07-Dec-22 20:48	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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Sample ID: SFW-2

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Location: 252744
Matrix: Aqueous
Date Collected: 22-Nov-22 10:40

Laboratory Data

Lab Sample: 2211263-02
Date Received: 23-Nov-22 09:51
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFPeA	2706-90-3	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFBS	375-73-5	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
4:2 FTS	757124-72-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHxA	307-24-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFPeS	2706-91-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHpA	375-85-9	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHxS	355-46-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
6:2 FTS	27619-97-2	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFOA	335-67-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFHpS	375-92-8	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFNA	375-95-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFOSA	754-91-6	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFOS	1763-23-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFDA	335-76-2	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
8:2 FTS	39108-34-4	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFNS	68259-12-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
MeFOSAA	2355-31-9	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
EtFOSAA	2991-50-6	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFUnA	2058-94-8	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFDS	335-77-3	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFDoA	307-55-1	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFTrDA	72629-94-8	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
PFTeDA	376-06-7	ND	2.07		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	56.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C3-PFPeA	IS	68.6	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C3-PFBS	IS	63.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-4:2 FTS	IS	78.0	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFHxA	IS	70.1	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C4-PFHpA	IS	74.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C3-PFHxS	IS	81.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-6:2 FTS	IS	67.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFOA	IS	71.6	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C5-PFNA	IS	69.4	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C8-PFOSA	IS	54.5	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C8-PFOS	IS	66.1	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1

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Sample ID: SFW-2

PFAS Isotope Dilution Table B-15

Client Data

Name:	Eastern Analytical, Inc.	Matrix:	Aqueous
Project:	252744 NH	Date Collected:	22-Nov-22 10:40
Location:	252744		

Laboratory Data

Lab Sample:	2211263-02	Column:	BEH C18
Date Received:	23-Nov-22 09:51		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFDA	IS	77.5	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-8:2 FTS	IS	67.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
d3-MeFOSAA	IS	70.3	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
d5-EtFOSAA	IS	74.1	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFUnA	IS	75.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFDoA	IS	70.5	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1
13C2-PFTeDA	IS	67.2	50 - 150		B22K258	30-Nov-22	0.242 L	07-Dec-22 20:58	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

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Sample ID: SFW-3

PFAS Isotope Dilution Table B-15

Client Data

Name: Eastern Analytical, Inc.
Project: 252744 NH
Location: 252744
Matrix: Aqueous
Date Collected: 22-Nov-22 11:10

Laboratory Data

Lab Sample: 2211263-03
Date Received: 23-Nov-22 09:51
Column: BEH C18

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFPeA	2706-90-3	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFBS	375-73-5	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
4:2 FTS	757124-72-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHxA	307-24-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFPeS	2706-91-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHpA	375-85-9	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHxS	355-46-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
6:2 FTS	27619-97-2	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFOA	335-67-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFHpS	375-92-8	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFNA	375-95-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFOSA	754-91-6	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFOS	1763-23-1	4.06	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFDA	335-76-2	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
8:2 FTS	39108-34-4	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFNS	68259-12-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
MeFOSAA	2355-31-9	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
EtFOSAA	2991-50-6	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFUnA	2058-94-8	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFDS	335-77-3	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFDoA	307-55-1	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFTrDA	72629-94-8	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
PFTeDA	376-06-7	ND	2.03		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	54.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C3-PFPeA	IS	68.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C3-PFBS	IS	68.3	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-4:2 FTS	IS	81.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFHxA	IS	69.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C4-PFHpA	IS	77.3	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C3-PFHxS	IS	78.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-6:2 FTS	IS	64.7	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFOA	IS	74.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C5-PFNA	IS	71.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C8-PFOSA	IS	61.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C8-PFOS	IS	77.9	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1

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Sample ID: SFW-3

PFAS Isotope Dilution Table B-15

Client Data

Name:	Eastern Analytical, Inc.	Matrix:	Aqueous
Project:	252744 NH	Date Collected:	22-Nov-22 11:10
Location:	252744		

Laboratory Data

Lab Sample:	2211263-03	Column:	BEH C18
Date Received:	23-Nov-22 09:51		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFDA	IS	78.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-8:2 FTS	IS	67.7	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
d3-MeFOSAA	IS	74.0	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
d5-EtFOSAA	IS	80.5	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFUnA	IS	78.8	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFDoA	IS	74.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1
13C2-PFTeDA	IS	55.6	50 - 150		B22K258	30-Nov-22	0.247 L	07-Dec-22 21:09	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Pennsylvania Department of Environmental Protection	018
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613/1613B
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537.1
Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry	EPA 533
Perfluorooctanesulonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	PFAS Isotope Dilution
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

CHAIN-OF-CUSTODY RECORD

Eastern Analytical, Inc.
professional laboratory and drilling services

EAI ID# 252744 Page 1

Sample ID	Date Sampled	Matrix	aParameters	221263 1.3°C	Sample Notes
SFW-1	11/22/2022 10:20	aqueous	Subcontract - Perfluorinated Compounds EPA Method 537 modified		
SFW-2	11/22/2022 10:40	aqueous	Subcontract - Perfluorinated Compounds EPA Method 537 modified		
SFW-3	11/22/2022 11:10	aqueous	Subcontract - Perfluorinated Compounds EPA Method 537 modified		

EAI ID# 252744 **Project State: NH**

Project ID:

Company Vista Analytical Laboratory
Address 1104 Windfield Way
Address El Dorado Hills, CA 95762
Account #
Phone # (916) 673-1520

Results Needed: **Preferred Date: Standard**

RUSH Due Date: _____

QC Deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

Notes about project:

Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.

24 Compound List RUSH TAT NEEDED
RESULTS NEEDED ASAP

PO #:58738 **EAI ID# 252744**

Data Deliverable (circle)

Excel NH EMD EQuIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by: _____

Relinquished by	Date/Time	Received by
Beth Ann Ertell	11/22/22 1600	UPS
UPS	11/22/23 09:51	Bryan Clark

Relinquished by **Date/Time** **Received by**

As a subcontract lab to EAI, you will defend, indemnify and hold Eastern Analytical, Inc., its officers, employees, and agents harmless from and against any and all liability, loss, expense or claims for injury or damage arising out of the performance against this chain of custody but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligent or intentiona acts or omissions of you as a subcontract lab, your officers, agents or employees.

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2211263 **TAT** Rush

Samples Arrival:	**Date/Time** 11/23/22 09:51		**Initials:** BAC		**Location:** WR-2 **Shelf/Rack:** N/A		
Delivered By:	FedEx	(UPS)	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Techni Ice	Dry Ice	None
Temp °C: 1.4 (uncorrected) **Temp °C:** 1.3 (corrected)			**Probe used: Y / (N)**		**Thermometer ID:** IR-3		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?		✓	✓
Airbill — Trk # 1ZX495990194395303	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / (Client) / Retain / (Return) / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 11/23/22 10:16	**Initials:** JL	**Location:** R-13, WR-2 **Shelf/Rack:** A-4, E-3
COC Anomaly/Sample Acceptance Form completed?		✓	✓

Comments:

CoC/Label Reconciliation Report WO# 2211263

LabNumber	CoC Sample ID		SampleAlias	Sample Date/Time		Container	BaseMatrix	Sample Comments
2211263-01	A SFW-1	☑ A, I	252744	22-Nov-22 10:20	☑	Polypropylene, 250mL	Aqueous	
2211263-01	B SFW-1	☑	252744	22-Nov-22 10:20	☑	Polypropylene, 250mL	Aqueous	
2211263-02	A SFW-2	☑	252744	22-Nov-22 10:40	☑	Polypropylene, 250mL	Aqueous	
2211263-02	B SFW-2	☑	252744	22-Nov-22 10:40	☑	Polypropylene, 250mL	Aqueous	
2211263-03	A SFW-3	☑ A, I	252744	22-Nov-22 11:10	☑	Polypropylene, 250mL	Aqueous	
2211263-03	B SFW-3	☑	252744	22-Nov-22 11:10	☑	Polypropylene, 250mL	Aqueous	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		

Comments: A Sample contains rusty tint.

Preservation Documented: Na2S2O3 ~~Trizma~~ (Trizma T6) NH4CH3CO2 None Other

Verifed by/Date: WA, 11/23/22

CHAIN-OF-CUSTODY RECORD

252744

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 / 524.2 MTBE ONLY; VTICs; 8260 / 624 / 1, 4 DIOXANE; 8021; 8015 GRO / MAVPH	SVOC: 8270 / 625 ABN / PAH; EDB / DBCP; TPH8100 / L1 / L2; 8015 DRO / MAEPH; PEST 608 / PEST 8081; PCB 608 / PCB 8082; OIL & GREASE 1664; TPH 1664	TCLP: TCLP 1311 VOC / ABN / METALS / PEST / HERB	INORGANICS: BOD / CBOD; TS / TSS / TDS; BR / CL / F / SO_4; NO_2 / NO_3 / NO_2NO_3; TKN / NH_3 / TN; T. PHOS. / O. PHOS.; pH / T. RES. CHLORINE / SPEC. CON. / T. ALK.; COD / PHENOLS / TOC / DOC; TOTAL CYANIDE / TOTAL SULFIDE; REACTIVE CYANIDE / REACTIVE SULFIDE / FLASHPOINT / IGNITABILITY	MICRO: TOTAL COLIFORM / FECAL COLIFORM; ENTEROCOCCI / HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	OTHER: PFAS/PFOS-24	# OF CONTAINERS	No MeOH
SFW-1	11/22/22 10:20	SW	G						✓	✓	3	
SFW-2	11/22/22 10:40	SW	G						✓	✓	3	
SFW-3	11/22/22 11:10	SW	G						✓	✓	3	

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: TODD GREENWOOD

COMPANY: EAIAC

ADDRESS: P.O. BOX 1075

CITY: ALTON STATE: NH ZIP: 03809

PHONE: 603-875-8100 EXT.:

E-MAIL: tag@metrocast.net

SITE NAME: ONYX RAYMOND

PROJECT #:

STATE: (NH) MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: N/A

QUOTE #: PO #:

QA/QC REPORTING

A B C

MA MCP

TEMP. 5.8 °C

ICE? (YES) NO

REPORTING OPTIONS

PRELIMS: YES OR NO

ELECTRONIC OPTIONS

(PDF) EXCEL

EQUIS

OTHER

TURN AROUND TIME

24hr* 48hr*

3-4 Days*

(5 Day) 7 Day

10 Day

*Pre-approval Required

SAMPLER(S): TODD A. GREENWOOD

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	11/22/22	13:05	BAF
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN

OTHER METALS: (Chromium)

SAMPLES FIELD FILTERED? ☑ YES

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF E

Total dissolved chromium only Metals by ICP.

PFAS/PFOS 24 Comp. L1

SITE HISTORY: N/A

SUSPECTED CONTAMINATION: N/A

FIELD READINGS: N/A

Eastern Analytical, Inc.
professional laboratory and drilling services
51 Antrim Avenue | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTIC

(WHITE: Lab Copy GREEN: Customer Copy)

ENVIRO NORTH AMERICAN
CONSULTING, LLC

Riverbend Professional Building
P.O. Box 1075 Alton, NH 03809

Ph. (603) 875-8100
Fax (603) 875-8101
www.environorthamerican.com

December 8, 2022
Project 1190-681

Douglas Richardson, Executive V.P.
Onyx Partners Ltd.
200 Reservoir Street, Suite 306
Needham, MA 02494

And

Wayne Morrill, President
Jones & Beach Engineers, Inc.
85 Portsmouth Avene
Stratham, NH 03885

Re: **Environmental Evaluation with Professional Opinion for Proposed Development**

Subject: **Onyx Raymond LLC.**

Industrial Drive, Raymond, NH

Dear Gentlemen:

Enviro North American Consulting, LLC (ENAC) has completed an environmental evaluation of information and data pertaining to the proposed development of parcel(s) of land shown on an Existing Conditions Plan dated November 10, 2022 and referenced as the Onyx Raymond LLC – Raymond Distribution (subject Property). The contiguous parcels of the subject Property are located in the general east and northeast area off the end of cul-de-sac at Industrial Drive in Raymond, NH.

An abutting property to the northeast is referenced by the Town of Raymond as Lot 120 and has been impacted by subsurface contamination due to the presence of total chromium and Per- and Polyfluorinated Substances (PFAS) released to the environment during past industrial operations of a tannery known as the Former Regis Tannery, also referred to as Former Rex Leather Tannery. The New Hampshire Department of Environmental Services (NHDES) Hazardous Waste Remediation Bureau (HWRB) tracks the remedial activity of the northeast abutting property as Site #201110061 (Lot 120).

A second parcel of land is located further northeast beyond a recreational trail (former railroad easement Boston & Maine Railroad) and is associated with the former industrial-use of Regis Tannery / Rex Leather Tannery and identified by the Town of Raymond as Lot 43.

Environmental contamination was released at Lot 43 and is tracked by the NHDES HWRB as Site #198705081. Both contaminated properties are currently owned by the Town of Raymond. The NHDES lists the Town of Raymond as the Responsible Parties (RP) for the ongoing remedial investigation and clean-up activity conducted in connection to the past tannery industrial releases to the environment.

The scope of services conducted by ENAC included a review of available information through the NHDES Onestop database, information shared by Onyx Raymond LLC., and collection of surface water samples for laboratory analyses during a recent November 2022 visit. The information and data to support our professional opinion includes:

- Review of Town of Raymond tax card & tax map information,
- Review of online topographic maps available through www.historicaerials.com,
- Available online NHDES Onestop Information for the Former Regis Tannery,
- Available information provided to ENAC authorized by Onyx Raymond LLC.,
- Water quality test results from three (3) recent surface water samples collected by ENAC from the subject Property on November 22, 2022, where water laboratory analyses included total chromium and PFAS.

ENAC has also reviewed information regarding concentrations of chromium in groundwater, surface water as compared to the NHDES regulatory standards and federal guidelines outlined by Environmental Protection Agency (Maximum Contaminant Levels – MCLs, and Secondary - SMCLs). Our professional opinion for the subject Property's environmental evaluation is discussed below.

ENVIRONMENTAL INFORMATION FORMER TANNERY LOT 43 & LOT 120

The former Regis Tannery / Rex Leather Tannery reportedly operated from 1953 to 1972. Prior to 1953, the Faulkner Shoe Company occupied the eastern portion of Lot 43. The tannery operations included a tannery building, 3-wastewater accepting lagoons, a subsurface waste water piping system, a buried septic tank, 2-petroleum underground storage tanks (USTs), a buried brine solution UST, and process settling pits. The tannery ceased operations in 1972 after a fire destroyed the main manufacturing building. The tannery site was vacant with no redevelopment (1972-present) and only the tannery building's former concrete slab and foundation remained. To date, the above grade structures have been razed and Lot 43 is vacant land.

Lot 43 – Tannery Operations

Lot 43 contained the main industrial process and manufacturing building. Lot 43 contained the process vat solutions used in tannery processes where liquid wastes and suspended solids were flushed through a network of trench drains eventually discharging into subsurface basin structures and a concrete holding tank. The overflow from the concrete tank was allowed to discharge through a network of buried piping into the nearby Lamprey River (1/8-mile north of the site).

Remedial actions completed under authority of the NHDES included capping a deeply buried leather fill area along the northeast portion of Lot 43. A minimum 2-foot soil cap covered the leather fill area across the northern portion of Lot 43.

Lot 120 – Settling Lagoons for Tannery Wastewater Discharges

The wastewater process from the tannery on Lot 43 was altered in the early 1960s and included discharging process wastewater into 3-lagoon areas located on Lot 120. Lot 120 has been described as surface ground topography located upslope of Lot 43. Former Lagoon #1 was used as a Consolidation Area to dispose of Lot 43 and Lot 120 tannery wastes encountered during remedial actions (2008-2009). The following remedial wastes totaling 9,280 cubic yards were removed from Lot 43 and Lot 120 and placed at Consolidation Area known as former Lagoon #1 at Lot 120:

- Tannery foundation including slab and footings removed and placed in Lagoon #1 Consolidation Area,
- Soil impacted with chromium wastes was removed from Lot 43 and placed in Lagoon #1 Consolidation Area,
- Topsoil stripped from Lot 43 contained chromium and lead excavated and placed in Consolidation Area.
- Foundation floor drain discharge solids impacted by tannery wastes was removed from Lot 43 and placed in the Lagoon #1 Consolidation Area,
- Tannery process building buried receptacles were removed from Lot 43 and placed in Lagoon #1 Consolidation Area,
- Railroad loading platform soil with tannery wastes were removed from Lot 43 and placed in Lagoon #1 Consolidation Area,
- Lagoon #2 wastes included process tannery dust, leather pieces, soil exceeding SRS were excavated and placed in Lagoon #1 Consolidation Area,
- Drainage Trench from Wetland A to Lagoon #3: impacted trench soil with SRS exceedances were excavated from the trench connecting Wetland A to Lagoon #3 (overflow deposits) where past process wastewater overflow had impacted underlying soil. The SRS soil was placed in the Lagoon #1 Consolidation Area,
- Lagoon #3 dam excavation leather debris and soil was placed in the Consolidation Area,
- The Consolidation Area (Lagoon #1) was capped with low-permeability soil.

Activity Use Restrictions

Remedial activity for both Lot 43 and Lot 120 included Activity Use Restrictions (AURs) issued by the NHDES for the landfilled areas labeled as the Deeply Buried Leather Fill Area (Lot 43) and the Consolidation Area (former Lagoon #1 on Lot 120). The AURs were authorized by NHDES and remain in-place to protect human health and as an advisory to future site disturbances or redevelopment activity.

Source(s) of Chromium Contamination in Area Groundwater

Past industrial-release(s) to the environment on Lot 43 and Lot 120 have impacted shallow area groundwater quality with total chromium. Shallow groundwater quality is actively monitored under NHDES authorized Groundwater Management Permits (the Permits) for each separate Lot. For purposes of this report, the tannery contamination associated with Lot 43 and Lot 120 are referred to as the Former Tannery Sites.

Per- and Polyfluoroalkyl Substances (PFAS) Former Tannery Sites

As directed by the NHDES HWRB, groundwater quality from both Former Tannery Sites were screened for the presence of PFAS. Analytical results from groundwater samples have detected the presence of PFAS and associated chemical derivatives in groundwater at concentrations above the NHDES adopted AGQS. Due to the persistence of PFAS detections in area groundwater quality, the Permit issued to Lot 120 has been updated by NHDES to include annual monitoring of PFAS chemicals. The NHDES has also required a Supplemental Site Investigation (SSI) at both Former Tannery Sites to evaluate the source of PFAS in soil and groundwater. The suspected source for PFAS has been noted in past reports as the likely use of fire extinguishing foam when the tannery building was destroyed by fire in 1972. To date, the SSI work has not been completed to define the source of PFAS at the Former Tannery Sites.

ONYX RAYMOND LLC - PROPERTY SETTING

The subject Property is located off the east end of a cul-de-sac at the end of Industrial Drive in Raymond, NH. The subject Property is an active industrial area currently used for hard rock mining and contains an active quarry for rock blasting. The subject Property's contiguous acreage includes undeveloped parcel(s) of land which abut the active quarry. Future industrial development is planned after aggregate mining is complete. The subject Property is located to the south of the Former Regis and Rex Leather Tannery (Former Tannery Sites) which has been contaminated by total chromium and PFAS chemicals.

ENAC reviewed available topographic map features of the general vicinity based from United States Geological Survey (USGS) mapped coverage for the area dated 1919, 1932, 1939, 1944, 1951, 1957, 1959, 1965, 1973, 1981, 1988, 2012, 2015, and 2018. Topography across the subject Property is higher in elevation than the abutting Former Tannery Sites (to the north). Surface topography slopes downward from the subject Property to the north and northwest across the lower lying areas of the Former Tannery Sites. The local height of land across the subject Property has been mapped by USGS as 350-feet, where topography slopes downward to the north across the Former Tannery Sites depicting an average contour elevation at 200-feet. Past groundwater monitoring conducted at the Former Tannery Sites has inferred shallow groundwater flow directed north and northwest towards the nearby Lamprey River, away from the subject Property. The general shallow groundwater flow follows area topography.

Mapped groundwater flow infers that the subject Property is considered a hydrogeologic upgradient setting from the Former Tannery Sites. Contaminant migration of total chromium and PFAS chemicals at the Former Tannery Sites is directed north towards the Lamprey River under naturally occurring conditions following contaminant fate and transport. The subject

Property has not been identified as a potential receptor for contaminant migration from the Former Tannery Sites.

Wetland areas at the subject Property contain seasonal changes due to recent years of drought conditions. The presence of perennial stream beds exist across the upper topography at differing locations. Onyx Raymond LLC contracted with ENAC to collect 3-surface water quality samples for analyses of total chromium and PFAS in an effort to evaluate the potential for contaminant migration resulting from the adjoining Former Tannery Site sources.

ENVIRONMENTAL SAMPLING – ONYX RAYMOND LLC.

Surface Water Quality Sampling – Onyx Raymond LLC.

ENAC representative visited the subject Property to collect surface water samples from 3-existing wetland areas containing standing water on November 22, 2022. The 3-surface water sample locations are shown on the attached Site Plan. Grab water samples were collected from 3-selected wetland or stream bed areas of the subject Property with use of a dedicated water sample bottle connected to an extendable rod. Water samples for total chromium analysis were collected and field filtered with use of a 0.45-micron filter then placed in preserved laboratory containers. Grab water samples for PFAS analyses were collected from each location and placed directly in laboratory prepared containers. The water samples were placed inside a cooler with ice and delivered directly to a New Hampshire certified laboratory for the analyses of total chromium by EPA Method 200.8 and 24-compound list of PFAS and derivative chemicals by EPA Method 537 modified.

Total Chromium

Total chromium was detected at low concentrations or was not detected above laboratory detection limits from the 3-surface water samples. Resulting surface water quality concentrations for total chromium are presented in Table 1 below as compared to the NHDES Maximum Contaminant Level for water and fish ingestion for protection of human health:

Table 1 Summary of Surface Water Quality – Onyx Raymond LLC

Sample Designation: (surface water samples)	**Total Chromium Concentration:** (surface water samples)	**Total Chromium MCL: for water & fish ingestion human health criteria**
SFW-1	Total Chromium = 5.6 µg/L	100 µg/L
SFW-2	Total Chromium <1.0 µg/L	100 µg/L
SFW-3	Total Chromium = 24 µg/L	100 µg/L

Notes:
1. µg/L = micrograms per liter, equivalent to parts per billion (ppb).
2. SFW-1 sample designation for surface water sample location #1.
3. Total chromium Maximum Contaminant Level (MCL) from Table 1703-2A.
4. Table 1703-2A found in NH Code of Administrative Rules Env-Wq 1700.
5. Note the NHDES AGQS for total chromium = 100 µg/L.

Water samples from November 22, 2022 resulted with low concentrations of total chromium detected below the NHDES MCL for water and fish ingestion criteria of 100 micrograms per liter (µg/L). The same water quality value has been adopted as the AGQS for total chromium in drinking water at 100 µg/L. The detected total chromium concentrations at the subject Property are routinely detected as background concentrations in surface water bodies in the United States[1].

Per- and Polyfluoroalkyl Substances (PFAS)

As of the date of this report, ENAC has not received the water quality sampling results for PFAS analyses. Once the laboratory results are received, an addendum may be presented by ENAC with results of PFAS from the 3-surface water sample locations.

PROFESSIONAL OPINION

Based on available information reviewed, the following outlines my professional opinion regarding the environmental evaluation of the subject Property - Onyx Raymond LLC., as it relates to existing contamination at the hydrogeologic downgradient and adjoining Former Tannery Sites. It is my professional opinion that groundwater contamination from the Former Tannery Sites located on the north adjoining properties has not impacted the subject Property. The following information supports my professional opinion.

- Water quality samples have been collected by ENAC from 3-surface water sources at the subject Property and laboratory analyzed for the presence of total chromium and PFAS. Low detected concentrations of total chromium in surface water at the subject Property indicate the likely source is derived from precipitation and naturally occurring as background concentrations. The source of low detected concentrations of total chromium in surface water of the subject Property does not appear to be a result of groundwater recharge, groundwater discharge, or surface water runoff migration pathways.

- As of the date of this report, PFAS laboratory analytical results have not been received for inclusion with this report. An addendum with PFAS laboratory results may be presented once received.

- Past groundwater monitoring activity at the Former Tannery Sites has measured groundwater elevations and inferred shallow groundwater flow directed north and northwest toward the Lamprey River and away from the subject Property.

- The subject Property's setting is hydrogeologic upgradient from the Former Tannery Sites with steeply sloping upward topography elevation differences and therefore, under the existing natural conditions (no major groundwater pumping or withdrawal), there are no anticipated pathways for contaminant migration to impact the environment beneath the subject Property.

[1] Study and Interpretation of the Chemical Characteristics of Natural Water, USGS Water-Supply Paper 2254; Fourth Printing 1992, pp. 138-139 Chromium.

- Ground surface topography across the subject Property contain higher elevations compared to ground surface at lower lying elevations across the Former Tannery Sites. Groundwater flow under natural conditions follows the area topography in a north direction towards the Lamprey River located approximately 1,300-feet north of the subject Property.

- The Town of Raymond contracts with an environmental consultant (StoneHill Environmental) who conducts routine annual groundwater quality monitoring as part of their responsibility under conditions of Groundwater Management Permits for both Former Tannery Sites. ENAC has reviewed recent monitoring reports and a 2019 Water Well Receptor Survey Summary which have evaluated sensitive receptors located within a radius of 500-feet from both Former Tannery Sites. The northern portion of the subject Property is located within the 500-foot receptor radius and has not been identified as a potential sensitive receptor. Due to the hydrogeologic upgradient setting as compared to inferred shallow groundwater flow and anticipated contaminant migration pathways directed north from the Former Tannery Sites, the subject Property is low-risk for environmental contaminant migration.

- To date, the NHDES Hazardous Waste Remediation Bureau (HWRB) has not required subsurface investigations beneath the subject Property for the presence of contamination from historic releases at the Former Tannery Sites. This fact supports the conclusion of low-risk for contaminant migration onto, or beneath the subject Property.

It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC

Todd A. Greenwood, P.G.
President

Attachments: Sampling Site Plan
Laboratory Water Sample Results (ENAC)

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

15,438 SF WAREHOUSE 1 STORY

TAX MAP 28-3, LOT 43
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

BUILDING 3
63,500 SF
1 STORY

BUILDING 2
33,460 SF
1 STORY

BUILDING 1
38,881 SF
1 STORY

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

EXISTING LUMBER YARD

SFW-1

SFW-2

SFW-3

INDUSTRIAL ROAD

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

SCRIBNER ROAD

OLD MANCHESTER ROAD

WELLHEAD PROTECTION AREA BOUNDARY

PROJECT PROPERTY BOUNDARY

LAMPREY RIVER AQUIFER PROTECTION AREA BOUNDARY

GROUNDWATER PROTECTION ZONE

TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 24
JOHN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

TAX MAP 23, LOT 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

NH ROUTE 101 (WESTBOUND)

NH ROUTE 101 (EASTBOUND)

ZONE LINE "D" (INDUSTRIAL)

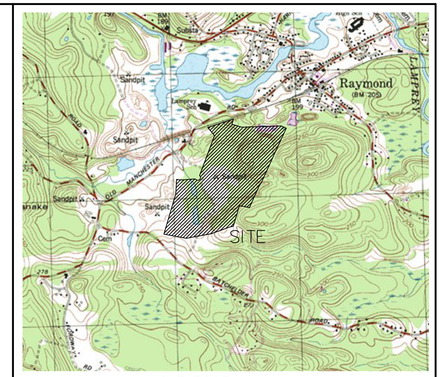
ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

ZONE LINE "B" (RESIDENTIAL AGRICULTURAL)

ZONE LINE "D" (INDUSTRIAL)

PLAN REFERENCE:

1. AN ALTA SURVEY AND PLAT OF PROPERTY PREPARED FOR M-O-H ENTERPRISES FL, INC. SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY R.S.L. LAYOUT & DESIGN, INC. DATED 2/21/1996



LOCUS SCALE: 1"=2000'

EXISTING CONDITIONS NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
2. BASE ELEVATION WAS ESTABLISHED THROUGH MULTIPLE GPS POST PROCESS OBSERVATIONS AND WAS REDUCED TO THE NAVD88 DATUM BY THE NATIONAL GEODETIC SURVEY OPUS SOFTWARE.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN WALDEN C.W.S., DURING SUMMER, 2021, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
   a. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
   b. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
   c. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
   d. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
7. SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING SPRING, 2022, AND IS BASED ON THE STANDARDS OF SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 2.0 (1999: SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND). THE MAP IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR THE USE(S) REQUIRING THE SITE SPECIFIC SOIL SURVEY AND IS PRODUCED BY A CERTIFIED SOIL SCIENTIST. IT IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. A NARRATIVE REPORT IS A COMPONENT OF THE MAP.
8. A TEMPORARY CULVERT AND ROADBED SHALL BE IN PLACE PRIOR TO ANY USE OF A WETLAND CROSSING.
9. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
10. TEST PITS PERFORMED BY WAYNE MORRILL, JONES & BEACH ENGINEERS, INC., 12/20/21.
11. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafdc	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0-8%; C SLOPE = 8-15%; D SLOPE = 15-25%

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531 ± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR
Checked: WGM	Scale: AS NOTED
Drawing Name: 21130-PLAN.dwg	Date: 8/19/21
	Project No.: 21130

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
2	11/10/22	REVISED PER AOT/TOWN ENGINEER/TRC COMMENTS	EMP
1	9/30/22	REVISED PER TOWN ENGINEER COMMENTS	EMP
0	8/18/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN
Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C1
SHEET 2 OF44
JBE PROJECT NO. 21130

Eastern Analytical, Inc.

professional laboratory and drilling services

Todd Greenwood
Enviro North American Consulting
PO Box 1075
Alton , NH 03809

Laboratory Report for:

Eastern Analytical, Inc. ID: 252744
Client Identification: ONYX RAYMOND
Date Received: 11/22/2022

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:

< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:

- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992
- ASTM International

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director — 12.7.22 Date

SAMPLE CONDITIONS PAGE

EAI ID#: **252744**

Client: **Enviro North American Consulting**

Client Designation: **ONYX RAYMOND**

Temperature upon receipt (°C): 5.8 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
252744.01	SFW-1	11/22/22	11/22/22 10:20	aqueous		Adheres to Sample Acceptance Policy
252744.02	SFW-2	11/22/22	11/22/22 10:40	aqueous		Adheres to Sample Acceptance Policy
252744.03	SFW-3	11/22/22	11/22/22 11:10	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **252744**

Client: **Enviro North American Consulting**

Client Designation: **ONYX RAYMOND**

Sample ID:	SFW-1	SFW-2	SFW-3					
Lab Sample ID:	252744.01	252744.02	252744.03					
Matrix:	aqueous	aqueous	aqueous					
Date Sampled:	11/22/22	11/22/22	11/22/22					
Date Received:	11/22/22	11/22/22	11/22/22	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Chromium	**0.0056**	< 0.001	**0.024**	AqDis	mg/L	11/23/22	200.8	DS

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

252744

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 MTBE ONLY; 524.2 VTICS; 8260 624; 1, 4 DIOXANE; 8021; 8015 GRO; MAVPH	SVOC: 8270 625; ABN PAH EDB DBCP; TPH8100 LI L2; 8015 DRO MAEPH; PEST 608 PCB 608; PEST 8081 PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS; VOC PEST HERB	INORGANICS: BOD CBOD; TS TSS TDS; BR CL F SO4; NO2 NO3 NO2NO3; TKN NH3 TN; T. PHOS. O. PHOS.; PH T. RES. CHLORINE SPEC. CON. T. ALK.; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI; FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	OTHER: PFAS/PFOS-24; # OF CONTAINERS
SFW-1	11/22/22 10:20	SW	G						✓	✓ 3
SFW-2	11/22/22 10:40	SW	G						✓	✓ 3
SFW-3	11/22/22 11:10	SW	G						✓	✓ 3

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

Page 4 of 4

No MeOH

PROJECT MANAGER: TODD GREENWOOD

COMPANY: ENAC

ADDRESS: P.O. BOX 1075

CITY: ALTON STATE: NH ZIP: 03809

PHONE: 603-875-8100 EXT.:

E-MAIL: tag@metrocast.net

SITE NAME: ONYX RAYMOND

PROJECT #:

STATE: (NH) MA ME VT OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: N/A

QUOTE #: PO #:

QA/QC REPORTING

A B C

MA MCP

TEMP. 5.8 °C

ICE? (YES) NO

REPORTING OPTIONS

PRELIMS: YES OR NO

ELECTRONIC OPTIONS

(PDF) EXCEL

EQUIS

OTHER

TURN AROUND TIME

24hr* 48hr*

3-4 Days*

(5 Day) 7 Day

10 Day

*Pre-approval Required

SAMPLER(S): TODD A. GREENWOOD

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	11/22/22	13:05	BAF
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN

OTHER METALS: Chromium

SAMPLES FIELD FILTERED? ☑ YES

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF E

Total dissolved chromium only Metals by ICP.

PFAS/PFOS 24 Comp. Li

SITE HISTORY: N/A

SUSPECTED CONTAMINATION: N/A

FIELD READINGS: N/A

Eastern Analytical, Inc.
professional laboratory and drilling services
51 Antrim Avenue | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTIC

(WHITE: Lab Copy GREEN: Customer Copy)

ENVIRO NORTH AMERICAN
CONSULTING, LLC

Riverbend Professional Building
P.O. Box 1075 Alton, NH 03809
Ph. (603) 875-8100
Fax (603) 875-8101
www.environorthamerican.com

January 12, 2023
Project 1190-681

Douglas Richardson, Executive V.P.
Onyx Partners Ltd.
200 Reservoir Street, Suite 306
Needham, MA 02494

And

Erik Poulin, P.E., CPESC-IT
Jones & Beach Engineers, Inc.
85 Portsmouth Avene
Stratham, NH 03885

Re: Levels of Mercury in Area Waterbodies

Subject: Onyx Raymond LLC.
Application #2022-010
Industrial Drive, Raymond, NH

Dear Gentlemen:

Enviro North American Consulting, LLC (ENAC) has completed an environmental evaluation of information and data pertaining to the proposed development of parcel(s) of land shown on an Existing Conditions Plan dated November 10, 2022 and referenced as the Onyx Raymond LLC – Raymond Distribution (subject Property). The contiguous parcels of the subject Property are located in the general east and northeast area off the end of cul-de-sac at Industrial Drive in Raymond, NH.

This letter report has been prepared by ENAC to support the proposed development by Onyx Raymond LLC. This addendum letter provides a brief discussion on background concentrations of mercury detected from area surface waters during past evaluations conducted by others.

Mercury in the Environment

Mercury is a common element found naturally occurring in the environment (soil, sediment, rocks). Mercury deposition in soil, sediment and impairing waters can be released to the environment which occur naturally resulting from weathering. Forest fires also release mercury to the environment. Mercury can also be found in the atmosphere and associated with releases through combustion from coal burning and is commonly released from naturally occurring volcano eruptions. The major source of mercury impacts to the environment are from atmospheric deposition from man-made or anthropogenic sources. Mercury does not tend to

degrade naturally and break-down to lesser concentrations under natural conditions in the environment.

Coal fired power plants are significant sources for atmospheric mercury found in New England states. Known sources for mercury in the environment come from industries which historically produced mercury containing byproducts released into the environment. Mercury had been used and applied as fungicides for agricultural applications, composition of mercury in paint, used as a production chemical in chlorine production, and commonly used historically in electrical component manufacturing of batteries and fluorescent lamps. Sources of mercury in the environment can be both naturally occurring and anthropogenic (industrial processes).

New Hampshire Mercury Deposition Concerns with Fish Consumption

The New Hampshire Department of Environmental Services (NHDES) has tracked depositional mercury in the environment as it relates to surface waters of the state. Depositional mercury can accumulate within lake sediment over time and transform into methylmercury which is a toxic form that can enter the food chain. As methylmercury enters the food chain it can begin to bioaccumulate in predatory fish and wildlife. All species of fish may have the presence of methylmercury but the older and larger predatory fish have higher levels.

The NHDES has cautioned the public regarding unsafe levels of mercury from fish consumption. The consumption of mercury risk is elevated for women who are pregnant, newborn and children up to 6-years old who consume fish with higher levels of mercury. There as been shown an increased risk for neurological impacts, increased risk of kidney failure, heart attack, and immune system deficiencies. As a result, the NHDES has a statewide fish consumption advisory which identify waterbodies and species of fish that have exhibited higher levels of mercury which are targeted for consumption. Attached to this letter report is the NHDES Fish Consumption Guidelines which lists the waterbody name and fish species to avoid or limit consumption.

Regulated Clean-up of Mercury Impacts in the Environment

The NHDES does not currently regulate the clean-up of depositional impacts of mercury from anthropogenetic sources which accumulate in the atmosphere and are deposited to earthen materials including the impairment of surface waters and pond or lake sediment. Mercury is subject to remedial investigation or cleanup under NH Code of Administrative Rules Env-Or 600 Contaminated Sites Management, if mercury wastes were discharged into the environment as a direct result of material processes or negligence. An example of regulatory authority over a cleanup scenario includes if a past process contained mercury in wastewater which discharged into the ground, groundwater, or surface water of the State and resulted with soil, sediment or water concentrations detected above State of NH or EPA federal Maximum Contaminant Levels (MCLs), a responsible party (RP) would be sought out to investigate and mitigate the release of mercury. Second example would include burying wastes containing mercury which leach impacting soil, sediment or water quality of the State at concentrations above applicable clean-up standards or MCLs.

Lot 120-1 Proposed Development

Based on review of available information for the proposed development of the subject Property by Onyx Raymond LLC, there is no existing or planned activity which warrants concern for additional mercury deposition to the area or environment. ENAC has reviewed a recent draft version of a Phase I Environmental Site Assessment report (December 2022) which did not identify past material processes that discharged mercury containing wastes into the environment and no Recognized Environmental Conditions (REC) were noted in the Phase I ESA.

The NHDES Global Information System (GIS) database includes a section for impaired water bodies of the State. A nearby surface water known as Jones Brook is listed on the database as impaired by mercury resulting from atmospheric deposition as a toxin. Current NHDES regulations do not warrant regulatory directed investigation or clean-up due to atmospheric deposition of mercury into the environment.

The planned proposed use of the subject Property includes development of a distribution warehouse and should be considered low-risk for the potential of mercury containing wastes discharged to the environment.

It has been a pleasure to assist you with your needs for environmental consulting.

ENVIRO NORTH AMERICAN CONSULTING, LLC

Todd A. Greenwood, P.G.
President

Attachments: NHDES Fish Consumption Guidelines

ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

ARD-EHP-25 2021

New Hampshire Fish Consumption Guidelines

Fish and shellfish are an important part of a healthy diet. They are a good source of low fat protein and contain nutrients like omega-3 fatty acids, a key nutrient for brain development. NHDES offers these fish consumption guidelines to educate the public regarding certain contaminants that have been analyzed in fish tissues. There are other contaminants that may be present in the environment that have not been analyzed, nor are they included in this advisory. Mercury analysis has been completed for a variety of the most common freshwater fish species, however not all species or waterbodies have been analyzed for mercury and the other contaminants listed in the advisory (fish sampled to date include 26 species, >230 waterbodies, ~4,000 fish). Mercury does not break down in the environment. Nearly all fish and shellfish have traces of mercury, and fish from some freshwater sources may also contain polychlorinated biphenyls (PCBs) or dioxin. Small amounts of mercury can damage a brain starting to form or grow. That is why babies and young children are at most risk. PCBs and dioxins are man-made organic chemicals which do not readily break down in the environment. They are taken up and may accumulate in fish. PCBs and dioxins have been shown to cause a variety of harmful health effects such as cancer as well as non-cancer health effects involving immune, reproductive, nervous and endocrine systems. Risks from mercury, PCBs and dioxin in fish and shellfish depend on the amount of fish and shellfish eaten and the levels of these contaminants in the fish and shellfish. You can eat fish and be healthy. Following these guidelines will help.

FRESHWATER FISH

The **high risk group** consists of pregnant and nursing women and women who may become pregnant (i.e., women of child bearing age) and children through age six. The **low risk group** consists of all other adults and children age seven and older. A meal size is 4 oz. for children age six and under. For older children and adults (including women in the high risk group) a meal size is 8 oz. Follow these fish consumption guidelines, they outline how much these groups can safely eat:

STATEWIDE FRESHWATER FISH ADVICE DUE TO MERCURY			
Waterbody Name	**Fish Species**	**High Risk Group**	**Low Risk Group**
All fresh lakes, ponds, rivers and streams[1]	Rainbow and Brown trout	1 meal per week	6 meals per week
	All other freshwater fish including Brook trout	1 meal per month	4 meals per month
	Largemouth and Smallmouth bass, Pickerel, White perch and Yellow perch	Limit consumption to fish 12 inches or less in length while following the above guidelines	

[1] NHDES. *Status and trends of mercury in fish tissue in New Hampshire waterbodies, 1992-2016.* Final Report, Concord, November 2017. [publication #R-WD-17-22]

SPECIAL ADVICE FOR OTHER NEW HAMPSHIRE FRESH WATERBODIES				
Waterbody Name	**Fish Species**	**High Risk Group**	**Low Risk Group**	**Contaminant**
Androscoggin River from Berlin to the Maine border[2]	All freshwater fish	Do not eat	Do not eat	Dioxin and Mercury
Ashuelot Pond (Washington)	All freshwater fish	Do not eat	2 meals per month	Mercury
Beaver Lake (Derry)	Large & smallmouth bass	1 meal per month	3 meals per month	PFOS
Canobie Lake (Salem)	All freshwater fish	1 meal per month	3 meals per month	PFOS
Cobbetts Pond (Windham)	Large & smallmouth bass	1 meal per month	2 meals per month	PFOS
Comerford and Moore Reservoirs on the Connecticut River[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
Country Pond (Kingston/Newton)[3]	Large and Smallmouth bass	1 meal per month and 6 meals per year	6 meals per year	PCBs and Mercury
	All other fish species	1 meal per month	21 meals per year	PCBs and Mercury
Crescent Lake (Newport)[4]	Yellow perch	1 meal per month	7 meals per month	Mercury
Crystal Lake (Gilmanton)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
Dubes Pond (Hooksett)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
Eastman Pond (Grantham)[4]	Yellow perch	2 meal per month	11 meals per month	Mercury
	Smallmouth bass	1 meal per month	5 meals per month	Mercury
Horseshoe Pond (Merrimack)	All freshwater fish	Children younger than 7 years - Do not eat	1 meal per month	PFOS
		Women of childbearing age - 1 meal per month		
Jackman Reservoir (Hillsboro)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
Mascoma Lake (Enfield)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
May Pond (Washington)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury
Perkins Pond	Largemouth bass	1 meal per month	3 meals per month	Mercury

[2] Chlor-Alkali former superfund site, Berlin, NH – https://semspub.epa.gov/work/01/550299.pdf

[3] NHDES Interoffice Memo. Ottati & Goss/Great Lakes Container Corp. Site, Kingston, NH - Evaluation of PCB Contamination in Fish Sampled from Country Pond. December 30, 2011.

[4] NHDES. "Evaluation of Mercury Concentration in Fish Collected from Claremont Area Water Bodies." Health Consultation, Concord, 2009.

SPECIAL ADVICE FOR OTHER NEW HAMPSHIRE FRESH WATERBODIES				
Waterbody Name	**Fish Species**	**High Risk Group**	**Low Risk Group**	**Contaminant**
(Sunapee)[4]	Yellow perch	1 meal per month	8 meals per month	Mercury
	Smallmouth bass	1 meal per month	5 meals per month	Mercury
Rand Pond (Goshen)[4]	Yellow perch	2 meals per month	12 meals per month	Mercury
	Brown bullhead	2 meals per month	13 meals per month	Mercury
Robinson Pond (Hudson)	All freshwater fish	Children younger than 7 years - Do not eat	2 meals per month	PFOS
		Women of childbearing age - 1 meal per month		
Souhegan River between Riverway East and the Goldman Dam[5]	All freshwater fish	Do not eat	Do not eat	PCBs
Squam Lake and Little Squam Lake	Yellow perch	4 meals per year	1 meal per month	PCBs
	All other freshwater fish	1 meal per year	3 meals per year	PCBs
Stocker Pond (Grantham)[4]	Rock Bass	2 meals per month	10 meals per month	Mercury
Tower Hill Pond (Candia)[1]	All freshwater fish	Do not eat	2 meals per month	Mercury

SALTWATER FISH, SHELLFISH AND COMMERCIALLY AVAILABLE FISH

For all saltwater fish, shellfish and commercially available fish please follow these consumption guidelines:

Fish Species	High Risk Group	Low Risk Group
BEST CHOICES Catfish, Cod, Flounder, Haddock, Herring, Light Tuna (canned), Pollack, Sole, Salmon, Tilapia and Shellfish (Oysters, Shrimp, Crab, Clams, Scallops, Lobster)	2 meals per week	No limit
GOOD CHOICES Halibut, Red Snapper, Tuna Steak, and White Tuna (canned)	1 meal per week	No limit
CAUTION King Mackerel, Swordfish, Shark, Tilefish	Do not eat	2 meals per month
AVOID CONSUMPTION Lobster tomalley (green substance in lobster)	Do not eat	Do not eat

Consumption restrictions for both salt water and freshwater fish should be considered together and cumulatively. For example, a pregnant woman may have one meal of freshwater fish, but is advised not to consume any additional mercury containing freshwater or saltwater fish that month.

Remember: "meal" sizes are 4 oz. for children age six and under and 8 oz. for older children and adults.

FOR MORE INFORMATION

[5] Fletcher's Paint Works & Storage superfund site, Milford, NH – https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Healthenv&id=0101085

To find more information regarding the details on waterbody-specific advisories, please call the NHDES Rivers and Lakes coordinator at (603) 271-2959.

The technical background for the 2018 update to the New Hampshire Statewide Mercury Fish Consumption Advisory, is based on: NHDES. “Status and trends of mercury in fish tissue in New Hampshire waterbodies, 1992 - 2016.” Final Report, Concord, November 2017. [publication #R-WD-17-22]

For general questions about fishing regulations in New Hampshire, please call the New Hampshire Fish and Game Department at (603) 271-3421, or visit the NH Fish and Game website.

NPDES FORM 3510-9	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF INTENT (NOI) FOR THE 2022 NPDES CONSTRUCTION PERMIT	FORM Approved OMB No. 2040-0305

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section III of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section II of this form. Submission of this NOI also constitutes notice that the operator identified in Section III of this form meets the eligibility requirements of Part 1.1 CGP for the project identified in Section IV of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

Permit Information

NPDES ID: NHR1001GN

State/Territory to which your project/site is discharging: NH

Is your project/site located on federally recognized Indian Country lands? No

Are you requesting coverage under this NOI as a *"Federal Operator"* or a *"Federal Facility"* as defined in Appendix A (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-a-definitions.pdf)?

No

Have stormwater discharges from your current construction site been covered previously under an NPDES permit? Yes

Your most current NPDES ID: NHR120000

Will you use polymers, flocculants, or other treatment chemicals at your construction site? No

Has a Stormwater Pollution Prevention Plan (SWPPP) been prepared in advance of filling this NOI, as required? Yes

Are you able to demonstrate that you meet one of the criteria listed in Appendix D (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-d-endangered-species-protection.pdf) with respect to protection of threatened or endangered species listed under the Endangered Species Act (ESA) and federally designated critical habitat?

Yes

Have you completed the screening process in Appendix E (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-e-historic-properties.pdf) relating to the protection of historic properties?

Yes

Indicating "Yes" below, I confirm that I understand that CGP only authorized the allowable stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an Inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit.

Yes

Operator Information

Operator Information

Operator Name: Anton Melchionda

Operator Mailing Address:

Address Line 1: 60 Centre Street

Address Line 2:

City: Dover

ZIP/Postal Code: 02030

State: MA

County or Similar Division: Norfolk

Operator Point of Contact Information

First Name **Middle Initial** **Last Name:** Anton . Melchionda

Title: Owner/Operator

Phone: 617-835-4770 **Ext.:**

Email: anton@onyxpartnersltd.com

NOI Preparer Information

☑ **This NOI is being prepared by someone other than the certifier.**

First Name **Middle Initial** **Last Name:** Tyler P Scognamiglio

Organization: Jones & Beach Engineers, inc.

Phone: 603-772-4746 **Ext.:**

Email: tscognamiglio@jonesandbeach.com

Project/Site Information

Project/Site Name: Raymond Distribution

Project/Site Address

Address Line 1: Industrial Drive

Address Line 2:

City: Raymond

ZIP/Postal Code: 03077 **State:** NH

County or Similar Division: Rockingham

Latitude/Longitude: 43.030916°N, 71.187478°W

Latitude/Longitude Data Source: Map **Horizontal Reference Datum:** WGS 84

Project Start Date: 04/11/2022 **Project End Date:** 04/11/2023 **Estimated Area to be Disturbed:** 45

Types of Construction Sites:

- Industrial

Will there be demolition of any structure built or renovated before January 1, 1980? No

Will you be discharging dewatering water from your site? No

Was the pre-development land use used for agriculture? No

Are there other operators that are covered under this permit for the same project site? No

Have earth-disturbing activities commenced on your project/site? No

Is your project/site located on federally recognized Indian Country lands? No

Is your project/site located on a property of religious or cultural significance to an Indian tribe? No

Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? No

Are there any waters of the U.S. within 50 feet of your project's earth disturbances? No

Are any of the waters of the U.S. to which you discharge designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)? See Resources, Tools and Templates (https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates)

No

001: Jones Brook Jones Brook - NHRIV600030703-02

Latitude/Longitude: 43.028331°N, 71.19433°W

Tier Designation: N/A

Is this receiving water impaired (on the CWA 303(d) list)? Yes

Impaired Pollutants:

- Ammonia
- Benthic macroinvert. community
- Chloride
- Dissolved oxygen
- E. coli
- Sulfates
- Mercury
- pH
- Turbidity
- Phosphorus

Has a TMDL been completed for this receiving waterbody? No

Stormwater Pollution Prevention Plan (SWPPP)

Will all required personnel, including those conducting inspections at your site, meet the training requirements in Part 6 of this permit? Yes

First Name Middle Initial Last Name: Erik . Poulin

Organization:

Title: Project Manager

Phone: 603-772-4746 **Ext.:**

Email: epoulin@jonesandbeach.com

Endangered Species Protection Worksheet: Criterion C

Determine ESA Eligibility Criterion

Are your discharges and discharge-related activities already addressed in another operator's valid certification of eligibility for your "action area" under the current 2022 CGP? No

Has consultation between you, a Federal Agency, and the USFWS and/or the NMFS under section 7 of the Endangered Species Act (ESA) concluded? No

Are your construction activities the subject of a permit under section 10 of the ESA by the USFWS and/or NMFS, and this authorization addresses the effects of your site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat?

No

You must determine whether species listed as either threatened or endangered, or their critical habitat(s) are located in your site's action area (i.e., all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action, including areas beyond the footprint of the site that are likely to be affected by stormwater discharges, discharge-related activities, and authorized non-stormwater discharges).

Determine your Action Area

You must consider the following in determining the action area for your site, and **confirm that all the following are true:**

- **In determining my "action area", I have considered that discharges of pollutants into downstream areas can expand the action area well beyond the footprint of my site and the discharge point(s). I have taken into account the controls I will be implementing to minimize pollutants and the receiving waterbody characteristics (e.g., perennial, intermittent, ephemeral) in determining the extent of physical, chemical, and/or biotic effects of the discharges. I confirm that all receiving waterbodies that could receive pollutants from my site are included in my action area.**

  True

- **In determining my "action area", I have considered that discharge-related activities must also be accounted for in determining my action area. I understand that discharge-related activities are any activities that cause, contribute to, or result in stormwater and authorized non-stormwater point source discharges, and measures such as the siting, construction timing, and operation of stormwater controls to control, reduce, or prevent pollutants from being discharged. I understand that any new or modified stormwater controls that will have noise or other similar effects, and any disturbances associated with construction of controls, are part of my action area.**

  True

Determine is ESA-listed species and/or critical habitat are in your site action area.

ESA-listed species and designated critical habitat are under the purview of the NMFS and the USFWS, and in many cases, you will need to acquire species and critical habitat lists from both federal agencies.

National Marine Fisheries Service (NMFS)

For NMFS species and designated critical habitat information, use the following webpage:

- https://www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility (https://www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility)

I have checked the webpage listed above and confirmed that:

- (•) There are no NMFS-protected species and/or designated critical habitat in my action area.
- ( ) There are NMFS-protected species and/or designated critical habitat in my action area.

U.S. Fish and Wildlife Service (USFWS)

For USFWS species and critical habitat information, use the following webpage:

- https://www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility (https://www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility)

I have checked the webpage listed above and confirmed that:

- ( ) There are no FWS-protected species and/or designated critical habitat in my action area.
- (•) There are FWS-protected species and/or designated critical habitat in my action area.

For FWS species, include the full printout from your IPaC query/Official Species List.

Name	Uploaded Date	Size
Species List_ New England Ecological Services Field Office.pdf (attachment/1498312)	04/11/2022	244.65 KB

You may be eligible under **Criterion C.** You must assess whether your discharges or discharge-related activities are likely to result in short- or long-term adverse effects to ESA-listed threatened or endangered species or designated critical habitat. In order to make a determination of your site's likelihood of short- or long-term adverse effects, you must complete the Criterion C Eligibility fields below.

Discharges not likely to result in any short- or long-term adverse effects to ESA-listed species and/or designated critical habitat. True

You are eligible under **Criterion C.**

I confirm that both ESA-listed species and designated critical habitat under the jurisdiction of the USFWS and/or NMFS were considered in my evaluation. Yes

Identify the USFWS information sources used (Note: state resources are not acceptable):

ESA Section 7 Mapper

Identify the NMFS information sources used (Note: state resources are not acceptable):

IPAC Species List

You must provide a list of all ESA-listed species and/or designated critical habitat that are located in your "action area". Select one of the options below and provide the required information:

- ○ Option 1: Enter ESA-listed species
- ◉ Option 2: Attach the species list(s)

Attach a printout of the species list(s) showing all ESA-listed species and/or designated critical habitat located in your "action area" using the space below:

Name	Uploaded Date	Size
Species List_ New England Ecological Services Field Office.pdf (attachment/1498314)	04/11/2022	244.65 KB

What is the distance between your site and the ESA-listed species and/or designated critical habitat within the action area (in miles, state "on site" if the ESA-listed species and/or designated critical habitat is within the area to be disturbed)?

0

Provide the rationale describing specifically how adverse effects to ESA-listed species will be avoided from the discharge and discharge-related activities.

We got a New Hampshire National Heritage Bureau sign off for this project

Attach a copy of your site map showing the upland and in-water extent of your "action area".

Note: A copy of this site map must also be included with your SWPPP

Name	Uploaded Date	Size
NOI Site Map.pdf (attachment/1498329)	04/11/2022	12.29 MB

Have you provided documentation in your SWPPP supporting your eligibility under Criterion C? Yes

Historic Preservation

Are you installing any stormwater controls as described in Appendix E (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-e-historic-properties.pdf) that require subsurface earth disturbances? (Appendix E (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-e-historic-properties.pdf), Step 1)

Yes

Have prior surveys or evaluations conducted on the site already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-e-historic-properties.pdf), Step 2):

Yes

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

Certified By: Bradford A. Jones

Certifier Title: vice president

Certifier Email: bjones@jonesandbeach.com

Certified On: 04/11/2022 1:34 PM ET

Application # 2022-010

JONES & BEACH ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

Stormwater Pollution Prevention Plan (SWPPP)

For Construction Activities At:

"Raymond Distribution"
Industrial Drive
Raymond, NH 03077

Prepared For:

Hard Rock Development
84 Exeter Road
South Hampton, NH

SWPPP Preparation Date:
April 11, 2022

JBE Project No.: 21130

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SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 Operator(s) / Subcontractor(s)

Instructions (see definition of "operator" at CGP Part 1.1.1):

- Identify the operator(s) who will be engaged in construction activities at the site. Indicate respective responsibilities, where appropriate. Also include the 24-hour emergency contact.
- List subcontractors expected to work on-site. Notify subcontractors of stormwater requirements applicable to their work.
- Consider using Subcontractor Agreements such as the type included as a sample in Appendix G of the Template.

Operator(s):

Anton Melchionda
60 Centre Street
Dover, Massachusetts
Phone: (617) 835-4770
Email: anton@onyxpartnersltd.com

Contractor:

Name: Severino Trucking
Street: 512 Raymond Road
Town: Candia, NH 03034
Phone: (603) 483-2133
Email: tseverino@severino.com

Emergency 24-Hour Contact:

Name: Thomas Severino
Cell Phone: (603) 234-8502
Email: tseverino@severino.com

1.2 Stormwater Team

Instructions (see CGP Part 7.2.2):

- Identify the staff members (by name or position) that comprise the project's stormwater team as well as their individual responsibilities. At a minimum the stormwater team is comprised of individuals who are responsible for overseeing the development of the SWPPP, any later modifications to it, and for compliance with the requirements in this permit (i.e., installing and maintaining stormwater controls, conducting site inspections, and taking corrective actions where required).
- Each member of the stormwater team must have ready access to either an electronic or paper copy of applicable portions of the 2022 CGP and your SWPPP.
- Prior to the start of construction activities, you must ensure that all persons assigned to the stormwater team understand the requirements of this permit and their specific responsibilities with respect to those requirements, as states in Part 6.2 of the CGP.
- For projects that receive coverage under this permit on or after February17, 2023, to be considered a qualified person for conducting inspections, you must meet the qualifications of Part 6.3 of the CGP.

Day to day monitoring of SWPPP Conditions
Site Supervisor
Severino Trucking
Phone: (603) 483-2133
Email: tseverino@severino.com

Development & any Modifications to SWPPP
Senior Construction Inspector, Vice President
Bradford A. Jones, Jones & Beach Engineers, Inc.
Phone: (603) 772-4746
Email: bjones@jonesandbeach.com

Inspect conditions on-site of an ongoing basis
Senior Construction Inspector, Vice President
Bradford A. Jones, Jones & Beach Engineers, Inc.
Phone: (603) 772-4746
Email: bjones@jonesandbeach.com

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING

2.1 Project/Site Information

Instructions (see "Project/Site Information" section of Appendix J – NOI form):

- In this section, you are asked to compile basic site information that will be helpful to you when you file your NOI.

Project Name and Address

Project/Site Name: **Raymond Distribution**
Project Street/Location: **Industrial Drive**
City: **Raymond**
State: **New Hampshire**
ZIP Code: **03077**
County or Similar Subdivision: **Rockingham County**

Project Latitude/Longitude

(Use **one** of three possible formats, and specify method)

Latitude:	Longitude:
1. 43 ° 01 ' 52.40" N (degrees, minutes, seconds)	1. 71 ° 11 ' 29.60" W (degrees, minutes, seconds)
2. _ _ ° _ _ . _ _ ' N (degrees, minutes, decimal)	2. _ _ ° _ _ . _ _ ' W (degrees, minutes, decimal)
3. _ _ . _ _ _ _ ° N (decimal)	3. _ _ . _ _ _ _ ° W (decimal)

Method for determining latitude/longitude:
☐ USGS topographic map (specify scale: ☐ EPA Web site ☐ GPS
☒ Other (please specify): GOOGLE EARTH PRO

Horizontal Reference Datum:
☐ NAD 27 ☒ NAD 83 or WGS 84 ☐ Unknown

If you used a U.S.G.S topographic map, what was the scale? _____

Additional Project Information

Is the project/site located on Indian country lands, or located on a property of religious or cultural significance to an Indian tribe? ☐ Yes ☒ No

If yes, provide the name of the Indian tribe associated with the area of Indian country (including the name of Indian reservation if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property:

If you are conducting earth-disturbing activities in response to a public emergency, document the cause of the public emergency *(e.g., natural disaster, extreme flooding conditions)*, information substantiating its occurrence *(e.g., state disaster declaration)*, and a description of the construction necessary to reestablish effective public services:

Are you applying for permit coverage as a "federal operator" as defined in Appendix A of the 2022 CGP? ☒ Yes ☐ No

2.2 Discharge Information

Instructions (see "Discharge Information" section of Appendix J – NOI form):

- In this section, include information relating to your site's discharge. This information corresponds to the "Discharge Information" section of the NOI form. Because you may be using EPA's mapping tool to answer some of these questions, and the tool is accessed in the eNOI system, you may find it necessary to leave some questions unanswered until you have completed that portion of the NOI.
- For Table 1, list the name of the first surface water that receives discharges from your site. If your site has discharges to multiple surface waters, indicate the names of all such waters.
- For Table 2, if any of the surface waters you listed out in Table 1 are listed as impaired by the applicable State or Tribe, provide specified information about pollutants causing the impairment and whether or not a Total Maximum Daily Load (TMDL) has been completed for the surface water. For more information on TMDLs and impaired waters, including a list of TMDL contacts and links by state, visit www.epa.gov/npdes/stormwater/tmdl.
- For Table 3, indicate whether any of the surface waters you listed out in Table 1 are designated as Tier 2, 2.5, or 3 waters by your State or Tribe. See Appendix F for more information.

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ Yes ☒ No

Are there any surface waters that are located within 50 feet of your construction disturbances?
☐ Yes ☒ No

Table 1 – Names of Receiving Waters

Name(s) of the first surface water that receives stormwater directly from your site and/or from the MS4 (note: multiple rows provided where your site has more than one point of discharge that flows to different surface waters)
1. Raymond Pond
2.
3.
4.
5.
6.

[Include additional rows as necessary.]

Table 2 – Impaired Waters / TMDLs (Answer the following for each surface water listed in Table 1 above)

	Is this surface water listed as "impaired"?	If you answered yes, then answer the following:			
		What pollutant(s) are causing the impairment?	Has a TMDL been completed?	Title of the TMDL document	Pollutant(s) for which there is a TMDL
1.	☒ YES ☐ NO	**Mercury**	☐ YES ☒ NO		**Mercury**
2.	☐ YES ☐ NO		☐ YES ☐ NO		
3.	☐ YES ☐ NO		☐ YES ☐ NO		
4.	☐ YES ☐ NO		☐ YES ☐ NO		
5.	☐ YES ☐ NO		☐ YES ☐ NO		
6.	☐ YES ☐ NO		☐ YES ☐ NO		

Describe the method(s) you used to determine whether or not your project/site discharges to an impaired water: NHDES Website

Table 3 – Tier 2, 2.5, or 3 Waters (Answer the following for each surface water listed in Table 1 above)

	Is this surface water designated as a Tier 2, Tier 2.5, or Tier 3 water? (see Appendix F)	If you answered yes, specify which Tier (2, 2.5, or 3) the surface water is designated as?
1.	☐ YES ☒ NO	
2.	☐ YES ☐ NO	
3.	☐ YES ☐ NO	
4.	☐ YES ☐ NO	
5.	☐ YES ☐ NO	
6.	☐ YES ☐ NO	

2.3 Nature of the Construction Activity

Instructions (see CGP Parts 1.2 and 7.2.3):

- Provide a general description of the nature of the construction activities at your project.
- Describe the size of the property (in acres) and the total area expected to be disturbed by the construction activities (in acres), construction support activities covered by this permit (see Part 1.2 of the permit), and the maximum area expected to be disturbed at any one time.

General Description of Project

Provide a general description of the construction project:

The proposed site development and construction consists of the construction of a distribution center with associated loading docks, truck parking, and employee vehicle parking.

Size of Construction Project

What is the size of the property (in acres), the total area expected to be disturbed by the construction activities (in acres), and the maximum area expected to be disturbed at any one time?

Total property size: 123.52 acres

Total Area of Construction Disturbances: 50.0 acres

Maximum area to be disturbed at one time: 50.0 acres

Construction Support Activities (only provide if applicable)

Describe any construction support activities for the project (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas)

N/A

2.4 Sequence and Estimated Dates of Construction Activities

Instructions (see CGP Part 7.2.5):

- Describe the intended construction sequence and timing of major activities.
- For each phase of construction, include the following information:
  - ✓ Installation of stormwater controls, and when they will be made operational;
  - ✓ Commencement and duration of earth-disturbing activities, including clearing and grubbing, mass grading, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization;
  - ✓ Cessation, temporarily or permanently, of construction activities on the site, or in designated portions of the site;
  - ✓ Final or temporary stabilization of areas of exposed soil. The dates for stabilization must reflect the applicable deadlines to which you are subject to in Part 2.2.1; and
  - ✓ Removal of temporary stormwater conveyances/channels and other stormwater control measures, removal of construction equipment and vehicles, and cessation of any pollutant-generating activities.
- The construction sequence must reflect the following requirements:
  - ✓ Part 2.2.14.a (area of disturbance);
  - ✓ Parts 2.2, 2.3 (installation of stormwater controls); and
  - ✓ Parts 2.2.14.a, 2.2.14.b (stabilization deadlines).

Phase I (Tree removal)

1. Install stabilized construction entrances and/or staging areas as required.

2. Cut and remove trees for the total construction area as depicted on the plans. Stumps are *not* to be removed at this stage of the project.

3. All appropriate forestry Best Management Practices shall be observed at all times.

Phase II (Pond construction)

1. Install silt fencing, filter berms, and any other perimeter controls prior to the start of stump removal or other earth disturbance. These are to be maintained until the area is permanently stabilized.

2. Stump, grub, and dispose of debris in approved facilities.

3. Strip loam within limits of work and stockpile excess material. Stabilize stockpile as necessary.

4. Construct ponds per Sheets C3 and D1 of the plan set.

5. Stabilize and vegetate pond areas per Sheet C3, D1 and E1.

Phase III (Site pad preparation)

1. Install silt fencing, filter berms, and any other perimeter controls prior to the start of stump removal or other earth disturbance. These are to be maintained until the area is permanently stabilized.

2. Stump, grub, and dispose of debris in approved facilities. This applies only to the area involved with this phase.

3. Construct temporary sediment basin as depicted on the plans. This facility shall be installed and stabilized prior to directing runoff to it.

4. Strip loam within limits of work and stockpile excess material. Stabilize stockpile as necessary.

5. Perform site grading in accordance with the grading plans.

6. Daily, or as required, construct temporary berms, drainage ditches, check dams, sediment traps, etc., to prevent erosion on the site and prevent any siltation of abutting waters and/or property.

7. Loam and seed all disturbed areas not stabilized with gravel and install any required sediment and erosion control facilities (i.e. riprap, erosion control blankets, etc.)

Phase IV (Wetland restoration area)

1. Pre-construction meeting to be conducted prior to start of work to identify areas of responsibility for involved parties and to review goals of the project.

2. Install silt fence two feet outside natural wetland boundary as identified on the plans and/or directed by the environmental consultant or engineer. Additional erosion and sediment control measures may be required at the discretion of the environmental consultant and/or the engineer.

3. Maintain silt fence and all other sediment and erosion control measures throughout the construction process.

4. Conduct excavation and brick/rubble removal to one foot below the lines and grades depicted on the plans (unless otherwise directed by the environmental consultant or engineer as field adjustment of grades may be necessary).

5. Place 12" of screened organic loam over entire disturbed area.

6. Seed entire area with the "New England Wetmix" available from New England Wetland Plants, Inc., Amherst, MA (413) 256-1752. Seeding shall be done at a rate of 1 lb. per 2,500 s.f. (17.42 lbs. per acre).

7. Seed transitional upland area understory with "New England Conservation/Wildlife Mix" available from New England Wetland Plants, Inc., Amherst, MA (413) 256-1752. Seeding shall be done at a rate of 7 lbs. per 10,000 s.f. (30.49 lbs. per acre).

8. All areas shall receive adequate hay or straw mulch immediately after seeding is complete.

9. Plant "transitional upland" area with shrubs as indicated in table below.

10. Silt fencing and any other erosion and sediment control measures are to be removed after the successful establishment of vegetation (approx. 1 year).

2.5 Allowable Non-Stormwater Discharges

Instructions (see CGP Parts 1.2.2 and 7.2.5):

- Identify all allowable sources of non-stormwater discharges. The allowable non-stormwater discharges identified in Part 1.2.2 of the 2022 CGP include:
  - ✓ Discharges from emergency fire-fighting activities;
  - ✓ Fire hydrant flushings;
  - ✓ Landscape irrigation;
  - ✓ Waters used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;
  - ✓ Water used to control dust;
  - ✓ Potable water including uncontaminated water line flushings;
  - ✓ Routine external building wash down that does not use detergents;
  - ✓ Pavement wash waters provided spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and detergents are not used. You are prohibited from directing pavement was waters directly into any receiving water, storm drain inlet, or constructed or natural site drainage features, unless the feature is connected to a sediment basin, sediment trap, or similarly effective control;
  - ✓ Uncontaminated air conditioning or compressor condensate;
  - ✓ Uncontaminated, non-turbid discharges of ground water or spring water;
  - ✓ Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water; and
  - ✓ Uncontaminated construction dewatering water that has been treated by an appropriate control.

List of Allowable Non-Stormwater Discharges Present at the Site

Type of Allowable Non-Stormwater Discharge	Likely to be Present at Your Site?
Discharges from emergency fire-fighting activities	☐ YES ☒ NO
Fire hydrant flushings	☒ YES ☐ NO
Landscape irrigation	☒ YES ☐ NO
Waters used to wash vehicles and equipment	☐ YES ☒ NO
Water used to control dust	☒ YES ☐ NO
Potable water including uncontaminated water line flushings	☒ YES ☐ NO
Routine external building wash down	☒ YES ☐ NO
Pavement wash waters	☐ YES ☒ NO
Uncontaminated air conditioning or compressor condensate	☒ YES ☐ NO
Uncontaminated, non-turbid discharges of ground water or spring water	☐ YES ☒ NO
Foundation or footing drains	☐ YES ☒ NO
Uncontaminated construction dewatering water	☐ YES ☒ NO

(Note: You are reminded of the requirement to identify the likely locations of these allowable non-stormwater discharges on your site map. See Section 2.6, below, of the SWPPP Template.)

2.6 *Site Maps*

Instructions (see CGP Part 7.2.4):

- Attach site maps in Appendix A of the Template. For most projects, a series of site maps is necessary and recommended. The first should show the undeveloped site and its current features. An additional map or maps should be created to show the developed site or, for more complicated sites, show the major phases of development.

These maps must include the following features:

- Boundaries of the property and of the locations where construction will occur, including:
  - ✓ Locations where earth-disturbing activities will occur, noting any phasing of construction activities;
  - ✓ Approximate slopes before and after major grading activities. Note areas of steep slopes, as defined in Appendix A;
  - ✓ Locations where sediment, soil, or other construction materials will be stockpiled;
  - ✓ Any receiving water crossing;
  - ✓ Designated points on the site where vehicles will exit onto paved roads;
  - ✓ Locations of structures and other impervious surfaces upon completion of construction; and
  - ✓ Locations of on-site and off-site construction support activity areas covered by this permit.
- Locations of any receiving waters within the site and all receiving waters within one mile downstream of the site's discharge point(s). Also identify if any of the receiving waters are listed as impaired or are identified as a Tier 2, Tier 2.5, or Tier 3 water;
- Any areas of federally listed critical habitat within the action area of the site;
- Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures);
- Drainage patterns of stormwater and authorized non-stormwater before and after major grading activities;
- Stormwater and allowable non-stormwater discharge locations, including:
  - ✓ Locations where stormwater and/or authorized non-stormwater will be discharged to storm drain inlets, including a notation of whether the inlet coveys stormwater to a sediment basin, sediment trap, or similarly effective control;
  - ✓ Locations where stormwater or authorized non-stormwater will be discharged directly to receiving waters (i.e. not via a storm drain inlet); and
  - ✓ Locations where turbidity benchmark monitoring will take place to comply with CGP part 3.3, if applicable to site.
- Locations of all potential pollutant-generating activities.
- Designated areas where construction wastes that are covered by the exception in CGP part 2.3.3e.ii because they are not pollutant-generating will be stored;
- Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with this permit; and.
- Locations where polymers, flocculants, or other treatment chemicals will be used and stored.

SECTION 3: DOCUMENTATION OF COMPLIANCE WITH OTHER FEDERAL REQUIREMENTS

3.1 Endangered Species Protection

Instructions (see CGP Parts 1.1.5, 7.2.9.a, Appendix D, and the "Endangered Species Protection" section of the Appendix J – NOI form):

Follow the process in Appendix D of the permit for determining which eligibility criterion (A-E) you have met with respect to the protection of endangered species. You will

- Include documentation supporting your determination of eligibility.
- Additional information on Endangered Species Act (ESA) provisions for EPA's Construction General Permit is at https://www.epa.gov/laws-regulations/summary-endangered-species-act

Eligibility Criterion

Under which criterion listed in Appendix D are you eligible for coverage under this permit?

☒ **A** ☐ **B** ☐ **C** ☐ **D** ☐ **E**

For reference purposes, the eligibility criteria listed in Appendix D are as follows:

Criterion A. No federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's "action area" as defined in Appendix A of this permit.

Criterion B. The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your action area under eligibility Criterion A, C, D, E, or F and there is no reason to believe that federally-listed species or federally-designated critical habitat not considered in the prior certification may be present or located in the "action area". To certify your eligibility under this Criterion, there must be no lapse of NPDES permit coverage in the other operator's certification. By certifying eligibility under this Criterion, you agree to comply with any effluent limitations or conditions upon which the other operator's certification was based. You must include in your NOI the tracking number from the other operator's notification of authorization under this permit. If your certification is based on another operator's certification under Criterion C, you must provide EPA with the relevant supporting information required of existing dischargers in Criterion C in your NOI form.

Criterion C. Federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in or near your site's "action area," and your site's discharges and discharge-related activities are not likely to adversely affect listed threatened or endangered species or critical habitat. This determination may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to adversely affect listed species and critical habitat. To make this certification, you must include the following in your NOI: 1) any federally listed species and/or designated habitat located in your "action area"; and 2) the distance between your site and the listed species or designated critical habitat (in miles). You must also include a copy of your site map with your NOI.

Criterion D. Coordination between you and the Services has been concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and must have resulted in a written concurrence from the relevant Service(s) that your site's discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Criterion E. Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has been concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat. The result of this consultation must be either:

i. a biological opinion that concludes that the action in question (taking into account the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modification of critical habitat; or

ii. written concurrence from the applicable Service(s) with a finding that the site's discharges and discharge-related activities are not likely to adversely affect federally-listed species or federally-designated habitat.

You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Criterion F. Your construction activities are authorized through the issuance of a permit under section 10 of the ESA, and this authorization addresses the effects of the site's discharges and discharge-related activities on federally-listed species and federally-designated critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Supporting Documentation

Provide documentation for the applicable eligibility criterion you select in Appendix D, as follows:

For criterion A, indicate the basis for your determination that no federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's action area (as defined in Appendix A of the permit). Check the applicable source of information you relied upon:

- ☐ Specific communication with staff of the U.S. Fish & Wildlife Service or National Marine Fisheries Service.
- ☐ Publicly available species list.
- ☒ Other source: New Hampshire Natural Heritage Bureau

New Hampshire Natural Heritage Bureau recommended that surveys be done for great bur-reed in aquatic areas on the property. Since there are no aquatic areas on this property, this species does not exist on this property.

For criterion B, provide the Tracking Number from the other operator's notification of permit authorization:

Provide a brief summary of the basis used by the other operator for selecting criterion A, B, C, D, E, or F:

For criterion C, provide the following information:
Also, provide a brief summary of the basis used for determining that your site's discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat:

For criterion D, E, or F, attach copies of any letters or other communication between you and the U.S. Fish & Wildlife Service or National Marine Fisheries Service concluding consultation or coordination activities.

3.2 Historic Preservation

Instructions (see CGP Part 1.1.6, 7.2.9.b, Appendix E, and the "Historic Preservation" section of the Appendix J – NOI form):

Follow the screening process in Appendix E of the permit for determining whether your installation of subsurface earth-disturbing stormwater controls will have an effect on historic properties.

- Include documentation supporting your determination of eligibility.
- To contact your applicable state or tribal historic preservation office, information is available at *www.achp.gov*

Appendix E, Step 1

Do you plan on installing any of the following stormwater controls at your site? Check all that apply below, and proceed to Appendix E, Step 2.

- ☐ Dike
- ☒ Berm
- ☒ Catch Basin
- ☒ Pond
- ☒ Stormwater Conveyance Channel (e.g., ditch, trench, perimeter drain, swale, etc.)
- ☒ Culvert
- ☒ Other type of ground-disturbing stormwater control

(Note: If you will not be installing any ground-disturbing stormwater controls, no further documentation is required for Section 3.2 of the Template.)

Appendix E, Step 2

If you answered yes in Step 1, have prior surveys or evaluations conducted on the site already determined that historic properties do not exist, or that prior disturbances at the site have precluded the existence of historic properties? ☒ YES ☐ NO

- If yes, no further documentation is required for Section 3.2 of the Template.
- If no, proceed to Appendix E, Step 3.

Appendix E, Step 3

If you answered no in Step 2, have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? ☐ YES ☐ NO

If yes, provide documentation of the basis for your determination. Communication with New Hampshire Division of Historical Resources

If no, proceed to Appendix E, Step 4.

Appendix E, Step 4

If you answered no in Step 3, did the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Office (THPO), or other tribal representative (whichever applies) respond to you within 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties? ☐ YES ☐ NO

If no, no further documentation is required for Section 3.2 of the Template.

If yes, describe the nature of their response:

- ☐ Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions.
- ☐ No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls.
- ☐ Other:

3.3 Safe Drinking Water Act Underground Injection Control Requirements

Instructions (see CGP Part 7.2.9C):

- If you are using any of the identified controls in this section, document any contact you have had with the applicable State agency or EPA Regional Office responsible for implementing the requirements for underground injection wells in the Safe Drinking Water Act and EPA's implementing regulations at 40 CFR Parts 144-147.
- For state UIC program contacts, refer to the following EPA website: *http://water.epa.gov/type/groundwater/uic/whereyoulive.cfm*.

Do you plan to install any of the following controls? Check all that apply below.

- ☐ Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);
- ☒ Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow;
- ☐ Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).

SECTION 4: EROSION AND SEDIMENT CONTROLS

General Instructions (See CGP Parts 2.2 and 7.2.6):

- Describe the erosion and sediment controls that will be installed and maintained at your site.
- For more information or ideas on BMPs, see EPA's National Menu of BMPs https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

4.1 Natural Buffers or Equivalent Sediment Controls

Instructions (see CGP Parts 2.2.1 and Appendix G):

Provide and maintain natural buffers and/or equivalent erosion and settlement controls for discharges to any receiving waters that is located within 50 feet of the site's earth disturbances. If this is the case, consult CGP Part 2.2.1 and Appendix G for information on how to comply with the buffer requirements.

- Describe the compliance alternative (CGP Part 2.2.1. i, ii, or iii) that was chosen to meet the buffer requirements, and include any required documentation supporting the alternative selected. The compliance alternative selected must be maintained throughout the duration of permit coverage. However, if you select a different compliance alternative during your period of permit coverage, you must modify your SWPPP to reflect this change.
- If you qualify for one of the exceptions in CGP Part 2.2.1.b, include documentation related to your qualification for such exceptions.

Buffer Compliance Alternatives

Are there any surface waters within 50 feet of your project's earth disturbances? ☐ YES ☒ NO

(Note: If no, no further documentation is required for Part 4.1 in the SWPPP Template. Continue on to Part 4.2.)

Check the compliance alternative that you have chosen:

☐ I will provide and maintain a 50-foot undisturbed natural buffer.

(Note (1): You must show the 50-foot boundary line of the natural buffer on your site map.)

(Note (2): You must show on your site map how all discharges from your construction disturbances through the natural buffer area will first be treated by the site's erosion and sediment controls. Also, show on the site map any velocity dissipation devices used to prevent erosion within the natural buffer area.)

☐ I will provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by additional erosion and sediment controls, which in combination achieves the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

(Note (1): You must show the boundary line of the natural buffer on your site map.)

(Note (2): You must show on your site map how all discharges from your construction disturbances through the natural buffer area will first be treated by the site's erosion and

sediment controls. Also, show on the site map any velocity dissipation devices used to prevent erosion within the natural buffer area.)

☐ It is infeasible to provide and maintain an undisturbed natural buffer of any size, therefore I will implement erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

☐ I qualify for one of the exceptions in Part 2.2.1.b. (If you have checked this box, provide information on the applicable buffer exception that applies, below.)

Buffer Exceptions

Which of the following exceptions to the buffer requirements applies to your site?

☐ There is no discharge of stormwater to the surface water that is located 50 feet from my construction disturbances.

(Note: If this exception applies, no further documentation is required for Section 4.1 of the Template.)

☐ No natural buffer exists due to preexisting development disturbances that occurred prior to the initiation of planning for this project.

(Note (1): If this exception applies, no further documentation is required for Section 4.1 of the Template.)

(Note (2): Where some natural buffer exists but portions of the area within 50 feet of the surface water are occupied by preexisting development disturbances, you must still comply with the one of the CGP Part 2.2.1.a compliance alternatives.)

☐ For a "linear project" (defined in Appendix A), site constraints (e.g., limited right-of-way) make it infeasible for me to meet any of the CGP Part 2.2.1.a compliance alternatives.

☐ The project qualifies as "small residential lot" construction (defined in Appendix A).

For Alternative 1 (see Appendix G, Part G.3.2):

For Alternative 2 (see Appendix G, Part G.3.2):

☐ Buffer disturbances are authorized under a CWA Section 404 permit.

(Note (1): If this exception applies, no further documentation is required for Section 4.1 of the Template.)

(Note (2): This exception only applies to the limits of disturbance authorized under the Section 404 permit, and does not apply to any upland portion of the construction project.)

☐ Buffer disturbances will occur for the construction of a water-dependent structure or water access area (e.g., pier, boat ramp, and trail).

(Note (1): If this exception applies, no further documentation is required for Section 4.1 of the Template.)

4.2 Perimeter Controls

Instructions (see CGP Parts 2.2.3 and 7.2.6.b.ii):

- Describe sediment controls that will be used (e.g., silt fences, filter berms, temporary diversion dikes, or fiber rolls) to meet the Part 2.2.3 requirement to "install sediment controls along any perimeter areas of the site that are downslope from any exposed soil or other disturbed areas."
- For linear projects, where you have determined that the use of perimeter controls in portions of the site is impracticable, document why you believe this is to be the case.
- Also see, EPA's *Silt Fence BMP Fact Sheet* or *Fiber Rolls BMP Fact Sheet* at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

General

Operators must install sediment controls, such as filter berms, silt fences, vegetative strips, and temporary diversion dikes, along any perimeter areas of the site that are downslope from any exposed soil or other disturbed areas, and comply with the following perimeter control requirement:

a. The perimeter controls must be installed up gradient of any natural buffers established under CGP Part 2.2.1, unless the control is being implemented pursuant to CGP Part 2.2.1 a.ii-iii;
b. To prevent stormwater from circumventing the edge of the perimeter control, install the perimeter control on the contour of the slope and extend both ends of the control up slope forming a crescent rather than a straight line;
c. After installation, to ensure that perimeter controls continue to work effectively:
    i. Remove sediment before it had accumulated to one -half of the above-ground height of any perimeter control; and
    ii. After a storm event, if there is evidence of stormwater circumventing or undercutting the perimeter control, extend controls and/or repair undercut areas to fix the problem.
d. Exception: For areas at "linear construction sites" (as defined in Appendix A) where perimeter controls are infeasible *(e.g., due to a limited or restricted right-of-way),* implement other practices as necessary to minimize pollutant discharges to perimeter areas of the site.

The following procedures shall be followed to establishing effective perimeter controls.

Specific Perimeter Controls

Perimeter Control # 1

Perimeter Control Description

- Wetland boundaries are to be clearly marked prior to the start of construction.
- Cut and remove trees in construction area as required or directed.
- Install silt fencing, and construction entrances prior to the start of construction.
- These are to be maintained until the final pavement surfacing and landscaping areas are established.

Maintenance Requirements:

Silt fences and other barriers shall be inspected every seven calendar days and within 24 hours of a rainfall of 0.25" or greater. All damaged areas shall be repaired, and sediment deposits shall periodically be removed and disposed of. Sediment shall be removed and properly disposed of when it is 6" deep or visible `bulges' develop in the silt fence.

4.3 Sediment Track-Out

Instructions (see CGP Parts 2.2.4 and 7.2.6.b.iii):

- Describe stormwater controls that will be used to "minimize the track-out of sediment onto off-site streets, other paved areas, and sidewalks from vehicles exiting your construction site."
- Describe location(s) of vehicle exit(s), procedures to remove accumulated sediment off-site (e.g., vehicle tracking), and stabilization practices (e.g., stone pads or wash racks or both) to minimize off-site vehicle tracking of sediment. Also include the design, installation, and maintenance specifications for each control.
- Also, see EPA's *Construction Entrances BMP Fact Sheet* at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

General
Stabilized construction entrance/exit points and staging areas will be constructed.
Restrict vehicle use to properly designated exit points.

Specific Track-Out Controls

Track-Out Control # 1

Track-Out Control Description
- See sheet E1 of the design plans for stabilized construction entrance detail and specification.

Installation
- Stabilized construction entrances shall be built at the start of construction. Implement additional track-out controls (e.g., wheel washing, rumble strips, and rattle plates) as necessary to insure that sediment removal occurs prior to vehicle exit.

Maintenance Requirements
- See design plans for stabilized construction entrance maintenance requirements.

Where sediment has been tracked-out from the site onto the surface of off-site streets, other paved areas, and sidewalks, the deposited sediment must be removed by the end of the same work day in which the track-out occurs or by the end of the next work day if track-out occurs on a non-work day. The track-out must be removed by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. Hosing or sweeping tracked-out sediment into any stormwater conveyance (unless it is connected to a sediment basin, sediment trap, or similarly effective control), storm drain inlet, or surface water is prohibited.

4.4 Stockpiled Sediment or Soil

Instructions (see CGP Parts 2.2.5):

- Describe stormwater controls and other measures you will take to minimize the discharge of sediment or soil particles from stockpiled sediment or soil. Include a description of structural practices (e.g., diversions, berms, ditches, storage basins), including design, installation, and maintenance specifications, used to divert flows from stockpiled sediment or soil, retain or detain flows, or otherwise limit exposure and the discharge of pollutants from stockpiled sediment or soil.
- Also, describe any controls or procedures used to minimize exposure resulting from adding to or removing materials from the pile.

General

Operators must manage stockpiles or land clearing debris piles composed, in whole or in part, of sediment and/or soil.

a. Locate the piles outside of any natural buffers established under Part 2.2.1 and away from any constructed or natural site drainage features, storm drain inlets, and areas where stormwater flow is concentrated;
b. Install a sediment barrier along all downgradient perimeter areas of stockpiled soil or land clearing debris piles;
c. For piles that will be unused for 14 or more days, provide cover *(e.g., tarps, blown straw and hydroseeding)* or appropriate temporary stabilization (consistent with Part 2.2.14);and
d. You are prohibited from hosing down or sweeping soil or sediment accumulated on pavement impervious surfaces into any constructed or natural site drainage feature, storm drain inlet, or receiving water.

The following procedures shall be followed to provide effective stockpile controls.

Specific Stockpile Controls

Stockpile Control # 1

Stockpiles

Stockpiles will be in an area that will not interfere with the construction and will be at least 15 feet away from areas of concentrated flows or pavement. The slopes of the stockpiles shall not exceed 2:1 to prevent erosion. A silt fence shall be installed around the perimeter of the stockpile.

Installation

- Stockpiles will be established during grading activities. Temporary stabilization will be applied immediately after the slopes of the stockpile have been graded and construction equipment transverses the slope.

Maintenance Requirements

The area will be inspected weekly for erosion and immediately after storm events. Areas on or around the stockpile that have eroded will be stabilized immediately with erosion controls. All inactive piles that will be unused for 14 days or more will require cover or appropriate temporary stabilization consistent with the temporary stabilization deadlines in Part 2.2.14.

4.5 Minimize Dust

Instructions (see CGP Parts 2.2.6):

Describe controls and procedures you will use at your project/site to minimize the generation of dust.

General
The following procedures shall be followed to provide an effective means of controlling dust.

Specific Dust Controls

Dust Control # 1

Dust Control Description

- Dust from the site shall be controlled by using a mobile pressure type distributer truck to apply potable water to disturbed areas. The mobile unit will be able to apply water at a rate of 300 gallons per acre and minimize application rate as necessary to prevent runoff and ponding.

Installation

- Dust control will be implemented once site grading has been started and during windy conditions (forecast or actual wind conditions of 20 mph or greater) while site grading is occurring.
- At least one mobile unit will be available at all times to distribute potable water to control dust. Each mobile unit will be equipped with a positive shutoff valve to prevent over watering of disturbed area.

Maintenance Requirements
For vehicle maintenance, see Section *5.3 Fueling and Maintenance of Equipment or Vehicles*.

4.6 Minimize the Disturbance of Steep Slopes

Instructions (see CGP Parts 2.2.7):

- Describe how you will minimize the disturbance to steep slopes (as defined by CGP Appendix A).
- Describe controls (e.g., erosion control blankets, tackifiers), including design, installation and maintenance specifications, that will be implemented to minimize sediment discharges from slope disturbances.
- Also, see EPA's *Geotextiles BMP Fact Sheet* at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

General

The following procedures shall be followed to provide an effective means of minimizing steep slope disturbances.

Specific Steep Slope Controls

Steep Slope Control # 1

Steep Slope will be stabilized per the following:

1. Prepare soil before installing erosion control blankets, including any necessary application of lime, fertilizer, and seed. Note: when using cell-o-seed do not seed prepared area. Cell-o-seed must be installed with paper side down.
2. Begin at the top of the slope by anchoring the erosion control blanket in a 6" deep by 6" wide trench with approximately 12" of blanket extended beyond the up-slope portion of the trench. Anchor the blanket with a row of staples/stakes approximately 12" apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to compacted soil and fold remaining 12" portion of blanket back over seed and compacted soil. Secure blanket over compacted soil with a row of staples/stakes spaced approximately 12" apart across the width of the blanket.
3. Roll the blankets (a) down or (b) horizontally across the slope. Blankets will unroll with appropriate side against the soil surface. All blankets must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide. When using optional dot system, staples/stakes should be placed through each of the colored dots corresponding to the appropriate staple pattern.
4. The edges of parallel blankets must be stapled with approximately 2"-5" overlap depending on blanket type. To ensure proper seam alignment, place the edge of the overlapping blanket (blanket being installed on top) even with the colored seam stitch on the previously installed blanket.
5. Consecutive blankets spliced down the slope must be placed end over end (shingle style) with an approximate 3" overlap. Staple through overlapped area, approximately 12" apart across entire blanket width. Note: in loose soil conditions, the use of staple or stake lengths greater than 6" may be necessary to properly secure the blankets.

4.7 Topsoil

Instructions (see CGP Parts 2.2.8):

- Describe how topsoil will be preserved and identify these areas and associated control measures on your site map(s).
- If it is infeasible for you to preserve topsoil on your site, provide an explanation for why this is the case.

General

- Topsoil stripped from the immediate construction area will be stockpiled as shown the site plan (see appendix).

Specific Topsoil Controls

Topsoil Control # 1

Topsoil Stockpiles

Topsoil stockpile will be in an area that will not interfere with the construction and will be at least 15 feet away from areas of concentrated flows or pavement. The slopes of the stockpiles shall not exceed 2:1 to prevent erosion. A silt fence shall be installed around the perimeter of the stockpile.

Installation

- Topsoil stockpiles will be established during grading activities. Temporary stabilization will be applied immediately after the slopes of the stockpile have been graded and construction equipment transverses the slope.

Maintenance Requirements
The area will be inspected weekly for erosion and immediately after storm events. Areas on or around the stockpile that have eroded will be stabilized immediately with erosion controls.

4.8 Soil Compaction

Instructions (see CGP Parts 2.2.9):

- In areas where final vegetative stabilization will occur or where infiltration practices will be installed, describe the controls, including design, installation, and maintenance specifications that will be used to restrict vehicle or equipment access or condition the soil for seeding or planting.

General

In any areas of the site where final vegetative stabilization will occur or where infiltration practices will be installed, the operator must:

a. Restrict vehicle and equipment use in these locations to avoid soil compaction; and
b. Before seeding or planting areas of exposed soil that have been compacted, use techniques that rehabilitate and condition the soils as necessary to support vegetative growth.

The following procedures shall be followed to provide effective compaction requirements for infiltration practices.

Specific Soil Compaction Controls

Soil Compaction Control # 1

Soil Compaction Control Description

- Existing sub grade under infiltration areas shall not be compacted or subject to excessive construction equipment traffic prior to infiltration practice placement.
- Where erosion of sub grade has caused accumulation of fine materials and/or surface ponding, this material shall be removed with light equipment and the underlying soils scarified to a minimum depth of 6 inches with a york rake or equivalent and light tractor.
- Bring sub grade of stone percolation bed to line, grade, and elevations indicated. fill and lightly regrade any areas damaged by erosion, ponding, or traffic compaction before the placing of stone.
- Where parking lot base is not level, internal dams are to be installed every 100 yards along contour lines in the coarse subbase materials (crushed stone). a subdrain should be located immediately upstream of internal dams. dams are to be made of overlying filter coarse or medium to fine sand equivalent.
- Upon completion of sub grade work, the engineer shall be notified and shall inspect at his discretion before proceeding with bed installation.
- Bed aggregate shall be placed immediately after approval of sub grade preparation. any accumulation of debris or sediment which has taken place after approval of sub grade shall be removed prior to installation of aggregate at no extra cost to the owner.
- Install coarse aggregate (crushed stone) in 8-inch maximum lifts, to a maximum of 95% standard proctor compaction, keeping equipment movement over bed subgrades to a minimum. install aggregate to grades indicated on the drawings.
- Install filter coarse in 8-inch maximum lifts, to a maximum of 95% standard proctor compaction, keeping equipment movement over bed subgrades to a minimum. Install filter coarse to grades indicated on the drawings.
- Install choker base course (see materials section) aggregate evenly over surface of stone bed, sufficient to allow placement of final coarse, and notify engineer for approval. Choker base course shall be sufficient to allow or even placement of final coarse but no less than 4-inch in depth.

Installation

Infiltration practices shall be constructed and stabilized before any runoff is directed to them.

4.9 Storm Drain Inlets

Instructions (see CGP Parts 2.2.10):

- Describe controls (e.g., inserts, rock-filled bags, or block and gravel) including design, installation, and maintenance specifications that will be implemented to protect all inlets that will receive stormwater from your construction activities, and that you have authority to access.
- Also, see EPA's *Storm Drain Inlet Protection BMP Fact Sheet* at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

General
The following procedures shall be followed to provide effective requirements for storm drain inlet protection.

Specific Storm Drain Inlet Controls

Storm Drain Inlet Control # 1

Storm Drain Inlet Control Description

- Storm drain inlet control shall be achieved through the use of block and gravel drop inlet sediment filters.

Installation

- Storm drain inlet controls shall be placed on existing drainage structures prior to start of construction. Inlet controls shall be placed on constructed inlets before water is directed to them.

Maintenance Requirements
Culvert inlet protection measures should be **inspected once per week** and after every major storm event. Sediment accumulations around the stone should be removed if they are deeper than six inches. If extensive amounts of sediment appear to have become trapped within the gravel filter stone such that proper operation of the structure has become impractical, the stone should be cleaned or otherwise replaced. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, it must removed by the end of the same work day in which it is found or by the end of the following work day if removal by the same work day is not feasible.

4.10 Constructed Stormwater Conveyance Channels

Instructions (see CGP Parts 2.2.11):

If you will be installing a stormwater conveyance channel, describe control practices (e.g., velocity dissipation devices), including design specifications and details (volume, dimensions, outlet structure), that will be implemented at the construction site.

General

- Stormwater conveyance channels will be constructed as shown on the design plans.

Specific Conveyance Channel Controls

Stormwater Conveyance Channel Control # 1
Stormwater Conveyance Channel Control Description

- Construct swales as designed.

Installation

- Construct stone check dams, level spreaders and silt fence as shown on the plans.

Maintenance Requirements
Channels shall be inspected **once per week** and after every major storm event. Sediment accumulations shall be removed if deeper than six inches. Erosion shall be repaired immediately, if any.

4.11 Sediment Basins

Instructions (see CGP Parts 2.2.12 and 7.2.6.b.iv):

If you will install a sediment basin, include design specifications and other details (volume, dimensions, outlet structure) that will be implemented at in conformance with CGP Part 2.2.12.

- At a minimum, sediment ponds must provide storage for either (1) the calculated volume of runoff from the 2-year, 24-hour storm (see CGP App. H), or (2) 3,600 cubic feet per acre drained
- Sediment ponds must also utilize outlet structures that withdraw water from the surface, , unless infeasible
- Also, see EPA's *Sediment Basin BMP Fact Sheet* at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

General

If an operator installs a sediment basin:

a. Situate the basin or impoundment outside of any receiving water and any natural buffers established under Part 2.2.1;
b. Design the basin or impoundment to avoid collecting water from wetlands;
c. Design the basin or impoundment to provide storage for either:
i. The calculated volume of runoff from a 2-year, 24-hour storm; or
ii.3,600 cubic feet per acre drained.
d. Utilize outlet structures that withdraw water from the surface of the sediment basin or similar impoundment, unless infeasible;
e. Use erosion controls and velocity dissipation devices to prevent erosion at inlets and outlets; and
f. Remove accumulated sediment to maintain at least one-half of the design capacity and conduct all other appropriate maintenance to ensure the basin or impoundment remains in effective operating condition.

The following procedures shall be followed to provide effective requirements for sediment basin controls.

Specific Sediment Basin Controls

Sediment Basin Control # 1

Sediment Basin Control Description

- Temporary Sediment Traps are small temporary ponding areas that are formed by excavation or by constructing an earthen embankment across a drainage way and providing a stabilized outlet. These structures intercept sediment-laden runoff from small, disturbed areas and detain it long enough for the majority of the sediment to settle out into the sump of the trap.

Installation

- Temporary sediment basins shall be installed before site grading commences.

Maintenance Requirements

Sediment basins shall be kept in effective operating condition accumulated sediment removed to maintain at least ½ of the design capacity of the sediment basin at all times.

4.12 Chemical Treatment

Instructions (see CGP Parts 2.2.13 and 7.2.6.b.v):

If you are using treatment chemicals at your site, provide details for each of the items below. This information is required as part of the SWPPP requirements in CGP Part 7.2.6.b.v.

Chemical treatment is not being proposed for this project at this time. If the use of treatment chemicals is to be used at a later date, coordination with the New Hampshire Department of Environmental Services is required.

Soil Types
List all the soil types (including soil types expected to be found in fill material) that are expected to be exposed during construction and that will be discharged to locations where chemicals will be applied:

Treatment Chemicals
List all treatment chemicals that will be used at the site and explain why these chemicals are suited to the soil characteristics:

Describe the dosage of all treatment chemicals you will use at the site or the methodology you will use to determine dosage:
Provide information from any applicable Material Safety Data Sheets (MSDS):

Describe how each of the chemicals will stored:

Include references to applicable state or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems:

Special Controls for Cationic Treatment Chemicals (if applicable)
If you have been authorized by your applicable Regional Office to use cationic treatment chemicals, include the official EPA authorization letter or other communication, and identify the specific controls and implementation procedures you are required to implement to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards:

Schematic Drawings of Stormwater Controls/Chemical Treatment Systems
Provide schematic drawings of any chemically-enhanced stormwater controls or chemical treatment systems to be used for application of treatment chemicals:

Training
Describe the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to the use of treatment chemicals:

4.13 Dewatering Practices

Instructions (see CGP Parts 2.4):

If you will be discharging stormwater that is removed from excavations, trenches, foundations, vaults, or other similar points of accumulation, include design specifications and details of all dewatering practices that are installed and maintained to comply with CGP Part 2.4.

General

- The following procedures shall be followed to provide effective requirements for dewatering.

Specific Dewatering Practices

Dewatering Practice # 1

Dewatering Practice Description

- Dewatering will be achieved by pumping excess water into a temporary sediment basin.
- Overflow protection shall be achieved by rock or superduty silt fence system.
- The hose shall be placed to prevent bottom scour

Maintenance Requirements
With backwash water, either haul it away for disposal or return it to the beginning of the treatment process; and replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.

4.14 Other Stormwater Controls

Instructions:

- Describe any other stormwater controls that do not fit into the above categories.

General

- N/A

4.15 Site Stabilization

Instructions (see CGP Parts 2.2.14 and 7.2.6.b.vi):

The CGP requires you to immediately initiate stabilization when work in an area of your site has permanently or temporarily stopped, and to complete certain stabilization activities within prescribed deadlines. See CGP Part 2.2.14. The CGP also requires that stabilization measures meet certain minimum criteria. See CGP Part 2.2.14. For your SWPPP, you must include the following:

- Describe the specific vegetative and/or non-vegetative practices that will be used to stabilize exposed soils where construction activities have temporarily or permanently ceased. Avoid using impervious surfaces for stabilization whenever possible.
- Also, see EPA's *Seeding BMP Fact Sheet* at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu
- Once you begin construction, consider using the Grading/Stabilization Activities log in Appendix H of the Template to document your compliance with the stabilization requirements in CGP Part 2.2.14

Site Stabilization Practice (only use this if you are not located in an arid, semi-arid, or drought-stricken area)

Description of Practice

- The smallest practical area of land shall be exposed at any one time. At no time shall an area in excess of that required for construction be exposed.
- Erosion, sediment and detention measures shall be installed as shown on the plans and at locations as required, or directed by the engineer.
- All disturbed areas (including pond areas below the proposed waterline) shall be returned to proposed grades and elevations. Disturbed areas shall be loamed with a minimum of 6" of loam and seeded with seed mixture "C" at a rate not less than 1.10 pounds of seed per 1,000 square feet of area (48 lbs. per acre).
- Silt fences and other barriers shall be inspected every seven days and within 24 hours of a rainfall of 0.5" or greater. All damaged areas shall be repaired, and sediment deposits shall periodically be removed and properly disposed of.
- After all disturbed areas have been stabilized, the temporary erosion control measures are to be removed and the area disturbed by the removal smoothed and revegetated.
- Areas must be seeded and mulched within 3 days of final grading, or temporarily stabilized within 7 days of initial disturbance of soil.
- Complete stabilization as soon as practicable but no later than seven (7) calendar days after stabilization has been initiated. (For sites discharging to a sediment- or nutrient- impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5 or Tier 3 for antidegradation purposes.)
- All proposed vegetated areas not stabilized by or are disturbed after October 15th must be protected with North American Green S75 erosion control blankets (or an equivalent approved in writing by the engineer) and seeded with winter rye or oats at a rate of 2.50 pounds per 1,000 square feet of area (108.90 lbs. per acre). Unstabilized swales shall be protected with erosion control blankets appropriate to the design flow conditions and seeded to the same specification. Placement of blankets shall not occur over accumulated snow.
- An area shall be considered stable if one of the following has occurred:
  - Base course gravels have been installed in areas to be paved;
  - A minimum of 85% vegetated growth has been established;
  - A minimum of 3" or non-erosive material such as stone or riprap has been installed; or

  - Erosion control blankets have been properly installed.
- After November 15th where work has stopped for the season, incomplete roadway or parking surfaces shall be protected with a minimum of 3" of crushed gravel meeting NHDOT Item 304.3.
- In order to ensure the stability of the site and effective implementation of the sediment and erosion control measures specified in the plans for the duration of construction, the contractor shall be in strict compliance with the following inspection and maintenance requirements in addition to those called for in the SWPPP:
- A Certified Professional in Erosion and Sediment Control (CPESC) or a Professional Engineer (PE) licensed in the State of New Hampshire ("Monitor") shall be employed to inspect the site from the start of alteration of terrain activities until the site is in full compliance with the site specific permit ("Permit").
  - During this period, the Monitor shall inspect the subject site as least once a week, and if possible, during any 0.5" or greater rain event (i.e. 0.5" of precipitation or more within a 24 hour period). If unable to be present during such a storm, the Monitor shall inspect the site within 24 hours of this event.
  - The Monitor shall provide technical assistance and recommendations to the contractor on the appropriate Best management Practices for erosion and sediment controls required to meet the requirements of RSA 485:17 and all applicable NHDES permit conditions.
  - Within 24 hours of each inspection, the Monitor shall submit a report to NHDES via email (Ridgely Mauck at: ridgely.mauck@des.state.nh.us).
  - The Monitor shall meet with NHDES to decide upon a report format. The report format shall be reviewed and approved by NHDES prior to the start of construction.
  - Prior to the beginning of construction, the contractor's name, address, and phone number shall be submitted to NHDES via email (see above).
  - Prior to construction, a phasing plan that delineates each phase of the project shall be submitted. All temporary sediment basins that will be needed for dewatering work areas shall be located and identified on this plan.
- See Sheet E1 for Site Stabilization Practices.

SECTION 5: POLLUTION PREVENTION STANDARDS

5.1 Potential Sources of Pollution

Instructions (see CGP Part 2.3):

- Identify and describe all pollutant-generating activities at your site (e.g., paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal).
- For each pollutant-generating activity, include an inventory of pollutants or pollutant constituents associated with that activity (e.g., sediment, fertilizers, and/or pesticides, paints, solvents, fuels), which could be exposed to rainfall or snowmelt, and could be discharged from your construction site. You must take into account where potential spills and leaks could occur that contribute pollutants to stormwater discharges.

Construction Site Pollutants

The following is a list of materials or substances are expected to be present onsite during construction. It shall not be considered inclusive as the Contractor has the discretion to introduce other materials at any time in order to ensure the success of the project.

- Petroleum based products
- Pesticides, herbicides, insecticides, and fertilizers
- Sanitary wastes
- Solid and construction wastes

Pollutant-Generating Activity	**Pollutants or Pollutant Constituents** (that could be discharged if exposed to stormwater)	**Location on Site** (or reference SWPPP site map where this is shown)
Equipment Fueling	Gas/ Diesel Fuels	Equipment Staging Areas
Port-a-potties	Sanitary Waste	Varies

Pollutant-Generating Activity	**Pollutants or Pollutant Constituents** (that could be discharged if exposed to stormwater)	**Location on Site** (or reference SWPPP site map where this is shown)

5.2 Spill Prevention and Response

Instructions (see CGP Parts 2.3.6 and 7.2.6.b.vii):

- Describe procedures you will use to prevent and respond to leaks, spills, and other releases. You must implement the following at a minimum:
  - ✓ Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or title of the employee(s) responsible for detection and response of spills or leaks; and
  - ✓ Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part 2.3.3.4c and established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available.
- Some projects/site may be required to develop a Spill Prevention Control and Countermeasure (SPCC) plan under a separate regulatory program (40 CFR 112). If you are required to develop an SPCC plan, or you already have one, you should include references to the relevant requirements from your plan.

The following are the material management practices that shall be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff. The Contractor's Superintendent shall be responsible for ensuring that the project is in strict compliance with these procedures at all times.

Good Housekeeping

The following good housekeeping practices shall be followed onsite during construction:

- An effort shall be made to store only enough products required to do the job.
- All materials stored onsite shall be stored in a neat, orderly manner and, if possible, under a roof or in a containment area. At a minimum, all containers shall be stored with their lids on when not in use. Drip pans shall be provided under all dispensers.
- Products shall be kept in their original containers with the original manufacturer's label in legible condition.
- Substances shall not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product shall be used up before disposing of the container.
- Manufacturer's recommendations for proper use and disposal shall be followed.
- The Contractor's Superintendent shall be responsible for daily inspections to ensure proper use and disposal of materials.

5.3 Fueling and Maintenance of Equipment or Vehicles

Instructions (see CGP Parts 2.3.1):

- Describe equipment/vehicle fueling and maintenance practices that will be implemented to eliminate the discharge of spilled or leaked chemicals (e.g., providing secondary containment *(examples: spill berms, decks, spill containment pallets)* and cover where appropriate, and/or having spill kits readily available.
- Also, see EPA's *Vehicle Maintenance and Washing Areas BMP Fact Sheet* at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

General

The operator must comply with the following requirements:

a. Provide an effective means of eliminating the discharge of spilled or leaked chemicals, including fuels and oils, from these activities;
b. If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR part 112 and Section 311 of the CWA;
c .Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;
d. Use drip pans and absorbents under or around leaky vehicles;
e .Dispose of or recycle oil and oily wastes in accordance with other federal, state, tribal, or local requirements; and
f. Clean up spills or contaminated surfaces immediately, using dry clean up measures(do not clean contaminated surfaces by hosing the area down), and eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.

Specific Pollution Prevention Practices

Installation

- Petroleum storage management shall be accomplished before fueling of vehicles is allowed.

Equipment Fueling and Maintenance

- Designate special impervious areas (i.e. pavement, concrete, polypropylene, etc.) that are not connected to any drainage system for vehicle fueling and repair. Inspect construction vehicles daily, and repair any leaks immediately. Dispose of all used oil, antifreeze, solvents and other automotive-related chemicals according to manufacturer instructions. These wastes require special handling and disposal. Used oil, antifreeze, and some solvents can be recycled at designated facilities, but other chemicals must be disposed of at a hazardous waste disposal site.

5.4 Washing of Equipment and Vehicles

Instructions (see CGP Parts 2.3.2):

- Describe equipment/vehicle washing practices that will be used to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of washing (e.g., locating activities away from surface waters and stormwater inlets or conveyances and directing wash waters to a sediment basin or sediment trap, using filtration devices, such as filter bags or sand filters, or using other similarly effective controls).
- Describe how you will prevent the discharge of soaps, detergents, or solvents by providing either (1) cover (*examples: plastic sheeting or temporary roofs*) to prevent these detergents from coming into contact with rainwater, or (2) a similarly effective means designed to prevent the discharge of pollutants from these areas.
- Also, see EPA's *Vehicle Maintenance and Washing Areas BMP Fact Sheet* at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

General
Provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters. Ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water. For storage of soaps, detergents, or solvents, provide either (1) cover (e.g., plastic, sheeting, temporary roofs) to minimize the exposure of these detergents to precipitation and stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas. The following procedures shall be followed to provide an effective means of preventing the discharge soaps, detergent or solvents.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Equipment Washing
To direct washwater to sanitary sewer systems or other treatment facilities, ensure that vehicle washing areas are impervious and are bermed. Use blowers or vacuums instead of water to remove dry materials from vehicles if possible. Because water alone can remove most dirt adequately, use high-pressure water spray without detergents at vehicle washing areas. If you must use detergents, avoid phosphate- or organic-based cleansers to reduce nutrient enrichment and biological oxygen demand in wastewater. Use only biodegradable products that are free of halogenated solvents. Clearly mark all washing areas, and inform workers that all washing must occur in this area. Do not perform other activities, such as vehicle repairs, in the wash area.

Installation

- Vehicle washing areas shall be constructed before washing of vehicles is allowed.

Maintenance Requirements

Clean up spills and dispose of cleanup materials immediately. Inspect equipment and storage containers regularly to identify leaks or signs of deterioration. Repairs berms and drainage to the sanitary sewer system.

5.5 Storage, Handling, and Disposal of Construction Products, Materials, and Wastes

Instructions (see CGP Parts 2.3.3):

- For any of the types of construction products, materials, and wastes below in Sections 5.5.1-5.5.6 below that are expected to be used or stored at your site, provide the information on how you will comply with the corresponding CGP provision and the specific practices that will be employed.
- Also, see EPA's *General Construction Site Waste Management BMP Fact Sheet* at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

5.5.1 Building Products

(Note: Examples include asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures.)

General

The following procedures shall be followed to provide an effective means of storing, handling, and disposal of construction products, materials, and wastes.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Solid and Construction Wastes

- All trash, construction debris, and waste materials from the site shall be collected and stored in an appropriately covered roll-off container and/or securely contained metal dumpster provided by a licensed local solid waste management company.
- All dumpsters and roll-off containers shall comply with all local and state solid waste management regulations.
- All dumpsters and roll-off containers shall be emptied a minimum of once per week (or more often if necessary) and hauled to a State approved landfill.
- No construction waste materials shall be buried on site.
- All dumpsters and roll-off containers shall be located at least 50 feet from any storm inlet, drainage way, surface water, or wetland.
- Clean up spills immediately. For hazardous materials, follow cleanup instructions on the package. Use an absorbent material such as sawdust or kitty litter to contain the spill.
- During the demolition phase of construction, provide extra containers and schedule more frequent pickups.
- Collect, remove, and dispose of all construction site wastes at authorized disposal areas. Contact a local environmental agency to identify these disposal sites
- Once their location(s) have been determined, the contractor shall identify the location(s) in the SWPPP.

Installation

- Solid waste handling shall proceed at the beginning of construction.

Maintenance Requirements

Inspect storage and use areas and identify containers or equipment that could malfunction and cause leaks or spills. Check equipment and containers for leaks, corrosion, support or foundation failure, or other signs of deterioration, and test them for soundness. Immediately repair or replace any that are found to be defective.

5.5.2 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

General

The following procedures shall be followed to provide an effective means of storing, handling, and disposal of Pesticides, herbicides, insecticides, fertilizers, and landscape materials.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Pesticides, herbicides, Insecticides, and Fertilizers

- Pesticides, herbicides, insecticides, and fertilizers shall be applied in the minimum amounts recommended by the manufacturer.
- Once applied, fertilizer shall be worked in the soil to limit exposure to storm water.
- Follow all federal, state, and local regulations that apply to the use, handling, or disposal of pesticides, herbicides, insecticides, and fertilizers.
- Do not handle the pesticides, herbicides, insecticides, and fertilizers any more than necessary.
- Store materials in a dry, covered area.
- Construct berms or dikes to contain stored pesticides, herbicides, insecticides, and fertilizers in case of spillage.
- Follow the recommended application rates and methods.
- Have equipment and absorbent materials available in storage and application areas to contain and clean up any spills that occur.

Installation

- Pesticide, herbicide, insecticide, and fertilizer handling shall proceed at the beginning of construction.

Maintenance Requirements

Inspect storage and use areas and identify containers or equipment that could malfunction and cause leaks or spills. Check equipment and containers for leaks, corrosion, support or foundation failure, or other signs of deterioration, and test them for soundness. Immediately repair or replace any that are found to be defective.

5.5.3 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals

General

The following procedures shall be followed to provide an effective means of storing, handling, and disposal of Diesel fuel oil, hydraulic fluids, other petroleum products, and other chemicals.

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Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Petroleum Products

- All petroleum products shall be stored in tightly sealed clearly labeled containers.

- Maximum onsite petroleum storage capacity shall not exceed 2,000 gallons at any time (this shall not include the tanks in operational construction machinery or transient fuel delivery/vendor vehicles). In the event that total aggregate onsite petroleum storage exceeds 2,000 gallons, the preparation, certification, and implementation of a Spill Prevention Control and Countermeasure (SPCC) Plan shall be required. The SPCC Plan shall be prepared by a Professional Engineer and furnished by the Contractor.
- All onsite petroleum storage tanks will be located within a covered containment area that is designed with an impervious surface between the tank and the ground. This area shall be designed to provide a containment volume that is equal to or greater than 110% of the volume of the largest tank.
- All mobile petroleum tanks shall be parked in a vehicular service area surrounded by a berm that provides a containment volume that is equal to or greater than 110% of the volume of the tank.
- Immediately contain and clean up any spills with absorbent materials.
- Have equipment available in fuel storage areas and in vehicles to contain and clean up any spills that occur.
- Accumulated rainwater or spills from containment areas are to be promptly pumped into a containment device and disposed of properly by a licensed hazardous waste transporter.
- Drip pans shall be provided for all dispensers.
- Once their location(s) have been determined, the contractor shall identify the location(s) of any fuel tanks and/or equipment fueling areas in the SWPPP.

Maintenance Requirements

- Clean up spills and dispose of cleanup materials immediately. Inspect equipment and storage containers regularly to identify leaks or signs of deterioration. Repairs berms as required.

5.5.4 Hazardous or Toxic Waste

(Note: Examples include paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, acids.)

General

The following procedures shall be followed to provide an effective means of storing, handling, and disposal of hazardous or toxic wastes.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Hazardous Waste

- All Hazardous Waste shall be properly identified and handled in accordance with all applicable Hazardous Waste Standards, including their storage, transport, and disposal.
- Consult with local waste management authorities about the requirements for disposing of hazardous materials.
- To prevent leaks, empty and clean hazardous waste containers before disposing of them.
- Never remove the original product label from the container because it contains important safety information. Follow the manufacturer's recommended method of disposal, which should be printed on the label.
- Never mix excess products when disposing of them, unless specifically recommended by the manufacturer.
- The Contractor shall seek appropriate assistance in making the determination of whether a substance or material is classified as a Hazardous Waste. For example, Hazardous Waste may include certain hazardous substances, as well as pesticides, paints, paint solvents, cleaning

solvents, pesticides, contaminated soils, and other materials, substances or chemicals that have been discarded (or are to be discarded) due to being out-of-date, contaminated, or otherwise unusable, and can include the containers for those substances.
- The Contractor shall be responsible for ensuring that all site personnel are informed that there are significant penalties for the improper handling of Hazardous Wastes, instructed as to any Hazardous Waste requirements, and that the requirements are being followed.

Maintenance Requirements

Inspect storage and use areas and identify containers or equipment that could malfunction and cause leaks or spills. Check equipment and containers for leaks, corrosion, support or foundation failure, or other signs of deterioration, and test them for soundness. Immediately repair or replace any that are found to be defective.

5.5.5 Construction and Domestic Waste

(Note: Examples include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.)

General

- See Section 5.5.1 for requirements pertaining to construction and domestic waste.

5.5.6 Sanitary Waste

General

- The following procedures shall be followed to provide an effective means of handling sanitary wastes.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Sanitary Wastes

- A minimum of one portable sanitary unit shall be provided on the site and maintained for the duration of construction activities.
- All sanitary waste units shall be located at least 100' from any storm inlet, drainage way, surface water, or wetland.
- Once their location(s) have been determined, the contractor shall identify the location(s) in the SWPPP.

Installation

- Sanitary waste unit shall be supplied at the beginning of construction.

Maintenance Requirements
All sanitary waste shall be collected from the portable units a minimum of once per week (or more if the situation demands) by a licensed portable facility provider in complete compliance with local and state regulations.

5.6 Washing of Applicators and Containers used for Paint, Concrete or Other Materials

Instructions (see CGP Parts 2.3.4):

- Describe how you will comply with the CGP Part 2.3.4 requirement to "provide an effective means of eliminating the discharge of water from the washout and cleanout of stucco, paint, concrete, form release oils, curing compounds, and other construction materials."
- Also, see EPA's *Concrete Washout BMP Fact Sheet* at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

General

a. Direct wash water into a leak-proof container or leak-proof and lined pit designed so no overflows can occur due to inadequate sizing or precipitation;
b. Handle washout or cleanout wastes as follows:
    a. For liquid wastes:
        i. Do not dump liquid wastes or allow them to enter into constructed or natural drainage features, storm inlets, or receiving waters;
        ii. Do not allow liquid wastes to be disposed of through infiltration or to otherwise be disposed of on the ground;
        iii. Comply with applicable State, Tribal, or local requirements for disposal.
    b. Remove and dispose of hardened concrete waste consistent with your handling of other construction wastes in Part 2.3.3e; and
c. Locate any washout or cleanout activities as far away as possible from receiving waters, constructed or natural drainage feature, and storm drain inlets, and, to the extent feasible, designate areas to be used for these activities and conduct such activities only in these areas.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Paints, Paint Solvents, and Cleaning Solvents

- All containers shall be tightly sealed and stored in a shed or other covered area when not in use.
- All material shall be kept in the original manufacturer's containers with legible labels.
- Excess paint and solvents shall be properly disposed of according to manufacturer's instructions and state and federal regulations.

Installation

- Paint, paint solvents, and cleaning solvents handling shall proceed at the beginning of construction.

Maintenance Requirements
Inspect storage and use areas and identify containers or equipment that could malfunction and cause leaks or spills. Check equipment and containers for leaks, corrosion, support or foundation failure, or other signs of deterioration, and test them for soundness. Immediately repair or replace any that are found to be defective.

5.7 Fertilizers

Instructions (CGP Parts 2.3.5 and 7.2.6.b.viii):

Describe how you will comply with the CGP Part 2.3.5 requirement to "minimize discharges of fertilizers containing nitrogen or phosphorus"

General

See Section 5.5.2 for requirements pertaining to fertilizers.

5.8 Other Pollution Prevention Practices

Instructions:

Describe any additional pollution prevention practices that do not fit into the above categories.

General

If your site discharges to one or more waters of the U.S. that are impaired for sediment or a sediment-related parameter (e.g., total suspended solids or turbidity) or nutrients (e.g., nitrogen or phosphorus), you are required to comply with additional stormwater control requirements pertaining to the deadline to complete site stabilization in Part 2.2.14(a)(iii)(c) and site inspections in Part 4.3. If your site discharges to waters of the U.S. that are impaired for pollutants other than a sediment or nutrients, or related pollutants, you are only subject to additional measures or controls if EPA informs you separately of such.

SECTION 6: INSPECTION AND CORRECTIVE ACTION

6.1 Inspection Personnel and Procedures

Instructions (see CGP Parts 2.1.4, 3.1, 4, 5, and 7.2.7):

Describe the procedures you will follow for conducting inspections in accordance with CGP Parts 2.1.4, 3.1, 4, 5, and 7.2.7.

Personnel Responsible for Inspections

Brad Jones, Jones and Beach, Engineers, Inc.

Note: All personnel conducting inspections must be considered a "qualified person." CGP Part 4.1 clarifies that a "qualified person" is a person knowledgeable in the principles and practices of erosion and sediment controls and pollution prevention, who possesses the skills to assess conditions at the construction site that could impact stormwater quality, and the skills to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

Inspection Schedule

Specific Inspection Frequency

Once every fourteen (14) calendar days *and* within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge. To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

Increases in Inspection Frequency (if applicable)

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes (see Part 3.2), instead of the inspection frequency specified in Part 4.2, you must conduct inspections in accordance with the following inspection frequencies:

Once every seven (7) calendar days *and* within 24 hours of the occurrence of a storm event of 0.25 inches or greater, or the occurrence of runoff from snowmelt sufficient to cause a discharge. To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

Rain Gauge Location (if applicable)

N/A - Storm event information will be obtained from a weather station that is representative of the location.

Reductions in Inspection Frequency (if applicable)

- For the reduction in inspections resulting from stabilization:
  a. You may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, then once per month in any area of your site where the stabilization steps in 2.2.14a have been completed. If construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to that required in Parts 4.2 and 4.3, as applicable. You must document the beginning and ending dates of this period in your SWPPP.
  b. **Exception.** For "linear construction sites" (as defined in Appendix A) where disturbed portions have undergone final stabilization at the same time active construction continues on others, you may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, in any area of your site where the stabilization steps in 2.2.14a have been completed. After the first month, inspect once more within 24 hours of the occurrence of a storm event of 0.25 inches or greater. If there are no issues or evidence of stabilization problems, you may suspend further inspections. If "wash-out" of stabilization materials and/or sediment is observed, following re-stabilization, inspections must resume at the inspection frequency required in Part 4.4.1a Inspections must continue until final stabilization is visually confirmed following a storm event of 0.25 inches or greater.

- For the reduction in inspections in arid, semi-arid, or drought-stricken areas: N/A

- For reduction in inspections due to frozen conditions:

  a. If you are suspending construction activities due to frozen conditions, you may temporarily suspend inspections on your site until thawing conditions (as defined in Appendix A) begin to occur if:

     i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable;
     ii. Land disturbances have been suspended; and
     iii. All disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.

  b. If you are still conducting construction activities during frozen conditions, you may reduce your inspection frequency to once per month if:

     i. Runoff is unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable; and
     ii. Except for areas in which you are actively conducting construction activities,

disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.

Approx Dates: November 15 – March 30.

Inspection Report Forms
See Appendix D.

6.2 Corrective Action

Instructions (CGP Parts 5 and 7.2.7):

- Describe the procedures for taking corrective action in compliance with CGP Part 5.

Personnel Responsible for Corrective Actions

Operator(s):

Anton Melchionda
60 Centre Street
Dover, Massachusetts
Phone: (617) 835-4770
Email: anton@onyxpartnersltd.com

Contractor:

Name: Severino Trucking
Street: 512 Raymond Road
Town: Candia, NH 03034
Phone: (603) 483-2133
Email: tseverino@severino.com

Engineer(s):

Jones & Beach Engineers, Inc.
Attn. Bradford A. Jones
Senior Construction Inspector
PO Box 219
Stratham, NH 03885
Phone: (603) 772-4746
Fax: (603) 772-0227
Email: bjones@jonesandbeach.com

Corrective Action Forms
See Appendix E.

6.3 Delegation of Authority

Instructions:

- Identify the individual(s) or positions within the company who have been delegated authority to sign inspection reports.
- Attach a copy of the signed delegation of authority (see example in Appendix J of the Template.
- For more on this topic, see Appendix I, Subsection 11 of EPA's CGP.

Duly Authorized Representative(s) or Position(s):

Operator(s):

Anton Melchionda
60 Centre Street
Dover, Massachusetts 01581
Phone: (617) 835-4770
Email: anton@onyxpartnersltd.com

Contractor:

Name: Severino Trucking
Street: 512 Raymond Road
Town: Candia, NH 03034
Phone: (603) 483-2133
Email: tseverino@severino.com

Engineer(s):

Jones & Beach Engineers, Inc.
Attn. Bradford A. Jones
Senior Construction Inspector
PO Box 219
Stratham, NH 03885
Phone: (603) 772-4746
Fax: (603) 772-0227
Email: bjones@jonesandbeach.com

SECTION 7: TRAINING

Instructions (see CGP Part 6 and 7.2.8):

- Complete the table below to provide documentation that the personnel required to be trained in CGP Part 6 completed the appropriate training
- If personnel will be taking course training (which is not required as part of the CGP), consider using Appendix I to track completion of this training
- The following personnel, at a minimum, must be receive training, and therefore should be listed out individually in the table below:
  - ✓ Personnel who are responsible for the design, installation, maintenance, and/or repair of stormwater controls (including pollution prevention measures);
  - ✓ Personnel responsible for the application and storage of treatment chemicals (if applicable);
  - ✓ Personnel who are responsible for conducting inspections as required in Part 4.1; and
  - ✓ Personnel who are responsible for taking corrective actions as required in Part 5.
- CGP Part 6 requires that the required personnel must be trained to understand the following if related to the scope of their job duties:
  - ✓ The location of all stormwater controls on the site required by this permit, and how they are to be maintained;
  - ✓ The proper procedures to follow with respect to the permit's pollution prevention requirements; and
  - ✓ When and how to conduct inspections, record applicable findings, and take corrective actions.

Table 7-1: Documentation for Completion of Training

Name	Date Training Completed

Name	Date Training Completed

SECTION 8: CERTIFICATION AND NOTIFICATION

Instructions (CGP Appendix I, Part I.11.1):

- The following certification statement must be signed and dated by a person who meets the requirements of Appendix I, Part I.11.1.
- This certification must be re-signed in the event of a SWPPP Modification.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____ Title: _____

Signature: _____ Date: _____

[Repeat as needed for multiple construction operators at the site.]

POLLUTION PREVENTION PLAN CERTIFICATION

OWNER/OPERATOR

Owner	Responsibility
Name: Hard Rock Development Address: 84 Exeter Road, South Hampton, NH 03827 Telephone: (603) 418-1516	The owner is responsible for the conduct of all construction activities, and ultimate compliance with all the provisions of the Stormwater Pollution Prevention Plan.

OWNER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed: _____ Date: _____

Printed Name: _____

Representing: Hard Rock Development_____

POLLUTION PREVENTION PLAN CERTIFICATION

CONTRACTOR

General Contractor	Responsibility
Name: Severino Trucking Address: 512 Raymond Road, Candia, NH Telephone: (603) 483-2133	The contractor is responsible for the completion of planned construction activities, including the installation and maintenance of control measures as outlined in this Stormwater Pollution Prevention Plan.

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with construction activity from the project site identified as part of this certification.

Signed: _____ Date: _____

Printed Name: Thomas Severino

Representing: Severino Trucking

POLLUTION PREVENTION PLAN CERTIFICATION

SUBCONTRACTOR

Subcontractor	Responsibility
Name: Address: Telephone:	Subcontractors are responsible for the completion of their designated portion(s) of the construction activities, including the installation and maintenance of control measures as outlined in this Stormwater Pollution Prevention Plan.

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with construction activity from the project site identified as part of this certification.

Signed: _____ Date: _____

Printed Name: _____

Representing: _____

(Note: Additional copies of this form may be attached in cases where more than one subcontractor has responsibility for compliance.)

SWPPP APPENDICES

Attach the following documentation to the SWPPP:

Appendix A – Site Maps

Appendix B – Copy of 2022 CGP

Appendix C – NOI and EPA Authorization Email

Appendix D – Inspection Form

Appendix E – Corrective Action Form

Appendix F – SWPPP Amendment Log

Appendix G – Subcontractor Certifications/Agreements

Appendix H – Grading and Stabilization Activities Log

Appendix I – Training Log

Appendix J – Delegation of Authority

Appendix K – Endangered Species Documentation

Appendix L – Historic Preservation Documentation

Appendix M – Permits

Appendix A – Site Maps

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)

1 inch = 200 ft.

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 1-V1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 249
LAWRENCE, MA 01842

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

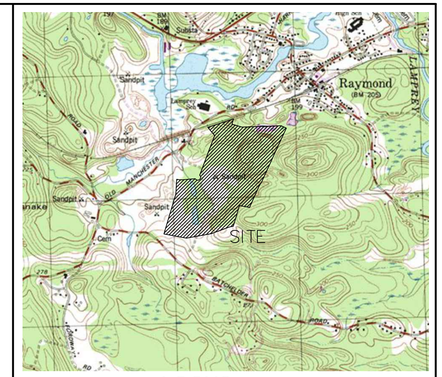
TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 25
JOSEPH WELCH, JO. WELCH,
APFX 2 WELCH, INEZ WELCH,
BETTY PROULX, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

TAX MAP 23, LOT 23
JOAN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

TAX MAP 23, LOT 24
JOAN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077



LOCUS SCALE: 1"=2000'

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Design: WGM	Draft: GDR		Date: 8/19/21
Checked: WGM	Scale: AS NOTED		Project No.:21130
Drawing Name: 21130-PLAN.dwg			

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
1	5/5/22	ISSUED FOR REVIEW	GAP
0	8/19/21	ISSUED FOR REVIEW	GDR

Designed and Produced in NH
Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN

Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH

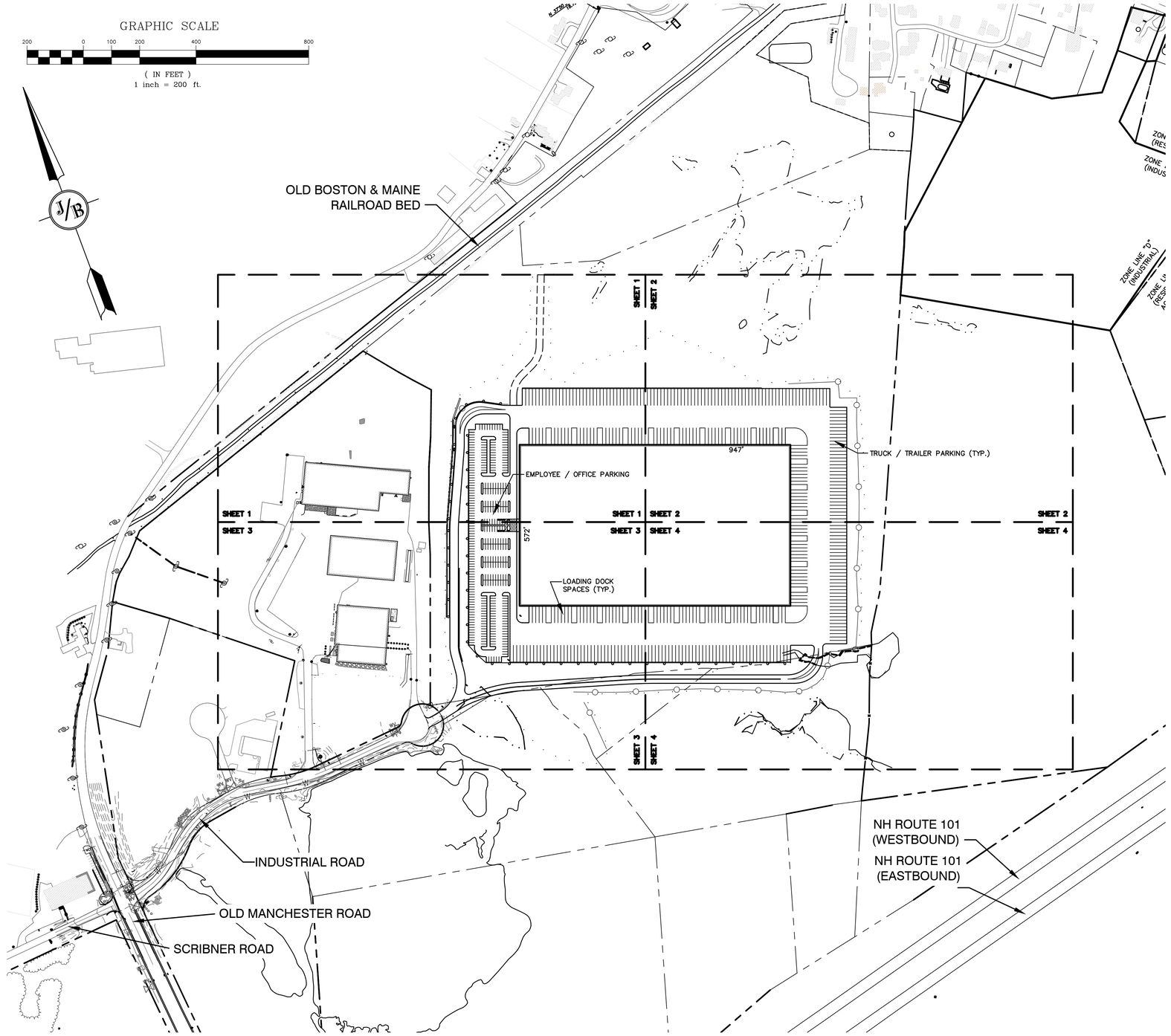
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

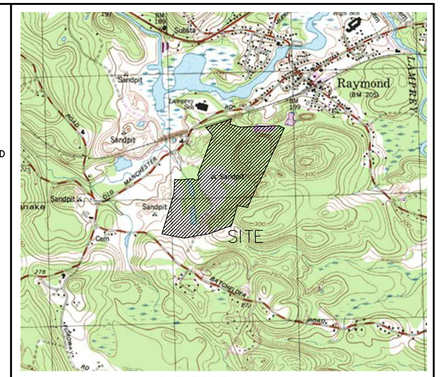
DRAWING No.
C1
SHEET 2 OF 10
JBE PROJECT NO. 21130

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.





LOCUS SCALE: 1"=2000'

SITE NOTES:

1. THE INTENT OF THIS PLAN IS TO SHOW THE PROPOSED CONSTRUCTION OF A DISTRIBUTION CENTER WITH ASSOCIATED LOADING DOCKS, TRUCK PARKING, AND EMPLOYEE VEHICLE PARKING.
2. ZONING DISTRICT: D–INDUSTRIAL
   LOT AREA MINIMUM = 21,780 SF (0.5 AC)
   LOT AREA PROPOSED = 5,380,531± SF (123.52± AC)
   LOT FRONTAGE MINIMUM = 50'
   BUILDING SETBACKS (MINIMUM):
   FRONT SETBACK = 15'
   SIDE SETBACK = 15'
   REAR SETBACK = 10'
   PRE–EXISTING LOT, ALL SETBACKS = 25'
   ABUTTING RESIDENTIAL ZONE = 50'
   *20' VEGETATED WITH FENCE OR 50' VEGETATED
   WETLAND SETBACK = 25'
3. PARKING CALCULATIONS:
   VEHICLE SPACES PROVIDED = 326
   TRAILER SPACES PROVIDED = 244
   LOADING DOCK SPACES PROVIDED = 158
4. TOTAL BUILDING FOOTPRINT = 550,025 S.F.
   TOTAL PAVED AREA = 1,202,693 S.F.
   TOTAL DISTURBANCE = 1,774,358 S.F.
5. THIS PLAN SET HAS BEEN PREPARED BY JONES & BEACH ENGINEERS, INC., FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON–SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS, INCLUDING ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS ON THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON–SITE CONDITIONS, MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED. CONTRACTOR TO ALWAYS CONTACT DIG SAFE PRIOR TO DIGGING ONSITE OR OFFSITE TO ENSURE SAFETY AND OBEY THE LAW.
6. ALL CONSTRUCTION SHALL CONFORM TO TOWN STANDARDS AND REGULATIONS, AND NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WHICHEVER IS MORE STRINGENT.
7. SUBJECT PROPERTY IS LOCATED WITHIN FEDERALLY DESIGNATED 100 YEAR FLOOD HAZARD ZONE. REFERENCE FEMA COMMUNITY PANEL NO. 330140 0190 E, DATED MAY 17, 2005; FEMA COMMUNITY PANEL NO. 330131 0193 E, DATED MAY 17, 2005, & 330140 0193 E, DATED MAY 17, 2005. PROJECT SITE IS NOT WITHIN 100 YEAR FLOOD HAZARD ZONE.
8. LANDOWNERS ARE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING PERMITTING REQUIRED UNDER THESE REGULATIONS.
9. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.). THIS DOCUMENT IS TO BE KEPT ONSITE AT ALL TIMES AND UPDATED AS REQUIRED.
10. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, FEES AND BONDS.
11. ALL PROPOSED SIGNAGE SHALL CONFORM WITH THE TOWN ZONING REGULATIONS, UNLESS A VARIANCE IS OTHERWISE REQUESTED.
12. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND NHDOT STANDARDS AND SPECIFICATIONS (NON–REFLECTORIZED PAVEMENT MARKINGS), UNLESS OTHERWISE NOTED.
13. ALL PARKING STALLS SHALL BE SEPARATED USING 4" WIDE SOLID STRIPES. STRIPING SHALL BE 100% ACRYLIC TYPE, LOW VOC, FAST DRYING, IN A COLOR OF WHITE.
14. ALL STOP BARS SHALL BE 18" IN WIDTH IN A COLOR OF WHITE; ALL TRAFFIC ARROWS SHALL BE PAINTED IN A COLOR OF WHITE.
15. ALL CURBING TO BE CAPE CAD BERM WITH A MINIMUM RADIUS OF 2', UNLESS OTHERWISE NOTED.
16. ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PROVIDED BY THE OWNER. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND OWNER PRIOR TO THE START OF CONSTRUCTION. BUILDING DIMENSIONS AND AREAS TO BE TO OUTSIDE OF MASONRY, UNLESS OTHERWISE NOTED.
17. ALL OUTDOOR DISPLAY AREAS SHALL BE MAINTAINED IN A NEAT AND ORDERLY FASHION.
18. SNOW TO BE STORED AT EDGE OF PAVEMENT AND IN AREAS SHOWN ON THE PLANS, OR TRUCKED OFFSITE TO AN APPROVED SNOW DUMPING LOCATION.
19. ROOF TOP HEATING AND AIR CONDITIONING UNITS (RTU's) SHALL BE DESIGNED TO VENT UPWARDS AND AIR INTAKES SHALL BE DIRECTED AWAY FROM ABUTTING NEIGHBORS.
20. ALL ARCHITECTURAL BLOCK RETAINING WALLS ARE TO BE DESIGNED AND STAMPED BY THE MANUFACTURER'S STRUCTURAL ENGINEER. CONTRACTOR TO COORDINATE WITH APPROVED MANUFACTURER PRIOR TO INSTALLATION.
21. DUMPSTERS AND/OR ROLL–OFFS ARE NOT TO BE PICKED UP BETWEEN 7:00 PM AND 7:00 AM.
22. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
23. ALL PRECAST CONCRETE PRODUCTS WILL BE SOURCED FROM MANUFACTURING FACILITIES IN COMPLIANCE WITH THE NATIONAL PRECAST CONCRETE ASSOCIATION (NPCA) PLANT CERTIFICATION PROGRAM. EVIDENCE OF COMPLIANCE WILL BE PROVIDED FOR THE CURRENT CALENDAR YEAR THE PRODUCTS WERE MANUFACTURED WITHIN.

APPROVED - RAYMOND, NH
PLANNING BOARD

DATE:

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

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Design: WGM	Draft: GDR	Date: 8/19/21	
Checked: WGM	Scale: AS NOTED	Project No.: 21130	
Drawing Name: 21130-PLAN.dwg			

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

REV.	DATE	REVISION	BY
1	5/5/22	ISSUED FOR REVIEW	GAP
0	8/19/21	ISSUED FOR REVIEW	GDR

Designed and Produced in NH
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Plan Name: SITE PLAN
TAX MAP 22, LOTS 44, 45, 46, 47 & TAX MAP 28, BLOCK 3, LOT 120-1

Project: RAYMOND DISTRIBUTION
INDUSTRIAL DRIVE, RAYMOND, NH

Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C2
SHEET 3 OF10
JBE PROJECT NO. 21130

Appendix B – Copy of 2022 CGP

National Pollutant Discharge Elimination System (NPDES)
Construction General Permit (CGP) for Stormwater Discharges from Construction Activities

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et. seq., (hereafter CWA), as amended by the Water Quality Act of 1987, P.L. 100-4, "operators" of construction activities (defined in Appendix A) that meet the requirements of Part 1.1 of this National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP), are authorized to discharge pollutants in accordance with the effluent limitations and conditions set forth herein. Permit coverage is required from the "commencement of construction activities" (see Appendix A) until one of the conditions for terminating CGP coverage has been met (see Part 8.2).

This permit becomes effective on 12:00 am, February 17, 2022.

This permit and the authorization to discharge expire at 11:59pm, February 16, 2027.

Signed and issued this 18 day of January 2022

DEBORAH SZARO
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Deborah Szaro,
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Jeaneanne Gettle,
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Tera Fong,
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Signed and issued this 18 day of January 2022

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Director, Water Division, EPA Region 10.

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1 HOW TO OBTAIN COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT (CGP)

To be covered under this permit, you must meet the eligibility conditions and follow the requirements for obtaining permit coverage in this Part.

1.1 ELIGIBILITY CONDITIONS

1.1.1 You are an "operator" of a construction site for which discharges will be covered under this permit. For the purposes of this permit and in the context of stormwater discharges associated with construction activity, an "operator" is any party associated with a construction project that meets either of the following two criteria:

a. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or

b. The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Where there are multiple operators associated with the same project, all operators must obtain permit coverage.[1] Subcontractors generally are not considered operators for the purposes of this permit.

1.1.2 Your site's construction activities:

a. Will disturb one or more acres of land, or will disturb less than one acre of land but are part of a common plan of development or sale (as defined in Appendix A) that will ultimately disturb one or more acres of land; or

b. Have been designated by EPA as needing permit coverage under 40 CFR § 122.26(a)(1)(v) or 40 CFR § 122.26(b)(15)(ii);

1.1.3 Your site is located in an area where EPA is the permitting authority and where coverage under this permit is available (see Appendix B);

1.1.4 Discharges from your site are not:

a. Already covered by a different NPDES permit for the same discharge; or

b. In the process of having coverage under a different NPDES permit for the same discharge denied, terminated, or revoked.[2, 3]

1.1.5 You can demonstrate you meet one of the criteria in the Endangered Species Protection section of the Notice of Intent (NOI) that you submit for coverage under this permit, per Part 1.4, with respect to the protection of Federally listed endangered or threatened species and Federally designated critical habitat under the Endangered Species Act

[1] If the operator of a "construction support activity" (see Part 1.2.1c) is different than the operator of the main site, that operator must also obtain permit coverage. See Part 7.1 for clarification on the sharing of permit-related functions between and among operators on the same site and for conditions that apply to developing a SWPPP for multiple operators associated with the same site.

[2] Parts 1.1.4a and 1.1.4b do not include sites currently covered under the 2017 CGP that are in the process of obtaining coverage under this permit, nor sites covered under this permit that are transferring coverage to a different operator.

[3] Notwithstanding a site being made ineligible for coverage under this permit because it falls under the description of Parts 1.1.4a or 1.1.4b, above, EPA may waive the applicable eligibility requirement after specific review if it determines that coverage under this permit is appropriate.

(ESA). If the EPA Regional Office grants you a waiver from electronic reporting per Part 1.4.2, you must complete the ESA worksheet in Appendix D to demonstrate you meet one of the criteria and submit it with your paper NOI (Appendix I).

1.1.6 You have completed the screening process in Appendix E relating to the protection of historic properties; and

1.1.7 You have complied with all requirements in Part 9 imposed by the applicable State, Indian Tribe, or Territory in which your construction activities and/or discharge will occur.

1.1.8 For "new sources" (as defined in Appendix A) only:

a. EPA has not, prior to authorization under this permit, determined that discharges from your site will not meet applicable water quality standards. Where such a determination is made prior to authorization, EPA may notify you that an individual permit application is necessary. However, EPA may authorize your coverage under this permit after you have included appropriate controls and implementation procedures designed to bring your discharge into compliance with this permit, specifically the requirement to meet water quality standards. In the absence of information demonstrating otherwise, EPA expects that compliance with the requirements of this permit, including the requirements applicable to such discharges in Part 3, will result in discharges that meet applicable water quality standards.

b. Discharges from your site to a Tier 2, Tier 2.5, or Tier 3 water[4] will not lower the water quality of the applicable water. In the absence of information demonstrating otherwise, EPA expects that compliance with the requirements of this permit, including the requirements applicable to such discharges in Part 3.2, will result in discharges that will not lower the water quality of such waters.

1.1.9 If you plan to add "cationic treatment chemicals" (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge, you may not submit your NOI until you notify your applicable EPA Regional Office (see Appendix J) in advance and the EPA Regional Office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will result in discharges that meet applicable water quality standards.

[4] Note: Your site will be considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first receiving water to which you discharge is identified by a State, Tribe, or EPA as a Tier 2, Tier 2.5, or Tier 3 water. For discharges that enter a storm sewer system prior to discharge, the first receiving water to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system. The current list of Tier 2, Tier 2.5, and Tier 3 waters located in the areas eligible for coverage under this permit can be found at https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates. You can also use EPA's Discharge Mapping Tool (https://www.epa.gov/npdes/epas-stormwater-discharge-mapping-tools) to assist you in identifying whether any receiving waters to which you discharge are listed as impaired (and the pollutant for which it is impaired) and whether an approved total maximum daily load (TMDL) exists for that waterbody.

1.2 TYPES OF DISCHARGES AUTHORIZED[5]

1.2.1 The following stormwater discharges are authorized under this permit provided that appropriate stormwater controls are designed, installed, and maintained (see Parts 2 and 3):

a. Stormwater discharges, including stormwater runoff, snowmelt runoff, and surface runoff and drainage, associated with construction activity under 40 CFR § 122.26(b)(14) or § 122.26(b)(15)(i);

b. Stormwater discharges designated by EPA as needing a permit under 40 CFR §122.26(a)(1)(v) or § 122.26(b)(15)(ii);

c. Stormwater discharges from on or off-site construction support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided that:

i. The support activity is directly related to the construction site required to have permit coverage for stormwater discharges;

ii. The support activity is not a commercial operation, nor does it serve multiple unrelated construction sites;

iii. The support activity does not continue to operate beyond the completion of the construction activity at the site it supports; and

iv. Stormwater controls are implemented in accordance with Part 2 and Part 3 for discharges from the support activity areas; and

d. Stormwater discharges from earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining.

1.2.2 The following non-stormwater discharges associated with your construction activity are authorized under this permit provided that, with the exception of water used to control dust and to irrigate vegetation in stabilized areas, these discharges are not routed to areas of exposed soil on your site and you comply with any applicable requirements for these discharges in Parts 2 and 3:

a. Discharges from emergency fire-fighting activities;

b. Fire hydrant flushings;

c. Landscape irrigation;

d. Water used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;

e. Water used to control dust;

f. Potable water including uncontaminated water line flushings;

[5] See "Discharge" as defined in Appendix A. Note: Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA Section 402(k) by disclosure to EPA, State, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the SWPPP, or during an inspection.

g. External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances (as defined in Appendix A) (e.g., paint or caulk containing polychlorinated biphenyls (PCBs));

h. Pavement wash waters, provided spills or leaks of toxic or hazardous substances have not occurred (unless all spill material has been removed) and where soaps, solvents, and detergents are not used. You are prohibited from directing pavement wash waters directly into any receiving water, storm drain inlet, or constructed or natural site drainage features, unless the feature is connected to a sediment basin, sediment trap, or similarly effective control;

i. Uncontaminated air conditioning or compressor condensate;

j. Uncontaminated, non-turbid discharges of ground water or spring water;

k. Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water; and

l. Uncontaminated construction dewatering water[6] discharged in accordance with Part 2.4.

1.2.3 Also authorized under this permit are discharges of stormwater listed above in Part 1.2.1, or authorized non-stormwater discharges listed above in Part 1.2.2, commingled with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

1.3 PROHIBITED DISCHARGES[7]

The discharges listed in this Part are prohibited outright or authorized only under the identified conditions. To prevent the discharges in Parts 1.3.1 through 1.3.5, operators must comply with the applicable pollution prevention requirements in Part 2.3 or ensure the discharge is authorized by another NPDES permit consistent with Part 1.2.3 for commingled discharges.

1.3.1 Wastewater from washout of concrete, unless managed by an appropriate control as described in Part 2.3.4;

1.3.2 Wastewater from washout and/or cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;

1.3.3 Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;

1.3.4 Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and

1.3.5 Toxic or hazardous substances from a spill or other release.

[6] EPA notes that operators may need to comply with additional procedures to verify that the dewatering discharge is uncontaminated. Operators should review Part 9 to determine if any of these requirements apply to their discharge and should ensure that they have complied with any State, Tribal, or local dewatering requirements that apply.

[7] EPA includes these prohibited non-stormwater discharges here as a reminder to the operator that the only non-stormwater discharges authorized by this permit are at Part 1.2.2. Any unauthorized non-stormwater discharges must be covered under an individual permit or alternative general permit.

1.4 SUBMITTING YOUR NOTICE OF INTENT (NOI)

All "operators" (as defined in Appendix A) associated with your construction site who meet the Part 1.1 eligibility conditions, and who seek coverage under this permit, must submit to EPA a complete and accurate NOI in accordance with the deadlines in Table 1 prior to commencement of construction activities (as defined in Appendix A).

Exception: If you are conducting construction activities in response to a public emergency (e.g., mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services), and the related work requires immediate authorization to avoid imminent endangerment to human health, public safety, or the environment, or to reestablish essential public services, you may discharge on the condition that a complete and accurate NOI is submitted within 30 calendar days after commencing construction activities (see Table 1) establishing that you are eligible for coverage under this permit. You must also provide documentation in your Stormwater Pollution Prevention Plan (SWPPP) to substantiate the occurrence of the public emergency pursuant to Part 7.2.3i.

1.4.1 Prerequisite for Submitting Your NOI

You must develop a SWPPP consistent with Part 7 before submitting your NOI for coverage under this permit.

1.4.2 How to Submit Your NOI

You must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit your NOI for coverage under the 2022 CGP unless you received a waiver from your applicable EPA Regional Office.

To access NeT, go to https://cdx.epa.gov/cdx.

Waivers from electronic reporting may be granted based on one of the following conditions:

a. If your operational headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission; or

b. If you have limitations regarding available computer access or computer capability.

If the EPA Regional Office grants you approval to use a paper NOI, and you elect to use it, you must complete the form in Appendix H.

1.4.3 Deadlines for Submitting Your NOI and Your Official Date of Permit Coverage

Table 1 provides the deadlines for submitting your NOI and the official start date of your permit coverage, which differ depending on when you commence construction activities.

Table 1 NOI Submittal Deadlines and Official Start Date for Permit Coverage.

Type of Operator	NOI Submittal Deadline[8]	Permit Authorization Date[9]
Operator of a new site (i.e., a site where construction activities commence on or after February 17, 2022)	At least 14 calendar days before commencing construction activities.	14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.
Operator of an existing site (i.e., a site with 2017 CGP coverage where construction activities commenced prior to February 17, 2022)	No later than May 18, 2022.	14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied. Provided you submit your NOI no later than May 18, 2022, your authorization under the 2017 CGP is automatically continued until you have been granted coverage under this permit or an alternative NPDES permit, or coverage is otherwise terminated.
New operator of a permitted site (i.e., an operator that through transfer of ownership and/or operation replaces the operator of an already permitted construction site that is either a "new site" or an "existing site")	At least 14 calendar days before the date the transfer to the new operator will take place.	14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.
Operator of an "emergency-related project" (i.e., a project initiated in response to a public emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services)	No later than 30 calendar days after commencing construction activities.	You are considered provisionally covered under the terms and conditions of this permit immediately, and fully covered 14 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization is delayed or denied.

[8] If you miss the deadline to submit your NOI, any and all discharges from your construction activities will continue to be unauthorized under the CWA until they are covered by this or a different NPDES permit. EPA may take enforcement action for any unpermitted discharges that occur between the commencement of construction activities and discharge authorization.

[9] Discharges are not authorized if your NOI is incomplete or inaccurate or if you are not eligible for permit coverage.

1.4.4 Modifying your NOI

If after submitting your NOI you need to correct or update any fields, you may do so by submitting a "Change NOI" form using NeT. Waivers from electronic reporting may be granted as specified in Part 1.4.2. If the EPA Regional Office has granted you approval to submit a paper NOI modification, you may indicate any NOI changes on the same NOI form in Appendix H.

When there is a change to the site's operator, the new operator must submit a new NOI, and the previous operator must submit a Notice of Termination (NOT) form as specified in Part 8.3.

The following modifications to an NOI form will result in a 14-day review process:

- Changes to the name of the operator;
- Changes to the project or site name;
- Changes to the estimated area to be disturbed;
- Changes to the name of the receiving water[10], or additions to the applicable receiving waters;
- Changes to eligibility information related to endangered species protection or historic preservation;
- Changes to information provided related to the use of chemical treatment at your site; and
- Changes to answers provided regarding the demolition of structures over 10,000 square feet of floor space built or renovated before January 1, 1980.

During the 14-day review process, you may continue to operate based on the information provided in your original NOI, but you must wait until the review period has ended before you may commence or continue activities on any portion of your site that would be affected by any of the above modifications, unless EPA notifies you that the authorization is delayed or denied.

1.4.5 Your Official End Date of Permit Coverage

Once covered under this permit, your coverage will last until the date that:

a. You terminate permit coverage consistent with Part 8; or

b. You receive permit coverage under a different NPDES permit or a reissued or replacement version of this permit after expiring on February 16, 2027; or

c. You fail to submit an NOI for coverage under a reissued or replacement version of this permit before the deadline for existing construction sites where construction activities continue after this permit has expired.

1.5 REQUIREMENT TO POST A NOTICE OF YOUR PERMIT COVERAGE

You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice must be located so it is visible from the public road that is nearest to the active part of the construction

[10] As defined in Appendix A, a "receiving water" is "a "Water of the United States" as defined in 40 CFR §122.2 into which the regulated stormwater discharges.

site, and it must use a font large enough to be readily viewed from a public right-of-way.[11] At a minimum, the notice must include:

a. The NPDES ID (i.e., permit tracking number assigned to your NOI and the EPA webpage where a copy of the NOI can be found (https://permitsearch.epa.gov/epermit-search/ui/search));

b. A contact name and phone number for obtaining additional construction site information;

c. The Uniform Resource Locator (URL) for the SWPPP (if available), or the following statement: "If you would like to obtain a copy of the Stormwater Pollution Prevention Plan (SWPPP) for this site, contact the EPA Regional Office at [*include the appropriate CGP Regional Office contact information found at* https://www.epa.gov/npdes/contact-us-stormwater#regional];" and

d. The following statement "If you observe indicators of stormwater pollutants in the discharge or in the receiving water, contact the EPA through the following website: https://www.epa.gov/enforcement/report-environmental-violations."

2 TECHNOLOGY-BASED EFFLUENT LIMITATIONS

You must comply with the following technology-based effluent limitations in this Part for all authorized discharges.[12]

2.1 GENERAL STORMWATER CONTROL DESIGN, INSTALLATION, AND MAINTENANCE REQUIREMENTS

You must design, install, and maintain stormwater controls required in Parts 2.2, 2.3, and 2.4 to minimize the discharge of pollutants in stormwater from construction activities.[13] To meet this requirement, you must:

2.1.1 Account for the following factors in designing your stormwater controls:

a. The expected amount, frequency, intensity, and duration of precipitation;[14]

b. The nature of stormwater runoff (i.e., flow) and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features. You must design stormwater controls to control stormwater volume, velocity, and peak flow rates to minimize discharges of pollutants in stormwater and to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points; and

c. The soil type and range of soil particle sizes expected to be present on the site.

[11] If the active part of the construction site is not visible from a public road, then place the notice of permit coverage in a position that is visible from the nearest public road and as close as possible to the construction site.

[12] For each of the effluent limits in Part 2, as applicable to your site, you must include in your SWPPP (1) a description of the specific control(s) to be implemented to meet the effluent limit; (2) any applicable design specifications; (3) routine maintenance specifications; and (4) the projected schedule for installation/implementation. See Part 7.2.6.

[13] The permit does not recommend or endorse specific products or vendors.

[14] Stormwater controls must be designed using the most recent data available to account for recent precipitation patterns and trends.

If your site is exposed to or has previously experienced major storms, such as hurricanes, storm surge, extreme/heavy precipitation, and flood events, you should also include consideration of and contingencies for whether implementing structural improvements, enhanced/resilient stormwater controls, and other mitigation measures may help minimize impacts from stormwater discharges from such major storm events.

2.1.2 Design and install all stormwater controls in accordance with good engineering practices, including applicable design specifications.[15]

2.1.3 Complete installation of stormwater controls by the time each phase of construction activities has begun.

a. By the time construction activity in any given portion of the site begins, install and make operational any downgradient sediment controls (e.g., buffers, perimeter controls, exit point controls, storm drain inlet protection) that control discharges from the initial site clearing, grading, excavating, and other earth-disturbing activities.[16]

b. Following the installation of these initial controls, install and make operational all stormwater controls needed to control discharges prior to subsequent earth-disturbing activities.

2.1.4 Ensure all stormwater controls are maintained and remain in effective operating condition during permit coverage and are protected from activities that would reduce their effectiveness.

a. Comply with any specific maintenance requirements for the stormwater controls listed in this permit, as well as any recommended by the manufacturer.[17]

b. If at any time you find that a stormwater control needs routine maintenance (i.e., minor repairs or other upkeep performed to ensure the site's stormwater controls remain in effective operating condition, not including significant repairs or the need to install a new or replacement control), you must immediately initiate the needed work, and complete such work by the close of the next business day. If it is infeasible to complete the routine maintenance by the close of the next business day, you must document why this is the case and why the repair or other upkeep to be performed should still be considered routine maintenance in your inspection report under Part 4.7.1c and complete such work no later than seven (7) calendar days from the time of discovery of the condition requiring maintenance.

c. If you must repeatedly (i.e., three (3) or more times) make the same routine maintenance fixes to the same control at the same location, even if the fix can be completed by the close of the next business day, you must either:

i. Complete work to fix any subsequent repeat occurrences of this same problem under the corrective action procedures in Part 5, including keeping any records

[15] Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practices and must be explained in your SWPPP. You must also comply with any additional design and installation requirements specified for the effluent limits in Parts 2.2, 2.3, and 2.4.

[16] Note that the requirement to install stormwater controls prior to each phase of construction activities for the site does not apply to the earth disturbance associated with the actual installation of these controls. Operators should take all reasonable actions to minimize the discharges of pollutants during the installation of stormwater controls.

[17] Any departures from such maintenance recommendations made by the manufacturer must reflect good engineering practices and must be explained in your SWPPP.

of the condition and how it was corrected under Part 5.4; or

ii. Document in your inspection report under Part 4.7.1c why the specific reoccurrence of this same problem should still be addressed as a routine maintenance fix under this Part.[18]

d. If at any time you find that a stormwater control needs a significant repair or that a new or replacement control is needed, you must comply with the corrective action deadlines for completing such work in in Part 5.2.1c.

2.2 EROSION AND SEDIMENT CONTROL REQUIREMENTS

You must implement erosion and sediment controls in accordance with the following requirements to minimize the discharge of pollutants in stormwater from construction activities.

2.2.1 Provide and maintain natural buffers and/or equivalent erosion and sediment controls for discharges to any receiving waters that is located within 50 feet of the site's earth disturbances.

a. Compliance Alternatives. For any discharges to receiving waters located within 50 feet of your site's earth disturbances, you must comply with one of the following alternatives:

i. Provide and maintain a 50-foot undisturbed natural buffer; or

ii. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or

iii. If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

See Appendix F, Part F.2 for additional conditions applicable to each compliance alternative.

b. Exceptions. See Appendix F, Part F.2 for exceptions to the compliance alternatives.

2.2.2 Direct stormwater to vegetated areas and maximize stormwater infiltration and filtering to reduce pollutant discharges, unless infiltration would be inadvisable due to the underlying geology (e.g., karst topography) and ground water contamination concerns, or infeasible due to site conditions.[19]

[18] Such documentation could include, for example, that minor repairs completed within the required timeframe are all that is necessary to ensure that the stormwater control continues to operate as designed and installed and that the stormwater control remains appropriate for the flow reaching it.

[19] Operators should consider whether factors such as specific contaminant concerns from the construction site, the underlying soils or geology, hydrology, depth to the ground water table, or proximity to source water or wellhead protection area(s) make the site unsuitable for infiltrating construction stormwater. Site conditions that may be of particular concern include proximity to: a current or future drinking water aquifer; a drinking water well or spring (including private/household wells); highly conductive geology such as karst; known pollutant hot spots, such as hazardous waste sites, landfills, gas stations, brownfields; an on-site sewage system or underground storage tank; or soils that do not allow for infiltration. Operators may find it helpful to consult EPA's Drinking Water Mapping Application to Protect Source Waters (DWMAPS). DWMAPS is an online mapping tool that can be used to locate drinking water providers, potential sources of contamination, polluted waterways, and information on protection initiatives in the site area.

2.2.3 Install sediment controls along any perimeter areas of the site that are downslope from any exposed soil or other disturbed areas.[20]

a. The perimeter control must be installed upgradient of any natural buffers established under Part 2.2.1, unless the control is being implemented pursuant to Part 2.2.1a.ii-iii;

b. To prevent stormwater from circumventing the edge of the perimeter control, install the perimeter control on the contour of the slope and extend both ends of the control up slope (e.g., at 45 degrees) forming a crescent rather than a straight line;

c. After installation, to ensure that perimeter controls continue to work effectively:

i. Remove sediment before it has accumulated to one-half of the above-ground height of any perimeter control; and

ii. After a storm event, if there is evidence of stormwater circumventing or undercutting the perimeter control, extend controls and/or repair undercut areas to fix the problem.

d. Exception. For areas at "linear construction sites" (as defined in Appendix A) where perimeter controls are infeasible (e.g., due to a limited or restricted right-of-way), implement other practices as necessary to minimize pollutant discharges to perimeter areas of the site.

2.2.4 Minimize sediment track-out.

a. Restrict vehicle use to properly designated exit points;

b. Use appropriate stabilization techniques[21] at all points that exit onto paved roads;

i. Exception: Stabilization is not required for exit points at linear utility construction sites that are used only episodically and for very short durations over the life of the project, provided other exit point controls[22] are implemented to minimize sediment track-out;

c. Implement additional track-out controls[23] as necessary to ensure that sediment removal occurs prior to vehicle exit; and

d. Where sediment has been tracked-out from your site onto paved roads, sidewalks, or other paved areas outside of your site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day. Remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. You are prohibited from hosing or sweeping tracked-out

[20] Examples of perimeter controls include filter berms; different types of silt fence such as wire-backed silt fence, super silt fence, or multi-layer geotextile silt fence; compost filter socks; gravel barriers; and temporary diversion dikes.

[21] Examples of appropriate stabilization techniques include the use of aggregate stone with an underlying geotextile or non-woven filter fabric, and turf mats.

[22] Examples of other exit point controls include preventing the use of exit points during wet periods; minimizing exit point use by keeping vehicles on site to the extent possible; limiting exit point size to the width needed for vehicle and equipment usage; using scarifying and compaction techniques on the soil; and avoiding establishing exit points in environmentally sensitive areas (e.g., *karst areas; steep slopes)*.

[23] Examples of additional track-out controls include the use of wheel washing, rumble strips, and rattle plates.

sediment into any constructed or natural site drainage feature, storm drain inlet, or receiving water.[24]

2.2.5 Manage stockpiles or land clearing debris piles composed, in whole or in part, of sediment and/or soil:[25]

a. Locate the piles outside of any natural buffers established under Part 2.2.1 and away from any constructed or natural site drainage features, storm drain inlets, and areas where stormwater flow is concentrated;

b. Install a sediment barrier along all downgradient perimeter areas of stockpiled soil or land clearing debris piles;[26]

c. For piles that will be unused for 14 or more days, provide cover[27] or appropriate temporary stabilization (consistent with Part 2.2.14);

d. You are prohibited from hosing down or sweeping soil or sediment accumulated on pavement or other impervious surfaces into any constructed or natural site drainage feature, storm drain inlet, or receiving water.

2.2.6 Minimize dust. On areas of exposed soil, minimize dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged in stormwater from the site.

2.2.7 Minimize steep slope disturbances. Minimize the disturbance of "steep slopes" (as defined in Appendix A).[28]

2.2.8 Preserve native topsoil, unless infeasible.[29]

2.2.9 Minimize soil compaction.[30] In areas of your site where final vegetative stabilization will occur or where infiltration practices will be installed:

[24] Fine grains that remain visible (e.g., staining) on the surfaces of off-site streets, other paved areas, and sidewalks after you have implemented sediment removal practices are not a violation of Part 2.2.4.

[25] The requirements in Part 2.2.5 do not apply to the storage of rock, such as rip rap, landscape rock, pipe bedding gravel, and boulders. Refer to Part 2.3.3a for the requirements that apply to these types of materials.

[26] Examples of sediment barriers include berms, dikes, fiber rolls, silt fences, sandbags, gravel bags, or straw bale.

[27] Examples of cover include tarps, blown straw and hydroseeding.

[28] Where disturbance to steep slopes cannot be avoided, operators should consider implementing controls suitable for steep slope disturbances that are effective at minimizing erosion and sediment discharge (e.g., preservation of existing vegetation, hydraulic mulch, geotextiles and mats, compost blankets, earth dikes or drainage swales, terraces, velocity dissipation devices). To identify slopes and soil types that are of comparatively higher risk for sediment discharge in areas of the country where the CGP is in effect, operators can use the tables in Appendix F (see Tables F-2 thru F-6).

[29] Stockpiling topsoil at off-site locations, or transferring topsoil to other locations, is an example of a practice that is consistent with the requirements in Part 2.2.8. Preserving native topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed. For example, some sites may be designed to be highly impervious after construction, and therefore little or no vegetation is intended to remain, or may not have space to stockpile native topsoil on site for later use, in which case it may not be feasible to preserve topsoil.

[30] Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted.

a. Restrict vehicle and equipment use in these locations to avoid soil compaction; and

b. Before seeding or planting areas of exposed soil that have been compacted, use techniques that rehabilitate and condition the soils as necessary to support vegetative growth.

2.2.10 Protect storm drain inlets.

a. Install inlet protection measures that remove sediment from discharges prior to entry into any storm drain inlet that carries stormwater from your site to a receiving water, provided you have authority to access the storm drain inlet.[31] Inlet protection measures are not required for storm drain inlets that are conveyed to a sediment basin, sediment trap, or similarly effective control; and

b. Clean, or remove and replace, the inlet protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible.

2.2.11 Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points.[32]

2.2.12 If you install a sediment basin or similar impoundment:

a. Situate the basin or impoundment outside of any receiving water. and any natural buffers established under Part 2.2.1;

b. Design the basin or impoundment to avoid collecting water from wetlands;

c. Design the basin or impoundment to provide storage for either:

i. The calculated volume of runoff from a 2-year, 24-hour storm;[33] or

ii. 3,600 cubic feet per acre drained.

d. Utilize outlet structures that withdraw water from the surface of the sediment basin or similar impoundment, unless infeasible;[34]

e. Use erosion controls and velocity dissipation devices to prevent erosion at inlets and outlets; and

[31] Inlet protection measures can be removed in the event of flood conditions or to prevent erosion.

[32] Examples of stormwater controls that can be used to comply with this requirement include the use of erosion controls and/or velocity dissipation devices (e.g., check dams, sediment traps), within and along the length of a constructed site drainage feature and at the outfall to slow down stormwater.

[33] Operators may refer to https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates for guidance on determining the volume of precipitation associated with their site's local 2-year, 24-hour storm event.

[34] The circumstances in which it is infeasible to design outlet structures in this manner are rare. Exceptions may include areas with extended cold weather, where using surface outlets may not be feasible during certain time periods (although they must be used during other periods). If you determine that it is infeasible to meet this requirement, you must provide documentation in your SWPPP to support your determination, including the specific conditions or time periods when this exception will apply.

f. Remove accumulated sediment to maintain at least one-half of the design capacity and conduct all other appropriate maintenance to ensure the basin or impoundment remains in effective operating condition.

2.2.13 If using treatment chemicals (e.g., *polymers, flocculants, coagulants*):

a. Use conventional erosion and sediment controls before and after the application of treatment chemicals. Chemicals may only be applied where treated stormwater is directed to a sediment control *(e.g., sediment basin, perimeter control)* before discharge.

b. Select appropriate treatment chemicals. Chemicals must be appropriately suited to the types of soils likely to be exposed during construction and present in the discharges being treated *(i.e., the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system or area)*.

c. Minimize discharge risk from stored chemicals. Store all treatment chemicals in leak-proof containers that are kept under storm-resistant cover and surrounded by secondary containment structures *(e.g., spill berms, dikes, spill containment pallets)*, or provide equivalent measures designed and maintained to minimize the potential discharge of treatment chemicals in stormwater or by any other means *(e.g., storing chemicals in a covered area, having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill)*.

d. Comply with State/local requirements. Comply with applicable State and local requirements regarding the use of treatment chemicals.

e. Use chemicals in accordance with good engineering practices and specifications of the chemical provider/supplier. Use treatment chemicals and chemical treatment systems in accordance with good engineering practices, and with dosing specifications and sediment removal design specifications provided by the provider/supplier of the applicable chemicals, or document in your SWPPP specific departures from these specifications and how they reflect good engineering practice.

f. Ensure proper training. Ensure all persons who handle and use treatment chemicals at the construction site are provided with appropriate, product-specific training prior to beginning application of treatment chemicals. Among other things, the training must cover proper dosing requirements.

g. Perform additional measures specified by the EPA Regional Office for the authorized use of cationic chemicals. If you have been authorized to use cationic chemicals at your site pursuant to Part 1.1.9, you must perform all additional measures as conditioned by your authorization to ensure the use of such chemicals will not result in discharges that do not meet water quality standards.

2.2.14 Stabilize exposed portions of the site. Implement and maintain stabilization measures *(e.g., seeding protected by erosion controls until vegetation is established,*[35] *sodding, mulching, erosion control blankets, hydromulch, gravel)* that minimize erosion from any areas of exposed soil on the site in accordance with Part.

[35] If you will be evaluating the use of some type of erosion control netting to the site as part of your site stabilization, EPA encourages you to consider employing products that have been shown to minimize impacts on wildlife. For instance, the U.S. Fish & Wildlife Service provides recommendations on the type of netting practices that are considered "wildlife friendly," including those that use natural fiber or 100 percent biodegradable materials and that use a loose weave with a non-welded, movable jointed netting, as well as those products that are not wildlife friendly including square plastic netting that are degradable (e.g., photodegradable, UV-degradable, oxo-degradable), netting made from polypropylene, nylon, polyethylene, or polyester. Other recommendations include removing the netting product when it is no longer needed. See https://www.fws.gov/midwest/eastlansing/library/pdf/WildlifeFriendlyErosionControlProducts_revised.pdf for further information. There also may be State, Tribal, or local requirements about using wildlife friendly erosion control products.

a. Stabilization Deadlines:[36]

Table 2 Deadlines for Initiating and Completing Site Stabilization.

Total Amount of Land Disturbance Occurring At Any One Time[37]	**Deadline**
i. Five acres or less (≤5.0) **Note: this includes sites disturbing more than five acres (>5.0) total over the course of a project, but that limit disturbance at any one time (i.e., *phase the disturbance*) to five acres or less (≤5.0)**	• Initiate the installation of stabilization measures immediately[38] in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days;[39] and • Complete the installation of stabilization measures as soon as practicable, but no later than 14 calendar days

[36] EPA may determine, based on an inspection carried out under Part 4.8 and corrective actions required under Part 5.3, that the level of sediment discharge on the site makes it necessary to require a faster schedule for completing stabilization. For instance, if sediment discharges from an area of exposed soil that is required to be stabilized are compromising the performance of existing stormwater controls, EPA may require stabilization to correct this problem.

[37] Limiting disturbances to five (5) acres or less at any one time means that at no time during the project do the cumulative earth disturbances exceed five (5) acres. The following examples would qualify as limiting disturbances at any one time to five (5) acres or less:

1. The total area of disturbance for a project is five (5) acres or less.
2. The total area of disturbance for a project will exceed five (5) acres, but the operator ensures that no more than five (5) acres will be disturbed at any one time through implementation of stabilization measures. In this way, site stabilization can be used to "free up" land that can be disturbed without exceeding the five (5)-acre cap to qualify for the 14-day stabilization deadline. For instance, if an operator completes stabilization of two (2) acres of land on a five (5)-acre disturbance, then two (2) additional acres could be disturbed while still qualifying for the longer 14-day stabilization deadline.

[38] The following are examples of activities that would constitute the immediate initiation of stabilization:

1. Prepping the soil for vegetative or non-vegetative stabilization as long as seeding, planting, and/or installation of non-vegetative stabilization products takes place as soon as practicable, but no later than one (1) calendar day of completing soil preparation;
2. Applying mulch or other non-vegetative product to the exposed area;
3. Seeding or planting the exposed area;
4. Starting any of the activities in # 1 – 3 on a portion of the entire area that will be stabilized; and
5. Finalizing arrangements to have stabilization product fully installed in compliance with the deadlines for completing stabilization.

[39] The requirement to initiate stabilization immediately is triggered as soon as you know that construction work on a portion of the site is temporarily ceased and will not resume for 14 or more days, or as soon as you know that construction work is permanently ceased. In the context of this provision, "immediately" means as soon as practicable, but no later than the end of the next business day, following the day when the construction activities have temporarily or permanently ceased.

Total Amount of Land Disturbance Occurring At Any One Time[37]	Deadline
	after stabilization has been initiated.[40]
ii. More than five acres (>5.0)	• Initiate the installation of stabilization measures immediately[41] in any areas of exposed soil where construction activities have permanently ceased or will be temporarily inactive for 14 or more calendar days;[42] and • Complete the installation of stabilization measures as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.[43]

b. Exceptions:

i. Arid, semi-arid, and drought-stricken areas (as defined in Appendix A). If it is the seasonally dry period (as defined in Appendix A)[44] or a period in which drought is occurring, and vegetative stabilization measures are being used:

(a) Immediately initiate and, within 14 calendar days of temporary or permanent cessation of work in any portion of your site, complete the installation of temporary non-vegetative stabilization measures to the extent necessary to prevent erosion;

(b) As soon as practicable, given conditions or circumstances on the site, complete all activities necessary to seed or plant the area to be stabilized; and

(c) If construction is occurring during the seasonally dry period, indicate in your SWPPP the beginning and ending dates of the seasonally dry period and your site conditions. Also include the schedule you will follow for initiating and completing vegetative stabilization.

ii. Unforeseen circumstances. Operators that are affected by unforeseen circumstances[45] that delay the initiation and/or completion of vegetative stabilization:

[40] If vegetative stabilization measures are being implemented, stabilization is considered "installed" when all activities necessary to seed or plant the area are completed, including the application of any non-vegetative protective cover (e.g., mulch, erosion control blanket), if applicable. If non-vegetative stabilization measures are being implemented, stabilization is considered "installed" when all such measures are implemented or applied.

[41] See footnote 38.

[42] See footnote 39.

[43] See footnote 40.

[44] The term "seasonally dry period" as defined in Appendix A refers to a month in which the long-term average total precipitation is less than or equal to 0.5 inches. Refer to EPA's Seasonally Dry Period Locator Tool at https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates and supporting maps for assistance in determining whether a site is operating during a seasonally dry period for the area.

[45] Examples include problems with the supply of seed stock or with the availability of specialized equipment and unsuitability of soil conditions due to excessive precipitation and/or flooding.

(a) Immediately initiate and, within 14 calendar days, complete the installation of temporary non-vegetative stabilization measures to prevent erosion;

(b) Complete all soil conditioning, seeding, watering or irrigation installation, mulching, and other required activities related to the planting and initial establishment of vegetation as soon as conditions or circumstances allow it on your site; and

(c) Document in the SWPPP the circumstances that prevent you from meeting the deadlines in Part 2.2.14a and the schedule you will follow for initiating and completing stabilization.

iii. Discharges to a sediment- or nutrient-impaired water or to a water that is identified by your State, Tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes. Complete stabilization as soon as practicable, but no later than seven (7) calendar days after stabilization has been initiated.

c. Final Stabilization Criteria (for any areas not covered by permanent structures):

i. Establish uniform, perennial vegetation *(i.e., evenly distributed, without large bare areas)* to provide 70 percent or more of the vegetative cover native to local undisturbed areas; and/or

ii. Implement permanent non-vegetative stabilization measures[46] to provide effective cover of any areas of exposed soil.

iii. Exceptions:

(a) **Arid, semi-arid, and drought-stricken areas** (as defined in Appendix A). Final stabilization is met if the area has been seeded or planted to establish vegetation that provides 70 percent or more of the vegetative cover native to local undisturbed areas within three (3) years and, to the extent necessary to prevent erosion on the seeded or planted area, non-vegetative erosion controls have been applied to provide cover for at least three years without active maintenance.

(b) **Disturbed areas on agricultural land that are restored to their preconstruction agricultural use.** The Part 2.2.14c final stabilization criteria do not apply.

(c) **Areas that need to remain disturbed.** In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed, and only the minimum area needed remains disturbed *(e.g., dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, materials)*.

2.3 POLLUTION PREVENTION REQUIREMENTS[47]

You must implement pollution prevention controls in accordance with the following requirements to minimize the discharge of pollutants in stormwater and to prevent the discharge of pollutants from spilled or leaked materials from construction activities.

[46] Examples of permanent non-vegetative stabilization measures include riprap, gravel, gabions, and geotextiles.

[47] Under this permit, you are not required to minimize exposure for any products or materials where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

2.3.1 For equipment and vehicle fueling and maintenance:

a. Provide an effective means of eliminating the discharge of spilled or leaked chemicals, including fuels and oils, from these activities;[48]

b. If applicable, comply with the Spill Prevention Control and Countermeasures (SPCC) requirements in 40 CFR part 112 and Section 311 of the CWA;

c. Ensure adequate supplies are available at all times to handle spills, leaks, and disposal of used liquids;

d. Use drip pans and absorbents under or around leaky vehicles;

e. Dispose of or recycle oil and oily wastes in accordance with other Federal, State, Tribal, or local requirements; and

f. Clean up spills or contaminated surfaces immediately, using dry clean up measures (do not clean contaminated surfaces by hosing the area down), and eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.

2.3.2 For equipment and vehicle washing:

a. Provide an effective means of minimizing the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters;[49]

b. Ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water; and

c. For storage of soaps, detergents, or solvents, provide either (1) cover (e.g., *plastic sheeting, temporary roofs)* to minimize the exposure of these detergents to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

2.3.3 For storage, handling, and disposal of building products, materials, and wastes:[50]

a. *For building materials and building products,*[51] provide either (1) cover (e.g., *plastic sheeting, temporary roofs*) to minimize the exposure of these products to

[48] Examples of effective means include:

- Locating activities away from receiving waters, storm drain inlets, and constructed or natural site drainage feature so that stormwater coming into contact with these activities cannot reach waters of the U.S.;
- Providing secondary containment (e.g., *spill berms, dikes, spill containment pallets*) and cover where appropriate; and
- Having a spill kit available on site and ensuring personnel are available to respond expeditiously in the event of a leak or spill.

[49] Examples of effective means include locating activities away from receiving waters and storm drain inlets or constructed or natural site drainage features and directing wash waters to a sediment basin or sediment trap, using filtration devices, such as filter bags or sand filters, or using other similarly effective controls.

[50] Compliance with the requirements of this permit does not relieve compliance requirements with respect to Federal, State, or local laws and regulations governing the storage, handling, and disposal of solid, hazardous, or toxic wastes and materials.

[51] Examples of building materials and building products typically present at construction sites include asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures, and gravel and mulch stockpiles.

precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

Exception: Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use).

b. *For pesticides, herbicides, insecticides, fertilizers, and landscape materials:*

i. In storage areas, provide either (1) cover (e.g., *plastic sheeting, temporary roofs*) to minimize the exposure of these chemicals to precipitation and to stormwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas; and

ii. Comply with all application and disposal requirements included on the registered pesticide, herbicide, insecticide, and fertilizer label (see also Part 2.3.5).

c. *For diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals:* The following requirements apply to the storage and handling of chemicals on your site. If you are already implementing controls as part of an SPCC or other spill prevention plan that meet or exceed the requirements of this Part, you may continue to do so and be considered in compliance with these provisions provided you reference the applicable parts of the SPCC or other plans in your SWPPP as required in Part 7.2.6b.viii.

i. If any chemical container has a storage capacity of less than 55 gallons:
(a) The containers must be water-tight, and must be kept closed, sealed, and secured when not being actively used;

(b) If stored outside, use a spill containment pallet or similar device to capture small leaks or spills; and

(c) Have a spill kit available on site that is in good working condition (i.e., not damaged, expired, or used up) and ensure personnel are available to respond immediately in the event of a leak or spill.

ii. If any chemical container has a storage capacity of 55 gallons or more:
(a) The containers must be water-tight, and must be kept closed, sealed, and secured when not being actively used;

(b) Store containers a minimum of 50 feet from receiving waters, constructed or natural site drainage features, and storm drain inlets. If infeasible due to site constraints, store containers as far away from these features as the site permits. If site constraints prevent you from storing containers 50 feet away from receiving waters or the other features identified, you must document in your SWPPP the specific reasons why the 50-foot setback is infeasible, and how you will store containers as far away as the site permits;

(c) Provide either (1) cover (e.g., temporary roofs) to minimize the exposure of these containers to precipitation and to stormwater, or (2) secondary containment (e.g., curbing, spill berms, dikes, spill containment pallets, double-wall, above-ground storage tank); and

(d) Have a spill kit available on site that is in good working condition (i.e., not

damaged, expired, or used up) and ensure personnel are available to respond immediately in the event of a leak or spill. Additional secondary containment measures are listed at 40 CFR § 112.7(c)(1).

iii. Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.

d. *For hazardous or toxic wastes:*[52]

i. Separate hazardous or toxic waste from construction and domestic waste;

ii. Store waste in sealed containers, constructed of suitable materials to prevent leakage and corrosion, and labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable Federal, State, Tribal, or local requirements;

iii. Store all outside containers within appropriately-sized secondary containment (e.g., *spill berms, dikes, spill containment pallets*) to prevent spills from being discharged, or provide a similarly effective means designed to prevent the discharge of pollutants from these areas *(e.g., storing chemicals in a covered area, having a spill kit available on site);*

iv. Dispose of hazardous or toxic waste in accordance with the manufacturer's recommended method of disposal and in compliance with Federal, State, Tribal, and local requirements;

v. Clean up spills immediately, using dry clean-up methods, and dispose of used materials properly. You are prohibited from hosing the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge; and

vi. Follow all other Federal, State, Tribal, and local requirements regarding hazardous or toxic waste.

e. *For construction and domestic wastes:*[53]

i. Provide waste containers *(e.g., dumpster, trash receptacle)* of sufficient size and number to contain construction and domestic wastes;

(a) For waste containers with lids, keep waste container lids closed when not in use, and close lids at the end of the business day and during storm events. For waste containers without lids, provide either (1) cover *(e.g., a tarp, plastic sheeting, temporary roof)* to minimize exposure of wastes to precipitation, or (2) a similarly effective means designed to minimize the discharge of pollutants *(e.g., secondary containment)*;

(b) On business days, clean up and dispose of waste in designated waste

[52] Examples of hazardous or toxic waste that may be present at construction sites include paints, caulks, sealants, fluorescent light ballasts, solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids.

[53] Examples of construction and domestic wastes include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, demolition debris; and other trash or discarded materials.

containers; and

(c) Clean up immediately if containers overflow, and if there is litter elsewhere on the site from escaped trash.

ii. Waste containers are not required for the waste remnant or unused portions of construction materials or final products that are covered by the exception in Part 2.2.3a provided that:

(a) These wastes are stored separately from other construction or domestic wastes addressed by Part 2.3.3e.i (i.e., wastes not covered by the exception in Part 2.3.3a). If the wastes are mixed, they must be stored in waste containers as required in Part 2.3.3e.i; and

(b) These wastes are stored in designated areas of the site, the wastes are described in the SWPPP (see Part 7.2.6b.ix), and identified in the site plan (see Part 7.2.4i).

f. *For sanitary waste*, position portable toilets so they are secure and will not be tipped or knocked over, and are located away from receiving waters, storm drain inlets, and constructed or natural site drainage features.

2.3.4 For washing applicators and containers used for stucco, paint, concrete, form release oils, curing compounds, or other materials:

a. Direct wash water into a leak-proof container or leak-proof and lined pit designed so no overflows can occur due to inadequate sizing or precipitation;

b. Handle washout or cleanout wastes as follows:

i. For liquid wastes:

(a) Do not dump liquid wastes or allow them to enter into constructed or natural site drainage features, storm inlets, or receiving waters;

(b) Do not allow liquid wastes to be disposed of through infiltration or to otherwise be disposed of on the ground;

(c) Comply with applicable State, Tribal, or local requirements for disposal

ii. Remove and dispose of hardened concrete waste consistent with your handling of other construction wastes in Part 2.3.3e; and

c. Locate any washout or cleanout activities as far away as possible from receiving waters, constructed or natural site drainage features, and storm drain inlets, and, to the extent feasible, designate areas to be used for these activities and conduct such activities only in these areas.

2.3.5 For the application of fertilizers:

a. Apply at a rate and in amounts consistent with manufacturer's specifications, or document in the SWPPP departures from the manufacturer specifications where appropriate in accordance with Part 7.2.6b.x;

b. Apply at the appropriate time of year for your location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth;

c. Avoid applying before heavy rains that could cause excess nutrients to be discharged;

d. Never apply to frozen ground;

e. Never apply to constructed or natural site drainage features; and

f. Follow all other Federal, State, Tribal, and local requirements regarding fertilizer application.

2.3.6 Emergency Spill Notification Requirements

Discharges of toxic or hazardous substances from a spill or other release are prohibited, consistent with Part 1.3.5. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR part 110, 40 CFR part 117, or 40 CFR part 302 occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR part 110, 40 CFR part 117, and 40 CFR part 302 as soon as you have knowledge of the release. You must also, within seven (7) calendar days of knowledge of the release, provide a description of the release, the circumstances leading to the release, and the date of the release. State, Tribal, or local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies.

2.4 CONSTRUCTION DEWATERING REQUIREMENTS

Comply with the following requirements to minimize the discharge of pollutants from dewatering[54] operations.

2.4.1 Route dewatering water through a sediment control (e.g., sediment trap or basin, pumped water filter bag) designed to prevent discharges with visual turbidity; [55]

2.4.2 Do not discharge visible floating solids or foam;

2.4.3 The discharge must not cause the formation of a visible sheen on the water surface, or visible oily deposits on the bottom or shoreline of the receiving water. Use an oil-water separator or suitable filtration device (such as a cartridge filter) designed to remove oil, grease, or other products if dewatering water is found to or expected to contain these materials;

2.4.4 To the extent feasible, use well-vegetated (e.g., grassy or wooded), upland areas of the site to infiltrate dewatering water before discharge.[56] You are prohibited from using receiving waters as part of the treatment area;

2.4.5 To prevent dewatering-related erosion and related sediment discharges:

a. Use stable, erosion-resistant surfaces (e.g., well-vegetated grassy areas, clean filter stone, geotextile underlayment) to discharge from dewatering controls;

[54] "Dewatering" is defined in Appendix A as "the act of draining accumulated stormwater and/or ground water from building foundations, vaults, and trenches, or other similar points of accumulation."

[55] For the purposes of this permit, visual turbidity is present where there is a sediment plume in the discharge or the discharge appears cloudy, or opaque, or has a visible contrast that can be identified by an observer.

[56] See footnote 19.

b. Do not place dewatering controls, such as pumped water filter bags, on steep slopes (as defined in Appendix A); and

c. At all points where dewatering water is discharged, comply with the velocity dissipation requirements of Part 2.2.11.

2.4.6 For backwash water, either haul it away for disposal or return it to the beginning of the treatment process;

2.4.7 Replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications; and

2.4.8 Comply with dewatering-specific inspection requirements in Part 4.

3 WATER QUALITY-BASED EFFLUENT LIMITATIONS

3.1 GENERAL EFFLUENT LIMITATION TO MEET APPLICABLE WATER QUALITY STANDARDS

Discharges must be controlled as necessary to meet applicable water quality standards. Discharges must also comply with any additional State or Tribal requirements that are in Part 9.

In the absence of information demonstrating otherwise, EPA expects that compliance with the conditions in this permit will result in stormwater discharges being controlled as necessary to meet applicable water quality standards. If at any time you become aware, or EPA determines, that discharges are not being controlled as necessary to meet applicable water quality standards, you must take corrective action as required in Parts 5.1 and 5.2, and document the corrective actions as required in Part 5.4.

EPA may insist that you install additional controls (to meet the narrative water quality-based effluent limit above) on a site-specific basis, or require you to obtain coverage under an individual permit, if information in your NOI or from other sources indicates that your discharges are not controlled as necessary to meet applicable water quality standards. This includes situations where additional controls are necessary to comply with a wasteload allocation in an EPA-established or approved TMDL.

If during your coverage under a previous permit, you were required to install and maintain stormwater controls specifically to meet the assumptions and requirements of an EPA-approved or established TMDL (for any parameter) or to otherwise control your discharge to meet water quality standards, you must continue to implement such controls as part of your coverage under this permit.

3.2 WATER QUALITY-BASED CONDITIONS FOR SITES DISCHARGING TO CERTAIN IMPAIRED AND HIGH QUALITY RECEIVING WATERS

For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by your State, Tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes,[57] you must comply with the inspection frequency specified in Part 4.3 and you must comply with the stabilization deadline specified in Part 2.2.14b.iii.[58]

[57] Refer to Appendix A for definitions of "impaired water" and "Tier 2," "Tier 2.5," and "Tier 3" waters. For assistance in determining whether your site discharges to impaired waters, EPA has developed a tool that is available at https://www.epa.gov/npdes/epas-stormwater-discharge-mapping-tools. For assistance in determining whether your site discharges to a Tier 2, 2.5, or 3 water, refer to the list of such waters at https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates.

[58] If you qualify for any of the reduced inspection frequencies in Part 4.4, you may conduct inspections in

If you discharge to a water that is impaired for a parameter other than a sediment-related parameter or nutrients, EPA will inform you if any additional controls are necessary for your discharge to be controlled as necessary to meet water quality standards. These controls might include those necessary for your discharge to be consistent with the assumptions of any available wasteload allocation in any applicable TMDL. In addition, EPA may require you to apply for and obtain coverage under an individual NPDES permit.

In addition, on a case-by-case basis, EPA may notify operators of new sites or operators of existing sites with increased discharges that additional analyses, stormwater controls, and/or other measures are necessary to comply with the applicable antidegradation requirements, or notify you that an individual permit application is necessary.

If you discharge to a water that is impaired for polychlorinated biphenyls (PCBs) and are engaging in demolition of any structure with at least 10,000 square feet of floor space built or renovated before January 1, 1980, you must:

a. Implement controls[59] to minimize the exposure of PCB-containing building materials, including paint, caulk, and pre-1980 fluorescent lighting fixtures, to precipitation and to stormwater; and

b. Ensure that disposal of such materials is performed in compliance with applicable State, Federal, and local laws.

3.3 TURBIDITY BENCHMARK MONITORING FOR SITES DISCHARGING DEWATERING WATER TO PROTECT THE WATER QUALITY OF SENSITIVE WATERS

For sites discharging dewatering water to "sensitive waters" (i.e., receiving waters listed as impaired for sediment or a sediment-related parameter (as defined in Appendix A), or receiving waters designated as a Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes) you are required to comply with the benchmark monitoring requirements in this Part and document the procedures you will use at your site in your SWPPP pursuant to Part 7.2.8. A summary of these requirements is included in Table 1.

EPA notes that the benchmark threshold is not an effluent limitation, rather it is an indicator that the dewatering controls may not be working to protect water quality, which the operator must investigate and correct as appropriate. A benchmark exceedance is not a permit violation. However, if a benchmark exceedance triggers corrective action in Part 5.1.5a, failure to conduct any required action is a permit violation.

Where there are multiple operators associated with the same site, the operators may coordinate with one another to carry out the monitoring requirements of this Part in order to avoid duplicating efforts. Such coordinating arrangements must be described in the SWPPP consistent with Part 7.2.8. Regardless of how the operators divide the

accordance with Part 4.4 for any portion of your site that discharges to a sensitive water.

[59] Examples of controls to minimize exposure of PCBs to precipitation and stormwater include separating work areas from non-work areas and selecting appropriate personal protective equipment and tools, constructing a containment area so that all dust or debris generated by the work remains within the protected area, and using tools that minimize dust and heat (<212°F). For additional information, refer to Part 2.3.3 of the CGP Fact Sheet.

responsibilities for monitoring and reporting, each operator remains responsible for compliance with these requirements.[60]

3.3.1 Turbidity monitoring requirements[61]

a. Sampling frequency. You must collect at least one turbidity sample from your dewatering discharge each day a discharge occurs.

b. Sampling location. Samples must be taken at all points where dewatering water is discharged. Samples must be taken after the dewatering water has been treated by installed treatment devices pursuant to Parts 2.4.1 and 2.4.3 and prior to its discharge off site into a receiving water, constructed or natural site drainage feature, or storm drain inlet.

c. Representative samples. Samples taken must be representative of the dewatering discharge for any given day as required in Appendix G (standard permit conditions), Part G.10.2.

d. Test methods. Samples must be measured using a turbidity meter that reports results in nephelometric turbidity units (NTUs) and conforms with a Part 136-approved method (e.g., methods 180.1 and 2130). You are required to use the meter, and conduct a calibration verification prior to each day's use, consistent with the manufacturer's instructions.

3.3.2 Turbidity benchmark

a. The benchmark threshold for turbidity for this permit is 50 NTUs (referred to elsewhere in this permit as the "standard 50 NTU benchmark") unless EPA has authorized the use of an alternate benchmark in accordance with Part 3.3.2b.

b. Request for alternate benchmark threshold.

i. At any time prior to or during your coverage under this permit, you may request that EPA approve a benchmark for your site that is higher than 50 NTUs if you have information demonstrating the higher number is the same as your receiving water's water quality standard for turbidity. Unless EPA approves an alternate benchmark, you will be required to use the standard 50 NTU benchmark. To request approval of an alternate benchmark, you must submit the following information to your applicable EPA Regional Office (see Appendix K):
(a) The current turbidity water quality standard that applies to your receiving

[60] For instance, if Operator A relies on Operator B to meet the Part 3.3.1 turbidity monitoring requirements, the Part 3.3.4 reporting and recordkeeping requirements, and the Part 5.2.2 corrective action provisions when applicable, Operator A does not have to duplicate these same functions if Operator B is implementing them for both operators to be in compliance with the permit. However, Operator A remains responsible for complying with these permit requirements if Operator B fails to take actions that were necessary for Operator A to comply with the permit. See also footnote 83. EPA notes that both Operator A and B are required to submit turbidity monitoring reports as required under Part 3.3.4, however, Operator A's report does not need to include the data collected by Operator B as long as Operator B submits the required data and Operator A's report indicates that it is relying on Operator B to report the data. See Part 3.3.4a.

[61] Operators may find it useful to consult EPA's *Monitoring and Inspection Guide for Construction Dewatering*, available at https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates, which provides guidelines on how to correctly monitor for turbidity, determine if the weekly average exceeds the benchmark, and, if so, how to proceed with corrective action.

water and the source/citation.[62]

(b) If the applicable turbidity water quality standard requires information on natural or background turbidity levels (e.g., "no more than 10 NTU above natural turbidity levels") to determine the specific standard for the receiving water, include available data that can be used to establish the natural turbidity levels of your receiving water (including literature studies or Federal, State, Tribal, or local government data). Data must be representative of the natural turbidity levels of your specific receiving water. Identify the source(s) of all data provided, including if the data are from samples you collected of the receiving water.

ii. EPA will inform you of its decision on whether to approve the requested alternate benchmark within 30 days. EPA may approve your request, request additional time (e.g., if additional information is needed to substantiate the data you provided), or deny your request. Unless and until EPA approves your request to use an alternate benchmark, you are required to use the standard benchmark of 50 NTUs and take any required corrective actions if an exceedance occurs.

3.3.3 Comparison of turbidity samples to benchmark. Compare the weekly average[63] of your turbidity monitoring results to the standard 50 NTU benchmark, or alternate benchmark if approved by EPA.

a. If the weekly average of your turbidity monitoring results exceeds the standard benchmark (or your approved alternate benchmark), you are required to conduct follow-up corrective action in accordance with Part 5.2.2 and document any corrective action taken in your corrective action log in accordance with Part 5.4.

b. For averaging purposes, a "monitoring week" starts with a Monday and ends on Sunday. Once a new monitoring week starts, you will need to calculate a new average for that week of turbidity monitoring results.[64] A weekly average may consist of one or more turbidity monitoring results.

c. Although you are not required to collect and analyze more than one turbidity sample per day from your dewatering discharge, if you do collect and analyze more than one sample on any given day, you must include any additional results in the

[62] For instance, if your site is located in Washington, DC, and you are discharging to a Class B water, for which the water quality standard is that turbidity may not increase above ambient levels by more than 20 percent, you would reference "Water Quality Standards for the District of Columbia, Chapter 11, Section 1104.8."

[63] A "weekly average" is defined as the sum of all of the turbidity samples taken during a "monitoring week" divided by the number of samples measured during that week. Average values should be calculated to the nearest whole number.

[64] For example, if turbidity samples from your dewatering discharge in week 1 result in values of 30 NTU on Tuesday, 40 NTU on Wednesday, and 45 NTU on Thursday, your weekly average turbidity value would be 38.33 NTU ((30+40+45) ÷ 3 = 38 NTU). If in week 2, your turbidity samples resulted in values of 45 NTU on Monday, 30 NTU on Tuesday, 25 NTU on Wednesday, and 15 NTU on Thursday, you would calculate a new average for that week, which would yield an average turbidity value of 28.75 NTU ((45+30+25+15) ÷ 4 = 29 NTU). By comparison, if your samples on consecutive days from Friday to Monday were 60 NTU, 45 NTU, 40 NTU, and 43 NTU, respectively, and there are no other dewatering discharges for the remainder of the week, you would calculate one weekly average for the Friday to Sunday to be 48 NTU ((60+45+40) ÷ 3 = 48 NTU), and a separate weekly average for the one Monday to be 43 NTU (43 ÷ 1 = 43 NTU).

calculation of your weekly average (i.e., add all individual results for that monitoring week and divide by the total number of samples).[65]

d. If you are conducting turbidity monitoring for more than one dewatering discharge point, you must calculate a weekly average turbidity value for each discharge point and compare each to the turbidity benchmark.

3.3.4 Reporting and recordkeeping.

a. You must submit reports of your weekly average turbidity data to EPA no later than 30 days following the end of each monitoring quarter. If there are monitoring weeks in which there was no dewatering discharge, or if there is a monitoring quarter with no dewatering discharge, indicate this in your turbidity monitoring report. If another operator associated with your same site is conducting turbidity monitoring on your behalf pursuant to Part 3.3, indicate this in your turbidity monitoring report.

b. For the purposes of this permit, the following monitoring quarters and reporting deadlines apply:

Table 3. Monitoring Quarters and Deadlines for Reporting Turbidity Benchmark Monitoring Data.

Monitoring Quarter #	**Months**	**Reporting Deadline** (no later than 30 days after end of the monitoring quarter)
1	January 1 – March 31	April 30
2	April 1 – June 30	July 30
3	July 1 – September 30	October 30
4	October 1 – December 31	January 30

c. You must use EPA's NPDES eReporting Tool (NeT) to electronically submit your quarterly turbidity data, unless, consistent with Part 1.4.2, you received a waiver from your applicable EPA Regional Office. If the EPA Regional Office grants you approval to use a paper turbidity monitoring report form, and you elect to use it, you must complete the form in Appendix K. If EPA approves of your request to use an alternate turbidity benchmark pursuant to Part 3.3.2b, EPA will substitute the alternate benchmark in your NeT account.

d. For each day in which you are required to monitor, you must record the monitoring information required by Appendix G, Parts G.10.2 and G.10.3 and retain all such information for a period of at least three years from the date this permit expires or from the date your authorization is terminated.

[65] For example, if during a monitoring week you take two turbidity samples on Tuesday with a value of 30 NTU and 35 NTU, three samples on Wednesday with a value of 40 NTU, 45 NTU, and 48 NTU, and one sample on Thursday with a value of 45 NTU, your weekly average turbidity value for this week would be 41 NTU ((30+35+40+45+48+45) ÷ 6 = 41 NTU).

Table 4. Summary of Turbidity Benchmark Monitoring Requirements.

Applicability	Sampling Requirement	Turbidity Benchmark	Corrective Action	Reporting
Sites discharging dewatering water to a sediment-impaired water or to a water designated as a Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes.	Collect at least one turbidity sample per day, from each discharge point, on any day there is a dewatering discharge. Use turbidity sampling procedures specified in Part 3.3.1.	Compare the weekly average of your turbidity monitoring results to the 50 NTU benchmark (or alternate benchmark if approved by EPA).	If the weekly average of turbidity monitoring results exceeds the 50 NTU turbidity benchmark (or alternate benchmark if approved by EPA), you are required to take follow-up corrective action in accordance with Part 5.2.2.	Report all weekly average turbidity monitoring results on a quarterly basis via NeT-CGP (unless use of the paper monitoring form in Appendix K is approved by EPA) no later than 30 days following the end of each monitoring quarter.

4 INSPECTION REQUIREMENTS

4.1 PERSON(S) RESPONSIBLE FOR CONDUCTING SITE AND DEWATERING INSPECTIONS

The person(s) inspecting your site may be a person on your staff or a third party you hire to conduct such inspections. You are responsible for ensuring that any person conducting inspections pursuant to this Part is a "qualified person." A qualified person is someone who has completed the training required by Part 6.3.

4.2 FREQUENCY OF INSPECTIONS.[66]

At a minimum, you must conduct a site inspection in accordance with one of the two schedules listed below, unless you are subject to the Part 4.3 site inspection frequency for discharges to sediment or nutrient-impaired or high quality waters, or qualify for a Part 4.4 reduction in the inspection frequency:

4.2.1 At least once every seven (7) calendar days; *or*

4.2.2 Once every 14 calendar days *and* within 24 hours[67] of the occurrence of:

a. A storm event that produces 0.25 inches or more of rain within a 24-hour period.

i. If a storm event produces 0.25 inches or more of rain within a 24-hour period (including when there are multiple, smaller storms that alone produce less than 0.25 inches but together produce 0.25 inches or more in 24 hours), you are required to conduct one inspection within 24 hours of when 0.25 inches of rain or more has fallen.

[66] Inspections are only required during the site's normal working hours.

[67] For the purposes of the inspection requirements in this Part, conducting an inspection "within 24 hours" means that once either of the two conditions in Parts 4.2.2a or 4.2.2b are met you have 24 hours from that time to conduct an inspection. For clarification, the 24 hours is counted as a continuous passage of time, and not counted by business hours (e.g., 3 business days of 8 hours each). When the 24-hour inspection time frame occurs entirely outside of normal working hours, you must conduct an inspection by no later than the end of the next business day.

ii. If a storm event produces 0.25 inches or more of rain within a 24-hour period on the first day of a storm and continues to produce 0.25 inches or more of rain on subsequent days, you must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the last day of the storm that produces 0.25 inches or more of rain (i.e., only two inspections would be required for such a storm event).[68]

b. A discharge caused by snowmelt from a storm event that produces 3.25 inches[69] or more of snow within a 24-hour period. You are required to conduct one inspection once the discharge of snowmelt from a 3.25-inch or more snow accumulation occurs. Additional snowmelt inspections are only required if following the discharge from the first snowmelt, there is a discharge from a separate storm event that produces 3.25 inches or more of snow.

4.2.3 To determine whether a storm event meets either of the thresholds in Parts 4.2.2a or 4.2.2b:

a. For rain, you must either keep a properly maintained rain gauge on your site, or obtain the storm event information from a weather station that is representative of your location. For any 24-hour period during which there is 0.25 inches or more of rainfall, you must record the total rainfall measured for that day in accordance with Part 4.7.1d.

b. For snow, you must either take measurements of snowfall at your site,[70] or rely on similar information from a local weather forecasting provider that is representative of your location.

4.3 INCREASE IN INSPECTION FREQUENCY FOR CERTAIN SITES.

The increased inspection frequencies established in this Part take the place of the Part 4.2 inspection frequencies for the portion of the site affected.

4.3.1 **For any portion of the site that discharges to a sediment or nutrient-impaired water or to a water that is identified by your State, Tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes (see Part 3.2),** you must conduct an once every seven (7) calendar days *and* within 24 hours of the occurrence of a storm event that produces 0.25 inches or more of rain within a 24-hour period, or within 24 hours of a snowmelt discharge from a storm event that produces 3.25 inches or more of snow within a 24-hour period.

[68] For example, if 0.30 inches of rain falls on Day 1, 0.25 inches of rain falls on Day 2, and 0.10 inches of rain fall on Day 3, you would be required to conduct a first inspection within 24 hours of the Day 1 rainfall and a second inspection within 24 hours of the Day 2 rainfall, but a third inspection would not be required within 24 hours of the Day 3 rainfall.

[69] This is the amount of snow that is equivalent to 0.25 inches of rain, based on information from the National Oceanic and Atmospheric Administration (NOAA) indicating that 13 inches of snow is, on average, equivalent to 1 inch of rain. See https://www.nssl.noaa.gov/education/svrwx101/winter/faq/.

[70] For snowfall measurements, EPA suggests use of NOAA's National Weather Service guidelines at https://www.weather.gov/jkl/snow_measurement. These guidelines recommend use of a "snowboard" (a piece of wood about 16 inches by 16 inches) that is placed in an unobstructed part of the site on a hard surface.

Refer to Parts 4.2.3a and 4.2.3b for the requirements to determine if a storm event produces enough rain or snow to trigger the inspection requirement.

4.3.2 **For sites discharging dewatering water,** you must conduct an inspection in accordance with Part 4.6.3 during the discharge once per day on which the discharge occurs. The Part 4.2 inspection frequency still applies to all other portions of the site, unless the site is affected by either the increased frequency in Part 4.3.1 or the reduced frequency in Part 4.4.

4.4 REDUCTIONS IN INSPECTION FREQUENCY

4.4.1 **Stabilized areas.**

a. You may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, then once per month until permit coverage is terminated consistent with Part 8 in any area of your site where the stabilization steps in Part 2.2.14a have been completed. If construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to that required in Parts 4.2 and 4.3, as applicable. You must document the beginning and ending dates of this period in your SWPPP.

b. **Exception.** For "linear construction sites" (as defined in Appendix A) where disturbed portions have undergone final stabilization at the same time active construction continues on others, you may reduce the frequency of inspections to twice per month for the first month, no more than 14 calendar days apart, in any area of your site where the stabilization steps in Part 2.2.14a have been completed. After the first month, inspect once more within 24 hours of the occurrence of a storm event that produces 0.25 inches of rain or more within a 24-hour period, or within 24 hours of a snowmelt discharge from a storm event that produces 3.25 inches or more of snow within a 24-hour period. If there are no issues or evidence of stabilization problems, you may suspend further inspections. If "wash-out" of stabilization materials and/or sediment is observed, following re-stabilization, inspections must resume at the inspection frequency required in Part 4.4.1a. Inspections must continue until final stabilization is visually confirmed following a storm event that produces 0.25 inches of rain or more within a 24-hour period.

4.4.2 **Arid, semi-arid, or drought-stricken areas** (as defined in Appendix A). If it is the seasonally dry period[71] or a period in which drought is occurring, you may reduce the frequency of inspections to once per month and within 24 hours of the occurrence of a storm event that produces 0.25 inches of rain or more within a 24-hour period, or within 24 hours of a snowmelt discharge from a storm event that produces 3.25 inches or more of snow within a 24-hour period. You must document that you are using this reduced schedule and the beginning and ending dates of the seasonally dry period in your SWPPP. Follow the procedures in Part 4.2.3a and 4.2.3b, accordingly, to determine if a storm event occurs that produces 0.25 inches or more of rain or 3.25 inches or more of snow within a 24-hour period. For any 24-hour period during which there is 0.25 inches or more of rainfall, or 3.25 inches or more of snow, you must record the total rainfall or snow measured for that day in accordance with Part 4.7.1d.

[71] See footnote 44.

4.4.3 **Frozen conditions:**

a. If you are suspending construction activities due to frozen conditions, you may temporarily suspend inspections on your site until thawing conditions (as defined in Appendix A) begin to occur if:

i. Discharges are unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages.[72] If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable;

ii. Land disturbances have been suspended; and

iii. All disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.

b. If you are still conducting construction activities during frozen conditions, you may reduce your inspection frequency to once per month if:

i. Discharges are unlikely due to continuous frozen conditions that are likely to continue at your site for at least three (3) months based on historic seasonal averages. If unexpected weather conditions (such as above freezing temperatures or rain events) make discharges likely, you must immediately resume your regular inspection frequency as described in Parts 4.2 and 4.3, as applicable; and

ii. Except for areas in which you are actively conducting construction activities, disturbed areas of the site have been stabilized in accordance with Part 2.2.14a.

You must document the beginning and ending dates of this period in your SWPPP.

4.5 AREAS THAT MUST BE INSPECTED

During your site inspection, you must at a minimum inspect the following areas of your site:

4.5.1 All areas that have been cleared, graded, or excavated and that have not yet completed stabilization consistent with Part 2.2.14a;

4.5.2 All stormwater controls, including pollution prevention controls, installed at the site to comply with this permit;[73]

4.5.3 Material, waste, borrow, and equipment storage and maintenance areas that are covered by this permit;

4.5.4 All areas where stormwater typically flows within the site, including constructed or natural site drainage features designed to divert, convey, and/or treat stormwater;

4.5.5 All areas where construction dewatering is taking place, including controls to treat the dewatering discharge and any channelized flow of water to and from those controls;

[72] Use data sets that include the most recent data available to account for recent precipitation patterns and trends.

[73] This includes the requirement to inspect for sediment that has been tracked out from the site onto paved roads, sidewalks, or other paved areas consistent with Part 2.2.4.

4.5.6 All points of discharge from the site; and

4.5.7 All locations where stabilization measures have been implemented.

You are not required to inspect areas that, at the time of the inspection, are considered unsafe to your inspection personnel.

4.6 REQUIREMENTS FOR INSPECTIONS

4.6.1 During each site inspection, you must at a minimum:

a. Check whether all stormwater controls *(*i.e.*, erosion and sediment controls and pollution prevention controls)* are properly installed, appear to be operational, and are working as intended to minimize pollutant discharges.

b. Check for the presence of conditions that could lead to spills, leaks, or other accumulations of pollutants on the site.

c. Identify any locations where new or modified stormwater controls are necessary to meet the requirements of Parts 2 and/or 3.

d. Check for signs of visible erosion and sedimentation *(*i.e.*, sediment deposits)* that have occurred and are attributable to your discharge at points of discharge and, if applicable, on the banks of any receiving waters flowing within or immediately adjacent to the site;

e. Check for signs of sediment deposition that are visible from your site and attributable to your discharge (e.g., sand bars with no vegetation growing on top in receiving waters or in other constructed or natural site drainage features, or the buildup of sediment deposits on nearby streets, curbs, or open conveyance channels).

f. Identify any incidents of noncompliance observed.

4.6.2 If a discharge is occurring during your inspection:

a. Identify all discharge points at the site; and

b. Observe and document the visual quality of the discharge, and take note of the characteristics of the stormwater discharge, including color; odor; floating, settled, or suspended solids; foam; oil sheen; and other indicators of stormwater pollutants. Check also for signs of these same pollutant characteristics that are visible from your site and attributable to your discharge in receiving waters or in other constructed or natural site drainage features.

4.6.3 For dewatering inspections conducted pursuant to Parts 4.3.2, record the following in a report within 24 hours of completing the inspection:

a. The inspection date;

b. Names and titles of personnel making the inspection;

c. Approximate times that the dewatering discharge began and ended on the day of inspection;[74]

d. Estimates of the rate (in gallons per day) of discharge on the day of inspection;

[74] If the dewatering discharge is a continuous discharge that continues after normal business hours, indicate that the discharge is continuous.

e. Whether or not any of the following indications of pollutant discharge were observed at the point of discharge to any receiving waters flowing through or immediately adjacent to the site and/or to constructed or natural site drainage features or storm drain inlets:[75]

i. a sediment plume, suspended solids, unusual color, presence of odor, decreased clarity, or presence of foam; and/or

ii. a visible sheen on the water surface or visible oily deposits on the bottom or shoreline of the receiving water; and

f. Photographs of (1) the dewatering water prior to treatment by a dewatering control(s) and the final discharge after treatment; (2) the dewatering control(s); and (3) the point of discharge to any receiving waters flowing through or immediately adjacent to the site and/or to constructed or natural site drainage features, storm drain inlets, and other conveyances to receiving waters.

You must also comply with the Part 4.7.2, 4.7.3, and 4.7.4 requirements for signing the reports, keeping them available on site, and retaining copies.

4.6.4 Based on the results of your inspection:

a. Complete any necessary maintenance repairs or replacements under Part 2.1.4 or under Part 5, whichever applies; and

b. Modify your SWPPP site map in accordance with Part 7.4.1 to reflect changes to your stormwater controls that are no longer accurately reflected on the current site map.

4.7 INSPECTION REPORT

4.7.1 You must complete an inspection report within 24 hours of completing any site inspection. Each inspection report (except for dewatering inspection reports, which are covered in Part 4.6.3) must include the following:

a. The inspection date;

b. Names and titles of personnel making the inspection;

c. A summary of your inspection findings, covering at a minimum the observations you made in accordance with Part 4.6, including any problems found during your inspection that make it necessary to perform routine maintenance pursuant to Part 2.1.4b or corrective action pursuant to Part 5. Include also any documentation as to why the corrective action procedures under Part 5 are unnecessary to fix a problem that repeatedly occurs as described in Part 2.1.4c;

d. If you are inspecting your site at the frequency specified in Part 4.2.2, Part 4.3, or Part 4.4.1b, and you conducted an inspection because of a storm event that produced rainfall measuring 0.25 inches or more within a 24-hour period, you must include the applicable rain gauge or weather station readings that triggered the inspection. Similarly, if you conducted an inspection because of a snowmelt discharge from a storm event that produced 3.25 inches or more of snow within a 24-hour period, you must include any measurements taken of snowfall at your site, or weather station information you relied on; and

[75] If the operator observes any of these indicators of pollutant discharge, corrective action is required consistent with Parts 5.1.5b and 5.2.2.

e. If you determined that it is unsafe to inspect a portion of your site, you must describe the reason you found it to be unsafe and specify the locations to which this condition applies.

4.7.2 Each inspection report must be signed by the operator's signatory in accordance with Appendix G, Part G.11 of this permit.

4.7.3 You must keep a copy of all inspection reports at the site or at an easily accessible location, so that it can be made immediately available at the time of an on-site inspection or upon request by EPA.[76]

4.7.4 You must retain all inspection reports completed for this Part for at least three (3) years from the date that your permit coverage expires or is terminated.

4.8 INSPECTIONS BY EPA

You must allow EPA, or an authorized representative of EPA, to conduct the following activities at reasonable times. To the extent that you are utilizing shared controls, that are not on site, to comply with this permit, you must make arrangements for EPA to have access at all reasonable times to those areas where the shared controls are located.

4.8.1 Enter onto all areas of the site, including any construction support activity areas covered by this permit, any off-site areas where shared controls are utilized to comply with this permit, discharge locations, adjoining waterbodies, and locations where records are kept under the conditions of this permit;

4.8.2 Access and copy any records that must be kept under the conditions of this permit;

4.8.3 Inspect your construction site, including any construction support activity areas covered by this permit (see Part 1.2.1c), any stormwater controls installed and maintained at the site, and any off-site shared controls utilized to comply with this permit; and

4.8.4 Sample or monitor for the purpose of ensuring compliance.

5 CORRECTIVE ACTIONS

5.1 CONDITIONS TRIGGERING CORRECTIVE ACTION.

You must take corrective action to address any of the following conditions identified at your site:

5.1.1 A stormwater control needs a significant repair or a new or replacement control is needed, or, in accordance with Part 2.1.4c, you find it necessary to repeatedly (i.e., three (3) or more times) conduct the same routine maintenance fix to the same control at the same location (unless you document in your inspection report under Part 4.7.1c that the specific reoccurrence of this same problem should still be addressed as a routine maintenance fix under Part 2.1.4); or

5.1.2 A stormwater control necessary to comply with the requirements of this permit was never installed, or was installed incorrectly; or

[76] Inspection reports may be prepared, signed, and kept electronically, rather than in paper form, if the records are: (a) in a format that can be read in a similar manner as a paper record; (b) legally dependable with no less evidentiary value than their paper equivalent; and (c) immediately accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be, if the records were stored in paper form. For additional guidance on the proper practices to follow for the electronic retention of inspection report records, refer to the Fact Sheet discussion related to Part 4.7.3.

5.1.3 Your discharges are not meeting applicable water quality standards;

5.1.4 A prohibited discharge has occurred (see Part 1.3); or

5.1.5 During discharge from site dewatering activities:

a. The weekly average of your turbidity monitoring results exceeds the 50 NTU benchmark (or alternate benchmark if approved by EPA pursuant to Part 3.3.2b); or

b. You observe or you are informed by EPA, State, or local authorities of the presence of the conditions specified in Part 4.6.3e.

5.2 CORRECTIVE ACTION DEADLINES

5.2.1 If responding to any of the Part 5.1.1, 5.1.2, 5.1.3, or 5.1.4 triggering conditions, you must:

a. Immediately take all reasonable steps to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events; and

b. When the problem does not require a new or replacement control or significant repair, the corrective action must be completed by the close of the next business day; or

c. When the problem requires a new or replacement control or significant repair, install the new or modified control and make it operational, or complete the repair, by no later than seven (7) calendar days from the time of discovery. If it is infeasible to complete the installation or repair within seven (7) calendar days, you must document in your records why it is infeasible to complete the installation or repair within the 7-day timeframe and document your schedule for installing the stormwater control(s) and making it operational as soon as feasible after the 7-day timeframe. Where these actions result in changes to any of the stormwater controls or procedures documented in your SWPPP, you must modify your SWPPP accordingly within seven (7) calendar days of completing this work.

5.2.2 If responding to either of the Part 5.1.5 triggering conditions related to site dewatering activities, you must:

a. Immediately take all reasonable steps to minimize or prevent the discharge of pollutants until you can implement a solution, including shutting off the dewatering discharge as soon as possible depending on the severity of the condition[77] taking safety considerations into account;

b. Determine whether the dewatering controls are operating effectively and whether they are causing the conditions; and

c. Make any necessary adjustments, repairs, or replacements to the dewatering controls to lower the turbidity levels below the benchmark or remove the visible plume or sheen.

[77] For instance, if the weekly average of your turbidity monitoring results or a single sample is extremely high (e.g., a single turbidity sample results in 355 NTUs or higher), you should take action to safely shut off the discharge so that you can evaluate the cause of the high turbidity. Note: A single turbidity sample of 355 NTUs or higher means that the weekly average turbidity value will exceed 50 NTU regardless of the turbidity values the other days during the week.

When you have completed these steps and made any changes deemed necessary, you may resume discharging from your dewatering activities.

5.3 CORRECTIVE ACTION REQUIRED BY EPA

You must comply with any corrective actions required by EPA as a result of permit violations found during an inspection carried out under Part 4.8.

5.4 CORRECTIVE ACTION LOG

5.4.1 For each corrective action taken in accordance with this Part, you must record the following in a corrective action log:

- **a.** Within 24 hours of identifying the corrective action condition, document the specific condition and the date and time it was identified.
- **b.** Within 24 hours of completing the corrective action (in accordance with the deadlines in Part 5.2), document the actions taken to address the condition, including whether any SWPPP modifications are required.

5.4.2 Each entry into the corrective action log, consisting of the information required by both Parts 5.4.1a and 5.4.1b, must be signed by the operator's signatory in accordance with Appendix G, Part G.11.2 of this permit.

5.4.3 You must keep a copy of the corrective action log at the site or at an easily accessible location, so that it can be made immediately available at the time of an on-site inspection or upon request by EPA.[78]

5.4.4 You must retain the corrective action log for at least three (3) years from the date that your permit coverage expires or is terminated.

6 STORMWATER TEAM FORMATION/STAFF TRAINING REQUIREMENTS

6.1 STORMWATER TEAM

Each operator, or group of multiple operators, must assemble a "stormwater team" that will be responsible for carrying out activities necessary to comply with this permit. The stormwater team must include the following people:

- **a.** Personnel who are responsible for the design, installation, maintenance, and/or repair of stormwater controls (including pollution prevention controls);
- **b.** Personnel responsible for the application and storage of treatment chemicals (if applicable);
- **c.** Personnel who are responsible for conducting inspections as required in Part 4.1; and
- **d.** Personnel who are responsible for taking corrective actions as required in Part 5.

Members of the stormwater team must be identified in the SWPPP pursuant to Part 7.2.2.

[78] The corrective action log may be prepared, signed, and kept electronically, rather than in paper form, if the records are: (a) in a format that can be read in a similar manner as a paper record; (b) legally dependable with no less evidentiary value than their paper equivalent; and (c) immediately accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be, if the records were stored in paper form. For additional guidance on the proper practices to follow for the electronic retention of corrective action log records, refer to the Fact Sheet discussion related to Part 4.7.3.

6.2 GENERAL TRAINING REQUIREMENTS FOR STORMWATER TEAM MEMBERS

Prior to the commencement of construction activities, you must ensure that all persons[79] assigned to the stormwater team understand the requirements of this permit and their specific responsibilities with respect to those requirements, including the following related to the scope of their job duties:

- **a.** The permit requirements and deadlines associated with installation, maintenance, and removal of stormwater controls, as well as site stabilization;
- **b.** The location of all stormwater controls on the site required by this permit and how they are to be maintained;
- **c.** The proper procedures to follow with respect to the permit's pollution prevention requirements; and
- **d.** When and how to conduct inspections, record applicable findings, and take corrective actions. Specific training requirements for persons conducting site inspections are included in Part 6.3.

You are responsible for ensuring that all activities on the site comply with the requirements of this permit. You are not required to provide or document formal training for subcontractors or other outside service providers (unless the subcontractors or outside service providers are responsible for conducting the inspections required in Part 4, in which case you must provide such documentation consistent with Part 7.2.2), but you must ensure that such personnel understand any requirements of this permit that may be affected by the work they are subcontracted to perform.

6.3 TRAINING REQUIREMENTS FOR PERSONS CONDUCTING INSPECTIONS

For projects that receive coverage under this permit on or after February 17, 2023, to be considered a qualified person under Part 4.1 for conducting inspections under Part 4, you must, at a minimum, either:

- **a.** Have completed the EPA construction inspection course developed for this permit and have passed the exam; or
- **b.** Hold a current valid construction inspection certification or license from a program that, at a minimum, covers the following:[80]
  - **i.** Principles and practices of erosion and sediment control and pollution prevention practices at construction sites;
  - **ii.** Proper installation and maintenance of erosion and sediment controls and pollution prevention practices used at construction sites; and
  - **iii.** Performance of inspections, including the proper completion of required reports and documentation, consistent with the requirements of Part 4.

[79] If the person requiring training is a new employee who starts after you commence construction activities, you must ensure that this person has the proper understanding as required above prior to assuming particular responsibilities related to compliance with this permit. For emergency-related projects, the requirement to train personnel prior to commencement of construction activities does not apply, however, such personnel must have the required training prior to NOI submission.

[80] If one of the following topics (e.g., installation and maintenance of pollution prevention practices) is not covered by the non-EPA training program, you may consider supplementing the training with the analogous module of the EPA course (e.g., Module 4) that covers the missing topic.

For projects that receive coverage under this permit prior to February 17, 2023, any personnel conducting site inspections pursuant to Part 4 on your site must, at a minimum, be a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.[81]

6.4 STORMWATER TEAM'S ACCESS TO PERMIT DOCUMENTS

Each member of the stormwater team must have easy access to an electronic or paper copy of applicable portions of this permit, the most updated copy of your SWPPP, and other relevant documents or information that must be kept with the SWPPP.

7 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

7.1 GENERAL REQUIREMENTS

All operators associated with a construction site under this permit must develop a SWPPP consistent with the requirements in Part 7 prior to their submittal of the NOI.[82, 83, 84] The SWPPP must be kept up-to-date throughout coverage under this permit.

If a SWPPP was prepared under a previous version of this permit, the operator must review and update the SWPPP to ensure that this permit's requirements are addressed prior to submitting an NOI for coverage under this permit.

7.2 SWPPP CONTENTS

At a minimum, the SWPPP must include the information specified in this Part and as specified in other parts of this permit.

7.2.1 All Site Operators. Include a list of all other operators who will be engaged in construction activities at the site, and the areas of the site over which each operator has control.

[81] If you receive coverage for a project prior to February 17, 2023, and construction activities for the same project will continue after February 17, 2023, the personnel conducting inspections do not need to take the additional training specified in Parts 6.3a and 6.3b for inspections conducted on the project site. If the same operator obtains coverage for a different project on or after February 17, 2023, personnel conducting inspections would be required to meet the requirements for a qualified person by completing the training in either Part 6.3a or Part 6.3b.

[82] The SWPPP does not establish the effluent limits and/or other permit terms and conditions that apply to your site's discharges; these limits, terms, and conditions are established in this permit.

[83] Where there are multiple operators associated with the same site, they may develop a group SWPPP instead of multiple individual SWPPPs. Regardless of whether there is a group SWPPP or multiple individual SWPPPs, each operator is responsible for compliance with the permit's terms and conditions. In other words, if Operator A relies on Operator B to satisfy its permit obligations, Operator A does not have to duplicate those permit-related functions if Operator B is implementing them such that both operators are in compliance with the permit. However, Operator A remains responsible for permit compliance if Operator B fails to take actions necessary for Operator A to comply with the permit. In addition, all operators must ensure, either directly or through coordination with other operators, that their activities do not cause a violation or compromise any other operators' controls and/or any shared controls. See also footnote 60.

[84] There are a number of commercially available products to assist operators in developing the SWPPP, as well as companies that can be hired to help develop a site-specific SWPPP. The permit does not state which are recommended, nor does EPA endorse any specific products or vendors. Where operators choose to rely on these products or services, the choice of which ones to use to comply with the requirements of this Part is a decision for the operator alone.

7.2.2 Stormwater Team. Identify the personnel (by name and position) that you have made part of the stormwater team pursuant to Part 6.1, as well as their individual responsibilities, including which members are responsible for conducting inspections.

Include verification that each member of the stormwater team has received the training required by Part 6.2. Include documentation that members of the stormwater team responsible for conducting inspections pursuant to Part 4 have received the training required by Part 6.3. If personnel on your team elect to complete the EPA inspector training program pursuant to Part 6.3a, you must include copies of the certificate showing that the relevant personnel have completed the training and passed the exam. If personnel on your team elect to complete a non-EPA inspector training program pursuant to Part 6.3b, you must include documentation showing that these persons have successfully completed the program and their certification or license is still current. You must also confirm that the non-EPA inspector training program satisfies the minimum elements for such programs in Part 6.3b.

7.2.3 Nature of Construction Activities. Include the following:

- **a.** A description of the nature of your construction activities, including the age or dates of past renovations for structures that are undergoing demolition;
- **b.** The size of the property (in acres or length in miles if a linear construction site);
- **c.** The total area expected to be disturbed by the construction activities (to the nearest quarter acre or nearest quarter mile if a linear construction site);
- **d.** A description of any on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1c);
- **e.** The maximum area expected to be disturbed at any one time, including on-site and off-site construction support activity areas;
- **f.** A description and projected schedule for the following:[85]
  - **i.** Commencement of construction activities in each portion of the site, including clearing and grubbing, mass grading, demolition activities, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization;
  - **ii.** Temporary or permanent cessation of construction activities in each portion of the site;
  - **iii.** Temporary or final stabilization of exposed areas for each portion of the site; and
  - **iv.** Removal of temporary stormwater controls and construction equipment or vehicles, and the cessation of construction-related pollutant-generating activities.

[85] If plans change due to unforeseen circumstances or for other reasons, the requirement to describe the sequence and estimated dates of construction activities is not meant to "lock in" the operator to meeting these dates. When departures from initial projections are necessary, this should be documented in the SWPPP itself, or in associated records, as appropriate.

g. A list and description of all pollutant-generating activities[86] on the site. For each pollutant-generating activity, include an inventory of pollutants or pollutant constituents (e.g., *sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels*) associated with that activity, which could be discharged in stormwater from your construction site. You must take into account where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances, such as PCBs and asbestos, that will be disturbed or removed during construction;

h. Business days and hours for the project;

i. If you are conducting construction activities in response to a public emergency (see Part 1.4), a description of the cause of the public emergency *(e.g., mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services)*, information substantiating its occurrence *(e.g., State disaster declaration or similar State or local declaration)*, and a description of the construction necessary to reestablish affected public services.

7.2.4 Site Map. Include a legible map, or series of maps, showing the following features of the site:

a. Boundaries of the property;

b. Locations where construction activities will occur, including:

i. Locations where earth-disturbing activities will occur (note any phasing), including any demolition activities;

ii. Approximate slopes before and after major grading activities (note any steep slopes (as defined in Appendix A));

iii. Locations where sediment, soil, or other construction materials will be stockpiled;

iv. Any receiving water crossings;

v. Designated points where vehicles will exit onto paved roads;

vi. Locations of structures and other impervious surfaces upon completion of construction; and

vii. Locations of on-site and off-site construction support activity areas covered by this permit (see Part 1.2.1c).

c. Locations of any receiving waters within the site and all receiving waters within one mile downstream of the site's discharge point(s). Also identify if any of these receiving waters are listed as impaired or are identified as a Tier 2, Tier 2.5, or Tier 3 water;

d. Any areas of Federally listed critical habitat within the action area of the site as defined in Appendix A;

e. Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures);

f. Drainage patterns of stormwater and authorized non-stormwater before and after major grading activities;

[86] Examples of pollutant-generating activities include paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering activities.

g. Stormwater and authorized non-stormwater discharge locations, including:

i. Locations where stormwater and/or authorized non-stormwater will be discharged to storm drain inlets, including a notation of whether the inlet conveys stormwater to a sediment basin, sediment trap, or similarly effective control;[87]

ii. Locations where stormwater or authorized non-stormwater will be discharged directly to receiving waters (i.e., not via a storm drain inlet); and

iii. Locations where turbidity benchmark monitoring will take place to comply with Part 3.3, if applicable to your site.

h. Locations of all potential pollutant-generating activities identified in Part 7.2.3g;

i. Designated areas where construction wastes that are covered by the exception in Part 2.3.3e.ii because they are not pollutant-generating will be stored;

j. Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with this permit; and

k. Locations where polymers, flocculants, or other treatment chemicals will be used and stored.

7.2.5 Non-Stormwater Discharges. Identify all authorized non-stormwater discharges in Part 1.2.2 that will or may occur.

7.2.6 Description of Stormwater Controls.

a. For each of the Part 2.2 erosion and sediment control requirements, Part 2.3 pollution prevention requirements, and Part 2.4 construction dewatering requirements, as applicable to your site, you must include the following:

i. A description of the specific control(s) to be implemented to meet these requirements;

ii. The design specifications for controls described in Part 7.2.6a.i (including references to any manufacturer specifications and/or erosion and sediment control manuals/ordinances relied upon);[88]

iii. Routine stormwater control maintenance specifications; and

iv. The projected schedule for stormwater control installation/implementation.

b. You must also include any of the following additional information as applicable.

i. Natural buffers and/or equivalent sediment controls (see Part 2.2.1 and Appendix F). You must include the following:

(a) The compliance alternative to be implemented;

(b) If complying with alternative 2, the width of natural buffer retained;

[87] The requirement to show storm drain inlets in the immediate vicinity of the site on your site map only applies to those inlets that are easily identifiable from your site or from a publicly accessible area immediately adjacent to your site.

[88] Design specifications may be found in manufacturer specifications and/or in applicable erosion and sediment control manuals or ordinances. Any departures from such specifications must reflect good engineering practice and must be explained in the SWPPP.

(c) If complying with alternative 2 or 3, the erosion and sediment control(s) you will use to achieve an equivalent sediment reduction, and any information you relied upon to demonstrate the equivalency;

(d) If complying with alternative 3, a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size;

(e) For "linear construction sites" where it is infeasible to implement compliance alternative 1, 2, or 3, a rationale for this determination, and a description of any buffer width retained and/or supplemental erosion and sediment controls installed; and

(f) A description of any disturbances that are exempt under Part 2.2.1 that occur within 50 feet of a receiving water.

ii. Perimeter controls for a "linear construction site" (see Part 2.2.3d). For areas where perimeter controls are not feasible, include documentation to support this determination and a description of the other practices that will be implemented to minimize discharges of pollutants in stormwater associated with construction activities.

Note: Routine maintenance specifications for perimeter controls documented in the SWPPP must include the Part 2.2.3c.i requirement that sediment be removed before it has accumulated to one-half of the above-ground height of any perimeter control.

iii. Sediment track-out controls (see Parts 2.2.4b and 2.2.4c). Document the specific stabilization techniques and/or controls that will be implemented to remove sediment prior to vehicle exit.

iv. Inlet protection measures (see Part 2.2.10a). Where inlet protection measures are not required because the storm drain inlets to which your site discharges are conveyed to a sediment basin, sediment trap, or similarly effective control, include a short description of the control that receives the stormwater flow from the site.

v. Sediment basins (see Part 2.2.12). In circumstances where it is infeasible to utilize outlet structures that withdraw water from the surface, include documentation to support this determination, including the specific conditions or time periods when this exception will apply.

vi. Treatment chemicals (see Part 2.2.13), you must include the following:

(a) A listing of the soil types that are expected to be exposed during construction in areas of the project that will drain to chemical treatment systems. Also include a listing of soil types expected to be found in fill material to be used in these same areas, to the extent you have this information prior to construction;

(b) A listing of all treatment chemicals to be used at the site and why the selection of these chemicals is suited to the soil characteristics of your site;

(c) If the applicable EPA Regional Office authorized you to use cationic treatment chemicals for sediment control, include the specific controls and implementation procedures designed to ensure that your use of cationic

treatment chemicals will not lead to a discharge that does not meet water quality standards;

(d) The dosage of all treatment chemicals to be used at the site or the methodology to be used to determine dosage;

(e) Information from any applicable Safety Data Sheet (SDS);

(f) Schematic drawings of any chemically enhanced stormwater controls or chemical treatment systems to be used for application of the treatment chemicals;

(g) A description of how chemicals will be stored consistent with Part 2.2.13c;

(h) References to applicable State or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems; and

(i) A description of the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to use of the treatment chemicals at your site.

vii. Stabilization measures (see Part 2.2.14). You must include the following:

(a) The specific vegetative and/or non-vegetative practices that will be used;

(b) The stabilization deadline that will be met in accordance with Part 2.2.14;

(c) If complying with the deadlines for sites in arid, semi-arid, or drought-stricken areas, the beginning and ending dates of the seasonally dry period (as defined in Appendix A)[89] and the schedule you will follow for initiating and completing vegetative stabilization; and

(d) If complying with deadlines for sites affected by unforeseen circumstances that delay the initiation and/or completion of vegetative stabilization, document the circumstances and the schedule for initiating and completing stabilization.

viii. Spill prevention and response procedures (see Parts 1.3.5, 2.3.3c, 2.3.3d, and 2.3.6). You must include the following:

(a) Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks; and

(b) Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part 2.3.6 and established under either 40 CFR part 110, 40 CFR part 117, or 40 CFR part 302, occurs

[89] See footnote 44.

during a 24-hour period. Contact information must be in locations that are readily accessible and available to all employees.

You may also reference the existence of SPCC plans developed for the construction activity under Section 311 of the CWA, or spill control programs otherwise required by an NPDES permit for the construction activity, provided that you keep a copy of that other plan on site.[90]

ix. Waste management procedures (see Part 2.3.3). Describe the procedures you will follow for handling, storing, and disposing of all wastes generated at your site consistent with all applicable Federal, State, Tribal, and local requirements, including clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste. You must also include the following additional information:

(a) If site constraints prevent you from storing chemical containers 50 feet away from receiving waters or the other site drainage features as required in Part 2.3.3c.ii(b), document in your SWPPP the specific reasons why the 50-foot setback is not feasible, and how you will store containers as far away as the site permits; and

(b) If there are construction wastes that are subject to the exception in Part 2.3.3e.ii, describe the specific wastes that will be stored on your site.

x. Application of fertilizers (see Part 2.3.5). Document any departures from the manufacturer specifications where appropriate.

7.2.7 Procedures for Inspection, Maintenance, and Corrective Action. Describe the procedures you will follow for maintaining your stormwater controls, conducting site inspections, and, where necessary, taking corrective actions, in accordance with Part 2.1.4, Part 4, and Part 5 of this permit, accordingly. Also include:

a. The inspection schedule you will follow, which is based on whether your site is subject to Part 4.2 or Part 4.3, or whether your site qualifies for any of the reduced inspection frequencies in Part 4.4;

b. If you will be conducting inspections in accordance with the inspection schedule in Part 4.2.2, Part 4.3, or Part 4.4.1b, the location of the rain gauge or the address of the weather station you will be using to obtain rainfall data;

c. If you will be reducing your inspection frequency in accordance with Part 4.4.1b, the beginning and ending dates of the seasonally defined arid period for your area or the valid period of drought;

d. If you will be reducing your inspection frequency in accordance with Part 4.4.3, the beginning and ending dates of frozen conditions on your site; and

e. Any maintenance or inspection checklists or other forms that will be used.

7.2.8 Procedures for Turbidity Benchmark Monitoring from Dewatering Discharges (if applicable). If you are required to comply with the Part 3.3 turbidity benchmark

[90] Even if you already have an SPCC or other spill prevention plan in existence, your plans will only be considered adequate if they meet all of the requirements of this Part, either as part of your existing plan or supplemented as part of the SWPPP.

monitoring requirements, describe the procedures you will follow to collect and evaluate samples, report results to EPA and keep records of monitoring information, and take corrective action when necessary. Include the specific type of turbidity meter you will use for monitoring, as well as any manuals or manufacturer instructions on how to operate and calibrate the meter. Describe any coordinating arrangement you may have with any other permitted operators on the same site with respect to compliance with the turbidity monitoring requirements, including which parties are tasked with specific responsibilities. If EPA has approved of an alternate turbidity benchmark pursuant to Part 3.3.2b, include any data and other documentation you relied on to request use of the specific alternative benchmark.

7.2.9 Compliance with Other Requirements.

a. Threatened and Endangered Species Protection. Include documentation required in the Endangered Species Protection section of the NOI in NeT, or the ESA worksheet in Appendix D, supporting your eligibility with regard to the protection of threatened and endangered species and designated critical habitat.

b. Historic Properties. Include documentation required in Appendix E supporting your eligibility with regard to the protection of historic properties.

c. Safe Drinking Water Act Underground Injection Control (UIC) Requirements for Certain Subsurface Stormwater Controls. If you are using any of the following stormwater controls at your site, document any contact you have had with the applicable State agency[91] or EPA Regional Office responsible for implementing the requirements for underground injection wells in the Safe Drinking Water Act and EPA's implementing regulations at 40 CFR § 144 -147. Such controls would generally be considered Class V UIC wells:

i. Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);

ii. Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow; and

iii. Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).

7.2.10 SWPPP Certification. Your signatory must sign and date your SWPPP in accordance with Appendix G, Part G.11.

7.2.11 Post-Authorization Additions to the SWPPP. Once you are authorized for coverage under this permit, you must include the following documents as part of your SWPPP:

a. A copy of your NOI submitted to EPA along with any correspondence exchanged between you and EPA related to coverage under this permit;

b. A copy of the acknowledgment letter you receive from NeT assigning your NPDES ID (i.e., *permit tracking number*);

[91] For State UIC program contacts, refer to the following EPA website: https://www.epa.gov/uic.

c. A copy of this permit (an electronic copy easily available to the stormwater team is also acceptable).

7.3 ON-SITE AVAILABILITY OF YOUR SWPPP

You must keep a current copy of your SWPPP at the site or at an easily accessible location so that it can be made available at the time of an on-site inspection or upon request by EPA; a State, Tribal, or local agency approving stormwater management plans; the operator of a storm sewer system receiving discharges from the site; or representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS).[92]

EPA may provide access to portions of your SWPPP to a member of the public upon request. Confidential Business Information (CBI) will be withheld from the public, but may not be withheld from EPA, USFWS, or NMFS.[93]

If an on-site location is unavailable to keep the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance of your construction site.

7.4 SWPPP MODIFICATIONS

7.4.1 You must modify your SWPPP, including the site map(s), within seven (7) days of any of the following conditions:

a. Whenever new operators become active in construction activities on your site, or you make changes to your construction plans, stormwater controls, or other activities at your site that are no longer accurately reflected in your SWPPP. This includes changes made in response to corrective actions triggered under Part 5. You do not need to modify your SWPPP if the estimated dates in Part 7.2.3f change during the course of construction;

b. To reflect areas on your site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;

c. If inspections or investigations by EPA or its authorized representatives determine that SWPPP modifications are necessary for compliance with this permit;

d. Where EPA determines it is necessary to install and/or implement additional controls at your site in order to meet the requirements of this permit, the following must be included in your SWPPP:

i. A copy of any correspondence describing such measures and requirements; and

[92] The SWPPP may be prepared, signed, and kept electronically, rather than in paper form, if the records are: (a) in a format that can be read in a similar manner as a paper record; (b) legally dependable with no less evidentiary value than their paper equivalent; and (c) immediately accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be, if the records were stored in paper form. For additional guidance on the proper practices to follow for the electronic retention of the SWPPP, refer to the Fact Sheet discussion related to Part 4.7.3.

[93] Information covered by a claim of confidentiality will be disclosed by EPA only to the extent of, and by means of, the procedures set forth in 40 CFR part 2, Subpart B. In general, submitted information protected by a business confidentiality claim may be disclosed to other employees, officers, or authorized representatives of the United States concerned with implementing the CWA. The authorized representatives, including employees of other executive branch agencies, may review CBI during the course of reviewing draft regulations.

ii. A description of the controls that will be used to meet such requirements.

e. To reflect any revisions to applicable Federal, State, Tribal, or local requirements that affect the stormwater controls implemented at the site; and

f. If applicable, if a change in chemical treatment systems or chemically enhanced stormwater control is made, including use of a different treatment chemical, different dosage rate, or different area of application.

7.4.2 You must maintain records showing the dates of all SWPPP modifications. The records must include the name of the person authorizing each change (see Part 7.2.9 above) and a brief summary of all changes.

7.4.3 All modifications made to the SWPPP consistent with Part 7.4 must be authorized by a person identified in Appendix G, Part G.11.b.

7.4.4 Upon determining that a modification to your SWPPP is required, if there are multiple operators covered under this permit, you must immediately notify any operators who may be impacted by the change to the SWPPP.

8 HOW TO TERMINATE COVERAGE

Until you terminate coverage under this permit, you must comply with all conditions and effluent limitations in the permit. To terminate permit coverage, you must submit to EPA a complete and accurate Notice of Termination (NOT), which certifies that you have met the requirements for terminating in Part 8.

8.1 MINIMUM INFORMATION REQUIRED IN NOT

8.1.1 NPDES ID (i.e., *permit tracking number)* provided by EPA when you received coverage under this permit;

8.1.2 Basis for submission of the NOT (see Part 8.2);

8.1.3 Operator contact information;

8.1.4 Name of site and address (or a description of location if no street address is available); and

8.1.5 NOT certification.

8.2 CONDITIONS FOR TERMINATING CGP COVERAGE

You may terminate CGP coverage only if one or more of the conditions in Parts 8.2.1, 8.2.2, or 8.2.3 has occurred. Until your termination is effective consistent with Part 8.5, you must continue to comply with the conditions of this permit.

8.2.1 You have completed all construction activities at your site and, if applicable, construction support activities covered by this permit (see Part 1.2.1c), and you have met all of the following requirements:

a. For any areas that (1) were disturbed during construction, (2) are not covered by permanent structures, and (3) over which you had control during the construction activities, you have met the requirements for final vegetative or non-vegetative stabilization in Part 2.2.14c.

To document that you have met these stabilization requirements, you must take either ground or aerial photographs that show your site's compliance with the Part 2.2.14 stabilization requirements and submit them with your NOT. If any portion of your

site is covered by one of the exceptions in Part 2.2.14c.iii, indicate which exception applies and include a supplementary explanation with your photographs that provides the necessary context for why this portion of the site is in compliance with the final stabilization criteria even though it appears to be unstabilized. You are not required to take photographs of every distinct part of your site that is being stabilized, however, the conditions of the site portrayed in any photographs that are submitted must be substantially similar[94] to those of the areas that are not photographed. You must also comply with the following related to these photographs:

i. Take photographs both before and after the site has met the final stabilization criteria in Part 2.2.14c;

ii. All photographs must be clear and in focus, and in the original format and resolution; and

iii. Include the date each photograph was taken, and a brief description of the area of the site captured by the photograph (e.g., photo shows application of seed and erosion control mats to remaining exposed surfaces on northeast corner of site).

b. You have removed and properly disposed of all construction materials, waste and waste handling devices, and have removed all equipment and vehicles that were used during construction, unless intended for long-term use following your termination of permit coverage;

c. You have removed all stormwater controls that were installed and maintained during construction, except those that are intended for long-term use following your termination of permit coverage or those that are biodegradable (as defined in Appendix A); and

d. You have removed all potential pollutants and pollutant-generating activities associated with construction, unless needed for long-term use following your termination of permit coverage; or

8.2.2 You have transferred control of all areas of the site for which you are responsible under this permit to another operator, and that operator has submitted an NOI and obtained coverage under this permit; or

8.2.3 Coverage under an individual or alternative general NPDES permit has been obtained.

8.3 HOW TO SUBMIT YOUR NOT

You must use EPA's NPDES eReporting Tool (NeT) to electronically prepare and submit an NOT for the 2022 CGP.

To access NeT, go to https://cdx.epa.gov/cdx.

Waivers from electronic reporting may be granted as specified in Part 1.4.2. If the EPA Regional Office grants you approval to use a paper NOT, and you elect to use it, you must complete the form in Appendix I.

[94] Stabilization conditions that are substantially similar would include areas that are using the same type of stabilization measures and that have similar slopes, soils, and topography, and have achieved the same level of stabilization.

8.4 DEADLINE FOR SUBMITTING THE NOT

You must submit an NOT within 30 calendar days after any one of the conditions in Part 8.2 occurs.

8.5 EFFECTIVE DATE OF TERMINATION OF COVERAGE

Your authorization to discharge under this permit terminates at midnight of the calendar day that a complete NOT is submitted to EPA.

9 PERMIT CONDITIONS APPLICABLE TO SPECIFIC STATES, INDIAN COUNTRY LANDS, OR TERRITORIES

The provisions in this Part provide additions to the applicable conditions of this permit to reflect specific additional conditions required as part of the State or Tribal CWA Section 401 certification process, or the Coastal Zone Management Act (CZMA) certification process, or as otherwise established by the permitting authority. The specific additional revisions and requirements only apply to activities in those specific States, Indian country, and areas in certain States with Federal Facilities or areas subject to construction projects by Federal Operators. States, Indian country, and other areas not included in this Part do not have any additions to the applicable conditions of this permit.

9.1 EPA REGION 1

9.1.1 NHR100000 State of New Hampshire

a. Should the permit coverage for an individual applicant be insufficient to achieve water quality standards, the New Hampshire Department of Environmental Services (NHDES) may prepare additional 401 certification conditions for that applicant. Any additional 401 certification conditions will follow all required NHDES public participation requirements.

b. If you disturb 100,000 square feet or more of contiguous area, you must also comply with RSA 485-A:17 and Env-Wq 1500, and, unless exempt, apply for an Alteration of Terrain (AoT) permit from NHDES. This requirement also applies to a lower disturbance threshold of 50,000 square feet or more when construction occurs within the protected shoreline under the Shoreland Water Quality Protection Act (see RSA 483-B and Env-Wq 1400). A permit application must also be filed if your project disturbs an area of greater than 2,500 square feet, is within 50 feet of any surface water, and has a flow path of 50 feet or longer disturbing a grade of 25 percent or greater. Project sites with disturbances smaller than those discussed above, that have the potential to adversely affect state surface waters, are subject to the conditions of an AoT General Permit by Rule (Env-Wq 1503.03).

c. You must determine that any excavation dewatering discharges are not contaminated before they will be authorized as an allowable non-stormwater discharge under this permit (see Part 1.2.2 of the Construction General Permit or CGP). In the absence of information demonstrating otherwise, the water is considered uncontaminated if there is no groundwater contamination within 1,000 feet of the groundwater dewatering location. Information on groundwater contamination can be generated over the Internet via the NHDES web site http:// des.nh.gov/ by using the One Stop Data Mapper. For a toxic substance included in the New Hampshire surface water quality standards, see Env-Wq 1703.21 (see https://www.des.nh.gov/sites/g/fi1es/ehbemt 341/files/documents/2020-01/Env-Wg

1700.pdf). If it is determined that the groundwater to be dewatered is near a remediation or other waste site, you must apply for the Remediation General Permit (see https://www3.epa.gov/region1/npdes/rgp.html)

d. As a minimum, you must treat any uncontaminated excavation "dewatering" discharges and "stormwater" discharges, as those terms are defined in Appendix A of the CGP, as necessary, to remove suspended solids and turbidity so that the surface waters receiving the construction discharges[95] meet New Hampshire surface water quality standards for turbidity (Env-Wq 1703.11 and Env-Wq 1703.03(c)(1)c), benthic deposits (Env-Wq 1703.03(c)(1)a), and Env-Wq 1703.08) and foam, debris, scum or other visible substances (i.e., plumes or visual turbidity)[96] (Env-Wq 1703.03(c)(1)b).

i. For all Construction Activities covered under this CGP, the following shall apply to ensure compliance with the aforementioned regulations for turbidity, benthic deposits and visible substances:

Unless otherwise specified, site inspection requirements shall comply with Part 4 of the CGP. As a minimum site inspection frequency shall be in accordance with Part 4.2.2 of the CGP (and Part 4.3.2 of the CGP for sites discharging dewatering water). Site inspection frequency may be reduced in accordance with Part 4.4 of the CGP (Reductions in Inspection Frequency). Monitoring of the receiving water for visible turbidity and benthic sediment deposits shall be conducted each site inspection and results reported in the Inspection Report required in Part 4.7 of the CGP. Should visible turbidity or benthic sediment deposits attributable or partly attributable to your construction activities be present in the receiving water, the "Corrective Actions" specified in Part 5 shall be immediately implemented to correct the water quality standard violations. In addition, daily monitoring (including photographs) of the receiving water shall be conducted until there is no visible turbidity or benthic deposits. Inspection Reports required in Part 4.7 of the CGP shall include, but not be limited to, the distance downstream and the percent of the river width[97] where visible turbidity was observed, and the period of time that the visible turbidity persisted. A copy of the Inspection Report(s) shall be made available to NHDES within 24 hours of receiving a written request from NHDES.

ii. For Construction Activities, disturbing 5 acres or more of land at any one time (excluding areas that have been completely stabilized in accordance with the final stabilization criteria specified in Part 2.2.14.c of the CGP), the following shall

[95] Construction Discharges include uncontaminated "dewatering" and "stormwater" discharges as those terms are defined in Appendix A of the CGP. Controlled construction discharges are construction discharges where the rate of flow can be regulated such as from a construction settling basin or NHDES approved flocculation system.

[96] For the definition of visual turbidity, see the definition for "Non-Turbid" in Appendix A of the CGP, which states the following:" "Non-Turbid" - a discharge that is free from visual turbidity. For the purposes of this permit, visual turbidity refers to a sediment plume or other cloudiness in the water caused by sediment that can be identified by an observer." *[EPA interprets the text of this footnote as intending to reference the Appendix A definitions of "visual turbidity" and "non-turbid" in the final permit.]*

[97] The distance downstream and the percent of river width where visible turbidity (i.e., plume) is observed is required to determine the extent of the river affected and to determine if there was a "zone of passage" (i.e., a portion of the receiving water where there was no visible turbidity where mobile organisms could pass without being adversely impacted). The percent of river width affected is equal 100 multiplied by the width of the plume (in feet) divided by the width of the receiving water (in feet).

apply to ensure compliance with the aforementioned regulations for turbidity, benthic deposits and visible substances.

Item 9.1.1.d.i) above shall apply to all construction discharges and the minimum site inspection frequency shall comply with Part 4.3.1 of the CGP (and Part 4.3.2 of the CGP for sites discharging dewatering water). Site inspection frequency may be reduced in accordance with Part 4.4 of the CGP (Reductions in Inspection Frequency).

With regards to controlled construction discharges, if there is no visible turbidity (i.e., plumes) or benthic deposits, and, in the absence of information demonstrating otherwise, turbidity measurements of less than or equal to 50 nephelometric turbidity units (NTU) in the controlled construction discharges at the outlet prior to mixing with the receiving surface waters, shall be presumed to meet New Hampshire surface water quality standards for the parameters listed above. As a minimum, the controlled construction discharges must be sampled at each site inspection.

If any controlled construction discharge exceeds 50 NTU, or if visible turbidity or benthic sediment deposits attributable or partly attributable to any construction discharge are observed in the receiving water, then the "Corrective Actions" specified in Part 5 of the CGP shall be immediately implemented.

In addition, should such violation occur, and, in order to determine compliance with surface water quality standards for turbidity (Env-Wq 1703.11 and Env-Wq 1703.03(c)(1)c), benthic deposits (Env-Wq 1703.03(c)(1)a), and Env-Wq 1703.08) and foam, debris, scum or other visible substances (Env-Wq 1703.03(c)(1)b)), turbidity monitoring shall be immediately implemented as specified below:

Turbidity samples of the receiving water shall be immediately taken in the receiving water upstream and beyond the influence of the construction activity, and, unless a mixing zone[98] is approved by NHDES, no more than 75 feet downstream of each controlled construction discharge that exceeded 50 NTU and no more than 75 feet downstream of each construction discharge that caused visible turbidity.

Downstream samples shall be taken at locations in the receiving water that are most likely influenced by the discharge (e.g., if visible turbidity (i.e., a plume) is present, the sample shall be taken in the plume). Samples shall be collected a minimum of 2 times per day during the daylight hours at times when construction activities are most likely to cause turbidity in the receiving water and shall continue until the turbidity water quality standards are met in the receiving water (i.e., the difference between the upstream and downstream turbidity level is no greater than 10 NTU).

[98] Permittees may request a distance greater than 75 feet downstream of a construction discharge for determining compliance with turbidity standards in Class B surface waters, by submitting a mixing zone request to NHDES that complies with Env-Wq 1707.02. If a mixing zone is approved, NHDES is required to include conditions to ensure that the criteria on which the approval is based are met (Env-Wq 1707.03).

If water quality standards are not met during daylight hours on any day, sampling shall resume the next day and continue no fewer than 2 times per day until water quality standards are met. The date, time, location and results of turbidity measurements, as well as a summary identifying the cause of the violations, corrective actions that were implemented, the period of time that the receiving water exceeded turbidity standards and the distance downstream and the percent of the river width where visible turbidity was observed, and the period of time that the visible turbidity persisted, shall be recorded and included in the Inspection Report required in Part 4.7 of the CGP. Turbidity measurements shall be conducted via a field meter in accordance with the requirements for turbidity specified in Table 1B in 40 CFR 136.3 (see 40 CFR §136.3 Identification of test procedures - Code of Federal Regulations ecfr.io). Field meters shall be calibrated every day sampling is conducted and prior to the first sample.

e. Construction site owners and operators are encouraged to consider opportunities for post- construction groundwater recharge using infiltration best management practices (BMPs) during site design and preparation of the SWPPP in order to assure compliance with Env-Wq 1703.03 and Env-Wq 1703.11. If your construction site is in a town that is required to obtain coverage under the NPDES General Permit for discharges from Municipal Separate Storm Sewer Systems (MS4) you may be required to use such practices. The SWPPP must include a description of any on-site infiltration that will be installed as a post-construction stormwater management measure or reasons for not employing such measures such as 1) The facility is located in a wellhead protection area as defined in RSA 485- C:2; or 2) The facility is located in an area where groundwater has been reclassified to GAA, GA1 or GA2 pursuant to RSA 485-C and Env-DW 901; or 3) Any areas that would be exempt from the groundwater recharge requirements contained in Env-Wq 1507.04, including all land uses or activities considered to be a "High-load Area" (see Env-Wq 1502.30). For design considerations for infiltration measures see Env-Wq 1508.06. Note that there may be additional local requirements that fall under the NH MS4 permittee's Authorization to Discharge Permit for those regulated areas.

f. Appendix F of the CGP contains information regarding Tier 2, or high quality waters in the various states. ***[EPA notes that this information has now been moved to https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates]*** Although there is no official list of tier 2 waters for New Hampshire, it can be assumed that all New Hampshire surface waters are tier 2 for turbidity unless 1) the surface water that you are proposing to discharge into is listed as impaired for turbidity in the states listing of impaired waters (see https://nhdes-surface-water-quality-assessment-site-nhdes.hub.arcgis.com/) or 2) sampling upstream of the proposed discharge location shows turbidity values greater than 10 NTU (Env-Wq 1703.11). A single grab sample collected during dry weather (no precipitation within 48 hours) is acceptable.

g. To ensure compliance with RSA 485-C, RSA 485-A, RSA 485-A:13, I(a), Env-Wq 1700 and Env-Wq 302, the following information may be requested by NHDES. This information must be kept on site unless you receive a written request from NHDES that it be sent to the address shown below in 9.1.1.h.

i. A list of all non-stormwater discharges that occur at the facility, including their source locations and the control measures being used (see Part 1.2.2 of the CGP).

ii. Records of sampling and analysis required for construction dewatering and stormwater discharges (see 9.1.1.d above).

h. All required or requested documents must be sent to: NH Department of Environmental Services, Watershed Management Bureau, P.O. Box 95 Concord, NH 03302-0095.

9.1.2 MAR100000 Commonwealth of Massachusetts (except Indian country)

a. All discharges covered by the Construction General Permit shall comply with the provisions pursuant to 314 CMR 3.00, 314 CMR 4.00, 314 CMR 9.00, including applicable construction stormwater standards and 310 CMR 10.00.

b. Pursuant to 314 CMR 3.11 (2)(a)6., and in accordance with MassDEP's obligation under 314 CMR 4.05(5)(e) to maintain surface waters free from pollutants in concentrations or combinations that are toxic to humans, aquatic life, or wildlife, permittees are prohibited from discharging dewatering water under the CGP from sites that are designated as Superfund/CERCLA or RCRA, and must make accommodations to dispose of the dewatering discharges appropriately, such as coverage under the Remediation General Permit (RGP).

c. Pursuant to 314 CMR 3.11 (2)(a), and in accordance with MassDEP's obligation to protect Outstanding Resource Waters under 314 CMR 4.04(3), applicants seeking coverage under the 2022 CGP that propose to carry out construction activities near Outstanding Resource Waters as identified in 314 CMR 4.06, shall submit to MassDEP for review:

i. a copy of the Stormwater Pollution Prevention Plan (SWPPP),

ii. a copy of the EPA NOI, and

iii. MassDEP's Stormwater BMP Checklist.

For purposes of this review, the permittee shall submit these documents to MassDEP at the same time they are submitted to EPA. Instructions on how to submit these documents to MassDEP and where to find the MassDEP Stormwater BMP Checklist and obtain authorization to discharge can be found here: https://www.mass.gov/how-to/wm-15-npdes-general-permit-notice-of- intent.

d. Pursuant to 314 CMR 3.11 (2)(a)6., and in accordance with MassDEP's obligation under 314 CMR 4.05(5)(e) to maintain surface waters free from pollutants in concentrations or combinations that are toxic to humans, aquatic life, or wildlife, applicants that propose to dewater under the 2022 CGP and plan to discharge to certain waters as described below, shall determine that any dewatering discharges are not contaminated by testing the proposed discharge as described below as part of the application for WM15 authorization. Unless otherwise specified, testing described in this section should be conducted using the methods in 40 CFR 136.

i. Applicants for sites that plan to discharge to Outstanding Resource Waters as identified in 314 CMR 4.06 shall test one sample of the proposed dewatering discharge water for pH, E. Coli (for discharges to freshwater), fecal coliform (for

discharges to salt water), Enterococci (for discharges to salt water), total suspended solids, oil and grease, total nitrogen, total phosphorus, and all parameters with numeric criteria listed in the Massachusetts Surface Water Quality Standards at 314 CMR 4.05(e). Results shall be reported to MassDEP as part of the WM15 application. To determine if the dewatering discharge could be covered under the 2022 CGP, the effluent at zero dilution must meet numeric water quality criteria. If the effluent does not meet numeric water quality criteria, the applicant shall contact EPA Region 1 to discuss coverage under the Remediation General Permit.

ii. Applicants for sites that propose to discharge to Public Water Supplies (314 CMR 4.06(1)(d)1) shall also test one sample of the proposed dewatering discharge water for per- and polyfluoroalkyl substances (PFAS), as outlined in the table below. Results shall be reported to MassDEP as part of the WM15 application. If any PFAS compounds are detected, the applicant shall apply for coverage under the NPDES Remediation General Permit for Massachusetts if required.

PFAS Testing Parameters for Discharges to Public Drinking Water Supplies[99]	
Perfluorohexanesulfonic acid (PFHxS), grab	Report ng/L
Perfluoroheptanoic acid (PFHpA), grab	Report ng/L
Perfluorononanoic acid (PFNA), grab	Report ng/L
Perfluorooctanesulfonic acid (PFOS), grab	Report ng/L
Perfluorooctanoic acid (PFOA), grab	Report ng/L
Perfluorodecanoic acid (PFDA), grab	Report ng/L

iii. Applicants for sites that propose to discharge to an impaired water as identified in the most recent final Massachusetts Integrated List of Waters,shall test one sample of the proposed dewatering discharge water for the parameter(s) for which the waterbody is impaired. To determine if the dewatering discharge could be covered under the 2022 CGP, the effluent at zero dilution must meet numeric water quality criteria. If the effluent does not meet numeric water quality criteria, the applicant shall contact EPA Region 1 to discuss coverage under the Remediation GeneralPermit and shall apply for RGP coverage if required.

iv. For dewatering discharges to all other waters, if any pollutants are knownor believed present in the proposed dewatering discharge water, the applicant shall apply for coverage under the NPDES Remediation General Permit for Massachusetts if required. For the purposes of this condition, a pollutant is "known present" if measured above the analytical detection limit using a sufficiently sensitive test method in an environmental sample, and "believed present" if a pollutant has not been measured in an environmental sample but will be added or generated prior to discharge, such as through a treatment process. Consequently, a pollutant is "known absent" if measured as non-detect relative to the analytical detection limit using a sufficiently sensitive test method in an environmental sample, and "believed absent" if a pollutant has not been measured in an environmentalsample but will not be added or generated prior to discharge and is not a parameter that applies to the applicable activity category for a site. If any pollutants are known or believed present in the

[99] PFAS testing shall follow established EPA methods 537 or 537.1 for drinking water until EPA Method 3512 for non-potable water becomes available.

proposed dewatering discharge water, the applicant shall test one sample of the proposed dewatering discharge water for the pollutants known or believed to be present. To determine if the dewatering discharge could be covered under the 2022 CGP, the effluent at zero dilution must meet numeric water quality criteria. If the effluent does not meet numeric water quality criteria, the applicant shall contact EPA Region 1 to discuss coverage under the Remediation General Permit.

e. Pursuant to 314 CMR 3.11 (2)(a), and in accordance with MassDEP's obligation to protect Outstanding Resource Waters under 314 CMR 4.04(3), applicants that propose to dewater under the 2022 CGP and discharge to Outstanding Resource Waters as identified in 314 CMR 4.06, shall submit the SWPPP and associated documents to MassDEP to review. MassDEP shall complete review within 30 daysof receipt.

f. Pursuant to 314 CMR 3.11 (2)(a)6., and in accordance with MassDEP's obligation under 314 CMR 4.05 to maintain surface waters free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to the waterbody, permittees that have been authorized to dewater under the 2022 CGP and that discharge to Outstanding Resource Waters as identified in 314 CMR 4.06 shall carry out daily benchmark monitoring for turbidity[100] for the duration of dewatering. Permittees shall compare the weekly average of the turbidity monitoring results with the established benchmark turbidity value of 25 Nephelometric Turbidity Units (NTU). If a permittee's weekly average turbidity results exceed the benchmark, the operator shall conduct follow-up corrective action to determine the source of the problem and to make any necessary repairs or upgrades to the dewatering controls to lower the turbidity levels. The permittee shall document any corrective action taken in its corrective action log. Furthermore, permittees at these sites shall carry out inspections at higher frequency, specifically, daily inspections of the dewatering discharge treatment for the duration of the discharge. The permittee shall inspect the site for sediment plume or whether a hydrocarbon sheen is visible at the point of discharge, estimate the flow rate at the point of discharge, and inspect the site downstream to assess whether sedimentation is attributable to the dewatering discharges.

g. Pursuant to 314 CMR 3.11 (2)(a)6., and in accordance with MassDEP's obligation under 314 CMR 4.05 to maintain surface waters free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to the waterbody, permittees shall store materials outside the Base Flood Elevation[101] when feasible to prevent displacing runoff and erosion.

h. Pursuant to 314 CMR 3.11 (2)(a), and in accordance with MassDEP's obligation to maintain surface waters free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses under 314 CMR 4.05(5)(c), all applicants who apply for coverage under the 2022 CGP shall follow guidelines on fertilizer application, including use of fertilizer containing no phosphorus, in accordance with 330 CMR 31.00 Plant Nutrient Application Requirements for

[100] Applicants shall follow EPA Method 180.1 to monitor for turbidity

[101] Base Flood Elevation (BFE) is the elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1– A30, AR/AH, AR/AO, V1–V30 and VE. (Source: https://www.fema.gov/node/404233).

Agricultural Land and Non-Agricultural Turf and Lawns. Further, fertilizer shall never be applied to a site when a rain event greater than 0.5 inches is forecast in the next 48 hours.

i. Pursuant to 314 CMR 3.11 (2)(a), all applicants who apply for coverage under the 2022 CGP and elect to carry out site inspections every 14 days shall also inspect sites within 24 hours of 0.25 inches of precipitation events or greater over 24 hours,or within 24 hours of a discharge that occurred due to snowmelt from 3.25 inches or greater of snow accumulation.[102] During the high flow periods in spring (i.e., months of April to June), inspection frequency shall be increased to once per week for all sites.

i. To determine whether 3.25 inches or greater of snow accumulation has occurred at a site, snowfall measurements can be taken at the site,[103] or theoperator can rely on similar information from a local weather forecast.

j. Implementing structural improvements, enhanced/resilient pollution prevention measures, and other mitigation measures can help to minimize impacts from stormwater discharges from major storm events such as hurricanes, storm surge, extreme/heavy precipitation,[104] and flood events. Pursuant to 314 CMR 3.11 (2)(a), if such stormwater control measures are already in place due to existing requirements mandated by other state, local or federal agencies, the SWPPP shall include a brief description of the controls and a reference to the existing requirement(s). If the site may be exposed to or has previously experienced suchmajor storm events[105], additional stormwater control measures that may be considered, and implemented as necessary, include, but are not limited to:

i. Reinforce materials storage structures to withstand flooding and additional exertion of force;

ii. Prevent floating of semi-stationary structures by elevating to the Base Flood Elevation (BFE) level or securing with non-corrosive device;

iii. When a delivery of exposed materials is expected, and a storm is anticipated within 48 hours, delay delivery until after the storm or storematerials as appropriate (refer to emergency procedures);

[102] This is the amount of snow that is equivalent to 0.25 inches of rain, based on information from the National Oceanic and Atmospheric Administration (NOAA) indicating that 13 inches of snow is, on average, equivalent to 1 inch of rain. See https://www.nssl.noaa.gov/education/svrwx101/winter/faq/.

[103] NOAA's National Weather Service has guidelines on snowfall measurements at https://www.weather.gov/jkl/snow_measurement. These guidelines recommend use of a "snowboard" (a piece of wood about 16 inches by 16 inches) that is placed in an unobstructed part of the site on a hard surface.

[104] Heavy precipitation refers to instances during which the amount of rain or snow experienced in a location substantially exceeds what is normal. What constitutes a period of heavy precipitation varies according to location and season. Heavy precipitation does not necessarily mean the total amount of precipitation at a location has increased— just that precipitation is occurring in more intense or more frequent events.

[105] To determine if your facility is susceptible to an increased frequency of major storm events that could impact the discharge of pollutants in stormwater, you may reference FEMA, NOAA, or USGS flood map products at https://www.usgs.gov/faqs/where-can-i-find-flood-maps?qt-news_science_products=0#qtnews_science_products.

iv. Temporarily store materials and waste above the Base Flood Elevation ***[EPA notes that it has deleted a footnote reference to the term "Base Flood Elevation" since the same footnote is already included in Part 9.1.2.g, above.]*** level;

v. Temporarily reduce or eliminate outdoor storage;

vi. Temporarily relocate any mobile vehicles and equipment to higher ground;

vii. Develop scenario-based emergency procedures for major storms that are complementary to regular stormwater pollution prevention planning andidentify emergency contacts for staff and contractors; and

viii. Conduct staff training for implementing your emergency procedures atregular intervals.

k. Pursuant to 314 CMR 3.11 (2)(a)6., and in accordance with MassDEP's obligation under 314 CMR 4.05(5)(e) to maintain surface waters free from pollutants in concentrations or combinations that are toxic to humans, aquatic life, or wildlife, permittees who seek coverage under the 2022 CGP and anticipate to carry out dust control shall limit their dust control methodology to using water only and specifically avoid using other techniques, such as solutions containing calcium chloride.

l. If MassDEP requests a copy of the Stormwater Pollution Prevention Plan (SWPPP) for any construction site at any time, the permittee shall submit the SWPPP to MassDEP within 14 days of such a request. MassDEP may conduct an inspection of any site covered by this permit to ensure compliance with state lawrequirements, including state water quality standards.

9.1.3 MTR10F000 Areas in the State of Vermont located at a federal facility

a. Earth disturbance at any one time is limited to five acres.

b. All areas of earth disturbance must have temporary or final stabilization within 14 days of the initial disturbance. After this time, disturbed areas must be temporarily or permanently stabilized in advance of any runoff producing event. A runoff producing event is an event that produces runoff from the construction site. Temporary stabilization is not required if precipitation is not forecast and work is to continue in the next 24-hours or if the work is occurring in a self-contained excavation (i.e. no outlet) with a depth of two feet or greater (e.g. house foundation excavation, utility trenches). Areas of a construction site that drain to sediment basins are not considered eligible for this exemption, and the exemption applies only to the excavated area itself.

c. Site inspections on active construction sites shall be conducted daily during the period from October 15 through April 15.

d. The use of chemical treatments (e.g. polymers, flocculants, and coagulants) for the settling and/or removal of sediment from stormwater runoff associated with construction and construction-related activities requires prior written approval and an approved site and project-specific plan, from the Vermont Agency of Natural Resources. In addition, the use of cationic polymers is prohibited unless approved by the Vermont Agency of Natural Resources under a site and project-specific plan.

e. Any applicant under EPA's CGP shall allow authorized Vermont Agency of Natural Resources representatives, at reasonable times and upon presentation of credentials, to enter upon the project site for purposes of inspecting the project and determining

compliance with this Certification.

f. The Vermont Agency of Natural Resources may reopen and alter or amend the conditions of this Certification over the life of the EPA 2022 Construction General Permit when such action is necessary to assure compliance with the VWQS.

9.2 EPA REGION 2

9.2.1 NYR10I000 Indian country within the State of New York

a. Saint Regis Mohawk Tribe

i. Any Responsible-Person/Decision-Maker required under the CGP to submit a Notice of Intent (NOI) to EPA for coverage under the CGP, must concurrently submit an electronic copy of the NOI to the SRMT Environmental Division, Water Resource Program Manager. Additionally, an electronic copy of the Notice of Termination (NOT) must be provided within three business days after electronic confirmation is received from EPA that the NOT has been accepted. The NOI and NOT must be electronically provided to the following addresses:

Mr. Tieman W. Smith
Water Resources Program Manager Saint Regis Mohawk Tribe
449 Frogtown Road
Akwesasne, NY 13655 Tiernan.Smith@srmt-nsn.gov 518.358.2272 ext. 5073

ii. Any Responsible-Person/Decision-Maker that is required as part of the CGP to prepare a Discharge Management Plan (OMP) or Storm Water Management Plan (SWMP) and/or Storm Water Pollution Prevention Plan (SWPPP) must submit an electronic copy of the DMP, SWMP and/or SWPPP to the SRMT Environment Division, Water Resources Program Manager IO business days prior to the start of construction of any work to be conducted under the CGP. The applicable documents must be provided to the electronic address listed above.

iii. Any Responsible-Person/Decision-Maker that is required under the CGP to submit an annual report to EPA must submit an electronic copy of the annual report concurrently to the SRMT Water Resource Program. Additionally, any correspondences between the applicant and EPA related to analytical data, written reports, corrective action, enforcement, monitoring, or an adverse incident must likewise be routed to the SRMT Water Resources Program at the above electronic address.

iv. An "Authorization to Proceed Letter" with site-specific mitigation requirements may be sent out to the permittee when a review of the NOI and OMP, SWMP and /or SWPPP on a case-by-case basis, is completed by the SRMT Environment Division, Water Resource Program. This approval will allow the application to proceed if all mitigation requirements are met.

b. Seneca Nation

i. Under Part 1.1.5 of the CGP, the Seneca Nation requests that an applicant must demonstrate that they meet the eligibility criteria listed in Appendix D (certify in your Notice of Intent (NOI) that you meet one of the eligibility criteria [Criterion A-F]) as well as species and critical habitats that are listed under the Seneca Nation's "Fishing and Conservation Laws" and the "Seneca Nation of Indians Comprehensive Conservation Law".

ii. The Tribal Historic Preservation Office (THPO) was established in 2000 after the Seneca Nation received a recognition letter from the National Park Service (NPS); therefore under Part 1.1.6 of the CGP (Appendix E) and prior to submitting a Notice of Intent (NOI) operators must complete the Nation's TPHO, Project Review Form (https://sni.org/media/246603/sni-thpo-project-review-form.pdf) and submit the completed form with associated information to the Tribal Historic Preservation Officer at 90 Ohi:yo' Way, Salamanca, NY 14779. Federal agencies engaging in construction activities must provide for construction review by a certified construction reviewer in accordance with 7 Del. C. §§4010 & 4013 and 7 DE Admin. Code 5101, subsection 6.1.6.

iii. Under Part 1.2 of the CGP, discharges must also follow the Section 13 of the Guide for Construction (Seneca Nation of Indians Source Water Code) and respectively, Council Resolution, dated April 13, 2013 (CN: R-04-13-13-11) to ensure that the health, safety and welfare of the citizens of the Seneca Nation, and all other within the Lands and Territories of the Seneca Nation of Indians, and to facilitate the adequate provisions of water through the elimination or prevention of ground water contamination in the vicinity of wells that supply drinking water for the Nation. The area is known as the Source Water Protection Area (SWPA) and specified activities are regulated within this SWPA, as cited in Section 13 of the Guide for Construction and Section VI, of CN: R-04-13-13-11.

iv. Under Part 1.4, any operator who seeks coverage of the CGP, and is required to submit a notice of intent NOI and Notice of Termination (NOT) (as necessary) to the EPA for coverage, under Part 1.4.2 must also submit a copy of the NOI to the Seneca Nation's Environmental Protection Department (EPD) within three business days of submittal to the EPA, (address shown below). Respectively, a copy of the NOT (as described under Part 8.3 of the CGP), which certifies that you have met the requirements of Part 8, must be provided within three business days after electronic confirmation is received from the EPA that the NOT has been accepted. In addition to a NOI and NOT, the Seneca Nation (Environmental Protection Department [EPD]) would require an Environmental Impact Assessment (EA) (Long Form), as shown in Section 2 of the Seneca Nation of Indians Laws, Ordinances & Policies (Guide for Construction), to be completed and submitted to the EPD prior to any project to determine whether the impacts from a project would create significant and detrimental effects to the Nation's lands, water (violate WQS), and environment. The NOI, NOT, and EA must be submitted electronically to epd@sni.org and provided to the following address:

Seneca Nation
Environmental Protection Department (EPD) Attn: Director of EPD
12837 Route 438
Irving, NY 14081

v. Under Part 3.0 of the CGP, discharges must be controlled as necessary to meet applicable WQS. The Seneca Nation is working actively towards finalizing and implementing the; therefore, the EPD would require an applicant to submit or grant access to the permit to obtain information on the impact of effluents on receiving waters, including the capability of receiving waters to support future designated uses and achieve the WQS of the Nation; and to advise prospective dischargers of discharge requirements, and coordinate with the appropriate

permitting agencies. As stated in the Decision Document, under Section 303(c) of the CWA, 33 U.S.C. § 1313(c), states develop, review, and revise (as appropriate) water quality standards for surface waters of the United States. At a minimum, such standards are to include designated water uses, water quality criteria to protect such uses, and an antidegradation policy. 40 C.F.R. § 131.6. In addition, under Section 401 of the CWA states may grant, condition, or deny "certification" for federally permitted or licensed activities that may result in a discharge to the waters of the United States 33 U.S.C. § 1341.

vi. Under Part 7.2.8(a)(b)(c) and for Part 9 of the CGP, the following Sections of the Seneca Nation's Guide for Construction shall be considered, in conjunction with the CGP:

(a) Section 1. Executive Order - To Establish a Policy for Governing Access to Nation Territories and Facilities by Officials of Foreign Government, dated March 31, 2011

(b) Section 3. Natural Resources Committee, Sand and Gravel Law (CN: R-06-24-05-08)

(c) Section 4. Fishing and Conservation Laws - Part 1.1.5 of the CGP

(d) Section 5. Seneca Nation of Indians Comprehensive Conservation Law, adopted January 14, 2012

(e) Section 9. Food is Our Medicine (FIOM) Program/Native Planting Policy (CN: R-03- 08-14-14)

(f) Section 10. Forestry Management Plan (CN: R-08-14-10-23)

(g) Section 11. Timber Ordinance #411-092, dated May 8, 1982

(h) Section 14. Flood Damage Prevention Local Law, dated September 27, 1988

(i) Section 16. Utilities Ordinance No. 87-100

(j) Authorizing Emergency Action and Contingency Plan to Restrain Pollution of Nations Waters, (Council Resolution: R-03-01-18-10), dated March 10, 2018 Seneca Nation of Indians Permit Application for Construction within Waterways Permit, Form NR98-01.00

9.3 EPA REGION 3

9.3.1 DCR100000 District of Columbia

a. Discharges authorized by this permit shall comply with the District of Columbia Water Pollution Control Act of 1984, as amended (DC Official Code § 8-103.01 and § 8-103.06, et seq.) to ensure that District of Columbia waters, waters in adjacent and downstream states, and the beneficial uses of these waters will not be harmed or degraded by the discharges.

b. Discharges authorized by this permit must comply with §§ 1104.1 and 1104.8 of Chapter 11 and the provisions of Chapter 19 of Title 21of District of Columbia Municipal Regulations in order to attain and maintain designated uses of the District of Columbia waters.

c. The permittee shall comply with the District of Columbia Stormwater Management and Soil Erosion and Sediment Control regulations in Chapter 5 of Title 21 of the District of Columbia Municipal Regulations.

d. The permittee shall comply with the District of Columbia Flood Management Control regulations in Chapter 31 of Title 20 of the District of Columbia Municipal Regulations.

e. The permittee shall submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the Regulatory Review Division, Department of Energy & Environment, Government of the District of Columbia, 1200 First Street, NE, 5th Floor, Washington, DC 20002, during the review and approval of the permittee's DOEE Erosion and Sediment Control Plan in accordance with the provisions of Chapter 542 of Title 21 of the District of Columbia Municipal Regulations.

f. Upon request, the permittee shall submit all inspection and monitoring reports as required by this permit and 40 CFR § 122.41 to the Associate Director, Inspection and Enforcement Division, Department of Energy & Environment, Government of the District of Columbia, 1200 First Street, NE, 5th Floor, Washington, DC 20002; telephone (202) 535-2226, or by email at Joshua.Rodriguez@dc.gov.

g. In the event the permittee intends to discharge dewatering water, groundwater, or groundwater comingled with stormwater from a known contaminated site, the permittee shall contact the Regulatory Review Division, Department of Energy & Environment, Government of the District of Columbia, 1200 First Street, NE, 5th Floor, Washington, DC 20002; telephone (202) 535-2600, or by email at MS4DischargeAuthorization@dc.gov to request authorization to discharge dewatering water, groundwater, or groundwater comingled with stormwater to the District's Municipal Separate Storm Sewer System (MS4) or to a surface water body pursuant to §§ 8-103.02, 8-103.06, and 8-103.07 of the District of Columbia Water Pollution Control Act of 1984, as amended.

9.3.2 DER10F000 Areas in the State of Delaware located at a federal facility (as defined in Appendix A)

a. Federal agencies must submit a sediment and stormwater management plan (SSMP) and receive Department approval prior to undertaking any land clearing, soil movement or construction activity unless conducting an exempt activity.

b. Federal construction activities are required to have a third-party Certified Construction Reviewer (CCR) perform weekly reviews to ensure the adequacy of construction activities pursuant to the approved SSMP and regulations.

Implementation of approved SSMPs requires the daily oversight of construction activity by certified responsible personnel.

c. Implementation of approved SSMPs requires the daily oversight of construction activity by certified responsible personnel.

d. A current copy of the SSMP must be maintained at the construction site.

e. Unless authorized by the Department, not more than 20 acres may be disturbed at any one time.

9.4 EPA REGION 4

No additional conditions

9.5 EPA REGION 5

9.5.1 MIR10I000 Indian country within the State of Minnesota

a. Fond du Lac Reservation

i. New dischargers wishing to discharge to an Outstanding Reservation Resource Water (ORRW)[106] must obtain an individual permit from EPA for storm water discharges from large and small construction activities.

ii. A copy of the Storm Water Pollution Prevention Plan (SWPPP) must be submitted to the Office of Water Protection at least fifteen (15) days in advance of sending the Notice of Intent to EPA. The SWPPP can be submitted electronically to richardgitar@FDLREZ.com or by hardcopy sent to:

Fond du Lac Reservation
Office of Water Protection
1720 Big Lake Road
Cloquet, MN 55720

iii. Copies of the Notice of Intent (NOI) and the Notice of Termination (NOT) must be sent to the Fond du Lac Office of Water Protection at the same time they are submitted to EPA. [The condition helps the Office of Water Protection keep track of when a project is about to start and when it has ended. FDL Water Quality Certification Ordinance, Section 204 (a) (2)).

iv. If the project will entail a discharge to any watercourse or open water body, the turbidity limit shall NOT exceed 10% of natural background within the receiving water(s) as determined by Office of Water Protection staff. For such discharges, turbidity sampling must take place within 24 hours of a ½-inch or greater rainfall event. The results of the sampling must be reported to the Office of Water Protection within 7 days of the sample collection. All sample reporting must include the date and time, location (GPS: UTM/Zone 15), and NTU. CGP applicants are encouraged to work with the Office of Water Protection in determining the most appropriate location(s) for sampling. [This condition helps both the Office of Water Protection and the project proponent in knowing whether or not their erosion control efforts are effective. FDL Water Quality Certification, Section 204 (b) (1)).

v. Receiving waters with open water must be sampled for turbidity prior to any authorized discharge as determined by Office of Water Protection staff. This requirement only applies to receiving waters which no ambient turbidity data exists. [This condition allows the Office of Water Protection to obtain a baseline turbidity sample in which to compare to other samples. FDL Water Quality Certification Ordinance, Section 204 (b) (2)].

vi. All work shall be carried out in such a manner as will prevent violations of water quality criteria as stated in the Water Quality Standards of the Fond du Lac Reservation, Ordinance #12/98, as amended. This includes, but is not limited to, the prevention of any discharge that causes a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of water of the Fond du Lac

[106] Although additional waters may be designated in the future, currently Perch Lake, Rice Portage Lake, Miller Lake, Deadfish Lake, and Jaskari Lake are designated as ORRWs.

Reservation for any of the uses designated in the Water Quality Standards of the Fond du Lac Reservation. These uses include wildlife, aquatic life, warm water fisheries, cold water fisheries, subsistence fishing (netting), primary contact recreation, secondary contact recreation, cultural, wild rice areas, aesthetic waters, agriculture, navigation, commercial and wetlands. It also includes the designated uses of wetlands including, but not limited to, baseflow discharge, cultural opportunities, flood flow attenuation, groundwater recharge, indigenous floral and fauna) diversity and abundance, nutrient cycling, organic carbon export/cycling, protection of downstream water quality, recreation, resilience against climactic effects, sediment/shoreline stabilization, surface water storage, wild rice, and water dependent wildlife. [In addition to listing the designated uses of waters of the Fond du Lac Reservation, this condition also limits the project proponent to discharges that will not violate our Water Quality Standards. FDL Water Quality Certification Ordinance, Section 204 (a) (7)).

vii. Appropriate steps shall be taken to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the Fond du Lac Reservation. All spills must be reported to the appropriate emergency management Agency (National Response Center AND the State Duty Officer), and measures shall be taken immediately to prevent the pollution of waters of the Fond du Lac Reservation, including groundwater. The Fond du Lac Office of Water Protection must also be notified immediately of any spill regardless of size. [This condition helps protect water quality and also reminds project proponents of their responsibility in reporting spill events. FDL Water Quality Certification Ordinance, Section 204 (b) (3)).

viii. All seed mixes, whether used for temporary stabilization or permanent seeding, shall NOT contain any annual ryegrass (Lolium species). Wild rye (Elymus species) or Oats (Avena species) may be used as a replacement in seed mixes. [This condition prevents the use of annual ryegrass on the Reservation. Annual ryegrass is allelopathic, which means it produces biochemical in its roots that inhibit the growth of native plants. If used in seed mixes, annual ryegrass could contribute to erosion, especially on slopes. However, the condition also specifies substitute grasses that germinate almost as fast as annual ryegrass for use as a cover crop to help prevent erosion. FDL Water Quality Certification Ordinance, Section 204 (t) (1)).

ix. To prevent the introduction of invasive species, ALL contractors and subcontractors MUST disclose information stating prior equipment location(s) and ALL known invasive species potentially being transported from said location(s). All equipment MUST undergo a high pressure wash (including any equipment mats) BEFORE ENTERING the Fond du Lac Reservation. Personal equipment such as work boots, gloves, vest, etc. MUST be clean of debris, dirt and plant and animal material BEFORE ENTERING the Fond du Lac Reservation. Equipment being transported from known infested areas MUST undergo a high pressure wash as soon as possible after leaving the infested site and again BEFORE ENTERING the Fond du Lac Reservation, to avoid transport of invasive species into areas surrounding the Reservation. Written certification of equipment cleaning MUST be provided to the Fond du Lac Office of Water Protection. Upon arrival, ALL contractor and subcontractor equipment will be inspected by appointed Fond du Lac staff. If equipment is deemed unsatisfactory, the equipment MUST

undergo a high pressure washing until the equipment is cleared by the inspector, until such time, minimal travel will be allowed through the Reservation. The contractor shall be held responsible for the control of any invasive species introduced as a result of their project. [This condition requires the project proponent to prevent the inadvertent introduction of invasive species by taking an active role in cleaning all vehicles, equipment, and equipment mats before entering the Reservation. This condition has been placed in certifications since 2012, due to the introduction of Wild Parsnip in 2011 from a pipeline contractor. It is much easier to prevent the introduction of an invasive species than it is to eradicate it once it has been introduced. Many invasive plant species form monocultures, preventing native plants from growing. This situation often leads to cases of erosion, which in turn effects water quality. FOL Water Quality Certification Ordinance, Section 204 (g) (1)].

x. A copy of this certification MUST be kept by the contractor on-site at all times and be available for viewing by all personnel, including inspectors. [This condition ensures that the information contained in the certification, especially the conditions, is readily available onsite for reference. FOL Water Quality Certification Ordinance, Section 204 (a) (9)].

b. The Grand Portage Band of Lake Superior Chippewa

i. The CGP authorization is for construction activities that may occur within the exterior boundaries of the Grand Portage Reservation in accordance to the Grand Portage Land Use Ordinance. The CGP regulates stormwater discharges associated with construction sites of one acre or more in size. Only those activities specifically authorized by the CGP are authorized by this certification (the "Certification").

ii. All construction stormwater discharges authorized by the CGP must comply with the Water Quality Standards and Water Resources Ordinance, as well as Applicable Federal Standards (as defined in the Water Resources Ordinance).

iii. All appropriate steps must be taken to ensure that petroleum products or other chemical pollutants are prevented from entering the Waters of the Reservation. All spills must be reported to the appropriate emergency-management agency, and measures must be taken to prevent the pollution of the Waters of the Reservation, including groundwater.

iv. The 2022 CGP requires inspections and monitoring reports of the construction site stormwater discharges by a qualified person. Monitoring and inspection reports must comply with the minimum requirements contained in the 2022 CGP. The monitoring plan must be prepared and incorporated into the Storm Water Pollution Prevention Plan (the "SWPP"). A copy of the SWPP must be submitted to the Board at least 30 days in advance of sending the requisite Notice of Intent to EPA. The SWPP should be sent to:

Grand Portage Environmental Resources Board
P.O. Box 428
Grand Portage, MN 55605

Copies of the Notice of Intent and Notice of Termination required under the General Permit must be submitted to the Board at the address above at the same time they are submitted to the EPA.

v. If requested by the Grand Portage Environmental Department, the permittee must provide additional information necessary for a case-by-case eligibility determination to assure compliance with the Water Quality Standards and any Applicable Federal Standards. The burden is on the applicant to demonstrate compliance with the Water Quality Standards, the Water Resources Ordinance, and Applicable Federal Standards whether or not the application is ultimately eligible for the CGP.

vi. CGP discharges must not cause nuisance conditions as defined in Grand Portage Water Quality Standards.

vii. The Board retains full authority to ensure compliance with and to enforce the provisions of the Water Resource Ordinance and Water Quality Standards, Applicable Federal Standards, and these Certification conditions. Nothing herein affects the scope or applicability of other controlling tribal or federal requirements, including but not limited to impacts to cultural, historical, or archeological features or sites, or properties that may be eligible for listing on the National Register of Historic Places under the National Historic Preservation Act, 54 U.S.C. §§ 300101 et seq.

viii. Appeals related to Board actions taken in accordance with any of the preceding conditions may be heard by the Grand Portage Tribal Court.

c. Leech Lake Band of Ojibwe

i. The water quality standards that apply to the construction site are the standards at the time the operator submits its Notice of Intent (NOI) to EPA and the LLBO WRP (see conditions # 2 and # 3).

ii. A copy of the Stormwater Pollution Prevention Plan (SWPPP) must be submitted to the LLBO WRP at least 30 days in advance of sending the NOI for the project to EPA. See attached LLBO 401 Water Quality Certification Ordinance. Section 304(a)(1). The SWPPP should be submitted electronically to Jeff.Harper@llojibwe.net and by hardcopy sent to:

Leech Lake Band of Ojibwe
ATTN: Water Resources Program - 401 Cert
Division of Resource Management
190 Sailstar Drive NW
Cass Lake, Minnesota 56633

iii. Copies of the NOI and the Notice of Termination (NOT) must be submitted to the LLBO WRP at the same time they are submitted to EPA. See attached LLBO 401 Water Quality Certification Ordinance, Section 304(a)(2). The NOI and NOT should be submitted electronically to Jeff.Harper@llojibwe.net and sent by hardcopy to the address cited in condition # 2.

iv. Any and all other conditions listed in Section 304 of the attached LLBO 401 Water Quality Certification Ordinance shall be observed unless the LLBO WRP deems that certain conditions therein are not applicable to the project in need of a permit under this certification.

v. A copy of this certification MUST be kept by the contractor on-site at all times and be available for viewing by all personnel, including inspectors.

vi. Upon consideration of the NOI, if the LLBO WRP finds that the discharge will not be controlled as necessary to meet applicable water quality standards, the LLBO WRP may insist, consistent with Part 3.1 of the CGP, that additional controls are installed to meet applicable water quality standards, or recommend to EPA that the operator obtain coverage under an individual permit.

9.5.2 WIR10I000 Indian country within the State of Wisconsin

a. Bad River Band of Lake Superior Tribe of Chippewa Indians

i. Only those activities specifically authorized by the CGP are authorized by this Certification. This Certification does not authorize impacts to cultural properties, orhistorical sites, or properties that may be eligible for listing as such.

ii. All projects which are eligible for coverage under the CGP and are located within the exterior boundaries of the Bad River Reservation shall be implemented in such a manner that is consistent with the Tribe's Water Quality Standards (WQS). The Tribe's WQS can be viewed at: http://www.badriver-nsn.gov/wp-content/uploads/2020/01/NRD_WaterQualityStandards_2011.pdf

iii. Operators are not eligible to obtain authorization under the CGP for all new discharges to an Outstanding Tribal Resource Water (OTRW or Tier 3 water). OTRWs, or Tier 3 waters, include the following: Kakagon Slough and the lower wetland reaches of its tributaries that support wild rice, Kakagon River, Bad River Slough, Honest John Lake, Bog Lake, a portion of Bad River, from where it enters the Reservation through the confluence with the White River, and Potato River. OTRWs can be viewed at: https://www.arcgis.com/apps/View/index.html?appid=6f44c371217e4ee8b5f1c2c705c 7c7c5

iv. An operator proposing to discharge to an Outstanding Resource Water (ORW or Tier 2.5 water) under the CGP must comply with the antidegradation provisions of the Tribe's WQS. ORWs, or Tier 2.5 waters, include the following: a portion of Bad River, from downstream the confluence with the White River to Lake Superior, White River, Marengo River, Graveyard Creek, Bear Trap Creek, Wood Creek, Brunsweiler River, Tyler Forks, Bell Creek, and Vaughn Creek. ORWs can be viewed at: https://www.arcgis.com/apps/View/index.html?appid=6f44c371217e4ee8b5f1c2c705c 7c7c5. The antidegradation demonstration materials described in provision E.4.iii., and included on the antidegradation demonstration template found at: https://www.badriver-nsn.gov/natural-resources/projectreviews/, must be submitted to the following address:

Bad River Tribe's Natural Resources Department
Attn: Water Regulatory Specialist
P.O. Box 39 Odanah, WI 54861
WaterReg@badriver-nsn.gov

v. An operator proposing to discharge to an Exceptional Resource Water (ERW or Tier 2 water) under the CGP must comply with the antidegradation provisions of the Tribe's WQS. ERWs, or Tier 2 waters, include the following: any surface water within the exterior boundaries of the Reservation that is not specifically classified as an Outstanding Resource Water (Tier 2.5 water) or an Outstanding Tribal Resource Water (Tier 3 water). ERWs can be viewed at:

https://www.arcgis.com/apps/View/index.html?appid=6f44c371217e4ee8b5f1c2c705c 7c7c5. The antidegradation demonstration materials described in provision E.4.ii., and included on the antidegradation demonstration template found at: https://www.badriver-nsn.gov/natural-resources/projectreviews/, must be submitted to the following address:

Bad River Tribe's Natural Resources Department
Attn: Water Regulatory Specialist
P.O. Box 39 Odanah, WI 54861
WaterReg@badriver-nsn.gov

vi. Projects utilizing cationic treatment chemicals within the Bad River Reservation boundaries are not eligible for coverage under the CGP.

vii. A discharge to a surface water within the Bad River Reservation boundaries shall not cause or contribute to an exceedance of the turbidity criterion included in the Tribe's WQS, which states: Turbidity shall not exceed 5 NTU over natural background turbidity when the background turbidity is 50 NTU or less, or turbidity shall not increase more than 10% when the background turbidity is more than 50 NTU.

viii. All projects which are eligible for coverage under the CGP within the exterior boundaries of the Bad River Reservation must comply with the Bad River Reservation Wetland and Watercourse Protection Ordinance, or Chapter 323 of the Bad River Tribal Ordinances, including the erosion and sedimentation control, natural buffer, and stabilization requirements. Questions regarding Chapter 323 and requests for permit applications can be directed to the Wetlands Specialist in the Tribe's Natural Resources Department at (715) 682-7123 or wetlands@badriver-nsn.gov.

ix. An operator of a project, which is eligible for coverage under the CGP, that would result in an allowable discharge under the CGP occurring within the exterior boundaries of the Bad River Reservation must notify the Tribe prior to the commencing earth-disturbing activities. The operator must submit a copy of the Notice of Intent (NOI) to the following addresses at the same time it is submitted to the U.S. EPA:

Bad River Tribe's Natural Resources Department
Attn: Water Regulatory Specialist
P.O. Box 39 Odanah, WI 54861
WaterReg@badriver-nsn.gov

Bad River Tribe's Natural Resources Department
Attn: Tribal Historic Preservation Officer (THPO)
P.O. Box 39 Odanah, WI 54861
THPO@badriver-nsn.gov

The operator must also submit a copy of the Notice of Termination (NOT) to the above addresses at the same time it is submitted to the U.S. EPA. Photographs showing the current site conditions must be included as part of the NOT to document the stabilization requirements have been met.

x. The THPO must be provided 30 days to comment on the project.

xi. The operator must obtain THPO concurrence in writing. This written concurrence will outline measures to be taken to prevent or mitigate effects to historic properties. For more information regarding the specifics of the cultural resources process, see 36 CFR Part 800. A best practice for an operator is to consult with the THPO during the planning stages of an undertaking.

xii. An operator of a project, which is eligible for coverage under the CGP, that would result in an allowable discharge under the CGP occurring within the exterior boundaries of the Bad River Reservation must submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) to the following address at the same time as submitting the NOI:

Bad River Tribe's Natural Resources Department
Attn: Water Regulatory Specialist
P.O. Box 39 Odanah, WI 54861
WaterReg@badriver-nsn.gov

xiii. Any corrective action reports that are required under the CGP must be submitted to the following address within one (1) working day of the report completion:

Bad River Tribe's Natural Resources Department
P.O. Box 39 Odanah, WI 54861
WaterReg@badriver-nsn.gov

xiv. An operator of a project, which is eligible for coverage under the CGP, that would result in an allowable discharge under the CGP occurring within the exterior boundaries of the Bad River Reservation must submit a copies of the inspection reports (including photographs) to the following address within 24 hours of completing any site inspection required:

Bad River Tribe's Natural Resources Department Attn: Water Regulatory Specialist
P.O. Box 39 Odanah, WI 54861
WaterReg@badriver-nsn.gov

xv. An operator shall be responsible for meeting any additional permit requirements imposed by the U.S. EPA necessary to comply with the Tribe's antidegradation policies if the discharge point is located upstream of waters designated by the Tribe.

9.6 EPA REGION 6

9.6.1 NMR100000 State of New Mexico, except Indian country

a. In Outstanding National Resource Waters (ONRWs) in New Mexico, no degradation is permitted except in limited, specifically defined instances. Therefore, Operators are not eligible to obtain authorization under this general permit for stormwater discharges to waters classified as ONRWs listed in Paragraph D of 20.6.4.9 New Mexico Administrative Code (NMAC), also referred to as "Tier 3 waters" as defined in Appendix A of this permit. Exception: When construction activities are in response to a public emergency (e.g., wildfire, extreme flooding, etc.) and the related work requires immediate authorization to avoid a threat to public health or safety.

i. Operators who conduct construction activities in response to a public emergency to mitigate an immediate threat to public health or safety shall

adhere to the requirements in 20.6.4.8(A)(3)(c) NMAC, including notifying the New Mexico Environment Department (NMED) within seven days of initiation of the emergency action and providing NMED with a summary of the action taken within 30 days of initiation of the emergency action.

ii. For all other scenarios, Operators with proposed discharges to ONRWs in New Mexico shall obtain coverage from EPA under an NPDES Individual Permit and will comply with the additional standards and regulations related to discharges to ONRWs in 20.6.4.8(A) NMAC. Additional information is available from:

New Mexico Environment Department Surface Water Quality Bureau
P.O. Box 5469
Santa Fe, NM 87502-5469 Telephone: 505-827-0187
https://www.env.nm.gov/surface-water-quality/wqs/
https://gis.web.env.nm.gov/oem/?map=swqb

b. If construction dewatering activities are anticipated at a construction site and non-stormwater discharges of groundwater, subsurface water, spring water, and/or other dewatering water are anticipated, the Operators/Permittees must complete the following steps:

1. Review the state's Ground Water Quality Bureau Mapper (https://gis.web.env.nm.gov/GWQB/) and Petroleum Storage Tank Bureau Mapper (https://gis.web.env.nm.gov/GWQB/).

   Check if the following sources are located within the noted distance from the anticipated construction dewatering activity. At a minimum, a list of the following potential sources of contaminants and pollutants at the noted distance is to be kept in the SWPPP.

Source of Potential Contamination or Pollutants*	Constituents likely to be required for testing*
Within 0.5 mile of an open Leaking Underground Storage Tank (LUST) site	BTEX (Benzene, Toluene, Ethylbenzene, and Xylene) plus additional parameters depending on site conditions**
Within 0.5 mile of an open Voluntary Remediation site	All applicable parameters or pollutants listed in 20.6.4.13, 20.6.4.52, 20.6.4.54, 20.6.4.97 thru 20.6.4.99, 20.6.4.101 through 20.6.4.899, and 20.6.4.900 NMAC (or an alternate list approved by the NMED-SWQB)*
Within 0.5 mile of an open RCRA Corrective Action Site	
Within 0.5 mile of an open Abatement Site	
Within 0.5 mile of an open Brownfield Site	
Within 1.0 mile or more of a Superfund site or National Priorities List (NPL) site with associated groundwater contamination.	
Construction activity contaminants and/or natural water pollutants	Additional parameters depending on site activities and conditions (Contact NMED- SWQB for an alternate list)*

*For further assistance determining whether dewatering may encounter contaminated sources, please contact the NMED Ground Water Quality Bureau at 505-827-2965 or NMED Surface Water Quality Bureau (SWQB) at 505-827-0187.

** EPA approved sufficiently sensitive methods must be used. For known PCB sources and analysis, EPA Method 1668C must be used (see https://www.epa.gov/cwa-methods).

2. If dewatering activities are anticipated, information on the flow rate and potential to encounter contaminated groundwater, subsurface water, spring water, or dewatering water must be provideddirectly to NMED at the following address:

   NMED Surface Water Quality Bureau

   Program Manager, Point Source Regulation
   SectionPO Box 5469, Santa Fe, NM 87502

   Please call the SWQB to obtain the appropriate email address (505-827-0187).

3. In addition, the Operator/Permittee must characterize the quality of the groundwater and subsurface water, spring water, or dewatering water being considered for discharge according to the table above and including dissolved hardness and pH. Considering the contaminant sources listed in the table above, water quality data may already be available. For further assistance, contactthe

   NMED Surface Water Quality Bureau (505-827-0187), Ground Water Quality Bureau (505-827- 2965), Petroleum Storage Tank Bureau (505-476-4397), or Hazardous Waste Bureau (505-476- 6000).

   i. The Operator/Permittee must submit recent analytical test results (i.e., within the past 5 years) according to the table above, and including dissolved hardness and pH, to the EPA Region 6 Stormwater Permit Contact and the NMED Surface Water Quality Bureau (see contact information in #2 above). If the test data exceed applicable water quality standards, then the groundwater, subsurface water, spring water, or dewatering water cannot be discharged into surface waters under this general permit. Operators/Permittees may submit an NPDES Individual Permit application to treat and discharge to waters of the U.S. or find alternative disposal measures. No discharges to surface waters are allowed until authorized.
   ii. If the discharge has the potential to affect groundwater (e.g., land application), the Operator/Permittee must submit an NOI to the NMED Ground Water Quality Bureau (see 20.6.2.1201 NMAC – Notice of Intent to Discharge).

4. The Operator/Permittee must document any findings and all correspondence with NMED and EPA in the SWPPP.

c. Operators who intend to obtain authorization under this permit for new and existing storm water dischargesfrom construction sites must satisfy the following condition:

i. The SWPPP must include site-specific interim and permanent stabilization, managerial, and structural solids, erosion and sediment control best management practices (BMPs) and/or other controls that are designed to prevent to the maximum extent practicable an increase in the sediment yield and flow velocity from pre-construction, pre-development conditions to assure thatapplicable standards in 20.6.4 NMAC, including the antidegradation policy, and TMDL waste load allocations (WLAs) are met. This requirement applies to discharges both during construction and after construction operations have been completed. The SWPPP must identify and document the rationale for selecting these BMPs and/or other controls. The SWPPP must also describe design specifications, construction specifications, maintenance schedules (including a long-term maintenance plan), criteria for inspections, and expected performance and longevity of these BMPs.For sites greater than 5 acres in size, BMP selection must be made based on the use of appropriatesoil loss prediction models (i.e. SEDCAD, RUSLE, SEDIMOT, MULTISED, etc.) OR equivalent generallyaccepted (by professional erosion control specialists) soil loss prediction tools.

ii. For all sites, the Operator(s) must demonstrate, and include documentation in the SWPPP, that implementation of the site-specific practices will ensure that the applicable standards and TMDL WLAs are met, and will result in sediment yields and flow velocities that, to the maximum extent practicable, will not be greater than the sediment yield levels and flow velocities from preconstruction, pre-development conditions.

iii. All SWPPPs must be prepared in accordance with good engineering practices by qualified (e.g., CPESC certified, engineers with appropriate training) erosion control specialists familiar with the use of soil loss prediction models and design of erosion and sediment control systems based on these models (or equivalent soil

loss prediction tools). Qualifications of the preparer (e.g., professional certifications, description of appropriate training) must be documented in the SWPPP.The Operator(s) must design, implement, and maintain BMPs in the manner specified in the SWPPP.

NMED supports the use of EPA's small residential lot template if a site qualifies to use it as explained inthe permit, as long as it is consistent with the above requirements. NMED's requirement does not preclude small residential sites from using the template, but it may require an additional short paragraphto justify the selection of specific BMPs for the site.

d. Operators must notify NMED when discharges of toxic or hazardous substances or oil from a spill or other release occurs - see Emergency Spill Notification Requirements, Part 2.3.6 of the permit. For emergencies, Operators can call 505-827-9329 at any time. For non-emergencies, Operators can call 866-428-6535 (voice mail 24-hours per day) or 505-476-6000 during business hours from 8am-5pm, Monday through Friday. Operators can also call the NMED Surface Water Quality Bureau directly at 505-827-0187.

e. Operators of small construction activities (i.e., 1-5 acres) are not eligible to qualify for a waiver in lieu of needing to obtain coverage under this general permit based on Item C.3 of Appendix C (Equivalent Analysis Waiver) in the State of New Mexico.

9.6.2 NMR10I000 Indian country within the State of New Mexico, except Navajo Reservation Lands that are covered under Arizona permit AZR10000I and Ute Mountain Reservation Lands that are covered under Colorado permit COR10000I.

a. Nambe Pueblo

i. The operator must provide a copy of the Notice of Intent (NOI) and Notice of Termination (NOT) to the Nambe Pueblo Governor's Office at the same time it is provided to the US Environmental Protection Agency. The NOI and NOT should be provided to the following address:

Office of the Governor Nambe Pueblo
!SA NPI02 WEST
Nambe Pueblo, New Mexico 87506

ii. The operator must provide a copy of the Storm Water Pollution Prevention Plan (SWPPP) to Nambe Pueblo at the same time it is submitted to the EPA, either by email to governor@nambepueblo.org or mailed to the above address.

iii. The operator must provide copies of inspection reports, a copy of the corrective action log, and modifications made to the SWPPP as a result of inspection findings, upon request by the Nambe Pueblo Department of Environmental and Natural Resources or Nam be Governor.

b. Ohkay Owingeh Tribe

i. All operators obtaining permit coverage under the EPA CGP, must submit a copy of the certified (signed) Notice of Intent (NOI) to the Ohkay Owingeh Office of Environmental Affairs, a copy of NOI modifications and the Notice of Termination (NOT), must be provided within three business days after EPA provides electronic confirmation that the submission has been received. The NOI and NOT must be provided to the following address:

Naomi L. Archuleta - Environmental Programs Manager Ohkay Owingeh Office of Environmental Affairs
P.O. Box 717
Ohkay Owingeh, NM 87566
naomi.archuleta@ohkay.org

Noah Kaniatobe - Environmental Specialist Ohkay Owingeh, Office of Environmental Affairs
P.O. Box 717
Ohkay Owingeh, NM 87566
noah.kaniatohe@ohkay.org

ii. All operators obtaining permit coverage under the EPA CGP, must submit an electronic copy of the Storm Water Pollution Prevention Plan (SWPPP) to Ohkay Owingeh Office of Environmental Affairsat the same time that the NOI is submitted to the tribe (see contact information listed above).

iii. Following each incident where the operator takes a corrective action the operator must provide thecorrective action log to the Ohkay Owingeh Office of Environmental Affairs.

iv. The operator must notify Ohkay Owingeh Office of Environmental Affairs within 24 hours, in the event of an emergency spill in addition to the notification requirements at Part 2.3.6 of the CGP. Please contact: Ohkay Owingeh Tribal Police Department at 505.852.2757.

Please contact:
Ohkay Owingeh
Tribal Police Department
505.852.2757

c. Pueblo of Isleta

i. All operators obtaining permit coverage under the EPA CGP must submit a copy of the certified Notice ofIntent (NOI) to the Pueblo of Isleta at the same time it is submitted to EPA for projects occurring within the exterior boundaries of the Pueblo of Isleta. Additionally, a copy of NOI modifications and the Notice of Termination (NOT), must be provided within three business days after EPA provides electronic confirmation that the submission has been received. The Notices must be provided to the following address:

Water Quality Control OfficerPueblo of Isleta
Environment DepartmentPO Box 1270
Isleta NM 87022
505-869-7565
WQCO@isletapueblo.com

ii. The operator must notify the Pueblo of Isleta's Dispatch at 505-869-3030 as soon as possible and thePueblo of Isleta Water Quality Control Officer within 10 hours, in the event of a spill of hazardous ortoxic substances or if health or the

environment become endangered in addition to the notification requirements at Part 2.3.6 and at I.12.6.1 of the CGP.

iii. All operators obtaining permit coverage under the EPA CGP must submit an electronic copy of the Stormwater Pollution Prevention Plan (SWPPP) to the Pueblo of Isleta Water Quality Control Officer atthe above address, 30 days prior to submitting the certified NOI to EPA. If the electronic file is too largeto send through e-mail, a zip file or flash drive may be submitted.

iv. All operators obtaining permit coverage under the EPA CGP must give 2 days advance notice to the Pueblo of Isleta Water Quality Control Officer of any planned changes in the permitted activity whichmay result in noncompliance with permit requirements.

v. All operators obtaining permit coverage under the EPA CGP must post a sign or other notice of permit coverage at a safe, publicly accessible location in close proximity to the construction site. The notice mustbe located so that it is visible from the public road or tribal road that is nearest to the active part of the construction site. The sign must be maintained on-site from the time construction activities begin until final stabilization is met.

vi. Erosion and sediment controls shall be designed to retain sediment on-site and project-generatedwaste materials that have the potential to discharge pollutants shall not be placed on open soil oron a surface that is not stabilized. Volumes of sediment over five (5) cubic yards must be removed from the active construction site; additionally, if sediment is placed for disposal withinthe exterior boundaries of the Pueblo of Isleta, disposal must be within a tribally approved sediment disposal site.

d. Pueblo of Laguna

i. All operators obtaining permit coverage under the EPA CGP must submit an electronic copy of the certified (signed) Notice of Intent (NOI) to the Pueblo of Laguna's Environmental & Natural Resources Department (ENRD) within three business days of submittal to the EPA. Additionally, a copy of NOI modifications and the Notice of Termination (NOT), must be provided within three business days after the EPA provides electronic confirmation that the submission has been received. The NOI and NOT must be electronically submitted to info.environmental@pol-nsn.gov.

ii. All operators obtaining permit coverage under the EPA CGP must submit an electronic copy of the Stormwater Pollution Prevention Plan (SWPPP) to the Pueblo of Laguna's ENRD 14 days prior to the submittal of the NOI (see contact information listed above).

iii. The operator must provide copies of corrective actions logs and modifications made to the SWPPP as a result of inspection findings to the Pueblo of Laguna ENRD (see contact information above).

iv. In addition to the notification requirements of Part 2.3.6 of the CPG ***[EPA interprets this intending to refer to the CGP]***, the operator must notify the Pueblo of Laguna ENRD at 505-552-7512 in the event of an emergency spill as soon as possible.

e. Pueblo of Sandia. The following conditions apply only to discharges on the Pueblo of Sandia Reservation:

i. All operators obtaining permit coverage under the EPA CGP, must submit a copy of the certified (signed) Notice of Intent (NOI) to the Pueblo of Sandia Environment Department concurrently with submittal to the EPA. Additionally, a copy of NOI modifications and the Notice of Termination (NOT), must be provided concurrently with submittal to the EPA. The NOI and NOT must be provided electronically to the following addresses:

Electronic Addresses:

Amy Rosebrough (Water Quality Manager): rosebrough@sanidapueblo.nsn.us
Greg Kaufman (Environment Director):gkaufman@sandiapueblo.nsn.us

ii. All operators obtaining permit coverage under the EPA CGP, must submit an electronic copy of the Stormwater Pollution Prevention Plan (SWPPP) to the Pueblo of Sandia Environment. Department at least 14 days prior to submittal of the NOI to the Pueblo (see contact information listed above).

iii. If requested by the Pueblo of Sandia Environment Department, the permittee must provide additional information necessary on a case-by-case basis to assure compliance with the Pueblo of Sandia Water Quality Standards and/or applicable Federal Standards.

iv. An "Authorization to Proceed Letter" with site specific mitigation requirements may be sent out to the permittee when a review of the NOI and SWPPP, on a case-by-case basis, is completed by the Pueblo of Sandia Environment Department. This approval will allow the application to proceed if all mitigation requirements are met.

v. The Pueblo of Sandia will not allow Small Construction Waivers (Appendix C) to be granted for any small construction activities.

vi. The operator must provide copies of inspection reports, a copy of the corrective action log, and modifications made to the SWPPP as a result of inspection findings to the Pueblo of Sandia Environment Department upon request. An inspection report and corrective action log must be submitted to the Pueblo within 3 days of any inspection that results in corrective action (see contact information listed above).

vii. The operator must notify the Pueblo of Sandia within 24 hours in the event of an emergency spill, in addition to the notification requirements at Part 2.3.6 of the COP (see contact information listed above).

viii. Before submitting a Notice of Termination (NOT) to the EPA, permittees must clearly demonstrate to the Pueblo of Sandia Environment Department through a site visit or documentation that requirements for site stabilization have been met and any temporary erosion control structures have been removed. A short letter stating that the NOT is acceptable and all requirements have been met will be sent to the permittee to add to the permittee's NOT submission to the EPA.

f. Pueblo of Santa Ana. The following conditions apply only to discharges on the Pueblo of Santa Ana Reservation:

i. All operators obtaining permit coverage under the EPA CGP, must submit a copy of the certified (signed) Notice of Intent (NOI) to the Pueblo's Department of Natural Resources within three business days of submittal to EPA. Additionally, a copy of NOI modifications and the Notice of Termination (NOT), must be

provided within three business days after EPA provides electronic confirmation that the submission has been received. The NOI and NOT must be provided to the following address:

Regular U.S. Delivery Mail:
Pueblo of Santa Ana
Department of Natural Resources Water Resources Division
Attn: Andrew Sweetman 02 Dove Rd
Santa Ana Pueblo, NM 87004

Electronically:
Andrew Sweetman
Water Resources Division Manager Andrew.Sweetman@santaana-nsn.gov
Tammy Montoya Hydrologist
Tammy.Montoya@santaana-nsn.gov

ii. All operators obtaining permit coverage under the EPA CGP, must submit an electronic copyof the Stormwater Pollution Prevention Plan (SWPPP) to the to the Pueblo's Department of Natural Resources at the same time that the NOI is submitted to the tribe (see contact information listed above).

iii. The operator must provide copies of inspection reports, a copy of the corrective action log, and modifications made to the SWPPP as a result of inspection findings, upon request by the Pueblo's Department of Natural Resources.

iv. The operator must notify the Pueblo's Department of Natural Resources within 24 hours in the event of an emergency spill, in addition to the notification requirements at Part 2.3.6 of the CGP.

g. Pueblo of Taos

i. All operators obtaining permit coverage under the EPA CGP, must submit a copy of the certified (signed) Notice of Intent (NOi) to the Taos Pueblo Environmental Office and Taos Pueblo Governor's Office within three business days of submittal to EPA. Additionally, a copy of NOi modifications and the Notice of Termination (NOT), must be provided within three business days after EPA provides electronic confirmation that the submission has been received. The NOi and NOTmust be provided to the following addresses:

Honorable Governor of Taos Pueblo PO Box 1846
Taos, New Mexico 87571

Taos Pueblo Environmental Office PO Box 1846
Taos, New Mexico 87571

ii. All operators obtaining permit coverage under the EPA CGP, must submit an electronic copy of theStormwater Pollution Prevention Plan (SWPPP) to the Taos Pueblo Environmental Office when the NOI is submitted to the tribe. Electronic copy of SWPPP downloaded on flash drive may be sent to the above address for the Taos Pueblo Environmental Office.

iii. The operator must provide a copy of the corrective action log following each corrective action undertaken and modifications made to the SWPPP as a result of

a corrective action to the Taos Pueblo Environmental Office at address listed above.

h. Pueblo of Tesuque.

i. All operators obtaining permit coverage under the EPA CGP, must submit a copy of the certified (signed) Notice of Intent (NOI) to the Pueblo of Tesuque Department of Environment and Natural Resources (DENR) and the Pueblo's Governor within three business days of submittal to EPA. Additionally, a copy of any NOi modifications and the Notice of Termination (NOT), must be provided within three business days after EPA provides electronic confirmation that the submission has been received. The NOI and NOT must be provided to the following address:

Governor Mark Mitchell Pueblo of Tesuque
20 TP 828
Santa Fe, NM 87506 governor@pueblooftesuque.org

Sage Mountain.flower Pueblo of Tesuque
Department of Environment and Natural Resources Director
20 TP 828

ii. All operators obtaining permit coverage under the EPA CGP, must submit an electronic copyof the Stormwater Pollution Prevention Plan (SWPPP) to Pueblo of Tesuque DENR and the Pueblo's Governor at the same time that the NOI is submitted to the EPA (see contact information listed above).

iii. The operator must provide a copy of the corrective action log, and any modifications made tothe SWPPP as a result of inspection findings, or upon request by the Pueblo of Tesuque DENR.

iv. The operator must notify the Pueblo of Tesuque DENR within 24 hours in the event of an emergency spill, in addition to the notification requirements at Part 2.3.6 of the CGP (seecontact information listed above).

i. Santa Clara Indian Pueblo.

i. All operators obtaining permit coverage under the EPA CGP, must submit a copy of the certified (signed) Notice of Intent (NOI) to the Santa Clara Pueblo Office of Environmental Affairs at the same time the NOI is submitted to the U.S. EPA. Additionally, a copy of the NOI modifications and the Notice of Termination (NOT), must be provided at the same time after electronic confirmation is received from EPA that the NOT has been accepted. The NOI and NOT shall be provided to the following address in electronic format:

Dino Chavarria,
Santa Clara Pueblo
Office of Environmental Affairs
dinoc@santaclarapueblo.org

ii. All operators obtaining permit coverage under the EPA CGP, must submit an electronic copy of the Stormwater Pollution Prevention Plan to the Santa Clara Pueblo Office of Environmental Affairs at the same time the NOI is submitted to the U.S. EPA (see contact information listed above).

iii. The operator must notify the Santa Clara Pueblo Office of Environmental Affairs at the address above within 24 hours, in the event of an emergency spill, in addition to the notification requirements at Part 2.3.6 of the CGP

9.6.3 OKR10I000 Indian country within the State of Oklahoma, except areas of Indian country covered by an extension of state program authority pursuant to Section 10211 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA).

a. Pawnee Nation. The following conditions apply only to discharges within Pawnee Indian country:

i. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be provided to the Pawnee Nation at the same time it is submitted to the Environmental Protection Agency to the following address:

Pawnee Nation Department of Environmental Conservation and Safety
P.O. Box 470
Pawnee, OK 74058
Or email to dnrs@pawneenation.org

ii. An electronic copy of the Storm Water Pollution Prevention Plan (SWPPP) must be submitted to the Pawnee Nation Department of Environmental Conservation and Safety at the same time the NOI is submitted.

iii. The operator must provide access to the site for inspections and for copies of inspection reports, copy of the corrective action log and modifications, made to the SWPPP because of inspection findings, upon request by the Pawnee Nation DECS.

iv. The Pawnee Nation Department of Environmental Conservation and Safety must be notified at 918.762.3655 immediately upon discovery of any noncompliance with any provision of the permit conditions.

9.6.4 OKR10F000 Discharges in the State of Oklahoma that are not under the authority of the Oklahoma Department of Environmental Quality, or the Oklahoma Department of Agriculture and Forestry including activities associated with oil and gas exploration, drilling, operations, and pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171), and point source discharges associated with agricultural production, services, and silviculture (includes SIC Groups 01, 02, 07, 08, 09).

a. For activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Lee Creek or any water or watershed designated "ORW" in Oklahoma's Water Quality Standards, this permit may only be used to authorize discharges from temporary construction activities. Certification is denied for any on-going activities such as sand and gravel mining or any other mineral mining.

b. For activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Lee Creek or any water or watershed designated "ORW" in Oklahoma's Water Quality Standards, certification is denied for any discharges originating from support activities, including, but not limited to, concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, or borrow areas.

c. Dewatering discharges into sediment or nutrient-impaired waters, and waters identified as Tier 2, Tier 2.5, or Tier 3 (OAC 785:46-13) shall be controlled to meet water quality standards for turbidity in those waters as follows:

i. Cool Water Aquatic Community/Trout Fisheries: 10 NTUs (OAC 785: 45-5-12(f)(7)(A)(i)

ii. Lakes: 25 NTUs (OAC 785: 45-5-12(f)(7)(A)(ii)

iii. In waters where background turbidity exceeds these values, turbidity from dewatering discharges should be restricted to not exceed ambient levels (OAC 785: 45-5-12(f)(7)(B)

9.7 EPA REGION 7

No additional conditions.

9.8 EPA REGION 8

9.8.1 MTR10I000 Indian country within the State of Montana

a. Blackfeet Nation.

i. The Applicant and applicants for projects authorized under the NWPs should obtain all other permits, licenses, and certifications that may be required by federal, state, or tribal authority. Primary relevant tribal permit will be ALPO (Ordinance 117). Others may apply. It is the applicant's responsibility to know the tribal and local ordinances and complete all necessary permissions before they can commence work.

ii. If a project is unable to meet the enclosed conditions, or if certification is denied for an applicable NWP, the Applicant may request an individual certification from Blackfeet. An individual certification request must follow the requirements outlined in 40 CFR 121.5 of EPA's CWA § 401 Certification Rule, effective September 11, 2020.

iii. Copies of this certification should be kept on the job site and readily available for reference.

iv. If the project is constructed and/or operated in a manner not consistent with the applicable NWP, general conditions, or regional conditions, the permittee may be in violation of this certification.

v. Blackfeet and EPA representatives may inspect the authorized activity and any mitigation areas to determine compliance with the terms and conditions of the NWP.

vi. This NWP Reissuance does not reduce Tribal authority under any other rule.

vii. The project, including any stream relocations and restoration, must be built as shown and as otherwise described in the application, the construction plans, cross sections, mitigation plans and other supporting documents submitted to this office. Impacts to aquatic systems and restoration efforts will be monitored by an appropriate aquatic resource professional to ensure that disturbed areas are restored to at least their original condition.

viii. All existing water uses will be fully maintained during and after the completion of the project. (If applicable)

ix. Where practicable, perform all in-channel and wetland work during periods of low flow or drawn—down or when dry

x. Equipment staging areas must be located out of all delineated wetlands

xi. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during and immediately after construction, and all exposed soil and other fills, as well as any work below the ordinary high-water mark or in a wetland, must be permanently stabilized as soon as possible

xii. Materials such as piling, culverts, sandbags, fabric, mats, timbers used for temporary facilities in wetlands or below the high- water mark of Waters of the US must be free from oil, gas, excess dirt, loose paint and other pollutants.

xiii. Equipment staging areas in wetlands or in stream or river channels must be placed on mats, or other measures must be taken to minimize soil disturbance and compaction.

xiv. Clearing of riparian or wetland vegetation for the sole purpose of constructing work bridges, detours, staging areas or other temporary facilities must be limited to the absolute minimum necessary. When temporary impacts to native riparian or wetland vegetation are unavoidable, it must be mowed or cut above ground with the topsoil and root mass left intact.

xv. Remove all temporary fills and structures in the entirety when they are no longer needed. Restore affected areas to the appropriate original and planned contours where possible. Re-vegetate disturbed areas with appropriate native species when native species are impacted.

xvi. Construction methods and best management practices (BMPs) must minimize aquatic resource impacts to the maximum extent possible. Any BMPs described in the Joint Application must be followed. BMPs should include installation and maintenance of sediment control measures; separation, storage and reuse of any topsoil; and recovery of all disturbed areas where possible. All best management practices must in place prior to the onset of construction or as soon as practicable during the construction process.

xvii. Best available technology and/or best management practices must be utilized to protect existing water uses and maintain turbidity and sedimentation at the lowest practical level.

xviii. Applicant/contractor should manage disturbed streambank topsoil in a manner that optimizes plant establishment for the site.

xix. When operating equipment or otherwise undertaking construction in wetlands and water bodies the following conditions apply:

(a) Work should be done in dry conditions if possible.

(b) All equipment is to be inspected for oil, gas, diesel, anti-freeze, hydraulic fluid or other petroleum leaks. All such leaks will be properly repaired and equipment cleaned prior to being allowed on the project site. Leaks that occur after the equipment is moved to the project site will be fixed the same day or the next day or removed from the project area. The equipment is not allowed to continue operation once a leak is discovered.

(c) All equipment is to be inspected and cleaned before and after use to minimize the spread or introduction of invasive or undesirable species.

(d) Construction equipment shall not operate below the existing water surface except as follows:

- Impacts from construction should be minimized through the use of best management practices submitted in the permit application.
- Essential work below the waterline shall be done in a manner to minimize impacts to aquatic system and water quality.

(e) Containment booms and/or absorbent material must be available onsite. Any spills of petroleum products must be reported to the Army Corps, Blackfeet Nation BEO Office and the US EPA within 24 hours.

xx. Upland, riparian and in-stream vegetation should be protected except where its removal is necessary for completion of work. Revegetation should be completed as soon as possible. Applicant/contractor should revegetate disturbed soil in a manner that optimizes plant establishment for the site. Revegetation must include topsoil replacement, planting, seeding, fertilization, liming and weed-free mulching as necessary. Applicant must use native plant material and soils where appropriate and feasible. This certification does not allow for the introduction of non-native flora and fauna. All disturbed surface areas must be restored to pre-construction contours and elevation.

xxi. Spoils piles should not be placed or stored within the delineated wetlands or streams unless protected by a temporary structure designed to divert and handle high flows that can be anticipated during permit activity. Spoils piles should be placed on landscaping fabric or some other material to separate spoils material and allow retrieval of spoils material with minimal impact.

xxii. Impacts to wetlands shall not exceed 4.92 acres.

xxiii. Any unexpected and additional impacts to waters of the US should be reported to the

xxiv. Army Corps, Blackfeet Environmental Office Water Quality Coordinator and the US EPA.

xxv. All instream and stream channel reconstruction work must be completed before the stream is diverted into the new channel.

xxvi. Any temporary crossings, bridge supports, cofferdams, or other structures that are necessary during permit activity should be designed to handle high flows that can be anticipated during permit activity. All temporary structures should be completely removed from the water body at the conclusion of the permitted activity and the area restored to a natural function and appearance.

xxvii. The certification does not authorize any unconfined discharge of liquid cement into the waters of the United States. Grouting riprap must occur under dry conditions with no exposure of wet concrete to the water body.

xxviii. BMPs shall include application of certified weed-free straw or hay across all disturbed wetland areas that are temporarily impacted; installation and maintenance of sediment control measures during construction and if necessary, after construction is completed; use of heavy mud mats if necessary; separation,

storage and reuse of all streambank topsoil and wetland topsoil, as appropriate; and recovery of all disturbed wetland and streambank areas where possible. All conditions set by the Blackfeet Tribe and US Army Corps must be followed.

xxix. All applicants, including federal agencies, must notify EPA and the Blackfeet Environmental Office of the use of all NWPs for which certification has been granted prior to commencing work on the project. Notifications must include:

(a) project location (lat. Long., exact point on map);

(b) NWP that will be used and the specific activity that will be authorized under the NWP;

(c) amount of permanent and temporary fills;

(d) a short summary of the proposed activity, and all other federal, state, tribal or local permits or licenses required for the project;

(e) complete contact information of both the applicant and contractor (name, name of the company or property if applicable, telephone, mobile, and email); and,

(f) Summary of best management practices that will be used.

(g) A summary of communications with the affected Tribe's water quality staff regarding the project, including any concerns or issues.

(h) Notify Blackfeet and EPA at least 7 days before the completion of construction and operations begin.

xxx. Point source discharges may not occur: (1) in fens, bogs or other peatlands; (2) within 100 feet of the point of discharge of a known natural spring source; or (3) hanging gardens.

xxxi. Except as specified in the application, no debris, silt, sand, cement, concrete, oil or petroleum, organic material, or other construction related materials or wastes shall be allowed to enter into or be stored where it may enter into waters of the U.S.

xxxii. Silt fences, straw wattles, and other techniques shall be employed as appropriate to protect waters of the U.S. from sedimentation and other pollutants.

xxxiii. Water used in dust suppression shall not contain contaminants that could violate water quality standards.

xxxiv. Erosion control matting that is either biodegradable blankets or loose-weave mesh must be used to the maximum extent practicable.

xxxv. All equipment used in waters of the U.S. must be inspected for fluid leaks and invasive species prior to use on a project. All fluid leaks shall be repaired and cleaned prior to use or when discovered, or if the fluid leak can't be repaired, the equipment shall not be used on site. Equipment used in waters with the possibility of aquatic nuisance species infestation must be thoroughly cleaned and effectively decontaminated before they are used on the project.

xxxvi. Vegetation should be protected except where its removal is necessary for completion of the work. Locations disturbed by construction activities should be revegetated with appropriate native vegetation in a manner that optimizes plant establishment for the specific site.

xxxvii. Revegetation may include topsoil replacement, planting, seeding, fertilization, liming, and weed-free mulching, as necessary. Where practical, stockpile weed- seed-free topsoil and replace it on disturbed areas. All revegetation materials, including plants and plant seed shall be on site or scheduled for delivery prior to or upon completion of the earth moving activities.

xxxviii. Activities may not result in any unconfined discharge of liquid cement into waters of the U.S. Grouting riprap must occur under dry conditions with no exposure of wet concrete to the waterbody.

xxxix. Activities that may result in a point source discharge shall occur during seasonal low flow or no flow periods to the extent practicable.

xl. The placement of material (discharge) for the construction of new dams is not certified, except for stream restoration projects.

xli. Any decision-maker that is required under 7.0 of the CGP to prepare a Stormwater Pollution Prevention Plan (SWPPP), must submit an electronic copy of the SWPPP to the Blackfeet Environmental Office at least 30 days before construction starts for review and approval. Any modifications to the SWPPP should be submitted to the Blackfeet Environmental Office.

xlii. Any Decision-maker required under Part 1.4 of the CGP to submit a Notice of Intent (NOI) to EPA for coverage under the CGP, must submit a copy of the NOI to the Blackfeet Environmental Office within three business days of submittal to EPA. Additionally, a copy of the Notice of Termination (NOT) must be provided within three business days after electronic confirmation is received from EPA that the NOT has been accepted. The NOI and NOT must be provided to the following address Gerald Wagner, Blackfeet Environmental Office Director.

62 Hospital Drive, Browning, MT 59417

beo.director@gmail.com

b. Fort Peck Tribes.

i. Any Decision-maker required under Part 1.4 of the CGP to submit a Notice of Intent (NOI) to EPA for coverage under the CGP, must submit a copy of the NOI to the Fort Peck Tribes Office of Environmental Protection within three business days of submittal to EPA. Additionally, a copy of the Notice of Termination (NOT) must be provided within three business days after electronic confirmation is received from EPA that the NOT has been accepted. The NOI and NOT must be provided to the following address:

Martina Wilson, Office of Environmental Protection Director

501 Medicine Bear Rd Poplar, MT 59255

martinawilson@fortpecktribes.net

ii. Any Decision-maker that is required under Part 7.0 of the CGP to prepare a Stormwater Pollution Prevention Plan (SWPPP), must submit an electronic copy of the SWPPP to the Fort Peck Tribes Office of Environmental Protection at least 30 days before construction starts for review and approval. Any modifications to the

SWPPP should be submitted to the Fort Peck Tribes Office of Environmental Protection.

iii. Any Decision-maker that is required under Part 8.0 of the CGP to submit a weekly, bi-weekly, and/or annual report to EPA, must submit an electronic copy of the annual report to the Fort Peck Tribes Office of Environmental Protection within three business days after submittal to EPA.

9.9 EPA REGION 9

9.9.1 CAR10I000 Indian country within the State of California

a. Morongo Band of Mission Indians

i. A copy of the Stormwater Pollution Prevention Plan (SWPPP) must be submitted (either mailed or electronically) to the MEPD no less than thirty (30) days before commencing construction activities:

Morongo Band of Mission Indians
Environmental Protection Department
12700 Pumarra Road
Banning, CA 92220
Email: epd@morongo-nsn.gov

ii. Copies of the Notice of Intent (NOI) and the Notice of Termination (NOT) must be sent to the MEPD at the same time they are submitted to EPA.

iii. Operators of an "emergency-related project" must submit notice to the MEPD within twenty- four (24) hours after commencing construction activities.

iv. Spills, leaks, or unpermitted discharges must be reported to the MEPD within twenty-four (24) hours of the incident, in addition to the reporting requirements of the CGP.

v. Projects utilizing cationic treatment chemicals (as defined in Appendix A of the CGP) within the Morongo Reservation are not eligible for coverage under this certification of the CGP.

vi. Facilities covered under the CGP will be subject to compliance inspections by MEPD staff, including compliance with final site stabilization criteria prior to submitting an NOI ***[EPA assumes this intended to refer to an NOT]***.

9.9.2 GUR100000 Island of Guam

a. For purposes of this Order, the term "Project Proponent" shall mean U.S. Environmental Protection Agency, and its agents, assignees, and contractors.

b. For purposes of this Order, the permit "Operator" shall mean any party associated with a construction project that meets either of the following two criteria:

i. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications (e.g. in most cases this is the owner of the site); or

ii. The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the permit; in most cases this is the general contractor of the project).

Subcontractors generally are not considered operators for the purposes of this permit.

c. The Project Proponent shall enforce the proposed 2022 CGP and ensure that the Operator complies with the conditions of the permit at all times.[107] (40 CFR §121.11(c))

d. All submittals required by this Order shall be sent to the Guam Environmental Protection Agency Attn: 401 Federal Permit Manager, Non-Point Source Program, EMAS Division, 3304 Mariner Avenue, Bldg. 17-3304, Barrigada, Guam 96913, AND via email to jesse.cruz@epa.guam.gov. The submittals shall be identified with WQC Order #2021- 04 and include the COP Permit Number, certifying representative's name, title, mailing address and phone number. (§51060)(4) 2017 GWQS)

e. A copy of the Operator's signed Stormwater Pollution Prevention Plan (SWPPP) and signed Notice of Intent (NOI) and Notice of Termination (NOT) submitted to EPA for review and approval, shall concurrently be submitted to Guam EPA, consistent with condition A4. Coordination with Guam EPA is encouraged when the receiving water(s) for the proposed discharge is/are being identified. (§10105.B.5.d.) GSESCR; (§51060)(4) 2017 GWQS)

f. The Operator must comply with the conditions and requirements set forth in 22 GAR 10, Guam Soil Erosion and Sediment Control Regulations (GSESCR).

g. Before submitting the NOT to EPA, Operators shall comply with GSESC regulations at §10105.B10. (Stabilization of Affected Areas) and §10107.B. {Final Inspection and Approval)

h. All operators/owners shall comply with the general design criteria for best management practices (BMPs) acceptable for meeting the Construction and Post-construction stormwater criteria in the 2006 CNMI and Guam Stormwater Management Manual. (E.O. 2012-02)

i. Operating reports and monitoring and analytical data (e.g. Discharge Monitoring Reports (DMRs), follow-up monitoring reports, Exceedance Reports for Numerical Effluent Limits, etc.) submitted to EPA shall be concurrently submitted to Guam EPA, consistent with condition A4. §51060)(4) 2017 GWQS

j. The Operators who install a sediment basin or similar impoundment shall maintain the storage capacity of five thousand cubic feet {5,000 cu. ft.) per acre of project area tributary to the basin. (§10105.B.5.i.) GSESCR

k. (1) This Order does not authorize EPA to qualify Rainfall Erosivity Waivers to stormwater discharges associated with small construction activities (i.e. 1-5 acres). Operators are required to apply for an NOI for those projects eligible for coverage under the proposed 2022 CGP. An Erosion and Sediment Control Plan is required for every site that would be covered by the proposed 2022 CGP. (22 GAR §10104) The average annual rainfall for Guam and the CNMI exceeds I00 inches per year in many locations. These climatic conditions combined with the region's unique limestone, volcanic geologic formations, sensitive water resources and significant land

[107] By incorporating this condition into the permit, EPA acknowledges receipt of Guam's certification conditions.

development forces make stormwater discharges a very significant environmental and economic issue. (2006 CNMJ/Guam Stormwater Management Manual) E.O. 2012-02

(2) This Order does not authorize EPA to approve a Sediment TMDL Waiver for the Ugum River. Operators of construction activities eligible for a TMDL Waiver in lieu of coverage under the proposed 2022 CGP, shall submit a complete and accurate waiver certification as described in C.2., Appendix C - (Small Construction Waivers) to Guam EPA per condition A4., prior to notifying EPA of its intention to obtain a waiver. §51060)(4) 2017 GWQS

l. The Project Proponent shall submit to Guam EPA a signed Statement of Understanding of Water Quality Certification Conditions.[108] (see Attachment A for an example) per condition A4. §51060)(4) 2017 GWQS

m. The Operator shall comply with applicable provisions of the Guam Pesticides Act of2007 (10 GCA Chapter 50) and implementing regulations at Title 22 GAR Chapter 15 for any use and application of pesticides.

n. Point source discharge(s) to waterbodies under the jurisdiction of Guam EPA must be consistent with the antidegradation policy in 22 GAR §5101(b).

o. The operator shall carry out construction activities in such a manner that will not violate Guam Water Quality Standards (GWQS). Proposed 2022 CGP discharges are prohibited as follows:

i. In Marine Waters, Category M-1 Excellent 22 GAR Chapter 5 §5102(b)(I); and

ii. In Surface Waters, Category S-1 High 22 GAR Chapter 5 §5102(c)(I)

p. In addition to complying with construction dewatering requirements in Part 2.4 and site inspection requirements for all areas where construction dewatering is taking place in Part 4 of the proposed 2022 CGP, Operators shall comply with all dewatering conditions and requirements set forth in 22 GAR 7, Water Resources Development and Operating Regulations, to include securing Guam EPA permits prior to any dewatering activities.

q. The Operator shall develop and implement a Spill Prevention and Containment Plan.

r. The Operator shall have adequate and appropriate spill response materials on hand to respond to emergency release of oil, petroleum or any other material into waters of the territory.

s. Any unpermitted discharge into territorial waters or onto land with a potential for entry into territorial waters, is prohibited. If this occurs, the Operator shall immediately take the following actions:

i. Cease operations at the location of the violation or spill.

ii. Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.

iii. Notify Guam EPA of the failure to comply. All petroleum spills shall be reported immediately to:

[108] By incorporating this condition into the permit, EPA acknowledges receipt of Guam's certification conditions.

(a) Guam's Emergency 911 system

(b) Guam EPA's 24-Hour Spill Response Team at (671) 888-6488 or during working hours (671) 300-4751

(c) US Coast Guard Sector Guam (671) 355-4824

(d) National Response Center 1-800-424-8802

iv. Submit a detailed written report to Guam EPA within five days of noncompliance that describes the nature of the event corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.

t. Compliance with this condition does not relieve the Operator from responsibility to maintain continuous compliance with the terms and conditions of this Order or the resulting liability from failure to comply.

u. Submittal or reporting of any of this information does not provide relief from any subsequent enforcement actions for unpermitted discharges to waters of the United States.

v. This Order is valid for five (5) Years from Date of Certification, unless otherwise approved by the Guam EPA Administrator.

w. The Operator shall be required to adhere to the current Guam Coral Spawning Moratorium dates for both hard and soft corals where in-water activities and/or construction activity in close proximity with marine waters may impair water quality. These dates can be obtained from the Guam Department of Agriculture, Division of Aquatic and Wildlife Resources, or the NOAA NMFS Pacific Islands Regional Office Habitat Conservation Division.

x. The Operator shall provide notice to Guam EPA consistent with Condition A4:

(a) Immediately upon discovery of noncompliance with the provisions of this Order.

y. A Notice of Violation/Work Stop Order will be issued if certification conditions are not adhered to or when significant or sustained water quality degradation occurs. Work or discharge shall be suspended or halted until the Operator addresses environmental problems/concerns to Guam EPA's satisfaction. Guam EPA may also levy penalties and fines (10 GCA §47111). Invalidity or enforceability of one or more provisions of this certification shall not affect any other provision of this certification.

9.10 EPA REGION 10

9.10.1 IDR101000 Indian country within the State of Idaho, except Duck Valley Reservation lands (see Region 9)

a. Shoshone-Bannock Tribes

i. Copies of the following information must be sent to the SBT-WRD:

(a) Notice of Intents (NOI)

The Notice of Intent shall be forwarded to the SBT-WRD within thirty (30) days of receipt of submitting NOI to the USEPA.

Shoshone-Bannock Tribes Water Resources Department
PO Box 306 Pima Drive
Fort Hall, ID 83203 Phone: (208) 239-4582
Fax: (208) 239-4592
Or Email ctanaka@sbtribes.com

b. If requested by the SBT-WRD, the permittee must submit a copy of the SWPPP to SBT-WRD within fourteen (14) days of the request.

9.10.2 ORR10I000 Indian country within the State of Oregon, except Fort McDermitt Reservation lands (see Region 9)

a. Confederated Tribes of Coos, Lower Umpqua, and Siuslaw

i. No activities allowed under the CGP shall result in the degradation of any Tribal waters or affect resident aquatic communities or resident or migratory wildlife species at any life stage.

ii. The operator shall be responsible for achieving compliance with CTCLUSI Water Quality Standards and all other tribal codes, regulations, and laws as they exist at the time that the permit is submitted.

iii. The operator shall submit a copy of the Notice of Intent (NOI) to be covered by the general permit to the CTCLUSI Water Quality Program before, or at the same time as, it is submitted to EPA.

iv. The operator shall be responsible for submitting all Stormwater Pollution Prevention Plans (SWPPP) required under this general permit to the CTCLUSI Water Quality Program for review and determination that the SWPPP is sufficient to meet Tribal Water Quality Standards, prior to the beginning of any discharge activities taking place.

v. The operator shall be responsible for reporting an exceedance to Tribal Water Quality Standards to the CTCLUSI Water Quality Program at the same time it is reported to EPA.

vi. The THPO will be provided 30 days to comment on the APE as defined in the permit application.

vii. If the project is an undertaking, a cultural resource assessment must occur. All fieldwork must be permitted by the THPO (as appropriate), conducted by qualified personnel (as outlined by the Secretary of Interior's Standards and Guidelines; http://www.nps.gov/history/local-law/arch_stnds_O.htm) and documented according to Oregon Reporting Standards (Reporting_Guidelines.pdf) (oregon.gov). The resulting report must be submitted to the THPO and the THPO must concur with the finding of effect and recommendations before any ground disturbing work can occur. The THPO requires 30 days to review all reports.

viii. The operator must obtain THPO concurrence in writing. If historic properties are present, this written concurrence will outline measures to be taken to prevent or mitigate adverse effects to historic properties.

b. Confederated Tribes of the Umatilla Indian Reservation

i. The operator shall be responsible for achieving compliance with the

Confederated Tribes of the Umatilla Indian Reservation's (CTUIR) Water Quality Standards.

ii. The operator shall submit a copy of the Notice of Intent (NOI) to be covered by the general permit to the CTUIR Water Resources Program at the address below, at the same time it is submitted to EPA.

iii. The operator shall be responsible for submitting all Stormwater Pollution Prevention Plans (SWPPP) required under this general permit to the CTUIR Water Resources Program for review and determination that the SWPPP is sufficient to meet Tribal Water Quality Standards, prior to the beginning of any discharge activities taking place.

iv. The operator shall be responsible for reporting an exceedance to Tribal Water QualityStandards to the CTUIR Water Resources Program at the same time it is reported to EPA.

Confederated Tribes of the Umatilla Indian Reservation
Water Resources Program
46411 Timíne Way
Pendleton, OR 97801
(541) 429-7200

v. The THPO will be provided 30 days to comment on the APE as defined in the permit application.

vi. If the project is an undertaking, a cultural resource assessment must occur. All fieldwork must be permitted by the Tribal Historic Preservation Office (as appropriate), conducted by qualified personnel (as outlined by the Secretary of Interior's Standards and Guidelines; http://www.nps.gov/history/local-law/arch_stnds_0.htm) and documented according to Oregon Reporting Standards (Reporting_Guidelines.pdf (oregon.gov). The resulting report must be submitted to the THPO and the THPO must concur with the finding of effect and recommendations before any ground disturbing work can occur. The THPO requires 30 days to review all reports.

vii. The operator must obtain THPO concurrence in writing. If historic properties are present, this written concurrence will outline measures to be taken to prevent or mitigate adverse effects to historic properties.

9.10.3 WAR10F000 Areas in the State of Washington, except those located on Indian country, subject to construction activity by a Federal Operator

a. For purposes of this Order, the term "Project Proponent" shall mean those that are seeking coverage under this permit, and its agents, assignees and contractors.

b. The Federal Agency shall mean the US Environmental Protection Agency. The Federal Agency shall enforce the permit and ensure that the Project Proponent complies with the conditions of the permits at all times.

c. Failure of any person or entity to comply with this Certification may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Certification.

d. The Certification conditions within this Order must be incorporated into EPA's final NPDES permit. Per 40 CFR 121.10(a), all certification conditions herein that satisfy the

requirements of 40 CFR 121.7(d) must be incorporated into the permit. Per 40 CFR 121.10(b), the permit must clearly identify all certification conditions.

e. This Certification does not authorize exceedances of water quality standards established in chapter 173-201A WAC.

f. Discharges from construction activity must not cause or contribute to violations of the Water Quality Standards for Surface Water of the State of Washington (chapter 173-201A WAC), Ground Water Quality Standards (chapter 173- 200 WAC), Sediment Management Standards (chapter 173-204 WAC), and standards in the EPA's Revision of certain Federal water quality criteria applicable to Washington (40 CFR 131.45). Discharges that do not comply with these standards are prohibited.

g. Prior to discharge of stormwater and non-stormwater to waters of the State, the Permittee must apply all known, available, and reasonable methods of prevention, control, and treatment (AKART). This includes the preparation and implementation of an adequate Stormwater Pollution Prevention Plan (SWPPP), with all appropriate Best Management Practices (BMPs) installed and maintained in accordance with the SWPPP and the terms and conditions of the permit.

i. BMPs must be consistent with:

(a) The Stormwater Management Manual for Western Washington (most current approved edition at the time this permit was issued), for sites west of the crest of the Cascade Mountains; or

(b) The Stormwater Management Manual for Eastern Washington (most current approved edition at the time this permit was issued), for sites east of the crest of the Cascade Mountains; or

(c) Revisions to either manual, or other stormwater management guidance documents or manuals which provide equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-226-230. (For purposes of this section, the stormwater manuals listed in Appendix 10 of the Phase I Municipal Stormwater Permit are approved by Ecology); or

(d) Documentation in the SWPPP that the BMPs selected provided an equivalent level of pollution prevention, compared to the applicable stormwater management manuals, including:

- The technical basis for the selection of all stormwater BMPs (scientific, technical studies, and/or modeling) that support the performance claims for the BMPs being selected.
- An assessment of how the selected BMP will satisfy AKART requirements and the applicable federal technology-based treatment requirements under 40 CFR part 125.3.

The Stormwater Management Manuals for Eastern and Western Washington can be found at: https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Stormwater-manuals.

ii. An adequate SWPPP must include a narrative and drawings. All BMPs must be clearly referenced in the narrative and marked on the drawings. The SWPPP

narrative must include documentation to explain and justify the pollution prevention decisions made for the project. Documentation must include:

(a) Information about existing site conditions (topography, drainage, soils, vegetation, etc.).

(b) Potential erosion problem areas.

(c) The 13 elements of a SWPPP, including BMPs used to address each element. Unless site conditions render the element unnecessary and the exemption is clearly justified in the SWPPP, the 13 elements are as follows:

- Preserve Vegetation/Mark Clearing Limits
- Establish Construction Access
- Control Flow Rates
- Install Sediment Controls
- Stabilize Soils
- Protect Slopes
- Protect Drain Inlets
- Stabilize Channels and Outlets
- Control Pollutants
- Control Dewatering
- Maintain BMPs
- Manage the Project
- Protect Low Impact Development (LID) BMPs

h. Discharges of stormwater and authorized non-stormwater must be monitored for turbidity (or transparency) and, in the event of significant concrete work or engineered soils, pH must also be monitored. As applicable based on project specifics, monitoring, benchmarks, and reporting requirements contained in Condition S.4. (pp.10-16) of the Washington State Construction Stormwater General Permit, effective January 1, 2021, shall apply.

i. Discharges to segments of waterbodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, phosphorus, or pH must comply with the following numeric effluent limits:

Parameter identified in 303(d) listing	Parameter Sampled	Unit	Analytical Method	Numeric Effluent Limit
• Turbidity • Fine Sediment • Phosphorus	Turbidity	NTU	SM2130	25 NTUs at the point where the stormwater is discharged from the site.
High pH	pH	su	pH meter	In the range of 6.5 – 8.5

All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current EPA-approved listing of impaired waters that exists on the

effective date of the permit, or the date when the operator's complete permit application is received by EPA, whichever is later.

The EPA approved WQ Assessment can be found at: https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d

j. Discharges to a waterbody that is subject to a Total Maximum Daily Load (TMDL) for turbidity, fine sediment, high pH, or phosphorus must be consistent with the TMDL.

- **i.** Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges shall be consistent with any specific waste load allocations or requirements established by the applicable TMDL.
- **ii.** Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but no specific requirements have been identified, compliance with this permit will be assumed to be consistent with the approved TMDL.
- **iii.** Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges, compliance with this permit will be assumed to be consistent with the approved TMDL.
- **iv.** Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.

Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus which has been completed and approved by EPA as of the effective date of the permit, or prior to the date of the operator's complete application for permit coverage is received by EPA, whichever is later.

k. Discharges to waters of the state from the following activities are prohibited:

- **i.** Concrete wastewater.
- **ii.** Wastewater from washout and clean-up of stucco, paint, form release oils, curing compounds and other construction materials.
- **iii.** Process wastewater as defined by 40 Code of Federal Regulations (CFR) 122.2.
- **iv.** Slurry materials and waste from shaft drilling, including process wastewater from shaft drilling for construction of building, road, and bridge foundations unless managed to prevent discharge to surface water.
- **v.** Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
- **vi.** Soaps or solvents used in vehicle and equipment washing.
- **vii.** Wheel wash wastewater, unless managed to prevent discharge to surface water.
- **viii.** Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed according to appropriate controls described within the permit.

l. This Certification is valid until the expiration date including any administrative extension or termination date of the NPDES 2022 Construction General Permit. (40 CFR § 122.46)

m. The Federal Agency shall enforce and the Project Proponent must comply with all the reporting and notification conditions of the NPDES 2022 Construction General Permit in order to comply with this Order and the certification conditions herein (40 CFR § 121.11).

n. You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do all of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person (see addresses below). E-mail is not accepted.

You must also comply with other applicable requirements in chapter 43.21B RCW and chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503 **Pollution Control Hearings Board** 1111 Israel RD SW STE 301 Tumwater, WA 98501	**Department of Ecology** Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608 **Pollution Control Hearings Board** PO Box 40903 Olympia, WA 98504-0903

CONTACT INFORMATION

Please direct all questions about this Order to:

Noel Tamboer
Department of Ecology
P.O. Box 47600
Olympia, WA 98503-7600

(360) 701-6171
noel.tamboer@ecy.wa.gov

9.10.4 WAR10I000 Indian country within the State of Washington

a. Lummi Nation

i. This certification does not exempt and is provisional upon compliance with other applicable statutes and codes administered by federal and Lummi tribal agencies. Pursuant to Lummi Code of Laws (LCL) 17.05.020(a), the operator must also obtaina land use permit from the Lummi Planning Department as provided in Title 15 of theLummi Code of Laws and regulations adopted thereunder.

ii. Pursuant to LCL 17.05.020(a), each operator shall develop and submit a Storm WaterPollution Prevention Plan to the Lummi Water Resources Division for review and approval by the Water Resources Manager prior to beginning any discharge activities.

iii. Pursuant to LCL Title 17, each operator shall be responsible for achieving compliance with the Water Quality Standards for Surface Waters of the Lummi

iv. Indian Reservation (Lummi Administrative Regulations [LAR] 17 LAR 07.010 through 17 LAR 07.210 together with supplements and amendments thereto).

v. Each operator shall submit a signed copy of the Notice of Intent (NOI) to the Lummi Water Resources Division at the same time it is submitted electronically to the Environmental Protection Agency (EPA) and shall provide the Lummi Water Resources Division the acknowledgement of receipt of the NOI from the EPA and the associated NPDES tracking number provided by the EPA within 7 calendar days of receipt from the EPA.

vi. Each operator shall submit a signed copy of the Notice of Termination (NOT) to the Lummi Water Resources Division at the same time it is submitted electronically to the EPA and shall provide the Lummi Water Resources Division the EPA acknowledgement of receipt of the NOT.

vii. Storm Water Pollution Prevention Plans, Notice of Intent, Notice of Termination and associated correspondence with the EPA shall be submitted to:

Lummi Natural Resources Department
ATTN: Water Resources Manager 2665 Kwina Road
Bellingham, WA 98226-9298

b. Port Gamble S'Klallam Tribe

i. No discharge from the project site shall cause exceedances of Port Gamble S'KlallamSurface Water Quality Standards narrative or numeric criteria in Tribal waters. This includes activities outside of Tribal lands that occur upstream of Tribal waters.

(a) If any exceedance of these water quality standards occurred, the Natural Resources Department shall be notified immediately.

- The Department shall additionally be provided a complete draft of the proposed corrective action within a reasonable timeframe and its approval will be required before any corrective action may be taken.

ii. Operators performing activities under the CGP that may affect Tribal waters will requirea permit and shall submit their plans to the Port Gamble S'Klallam Natural Resources Department for review.

- The Department has the right to require conditions outside of this Water QualityCertification prior to permit approval.

iii. No activities allowed under the CGP shall result in the degradation of any Tribal watersor change in designated uses.

iv. No activities allowed under the CGP shall affect resident aquatic communities or resident/migratory wildlife species at any life stage.

- Biological assessment methods used to determine the effect of an activity allowedunder the CGP shall be approved by the PGST Natural Resources Department.

v. No activities allowed under the CGP shall be conducted within wetland and stream bufferzones, nor shall said activities affect in any way wetland or stream buffers, as defined by *PGST Law and Order Code 24.08.01(c)*.

vi. Concentrations for substances listed within the table in *Water Quality Standards for Surface Waters* sec. 7(7) shall not be exceeded by activities allowed under the CGP.

c. Spokane Tribe of Indians

i. Pursuant to Tribal Law and Order Code (TLOC) Chapter 30 each operator shall be responsible for achieving compliance with the Surface Water Quality Standards of the Spokane Tribe. The operator shall notify the Spokane Tribe, Water Control Board (WCB) of any spills of hazardous material and;

ii. Each operator shall submit a signed hard copy of the Notice of Intent (NOI) to the WCB at the same time it is submitted to EPA.

iii. The permittee shall allow the Tribal Water Control Board or its designee to inspect and sample at the construction site as needed.

iv. Each operator shall submit a signed copy of the Notice of Termination (NOT) to the WCB at the same time it is submitted to EPA

The correspondence address for the Spokane Tribe Water Control Board is:

Water Control Board c/o Brian Crossley PO Box480
Wellpinit WA 99040
(509)626-4409
crossley@spokanetribe.com

d. Swinomish Tribe

i. Owners and operators seeking coverage under this permit must submit a copy of the Notice of Intent (NOI) to the DEP at the same time the NOI is submitted to EPA.

ii. Owners and operators must also submit to the DEP changes in NOI and/or Notices of Termination at the same time they are submitted to EPA.

iii. Owners and operators seeking coverage under this permit must also submit a Stormwater Pollution Prevention Plan to the DEP for review and approval by DEP prior to beginning any discharge activities.

e. Tulalip Tribes

i. Submission of NOI: Copies of the Notice of Intent (NOI),) Certification shall be submitted to the Tribe's Natural Resources Department to notify the Tribes of the

pending project and in order for the Tribes to review the projects potential impacts to endangered or threatened species.

ii. Submission of SWPPP: A copy of the Stormwater Pollution Plans (SWPPPs) shall be submitted to the Tribe's Natural Resources Department along with the NOI during the 30 day waiting period.

iii. Submission of Monitoring Data and Reports: The results of any monitoring required by this permit and reports must be sent to the Tribe's Natural Resources Depa1tment,

iv. The Tulalip Tribes are federally recognized successors in the interest to the Snohomish, Snoqualmie, Skykomish, and other allied tribes and bands signatory to the Treaty of Point Elliott.

v. including a description of the corrective actions required and undertaken to meet effluent limits or benchmarks (as applicable).

vi. Authorization to Inspect: The Tribe's Natural Resources Department may conduct an inspection of any facility covered by this permit to ensure compliance with tribal water quality standards. The Department may enforce its certification conditions.

vii. Submission of Inspection Reports: Inspection reports must be sent to the Tribe's Natural Resources Department, including a description of the corrective actions required and undertaken to meet effluent limits or benchmarks (as applicable).

viii. Permits on-site: A copy of the pe1mit shall be kept on the job site and readily available for reference by the construction supervisor, construction managers and foreman, and Tribal inspectors.

ix. Project Management: The applicant shall ensure that project managers, construction managers and foreman, and other responsible parties have read and understand conditions of the permit, this certification, and other relevant documents, to avoid violations or noncompliance with this certification.

x. Emergency Spill Notification Requirements: In the event of a spill or the contractor shall immediately take action to stop the violation and correct the problem, and immediately repo1t spill to the Tulalip Tribes Police Department (425) 508-1565. Compliance with this condition does not relieve the applicant from responsibility to maintain continuous compliance with the tem1S and conditions of this certification or the resulting liability from failure to comply.

xi. Discharges to CERCLA Sites: This permit does not autho1ize direct stormwater discharges to certain sites undergoing remedial cleanup actions pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) unless first approved by the appropriate EPA Regional office. In the case of the Tulalip Landfill site (WAD980639256), the Tulalip Tribes also requests notification by the facility and consultation with EPA prior to discharge. Contaminants at this site may include but are not limited to: dioxins, furans, arsenic, copper, lead, zinc, 4- methyl-phenol, Hex-CB, HPAHs, PCBs, PCE, cadmium, mercury, and LPAHs.

xii. Discharge-related Activities that have Potential to Cause an Adverse Effect on Historic Properties: Installation of stormwater controls that involve subsurface disturbances may potentially have an adverse impact on historic properties.

xiii. Procedures detailed in the permit shall be completed. Richard Young, of the Tulalip Tribe's Cultural Resources Department shall be contacted prior to initiating discharge- related activities that may have an impact on historic properties. His contact information is (360) 716-2652, ryoung@tulaliptribes-nsn.gov.

xiv. Invalidation: This certification will cease to be valid if the project is constructed and/or operated in a manner not consistent with the project description contained in

xv. the permit. This certification will also cease to be valid and the applicant must reapply with an updated application if info1mation contained in the permit is voided by subsequent submittals.

xvi. Modification: Nothing in this certification waives the Tulalip Tribes of Washington's authority to issue modifications to this ce1iification if additional impacts due to operational changes are identified, or if additional conditions are necessary to protect water quality or further protect the Tribal Communities interest.

xvii. incorporation by reference: Tl1is certification does not exempt the applicant from compliance with other statues and codes administered by the Tribes, county, state and federal agencies.

xviii. Compliance with Tribe's I996 Water Quality Standards: Each permittee shall be responsible for controlling discharges and achieving compliance with the T1ibe's Water Quality Standards.

xix. Compliant with Tulalip Tribes Tidelands Management Policy: Permittee shall be responsible for achieving compliance with applicable sections of the Tulalip Tribe's Tidelands Management Policy. (Tulalip Tribal Code Title 8 Chapter 8.30).

xx. Compliant with Tulalip Tribes Environmental Infractions: Permittee shall be responsible for achieving compliance with applicable sections of the Tulalip Tribe's Environmental Infractions. (Tulalip Tribal Code Title 8 Chapter 8.20).

xxi. Where to Submit information and for further Coordination: All requested documents should be sent to the: Tulalip Tribes Natural Resources Environmental Department c/o Kurt Nelson and Valerie Streeter, 6704 Marine Drive, Tulalip, Washington 98271. For further 40 I Certification coordination with the Tulalip Tribes Natural Resources Department, please contact Mr. Kurt Nelson (360) 716-4617 knelson@tu1aliptribes- nsn.gov. 6406 Marine Dr., Tulalip WA 98271.

f. Makah Tribe

i. The permittee shall be responsible for meeting any additional permit requirements imposed by EPA necessary to comply with the Makah Tribe's Water Quality Standards if the discharge point is located within the Makah's U&A treaty reserved areas.

ii. Each permittee shall submit a copy of the Notice of Intent (NOI) to be covered by the general permit to Makah Fisheries Management, Water Quality Department at the address listed below at the same time it is submitted to the EPA.

Makah Water Quality
Makah Fisheries Management (MFM)
ray.colby@makah.com

PO Box 115

Neah bay, WA 98357

iii. All supporting documentation and certifications in the NOI related to coverage under the general permit for Endangered Species Act purposes shall be submitted to the Tribe's Habitat programs for their review.

iv. If EPA requires coverage under an individual or alternative permit, the permittee shall submit a copy of the permit to Assistant Fisheries Director, ray.colby@makah.com.

v. The permittee shall submit all Stormwater Pollution Prevention plan (SWPP) to MFM for review and approval prior to beginning any activities resulting in a discharge to Makah tribal waters.

vi. The permittee shall notify Ray Colby, ray.colby@makah.com (360) 645-3150 prior to conducting inspections at construction sites generating stormwater discharges to tribal waters.

vii. The operator shall treat dewatering discharges with controls necessary to minimize discharges of pollutants to surface waters, or ground waters, and from stormwater runoff onsite from excavations, trenches, foundations, or storage areas. To the extent feasible, at all points where dewatering is discharged, comply with the velocity dissipation using check dams, sediment traps, and grouted outlets.

g. Puyallup Tribe of Indians

i. The permittee shall be responsible for meeting any additional permit requirements imposed by EPA necessary to comply with the Puyallup Tribe's antidegradation procedures.

ii. Each permittee shall submit a copy of the Notice of Intent (NOI) to be covered by the general permit to Char Naylor, Tribal Water Quality Manager at the following e-mail address: (char.naylor@puyalluptribe-nsn.gov) at the same time it is submitted to EPA.

iii. All supporting documentation and certifications in the NOI related to coverage under the general permit for Endangered Species Act purposes shall be submitted to Char Naylor, Tribal Water Quality Manager/Assistant Fisheries Director (char.naylor@puyalluptribe-nsn.gov) for review.

iv. If EPA requires coverage under an individual or alternative permit, the permittee shall submit a copy of the permit to Char Naylor at the email address listed above.

v. The permittee shall submit all stormwater pollution prevention plans to Char Naylor for review and approval prior to beginning any activities resulting in a discharge to Puyallup tribal waters.

vi. The permittee shall contact Brandon Reynon (Brandon.reynon@puyalluptribe-nsn-gov), Tribe's Historic Preservation Officer or Jennifer Keating (Jennifer.keating@puyalluptribe-nsn.gov), Tribe's Assistant Historic Preservation Officer regarding historic properties and cultural resources.

vii. To minimize the discharge of pollutants to groundwater or surface waters from stormwater that is removed from excavations, trenches, foundations, vaults, or

other storage areas, treat dewatering discharges with controls necessary to minimize discharges of pollutants. Examples of appropriate controls include sediment basins or sediment traps, sediment socks, dewatering tanks, tube settlers, weir tanks, and filtration systems (e.g., bag or sand filters) that are designed to remove sediment.

To the extent feasible, utilize vegetated, upland areas of the site to infiltrate dewatering water before discharge. At all points where dewatering water is discharged, utilize velocity dissipation controls. Examples of velocity dissipation devices include check dams, sediment traps, riprap, and grouted riprap at outlets.

viii. The permittee shall provide and maintain natural buffers to the maximum extent possible (and/or equivalent erosion and sediment controls) when tribal waters are located within 100 feet of the boundaries. If infeasible to provide and maintain an undisturbed 100 foot natural buffer, erosion and sediment controls to achieve the sediment load reduction equivalent to a 100-foot undisturbed natural buffer shall be required.

Appendix A - Definitions and Acronyms

1. Definitions

"Action Area" – all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. See 50 CFR 402. For the purposes of this permit and for application of the threatened and endangered species protection eligibility requirements, the following areas are included in the definition of action area:

- The areas on the construction site where stormwater discharges originate and flow toward the point of discharge into the receiving waters. This includes:
    - areas on the construction site where excavation, site development, or other ground disturbance activities occur, and
    - areas where stormwater controls will be constructed and operated, including any areas where stormwater flows to and from the stormwater controls.
- The areas in the vicinity of the construction site where stormwater discharges flow from the construction site to one or more points of discharge into receiving waters. (Example: Where stormwater flows into an off-site ditch, swale, or gully that leads to receiving waters.
- The extent of the receiving water potentially affected by stormwater discharges from your construction site through alteration of water chemistry, turbidity, temperature, or bank structure (i.e., erosive flow), regardless of whether the construction site is adjacent to the receiving water.

"Agricultural Land" - cropland, grassland, rangeland, pasture, and other agricultural land, on which agricultural and forest-related products or livestock are produced and resource concerns may be addressed. Agricultural lands include cropped woodland, marshes, incidental areas included in the agricultural operation, and other types of agricultural land used for the production of livestock.

"Antidegradation Policy" or "Antidegradation Requirements" - the water quality standards regulation that requires States and Tribes to establish a three-tiered antidegradation program:

1. Tier 1 maintains and protects existing uses and water quality conditions necessary to support such uses. An existing use can be established by demonstrating that fishing, swimming, or other uses have actually occurred since November 28, 1975, or that the water quality is suitable to allow such uses to occur. Where an existing use is established, it must be protected even if it is not listed in the water quality standards as a designated use. Tier 1 requirements are applicable to all surface waters.
2. Tier 2 maintains and protects "high quality" waters – waterbodies where existing conditions are better than necessary to support CWA § 101(a)(2) "fishable/swimmable" uses. Water quality can be lowered in such waters. However, State and Tribal Tier 2 programs identify procedures that must be followed and questions that must be answered before a reduction in water quality can be allowed. In no case may water quality be lowered to a level which would interfere with existing or designated uses.
3. Tier 3 maintains and protects water quality in outstanding national resource waters (ONRWs). Except for certain temporary changes, water quality cannot be lowered in such waters. ONRWs generally include the highest quality waters of the United States. However, the ONRW classification also offers special protection for waters of exceptional ecological significance, i.e., those which are important, unique, or sensitive ecologically.

Decisions regarding which water bodies qualify to be ONRWs are made by States and authorized Indian Tribes.

"Arid Areas" – areas with an average annual rainfall of 0 to 10 inches. For assistance in determining average annual rainfall in specific locations, refer to the NOAA National Mapping webpage (https://www.ncdc.noaa.gov/cag/national/mapping), the PRISM Climate Group's Time Series Values for individual locations (https://prism.oregonstate.edu/explorer/), or EPA's US EPA EnviroAtlas (https://www.epa.gov/enviroatlas).

"Bank" (e.g., stream bank or river bank) – the rising ground bordering the channel of a water of the U.S.

"Biodegradable" – capable of decomposing under ambient soil conditions into naturally occurring materials over a period of time (e.g., one year).

"Bluff" – a steep headland, promontory, riverbank, or cliff.

"Borrow Areas" – the areas where materials are dug for use as fill, either onsite or off-site.

"Business day" – for the purposes of this permit, a business day is a calendar day on which construction activities will take place.

"Bypass" – the intentional diversion of waste streams from any portion of a treatment facility. See 40 CFR 122.41(m)(1)(i).

"Cationic Treatment Chemical" – polymers, flocculants, or other chemicals that contain an overall positive charge. Among other things, they are used to reduce turbidity in stormwater discharges by chemically bonding to the overall negative charge of suspended silts and other soil materials and causing them to bind together and settle out. Common examples of cationic treatment chemicals are chitosan and cationic PAM.

"Commencement of Construction Activities" – the initial disturbance of soils (or 'breaking ground') associated with clearing, grading, or excavating activities or other construction-related activities (e.g., grubbing; stockpiling of fill material; placement of raw materials at the site).

"Common Plan of Development or Sale" – A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one common plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot.

"Construction Activities" – earth-disturbing activities, such as the clearing, grading, and excavation of land, and other construction-related activities (e.g., grubbing; stockpiling of fill material; placement of raw materials at the site) that could lead to the generation of pollutants. Some of the types of pollutants that are typically found at construction sites are:

- sediment;
- nutrients;
- heavy metals;
- pesticides and herbicides;
- oil and grease;
- bacteria and viruses;
- trash, debris, and solids;

- treatment polymers; and
- any other toxic chemicals.

"Construction and Development Effluent Limitations and New Source Performance Standards" (C&D Rule) – as published in 40 CFR § 450, the regulation requiring effluent limitations guidelines (ELGs) and new source performance standards (NSPS) for controlling the discharge of pollutants from construction sites.

"Construction Site" or "Site" – the land or water area where construction activities will occur and where stormwater controls will be installed and maintained. The construction site includes construction support activities, which may be located at a different part of the property from where the primary construction activity will take place, or on a different piece of property altogether.

"Construction Support Activity" – a construction-related activity that specifically supports the construction activity and involves earth disturbance or pollutant-generating activities of its own, and can include activities associated with concrete or asphalt batch plants, equipment staging yards, materials storage areas, excavated material disposal areas, and borrow areas.

"Construction Waste" – discarded material (such as packaging materials; scrap construction materials; masonry products; timber, steel, pipe, and electrical cuttings; plastics; and styrofoam).

"Conveyance Channel" – a temporary or permanent waterway designed and installed to safely convey stormwater flow within and out of a construction site.

"Critical Habitat" – as defined in the Endangered Species Act at 16 U.S.C. 1531 for a threatened or endangered species, (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

"CWA" – the Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. section 1251 et seq.

"Dewatering" – the act of draining accumulated stormwater and/or ground water from building foundations, vaults, and trenches, or other similar points of accumulation. Examples can include, but are not limited to:

- Surface area dewatering: water pumped from disturbed surface areas (e.g., trenches, sumps, excavation pits, or other excavations associated with construction where sediment-laden ground water or surface water/storm inflow must be removed) or from sediment basins or similar impoundments for maintenance or decommissioning purposes.
- Ground water dewatering: water discharged from well development, well pump tests, or pumping of ground water from a construction area. Common methods of ground water dewatering from a construction area include sumps and wells, generally described as follows:
  - Sumps: lowers ground water levels near the construction area. Dewatering using sumps consists of pumping ground water out of a lower collection point(s) typically gravity-fed by local ground water.
  - Wells: drilled wells, including bored/augured, driven, or jetted, which use vacuum or pumping to lower the ground water at greater depths than sumps. The two most common types of wells used for dewatering ground water are:

  - Wellpoints: small-diameter shallow wells which are connected via a header pipe. A pump creates a vacuum in the header pipe.
  - Deep Wells: larger-diameter holes, drilled relatively deep (typically greater than 10 feet), pumped by submersible electric pumps.

"Dewatering Water" – as used in this permit, water discharged from dewatering operations.

"Discharge" – when used without qualification, means the "discharge of a pollutant."

"Discharge of a Pollutant" – any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. See 40 CFR 122.2.

"Discharge Point" – for the purposes of this permit, the location where collected and concentrated stormwater flows or dewatering water are discharged from the construction site.

"Discharge-Related Activity" – activities that cause, contribute to, or result in stormwater and allowable non-stormwater point source discharges, and measures such as the siting, construction, and operation of stormwater controls to control, reduce, or prevent pollutants from being discharged.

"Discharge to an Impaired Water" – for the purposes of this permit, a discharge to an impaired water occurs if the first water of the U.S. to which you discharge is identified by a State, Tribe, or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting an applicable water quality standard and (1) requires development of a total maximum daily load (TMDL) (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1). For discharges that enter a storm sewer system prior to discharge, the water of the U.S. to which you discharge is the first water of the U.S. that receives the stormwater discharge from the storm sewer system.

"Domestic Waste" – for the purposes of this permit, typical household trash, garbage or rubbish items generated by construction activities.

"Drainageway" – an open linear depression, whether constructed or natural, that functions for the collection and drainage of surface water.

"Drought-Stricken Area" – for the purposes of this permit, an area in which the National Oceanic and Atmospheric Administration's U.S. Seasonal Drought Outlook indicates for the period during which the construction will occur that any of the following conditions are likely: (1) "Drought to persist or intensify", (2) "Drought ongoing, some improvement", (3) "Drought likely to improve, impacts ease", or (4) "Drought development likely". See http://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.php.

"Earth-Disturbing Activity"– actions taken to alter the existing vegetation and/or underlying soil of a site, such as clearing, grading, site preparation (e.g., excavating, grubbing, cutting, and filling), soil compaction, and movement and stockpiling of top soils.

"Earth-Disturbing Activities Conducted Prior to Active Mining Activities" – Consists of two classes of earth-disturbing (i.e., clearing, grading and excavation) activities:

a. activities performed for purposes of mine site preparation, including: cutting new rights of way (except when related to access road construction); providing access to a mine site for vehicles and equipment (except when related to access road construction); other earth disturbances associated with site preparation activities on any areas where active mining

activities have not yet commenced (e.g., for heap leach pads, waste rock facilities, tailings impoundments, wastewater treatment plants); and

b. construction of staging areas to prepare for erecting structures such as to house project personnel and equipment, mill buildings, etc., and construction of access roads.

Note: only earth-disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining (see (b) above) are considered to be "construction" and therefore stormwater discharges from these activities are eligible for coverage under this permit. See Part 1.2.1.b. The activities described in (a) above are not considered to be "construction" and therefore stormwater discharges associated with this activity are not eligible for coverage under this permit.

"Effective Operating Condition" – for the purposes of this permit, a stormwater control is kept in effective operating condition if it has been implemented and maintained in such a manner that it is working as designed to minimize pollutant discharges.

"Effluent Limitations" – for the purposes of this permit, any of the Part 2 or Part 3 requirements.

"Effluent Limitations Guideline" (ELG) – defined in 40 CFR § 122.2 as a regulation published by the Administrator under section 304(b) of the CWA to adopt or revise effluent limitations.

"Eligible" – for the purposes of this permit, refers to stormwater and allowable non-stormwater discharges that are authorized for coverage under this general permit.

"Emergency-Related Project" – a project initiated in response to a public emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services.

"Endangered Species" – defined in the Endangered Species Act at 16 U.S.C. 1531 as any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to man.

"Excursion" – a measured value that exceeds a specified limit.

"Existing Site" – a site where construction activities commenced prior to February 16, 2017.

"Exit Points" – any points of egress from the construction site to be used by vehicles and equipment during construction activities.

"Exposed Soils" – for the purposes of this permit, soils that as a result of earth-disturbing activities are left open to the elements.

"Federal Facility" – any buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned by, or constructed or manufactured for the purpose of leasing to, the Federal government.

"Federal Operator" – an entity that meets the definition of "Operator" in this permit and is either any department, agency or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States, or another entity, such as a private contractor, performing construction activity for any such department, agency, or instrumentality.

"Final Stabilization" – on areas not covered by permanent structures, either (1) uniform, perennial vegetation *(e.g., evenly distributed, without large bare areas)* has been established, or for arid or semi-arid areas, will be established that provides 70 percent or more of the cover that is provided by vegetation native to local undisturbed areas, and/or (2) permanent non-

vegetative stabilization measures (e.g., riprap, gravel, gabions, and geotextiles) have been implemented to provide effective cover for exposed portions of the site

"General Contractor" – for the purposes of this permit, the primary individual or company solely accountable to perform a contract. The general contractor typically supervises activities, coordinates the use of subcontractors, and is authorized to direct workers at a site to carry out activities required by the permit.

"Hazardous Substances" or "Hazardous or Toxic Waste" – for the purposes of this permit, any liquid, solid, or contained gas that contain properties that are dangerous or potentially harmful to human health or the environment. See also 40 CFR §261.2.

"Historic Property" – as defined in the National Historic Preservation Act regulations, means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian Tribe or Native Hawaiian organization and that meet the National Register criteria.

"Impaired Water"– a water identified by the State, Tribe, or EPA as not meeting an applicable water quality standard and (1) requires development of a TMDL (pursuant to section 303(d) of the CWA; or (2) is addressed by an EPA-approved or established TMDL; or (3) is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1).

"Impervious Surface" – for the purpose of this permit, any land surface with a low or no capacity for soil infiltration including, but not limited to, pavement, sidewalks, parking areas and driveways, packed gravel or soil, or rooftops.

"Indian Country" or "Indian Country Lands" – defined at 40 CFR §122.2 as:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
2. All dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a State; and
3. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-ways running through the same.

"Infeasible" – for the purpose of this permit, infeasible means not technologically possible or not economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with State water rights law.

"Install" or "Installation" – when used in connection with stormwater controls, to connect or set in position stormwater controls to make them operational.

"Jar test" – a test designed to simulate full-scale coagulation/flocculation/sedimentation water treatment processes by taking into account the possible conditions.

"Landward" – positioned or located away from a waterbody, and towards the land.

"Large Construction Activity" – defined at 40 CFR § 122.26(b)(14)(x) and incorporated here by reference. Large construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than five acres of land or will disturb less than five acres of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than five acres. Large construction activity does

not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

"Linear Construction Site" – includes the construction of roads, bridges, conduits, substructures, pipelines, sewer lines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities in a long, narrow area.

"Minimize" – to reduce and/or eliminate to the extent achievable using stormwater controls that are technologically available and economically practicable and achievable in light of best industry practices.

"Mining Activity" – for the purposes of this permit, includes mining-related construction activities defined at 40 CFR 122.26(b)(14)(x) and 122.26(b)(15)(i), and active mining activities defined at 40 CFR 122.26(b)(14)(iii). Both of these sub categories of activities include earth-disturbing activities, with the latter also including such activities as: extraction, removal or recovery, and beneficiation of mined material from the earth; removal of overburden and waste rock to expose mineable material; and site reclamation and closure activities.

"Mining Operations" – for the purposes of this permit, mining operations are grouped into two distinct categories, with distinct effluent limits and requirements applicable to each: 1) earth-disturbing activities conducted prior to active mining activities; and 2) active mining activities, which includes reclamation.

"Municipal Separate Storm Sewer System" or "MS4" – defined at 40 CFR §122.26(b)(8) as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned and operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian Tribe or an authorized Indian Tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
2. Designed or used for collecting or conveying stormwater;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

"National Pollutant Discharge Elimination System" (NPDES) – defined at 40 CFR §122.2 as the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA. The term includes an 'approved program.'

"Native Topsoil" – the uppermost layer of naturally occurring soil for a particular area, and is often rich in organic matter, biological activity, and nutrients.

"Natural Buffer" – for the purposes of this permit, an area of undisturbed natural cover surrounding waters of the United States within which construction activities are restricted. Natural cover includes the vegetation, exposed rock, or barren ground that exists prior to commencement of earth-disturbing activities.

"Natural Vegetation" – vegetation that occurs spontaneously without regular management, maintenance, or species introductions or removals, and that generally has a strong component of native species..

"New Operator of a Permitted Site" – an operator that through transfer of ownership and/or operation replaces the operator of an already permitted construction site that is either a "new site" or an "existing site".

"New Site" – a site where construction activities commenced on or after February 16, 2017.

"New Source" – for the purposes of this permit, a construction project that commenced construction activities after February 1, 2010.

"New Source Performance Standards (NSPS)" – for the purposes of this permit, NSPS are technology-based standards that apply to construction sites that are new sources under 40 CFR 450.24.

"Non-Stormwater Discharges" – discharges that do not originate from storm events. They can include, but are not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, sanitary wastes, concrete washout water, paint wash water, irrigation water, or pipe testing water.

"Non-Turbid" – a discharge that is free from visual turbidity.

"Notice of Intent" (NOI) – the form (electronic or paper) required for authorization of coverage under the Construction General Permit.

"Notice of Termination" (NOT) – the form (electronic or paper) required for terminating coverage under the Construction General Permit.

"NPDES eReporting Tool" (NeT) – EPA's online system for submitting electronic Construction General Permit forms.

"Operational" – for the purposes of this permit, stormwater controls are made "operational" when they have been installed and implemented, are functioning as designed, and are properly maintained.

"Operator" – for the purposes of this permit and in the context of stormwater discharges associated with construction activity, any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications *(e.g. in most cases this is the owner of the site)*; or
2. The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions (e.g., *they are authorized to direct workers at a site to carry out activities required by the permit; in most cases this is the general contractor of the project)*.

This definition is provided to inform permittees of EPA's interpretation of how the regulatory definitions of "owner or operator" and "facility or activity" are applied to discharges of stormwater associated with construction activity. Subcontractors generally are not considered operators for the purposes of this permit.

"Ordinary High Water Mark" – the line on the shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, and/or the presence of litter and debris.

"Permitting Authority" – for the purposes of this permit, EPA, a Regional Administrator of EPA, or an authorized representative.

"Point(s) of Discharge" – see "Discharge Point."

"Point Source" – any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

"Pollutant" – defined at 40 CFR §122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

"Pollution Prevention Controls" – stormwater controls designed to reduce or eliminate the addition of pollutants to construction site discharges through analysis of pollutant sources, implementation of proper handling/disposal practices, employee education, and other actions.

"Polymers" – for the purposes of this permit, coagulants and flocculants used to control erosion on soil or to enhance the sediment removal capabilities of sediment traps or basins. Common construction site polymers include polyacrylamide (PAM), chitosan, alum, polyaluminum chloride, and gypsum.

"Prohibited Discharges" – discharges that are not allowed under this permit, including:

1. Wastewater from washout of concrete;
2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
4. Soaps or solvents used in vehicle and equipment washing;
5. Toxic or hazardous substances from a spill or other release; and
6. Waste, garbage, floatable debris, construction debris, and sanitary waste.

"Provisionally Covered Under this Permit" – for the purposes of this permit, EPA provides temporary coverage under this permit for emergency-related projects prior to receipt of a complete and accurate NOI. Discharges from earth-disturbing activities associated with the emergency-related projects are subject to the terms and conditions of the permit during the period of temporary coverage.

"Qualified Person" – a person knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possesses the appropriate skills and training to assess conditions at the construction site that could impact stormwater quality, and the appropriate skills and training to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

"Receiving Water" – a "Water of the United States" as defined in 40 CFR §122.2 into which the regulated stormwater discharges.

"Run-On" – sources of stormwater that drain from land located upslope or upstream from the regulated site in question.

"Seasonally Dry Period" – a month in which the long-term average total precipitation is less than or equal to 0.5 inches. Refer to EPA's Seasonally Dry Period Locator and supporting maps for assistance in determining whether a site is operating during a seasonally dry period for the area, located at https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates.

"Sediment-Related parameter" – for the purposes of this permit, a pollutant parameter that is closely related to sediment such as turbidity, total suspended solids (TSS), total suspended sediment, transparency, sedimentation, and siltation.

"Semi-Arid Areas" – areas with an average annual rainfall of 10 to 20 inches. For assistance in determining average annual rainfall in specific locations, refer to the NOAA National Mapping webpage (https://www.ncdc.noaa.gov/cag/national/mapping), the PRISM Climate Group's Time Series Values for individual locations (https://prism.oregonstate.edu/explorer/), or EPA's US EPA EnviroAtlas (https://www.epa.gov/enviroatlas).

"Shared Control" - for the purposes of this permit, a stormwater control, such as a sediment basin or pond, used by two or more operators that is installed and maintained for the purpose of minimizing and controlling pollutant discharges from a construction site with multiple operators associated with a common plan of development or sale. Any operators that are contributing stormwater from their construction activities to a shared control are considered to rely upon a shared control.

"Small Construction Activity" – defined at 40 CFR §122.26(b)(15) and incorporated here by reference. A small construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than one (1) acre and less than five (5) acres of land or will disturb less than one (1) acre of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than one (1) acre and less than five (5) acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

"Small Residential Lot" – for the purpose of this permit, a lot being developed for residential purposes that will disturb less than 1 acre of land, but is part of a larger residential project that will ultimately disturb greater than or equal to 1 acre.

"Snowmelt" – the conversion of snow into overland stormwater and ground water flow as a result of warmer temperatures.

"Spill" – for the purpose of this permit, the release of a hazardous or toxic substance from its container or containment.

"Stabilization" – the use of vegetative and/or non-vegetative cover to prevent erosion and sediment loss in areas exposed through the construction process.

"Steep Slopes" – where a State, Tribe, local government, or industry technical manual (e.g., stormwater BMP manual) has defined what is to be considered a "steep slope", this permit's definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically defined as those that are 15 percent or greater in grade.

"Storm Sewer System" – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) designed or used for collecting or conveying stormwater.

"Stormwater" – stormwater runoff, snowmelt runoff, and surface runoff and drainage.

"Stormwater Control" - refers to any best management practice or other method (including narrative effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

"Stormwater Discharge Associated with Construction Activity" – as used in this permit, a discharge of pollutants in stormwater to waters of the United States from areas where earth-disturbing activities (e.g., clearing, grubbing, grading, or excavation) occur, or where construction materials or equipment storage or maintenance (e.g., fill piles, borrow area,

concrete truck chute washdown, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants), are located.

"Stormwater Inlet" – a structure placed below grade to conduct water used to collect stormwater runoff for conveyance purposes.

"Stormwater Team" – the group of individuals responsible for oversight of the development and modifications of the SWPPP, and oversight of compliance with the permit requirements. The individuals on the "Stormwater Team" must be identified in the SWPPP.

"Storm Event" – a precipitation event that results in a measurable amount of precipitation.

"Storm Sewer" – a system of pipes (separate from sanitary sewers) that carries stormwater runoff from buildings and land surfaces.

"Subcontractor" – for the purposes of this permit, an individual or company that takes a portion of a contract from the general contractor or from another subcontractor.

"SWPPP" (Stormwater Pollution Prevention Plan) – a site-specific, written document that, among other things: (1) identifies potential sources of stormwater pollution at the construction site; (2) describes stormwater controls to reduce or eliminate pollutants in stormwater discharges from the construction site; and (3) identifies procedures the operator will implement to comply with the terms and conditions of this general permit.

"Temporary Stabilization" – a condition where exposed soils or disturbed areas are provided temporary vegetative and/or non-vegetative protective cover to prevent erosion and sediment loss. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb this area.

"Thawing Conditions" – for the purposes of this permit, thawing conditions are expected based on the historical likelihood of two or more days with daytime temperatures greater than 32˚F. This date can be determined by looking at historical weather data. Note: the estimation of thawing conditions is for planning purposes only. During construction the permittee will be required to conduct site inspections based upon actual conditions (i.e., if thawing conditions occur sooner than expected, the permittee will be required to conduct inspections at the regular frequency).

"Threatened Species" – defined in the Endangered Species Act at 16 U.S.C. 1531 as any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

"Tier 2 Waters" – for antidegradation purposes, pursuant to 40 CFR 131.12(a)(2), those waters that are characterized as having water quality that exceeds the levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water.

"Tier 2.5 Waters" – for antidegradation purposes, those waters designated by States or Tribes as requiring a level of protection equal to and above that given to Tier 2 waters, but less than that given Tier 3 waters. Some States have special requirements for these waters.

"Tier 3 Waters" – for antidegradation purposes, pursuant to 40 CFR 131.12(a)(3), Tier 3 waters are identified by States as having high quality waters constituting an Outstanding National Resource Water (ONRW), such as waters of National Parks and State Parks, wildlife refuges, and waters of exceptional recreational or ecological significance.

"Total Maximum Daily Load" or "TMDL" – the sum of the individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. If receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources,

tributaries, or adjacent segments. TMDLs can be expressed in terms of mass per time, toxicity, or other appropriate measure.

"Toxic Waste" – see "Hazardous Substances."

"Treatment Chemicals" – polymers, flocculants, or other chemicals used to reduce turbidity in stormwater.

"Turbidity" – a condition of water quality characterized by the presence of suspended solids and/or organic material.

"Uncontaminated Discharge" – in the context of authorized non-stormwater discharges, a discharge that meets applicable water quality standards.

"Upland" – the dry land area above and 'landward' of the ordinary high water mark.

"Upset" – Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. See 40 CFR 122.41(n)(1).

"Visual Turbidity" – for the purposes of this permit, visual turbidity is present when there is a sediment plume in the discharge or the discharge appears cloudy, opaque, or has a visible contrast that can be visually identified by an observer.

"Water-Dependent Structures" – structures or facilities that are required to be located directly adjacent to a waterbody or wetland, such as a marina, pier, boat ramp, etc.

"Water Quality Standards" – defined in 40 CFR § 131.3, and are provisions of State (including Tribal) or Federal law which consist of a designated use or uses for the waters of the United States, water quality criteria for such waters based upon such uses, and an antidegradation policy to protect high-quality waters. Water quality standards protect the public health or welfare, enhance the quality of water and serve the purposes of the Act.

"Waters of the United States" – see definition at 40 CFR 122.2.

"Wetland" – those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. On-site evaluations are typically required to confirm the presence and boundaries of wetlands.

2. Acronyms

ACHP – Advisory Council on Historic Preservation

BMP – Best Management Practice

CBI – Confidential Business Information

CGP – Construction General Permit

CFR – Code of Federal Regulations

CWA – Clean Water Act

CZMA – Coastal Zone Management Act

ECHO – EPA Enforcement and Compliance History Online

ELG – Effluent Limitations Guideline

EPA – United States Environmental Protection Agency
ESA – Endangered Species Act
FR – Federal Register
MS4 – Municipal Separate Storm Sewer System
MSGP – Multi-Sector General Permit
NEPA – National Environmental Policy Act
NeT – NPDES eReporting Tool
NTU - Nephelometric turbidity units
NHPA – National Historic Preservation Act
NMFS – United States National Marine Fisheries Service
NPDES – National Pollutant Discharge Elimination System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
NRC – National Response Center
NRCS – National Resources Conservation Service
NSPS – New Source Performance Standards
ONRW – Outstanding National Resource Water
PAM – Polyacrylamide
POTW – Publicly Owned Treatment Works
RUSLE – Revised Universal Soil Loss Equation
SDS – Safety Data Sheet
SHPO – State Historic Preservation Office
SPCC – Spill Prevention Control and Countermeasure
SWPPP – Stormwater Pollution Prevention Plan
THPO – Tribal Historic Preservation Office
TMDL – Total Maximum Daily Load
TSS – Total Suspended Solids
UIC – Underground Injection Control
USDA – United States Department of Agriculture
USFWS – United States Fish and Wildlife Service
USGS – United States Geological Survey
WQS – Water Quality Standard

Appendix B - Permit Areas Eligible for Coverage and EPA Regional Addresses

Permit coverage for stormwater discharges from construction activity occurring within the following areas is provided by legally separate and distinctly numbered permits. For assistance in determining whether your construction activities are located within Indian country, refer to the Bureau of Indian Affairs' digital map of the land areas of Federally-recognized Tribes at https://biamaps.doi.gov/indianlands/#.

B.1 EPA Region 1

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 1:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
CTR10I000	Indian country within the State of Connecticut
MAR100000	Commonwealth of Massachusetts (except Indian country)
MAR10I000	Indian country within the State of Massachusetts
NHR100000	State of New Hampshire
RIR10I000	Indian country within the State of Rhode Island
VTR10F000	Areas in the State of Vermont located at a Federal Facility (as defined in Appendix A)
1R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program with authorization to issue permits in Indian country

For stormwater discharges in EPA Region 1 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

EPA Region 1 Address:
U.S. EPA Region 1
Office of Ecosystem Protection
Stormwater and Construction Permits Section
5 Post Office Square, Suite 100
(OEP 06-1)
Boston, MA 02109-3912

B.2 EPA Region 2

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 2:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
NYR10I000	Indian country within the State of New York
PRR100000	Commonwealth of Puerto Rico
02R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program with authorization to issue permits in Indian country

For stormwater discharges in EPA Region 2 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

EPA Region 2 Address:
For Puerto Rico:
U.S. EPA Region 2
Caribbean Environmental Protection Division
NPDES Stormwater Program
City View Plaza II – Suite 7000
48 Rd. 165 Km 1.2
Guaynabo, PR 00968-8069

For New York:
U.S. EPA Region 2
NPDES Stormwater Program
290 Broadway, 24th Floor
New York, NY 10007-1866

B.3 EPA Region 3

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 3:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
DCR100000	District of Columbia
DER10F000	Areas in the State of Delaware located at a Federal Facility (as defined in Appendix A)
VAR10I000	Indian country within the State of Virginia
03R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program with authorization to issue permits in Indian country

For stormwater discharges in EPA Region 3 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

EPA Region 3 Address:
U.S. EPA Region 3
Office of NPDES Permits and Enforcement
NPDES Permits Branch, Mailcode 3WP41
1650 Arch Street
Philadelphia, PA 19103

B.4 EPA Region 4

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 4:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
ALR10I000	Indian country within the State of Alabama
FLR10I00E	Indian country within the State of Florida
MSR10I000	Indian country within the State of Mississippi
NCR10I000	Indian country within the State of North Carolina
04R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program with authorization to issue permits in Indian country (except Catawba lands in South Carolina)

For stormwater discharges in EPA Region 4 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

EPA Region 4 Address:
U.S. EPA Region 4
Water Protection Division
NPDES Stormwater Program
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303-3104

B.5 EPA Region 5

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 5:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
MIR10I000	Indian country within the State of Michigan, except the L'Anse Reservation of the Keweenaw Bay Indian Community
MNR10I000	Indian country within the State of Minnesota, except sites located in the Fond du Lac Reservation discharging to Outstanding Reservation Resources Waters (ORRWs)[1]
WIR10I000	Indian country within the State of Wisconsin, except sites located in the Bad River Band of Lake Superior Tribe of Chippewa Indians discharging to Outstanding Tribal Resource Waters (OTRWs) or Tier 3 waters[2]
05R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program with authorization to issue permits in Indian country

[1] The Tribe has identified Perch Lake, Rice Portage Lake, Miller Lake, Deadfish Lake, and Jaskari Lake as ORRWs.
[2] The Tribe has identified the following as OTRWs or Tier 3 waters: Kakagon Slough and the lower wetland reaches of its tributaries that support wild rice, Kakagon River, Bad River Slough, Honest John Lake, Bog Lake, a portion of Bad River, from where it enters the Reservation through the confluence with the White River, and Potato River.

For stormwater discharges in EPA Region 5 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

EPA Region 5 Address:
U.S. EPA Region 5
NPDES Program Branch
77 W. Jackson Blvd.
Mail Code WN16J
Chicago, IL 60604-3507

B.6 EPA Region 6

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 6:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
LAR10I000	Indian country within the State of Louisiana
NMR100000	State of New Mexico, except Indian country
NMR10I000	Indian country within the State of New Mexico, except Navajo Reservation Lands that are covered under Arizona permit AZR10000I and Ute Mountain Reservation Lands that are covered under Colorado permit COR10000I.
OKR10I000	Indian country within the State of Oklahoma, except areas of Indian country covered by an extension of state program authority pursuant to Section 10211 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA).
OKR10F000	Discharges in the State of Oklahoma that are not under the authority of the Oklahoma Department of Environmental Quality, or the Oklahoma Department of Agriculture and Forestry including activities associated with oil and gas exploration, drilling, operations, and pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171), and point source discharges associated with agricultural production, services, and silviculture (includes SIC Groups 01, 02, 07, 08, 09).
TXR10I000	Indian country within the State of Texas
06R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program with authorization to issue permits in Indian country

For stormwater discharges in EPA Region 6 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

EPA Region 6 Address:
U.S. EPA Region 6
NPDES Stormwater Program (WQ-PP)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

B.7 EPA Region 7

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 7:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
IAR10I000	Indian country within the State of Iowa
KSR10I000	Indian country within the State of Kansas
NER10I000	Indian country within the State of Nebraska, except Pine Ridge Reservation lands (see Region 8)
07R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program with authorization to issue permits in Indian country

For stormwater discharges in EPA Region 7 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

EPA Region 7 Address:
U.S. EPA Region 7
NPDES Stormwater Program
11201 Renner Blvd
Lenexa, KS 66219

B.8 EPA Region 8

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 8:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
COR10F000	Areas in the State of Colorado located at a Federal Facility (as defined in Appendix A), except those located on Indian country
COR10I000	Indian country within the State of Colorado, as well as the portion of the Ute Mountain Reservation located in New Mexico
MTR10I000	Indian country within the State of Montana
NDR10I000	Indian country within the State of North Dakota, as well as that portion of the Standing Rock Reservation located in South Dakota (except for the portion of the lands within the former boundaries of the Lake Traverse Reservation which is covered under South Dakota permit SDR10000I listed below)
SDR10I000	Indian country within the State of South Dakota, as well as the portion of the Pine Ridge Reservation located in Nebraska and the portion of the lands within the former boundaries of the Lake Traverse Reservation located in North Dakota (except for the Standing Rock Reservation which is covered under North Dakota permit NDR10000I listed above)
UTR10I000	Indian country within the State of Utah, except Goshute and Navajo Reservation lands (see Region 9)
WYR10I000	Indian country within the State of Wyoming
08R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program with authorization to issue permits in Indian country

For stormwater discharges in EPA Region 8 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

EPA Region 8 Address:
EPA Region 8 Storm Water Program
Mailcode: 8P-W-WW
1595 Wynkoop Street
Denver, CO 80202-1129

B.9 EPA Region 9

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 9:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
ASR100000	Island of American Samoa
AZR10I000	Indian country within the State of Arizona, as well as Navajo Reservation lands in New Mexico and Utah
CAR10I000	Indian country within the State of California
GUR100000	Island of Guam
JAR100000	Johnston Atoll
MPR100000	Commonwealth of the Northern Mariana Islands
MWR100000	Midway Island and Wake Island
NVR10000I	Indian country within the State of Nevada, as well as the Duck Valley Reservation in Idaho, the Fort McDermitt Reservation in Oregon and the Goshute Reservation in Utah
09R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program with authorization to issue permits in Indian country

For stormwater discharges in EPA Region 9 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

EPA Region 9 Address:
U.S. EPA Region 9
Water Division
NPDES Stormwater Program (WTR-2-3)
75 Hawthorne Street
San Francisco, CA 94105-3901

B.10 EPA Region 10

The permit offers coverage for stormwater discharges from construction activity from the following areas in EPA Region 10:

Permit No.	Areas of Coverage/Where EPA is Permitting Authority
AKR10I000	Indian country lands as defined in 18 U.S.C. 1151 within the State of Alaska
AKR10F000	Denali National Park and Preserve
IDR10I000	Indian country within the State of Idaho, except Duck Valley Reservation lands (see Region 9)
ORR10I000	Indian country within the State of Oregon, except Fort McDermitt Reservation lands (see Region 9)
WAR10F000	Areas in the State of Washington, except those located on Indian country, subject to construction activity by a Federal Operator
WAR10I000	Indian country within the State of Washington
010R10I000	All areas of Indian country not identified above that are not already covered by an EPA-approved permitting program with authorization to issue permits in Indian country

For stormwater discharges in EPA Region 10 outside the areas of coverage identified above, please contact your State NPDES permitting authority to obtain coverage under a State-issued NPDES permit.

EPA Region 10 Address:
U.S. EPA Region 10
NPDES Stormwater Program
1200 6th Avenue (OWW-191)
Seattle, WA 98101-3140

Appendix C - Small Construction Waivers and Instructions

These waivers are only available to stormwater discharges associated with small construction activities (i.e., 1-5 acres). As the operator of a small construction activity, you may be able to qualify for a waiver in lieu of needing to obtain coverage under this general permit based on: (A) a low rainfall erosivity factor, (B) a TMDL analysis, or (C) an equivalent analysis that determines allocations for small construction sites are not needed. Each operator, otherwise needing permit coverage, must notify EPA of its intention for a waiver. It is the responsibility of those individuals wishing to obtain a waiver from coverage under this general permit to submit a complete and accurate waiver certification as described below. Where the operator changes or another is added during the construction project, the new operator must also submit a waiver certification to be waived.

C.1 Rainfall Erosivity Waiver

Under this scenario the small construction project's rainfall erosivity factor calculation ("R" in the Revised Universal Soil Loss Equation) is less than five during the period of construction activity. The operator must certify to EPA that construction activity will occur only when the rainfall erosivity factor is less than five. The period of construction activity begins at initial earth disturbance and ends with final stabilization. Where vegetation will be used for final stabilization, the date of installation of a stabilization practice that will provide interim non-vegetative stabilization can be used for the end of the construction period, provided the operator commits (as a condition of waiver eligibility) to periodically inspect and properly maintain the area until the criteria for final stabilization as defined in the CGP have been met. If use of this interim stabilization eligibility condition was relied on to qualify for the waiver, signature on the waiver with its certification statement constitutes acceptance of and commitment to complete the final stabilization process. The operator must submit a waiver certification to EPA prior to commencing construction activities.

> *Note: The rainfall erosivity factor "R" is determined in accordance with Chapter 2 of Agriculture Handbook Number 703, Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE), pages 21–64, dated January 1997; United States Department of Agriculture (USDA), Agricultural Research Service.*

EPA has developed an online rainfall erosivity calculator to help small construction sites determine potential eligibility for the rainfall erosivity waiver. You can access the calculator from EPA's website at: https://www.epa.gov/npdes/rainfall-erosivity-factor-calculator-small-construction-sites. The R factor can easily be calculated by using the construction site latitude/longitude or address and estimated start and end dates of construction. This calculator may also be useful in determining the time periods during which construction activity could be waived from permit coverage. You may find that moving your construction activity by a few weeks or expediting site stabilization will allow you to qualify for the waiver. Use this online calculator or the Construction Rainfall Erosivity Waiver Fact Sheet (https://www.epa.gov/sites/production/files/2015-10/documents/fact3-1.pdf) to assist in determining the R Factor for your small construction site.

If you are the operator of the construction activity and eligible for a waiver based on low erosivity potential, you can submit a rainfall erosivity waiver electronically via EPA's NPDES eReporting Tool (NeT) (https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting), unless you received a waiver from your EPA Regional Office (see Part 1.4.1 of the CGP for information about receiving a waiver from electronic reporting).

> *Note: If the R factor is five or greater, you do not qualify for the rainfall erosivity waiver, and must obtain coverage under an NPDES permit (e.g., the CGP), unless you qualify for the Water Quality Waiver as described in section B below.*

If your small construction project continues beyond the projected completion date given on the waiver certification, you must recalculate the rainfall erosivity factor for the new project duration. If the R factor is below five, you must update all applicable information on the waiver certification and retain a copy of the revised waiver as part of your records. The new waiver certification must be submitted prior to the projected completion date listed on the original waiver form to assure your exemption from permitting requirements is uninterrupted. If the new R factor is five or above, you must obtain NPDES permit coverage.

C.2 TMDL Waiver

This waiver is available if EPA has established or approved a TMDL that addresses the pollutant(s) of concern for the impaired water and has determined that controls on stormwater discharges from small construction activity are not needed to protect water quality. The pollutant(s) of concern include sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any waterbody that will receive a discharge from the construction activity. Information on TMDLs that have been established or approved by EPA is available from EPA online at https://www.epa.gov/tmdl and from State and Tribal water quality agencies.

If you are the operator of the construction activity and eligible for a waiver based on compliance with an EPA-established or approved TMDL, you must provide the following information in order to be waived from permitting requirements:

1. Name, address and telephone number of the construction site operator(s);
2. Name (or other identifier), address, county or similar governmental subdivision, and latitude/longitude of the construction project or site;
3. Estimated construction start and completion (i.e., final stabilization) dates, and total acreage (to the nearest quarter acre) to be disturbed;
4. The name of the waterbody(s) that would be receiving stormwater discharges from your construction project;
5. The name and approval date of the TMDL;
6. A statement, signed and dated by an authorized representative as provided in Appendix G, Subsection G.11, that certifies that the construction activity will take place and that the stormwater discharges will occur, within the drainage area addressed by the TMDL.

C.3 Equivalent Analysis Waiver

This waiver is available for discharges to non-impaired waters only. The operator can develop an equivalent analysis that determines allocations for his/her small construction site for the pollutant(s) of concern or determines that such allocations are not needed to protect water quality. This waiver requires a small construction operator to develop an equivalent analysis based on existing in-stream concentrations, expected growth in pollutant concentrations from all sources, and a margin of safety.

If you are a construction operator who wants to use this waiver, you must develop your equivalent analysis and provide the following information to be waived from permitting requirements:

1. Name, address and telephone number of the construction site operator(s);

2. Name (or other identifier), address, county or similar governmental subdivision, and latitude/longitude of the construction project or site;
3. Estimated construction start and completion (i.e., final stabilization) dates, and total acreage (to the nearest quarter acre) to be disturbed;
4. The name of the waterbody(s) that would be receiving stormwater discharges from your construction project;
5. Your equivalent analysis;
6. A statement, signed and dated by an authorized representative as provided in Appendix G, Subsection G.11, that certifies that the construction activity will take place and that the stormwater discharges will occur, within the drainage area addressed by the equivalent analysis.

C.4 Waiver Deadlines and Submissions

1. Waiver certifications must be submitted prior to commencement of construction activities.
2. If you submit a TMDL or equivalent analysis waiver request, you are not waived until EPA approves your request. As such, you may not commence construction activities until receipt of approval from EPA.
3. Late Notifications: Operators are not prohibited from submitting waiver certifications after initiating clearing, grading, excavation activities, or other construction activities. The Agency reserves the right to take enforcement for any unpermitted discharges that occur between the time construction commenced and waiver authorization is granted.

Submittal of a waiver certification is an optional alternative to obtaining permit coverage for discharges of stormwater associated with small construction activity, provided you qualify for the waiver. Any discharge of stormwater associated with small construction activity not covered by either a permit or a waiver may be considered an unpermitted discharge under the Clean Water Act. As mentioned above, EPA reserves the right to take enforcement for any unpermitted discharges that occur between the time construction commenced and either discharge authorization is granted or a complete and accurate waiver certification is submitted. EPA may notify any operator covered by a waiver that they must obtain NPDES permit coverage. EPA may notify any operator who has been in non-compliance with a waiver that they may no longer use the waiver for future projects. Any member of the public may petition EPA to take action under this provision by submitting written notice along with supporting justification.

Complete and accurate TMDL or equivalent analysis waiver requests must be sent to the applicable EPA Regional Office address specified in Appendix B.

NPDES Form 6100-067 **OMB No. 2040-0305, Exp. Date 01/31/25**

Appendix D - Eligibility Worksheet Relating to Threatened and Endangered Species Protection

D.1 Introduction

This appendix provides a printable worksheet that can be helpful in selecting and documenting your eligibility criteria with respect to the protection of Federally listed threatened or endangered species and Federally designated "critical habitat" under the Endangered Species Act (ESA) [hereinafter "ESA-listed species and designated critical habitat(s)"] from discharges and discharge-related activities authorized under this permit. This is important because Section 9 of the ESA prohibits all persons and agencies from "taking" threatened and endangered species (16 U.S.C. § 1532(19)).

While coordination between you and the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) (together, referred to as the "Services") may not be required in all cases, EPA encourages you to coordinate with the Services, to document that coordination, and to do so early in the planning process prior to submitting your NOI.

D.2 Certifying ESA Eligibility Criterion for the CGP

To be eligible for coverage under the CGP, you must certify that you meet one of the criteria listed in this worksheet (Section D.5), which is then submitted with your NOI for coverage under this permit. If you do not meet one of the ESA eligibility criteria outlined in the worksheet below, you are not eligible for coverage under this permit. These criteria ensure that coverage is available only for discharges and discharge-related activities that (1) avoid or eliminate any short- or long-term adverse effects to ESA-listed species and designated critical habitat(s), or (2) may result in any short- or long-term adverse effects that result in incidental take addressed under the incidental take statement of a biological opinion or permit for take issued under Section 10 of the ESA.

As part of your determination of eligibility, EPA has developed a worksheet that assists operators in arriving at the correct criterion. The following requirements apply to the completion of the worksheet depending on how you are submitting your NOI for permit coverage:

1. If the EPA Regional Office grants you a waiver from electronic reporting, in accordance with Part 1.1.5 of the CGP, you must complete the worksheet in section D.4 of this appendix to provide all information as required on your NOI that supports the eligibility criterion you qualify under per Part 1.1.5 of the permit. **You must submit the worksheet with your NOI. If you do not submit the worksheet with your NOI, your NOI will be considered incomplete.**
2. If you do not have a waiver from electronic reporting, you must **complete your eligibility criteria selection outlined in the Endangered Species Protection section of the NOI in the NPDES eReporting Tool (NeT-CGP)** and provide all information as required on your NOI that supports the eligibility criterion you qualify under per Part 1.1.5 of the permit. The printable worksheet in this appendix may be helpful to you in preparing to submit your NOI, but you do not have to use it.

D.3 What to Expect Once you Submit your NOI

After you submit your NOI and before your NOI is authorized, EPA may notify you if any additional controls are necessary to ensure your discharges are not likely to result in any short- or long-term adverse effects on ESA-listed species and critical habitat.

The Services have the opportunity, within 14 days of submission of the NOI, to advise EPA whether either agency believes the planned discharges meet the selected eligibility criterion; whether the eligibility criterion could be met with additional conditions; or whether the eligibility criterion is not met. With respect to ESA issues, EPA recognizes the Services' expertise and will carefully consider their conclusion(s) in identifying eligibility for authorization, either with or without additional conditions. In the event EPA has placed a hold on your NOI based on NMFS or USFWS' recommendation, EPA will notify you as to whether your discharges are authorized or whether an individual permit will be required. If you do not hear from EPA within 14 days, you may assume that your discharge is authorized without further conditions.

D.4 Worksheet Instructions

Follow the instructions within the worksheet below to determine which criterion you are eligible for coverage under this permit. Check only 1 criterion, answer the required questions, and include the required information.

Please keep the following in mind as you complete the worksheet:

- The worksheet requires that you answer questions in a sequential order so that you can select the correct eligibility criterion. The worksheet does not go through each criterion alphabetically, but rather is organized in a way that allows you to eliminate those criteria that do not apply to your site. For instance, Step 1 of the worksheet requires you to determine whether criterion B, E, or F applies first, in that order, before proceeding to determining whether criterion A applies in Step 2.
- You must consider ESA-listed species and/or designated critical habitat(s) under the jurisdiction of both the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) and select the criterion that best applies to your site. You must comply with any applicable terms, conditions, or other requirements developed in theprocess of meeting one of the eligibility criteria in this section to remain eligible for coverage under this permit.
- When evaluating the potential effects of your activities, you must consider effects to listed species or critical habitats within the "action area" of your construction activity, as identified by the USFWS IPaC and/or the NOAA website resources on page D-10 through D-11 of this appendix. Please Note: *NMFS' jurisdiction includes ESA-listed marine and estuarine species that spawn in inland rivers.* The definition of "action area," which is contained in Appendix A, is repeated below forconvenience.

> "Action Area" – all areas to be affected directly or indirectly by the federal action and not merely theimmediate area involved in the action. See 50 CFR part 402. For the purposes of this permit and for application of the Endangered Species Act requirements, the following areas are included in the definition of action area:
>
> - The **areas on the construction site** where stormwater discharges originate and flow toward the point of discharge into the receiving waters. This includes:
> - areas on the construction site where excavation, site development, or other ground disturbance activities occur, and
> - areas where stormwater controls will be constructed and operated, including any areas where stormwater flows to and from the stormwater controls.
> - The areas **in the vicinity of the construction site** where stormwater discharges flow from the construction site to one or more points of discharge into receiving waters. (Example: Where stormwater flows into an off-site ditch, swale, or gully that leads to receiving waters.)
> - **The extent of the receiving water** potentially affected by stormwater discharges from your construction site through alteration of water chemistry, turbidity, temperature, or bank structure (i.e., erosive flow), regardless of whether the construction site is adjacent to the receiving water.

D.5 Worksheet

Step 1 – Determine if You Meet the Eligibility Requirements of Criterion B, E, or F

Instructions

- First determine whether you are eligible under Criterion B by reviewing the eligibility requirements below.
- If you determine that your facility does not meet Criterion B (e.g., due to difference in action area described, lack of analysis of appropriate effects, new listings or designation of critical habitat), proceed to check if you meet the requirements for Criterion E or F.

Criterion B Eligibility Requirements

If your discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility under the current 2022 CGP that included your action area (e.g., a general contractor or developer may have completed and filed an NOI for the entire action area with the necessary ESA certifications (Criterion A, C, D, E, or F)), you may be eligible under Criterion B. In order to be eligible for coverage, you must confirm that **all** three of the following are true (**check all that apply**):

☐ I have confirmed that the other operator's certification of eligibility accounted for my action area and that the eligibility certification was valid.

☐ There has been no lapse of NPDES permit coverage in the other operator's certification.

☐ I will comply with all measures that formed the basis of the other operator's valid certification of eligibility.

Instructions

- **If all three of the above are true, you may check Criterion B below and answer questions B1-B5, and if applicable, B6-B7.**
- **If any of the above are not true** (for example, if there are any listed species in your action area that were not addressed in the other operator's certification, you are not eligible under Criterion B), **you may not select Criterion B and must proceed to check if you meet the requirements for Criterion E or F.**

B Eligibility requirements met by another operator under the 2022 CGP. The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your "action area" under eligibility Criterion A, C, D, E, or F of the 2022 CGP and you have confirmed that no additional ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS not considered in the

that certification may be present or located in the "action area." To certify your eligibility under this criterion, there must be no lapse of NPDES permit coverage in the other CGP operator's certification. By certifying eligibility under this criterion, you agree to comply with any conditions upon which the other CGP operator's certification was based. You must include below the NPDES ID from the other 2022 CGP operator's notification of authorization under this permit and list any measures that you must comply with). If your certification is based on another 2022 CGP operator's certification under Criterion C, you must provide EPA with the relevant supporting information required of existing dischargers in Criterion C.

B1. Provide the NPDES ID from the other CGP operator's NOI authorized under this permit:

_ _ _ _ _ _ _ _ _ _

B2. Identify the eligibility criterion of the other CGP operator's NOI? (check only one)

☐ A ☐ C ☐ D ☐ E ☐ F

B3. Provide the authorization date of the other CGP operator's NOI (MM/DD/YYYY):

_ _ / _ _ / _ _ _ _

By certifying eligibility under Criterion B, you must comply with any terms and conditions imposed under the eligibility requirements of the criterion for which the other operator has established eligibility (either Criterion A, C, D, E, or F) to ensure that your discharges and discharge-related activities are protective of listed species and/or critical habitat. *Note: If you are unable to meet these eligibility requirements, then you may either establish eligibility under one of the other criteria, or you may consider applying to EPA for an individual permit.*

B4. List any measures that formed the basis of the other operator's valid certification of eligibility that you will comply with (or enter "N/A" if none exist):

B5. Check to confirm you have provided documentation in your SWPPP supporting your eligibility under Criterion B, including any of the terms and conditions, as well as the other operator's basis for establishing eligibility. Yes ☐

If your certification is based on another operator's certification under Criterion C, you must provide the following:

B6. What Federally listed species and/or designated habitat are located in your "action area"? (attached separate sheet if necessary)

B7. What is the distance between your site and the listed species or designated critical habitat (in miles)? _____

Instructions

- **If you selected Criterion B above and answered questions B1-B5, and if applicable, B6-B7, you are done with this worksheet. If you are *not* filing electronically, you must submit this worksheet with your NOI.**
- If you are not eligible under Criterion B, proceed to check if you meet the requirements for Criterion E or F.

Criterion E Eligibility Requirements

If consultation under ESA section 7 has concluded, you may be eligible for coverage under Criterion E. In order to be eligible for coverage under Criterion E, **you must confirm that both of the following are true (check all that apply)**:

☐ A consultation between a Federal agency and USFWS and/or the NMFS under section 7 of the ESA has concluded. Consultations can be either formal or informal, and would have occurred only as a result of a separate Federal action (e.g., during application for an individual wastewater discharge permit or the issuance of a wetlands dredge and fill permit), and the consultation must have addressed the effects of your construction activity's discharges and discharge-related activities on all ESA-listed threatened or endangered species and all designated critical habitat under the jurisdiction of each Service, as appropriate, in your action area. The result of this consultation must be either:

i. A biological opinion currently in effect that determined that the action in question (taking into account the effects of your facility's discharges and discharge-related activities) is likely to adversely affect, but is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. The biological opinion must have included the effects of your facility's discharges[1] and discharge-related activities on all the listed species and designated

[1] Effects of discharge include, but are not limited to, the analysis of the hydrological, chemical, and biological effects of the discharge on listed species, their prey, and their habitat, as well as critical habitat, where designated. For example, the

critical habitat in your action area under the jurisdiction of each Service, as appropriate. To be eligible under (i), any reasonable and prudent measures specified in the incidental take statement must be implemented;

ii. Written concurrence (e.g., letter of concurrence) from the applicable Service(s) with a determination that your facility's discharges and discharge-related activities are not likely to adversely affect ESA-listed species and/or designated critical habitat. The concurrence letter must have included the effects of your facility's discharges and discharge-related activities on all the ESA-listed species and/or designated critical habitat on your species list(s) acquired from USFWS and/or NMFS as part of this worksheet.

☐ The consultation does not warrant reinitiation under 50 CFR §402.16; or, if reinitiation of consultation is required (e.g., due to a new species listing, critical habitat designation, or new information), the Federal action agency has reinitiated the consultation and the result of the consultation is consistent with the statements above. Include any reinitiation documentation from the Services or consulting Federal agency with your NOI.

Instructions

- **If both of the above are true, you may check Criterion E below and answer questions E1-E6.**
  - For more information on section 7 consultation, see 50 CFR part 402. If you receive a "jeopardy opinion," you may continue to work with USFWS and/or NMFS and your permitting authority to modify your project so that it will not jeopardize listed species or designated critical habitat.
  - Note that most consultations are accomplished through informal consultation. When conducting informal ESA section 7 consultation as a non-Federal representative, you must follow the procedures found in 50 CFR Part 402 of the ESA regulations. You must notify the Services of your intention and agreement to conduct consultation as a non-Federal representative.
  - Consultation may also occur in the context of another Federal action at the construction site (e.g., where ESA section 7 consultation was performed for issuance of a wetlands dredge and fill permit for the project or where a NEPA review is performed for the project that incorporates a section 7 consultation).
  - Any terms and conditions developed through consultations to protect listed species and critical habitat must be incorporated into the SWPPP. As noted above, a Federal operator may, if they wish, initiate consultation with the Services at Step Four. Non-Federal operators may seek technical assistance from the Services at Step 5.
  - Whether ESA section 7 consultation must be performed with either USFWS, NMFS, or both Services depends on the listed species that may be affected by the operator's stormwater discharges. In general, NMFS has jurisdiction over marine, estuarine, and anadromous species. Operators should also be aware that while formal section 7 consultation provides protection from incidental takings liability, informal consultation does not.
- **If not, proceed to check if you meet the requirements for Criterion F.**

effects analysis would have evaluated whether the various pollutants in the discharge (e.g., TSS, metals) would adversely affect listed species through exposure to the pollutants, or to their prey or habitat. Effects that look only at short-term effects unrelated to the stormwater discharge effects to listed species are not sufficient for these purposes.

☐ **E** **ESA Section 7 consultation has successfully concluded.** Consultation between a Federal Agency and the USFWS and/or NMFS under section 7 of the ESA has concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS. To certify eligibility under this criterion, **Indicate the result of the consultation**:

☐ Biological opinion and/or conference opinion and incidental take statement currently in effect currently in effect from USFWS and/or NMFS that concludes that the action in question (taking into account the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the continued existence of ESA-listed species, nor the destruction or adverse modification of critical habitat;

Or

☐ Written concurrence from USFWS and/or NMFS with a finding that the site's discharges and discharge-related activities are not likely to adversely affect ESA-listed species and/or designated critical habitat.

E1. Identify the federal action agency or agencies involved:

E2. Identify the Service(s) field or regional offices providing the consultation:

E3. Identify any tracking numbers associated with the consultation (e.g., IPaC number, ECO number):

E4. What is the date the consultation was completed? (MM/DD/YYYY) __ __ / __ __ / __ __ __ __

E5. Check to confirm that correspondence with USFWS and/or NMFS documenting the Biological Opinion, conference opinion (IPaC or ECO tracking number) or concurrence is attached. Yes ☐

E6. Check to confirm you have provided documentation in your SWPPP supporting your eligibility under Criterion E, including copies of the correspondence between yourself and the Services. Yes ☐

Instructions

- **If you selected Criterion E above and answered questions E1-E6, you are done with this worksheet. If you are not filing electronically, you must submit this worksheet with your NOI.**
- If you are not eligible under Criterion E, proceed to check if you meet the requirements for Criterion F.

Criterion F Eligibility Requirements

If your construction activities are the subject of a permit under ESA section 10, and this authorization addresses the effects of your site's discharges and discharge-related activities on ESA-listed species and designated critical habitat in your action area, you may be eligible for coverage under Criterion F. In order to be eligible or coverage under Criterion F, **you must confirm that the following is true:**

☐ A permit or permits issued under section 10 of the ESA specifically address the effects of your facility's discharges and discharge-related activities (if applicable) on all federally-listed species and designated critical habitat in your action area.

Note: You must follow USFWS and/or NMFS procedures when applying for an ESA section 10 permit (see 50 CFR §17.22(b)(1) for USFWS and §222.22 for NMFS). Application instructions for section 10 permits can be obtained from http://www.fws.gov and http://www.nmfs.noaa.gov or by contacting the appropriate Service office.

Instructions

- **If the above is true, you may check Criterion F below and answer questions F1-F6.**
- If you are not eligible under criterion F, proceed to Step 2.

☐ **F** **Issuance of section 10 permit**. Potential take is authorized through the issuance of a permit under section 10 of the ESA by the USFWS and/or NMFS, and this authorization addresses the effects of the site's discharges and discharge-related activities on ESA-listed species and designated critical habitat. You must include copies of the correspondence between yourself and the participating agencies in your SWPPP and your NOI.

F1. Which Service provided the section 10 permit? (check all that apply)

USFWS ☐ NMFS ☐

F2. Identify the field or regional offices providing the permit(s):

F3. Identify any tracking numbers associated with the consultation (e.g., IPaC number, ECO number):

F4. What is the date the permit(s) was granted? (MM/DD/YYY) __ __ / __ __ / __ __ __ __
(2nd permit date, if applicable: __ __ / __ __ / __ __ __ __)

F5. Check to confirm that correspondence with USFWS and/or NMFS and a copy of the section 10 permit or relevant tracking number(s) (IPaC and/or ECO number) is attached. Yes ☐

F6. Check to confirm you have provided documentation in your SWPPP supporting your eligibility under Criterion F, including a copy of the section 10 permit and copies of the correspondence between yourself and the Services. Yes ☐

Instructions

- **If you selected Criterion F above and answered questions F1-F6, you are done with this worksheet. If you are not filing electronically, you must submit this worksheet with your NOI.**
- If you are not eligible under Criterion F, proceed to Step 2.

Step 2 – Determine if Listed Threatened or Endangered Species or their Designated Critical Habitat(s) are Likely to Occur in your Site's Action Area

Instructions

- **First, determine the extent of your action area.** You must determine whether species listed as either threatened or endangered, or their critical habitat(s) are located in your site's action area (i.e., all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action, including areas beyond the footprint of the site that are likely to be affected by stormwater discharges, discharge-related activities, and authorized non-stormwater discharges).

You must consider the following in determining the action area for your site, and **confirm that all the following are true**:

☐ In determining my "action area", I have considered that discharges of pollutants from the project site can expand the action area well beyond the footprint of my site and the discharge point(s). I have taken into account the controls I will be implementing to minimize pollutants and the receiving waterbody characteristics (e.g., perennial, intermittent, ephemeral) in determining the extent of physical, chemical, and/or biotic effects of the

discharges. I confirm that all receiving waterbodies that could receive pollutants from my site are included in my action area.

☐ In determining my "action area", I have considered that discharge-related activities must also be accounted for in determining my action area. I understand that discharge-related activities are any activities that cause, contribute to, or result in stormwater and authorized non-stormwater point source discharges, and measures such as the siting, construction, timing,[2] and operation of stormwater controls to control, reduce, or prevent pollutants from being discharged. I understand that any new or modified stormwater controls that will have noise or other similar effects, and any disturbances associated with construction of controls, are part of my action area.

If you have any questions about determining the extent of your action area, you may contact EPA or the Services for assistance. https://www.epa.gov/npdes/contact-us-stormwater#regional

Instructions

- **Next, you must identify, to the best of your ability, any species listed as either threatened or endangered, or their critical habitat(s), that are located in your site's action area (see definitions of these terms in Appendix A).** You must follow the instructions on the https://www.epa.gov/npdes/construction-general-permit-threatened-and-endangered-species to obtain lists of any ESA-protected species and/or critical habitat that are expected to exist in your county, township, or the receiving water for your discharge.
- If ESA-protected resources occur within your action area, keep a copy of the species and critical habitat list(s) from the Service(s) with your SWPPP and use the list(s) to complete your NOI. For USFWS species, attach to this worksheet the full printout from your IPaC query/Official Species List. You can include the map from your IPaC query. For NMFS species, attach to this worksheet the full printout of the report from your query of the mapping resource you used (either the National or Greater Atlantic Region Mapper). The printed report from NMFS mappers will include a map of your query.

[2] Timing considerations could be related to, for example, a time of the year where a migratory bird species is present in the action area and the operator might want to consider that in terms of their construction sequencing; there are other times of the year where this consideration might not be relevant.

Instructions

- **After completing Step 2 above, if there are no listed species and no critical habitat areas in your action area,** you may be eligible for criterion A.

Criterion A Eligibility Requirements

In order to be eligible for coverage under criterion A, you must confirm that all the following are true (**check all that apply**):

☐ I confirm that I have used the species location resources of **BOTH** NMFS and USFWS to identify any ESA-listed species within my action area.

☐ I have confirmed there to be no ESA-listed species and no critical habitat in my action area.

Instructions

- **If all of the above are true, you may check criterion A below and answer questions A1-A5.**
- **If any of the above is not true, you may not select criterion A and must proceed to Step 3** to determine if you can become eligible under criterion C.

Note: For existing dischargers that have previously obtained coverage under criterion A, you must verify whether ESA-protected species and/or critical habitat are expected to exist in your action area, as described above. Please note that if you now find that your action area overlaps with ESA-protected species or critical habitat, you must proceed to Step 3.

☐ **A No ESA-listed species and/or designated critical habitat present in action area**. You certify that ESA-listed species and designated critical habitat(s) under the jurisdiction of the USFWS or NMFS are not likely to occur in your site's "action area" as defined in Appendix A of this permit.. *Please Note: NMFS' jurisdiction includes ESA-listed marine and estuarine species that spawn in inland rivers.*

A1. USFWS information sources used (reliance on State resources is not acceptable):

Note: If your Official Species List from USFWS indicated no species or critical habitat were present in your action area, include the full consultation tracking code at the top of your Official Species List in your NOI in the basis statement for Criterion A. If an Official Species List was not available on IPaC, list the contact date and name of the Service staff with whom you corresponded to verify no USFWS species or critical habitat were present in your action area.

A2. NMFS information sources used (reliance on State resources is not acceptable):

A3. I confirm that aerial image(s) of the site is attached. Yes ☐

A4. I confirm that a printout of the species' list(s) showing no ESA-listed species or critical habitat in my action area is attached. Yes ☐

A5. Check to confirm you have provided documentation in your SWPPP supporting your eligibility under Criterion A. For USFWS species, include the full printout from your IPaC query/Official Species List. You can include the map from your IPaC query. For NMFS species, include the full printout from the appropriate NMFS website resources on page X with the correct Region selected. Yes ☐

Instructions

- **If you selected Criterion A above and answered questions A1-A5, you are done with this worksheet. If you are not filing electronically, you must submit this worksheet with your NOI.** STOP
- **If listed species and/or critical habitat may exist in your action area, you must do one or more of the following**:
  - **Conduct visual inspections.** This method may be particularly suitable for construction sites that are smaller in size or located in non-natural settings such as highly urbanized areas or industrial parks where there is little or no natural habitat, or for construction activities that discharge directly into municipal stormwater collection systems.
  - **Conduct a formal biological survey**. In some cases, particularly for larger construction sites with extensive stormwater discharges, biological surveys may be an appropriate way to assess whether species are located in the action area and whether there are likely to be short- or long-term adverse effects to such species. Biological surveys are frequently performed by environmental consulting firms.
  - **If required, conduct an environmental assessment under the National Environmental Policy Act (NEPA).** Some construction activities might require review under NEPA for specific reasons, such as Federal funding or other Federal involvement in the project. Note: Coverage under the CGP does not trigger such a review for individual projects/sites. EPA has complied with NEPA in the issuance of the CGP.

    and
  - **Follow the instructions in Steps 3 – 5 below, as applicable.** Note that many but not all measures imposed to protect listed species under these steps will also protect critical habitat. Thus, meeting the eligibility requirements of this CGP may require measures to protect critical habitat that are separate from those to protect listed species.

Step 3 – Assess if the Construction Activity's Discharges or Discharge-Related Activities Are Likely to Result in Short- or Long-Term Adverse Effects to Listed Threatened or Endangered Species or Designated Critical Habitat

Instructions

- If in Step 2 you identified that listed species and/or designated critical habitat could exist in your action area, **you must next assess whether your discharges or discharge-related activities are likely to result in short- or long-term adverse effects to ESA-listed threatened or endangered species or designated critical habitat**.

Potential short- or long-term adverse effects from discharges and discharge-related activities include:

- **Hydrological**. Stormwater discharges may cause siltation, sedimentation, or induce other changes in receiving waters such as temperature, salinity, or pH. These effects will vary with the amount of stormwater discharged and the volume and condition of the receiving water. Where a stormwater discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely. Construction activity itself may also alter drainage patterns on a site where construction occurs that can impact listed species or critical habitat.
- **Habitat**. Excavation, site development, grading, and other surface disturbance activities from construction activities, including the installation or placement of stormwater controls, may result in adverse effects to listed species or their habitat. Stormwater may drain or inundate listed species habitat.
- **Toxicity**. In some cases, pollutants in construction stormwater may have toxic effects on listed species. For example: Stormwater discharges from construction on or adjacent to agricultural property may contain pesticides. Stormwater discharges from projects involving pavement and roofing could include tar and asphalt.

The scope of effects to consider will vary with each site. If you are having difficulty determining whether your project is likely to result in short- or long-term adverse effects to listed species or critical habitat, or one of the Services has already raised concerns to you, you should contact the appropriate Services office for assistance.

Instructions

- **If any short- or long-term adverse effects to listed threatened or endangered species or their critical habitat <u>are not</u> likely, then you may check Criterion C below and answer questions C1-C8.**
- **If any short- or long-term adverse effects to listed threatened or endangered species or their critical habitat <u>are</u> likely, you must follow Step 4 below.** You may still be eligible for Criterion C if you are able to install and implement appropriate measures to avoid the likelihood of adverse effects.

Criterion C Eligibility Requirements

☐ **C** **Discharges not likely to result in any short- or long-term adverse effects to ESA-listed species and/or designated critical habitat.** ESA-listed species and/or designated critical habitat(s) under the jurisdiction of the USFWS and/or NMFS are likely to occur in or near your site's "action area," and you certify to EPA that your site's discharges and discharge-related activities are not likely to result in any short- or long-term adverse effects to ESA-listed threatened or endangered species and/or designated critical habitat. This certification may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to result in any short- or long-term adverse effects to ESA-listed species and/or designated critical habitat. To certify your eligibility under this criterion, you must indicate below1) the ESA-listed species and/or designated habitat located in your "action area" using the process outlined in this Appendix; 2) the distance between the site and the listed species and/or designated critical habitat in the action area (in miles); and 3) a rationale describing specifically how short- or long-term adverse effects to ESA-listed species will be avoided from the discharges and discharge-related activities. You must also include a copy of your site map from your SWPPP showing the upland and in-water extent of your "action area" with your NOI.

C1. I confirm that both ESA-listed species and designated critical habitat under the jurisdiction of the USFWS and/or NMFS were considered in my evaluation. Yes ☐

C2. Provide the USFWS information resources and expertise used to arrive at this criterion selection:

C3. Provide the NMFS information resources and expertise used to arrive at this criterion selection:

C4. What ESA-listed species and/or designated critical habitat are located in your "action area?" (or attach a printout of the species' list(s))

C5. What is the distance between your site and the ESA-listed species and/or designated critical habitat within the action area (in miles, state "on site" if the ESA-listed species and/or designated critical habitat is within the area to be disturbed)? _____

C6. Provide the rationale describing specifically how any short- or long-term adverse effects to ESA-listed species will be avoided from the discharge and discharge-related activities.

C7. I confirm that a site map from my SWPPP showing the upland and in-water extent of my "action area" is attached. Yes ☐

C8. Check to confirm you have provided documentation in your SWPPP supporting your eligibility under Criterion C. Yes ☐

Instructions

- **If you selected Criterion C above and answered questions C1-C8, you are done with this worksheet. If you are not filing electronically, you must submit this worksheet with your NOI.**
- If not, please proceed to step 4.

Step 4 - Determine if Measures Can Be Implemented to Avoid Adverse Effects

Instructions

If you make a preliminary decision in Step 3 that short- or long-term adverse effects from your construction activity's discharges or discharge-related activities are likely to occur, you can still receive coverage under eligibility Criterion C of the CGP if appropriate measures are undertaken to avoid or eliminate the likelihood of short- or long-term adverse effects prior to applying for CGP coverage.

These measures may involve relatively simple changes to construction activities such as re-routing a stormwater discharge to bypass an area where species are located, relocating stormwater controls, or by modifying the "footprint" of the construction activity. If you are unable to ascertain which measures to implement to avoid the likelihood of short- or long-term adverse effects, you must coordinate with USFWS and/or NMFS, in which case you would not be eligible for coverage under eligibility Criterion C, but may instead be eligible for coverage under eligibility criterion D (described in more detail in Step 5).

- **If you are able to install and implement appropriate measures to avoid the likelihood of short- or long-term adverse effects, then you may go back and check eligibility Criterion C above and answer questions C1-C8 above, and C9-C10 below.** The measures you adopt to avoid or eliminate short- or long-term adverse effects must be implemented for the duration of the construction project and your coverage under the CGP.
- **If you cannot ascertain which measures to implement to avoid the likelihood of adverse effects,** you must follow the procedures in Step 5.

C9. I confirm that I have or will install and implement appropriate measures to avoid the likelihood of any short- or long-term adverse effects to ESA-listed threatened or endangered species or their critical habitat. Yes ☐

C10. Provide a description of the measures installed/to be installed and implemented to avoid likelihood of any short- or long-term adverse effects.

Instructions

- **If you selected Criterion C above and answered questions C1-C10, you are done with this worksheet. If you are not filing you NOI electronically, you must submit this worksheet with your NOI.**
- If you are not eligible for Criterion C, please proceed to step 5.

Step 5 - Determine if the Eligibility Requirements of Criterion D Can Be Met

Instructions

- If in Step 4 you cannot ascertain which measures to implement to avoid the likelihood of short- or long-term adverse effects, you must contact USFWS and/or NMFS. You may still be eligible for CGP coverage if likely adverse effects can be addressed through meeting criterion D.
- If you meet the requirements of criterion D, **then you may check criterion D below and answer questions D1-D5.**

Criterion D Eligibility Requirements

D **Coordination with USFWS and/or NMFS has successfully concluded.** Coordination between you and the USFWS and/or NMFS has concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS, and resulted in a written confirmation from USFWS and/or NMFS that the effects of your site's discharges and discharge-related activities are not likely to result in short- or long-term adverse effects for ESA-listed species and/or designated critical habitat in your action area. By certifying eligibility under this criterion, you agree to comply with any conditions you must meet for your site's discharges and discharge-related activities to not likely result in any short- or long-term adverse effects. You must include copies of the correspondence with the participating agencies in your SWPPP and your NOI.

D1. Which Service participated in coordination? (check all that apply) USFWS ☐ NMFS ☐

D2. Identify the field and/or regional office(s) that provided the coordination?

D3. What is the date the coordination concluded? (MM/DD/YYY) __ __ / __ __ / __ __ __ __

D4. Check to confirm that correspondence with USFWS and/or NMFS documenting concurrence is attached. Yes ☐

D5. Check to confirm you have provided documentation in your SWPPP supporting your eligibility under Criterion D, including copies of the correspondence between yourself and the Services. Yes ☐

Instructions

- **If you selected Criterion D above and answered questions D1-D5, you are done with this worksheet. If you are not filing electronically, you must submit this worksheet with your NOI.**

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0305). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 3.3 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Appendix E – Historic Property Screening Process

Background

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of Federal "undertakings", such as the issuance of this permit, on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. To address any issues relating to historic properties in connection with the issuance of this permit, EPA developed the screening process in this appendix that enables construction operators to appropriately consider the potential impacts, if any, of their installation of stormwater controls on historic properties and to determine whether actions can be taken, if applicable, to mitigate any such impacts. Although the coverages of individual construction sites under this permit do not constitute separate Federal undertakings, the screening process in this appendix provides an appropriate site-specific means of addressing historic property issues in connection with EPA's issuance of the permit.

Key Terms

Historic property- prehistoric or historic districts, sites, buildings, structures, or objects that are included in or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and remains that are related to and located within such properties

SHPO – The State Historic Preservation Officer for a particular State

THPO or Tribal representative – The Tribal Historic Preservation Officer for a particular Tribe or, if there is no THPO, the representative designated by such Tribe for NHPA purposes

Instructions for All Construction Operators

You are required to follow the screening process in this appendix to determine if your installation of stormwater controls on your site has the potential to cause effects to historic properties, and whether or not you need to contact your SHPO, THPO, or other Tribal representative for further information. **You may not submit your NOI until you have completed this screening process.** The following four steps describe how applicants can meet the historic property requirements under this permit:

Step 1 *Are you installing any stormwater controls that require subsurface earth disturbance?*[1]

The first step of the screening process is to determine if you will install stormwater controls that cause subsurface earth disturbance. The installation of the following types of stormwater controls require subsurface earth disturbance:[2]

- Dikes
- Berms
- Catch Basins
- Ponds
- Ditches
- Trenches
- Culverts
- Channels

[1] You are only required to consider earth-disturbing activities related to the installation of stormwater controls in the NHPA screening process. You are not reqired to consider other earth-disturbing activities at the site. If you are installing one of the above stormwater controls or another type of control that requires subsurface earth disturbance, your stormwater controls have the potential to have an effect on historic properties. If this is the case, then you must proceed to Step 2.

[2] This list is not intended to be exhaustive. Other stormwater controls that are not on this list may involve earth-disturbing activities and must also be examined for the potential to affect historic properties.

- Perimeter Drains
- Swales

If you are not installing one of the above stormwater controls or another type of control that requires subsurface earth disturbance, then you may indicate this on your NOI, and no further screening is necessary. During the 14-day waiting period after submitting your NOI, the SHPO, THPO, or other Tribal representative may request that EPA hold up authorization based on concerns about potential adverse effects to historic properties. EPA will evaluate any such request and notify you if any additional controls to address adverse effects to historic properties are necessary.

Step 2 *Have prior professional cultural resource surveys or other evaluations determined that historic properties do not exist, or have prior disturbances precluded the existence of historic properties?*

If you are installing a stormwater control that requires subsurface earth disturbance, you must next determine if no historic properties exist on your site based on prior professional cultural resource surveys or other evaluations, or if the existence of historic properties has been precluded because of prior earth disturbances.

If prior to your project it has already been determined that no historic properties exist at your site based on available information, including information that may be provided by your applicable SHPO, THPO, or other Tribal representative, then you may indicate this on your NOI, and no further screening steps are necessary. Similarly, if prior earth disturbances have eliminated the possibility that historic properties exist on your site, you may indicate this on your NOI, and no further screening steps are necessary. After submitting your NOI, and during the 14-day waiting period, the SHPO, THPO, or other Tribal representative may request that EPA hold up authorization based on concerns about potential adverse effects to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse effects to historic properties are necessary.

If neither of these circumstances exists for your project, you must proceed to Step 3.

Step 3 *If you are installing any stormwater controls that require subsurface earth disturbance, you must determine if these activities will have an effect on historic properties.*

If your answer to the question in Step 2 is "no", then you must assess whether your earth-disturbing activities related to the installation of stormwater controls will have an effect on historic properties. This assessment may be based on historical sources, knowledge of the area, an assessment of the types of earth-disturbing activities you are engaging in, considerations of any controls and/or management practices you will adopt to ensure that your stormwater control-related earth-disturbing activities will not have an effect on historic properties, and any other relevant factors. If you determine based on this assessment that earth disturbances related to the installation of your stormwater controls will have no effect on historic properties, you may indicate this on your NOI, and document the basis for your determination in your SWPPP, and no further screening steps are necessary. After submitting your NOI, and during the 14-day waiting period, the SHPO, THPO, or other Tribal representative may request that EPA hold up authorization based on concerns about potential adverse effects to historic properties. EPA will evaluate any such request and notify you if any further processes are necessary including any additional measures to address adverse effects to historic properties are necessary.

If none of the circumstances in Steps 1 - 3 exist for your project, you must proceed to Step 4.

Step 4: *If you are installing any stormwater controls that require subsurface earth disturbance and you have not satisfied the conditions in Steps 1 - 3, you must contact and consult with the appropriate historic preservation authorities.*

Where you are installing stormwater controls that require subsurface earth disturbance, and you cannot determine in Step 3 that these activities will have no effect on historic properties, then you must contact the relevant SHPO, THPO, or other Tribal representative to request their views as to the likelihood that historic properties are potentially present on your site and may be impacted by the installation of these controls.

> *Note: Addresses for SHPOs may be found at https://ncshpo.org/directory/, and addresses for THPOs may be found at https://grantsdev.cr.nps.gov/THPO_Review/index.cfm. If a Tribe does not have a THPO, you should contact the appropriate Tribal government office designated by the Tribe for this purpose.*

You must submit the following minimum information in order to properly initiate your request for information:

1. Project name (*i.e.*, the name or title most commonly associated with your project);
2. A narrative description of the project;
3. Name, address, phone and fax number, and email address (if available) of the operator;
4. Most recent U.S. Geological Survey (USGS) map section (7.5 minute quadrangle) showing actual project location and boundaries clearly indicated; and
5. Sections of the SWPPP site map (see Part 7.2.4) that show locations where stormwater controls that will cause subsurface earth disturbance will be installed (see Step 1).

Without submitting this minimum information, you will not have been considered to have properly initiated your request. You will need to provide the SHPO, THPO, or other Tribal representative **a minimum of 15 calendar days** after they receive these materials to respond to your request for information about your project.

If you do not receive a response within 15 calendar days after receipt by the SHPO, THPO, or other Tribal representative of your request, then you may indicate this on your NOI, and no further screening steps are necessary. Or, if the applicable SHPO, THPO, or other Tribal representative responds to your request with an indication that no historic properties will be affected by the installation of stormwater controls at your site, then you may indicate this on your NOI, and no further screening steps are necessary. After submitting your NOI, and during the 14-day waiting period, the SHPO, THPO, or other Tribal representative may request that EPA hold up authorization based on concerns about potential adverse effects to historic properties. EPA will evaluate any such request and notify you if any further processes are necessary including any additional measures to address adverse effects to historic properties are necessary.

If within 15 calendar days of receipt of your request the applicable SHPO, THPO, or other Tribal representative responds with a request for additional information or for further consultation regarding appropriate measures for treatment or mitigation of effects on historic properties caused by the installation of stormwater controls on your site, you must comply with this request and proceed to Step 5.

Step 5: *Consultation with applicable consulting parties.*

If, following your discussions with the appropriate historic preservation authorities in Step 4, the applicable SHPO, THPO, Tribal representative, or any other consulting party requests additional information or further consultation, you must respond with such information or consult to determine impacts to historic properties that may be caused by the installation of stormwater controls on your site and appropriate measures for treatment or mitigation of such impacts. If as a result of your discussions with the applicable SHPO, THPO, Tribal representative, or any other

consulting party, you enter into, and comply with, a written agreement regarding treatment and/or mitigation of impacts on your site, then you may indicate this on your NOI, and no further screening steps are necessary.

If, however, agreement on an appropriate treatment or mitigation plan cannot be reached between you and the SHPO, THPO, Tribal representative, or any other consulting party within 30 days of your response to the SHPO, THPO, Tribal representative, or any other consulting party's request for additional information or further consultation, you may submit your NOI, but you must indicate that you have not negotiated measures to avoid or mitigate such effects. You must also include in your SWPPP the following documentation:

1. Copies of any written correspondence between you and the SHPO, THPO, Tribal representative, or any other consulting party; and
2. A description of any significant remaining disagreements as to mitigation measures between you and the SHPO, THPO, Tribal representative, or any other consulting party.

After submitting your NOI, and during the 14-day waiting period, the SHPO, THPO, ACHP, Tribal representative, or any other consulting party may request that EPA place a hold on authorization based upon concerns regarding potential adverse effects to historic properties. EPA, in coordination with the ACHP, will evaluate any such request and notify you if any further processes are necessary including any additional measures to address adverse effects to historic properties are necessary.

Appendix F – Buffer Requirements.

The purpose of this appendix is to assist you in complying with the requirements in Part 2.2.1 of the permit regarding the establishment of natural buffers and/or equivalent sediment controls. This appendix is organized as follows:

F.1 SITES THAT ARE REQUIRED TO PROVIDE AND MAINTAIN NATURAL BUFFERS AND/OR EQUIVALENT EROSION AND SEDIMENT CONTROLS 2
F.2 COMPLIANCE ALTERNATIVES AND EXCEPTIONS 3
F.2.1 Compliance Alternatives 3
F.2.2 Exceptions to the Compliance Alternatives 3
F.2.3 Requirements for Providing and Maintaining Natural Buffers 4
F.2.4 Guidance for Providing the Equivalent Sediment Reduction as a 50-foot Buffer 7
F.3 SMALL RESIDENTIAL LOT COMPLIANCE ALTERNATIVES 12
F.3.1 Small Residential Lot Compliance Alternative Eligibility 12
F.3.2 Small Residential Lot Compliance Alternatives 12

F.1 SITES THAT ARE REQUIRED TO PROVIDE AND MAINTAIN NATURAL BUFFERS AND/OR EQUIVALENT EROSION AND SEDIMENT CONTROLS

The requirement in Part 2.2.1 to provide and maintain natural buffers and/or equivalent erosion and sediment controls applies for any discharges to waters of the U.S. located within 50 feet of your site's earth disturbances. If the receiving water is not located within 50 feet of earth-disturbing activities, Part 2.2.1 does not apply. See Figure F – 1.

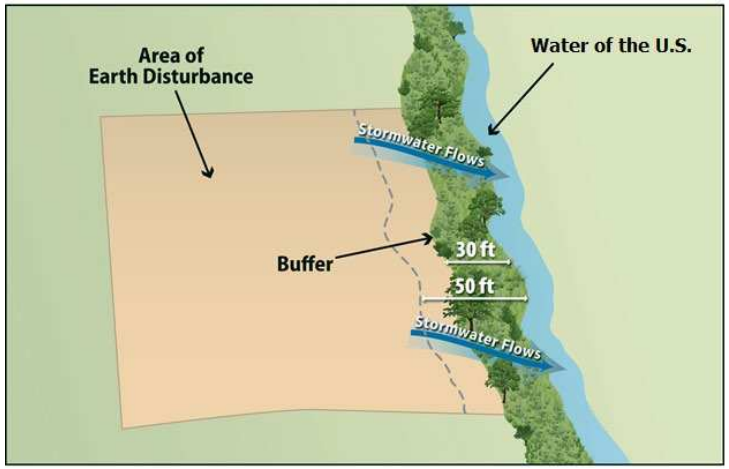


Figure F-1 Example of earth-disturbing activities within 50 feet of a water of the U.S.

F.2 COMPLIANCE ALTERNATIVES AND EXCEPTIONS

F.2.1 Compliance Alternatives

If Part 2.2.1 applies to your site, you have three compliance alternatives from which you can choose, unless you qualify for any of the exceptions (see below and Part 2.2.1.a):

1. Provide and maintain a 50-foot undisturbed natural buffer; or
2. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or
3. If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

The compliance alternative selected must be maintained throughout the duration of permit coverage.

See Part F.2.2 below for exceptions to the compliance alternatives.

See Part F.2.3 for requirements applicable to providing and maintaining natural buffers under compliance alternatives 1 and 2 above.

See Part F.2.4 for requirements applicable to providing erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer under compliance alternatives 2 and 3 above.

F.2.2 Exceptions to the Compliance Alternatives

The following exceptions apply to the requirement to implement one of the Part 2.2.1.a compliance alternatives (see also Part 2.2.1.b):

- The following disturbances are exempt from the requirements Part 2.2.1 and this Appendix[1]:
  - Construction approved under a CWA Section 404 permit; or
  - Construction of a water-dependent structure or water access areas *(e.g., pier, boat ramp, trail)*.
- If there is no discharge of stormwater to waters of the U.S. through the area between the disturbed portions of the site and any waters of the U.S. located within 50 feet of your site, you are not required to comply with the requirements in Part 2.2.1 and this Appendix. This includes situations where you have implemented controls measures, such as a berm or other barrier, that will prevent such discharges.
- Where no natural buffer exists due to preexisting development disturbances *(e.g., structures, impervious surfaces)* that occurred prior to the initiation of planning for the current development of the site, you are not required to comply with the requirements in Part 2.2.1 and this Appendix.
  Where some natural buffer exists but portions of the area within 50 feet of the receiving water are occupied by preexisting development disturbances, you are

[1] This exemption does not apply, however, to disturbances within 50 feet of a receiving water that are adjacent to the disturbances listed here (i.e., construction permitted under CWA Section 404, or construction of a water-dependent structure or water access area) and that are covered by this permit.

required to comply with the requirements in Part 2.2.1 and this Appendix. For the purposes of calculating the sediment load reduction for either compliance alternative 2 or 3, you are not expected to compensate for the reduction in buffer function that would have resulted from the area covered by these preexisting disturbances. Clarity about how to implement the compliance alternatives for these situations is provided in F.2.3 and F.2.4 below.

If during your project, you will disturb any portion of these preexisting disturbances, the area removed will be deducted from the area treated as a "natural buffer."

- For "linear construction sites" (see Appendix A), you are not required to comply with this requirement if site constraints *(e.g., limited right-of-way)* make it infeasible to implement one of the Part 2.2.1.a compliance alternatives, provided that, to the extent feasible, you limit disturbances within 50 feet of any waters of the U.S. and/or you provide supplemental erosion and sediment controls to treat stormwater discharges from earth disturbances within 50 feet of the receiving water You must also document in your SWPPP your rationale for why it is infeasible for you to implement one of the Part 2.2.1.a compliance alternatives, and describe any buffer width retained and supplemental erosion and sediment controls installed.
- For "small residential lot" construction *(i.e., a lot being developed for residential purposes that will disturb less than 1 acre of land, but is part of a larger residential project that will ultimately disturb greater than or equal to 1 acre)*, you have the option of complying with one of the "small residential lot" compliance alternatives in Part F.3 of this appendix.

Note that you must document in your SWPPP if any disturbances related to any of the above exceptions occurs within the buffer area on your site.

F.2.3 Requirements for Providing and Maintaining Natural Buffers

This part of the appendix applies to you if you choose compliance alternative 1 (50-foot buffer), compliance alternative 2 (a buffer of < 50 feet supplemented by additional erosion and sediment controls that achieve the equivalent sediment load reduction as the 50-foot buffer), or if you are providing a buffer in compliance with one of the "small residential lot" compliance alternatives in Part F.3.

Buffer Width Measurement

Where you are retaining a buffer of any size, the buffer should be measured perpendicularly from any of the following points, whichever is further landward from the water:

1. The ordinary high water mark of the water body, defined as the line on the shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, and/or the presence of litter and debris; or
2. The edge of the stream or river bank, bluff, or cliff, whichever is applicable.

Refer to Figures F – 2 and F - 3. You may find that specifically measuring these points is challenging if the flow path of the receiving water changes frequently, thereby causing the measurement line for the buffer to fluctuate continuously along the path of the waterbody. Where this is the case, EPA suggests that rather than measuring each change or deviation along the water's edge, it may be easier to select regular intervals

from which to conduct your measurement. For instance, you may elect to conduct your buffer measurement every 5 to 10 feet along the length of the water.

Additionally, note that if earth-disturbing activities will take place on both sides of a receiving water that flows through your site, to the extent that you are establishing a buffer around this water, it must be established on both sides. For example, if you choose compliance alternative 1, and your project calls for disturbances on both sides of a small stream, you would need to retain the full 50 feet of buffer on both sides of the water. However, if your construction activities will only occur on one side of the stream, you would only need to retain the 50-foot buffer on the side of the stream where the earth-disturbance will occur.

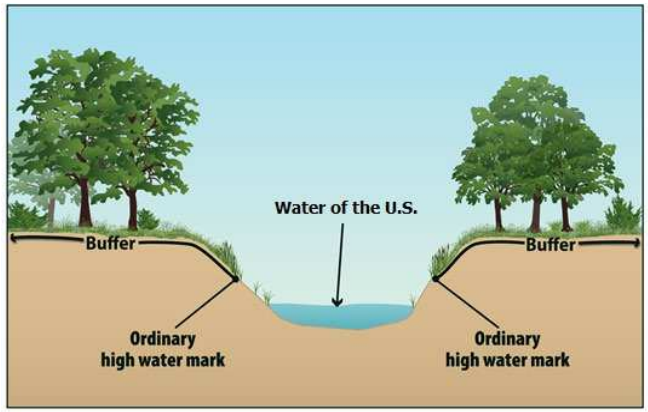


Figure F-2 Buffer measurement from the ordinary high water mark of the water body, as indicated by a clear natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, and/or the presence of litter/debris.

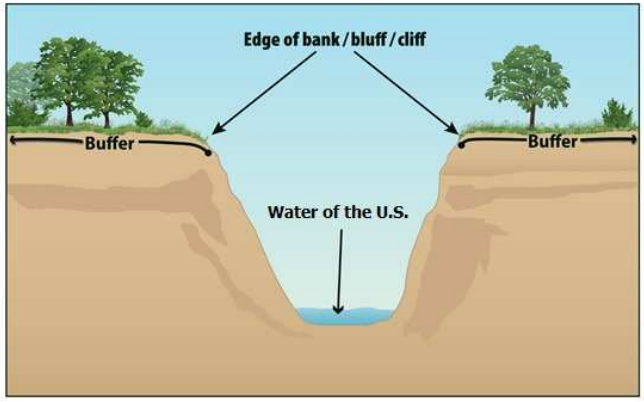


Figure F-3 Buffer measurement from the edge of the bank, bluff, or cliff, whichever is applicable.

Limits to Disturbance Within the Buffer

You are considered to be in compliance with the requirement to provide and maintain a natural buffer if you retain and protect from construction activities the natural buffer that existed prior to the commencement of construction. If the buffer area contains no vegetation prior to the commencement of construction (e.g., sand or rocky surface), you are not required to plant vegetation. As noted above, any preexisting structures or impervious surfaces may occur in the natural buffer provided you retain and protect from disturbance the buffer areas outside of the preexisting disturbance.

To ensure that the water quality protection benefits of the buffer are retained during construction, you are prohibited from conducting any earth-disturbing activities within the buffer during permit coverage. In furtherance of this requirement, **prior to commencing earth-disturbing activities on your site, you must delineate, and clearly mark off, with flags, tape, or a similar marking device, the buffer area on your site.** The purpose of this requirement is to make the buffer area clearly visible to the people working on your site so that unintended disturbances are avoided.

While you are not required to enhance the quality of the vegetation that already exists within the buffer, you are encouraged to do so where such improvements will enhance the water quality protection benefits of the buffer. (Note that any disturbances within the buffer related to buffer enhancement are permitted and do not constitute construction disturbances.) For instance, you may want to target plantings where limited vegetation exists, or replace existing vegetation where invasive or noxious plant species (see http://plants.usda.gov/java/noxiousDriver) have taken over. In the case of invasive or noxious species, you may want to remove and replace them with a diversity of native trees, shrubs, and herbaceous plants that are well-adapted to the climatic, soil, and hydrologic conditions on the site. You are also encouraged to limit the removal of naturally deposited leaf litter, woody debris, and other biomass, as this material contributes to the ability of the buffer to retain water and filter pollutants.

If a portion of the buffer area adjacent to the receiving water is owned by another party and is not under your control, you are only required to retain and protect from construction activities the portion of the buffer area that is under your control. For example, if you comply with compliance alternative 1 (provide and maintain a 50-foot buffer), but 10 feet of land immediately adjacent to the receiving water is owned by a different party than the land on which your construction activities are taking place and you do not have control over that land, you must only retain and protect from construction activities the 40-foot buffer area that occurs adjacent to the property on which your construction activities are taking place. EPA would consider you to be in compliance with this requirement regardless of the activities that are taking place in the 10-foot area that is owned by a different party than the land on which your construction activities are taking place that you have no control over.

Discharges to the Buffer

You must ensure that all discharges from the area of earth disturbance to the natural buffer are first treated by the site's erosion and sediment controls (*for example, you must comply with the Part 2.2.3 requirement to install sediment controls along any perimeter areas of the site that will receive pollutant discharges*), **and if necessary to prevent erosion caused by stormwater flows within the buffer, you must use velocity dissipation devices.** The purpose of this requirement is to decrease the rate of stormwater flow and encourage infiltration so that the pollutant filtering functions of the buffer will be achieved. To comply with this requirement, construction operators typically will use devices that physically dissipate stormwater flows so that the discharge entering the buffer is spread out and slowed down.

SWPPP Documentation

You are required to document in your SWPPP the natural buffer width that is retained. For example, if you are complying with alternative 1, you must specify in your SWPPP that you are providing a 50-foot buffer. Or, if you will be complying with alternative 2, you must document the reduced width of the buffer you will be retaining (and you must also describe the erosion and sediment controls you will use to achieve an equivalent sediment reduction, as required in Part F.2.4 below). Note that you must also show any buffers on your site map in your SWPPP consistent with Part 7.2.4.j. Additionally, if any disturbances related to the exceptions in Part F.2.2 occur within the buffer area, you must document this in the SWPPP.

F.2.4 Guidance for Providing the Equivalent Sediment Reduction as a 50-foot Buffer

This part of the appendix applies to you if you choose compliance alternative 2 (provide and maintain a buffer that is less than 50 feet that is supplemented by erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot buffer) or compliance alternative 3 (implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot buffer).

Determine Whether it is Feasible to Provide a Reduced Buffer

EPA recognizes that there will be a number of situations in which it will be infeasible to provide and maintain a buffer of any width. While some of these situations may exempt you from the buffer requirement entirely (see F.2.2), if you do not qualify for one of these exemptions, there still may be conditions or circumstances at your site that make it infeasible to provide a natural buffer. For example, there may be sites where a significant portion of the property on which the earth-disturbing activities will occur is located within the buffer area, thereby precluding the retention of natural buffer areas.

Therefore, you should choose compliance alternative 2 if it is feasible for you to retain some natural buffer on your site. (Note: For any buffer width retained, you are required to comply with the requirements in Part F.2.3, above, concerning the retention of vegetation and restricting earth disturbances.) Similarly, if you determine that it is infeasible to provide a natural buffer of any size during construction, you should choose alternative 3.

Design Controls That Provide Equivalent Sediment Reduction as 50-foot Buffer

You must next determine what additional controls must be implemented on your site that, alone or in combination with any retained natural buffer, achieve a reduction in sediment equivalent to that achieved by a 50-foot buffer.

Note that if only a portion of the natural buffer is less than 50 feet, you are only required to implement erosion and sediment controls that achieve the sediment load reduction equivalent to the 50-foot buffer for discharges through that area. You would not be required to provide additional treatment of stormwater discharges that flow through 50 feet or more of natural buffer. See Figure F-4.

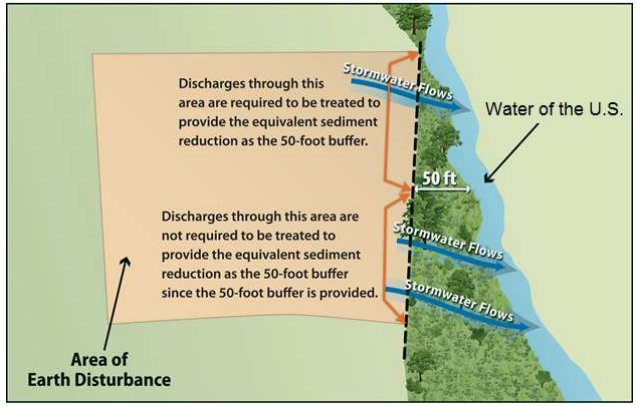


Figure F-4 Example of how to comply with the requirement to provide the equivalent sediment reduction when only a portion of your earth-disturbances discharge to a buffer of less than 50-feet.

Steps to help you meet compliance alternative 2 and 3 requirements are provided below.

Step 1 - Estimate the Sediment Reduction from the 50-foot Buffer

In order to design controls that match the sediment removal efficiency of a 50-foot buffer, you first need to know what this efficiency is for your site. The sediment removal efficiencies of natural buffers vary according to a number of site-specific factors, including precipitation, soil type, land cover, slope length, width, steepness, and the types of erosion and sediment controls used to reduce the discharge of sediment prior to the buffer. EPA has simplified this calculation by developing buffer performance tables covering a range of vegetation and soil types for the areas covered by the CGP. See

Attachment 1 of this Appendix, Tables F-8 through F-15. Note: buffer performance values in Tables F-8 through F-15 represent the percent of sediment captured through the use of perimeter controls (e.g., silt fences) and 50-foot buffers at disturbed sites of fixed proportions and slopes.[2]

Using Tables F-8 through F-15 (see Attachment 1 of this Appendix), you can determine the sediment removal efficiency of a 50-foot buffer for your geographic area by matching the vegetative cover type that best describes your buffer area and the type of soils that predominate at your site. For example, if your site is located in Massachusetts (Table F-9), and your buffer vegetation corresponds most closely with that of tall fescue grass, and the soil type at your site is best typified as sand, your site's sediment removal efficiency would be 81 percent.

In this step, you should choose the vegetation type in the tables that most closely matches the vegetation that would exist naturally in the buffer area on your site regardless of the condition of the buffer. However, because you are not required to plant any additional vegetation in the buffer area, in determining what controls are necessary to meet this sediment removal equivalency in Step 2 below, you will be able to take credit for this area as a fully vegetated "natural buffer."

Similarly, if a portion of the buffer area adjacent to the receiving water is owned by another party and is not under your control, you can treat the area of land not under your control as having the equivalent vegetative cover and soil type that predominates on the portion of the property on which your construction activities are occurring.

For example, if your earth-disturbances occur within 50 feet of a receiving water, but the 10 feet of land immediately adjacent to the receiving water is owned by a different party than the land on which your construction activities are taking place and you do not have control over that land, you can treat the 10 foot area adjacent to the stream as having the equivalent soil and vegetation type that predominates in

[2] EPA used the following when developing the buffer performance tables:

- The sediment removal efficiencies are based on the U.S. Department of Agriculture's RUSLE2 ("Revised Universal Soil Loss Equation 2") model for slope profiles using a 100-foot long denuded slopes.
- Sediment removal was defined as the annual sediment delivered at the downstream end of the 50-foot natural buffer (tons/yr/acre) divided by the annual yield from denuded area (tons/yr/acre).
- As perimeter controls are also required by the CGP, sediment removal is in part a function of the reduction due to a perimeter control (i.e., silt fence) located between the disturbed portion of the site and the upstream edge of the natural buffer and flow traveling through a 50-foot buffer of undisturbed natural vegetation.
- It was assumed that construction sites have a relatively uniform slope without topographic features that accelerate the concentration for erosive flows.
- It was assumed that vegetation has been removed from the disturbed portion of the site and a combination of cuts and fills have resulted in a smooth soil surface with limited retention of near-surface root mass.

To represent the influence of soil, EPA analyzed 11 general soil texture classifications in its evaluation of buffer performance. To represent different types of buffer vegetation, EPA evaluated 4 or more common vegetative types for each State/Territory covered under the permit. For each vegetation type evaluated, EPA considered only permanent, non-grazed, and non-harvested vegetation, on the assumption that a natural buffer adjacent to the receiving water will typically be undisturbed. EPA also evaluated slope steepness and found that sediment removal efficiencies present in Tables G-8 through G-15 are achievable for slopes that are less than nine percent.

the 40 foot area under your control. You would then make the same assumption in Step 2 for purposes of determining the equivalent sediment removal.

Alternatively, you may do your own calculation of the effectiveness of the 50-foot buffer based upon your site-specific conditions, and may use this number as your sediment removal equivalency standard to meet instead of using Tables F-8 through F-15. This calculation must be documented in your SWPPP.

Step 2 - Design Controls That Match the Sediment Removal Efficiency of the 50-foot Buffer

Once you determine the estimated sediment removal efficiency of a 50-foot buffer for your site in Step 1, you must next select stormwater controls that will provide an equivalent sediment load reduction. These controls can include the installation of a single control, such as a sediment pond or additional perimeter controls, or a combination of stormwater controls. Whichever control(s) you select, you must demonstrate in your SWPPP that the controls will provide at a minimum the same sediment removal capabilities as a 50-foot natural buffer (Step 1). You may take credit for the removal efficiencies of your required perimeter controls in your calculation of equivalency, because these were included in calculating the buffer removal efficiencies in Tables F-8 through F-15. (Note: You are reminded that the controls must be kept in effective operating condition until you complete final stabilization on the disturbed portions of the site discharging to the receiving water)

To make the determination that your controls and/or buffer area achieve an equivalent sediment load reduction as a 50-foot buffer, you should use a model or other type of calculation. As mentioned above, there are a variety of models available that can be used to support your calculation, including USDA's RUSLE-series programs and the WEPP erosion model, SEDCAD, SEDIMOT, or other models. A couple of examples are provided in Attachment 3 to help illustrate how this determination could be made.

If you retain a buffer of less than 50 feet, you may take credit for the removal that will occur from the reduced buffer and only need to provide additional controls to make up the difference between the removal efficiency of a 50 foot buffer and the removal efficiency of the narrower buffer. For example, if you retain a 30 foot buffer, you can account for the sediment removal provided by the 30 foot buffer retained, and you will only need to design controls to make up for the additional removal provided by the 20 feet of buffer that is not being provided. To do this, you would plug the width of the buffer that is retained into RUSLE or another model, along with other stormwater controls that will together achieve a sediment reduction equivalent to a natural 50-foot buffer.

As described in Step 1 above, you can take credit for the area you retained as a "natural buffer" as being fully vegetated, regardless of the condition of the buffer area.

For example, if your earth-disturbances occur 30 feet from a receiving water, but the 10 feet of land immediately adjacent to the receiving water is owned by a different party than the land on which your construction activities are taking place and you do not have control over that land, you can treat the 10-foot area as a natural buffer, regardless of the activities that are taking place in the area. Therefore, you can assume (for purposes of your equivalency calculation) that your site is providing the sediment removal equivalent of a 30-foot buffer, and you will only need to design controls to make up for the additional removal provided by the 20-foot of buffer that is not being provided.

Step 3 - Document How Site-Specific Controls Will Achieve the Sediment Removal Efficiency of the 50-foot Buffer

In Steps 1 and 2, you determined both the expected sediment removal efficiency of a 50-foot buffer at your site, and you used this number as a performance standard to design controls to be installed at your site, which alone or in combination with any retained natural buffer, achieves the expected sediment removal efficiency of a 50-foot buffer at your site. The final step is to document in your SWPPP the information you relied on to calculate the equivalent sediment reduction as an undisturbed natural buffer.

EPA will consider your documentation to be sufficient if it generally meets the following:

- For Step 1, refer to the table in Attachment 1 that you used to derive your estimated 50-foot buffer sediment removal efficiency performance. Include information about the buffer vegetation and soil type that predominate at your site, which you used to select the sediment load reduction value in Tables F-8 through F-15. Or, if you conducted a site-specific calculation for sediment removal efficiency, provide the specific removal efficiency, and the information you relied on to make your site-specific calculation.
- For Step 2, (1) Specify the model you used to estimate sediment load reductions from your site; and (2) the results of calculations showing how your controls will meet or exceed the sediment removal efficiency from Step 1.

If you choose compliance alternative 3, you must also include in your SWPPP a description of why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size.

F.3 SMALL RESIDENTIAL LOT COMPLIANCE ALTERNATIVES

EPA has developed two additional compliance alternatives applicable only to "small residential lots" that are unable to provide and maintain a 50 foot buffer.

A **small residential lot** is a lot or grouping of lots being developed for residential purposes that will disturb less than 1 acre of land, but that is part of a larger residential project that will ultimately disturb greater than or equal to 1 acre.

The following steps describe how a small residential lot operator would achieve compliance with one these 2 alternatives.

F.3.1 Small Residential Lot Compliance Alternative Eligibility

In order to be eligible for the small residential lot compliance alternatives, the following conditions must be met:

a. The lot or grouping of lots meets the definition of "small residential lot"; and

b. The operator must follow the guidance for providing and maintaining a natural buffer in Part F.2.3 of this Appendix, including:

i. Ensure that all discharges from the area of earth disturbance to the natural buffer are first treated by the site's erosion and sediment controls, and use velocity dissipation devices if necessary to prevent erosion caused by stormwater within the buffer;

ii. Document in the SWPPP the natural buffer width retained on the property, and show the buffer boundary on your site plan; and

iii. Delineate, and clearly mark off, with flags, tape, or other similar marking device, all natural buffer areas.

F.3.2 Small Residential Lot Compliance Alternatives

You must next choose from one of two small residential lot compliance alternatives and implement the stormwater control practices associated with that alternative.

Note: The compliance alternatives provided below are not mandatory. Operators of small residential lots can alternatively choose to comply with the any of the options that are available to other sites in Part 2.2.1.a and F.2.1 of this Appendix.

Small Residential Lot Compliance Alternative 1

Alternative 1 is a straightforward tiered-technology approach that specifies the controls that a small residential lot must implement based on the buffer width retained. To meet the requirements of small residential lot compliance alternative 1, you must implement the controls specified in Table F–1 based on the buffer width to be retained. See footnote 3, below, for a description of the controls you must implement.

For example, if you are an operator of a small residential lot that will be retaining a 35-foot buffer and you choose Small Residential Lot Compliance Alternative 1, you must implement double perimeter controls between earth disturbances and the receiving water

In addition to implementing the applicable control, you must also document in your SWPPP how you will comply with small residential lot compliance alternative 1.

Table F-1 Alternative 1 Requirements[3]

Retain 50-foot Buffer	Retain <50 and >30 foot Buffer	Retain ≤ 30 foot Buffer
No Additional Requirements	Double Perimeter Controls	Double Perimeter Controls and 7-Day Site Stabilization

Small Residential Lot Compliance Alternative 2

Alternative 2 specifies the controls that a builder of a small residential lot must implement based on both the buffer width retained and the site's sediment discharge risk. By incorporating the sediment risk, this approach may result in the implementation of controls that are more appropriate for the site's specific conditions.

Step 1 – Determine Your Site's Sediment Risk Level

To meet the requirements of Alternative 2, you must first determine your site's sediment discharge "risk level" based on the site's slope, location, and soil type. To help you to determine your site's sediment risk level, EPA developed five different tables for different slope conditions. You should select the table that most closely corresponds to your site's average slope.

For example, if your site's average slope is 7 percent, you should use Table G–4 to determine your site's sediment risk.

After you determine which table applies to your site, you must then use the table to determine the "risk level" (e.g., "low", "moderate", or "high") that corresponds to your site's location and predominant soil type.[4]

For example, based on Table F-3, a site located in New Hampshire with a 4 percent average slope and with predominately sandy clay loam soils would fall into the "moderate" risk level.

[3] **Description of Additional Controls Applicable to Small Residential Lot Compliance Alternatives 1 and 2:**

- **No Additional Requirements:** If you implement a buffer of 50 feet or greater, then you are not subject to any additional requirements. Note that you are required to install perimeter controls between the disturbed portions of your site and the buffer in accordance with Part 2.2.3.
- **Double Perimeter Control:** In addition to the reduced buffer width retained on your site, you must provide a double row of perimeter controls between the disturbed portion of your site and the receiving water spaced a minimum of 5 feet apart.
- **Double Perimeter Control and 7-Day Site Stabilization:** In addition to the reduced buffer width retained on your site and the perimeter control implemented in accordance with Part 2.2.3, you must provide a double row of perimeter controls between the disturbed portion of your site and the receiving water spaced a minimum of 5 feet apart, and you are required to complete the stabilization activities specified in Parts 2.2.14 within 7 calendar days of the temporary or permanent cessation of earth-disturbing activities.

[4] One source for determining your site's predominant soil type is the USDA's Web Soil Survey located at http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

Table F-2 Risk Levels for Sites with Average Slopes of ≤ 3 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay-Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
CNMI / Guam	Moderate	Moderate	Moderate	Moderate	High
Puerto Rico	Moderate	Moderate	Moderate	Moderate	High
Virgin Islands	Low	Moderate	Low	Moderate	Moderate
American Samoa	Moderate	Moderate	Moderate	Moderate	High
Massachusetts and New Hampshire	Low	Moderate	Low	Low	Moderate
Idaho	Low	Low	Low	Low	Low
New Mexico	Low	Low	Low	Low	Low
Washington D.C.	Low	Moderate	Low	Low	Moderate

Table F-3 Risk Levels for Sites with Average Slopes of > 3 Percent and ≤ 6 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay-Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
CNMI / Guam	Moderate	Moderate	Moderate	Moderate	High
Puerto Rico	Moderate	Moderate	Moderate	Moderate	High
Virgin Islands	Moderate	Moderate	Moderate	Moderate	High
American Samoa	High	High	Moderate	High	High
Massachusetts and New Hampshire	Moderate	Moderate	Low	Moderate	High
Idaho	Low	Low	Low	Low	Low
New Mexico	Low	Low	Low	Low	Moderate
Washington D.C.	Moderate	Moderate	Moderate	Moderate	High

Table F-4 Risk Levels for Sites with Average Slopes of > 6 Percent and ≤ 9 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay-Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
CNMI / Guam	Moderate	High	Moderate	High	High
Puerto Rico	Moderate	High	Moderate	Moderate	High
Virgin Islands	Moderate	Moderate	Moderate	Moderate	High
American Samoa	High	High	High	High	High
Massachusetts and New Hampshire	Moderate	Moderate	Moderate	Moderate	High
Idaho	Low	Low	Low	Low	Low
New Mexico	Low	Low	Low	Low	Moderate
Washington D.C.	Moderate	Moderate	Moderate	Moderate	High

Table F-5 Risk Levels for Sites with Average Slopes of > 9 Percent and ≤ 15 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay-Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
CNMI / Guam	High	High	High	High	High
Puerto Rico	High	High	High	High	High
Virgin Islands	Moderate	High	Moderate	High	High
American Samoa	High	High	High	High	High
Massachusetts and New Hampshire	Moderate	Moderate	Moderate	Moderate	High
Idaho	Low	Low	Low	Low	Low
New Mexico	Low	Moderate	Low	Moderate	Moderate
Washington D.C.	Moderate	High	Moderate	Moderate	High

Table F-6 Risk Levels for Sites with Average Slopes of > 15 Percent

Soil Type / Location	Clay	Silty Clay Loam or Clay-Loam	Sand	Sandy Clay Loam, Loamy Sand or Silty Clay	Loam, Silt, Sandy Loam or Silt Loam
CNMI / Guam	High	High	High	High	High
Puerto Rico	High	High	High	High	High
Virgin Islands	High	High	High	High	High
American Samoa	High	High	High	High	High
Massachusetts and New Hampshire	High	High	Moderate	High	High
Idaho	Low	Low	Low	Low	Moderate
New Mexico	Moderate	Moderate	Moderate	Moderate	High
Washington D.C.	High	High	Moderate	High	High

Step 2 – Determine Which Additional Controls Apply

Once you determine your site's "risk level", you must next determine the additional controls you need to implement on your site, based on the width of buffer you plan to retain. Table F-7 specifies the requirements that apply based on the "risk level" and buffer width retained. See footnote 3, above, for a description of the additional controls that are required.

For example, if you are the operator of a small residential lot that falls into the "moderate" risk level, and you decide to retain a 20-foot buffer, using Table F-7 you would determine that you need to implement double perimeter controls to achieve compliance with small residential lot compliance alternative 2.

You must also document in your SWPPP your compliance with small residential lot compliance alternative 2.

Table F-7. Alternative 2 Requirements[2]

Risk Level Based on Estimated Soil Erosion	Retain ≥ 50' Buffer	Retain <50' and >30' Buffer	Retain ≤30' and >10' Buffer	Retain ≤ 10' Buffer
Low Risk	No Additional Requirements	No Additional Requirements	Double Perimeter Control	Double Perimeter Control
Moderate Risk	No Additional Requirements	Double Perimeter Control	Double Perimeter Control	Double Perimeter Control and 7-Day Site Stabilization
High Risk	No Additional Requirements	Double Perimeter Control	Double Perimeter Control and 7-Day Site Stabilization	Double Perimeter Control and 7-Day Site Stabilization

ATTACHMENT 1

Sediment Removal Efficiency Tables[5]

EPA recognizes that very high removal efficiencies, even where theoretically achievable by a 50-foot buffer, may be very difficult to achieve in practice using alternative controls. Therefore in the tables below, EPA has limited the removal efficiencies to a maximum of 90%. Efficiencies that were calculated at greater than 90% are shown as 90%, and this is the minimum percent removal that must be achieved by alternative controls.

Table F-8 Estimated 50-foot Buffer Performance in Idaho*

	Estimated % Sediment Removal				
Type of Buffer Vegetation**	**Clay**	**Silty Clay Loam or Clay-Loam**	**Sand**	**Sandy Clay Loam, Loamy Sand or Silty Clay**	**Loam, Silt, Sandy Loam or Silt Loam**
Tall Fescue Grass	42	52	44	48	85
Medium-density Weeds	28	30	28	26	60
Low-density Warm-season Native Bunchgrass (i.e., Grama Grass)	25	26	24	24	55
Northern Mixed Prairie Grass	28	30	28	26	50
Northern Range Cold Desert Shrubs	28	28	24	26	50

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

Table F-9 Estimated 50-foot Buffer Performance in Massachusetts and New Hampshire*

	Estimated % Sediment Removal				
Type of Buffer Vegetation**	**Clay**	**Silty Clay Loam or Clay-Loam**	**Sand**	**Sandy Clay Loam, Loamy Sand or Silty Clay**	**Loam, Silt, Sandy Loam or Silt Loam**
Warm-season Grass (i.e., Switchgrass, Lemongrass)	79	90	90	90	90
Cool-season Dense Grass (Kentucky Bluegrass, Smooth Bromegrass, Timothy)	78	90	90	90	90
Tall Fescue Grass	76	90	81	89	90
Medium-density Weeds	66	76	60	72	66

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

[5] The buffer performances were calculated based on a denuded slope upgradient of a 50-foot buffer and a perimeter controls, as perimeter controls are a standard requirement (see Part 2.2.3).

Table F-10 Estimated 50-foot Buffer Performance in New Mexico*

	Estimated % Sediment Removal				
Type of Buffer Vegetation **	**Clay**	**Silty Clay Loam or Clay-Loam**	**Sand**	**Sandy Clay Loam, Loamy Sand or Silty Clay**	**Loam, Silt, Sandy Loam or Silt Loam**
Tall Fescue grass	71	85	80	86	90
Medium-density Weeds	56	73	55	66	78
Low-density Warm-season Native Bunchgrass (i.e., Grama Grass)	53	70	51	62	67
Southern Mixed Prairie Grass	53	71	52	63	50
Southern Range Cold Desert Shrubs	56	73	55	65	53

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

Table F-11 Estimated 50-foot Buffer Performance in Washington, DC*

	Estimated % Sediment Removal				
Type of Buffer Vegetation **	**Clay**	**Silty Clay Loam or Clay-Loam**	**Sand**	**Sandy Clay Loam, Loamy Sand or Silty Clay**	**Loam, Silt, Sandy Loam or Silt Loam**
Warm-season Grass (i.e., Switchgrass, Lemongrass)	82	90	90	90	90
Cool-season Dense Grass (Kentucky Bluegrass, Smooth Bromegrass, Timothy)	81	90	90	90	90
Tall Fescue Grass	79	90	83	89	90
Medium-density Weeds	71	79	66	75	74

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

Table F-12 Estimated 50-foot Buffer Performance in American Samoa*

	Estimated % Sediment Removal				
Type of Buffer Vegetation **	**Clay**	**Silty Clay Loam or Clay-Loam**	**Sand**	**Sandy Clay Loam, Loamy Sand or Silty Clay**	**Loam, Silt, Sandy Loam or Silt Loam**
Bahiagrass (Permanent cover)	82	90	90	90	83
Warm-season Grass (i.e., Switchgrass, Lemongrass)	82	90	90	90	85
Dense Grass	82	90	90	90	83
Tall Fescue Grass	82	89	82	89	79
Medium-density Weeds	70	73	62	75	59

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

Table F-13 Estimated 50-foot Buffer Performance in CNMI and Guam*

	Estimated % Sediment Removal				
Type of Buffer Vegetation **	**Clay**	**Silty Clay Loam or Clay-Loam**	**Sand**	**Sandy Clay Loam, Loamy Sand or Silty Clay**	**Loam, Silt, Sandy Loam or Silt Loam**
Bahiagrass (Permanent cover)	80	90	90	90	89
Warm-season Grass (i.e., Switchgrass, Lemongrass)	80	90	90	90	90
Dense Grass	79	90	90	90	89
Tall Fescue Grass	76	90	80	88	87
Medium-density Weeds	63	73	53	68	61

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

Table F-14 Estimated 50-foot Buffer Performance in Puerto Rico*

	Estimated % Sediment Removal				
Type of Buffer Vegetation**	**Clay**	**Silty Clay Loam or Clay-Loam**	**Sand**	**Sandy Clay Loam, Loamy Sand or Silty Clay**	**Loam, Silt, Sandy Loam or Silt Loam**
Bahiagrass (Permanent cover)	83	90	90	90	90
Warm-season Grass (i.e., Switchgrass, Lemongrass)	83	90	90	90	90
Dense Grass	83	90	90	90	90
Tall Fescue Grass	82	90	84	90	89
Medium-density Weeds	72	78	65	76	64

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

Table F-15 Estimated 50-foot Buffer Performance in Virgin Islands*

	Estimated % Sediment Removal				
Type of Buffer Vegetation**	**Clay**	**Silty Clay Loam or Clay-Loam**	**Sand**	**Sandy Clay Loam, Loamy Sand or Silty Clay**	**Loam, Silt, Sandy Loam or Silt Loam**
Bahiagrass (Permanent cover)	85	90	90	90	90
Warm-season Grass (i.e., Switchgrass, Lemongrass)	86	90	90	90	90
Dense Grass	85	90	90	90	90
Tall Fescue Grass	85	90	88	90	89
Medium-density Weeds	75	77	71	78	63

* Applicable for sites with less than nine percent slope
** Characterization focuses on the under-story vegetation

ATTACHMENT 2

Using the Sediment Removal Efficiency Tables – Questions and Answers

- *What if my specific buffer vegetation is not represented in Tables F-8 through F-15?* Tables F-8 through F-15 provide a wide range of factors affecting buffer performance; however, there are likely instances where the specific buffer vegetation type on your site is not listed. If you do not see a description of the type of vegetation present at your site, you should choose the vegetation type that most closely matches the vegetation type on your site. You can contact your local Cooperative Extension Service Office (http://nifa.usda.gov/partners-and-extension-map) for assistance in determining the vegetation type in Tables F-8 through F-15 that most closely matches your site-specific vegetation.
- *What if there is high variability in local soils?* EPA recognizes that there may be a number of different soil type(s) on any given construction site. General soil information can be obtained from USDA soil survey reports (http://websoilsurvey.nrcs.usda.gov) or from individual site assessments performed by a certified soil expert. Tables F-8 through F-15 present eleven generic soil texture classes, grouping individual textures where EPA has determined that performance is similar. If your site contains different soil texture classes, you should use the soil type that best approximates the predominant soil type at your site.
- *What if my site slope is greater than 9 percent after final grade is reached?* As indicated in the buffer performance tables, the estimated sediment removal efficiencies are associated with disturbed slopes of up to 9 percent grade. Where your graded site has an average slope of greater than 9 percent, you should calculate a site-specific buffer performance.
- *How do I calculate my own estimates for sediment reduction at my specific site?* If you determine that it is necessary to calculate your own sediment removal efficiency using site-specific conditions (e.g., slopes at your site are greater than 9 percent), you can use a range of available models that are available to facilitate this calculation, including USDA's RUSLE-series programs and the WEPP erosion model, SEDCAD, SEDIMOT, or other equivalent models.
- *What is my estimated buffer performance if my site location is not represented by Tables F-8 through F-15?* If your site is located in an area not represented by Tables F-8 through F-15, you should use the table that most closely approximates conditions at your site. You may instead choose to conduct a site-specific calculation of the buffer performance.
- *What if only a portion of my site drains to the buffer area?* If only a portion of your site drains to a receiving water, where that water is within 50 feet of your earth disturbances, you are only required to meet the equivalency requirement for the stormwater flows corresponding to those portions of the site. See Example 2 below for an example of how this is expected to work.

ATTACHMENT 3

Examples of How to Use the Sediment Removal Efficiency Tables

Example 1. Comparatively Wet Location (7.5 acre site located in Massachusetts)

The operator of a 7.5-acre construction site in Massachusetts has determined that it is infeasible to establish a buffer of any size on the site, and is now required to select and install controls that will achieve an equivalent sediment load reduction as that estimated in F-9 for their site conditions. The first step is to identify what percentage of eroded sediment is estimated to be retained from a 50-foot buffer. For this example, it is assumed that the site has a relatively uniform gentle slope (3 percent), so Table F-9 can be used to estimate the 50-foot buffer sediment load reduction. If the site's buffer vegetation is best typified by cool-season dense grass and the underlying soil is of a type best described as loamy sand, the 50-foot buffer is projected to capture 90 percent of eroded sediment from the construction site.

The second step is to determine what sediment controls can be selected and installed in combination with the perimeter controls already required to be implemented at the site (see Part 2.2.3), which will achieve the 90 percent sediment removal efficiency from Table F-9. For this example, using the RUSLE2 profile model, it was determined that installing a pair of shallow-sloped diversion ditches to convey runoff to a well-designed and maintained sediment basin provides 99 percent sediment removal. Because the estimated sediment reduction is greater than the required 90 percent that a 50-foot buffer provides, the operator will have met the buffer requirements. See Figure F-5. The operator could also choose a different set of controls, as long as they achieve at least a 90 percent sediment removal efficiency.

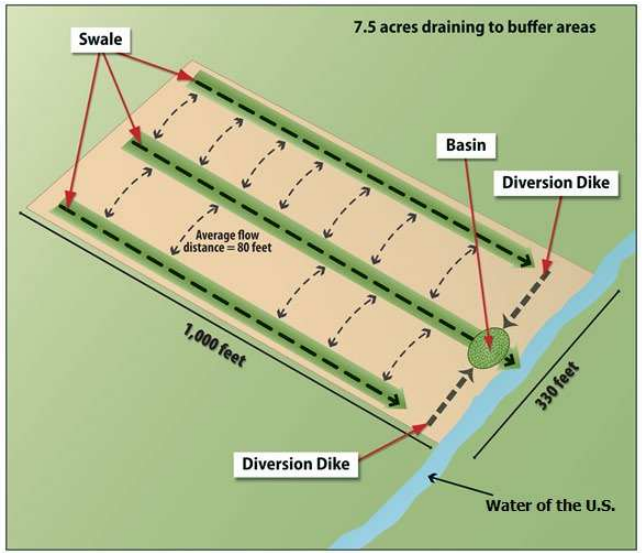


Figure F-5 Example 1 – Equivalent Sediment Load Reductions at a 7.5 ac Site in MA.

Example 2. Arid Location With Pre-existing Disturbances in the Natural Buffer (6.5 acre site located in New Mexico)

An operator of a site in New Mexico determines that it is not feasible to provide a 50-foot buffer, but a 28-foot buffer can be provided. Because the operator will provide a buffer that is less than 50 feet, the operator must determine which controls, in combination with the 28-foot buffer, achieve a sediment load reduction equivalent to the 50-foot buffer. In this example, the project will disturb 6.5 acres of land, but only 1.5 acres of the total disturbed area drains to the buffer area. Within the 28-foot buffer area is a preexisting concrete walkway. Similar to Example 1, the equivalence analysis starts with Step 1 in Part F.2.4 of this Appendix with a review of the New Mexico buffer performance (Table F-10). The operator determines that the predominate vegetation type in the buffer area is prairie grass, the soil type is similar to silt, and the site is of a uniform, shallow slope (e.g., 3 percent grade). Although the operator will take credit for the disturbance caused by the concrete walkway as a natural buffer in Step 2, here the operator can treat the entire buffer area as being naturally vegetated with prairie grass. Based on this information, the operator refers to Table F-10 to estimate that the 50-foot buffer would retain 50 percent of eroded soil.

The second step is to determine, based on the 50 percent sediment removal efficiency found in Table F-10, what sediment controls, in combination with the 28-foot buffer area, can be implemented to reduce sediment loads by 50 percent or more. The operator does not have to account the reduction in buffer function caused by the preexisting walkway, and can take credit for the entire 28-foot buffer being fully vegetated in the analysis. For this example, using the RUSLE2 profile model, the operator determined that installing a fiber roll barrier between the

silt fence (already required by Part 2.2.3) and the 28-foot buffer will achieve an estimated 84 percent sediment removal efficiency. See Figure F-6. Note that this operator is subject to the requirement in Part F.2.3 of this Appendix to ensure that discharges through the silt fence, fiber roll barrier, and 28-foot buffer do not cause erosion within the buffer. The estimated sediment reduction is greater than the required 50 percent; therefore the operator will have met the buffer alternative requirement.

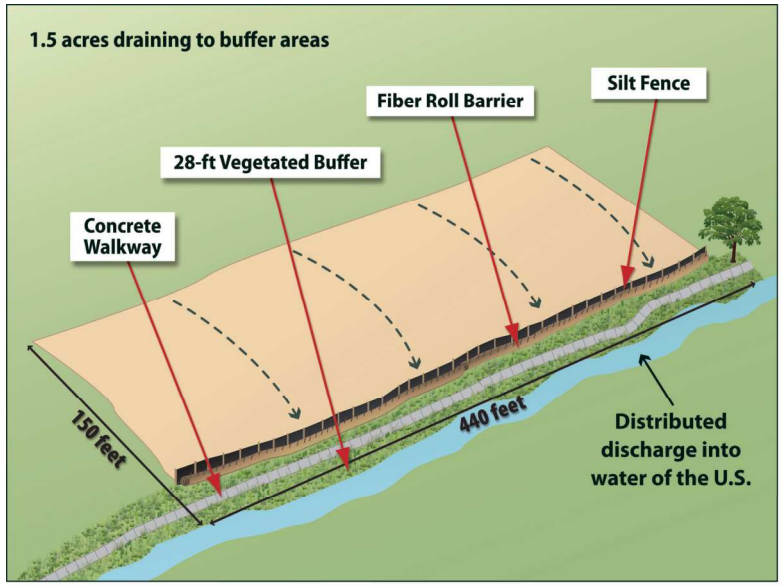


Figure F-6 Example 2 – Equivalent Sediment Load Reductions at a 6.5 ac Site in NM.

Appendix G - Standard Permit Conditions

Standard permit conditions in Appendix G are consistent with the general permit provisions required under 40 CFR 122.41.

G.1 Duty To Comply.

You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

G.1.1 You must comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards, even if the permit has not yet been modified to incorporate the requirement.

G.1.2 Penalties for Violations of Permit Conditions: EPA and other federal agencies are required to adjust their maximum and minimum statutory civil penalty amounts through rulemaking by January 15 each year to account for inflation. EPA's annual rulemaking adjustments, codified in 40 C.F.R. § 19.4, are mandated by the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended through the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (28 U.S.C. § 2461 note). As such, the civil penalty amounts below may change in the future due to inflation. See 40 C.F.R. § 19.4 for the most up-to-date civil penalty amounts.

G.1.2.1 *Criminal Penalties.*

a. *Negligent Violations*. The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than $2,500 nor more than $25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation or by imprisonment of not more than two years, or both.

b. *Knowing Violations.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $5,000 nor morethan $50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

c. *Knowing Endangerment.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than $250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, aperson shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision be subject to a fine of not more than $1,000,000 and can fined up to $2,000,000 for second or subsequent convictions.

d. *False Statement.* The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

G.1.2.2 *Civil Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amount authorized by Section 309(d) of the Act, as adjusted pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990 (28 U.S.C. § 2461 note), and codified at 40 CFR § 19.4.

G.1.2.3 *Administrative Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

a. *Class I Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act of 1990 as amended by the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (28 U.S.C. § 2461 note), and codified at 40 CFR § 19.4.

b. *Class II Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (28 U.S.C. § 2461 note), and codified at 40 CFR § 19.4.

G.2 Duty to Reapply.

If you wish to continue an activity regulated by this permit after the expiration date of this permit, you must apply for and obtain authorization as required by the new permit once EPA issues it.

G.3 Need to Halt or Reduce Activity Not a Defense.

It shall not be a defense for you in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

G.4 Duty to Mitigate.

You must take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

G.5 Proper Operation and Maintenance.

You must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by you to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the

operation of backup or auxiliary facilities or similar systems which are installed by you only when the operation is necessary to achieve compliance with the conditions of this permit.

G.6 Permit Actions.

This permit may be modified, revoked and reissued, or terminated for cause. Your filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

G.7 Property Rights.

This permit does not convey any property rights of any sort, or any exclusive privileges.

G.8 Duty to Provide Information.

You must furnish to EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), within a reasonable time, any information that EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. You must also furnish to EPA or an authorized representative upon request, copies of records required to be kept by this permit.

G.9 Inspection and Entry.

You must allow EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), upon presentation of credentials and other documents as may be required by law, to:

G.9.1 Enter upon your premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

G.9.2 Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

G.9.3 Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

G.9.4 Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

G.10 Monitoring and Records.

G.10.1 Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.

G.10.2 You must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of EPA at any time.

G.10.3 Records of monitoring information must include:

G.10.3.1 The date, exact place, and time of sampling or measurements;

G.10.3.2 The individual(s) who performed the sampling or measurements;

G.10.3.3 The date(s) analyses were performed

G.10.3.4 The individual(s) who performed the analyses;

G.10.3.5 The analytical techniques or methods used; and

G.10.3.6 The results of such analyses.

G.10.4 Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

G.10.5 The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

G.11 Signatory Requirements.

G.11.1 All applications, including NOIs and NOTs, must be signed as follows:

G.11.1.1 For a corporation: By a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

G.11.1.2 For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

G.11.1.3 For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

G.11.2 Your SWPPP (including changes to your SWPPP inspection reports), corrective action log, turbidity monitoring report, site inspection and dewatering inspection reports, and any other compliance documentation required under this permit, must be signed by a person described in Appendix G, Subsection G.11.1 above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

G.11.2.1 The authorization is made in writing by a person described in Appendix G, Subsection G.11.1;

G.11.2.2 The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental

matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

G.11.2.3 The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

G.11.3 Changes to Authorization. If an authorization under this permit is no longer accurate because a different operator has responsibility for the overall operation of the construction site, a new NOI must be submitted to EPA. See Table 1 in Part 1.4.3 of the permit. However, if the only change that is occurring is a change in contact information or a change in the facility's address, the operator need only make a modification to the existing NOI submitted for authorization.

G.11.4 Any person signing documents in accordance with Appendix G, Subsections G.11.1 or G.11.2 above must include the following certification:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G.11.5 For persons signing NOIs electronically, in addition to meeting other applicable requirements in Appendix G, Subsection G.11, such signatures must meet the same signature, authentication, and identity-proofing standards set forth at 40 CFR § 3.2000(b) for electronic reports (including robust second-factor authentication).

G.11.6 The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

G.12 Reporting Requirements.

G.12.1 Planned changes. You must give notice to EPA as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

G.12.1.1 The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

G.12.1.2 The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).

G.12.2 Anticipated noncompliance. You must give advance notice to EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

G.12.3 Transfers. This permit is not transferable to any person except after notice to EPA. Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination pursuant to Part 8. The new

owner or operator must submit a Notice of Intent in accordance with Part 1.4 and Table 1. See also requirements in Appendix G, Subsections G.11.1 and G.11.2.

G.12.4 Monitoring reports. Monitoring results must be reported at the intervals specified elsewhere in this permit.

G.12.4.1 Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by EPA for reporting results of monitoring of sludge use or disposal practices.

G.12.4.2 If you monitor any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by EPA.

G.12.5 Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

G.12.6 Twenty-four hour reporting. In addition to reports required elsewhere in this permit:

G.12.6.1 You must report any noncompliance which may endanger health or the environment directly to the EPA Regional Office (see contacts at https://www2.epa.gov/national-pollutant-discharge-elimination-system-npdes/contact-us-stormwater#regional). Any information must be provided orally within 24 hours from the time you become aware of the circumstances. A written submission must also be provided within five days of the time you become aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

G.12.6.2 The following shall be included as information which must be reported within 24 hours under this paragraph.

a. Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(m)(3)(ii))

b. Any upset which exceeds any effluent limitation in the permit

c. Violation of a maximum daily discharge limit for any numeric effluent limitation. (See 40 CFR 122.44(g).)

G.12.6.3 EPA may waive the written report on a case-by-case basis for reports under Appendix G, Subsection G.12.6.2 if the oral report has been received within 24 hours.

G.12.7 Other noncompliance. You must report all instances of noncompliance not reported under Appendix G, Subsections G.12.4, G.12.5, and G.12.6, at the time monitoring reports are submitted. The reports must contain the information listed in Appendix G, Subsection G.12.6.

G.12.8 Other information. Where you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Permitting Authority, you must promptly submit such facts or information.

G.13 Bypass.

G.13.1 Definitions.

G.13.1.1 Bypass means the intentional diversion of waste streams from any portion of a treatment facility See 40 CFR 122.41(m)(1)(i).

G.13.1.2 Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR 122.41(m)(1)(ii).

G.13.2 Bypass not exceeding limitations. You may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Appendix G, Subsections G.13.3 and G.13.4. See 40 CFR 122.41(m)(2).

G.13.3 Notice.

G.13.3.1 Anticipated bypass. If you know in advance of the need for a bypass, you must submit prior notice, if possible at least ten days before the date of the bypass. See 40 CFR 122.41(m)(3)(i).

G.13.3.2 Unanticipated bypass. You must submit notice of an unanticipated bypass as required in Appendix G, Subsection G.12.6 (24-hour notice). See 40 CFR 122.41(m)(3)(ii).

G.13.4 Prohibition of bypass. See 40 CFR 122.41(m)(4).

G.13.4.1 Bypass is prohibited, and EPA may take enforcement action against you for bypass, unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. You submitted notices as required under Appendix G, Subsection G.13.3.

G.13.4.2 EPA may approve an anticipated bypass, after considering its adverse effects, if EPA determines that it will meet the three conditions listed above in Appendix G, Subsection G.13.4.1.

G.14 Upset.

G.14.1 Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. See 40 CFR 122.41(n)(1).

G.14.2 Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Appendix G, Subsection G.14.3 are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. See 40 CFR 122.41(n)(2).

G.14.3 Conditions necessary for a demonstration of upset. See 40 CFR 122.41(n)(3). A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

G.14.3.1 An upset occurred and that you can identify the cause(s) of the upset;

G.14.3.2 The permitted facility was at the time being properly operated; and

G.14.3.3 You submitted notice of the upset as required in Appendix G, Subsection G.12.6.2.b (24 hour notice).

G.14.3.4 You complied with any remedial measures required under Appendix G, Subsection G.4.

G.14.4 Burden of proof. In any enforcement proceeding, you, as the one seeking to establish the occurrence of an upset, have the burden of proof. See 40 CFR 122.41(n)(4).

G.15 Retention of Records.

Copies of the SWPPP and all documentation required by this permit, including records of all data used to complete the NOI to be covered by this permit, must be retained for at least three years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

G.16 Reopener Clause.

G.16.1 Procedures for modification or revocation. Permit modification or revocation will be conducted according to 40 CFR §122.62, §122.63, §122.64 and §124.5.

G.16.2 Water quality protection. If there is evidence indicating that the stormwater discharges authorized by this permit cause, have the reasonable potential to cause or contribute to an excursion above any applicable water quality standard, you may be required to obtain an individual permit, or the permit may be modified to include different limitations and/or requirements.

G.16.3 Timing of permit modification. EPA may elect to modify the permit prior to its expiration (rather than waiting for the new permit cycle) to comply with any new statutory or regulatory requirements, such as for effluent limitation guidelines that may be promulgated in the course of the current permit cycle.

G.17 Severability.

Invalidation of a portion of this permit does not necessarily render the whole permit invalid. EPA's intent is that the permit is to remain in effect to the extent possible; in the event that any part of this permit is invalidated, EPA will advise the regulated community as to the effect of such invalidation.

Appendix H - Notice of Intent (NOI) Form and Instructions

Part 1.4.1 requires you to use the NPDES eReporting Tool, or "NeT" system, to prepare and submit your NOI electronically. However, if the EPA Regional Office grants you a waiver to use a paper NOI form, and you elect to use it, you must complete and submit the following form.

NPDES Form 3510-9	EPA	U.S. Environmental Protection Agency Washington, DC 20460 Notice of Intent for the 2022 NPDES Construction General Permit	OMB No. 2040-0305 Exp. Date 01/31/2025

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section III of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section II of this form. Submission of this NOI also constitutes notice that the operator identified in Section III of this form meets the eligibility requirements of Part 1.1 CGP for the project identified in Section IV of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

SECTION I. APPROVAL TO USE PAPER NOI FORM

Paper NOI Form

Have you been granted a waiver from electronic reporting from the Regional Office*? ☐ Yes ☐ No

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:
☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
☐ The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver	Date approval obtained (MM/DD/YYYY)

*** Note: You are required to obtain approval from the applicable Regional Office prior to using this paper NOI form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT).**

SECTION II. PERMIT INFORMATION

Permit

NPDES ID (EPA Use Only)	Master Permit Number (see Appendix B of the CGP for the list of eligible permit numbers)

SECTION III. OPERATOR INFORMATION

Operator Information

Operator Name

Are you requesting coverage under this NOI as a "Federal Operator" or for a "Federal Facility" as defined in Appendix A? ☐ Yes ☐ No

Mailing Address

Street

City	State	ZIP Code

County or Similar Government Division

Operator Point of Contact Information:

First Name	Middle Initial	Last Name

Title

Phone Number	Email Address

NOI Preparer

Complete if NOI was prepared by someone other than the certifier:

First Name	Middle Initial	Last Name

Organization

Phone number	Email address

SECTION IV. PROJECT/SITE INFORMATION

Project/Site Address

Project/Site Name

Street/Location

City	State	ZIP Code

County or Similar Government Division:

For the project/site you are seeking permit coverage, provide the following information:

Latitude (in decimal degrees to four decimal places):	Longitude (in decimal degrees to four decimal places):
° N	° W

Latitude/Longitude Data Source: ☐ Map ☐ GPS ☐ Other (Specify):

Horizontal Reference Datum: ☐ NAD 27 ☐ NAD 83 ☐ WGS 84

Site Information

Is your site located in Indian country lands, or on a property of religious or cultural significance to an Indian Tribe? ☐ Yes ☐ No

If yes, provide the name of the Indian Tribe associated with the area of Indian country (including name of Indian reservation, if applicable), or if not in Indian country, provide the name of the Indian Tribe associated with the property:

Project Information

Estimated Project Start Date (MM/DD/YYYY)	Estimated Project Completion Date (MM/DD/YYYY)

Estimated Area to be Disturbed (to the nearest quarter acre):

Type of Construction Site (check all that apply):
☐ Single-Family Residential ☐ Multi-Family Residential ☐ Commercial
☐ Industrial ☐ Institutional ☐ Highway or Road
☐ Utility ☐ Other (Specify):

Was the pre-development land use used for agriculture (see Appendix A for definition of "agricultural land")? ☐ Yes ☐ No

Have earth-disturbing activities commenced on your project/site? ☐ Yes ☒ No

If yes, is your project an "emergency-related project" (see Appendix A)? ☒ Yes ☐ No

Project Information

Have stormwater discharges from your project/site been covered previously under an NPDES permit? ☐ Yes ☐ No

If yes, provide the NPDES ID (if you had coverage under EPA's 2017 CGP) or the NPDES permit number (if you had coverage under an EPA individual permit): _____

Are there other operators that are covered under this permit for the same project site? ☐ Yes ☐ No

If yes, provide the NPDES ID number for all other operators at the site who have coverage under this permit: _____

Will there be demolition of any structure built or renovated before January 1, 1980? ☐ Yes ☐ No

If yes, do any of the structures being demolished have at least 10,000 square feet of floor space? ☐ Yes ☐ No

Will you be discharging dewatering water from your site? ☐ Yes ☐ No

If yes, will you be discharging dewatering water from a current or former Federal or State remediation site? ☐ Yes ☐ No

SECTION V. DISCHARGE INFORMATION

Project Information

By indicating "Yes," I confirm that I understand that the CGP only authorizes the allowable stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, State, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit. ☐ Yes

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ Yes ☐ No

Are there any waters of the U.S. within 50 feet of your project's earth disturbances? ☐ Yes ☐ No

Receiving Waters Information

For each point of discharge, provide the following receiving water information. (Attach a separate list if necessary)

Point of Discharge ID	Provide the name of the first water of the U.S. that receives stormwater directly from the point of discharge and/or from the MS4 that the point of discharge discharges to:	If the receiving water is impaired (on the CWA 303(d) list), list the pollutants that are causing the impairment:	If a TMDL been completed for this receiving waterbody, providing the following information:
			TMDL Name and ID:
			Pollutant(s) for which there is a TMDL:
			TMDL Name and ID:
			Pollutant(s) for which there is a TMDL:

Receiving Waters Information

For each point of discharge, provide the following receiving water information. (Attach a separate list if necessary)

Point of Discharge ID	Provide the name of the first water of the U.S. that receives stormwater directly from the point of discharge and/or from the MS4 that the point of discharge discharges to:	If the receiving water is impaired (on the CWA 303(d) list), list the pollutants that are causing the impairment:	If a TMDL been completed for this receiving waterbody, providing the following information:
			TMDL Name and ID:
			Pollutant(s) for which there is a TMDL:
			TMDL Name and ID:
			Pollutant(s) for which there is a TMDL:
			TMDL Name and ID:
			Pollutant(s) for which there is a TMDL:
			TMDL Name and ID:
			Pollutant(s) for which there is a TMDL:
			TMDL Name and ID:
			Pollutant(s) for which there is a TMDL:

Are any of the waters of the U.S. to which you discharge designated by the State or Tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)? (See Appendix F). ☐ Yes ☐ No

If yes, name(s) of receiving water(s) and its designation (Tier 2, Tier 2.5 or Tier 3):

SECTION VI. CHEMICAL TREATMENT INFORMATION

Chemical Treatment

Will you use polymers, flocculants, or other treatment chemicals at your construction site? ☐ Yes ☐ No

If yes, will you use cationic treatment chemicals at your construction site*? ☐ Yes ☐ No

If yes, have you been authorized to use cationic treatment chemicals by your applicable EPA Regional Office in advance of filing your NOI*? ☐ Yes ☐ No

If you have been authorized to use cationic treatment chemicals by your applicable EPA Regional Office, attach a copy of your authorization letter and include documentation of the appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards.

Please indicate the treatment chemicals that you will use:

* Note: You are ineligible for coverage under this permit unless you notify your applicable EPA Regional Office in advance and the EPA office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards.

SECTION VII. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND PERSONNEL TRAINING INFORMATION

SWPPP

Has the SWPPP been prepared in advance of filing this NOI, as required? ☐ Yes ☐ No

By indicating "Yes," I confirm that all required personnel, including those conducting inspections at your site, will meet the training requirements in Part 6 of this permit. ☐ Yes

SWPPP Contact Information

First Name	Middle Initial	Last Name

Professional Title

Phone number	Email address

SECTION VIII. ENDANGERED SPECIES PROTECTION

Endangered Species Protection

In accordance with Part 1.1.5, if the EPA Regional Office grants you a waiver from electronic reporting, you must complete the worksheet in Appendix D to select your eligibility criteria with respect to the protection of Federally listed threatened or endangered species and Federally designated "critical habitat" under the Endangered Species Act (ESA) [hereinafter "ESA-listed species and designated critical habitat(s)"] from discharges and discharge-related activities authorized under this permit.

You must submit the ESA worksheet and all required supporting documentation with this NOI. If you do not submit the worksheet and the required supporting documentation with your NOI, your NOI will be considered incomplete. After you submit your NOI and before your NOI is authorized, EPA may notify you if any additional controls are necessary to ensure your discharges are not likely to result in any short- or long-term adverse effects on ESA-listed species and critical habitat.

By indicating "Yes," I confirm that you have included the completed ESA worksheet from Appendix D and all required supporting information for your criterion selection with the submission of this NOI. ☐ Yes

SECTION IX. HISTORIC PRESERVATION

Historic Preservation

Are you installing any stormwater controls as described in Appendix E that require subsurface earth disturbance? (Appendix E, Step 1) ☐ Yes ☐ No

If yes, have prior surveys or evaluations conducted on the site have already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E, Step 2) ☐ Yes ☐ No

If no, have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? (Appendix E, Step 3) ☐ Yes ☐ No

If no, did the SHPO, THPO, or other Tribal representative (whichever applies) respond to you within the 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties? (Appendix E, Step 4) ☐ Yes ☐ No

If yes, describe the nature of their response:

☐ Written indication that no historic properties will be affected by the installation of stormwater controls.

☐ Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions.

☐ No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls.

☐ Other (Specify):

SECTION X. CERTIFICATION INFORMATION

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name	Middle Initial	Last Name

Title

Signature	Date (MM/DD/YYYY)

Email Address

General Instructions

Who Must File an NOI Form?

Under the provisions of the Clean Water Act, as amended (33 U.S.C. 1251 et. seq.; the Act), Federal law prohibits stormwater discharges from certain construction activities to waters of the U.S. unless that discharge is covered under a National Pollutant Discharge Elimination System (NPDES) permit. Operators of construction sites where one or more acres are disturbed, smaller sites that are part of a larger common plan of development or sale where there is a cumulative disturbance of at least one acre, or any other site specifically designated by the Director, must obtain coverage under an NPDES general permit. For coverage under the 2022 CGP, each person, firm, public organization, or any other entity that meets either of the following criteria must file a Notice of Intent form: (1) they have operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or (2) they have day-to-day operational control of those activities at the project necessary to ensure compliance with the permit conditions. If you have questions about whether you need a NPDES stormwater permit, or if you need information to determine whether EPA or your State agency is the permitting authority, contact your EPA Regional Office.

Completing the Form

Obtain and read a copy of the 2022 CGP, viewable at https://www.epa.gov/npdes/stormwater-discharges-construction-activities#cgp. To complete this form, type or print uppercase letters, in the appropriate areas only. Please place each character between the marks (abbreviate if necessary to stay within the number of characters allowed for each item). Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions on this form, telephone EPA's NOI Processing Center at (866) 352-7755. **Please submit the original document with signature in ink - do not send a photocopied signature.**

Section I. Approval to Use Paper NOI Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper NOI form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided.

See https://www.epa.gov/npdes/contact-us-stormwater#regional for a list of EPA Regional Office contacts.

Section II. Permit Information

Provide the master permit number of the permit under which you are applying for coverage (see Appendix B of the general permit for the list of eligible master permit numbers)

Section III. Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the project described in this NOI. Refer to Appendix A of the permit for the definition of "operator".

Indicate whether you are seeking coverage under this permit as a "Federal Operator" or "Federal Facility" as defined in Appendix A.

Also provide a point of contact, the operator's mailing address, county, telephone number, and e-mail address (to be notified via e-mail of NOI approval when available). Correspondence for the NOI will be sent to this address.

If the NOI was prepared by someone other than the certifier (for example, if the NOI was prepared by the facility SWPPP contact or a consultant for the certifier's signature), include the full name, organization, phone number, and email address of the NOI preparer.

Section IV. Project/Site Information

Enter the official or legal name and complete street address, including city, State, ZIP code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., Intersection of State Highways 61 and 34). Complete site information must be provided for permit coverage to be granted.

Provide the latitude and longitude of your facility in decimal degrees format. The latitude and longitude of your facility can be determined in several different ways, including through the use of global positioning system (GPS) receivers, U.S. Geological Survey (U.S.G.S.) topographic or quadrangle maps, and web-based siting tools, among others. For consistency, EPA requests that measurements be taken from the approximate center of the construction site. For linear construction sites, the measurement should be taken midpoint of the site. If known, enter the horizontal reference datum for your latitude and longitude. The horizontal reference datum is shown on the bottom left corner of USGS topographic maps; it is also available for GPS receivers.

Indicate whether the project is in Indian country lands or located on a property of religious or cultural significance to an Indian Tribe, and if so, provide the name of the Indian Tribe associated with the area of Indian country (including name of Indian reservation, if applicable), or if not in Indian country, provide the name of the Indian Tribe associated with the property.

Enter the estimated construction start and completion dates using four digits for the year (i.e., 10/06/2012). Indicate to the nearest quarter acre the estimated area to be disturbed. Indicate the type of construction site.

Indicate whether the pre-development land use of the site was used for agriculture Appendix A defines "agricultural land" as cropland, grassland, rangeland, pasture, and other agricultural land, on which agricultural and forest-related products or livestock are produced and resource concerns may be addressed. Agricultural lands include cropped woodland, marshes, incidental areas included in the agricultural operation, and other types of agricultural land used for the production of livestock.

Indicate whether earth-disturbing activities have already commenced on your project/site. If earth-disturbing activities have commenced on your site because stormwater discharges from the site have been previously covered under a NPDES permit, you must provide the 2017 CGP NPDES ID or

the NPDES permit number if coverage was under an individual permit.

Indicate if demolition is occurring, and if so, if the structure has at least 10,000 square feet of floor space.

Indicate if there are other operators covered under this permit for the same project site. If there are multiple operators, provide the NPDES ID number for the other operators at the site who have coverage under this permit.

Indicate whether you will be discharging dewatering water, as defined in Appendix A, during the course of the project. If you will be discharging dewatering water, indicate whether the site from which you will be dewatering is located on a current or former Federal or State remediation site. Federal remediation sites include cleanups covered by Superfund (both National Priorities List (NPL) sites and non-NPL sites), Resource Conservation and Recovery Act (RCRA) corrective actions sites, cleanups at Federal Facilities, and Federal, State, or Tribal brownfields sites. State remediation sites could include, for instance, brownfield site cleanups funded by the State, State superfund sites, and petroleum tank release sites. Operators may use online mapping resources, such as EPA's Cleanups in My Community Map, to help determine if they are located on a remediation site. The Cleanups in My Community Map is viewable at:

https://ordspub.epa.gov/ords/cimc/f?p=cimc:map:::::71

Section V. Discharge Information

You must confirm that you understand that the CGP only authorizes the allowable stormwater discharges listed in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized under the CGP are not covered by the CGP or the permit shield provision of the CWA Section 402(k) and they cannot become authorized or shielded by disclosure to EPA, State, or local authorities via the NOI to be covered by the permit or by any other means (e.g., in the SWPPP or during an inspection). If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must either be eliminated or covered under another NPDES permit.

Indicate whether discharges from the site will enter into a municipal separate storm sewer system (MS4), as defined in Appendix A.

Also, indicate whether any waters of the U.S. exist within 50 feet from your site. Note that if "yes", you are required to comply with the requirement in Part 2.2.1 of the permit to provide natural buffers or equivalent erosion and sediment controls.

For each unique point of discharge you list, you must specify the name of the first water of the U.S. that receives stormwater directly from the point of discharge and/or from the MS4 that the point of discharge discharges to. You must specify whether any waters of the U.S. that you discharge to are listed as "impaired" as defined in Appendix A, and the pollutants for which the water is impaired. You must identify any Total Maximum Daily Loads (TMDL) that have been completed for any of the waters of the U.S. that you discharge to. Operators may find it useful to use EPA's Discharge Mapping Tool to determine whether the water of the U.S. is impaired, the pollutant causing the impairment, and whether a TMDL exists for the water body. The Discharge Mapping Tool is viewable at https://www.epa.gov/npdes/epas-stormwater-discharge-mapping-tools.

Indicate whether discharges from the site will enter into a water of the U.S. that is designated as a Tier 2, Tier 2.5, or Tier 3 water. A list of Tier 2, 2.5, and 3 waters is provided at https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates. If the answer is "yes", name all waters designated as Tier 2, Tier 2.5, or Tier 3 to which the site will discharge.

Section VI. Chemical Treatment Information

Indicate whether the site will use polymers, flocculants, or other treatment chemicals. Indicate whether the site will employ cationic treatment chemicals. If the answer is "yes" to either question, indicate which chemical(s) you will use. Note that you are not eligible for coverage under this permit to use cationic treatment chemicals unless you notify your applicable EPA Regional Office in advance and the EPA office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards. If you have been authorized to use cationic treatment chemicals by your applicable EPA Regional Office, attach a copy of your authorization letter and include documentation of the appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards. Examples of cationic treatment chemicals include, but are not limited to, cationic polyacrylamide (C-PAM), PolyDADMAC (POLY DIALLYL DIMETHYL AMMONIUM CHLORIDE), and chitosan.

Section VII. Stormwater Pollution Prevention Plan (SWPPP) and Personnel Training Information

All sites eligible for coverage under this permit are required to prepare a SWPPP in advance of filing the NOI, in accordance with Part 7. Indicate whether the SWPPP has been prepared in advance of filing the NOI.

Confirm that all required personnel, including those conducting inspections at your site, will meet the training requirements in Part 6 of this permit.

Indicate the street, city, State, and ZIP code where the SWPPP can be found. Indicate the contact information (name, organization, phone, and email) for the person who developed the SWPPP for this project.

Section VIII. Endangered Species Information

Confirm that you have included the completed ESA worksheet from Appendix D and all required supporting information for your criterion selection with the submission of this NOI.

Section IX. Historic Preservation

Use the instructions in Appendix E to complete the questions on the NOI form regarding historic preservation.

Section X. Certification Information

The NOI must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making

major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing. An unsigned or undated NOI form will not be considered eligible for permit coverage.

Modifying Your NOI

If you have been granted a waiver from your Regional Office from electronic reporting, and if after submitting your NOI you need to correct or update any fields on this NOI form, you may do so by indicating changes on this same form.

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0305). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 3.3 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Submitting Your Form

Submit your NOI form by mail to one of the following addresses:

For Regular U.S. Mail Delivery:
Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2022 CGP
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:
Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2022 CGP
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically:

https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting

Appendix I - Notice of Termination (NOT) Form and Instructions

Part 8.3 requires you to use the NPDES eReporting Tool, or "NeT" system, to prepare and submit your NOT electronically. However, if the EPA Regional Office grants you a waiver to use a paper NOT form, and you elect to use it, you must complete and submit the following form.

NPDES Form 3510-13	EPA	U.S. Environmental Protection Agency Washington, DC 20460 Notice of Termination for the 2022 NPDES Construction General Permit	OMB No. 2040-0305 Exp. Date 01/31/2025

Submission of this Notice of Termination constitutes notice that the operator identified in Section III of this form is no longer authorized discharge pursuant to the NPDES Construction General Permit (CGP) from the site identified in Section IV of this form. All necessary information must be included on this form. Refer to the instructions at the end of this form.

SECTION I. APPROVAL TO USE PAPER NOI FORM

Paper NOI Form

Have you been granted a waiver from electronic reporting from the Regional Office*? ☐ Yes ☐ No

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:
- ☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- ☐ The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver	Date approval obtained (MM/DD/YYYY)

*** Note: You are required to obtain approval from the applicable Regional Office prior to using this paper NOI form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT).**

SECTION II. PERMIT INFORMATION

Permit

NPDES ID

Reason for Termination (Check only one):

- ☐ You have completed all construction activities at your site, and you have met all other requirements in Part 8.2.1.
  - ☐ Check this box to confirm that you have attached photographs as required by Part 8.2.1.a that document your compliance with the permit's final stabilization requirements.
  - ☐ Include the date each photograph was taken, and a brief description of the area of the site captured by the photograph (e.g., photo shows application of seed and erosion control mats to remaining exposed surfaces on northeast corner of site).
  - ☐ If any portion of your site is covered by one of the Part 2.2.14c.iii exceptions to the final stabilization criteria, indicate which exception applies and include a supplementary explanation with your photographs that provides the necessary context for why this portion of the site is in compliance even though it appears to be unstabilized.
- ☐ Another operator has assumed control over all areas of the site and that operator has submitted an NOI and obtained coverage under the CGP.
- ☐ You have obtained coverage under an individual permit or another general NPDES permit addressing stormwater discharges from the construction site.

SECTION III. OPERATOR INFORMATION

Operator Information

Operator Name

Mailing Address

Street

City	State	ZIP Code

County or Similar Government Division

Phone Number	Email Address

SECTION IV. PROJECT/SITE INFORMATION

Project/Site Address

Project/Site Name		
Street/Location		
City	State	ZIP Code
County or Similar Government Division:		

SECTION V. CERTIFICATION INFORMATION

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name	Middle Initial	Last Name
Title		
Signature		Date (MM/DD/YYYY)
Email Address		

Instructions for Completing EPA Form 3510-13

Notice of Termination for the 2022 NPDES Construction General Permit

NPDES Form Date (02/22) **This Form Replaces Form 3510-13 (02/17)** **Form Approved OMB No. 2040-0305**

General Instructions

Who May File an NOT Form?

Permittees who are presently covered under the EPA-issued 2022 Construction General Permit (CGP) for Stormwater Discharges Associated with Construction Activity may submit an NOT form when: (1) earth-disturbing activities at the site are completed and the conditions in Parts 8.2.1.a through 8.2.1.b are met; or (2) the permittee has transferred all areas under its control to another operator, and that operator has submitted and obtained coverage under this permit; or (3) the permittee has obtained coverage under a different NPDES permit for the same discharges.

Completing the Form

Type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions about this form, refer to https://www.epa.gov/npdes/stormwater-discharges-construction-activities#cgp or telephone EPA's NOI Processing Center at (866) 352-7755. **Please submit original document with signature in ink - do not send a photocopied signature.**

Section I. Approval to Use Paper NOI Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper NOT form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided.

See https://www.epa.gov/npdes/contact-us-stormwater#regional for a list of EPA Regional Office contacts.

Section II. Permit Information

Enter the existing NPDES ID assigned to the project . If you do not know the NPDES ID number, or contact EPA's NOI Processing Center at (866) 352-7755.

Indicate your reason for submitting this Notice of Termination by checking the appropriate box. Check only one. If you selected the first box, confirm that you have attached photographs as required by Part 8.2.1.a. All submitted photographs must: (1) be taken both before and after the site has met the final stabilization criteria in Part 2.2.14.c; (2) be clear and in focus, and in the original format and resolution; and (3) include the date each photograph was taken, and a brief description of the area of the site captured by the photograph (e.g., photo shows application of seed and erosion control mats to remaining exposed surfaces on northeast corner of site).

If any portion of your site is covered by one of the Part 2.2.14c.iii final stabilization exceptions, indicate which exception applies and provide an explanation with your photographs that describes why this portion of the site is in compliance even though it may appear to be unstabilized.

Section III. Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the project described in this NOT and is covered by the NPDES ID identified in Section II. Enter the complete mailing address, telephone number, and email address of the operator.

Section IV. Project/Site Information

Enter the official or legal name and complete street address, including city, State, ZIP code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., Intersection of State Highways 61 and 34). Complete site information must be provided for termination of permit coverage to be valid.

Section V. Certification Information

The NOT, must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Part, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

Include the name, title, and email address of the person signing the form and the date of signing. An unsigned or undated NOT form will not be considered valid termination of permit coverage.

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0305). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a

currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 1.2 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Submitting Your Form

Submit your NOT form by mail to one of the following addresses:

For Regular U.S. Mail Delivery:
Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2022 CGP
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:
Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2022 CGP
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically:

https://www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting

Appendix J - Suggested Format for Request for Chemical Treatment

If you plan to add "cationic treatment chemicals" (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge, Part 1.1.9 requires you to notify your applicable EPA Regional Office in advance of submitting your NOI. The EPA Regional Office will authorize coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will result in discharges that meet applicable water quality standards. To notify your EPA Regional Office, you may use following form.

NPDES Form 6100-066	EPA	U.S. Environmental Protection Agency Washington, DC 20460 Suggested Form for Notifying EPA about Proposed Use of Cationic Treatment Chemicals under the 2022 NPDES Construction General Permit	OMB No. 2040-0305 Exp. Date 01/31/2025

Under Part 1.1.9 of the 2022 CGP, if you plan to add "cationic treatment chemicals" (as defined in Appendix A) to stormwater and/or authorized non-stormwater prior to discharge, you may not submit your Notice of Intent (NOI) until you notify your applicable EPA Regional Office in advance and the EPA Regional Office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will result in discharges that meet applicable water quality standards. You may use this suggested form to notify your EPA Regional Office about your proposed use of cationic treatment chemicals.

SECTION I. OPERATOR INFORMATION

Operator Information

Operator Name

Mailing Address

Street

City	State	ZIP Code

County or Similar Government Division

Phone Number	Email Address

SECTION II. PROJECT/SITE INFORMATION

Project/Site Information

Project/Site Name

Project/Site Address

Street/Location

City	State	ZIP Code

County or Similar Government Division

Site Contact Information (if different from operator)

First Name	Middle Initial	Last Name

Phone Number

Receiving Waterbodies

Name(s) of Receiving Waterbodies:

SECTION III. MAP

Map

Attach a map that illustrates the entire site including all of the below items. Include this map in your Stormwater Pollution Prevention Plan (SWPPP).
- All receiving waterbodies
- All proposed location(s) of chemical treatment system(s)
- All proposed point(s) of discharge to receiving waterbodies
- All soil types within areas to be disturbed
- All areas of earth disturbance
- Sufficient indication of topography to indicate where stormwater flows

Attach a schematic drawing of the proposed treatment system(s). Include all components of the treatment train, sample points, and pipe configurations. In addition to sufficient holding capacity upstream of treatment, the system must have the capacity to hold water for testing and to re-treat water that does not meet water quality standards.

SECTION IV. RESPONSIBLE PERSONNEL

Responsible Personnel

Treatment System Operator or Company Name (if subcontracted out):

Street/Location

City	State	ZIP Code

Responsible Personnel

List personnel who will be responsible for operating the chemical treatment systems and application of the chemicals.	Cite the training that the personnel have received in operation and maintenance of the treatment system(s) and use of the specific chemical(s) proposed.

SECTION V. PROPOSED TREATMENT

Proposed Treatment

Check proposed treatment system to be used:

- ☐ Chitosan enhanced sand filtration with discharge to infiltration (ground water).
- ☐ Chitosan enhanced sand filtration with discharge to temporary holding ponds (batch).
- ☐ Chitosan enhanced sand filtration with discharge to surface waters (flow-through).
- ☐ Other (describe below and submit documentation that the proposed system and chemical(s) demonstrate the ability to remove turbidity and produce non-toxic effluent/discharge):

Check proposed cationic chemical(s) to be used:

- ☐ FlocClear™ (2% chitosan acetate solution).
- ☐ StormKlear™ LiquiFloc™ (1% chitosan acetate solution).
- ☐ ChitoVan™ (1% chitosan acetate solution).
- ☐ StormKlear™ LiquiFloc™ (3% chitosan acetate solution).
- ☐ Other (Specify):

Estimated Treatment Period Start Date (MM/DD/YYYY)	Estimated Treatment Period End Date (MM/DD/YYYY)

Describe sampling and recordkeeping schedule. Attach additional sheets as needed:

Proposed Treatment

Explain why you have selected this proposed treatment system and chemicals. Include an explanation of why the use of cationic treatment chemicals is necessary at the site. Reference how the soil types on your site influenced your choices. Describe or provide an illustration of how the site of the discharge will be stabilized and why the discharge location will not cause erosion of the discharge water's bank or bed (please note that a permit from the Corps and State agencies may be necessary to place rock in the water body for this stabilization). Attach as many additional sheets as needed for a full explanation. If you have a report from a chemical treatment contractor describing their recommended approach you may attach that.

SECTION VI. CERTIFICATION INFORMATION

Certification Information

I have documented and hereby certify that the following information is correct and has been documented in the SWPPP for this project:

- The SWPPP includes a complete site-specific description of the chemical treatment system herein proposed for use, including specifications, design, and Material Safety Data Sheets for all chemicals to be used.
- The controls to be used on the site are compatible with the safe and effective use of cationic chemical treatment.
- I verified through jar tests that the site soil is conducive to chemical treatment.
- I verified that the chemical treatment system operators for this project received training.
- I read, understand, and will follow all conditions and design criteria in the applicable use designation(s).
- If the discharge is to Tribal waters, I notified the appropriate Tribal government of the intent to use chemical treatment on a site located within that jurisdiction.
- I will keep the use level designation, operation and maintenance manual, and training certificate on site prior to and during use of chemical treatment.
- A licensed engineer designed the system for this project including system sizing, pond sizing, and flow requirements.
- I verify that the discharge will not adversely affect downstream conveyance systems or stream channels (e.g., cause erosion).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Official		
First Name	Middle Initial	Last Name
Title		
Signature		Date (MM/DD/YYYY)
Email Address		

Instructions for Submitting EPA Form 6100-066

Suggested Form for Notifying EPA about Proposed Use of Cationic Treatment Chemicals under the 2022 NPDES Construction General Permit

NPDES Form Date (02/22) **Form Approved OMB No. 2040-0305**

Section I. Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the project. Refer to Appendix A of the permit for the definition of "operator." Provide the operator's mailing address, county, telephone number, and e-mail address.

Section II. Project/Site Information

Enter the official or legal name and complete street address, including city, State, ZIP code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., Intersection of State Highways 61 and 34).

Provide site contact information, if different from the operator.

Provide the name of the receiving waterbodies to which your site/project will discharge.

Section III. Map

Attach a map of the entire site that includes the identified items. Attach a schematic of the proposed treatment system(s) that includes the identified items.

Section IV. Responsible Personnel

Provide the legal name of the treatment system operator or company and complete street address, including city, State, including city, State, and ZIP code.

List personnel who will be responsible for operating the chemical treatment systems and application of the chemicals. For each personnel listed, cite the training that the personnel have received in operation and maintenance of the treatment system(s) and use of the specific chemical(s) proposed.

Section V. Proposed Treatment

Indicate the proposed treatment system and proposed cationic chemicals to be used. Indicate the estimated treatment start and end dates. Describe the sampling and recordkeeping schedule. Explain why you have selected the proposed treatment system and chemicals.

Section VI. Certification Information

The form must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing.

Submitting Your Form

Submit this form to your applicable EPA Regional Office. Contact information can be found at: https://www.epa.gov/npdes/contact-us-stormwater#regional

Appendix K – Turbidity Monitoring Report Form and Instructions

Part 3.3 requires you to use the EPA NPDES eReporting Tool, or "NeT" system, to prepare and submit your report electronically. However, if the EPA Regional Office grants you a waiver to use a paper form, and you elect to use it, you must complete and submit the following form.

NPDES Form 6100-065	EPA	U.S. Environmental Protection Agency Washington, DC 20460 Turbidity Monitoring Report Form for Dewatering Discharges to Sensitive Waters Under the 2022 NPDES Construction General Permit	OMB No. 2040-0305 Exp. Date 01/31/2025

SECTION I. APPROVAL TO USE PAPER FORM

Paper Form

Have you been granted a waiver from electronic reporting from the Regional Office*? ☐ Yes ☐ No

If yes, check which waiver you have been granted, and provide the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted:
- ☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.
- ☐ The owner/operator has issues regarding available computer access or computer capability.

Name of EPA staff person that granted the waiver	Date approval obtained (MM/DD/YYYY)

*** Note: You are required to obtain approval from the applicable Regional Office prior to using this paper form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT).**

SECTION II. PERMIT INFORMATION

Permit

NPDES ID

Does this report fulfill turbidity monitoring report obligations of other operators that are covered under this permit for the same project site? ☑ Yes ☐ No

If yes, provide the NPDES ID number(s) for all other such operators at the same project site: _____

SECTION III. OPERATOR INFORMATION

Operator Information

Operator Name

Mailing Address

Street

City	State	ZIP Code

County or Similar Government Division:

Phone Number	Email Address

Preparer

Complete if form was prepared by someone other than the certifier:

First Name	Middle Initial	Last Name

Organization

Phone Number	Email Address

SECTION IV. SITE INFORMATION

Site Address

Site Name

Site Address

Street/Location		
City	State	ZIP Code
County or Similar Government Division:		

SECTION IV. MONITORING QUARTER

Monitoring Quarter

Identify monitoring quarter (select only one):

- ☐ Quarter 1 (January 1 – March 31)
- ☐ Quarter 2 (April 1 – June 30)
- ☐ Quarter 3 (July 1 – September 30)
- ☐ Quarter 4 (October 1 – December 31)

SECTION IVI. TURBIDITY MONITORING DATA

Turbidity Monitoring Data

Discharge Point Description/ Name:

Was dewatering water discharged during the monitoring quarter? ☐ Yes (Enter the data below) ☐ No (Skip to Section VII)

Specific Week within Monitoring Quarter[1]	Weekly Average (NTU)[2]	Benchmark Threshold (NTU)	Alternate Benchmark Threshold (NTU)[3]	Average exceeds Benchmark?[4]
Week 1		50		☐ Yes ☐ No
Week 2		50		☐ Yes ☐ No
Week 3		50		☐ Yes ☐ No
Week 4		50		☐ Yes ☐ No
Week 5		50		☐ Yes ☐ No
Week 6		50		☐ Yes ☐ No
Week 7		50		☐ Yes ☐ No
Week 8		50		☐ Yes ☐ No
Week 9		50		☐ Yes ☐ No
Week 10		50		☐ Yes ☐ No
Week 11		50		☐ Yes ☐ No
Week 12		50		☐ Yes ☐ No
Week 13		50		☐ Yes ☐ No
Week 14		50		☐ Yes ☐ No

[1] Refer to Table K-1 to determine the specific monitoring week number for which you are reporting turbidity data for this quarter.

[2] Report to the nearest whole number. Enter "N/A" if no dewatering discharge occurred during any particular week.

[3] Prior approval from the EPA Regional Office is required pursuant to Part 3.3.2.b. Unless and until EPA approves your request to use an alternate benchmark, you are required to use the standard benchmark of 50 NTU and take any required corrective actions if an exceedance occurs. Enter "N/A" if you have not received approval for an alternate benchmark threshold.

[4] If "Yes," the operator must conduct follow-up corrective action pursuant to Part 5.2.2 and document any corrective action taken in the corrective action log in accordance with Part 5.4.

VII. CERTIFICATION INFORMATION

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name	Middle Initial	Last Name
Title		
Signature		Date (MM/DD/YYYY)
Phone Number	Email Address	

Instructions for Completing EPA Form 6100-065

Turbidity Monitoring Report for Dewatering Discharges to Sensitive Waters Under the 2022 NPDES Construction General

Permit NPDES Form Date (02/22) **Form Approved OMB No. 2040-0305**

General Instructions

Who Must Submit A Turbidity Monitoring Report to EPA?

Sites covered under the Construction General Permit (CGP or permit) that are required to monitor pursuant to Part 3.3 of the permit must submit Turbidity Monitoring Reports consistent with the reporting requirements specified in Part 3.3.4 of the permit.

When Must I Submit A Turbidity Monitoring Report to EPA?

You must submit your report to EPA no later than 30 days following the end of each monitoring quarter. Submit a form for every quarter the site is active.

Monitoring Quarter #	Months	Reporting Deadline
1	January 1 – March 31	April 30
2	April 1 – June 30	July 30
3	July 1 – September 30	October 30
4	October 1 – December 31	January 30

Completing the Form

Obtain and read a copy of the 2022 CGP, viewable at https://www.epa.gov/npdes/stormwater-discharges-construction-activities#cgp. To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please submit the original document with signature in ink - do not send a photocopied signature. **Photocopy your form for your records before you send the completed original form to the appropriate address.**

Section I. Approval to Use Paper Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided. See https://www.epa.gov/npdes/contact-us-stormwater for a list of EPA Regional Office contacts.

Section II. Permit Information

Provide the NPDES ID (i.e., NOI tracking number) assigned to the site for which this form is being submitted. Submit the form only for sites discharging dewatering water to a sediment-impaired water or a water designated as a Tier 2, Tier 2.5, or Tier 3 water.

Indicate whether this report fulfills turbidity monitoring report obligations of other operators that are covered under this permit for the same project site. If the answer is yes, provide all relevant NPDES ID numbers.

Section III. Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that is considered the operator of the site. See Part 1.1.1 and Appendix A for the definition of "operator." Provide the operator's mailing address, phone number, and e-mail. The operator information in this Section should match the operator information provided on your NOI form.

If this form was prepared by someone other than the certifier, include the name, organization, phone number, and email address of the person who prepared this form.

Section IV. Site Information

Enter the official or legal name and complete street address, including city, State, ZIP code, and county or similar government subdivision of the site. If the site lacks a street address, indicate the general location (e.g., Intersection of State Highways 61 and 34). The site information in this Section should match the site information provided on your NOI form.

Section V. Monitoring Quarter

Indicate the appropriate monitoring quarter (Quarter 1, 2, 3, or 4). The monitoring quarters are specified in the table in the section titled "When Must I Submit A Turbidity Monitoring Report to EPA." Select only one quarter.

Section VI. Turbidity Monitoring Data

Provide the discharge point description/name if you are discharging dewatering water from more than one point at the site. If you are discharging from only one point at the site, leave the spaces blank.

Submit Section VI data for each dewatering discharge point. For example, if you are discharging dewatering water from two points at the site, then submit two Section VIs (one for each discharge point).

Indicate whether dewatering occurred during the monitoring quarter. If "Yes" enter the data in the data table. If "No" skip to Section VII.

For averaging purposes, a monitoring week starts with a Monday and ends on Sunday. A numerical value is assigned for each week, which is called a Week Number (e.g., 1, 2, 3 etc.). The form includes a Week Number for each week of the year. Refer to Table K-1 for the dates that correspond with each Week Number.

Next, calculate the weekly average turbidity value for the corresponding monitoring week. The weekly average is calculated by adding all of the individual turbidity results for that monitoring week and dividing by the total number of samples. The calculation for the weekly average includes only those days when dewatering discharge occurred. Days when no dewatering discharge occurred, and therefore do not have turbidity data associated with them, are not included in the calculation of the weekly average. For example, if turbidity samples from your dewatering discharge in week 1 result in values of 30 NTU on Tuesday, 40 NTU on Wednesday, and 45 NTU on Thursday, your weekly average turbidity value would be 38 NTU ((30+40+45) ÷ 3 = 38 NTU). If in week 2, your turbidity samples resulted in values of 45 NTU on Monday, 30 NTU on Tuesday, 25 NTU on Wednesday, and 15 NTU on Thursday, you would calculate a new average for that week, which would yield an average turbidity value of 29 NTU ((45+30+25+15) ÷ 4 = 29 NTU). By comparison, if your samples on consecutive days from Friday to Monday were 60 NTU, 45 NTU, 40 NTU, and 43 NTU, respectively, and there are no other dewatering discharges for the remainder of the week, you would calculate one weekly average for the Friday to Sunday to be 48 NTU ((60+45+40) ÷ 3 = 48 NTU), and a separate weekly average for the one Monday to be 43 NTU (43 ÷ 1 = 43 NTU).

If you collect and analyze more than one turbidity sample per day from your dewatering discharge, you must include any additional results in the calculation of your weekly average. For example, if during a monitoring week you take two turbidity samples on Tuesday with a value of 30 NTU and 35 NTU, three samples on Wednesday with a value of 40 NTU, 45 NTU, and 48 NTU, and one sample on Thursday with a value of 45 NTU, your weekly average turbidity value for this week would be 41 NTU ((30+35+40+45+48+45) ÷ 6 = 41 NTU).

Enter the weekly average turbidity values for the corresponding week into the table. Enter "N/A" into the table for the turbidity weekly average if no dewatering discharge occurred during the week.

The benchmark threshold for turbidity for this permit is 50 NTUs unless EPA has authorized the use of an alternate benchmark in accordance with Part 3.3.2.b. If you are using an alternate benchmark threshold, enter the number into the table for the corresponding week. Unless and until EPA approves your request to use an alternate benchmark, you are required to use the standard benchmark of 50 NTU and take any required corrective actions if an exceedance occurs. Enter "N/A" if you have not received approval for an alternate benchmark threshold.

For each week with a value for the weekly average, select "Yes" or "No" in the table to indicate whether the weekly average value exceeds the 50 NTU benchmark or the alternate turbidity benchmark (whichever is applicable). If "Yes", the operator must conduct follow-up corrective action pursuant to Part 5.2.2 and document any corrective action taken in the corrective action log in accordance with Part 5.4.

Section VII. Certification Information

Forms must be signed by a person described below, or by a duly authorized representative of that person.

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing.

A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above;

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and

3. The written authorization is submitted to the Director.

An unsigned or undated form will be considered incomplete.

Submitting Your Form

If you have been granted a waiver from your Regional Office to submit a paper form, you must send your form by mail to one of the following addresses:

For Regular U.S. Mail Delivery:

Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2022 CGP Reports
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:

Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2022 CGP Reports
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically:

https://epanet.zendesk.com/hc/en-us/sections/115000949868-CGP-Training-Material

Revisions to a Submitted Form

If you have previously submitted a form with an error, submit a revised form with the correct information. After discovering the error, submit the revised form as soon as possible. Make a notation on the revised form where the correction was made.

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0305). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is

estimated to be 0.2 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Table K-1: 2022 CGP - Dates Corresponding to Monitoring Weeks for Each Monitoring Quarter

2022

Monitoring Quarter	Week #	Monday Start Date	Sunday End Date
1	1	1/3/22	1/9/22
	2	1/10/22	1/16/22
	3	1/17/22	1/23/22
	4	1/24/22	1/30/22
	5	1/31/22	2/6/22
	6	2/7/22	2/13/22
	7	2/14/22	2/20/22
	8	2/21/22	2/27/22
	9	2/28/22	3/6/22
	10	3/7/22	3/13/22
	11	3/14/22	3/20/22
	12	3/21/22	3/27/22
	13	3/28/22	4/3/22
2	1	4/4/22	4/10/22
	2	4/11/22	4/17/22
	3	4/18/22	4/24/22
	4	4/25/22	5/1/22
	5	5/2/22	5/8/22
	6	5/9/22	5/15/22
	7	5/16/22	5/22/22
	8	5/23/22	5/29/22
	9	5/30/22	6/5/22
	10	6/6/22	6/12/22
	11	6/13/22	6/19/22
	12	6/20/22	6/26/22
	13	6/27/22	7/3/22
3	1	7/4/22	7/10/22
	2	7/11/22	7/17/22
	3	7/18/22	7/24/22
	4	7/25/22	7/31/22
	5	8/1/22	8/7/22
	6	8/8/22	8/14/22
	7	8/15/22	8/21/22
	8	8/22/22	8/28/22
	9	8/29/22	9/4/22
	10	9/5/22	9/11/22
	11	9/12/22	9/18/22
	12	9/19/22	9/25/22
	13	9/26/22	10/2/22
4	1	10/3/22	10/9/22
	2	10/10/22	10/16/22
	3	10/17/22	10/23/22
	4	10/24/22	10/30/22
	5	10/31/22	11/6/22
	6	11/7/22	11/13/22
	7	11/14/22	11/20/22
	8	11/21/22	11/27/22
	9	11/28/22	12/4/22
	10	12/5/22	12/11/22
	11	12/12/22	12/18/22
	12	12/19/22	12/25/22
	13	12/26/22	1/1/23

2023

Monitoring Quarter	Week #	Monday Start Date	Sunday End Date
1	1	1/2/23	1/8/23
	2	1/9/23	1/15/23
	3	1/16/23	1/22/23
	4	1/23/23	1/29/23
	5	1/30/23	2/5/23
	6	2/6/23	2/12/23
	7	2/13/23	2/19/23
	8	2/20/23	2/26/23
	9	2/27/23	3/5/23
	10	3/6/23	3/12/23
	11	3/13/23	3/19/23
	12	3/20/23	3/26/23
	13	3/27/23	4/2/23
2	1	4/3/23	4/9/23
	2	4/10/23	4/16/23
	3	4/17/23	4/23/23
	4	4/24/23	4/30/23
	5	5/1/23	5/7/23
	6	5/8/23	5/14/23
	7	5/15/23	5/21/23
	8	5/22/23	5/28/23
	9	5/29/23	6/4/23
	10	6/5/23	6/11/23
	11	6/12/23	6/18/23
	12	6/19/23	6/25/23
	13	6/26/23	7/2/23
3	1	7/3/23	7/9/23
	2	7/10/23	7/16/23
	3	7/17/23	7/23/23
	4	7/24/23	7/30/23
	5	7/31/23	8/6/23
	6	8/7/23	8/13/23
	7	8/14/23	8/20/23
	8	8/21/23	8/27/23
	9	8/28/23	9/3/23
	10	9/4/23	9/10/23
	11	9/11/23	9/17/23
	12	9/18/23	9/24/23
	13	9/25/23	10/1/23
4	1	10/2/23	10/8/23
	2	10/9/23	10/15/23
	3	10/16/23	10/22/23
	4	10/23/23	10/29/23
	5	10/30/23	11/5/23
	6	11/6/23	11/12/23
	7	11/13/23	11/19/23
	8	11/20/23	11/26/23
	9	11/27/23	12/3/23
	10	12/4/23	12/10/23
	11	12/11/23	12/17/23
	12	12/18/23	12/24/23
	13	12/25/23	12/31/23

2024

Monitoring Quarter	Week #	Monday Start Date	Sunday End Date
1	1	1/1/24	1/7/24
	2	1/8/24	1/14/24
	3	1/15/24	1/21/24
	4	1/22/24	1/28/24
	5	1/29/24	2/4/24
	6	2/5/24	2/11/24
	7	2/12/24	2/18/24
	8	2/19/24	2/25/24
	9	2/26/24	3/3/24
	10	3/4/24	3/10/24
	11	3/11/24	3/17/24
	12	3/18/24	3/24/24
	13	3/25/24	3/31/24
2	1	4/1/24	4/7/24
	2	4/8/24	4/14/24
	3	4/15/24	4/21/24
	4	4/22/24	4/28/24
	5	4/29/24	5/5/24
	6	5/6/24	5/12/24
	7	5/13/24	5/19/24
	8	5/20/24	5/26/24
	9	5/27/24	6/2/24
	10	6/3/24	6/9/24
	11	6/10/24	6/16/24
	12	6/17/24	6/23/24
	13	6/24/24	6/30/24
3	1	7/1/24	7/7/24
	2	7/8/24	7/14/24
	3	7/15/24	7/21/24
	4	7/22/24	7/28/24
	5	7/29/24	8/4/24
	6	8/5/24	8/11/24
	7	8/12/24	8/18/24
	8	8/19/24	8/25/24
	9	8/26/24	9/1/24
	10	9/2/24	9/8/24
	11	9/9/24	9/15/24
	12	9/16/24	9/22/24
	13	9/23/24	9/29/24
4	1	9/30/24	10/6/24
	2	10/7/24	10/13/24
	3	10/14/24	10/20/24
	4	10/21/24	10/27/24
	5	10/28/24	11/3/24
	6	11/4/24	11/10/24
	7	11/11/24	11/17/24
	8	11/18/24	11/24/24
	9	11/25/24	12/1/24
	10	12/2/24	12/8/24
	11	12/9/24	12/15/24
	12	12/16/24	12/22/24
	13	12/23/24	12/29/24

2025

Monitoring Quarter	Week #	Monday Start Date	Sunday End Date
1	1	1/6/25	1/12/25
	2	1/13/25	1/19/25
	3	1/20/25	1/26/25
	4	1/27/25	2/2/25
	5	2/3/25	2/9/25
	6	2/10/25	2/16/25
	7	2/17/25	2/23/25
	8	2/24/25	3/2/25
	9	3/3/25	3/9/25
	10	3/10/25	3/16/25
	11	3/17/25	3/23/25
	12	3/24/25	3/30/25
	13	3/31/25	4/6/25
2	1	4/7/25	4/13/25
	2	4/14/25	4/20/25
	3	4/21/25	4/27/25
	4	4/28/25	5/4/25
	5	5/5/25	5/11/25
	6	5/12/25	5/18/25
	7	5/19/25	5/25/25
	8	5/26/25	6/1/25
	9	6/2/25	6/8/25
	10	6/9/25	6/15/25
	11	6/16/25	6/22/25
	12	6/23/25	6/29/25
	13	6/30/25	7/6/25
3	1	7/7/25	7/13/25
	2	7/14/25	7/20/25
	3	7/21/25	7/27/25
	4	7/28/25	8/3/25
	5	8/4/25	8/10/25
	6	8/11/25	8/17/25
	7	8/18/25	8/24/25
	8	8/25/25	8/31/25
	9	9/1/25	9/7/25
	10	9/8/25	9/14/25
	11	9/15/25	9/21/25
	12	9/22/25	9/28/25
	13	9/29/25	10/5/25
4	1	10/6/25	10/12/25
	2	10/13/25	10/19/25
	3	10/20/25	10/26/25
	4	10/27/25	11/2/25
	5	11/3/25	11/9/25
	6	11/10/25	11/16/25
	7	11/17/25	11/23/25
	8	11/24/25	11/30/25
	9	12/1/25	12/7/25
	10	12/8/25	12/14/25
	11	12/15/25	12/21/25
	12	12/22/25	12/28/25
	13	12/29/25	1/4/26

2026

Monitoring Quarter	Week #	Monday Start Date	Sunday End Date
1	1	1/5/26	1/11/26
	2	1/12/26	1/18/26
	3	1/19/26	1/25/26
	4	1/26/26	2/1/26
	5	2/2/26	2/8/26
	6	2/9/26	2/15/26
	7	2/16/26	2/22/26
	8	2/23/26	3/1/26
	9	3/2/26	3/8/26
	10	3/9/26	3/15/26
	11	3/16/26	3/22/26
	12	3/23/26	3/29/26
	13	3/30/26	4/5/26
2	1	4/6/26	4/12/26
	2	4/13/26	4/19/26
	3	4/20/26	4/26/26
	4	4/27/26	5/3/26
	5	5/4/26	5/10/26
	6	5/11/26	5/17/26
	7	5/18/26	5/24/26
	8	5/25/26	5/31/26
	9	6/1/26	6/7/26
	10	6/8/26	6/14/26
	11	6/15/26	6/21/26
	12	6/22/26	6/28/26
	13	6/29/26	7/5/26
3	1	7/6/26	7/12/26
	2	7/13/26	7/19/26
	3	7/20/26	7/26/26
	4	7/27/26	8/2/26
	5	8/3/26	8/9/26
	6	8/10/26	8/16/26
	7	8/17/26	8/23/26
	8	8/24/26	8/30/26
	9	8/31/26	9/6/26
	10	9/7/26	9/13/26
	11	9/14/26	9/20/26
	12	9/21/26	9/27/26
	13	9/28/26	10/4/26
4	1	10/5/26	10/11/26
	2	10/12/26	10/18/26
	3	10/19/26	10/25/26
	4	10/26/26	11/1/26
	5	11/2/26	11/8/26
	6	11/9/26	11/15/26
	7	11/16/26	11/22/26
	8	11/23/26	11/29/26
	9	11/30/26	12/6/26
	10	12/7/26	12/13/26
	11	12/14/26	12/20/26
	12	12/21/26	12/27/26
	13	12/28/26	1/3/27

2027

Monitoring Quarter	Week #	Monday Start Date	Sunday End Date
1	1	1/4/27	1/10/27
	2	1/11/27	1/17/27
	3	1/18/27	1/24/27
	4	1/25/27	1/31/27
	5	2/1/27	2/7/27
	6	2/8/27	2/14/27
	7	2/15/27	2/21/27
	8	2/22/27	2/28/27
	9	3/1/27	3/7/27
	10	3/8/27	3/14/27
	11	3/15/27	3/21/27
	12	3/22/27	3/28/27
	13	3/29/27	4/4/27

Appendix C – Copy of NOI and EPA Authorization email

NPDES FORM 3510-9	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF INTENT (NOI) FOR THE 2022 NPDES CONSTRUCTION PERMIT	FORM Approved OMB No. 2040-0305

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section III of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section II of this form. Submission of this NOI also constitutes notice that the operator identified in Section III of this form meets the eligibility requirements of Part 1.1 CGP for the project identified in Section IV of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

Permit Information

NPDES ID: NHR1001GN

State/Territory to which your project/site is discharging: NH

Is your project/site located on federally recognized Indian Country lands? No

Are you requesting coverage under this NOI as a *"Federal Operator"* or a *"Federal Facility"* as defined in Appendix A (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-a-definitions.pdf)?

No

Have stormwater discharges from your current construction site been covered previously under an NPDES permit? Yes

➔ **Your most current NPDES ID:** NHR120000

Will you use polymers, flocculants, or other treatment chemicals at your construction site? No

Has a Stormwater Pollution Prevention Plan (SWPPP) been prepared in advance of filling this NOI, as required? Yes

Are you able to demonstrate that you meet one of the criteria listed in Appendix D (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-d-endangered-species-protection.pdf) with respect to protection of threatened or endangered species listed under the Endangered Species Act (ESA) and federally designated critical habitat?

Yes

Have you completed the screening process in Appendix E (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-e-historic-properties.pdf) relating to the protection of historic properties?

Yes

Indicating "Yes" below, I confirm that I understand that CGP only authorized the allowable stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state or local authorities after issuance of this permit via any means, Including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an Inspection, etc. If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit.

Yes

Operator Information

Operator Information

Operator Name: Anton Melchionda

Operator Mailing Address:

Address Line 1: 60 Centre Street

Address Line 2:

City: Dover

ZIP/Postal Code: 02030

State: MA

County or Similar Division: Norfolk

Operator Point of Contact Information

First Name Middle Initial Last Name: Anton Melchionda

Title: Owner/Operator

Phone: 617-835-4770 **Ext.:**

Email: anton@onyxpartnersltd.com

NOI Preparer Information

☑ **This NOI is being prepared by someone other than the certifier.**

First Name Middle Initial Last Name: Tyler P Scognamiglio

Organization: Jones & Beach Engineers, inc.

Phone: 603-772-4746 **Ext.:**

Email: tscognamiglio@jonesandbeach.com

Project/Site Information

Project/Site Name: Raymond Distribution

Project/Site Address

Address Line 1: Industrial Drive

Address Line 2:

City: Raymond

ZIP/Postal Code: 03077 **State:** NH

County or Similar Division: Rockingham

Latitude/Longitude: 43.030916°N, 71.187478°W

Latitude/Longitude Data Source: Map **Horizontal Reference Datum:** WGS 84

Project Start Date: 04/11/2022 **Project End Date:** 04/11/2023 **Estimated Area to be Disturbed:** 45

Types of Construction Sites:

- Industrial

Will there be demolition of any structure built or renovated before January 1, 1980? No

Will you be discharging dewatering water from your site? No

Was the pre-development land use used for agriculture? No

Are there other operators that are covered under this permit for the same project site? No

Have earth-disturbing activities commenced on your project/site? No

Is your project/site located on federally recognized Indian Country lands? No

Is your project/site located on a property of religious or cultural significance to an Indian tribe? No

Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? No

Are there any waters of the U.S. within 50 feet of your project's earth disturbances? No

Are any of the waters of the U.S. to which you discharge designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)? See Resources, Tools and Templates (https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates)

No

001: Jones Brook Jones Brook - NHRIV600030703-02

Latitude/Longitude: 43.028331°N, 71.19433°W

Tier Designation: N/A

Is this receiving water impaired (on the CWA 303(d) list)? Yes

Impaired Pollutants:

- Ammonia
- Benthic macroinvert. community
- Chloride
- Dissolved oxygen
- E. coli
- Sulfates
- Mercury
- pH
- Turbidity
- Phosphorus

Has a TMDL been completed for this receiving waterbody? No

Stormwater Pollution Prevention Plan (SWPPP)

Will all required personnel, including those conducting inspections at your site, meet the training requirements in Part 6 of this permit? Yes

First Name Middle Initial Last Name: Erik Poulin

Organization:

Title: Project Manager

Phone: 603-772-4746 **Ext.:**

Email: epoulin@jonesandbeach.com

Endangered Species Protection Worksheet: Criterion C

Determine ESA Eligibility Criterion

Are your discharges and discharge-related activities already addressed in another operator's valid certification of eligibility for your "action area" under the current 2022 CGP? No

Has consultation between you, a Federal Agency, and the USFWS and/or the NMFS under section 7 of the Endangered Species Act (ESA) concluded? No

Are your construction activities the subject of a permit under section 10 of the ESA by the USFWS and/or NMFS, and this authorization addresses the effects of your site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat?

No

You must determine whether species listed as either threatened or endangered, or their critical habitat(s) are located in your site's action area (i.e., all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action, including areas beyond the footprint of the site that are likely to be affected by stormwater discharges, discharge-related activities, and authorized non-stormwater discharges).

Determine your Action Area

You must consider the following in determining the action area for your site, and **confirm that all the following are true**:

- **In determining my "action area", I have considered that discharges of pollutants into downstream areas can expand the action area well beyond the footprint of my site and the discharge point(s). I have taken into account the controls I will be implementing to minimize pollutants and the receiving waterbody characteristics (e.g., perennial, intermittent, ephemeral) in determining the extent of physical, chemical, and/or biotic effects of the discharges. I confirm that all receiving waterbodies that could receive pollutants from my site are included in my action area.**

  True

- **In determining my "action area", I have considered that discharge-related activities must also be accounted for in determining my action area. I understand that discharge-related activities are any activities that cause, contribute to, or result in stormwater and authorized non-stormwater point source discharges, and measures such as the siting, construction timing, and operation of stormwater controls to control, reduce, or prevent pollutants from being discharged. I understand that any new or modified stormwater controls that will have noise or other similar effects, and any disturbances associated with construction of controls, are part of my action area.**

  True

Determine is ESA-listed species and/or critical habitat are in your site action area.

ESA-listed species and designated critical habitat are under the purview of the NMFS and the USFWS, and in many cases, you will need to acquire species and critical habitat lists from both federal agencies.

National Marine Fisheries Service (NMFS)

For NMFS species and designated critical habitat information, use the following webpage:

- https://www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility (https://www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility)

I have checked the webpage listed above and confirmed that:

- (●) There are no NMFS-protected species and/or designated critical habitat in my action area.
- ( ) There are NMFS-protected species and/or designated critical habitat in my action area.

U.S. Fish and Wildlife Service (USFWS)

For USFWS species and critical habitat information, use the following webpage:

- https://www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility (https://www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility)

I have checked the webpage listed above and confirmed that:

- ( ) There are no FWS-protected species and/or designated critical habitat in my action area.
- (●) There are FWS-protected species and/or designated critical habitat in my action area.

For FWS species, include the full printout from your IPaC query/Official Species List.

Name	Uploaded Date	Size
Species List_ New England Ecological Services Field Office.pdf (attachment/1498312)	04/11/2022	244.65 KB

You may be eligible under **Criterion C**. You must assess whether your discharges or discharge-related activities are likely to result in short- or long-term adverse effects to ESA-listed threatened or endangered species or designated critical habitat. In order to make a determination of your site's likelihood of short- or long-term adverse effects, you must complete the Criterion C Eligibility fields below.

Discharges not likely to result in any short- or long-term adverse effects to ESA-listed species and/or designated critical habitat. True

You are eligible under **Criterion C**.

I confirm that both ESA-listed species and designated critical habitat under the jurisdiction of the USFWS and/or NMFS were considered in my evaluation. Yes

Identify the USFWS information sources used (Note: state resources are not acceptable):

ESA Section 7 Mapper

Identify the NMFS information sources used (Note: state resources are not acceptable):

IPAC Species List

You must provide a list of all ESA-listed species and/or designated critical habitat that are located in your "action area". Select one of the options below and provide the required information:

- ○ Option 1: Enter ESA-listed species
- ◉ Option 2: Attach the species list(s)

Attach a printout of the species list(s) showing all ESA-listed species and/or designated critical habitat located in your "action area" using the space below:

Name	Uploaded Date	Size
Species List_ New England Ecological Services Field Office.pdf (attachment/1498314)	04/11/2022	244.65 KB

What is the distance between your site and the ESA-listed species and/or designated critical habitat within the action area (in miles, state "on site" if the ESA-listed species and/or designated critical habitat is within the area to be disturbed)?

0

Provide the rationale describing specifically how adverse effects to ESA-listed species will be avoided from the discharge and discharge-related activities.

We got a New Hampshire National Heritage Bureau sign off for this project

Attach a copy of your site map showing the upland and in-water extent of your "action area".

Note: A copy of this site map must also be included with your SWPPP

Name	Uploaded Date	Size
NOI Site Map.pdf (attachment/1498329)	04/11/2022	12.29 MB

Have you provided documentation in your SWPPP supporting your eligibility under Criterion C? Yes

Historic Preservation

Are you installing any stormwater controls as described in Appendix E (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-e-historic-properties.pdf) that require subsurface earth disturbances? (Appendix E (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-e-historic-properties.pdf), Step 1)

Yes

Have prior surveys or evaluations conducted on the site already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E (https://www.epa.gov/system/files/documents/2022-01/2022-cgp-final-appendix-e-historic-properties.pdf), Step 2):

Yes

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

Certified By: Bradford A. Jones

Certifier Title: vice president

Certifier Email: bjones@jonesandbeach.com

Certified On: 04/11/2022 1:34 PM ET

Appendix D – Copy of Inspection Form

JONES & BEACH ENGINEERS INC.
85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

Stormwater Construction Site Inspection Report

General Information			
Project Name			
NPDES Tracking No.		**Location**	
Date of Inspection		**Start/End Time**	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information	**Jones & Beach Engineers, Inc., 85 Portsmouth Avenue, PO Box 219 Stratham, NH 03885 (603) 772-4746**		
Owner's Name			
Operator's Name			
Copied To			
Describe present phase of construction			
Type of Inspection **❑ Regular ❑ Pre-storm event ❑ During storm event ❑ Post-storm event**			
Weather Information			
Has it rained since the last inspection? ❑Yes ❑No **If yes, provide:** **Storm Start Date & Time:** **Storm Duration (hrs):** **Approximate Rainfall (in):**			
Weather at time of this inspection?			
Do you suspect that discharges may have occurred since the last inspection? ❑Yes ❑No			
Are there any discharges at the time of inspection? ❑Yes ❑No			

Site-specific BMPs

Structural and non-structural BMPs requiring inspection. If any of these are not installed on the project sit, mark them as "N/A." This list will help ensure that you are inspecting all required BMPs at your site.

	BMP Description	BMP Installed and Operating Properly?	Corrective Action Needed	Date for corrective action/responsible person
1	Drainage Swales	❑Yes ❑No		
2	Riprap Lined Swales	❑Yes ❑No		
3	Vegetated Treatment Swales	❑Yes ❑No		
4	Vegetated Cover	❑Yes ❑No		
5	Sediment Traps/Ponds	❑Yes ❑No		
6	Plunge Pools	❑Yes ❑No		
7	Erosion Control Blankets	❑Yes ❑No		
8	Retaining Walls	❑Yes ❑No		

	BMP Description	BMP Installed and Operating Properly?	Corrective Action Needed	Date for corrective action/responsible person
9	Culvert Inlet Protection	❑Yes ❑No		
10	Catch Basin Inlet Protection	❑Yes ❑No		
11	Silt Fence	❑Yes ❑No		
12	Construction Fencing	❑Yes ❑No		
13	Stone Check Dams	❑Yes ❑No		
14	Outlet Protection Aprons	❑Yes ❑No		
15	Level Spreaders	❑Yes ❑No		
16	Filter Strips	❑Yes ❑No		
17	Construction Entrances	❑Yes ❑No		
18	Dumpsters	❑Yes ❑No		
19	Porta-john	❑Yes ❑No		
20	Lay-down/Staging Areas	❑Yes ❑No		
21	Hazardous Material Storage	❑Yes ❑No		
22	Washout Area	❑Yes ❑No		
23	Vehicle Leaks/Maintenance	❑Yes ❑No		
24	Equipment Refueling Area	❑Yes ❑No		
25	Mulching	❑Yes ❑No		
26	Stormwater Ponds	❑Yes ❑No		
27	Stormtech System	❑Yes ❑No		
28	Rain Gardens	❑Yes ❑No		
29	Curbing	❑Yes ❑No		
30	Porous Pavement	❑Yes ❑No		
31	Vehicle Washing Area	❑Yes ❑No		
32	Environmental Dust Control	❑Yes ❑No		
33	Non-stormwater Discharges	❑Yes ❑No		
34		❑Yes ❑No		
35		❑Yes ❑No		
36		❑Yes ❑No		
37		❑Yes ❑No		
38		❑Yes ❑No		
39		❑Yes ❑No		

Below are some general site issues that should be assessed during inspections. Please customize this list as needed for conditions at your site.

Overall Site Issues

	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	❑Yes ❑No	❑Yes ❑No		
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	❑Yes ❑No	❑Yes ❑No		
3	Are perimeter controls and sediment barriers adequately installed	❑Yes ❑No	❑Yes ❑No		

	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
	(keyed into substrate) and maintained?				
4	Are discharge points and receiving waters free of sediment deposits?	❑Yes ❑No	❑Yes ❑No		
5	Are storm drain inlets properly protected?	❑Yes ❑No	❑Yes ❑No		
6	Is there evidence of sediment being tracked into the street?	❑Yes ❑No	❑Yes ❑No		
7	Is trash/litter from work areas collected and placed in covered dumpsters?	❑Yes ❑No	❑Yes ❑No		
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	❑Yes ❑No	❑Yes ❑No		
9	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	❑Yes ❑No	❑Yes ❑No		
10	Are materials that are potential stormwater contaminants stored inside or under cover?	❑Yes ❑No	❑Yes ❑No		
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	❑Yes ❑No	❑Yes ❑No		
12		❑Yes ❑No	❑Yes ❑No		
13		❑Yes ❑No	❑Yes ❑No		

Recommendations:

Certification statement:
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name: _____

Signature: _____Date: _____

Appendix E – Copy of Corrective Action Form

Appendix F –SWPPP Amendment Log

Instructions (see CGP Part 7.4):

- Create a log here of changes and updates to the SWPPP. You may use the table below to track these modifications.
- SWPPP modifications are required pursuant to CGP Part 7.4.1 in the following circumstances:
  - ✓ Whenever new operators become active in construction activities on your site, or you make changes to your construction plans, stormwater control measures, pollution prevention measures, or other activities at your site that are no longer accurately reflected in your SWPPP;
  - ✓ To reflect areas on your site map where operational control has been transferred (and the date of transfer) since initiating permit coverage;
  - ✓ If inspections or investigations determine that SWPPP modifications are necessary for compliance with this permit;
  - ✓ Where EPA determines it is necessary to impose additional requirements on your discharge; and
  - ✓ To reflect any revisions to applicable federal, state, tribal, or local requirements that affect the stormwater control measures implemented at the site.
- If applicable, if a change in chemical treatment systems or chemically-enhanced stormwater control is made, including use of a different treatment chemical, different dosage rate, or different area of application.

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Appendix G – Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

_____

_____

Signature: _____

Title: _____

Date: _____

Appendix H –Grading and Stabilization Activities Log

Date Grading Activity Initiated	**Description of Grading Activity**	**Description of Stabilization Measure and Location**	**Date Grading Activity Ceased** (Indicate Temporary or Permanent)	**Date When Stabilization Measures Initiated**

Appendix I –SWPPP Training Log

Stormwater Pollution Prevention Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- ❑ **Sediment and Erosion Controls**
- ❑ **Emergency Procedures**
- ❑ **Stabilization Controls**
- ❑ **Inspections/Corrective Actions**
- ❑ **Pollution Prevention Measures**

Specific Training Objective:_____

_____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		

Appendix J –Delegation of Authority Form

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the _____ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix I of EPA's Construction General Permit (CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix I.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____

Company: _____

Title: _____

Signature: _____

Date: _____

Appendix K – Endangered Species Documentation

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To: April 11, 2022
Project Code: 2022-0030346
Project Name: Raymond Industrial

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Please review this letter each time you request an Official Species List, we will continue to update it with additional information and links to websites may change.

About Official Species Lists

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Federal and non-Federal project proponents have responsibilities under the Act to consider effects on listed species.

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested by returning to an existing project's page in IPaC.

Endangered Species Act Project Review

Please visit the "**New England Field Office Endangered Species Project Review and Consultation**" website for step-by-step instructions on how to consider effects on listed

species and prepare and submit a project review package if necessary:

https://www.fws.gov/newengland/endangeredspecies/project-review/index.html

NOTE Please do not use the **Consultation Package Builder** tool in IPaC except in specific situations following coordination with our office. Please follow the project review guidance on our website instead and reference your **Project Code** in all correspondence.

Additional Info About Section 7 of the Act
Under section 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether projects may affect threatened and endangered species and/or designated critical habitat. If a Federal agency, or its non-Federal representative, determines that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Federal agency also may need to consider proposed species and proposed critical habitat in the consultation. 50 CFR 402.14(c)(1) specifies the information required for consultation under the Act regardless of the format of the evaluation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

In addition to consultation requirements under Section 7(a)(2) of the ESA, please note that under sections 7(a)(1) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Please contact NEFO if you would like more information.

Candidate species that appear on the enclosed species list have no current protections under the ESA. The species' occurrence on an official species list does not convey a requirement to consider impacts to this species as you would a proposed, threatened, or endangered species. The ESA does not provide for interagency consultations on candidate species under section 7, however, the Service recommends that all project proponents incorporate measures into projects to benefit candidate species and their habitats wherever possible.

Migratory Birds

In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see:

https://www.fws.gov/birds/policies-and-regulations.php

Please feel free to contact us at **newengland@fws.gov** with your **Project Code** in the subject line if you need more information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Attachment(s): Official Species List

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

Project Summary

Project Code: 2022-0030346
Event Code: None
Project Name: Raymond Industrial
Project Type: Commercial Development
Project Description: Construction of a distribution center with associated loading docks, truck parking, and employee parking.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.0290668,-71.18944507779851,14z

Counties: Rockingham County, New Hampshire

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Small Whorled Pogonia *Isotria medeoloides* Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1890	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Jones & Beach Engineers, Inc.
Name: Tyler Scognamiglio
Address: PO Box 219
City: Stratham
State: NH
Zip: 03885
Email tscognamiglio@jonesandbeach.com
Phone: 6037724746

Appendix L – Historic Properties Documentation

Please mail the completed form and required material to:

New Hampshire Division of Historical Resources
State Historic Preservation Office
Attention: Review & Compliance
19 Pillsbury Street, Concord, NH 03301-3570

JUN 06 2022

RECEIVED MAY 20 2022

DHR Use Only	
R&C #	13891
Log In Date	5/20/22
Response Date	6/1/22
Sent Date	6/2/22

Request for Project Review by the New Hampshire Division of Historical Resources

☒ This is a new submittal
☐ This is additional information relating to DHR Review & Compliance (R&C) #:

GENERAL PROJECT INFORMATION

Project Title Raymond Distribution

Project Location Industrial Drive

City/Town Raymond Tax Map 22 Lot # 44,45,46,47

NH State Plane - Feet Geographic Coordinates: Easting 1111866 Northing 193181
(See RPR Instructions and R&C FAQs for guidance.)

Lead Federal Agency and Contact *(if applicable)* EPA
(Agency providing funds, licenses, or permits)
Permit Type and Permit or Job Reference # CGP (Pending)

State Agency and Contact *(if applicable)* N/A

Permit Type and Permit or Job Reference #

APPLICANT INFORMATION

Applicant Name Sippican Capital LLC

Mailing Address 29 Old Farm Road Phone Number 6178285951

City Dover State MA Zip 02030 Email angusleary44@gmail.com

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Tyler Scognamiglio, Jones & Beach Engineers, Inc.

Mailing Address PO Box 219 Phone Number 6037724746

City Stratham State NH Zip 03885 Email tscognamiglio@jonesandbeach.com

This form is updated periodically. Please download the current form at www.nh.gov/nhdhr/review. *Please refer to the Request for Project Review Instructions for direction on completing this form.* Submit one copy of this project review form for each project for which review is requested. Please include a self-addressed stamped envelope. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at marika.s.labash@dncr.nh.gov or 603.271.3558.

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

Project Boundaries and Description

- ☒ Attach the Project Mapping ***using EMMIT or relevant portion of a 7.5' USGS Map.*** *(See RPR Instructions and R&C FAQs for guidance.)*
- ☒ Attach a detailed narrative description of the proposed project.
- ☒ Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation.
- ☒ Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) *(Informative photo captions are requested.)*
- ☒ A DHR records search must be conducted to identify properties within or adjacent to the project area. Provide records search results via EMMIT or in **Table 1**. *(Blank table forms are available on the DHR website.)* Please note, using EMMIT Guest View for an RPR records search does not provide the necessary information needed for DHR review.
  EMMIT or in-house records search conducted on 05/18/2022.

Architecture

Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area? ☒ Yes ☐ No
If no, skip to Archaeology section. If yes, submit all of the following information:

Approximate age(s): 2003-2017

- ☒ Photographs of ***each*** resource or streetscape located within the project area, with captions, along with a mapped photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.)
- ☒ If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.)

Archaeology

Does the proposed undertaking involve ground-disturbing activity? ☒ Yes ☐ No
If yes, submit all of the following information:

- ☒ Description of current and previous land use and disturbances.
- ☒ Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)

Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.

DHR Comment/Finding Recommendation *This Space for Division of Historical Resources Use Only*

☐ Insufficient information to initiate review. ☐ Additional information is needed in order to complete review.

☐ No Potential to cause Effects ☑ No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect

Comments: SHOULD FUTURE PLANS INCLUDE DEVELOPMENT OF SOUTHERN PORTION OF PARCEL, PLEASE CONSULT WITH DHR.

If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.

Authorized Signature: Noemi Mutter, DSHPO Date: 6/1/22

Appendix M – Permits

ZONING DETERMINATION
HARD ROCK DEVELOPMENT, L.L.C.

Map 28.3, Lot 120 & Map 22, Lot 44

Zoning District of the above listed parcels is Zone "D" Industrial, within which Excavation, Soil Removal and Processing are allowed uses, per Article IV, Uses and Standards, Section 4.100, Allowed Use Table, Use # 25.

A small portion of the site, at it's Western boundary along the Eastern end of Industrial Drive, is included in the Groundwater Conservation District as defined in Article 4.240 Zone I-Groundwater Conservation District, Section 4.241 Definitions, 02 "GAA" "areas within a wellhead protection area".

Other than the existing access roadway to the site, which is shown as connecting the East end of Industrial Drive to the actual excavation area, it does not appear that excavation is proposed within the Groundwater Conservation District.

I am unaware of any proposal for permanent buildings or structures on the site and would therefore not anticipate the need for a Site Plan approval, traditionally associated with permanent buildings and improvements. All activities on site are directly related to the excavation and processing and should be addressed as components of the Excavation permit being sought.

The restoration proposal has within it a conceptual plan that would include the construction of a building and the associated parking lots. If this plan is fostered as the plan of choice it would require a Site Plan approval for that construction to take place.

Sincerely,

Richard J. Mailhot
Code Enforcement Officer

415-20

The State of New Hampshire

DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. **Burack, Commissioner**

November 30, 2010

Hard Rock Development, LLC
Attn: James Watkins
84 Exeter Road
South Hampton, NH 03876

Re: Hard Rock Development Excavation
Raymond, NH
Tax Map/Lot #: 28.3/120 & 22/44

Permit: AoT-0195

Dear Mr. Watkins:

Based upon the revised plans and application, we are hereby issuing RSA 485-A:17 Alteration of Terrain Permit AoT-0195 subject to the following conditions:

1. Activities shall not cause or contribute to any violations of the surface water quality standards established in Administrative Rule Env-Wq 1700.

2. You must submit revised plans for permit amendment prior to any changes in construction details or sequences. You must notify the Department in writing within ten days of a change in ownership.

3. You must notify the Department in writing prior to the start of construction and upon completion of construction. Forms are available at: http://des.nh.gov/organization/divisions/water/aot/categories/forms.htm.

4. The revised plans dated November 5, 2010 and supporting documentation in the permit file are a part of this approval.

5. **The Permittee must provide the Department a written update of, and revised plans documenting, the project status every five years from the issuance of this permit.**

6. This permit does not relieve the applicant from the obligation to obtain other local, state or federal permits that may be required (e.g., from US EPA, US Army Corps of Engineers, etc.). Projects disturbing over 1 acre may require a federal stormwater permit from EPA. Information regarding this permitting process can be obtained at: http://des.nh.gov/organization/divisions/water/stormwater/construction.htm.

7. No construction activity shall occur until a Wetlands Permit is obtained from the Department, if applicable.

Sincerely,

Craig D Rennie, CWS, CWB
Land Resource Specialist

cc: Raymond Planning Board
Lynnfield Engineering, Inc. (email)

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)

1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

15,438 SF WAREHOUSE 1 STORY

TAX MAP 28-3, LOT 43
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

BUILDING 3
63,500 SF
1 STORY

BUILDING 2
33,460 SF
1 STORY

BUILDING 1
38,881 SF
1 STORY

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

EXISTING LUMBER YARD

LIMIT OF QUARRY OPERATIONS

STAGGING AREA

OFFICE TRAILER

EXISTING LOCKED GATE

EXISTING ACCESS DRIVEWAY

INDUSTRIAL DRIVE

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

GROUNDWATER PROTECTION ZONE

WELLHEAD PROTECTION AREA BOUNDARY

SCRIBNER ROAD

OLD MANCHESTER ROAD

TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 24
JOAN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

LAMPREY RIVER AQUIFER PROTECTION AREA BOUNDARY

PROJECT PROPERTY BOUNDARY

NH ROUTE 101 (WESTBOUND)

NH ROUTE 101 (EASTBOUND)

ZONE LINE "B" (RESIDENTIAL / AGRICULTURAL)

ZONE LINE "D" (INDUSTRIAL)

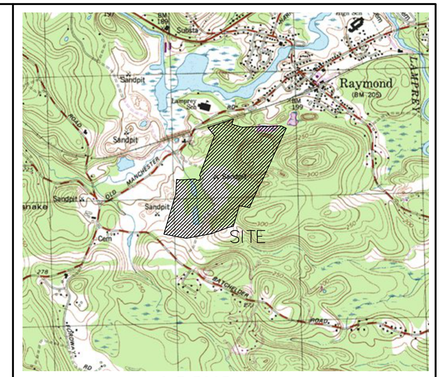
TAX MAP 23, LOT 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

PLAN REFERENCE:

1. AN ALTA SURVEY AND PLAT OF PROPERTY PREPARED FOR M-O-H ENTERPRISES FL, INC. SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY R.S.L. LAYOUT & DESIGN, INC. DATED 2/21/1996
2. A PLAT OF PROPERTY PREPARED FOR THE TOWN OF RAYMOND SITUATED IN THE TOWN OF RAYMOND, NEW HAMPSHIRE. PREPARED BY ERIC C. MITCHELL AND ASSOCIATES, INC. DATED 7/03/2007.

EXISTING CONDITIONS LEGEND:

- SOIL BOUNDARY
- WELLHEAD PROTECTION AREA
- LAMPREY RIVER PROTECTION AREA
- GROUNDWATER PROTECTION AREA
- PROJECT PROPERTY BOUNDARY
- LIMIT OF QUARRY OPERATIONS



LOCUS SCALE: 1"=2000'

EXISTING CONDITIONS NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
2. BASE ELEVATION WAS ESTABLISHED THROUGH MULTIPLE GPS POST PROCESS OBSERVATIONS AND WAS REDUCED TO THE NAVD88 DATUM BY THE NATIONAL GEODETIC SURVEY OPUS SOFTWARE.
3. THE SUBJECT PARCEL IS NOT LOCATED WITHIN AN AREA HAVING A SPECIAL FLOOD HAZARD ZONE DESIGNATION BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NOS. 33015C0187E, 33015C0190E, 33015C0191E, AND 33015C193E, ALL WITH EFFECTIVE DATE OF MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY BRENDAN WALDEN C.W.S., DURING SUMMER, 2021, IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:

   a. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.

   b. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.

   c. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.

   d. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
7. SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING SPRING, 2022, AND IS BASED ON THE STANDARDS OF SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, VERSION 2.0 (1999: SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND). THE MAP IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT INTENDED FOR THE USE(S) REQUIRING THE SITE SPECIFIC SOIL SURVEY AND IS PRODUCED BY A CERTIFIED SOIL SCIENTIST. IT IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. A NARRATIVE REPORT IS A COMPONENT OF THE MAP.
8. A TEMPORARY CULVERT AND ROADBED SHALL BE IN PLACE PRIOR TO ANY USE OF A WETLAND CROSSING.
9. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
10. TEST PITS PERFORMED BY WAYNE MORRILL, JONES & BEACH ENGINEERS, INC., 12/20/21.
11. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.
12. HOURS OF OPERATION: TRUCK TRAFFIC TO AND FROM THE SITE WILL BE VIA INDUSTRIAL DRIVE TO OLD MANCHESTER ROAD TO NEW HAMPSHIRE RT 101. HOURS OF OPERATION FOR STARTUP OF MACHINERY ASSOCIATED WITH PIT OPERATION SHALL BE NO EARLIER THAN 7:00 AM AND REMOVAL OF MATERIAL FROM THE SITE SHALL BE NO EARLIER THAN 7:00 AM TERMINATION OF REMOVAL OF MATERIAL FROM THE SITE SHALL BE NO LATER THAN 4:30 PM AND ALL PROCESSING SHALL BE TERMINATED BY 6: 00 PM THESE OPERATING HOURS SHALL BE MONDAY-FRIDAY, SATURDAY HAULING SHALL BE PERFORMED BETWEEN 7:00 AM AND 12:00 NOON AND EQUIPMENT MAINTENANCE BETWEEN 7:00 AM AND 4:30 PM

ABUTTERS:

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

TAX MAP 23, LOT 24
JOAN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

TAX MAP 23, LOT 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 43
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

SOIL LEGEND:

SYMBOL	MAP UNIT NAME	HSG
42	CANTON	B
135	CHATFIELD VARIANT NEWFIELDS COMP	B
444/445	NEWFIELDS/NEWFIELDS COMP	B
447	SCITUATE NEWFIELDS COMPLEX	C
86	HOLLIS	C
400hafdc	UDORTHENTS SANDY/GRAVELLY	A/C
656/P	WALPOLE POORLY DRAINED	C
115/VP	RIDGEBURY POORLY DRAINED V STONY	C

B SLOPE = 0-8%; C SLOPE = 8-15%; D SLOPE = 15-25%

STATE OF NEW HAMPSHIRE
JAMES P. GOVE
01/11/23
No. 0051
CERTIFIED WETLAND SCIENTIST

STATE OF NEW HAMPSHIRE
JAMES P. GOVE
01/11/23
NO. 004
CERTIFIED SOIL SCIENTIST

OWNER OF RECORD:
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

APPLICATION # 2022-010

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

1	01/11/22	REVISED PER PLANNING BOARD COMMENTS	EMP
0	11/22/22	ISSUED FOR REVIEW	EMP
REV.	DATE	REVISION	BY

Design: WGM | Draft: GDR | Date: 8/19/21
Checked: WGM | Scale: AS NOTED | Project No.: 21130
Drawing Name: 21130-PLAN.dwg

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.

Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN
Project: INDUSTRIAL DRIVE EXCAVATION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C1
SHEET 1 OF 3
JBE PROJECT NO. 21130

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)

1 inch = 200 ft.

OLD BOSTON & MAINE RAILROAD BED

TAX MAP 27-4, LOT 32
WARREN BAIN
PO BOX 123
RAYMOND, NH 03077

TAX MAP 28-3, LOT 43
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 27-4, LOT 33
RAYMOND SCHOOL DISTRICT
43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

15,438 SF WAREHOUSE 1 STORY

TAX MAP 28-3, LOT 120
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 27-4, LOT 34
STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

TAX MAP 28-3, LOT 120-1
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

BUILDING 3
63,500 SF
1 STORY

BUILDING 2
33,460 SF
1 STORY

BUILDING 1
38,881 SF
1 STORY

TAX MAP 22, LOT 43
MRCT REALTY CO. LLC
PO BOX 449
LAWRENCE, MA 01842

EXISTING LUMBER YARD

LIMIT OF QUARRY OPERATIONS

STAGGING AREA

OFFICE TRAILER

EXISTING LOCKED GATE

EXISTING ACCESS DRIVEWAY

INDUSTRIAL DRIVE

TAX MAP 23, LOT 25
JOSEPH WELCH, JOHN WELCH,
ARDELL WELCH, INEZ WELCH,
BETSY PATTERSON, ROBIN PROULX
49 RAYMOND ROAD, RTE 156
NOTTINGHAM, NH 03290

ZONE LINE "D" (INDUSTRIAL)

ZONE LINE "B" (RESIDENTIAL / AGRICULTURAL)

TAX MAP 22, LOT 47
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 48
RAYMOND AMBULANCE, INC
1 SCRIBNER ROAD
RAYMOND, NH 03077

TAX MAP 22, LOT 44
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

GROUNDWATER PROTECTION ZONE

WELLHEAD PROTECTION AREA BOUNDARY

SCRIBNER ROAD

OLD MANCHESTER ROAD

TAX MAP 22, LOT 45
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 22, LOT 46
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

TAX MAP 23, LOT 24
JOAN E. WELCH
15 NOTTINGHAM ROAD
RAYMOND, NH 03077

LAMPREY RIVER AQUIFER PROTECTION AREA BOUNDARY

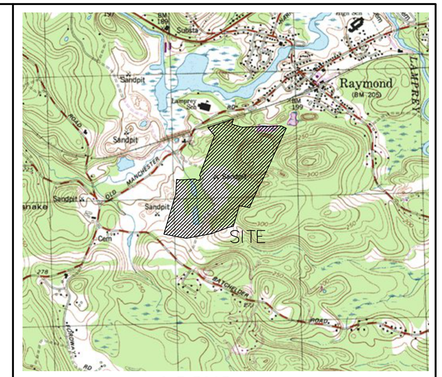
PROJECT PROPERTY BOUNDARY

NH ROUTE 101 (WESTBOUND)

NH ROUTE 101 (EASTBOUND)

ZONE LINE "B" (RESIDENTIAL / AGRICULTURAL)

ZONE LINE "D" (INDUSTRIAL)



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PO BOX 449
LAWRENCE, MA 01842

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1 SCRIBNER ROAD
RAYMOND, NH 03077

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RAYMOND, NH 03077

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43 HARRIMAN HILL ROAD
RAYMOND, NH 03077

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STATE OF NH D.O.T.
7 HAZEN DRIVE
CONCORD, NH 03301

TAX MAP 28-3, LOT 43
TOWN OF RAYMOND
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RAYMOND, NH 03077

TAX MAP 28-3, LOT 120
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RAYMOND, NH 03077

TAX MAP 28-3, LOT 16
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077

OWNER OF RECORD:
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

APPLICATION # 2022-010

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

1	01/11/22	REVISED PER PLANNING BOARD COMMENTS	EMP
0	11/22/22	ISSUED FOR REVIEW	EMP
REV.	DATE	REVISION	BY

Design: WGM | Draft: GDR | Date: 8/19/21
Checked: WGM | Scale: AS NOTED | Project No.: 21130
Drawing Name: 21130-PLAN.dwg

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Designed and Produced in NH
Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: EXISTING CONDITIONS PLAN
Project: INDUSTRIAL DRIVE EXCAVATION
INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record: ONYX RAYMOND LLC
60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C1-1
SHEET 2 OF 3
JBE PROJECT NO. 21130

PROJECT PARCEL
TOWN OF RAYMOND
TAX MAP 22, LOTS 44, 45, 46, 47
TAX MAP 28, BLOCK 3, LOT 120-1

APPLICANT
ONYX PARTNERS LTD
200 RESERVOIR STREET
NEEDHAM, MA 02494

TOTAL LOT AREA
5,380,531± SQ. FT.
123.52± ACRES

Phase One Temporary Sediment Basin

Limit of Phase 1 Preliminary Work Area

Excavation Area #1

Earth 23,000 cy
Rock 68,000 cy

Phase One Fill Areas

Ledge fill under building footprint
130,000 cy

Common fill outside of building zone of influance
48,000 cy

Excavation Area #3

Earth 26,000 cy
Rock 151,000 cy

Excavation Area #2

Earth 26,000 cy
Rock 60,000 cy

Current Permitted AOT Work Limit

WETLAND IMPACTS:

	36,122 SF	AOT-0195 IMPACT
	41,211 SF	AOT-0195 IMPACT (NO LONGER PRESENT DUE TO QUARRY OPERATIONS)

OWNER OF RECORD:
ONYX RAYMOND LLC
60 CENTRE STREET
DOVER, MA 02030

APPLICATION # 2022-010

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

February 10, 2022

Design: WGM	Draft: GDR	Date: 8/19/21
Checked: WGM	Scale: AS NOTED	Project No.:21130
Drawing Name: 21130-PLAN.dwg		

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REV.	DATE	REVISION	BY
1	01/11/22	REVISED PER PLANNING BOARD COMMENTS	EMP
0	11/22/22	ISSUED FOR REVIEW	EMP

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
Civil Engineering Services
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	PHASE ONE PRELIMINARY EXCAVATION PLAN
Project:	INDUSTRIAL DRIVE EXCAVATION INDUSTRIAL DRIVE, RAYMOND, NH
Owner of Record:	ONYX RAYMOND LLC 60 CENTRE STREET, DOVER, MA 02030

DRAWING No.
C2
SHEET 3 OF 3
JBE PROJECT NO.21130

LEGEND

- LIMIT OF WETLANDS
- PROPERTY LINE
- ABUTTING PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- LIMIT OF SURVEY

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE LIMIT OF SURVEYED AREA COMPLETED ON MAY 11, 2017. REFER TO UPDATED RECORDED CONDITIONS PLAN FOR MORE DETAILS.

GRAPHIC SCALE

80 0 40 80 160 360

(IN FEET)
1 inch = 80 ft.

THE STATE OF NEW HAMPSHIRE
RICHARD BAITHELMES
No. 7028
LICENSED
PROFESSIONAL ENGINEER

5/16/17

LYNNFIELD ENGINEERING, INC.
CONSULTING ENVIRONMENTAL ENGINEERS
2 ELECTRONICS AVE., SUITE 41
DANVERS, MASSACHUSETTS 01923
(978) 777-7250

HARD ROCK DEVELOPMENT, LLC
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE 03077

PREPARED FOR

HARD ROCK DEVELOPMENT, LLC
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE 03077

No.	DATE	DESCRIPTION	BY
0	5/16/17	ISSUED FOR EXCAVATION PERMIT	NC

REVISIONS

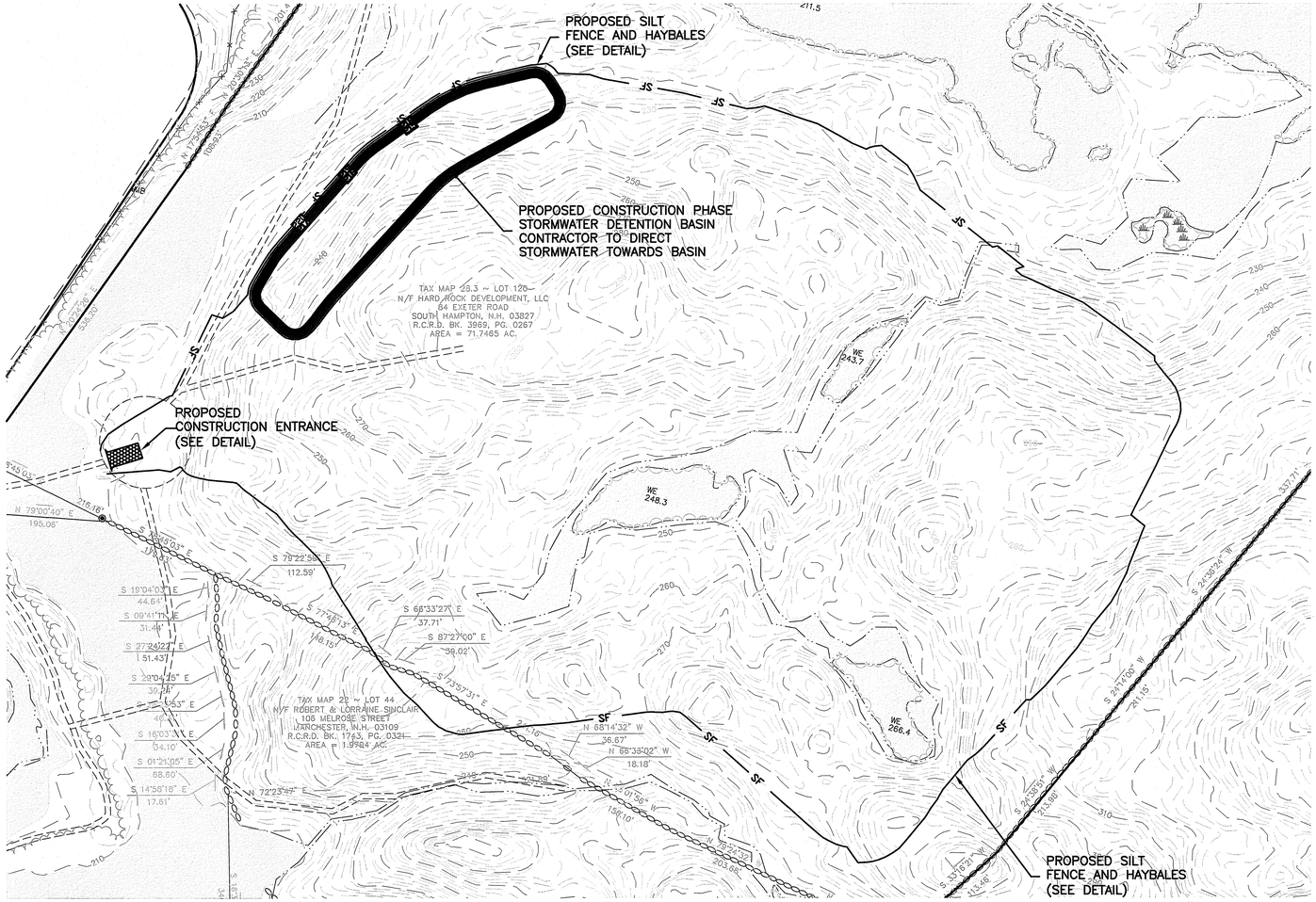
EXISTING CONDITIONS PLAN

DRAWN BY:	CHECKED BY:	SCALE:	DATE:
NC	RB	1"=100'	5/16/17

SHEET No. C-1

PROJECT No. LE 628-20

TAX MAP 22 ~ LOT 43
N/F MRCT REALTY CO., LLC
P.O. BOX 449
LAWRENCE, MA 01842
R.C.R.D. BK. 4049, PG. 2283
TAX MAP 28.3 ~ LOT 45
N/F LEVESQUE FAMILY TRUST OF 1997
20 OLD MANCHESTER ROAD
RAYMOND, N.H. 03077
R.C.R.D. BK. 4224, PG. 1327
TAX MAP 28.3 ~ LOT 44
N/F AMANDA ROBERTSON
16 OLD MANCHESTER ROAD
RAYMOND, N.H. 03077
R.C.R.D. BK. 12472, PG. 0433
ABANDONED RAILROAD BED
TAX MAP 27 ~ LOT 34
N/F STATE OF N.H. ~ TRAILS BUREAU
8 HAZEN DRIVE
CONCORD, N.H. 03301
TAX MAP 28.3 ~ LOT 35
N/F DAVID C. BENTLEY
MAIN STREET
RAYMOND, N.H. 03077
R.C.R.D./BK. 2529, PG. 0176
TAX MAP 28.3 ~ LOT 12
N/F HARD ROCK DEVELOPMENT, LLC
EXETER ROAD
SOUTH HAMPTON, N.H. 03827
R.C.R.D. BK. 3969, PG. 0257
AREA = 71.7465 AC.
TAX MAP 28.3 ~ LOT 42
N/F ROBERT & LORI SIMONEAU
108 MELROSE STREET
MANCHESTER, N.H. 03109
R.C.R.D. BK. 1763, PG. 0
AREA = 13.800 AC.
REGRADED
444C
322D
327B
444D
444B
86D
86E
86C
86B
89
514B
921B
135D
135C
135B
140C
140E
140D
140B
140A
22XCH
445C
445B
447C
447B
42B
194B
WE 183.6
WE 186.6
WE 200.5
WE 210.8
WE 211.5
WE 248.3
WE 263.9
WE 266.4
N 38°49'14" W 146.11'
N 40°25'45" W
N 41°53'34" W 73.21'
N 79°00'40" E 195.05'
S 78°45'03" E 112.59'
S 77°15'13" E 48.15'
S 87°27'00" E 37.71'
S 68°02'27" E 39.02'
N 68°11'32" W 30.57'
S 24°23'24" W 103.77'
S 19°03'36" W 28.80'
S 36°41'48" W 33.21'
S 24°39'24" W
S 24°14'09" W
S 28°10'49" W 101.34'
S 19°46'07" W 93.30'
S 13°14'37" W 87.00'
S 79°55'55" W 53.13'
S 19°04'03" E 44.61'
S 09°41'11" E 31.48'
S 27°24'27" E 51.43'
S 20°04'15" E 39.73'
S 15°03'53" E 34.10'
S 01°24'05" E 68.60'
S 14°58'18" E 17.61'
N 23°10'01" E 165.79'
N 23°10'01" E 138.30'
N 17°55'55" E 201.41'
N 17°55'55" E 208.29'
N 17°55'55" E 108.92'
N 23°10'01" E 216.18'
S 78°45'03" E 37.27'
S 78°45'03" E 1.07'
S 78°45'03" E 8.27'
S 78°45'03" E 178.20'
S 78°45'03" E 216.18'
L=201.12'
T=100.56'
T=114.82'
R=1145.92'
R=1145.92'
R=1145.92



CONTRACTOR TO INSTALL AND MAINTAIN TEMPORARY SEDIMENT TRAPS AS NECESSARY DURING CONSTRUCTION (SEE DETAILS)

LEGEND

- LIMIT OF WETLANDS
- PROPERTY LINE
- ABUTTING PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- 70 PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SILT FENCE

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT PROPOSED EROSION AND SEDIMENTATION CONTROLS FOR THE SITE LOCATED AT INDUSTRIAL DRIVE, RAYMOND, NH.

2. EXISTING TOPOGRAPHY, BOUNDARY INFORMATION AND SITE DETAILS FROM DIGITAL FILE TITLED "0541BASE.DWG" OBTAINED FROM ERIC C. MITCHELL & ASSOC. INC. BEDFORD, NH BY LYNNFIELD ENGINEERING, INC. ON MAY 11, 2010.

GENERAL EROSION & SEDIMENTATION CONTROL NOTES

1. PRIOR TO CONSTRUCTION AND THEREAFTER EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME. WHEN LAND IS EXPOSED, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME. LAND SHOULD NOT BE LEFT EXPOSED DURING THE WINTER MONTHS.

2. STRAW BALE BARRIERS SHALL BE INSTALLED AND MAINTAINED ALONG LIMITS OF WORK WHERE SHOWN. ADDITIONAL HAY BALES SHALL BE ADDED AS REQUIRED BY THE ENGINEER. STRAW BALES WILL BE STAKED AND MAINTAINED PRIOR TO AND DURING CONSTRUCTION UNTIL DISTURBED AREAS ARE STABILIZED.

3. BALED STRAW AND MULCH SHALL BE MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE FROM NOXIOUS WEEDS OR WOODY STEMS, AND SHALL BE DRY.

4. SILT FENCE SHALL BE INSTALLED AND MAINTAINED WHERE SHOWN AND ADDITIONAL SILT FENCE ADDED AS REQUIRED BY THE ENGINEER PRIOR TO ANY ON-SITE GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. IT SHOULD BE MAINTAINED DURING AND AFTER CONSTRUCTION TO REMOVE SEDIMENT FROM RUNOFF WATER AND FROM LAND UNDERGOING DEVELOPMENT. WHERE POSSIBLE NATURAL DRAINAGE WAYS SHOULD BE UTILIZED AND LEFT OPEN TO REMOVE CLEAN EXCESS SURFACE WATER. THE SILT FENCE IS TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE A HEALTHY STAND OF GRASS.

5. SILT FENCES SHALL BE MINIMUM OF 16" HIGH WITH THE BOTTOM OF THE CLOTH KEYED INTO THE GROUND AN ADDITIONAL 8" (SEE DETAIL). POSTS SHALL BE 36" WOOD OR STEEL DRIVEN 16" MINIMUM INTO THE GROUND.

6. THE EROSION CONTROL DEVICES SHOWN ON THE DRAWINGS REPRESENT THE MINIMUM REQUIRED FOR EROSION CONTROL. THE CONTRACTOR SHALL ADD TO THESE DEVICES ANY AND ALL MEASURES AS REQUIRED BY THE ENGINEER TO EFFECTIVELY PREVENT MIGRATION OF SEDIMENT FROM THE WORK AREA.

7. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

8. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT DRAWINGS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE PERIODICALLY INSPECTED, CLEANED AND MAINTAINED, AND OTHERWISE KEPT IN AN EFFECTIVE OPERATIONS MANNER THROUGHOUT THE CONSTRUCTION PERIOD.

9. ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, OR LONGER THAN 45 DAYS AND WHICH WILL BE REGARDED LATER DURING CONSTRUCTION, SHALL BE TEMPORARY SEEDED AND MACHINE STRAW MULCHED AT A RATE OF 1.5 TONS/ACRE.

10. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED AND FOLLOWING INSPECTION AND APPROVAL BY THE ENGINEER, THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED AND ACCUMULATED SEDIMENT DISPOSED OF IN A LOCATION DESIGNATED BY THE OWNER.

11. ALL DISTURBED AREAS WHICH ARE FINISH GRADED WITH NO FURTHER CONSTRUCTION TO TAKE PLACE SHALL BE SEEDED AND MULCHED. ALL DISTURBED AREAS OUTSIDE LIMITS OF WORK SHALL BE STABILIZED WITH LOAM.

12. AVOID USE OF UNDISTURBED AREAS WHEREVER POSSIBLE DURING CONSTRUCTION. CONSTRUCTION TRAFFIC SHALL TRAVEL THE ROADBEDS OF EXISTING AND FUTURE ROADS.

13. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER ONE HALF-INCH OF RAINFALL.

14. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

15. IN THE EVENT THAT DURING CONSTRUCTION OF ANY PORTION OF THIS PROJECT, A WINTER SHUTDOWN IS NECESSARY. THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.

16. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH OR NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
FLOW CONDITIONS.

17. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN

18. AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

19. THE CONTRACTOR WILL BE RESPONSIBLE FOR IMPLIMENTING ALL BEST MANAGEMENT PRACTICES, INSPECTIONS, MONITORING AND REPORTING IN ACCORDANCE WITH THE SWPPP PREPARED FOR THE PROJECT.

20. ALL WORK AT THE SITE SHALL BE COMPLETED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE NPDES CONSTRUCTION GENERAL PERMIT FOR STORMWATER DISCHARGES AND MSGP PERMIT OBTAINED FOR THE PROJECT.

21. TEMPORARY SEEDING SPECIFICATIONS TO BE IN ACCORDANCE WITH TABLE 4-1. "SEEDING RECOMMENDATIONS FOR TEMPORARY VEGETATION" OF THE NEW HAMPSHIRE STORMWATER MANUAL. PERMANENT SEEDING SPECIFICATIONS TO BE IN ACCORDANCE WITH TABLE 4-2. "SEED MIXTURE SELECTION BASED ON SOIL TYPE" OF THE NEW HAMPSHIRE STORMWATER MANUAL.

PRIOR TO THE START OF CONSTRUCTION

1. ALL APPLICABLE EROSION CONTROL MEASURES AS SHOWN ON THE PLAN MUST BE IN PLACE AND REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ANY EARTH MOVING OPERATIONS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT NO EROSION ON THE SITE SHALL OCCUR WHICH WILL CAUSE DEPOSITION OF SOIL OR SEDIMENT UPON ADJACENT PROPERTIES OR PUBLIC WAYS.

DURING CONSTRUCTION

1. DUST CONTROL SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY AND ROADWAY MAINTAINED FREE AND CLEAR OF DUST AND DEBRIS THROUGHOUT CONSTRUCTION.

2. THE CONTRACTOR SHALL LOCATE STOCKPILES OF MATERIAL AWAY FROM WETLAND AREAS. TEMPORARY EROSION CONTROL MEASURES CONSISTING OF HAYBALES AND SILT FENCE SHALL BE INSTALLED AROUND ALL MATERIAL STOCKPILES.

3. WEEKLY INSPECTION OF EROSION CONTROL MEASURES SHALL BE COMPLETED BY THE CONTRACTOR. A WRITTEN REPORT SHALL BE PREPARED INDICATING ANY DEFICIENCIES IN EROSION CONTROL MEASURES OBSERVED AND REQUIREMENTS FOR ADDITIONAL EROSION CONTROLS TO BE INSTALLED IF NECESSARY.

4. NO STOCKPILING OF MATERIAL SHALL BE PERFORMED WITHIN THE 100 YEAR FLOOD ZONE (ELEVATION 27.0 FEET).

CONSTRUCTION SEQUENCE

1. INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES.

2. CLEAR VEGETATION WITHIN THE LIMITS OF WORK.

3. STABILIZE DISTURBED AREAS WITH LOAM AND SEED.

4. INSPECT SITE TO ASSURE SITE STABILIZATION AND ADEQUACY OF EROSION AND SEDIMENTATION CONTROL MEASURES.

5. LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

THE STATE OF NEW HAMPSHIRE
RICHARD BARTHELMES
No. 7028
LICENSED
PROFESSIONAL ENGINEER
5/16/17

LYNNFIELD ENGINEERING, INC.
CONSULTING ENVIRONMENTAL ENGINEERS
2 ELECTRONICS AVE., SUITE 41
DANVERS, MASSACHUSETTS 01923
(978) 777-7250

HARD ROCK DEVELOPMENT, LLC
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE 03077

PREPARED FOR

HARD ROCK DEVELOPMENT, LLC
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE 03077

No.	DATE	DESCRIPTION	BY
0	5/16/17	ISSUED FOR EXCAVATION PERMIT	NC

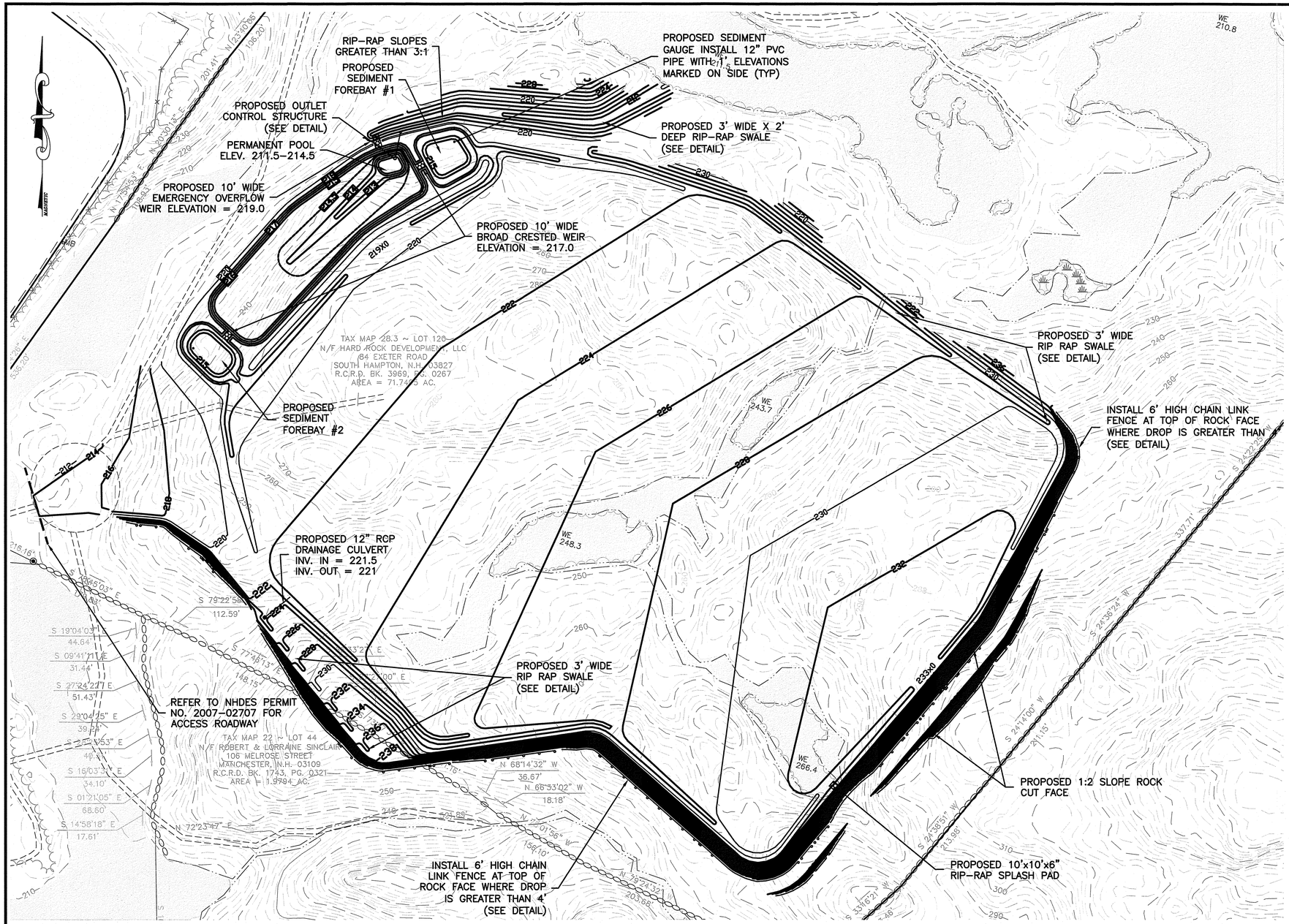
REVISIONS

EROSION AND SEDIMENTATION CONTROL PLAN

DRAWN BY:	CHECKED BY:	SCALE:	DATE:
NC	RB	1"=100'	7/27/10

SHEET No. C-3

PROJECT No. LEI 628-20



PROPOSED DETENSION BASIN WITH MICROPOOL PLANTINGS

Low (deep) Marsh

Elevation - 211.5 - 213.5
Area 7,000 SF
Plant 1,750 plants 2 foot on center. Plant at least 3 species from the following list with no one species making up 40% of the total number of plants

Alisma subcordatum	American water plantain
Nupar lutea	Yellow pond lilly
Sagittaria latifolia	Duck potato
Schoenoplectus acutus	*Hardstem bulrush*
Typha latifolia	*Bradleaf cattail*

High(shallow) Marsh

Elevation - 213.5 - 214.5
Area 9,000 SF
Plant 2,250 plants 2 foot on center. Plant at least 3 species from the following list with no one species making up 40% of the total number of plants

Peltandra virginica	Arrow arum
Polygonum amphibium	*Water smartweed*
Potederia cordata	Pickerelweed
Scirpus validus	Soft Stem Bulrush
Sparganium eurcarpum	Giant burreed
Zizania aquatic	Wild rice

Wet Meadow

Elevation - 214.5 - 216.5
Area 18,000 SF
Plant 4,500 plants 2 foot on center. Plant at least 3 species from the following list with no one species making up 40% of the total number of plants

Juncus effuses	Softrush
Iris versicolor	Blue flag iris
Scirpus pungens	Common three-square
Panicum virgatum	*Switchgrass*
Polygonum amphibium	*Water smartweed*

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE FINAL GRADING AND IMPROVEMENTS FOR THE SITE LOCATED AT INDUSTRIAL DRIVE, RAYMOND, NH.
2. EXISTING TOPOGRAPHY, BOUNDARY INFORMATION AND SITE DETAILS FROM DIGITAL FILE TITLED "0541BASE.DWG" OBTAINED FROM ERIC C. MITCHELL & ASSOC. INC. BEDFORD, NH BY LYNNFIELD ENGINEERING, INC. ON MAY 11, 2010.
3. DISTURBED AREAS SHALL BE RECLAIMED IN ACCORDANCE WITH THE NRCS'S PM-NH-21 VEGETATION NEW HAMPSHIRE SAND AND GRAVEL PITS.
4. THE APPLICANT MUST SUBMIT TO THE DEPARTMENT OF ENVIRONMENTAL SERVICES A WRITTEN UPDATE OF THE PROJECT AND REVISED PLANS DOCUMENTING THE PROJECT STATUS EVERY FIVE YEARS FROM THE DATE OF THE ALTERATION OF TERRAIN PERMIT.

LEGEND

- LIMIT OF WETLANDS
- PROPERTY LINE
- ABUTTING PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- 70 PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR

GRAPHIC SCALE

80 0 40 80 160 360
(IN FEET)
1 inch = 80 ft.

THE STATE OF NEW HAMPSHIRE
RICHARD BARTHELMES
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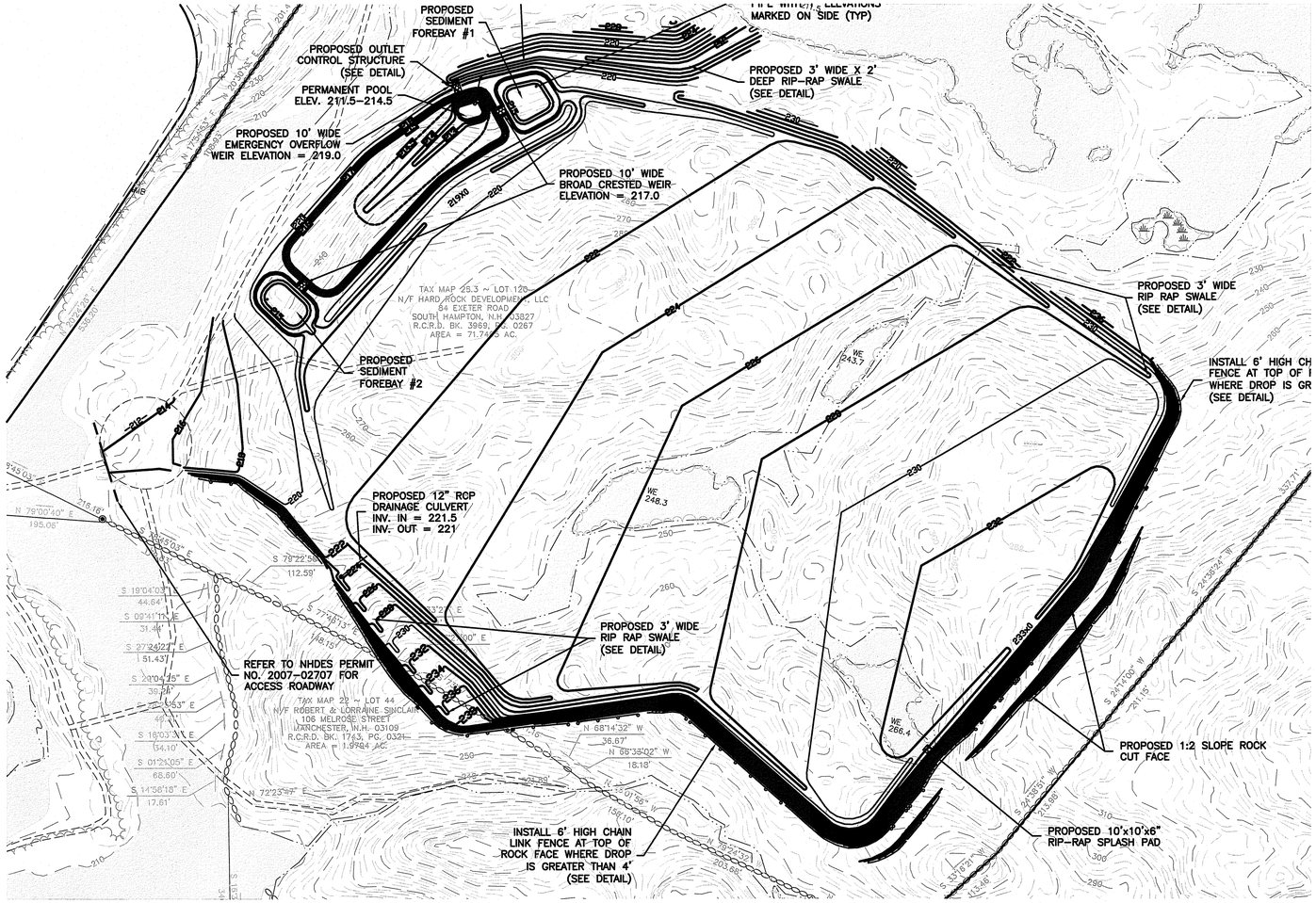
REVISIONS

FINAL GRADING PLAN

DRAWN BY:	CHECKED BY:	SCALE:	DATE:
NC	RB	1"=80'	5/16/17

SHEET No. C-4

PROJECT No. LEI 628-20



THE FOLLOWING BEST MANAGEMENT PROCEDURES FOR BLASTING SHALL BE COMPLIED WITH:

1. LOADING PRACTICES. THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
   - 1.1. DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
   - 1.2. EXPLOSIVE PRODUCTS SHALL BE MANAGED ONSITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF–SITE DISPOSAL.
   - 1.3. SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFFSITE DISPOSAL.
   - 1.4. LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OT OTHER SAFETY CONCERNS REASONABLE DICTATE THE DETONATION SHOULD BE POSTPONED.
   - 1.5. LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
   - 1.6. EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
2. EXPLOSIVE SELECTION. THE FOLLOWING BMPS SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
   - 2.1. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
   - 2.2. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.
3. PREVENTION OF MISFIRES. APPROPRIATE MEASURES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
4. MUCK PILE MANAGEMENT. MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES.
   - 4.1. REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS RESAONABLE POSSIBLE.
   - 4.2. MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
5. SPILL PREVENTION MEASURES AND SPILL MITIGATION. SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURE SHALL INCLUDE AT A MINIMUM:
   - 5.1. THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
     - 5.1.1. STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE;
     - 5.1.2. SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
     - 5.1.3. LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY;
     - 5.1.4. INSPECT STORAGE AREAS WEEKLY;
     - 5.1.5. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
     - 5.1.6. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS; AND
     - 5.1.7. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
   - 5.2. THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
     - 5.2.1. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED;
     - 5.2.2. PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS;
     - 5.2.3. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS;
     - 5.2.4. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES; AND
     - 5.2.5. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
   - 5.3. THE TRAINING OF ONSITE EMPLOYEES AND THE ON–SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
   - 5.4. FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES [NOTES THESE REQUIREMENTS ARE SUMMARIZED IN WD–DWGB–22–6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT OR ITS SUCCESSOR DOCUMENT (SEE HTTP://DES.NH.GOV/ORGANIZATION/COMMISSIONER/PIP/FACTSHEETS/DWGB/DOCUMENTS/DWGB–22–6.PDF)].

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE BLASTING BEST MANAGEMENT PRACTICES AND FINAL GRADING FOR THE SITE LOCATED AT INDUSTRIAL DRIVE, RAYMOND, NH.
2. EXISTING TOPOGRAPHY, BOUNDARY INFORMATION AND SITE DETAILS FROM DIGITAL FILE TITLED "0541BASE.DWG" OBTAINED FROM ERIC C. MITCHELL & ASSOC. INC. BEDFORD, NH BY LYNNFIELD ENGINEERING, INC. ON MAY 11, 2010.

LEGEND

- LIMIT OF WETLANDS
- PROPERTY LINE
- ABUTTING PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- 70 PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

RICHARD BARTHELMES No. 7028 LICENSED PROFESSIONAL ENGINEER
THE STATE OF NEW HAMPSHIRE
5/16/17

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INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE 03077

PREPARED FOR

HARD ROCK DEVELOPMENT, LLC
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE 03077

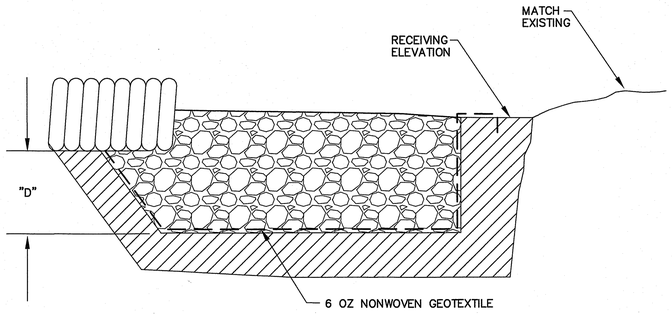
No.	DATE	DESCRIPTION	BY
0	5/16/17	ISSUED FOR EXCAVATION PERMIT	NC

BLASTING BEST MANAGEMENT PRACTICES

DRAWN BY: NC
CHECKED BY: RB
SCALE: 1"=100'
DATE: 5/16/17

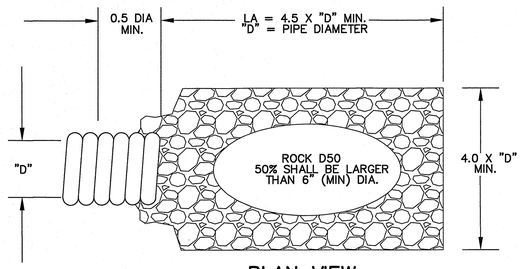
SHEET No. C–4A

PROJECT No. LEI 628–20



THICKNESS ("D") = 1.5 X MAX ROCK DIAMETER (6" MIN.)

SECTION VIEW

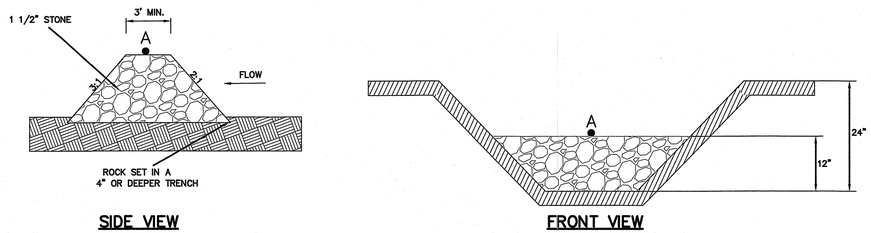


PLAN VIEW

NOTES:
1. "LA", LENGTH OF APRON. DISTANCE "LA" SHALL BE SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" THICK (MIN.) GRADED GRAVEL LAYER.

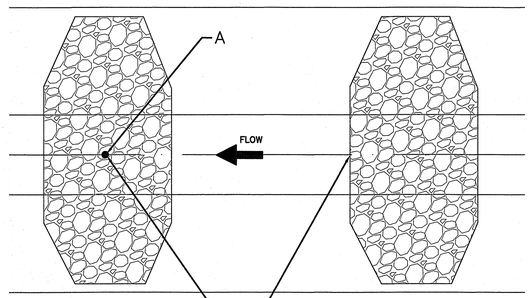
TYPICAL LEVEL SPREADER DETAILS

(NOT TO SCALE)

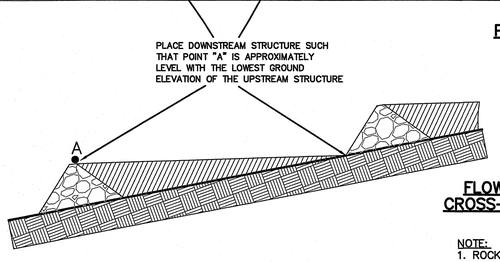


SIDE VIEW

FRONT VIEW



PLAN VIEW

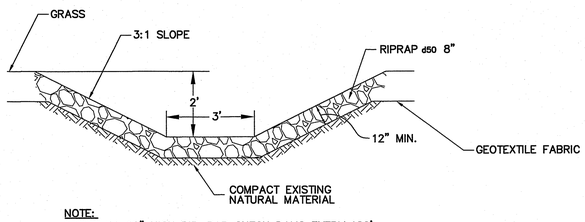


FLOW-LINE CROSS-SECTION

TYPICAL ROCK CHECK DAM DETAILS

(NOT TO SCALE)

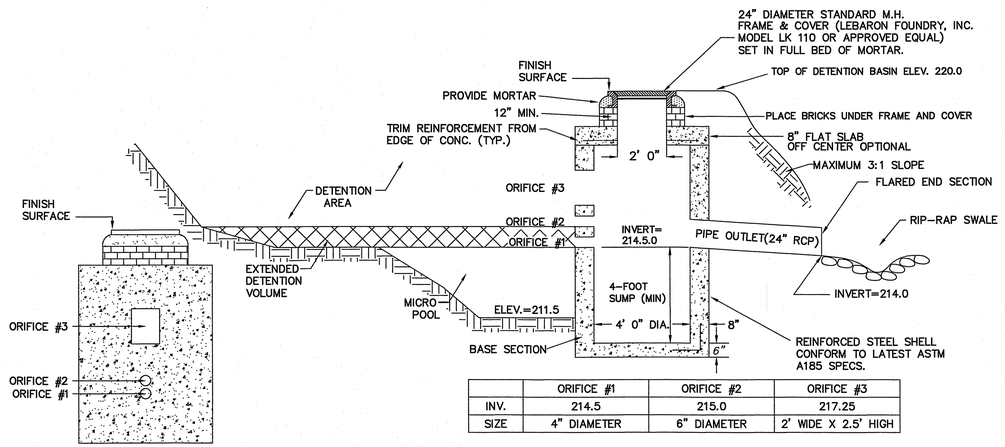
NOTE:
1. ROCK CHECK DAMS ARE CONSTRUCTED ACROSS A DRAINAGE WAY TO CREATE A TEMPORARY BASIN FOR COLLECTING SEDIMENT. ROCK CHECK DAMS NEED TO BE INSTALLED WHERE A TEMPORARY MEASURE IS NEEDED TO RETAIN SEDIMENT FROM A CONSTRUCTION AREA.



NOTE:
1. INSTALL 12" HIGH RIP-RAP CHECK DAMS EVERY 100'

TYPICAL RIP RAP SWALE DETAIL

(NOT TO SCALE)



SECTION VIEW

	ORIFICE #1	ORIFICE #2	ORIFICE #3
INV.	214.5	215.0	217.25
SIZE	4" DIAMETER	6" DIAMETER	2' WIDE X 2.5' HIGH

OUTLET STRUCTURE DETAIL

(NOT TO SCALE)

THE STATE OF NEW HAMPSHIRE
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No.	DATE	DESCRIPTION	BY
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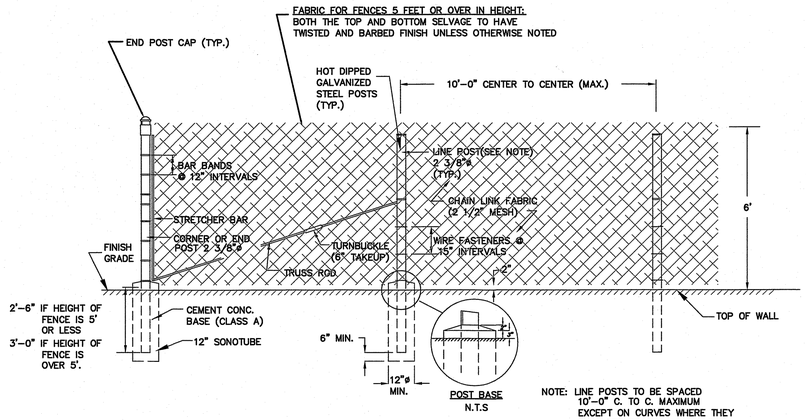
REVISIONS

DETAILS SHEET

DRAWN BY: NC
CHECKED BY: RB
SCALE: AS NOTED
DATE: 5/16/17

SHEET No. C-5

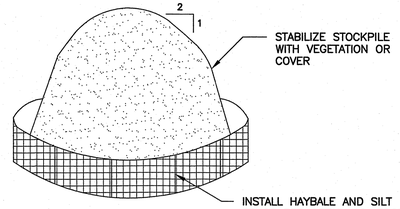
PROJECT No. LEI 628-20



CHAIN LINK FENCE DETAIL
(NOT TO SCALE)

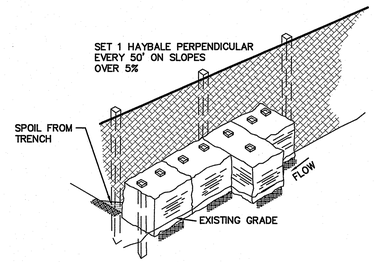
NOTE: LINE POSTS TO BE SPACED
10'-0" C. TO C. MAXIMUM
EXCEPT ON CURVES WHERE THEY
SHALL BE SPACED AS FOLLOWS:

RADIUS OF CURVE	MAXIMUM SPACING
100' OR LESS	5'-0" C. TO C.
100' TO 200'	6'-0" C. TO C.
200' TO 500'	8'-0" C. TO C.



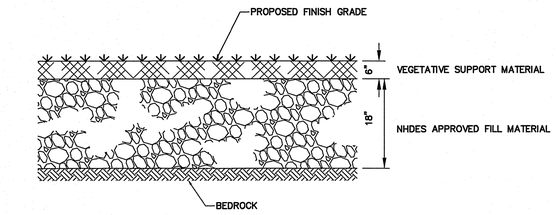
NOTES:
1. ALL STOCKPILES SHALL BE SURROUNDED BY SILT FENCING.
2. STOCKPILES SHALL HAVE A MAXIMUM 2:1 (H:V) SIDE SLOPE.
3. REPAIR/OR REPLACE ANY SILT FENCING DAMAGED DUE TO CONSTRUCTION ACTIVITIES OR STOCKPILE MITIGATION.
4. STOCKPILES SHALL BE LOCATED IN AREAS AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER.

TEMPORARY SOIL STOCKPILE DETAIL
(NOT TO SCALE)

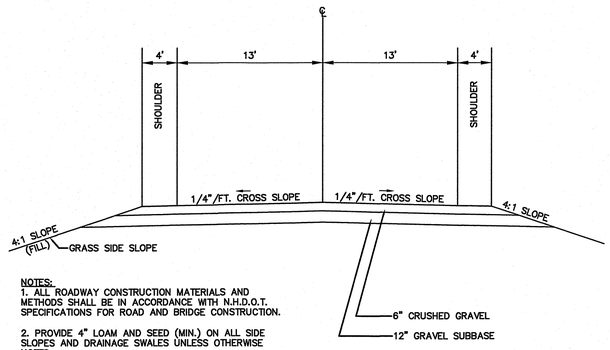


NOTES:
1. HAYBALES TO BE TIED WITH ORGANIC FIBER TWINE.
2. HAYBALES TO BE SECURED WITH A MINIMUM OF TWO (2) 1" x 1" WOODEN GRADE STAKES, PER HAYBALE, 18 INCHES INTO THE GROUND.
3. SILT FENCE TO BE SECURED WITH 1"x 1" WOODEN GRADE STAKES 12 INCHES INTO THE GROUND.

HAYBALE & SILT FENCE DETAIL
(NOT TO SCALE)

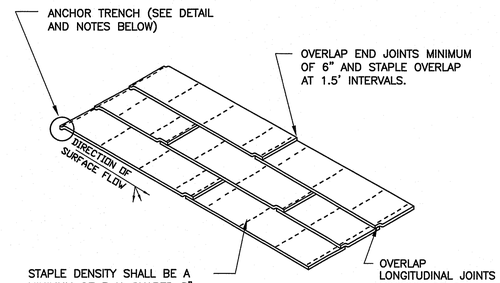


TYPICAL CROSS SECTION
(NOT TO SCALE)

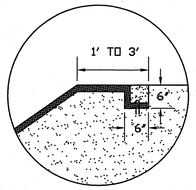


NOTES:
1. ALL ROADWAY CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH N.H.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. PROVIDE 4" LOAM AND SEED (MIN.) ON ALL SIDE SLOPES AND DRAINAGE SWALES UNLESS OTHERWISE NOTED.
3. ALL LEDGE AND ROCK SHALL BE REMOVED TO 4' BELOW ROADGRADE. BACKFILL SHALL MEET GRAVEL SUBBASE SPECIFICATIONS.

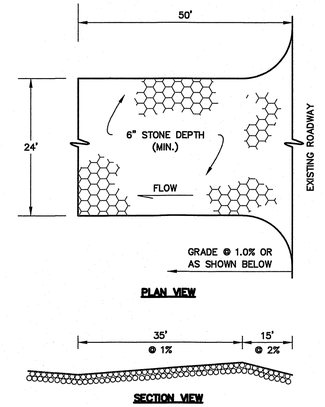
TYPICAL ROADWAY SECTION
(NOT TO SCALE)



NOTES:
1. DIG 6" X 6" TRENCH
2. LAY BLANKET IN TRENCH
3. STAPLE AT 1.5' INTERVALS
4. BACKFILL WITH NATURAL SOIL AND COMPACT
5. BLANKET LENGTH SHALL NOT EXCEED 100' WITHOUT AN ANCHOR TRENCH



TYPICAL EROSION CONTROL BLANKET INSTALLATION
(NOT TO SCALE)



NOTE:
1. 2" STONE SHALL BE USED

CONSTRUCTION ENTRANCE DETAIL
(NOT TO SCALE)

LYNNFIELD ENGINEERING, INC.
CONSULTING ENVIRONMENTAL ENGINEERS
2 ELECTRONICS AVE., SUITE 41
DANVERS, MASSACHUSETTS 01923
(978) 777-7250

HARD ROCK DEVELOPMENT, LLC
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE 03077

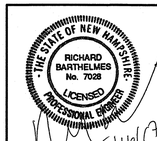
PREPARED FOR

HARD ROCK DEVELOPMENT, LLC
INDUSTRIAL DRIVE
RAYMOND, NEW HAMPSHIRE 03077

No.	DATE	REVISIONS	BY
0	5/16/17	ISSUED FOR EXCAVATION PERMIT	NC

DETAILS SHEET

DRAWN BY:	CHECKED BY:	SCALE:	DATE:
NC	RB	AS NOTED	5/16/17



SHEET No.
C-6

PROJECT No. LEI 628-20

Planning Board Draft Minutes
November 17, 2022
7:00 PM
Media Center Raymond High School

Planning Board Members Present:
Brad Reed (Chairman)
Patricia Bridgeo (Vice- Chairman)
Kevin Woods (Secretary)
Scott Campbell (Selectmen ex officio)
Jim McLeod
Gretchen Gott
Dee Luszcz
Kevin Woods (Secretary) (came in late)

Planning Board Members Absent:
Staff Present:
Madeleine Dilonno - Circuit Rider Planner, RPC (Rockingham Planning Commission)

Pledge of Allegiance.
Brad Reed 0:23
Board would you join me for the Pledge of Allegiance. Before we begin with our first application, there has been a question raised about abutters notices. And both Maddie and I were checking on things for tonight's meetings. And both Maddie and I were told verbally that everyone had been notified. And the questions here had been handled, but we do not have anything in writing. Correct.

Gretchen Gott 1:07
And that was told by the planning office by the planning technician, yes.

Brad Reed 1:13
So that's all I can say to that. This was sent out what two days ago? The thing you sent.

James McLeod 1:21
I believe it was done on one day.

Brad Reed 1:24
I saw it two days ago. So that could be jumped.

Scott Campbell 1:27
If you could just state who the planning technician is. So, it's in the records.

Gretchen Gott 1:33
I asked what Scott said,

Brad Reed 1:35
Oh, go ahead and repeat that for Gretchen.

Scott Campbell 1:37
If you could put in so we have it in the minutes who the planning technician is that says that.

Brad Reed 1:42
Chris told us today that that the notifications were all taken care of. Is that cover? Yes. Okay, then, Maddie and I talked for just a few minutes. Because we have two very large projects. Beginning tonight, I'm going to ask that we're going to read the abutters. For each application, I'm going to ask that the applicant do their presentation. With no questions during the presentation, I'm going to ask you to take your questions, list them out. Because I know that everybody here is going to want to do a sidewalk on each one of these. And that's going to raise more questions. And our engineers still have to get back to us with several questions that have already been asked. Since the TRC meeting. We do not have all those answers yet. So, we cannot resolve anything here tonight. So, tonight's purpose of tonight's meeting is to begin these applications. And that's what we're going to attempt to do. So that's that is the hope we'll see how it goes. I'm hoping we'll be able to begin both of them and give both of these organizations the opportunity to present their case.

Gretchen Gott 2:56
Yeah, time schedule you hope.

Brad Reed 2:59
I'm hoping to give each one an hour. And if we run a few minutes over, that's why I'm doing an hour because we've got a little more than that. So, I'm hoping to and I'm watching the clock, so thank you. And that's why we're going to let them do their presentation without interruption. I think it's the right thing to do the way this these have been scheduled and with the time of year and our need to get back to some of the things we're doing for warrants and so forth. We need to stay on schedule as much as we can and schedule these going forward.

Gretchen Gott 3:28
Did you bring a gag for me?

Brad Reed 3:30
I'll do my best. So, Maddie, this is application number 2022 -009 a site plan application. Submitted by Greg DiBona Bohler Engineers on behalf of Jewett Construction. They are

proposing to construct a 200,000 square foot industrial warehouse with applicable access parking loading, landscaping, lighting, stormwater management, utilities, and erosion mitigation. The property is located on Route 27 and as identified as Raymond tax map 28 Lots 9 10 and 11. And usually while you guys are coming forward, we introduce ourselves but you're already there. So, would you introduce yourself?

Maddie Dilanno 4:06
Not at all no.Maddie Dilanno Rockingham Planning Commission .

Dee Luszcz 4:09
Dee Luszcz Planning Board Member

Brad Reed 4:10
Brad Reed Planning Board Chair

Scott Campbell 4:11
Scott Campbell board of selectmen,

James McLeod 4:13
Jim McLeod, playing board member,

Patricia Bridgeo 4:15
Tricia Bridgeo, Vice Chair

Gretchen Gott 4:17
Gretchen got planning board member

Brad Reed 4:18
and Kevin has called he'll be joining us later he has an electrical problem at home. He's hoping to resolve it and will be here shortly. Yes. So, would you read the abutters? Please?

James McLeod 4:33
Yes, point of order before we start that. I want to make a case that this is not ready for us to accept that it is not substantial enough for us to accept at this time. I don't know if I need to make a motion on that. Or if we can just discuss it.

Brad Reed 4:54
We're going to allow them to do their presentation. They're here to do it. So, we're going to allow them to do their presentation.

DRAFT

James McLeod 5:00
So, they're going to do their presentation before we accept their application.

Brad Reed 5:03
That's fine. That's normal.

Maddie Dilanno 5:09
Yes, I can read the abutters. .

Brad Reed 5:41
Okay, now would you folks introduce yourselves?

Austin Turner 5:44
Sure. Good evening for the record, mic. Okay.

Brad Reed 5:47
You do all right.

Austin Turner 5:49
It tried to work that out with Thank you. For the record, Austin Turner with Bohler we are the land development and civil engineering consultants working on this project.

Dan Ray 5:57
Dan Ray here with Jewett Construction,

Derrick Rose 5:59
Derrick Rose for Vanesse associate's

Doug Reymore 6:01
Doug Reymore with Jewett Construction. Welcome,

Austin Turner 6:05
just as a matter of point of order, if you will. So, I understood that there was some question as to whether or not the application was considered complete. As far as I'm aware, it was it's considered complete, we've met with trc. And we've actually been through a pretty extensive peer review process at this point already. So, in the interest of efficiency, provided the board is amenable to it. I'd be curious to see if there were any concerns with the completeness of the application because we've been told it is complete and suitable to commence site plan review. And I don't want to spend, you know, 45 minutes talking to folks, if there's some question as to what may or may not be considered complete.

DRAFT

Brad Reed 6:46
Maddie, you went through the submissions. They have submitted everything our site plan application requires, yes. Okay. That's all we need to start.

Austin Turner 6:55
Okay. And then there's a question of acceptance of applications being completed. So, I want to make sure we're starting the proceedings with an acceptance of it, or an acknowledgement of it being completed.

Brad Reed 7:04
If you want, we can we you can hold off. And we can have that discussion first. If you want. That's up to you. It could take a while.

Austin Turner 7:11
I'd be I'm just curious. See, what if there's a reason as to why somebody thinks the application, they

Brad Reed 7:15
always have a reason.

Scott Campbell 7:16
Okay, at this point that he's asked him to hear it. Yeah, that's fine.

Brad Reed 7:20
And I just want to I just want I'm just warning him that this could take a while and this could change, probably even it goes.

Austin Turner 7:26
I think I think I'm, I'm okay with that.

Brad Reed 7:30
Applicants requests in a Jim.

James McLeod 7:34
Thank you. You're welcome. After the consideration, I appreciate that, of course. One of the things that first concern me was that this building is I'm sorry, should I should I be addressing this here? Yes. Okay. Just,

Brad Reed 7:53

DRAFT

if he wants to see you, you can move over while you're talking.

Austin Turner 7:58
In the back your head, I'm okay with,

James McLeod 8:00
like, see yourself in the reflection back.

Austin Turner 8:02
I share your plate.

James McLeod 8:05
So, the first thing that concerned me was that building transects two lots, and my understanding is that these lots should be combined prior to us being able to approve the application. So, they should be my opinion, they should be combined before we take it off. And I speak to that, yeah. If you want to,

Brad Reed 8:34
if I could speak to that what happens many times is an applicant comes here with a site plan to get site plan approval, they have not even purchased the property yet. So, they would they would be looking for approval based on the condition that they that we would put on that approval that they combined the lots for final approval and building question.

Scott Campbell 8:56
Do they own the lots?

Brad Reed 8:58
I don't believe you do yet.

Austin Turner 8:59
We don't currently we do not applicant does not own the lots. It has the authority which provides the board file on behalf of the owner, and they cosign the application.

Brad Reed 9:09
It's quite a normal process.

James McLeod 9:10
Okay, so my concern with that is that are we doing setbacks and other calculations based on individual configuration? So, it's based on the properties that are listed? Okay.

DRAFT

James McLeod 9:33
Okay, are safe that regulations state that a completed application shall include all the requirements of articles four and five, so I'll be referencing those as I go.

James McLeod 9:47
On the site plan review application does not have the application number on it. The Site Plan Review fields does not have the application number the tax map or lot numbers or the date. The site plan review checklist does not have the application number I saw that the new traffic report has been sent to the engineers so that one is all set. The drainage report summary is incomplete. There's no application number no author or stamp and that's where the pre post and the catch basin exhibits are also not stamped and no addresses. This other one about the traffic report being incomplete. We got a new traffic report the match line drawings not label or identified or stamped drawing a 1.09 No stamp no engineer drawing a 2.01 No stamp no engineer drawing a 2.0 to no stamp no engineer drawing a 2.03 No stamp no engineer drawing a 2.04 No stamp no engineer drawing C101 and C 102 No stamp drawing C 201 202 and 203 No stamp drawing 301 302 303 which is out of sequence no stamp. C 401 402 and 403 No stamp 501 502 503 No stamp 601 602 603 604 No stamp C701 Was stamped but that was one that I didn't see a notification for the individual on there the landscape architect C 801 The lighting plan the scale is incorrect. It's actually one inch equals 80 feet not one-inch equals 40 feet as shown on the drawing. The other thing is that that scale has to be between 20 and 50 feet and no stamp C 802 803 no stamp 901 902 903 904 905 No stamp e x 1 and ex 2 no stamp e x two also there's an issue with the scale. The application for conditional use permit is missing the application date and the application number. The application for special permit does not have the application number. Application for special permit submission checklist is incomplete. There was reference to a wetlands mitigation proposal, but I didn't see that in the packet, and I also didn't see the remediation plan over submission letter does not have the application number. And we're going to start talking about the Dubois & King. Comments. Comment number one oh sorry. That was That's all taken care of. Comment number three. The answer was a truncating. This we can go through the actual comments if you want to but basically the reply was that we can, but we have not done it yet. Comment number four was that we can, but we have not done it yet. The five was we can but we have not done it yet. Comment number six was we will, but we have not done it yet. Comment number eight is we will, but we have not done it yet. Status of construction easement I didn't see any construction easement I'm not even sure what that is. And then revision of line type not addressed. I actually don't remember what that is in reference to, but it is regarding comment 10 Comments 12 proposing 40-foot height, but the plans show 40 feet common 18 We will but we have not comment 24 will be is in process. Comment number 26 No waiver request was included although we were handed something as we came in today that may include that not sure. Comment 27 seeking an easement. I didn't see that comment 28 No status was given comment

DRAFT

29 and status was given comment 30 will be but not provided. And then moving on to the RPC letter comments.

James McLeod 15:35
Comment one, where's the stormwater management report to review the performance standards? Comment number two did not clarify, that should be required on that number three did not clarify, again, that should be required. Comment 11, the permit number has not been added comment number 12 permit number has not been added. So, I know that a lot of these things are small items. But it's the preponderance of them. When there are too many things that are coming to this board that are scattered, they have multiple application numbers, they have omissions of application numbers, addresses, dates, signatures. This is a, this is a project of significant impact for this community. And these applications need to be tighter when they come to us so that we don't have to go through these applications and try to parse out all of these individual things.

Brad Reed 16:42
Anybody else want to add to that list?

Patricia Bridgeo 16:45
I may have some that I didn't. I was trying to highlight; I have some as well. And I would have to agree, when I went through that the very first thing to see was no application on no application was my first indicator that you know, and unfortunately, I dropped my paperwork on the floor. And it was pretty difficult picking it back up. Because not only was there no application on some of them, there's no dates on some of them. And then looking at page 105. And going is this page one a five of this piece of papers is, and since I don't even have any reference for what it was trying to put my package back together took quite a bit of time. And it's a very impactful application. And it's a lot to go through with. And then I didn't even get into. Nor did Jim have some of the actual in the drawings, there are also some areas that need to be addressed. So, prior to even looking at the drawings, which was, and I have read marks all over. Yeah, I should compile them and give them to you. But I I'd have to double check what you said to see because I was trying to go through it. But I also have red marks all over my

James McLeod 17:59
yet. So, I should point out that this doesn't have anything to do with the content of the application. This is just the state of the application as it was brought down.

Brad Reed 18:09
Scott, did you want to? I don't think I have to. Okay,

Dee Luszcz 18:13

I would just concur with the same I had, other than it being clipped together for me. So, as I started to take it apart, I was I had to write the application number on documents that had no reference to the project name, the project number, again, missing dates. So, I just happened to catch that maybe early on, I was able to contain it. But it does have to be identified on all these documents.

Gretchen Gott 18:44
Everybody's said enough about that. The only thing I have to say, please don't give us things the night of the meeting. We're not going to look at it. We're not going to read it. We're not going to understand it. Please get it in ahead of time. So, we get in our packets. That's for everybody. It's not just you, folks. It's an ongoing issue worse lately, and emphasized magnified, I should say, by the size of projects. We need to have time to look at this to be fair.

Brad Reed 19:18
Maddie, did you want to add anything? I asked?

Maddie Dilanno 19:21
Sure. So, I think a lot of the things that you said are valid. I think there's a difference between a complete package and a like a correct package. A complete package has everything in the regulations, whether or not there might be some mistakes in there. And there might be some corrections that are needed and clarification. But the purpose of deeming an application complete is saying that you have enough information to begin the review process. So, I hear you but just for clarification. All right.

James McLeod 19:53
I would just refer back to the articles four and five of our site plan regulations that say that you These shall meet all the requirements.

Gretchen Gott 20:05
But you may ask Mehdi, can you have made any suggestions on how we can get things and organize it in? I mean, it's just not the night of the meeting kind of thing in this is for another day, but how we can do that in a better way. It's not, it's not working now. Okay. Sure.

James McLeod 20:29
And I don't know if this falls under the purview of the TRC, or if it's the applicants ultimate responsibility, but it seems like this is the sort of stuff that should be caught before it comes to the board so that we can just pick up the application and start working on it.

Brad Reed 20:45

I agree. But there are still some items being worked on between PRC between engineering and the applicant. Those things are rarely all resolved. When they come for us. I'm not saying sure

James McLeod 20:59
I understand. Okay.

Scott Campbell 21:00
Should they be worked out, though. So, when we get it, it's just done. That way, it doesn't tie. I mean, these guys are getting paid good money by Jewett, I'm sure. He would rather not be paying for things that don't get done. So, I would assume that whoever is overlooking this should be doing their job sending it to us, you guys do your job, you walk out the door with either yay or nay, jus it's happy because he's not paying you twice to come back. It's efficiency. And we're not getting efficiency out of this.

Brad Reed 21:27
I understand.

Scott Campbell 21:29
You're not getting efficiency, but we're not getting efficiency.

Brad Reed 21:31
Generally, when a site plan comes to the planning board. The Planning Board has ideas and questions that haven't been addressed yet.

Scott Campbell 21:41
So that's the TRC supposed to take care of that. not us ?

Brad Reed 21:43
No, no, I'm not. This is beyond the TRC. The Planning Board almost always has other things that are added to the application. Almost always Scott, I would say literally always since I've been well.

Austin Turner 21:43
Well, sorry. So can I have an opportunity to address the board. And please, please, please do sir. So, I can, I can appreciate where he's coming from. And just by way of context, and some history on this project. We had filed this application August; we had been in front of the TRC. Two times prior to that, reviewing the application materials to consistency of the documents that it was all in order for us to be in front of the planning board, because they are ultimately, your gatekeeper. They want to make sure the applications are complete, concise, prepared as you and everybody expect them to be. We were going to appear in front of this board. I'm having

appeared in front of trc on multiple occasions. We're going to appear in front of you last month, there was some question about the procedures in town about how abutters are notified. So, we went back to trc. We reviewed this application in its entirety, every document that's in front of everybody here at the planning board, reviewed together went through them individually, to make sure it was consistent with the town's expectations for the application. Ultimately, the TRC said we were suitable to move forward with the application. And it was as the planning board expect, are there some technical items that have been discussed? Absolutely. The Planning Board wisely has released this project for peer review some time ago. So, the plans that you're before you have gone through an extensive, thorough, and comprehensive peer review and had been updated as a result of that peer review. So, a lot of the items that may have been highlighted in that discussion have either already been addressed, or in the process of being addressed currently. And we didn't want to be so presumptuous to think that the only feedback we would be getting would either be from trc, or your Independent Consultant, and that you wouldn't have any comments on those plans. So, if there are items in there that say, we intend to address it. It's because we wanted to address it, and have it been a comprehensive submittal and not be sending pieces back and forth as we were engaging in conversation. So, I can understand why there may be a perception that things are not finished. But we didn't expect to come here tonight. And have you all say, right, I have zero comments and feedback, and therefore you're approved. So, I wanted to get your feedback in here. And if there are things in the application that could be more clearly defined items and application numbers, I don't have the application number because I'm accustomed to getting that from staff where they'll tell you this is the town's internal application number for it. I haven't seen that I didn't get it. So, I couldn't put it on the application. And frankly, the paperwork has been around since I think it's August 13, or something was the filing date. And this is our first appearance in front of the planning board. So, I'm sorry

Dee Luszcz 24:30
So, I'm sorry to interrupt. I just want just for the record. Kevin wood is joining the meeting.

Austin Turner 24:36
Sure. Thank you. In that regard, I'm happy to do however the board feels appropriate. What I want to make sure is that everybody here who's discussing this application us in you are comfortable with the materials that are in front of you and feel like you can reasonably review that efficiently. Do I feel like that's what we have here tonight based on the extensive TRCs we've been through? Absolutely. My opinion is one vote in this room, I said, I want to start this off on the right foot, I don't want to start off with it having a perception that's adversarial or anything of that nature. So, what I what it's not going to happen, at least in my view, is we're not going to be done with a peer review. By the time we would appear in front of you again, nor is that customary in my experience to be done with a technical peer review, when we're going through site plan. And I don't again, as I said before, I don't want to be so presumptuous to

think that that's the only comments that anybody's ever going to have on this application. So, I wouldn't expect it will be finished regardless. Are we working in the background to address those comments while we're expecting feedback from you? Absolutely. So, to that end, written respectfully, I'm happy to do however, however the board feels is best. And I will proceed accordingly. Do I think the application is complete? Very much. So. Are there some clerical things that, you know, maybe we didn't get communicated from as this application is being processed? Sure. I'll leave it to the board's discretion. I want to make sure we're leading off on the right foot here. So, I'm happy to do it for you feel is appropriate.

Brad Reed 26:09
All right, well, then for discussion, I'm going to make a motion that this application is complete. For our purposes of review,

James McLeod 26:19
Second discussion.

Brad Reed 26:20
that's why I'm doing it.

James McLeod 26:23
So, this project has been before us. Well, before this board, I say ASA wasn't on the board, February 3 of this year, but it was under a different application number 2022 Dash 002. Which is why it's so important that we have the application numbers on all of this paperwork. Because there are multiple application numbers associated with this project. As I stated before, I am happy to go through each of these individual comments that I ran through. Some of these are not clerical errors. Some of these are things that I believe are required before we can take up the application. I can't parse out which ones they are. So, we'll have to go down through the list to do it. My thought is that that it isn't complete for us to take up because they haven't met the requirements that we have written in our site plan regulations that say that this needs to be completed. And when we have projects of this significant impact to the community, that is what these regulations are for.

Brad Reed 27:40
Okay, my understanding and I know the phrase and that you took that says they have to meet all the qual all their requirements in section four and five, but we list out the requirements and 5.0102. In order to meet the formal submission requirements of these regulations, the applicant, or his or her Authorized Agent sells submit the following bleated site plan, review, notarized letter of authorization, six full size site books, sets of the site plan 1011 by 17, sets, PDF, etcetera. Payment of all applicable application fees, funds to establish a cleaning escrow account in accordance with the site plan and any additional information in supporting data that

the planning board will need to review the application. That's the one that's not spelled out specifically that last item. Maddie and I talked just briefly today, we believe that all of those items have been submitted. And again, there are there are and always are things that we go back over. But we believe they've given us a substantial, substantially complete. And I know that's a play on words to some degree, but they've given us a substantially complete application. Or I wouldn't have suggested the approach I did at the beginning of this meeting. And we're already 30 minutes into it.

James McLeod 29:03
My thought is that if we're accepting these applications with these multiple, so if you broke out each thing, I mean, we're talking about 100 things here. Yep. So yeah, they're clerical errors, but there's way too many of them. And if we accept them on this application, then we have to accept the on the next application. And we have to draw the line somewhere. This is a project of significant impact, as I've said, and even their checklist is incomplete.

Brad Reed 29:34
Okay, so what's your pleasure? Anybody else want to comment before we vote on this?

Patricia Bridgeo 29:39
Well, I would say that, like in my package, our conservation letter says draft and I think things like that are very important if we're going to take a recommendation. This letter says it's a draft. Now. I don't know if there was another one. But the cons comm letter says it was drafted. It does not say that this was the actual letter. It says it's a draft right across All set. And like said that my problem is the very first thing I pick up, does not have an application, I have no clue. Maybe it was the last time they came in with whatever number Jim had said. But the second I pick up this package, and it is this is these are impactful developments that I think that if we're starting out with on the top level, that the paperwork and how we track them is not concise. Once we get going on these projects, we're not going to be able to because the paperwork winds up scattered throughout. And we have different revisions within because even some of the revisions don't have dates on them. So, when you read them, you don't know what the date was for when these questions were. And to be honest, since there's no application, I'm not even sure if they're answering this application, or if it was from the prior.

Austin Turner 30:57
Can I offer? I can appreciate where the confusion comes from. Like I said, this was filed in August, right? That the Conservation Commission letter is provided, obviously, but it's not I have no control over that. I don't have the application numbers that were provided to us to put on the plans. And there seems to be confusion because the timeline has been extensive. It's been from August, until November, there's multiple months in there, we've already gone through a lot of peer reviewed, there's a lot of correspondence having gone back and forth. And

what can get locked in all of this is one of those things related to it, I can appreciate that feedback, right. What I would say this is my suggestion, just an idea if the board can relay to your planning staff, but comments are often non-technical variety, and would be useful in terms of organizing the application numbers on things and having whoever controls those things, send it to me so that I can get that on the application. And what I will do is I will I will organize because I have all the applications. I know we distributed them, but they may have taken some months in between here. I will compile that document. And if the board feels that appropriate, I can compile a summary of all the things that have happened, what the documents are going to be the dates associated with them, who they're from what it all means. I'll send it back into the board. So, we can have this discussion. What I would ask is that there'll be a clear line distinguishing between comments, which may be of a technical variety, and which we're working through in the plan set with the peer review team, and comments which are an application number which I need from the town to put an application, I can do that. So that we can engage you. I don't expect that we're going to come here with a complete application having been routed by peer review, like I said at the beginning. But if there are items that make it clearer and easier for the board members to review, I'm happy to do that. To make this as efficient as possible. I would just ask that we distinguish between that clerical matters that I have to coordinate the town on I need information from the town on and technical matters. And that's it's my opinion and thought, but I'm happy to do again if the board feels best.

James McLeod 33:06
IF I can make a suggestion. So, this is this is not a motion because we're still discussing. What I recommend is that we do not take the application. We don't take jurisdiction of the application, but we allow the applicants to do their presentation. So that in addition to that, we can add questions that may be of relevance to them. For when they do bring their application back to save them additional time.

Austin Turner 33:42
I'd be happy to do that. Okay. In my opinion, I'd welcome your plan as a PM as to before the planning board sets engaging and asking questions like that. My experience is that wants to be done in a public forum. And it should be done after the application is deemed as complete so that the board can engage formally in site plan review. That's great. I can appreciate that comment, I want to make it as efficient as possible. But I also want to make sure we're following proper protocol and procedure. I would rather, prefer that the board agrees, have that feedback be provided in a public forum as part of the process after deeming of the application been complete. I'd like to make the items that we're talking about get the additional enrichment of town so I can update the information here. And do that expeditiously and quickly. Allow me to call it with your planning team directly so I can get additional information, update this package, and send it back up here for you. As soon as is reasonable and practical. And then any

feedback we get on site plan. I'd like to engage that in a public forum. That's my personal opinion.

Brad Reed 34:44
We really can't do his presentation.

James McLeod 34:49
I understand.

Maddie Dilanno 34:52
the applicant can give their presentation. The board can tell you the applicant what information they're still looking for, that they believe is to be missing from this package, but we won't engage in any discussion, nitty gritty discussion about the application sets.

Patricia Bridgeo 35:06
I don't think he wanted to.

Austin Turner 35:11
I'd be happy to, I feel like I'm gonna be doing that. And I write his presentation twice because it has to be deemed as complete right now. It's almost an informational session, as opposed to an interview session. And there's a lot of people here who want to do their stuff, too. So, you would end up doing it twice. I'd rather do it once. You probably don't want to hear it twice. Anyway. So that's just my thing. And I know there's some feedback. My personal opinion is it's complete insufficient for review you're getting it. I'm doesn't require some kind of magic spidey sense to figure out that people don't share that opinion, necessarily. But I'd like that feedback to be provided to your planner and sent to me and I can get that stuff figured out for you.

Brad Reed 35:48
Okay, then I'm gonna call for the question. That if we vote this down, we're not likely accepting this as complete for review and jurisdiction at this time. So that's right now I have made the motion that we do accept it. So, you understand that if you vote no, we're gonna vote this down. At this point, the project, we're voting the voting the acceptance of, okay, we're not talking about any finals here. This is the initial make sure we do understand. Okay.

James McLeod 36:18
No, due to it being incomplete. Okay. Substantially incomplete.

Brad Reed 36:25

Just play on words in my mind, Scott. So, yes, you're either complete or you're not, but you know, okay. So. Okay, all those in favor of accepting the project as complete for review and jurisdiction.

Gretchen Gott 36:40
I'm gonna say it's complete enough with substantial work to be done substantial.

Brad Reed 36:45
And I agree. So, there's two as Gretchen myself, Kevin, abstaining, give the No Okay. All right. So, there was two yes. I don't see anybody else. So no, no, no, no, no. I said, no, no, I thought I would just verify. Yeah, I'm just verifying. Okay. So, Gretchen, and Brad, yes. substantially complete. The Scott, Jim and Tricia, no. So, we will get you what information we can through our planning department. And we will ask you to come back with a complete as complete as possible application.

Austin Turner 37:27
I got it. I view it as complete and so did trc. And like three different locations,

Brad Reed 37:31
we've got to come up with a date. And that's going to be a problem right now. We are booked solid.

Austin Turner 37:35
I think you have to technically reopen continue to date certain. Yes, we do bump again.

Brad Reed 37:42
That's another motion that we have to figure out right now. And we have to how much time will you need to do 100 things he listed so far.

Austin Turner 37:49
So, let's be careful. This is why I'm gonna make a very clear distinct line between what is an application number and an application which I have not received from the town yet, which we can send we can send, and things matter. Things of that nature, right, versus technical items that are in a peer review, if it's an item. And again, because of plans, I have a fully stamped grant report that I was fully stamped. The things we've sent into the town are fully stamped been at this since August, I want to make sure that if there are administrative matters in terms of completeness, that's the items I want to address the technical matters, like I said, we're working on, and you're gonna have questions and thoughts that are going to influence what's on the plans. So, unless I come back here, and you're saying thank you approved, which I don't expect to be the case, I want to make sure that we're distinguishing between administrative

items and technical items. That's an important distinction, because a lot of what I heard respectfully is technical, which we're working through now. Versus administrative.

Brad Reed 38:51
Okay. So, we need to go for continuation. And some of ours. No, we can't that one. We've already got three. We already have three applications on December 1. So, it would be the 15th because we have to keep the eighth in order to finish our work.

Gretchen Gott 39:10
So, three applications on December 1. It's worth it and I know mines blank.

Brad Reed 39:15
That's why we they just there's a hole. Yeah, I just found out.

Gretchen Gott 39:20
I don't even want to know. Yes, I do.

Brad Reed 39:24
So that's what we have right now. That's the best date we have right now would be December 15.

Austin Turner 39:29
I say let's take it to the board at a reasonable time. I say yes, I'd like much earlier, but I say yes, yes.

Brad Reed 39:38
Okay, would somebody like to make a motion?

Gretchen Gott 39:40
Let's get in here. I'm sorry. What was the day before we get dates, time and certain Are we able to take a sidewalk without having that's what I was afraid okay to take jurisdiction. So, bring snowshoes?

Brad Reed 39:58
Okay, that's what you do. All right, I make a motion we continue this application to December 15 at 7pm at the media center of the Raymond High School and it's 2022 days of nine, isn't it? Yes, yes. I second. Do we have any other discussion? All those in favor? Aye. That vote is unanimous thank you for your time gentlemen.

Austin Turner 40:27

DRAFT

Thank you and do you mind if I just confer with your planner briefly just to make sure I understand.

Brad Reed 40:31
yeah, we'll take we're gonna take a five-minute recess just while we swap over things that won't get all the papers organized the faculty feel comfortable.

Austin Turner 41:11
Because Okay, so this information we had gotten back maybe areas of technical or like different mistakes I don't think that's possible.

Brad Reed 41:25
all right switching gears, me know it's water I don't get property after well not very often there's always exceptions

Patricia Bridgeo 42:53
Excuse me

Brad Reed 43:20
You shut your mic off Maddie.

James McLeod 43:25
it glad we took a five-minute break I need that just to sort out all the paperwork.

Brad Reed 43:46
Yeah, I'm still there. I'm not quite there yet for some reason.

Brad Reed 44:01
Okay, everybody back Welcome to the meeting, sir. I hope your problem was not too serious.

Brad Reed 44:18
All right. Okay, application number 2022 - 008. A site plan application is being submitted by Wayne Morell of Jones and beach engineers, Inc. on behalf of onyx partners limited. they're proposing to construct a 500,000 square foot industrial distribution warehouse with associated loading docks, truck parking and employee vehicle parking property is located on industrial drive and Raymond tax map 22 Lots 44 45 46 and 47. And Raymond tax map 28. That's three lot 120-1. Welcome, gentlemen. Would you introduce yourselves please?

Wayne Morrill 44:59

DRAFT

Right Good evening. My name is Wayne Morrill Jones Beach engineers. Eric Pullin from Jones Beach engineers,

Doug Richardson 45:06
Doug Richardson from Onyx Partners. Welcome. Just a quick point of order square footage in this it's actually 550,025 square.

Brad Reed 45:22
And I just rounded it off. So, I apologize. I know. You read it, right?

Gretchen Gott 45:27
Yeah. Yeah. So, and Brad and I also just the microphone is for RCTV. The for the TV production only, it does not amplify your voice and hear so you need to speak up so everyone can hear you. Thank you.

James McLeod 45:41
Thank you, Dee, just to clarify, he read it right. But that's the wrong number.

Brad Reed 45:45
Yeah, it's the wrong number. As I was reading along with him, there's a couple places it's it differs slightly.

Wayne Morrill 45:54
The original application that we had submitted had an incorrect number. So, we made sure that we submitted a new application with the correct information, and then went to the TRC with the correct information, okay, so that everything is in the town with the right numbers. Okay.

Brad Reed 46:12
Okay, so we've been there once Do you

Patricia Bridgeo 46:22
likely to make a motion to?

James McLeod 46:26
Well, even for discussion. We have to discuss this at some point. This is the EPA thing, because it may preempt what we're doing. The EPA, if you don't know what it is, I just found out about this yesterday. So, I just put it together today. So, I don't know if anybody else has something that they want to bring up on the application.

Gretchen Gott 46:52

One thing we are the town of Raymond, not the town of Epping.

Wayne Morrill 47:01
Got it? So obviously, I might be able to answer the thing about the EPA thing, if you wouldn't mind. So there is the site that's owned by the town of Raymond, which is the two sites that are the old brownfield sites 120 is owned by the town of Raman, which is this piece of land right here that has the Brownfield the old tannery site, that lot was subdivided off is owned by the town of Raymond, this is lot 120-1, which there is no development planned for the tannery site. So, we've made that clear to DES, in part of all of our applications, we are on your tax maps that does show a right of way that comes through there. But we are not intended on using that right away or doing any construction on that town. Lot. That used to be the old tannery. So

Brad Reed 47:54
all of the Brownfield impacts are on site or on lot 120. That's great. 120 dash one, correct.

James McLeod 48:09
Okay, so if everybody has this that I handed out, go through this. This is

Patricia Bridgeo 48:18
they don't know if you have them a copy. No, this one

Gretchen Gott 48:22
says acres at the top. I'm not sure. I think so. Sorry. No,

James McLeod 48:26
no. This what can I do so this is just the cover everybody that is she was getting a copy of 180 emails. But this is just the cover this was done. 2020 20.1 This is a periodic Summary Report. That's done on the Brownfield sites of the tannery site. On the second page. This is from that report as well. It shows lot 20 But it shows the original lot 120 which was lot 1.2 And a lot 120 dash one. This was designated as cleanup site. It was the complete lot including lot one point dash one in the eyes of the EPA, it is still one lot. The third page just shows the location of a couple of test wells monitoring walls. And that's just for reference because we're going to, I'm going to be addressing those two the next page is from an EPA new EPA interim health advisories that changes the level at which certain contaminants are considered safe. So, those are highlighted on their PFOA S and P F O Ss are all P F A S is also known as the Forever chemicals on the next page so, what I want to show is the May is a migration of contaminants. And this report showed that there was 2.1 ng slash L That's parts per billion. So, 2.1 parts per billion of P FOSS was tested in the Lamprey River 850 feet downstream from the tannery site. The updated health advisory from the EPA changes the acceptable level from 70,000 parts per trillion to point 02 parts per trillion. That makes the sampling in the river 105,000 times higher

than the EPA recommendation. That concentration in the lamprey is enough to cause almost over 100,000 persons to exceed the regulated amount. The monitor team well GZ three, and I don't have this exact measurement, but it's about 300 feet from the lot line between 120 and 120 dash one. And the results from that particular well showed a total pee fast of 147,000 parts per trillion. That is enough pee fast to put over 36 million people over the regulated amount. The gz 101 Is the well that is nearest the lamprey that had a total P PFASs. of 273,000 parts per trillion. These were done in 2019 in the past seven point 18. And that is a concentration high enough to put over 68 million people over the regulated amount set by the EPA. So, the reason that I'm showing that I brought up those two is because where those brownfields are located, the contaminants migrate from them, you can draw a line wherever you want on a map, but Mother Nature does not follow the lines. And this contamination balloon is spreading. And because that Lot was part of this 120 line at one point, we have a site plan regulation 5.0 6.02 which states site plan applications which involve property contaminated by hazardous or toxic materials, as defined by RSA 339 dash a call into shall disclose such information as part of the application. If the planning board finds that a potential health risk or an environmental threat exists from a previous use or existing use of the site, then the Planning Board shall require that any environmental assessment that has been completed and submitted to NHD SLB submitted to and reviewed by the Raymond trc and to a third party qualified review professional of the planning board's choice at the applicants expense prior to any planning board action. So, I'm making a case that there is definitely the potential for contamination on that site because it was designated as a brownfield site by the EPA originally, and that we should require an environmental assessment.

Gretchen Gott 54:48
Can I interject? Do you have your package with you and say, do you folks have this? No, no. Do you have the package we have? Do you have any of that with you? Do you have your deeds with you?

Wayne Morrill 54:59
We did not bring our deeds with us,

Patricia Bridgeo 55:02
I can get you a copy if you look actually on your deed, it says that tax map 20-3 lot 120 Okay is proposed to become lot 120-1 that's on your deed, you can find that that site is what it was the former brownfield that's on page 112 76. And then when you go further into your deeds, it actually talks on page 1274. About it calls it Packers bridge, and it talks about the tracts of land. So, the deeds you supplied when you go through, they give the boundary markers of with that was and then also you'd have to verify whether those lagoons are as original from the original deed.

DRAFT

Wayne Morrill 55:59
So, the history is the pounded on that whole entire lot. 120 is part of the deal with Hard Rock. They subdivided that off, and then they retained lot 120 which is right up here, which is a brownfield site and sold Hard Rock. This one you can see on your map was lot 120 of these little two ponds, right here are these ponds on the town's parcel. And that's where the monitoring wells are. And that's where the contamination is. It does not extend into this wanting to one 120 dash one. And that was a reason why the town struck that line so they wouldn't retain the contaminated soil. So, let's our lot does not have that contaminated soil. We do have a large buffer here we have an old beaver pond. But it's clear by all the documents that are in the D S website. The contamination is right there. It goes across the street by all these maps. And you can actually see that the topo of those ponds that are actually on this map that you have in front of you. I'm sorry, please.

Brad Reed 57:19
It's okay with them.

Wayne Morrill 57:25
You see these two lagoons right here? These are the same two lagoons

Gretchen Gott 57:30
as you speak. So, we could all hear you please.

James McLeod 57:33
So, you're looking at these two so it's lot 43 is here. This is lot 120. Yeah. Okay, so

Wayne Morrill 57:49
that is the tools. Right on that.

Gretchen Gott 57:54
Mr. Chairman, we're all supposed to hear the information, the same information at the same time. So, I asked that we do.

James McLeod 58:01
So, this this alright, I'm sorry, this is this is not a pond anymore. This is this is what's called the consolidation area. So, what they did is they took all the contamination from the entire site, and they piled it into one spot, and then they kept it off. On the on the other lot, that's part of the tannery is where the deep leather filled area is. The idea was that this was capped. And there was a I want to I don't want to say it's impermeable, but there's a there's a protection barrier there. It's an engineering control. And so that the runoff instead of seeping down into where that is, you would run off and it would run into the former tannery lagoon number two and lagoon

number one, which I think is now being described as a beaver pond, but it's actually it was a retention. So

Wayne Morrill 59:15
So that's a beaver pond. I'm saying, this area right here, that's on my plan. This is the old beaver pond. These are two open areas on the town's property that are open soils where the tannery that was that's where that beaver pool and it's here our property.

James McLeod 59:33
Okay, two different areas. So, I guess what I would say is that this test well is right in between where these two areas are. And if I can use your scale which is, is it's about 300 Your feet as the down the trail, it's actually a lot closer to your border here. It's only it's only about this where this actually is, I actually should have got these two because this is actually closer to your site. But it's within 100 feet. And actually, the readings from this well are tremendously high, they're almost 100 times. So, I guess what I would say is that the line has been drawn to keep those these staging areas for the contaminants on the site 120 as it is now that those chemicals are not staying there. That's why we have monitoring wells all around it, we're showing that those monitoring wells are picking up that contamination a lot further than 200 300 400 feet away. We're picking up stuff 850 feet away, so that so those contaminants are migrating.

Wayne Morrill 1:01:31
So just I just want to start with existing distance, but I'll show you propose why. So, here's that same Town parcel. Here's that that area that you're just pointing out a lot 120 This right here is an area that is almost 12 and a half acres of conservation restriction land on our parcel that we discussed with the Conservation Commission, the town of Raymond, that's going to protect another 12 and a half acres from that Town parcel where the contamination is. So, we have we've created a lot buffer even before that, so there is no development, even close to that contaminated site owned by the town.

James McLeod 1:02:12
Yeah, I guess my point is, is that that soil and that area that you're talking about all needs to be tested. Environmentally tested, it abuts the Brownfield, and the Brownfield is blooming a contamination plume.

Wayne Morrill 1:02:27
So, one of the one of the last things that happens on the site is there's a large wetland here that connects to the old beaver pond. So, there is a large wetland complex that goes through this area that helps bisect the contaminated soil versus what's being developed. So, we have natural buffers, we have conservation restriction areas built in, and we're not close to that contaminated area.

DRAFT

James McLeod 1:02:50
I don't have anything in my paperwork that says that what you just said about that that's not contaminated land there. I don't see anything that tells me that that law isn't contaminated sites are on a different law. You can't tell me that, where you're a budding that lot that that land isn't contaminated because it hasn't been tested yet.

James McLeod 1:03:18
Our regulations are clear on this.

Wayne Morrill 1:03:23
I think it was clear when a town took that piece of property a lot 120 and made sure that they protected that contaminated piece of land and put a monitor wells and make sure that it was clear that they contain that contaminated soil. We're showing that we're not having any buffer on to that lot. We're also showing a 12-and-a-half-acre conservation area up against that which has a large wetland complex through it, that we're developing south of all that area, that contamination would have to go through the ground through large wetland complex, and then rise up the hill to be able to affect that what you're seeing today for this development.

James McLeod 1:04:07
I didn't see anything in the packet that said that an environmental study was done by the town before splitting those lots.

Maddie Dilanno 1:04:16
Mr. Chairman. I think we're getting into the specifics of the application and the board has not invoked jurisdiction at that point. So, we need to have a discussion on the completeness of the application before we start discussing the specifics of the parcel.

James McLeod 1:04:32
Well, I would just go back to the site plan regulation, which says that

Brad Reed 1:04:37
if you invoke jurisdiction you, can you, can I believe we could vote whether we're going to require them to do

James McLeod 1:04:46
This would be prior to any planning board action. That's why I brought it up before we took the jurisdiction of the application because that's the final word on this prior to any planning board action, I don't see how anybody can look at this site that is so contaminated. And think that the abutting property doesn't need to be tested by an environmental scientist to get an assessment,

and then have that assessment reviewed by all parties that similar regulations. This is the most impactful project that has come before me on the board. I want to make sure that we're protecting the town. And I know that everybody feels the same way. So, we've got a regulation to back us up on this on saying is, let's take a breath. And let's get the environmental assessment done, and make sure that we're not going to be harming the town. So, I would make a motion that we require that.

Patricia Bridgeo 1:05:51
Second,

Brad Reed 1:05:54
Can we require anything without accepting application? I don't believe we can.

Maddie Dilanno 1:06:01
Can you read the regulation again and point out what's

James McLeod 1:06:03
Yeah, so it's 5.06 Groundwater Protection, 02 site plan applications, which involve property contaminated by hazardous or toxic materials as defined by RSA 339- a: 2 shall disclose such information as part of the application. If the planning board finds that a potential health risk or environmental threat exists from a previous use, or existing use of the site, then the Planning Board shall require that any environmental assessment that has been completed and submitted to NHDES shall be submitted to and reviewed by the Raymond TRC. And to a third-party qualified review professional of the planning board's choice at the applicant's expense prior to any planning board action.

Wayne Morrill 1:07:02
So, I contend that we are not a contaminated site.

Maddie Dilanno 1:07:05
I was going to ask, so is the parcel contaminated by hazardous or toxic?

Wayne Morrill 1:07:09
We've had a phase one environmental studies done, prior to the sale to Onyx partners, we wouldn't have bought a piece of contaminated land, it was very clear that the town's land was a contaminated parcel. So, we would not have entered into a purchase. knowing that it was contaminated.

Gretchen Gott 1:07:28
And you have that

James McLeod 1:07:31
I would just say you referenced an assessment that was done. But that wasn't part of our package.

Brad Reed 1:07:40
Do you have an asset? Do you have that assessment? We don't have it.

Wayne Morrill 1:07:43
So, phase one environmental study is done for any output. Any person that's looking to buy a piece of land,

Brad Reed 1:07:49
I understand what you're saying, do you have it? So, we're gonna see it?

Wayne Morrill 1:07:52
I do not have the Phase One environmental study with me because it was something that the owner would have done as a sale product. Yep.

Doug Richardson 1:07:59
So do regulations says that we submit if we're contaminated, we're not contaminated.

Brad Reed 1:08:06
And we're asking for evidence supporting what you're telling us.

Wayne Morrill 1:08:10
that we're not contaminated.

Brad Reed 1:08:11
Exactly.

Dee Luszcz 1:08:12
And where did they test on the land to deem it not contaminated?

Brad Reed 1:08:21
So, is this something you can supply?

Gretchen Gott 1:08:24
you want to go in there and discuss it?

DRAFT

Brad Reed 1:08:26
It's up to you guys? Yeah,

Wayne Morrill 1:08:28
I mean, anybody that goes by the site knows that we wouldn't have monitoring wells out there because the site is a gravel pit and is currently excavated out all the material that's on this site. So, we don't have monitoring wells out there. You would have done a phase one environmental I think, let me talk with my client because we don't feel like work, they have an insight and neither does New Hampshire DLs because we've gone through wetland review, alteration a terrain review, all those would have come forward with your contaminated site, they would not have let us move forward. We are down to one comment on an AO T review. So, in That's the condition is obtained your wetland permit. So, we're down to the very small items. That item when it came up a long time ago that we were contaminated site. And I don't mean for us to sit there and go back and put in observation wells go through the whole entire environmental thing. The site's under operation of a gravel pit. We're gonna be just throwing money into drilling down through rock that goes rock forever. I don't know how contamination is going to be a rock like that. But tannery sites. That site is leaking. The old tannery site leaking into an area that's sand we do not have sand on our site.

Brad Reed 1:09:54
Okay. Can you show us where the ledge I know you in your package you're telling us there's like a 60-foot wall behind between the building and where we're talking. Am I correct there?

Wayne Morrill 1:10:06
No, it's actually that's in between Main Street. Oh, that's the area, that area that we have on this site. So, this again, this is you're gonna see it on this large scale drawn, you can see here's lot 43 120, you can see the area of where that area is that they let that drain into sand, and then we have this large wetland complex that divides the contaminated soil to what we are looking to develop. We go from sand on that top, right there, all ledges. And anybody that's gone by the site knows that all we have is ledge chipping away.

Brad Reed 1:10:47
Oh, no, no, you have ledge? What are the elevation differences between where the sand is and where your ledges? I'm asking you a gravity question.

Wayne Morrill 1:10:58
So, the elevation of where these areas are is elevation 192. Our site is actually at elevation lowest spot is elevation 220.

Brad Reed 1:11:11

DRAFT

So, you're 30 feet above it.

Wayne Morrill 1:11:13
30 feet above that. When you get back here, this elevation is 310. All ledges. Okay, so you're saying the contamination would be going uphill. In through ledge?

James McLeod 1:11:24
That's not what I'm saying, sir. And my concern is less about where your building location is, is and then it is about the disturbance of the site itself. So, with blasting and excavating, and the fact that this stuff doesn't run uphill, I understand that this stuff is already underground, it travels underground. That's where the transmissivity is, is underground. It's not running uphill. Okay, it's already underground. Now. It's spreading underground. That's what it does to pee fast. They last forever, they don't go away, they just go. And right now, they're going in another direction. That's further away than where your lot is. So, it's migrating in that direction. We're testing the wells, they're the ones that are closest to you have very high contamination levels. And if we're not testing further away from that, and we don't know where that plume is going,

Wayne Morrill 1:12:38
well, you're gonna, you're gonna see it right here. On a soils map that was performed for this application, that's part of your package.

James McLeod 1:12:44
That would need to be reviewed by qualified professional. I'm not a qualified professional

Wayne Morrill 1:12:51
just trying to answer your question, sir. Okay. So, the soil type in this area is soil type 12 B, which is a sand, which is all going down towards the Lamprey River. When you go into the wetland, that's the old beaver pond, and then come back up, you're into soils that are 140, which is water in bedrock. So, the sands know that plume, if it was going to move, it's gonna go through the sands and towards the Lamprey River and not towards the site.

James McLeod 1:13:25
So, I would just know that test wells are the Have you seen the report?

Wayne Morrill 1:13:34
I've read the entire report, both of them that are on the New Hampshire DES website, which was part of our application or our alteration of terrain. And they've concluded that we are not a contaminated site, it's the town's property.

Eric Pullin 1:13:50

DRAFT

I would note as part of our AOT review, groundwater monitoring program is going to be implemented for this project. That's going to be an AOT requirement, where we're going to be doing monitoring of the drinking water wells in close proximity to the property that's going to be happening during construction. And that's one of the conditions of the IoT process that that program needs to be developed. We're in the process of developing it. And we're not going to secure AOT permit without it. So that's something that will be implemented so the monitoring of drinking water wells will be commencing in the area

Wayne Morrill 1:14:34
this is all Town water in this. So, we don't have any drinking water wells.

Brad Reed 1:14:40
I think the nearest Wells would be the town wells, which are 1500 feet away give or take. Just Correct. Yeah, these ones Yep.

James McLeod 1:14:54
Well, I had chosen because I didn't have the full map when I was doing is choosing a couple of wells that monitoring wells that. Frankly, they they're low compared to the ones that are closer to you, and w two and MW three or lot 120.

Wayne Morrill 1:15:26
So, you're saying those are lower contamination on MW two and MW three?

James McLeod 1:15:32
No, they're considerably higher

Wayne Morrill 1:15:37
because they're in an area where the town has open, sandy areas, and they're led to gets charged into those

James McLeod 1:15:50
I guess what I'm saying is that those are even closer to your 121 Lot line than the other wells that I was saying that have spread out further than that. So

James McLeod 1:16:06
I made the motion. It's been seconded. It's, it's next to a brownfield site that has severe contamination that isn't staying on the site. It's migrating from the site, there's documented reports that show that it's migrating from the site. We just don't know if it's migrated to the applicant site or not. And we should know that before we accept the application

DRAFT

Dee Luszcz 1:16:33
ever question, Jim, this is you said the test latest test results 2019. Does that make you 2029?

James McLeod 1:16:42
I'm sorry, 2019. And some of them there are other ones that were done in 2020. But the wells that I had chosen, the earliest was 2019. They just started testing for pfas. Like 2016 or 2017.

Dee Luszcz 1:16:59
So not a lot of history. But the history that you have in front of us, it's getting worse. It's very frightening. So, when they when the town took ownership of that lot, they didn't have this information. Correct? Because I don't have the date when the time took that

James McLeod 1:17:16
they weren't tested. They didn't know to test for pfas back then. We were testing for dissolve or something. Yeah, chromium

Brad Reed 1:17:25
Yeah, chromium was the big concern after the tannery closed. I stood on my uncle's porch in 1972 and watched it burn you were probably downtown too Scott.

Gretchen Gott 1:17:35
That was the biggest thing.

Dee Luszcz 1:17:41
So, I think as his steward of the town, basically here is to you know, we have to protect our water. I have some hesitations because I understand the bulk of your lot that you want to build on is ledge it's rock. But through your admission wetlands is from there to the contaminated site. So that's ground. And if something does get disturbed, testing someone's well or testing anybody's water. It does no good if we contaminate. So, what do you do after it's contaminated? It's in the ground, it just goes everywhere. So, I think we just have to be really, really careful.

Wayne Morrill 1:18:27
So, the reason why I brought up the wetland is because that whole area is being protected by a 12-and-a-half-acre conservation restriction. So, there is no development from the edge of the frogs to the town property that's going to be left in it. That's one of the things that we walked with the Conservation Commission and show them that that was a pristine area of wetland area that they wanted to withhold so that there would not be any disturbance in that area.

Patricia Bridgeo 1:18:56

DRAFT

We have somebody here from home. Sorry.

Brad Reed 1:18:59
My first one. Hang on, Kathy. We need a mic. We need a mic

Kathy McDonald 1:19:11
Hi, I'm Kathy McDonald. I was on conservation. We went on a sidewalk with you there two different sidewalks. And we actually went to passed over the beaver pond that you're speaking of. And at the time, somebody had destroyed it. And there was all kinds of orange and green stuff blobs and we asked who destroyed that pit that beaver dam and you replied the owners did. And it was really odd that somebody would destroy that dam and you said because you didn't want the cover to get overflowed or something along those lines that would do something to the culvert anyway, the all the waters from up above, where the Brownfields are, seem to be leading into those beaver ponds. And then that beaver pond, feeds down into another culvert under the road that goes out to the Lamprey River. And our comments, we still haven't finished our letter, because of these very comments, especially that we are concerned with our aquifer, our wellhead, town, water, townspeople, and contaminants leaching or bleeding or moving migrating underground. And that's what we were concerned with, especially after seeing that beaver dam that is supposed to be performing a function to be destroyed. And so, we were concerned about that. And that's why we have not sent a letter yet. Back to you about to the planning board with our concerns.

Wayne Morrill 1:21:02
So, when we did walk, we did talk about that. And we agreed that we were going to leave the that beaver pond to let it go back to the natural state that it was, there's part of that sidewalk, right. And so, when we talked about 12 and a half acres of conservation land around that to protect that area, in all that nice, wooded area that we walked up to the town property that day, right?

Kathy McDonald 1:21:28
It's gonna be a deed restriction. We don't take it because of the very reason.

Wayne Morrill 1:21:34
So, it's restrictions. It's restricted from development. So that that land is basically a buffer to any town property and to this development.

Kathy McDonald 1:21:46
And I have one of our concerns is, how can we be sure that the waters that are leaching off surface waters, and the groundwater is leaching off from the brown site when it rains into that

DRAFT

beaver pond, which is serving a function? How can we be sure that those waters are not contaminated? You can leave the pump

James McLeod 1:22:07
be prudent to test that area before you accept it as a gift of conservation.

Kathy McDonald 1:22:14
It's not to get the conservation it's gonna be a deed restriction. But we still want to make sure terminology is not good. They still want to make

Patricia Bridgeo 1:22:21
sure, that it also as a deed restriction, you'd have to talk about potentially fencing. Yeah, I mean, Kathy I'm sorry.

Dee Luszcz 1:22:35
Thank you, Kathy. That adds to my concern, and where is that water going? It's not going uphill. It's going downhill. And isn't that out onto old Manchester Road

Scott Campbell 1:22:46
this next the elementary school with all the children?

Dee Luszcz 1:22:51
I know I'm not qualified to gauge that. I think we need some experts to give that information to us.

Patricia Bridgeo 1:23:07
There's a motion in a second.

Brad Reed 1:23:10
We just know I just I noticed that. There was a from the Raymond Conservation Commission brandy Holmes at the wetlands Bureau discussing regarding this wetlands permits has to do with the BS on industrial way references these very tax maps and locks. Raymond Conservation Commission has reviewed the above permit application, which I believe would be the dredge and fill so this would be for the removing the rock to build your building. And it says we have visited the site met with the applicant and view the impacted areas. Raymond Conservation Commission has no comments on the application and acknowledges the mitigation payment to the NRM fund, since there are no suitable mitigation projects. And Raymond,

Gretchen Gott 1:24:07

What is the date of that, please? September 28.

Brad Reed 1:24:10
And you have to be careful because in our packet, these were mixed in with the Jewett application two, they were addressed that a similar person. Now this is for industrial lot Raymond tax map to brandy. This is the land resources management. Well, wetlands Bureau still working on the letter.

Wayne Morrill 1:24:35
So that was a letter that was prepared by the Conservation Commission that went as part of the wetland permit application

Kathy McDonald 1:24:41
letter that we're working on.

Brad Reed 1:24:44
Oh, that that may be true. Maybe working on another letter. I just I just remembered reading a letter from you folks regarding this project. So, we also have information from the Lamprey River Advisory Committee.

James McLeod 1:24:59
It was it'd be like 80 pages of that in the packet from them. Yes. I didn't see that.

Maddie Dilanno 1:25:06
Yes. So, it will be posted online and included in your next packets. Okay, so that's another you have some response letters to hand out to you as well.

Patricia Bridgeo 1:25:14
I don't think we can continue, as Maddie says, I think I need to we keep?

Maddie Dilanno 1:25:18
Yep. I'm sorry.

Gretchen Gott 1:25:19
I didn't mean No, no, I'm alright.

Maddie Dilanno 1:25:21
So, I think the board is getting into some specifics. I think we need to decide, right, if all the information that's required in the regulations has been provided? And then if so, you can start the review process, and then we can talk about the groundwater.

DRAFT

Maddie Dilanno 1:25:25
We have a different motion might require a different motion.

Brad Reed 1:25:41
So, I don't know if I did get a second to your motion?

Maddie Dilanno 1:25:46
Again, I don't know if we can make the motion, be repeated for the board.

James McLeod 1:25:52
So, the question was whether or not we could require it or not. So, I'm asking you, Mr. Chair on this.

Brad Reed 1:26:03
It's my it's my understanding, we can't require anything of an applicant until as a planning board until we accept the application. That's

Maddie Dilanno 1:26:10
That's part of the submission requirements. It's an extra study that you're going to ask for during the review process.

Patricia Bridgeo 1:26:18
This is an RSA 339- a so we're not saying that.

Dee Luszcz 1:26:22
I'm sorry. But I think he's said it twice, 5.06 Paragraph zero to paraphrase the middle,

Brad Reed 1:26:33
if they know that it's content that's assuming is contaminated. See everything they've got and everything they've been working on; assumes it's not contaminated. This is the this is the issue.

Dee Luszcz 1:26:44
I'm just talking about. Process here, it says if the planning board finds that a potential health risk or environmental than the Planning Board shall require, which means we must, in the language of the law, require that any environmental assessment that has been completed and submitted, be some submitted and reviewed, etc. that we cannot do anything with this is prior to our action. So, this is not how we're interpreting. I think this is very strong language and our own board minutes. If we feel there is a potential health risk, we must act in this way. doesn't say anything

about the completeness of the application. That's how I it's been stated twice already. And I have to agree with the way this ordinance is telling us how to behavior.

James McLeod 1:27:47
And there is in the site plan review checklist under the other number five that says such additional studies as may be required.

Brad Reed 1:27:58
Yes, it does. And that language is in there. Absolutely. That's when I read those off absolutely is in there. My purpose in restating This is that the applicant has had no reason to believe he had to come here with this study, he had no reason to believe that this was I think they've reasonably shown us that they have no reason to believe the site's contaminated. So, if we're going to require that I just don't want them to think that we think they're trying to pull a fast one on.

James McLeod 1:28:26
Absolutely. Let me make that clear. I do not believe that at all. I just want to make sure oversight, but it's important for the safety of the town that it be addressed. I do not believe at for one moment that you tried to pull the wool over our eyes. Anybody that's been watching this board should know that that's not going to happen anymore.

Brad Reed 1:28:44
Right. So, would you repeat your motion?

James McLeod 1:28:53
I don't remember how I worded it.

Brad Reed 1:28:56
We can't replay it. So

James McLeod 1:29:00
I'll retract my initial motion.

Brad Reed 1:29:03
Which did you second Gretchen? Yes. Will you retract your second?

Patricia Bridgeo 1:29:08
Yes, I'll retract my second.

James McLeod 1:29:09

DRAFT

I'll make a new motion just in case it's worded improperly. That we require an environmental assessment of the property be completed and submitted to NHDES and to our TRC in a third-party qualified professional, the planning board's review. Have the planning board's choice at the applicant's expense prior to any planning board action.

Brad Reed 1:29:39
And are you willing to accept the Dubois & King or their choice for that third party?

James McLeod 1:29:43
I think we should have that discussion. I don't want to just make it off the cuff. I don't know enough about this to be able to make that decision.

Brad Reed 1:29:51
But what? Okay, that's fine. So, we have a motion and a second. The Dubois & King is our town engineer if they are not capable. Well, they would know someone who was I'm asking are we willing to pass that to them that decision on who that third party without I

Eric Pullin 1:30:07
think we might want to look into a little more detail. Okay. So, it's not through Dubois and King.

Patricia Bridgeo 1:30:12
Okay. So, if it would be.

Brad Reed 1:30:15
Alright, so we've got a motion, we understand the motion based on section 5.6.02, in our site plan review rights. We're going to we're asking for a wording. Environmental Assessment. Thank you. Sorry, I didn't want to get I don't want to throw out the wrong words here. So, any further discussion you have,

Maddie Dilanno 1:30:38
That Dubois & King has reviewed this application several times? So just for the record?

Brad Reed 1:30:44
Thank you. Well, okay, any other discussion on the motion to make a motion?

Patricia Bridgeo 1:30:49
It should be environmental assessment for? Maybe it should be more specific information from Yes, because of the former site. That's what it should have as its, you're gonna retract it and modify it, or you can modify, amend?

DRAFT

James McLeod 1:31:05
I'll amend it to note that this is in regard to the properties under f have been addressed under application number 2022- 008.

Brad Reed 1:31:20
Okay, you want to modify your second? Modified. Okay, thank you. Any other discussion on this? Okay, all those in favor? Aye. Aye. Opposed? Okay, it's 6yes and one opposed?

Dee Luszcz 1:31:43
For the roll call what we have to say roll call, that

Brad Reed 1:31:45
would be Trisha, Jim Scott, Brad D. And Gretchen voted yes. Kevin Woods voted no. Okay. So, the planning board based on our site plan, review regulation that's section is asking for an environmental review, to verify that that material is not coming to your site.

Wayne Morrill 1:32:13
So just for point of clarification, is the planning board in town, you know, find a qualified consultant to do that. And we're responsible for paying that because we started this process. With this planning board, we came to you guys back in December, actually, October of last year, and had an informal meeting and talked about it. And then we came back to you again, June 16 2022. And went through this project again. And not one time, was any of this ever brought to our attention.

Brad Reed 1:33:00
We cannot receive this information today ourselves.

Wayne Morrill 1:33:04
Right, but the town. So, we we've spent a lot of time and effort to get to this point. And I just want to if there is an environmental consultant, we would like to move this along at a reasonable pace so that we can eventually pull permits for this job understand.

James McLeod 1:33:23
So, I don't think that it says that we choose who they use for their as we're just trying to decide who we're going to have review. They can do it on their own at their own expense, and they can choose whoever they want. Whatever that result is, it's going to be reviewed by us.

Dee Luszcz 1:33:40
Well, it goes to NHDES first.

DRAFT

Brad Reed 1:33:44
Maybe they can lead you to someone that can do that. And it goes to DTS, and then we'll have it reviewed by a third party. Okay.

Dee Luszcz 1:33:57
I apologize. It wasn't caught sooner, but it doesn't take away the reality. What's their story?

Wayne Morrill 1:34:07
I think it's I hope that everybody in the sport knows that we would never mislead anybody in that direction. And we know for we knew that that was that division of lying, the town took over the possession of the contaminated soil. That's why we move forward. And we went through a lot of the engineering that we had to.

Dee Luszcz 1:34:28
I speak for myself, sir, I no point since you entered this room thought otherwise, that you were trying to pull a fast one over us. That was not my intent of my discussion or my decision making at all. I think it's, again, this was a was opened all of our eyes today is to how much that is spreading, and we just have to make sure that's all.

Patricia Bridgeo 1:34:53
I ask a question, Brad. I'll ask you because maybe I don't know if I can ask them so they could look into it. So, the stormwater runoff, which would be part of that? Can the applicant be told to look at the stormwater runoff of the building in conjunction with the study? Because that's probably late, but I didn't with where it's going to do with where that water is going to be going.

Maddie Dilanno 1:35:20
They've submitted a stormwater management plan, right,

Patricia Bridgeo 1:35:23
In relationship to where it's going, well, we can't talk specifics.

Dee Luszcz 1:35:29
So, you've already addressed that. Oh, I'm sorry.

James McLeod 1:35:30
And I want to apologize, I know that you want to move this forward. And it's, I think it's going to be good for the community to take care of this and make everybody feel comfortable moving forward. So, I appreciate that.

Brad Reed 1:35:47

DRAFT

You have any idea how long it will take to get this done? Because we want to continue this? I know you're anxious.

Wayne Morrill 1:35:56
I holiday season? Yeah, we're going to have to go in. I mean, we have a lot of consultants, but we're going to be out there probably tomorrow, trying to find somebody to do that. I'm not quite sure of how we're going to get through that with the holiday season coming up. But, you know, I would like to, if there's an opportunity for this board to, because we do, we are on the next application to if there's a any opportunity for this board, to have a sidewalk so that you can see this site, so that both of those applications are basically needed to have a sidewalk by this board.

Dee Luszcz 1:36:32
We can't until we take jurisdiction.

Brad Reed 1:36:34
we have to accept jurisdiction.

Gretchen Gott 1:36:37
Yes, we'll be on a sidewalk on that property. And there are things that I'm sorry, Brad, I don't mean to interrupt, but there are many things that will be duplicated, that we, you know, if we see it, we're not going to say specifically, I can't speak, apply it to this application. But as you know, I'm a sidewalk advocate. And I will ask for a sidewalk for this next, and that we will be out there. So, what we see we see no comments made about this project.

Brad Reed 1:37:11
I understand. But I can't address that well, about this one. That's why I can't say what you just

Wayne Morrill 1:37:18
said, when snow comes and we're going and we're asking you guys go for a sidewalk. It is a construction site. So, there's a lot of things that if you can't see them, as you're stepping on them, I just feel more confident that everybody would be able to be safe walking around, if you did it when there was no snow on the ground. But I understand the regulations, I just think that we wouldn't be able to see the site will go with whatever the board wants.

Dee Luszcz 1:37:48
Well, we just have to abide by our own laws. And I do believe we have to continue to a certain date.

Brad Reed 1:37:55

Yes, we do. And I wanted to ask me a question about that. Maddie, if we continue them to the 15th, which is 2930 days out? And if they weren't ready, could we then just continue it again? If they were unable to get this study done in time?

Maddie Dilanno 1:38:11
Yes, they would have to request a continuance.

Brad Reed 1:38:13
Okay. We can we can give you 30 days. But I mean, I don't want you have to resubmit this thing.

Wayne Morrill 1:38:21
Yeah, we'd rather not.

Brad Reed 1:38:27
And timing. I mean, everything's going right into a big pile, as you've heard tonight. So, I make a motion that we continue application 2022- 008 to the summer of 5315 2020 to 7pm, the Raymond High School Media Center. Do I have a second? I'll second. Okay, everybody. Okay with that. All those in favor? Aye. Vote is unanimous. Thank you

Patricia Bridgeo 1:39:08
Mr. Chair. Members that are on their application.

Brad Reed 1:39:16
I've been asked on a side here that any if you would go over your application and check for errors to try to compress this time file.

Wayne Morrill 1:39:29
Just for a point of order, and I know that you heard it from the previous gentleman. When you submit an application. I understand. There the number gets assigned by the town. Yep. And then you guys get the packets? Yeah, we don't put the number on the actual application.

Gretchen Gott 1:39:43
Raymond, not the town of Epping.

Dee Luszcz 1:39:48
Maybe internally, we can try to get that change. So, the minute you file your application, that number is provided to us so you can put it on your documents. That'd be great. They can

Wayne Morrill 1:39:58

DRAFT

They can because we started for the first time today when the item was posted.

Dee Luszcz 1:40:02
So even a quick labeling system right just

Patricia Bridgeo 1:40:06
documented the wrong side. For me. I'm still also wrong.

Brad Reed 1:40:12
The wrong size scales.

Gretchen Gott 1:40:15
We can't hear you, Trisha.

Brad Reed 1:40:17
There are some references in our packet that are two different building sizes reference. So just so you know,

Wayne Morrill 1:40:23
So just so you know again, we understood that from the TRC, we submitted new application so that that number would be fixed. In that same thing happened to us at the TRC. It had the wrong number. Okay, we talked about it again, there. So, we're going to go with the town hall, and we're going to fix it ourselves. All right,

Brad Reed 1:40:40
All right thank you. Okay. We do have listed next application 2022 Dash Oh, one Oh, the earth excavation permits for the same site.

Wayne Morrill 1:40:52
And so, it was our understanding from the last meeting that we got continued to submit first. So, we're not quite sure why that's on the agenda for tonight. Well, it wasn't an error. So, we'd like to get asked for a continuance to December 1.

Brad Reed 1:41:06
Yes. Well, I believe we did vote to continue to December first, it incorrectly got put on tonight's agenda. I'm Maddie Can you can?

Maddie Dilanno 1:41:15
Yes, that was a mistake that was caring for the excavation permit will be December 1. Okay,

DRAFT

Gretchen Gott 1:41:23
thank you. We're not allowed to Yes. First sidewalk at this point?

Brad Reed 1:41:25
We cannot yet.

Dee Luszcz 1:41:26
Is it the last meeting when the abutters were called?

Brad Reed 1:41:29
We made it public that was the next meeting. So next meeting, this was this was noticed by your if anybody came out specifically for that?

Dee Luszcz 1:41:39
We're not going to we don't do the agenda.

Wayne Morrill 1:41:41
So just so we all don't come here on December 1, you know, with the holiday season? Is this environmental report going to affect the excavation permit extension that we've requested? Because if it is, there's no reason. There's no way we're getting it done by Tuesday of next week to have it in your packets for December 1. So, I hadn't considered that was already?

Brad Reed 1:42:10
Well, there's and there's an ongoing excavation on this exact same site. I did not sorry, I didn't take your last map and compare it the overlay to see if the existing permit goes beyond the building. does it encompass the entire area you guys were going to excavate?

Wayne Morrill 1:42:30
So, the existing AOT permit, and excavation permit is goes, basically the entire fill in itself?

Brad Reed 1:42:37
It does, it does. So, it doesn't do enough for your parking lot, and everything or not quite.

Wayne Morrill 1:42:42
It does not get as far back as what we need. Okay. And in the detention ponds that we need to build, or the proposed site is not part of that original apartment.

Brad Reed 1:42:53
So, so. So, the question is, if they come back next week, or not next week and a couple of weeks to resubmit this, are we going to say if until environmental is done? We're not going to

consider this. Are we going to accept the excavation permit so that we could at least do a sidewalk, which would allow us to see the whole site?

James McLeod 1:43:20
There's no I hadn't considered it. So, I mean, it makes sense that we wouldn't want to write. I mean, I hate to be the guy that's doing this. I really do.

Brad Reed 1:43:33
The reason I'm asking is there's a there's a current excavation going on,

James McLeod 1:43:39
without explanation going on. I agree with that ran out.

Brad Reed 1:43:44
And that's I was told today, not all the excavators fault, because of COVID.

James McLeod 1:43:59
I would I don't know how to answer the question. Frankly,

Dee Luszcz 1:44:03
I didn't bring my packet. Because I didn't think it was on tonight's agenda. I would think any disturbance of the property does convey us back to the environmental issue. Gretchen.

Gretchen Gott 1:44:23
the other side of that, and I absolutely understand and agree with you. But the other side of that is the expediency and the need for and I'll make it just me walking out through there in the snow in the dark of night. I'm not going to be able to get out there if we don't do it soon. So that's my concern. That's fine. You folks can go, and I don't have to.

Dee Luszcz 1:44:47
If it was a choice, I agree with that. I mean, I don't want to go out there with Rocky, you know, snow covered. Not a choice. No, I think what's restricting us is our own ordinance telling us we can't had not asked if we had the I just you know what I'm saying? It's I do. I wish it was summer, I really wish this was caught TRC or somebody before it came to us. I can't change the calendar. But I cannot go against what our town ordinance is telling me as a planning board member I must do.

Maddie Dilanno 1:45:23
We have a separate set of excavation regulations. So, we can take a look at those first.

DRAFT

James McLeod 1:45:30
We could review them, and you could advise them over to have an appropriate answer. Not passing the buck I just I am passing the buck

Dee Luszcz 1:45:47
No, this isn't funny. It's not funny. I'm not laughing about the situation. That's terrible that this was not caught sooner. We don't have control of that. Unfortunately, we only get the plan so far in advance to the magnitude that we get them. And not having all our conceded letters.

Gretchen Gott 1:46:08
And what does that mean? So, if you have your book didn't bring this time on page 128 155- e .

Patricia Bridgeo 1:46:29
Hold on doing excavation. Are we in the excavation regulations?

Patricia Bridgeo 1:46:34
Yes, she’s doing 155- E.

Maddie Dilanno 1:46:38
She's in the RSA book.

Brad Reed 1:46:39
She's on the RSA

Gretchen Gott 1:46:41
in this 128.

Dee Luszcz 1:46:44
I don't have a page 128.

Gretchen Gott 1:46:49
Read something. There's a section permit required. And it's I guess that's Roman numeral one existing excavations. Technically their permit has lapsed, but we understand some of the reasons perhaps that happened. So, under Roman numeral one letter, a small letter A such an excavation site shall be exempt from the provisions of local zoning or similar ordinances regulating the location of the excavation site quite a bit at the time the excavation was first one. First one should be gone. It was in compliance with such local ordinances and regulations, if any is worse, then in effect

James McLeod 1:47:45

DRAFT

that number again,

Maddie Dilanno 1:47:46
it's on page 128. It's Roman numeral one. Existing excavations. Yeah. Under permit required. Okay. And then small letter a gotcha. I just read that such as an excavation site. Does that apply?

Dee Luszcz 1:48:12
Well, we, unfortunately, there's no date when this ordinance was put in place. So, we don't know. They might have been with the blessing of the town getting a permit. They might have been violations all along. Not. Right, not deliberately. But I don't know when this ordinance was put in place. There's no date on it.

Brad Reed 1:48:37
The state is this is the state has jurisdiction.

Dee Luszcz 1:48:42
I'm talking about ours.

Gretchen Gott 1:48:46
The state one says August 24 1979.

James McLeod 1:48:52
Can you sort of concentrate this down for me? What is it? What is what do you what I'm saying to me because it's over my head

Gretchen Gott 1:49:03
so that we're not violating our local zoning. This is saying to me that 155 e supersedes our local zoning is the way in and I think that's what I've understood in the past. What we've done when we've talked about 155 E, I, I'm not sure I'm right.

James McLeod 1:49:29
State, you're saying this supersedes the site plan review regulation.

Maddie Dilanno 1:49:34
Yeah, I can't go to that, and I can. Thank you.

James McLeod 1:49:49
It's a good point though.

DRAFT

Wayne Morrill 1:50:00
It just looking at the way it was in the initial notice is to permit this is a, this is an extension of an existing operation, not a new operation. So, and I believe what Gretchen is reading is correct. We are current application; it was great granted by the town of Raymond in 2012. So, and that's been the process since 2012.

Gretchen Gott 1:50:26
So, we need to ask him to help, please. I'm being very selfish. Again, I want to say walk I want to get out there now. I'll be the first to admit it.

Brad Reed 1:50:44
Well, since we continue that to December 1, that's the first time we can revisit it. I believe because we have to accept that.

James McLeod 1:50:53
I understand that there was provision that I heard about in a different application where staff could go on to do a compliance, evaluation.

Gretchen Gott 1:51:10
Permit anymore. It expired.

Patricia Bridgeo 1:51:12
With the owner's permission,

James McLeod 1:51:13
with the owner's permission, they could go on for a compliance evaluation, would you please write it but with staff with the clients with the applicants permission, and we could join the staff as a learning tool so that we could see what is done on one of these? I keep forgetting the name of the compliance walk so the board could join with the staff during a compliance walk. Although that would be a meeting.

Brad Reed 1:51:52
It would be a meeting; I don't believe you can.

James McLeod 1:51:55
I try.

Gretchen Gott 1:51:57
Well, maybe one of us could join, three could.

DRAFT

Dee Luszcz 1:52:02
Not a quorum at three,

Brad Reed 1:52:04
I understand what you're saying. But there's some controversy about that tool.

Brad Reed 1:52:11
Yeah, there's not a quorum at three. It's yeah, it gets into all kinds of problems. We're trying to get that clarified. So that we can have a definitive answer, but we do not as I sit here, quorums 4 for us, I understand that the concept of quorum. I do not believe we can answer that question at the moment. I'll be waiting. So, if we get an answer or can't answer it prior to the meetings to save you the trip if that's we will try to notify you.

Wayne Morrill 1:52:43
I appreciate that.

Brad Reed 1:52:44
Because I can, sitting here right now.

Wayne Morrill 1:52:45
Yeah, I just don't want to waste anybody's time.

Brad Reed 1:52:49
And we want to get this going as well. We want to get the process moving.

Wayne Morrill 1:52:53
I appreciate that. Thank you.

Brad Reed 1:52:57
Yes, thank you gentlemen.

Patricia Bridgeo 1:52:58
Thank you. Thank you before I write in, I'm sorry. Maddie, Can I have a copy made for a complete site plan regulation. Thank you.

Brad Reed 1:53:22
That's my list.

Patricia Bridgeo 1:53:23
I'm going to take his.

DRAFT

Brad Reed 1:53:30
ID for anyone who is watching. Application 2022 -010 was improperly added to tonight's list. It had already been continued to December 1. So, if you're watching that will reoccur on December 1 the next thing on our list is approval of minutes. Before we do that, did you want to because all the nifty things that came up tonight if you have any comments or things we should look at and be working on?

Maddie Dilanno 1:54:04
Not at the moment but let me know. Thank you so I was

Dee Luszcz 1:54:16
So, I was trying to I thought we already we did 10/6 and 10

Patricia Bridgeo 1:54:22
those are the ones I listened to when had those are done. Yeah, okay.

James McLeod 1:54:29
Let's do them again. And it was so

Dee Luszcz 1:54:30
thank you we waste way too many minutes for Maddie had to sit there and type the whole time

Brad Reed 1:54:46
so, all three of those.

Dee Luszcz 1:54:47
I don't worry about the 20 and here's my own 20 don't think we had time for the 20 I think we ran out of time.

Brad Reed 1:54:54
Did you check that because I didn't mark that one. . Check if you do have it with you. I did.

Gretchen Gott 1:55:18
I did not do it because I had comments about it. And I don't recall.

Dee Luszcz 1:55:23
We ran out of time. My recollection is we ran out of time just for the 20th, the sixth and the 13th. We're done. I did send an email to town hall, to Christina and Ernie. I did not get a reply. I

DRAFT

realized on Friday, I realized after I sent it, it was the holiday. But assuming on Monday, a bunch

Brad Reed 1:55:44
of people have been out sick this week. It's been really bad down there.

Dee Luszcz 1:55:47
While it was just that they were no minutes at all posted up through and I deleted my screenshot, but

Maddie Dilanno 1:55:55
They're very short staffed.

Dee Luszcz 1:55:56
I know but were violating a law 91. A, they had to be posted so many days, only when required. I'm not talking about 91 A but I our regulations say that we have to have minutes posted on the website after a certain amount of time. And the latest ones up there. I think we're like October, I'd have to pull up my email. It's I don't have it on this computer.

James McLeod 1:56:20
One of those things where they should be able to put it up was watermark it was drafts.

Dee Luszcz 1:56:25
All I asked is just put the draft minutes up just so they're up there. And I haven't had two seconds to check. But maybe since we have some time tonight, we could do we'll do my

Brad Reed 1:56:44
I wasn't planning on that.

Dee Luszcz 1:56:45
Presentation on minutes. So, we're not going through.

Brad Reed 1:56:47
We I'm pretty sure we need to do 20 Of those who has the 20 some okay. You have your Gretchen. Right. Kevin, do you have yours? 20.

James McLeod 1:57:03
Okay, yeah, I went through it. And I don't remember finding anything.

Patricia Bridgeo 1:57:08

DRAFT

So yeah.

James McLeod 1:57:21
You're ready to go?

Brad Reed 1:57:27
Yes, ma'am. Why don't you weigh in?

Gretchen Gott 1:57:34
The overarching comment I have is that all throughout this Mr. Reed is referred to and I know it has to be you, Brad. But then there's Shawn Reed that's referred to and we need to clarify that a spread read it Shawn Reed who's saying what when? For example, I just I just didn't look at that. Oh, I just I just noticed. On page 12, for example, on line 440. did notice Mr. Reed, the ones the ones we installed. You said that but I think it's you it's not Shawn. But then further down. Somewhere, Shawn is referred to as Shawn Reed. So, I think unfortunately, we need to change the Mr. To Brad in this case so we can identify who's who. And it happened several places throughout, and I didn't check every single one. We can figure this out. So, then I'll start that's throughout the whole document stand on page two, line 61 where Kevin introduces himself is planning board chair. He later retracted that but let's put the fact in that he said planning board chair so that we can make sense of the later retraction. And that's at line 62.

Gretchen Gott 1:59:01
On page seven, oh, I brought another note. It says which reads I note to myself, line 261 Seven. That's me. Yeah. And I know that I was pretty sure it was because Shawn was right above. But not everybody's going to know that. Yeah, and 285 is me. Yeah. And I think we just have to go through and find all of those on page 12 441. Mr. Reed again, Brad, I'm sure. Okay, never mind. It makes more sense now that I read the sentence before forgetting that on page 14 And it's Jim, you are saying this line 502. So, before I get into my stuff, I think maybe you meant stuff or something. I don't know.

Patricia Bridgeo 2:00:10
It's for going into my story saying, No man. It's stuff right.

Dee Luszcz 2:00:16
I thought we agreed that if just in content, you could still tell they was saying.

Gretchen Gott 2:00:21
I want to make sure that it's the right word, because that does get us in IT stuff. I don't understand the context. I don't understand.

DRAFT

Patricia Bridgeo 2:00:30
A little further than he says. Stuff. He does say stuff.

Gretchen Gott 2:00:34
Well, if that's what that's fine. stuff, that stuff is over time

James McLeod 2:00:39
It takes to correct

Gretchen Gott 2:00:40
okay, on page 20, line 752. Where I said larger setback per race, that's not the correct word. It's per se. And that is a different word. So, I think it's important to acknowledge page 23. Line 852 I understand emergencies. Not or emergencies are emergencies. And I don't think Gile is a road. I think it's a road that's on page 894 I mean, line 894 page 24 Instead of Gile road it's Gile, road typo, but again, that might have significance at some point. And page 26 for Joe said something line 71 It's just right away it's a right of way that's a distinction and now 962 Trisha, I don't know what you were saying there heard say Gretchen. Heard Gretchen say that the font we should verify is at line 62 on page 26. That sentence doesn't make sense. I don't know what it means but font and what font means but that's not I don't think what you meant

Patricia Bridgeo 2:02:32
Wraps around to the front. What I heard you say that what the front needs because it starts at the beginning what the front needs for a setback and a buffer so it's front okay front what a front so

Gretchen Gott 2:02:48
just add the are there. Thank you. That is important. Page 53-line 1944 It's you are it's not your libel. It's you are libel page 1 line 69. Brad, you may have said this, I mean page 69 Page 69. Line 2534. Brad says at the edge of wet from Scribner like, so you just mean

Brad Reed 2:04:02
69

Gretchen Gott 2:04:11
I'm not sure what you sit there

Brad Reed 2:04:15
I know there's a pond at the edge of the Scribner so the edge of the pond. The edge of the wet. I thought it was from the edge of the property on Scribner of the 50 feet we talked about on the fence.

DRAFT

Patricia Bridgeo 2:04:28
Your right retention pond what that is that what I'm not sure if I think that might be in that corner maybe that's where

Dee Luszcz 2:04:38
you can scratch it.

Patricia Bridgeo 2:04:39
I don't so we can either get rid of it or

Brad Reed 2:04:41
because we agreed to do it from the front corner or corner of Scribner from the back

Gretchen Gott 2:04:50
page 78 2880. Grad again, I guess my water repeal Can I have my water company? Yeah, I don't know what you meant there were like 2880 I guess my water repealed.

Brad Reed 2:05:11
Oh, I was just telling everybody that I was that I had it. I had my water retested.

Gretchen Gott 2:05:17
Okay, so the word is water retested not repealed.

Brad Reed 2:05:21
Well, I'm not sure what exactly I said I was just strike it, telling them that just letting folks know that the arsenic did settle into the minerals that were collected in the filter. I had that test. And I'm just curious after all this stuff, sorry.

James McLeod 2:05:36
Don't be.

Gretchen Gott 2:05:37
That's all I have.

Brad Reed 2:05:39
And I just went through 90% of it and every place that said Mr. Reed was me. So, I don't know if you want to just change that, Maddie.

Gretchen Gott 2:05:45

DRAFT

I didn't find I agree. I think it is all you when you when it says Mr. Reed. I'm sure that they're referring to you.

Brad Reed 2:05:51
I did not find one that I believe was Sean's, but I don't either.

Gretchen Gott 2:05:54
But what I'm saying is it's if people don't know someone outside of seeing that they should understand it's Brad not Sean. Because of the same last name. Yep. Let me think about that.

Brad Reed 2:06:09
Trish, did you say you had a list?

Patricia Bridgeo 2:06:11
No, no.

Dee Luszcz 2:06:13
No, not? Nothing? No.

Brad Reed 2:06:17
No, it's got. Kevin, did you have anything? Okay, I'd like to make a motion that we accept the minutes of October 20 of 2022. As amended.

Scott Campbell 2:06:29
I'll second.

Brad Reed 2:06:30
Any discussion? All those in favor? Aye. Aye. That's unanimous. All members present voted. Yay. Okay. And so, Maddie, that's all three that were listed for tonight. Okay. The November 3 is on the website, but we did not have that in our packets.

Gretchen Gott 2:07:01
And we've done October 13. Is that correct? That

Brad Reed 2:07:03
was correct. October 6, and 13th we got to. Okay,

Gretchen Gott 2:07:14
oh, yes. So, my corrected copy.

DRAFT

Brad Reed 2:07:20
Before we do updates, do we have any public comments? additional public comment. How's that?

Kathy McDonald 2:07:41
Kevin, a work session. One of our I sent it to Maddie and Christina, when our ordinances don't match up, I'm sure. It all comes down to a simple little word instead of an or should be an ad, which goes to Gretchen's you know, one little simple word can make a big difference. And but I sent it to Maddie it's, yeah.

Maddie Dilanno 2:08:13
Get that this afternoon. And I'll add it into our list on

Patricia Bridgeo 2:08:18
the list. Question, Brad. Yes. Did you guys get this in your package? Did anybody get something in their package? I did. I didn't know. Okay,

James McLeod 2:08:29
so, we've packaged

Patricia Bridgeo 2:08:32
Yeah. Latest package latest

James McLeod 2:08:35
packages separated by well suited

Brad Reed 2:08:38
for second

Gretchen Gott 2:08:38
I think I did I separated him by

Patricia Bridgeo 2:08:40
Did you he also I'm going to say isn't I talked to Maddie, we need this to get back to our town hall. It's time sensitive. It wasn't actually supposed to come to us. So, as I wrote on it and everything it wasn't supposed to be so I'm going to give it Sure.

Gretchen Gott 2:08:55
I was going to say can you tell us what it is?

DRAFT

Gretchen Gott 2:09:04
What is what is it? It's a

Brad Reed 2:09:06
it was a DES,

Maddie Dilanno 2:09:08
DES in your packet by mistake.

Patricia Bridgeo 2:09:12
And it was due yesterday. But it was in our packet. But it's not I want to give you

Scott Campbell 2:09:17
Who was it supposed to go to Trish?

Patricia Bridgeo 2:09:20
It was Dave Fredrickson.

Patricia Bridgeo 2:09:22
So yeah, I'll verify Town Hall.

Brad Reed 2:09:24
There was a bunch of questions on these applications about water usage. And there were things being done and you really get the

Patricia Bridgeo 2:09:33
Can I ask? Not an arbitrary but a higher level.

Brad Reed 2:09:36
So, I know you'd be careful what you're asking here, as long as

Patricia Bridgeo 2:09:40
it's less substantial. I know who the class was some things that are still outliers from Dave and some of that information is also not now Up to date, which should be rectified before because there's information that maybe it's sitting in his in bin, but it needs to be addressed.

Brad Reed 2:10:13
I believe we've started to get some feedback on the fire suppression studies and all that, right. We don't have

DRAFT

Patricia Bridgeo 2:10:19
more than just that. There's more than that. There's more. Yes. More. Without, there's more.

Maddie Dilanno 2:10:25
Is there something you want me to I can check on for you.

Patricia Bridgeo 2:10:27
I don't know if I can say that now. Okay. I have to email it. Can you? Please? I can't say it. No, we're

Brad Reed 2:10:33
not trying to stop anything. Are we just trying to make sure we do it the right way? No, I'm saying

Patricia Bridgeo 2:10:37
I can email her. I just Yeah, feel free

Maddie Dilanno 2:10:39
to send me or give me a call for Yep. Okay.

Brad Reed 2:10:42
I had your thing I'm trying to remember where I put it because it was for next time.

James McLeod 2:10:55
You're looking for a Dee's sheet.

Brad Reed 2:10:59
I was looking for the sheet Dee prepared on minutes.

Dee Luszcz 2:11:04
I had a bunch of follow up on that. Because I put it probably in an application

Brad Reed 2:11:14
of two places I was extra.

Brad Reed 2:11:22
Does everybody have the sheet that Dee passed out last time? Because after we get through Maddie's list

Maddie Dilanno 2:11:35

DRAFT

I do have a small list.

Kevin Woods 2:11:43
Pass it out at the last meeting. Yes. Kevin. wasn't given anything?

Brad Reed 2:11:48
Give it to him? I got it here. Somebody's going to find it.

Patricia Bridgeo 2:12:07
I didn't I think I have it somewhere on there. But I didn't know we're doing it tonight. Everybody's shuffling through paper. Can I just say that? We had RPC meeting last week? And what would you like me to do to bring before us about what we did at RPC and then can I? Should I give it to us? And then I can give it to the gentleman over there to do to the Selectmen? What do we find would be the best for the board?

Brad Reed 2:12:50
We will use to just do an update after and to say no,

Gretchen Gott 2:12:55
I used to report to the board. Yep. This board this board to the Selectmen, so but it's the Selectmen

Patricia Bridgeo 2:13:03
that really need to act on all most all of this, I guess I can give a little bit of a preview is that the Blueberry Hill intersection did make it on to awesome the next phase, so I can give you more information, I just, I'm going to then make Scott bring it to the board of selectmen.

Gretchen Gott 2:13:22
Next, we need to define the next phase.

Scott Campbell 2:13:25
What's next phase? What do you mean is this water, a road? Road, okay, because they want to put something in the blueberry hill,

Patricia Bridgeo 2:13:32
they've accepted the application with the safety data and everything. So, when they put up cost to it, they've gone through and assigned a value to it. So, I can put more that

Scott Campbell 2:13:43

it was the data increase the include the increase of all the traffic that's going to be from the development on 102.

Patricia Bridgeo 2:13:51
I can't answer that. I'd have to I don't I can't answer that pattern. Yeah, I can't answer that. But I can give what where they're at now with the stage. And they'll bring the funding.

Gretchen Gott 2:14:03
When where are we on that list? What timing?

Patricia Bridgeo 2:14:06
What's the timetable? 10 years.

Gretchen Gott 2:14:09
That's what I thought so we don't it's not like it's going to have not imminent.

Patricia Bridgeo 2:14:15
Yeah. Okay. But they're talking about moving us onto a different on HSI P. And again, I don't want to get into all these acronyms because I hate them myself. So, I will I will write it up so that you have them without the acronyms. Thank you. We still looking around and paper can I go through my other ones all while shuffling. He goes, go ahead. Well, Dee was going to go I'm sorry.

Brad Reed 2:14:41
Yeah. Everybody who had one find their page.

Dee Luszcz 2:14:45
Well, the urgency is because I mean, we just spent 20 minutes going over verbatim minutes again, and we've gone I think time is very valuable, valuable resource on this board. Are you applications are huge. Warrant articles demand a lot of our attention. And it's good people are paying attention. This is great. But our requirement for minutes is all over. New Hampshire Municipal Association ordinance is all over. At a minimum, minute, minutes, we know they have to include the board members present, other people participating, not necessarily all members of the public, of course, but a brief summary of the subject matter discussed. So that's why I came up with this little template to try to coordinate and pull together information. And I found, I would like to add that since I gave you this little summary was really just a bullet list of what I want to talk about is I'm willing to put a blank template together for us to follow along during the meeting, so we can keep our own notes. But when it says a brief summary, it means that we can discuss and talk and unless somebody has said something grossly negligent, that is against an applicant or something like that, that has to go into the minutes, we can all conclude

at the end of the discussion that we just stated as such as discussion was made, or was had for that application, and the vote has to be clearly defined. So, we don't need everybody's comments in all of these minutes. I will vote for that. So, it's going to be what we already have the date, location, the time of the meeting was called to order board members present. We've been doing that since I think a few months ago, we agreed we would do that. And of course, if there's anybody you know, that would have welcomed in here for presentations, we include them as well. Obviously, each application name and number read into the record, we do that as well. It's the brief summary of the subject matter discussed. We can though again, with this template that I want to give you it's basically going to be like a worksheet. If during that discussion, you find something is just that important that we need to state over the microphone, please include this in this printed minutes. And we could agree a certain statement should be added as part of that discussion. That of course, just like to say the final actions or decisions reached and we do have to stop putting our findings of fact out their guys, it's a law is dictated this. So, we I think we have to be very careful when we do vote yea or nay. And we need to add that as part of the permanent record. And what I'm referring to House Bill 1661. Again, this is some of this, as most of this is done the time the meeting was adjourned. And per my request. They've been doing this anyway, the footer notes with all the code Raymond, New Hampshire Planning Board, minutes meeting date, the approval date, I would like to see draft on both the first set. And then of course, the approved version. And I know there's no legal obligation for us to approve minutes. But I think it's the right thing to do. Of course, the numbering of pages, not just 12341 of five, one or a two of I would like to add that. So, we know if we're missing pages or not. That's just good documentation.

James McLeod 2:18:42
I notice it doesn't say like 66 of 105

Dee Luszcz 2:18:46
oh, you caught that. And also, public comments. They are not interested in reading all of this. We are not obligated to put any public comment into our minutes. They are our minutes. But we obviously are open. We'd like public comment and participation. But we do have that right. And we strongly advise never to put anything derogatory into your minutes. So, I think we have to watch very carefully. What comments go into our minutes? Well, by planning board members and the public. That also includes it's not on here, I don't think is if somebody says I've presented to you, and I want this as part of the record. They don't get that say we do not have to accept it as part of our record. So that's kind of a real brief because I'm good about being brief. I really, really liked we need to get rid of verbatim. It's not necessary and it's not required and it's chewing up way too much of our time.

Brad Reed 2:19:58
We have basically approved this in our procedures.

James McLeod 2:20:01
I like everything that's in here, the only thing that I would like to see is that there is some sort of video audio.

Dee Luszcz 2:20:11
With every 100%, we already had that approved, we went to the Select Board, that video must stay as a part of our minutes.

Patricia Bridgeo 2:20:19
And I'm sorry, let's add that as what Kevin is that Kevin might be able to answer that. I don't know if that was ever finally, maybe Scott, I don't think it was ever finally.

Dee Luszcz 2:20:29
So, we have time because it's still up on the website for used to be for a lot longer. And you told me last time it was only for a year now. But that should also be part of our minutes that there was a video recording

Patricia Bridgeo 2:20:42
at RCTV.

Brad Reed 2:20:45
I know. The last time Ernie was here. We asked him that question. He's working on a whole new procedure. And I've been

Scott Campbell 2:20:54
downloaded and myself, it's not that hard. It's not hard. Okay. I'm thumb record. I don't know why, but it's making a big stink out of it. So, if anybody wants a copy, I can give it.

Dee Luszcz 2:21:03
in all honesty, that I don't agree with the thumb drive system for record keeping, because if somebody loses the thumb drive, somebody borrows it doesn't return it corrupts it, whatever. But it's not open to the public. I want someone as it used to be, I could go on and read many I could watch a video from three, four years ago, it was up there before. And now that's been reduced. And it could be because the volume of minutes the volume of meetings that the town was having. But we do need to get the Select Board to get that in the budget and finally get the new website up. And he said Ernie did say he didn't see any problem with that. So

Patricia Bridgeo 2:21:47

DRAFT

D Would you be okay with us sending? Is it can we send to oh, we have to send a Maddie Can we send to Maddie So Maddie forward? Do you anything? We have to say?

Dee Luszcz 2:21:56
Oh, I think we should have discussed it at open meaning of do whatever you want. But yeah, this is not this was to get this out. But we need to act on this now. So, we have time for Warrant articles and not going over verbatim minutes.

James McLeod 2:22:12
Is as long as there's a video record that's part of the minutes, then I'm absolutely on board with not going to not doing the verbatim.

Patricia Bridgeo 2:22:24
And I was okay when we had this discussion. However, many months ago, the problem was that when they become so redacted that they don't actually have the information was where we were losing that it was that line of, we couldn't find a balance. So, my thing is, is it really does need to have a balance. And sometimes when someone's reading the minutes, something some of the conversations just totally irrelevant. It's finding that balance to get it struck. So, it's not all we read the things and we don't bring up things that are not relevant. But we there was conversation, we tried it that wasn't being captured. And that was where I had a problem was whole sections were missing of important information.

Dee Luszcz 2:23:05
Yeah. But that's why like I said, I'll come back with a template. Yep. And I think that's our own personal responsibility to be sitting here and having a discussion and saying this was very important to me, I want this as part of the record. And it can be stated after the discussions made or during just say we'll use the tannery. For instance, maybe as example tonight. Might Jim brought up the tannery and the Brownfield. And maybe a brief statement must be part of the minutes for that section. But we can expect the person taking the minutes and recording them to come back to us and they don't know what's important to us. We have to tell that person what's important to us.

Gretchen Gott 2:23:51
I'm not sure when the decision was made, I still go back to this. I don't recall the planning board making the decision originally to go to verbatim minutes. Someone else decided that and told us that's what they had handed us the minutes. I don't think it was a good idea. The minutes were the person who was taking the minutes has gotten to the point that the minutes are fairly accurate. They're still things but they're accurate enough that we can get information. We don't always remember we've got a lot of stuff going on. I think it's important to have enough in the minutes to go back and be able to say okay, that's what we talked about. This is what review,

and we know what we're talking about. That was in our previous minutes. The verbatim minutes are too much. We all agree. It was not our decision. Someone made that without our approval. I don't know who is even doing our minutes anymore. We don't do we know I personally, Jill. Okay,

Brad Reed 2:24:54
She's on vacation for two weeks.

Gretchen Gott 2:24:56
I understand. So now who's doing the minutes?

Brad Reed 2:24:58
minutes I believe AI They are whatever that thing's called is going to go on for the next two weeks. Because they're so short on staff, they don't have anybody to do it. We have a lot of people out sick right now.

Gretchen Gott 2:25:08
I know that a lot of people. So, there's something that we still need to address. I have always believed that the person who's doing the minute should be in this room with us. I'm sorry, I'm old fashioned about that. Some boards have that selectmen when you have your person doing the minutes there. I believe we should too. And now still,

Scott Campbell 2:25:31
I don't know what happened to her. What's that? She used to be there. But I haven't seen in the past three meetings. We haven't. Okay. I'm not aware. I wasn't aware. I don't. Everything. You talked about Kim? Yeah. Oh, okay.

Scott Campbell 2:25:43
I believe she was doing him a shade and seen her there. So, I'm assuming she was when I was doing them. Deb always did. I'm not sure I

Maddie Dilanno 2:25:52
think she's sick . She's sick.

Patricia Bridgeo 2:25:55
I say thank you Dee and then let's, let's see if we can find that we can catch I think that yeah, let's see if we can capture the still, it still needs a whole essence and some conversation parts that need the essence.

Patricia Bridgeo 2:26:11

Well, let's give it a try.

Gretchen Gott 2:26:34
Thank you for doing this.

Patricia Bridgeo 2:26:36
Yes. Dee Thank you.

Brad Reed 2:26:39
Thank you. Okay. Maddie, you said you had a couple of things.

Maddie Dilanno 2:26:43
Yes. I'm compiling all of our zoning amendments. I'm going to send that out to the board probably tomorrow morning of all the ones we've talked about. Not formatted for how they'll show up on the warrant. But just for us to talk about December 8, as we talked about last time is our work session to really finalize all this language.

Patricia Bridgeo 2:27:13
I thought we'd moved two of them to public hearing. That's why

Maddie Dilanno 2:27:16
December 8, in my calendar.

Patricia Bridgeo 2:27:21
Did we move two last week?

Brad Reed 2:27:31
I believe the warrant articles we had set aside for December 8. We're guarding that work session.

Maddie Dilanno 2:27:43
So, we have the 8th setup to finalize all of that language. I have. I've scheduled my colleague Jen Rouding to come in at 730 to walk through the groundwater ordinance with us. She's the project manager for the grant that we've been doing all the zoning work for groundwater. And so, she's just going around to the communities to touch base since that grant period is coming to an end. So, I have her coming at 730. So, I'm hoping we can get through some of the simpler ones that we have, like the sprinklers, the wetland setback, the special permit that the Conservation Commission brought up and I have Kathy's to add and really finalize that language to move to public hearing. So, sound like a good plan. I guess then the groundwater won't.

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Patricia Bridgeo 2:28:29
That's we moved them. Three of them. Last week. We were done with three right. I thought we did we moved three We moved three to public hearing three were moved.

Dee Luszcz 2:28:41
To the first we moved,

Patricia Bridgeo 2:28:43
I have to go look at the deck, but we moved three of them. We have still outstanding three we're going, and we talked about that way at least we can split it up and we'll be so three were already said first three, and then we have the rest of them. We have to finalize.

Maddie Dilanno 2:28:59
Okay, I'll go back and check on it there's still time to put it in.

James McLeod 2:29:04
Just out of curiosity, what was what was Kathy's addition?

Maddie Dilanno 2:29:09
Otherwise, she just talked about there's a definition for you. Yeah, something doesn't match right. There are two definitions that don't match.

Patricia Bridgeo 2:29:19
Okay actually Kathy had to us discussed would have to go back and listen to the minutes she also added and parking lots.

Maddie Dilanno 2:29:26
Yes, I thought it was a one-week special permit table and a definition of parking lot.

Maddie Dilanno 2:29:44
I saw your email that I got it right before I came here so I didn't look at it

Dee Luszcz 2:29:49
Do I'm also not on our agenda, but I just saw my notes. We still have a sidewalk tomorrow. It's three o'clock, three o'clock right record was not our agenda.

Gretchen Gott 2:30:22
I have a year 13., 13. 1.5 2

DRAFT

Maddie Dilanno 2:30:44
So, I'll add this one to the list. And I will send that out to everyone tomorrow. You have any questions? Or if anything looks wrong, please feel free to reach out so I can correct it and get it back out to everyone before our work session.

Gretchen Gott 2:31:01
Are you coming to the site walk tomorrow?

Maddie Dilanno 2:31:03
Yes, I should be. Would you bring that? For me?

Brad Reed 2:31:11
Would you just go over the site walk rules for everybody? Just remind, that we haven't done one

Maddie Dilanno 2:31:18
So, site walk is an extension of the public hearing. So, our public hearing for Severino was however many weeks ago, we're continuing that into a site walk. However, the site walk is a public meeting. And it's for the board to get more acquainted with the site that we're talking about. It's for asking questions about what you see on the ground, you know, physical structural things, and not really for getting into the nitty gritty of the application. I think most of you know that. So just a reminder, and then side conversations shouldn't be happening. Everyone should be able to hear questions being asked, everyone should be staying together. And we're really just asking questions about what we're seeing.

Brad Reed 2:31:55
And if the public attends, they can listen, but they cannot ask questions at the site. Right?

Maddie Dilanno 2:32:01
They can. Yeah, technically not. But it's a public meeting about the actual site. Yes, not the application, not other applications, just the actual site that you're looking at

Gretchen Gott 2:32:13
And they do not have to say sign a waiver for being there. No, no.

Brad Reed 2:32:26
everything else.

Maddie Dilanno 2:32:28

DRAFT

Yes, so I have my colleague, Jen is coming on the eighth to talk about groundwater. But I also wanted to make the board aware that the RPC and Tricia you probably know a lot more about the Sydney at this point. We're going after some grants some housing opportunity grants from the state to work on some housing related zoning audits for some of our communities. And that's just taking a look at the regulations, identifying what you know what could be changed, or what the town wants to change, and try and align it more with the Master Plan. And some of that money will actually go to doing housing chapters of the master plan. In any case, our staff has been in contact with Ernie, and we're looking to put Raymond into our grant application, there's no obligation of the town to do anything. We're just trying to get some money to look at zoning as it relates to housing. So, she'll talk more about that. I haven't been tuned into that whole process. But that's also why she's going to come and she's just going to briefly touch on it. That's it for me.

Brad Reed 2:33:34
That's it. Yep. Kevin, did you have anything?

Kevin Woods 2:33:39
The CIP committee is meeting on the 22nd School Board is coming in and showing us how they develop their CIP spreadsheets.

Gretchen Gott 2:33:50
Scott, you're still Chair of CIP?

Scott Campbell 2:33:53
Yes, Kevin is my right-hand man. He actually is doing a lot of the work. I mean, it really is. I'm inundated with all kinds of other stuff.

Gretchen Gott 2:34:03
I put a different hat on right now see if I need to schedule ethics for CIP. At some point, we'll figure that out.

Kevin Woods 2:34:14
Thought we all the number of the CIP have had ethics training folks. Except one

Kevin Woods 2:34:23
We can't even get a meeting and to have a CIP so I'm not sure what we're going to do. ethics Scott if else vales cemetery committee presented to the Selectmen last week, with requests for a warrant article to reinstate cemetery trustees, and some suggestions on modifications to the cemetery rules and regulations.

DRAFT

Gretchen Gott 2:34:53
When is the next cemetery meeting?

Kevin Woods 2:34:56
When is it it's done When scheduled by the chair,

Gretchen Gott 2:35:02
do you know when that is? Know? Whose chair?

Kevin Woods 2:35:08
Amy Pettingill

Dee Luszcz 2:35:14
Thank you. The was there anything else? Yeah, I I've been going through all my agendas for last several meetings. And I can only find one that we continued to December 1. And that was the excavation for Onyx. Does anyone have the notations? What other meetings are on December 1? Yeah,

Maddie Dilanno 2:35:35
I can tell you their new applications. Actually, one usually wasn't

Dee Luszcz 2:35:39
continues their new work continue.

Maddie Dilanno 2:35:41
Their new one you probably seen before was the Moore's road and Nottingham

Dee Luszcz 2:35:48
got involved? Oh, yeah, that just kind of went away. And

Maddie Dilanno 2:35:51
because it was some noticing issues with it, that we that came to light and ended up having to go through our engineer review. Okay, so that's coming back. And we have a lot line adjustment application. For I don't remember what the address is, but it's the white rock. The White Rock place property. I don't remember what the exact addresses on Main Street.

Dee Luszcz 2:36:18
We don't have that stuff. Nope. Okay. But you

Maddie Dilanno 2:36:20

DRAFT

will very shortly. So, we have that. A lot line mores road, the excavation permit. And there's one more.

Patricia Bridgeo 2:36:30
Maddie, can you write a note? I think that the concern. Because I'd had to go on that sidewalk where it was that hole? It was the fire chief who it's his letter. I don't know if everybody even still has that is what is going to be pertinent

Dee Luszcz 2:36:48
on one application. Yeah,

Maddie Dilanno 2:36:49
we have. We've we have comments from

Patricia Bridgeo 2:36:52
Yeah, okay. down some? Because that was who had the comments that are fire chiefs. Yeah. It was Paul, and it was Paul.

Maddie Dilanno 2:37:00
And David. Yep. They had Yes. Yep. I'll resubmit those.

Patricia Bridgeo 2:37:04
They had ones that they said they addressed back to them, but okay. Okay. Thank you.

Dee Luszcz 2:37:13
And lastly, with the holidays upon us, will December 15 be our last meeting for the year?

Maddie Dilanno 2:37:23
I'm sorry. We also have a design review that night design review application. And it's the same one that we've had before for the Batchelder road.

James McLeod 2:37:34
What night is that duplexes?

Dee Luszcz 2:37:37
The Con, the big development out of Mark Lane?

Gretchen Gott 2:37:42
For December 1, yep.

DRAFT

Maddie Dilanno 2:37:49
They've resubmitted a new application.

James McLeod 2:37:52
So, any chance we can preview of that so we can,

Maddie Dilanno 2:37:56
Chris, is I think getting everything out. ASAP. I don't know. Either this Friday, or? Wait, that's tomorrow? Yeah. So tomorrow. She should be getting everything out. Everyone.

Patricia Bridgeo 2:38:09
Okay. Am I confused? Don't we have our didn't we in the past? Gretchen, you can answer this where an application had to be submitted. And it's one days

Gretchen Gott 2:38:17
in advance. Yes. Yeah. This is ridiculous.

Patricia Bridgeo 2:38:21
And I'm just going to bring that up next in mind section because that that was Yeah, and I don't know where that went aside. But you won 21 days in advance. Where did we wind up that?

Dee Luszcz 2:38:32
So, can we just finish that? Okay, go ahead. We're not going to meet the 29th of December.

Gretchen Gott 2:38:40
I hope not. Okay.

Dee Luszcz 2:38:42
So, the 15th Because obviously not the 22nd. To close to Christmas, and

Brad Reed 2:38:47
15th. I'm planning on being our last meeting.

Gretchen Gott 2:38:50
Didn't we say something about zoning hearings, or public hearings going to the 22nd? That's what

James McLeod 2:38:55
I thought. Yeah.

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Gretchen Gott 2:38:57
I'm sure we said that.

Brad Reed 2:38:58
No, I believe Maddie said if we absolutely had to,

Patricia Bridgeo 2:39:01
because we can't fit everything in otherwise, yeah, roll it

Gretchen Gott 2:39:04
out. Because we can't make changes on, we're done the eighth, then we have to have it on the

Brad Reed 2:39:10
one day in January isn't there?

Maddie Dilanno 2:39:13
So, the last day we can hold a public hearing is

Gretchen Gott 2:39:15
January 26. So, we do have time in January that

Maddie Dilanno 2:39:19
we have a little bit of time. So, the schedule, I've worked out that I'll set the schedule, I've worked out that I'll send you an email to tell Gretchen now. As we finalize everything on the eighth all the language I or probably me will format everything for into final drafts for everyone to review on the 15th. If we're all good on the 15th, Then we're going to move to public hearing. I say January to January 5, and that gives Chris enough time to post and publish on the 21st. So, I know it's a little confusing, but we worked backwards from the date. So, if we have our first public hearing, I know you said there was one on the first so let me go back Look at that that we're having with everything else. We're aiming to have that first public hearing on January 5.

Patricia Bridgeo 2:40:12
We have a public hearing scheduled.

Maddie Dilanno 2:40:15
I'm going to check on that already. I'm sorry.

Kevin Woods 2:40:19
Is there a plan? Or what would be the tentative plan? Should we have a situation like we have this week? We have six town office employees out. Six, two departments closed. Totally. So

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Maddie Dilanno 2:40:38
that's why don't we deal with that built into extra meetings into that schedule? That's the best I can do.

Brad Reed 2:40:46
That's all the time we have.

Kevin Woods 2:40:48
I mean, if people are all sick, they are out sick. And there's no way to back them up. Yes, no. backup to the building. Inspector. There's no backup to the assessing office is no backup to the planning technician. Finance

James McLeod 2:41:06
getting to this week?

Maddie Dilanno 2:41:09
Yeah, I don't have an answer to that.

Kevin Woods 2:41:11
No, I don't either. I just want to make sure that people know that it's

Gretchen Gott 2:41:16
well, and we have no ability to change the state established dates. So, we have to make it work somehow. Well, and

Dee Luszcz 2:41:23
we prominent small towns not to have. We haven't

Brad Reed 2:41:27
even addressed what's happened before either where this building is not open because of snow. And we can't even hold the meeting. Exactly. And it's happened has happened before.

Dee Luszcz 2:41:47
Okay, votes in snow. Why can't you open the building? Just because it's snowing outside.

Brad Reed 2:41:54
Gretchen might can answer that. I just know that we've had this building has been closed when the school has been closed for the day. That's been the rule. What is the rule? And we don't have access.

DRAFT

Kevin Woods 2:42:02
Actually, there actually isn't that being a rule. I just there was a contract agreement between the town school district that I have a copy of that says that that is a call that's decision made between the superintendent and the town manager. Fine with the facilities director giving his input. But there is no rule that says I know I know. It's an urban legend.

Brad Reed 2:42:37
All I know is that in the past, when it snowed, we actually

Kevin Woods 2:42:40
have a written document that says

Gretchen Gott 2:42:41
Well, that's very nice, Kevin, but that's what the established precedent has.

Brad Reed 2:42:46
That's what's been happening. So

Gretchen Gott 2:42:49
it's a safety

Kevin Woods 2:42:50
statement that those rules give me

Gretchen Gott 2:42:53
finish quote, may finish, please know. Because rule because the city is a safety issue because of the hill and the plowing. And all of those things.

Brad Reed 2:43:16
Okay, well, thank you for the information. I had two things. One was to remind everybody about the site walk tomorrow night. And the time 3pm to 63 route 27 The Severino gravel pit 3pm. And then, just to let you know that last night, the 16th. Application 2022 -004 before the zoning board, the industrial drive building was approved to be four feet taller, they were given a variance, they got a variance it was granted, I just want to let you know that that happened. Now, there's 30 days to appeal it.

Gretchen Gott 2:44:10
And I'm not going to say anything.

DRAFT

Dee Luszcz 2:44:11
There's another there's the numbering issue so that in conceptual there was 00. Before us, there's 008.

Brad Reed 2:44:19
Well, here again, this is two different things. This is not this is not the application; this is just for the this is just for zoning. So, this application number has nothing to do with planning board application number.

Dee Luszcz 2:44:31
application number did come for just happens to be the same number as ours.

Brad Reed 2:44:36
Okay. I don't know if they normally carry it if they know,

Dee Luszcz 2:44:39
you know, as ZBA application numbers should be different than planning board. They just happened to match their planning.

Patricia Bridgeo 2:44:47
Confused, we didn't put just to put the zba

Brad Reed 2:44:52
want to let you know what the zba voted last night regarding one of the applications that may be before us and that's all

Gretchen Gott 2:45:03
interesting point. Oh, last question later, got something to ask later.

James McLeod 2:45:08
I got nothing, Brad. Jim, just a couple of quick things, if anybody that's watching, is interested in the report that I was referencing about pfas. It's called the periodic Summary Report. And if you put in former, if you just Google former Regis tannery periodic summary report, it should come up. But it's also on the NHDES one stop site. If you're, and just so everyone knows, I am still working on the growth management for the water. There's all kinds of information just need to be compiled. So, I'll get that for our December 8 meeting.

Patricia Bridgeo 2:45:53
Thank you. So, two things. First is and I won't do it tonight, we need somehow to either spend 15 minutes before we come in or are somehow cut the time off. But the packages coming in. At

the time, they're coming in, at the size, they're coming in the and I know we all volunteer this but it is hit a level of time to even make sure and they're short staffed and town hall and everything but the completeness and the size and the short windows, I want to find out I want to know what the date and applications complete supposed to be in versus when we can get it versus two days, three days before we get these packages that are just incredibly complex to look through,

Scott Campbell 2:46:51
you know, into throw on top of that, even though you sick this week, guess what 21 days ago was when we should have had it, so you weren't sick then when you sat down and got it going. And that's the thing. 21 days is 21 days.

Patricia Bridgeo 2:47:03
But there's a whole host of like the package being mixed up. And again, since you don't even have page numbers, you don't even application numbers, you sit there, and you spend some time looking at something and then all sudden you realize I'm not even on the right application that we have to go over that

Brad Reed 2:47:21
we need to do is we need to take the time to change our submittal requirements. So that the applicant catalogs this so that we can keep it together. And we get understand to the 21 day start when they submit it and then it goes to PRC. When does that actually start

Maddie Dilanno 2:47:39
its applicant filed the application 21 days before the date of the meeting they'd like, or they're supposed to be heard at.

Maddie Dilanno 2:47:49
Yeah, I know, it doesn't make a lot of sense. But it

Brad Reed 2:47:52
never works.

Maddie Dilanno 2:47:53
No, it doesn't mean applications come in, they get reviewed by town engineer, then they get changed, they get reviewed by trc. They go back and they resubmit, and they change things. So, from when an application is first submitted, it changes significantly before it comes here.

Patricia Bridgeo 2:48:08
Well that she needs to look into because other towns have it. Chester has one day a month they accept application. So, they you see on their calendar, when the person's application, they

have a queue. And if you're not on by that date, you don't make it on the queue, you go to the next one. But we have to figure it really that's how they do it. So, if we because this is, in the time short time event here, the schedule is getting smaller and smaller.

Brad Reed 2:48:31
And again, to change what's going on in the method will mean we've got to change our regs.

Patricia Bridgeo 2:48:38
Well, I don't it wasn't this way, a short time ago, but now it's changed.

Brad Reed 2:48:43
When things aren't busy. It's not such a big deal.

Patricia Bridgeo 2:48:48
I don't know, Brad, I don't I don't think so. I'm sad. Yeah, we've been very busy. So

Gretchen Gott 2:48:52
I have to get this plan on a Monday afternoon when I go to the town hall and ask for it because I didn't know it was here.

Brad Reed 2:48:59
Tonight, it was announced last Thursday that they were available. Because on Friday was a manual you have you know, Friday was a unique day was a holiday, but Thursday was available.

Patricia Bridgeo 2:49:12
And I need to send you a second thing. And I would like this I'm going to read something in from last week. We had two meetings where we discussed one was the letter that came from the Mitchell group, and then last week, but I would like to express in the record in the minutes. That my opinion of the letter that was read into the minutes on October 27. The implication or suggestion that the board was acting in a manner that was put putting the town at risk was slanderous. The exercise of protecting the town and citizens is one of our duties and I take it very seriously. The preamble 1.1 The purpose of the zoning ordinance is to promote the health, safety, economic and social wellbeing of the community. And it goes further on, and I won't read the whole thing. But I firmly believe, as I sit here, and I was elected, that that was what we were doing. We receive projects that are significantly impactful to the town. And the criteria that are in that are also significant in that preamble. We are working to uphold what is our duty to the voters of the town of Raymond. What we had needed from counsel was legal language to put forth warrants for 2023. We may have been asking tough questions. But we did not proceed in any manner, other than what was prescribed, the planning board deserved. I feel an apology

and a retraction of the statements that were untrue. The Planning Board needs on the record that it did not act or put forth any action as they were still at Council. I don't feel that opposition was adequately defended as what the board was doing. And just the amount of effort the board has been doing to try to get legislature ready and before the town. And we just had 15 minutes of discussion and already trying so hard, how tight the schedule is going to be.

James McLeod 2:51:31
Vote of confidence. I agree. Thank you.

Brad Reed 2:51:39
Any other comments this evening? Gretchen? We have about five minutes.

Gretchen Gott 2:51:44
Thank you. I'd like to have further information about the plans for the planner with the Board of Selectmen are going to do. I think that is we're now at the end of middle of November, we need to enter information. What's being where we stand on this, we are desperately I agree again and again. And Scott, I know I'm talking I'm preaching to the choir here. So, we need to have that Ernie needs to make a statement he needs to give us information. And I do not believe that we as a board asked Ernie to pick legal for us. I believe we asked for recommendations. And we have in the past done interviews. And that's what I expect to have happen again. And I'd like to have information on that.

Brad Reed 2:52:36
When I was at the town office today. I saw Ernie in passing. I asked him if he had gotten any responses, because he went out to legal in the area to see if anybody was in. And he said that they were here to gotten one response.

Gretchen Gott 2:52:52
How did he decide who to go to that? That's our job.

Brad Reed 2:52:57
I thought we asked him to do that as the other meeting closed.

James McLeod 2:53:00
We did. And he's going out to a range of people. Yeah, he's

Brad Reed 2:53:04
gone out to a range. He's he said, he rattled off like, and I'm not familiar with all these companies. I don't do that kind of thing. The way it was four or five different groups he got out to

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Scott Campbell 2:53:14
he has sent an email out to the board of selectmen. And it did have some, but you know, all around, we're looking at attorneys for both sides of the boards and everything.

Brad Reed 2:53:25
Yeah. And, and I did, and I didn't mention, too, that we wanted to interview the attorneys that were available. And as of this moment,

Scott Campbell 2:53:35
Brad, did he tell you that they have one person that works? Oddly, though, we might have been it filling? I don't know where I saw that. I thought it was on the I thought it was

Brad Reed 2:53:45
mentioned that hourly rate. And I was I was trying to figure out how we're going to get through everything tonight. I wasn't thinking much about email.

Scott Campbell 2:53:55
Email. I didn't think it was a Board of select. Yeah,

Maddie Dilanno 2:53:59
it was. There was something I wanted response. Wanted. For like, yeah, I forwarded that it was like a response from wine attorney. Like

Maddie Dilanno 2:54:10
there's just their hourly rate.

Brad Reed 2:54:13
And I told Gretchen prior to the meeting, which I forgot that some of the other notes that I did receive a response, I did not print it out. The fire chief got back to me about the capacity in this room. Some stuff had been changed around but the school put some other furniture back in. So, they did some research, the capacity is saved the same as it's supposed to be 55. That's correct. So, I did get a response on that finally, after they did the research, so

Gretchen Gott 2:54:39
so that could be a problem later on down the road.

Brad Reed 2:54:42
It could be so we'll have to watch that. If we go beyond that we may have to move to a larger facility. I don't know how we'll know ahead of time. Or ask if people if it's not too many can sit in

DRAFT

the hall where they can see I don't know. But we'll see. We'll have to we'll have to work out how many people can be in that room?

Kevin Woods 2:55:02
I don't know. Yeah. Okay.

Brad Reed 2:55:05
We may we may come up against that with some of these applications. I mean, there's just a lot of stuff going on. Just wanted everybody will be aware of it.

James McLeod 2:55:14
I was just going to say that I hope everybody townhall gets well soon. We appreciate the work that they do. They might have felt like some of them were thrown under the bus a little bit today, but I really do appreciate the work that they do.

Brad Reed 2:55:29
And I would if anybody's watching all you that take interest in what we do, we would love to have some alternates. And of course, I think in first week of January, you can sign up to run for next year there'll be some openings I would take a motion

Scott Campbell 2:55:48
at this point I'll make a motion that we close the meeting.

Brad Reed 2:55:51
Thank you. Okay, I have a second all those in favor.

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Site walk Severino Excavation 11-18-2022 3:00PM

Present

Ron Severino – applicant (RS)

Gretchen Gott- Planning board (GG)

Jim McLeod - Planning board (JM)

Scott Campbell – Selectmen Rep (SC)

Brad Reed – Planning board (BR)

Tina Thomas – public (TT)

Jan Kent – Conservation Committee (JK)

Patricia Bridgeo – Planning board (PB)

Mr. Severino brought a print of the site. He brought to show the location of the wells that were mentioned in a previous meeting. We ask that copies are given to staff to be given to the board to discuss at the planning board meeting. He highlights that well six is on Leisure village and well 5 is at Pine acres.

RS - Gives an overview, highlights that a little sand is available on right side of lot towards route 27 and a nearby house.

RS - We bring in materials and mix

Recycled asphalt approximately 2000 yards stored in center of yard, the asphalt is crushed

A screener stays onsite, and a crusher comes and goes

A shearer is on the excavator

GG – is hunting allowed? The site was graded recently.

RS – no hunting graded yesterday

JM – The bituminous material stays about a year? Is the ground level bedrock?

RS – no it is sand

JK – Are the wetland locations at back along the pines? The material in the center of the site looks concrete

RS – the concrete and rebar are bridge decking (Allenstown rt 28 and Manchester Hughes St), the materials are pulverized, mixed with other materials end result becomes road base. Stone dust millings stone dust can be used for road patch

JM – is there a reclamation plan, an example on site?

RS- some will be developed

Retention pond at back of site before wetlands and to the inside of silt fence on back of site

JM and RS – look at a flanged piece of material used for crushing concrete

JK – The stream runs to the Lamprey, correct, the pit is in line, the mixed pile of asphalt and soil, and findings is in front of silt fencing that needs to be addressed. The silt fence does not have enough erosion control and the 25-foot wetland setback is not met.

The stump grinding as natural erosion control needs improving, but the stumps are not viewed negatively. The area needs updating as a whole.

GG - is the site locked , the gate is open frequently, and hours of operation

3:45 meeting called by Brad Reed

Planning Board Draft Minutes
November 22, 2022
6:00 PM
Media Center Raymond High School

Planning Board Members Present:
Brad Reed (Chairman)
Patricia Bridgeo (Vice- Chairman)
Kevin Woods (Secretary)
Scott Campbell (Selectmen ex officio)
Jim McLeod
Gretchen Gott
Dee Luszcz

Planning Board Members Absent:
Staff Present:
None

Pledge of Allegiance.

Brad Reed 0:23
Good evening, everyone. I'd like to welcome you to the November 22 meeting of the planning board. Would you stand with me for the Pledge of Allegiance?

Brad Reed 0:45
Okay, before we go into the business, I would like to welcome Don Roy. Dan right. It's Dan. Dan. I apologize. I wrote it down wrong. I did it in a hurry, do you he has filed his paperwork with the town office. And I'd like to just make it added to the minutes that this is his first official meeting of the three required of his attendance to become an alternate and welcome. We appreciate you being here. Thank you. Let's just take one second introduce ourselves .

Dee Luszcz 1:25
Kevin Woods Planning Board.

Dee Luszcz 1:27
Dee Luszcz planning board

Brad Reed 1:28
Brad Reed Planning Board

Scott Campbell 1:29
Scott Campbell board of selectmen,

James McLeod 1:31
Jim McLeod, planning board,

Patricia Bridgeo 1:32
Patricia Bridgeo planning board.

Brad Reed 1:33
Okay. Our, our Rockingham County Planning RPC Planning Commission could not come to this meeting, Mary did contact me she saw the emails, but she's out of town. And she just wanted to remind us that when we because this is a meeting, not a hearing, not posted and sharing, we cannot discuss a reference any application during this. Okay, can't talk about any applications that the committee we're going to talk about forming can only be a committee. And I know we know this related to land use related to the how it affects our regulations and that stuff. You know, in other words, we don't have the authority to Yes, for planning purposes, we don't have the authority to form a committee to start something the board of selectmen should be doing. So, she just wanted to be sure we remember that as we're going in. And yes, so that we cannot direct this committee toward issues that should be forwarded to the Select Board. And thank you, Kevin, for forwarding the info and on subcommittees and how any subcommittee we form or have formed. They need any meetings, they have need to be posted properly posted, minutes need to be taken, all the other things are required of them just like us. So, all subcommittees must be noticed, and minutes posted. So that was that three members that what? No, that's just an example. Therefore, if the seven creates a three-member subcommittee, but it says above it, that it's a public body, when a public body creates a subcommittee of itself, it does not put any quantity there. So, I would say any subcommittee, if it's truly a subcommittee, in other words, more than one person, that we have to meet this. And so, what I would suggest I know, we've had a couple of small things going on outside. So, I've suggested to those committees, I'll say it everybody now publicly, put together your minutes, bring them with a record of the dates and approximate times best you can Know we did not know about this provision prior to this, bring them to our next meeting. We will enter them. We'll put them in the public record, and we will accept them as record of what you've done.

Brad Reed 3:49
So, we can close the loop on it.

Brad Reed 3:53
Yeah, just to close the loop on it. I mean, we'd take a vote on that if you want, but

Patricia Bridgeo 3:56
It seems like it's mandatory.

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Brad Reed 4:03
Make a motion? Yes.

Patricia Bridgeo 4:07
One moment, Gretchen has joined.

Brad Reed 4:08
Yes, she has. I'm sorry. We thank you for joining just went over the mechanics of what we can and can't do.

James McLeod 4:19
I make a motion to form a water planning committee to investigate all aspects of Raymond water resources as it relates to planning, which includes promoting the public health safety, convenience, and welfare of the residence. That's site plan regulation 1.02 purpose. The committee should be comprised of up to three planning board members and two members at large from the public appointed by the committee. The committee will follow all regulations and requirements dictated by law. The committee will report to the planning board at regular meetings and add its findings to the public record.

Dee Luszcz 4:54
Second.

Brad Reed 4:56
Okay, any discussion on the motion?

James McLeod 5:03
This is just a prepared statement so we can continue to discuss. Part of the planning board's responsibility is to make any investigations, maps and reports and recommendations which relate to the planning and development of the community. Additionally, to recommend capital improvements regarding structures programs, and to recommend their financing, and to recommend amendments to the zoning, ordinance, or map and to promote municipal planning within the community, and that's from our website and various other publications. The Planning Board cannot accept applications with sites that are impacted by contamination without environmental assessment, which is site plan regulation 5.06 Groundwater Protection 02. Additionally, tests or reporting will need to be funded by informed recommendation to the CIP and if anybody else wants to discuss things, if we're I can continue to read on what I think the committee should be focused on.

Dee Luszcz 6:06

DRAFT

I think that makes sense that we have a bigger overview.

James McLeod 6:09
So, the initial work of the committee will be the acute issue of contamination spreading from all portions of the former Rex tannery site is of paramount concern, and an effort to gather all available information required to assess the impact of the contamination on planning is the immediate priority. I have been in contact with the EPA and NHDES regarding this site, and it is clear that not all parties are aware of the current conditions. Mike McCluskey of NHDES has agreed to do a site walk with the current Brownfield project manager at a time of our choosing. So, I would coordinate that with them in our town administration as the first order of business. Second would be addressing the SSI or supplemental site investigation that was ordered by NHDES on 7/1/22. That was not replied to within the required 60-day notice. A third, third brief test presentation on the timeline and current status of this site should be made to the planning board in public. of secondary but vital concern is the status of our storage distribution treatment and water production infrastructure. And tertiary concerns include but are not limited to other possible contamination sources, groundwater withdrawal, treatment and recharge and conservation projects. Regarding the no net loss, wetland development, public input and questions are encouraged an inquires can be sent to staff and relayed to the committee for inclusion in the committee's report to the board.

James McLeod 7:50
Oh, there's some other information in here. So, the last test that we had in this is only for three of the wells that are being monitored that I'm talking about right now, because this is the most recent data coming in, came in for MW five MW six and gz 101. MV 6 went down about 20% and MV 5 went up about 90%. This is the concentration of PFASs. Which are the Forever chemicals and gz 101, which is the well that is closest to wetland be near the Lamprey is up nearly 300% from the last test a year or two ago. I also included this math correction. So, when I spoke at our last Planning Board meeting on this, I had miscalculated billions and trillions. And so, the numbers I had we're off by a factor of 1000. The reality is, yeah, it's I mean, they're off by 1000. So, it's, it's only one mistake, if you look at it that way. The numbers are still very concerning. Frankly, the numbers are astronomical, even by a factor of 1000. So, the concern is also expressed to me through my conversations with an NHDES and the EPA about PFAS. And they are very concerned, and they were very helpful up to this point.

Brad Reed 9:34
A lot of it going on. Any other comments? On the let's just start with the motion. Any comments related to the motions because so we can vote on the motion?

Gretchen Gott 9:50

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I don't know where to start. Okay. I appreciate the work that has been done and I appreciate the concern, I think our Town has minimized this for a considerable period of time. We were using it as a snow dump for all the town's snow and Emery and Garrett went out and test pits and found several years ago now, what you're speaking of that we had blown by some of the test pits and there were problems. So, the snow dumping stopped. I have not walked up back to see the lagoons and a long time. My concern is not the fact that we have this issue, although that's very significant. My concern is the process. I think we are somewhat misguided, and not including a larger number of people. And I understand some of the reasons why not. But I don't agree with it, that we have to make this work with a greater number of people. I don't believe this is just in the planning board purview should not be in is not perhaps even legally within the purview. There are issues bigger than just what this board should be handling. I think that we need to, yes, form a committee needs to include a number of people, people and I understand the distrust and all of the rest of it. That's happening right now. But we have to move past that and figure out a way to make it work. So that we do what we're supposed to, in the way that we're supposed to do it. I've been trying to think of because I don't like to make accusations and all of that kind of stuff without having suggestions.

Brad Reed 11:57
When you say a larger committee,

Gretchen Gott 11:59
including selectman, including CIP representative, perhaps I don't think it's enough just to have planning board and three or two or whatever I forgotten, members at large.

James McLeod 12:11
So, if I could address that, this committee is only for bringing this board the information and so that that information can be made public. I don't expect this to be the this is this is the first step. And in this process, and because, frankly, I'm pretty well read in on this now, much more so than it was at our last meeting. I don't think that all parties have all the information. And I agree that more people need to be involved in this. And the sooner that they are the better. But we need something immediately that we can be proactive and follow up on things and be agile with what's happening because it is it's time sensitive. And that's why I think that this is a good place for us to start. And then as that information is made public to the board, and this will come up but I I'll be nominating Scott to be on this committee as a as a selectman. And one of the people that we would like as a, what I'm thinking is, would be one of our state reps, and maybe somebody from cons comm. And the CIP will be represented through Scott as well. So, I agree with you that this is a much bigger problem than the planning board. But the planning board does need this information in order to do our work. And I think it'll be a good platform a springboard, if you will, for other entities to hopefully take over at some point and run with it.

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Brad Reed 14:03
Do you want to comment on his reply?

Gretchen Gott 14:05
I hear what Jim is saying. I disagree with the process. I believe that it's I disagree with the process. All I can say because there's nothing I understand right now. There's nothing that I will say it will change the minds of any of you.

Patricia Bridgeo 14:23
Well, the other thing is in here, it says NHDES. I think that is also involving another agency. I think that having DES involved with planning board I think would be great. I mean,

Gretchen Gott 14:42
I'm not discounting that, Trisha. I'm saying, you know,

Patricia Bridgeo 14:45
no, I wrote down what you said, and I agree that other people do. I'm saying that that is at least another outside agency, and I'm saying we need other agencies involved and that's at least NHDES is an outside agency. Other than that.

James McLeod 15:00
my concern is watching the board of selectmen meeting last night, and nobody seemed to know about the supplemental site investigation that had been requested back in July. And that's very concerning that people that should know this don't know it. And I'm not the only one that should know it. So that has to get out to the public in some form. And so that's why I've, I think that this is an appropriate venue for this. We do have the authority to form committees. And this is within our purview. So, I do believe it's legal. Brad, you know, contacted Maddie, and she gave her a guidance on this on how to keep us within those guardrails. And that's what we're going to follow. If we have a successful vote,

Brad Reed 15:53
I sorry, Kevin had his hand up first, before I speak.

Dee Luszcz 15:56
Well, I have to admit, when I first saw this on the agenda item, I was not in agreement with it. And I really felt this is something that what a selectman should be organizing. However, reading the discussion that Jim read, prior to the start of this meeting, I have to agree with him. It's my belief, at least one if not two of the prior boards of selectmen, were aware of this situation, as well as the town manager and a DPW, director. And no actions have been taken. And that's shown by the fact that there was a report requested or action taken back in June or July and

never got touched. So, I don't have a lot of confidence in those organizations, those people to make this happen. And I think the planning board has the ability to do that, given its responsibility statement that's there. It's going to be a reporting committee, it's not going to be an Action Committee, because it doesn't have the ability to spend money. But it has the ability to report. As far as increasing the number of people on a committee, I get tired of too many cooks spoil the broth. You know, we have six, eight people on a CIP committee, and we can't even squeeze in a meeting. We have six or seven people on Cemetery Advisory Committee. And we just, you know, too many people. And this is an investigation, this is a start of what's needed to protect the Raymond residence and investigate with what's going on with water in town. It's too easy for the town office to change hands, gone through how many DPW directors in the last period of time, town managers come and go, when that happens, any projects they were working on it, put it a file cabinet somewhere and never get brought back out. Again, planning board has the ability to continue this. As even as members change. Due to elections. Some of us might not be on this committee, some of us might not get reelected. But the planning board will continue to exist. I support it in the fashion that it's been proposed.

Dee Luszcz 18:43
Thank you. I'm just really going to echo a lot of what's already been said. I think Jim laid it out perfectly. For us. I think this is definitely in the wheelhouse of the planning board. Because without research and the information that we need to protect the residents, we can't make good planning decisions. And that's our number one oath is to the residents of this town and to protect our vital resources. And it's alarming that I went home after the last meeting myself and I started doing a lot of research. And it didn't take a lot to pull up on Google this tannery and other issues. Our neighbors Merrimack had it with Saint Gobain. So, it's a start I'm sure this will morph, and you know, things will happen within, but I think this is a great vehicle for that research to happen. Come back in a nice, compiled reporting tool to the rest of the board. And the town should hopefully pay attention to it as well.

Brad Reed 19:54
Thank you.

Scott Campbell 19:59
by I do have one comment. Okay. As far as what Kevin was saying, I just received an email back a week and a half ago. And it was basically a letter forwarded from DES to the town manager, saying that the previous town manager got the letter and never sent it out to the board of selectmen. So, we had no clue about it. And now it's in basically this letter is, it's the agreement in Brad, you probably around back then it was the original agreement that we have to maintain that we're not disturbing the property. And they want us to say, sign off on it saying no, the property is not being disturbed. So that just came to us. I haven't heard anything about it since I got it my email. So, it hasn't come back up. I don't know why. It's a question I'm going to

be asking. I just been kind of, with all this stuff going on. I wanted to see where everything was going before I make my, you know, my recommendations back and say, hey, you know, why aren't we talking about this? Because all of this just happened so quickly.

Brad Reed 21:03
Trish, Jim, you did you want to

James McLeod 21:06
actually, do that self-reporting form, and that that's required it at certain stages, and it's common for that to miss a deadline. The SSI request from July 1 Is really the, the trigger for this. And I just wanted to mention one thing and disregarding the board of selectmen, Town Manager, staff, and everybody. People have been sick, they've been overworked. You don't have enough people. And it's entirely reasonable for people to have dropped the ball on certain things. I don't think that there's anything nefarious here. This is just us trying to get everybody back on the same page, and everybody faced in the same direction.

Patricia Bridgeo 21:58
Well, and I just like to say, I can admit, I didn't even know what a Brownfield was. I didn't know and I had to. I actually spoke to the EPA, about our Brownfield, I knew we had them. I knew I found we had a lot of them. And I had called and spoke to them about what is a Brownfield? I found out there, what we had done to try to remediate and what they thought at the time and the cost savings of remediating Brownfields versus a superfund. And, to me, that was a pretty big eye opener. And again, this goes back to the town water and people in town who say, I'm on my own private, well, you need to understand you're not on your own private well, that water that lake underground, we're all drinking out of that lake. So, we all need to know. And if we don't start, and you don't have a solution of where and this is a start, there isn't it isn't going to start. And I think that we need to because we see it in the news every day you see some place. And I think that some places unfortunately waited a lot longer before any action was taken. And I think it would be better if we have action. Before we have to be on the news saying, you know, we had one in Merrimack St. Gobain. We have them we need to Pease Air Force.

Brad Reed 23:28
Anybody in the public want to make a comment? Come on, would you get well, you have to come up, tell us who you are. And use a microphone, please. We only have a few minutes left. So, we need to get through this. So, but I want to give everybody a chance.

Dan Roy 23:40
Um, Dan Roy, bring back a little bit of history. I was on the planning board in the 90s. And I remember this very well. I know that the pelts would were dug up and there was some stuff done I remember the EPA being involved in a lot of that discussions. I would suggest perhaps

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reaching out to some of the former selectman at the time like Jack Barnes, Mike Quintel and Dick Wood. They were on the planning board as, as selectmen's members, and they were well aware of it as selectman, but I believe there was remediation, and I thought there was discussion about establishing a super fund, but you know, I wasn't directly involved in any of that stuff. I think maybe reaching out to those folks to complete your historical context here would be a good thing.

Brad Reed 24:40
Thank you very much

Kathy McDonald 24:51
Kathy MacDonald, and as you know, for a long time I've been very concerned about water issues in the town of Raymond and If you're looking for volunteer from the public or from cons comm I will be willing to either or both.

Brad Reed 25:08
Thank you. Thanks, Kathy. Question. Yes,

Dee Luszcz 25:12
Jim. Do we know the ramifications of missing the September 1 deadline for this SSI?

James McLeod 25:20
They seem concerned that it hadn't been replied to, but I don't think that there's any legal ramification for the Town at this time. I've been holding off on getting back to them because I wanted to do it with the authority of the board instead of as an individual.

Brad Reed 25:35
Then I'm going to call for the question. All those informed and we have a motion on the floor with a second. All those in favor of forming a committee to the paragraph Jim left, read to us previously, you have a copy of it if you want to review it for a moment. All those in favor of forming this committee by the usual sign. All right. Kevin, I Dee I, Brad I, Scott I, Jim I, and Trisha I. All those opposed. Gretchen Nay

Gretchen Gott 26:12
I'm not opposed to the to the idea that we desperately need this I'm opposed to the process and

Brad Reed 26:20
I agree with you Gretchen I wish this had happened in a different manner. Okay, that's all I'm going to say to that. Okay, wish this had happened differently because it should have now, we

need to be done in time for the CIP to have their very valuable meeting. Is there anything else we need to do because we've only got a few minutes

James McLeod 26:42
I would like to nominate selectman Campbell to the committee.

Brad Reed 26:47
Hey, we have a nomination for selectman Campbell. Do we want to make a list of people for this committee? And try to do it all at once? Do we think we could do that?

James McLeod 26:54
Try it. Let's see if we can do it.

Dee Luszcz 26:57
I volunteer to be a member.

Brad Reed 26:59
Okay so we have we keep this sorry. selectman Campbell, Dee. As a planning board member. Do we have another volunteer from Planning Board? On volunteers? Yes. Okay. All right. We got Jim who has done a lot of work. They have another volunteer from Planning Board and we're asking for three.

Patricia Bridgeo 27:20
Can you have three or two? How many? That's three.

Brad Reed 27:23
That's three. Okay. No, you saw Oh, yeah, yes. Right. Do you volunteer? I just might we can have more than that for nominations if we want to vote around. But if we want to do it all at once is three volunteers. Now the way you want to vote on those, let's do those votes. Yes. That's how I agree. So, we have three volunteers or nominee nominations. Do I have a second? All three names, Kevin, thank you sir. Okay. Then for the slate of Scott Campbell, Dee Luszcz. And Jim, for the water planning committee. Sorry. Thank you. Sorry. All those in favor?

Brad Reed 28:13
Go back to everything I talked about at the beginning. This is strictly for planning regulations. All right. So, the three nominations are Scott, Jim, and Dee. All those in favor. We had a second. That part is unanimous. Thank you. Okay. Do we have volunteers? We have had one person already step-up Kathy McDonald's, and she could represent both public at large and the cons comm.

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James McLeod 29:11
Kathy would come up to the table, please.

Scott Campbell 29:18
Would you like a motion on that?

Brad Reed 29:20
Yes.

Dee Luszcz 29:21
I make a motion to appoint Kathy McDonald to as a citizen at large resident at large to the water planning committee.

Dee Luszcz 29:30
Second.

Brad Reed 29:31
Any questions of Kathy? Okay, all those in favor. Vote is unanimous. Thank you, Kathy, for your willingness. Thank you. If you are a member of the town and you're watching and you are interested in this committee, it is the water planning committee to investigate all aspects of Raymond water. I think that covers Okay, that's what it says. That's what the motion was. So, I think we're okay. Sir.

Dee Luszcz 30:04
Is it ethical to nominate somebody who isn't here?

Brad Reed 30:08
Well, that's up to you guys. I'm going to leave that up to

Dee Luszcz 30:11
most he could do is most they could do is decline it after the fact

James McLeod 30:18
do take up nominations at our first meeting.

Brad Reed 30:21
Okay. And I'm fine with that. Is everybody okay with that? Are we okay with the planning committee? Taking care of the other member at large? Yes, everybody. Okay with that? Yes. I trust the three members and Kathy to take care of the fifth member. Understanding that you

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need to post your meetings. We need to have minutes they do not have to be televised or anything, but we need them minutes.

James McLeod 30:53
I just want to thank you for calling this meeting so that we can get this done. The staff that was able to get this posted in and to the people that showed up and this board, it was a lot to do and 24 hours, it was important work. And I thank you very much.

Patricia Bridgeo 31:23
I make a motion to adjourn.

Dee Luszcz 31:25
Second.

Brad Reed 31:27
All those in favor to adjourn. All right. Thank you, Kevin. very much everybody for being able to make the meeting tonight.

Transcribed by https://otter.ai

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Raymond Planning Board Minutes
December 1, 2022
7:00 PM
Media Center Raymond High School

Planning Board Members Present:
Brad Reed (Chairman)
Patricia Bridgeo (Vice- Chairman)
Kevin Woods (Secretary)
Scott Campbell (Selectmen ex officio)
Jim McLeod
Gretchen Gott
Dee Luszcz

Planning Board Members Absent:
None

Staff Present:
Madeleine Dilonno - Circuit Rider Planner, RPC

Pledge of Allegiance.

Mr. Reed 0:28
Good evening, everyone. I'd like to welcome you to the December 1 meeting of the Raymond Planning Board; would you stand with me and join us in the Pledge of Allegiance?

Mr. Reed 0:51
Thank you before we get to our first application, we received, and I wanted to know is Dan here tonight. Dan is here tonight for a second. Second meeting right. Since you put in your application. The Planning Board received an application for an alternate this past week. And I would like to let you folks know, we still have room for more people. If you're interested in joining us in this process. We received an application on November 29 from Robert McDonald. And I saw Mr. McDonald in the back, would you come forward to the table for a couple of minutes sir.

Would you just tell us your name and your address?

Unknown Speaker 1:43
Robert McDonald, One Park Place.

Mr. Reed 1:46

DRAFT

And you filed an application with the town requesting to join us as a planning board alternate. That is correct. That's correct. Do you folks have any questions you'd like to ask him? We want to keep this brief. We have a busy night, but we want to get this on the record. Yes.

Ms. Bridgeo 2:02
Motion:
Ms. Bridgeo made a motion to waive the three-meeting rule. Bob's been here for the past year. He's attended more than three meetings. He's made comments at three meetings. I say we waive the three-meeting minimum. Mr. Campbell seconded the motion.

Ms. Gott 2:18
I'd like to ask a question first,

Mr. Reed 2:19
though. Yep, that's fine.

Ms. Gott
Okay, why?

Bob McDonald 2:23
I've changed my schedule, that I will be able to attend meetings. I have part of a railroad association that meets on Thursday nights. So, I've asked them to move their meeting. And then when we do that, I'll be able to go to all the meetings.

Mr. Reed 2:45
Thank you. Anybody else have a question? Jim.

James McLeod 2:50
As Tricia noted, you've been to many meetings, and you've commented at some of them, and comments that if you were a board member, they wouldn't be appropriate. They were appropriate. As a citizen. I just want to make sure that you feel like you can adjudicate applications and stuff. impartial. Just like you. Thank you.

Mr. Reed 3:22
Any other questions of the applicant. Okay, any other questions about the motion? The motion has been made and seconded to waive the three-meeting requirement after the receipt of an application. So, Mr. McDonald has been at many, many meetings over the past few years. Any other comments on that? All those in favor of waiving the requirement? All members voted in the affirmative. The vote is unanimous, sir, you will need to be sworn in before you can actually

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Ms. Gott 4:01
Motion:
Ms. Gott made a motion that we appoint Mr. McDonald as an alternate to the Raymond Planning Board for a term of three years. Ms. Bridgeo seconded the motion.

Mr. Reed 4:08
Okay, so we have motion second. A board discussion? All those in favor. All members voted in the affirmative. The vote is unanimous.

Thank you. All right, before we go to our first application like to have everybody else introduce themselves.

Maddie DiIonno 4:30
Maddie DiIonno, Rockingham Planning Commission.

Kevin Woods 4:33
Kevin Woods, Planning Board.

Dee Luszcz, Planning board

Mr. Reed 4:36
Brad Reed, Planning Board

Scott Campbell 4:37
Scott Campbell Board of selectmen,

Jim McLeod Planning Board

Ms. Bridgeo 4:41
Tricia Bridgeo, Planning Board.

Ms. Gott 4:42
Gretchen Gott, Planning Board.

Mr. Reed 4:47
Okay, that's all right. Our first application?

Ms. Bridgeo 4:52

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Yes, before we actually begin, I don't know if this is a point of order. Kevin can probably help me out on this the Order of which our schedule is set up. The zoning amendments are now last. They were actually the first on our agenda.

Motion:
Ms. Bridgeo requested a motion that we do the amendments for the warrant for the public. First, we have public, and then we proceed on to the applications.

Mr. Reed 5:19
Okay, so you want to reorder our meeting tonight and begin with the zoning amendments.

Ms. Bridgeo 5:26
First on the schedule for tonight's public hearing.

James McLeod 5:33
I'll second for discussion.

Mrs. Luszcz 5:35
Okay, I was concerned that we wouldn't get to our public hearing on these amendments.

Mr. Reed 5:42
Is there a problem with continuing these the next week? The zoning amendments? Yes. Oh,

Maddie DiIonno 5:50
no, I thought you meant take care of them right now.

Mr. Reed 5:53
Is there a problem? We're continuing on with the next week. Alright, so what any other discussion about it? There's no problem with continuing them. We have a busy schedule tonight. I don't want to spend an hour just talking about it.

Ms. Bridgeo 6:08
Neither do I. But I think procedurally we put these on our schedule. first public hearing, we posted them for public hearing. We have public that warrants for the people we

Mr. Reed 6:18
went through, they posted as first because they're not on our agenda first,

Ms. Bridgeo 6:21

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because we had our meeting. We posted them. We made a motion to put them on. And then we added all the applications. I think we could go through these and move on to the applications which I don't think we will get to our warrants tonight. Next week. We have more warrants we were supposed to be discussing. We started our warrants early this year in trying to avoid getting into a situation where they're last.

Mr. Reed 6:42
Okay.

James McLeod 6:43
These really are the simplest warrants that we have.

Mr. Reed 6:48
I agree. I agree with that.

Maddie DiIonno 6:51
Yeah, you can take care of them. Now. I will say I do have a comment for the sprinkler ordinance.

James McLeod 6:55
Thank you I heard that was coming. Okay.

Mr. Reed 6:58
All right. So, any other comments about just starting with the zoning amendments? If not, all those in favor? We have a motion and second. All members voted in the affirmative. The motion passed with a vote of 7 in favor, 0 opposed and 0 abstentions.

All right, then we will begin with amendment number one to amend article 8.3.3 of the Raymond Zoning Ordinance to clarify that sprinkler systems will be required for all new commercial and industrial construction of any type to include multifamily residential dwellings of three or more units and all buildings with age restricted. assisted living or workforce housing units shall be fully sprinkler protected to NFPA installation standards in effect at the time of approval. Further, any new additions, renovations or uses needing the approval of the planning board are exceeding 50% improvement as determined by the building inspector shall require the full structure to be brought into compliance as a condition of approval or upon issuance of permits And Maddie, have you had a comment on that?

Maddie DiIonno 7:54
Yeah, they're passing around.

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Mr. Reed 8:03
Okay, this is from The Raymond Fire Department. The current article, the current section of Article 8.3.3 of the Raymond Zoning Ordinance reads as allowed by RSA 674:52-1 pursuant to RSA 674:51. And that all commercial will include multifamily housing and industrial uses, newly constructed and this is what our language currently says, shall be fully sprinkler protected and compliance with NFPA 13. The standard for installation of sprinkler systems design criteria to amend article 8. 3.3 of the Raymond Zoning ordinance to read as allowed by RSA 674:52-1 pursuant to RSA 674: 51 sprinkler system shall be installed for all new commercial and industrial construction of any type to include multifamily residential dwellings of three or more units and all buildings with age restricted assisted living or workforce housing units. Further any new additions, renovations or uses needing the approval of the planning board or exceeding 50% improvement, as determined by the building inspector shall require the complete structure to be brought into compliance of this section as a condition of approval, or upon issuance of permits. Sprinkler plans shall be submitted to and approved by the Raymond Fire Department fire inspectors. Structures requiring the installation of a sprinkler system shall also have a fire alarm system installed as defined and accepted by the Raymond Fire Department inspectors. Further a fire alarm system designed plan shall be submitted to and approved by the Raymond Fire Department fire inspectors, sprinkler systems and fire alarm systems required under this section shall meet the requirements of the current edition of the state of New Hampshire applicable codes including NFPA 70 NFPA 72 and dependent on the occupancy classification NFPA A , NFPA 13 D, or NFPA 13 R.

James McLeod 10:06
So, I'm in agreement with all of the new wording. And here, I do need to remove some of the wording that I had put in there originally on advice from the former fire chief, and state rep. Kevin Pratt. So, from where it says three or more units. From that point, the sentence would end, and we would strike and all buildings with age restricted assisted living or workforce housing units. The idea is that by limiting that might cause problems. So, it's actually covered in the after it says dwellings of three or more units, then it would be a period and the rest of that sentence would be struck. And then, outside of that, I like the new wording very much.

Kevin Woods 11:00
And all buildings with age restrictions will remain.

James McLeod 11:04
No, and all buildings with age restricted assisted living or workforce housing units will be struck.

Mr. Reed 11:12
So, you're saying under what the fire department has recommended, you're talking about on their recommendation, not on the original one you add?

James McLeod 11:19
That's correct. I their wording here incorporates my wordings. And part of my wording needs to come out so that we don't it doesn't cause problems for us.

Mrs. Luszcz 11:32
I'm just confused, because the new wording includes that wording.

Mr. Reed 11:38
Because Jim provided just different

James McLeod 11:41
. Yes. So, we're not I had written this, I had that in there. I've since been advised that that is not a good idea. And so, it needs to come out. Their wording adds a lot of other stuff, but they use my wording. So, part of my wording needs to come out.

Mr. Reed 11:58
So, in the new recommendation by the fire department under where it says to amend article 8.3 on the third line. Correct. You're going to put a period after units and strike the restaurant and all buildings with age restricted assisted living or workforce housing units, you're going to strike that out?

Mrs. Luszcz 12:16
Yes. Okay. Ask why that was recommended to be removed,

James McLeod 12:21
Because by limiting it by putting limitations in there that we might have problems with enforcing it outside of those limitations. So, by being less specific, it's actually better for the ordinance. Those three units would need to be sprinkler protected anyway if they were over three years.

Kevin Woods 12:50
Those words were in the zoning amendment that was posted.

James McLeod 12:55
If they were Yes.

Ms. Gott 12:59
We can vote to remove those.

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James McLeod 13:00
Exactly. That's why I'm bringing it up as soon as I can. So that we can, we can

Kevin Woods 13:07
ask the question, I'm not sure if this is from Maddie or not. We had to post this as a public hearing but what we are entertaining is not what we posted.

Mr. Reed 13:21
Correct, would have to vote to change that. And it has to have comment available to the public,

Maddie DiIonno 13:28
We would do this since it's substantially changing, we would be required to have an additional public hearing on those formatted in the way that the board wants it.

Kevin Woods 13:38
So, if we change it to what the fire department is recommending minus what Jim is asked to cross out, then you're going to have to have another public hearing after that.

Maddie DiIonno
Yes.

Mr. Reed 13:50
Okay. We understand.

James McLeod 13:51
Yeah, it's unfortunate this came in today, because we would have been nice to get this one done, but

Mr. Reed 13:57
I received it late this afternoon. Okay. So, any other comments on the change.

Ms. Gott 14:04
It has to be three, he can't be anything less than three. And I remember years ago going to Concord about this. So okay, we wish it was less than three, but it can't be that sort of thought.

Mrs. Luszcz 14:17
And my only comment would be just if we received something like this, that townhall could be dated, please.

Maddie DiIonno 14:24

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Oh, yeah, it'll be reformatted.

Mrs. Luszcz 14:26
But just there was no date on this to start with just us just to remind the departments to date their documents for us or filing purposes. Thank you.

Ms. Gott 14:36
So, when anybody submit something to us as a planning board that they should be

Mrs. Luszcz 14:39
which we're looking at?

Kevin Woods 14:43
Jim, just question your strike out. If somebody has to build a residential dwelling of two assisted living units, then they would not be covered. They would not be required to be sprinklered. Is that correct?

James McLeod 14:58
Yes, three or more or units. And I'm noticing something else and what they have written here. They have gone back and put the as allowed. And those are we struck those for a reason. One of those is just the authority and then the other one is doesn't exist anymore.

Ms. Bridgeo 15:23
So that the reference to the RSA is Jim, where is that place as allowed by RSA 674:52.

Mrs. Luszcz 15:30
okay. When you're ready to give us a revision of that first line, Jim,

Mr. Reed 15:44
And the thought there was that would keep it compliant with the state.

Ms. Bridgeo 15:49
It was out of date. All right, yeah.

James McLeod 15:50
No, the problem is wrong. We could leave one of them in, we need to strike the one that doesn't exist anymore. But the wording is fine. It's just that. Okay, so as allowed by I'm not sure which one it is without looking it up on the internet.

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Kevin Woods 16:09
Is there any way to put it? I don't know if there is any way to put it in something that indicates a current RSA.

James McLeod 16:19
Well, I taken them completely out of mine.

Kevin Woods 16:22
Yeah, I noticed that. You did that. Because

James McLeod 16:29
The way to do this to amend article 8. 3.3 of the Raymond Zoning Ordinance to clarify,

Mr. Reed 16:37
RSA 674:52 exists, but 52-1 does not. If it were a 52- a, 52-a1 part one credits authority.

Kevin Woods 16:57
He's also putting NFPA 13 back in again, which I think you had gotten rid of.

Mr. Reed 17:03
674:51 establishes code enforcement procedures.

Ms. Gott 17:24
Since we're going to have to have a public hearing, again on this. Can we ask for clarification on some of these points from Chief Hammond?

James McLeod 17:36
Yeah, we don't need to get the wording correct tonight.

Maddie DiIonno 17:44
Read the wording that you'd like to be noticed,

Mr. Reed 17:46
because we've got to notice it. So.

James McLeod 17:50
Okay, so then they got it. So, it would read to amend article 8.3.3 of the Raymond Zoning Ordinance to clarify that sprinkler system shall be installed. So, we're going to take out as allowed by RSA 674, pursuant to RSA 674.

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Mr. Reed 18:30
Just the whole article 674. You're going to do the whole thing.

James McLeod 18:34
Yeah, that's because it could change again, and then we'll amend article 8. 3.3 of the Raymond Zoning Ordinance to clarify that sprinkler systems shall be installed for all newcomers commercial industrial construction of any type to include multifamily residential dwellings of three or more units further any new and then all of this wording remains the same until the last the second to the last line where it says state of New Hampshire applicable codes including let's add but not limited to, and then we can leave all the references that they have in there

Mr. Reed 19:35
you're going to delete the as allowed by RSA 674: 52 pursuant to RSA 674:51. I'm going to just delete that

James McLeod 19:43
yeah, I need it exists if that comes up

Mr. Reed 19:55
add the including but not limited to on the next to the last line. Will you read what the entire content would be sir Sure, give you that.

James McLeod 20:09
Motion:
Mr. McLeod made a motion to amend article 8. 3.3 of the Raymond Zoning Ordinance to clarify that sprinkler systems shall be installed for all new commercial and industrial construction of any type to include multifamily residential dwellings of three or more units. Further, any new additions, renovations or uses needing the approval of the planning board or exceeding 50% improvement as determined by the building inspector shall require the complete structure to be brought into compliance of this section as a condition of approval or upon issuance of permit. Sprinkler plans shall be submitted to and approved by the Raymond Fire Department fire inspectors. Structures requiring the installation of a sprinkler system shall also have a fire alarm system installed as defined and accepted by the Raymond Fire Department fire inspectors. Further a fire alarm system designed plan shall be submitted to and approved by the Raymond Fire Department fire inspectors, sprinkler systems and fire alarm systems required under this section shall meet the requirements of the current edition of the state of New Hampshire applicable codes including but not limited to NFPA 70, NFPA 72 and dependent on the

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occupancy classification NFPA 13, NFPA 13 D or NFPA 13 R. Ms. Bridgeo seconded the motion.

Mr. Reed 21:37
Okay, I have a motion to change the wording for that for our submission is going to require re noticing. Second. That was your motion or motion? That was a second. Okay. Any other discussion about this before we get public input? Okay. You want to get public input before we voted you want to vote on it the way we've worded it?

Ms. Bridgeo 22:04
Let's get in case they make changes public first.

Mr. Reed 22:06
Okay. Does anybody in the public want to speak on this? Zoning amendment? Only at this time? We've got a lot of stuff coming up. I'm sorry, would you come up to the seat? Introduce yourself. Tell us your address.

Daniel Roy 22:26
Daniel Roy 1 Manor view Drive in Raymond.

Mr. Reed 22:30
Please try to speak up loudly so everybody can hear.

Daniel Roy 22:33
Daniel Roy one Manor view Dr., Raymond. Thank you, sir. I had two questions. One, are we creating a new liability for the town? By not requiring the Safety Standards of Elderly assisted housing? And two Is there a reason why the retraction of the wording for elderly housing was made is it due to grantsmanship. That's possible for elderly housing. I really think that the town council should have a look at this after all of you have another opportunity to look at this.

Mr. Reed 23:21
You mentioned it briefly.

James McLeod 23:23
Sure. So elderly housing is included. It was advised to me that by listing it separately, along with assisted living and workforce housing, that an argument could be made that it was limited to those items and not everything, but they're still encompassed in the rules. So, any elderly housing that has three or more units will still have to comply with this. So, they'll still be sprinkling

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Mrs. Luszcz 23:55
It is under their definition.

Mr. Reed 24:06
Anybody else have a question regarding this particular ordinance?

Mrs. Luszcz 24:13
Well, to answer the second part, all warrant articles go to the Select Board anyway. Right, Scott? Yep. So, they, the Select Board will review these warrant articles.

Ms. Gott 24:27
The Select Board does not change them, though. Those come from us.

Scott Campbell 24:38
Yeah, we do look at those. But we don't make changes

Ms. Gott 24:42
Because you don't have any authority over them. That's this board. Yes.

Mrs. Luszcz 24:47
Right. He just wanted to know if they would look at them. Right. One would assume

Mr. Reed 25:03
Anybody else have any comments or questions about this? amendment proposed amendment? Okay, then we have a motion in a second as modified from the fire department, we'll leave it at that.

Mr. Reed 25:21
How's that? And we have that Maddie, you got those changes? Okay, any other comments before we go? All right. All those in favor? by roll call

Kevin Woods- Aye
Dee Luszcz - Aye
Brad Reed - Aye
Scott Campbell - Aye
Jim McLeod - Aye
Trisha Bridgeo - Aye
Gretchen Gott- Aye

The motion passed with a vote of 7 in favor, 0 opposed, and 0 abstentions.

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Thank you. All right, second amendment amend article 15. 3.2 of the Raymond zoning ordinance to require that all lots containing Zone G land shall comply with the frontage and setback requirements of the underlying zone, as set forth in Section 15.1 and shall have minimum wetland setbacks of 75 feet, except a minimum wetland setback of 25 feet shall apply to lots that contained an approved structure with a drinking well on municipal water hookup and on an approved working septic system on record at date of adoption on record as of March 14 2023.

Ms. Bridgeo 26:25
So, there were some errors in translation of how this got sent over and sent back. There's a couple grammar errors. Would you like me to read how it was posted? This is I am not sure?

James McLeod 26:44
Yeah. It's posted as you read it

Mr. Reed 26:47
As I read it. Okay. Yeah. All right. So go ahead and tell us what it should say.

Ms. Bridgeo 26:51
It should say from what we got back from the legal was accepted minimum wetland setback of 25 feet shall apply to lots that contain not contained, contained, and approved structure with a drinking Well, or municipal water hookup. And an approved working septic system on record at date of and we had said date of adoption, we could say date of submission, which would be the same terminology. So, it's either date of adoption or submission, and then it should be contained. And it should say or not on that

Mr. Reed 27:29
It was a typo. Okay, so Maddie, where this was posted with two grammatical errors. Does that disqualify it from being heard tonight?

Maddie DiIonno 27:39
I don't think so. Anything substantive? Yeah. I think if the board clearly articulates what the language is supposed to be, Okay, move it to the warrant article, as amended with the grammatical fixes.

Mr. Reed 27:52
Okay. All right. Gretchen, the thing that

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Ms. Gott 27:55
might be substantive is changing the word adoption or submission. And I think it should remain adoption because it's adopted at Town election. So, no matter when it's submitted, this became our zoning ordinance as of that date. So that's the date of adoption. Yep.

Mr. Reed 28:21
Any other comments? I'm sorry.

Kevin Woods 28:24
I mean, I'm concerned that when I first read this, I also read it with a drinking well on municipal water hookup. And it said to me that you needed to be on municipal water hookup, I'm concerned that the word or changes the whole meaning or that statement.

James McLeod 28:48
It's meant to be protective of the residents that have preexisting. So, this widens that protection by saying on, you know, who has municipal water hookup and drinking water on that property? That's a few bro. Yeah, maybe a few. But this is supposed to encompass as many people as we can get. And in that has always been the intent of that

Ms. Gott 29:21
I think actually looking at it again, Kevin may have a point here that is maybe substantive. It's not a big deal to change it. We're changing it here and you move into public hearing. So, I don't think that's a problem to make or, and then just move it on and do what we're doing with other changes. I think we'd be safer to do it that way.

Mr. Reed 29:40
That's fine. Any other comments on this? Okay,

Mr. Reed 29:48
Anybody from the public like to comment on this, come on. Please come to the table. Introduce yourself your address and speak loudly so everyone can hear you

Kathy McDonald 29:59
Kathy McDonald, One Park Place, I am in support of this amendment being altered. And we were at Cons Com last night, we discussed it. And we had something similar on the books a couple of years ago to increase the buffers. And the reason that we, most people commented that it didn't pass was because, oh, now you're going to tell me what I can do in my buffer. But this eliminates that because you'll have, you'll be grandfathered in. And we know how important

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buffers are. We know how important it is to our water. And we all want our water to be wonderful and not contaminated. And we think that this increase in the buffers will help us in that event. So, I mean, sort of under this.

Mr. Reed 30:52
Anybody else like to comment on the zone G. proposed amendment.

Mr. McCoy 31:04
Paul McCoy, Long Hill Road, I'm just, you know, the state law is 25 feet from wetlands. And now you want to move it to 75 feet. Two years ago, you tried to do 100 feet. Now, basically, what you're doing is confiscating land. Without just compensation. The difference between the 25 feet and 75 feet, makes a big difference when you're trying to build on a property here in Raymond, New Hampshire. In particular, the zoning board has many times we have to come in for variances for setbacks, and so forth. Because when they built these houses, originally, a lot of these houses were built as small capes, starter homes, and they put the house right where they possibly could do it. And we got a septic on one side, we've got this here, somebody wants to put a garage. It's a big difference when you're talking 50/25 feet to 75 feet, the state says 25 feet is fine. And can you tell me if there's any, any place that you can tell me where there's been a problem with 25 feet?

Ms. Bridgeo 32:15
First, I think that there needs to be some clarification where the state isn't just 25 feet, each one of our surrounding towns actually has a buffer zone, and we have one of the least buffers of any of our neighboring towns, sir, do have significantly larger buffers.

Mr. McCoy 32:36
And you got 100 feet in Fremont.

Ms. Bridgeo 32:39
You got to finish the question, sir, I would like to answer your question. So, the question is, the buffer increase is because those wetlands are filters, they act as natural cleaners for our water. So, when the state goes through an update of regulations and looks at them, and across our country, were looking at buffers, what do they do? They help us so that we don't have to put in artificial water treatment plants to help clean the water. So, the buffers are there to protect the water. And nobody sitting here was trying to take away land, what would you be able to build on land that is wet? Nobody, nobody. And matter of fact, I think we were also trying to address that here. We're saying that nobody was trying to confiscate anybody's land. We heard, and I wasn't on the board. But we heard when people said, well, what if I wanted to put up a swing set? What if I wanted to put up a shed? We heard that. And we heard that people want to go out in their backyards. But we also said that some of the people said, what about land that is now

taking away the water quality of their neighbors? And that's also a consideration. It's not just black and white.

Mr. McCoy 33:50
That's what I'm asking right now is even though they might have bigger buffers, has anyone said that 25 feet is any worse than 100 feet?

Mr. McCoy 34:01
If you put fuel build within 25 feet of a wetland. Okay, if you build 100 feet of that wetland, okay, that can destroy a piece of land. For example, I have a piece of land in Lee that has a 125-foot buffer. They had a little brook in the front, and they had a brook they had a wetland in the back 17 acres of open fields that they could they built out they could only build on a 20-foot little strip. And do you think that made the difference? They get horses that run around in the wetlands though, but that's beside the point. There's no scientific proof that you go from 25 feet to 75 feet that you're going to protect that water any more than it is now.

Ms. Bridgeo 34:45
I don't have the time to sit and does anyone have any?

Mr. McCoy 34:51
I will bet No, you haven't. Yes, but why does the state of New Hampshire say still 25 feet? It's not a problem.

Mr. Reed 34:58
Thank you, Mr. McCoy. Would anybody else like to comment on this?

Dennis Garnham 35:13
Dennis Garnham, of Main Street. And yes, there is tons of scientific data to show that an increased buffer increases the water quality as well as decreases pollutants and other harmful things that can go in the water. So absolutely everybody wants that data, I can get it very quickly. Number two, the state says 25 feet offer, the state recommends way more than that. There's a difference between what the state minimizes, and the state says this is recommended. The State really wants the town to decide for themselves. That's why they say 25 feet to give some towns in there are some water areas that 25 feet may be fine. That usually low-quality areas that aren't drinking watertight areas. A town like Raymond, we don't have that. We need to protect as much of the water as we can. So, some misinformation isn't helpful for this. But again, I'd be happy to show people data. I got plenty. I recommend this is long overdue. Thank you. Thank you. Thank you.

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Mr. Reed 36:53
Sir, please.

Michael Bowser 37:01
Michael Bowser on 100 Main Street. The only thing I would add is that I recommend you guys get yourself hydrologist and find out what hydrologist says about this. Thank you.

Mr. Reed 37:14
Thank you. Anyone else?

Mrs. Luszcz 37:28
Can I just add a comment? Absolutely. I think the town has been very fair to properties that are very awkward in shape or have limitations. Residents can apply for property owners and can apply for variances if need be. So, there is an outlet. So, if you're you know that's 75 and you need just be maybe it's 60 or whatever. We do have a zoning board of adjustment to which you can apply.

Mr. Reed 38:04
Anyone else? And Trisha would you like to read your proposed amendment ma'am? As a motion?

Ms. Bridgeo 38:11
Motion:
Ms. Bridgeo made a motion to amend article 15.3.2 A Raymond Zoning Ordinance that requires that all lots containing zone G land shall comply with the frontage and setback requirements of the underlying zone as set forth in Section 15.1. And shall have minimum wetland setbacks of 75 feet except a minimum wetland setback of 25 feet shall apply to lots that contain an approved structure with a drinking well, a minimum or municipal water hookup and then approved working septic system on record at date of adoption. Mr. McLeod seconded the motion.

Mr. Reed 38:55
okay. Any other comments before we vote?

Ms. Gott 39:00
Just you're striking the second on record. It's on record at date of adoption as of

James McLeod 39:06
the rest of the strike. Yes. Are you striking

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Ms. Bridgeo 39:11
on record a date of adoption date of adoption period.

Mr. Reed 39:15
Okay. So, the things that were changed is drinking Well, or municipal water hookup lots that contain an approved structure. And then on record at date of adoption, those were the changes we struck on record as of March 4, we took the date out. Okay, so it's on date of adoption because that's when yeah. Okay. Any other comments? All right, then we'll pick a roll call vote.

Gretchen Gott - Yes
Trish Bridgeo - Yes
Jim Mcleod - Yes
Scott Campbell - Yes
Brad Reed- Yes
Dee Luszcz- Yes
Kevin Woods- Yes

Okay, so that is unanimous. The motion passed with a vote of 7 in favor, 0 opposed, and 0 abstentions.

Mr. Reed 40:03
Maddie that will also have to be reheard because of those changes.

Maddie DiIonno 40:09
I think they are grammatical changes, but if the board would be more comfortable re noticing, it's certainly something we can do.

Ms. Bridgeo 40:15
I think we went through that with legal. It should have been that way. I think we're fine. Okay. Trish, that was what they said when we had legal. We did what they said. I think it's grammatical and it's what we

Ms. Gott 40:27
I disagree. I think that on and or are two different words. I agree with Kevin on this one. So, I think we should re notice.

Mr. Reed 40:43
Okay. With that, and you want to vote on it?

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James McLeod 40:45
I think we should. I think a motion should be made and we should vote on it. I'd like to discuss it.
Ms. Gott 40:51
Motion:
Ms. Gott made a motion that were notice amendment number two, because of substantive changes to the word or and on. Mr. Mcleod seconded the motion.

James McLeod 41:05
Second, second for discussion, okay. It doesn't make any sense. The way that it was put out there. If anybody read this and thought that that was how it was written. I don't think that they have very much faith in the board. This is obviously a grammatical error. It's supposed to be or, and the record at date of adoption and on record as of March 14 2023. That was that was struck, because we've had last year, we had some issues with the voting. And so, the date of adoption could change. So, record a date of adoption leaves it open, I believe it's just a grammatical change. And it makes sense to change.

Mrs. Luszcz 41:51
And as I recall, that wasn't part of the initial request. That's what this amendment, the date was not included that got added after not by this board.

Kevin Woods 42:04
I would agree, I don't think either these changes would encourage anybody to come speak on it differently.

Mr. Reed 42:15
Anything else, or I'll call for the question.

Ms. Gott 42:17
I just want to ask your changing your mind Kevin, on the on and or

Kevin Woods 42:22
either one, on or the I was concerned with it, but I don't know either one of them, I would change somebody's view of a desire to come in here and speak to them. Eventually, they're going to read the corrected version on the ballot, which is when it really counts.

Mr. Reed 42:45
Anybody else want to comment? All right, the motion that Gretchen put forward is to re notice this. Okay, so that's what we're voting on is whether we're going to re-notice it, or we're going to let it go as a grammatical error.

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Mrs. Luszcz 43:02
Jim, seconded.

James McLeod 43:04
I did you want to go the vote, or did you want to retract?

Ms. Gott 43:08
It? I don't care. I,

Mrs. Luszcz 43:11
the board has a question. So, chair,

Mr. Reed 43:13
let's move the question.

Kevin Woods- No
Dee Luszcz - No
Brad Rees - No
Scott Campbell - No
Jim McLeod - No
Trisha Bridgeo - No
Gretchen Gott - Yes.

The motion was defeated with a vote of 1 in favor, 6 opposed and 0 abstentions.

James McLeod 43:50
Motion:
Mr. McCleod made a motion that we move on this as amended to the ballot. Amendment number two as amended to the ballot. Mrs. Luszcz seconded the motion.

Mr. Reed 44:05
Okay. Any further questions? Or discussion? Sorry, got sidetracked with re noticing? No discussion on my panel discussion. All right. All those in favor of moving this to the ballot. All of the members of the board voted in favor of the motion. The vote was 7 in favor, 0 opposed, 0 abstentions.

Unanimous. All right. Thank you. And for those of you interested in our zoning amendments, we will be having a work session next Thursday evening. And we'll be working on those if you want to be involved with those.

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Okay, so this evening, we're going to go back to application number 2022 - 010. An application for an earth excavation permit has been submitted by Onyx Raymond LLC the applicant is proposing the permitting of an existing excavation operation that is proposed to result in the construction of a 550,025 square foot warehouse the properties are identified as Raymond, tax map 22 lot 44,45,46,47, and map 28-3 lot 120 -1 accessed via Industrial Drive.

Eric Poulin 45:26
Yes, my name is Eric Poulin from Jones and Beach Engineers,

Doug Richardson 45:29
Doug Richardson from Onyx partners.

Rick Hartman from Hartman enterprises.

Mr. Reed 45:36
Okay, now it came to our notice today that this was noticed improperly in one location. Jim, would you read that section of our noticing for excavation? Was there? I think to give the man its mandate, would you read that it's just about the noticing requirements for an excavation permit. It's different from everything else.

Maddie DiIonno 46:05
We have public hearings held by the planning board on applications for an excavation permit shall be noticed in accordance with RSA 155E:7. The three locations for posting notice as specified within RSA 135 E seven shall be as follows. Town office light lobby display case located outside the recreation Public Works office building and the safety complex.

Ms. Gott 46:28
Okay. And the safety complex.

Maddie DiIonno 46:31
And this Yes.

Mr. Reed 46:33
And this was not noticed at the safety complex, which we were just made aware of about 6:45, approximately. So that is out of our control. I'm going to ask the board; do you want to let them present this? Because I'm sure there'll be other things that will have to come back. Gretchen?

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Ms. Gott 47:03
Can we accept it? And present? Are we allowed to do that?

Maddie DiIonno 47:07
I mean, I know it was noticed properly. I don't I don't know if it was at the safety complex. I think the board could acknowledge that it appears that it wasn't posted at the safety complex. We're not sure and allow the applicants to proceed. However, if the board feels that that is an important part of the noticing, they cannot proceed without it.

James McLeod 47:32
I think if there was any, if the applicant was willing to accept any legal ramifications for not being posted properly, then we could move on. But I don't know if that's allowed.

Ms. Bridgeo 47:48
That may invalidate their hearing. Trish, what are you saying? Please wondering if that would invalidate the hearing? If it's not noticed? What would be? I mean, I don't know if that's what I'm saying. If it wasn't in

Maddie DiIonno 48:00
the complex, as far as I know, it was I don't I don't know.

James McLeod 48:03
Jim, you said you were there? Yeah, I took a picture of it. There's a notice up there from November 1. Okay. Not for December 1.

Maddie DiIonno 48:16
Again, I think the board could acknowledge that it appears it was missing in this third location, but all other noticing requirements were met. Or, again, if you feel that you cannot proceed without that being properly posted in the safety complex.

Mrs. Luszcz 48:34
Well, there's an RSA telling us what we can and cannot do, correct. I mean,

Maddie DiIonno 48:37
yeah, that's the noticing requirement. Correct.

Mrs. Luszcz 48:41
So, Jim's suggestion that maybe the applicant take responsibility, if there is any, what's the responsibility now on us?

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James McLeod 48:51
What's the consequence? I don't know if it's within our authority, but I'm just trying to figure out a procedural way to get around this.

Mr. Reed 48:57
The responsibility to do the posting is on the town. The town does the posting that's not on the applicant in any way. So that would be in my estimation, and unfair.

Scott Campbell 49:12
Ask who's responsible for posting? Because I don't know who does? Who does the posting of physical postings?

Maddie DiIonno 49:19
I don't know Christina McCarthy, perhaps?

Mr. Reed 49:23
I'm not sure. I'm not sure. I've never been there when they've been doing posts, so it wasn't negligent on the applicant.

Mr. Reed 49:36
We did not meet the requirements of our own regulations. From my understanding, and that doesn't mean that it wasn't posted, it hadn't gotten damaged or anything too, but it's unlikely, that's extremely unlikely.

Ms. Gott 49:51
Were even at the safety complex. Is it posted number one, or should it?

Mr. Reed 49:55
There's a board just inside the door when you walk in? Okay,

Ms. Gott 50:00
The other thing is, is we, past practice has been not to accept and not to hear things that have not been properly posted. And I don't like saying that I had no idea that this third place was required. First, I've heard of it. But I'm reluctant to go ahead without proper posting. And I apologize.

Doug Richardson 50:27
We, we prepared for this meeting tonight, we've brought the operator, I understand things like this happen. I'm just surprised that it was an oversight by the town. And we just asked that, you

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know, some attention is paid for the next meeting so that we don't have something like this happen again. I mean, we're ready.

Mr. Reed 50:46
Yes, I understand. And I do apologize. This came to our attention just prior to the meeting. We were not aware of it, or we would have notified you. And I do apologize.

Ms. Bridgeo 50:58
I think blasting might also go there. I think blasting also, maybe Kevin Pratt could answer that question. Because they have to be the ones who are in charge.

Mr. Reed 51:09
Excavation and blasting applications, how to post it,

Ms. Bridgeo 51:13
because the fire chief is in charge of.

Mrs. Luszcz 51:16
I mean, that's why it's done that the safety complex,

Doug Richardson 51:19
Who's responsible? And if it's beside the door, are there any protections to make sure that the sun doesn't blow away?

Ms. Bridgeo 51:25
It's inside his cabinet as a side under glass?

Mr. Reed 51:28
Glass covered cabinet. Thank you. So, I mean, it would take something extraordinary for somebody open that hasn't ripped out without being noticed. Understood. When you said board, I thought it was just an open? No, no, it's a notice board.

Mrs. Luszcz 51:39
That's got a key on it, too.

James McLeod 51:41
It's attended. Thank you.

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Mr. Reed 51:47
All right. Does anyone like to make a motion?

James McLeod 51:51
I don't even know what motion to make.

Mr. Reed 51:53
Well, I made a motion that we cannot hear this because it was improperly posted. So, they officially have it in our record.

James McLeod 52:00
So would it be a continuation to date, we would want to continue it.

Mr. Reed 52:05
If this is bad enough as it, is we definitely want to compare. And they are ready now.

Ms. Gott 52:12
Can we get them in?

James McLeod 52:15
So, the 15th then?

Doug Richardson 52:22
We will be here on the 15th for the other application. We have a project. So, we would appreciate it if you could fit us in?

James McLeod 52:27
I'm sorry. You said you're going to be here for the 15th for something

Eric Poulin 52:31
A separate application. We'll all be in attendance. So, December 15. It's not on the agenda.

Mr. Reed 52:38
I don't think that got updated fully.

Ms. Gott 52:39
Doesn't say that this is just this is an official notice this is just

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James McLeod 53:04
Mr. McLeod made a motion that we continue application number 2022- 010 to December 15 2022. At the Raymond High School 7pm, the Media Center 45 Herman Hill. Ms. Bridgeo seconded the motion.

Scott Campbell 53:36
Discussion, I'd like to make a formal complaint on the behalf of the board of selectmen to the board of selectmen for the planning board, for this kind of situation.

Mr. Reed 53:44
Let's take care of this and then.

Scott Campbell 53:46
That's what I would like to say, Okay, I think you guys would appreciate that too.

Mr. Reed 53:51
All right. So, the motion on the board is to continue this application until December 15, 7pm. Here any further discussion, we do apologize. Again, this extra need and this came to our attention just prior to the meeting. All those in favor?

Kevin Woods- Aye
Dee Luszcz- Aye
Brad Rees - Aye
Scott Campbell - Aye
Jim McLeod - Aye
Trisha Bridgeo- Aye
Gretchen Gott - Aye

All unanimous. The motion passed with a vote of 7 in favor, 0 opposed and 0 abstentions.

Application number 2022 -012. Subdivision application has been submitted by Barry Gier of Jones and Beach Engineers on behalf of Jim Rosborough. The intent of this application is to subdivide Nottingham tax map 72 lot 13-1 into and 11 lot open space residential subdivision via access by way of Moore's Road in Raymond New Hampshire. And Maddie, would you explain why this application is coming before us?

Maddie DiIonno 55:11
Yep. So, because access to the subdivision is by Mountain Road in Raymond, per RSA 674: 53 4 the applicant is required to get input from the Raymond Planning Board, just with respect to

road access and impact issues. So, we're, we're the board is reviewing this application, but just with respect to the access way from Moore's Road into the property.

Mr. Reed 55:43
Okay, and we received a letter or letters, two letters from the Town.

Maddie DiIonno 55:47
Yes. We have some emails from the fire chief, as well as the previous DPW. Director David. Do you want me to read those now? They're kind of long or do we want to?

Mr. Reed 56:01
Well, why don't we read them so that we have a beginning understanding.

Maddie DiIonno 56:06
So, when I requested information from the fire chief, he responded and said, several years ago, I had the opportunity to plow snow on Moore's Road for the town of Raymond. Several things come to mind that David may be aware of the first issue being the entrance to Moore's Road is in dire need of improvement resurfacing at the least. Also, the entrance of Moore's Road is utilized as a school bus turnaround which was marginal at best. Further, Raymond plow trucks turned around on the Raymond Nottingham timeline using the entrance to the farm that now exists, which is where the housing development is proposed. I would suggest at least a turnaround remain or be created or some other arrangement be resolved. More emergency response related further consideration should be given to access and taught time gone by one could get from Moore's Road to Meindl Road, the access has diminished too non-existent. We most recently experienced a tree and electrical wires across Meindl Road rendering all residents beyond that point as inaccessible. Several years ago, the culvert washed out creating a similar situation. A second access is certainly a value in these circumstances. Due to our proximity the town of Raymond is first due at these locations I'm sure emergency services in Nottingham would agree.

Maddie DiIonno 57:24
From David Frederickson, previous DPW director, what Paul has added with respect to DPW is spot on, the intersection of Mooer's Road and Mountain Road will need improvement with added volume. A more perpendicular layout would be sought. A form of turnaround will be needed at the town line on Mooer's Road as well.

Mr. Reed 57:43
Okay, so that's what we got from the town. Prior to our meeting with this gentleman, would you introduce yourself, sir?

Barry Gier 57:51
Absolutely. My name is Barry Gier. I'm with Jones and Beach Engineers here for the applicant.

Mr. Reed 57:57
Okay. What would you ask as our Rockingham Planning Assistant has told us that our involvement here is regarding the access?

Barry Gier 58:17
Absolutely. So, this is a little bit unique because we don't have any property in Raymond and we're not doing any work in Raymond. We're here because we are proposing a level of open space subdivision in Nottingham on Mooer's Road and Jampsa Trail and the access is what's being reviewed because the access on Mooer's and Jampsa are the only access to this property. So, with that said, did you know we? We haven't received the letters from the Fire Chief or the DPW. But we would like to have those and would have to answer any questions the board has. I know that the applicant has worked with the town of Nottingham to improve Moore's road recently. The culvert that I believe he's, he's the fire chief and talked about is if they're talking about the culvert that's located further in Nottingham on Mooer's Road will be upgraded as part of this project. And I do know that the town of Nottingham has done some improvements on Jampsa Trail as well. Okay.

Ms. Bridgeo 59:32
So, can I just state that I went on the sidewalk as a citizen because we hadn't noticed? So, I walked? I had gone as a citizen because of a notice. So, I went and there was the letter from the fire chief. I don't know if it has been updated since then. But it was in the package when we went on that site walk and the letters were in there. So, I don't know if they had made any additions, but they were in that packet.

Ms. Gott 1:00:04
But you didn't get them.

Barry Gier 1:00:05
Not from Raymond, I don't believe but I guess we can double check.

Mr. Reed 1:00:11
Okay, so the concern by our Fire Chief and DPW director at the time, this was the intersection. And the turnaround at the end of Mooer's road. And everybody agreed that was their concern. It's always good to have more exits and on ramps and all that stuff. But it's kind of limited when you're on a dead-end road down to the lake.

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James McLeod 1:00:38
yeah, so what is the plow guy, you just stop and then back out?

Mr. Reed 1:00:43
I mean, we have to ask a plow guy. Any plow guys out here tonight?

Barry Gier 1:00:48
I couldn't tell if there was room to turn around or not. I mean, it's through what's not through road but I don't know if Raymond plows portion of it and Nottingham plows the rest of it or if because Nottingham has to go to the end of the road if they plow the whole thing. I couldn't comment on that. Obviously, the portion in Raymond ends and Raymond and we don't typically put a turnaround in the middle of the road.

Maddie DiIonno 1:01:21
Well, Raymond's subdivision regulations do require a turnaround at all town line crossings. That was the only part of the subdivision regulations that struck me when I reviewed this with regard to road access. On it says turnaround shall meet the requirements for a temporary cul de sac.

Ms. Gott 1:02:13
I'm just looking at the Jampsa Trail. And that does come out on Mountain Road. So that exit entrance is also in Raymond. correctly. Yeah. That portion of the roadway is also in Raymond and not very much of it.

Barry Gier 1:02:32
But so far, we were unable to determine if the portion on the end of Jampsa Trail in Raymond is a public road or not. Okay.

Ms. Gott 1:02:43
That's what I that was going to be my next question. And is it available? So, we need to determine that? And also, is that what you are proposing for a secondary entrance exit? Exit?

Barry Gier 1:02:55
No, they don't connect. Jampsa and Mooer’s Road don't connect. So, we propose anyway. And in any way. So, we proposed nine lots on Mooer's Road, and two on Jampsa.

Ms. Gott 1:03:08
So, there's no place for a secondary exit.

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Barry Gier 1:03:11
They're both dead end roads, or they don't have access or a secondary access.

Ms. Gott 1:03:17
We have talked long and hard between emergency services and all about having second access, secondary access for storms like what happened last night. So that's a concern for me.

Barry Gier 1:03:31
So, you have that if you just back up a little bit. The RSA indicates that the purview of the Raymond Planning Board is the adequacy of the access through Raymond.

Ms. Gott 1:03:44
And that's what I'm asking about the adequacy of the access for what may be emergency services that get their Raymond Emergency Services before Nottingham Emergency Services and looking for appropriate availability for accessing and exit.

James McLeod 1:04:05
So, are you saying that they should have a turnaround at the end of Jampsa Trail as well?

Ms. Gott 1:04:12
Well, I had thought that they linked but they don't and that concerns me. But there needs to be reasonable access in there. Secondarily, if Mooer's Road is blocked for some reason.

Scott Campbell 1:04:28
I think you might want to clarify, Jampsa was a private road. I was sorry. I always thought that was private. So Jampsa Trail I don't think

Barry Gier 1:04:39
The town of Nottingham in recent years has accepted multiple lake rows as public roads. And Jampsa was in the I believe it was either last year or the year before it became a town road. Mooer's Road was maybe three or four years ago and was private. I have it until that time as well. So, they're both currently town roads in the Town of Nottingham.

Mr. Reed 1:05:08
But does that automatically make them a Raymond Town Road ?

Barry Gier 1:05:12

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Mooer’s Road has always been? Well, as far back as we know, has been a town road in Raymond. Okay, Jampsa, which is about 36 feet in Raymond. We couldn't find any information on whether it was a town or a public or I mean, a private or public road.

Mr. Reed 1:05:30
And how many of the lots are on Jampsa?

Barry Gier
We have two lots and then the existing homes that are down further.

Barry Gier 1:05:38
There's a there's several existing homes down on the lake.

Mr. Reed 1:05:44
And it's 36 feet of road.

Barry Gier 1:05:47
about 36 feet on Jampsa. Okay.

Mr. Reed 1:05:52
Okay. Does your builder own enough land to meet the requirement of the turnaround at the town line?

Barry Gier 1:06:04
Well, we the applicant doesn't own any property in Raymond. okay. So, the turnaround would have to occur, obviously, in Nottingham. So, we would have to look at that because this is a new one where we put in a turnaround on a continuous Street.

Mr. Reed 1:06:27
And would you give us that reference again? Maddie, what was that? Where was that?

Maddie DiIonno 1:06:32
That's in the town subdivision regulations. It's 5.6.5. It says a turnaround for school buses and snowplows will be provided at each town line crossing, said turnaround shall meet the requirements for a temporary cul de sac.

Maddie DiIonno 1:07:03
Otherwise, I found that the obligation is consistent with the town of Raymond’s Regulations pertaining to access.

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Ms. Gott 1:07:12
Okay, that's just a stupid question. Did we accept this last time for purposes of review? Did we take jurisdiction last time?

Mr. Reed 1:07:19
No. Never came out? We never even looked at it.

Ms. Gott 1:07:23
Do we need to do that ?

Mr. Reed 1:07:26
But I wanted to make sure everybody understands what we're talking about tonight.

Scott Campbell 1:07:33
I know the time Nottingham changed that to a town road. You have 36 feet. That actually has to go to the board of selectmen to change that from a private one except that is a town road on our end.

Mr. Reed 1:07:49
If it's going to be a town road. Do we know? Does it need to be?

Scott Campbell 1:07:52
They changed it to a town Road in Nottingham. But did we change it to a town road? In Raymond, well, that is effective. Mooer's road was always going on? I know that.

Barry Gier 1:08:02
What I'm saying is we're not certain if Jampsa said that section of Jampsa that's on or that's in Raymond is town or not? We don't know who owns it. We couldn't find any information on that. So, it couldn't be a town road that was owned by Raymond and been accepted previously, or it may be private.

Scott Campbell 1:08:20
I don't think it's private because I've lived here my whole life. And I remember driving by that all the time, and I never heard about it being changed.

Kevin Woods 1:08:29
Who owns it? If it's private who owns it?

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Scott Campbell 1:08:36
The people that live on it, like my roads, private, it's just the people that live on it. It's not town maintained or anything.

Mr. Reed 1:08:42
That road was private until just recently, I have a friend that lives down there. And they petitioned the town and got them to take it over to Nottingham not Raymond.

Ms. Bridgeo 1:08:58
Yeah. It sounds as if we can't do anything till, we know that. It sounds as if we need that information before we can do anything.

Maddie DiIonno 1:09:13
need what information,

Ms. Bridgeo 1:09:15
the status of the roads.

Maddie DiIonno 1:09:18
Mooer's Road is a town road.

Mr. Reed 1:09:19
It's a town road. The other road is private in Raymond and only has two houses on it. I don't see that as an access issue.

Maddie DiIonno 1:09:29
Personally. I mean, we have access to the subdivision would be through Mooer’s Road, correct?

Barry Gier 1:09:32
Well, there are two lots that are on Jampsa. Two at the top you kind of see, Jampsa is along the top portion of the property.

Ms. Gott 1:09:47
This isn't the same as actually this is showing five

James McLeod 1:09:49
Yeah, no, we don't have the same map. Oh,

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Barry Gier 1:09:51
you're looking at you're looking at Y one, c two, C two.

Ms. Gott 1:09:59
Oh, I want to see your plan. Sorry.

Mrs. Luszcz 1:10:01
That changed a lot.

Ms. Gott 1:10:06
Don't have a C2.
James McLeod 1:10:19
It is basically a long private driveway.

Mr. Reed 1:10:33
While they're using this whole piece of property, this is the yield for the whole property. So, this part of the property won't get developed any further.

Barry Gier 1:10:41
Yeah, this is an open space subdivision space. So, we're proposing 11, lots and 37 acres of open space. So, it's like 60% of the lot is going to be open space.

James McLeod 1:10:55
And I'm back to my first comment. It's a long driveway.

Mr. Reed 1:11:01
Again, the question for us is from Mountain Road. 36 feet of Jampsa Trail on a long driveway. That's our only part of it that concerns us, Mooer's Road, which has nine homes on it. Currently, new homes, nine new homes, new rules,

Ms. Gott 1:11:17
and there's no way to link because of slopes and wetlands.

Ms. Bridgeo 1:11:21
Well, yes. Anyway,

Barry Gier 1:11:22
we also don't own the property, just to kind of

Ms. Gott 1:11:25

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go through the open space part that you do own.

Barry Gier 1:11:27
Oh, yeah, no, that would, that's not going to work. We're proposing no new road, no new construction, except for the subdivision.

Ms. Gott 1:11:36
I'm still looking for that secondary access, trying to figure out how to do that. It doesn't look like it's possible.

Mr. Reed 1:11:46
If it were possible to make a secondary access, can we all agree it would be in Nottingham? It's not what I'm saying. Yeah.

Mrs. Luszcz 1:12:00
Pretty much.

Scott Campbell 1:12:01
What Brad it's got to come over.

Mr. Reed 1:12:03
Well, it's one end of it's going to come up but it's going to be on an existing road Raymond. I mean, the most the most. The easiest way to do it, if they were to be required by the Town of Nottingham, would be to tie two roads in Nottingham side together to give them their two entrances. If that was a requirement of the town of Nottingham,

James McLeod 1:12:24
It wouldn't make any sense to connect them on our side, you're going to have the same problem. Right? You're connected to the wrong side of the houses.

Mr. Reed 1:12:38
Do you have enough information to accept this for jurisdiction?

Ms. Bridgeo 1:12:43
Motion:
Ms. Bridgeo made a motion to accept application 2022-012. A subdivision application is being submitted by Barry Gier of Jones and Beach Engineers on behalf of Jim Rosborough. The intent of this application is to subdivide Nottingham tax map 72 lot 13-1 into an 11-lot open

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space residential subdivision via access by way of Mooer's Road in Raymond, New Hampshire. Mr. McLeod seconded the motion.

Mr. Reed 1:13:22
Second, okay. And that was to accept this for jurisdiction Correct? Yep. All right. The members of the board all voted in favor of accepting jurisdiction and the motion passed unanimous.

Basically, what's your pleasure with this? How far was the entrance in Raymond from the edge of Mountain Road to the Nottingham town line?

Barry Gier 1:13:54
So, Moore's Road is about 660 feet from Mountain Road on the Nottingham line. It's paved, and it varies between 20 and 22 feet in width.

Ms. Bridgeo 1:14:11
So right prior to where your entrance is going to be, there seemed to be a wider section of the road there is that part because it was dirt so that would be the Raymond side that when

Barry Gier 1:14:24
That would be the Nottingham side.

Ms. Bridgeo 1:14:27
so, it's a Nottingham side that

Barry Gier 1:14:29
We are putting in a cistern with a bump out for the fire trucks. So that could operate as a turnaround. That's, you can kind of see it in the middle lower middle of the of the project on Mooer's Road,

Mr. Reed 1:14:43
okay. That's the little section with the offset line in the dark rectangle. Right here

okay. Alright, anybody have any issues with Mountain Road?

Ms. Gott 1:15:12
Mountain Road is totally state maintained,

Mr. Reed 1:15:14
That's totally state maintained, but it was built to the state standard. Anybody has any problems with that part of it. I'm trying to narrow this down.

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Ms. Gott 1:15:22
I just want to ask. Okay. There's nothing that you folks are going to do that will change. Raymond's access to the snowplow or the school bus or fire equipment.

Barry Gier 1:15:32
No, we're not proposing any construction to the roadways. Okay.

Mr. Reed 1:15:38
Okay, so the situation we've had, there's going to continue at this point, unless a Raymond or someone and Raymond does an upgrade.

Ms. Gott 1:15:49
Say that again,

Mr. Reed 1:15:50
I said the situation as it exists now on the Raymond side of the town line is going to remain unless Raymond or someone in Raymond does the upgrade.

Ms. Bridgeo 1:16:01
You may know better, or you may know better, but it appeared from when you went down, though, that our vehicles must drive into their turn on your side, too, in order to continue doing that.

Barry Gier 1:16:13
They would have I think the guys work together. And I think from what I understand that sometimes they do Mooer's, and sometimes we do Mooer's, or Nottingham does, or portions of it, you know, and they work together, and they decide where they're going to turn around which is easiest for them. And

Ms. Bridgeo 1:16:28
I'm saying what about a school bus. What if the new development doesn't want the school bus? School bus? I don't know. Okay, it just to me, that seems like right, where they're returning somebody who lives there who may have an answer to some of these right there.

Mr. Reed 1:16:42
You we you live up in that area. Okay. Could you just move over a little bit, sir, and come up. So, your name, maybe she can clarify this for us and can stay seated

Diane LePage 1:17:01
Diane LePage, 34 Mooer's Road. So, the school bus turns right from Mountain Road at the beginning. does not come down Mooer's. Okay. The town of Raymond plows, the paved part of Mooer's Road, and Nottingham does the dirt part. Okay. Raymond does turn around where the barn is okay. To go back out onto Mountain Road.

Mr. Reed 1:17:35
And that's before this subdivision. That barn. It's actually right at the end. Right on the corner. Okay. Thank you. Do you have any questions of this lady?

Ms. Bridgeo 1:17:50
No, I just So would that be still allowable? Would they still be able to turn where there are?

Barry Gier 1:17:55
No, because that driveway, they could turn around at the fire cistern.

Ms. Gott 1:18:02
So, we need to make that a condition.

Ms. Bridgeo 1:18:04
Yeah. As long as they can turn somewhere. Well, yeah.

Barry Gier 1:18:09
Trying farther down Mooer's to turn around. Is that what you're saying?

Mr. Reed 1:18:15
Okay. Thank you very much.

Diane Lapage 1:18:19
You're welcome. Thank you. And one more thing, the end of Mooer's road on Raymond side is horrible. Always, always potholes, because of everybody turning around. Also, I don't know if you guys know, the state park just approved 50 More campsites for the campground. So now you're going to have more traffic on Mooer's Road. I mean on Mountain Road. Thank you. Thank you.

Mrs. Luszcz 1:18:49
Thank you. Just to reiterate what you said. Our plow trucks pave and then they drive down Mooer's Road into Nottingham to turn around. Yes.

Mr. Reed 1:19:03

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Currently,

Mrs. Luszcz 1:19:06
and he said they've actually drive further down the road.

Barry Gier 1:19:10
So, for what sorry, I forget her name, but Diane had indicated they turned around at the existing barn which is approximately this location. You can see it on your plans, driveway location. We're suggesting that because these are all going to be driveways and houses now if they need to turn around and Nottingham, they can use the fire cistern area pull out.

James McLeod 1:19:37
But can you please give me the I'm trying to find where the turnaround that you're talking about is. I see on this map it is like a big open space but then I flip the page and it's like it's in somebody's driveway.

Ms. Gott 1:19:59
Yeah, it You see two pages that this is C two, so two, okay, so you don't

Barry Gier 1:20:08
C2. But if you look at C2 B, which is kind of the lower, all the way on the left-hand side, you can see the bump out, the new bump out for the cistern,

Barry Gier 1:20:30
We're adding it's like a little oval for the fire system, and a pull off for the fire trucks.

Mrs. Luszcz 1:20:42
When you come back to see two, it's that little dark rectangle.

James McLeod 1:20:48
Is that wide enough to turn

Ms. Gott 1:20:49
I was going to say that the tower truck is their room are likely to turn around or something. Yeah,

Barry Gier 1:20:56
It's a pull off for a fire truck. So, it's an additional 12 to 14 feet and width. But it's additional off the edge of the existing road. So

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Mr. Reed 1:21:06
you've got the road plus almost 13 feet and the square part was 55 feet long according to your detail.

James McLeod 1:21:13
While they can do a three-point turn, I guess. That was

Mrs. Luszcz 1:21:17
Raymond firefighters are great drivers.

Mr. Reed 1:21:22
I can't tell how wide the road actually is. That's on top of the width of the road. So why does the road there? Do you

Barry Gier 1:21:31
know it's 18 to 20? I don't know exactly now. But it's 18 to 22 feet. So, it's

Mr. Reed 1:21:37
30 or 30 or 30 or a little wider there at that point. Any other questions regarding access?

Are you looking for more questions or motion?

Mrs. Luszcz 1:22:02
Well, I just want to address the letter that Maddie read from the Chief. And again, now from this resident, the road conditions are terrible on our side.

Mr. Reed 1:22:14
Well, that's Raymond's responsibility.

Maddie DiIonno 1:22:20
But with an increase in traffic on the intersection, there might be a way the town of Nottingham can work with Raymond to come up with offset mitigation measures. I'm not sure to accommodate that.

Ms. Gott 1:22:34
So, what needs to be done is what you're saying, right?

Maddie DiIonno 1:22:40

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Well, no, I don't know what improvements might be needed. But perhaps the condition of this approval could be that, you know, the town's work together to determine that.

Mr. Reed 1:22:50
Are you paving the road in Nottingham?

Barry Gier 1:22:52
We're not paving the road. Well, we're not finished with the planning board in Nottingham, but there has been no move to require paving of the road. Put it that way. So, what I would suggest the board needs to look at is, well, the additional houses that we're proposing create additional issue for the road and Raymond, that's the question. So, if the road and Raymond can handle whatever the amount of traffic there is currently, well, the nine that are on Mooer's when there are the two that are going on Jampsa push it over the edge so that I can't handle the traffic. And then if it's determined that that is the case, then there shouldn't be a proportional input. But it sounds like there's already issues on it. So, it's hard to say that this project is going to create more issues when there's already issues there.

Ms. Gott 1:23:52
That is a question. And I understand what you're saying that it's not in good shape. I think all of us have seen that. I go back to the fire truck and the ability to turn around and the fact that we're pushing it that much farther away from Mountain Road, which is a direct impact. If our fire truck has to turn around way down, there.

Barry Gier 1:24:11
My input was that he's currently driving down and turning around on private property. And then we're providing a bump out on a road so that they can turn down a little bit further. I think that's adequate in my opinion. So there from what they're saying you're already doing it and Nottingham and add in a couple 100 feet to the distance they have to go down. I don't see an issue.

James McLeod 1:24:45
So, I think there's two things confused here. So, you're talking about the plow truck.

Ms. Gott 1:24:50
You're talking about a fire truck.

James McLeod 1:24:53
And the truck to get to the end of the road and be able to turn around at the end of the road, not halfway down the road. Plow trucks can turn around wherever they like. I mean, wherever

there's room but the fire trucks going to go with fire is if it was the last house down the road, then that's where they need to be able to turn around. I would presume

Kevin Woods 1:25:17
you talked about coming out on Mooer's road. So Mooer's road out on 256 is the main entrance and exit for that development. Is that correct?

Barry Gier 1:25:34
Correct. There'll be nine new houses on Mooer's Road.

Kevin Woods 1:25:37
So, there will be an increase in traffic coming out to that intersection.

Barry Gier 1:25:41
There will be an increase in traffic. I agree. I don't think it's near significant enough to require major improvements on Moore's road and Raymond. But that's my opinion

Kevin Woods 1:26:00
because Raymond has any ability to request anything from Nottingham? Like what? Except express our concern to the planning board in Nottingham and how it impacts this? And

Maddie DiIonno 1:26:18
Yeah, absolutely, you can express your concern, and that can be relayed to the planning board and Nottingham. And that's captured in the minutes as well.

Scott Campbell 1:26:30
We have no final results from Nottingham.

Barry Gier 1:26:34
Now they wanted to actually hear from Raymond before they made a final decision. Yesterday,

Ms. Gott 1:26:41
Has Nottingham done regional impact and invited us to speak at their meetings or make statements or anything like that at their meetings?

Maddie DiIonno 1:26:49
Yes. As far as I know.

Ms. Gott 1:26:51

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Have we done that? Have we spoken at their meeting or made any statements or sent any statements or anything?

Maddie DiIonno 1:26:59
I'm not sure. Trisha went to the site walk.

Ms. Bridgeo 1:27:02
But I haven't seen anything after the initial sidewalk for regional impact or anything was not

Barry Gier 1:27:08
So, Nottingham did vote, the Planning Board did vote to make it a project regional, which was one of the reasons Raymond got notified. The other one was because you are in the water. But there hasn't been any additional input? I don't believe.

Ms. Gott 1:27:23
So, at this point, we could still make a statement of some sort. You could do make a statement of some sort regarding our feelings about road or anything. Yes.

Kevin Woods 1:27:41
Nottingham has the ability to impose any conditions of approval on this based on Raymond's concerns of the intersection.

Mrs. Luszcz 1:27:57
So, Nottingham hasn't seen these letters? I don't believe so knowledge, he hasn't seen them optimize

Mr. Reed 1:28:05
that they run the package. The original package? Are you thinking of our original package?

Ms. Bridgeo 1:28:10
Well, it was our site walk. When we did our site walk, we had a letter and that's why I'm asking, did they make an adjustment after the initial site walk? Nothing. That's what I didn't know.

James McLeod 1:28:25
I think it would be appropriate to make sure that they do have those letters and our comments and see that there's much else that we can do if I don't think so.

Kevin Woods 1:28:45

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I think it comes down to who's going to pay for the improvements and whether Nottingham is willing to take that into consideration.

Ms. Gott 1:28:54
Should we set out some conditions before we do a motion?

Kevin Woods 1:29:00
No, I mean, I'm just wondering how we go about doing that, just a letter from us to Nottingham? That includes the concerns of our DPW and fire departments. And are we able we're allowed to request anything specific or we only

Maddie DiIonno 1:29:19
You can request that you can say what the concerns are. You can have that captured in the minutes that can be sent to the Nottingham Planning Board. You can't require them to do anything. But certainly, pass along your concerns.

Kevin Woods 1:29:33
Given they know that Raymond was normally first in as far as fire protection is concerned. They know that there was a concern expressed by the fire chief they may guess, guessing the fire chief hasn't. Our fire chief hasn't seen this cistern area to determine whether it's sufficient for him to be turned around? You would think you don't want you would think he'd want to see that. I know the D one gives you a blow up of that.

Ms. Bridgeo 1:30:13
Can I make a motion that we send the letters from our DPW and the fire chief to the Nottingham Planning Board to review with this recommendation that if they require it to come back to us for further clarification, that we look at what they have to tell us on that. If the fire chief wants to go see the turnout that they're proposing, we cannot make the decision for him anyhow.

Maddie DiIonno 1:30:44
All you can do tonight is approve or deny the access way as it pertains to the town's regulations. In any condition of that approval, you can say I want these concerns to be related to the Nottingham Planning Board.

James McLeod 1:31:05
I think they have articulated what they want in the letters. And it makes sense not to hold this up any further. We can add our own comments about the intersection. And just, you know, you can ask

Ms. Bridgeo 1:31:29

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make the motion.

Mrs. Luszcz 1:31:30
I would imagine that the Nottingham Planning Board is very considerate of the safety of its residents. So, I'm sure they'll take the fire trucks very seriously.

Ms. Bridgeo 1:31:44
Do you want to make the motion?

Maddie DiIonno 1:31:46
We do have conditions of approval that were drawn up, although I'm not sure they all apply to this because this is a unique situation, but I'll pass it around.

Barry Gier 1:31:59
Mr. Chairman, yes. Before you get moved to, I know we took some public input. I just didn't know if there was anybody else that wanted to speak.

Mr. Reed 1:32:09
You'll see in just a moment.

Kevin Woods 1:32:16
So yeah. So, you said just a second ago, that's all we can do. approve or deny. Thank you. What was it you said? What does it mean to deny it?

Maddie DiIonno 1:32:45
If you find that the proposed acts this way are not consistent with the town's regulations. Or if there's something that's blatantly not following the town's regulations you can deny, deny that not deny the access way but deny the way that it's being proposed. And I imagine that would make it very difficult to get site plan approval.

Mrs. Luszcz 1:33:10
My concern would be our regulations at the turn around. should be at the town line crossing. Now we'll put it several 100 feet down the world. It's unique, for sure

Mr. Reed 1:33:28
Well, it's unique because usually when you're looking at a subdivision, you're not looking at an existing road that the subdivision crosses, right. Usually, they're making a new road. So, then they could incorporate this in the new road. What we could do as a condition of approval is just pass on to Nottingham that if this were a completely new subdivision, we would require a

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turnaround and to take that into consideration. Yep. That we need places for equipment to turn around. I don't know exactly how to word that.

James McLeod 1:34:03
That sounds like a safety issue for their residents. So.

Ms. Gott 1:34:12
So, I think Brad should make that motion.

Mr. Reed 1:34:15
Before we do. Is there any other public input on just the access to this road? That's all we're, that's all we're voting on tonight. Yes, ma'am.

Tracy Stickney 1:34:31
Hi, I'm Tracy Stickney 18 Merrick Road. I'm on the budget committee, but I have a resident hat on today. My concern is the condition of the existing road. And I haven't been down in years but just the thought of what a beating it's going to take to have all the excavation done and all the builders and blah, blah, blah. And I just think this would be a great opportunity for Raymond and Nottingham to put their heads together and maybe find a way to improve the section that is at its worst. So that is just my recommendation is perhaps if we can find a way to maybe pave that area that's in bad shape.

Mrs. Luszcz 1:35:17
That'd be proposed to the Select Board. You would have jurisdiction over road improvements right. On the Select Board,

Scott Campbell 1:35:24
Usually, a DPW will come in and have the engineers and the whole rigmarole blow through it and give a recommendation of the yay or nay.

Mrs. Luszcz 1:35:34
So, we can pass on our people's concerns to the DPW. Yeah. What times? Make sure that those are in the minutes. Thank you very much. Thank you.

Mr. Reed 1:35:50
Anybody else?

Mark Grant 1:35:51
Yes, sir. My name is Mark Grant, 24 Washington Drive. Is the only access from this road, Mountain Road. Yes. So, it's already under question. That intersection is dangerous now. So,

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adding any load to that is going to make it worse. And number two is how many houses currently use that intersection? How many houses are on that? That road at this point in time? Regardless?

Barry Gier 1:36:33
Not definitively, I believe it's around 30.

Mark Grant 1:36:38
And are these houses in Raymond or Nottingham, Nottingham? Okay, so you have 30 houses with another additional going to be added using an intersection that is in Raymond only. And we're going to bear all the responsibility to upgrade it for something going on in another town. I think it's prudent that Nottingham would work with this town to improve that intersection. Because at this point, if it's not, if it's not up to capacity now, it would easily be the board's, you know, position to deny any, any more traffic on that road until that intersection is repaired and brought up to, you know, a safe situation.

Mr. Reed 1:37:27
Thank you, sir. Anyone else? Sorry, Gretchen.

Ms. Gott 1:37:33
I didn't want to ask for more public input, then I'll say, let me know if you want to ask any questions.

Mr. Reed 1:37:38
Does anybody else from the public want to speak regarding this?

Ms. Gott 1:37:47
We in the past have had off site exemptions for improvements. I don't know if we're allowed to do that at this point. No, that's what I was afraid of.

Maddie DiIonno 1:38:02
Well,

Ms. Gott 1:38:03
The fact that and I think Tracy had a good point that the construction for nine out of the 11 Homes is down Mooer's Road, that's certainly going to impact the condition of that road that's already not in great shape. The fact that he's not in great shape right now is Raymond's responsibility, except that certainly all people Nottingham that lived down that road contribute to that. So, I'm wondering how we can very strongly suggest that at the time of this, after the

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construction, or within the construction, that that's the responsibility of the developer, to help, modify, fix, improve whatever the word you want to use that intersection? I believe that's a very reasonable thing to be asking.

Mr. Reed 1:38:58
How do we include that in the condition of approval?

Maddie DiIonno 1:39:01
Well, I think what Gretchen said is captured in the minutes, but I think a condition of approval can be that the town of Nottingham work with the town of Raymond to identify improvements necessary to that intersection to accommodate an increase in traffic or something to that effect.

Mr. Reed 1:39:15
Oh, can you require that of an applicant? Or can you work together?

Ms. Bridgeo 1:39:19
You could deny it and have them come planning their planning board? Come back with us, but we can't, we can't hold them. Their Planning Board is the one who would have to deny it for them to come back and bring us solutions. We can't command this.

Ms. Gott 1:39:36
I think we're not denying it. We're making that a condition of approval.

Mrs. Luszcz 1:39:39
Right? Because you can't, they can't. They're not forced to follow through.

Ms. Gott 1:39:44
If they want to use that section of the road, which I think they want to that's a part of the condition of approval,

Mr. Reed 1:39:54
Let's see we're talking about a town road. You're asking the applicant to update and upgraded Town Road in another town.

Ms. Gott 1:40:03
Not talking about anything in Nottingham, I'm talking about the town Road in Raymond that is impacted by the work that is going on, as evidenced by this application.

Mr. Reed 1:40:14
And we can do that.

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Maddie Dilonno 1:40:16
I guess I'm not following what the condition was.

Mr. Reed 1:40:20
The condition would be that we would approve the application if the applicant updated the road. That is

Maddie Dilonno 1:40:27
no, we can't explicitly say,

Ms. Bridgeo 1:40:30
What is the only thing we could do to try and have them come back to us with what they

Maddie Dilonno 1:40:36
asked the app the town's work together to identify improvements that might be needed.

Ms. Bridgeo 1:40:41
Okay, because we can't.

Maddie Dilonno 1:40:45
That would be a condition of you approving the proposed access way.

Ms. Gott 1:40:50
That's better than nothing.

Mr. Reed 1:40:53
And I think that's all you really can do. Okay,

Ms. Gott 1:40:55
they say that's better than nothing.

Maddie Dilonno 1:40:58
And then all of your concerns are captured in the minutes which will be as well as the fire chief and DPW. Newsletters will be forwarded to the Nottingham planning board.

Mr. Reed 1:41:16
We good with that.

Ms. Gott 1:41:18

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Shall we can do I guess,

Mr. Reed 1:41:20
We forward the letters. We forward the minutes from our meeting explaining what we discussed. We approve it. And we just asked the planning board in Nottingham to consider that if this were a subdivision with a subdivision crossed the town lines, we would require a turn around and ask them to take that into consideration before approving the road design on their side to allow a place for the town trucks to turn.

James McLeod 1:41:51
on motion that.

Motion:
Mr. McLeod made a motion that the board forward the letters and forward the minutes from our meeting explaining what was discussed. That the board approves it. And ask the Planning Board in Nottingham to consider that if this were a subdivision with a subdivision crossed the town lines, we would require a turn around and ask them to take that into consideration before approving the road design on their side to allow a place for the town trucks to turn. Ms. Bridgeo seconded the motion.

Mr. Reed 1:41:54
second vote for all right, can we capture that? We've got that. Okay. Because that will be the other condition imposed by the planning board when we get to the end of this and you're going to read that back.

Okay, look, somebody like to make a motion.

Kevin Woods 1:42:18
You call a vote on the second motion. We

Mr. Reed 1:42:21
already had the motion. Oh, you made that a motion. Because that's so we're going to add that to this. But that's already a motion. Okay. All right. Okay. I'll call for the vote on the motion to add that to the condition of approval. Regarding Okay, all those in favor.

The members of the Board approved the motion with a unanimous vote of 7 in favor, 0 opposed, and 0 abstentions.

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Okay, that's unanimous. Okay, we're going to add that to the conditions of approval. We can reiterate it.

Mrs. Luszcz 1:42:49
I didn't write it down.

Mr. Reed 1:42:53
All right. I will do my best with this. All right.

Motion:
Mr. Reed made a motion to approve application number 2022-012 a subdivision application for an 11-lot open space residential subdivision, located at Nottingham tax map 72 lot 13-1 only with regard to the adequacy of street access by Mooer's Road and the impact of the proposed use upon it pursuant to RSA 674:53 Roman numeral four. This approval is granted with the following conditions. This applicant must obtain all required local state and federal permitting for the project and, and provide copies of the same to the Community Development Department to deeds easements, conservation easements, condominium documents, maintenance agreements and any other legal documentation pertinent to the project shall be reviewed and approved by town council, and where applicable the board of selectmen pursuant to RSA 41:14-a within 30 dates days of the date of this decision January 5, 2023. A performance guarantee agreement shall be executed between the town of Raymond and the applicant. Failure to execute this required agreement will result in plan approval revocation other conditions imposed by the Planning Board, we would need to notify the Nottingham town, the Nottingham Planning Board that if this subdivision were to cross if the actual construction of the subdivision were to cross the town lines, Raymond subdivision regulation 5. 6.5 would require a turnaround at the town line. And the Raymond Planning Board would request that the Nottingham Planning Board take the need of a turnaround for our DPW and fire emergency vehicles school. the road design for this subdivision. Mrs. Luszcz seconded the motion.

Barry Gier 1:45:06
Just to clarify, by me, yes. Number three. Regarding performance guarantee agreement, what would we be bonding?

Maddie DiIonno 1:45:18
Yeah, that might not apply if this was the standard right language.

Mr. Reed 1:45:21
The only way this would apply is if the two towns got together. And we're going to require the applicant to build a section of the road. That was the agreement that the town of Nottingham required. And then there might be a bond involved if you have to.

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Barry Gier 1:45:36
So, in that case, because we are still in front of the planning board, and maybe we could set it for like, upon approval by the town of

Mr. Reed 1:45:46
Oh, instead of that date, yeah. Okay. Within 30 days of the date of approval by the kind of Nottingham planning board. That works. Okay.

Mrs. Luszcz 1:45:57
I'll second the amendment,

Mr. Reed 1:45:58
please. Okay, I'm amending that we're rolling. All right, within 30 days of the date of this decision being approved by the Nottingham, planning board town of Nottingham planning board. That's under item three, regarding a performance guarantee, which was an amendment and who second,

Kevin Woods 1:46:18
Page two

Mr. Reed 1:46:19
and finish? Oh, I didn't finish the word sorry. Any persons aggrieved by any decision of the planning board concerning a plan or subdivision may present to the Superior Court a petition in accordance with Raymundo Hampshire RSA 677:15 Or as applicable to the Zoning Board of adjustment pursuant to RSA 670 6.5 Roman numeral three within 30 days of the date of decision identified above this notice has been placed on file and made available for public inspection and the record was playing for that we have a second.Mrs. Luszcz seconded the amendment.

James McLeod 1:46:57
I just noticed that my name is spelled wrong here.

Mr. Reed 1:47:09
Would you like us to make that change right now? Sir. How would you like your last name?

James McLeod 1:47:15
Let's remove one of those c.

Mr. Reed 1:47:18

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You only want one so yeah. I don't know. I get pretty fuzzy. Thank you. All right. Any further discussion on the motion? All those in favor?

Kevin Woods - Aye
Dee Luszcz- Aye
Brad Reed - Aye
Scott Campbell - Aye
Jim McLeod - Aye
Trisha Bridgeo- Aye
Gretchen Gott - Yes

The motion passed with a vote of 7 in favor, 0 opposed, and 0 abstentions.

Mr. Reed 1:48:34
Okay, application number 2022-015. A lot line adjustment has been submitted by Joseph Coronati of Jones and Beach Engineers Inc. on behalf of Tuck Realty Corp. The applicant is proposing to adjust some light lines between tax map 23 lot 25 located on Main Street in Raymond New Hampshire in zone D. And tax map 23 lot 29 located at 109 A Main Street and Raymond New Hampshire in Zone B for an overall exchange of .88 acres between the two lots. Would you introduce yourselves please?

Joe Coronati 1:49:18
Thank you, Mr. Chairman. Joe Coronati of Jones and Beach Engineers

Mike Garepy 1:49:22
Mike Garipy with Garipy Planning Consultants.

Ms. Bridgeo 1:49:33
You're doing the lot line adjustment for. Yes. Adjustment prior to us starting this application. I don't think we can proceed. That's not notarized.
Their documentation isn't notarized, so they have no notary stamps on an authorization so on page your authorization from the letters if that's required raise their stamp

Mr. Reed 1:50:22
Where are you saying exactly?

Mrs. Luszcz 1:50:25

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Yep.

Ms. Gott 1:50:27
That the letters of authorization that what you're saying. So, the third before she sent

Ms. Bridgeo 1:50:33
notarized

Mr. Reed 1:50:35
Were the originals notarized?

Mike Garipy 1:50:38
Well, we believe so, but we need to double check out, you know, the Planning file.

Joe Coronati 1:50:44
I don't have the application with me. Okay. But we were actually going to ask for a continuance on this application regardless, we met with the owner property owners just tonight we have a couple changes we have to make to the lot line adjustment plan, so we were going to ask to be continued for the Welsh property.

Mr. Reed 1:51:03
Okay. What were you going to request for continuance what period of time

Joe Coronati 1:51:14
You guys are meeting every two weeks. We probably want to go up.

James McLeod 1:51:17
We're filling up again already.

Mrs. Luszcz 1:51:20
We're beyond full and our calendar doesn't

Ms. Bridgeo 1:51:22
have everything on or we don't go any further.

Mr. Reed 1:51:25
Okay, the next one that I know we have. Potential is in January.

Ms. Gott 1:51:34
That sounds about right. January 19.

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Maddie DiIonno 1:51:38
January 5 is your first

Ms. Gott 1:51:40
but don't we already have the fifth? I don't I can't tell you what it is. I just seem to

Ms. Bridgeo 1:51:48
make a second last day we

Ms. Gott 1:51:50
have a public hearing we've talked about last

Ms. Bridgeo 1:51:53
date. Yes. If we needed it.

Mr. Reed 1:51:55
Okay, if you accept, we can continue to January 5. But if we have to use that day for a public hearing your mate your time might get squished. I mean as long as you're aware of that

Joe Coronati 1:52:08
yes, for public hearing for zoning you mean Yeah.

Ms. Gott 1:52:11
Just clear it goes 19th

Mr. Reed 1:52:15
Yeah, your choice we can, or we can continue it to the 19

Joe Coronati 1:52:19
The 19th is actually fine.

Mr. Reed 1:52:22
Okay. Have the request of the applicant.
Motion:
Mr. Reed made a motion that the Board continue application number 2022 -015 to January 19, 2023 at 7pm at the Raymond High School Media Center.Mr. McLeod seconded the motion. The motion passed with a vote of 7 in favor, 0 opposed and 0 abstentions.

That is unanimous. Sir Your lot line adjustment has been continued to January 19.

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Mike Garipy 1:52:52
Is there a way that we can check the file to ensure that we have those note or notarized letters of authorization?

Ms. Bridgeo 1:53:00
It wouldn't have been your, it's your file. It's not our file. It's your file. It doesn't show on our file. They're not there on our copies from you. They weren't notarized. So, our copies which come from you have no. So, they haven't been notarized.

Mr. Reed 1:53:15
Most of the time they come through as a kind of unreadable little

James McLeod 1:53:19
it's usually raised so

Ms. Gott 1:53:21
well and when it's copied you still see the little dots, and everything should show doesn't show that it was there

Joe Coronati 1:53:27
Just for clarity you don't know if we've ever submitted notarized letters so all letters of authorization from now on have to be notarized.

Ms. Bridgeo 1:53:43
Your application's aspect requires a notarized letter.

Joe Coronati 1:53:49
All right. I'm just saying I don't think that I don't. I'm not sure we've ever done that. But we'll do that from now on.

Ms. Gott 1:53:54
I've seen some

Ms. Bridgeo 1:54:01
some of this one has some

Mrs. Luszcz 1:54:07
Yeah, it does. Okay.

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Mr. Reed 1:54:29
Okay, the next thing on our agenda is application loaded, right?

Mr. Reed 1:54:38
Application number 2022- 014. In accordance with RSA 676:4 IIb in Section 3.003.02 of the Raymond Site Plan Review regulations. The planning board will engage in a non-binding conceptual review discussion with an applicant. Joseph Coronati of Jones and Beach Engineers and an author Raise representatives. On Thursday, December 1 at 7pm. The Raymond High School Media Center discussion will be regarding a proposal to develop property located at Batchelder Road and shown on the Raymond tax map 17 lot 66 and 82 per RSA 676:4 to be the Planning Board may engage in non-binding discussions with an applicant beyond conceptual and general discussions which involve more specific design and engineering details provided. However, the design review phase may proceed only after identification of a notice to abutters holders of conservation preservation or Agricultural Preservation restrictions, and the general public as required by subparagraph. One the Board may establish reasonable rules of procedure rating relating to the design review process, including submission requirements at a public meeting, the Board may determine that the design review process of an application has ended and then shall inform the applicant in writing within 10 days of such determination statements made by Planning Board members shall not be the basis for disqualifying sudden members or invalidating any action taken.

Ms. Bridgeo 1:56:15
Okay. Now,

Mr. Reed 1:56:18
according to our packet abutters were notified for this. That is correct. Okay. abutters have been notified. And notice. This is a design review.

Ms. Gott 1:56:31
disclosures. disclosures.

Mr. Reed 1:56:35
Disclosure. Yes,

Ms. Gott 1:56:36

DRAFT

I work with some of the people that are abutters. I know a lot of them. I've had some of them volunteer. I know a lot of people I have no bearing on my decision making

Mr. Reed 1:56:47
I would also like to disclose that I know a fairly large number of the people that surround this property, went to school with some of them, I will not affect my decision making either. Now, we understand this is a Design Review.

Ms. Bridgeo 1:57:08
It is not. This is conceptual not design review. and I can go through why. But this is conceptual, not design.

James McLeod 1:57:16
I'm confused about this too, because I'm sorry, but the concept is supposed to not have a lot associated with it. If it has a lot associated with it, it's not considered conceptual anymore. Unless that's a reading. So, it would have to be a design review. It can't be considered this is a design review. Okay, so is it a non-binding Design Review? Yes. But doesn't if we take the application as a design review, doesn't that vest the project?

Ms. Gott 1:57:49
Yes, it converts it. Okay. So

James McLeod 1:57:50
Is there something significant, in addition to it not being non-binding as far as the application? As far as our process? It does.

Maddie DiIonno 1:58:00
Your comments are non-binding

Mrs. Luszcz 1:58:05
But the clock starts? No,

Mr. Reed 1:58:09
this is not complete for jurisdiction.

James McLeod 1:58:11

DRAFT

It is not a formal application. This application will be vested before any of our zoning amendments.

Ms. Bridgeo 1:58:21
My concern is not in regard to any of that. I'm looking at plans that if we're going to call them a design review, I would expect that the plans would have some engineer design stamps on these have no stamps. These drawings don't have all of the criteria that if I was going to go to a design, I went in to ask for design for my kitchen, I would expect the plans to have a designer putting parameters. This doesn't have a stamp from an engineer and doesn't have a stamp from these drawings. And I don't mean this offensively. But these done on a CAD system have no engineering, drawing seals on any pages. And if I'm going to review a design, if one of you is qualified to say that you can affirm this information that's on here as an engineer, then that would be considered design. But what you're asking me to do sitting here to review this as a design without this information, being able to be reviewed, design review. I think this is a conceptual plan for us to look at and to have the information put forth.

Mr. Reed 1:59:45
Mr. Coronati, could you shed any light on the questions that are just raised about the level of this review?

Mike Garipy 1:59:51
I can speak to this your regulations and the statutory requirements for design review are fairly clear and I submitted a plan that meets the statutory requirements for design review. And we're, we've been noticed as such, and that's why we're here. Like the gentleman here mentioned, there's sort of two review tiers of conceptual, conceptual, there's preliminary consultation, and then there's design review. That preliminary consultation would not, we would not expect to see plans drawn to this level of detail. We'd be talking more in generalities and asking questions about your master plan and your zoning ordinances in subdivision or site planning regulations. This is detailed on a plan to be considered for design review, it doesn't need to be fully engineered, and it's not expected to be. And that's why you don't see stamps, you typically don't see stamps on plans that aren't fully, fully engineered, and ready for you full formal review process and peer review by your town engineer, etc. So, we're here for feedback on the conceptual plan under a design review process. We've been here before, a few months ago, investing in issue is sort of moot because we've already been here under design review. So, we're here again, to sort of continue that process.

James McLeod 2:01:19

I was just making a procedural point. So that everybody understood, I wasn't trying to say no, no, your project wasn't or was

Ms. Bridgeo 2:01:31
Even prior to that, and if we're going to go back, then we will start at your application. We'll start at the first page of the application? Let's start with the zone. So again, we're going to say that this is a design review, not a conceptual review. And I'm going to start with the zone. Zone C3, is this zone C3 , east or west?

Joe Coronati 2:02:09
This is West,

Ms. Bridgeo 2:02:11
that is missing from the application. So, it says the number of lots is 296. The number of lots would not be 296. Lots, that would be your number of units. Currently on your drawing that you have, how many lots are on here? To

Joe Coronati 2:02:32
to its 296 units, right? There's no There's no place to check units on your application, but

Ms. Bridgeo 2:02:39
the number of lots is two. Yes. Right. So that would be two lots. So, the applicant Agent information, Turner Porter when we have a letter of authorization. And that is your letter of authorization to turn a border as the agent applicant? Or is the person who signed on this, which needs to be notarized, and I cannot tell that signature, but who is that signature? Is that signature Turner Porter, who signed this and it's notarized. That's my signature. Okay, so then you are on here where he's at, you're acting as if you are the acting agent, or is it trying to pour?

Joe Coronati 2:03:30
That's me. I'm here.

Joe Coronati 2:03:31
I'm Joe Coronatii. I'm yeah, I signed it as I submitted the LOA. That's what the LOA gives me permission to do is sign

Ms. Bridgeo 2:03:38
Where you're signing and you're acting as if it's signed from you. Where it does not say that you're acting as your agent on that page. It says the owner's information as signed, you did sign

DRAFT

it. It should say that it signed as you were acting as the agent for those two people, actually the four people that are lifted listed above. Also on your drawings, you have Crystal McCarthy listed on these drawings and signed off on the pages, but you do not have Donald McCarthy signed off. So, my question to you would be if Crystal McCarthy and Donald McCarthy, husband, wife, uncle, whatever their relationship is, I think they both need to have signed off on this documentation. For clarity for who is actually the owners of these plots. Then we get into the actual lots on your drawing where they post on here, they have not it says that this is not it does not match. We have crystal McCarthy on some Donald if it is both of them. If something's changed in a deed or something changed. And they were they both should be party to sign on all of this, because if they're both the applicant, and they're both on here, they can vote the signing on that. Unless Christopher McCarthy gives permission. Donald McCarthy would need to give Christopher McCarthy permission to be his agent and speak on His terms. And maybe they did. And I don't know their relationship to know whether or not they are.

Mike Garipy 2:05:32
We do have letters of authorization that are notarized for all of the owners of record. So, I'm not,

Ms. Bridgeo 2:05:40
it is different in your documentation. Some of them say, from Christopher, some of them say from your front that it's Christopher and Donald and some of the documentation does not have both of their signatures. So, I'm asking whether or not you can clarify that if he's acting as his agent, and then you're acting as his agent. I would just like, if Christopher is having Donald having Christopher act as his agent, and you're acting, and he should put a letter saying that you are authorized any legal action, because we're taking a review of these plans, under the assumption that everybody has given authorization

Mike Garipy 2:06:18
the letters of authorization are pretty clear. That are this shouldn't be in your file. They're notarized. They authorized Jones and Beech to act on behalf of the ownership and the applicant. And I guess we could certainly

Ms. Bridgeo 2:06:33
make sure that yes, that that, and again, if they, if they had a falling out, and then they both didn't sign, they both need to be the ones on the documentation inside your drawing has the names different as well. Christopher McCarthy is listed, so if you went to page C5 182 is shown Christopher McCarthy lot 66 is done, as John and Angela Richard.

Joe Coronati 2:07:07
Seen right at the bottom in the title block. Yep. That's the same on all the plans.

DRAFT

Mrs. Luszcz 2:07:20
It's not mentioned.

Ms. Bridgeo 2:07:21
No. Two different lots. It's,
Mike Garipy 2:07:24
I don't know, quite expecting to get into this level of detail. We sort of were hoping to do a, maybe a broader review of the plans and our proposal, but if we were happy to address a lot of technicalities, this is really a broad-brush review of the plans. We're not that the plans are, as I said earlier, they're sort of half baked, they're not fully engineered there. They haven't been vetted for spelling and grammatical errors. I mean, we're really just before the board tonight to sort of further advance the discussion to get some more feedback from the neighbors. But if there are a lot of issues that you have, we'd love to maybe have them somehow submitted to us so that we could, you know, take them into consideration as we move forward and make corrections when we're ready to submit a full application. But it seems a little premature to go through it. No disrespect, but a little bit.

Ms. Bridgeo 2:08:20
No, no disrespect. Also, sir. But so, I'm looking at a project that's impactful, we're getting a lot of projects in town that are impactful true if the owner on record is unclear. The decision making in even the public hearing decisions when the owner of record on here is different than that, to me that that is a concerning issue of who is the actual owner on records of these. You're asking for a project and proposing a review. And it goes even further because your insert shows that this lot has this tail, but yet you're drawing. I don't see it that way. That's why I asked if it is two lots, three lots. And I think that the basic of understanding which lot this is in, how many lots and where they are is important. It's important for this review, it's important for the design, it's important for calculations.

James McLeod 2:09:21
You'll just know that that drawing also has because some of these have it shown and some of it doesn't. And that little bump file says something about I'm deeded property.

Mike Garipy 2:09:36
We don't necessarily we don't necessarily show the entirety of the parcels on this plan in front of you. But the developed proposed development area is and there's some portion of the property that is sort of clouded with Title questions that we haven't figured out yet. But it's also a portion of the property that we never plan to develop it soon.

James McLeod 2:10:00
a different zone is being used in your calculations.

Mike Garipy 2:10:03
It's not being used in our calculations either. So, we just excluded it from the overview plan just for this. It wasn't necessary to crowd the plan with land that we weren't proposing to develop, it'll likely just end up being open space.

Ms. Gott 2:10:18
But it would be included at a later date at a later date, maybe and maybe

Mike Garipy 2:10:21
determine whether or not it's owned by current ownership or not.

James McLeod 2:10:28
With the ownership of others outside Yeah,

Ms. Gott 2:10:31
sure. I was fine till I heard that last little bit of it

Mike Garipy 2:10:35
Was a portion of the larger lot that is a questionable title as to whether or not that tract is part of the entirety. So, the ownerships clear, as far as the large lot, whether that appendage to the west is owned, is still questionable, that we're working through with survey and our legal team to figure it

Mr. Reed 2:10:57
out. So, we know we've got some legal stuff and some questions to answer on that. But we only have a few minutes left tonight. Could you walk us through the changes from the last time you were here since you're here? And so, I'm not going to ask, I'm not going to allow any more questions right now. I want them to get through.

Ms. Gott 2:11:13
This is an important one. Because we're always important. Before we go any further, I see people recording and taking pictures. Is that allowed? Do we have to get permission to have, for example, someone take a picture out? I'm not a lawyer.

Mrs. Luszcz 2:11:29
It's totally allowed. Legal.

Mr. Reed 2:11:34

DRAFT

Would you walk us through the changes from the last time? Yes,

Joe Coronati 2:11:39
we'd like to. Thank you, Mr. Chairman, Joe Coronati, Jones and Beach Engineers, Mike Garipy from Garipy Planning Consultants. The last time we were in front of you we had just the McCarthy property. We heard a lot of input from the planning itself. We heard a lot of input from the abutters, certainly. And we went back, started doing more of our homework on the parcel, did more survey work, which we've advanced the plans a little bit since the last time you saw this is you're now looking at real topography, real wetlands, real boundary lines. And still the conceptual design, however. So, we've, what a lot of the concerns we heard were based around access to the property traffic. At the time, we were discussing that the main entrance would be on Mark Lane and a secondary access on Wendover. Since then, the applicant has put an additional piece of property under agreement, which is in the same zone, the C3 zone. That was the Richards property. And that's the I'm going to try to use don't blind you, Mike. The Richards property is up in this, this corner northeast corner of the parcel; it has fronted John Batchelder and Old Fremont Road right around here. What this allows us to have been actually a third entrance into the site; we would perceive that the Batchelder Road entrance would be the main entrance to the subdivision. And we would still have the same connection on Mark Lane, and we still have the same connection on Wendover. So, this added some additional units, that Richards property is roughly around 20 acres of land. There was an existing house on that property that is not going to be part of this development, that house would be subdivided off onto its own lot and retained by the current owner of the property, he would keep the house and just sell the land. So, we've got additional peace . We actually had a meeting with the former public works director, and we went on site to look at all the entrances. That was another concern of a lot of the abutters was the sight distance and you know, basically the entrance locations so it's a little hard to see at the scale plans of 11 by seven teens, but we would be Mr. Fabrics in at the time. You know I really thought that the s curve on Batchelder could be improved. It's rather, it's kind of a reverse curve on Batchelder. Road. And there's it's not under stop sign control. And so, a lot of you know, a lot of cars have to take that S curve every day. And it's rather sharp. So, if you look at the plans, kind of, I guess very closely, it's kind of hard to see what we would be proposing to actually adjust those roads a little bit, make that road a little straighter. And then extend old Fremont Road, to line up with our driveway. So, there'd be it could be, I know, Mr. Fredrickson is not here anymore. But you know, as we go forward, and with we look at this intersection, this could be a four way stop, it could be just a two way stop and continue to allow the traffic and Batchelder to go through without being impeded by a stop sign. So that's something that he thought was a good improvement to that location. And there is an existing house across the street from the entrance that complicates things because they have a driveway in the mix of all of that intersection as well. And so that would be something I think we'd look at a little further. But we thought that was important as that would be something we'd be looking at doing on site. To help with this. We are working on getting a traffic study put

together. Steve Chernoff will be analyzing the traffic analysis for this site and generating a traffic report. The existing property that we had shown before really hasn't changed much, we may have adjusted a couple of coldest acts slightly to work with the existing Topo a little bit better. But if you were to compare the old plan and the new plan on the main McCarthy property, you won't see too many changes. It's generally the same as what we presented before. And we have submitted a zoning determination to the town that's been reviewed and accepted. The other thing that we were asked to do was look into the water. The water for the projects, we've submitted letters requesting a review for water availability, we still have not yet received even an escrow amount from the town's engineer, that we can start that process. So, we're hoping to do that as soon as possible. But we are still waiting to get a I guess an amount from Underwood engineers that we have to put up for an escrow so that process can be started and any help the board has with that we'd be very much appreciative. But the picket, I know Christina has reached out and I know I submitted it. The letters long enough ago that day, Fredrickson was still on staff. So, I know he sent them forward. So that's something that we still have to work on. In complete. And the I think that's pretty much all I have. I was wanting to keep it brief. I know there's a lot of abutters. Sure, have questions, comments, and I wanted to give them enough time to

Mike Garipy 2:18:53
I think that they would mention just before we open it up to everybody else that we have I've had a chance to meet with some of the neighbors and some of the abutters. Most particularly those that live up along Mark. So, we've had some initial discussions, there's still a lot more talks to have with not just those folks, but others that are impacted by our project. So, we're, we continue to be open and available for folks to express concerns and hopefully we can mitigate impacts as we go forward with our design process and as we design plans.

Mr. Reed 2:19:34
Thank you. Okay, just looking at the overview. Anybody on the board have any questions? I know we've got a bunch of clerical stuff needs to be straightened out.

Mrs. Luszcz 2:19:47
At the beginning of this presentation was talked about a property with a title deed in question. Can you point that out?

Joe Coronati 2:19:57
Yeah, there's so there's You're looking at tax maps, you'll see that there's a little finger that sticks off the side of the property. And our surveyors have been looking at it. And as Mike said, they've been working with legal but there's some old corporations that owned part of these

properties, Martin Corporation, and the there was another one. And as these corporations went under, they didn't always transfer the property properly. So, I think they may have thought they transferred it properly. But Sophia, I think right now we're calling Z three. Yeah, C3 we have as an unindexed parcel, we believe that it may still be owned by the Marden Corporation, which is, which is no longer a corporation that we could find.

Mrs. Luszcz 2:20:53
So that large rectangle, it's not a perfect rectangle, right, this whole piece here

Joe Coronati 2:21:00
may or may not be if the lawyers, you know, can see away that it was actually legally transferred into the title of the McCarthys, then we may be adding that property. But as Mike also said that the C3 zone line runs down the side of the property and does not include that piece. So that's the same as you know, it's a different zone. That zone is.

Mrs. Luszcz 2:21:31
I think it's B residential.

Joe Coronati 2:21:32
Yeah, it's still residential, but it's does allow the type of development that we're proposing. It's more of a single-family zone.

Mrs. Luszcz 2:21:43
So technically, that piece of property could not be noticed. They were in a butter that could not be noticed.

Joe Coronati 2:21:51
Yeah, well, there's no way to notice them on your tax maps, because they're shown as part of our land. But we couldn't notice Marden Corporation because we have their old address. Right on the plan. But that's from a deed. And so, which is common that, you know, companies that own property, if they if something happens to them, they don't the properties don't always get transferred. Thank you.

Mr. Reed 2:22:24
We're also on the board quickly. Yeah.

Ms. Bridgeo 2:22:29
I have a few questions that you're going to have to go back and look into one is on your first page on over Rex page drawing one of 15. You are in the wellhead protection area; you have that drawn off? Is that removed from your calculations further down? And that's just a question.

DRAFT

You don't have to do it right now. That's your first kind of mistake. And this is all wellhead protected area? Yes. Is this all removed from your calculations

Joe Coronati 2:23:05
removed from the calculator?

Unknown Speaker 2:23:08
Believe it's required to be moving.

Ms. Bridgeo 2:23:12
The other thing is, is that on the application, you use the word interchangeably of duplex and then condominium. And for duplex 14 point 2.7. We need a 10-lot minimum for that in our zoning. And is that something that you have a lot more units up there? But do you have the proposed 10 loss?

Joe Coronati 2:23:39
Coming to us, that's the last part of our zoning and termination letter that we submitted that discusses that. condominium units are a form of subdivision. And so yeah, that's that is covered. So, we technically have in turn, yeah, a lot more than 10 100 Whatever the number is 148

Ms. Gott 2:24:00
units 249.

Ms. Bridgeo 2:24:03
So, you're saying you're saying under the legal term of condominium, you're saying that each one is a separate lot, not a duplex, the condominium so each one's separately owned.

Joe Coronati 2:24:15
Correct, which is a form of subdivision per se says.

Maddie DiIonno 2:24:21
And that interpretation is currently being reviewed by the town's code enforcement officer. He had spoken with me on Tuesday and had agreed with that interpretation. He has since talked to me again today and is reconsidering that. He's going to issue a letter at some point, I believe. So just to make the board aware.

Ms. Bridgeo 2:24:45
Yeah, because we'd have to get to the definition of a lot in the legality of a lot. That right now was why I asked them they said two lots and for duplex minimum of 10 Lots is required. Yes.

DRAFT

Okay. The other thing is, is that we have zone G inland, and it's been marked on here, for wetlands and for slope, what I don't see is any poorly drained soil. Nomenclature, I think that I can't read some of these numbers. I think these numbers on here have poorly drained soils, but we need to have the poorly drained soils also put in the calculations because they are not part of. So, they're part of our zone G and they're removed from calculation,

Joe Coronati 2:25:28
right, there's no poorly drained soils outside of the edge of the wetlands. So, they're all encompassed within the wetlands. So, they are included.

Mike Garipy 2:25:38
We can have our environmental folk letter to that effect.

James McLeod 2:25:43
If I can just interject for a second, I would really like to see this lot with all the G land with all the poorly drained soils with all the stuff that's in the calculation sort of highlighted, because this is yeah,

Mike Garipy 2:26:01
It's a big parcel. And it's a small page. So, we can certainly do a color.

James McLeod 2:26:08
So much easier to be able to determine where you're drawing those lines. Yeah,

Ms. Bridgeo 2:26:14
Some of the setbacks for our shoreland protection under 15. 2.6. When I look at this, and again, maybe it's correct, and I just can't read some of these, it just doesn't look like in that 75 feet, it just doesn't look like some of these are, again, not going to go through everyone now if you could take a look into that.

Joe Coronati 2:26:38
So, I missed that too. What was the 75 feet,

Ms. Bridgeo 2:26:40
it's from our shoreline protection. 15. 2.6. It's 75 feet from any body of water six months out of the year. River. So, it's 15. 2.6. And that's a 75-foot buffer, you read zoning for that. 5.2.1.1.2 impervious surface. Now, I don't know maybe it's for later, you'll be talking about that for anything over 2500 square feet, I would presume that this is going to be significant. And I don't see anything addressing that. That will be later you will be asked pervious surface

DRAFT

Joe Coronati 2:27:22
impervious surfaces, like stormwater? Yeah, we definitely have

Ms. Bridgeo 2:27:25
a water and yeah, so we'll have

Joe Coronati 2:27:27
stormwater design,

Ms. Bridgeo 2:27:30
in the calculation for what the percentage of impervious surface is going to be from here.

Joe Coronati 2:27:35
Sure, we can do all that once we get to that point.

Ms. Bridgeo 2:27:46
Matter you may already have 6.4.4 is, again for the drawings coming under the site plan regulations for a site plan for parking and utilities to be showing us where they would be on these drawings. Right now, the rectangle boxes aren't putting them out there. There's also

Joe Coronati 2:28:10
I can describe the buildings, you know, the buildings are basically two-family units, they each have two car garages with a driveway in front of them, that's what you're looking at in those tiny little boxes. So, each unit would basically have parking for four vehicles, two in the garage and two in the driveway.

James McLeod 2:28:31
These two- or three-bedroom units.

Joe Coronati 2:28:33
These are all two-bedroom units.

Ms. Bridgeo 2:28:43
And then the buffer from the 102 side from the newly acquired land. If you could go back and check to make sure that that first house coming in, isn't it has to be 500 feet back from that 102 intersection. I think that first corner has to be checked. But all of that there's all those issues on there. If you go back to go through measurements, distances, buffers, shoreland setbacks, having five feet. As I said I can't read the soil, but I want to know but poorly drained soil needs to be referenced as well as slope and wetlands. Thanks.

DRAFT

Mr. Reed 2:29:33
Anybody else? Speak quickly. I want to give the public a chance for which I've been waiting.

Ms. Gott 2:29:38
I don't know what this is appropriate. I want to ask for a full community impact statement. Community Services impact so that we don't need to talk about that right now. I'd like to give the public a chance but that's something I know I will be asking for the full community.

Mr. Reed 2:29:58
I've already said they're doing the trick. I've extended they've already talked to the water DPW.

Ms. Gott 2:30:04
So, they've begun their safety school, all of the possible impacts for our community.

Mr. Reed 2:30:10
Okay. All right. I'm going to ask you, gentlemen, if you could move.

Mr. Reed 2:30:24
We have to be out of here in 30 minutes, folks. I know a lot of people have been waiting. And I want you to keep this as brief as possible. I don't want to have to be rude. Oh, well, we've Yes, that's fine. Yes, that's fine. What we are most interested in are your comments on what you've seen tonight. We're just beginning this process. I want to make that very clear. And Tricia read you the beginning of our zoning. And how we are concerned about this, too. We know, we are very, very concerned about a very large project. Yes. Gretchen,

Ms. Gott 2:31:03
Do abutters go first, and then public general public or is there doesn't matter.

Mr. Reed 2:31:07
It's open to the public. They've all been here. Yep. Everybody's been here. I respect that. You've had your hand up for an hour, sir.

James McLeod 2:31:15
Just before he starts, I wanted to note that this Hackett with our support documentation is available online on the town website. This didn't go up until yesterday or today, this one, which

DRAFT

is unfortunate. But all the information that we're reading off from you can find on there this packet.

Kurt Sayers 2:31:40
I'm Kurt. So, I live on Batchelder road. And I have some old business from the previous meeting, which didn't get touched upon which I'd like to raise again, first of all, being legally as you offer to walk the property because one of the abutters claimed some of the wetlands were disturbed. I don't know if that happened, or any result from that

Scott Campbell 2:32:03
I never was contacted about it, but I'm still open to walking it. Okay.

Kurt Sayers 2:32:08
The Planning Board claimed at the last meeting, they would notify the Washington Road and Windover road residents who are not direct abutters about future planning board meetings concerning the development because they were discussing a possible routing of some traffic from the development into their neighborhoods. I've talked to people on Wendover in Washington row, those notices did not were received. So, I don't know what happened there. To get to the meat of the things here, I'm really deeply concerned about the aquifer issue, which we have not exactly discussed. But basically, we're talking between this development and the one recently improved, we're talking about 1500, plus additional people drawing from this aquifer. And my understanding is that whether they draw from the city well, or whether they trigger their own wealth, we will all be drawing from the same body of water. Our association has had dropping water pressure historically over the last couple of years, and we have hot, dry summer temperatures going up. It does not look like historical values for water are really a reasonable basis for saying is this a safe thing to do looking forward to a property. Who will exist on this planet for at least 30 to 50 years or more? I would really like to see a hydrological legitimate report saying what kind of capacity we have. And some idea of how many users it's quite clear, we're going to have more it may we may have more users than currently on the aquifer now. And we're having some issues. I don't want to be held responsible for digging deeper wells for the right of these people, and for this developer to make money and in all of this and bring more people in the town to raise my costs. I am concerned about this. I'm not an expert, I am hoping someone will get called in on this point. Maybe this is all part of the process of it. I'm sorry. I'm also concerned about the state of the aquifer with respect to fact, when you do involvements like this, you have roads, you have foundations, you have driveways, this is a very large area, which collects water and eventually gets down the aquifer or at least a good portion of it. And I would really like to know what's going to happen on that end, too, because what you assume is based on open exposed land, and this is not going to be the case if this is developed. I'd also like to talk about the Batchelder road situation. If anyone goes down that

road and just about any time of the day, you better be prepared for a wait. And you'd have a hell of a time going either north or south on one or two down there as it stands. So, if you These routes are going to be used for this quite additional traffic. And I presume that this is done for this property, I presume that the adjacent approved property will somehow be connected. So, it will receive the same access rights, I don't know. So, we're dumping a lot of people there, we have no traffic light, you're talking about, you need to widen roads to additional lanes. We drive into town, around rush hours, three, parking three, three light parking lots down there. And you're talking about putting significant numbers on the people who will be relying on 102, north and south to go wherever they need to go, whether it's for work, support, whether they want to get a pizza, whether they need to go to the hardware store, or whether they need to get groceries, and quite frankly, down there, we're getting jammed up real bad right now. And additional stuff like this is going to make this quite a bit worse. And I'm really concerned about that. That if you don't, if you make a Wendover connection, you're offering a superhighway through these backroad neighborhoods, which are narrow and very, very quiet to exit for a lot of people walked down there, it's a very nice stretch, you can do about three miles of walking with your dog, your child or just yourself. And if they're going to be dumping significant traffic through that some of the road back there on Washington's in terrible shape. These people don't want this huge amount of traffic dumped through the neighborhood. They care about it. And you'll hear from more of them, I'm sure on that front. I'm concerned about the wetland assessment with respect to the fact they said it was done this summer. Well, hottest, driest summers ever. Bloody then. And my question is, what does a wetland measurement mean? In that respect, looking forward, climatically all the things the last 10 years don't hold anymore. And assuming it will, will basically I think, basically end up we're going to have a shortfall that's going to punish all the existing owners around its perimeter. So, I have a real problem with the number of properties right here, I really do in terms of its demand for the water, is traffic, and all these other considerations, and let me offer a really disagreeable proposal. And that is all the properties around this property wrongness development of roughly two to four acres, a lot per and that's a reasonable load on the land. Now, they're not going to want it because they want to put as many properties in there as possible. But all of these problems are high density is bringing in here. I don't consider it acceptable put to a 95 there, I think it's ridiculous. I worry about people putting how a septic responsibility going to be with all these properties around there who's going to take care of that it's going to be a group thing, an individual is responsible, I don't know. So that's basically, that's, that's the Mile High view, I've got four pages of concerns, I would love to pass on to you in either hardcopy or software form for you to consider offline. Thank you.

Mr. Reed 2:38:25
If you can forward any information like that to the town office and care of the planning board.

Mrs. Luszcz 2:38:30

You can take a hardcopy email that

Kurt Sayers 2:38:34
Also, I've walked the property. I've taken a ton of pictures. I don't know who has walked the property. There's a lot of damage that has been done already. And I don't know if it's acceptable or unacceptable to know a lot of stuff that's been laid down and I'll have photos if anyone wants to see that.

Mr. Reed 2:38:53
Okay, somebody else here

Ms. Gott 2:38:54
says, hey, should he submit those pictures?

Mr. Reed 2:38:58
he can do that. I'm just trying to say we've only got a few minutes left.

Unknown Speaker 2:39:03
Jody Gregoire. 3 RJ Way.

Jody Gregoire 2:39:07
So, you got some all this came off the Raymond website and I went further but I didn't print that information. We got the Raymond Conservation Commission, and it provides a plan for opening the open space plan you call them and a lot of this is in regard to that particular lot is on a map that states a priority parcels. So is it 62 and 82 or 66 and 80. So 82 is in the green zone. It's labeled here on your so that part of the plan was to conserve the purpose of the concept Basin Commission for proper utilization protection of all the natural resources and the protection of all watershed resources. Here's a Raymond water land map. And then 18 goes directly through that law 82 We're already developing down on 102. South into this watershed with that project that's down on 102. We're all aware of that, right. It's already interrupted that watershed. And this is only Raymond. I mean, you get the Lamprey River in the Southern New Hampshire preservation Council, although it shows the same thing. And that's pretty much to make it quick. It's all available on the Raymond site. So where are we? I mean, we're going to start draining the aquifer that feeds the Lamprey River, concerns other towns further down. And it's just going to put a load on the water system that's on tolerable, in my opinion, let alone the traffic the gentleman just mentioned. From my experience, I have a pond on my property. There was a developer who came in and developed the six condo units in front right across from Pine Acres. They put in some drainage ditches. The pond hasn't had water fill since it has it in the spring when there were snow melts. It's dried up by summer. So that pool is damaged. Now there

used to be muskrats there. Gray herring, green herring. It's all gone now. Thank you. So, keep developing something up the water,

James McLeod 2:41:54
if you could give that hardcopy tonight as she can scan that for us so that we can have it.

Dave Marsden 2:42:02
Dave Marsden, 97 Batchelder road. I'm right next to John's property. And I can't stress the fact that the water is back. So right now, there's a burnout pond directly behind my house. And they did part of the survey in the summertime. 90% of that was dried up upon the squirrel again. And I think there really needs to be assessed of where that pot ends to where the new development is. Furthermore, in August, water pressure dropped off significantly. I had issues getting water in my well right there. I was wondering how we are going to support all of the septic systems on this property if this is going to damage it. Not to mention we are going to run out of water. That won't be enough. It dried up so much this year. It was almost non-existent. I was concerned about my well water and having a big another well. Putting hundreds and hundreds of more people on that same aquifer. It's not going to work. For a problem. Thank you.

Mr. Reed 2:43:15
Thank you. Sir. Can we get this? Can I bring the microphone do sir.

Mr. Hamilton 2:43:26
Sorry. Dave Hamilton, I share the concerns. Mary and I have been there since 1987. I know the S curve you're talking about because every year I helped pull cards out of there because they don't make them turn young kids and my dad and I could speak from Craig about the water. We said Well, in fact that down when they get some order about one point, we said no. It was springtime. You can see the water coming up out of the top of the site. It's a deep well, it's a goodwill. You can't see that. And we go to the wetlands in the back. That's why the property Excuse me 22 acres. We can only develop in the first eight. That's where all the homes are all single units. We tried to get them to change to cluster housing. They said no, you can't do that. Why don't we know what hands the rest of the acreage, most of its wetlands, where you walk that care now and we're saving time it's drying. It's not on the water, a lot of moisture back there. That's my concern. My concern is not stopping anybody. Just to make sure I'm glad somebody mentioned about the aquifer. It needs to be checked. That holding was a very dangerous road if you don't know what you're doing.

Mr. Reed 2:44:53
Thank you, sir. Anybody else? Thank you.

Craig McAlpine 2:45:06
My name is Craig McAlpine. I live at 36 Old Fremont Road. I live right across the street from that proposed wonderful main entrance of yours. Gretchen, you wanted an impact on the local people. I can give you one. It is not good. You want to bring 296 units into Raymond on an already overstressed school department, police department, fire department and water supply. I can't even believe that you're entertaining this thought. Mr. Sears already covered the traffic. I can give you a pan view of the traffic right in front of my house. morning and night. It is backed up. had more but I can't think of it all now. But I'll give everybody else a chance.

Mr. Reed 2:46:03
Anybody else? Come on up, sir.

Unknown Speaker 2:46:08
Hi, Dennis Coladry, I represent one Chester Road. Kind of the first-time hearing this, I just got a letter in the mail two days ago. It's the first time I've seen that plan that has condominiums going back-to-back with commercial businesses that are low tractor trailers. And I don't see that kind of work out well for anybody. I don't see a good for the residence that would go there. And that's going to turn into an issue for my company. When we have residents complaining about businesses currently going on. I know it's completely different from what everybody else in the room is about. But there's another impact there's a commercial impact on that of a business has been there for 20 plus years, paying taxes doing the right thing, you're going to put residents within 50-foot buffer. As I said the first, I've seen about 75 feet of unloading tractor trailers. I'm sure they'll kind of complain about that. And everybody back here with zoning issues about commercial vehicles and residences, and it's going to open on a whole different side of business and can of worms.

Ms. Gott 2:47:14
Can I just clarify where he's talking about? Are you talking about the condos, the business condos or

Denis Coladry 2:47:19
no? One Chester Road for the first one coming as a backstop to that's why I just got the notice recently because that's the news from this is just gathering here in the last hour. That's the new section that they added, you know goes behind us. And that's why I just received the letter. And that's the first time I've ever seen the map or even knew what I was why I was here. So that'll have a commercial impact also.

Scott Campbell 2:47:44
It's also a building being proposed next year, that's going to increase that area Correct.

Denis Coladry 2:47:49
haven't even heard about that one,

Scott Campbell 2:47:50
I believe talking to a commercial building going next to you.

Unknown Speaker 2:47:54
Okay. So, the left or the right.

Mr. Reed 2:48:14
Thank you, sir. 30 years. Anybody else want to speak? Come on up, sir. We only have a couple of minutes left. Can we get through

Mark Grant 2:48:39
My name is Mark Grant, 24 Washington Drive. I'm just going to talk about the roads. They're really needing upgrades right now. Right on Washington drive where I live, that is the original section of asphalt, the first part of Washington drive from Batchelder to where it goes up the hill and then back down. That was just done about 10 years ago, within about the last 10 years. And that's already shown wear and tear. And that's a blue section. And all the rest is the original 30 years old when they built the extension. And I believe that as we go forward, if we don't take care of the roads, all these backups are going to get so horribly bad that it's going to be hard for us to get to the grocery store, or to church. And I think that it's kind of odd that we're deciding on something so huge in the roads themselves right up to they're already carrying the load they can under traffic volume. And that's I have many more things I'd like to talk about, but that's the one aspect.

Mr. Reed 2:49:47
All right, I'm going to close the public comment now. We're out of time. I thank you folks for all coming. I was not here at the last meeting. I want to reiterate that we're just beginning this process. We live here too. We are very concerned about what's happening. We all drink from the same. I like to say pool. I think somebody was saying.

Ms. Gott 2:50:14
So, there will be opportunities further after.

Mr. Reed 2:50:17
Yes, there will be further opportunities. Were just beginning as folks,

Ms. Gott 2:50:20
as the plans evolve.

Mr. Reed 2:50:23
Don't know what the deal was with other people being notified. That's my first-time hearing of that.

James McLeod 2:50:28
Can I make a quick motion for the water planning committee? There is a little bit of cleanup that we need to do.

Mr. Reed 2:50:36
Yes, we have time for that.

James McLeod 2:50:47
Motion:
Mr. McLeod made a motion to appoint Kevin Pratt to the water plan committee. Mrs. Luszcz seconded the motion.

Ms. Bridgeo 2:50:57
He's here. So, did he come?

Mr. Reed 2:50:59
I want to interview him. Are we okay, well, no, I know. Oh, I'm sorry. We need to have a motion first to end the design review portion of me.

James McLeod 2:51:12
Motion:
Mr. McLeod, I made a motion to end the design review. Mrs. Luszcz seconded the motion. The motion passed with a vote of 7 in favor, 0 opposed and 0 abstentions.

Mr. Reed 2:51:18
Want to make a motion?

James McLeod 2:51:33
Motion:

DRAFT

Mr. McLeod made a motion to appoint Kevin Pratt to the water plan committee. Mrs. Luszcz seconded the motion. The motion passed with a vote of 7 in favor, 0 opposed and 0 abstentions.

Mr. Reed 2:51:40
Okay. Right. And we had a second. A second to be second. Kevin. We've just gotten a motion to the water committee. Okay. Are you willing to serve on that? Show? Sure. Actually, just a bit of cleanup. Okay. All right. So, we have a motion in a second. You know, the gentleman. We're running out of time. All those in favor? Aye. Aye. Unanimous. Thank you, sir. Okay, now, do you have those minutes? Could you read those? I'd like to get those in the record from that other meeting of the committee.

Mr. Reed 2:52:20
We'll do it next time.

Mr. Reed 2:53:07
You asked me you wanted to mention something about one of the applications

Scott Campbell 2:53:31
A formal complaint.

James McLeod 2:53:37
So, the water planning committee had its inaugural meeting. And we also met with an NHDES today on the tannery site, and the minutes will be posted. And I asked that staff add them to our packets that will keep everybody informed.

Ms. Bridgeo 2:54:01
Motion:
Ms. Bridgeo made a motion to adjourn. Rs. Luszcz seconded the motion.

Mr. Reed 2:54:05
Second, Second. Second, oh, you have something else or your second. Okay. I'll retract my second redirect there for a moment

Kevin Woods 2:54:12
CIP did present a draft of a CIP plan. I don't know when they're going to meet again. And I understand there's also some discussion going on about possible people to talk about impact.

Mr. Reed 2:54:34

DRAFT

Thank you. We have a motion and a second.

Mrs. Luszcz 2:54:38
Second to adjourn.

Mr. Reed 2:54:41
Okay, all those in favor. The motion passed with a vote of 7 in favor, 0 opposed, and 0 abstentions.

The meeting adjourned at approximately 9:55 pm.

Respectfully submitted,

Jill A. Vadeboncoeur.

DRAFT