



TOWN OF RAYMOND
NEW HAMPSHIRE

CONTRACT DOCUMENTS

FOR

BITUMINOUS CONCRETE PAVING

OF

TOWN ROADS

2023-2024

Copy # _____

Table of Contents

- 1. Advertisements for Bids**
- 2. Summary of Work**
- 3. Information for BIDDERS**
- 4. Bid Form**
- 5. Agreement**
- 6. General Conditions**
- 7. Technical Specifications**
- 8. Appendices**

ADVERTISEMENT FOR BIDS

RAYMOND, NEW HAMPSHIRE

Bituminous Concrete Paving of Town Roads

The Town of Raymond, New Hampshire is requesting proposals for the rehabilitation and resurfacing of selected town roads. Work includes site and pavement preparation, application of hot tack coat, shim course, overlay wearing course, in-place reclaim grinding, blending in of supplemental stone, grading, compaction, installation of binder course, associated crushed gravel shoulder and driveway apron transition work as necessary.

The Bid Proposal shall include estimated quantities, tonnage and prices for all defined items necessary to complete the scope of work stated in the Bid Documents.

Sealed Bids for this project shall be received by the Director of Public Works
Town Offices, 4 Epping Street, Raymond, New Hampshire, 03077

No later than 3:00 p.m. on Thursday, October 26, 2023.

Bids submitted after this time and date shall not be accepted.

Sealed bid envelopes shall be clearly labeled "**Bituminous Concrete Paving Bid**" on the outside of the envelope.

The scope of work includes Five (5) Town roads that require hot emulsion tack coat, bituminous concrete shim and overlay wearing course with crushed gravel shoulder dressing and gravel driveway transition material as well as portions of two (2) Town roads that require in-place reclaim grinding, in-place blending of supplemental stone as directed, re-grading and installation of a binder course of bituminous concrete pavement and as further defined in the Contract Documents.

The Town of Raymond reserves the right to modify the scope of the work and award only a portion of the identified roads or portions of roads included in this contract. The Town reserves the right to reject any and all bids for any reason.

Copies of the contract document may be obtained at the Raymond Town Office or at the Town of Raymond website [raymondnh.gov].

Bidders shall immediately register as a Bidder with the Department of Public Works [via e-mail: sgrella@raymondnh.gov] so that the town can collect contact information to advise the Bidders of any addendum materials. Failure to register as a Bidder with the Department of Public Works prior to October 26, 2023, may result in disqualification as a Bidder.

No BIDDER may withdraw his bid for a period of 60 calendar days after the scheduled closing time for receiving bids.

END OF SECTION

SUMMARY OF WORK

GENERAL

The work of this contract is divided into two categories, the second of which may or may not be required due to changes in roadway conditions as determined by the Town of Raymond.

1. Shim and Overlay Paving

The Shim and Overlay paving work includes application of hot tack coating, shimming, overlay wearing course of pavement, shoulder dressing and driveway transition work for the designated roads within the Town of Raymond with the specified materials. Where necessary, the project will include the raising of catch basins, manholes, water gate valves, and other utility frames and covers.

2. Reclaim Grinding In-Place Road reconstruction

which includes the blending in of supplemental stone, re-grading of the road base, compaction, installation of binder course pavement and top course pavement.

The Reclaim Grinding In-Place work includes pulverizing existing pavement in place, grinding additional stone as directed to reinforce the base material, re-grading, compacting base, installing a binder course and top course of pavement and installation shoulder dressing and driveway transition work for the designated roads within the Town of Raymond with the specified materials.

Shim and Overlay Wearing Course work is listed below;

Each portion of the paved roadway listed shall;

be thoroughly swept free of sand, stones and debris,
uniformly apply hot emulsion tack coat over the entire length and width of the road,
Install keyways, by keycutting, where overlay pavement is to connect with existing paved surfaces at all intersections and at start and finish of overlay. Driveway connections do not require keyways.
receive a shim course of bituminous concrete paving to restore the proper road profile and cross section as necessary,
receive a final wearing course of one and a half (1 ½") inch compacted bituminous concrete paving over the entire length and width of the road and at transitions with paved driveways and,
receive crushed gravel shoulder dressing and at transitions with gravel driveways, rolled and compacted.

A. Prescott Road

From the intersections (both) of Prescott and Epping Road (Route 27) to the bridge joint just prior to the Lamprey River Bridge. Then from the other joint edge of the Lamprey River Bridge to just before the Epping - Raymond town line. Then restart paving again at the Freemont - Raymond Town line just past the intersection of Midnight Sun Drive to the intersection of Freemont Road (Route 107). Approximately 12,200 linear feet with an average finished width of 26 feet.

B. Old Manchester Road and Wight Street

From the intersection with Industrial Drive to the intersection of Wright Street and then Wright Street to the intersection of Main Street at its end. The road extends approximately 4,780 linear feet with an average finished width of 30 feet.

C. Randy Lane

From the intersection with Blueberry Hill Road, the road extends approximately 1,420 feet to the intersection of Huckleberry Road at an average width of 26 feet.

D. Epping Street

From the intersection with Church Street, the road extends approximately 2,310 feet to the joint at the Epping Street bridge over the Lamprey River at an average width of 26 feet. Then from the opposite bridge joint approximately a distance of approximately 1,000 feet to the intersection of Francesca Drive at an average width of 26 feet.

E. Scribner & Green

From the intersection with Onway Lake Road the work extends approximately 2,000 feet to just past the intersection of Scribner and Green and then between 17? Green Street and Birch Court at an average width of 26 feet.

Reclaim Grinding and Binder Course work is listed below;

Each portion of paved roadway listed shall;

be reclaimed in-place to a depth of not less than 10 inches,
blend in supplemental stone as directed,
be graded smooth to proper line, grade and cross-section,
be rolled and properly compacted and,
receive a binder course of a depth as noted below of compacted bituminous concrete paving over the entire length and width of the road and at driveway transitions and,
receive crushed gravel shoulder dressing, rolled and compacted.

A. Ashley Court

From the start of the cul-de-sac circle back towards the intersection with Lane Road. The repair section extends approximately 60 linear feet with an average finished width of 24 feet.

Note: Upon completion of the reclamation and binder course placement for the area indicated, the entire roadway surface from the intersection with Lane Road to and inclusive of the cul-de-sac shall be shimmed and overlaid as specified in shim and overlay portion of project.

B. Riverside Drive

From the start of the cul-de-sac the repair section extends approximately 85 linear feet with an average finished width of 30 feet.

END OF SECTION

INFORMATION FOR BIDDERS

- 1. GENERAL**
- 2. COPIES OF BIDDING DOCUMENTS**
- 3. EXAMINATION OF CONTRACT DOCUMENTS AND SITE**
- 4. QUALIFICATION OF BIDDERS**
- 5. INTERPRETATION**
- 6. BID SECURITY**
- 7. PERFORMANCE AND PAYMENT BOND**
- 8. AWARD**
- 9. NOTICE TO PROCEED**
- 10. CONTRACT TIME**
- 11. LIQUIDATED DAMAGES**
- 12. EQUAL OPPORTUNITY EMPLOYMENT**
- 13. PRE-COLLECTION CONFERENCE**
- 14. EXCISE TAXES**
- 15. TAXES**

1. GENERAL

All Bids must be made on the required Bid Form. All blank spaces for Bid prices must be filled in with ink or typewritten and the Bid Form must be fully completed and executed when submitted. Only one copy of the Bid Form is required.

The OWNER may waive any informalities or minor defects or reject any and all Bids. Any Bid may be withdrawn prior to the above scheduled time for the opening of the Bids or authorized postponement thereof. Any Bid received after the time and date specified shall not be considered. No BIDDER may withdraw a Bid within 60 days, Saturdays, Sundays, and Holidays excluded, after the actual date of the opening thereof. Should there be a reason why the Contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the lowest responsible qualified BIDDER deemed to be in the best interest of the Town of Raymond.

It is noted that pronouns such as he, himself, etc., throughout the specifications are used for convenience and are intended to be genderless. No gender preference by the OWNER is intended.

2. COPIES OF BIDDING DOCUMENTS

Complete sets of the Contract Documents may be obtained from:

Public Works Department
Town Office, 4 Epping Street
Raymond, N.H. 03077

Complete sets of Bidding Documents shall be used in preparing Bids; the Owner assumes no responsibility for errors or misinterpretation resulting from the use of incomplete sets of Bidding Documents.

The Owner, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids on the work and do not confer a license or grant for any other use.

3. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

Before submitting a Bid, each BIDDER must:

- A. Examine the Contract Documents thoroughly.
- B. Visit the site to familiarize himself with all conditions within and adjacent to the proposed work zones that may in any manner affect cost, progress or performance of the work.
- C. Familiarize himself with federal, state and local laws, ordinances, rules, regulations and environmental regulations that may in any manner affect cost, progress or performance of the work.
- D. Study and carefully correlate BIDDER'S observation with the Contract Documents.
- E. At his own expense, make such additional investigations and tests as the BIDDER may

deem necessary to determine his BID for performance of the work in accordance with the time, price and other terms and conditions of the Contract Documents.

The submission of a BID will constitute an incontrovertible representation by the BIDDER that he has complied with every requirement of this document and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the work.

4. QUALIFICATION OF BIDDERS

The OWNER shall make such investigations as deemed necessary to determine the ability of the BIDDERS to perform the work, and the BIDDERS shall furnish to the OWNER all such information data for this purpose as the OWNER may request.

To be deemed a responsive Bidder, the firm submitting the Bid must provide a fully executed Bidder's Affidavit.

The OWNER reserves the right to reject any bid for any reason.

Conditional or qualified bids will not be accepted.

5. INTERPRETATION

All questions about the meaning or intent of the Contract Documents shall be submitted to the OWNER in writing no later than 7 business days prior to the bid due date. An interpretation of questions which, in the OWNER'S opinion, require interpretation will be issued by Addenda mailed by certified mail with return receipt requested to all parties recorded by the OWNER as having received the Bidding Documents not later than 4 business days prior to the bid due date. Questions received less than 7 business days prior to the bid due date will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal affect.

6. BID SECURITY

Bid security shall not be required for this project.

7. PERFORMANCE AND PAYMENT BOND

The General Conditions set forth the OWNER'S requirements as to performance and other Bonds. When the successful BIDDER delivers the executed Agreement to the Owner, it shall be accompanied by the required Contract Security.

Attorneys-in-fact who sign Payment Bonds and/or Performance Bonds, must file with each bond a certified and effective dated copy of their power of attorney.

8. AWARD

The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the work, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any Bid for any reason that the OWNER

determines to be in the public interest or if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the work contemplated herein.

A conditional or qualified Bid will not be accepted.

The award will be made to the lowest responsible qualified BIDDER deemed to be in the best interest of the Town of Raymond.

9. NOTICE TO PROCEED

The Notice to Proceed shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be reasons why the Notice to Proceed cannot be issued within such a period, the time may be extended by mutual agreement between the Owner and the Contractor. If the Notice to Proceed has not been issued within the ten (10) day period or within the period mutually agreed upon, the Contractor may terminate the Agreement without further liability on the part of either party.

10. CONTRACT TIME

The number of days within which the Work is to be completed (the Contract Time) is set forth in the Bid Form and included in the Agreement Form. The number of days and the date by which the work is to be completed shall be set forth in the Notice to Proceed.

11. LIQUIDATED DAMAGES

Provisions for liquidated damages are set forth in the Bid and Agreement.

12. EQUAL OPPORTUNITY EMPLOYMENT

It is noted that the Town of Raymond is an Equal Opportunity Employer. Contracts for work under this proposal will obligate the Contractor and the Subcontractors not to discriminate in employment practices.

Successful BIDDERS must, if requested, submit a list of all Subcontractors who will perform work on the project.

13. PRE-CONSTRUCTION CONFERENCE

The Contractor shall not commence work until a conference has been held at which representatives of the Contractor and the OWNER are present. The scope of the Pre-Construction Conference is further described in Section 4 of the General Conditions

14. EXCISE TAXES

Attention of the BIDDER is called to the requirements of the State and local excise tax system on construction equipment. In particular, successful BIDDERS must comply with New Hampshire Excise Tax (RSA 73:15) as it relates to tax assessments on construction equipment. Contractor's vehicles shall be registered in accordance with current State Motor Vehicle laws.

15. TAXES

No amount shall be added for State or Federal Taxes, for which the Contractor can obtain exemptions. The Contractor shall obtain from the State Tax Commission, a Certificate of Exemption for the tax on materials to be incorporated in the work and an exemption from Federal Excise Taxes.

END OF SECTION

AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 20__ by and between

the Town of Raymond, New Hampshire, hereinafter called "**OWNER**" and

_____ doing business as (an individual) or (a partnership) or (a corporation) hereinafter called "**CONTRACTOR**".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The **CONTRACTOR** shall commence and complete the authorized portion of the work identified in the Bid documents.
2. The **CONTRACTOR** shall furnish all the materials, supplies, tools, equipment, labor, engineering and other services necessary for implementation, application, construction and completion of the Project described herein.
3. The **CONTRACTOR** shall commence the Work required by the Contract Documents within ten (10) calendar days after the date of the Notice to Proceed and will complete the same within sixty (60) calendar days unless the period for completion is extended otherwise by the Contract Documents. The **CONTRACTOR** acknowledges that the date of beginning and the time for completion of the Work are essential conditions of the Contract Documents and the **CONTRACTOR** further agrees to pay, as liquidated damages, the sum of Five Hundred Dollars (\$500.00) for each consecutive calendar day that the **CONTRACTOR** shall be in default after the time specified in the Agreement.
4. The **CONTRACTOR** agrees to perform all the Work described in the Contract Documents and comply with the terms therein for the sum of:

\$ _____	per ton for machine applied bituminous concrete wearing course;
\$ _____	per ton for machine applied bituminous concrete binder course;
\$ _____	per ton for hand applied bituminous concrete wearing course;
\$ _____	per cubic yard for installed and compacted crushed gravel;
\$ _____	per Linear Foot for in place Keyway Keycutting;
\$ _____	Per Each adjusting Drainage, and Utility Structures installed;
\$ _____	per square yard for in place reclaim grinding;
\$ _____	per cubic yard for installation of supplemental stone blended base;
\$ _____	per square yard for Cold Planing Bituminous Surfaces;
\$ _____	Lump Sum for NHDOT Signalize Intersection - Loop Detection work.

5. The term "Contract Documents" means and includes the following:

Advertisement for Bids; Information for BIDDERS; Bid Form; Agreement; General Conditions; Summary of the Work; Technical Specifications; and Appendix.

The term "Contract Documents" shall also mean and include the following addenda:

Numbers _____, dated _____ 2023

6. The **OWNER** shall pay to the **CONTRACTOR**, in the manner and at such times as set forth in the General Requirements, such amounts as required by the Contract Documents based on the per item bid sums. Retention from Progress Payments will be in accordance with the General Conditions.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS THEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in three (3) copies, each of which shall be deemed an original on the date first above written.

(SEAL)

OWNER:

ATTEST:

Town of Raymond, New Hampshire

By: _____

By: _____

Name: _____

Name: _____

(Please print)

Title: _____

Title: _____

(SEAL)

CONTRACTOR:

ATTEST:

By: _____

By: _____

Name: _____

Name: _____

(please print)

(please print)

Address: _____

Address: _____

Note: If the CONTRACTOR is a corporation, an affidavit giving the principal the right to sign the Contract must accompany the executed Contract.

NOTICE OF AWARD

To: _____

Project Description Bituminous Concrete Paving of Town Roads

The OWNER has considered the Bid submitted by you for the above-described work in response to its Bid Opening dated _____, 2023

You are hereby notified that your Bid for the following pricing;

- \$ _____ per ton for machine applied bituminous concrete wearing course;
- \$ _____ per ton for machine applied bituminous concrete binder course;
- \$ _____ per ton for hand applied bituminous concrete wearing course;
- \$ _____ per cubic yard for installed and compacted crushed gravel;
- \$ _____ per Linear Foot for in place Keyway Keycutting;
- \$ _____ Per Each adjusting Drainage, and Utility Structures installed;
- \$ _____ per square yard for in place reclaim grinding;
- \$ _____ per cubic yard for installation of supplemental stone blended base;
- \$ _____ per square yard for Cold Planing Bituminous Surfaces;
- \$ _____ Lump Sum for NHDOT Signalize Intersection - Loop Detection work.

has been accepted.

You are required by the Instructions to BIDDERS to execute the Agreement and furnish the required CONTRACTOR'S Performance Bond, Payment Bond, or approved alternative bonding method and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

If you fail to execute said Agreement within ten (10) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your Bid as abandoned. The OWNER will be entitled to such other rights as may be granted by law.

continued to the next page

NOTICE OF AWARD

continued

You are required to return an acknowledged copy of this Notice of Award to the OWNER.

Dated this _____ day of _____, 2023.

OWNER:

Town of Raymond, New Hampshire

By: _____

Name: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by:

By: _____ Title: _____

on this the _____ day of _____, 2023

END OF SECTION

NOTICE TO PROCEED

To: _____

Date: _____

Project: Bituminous Concrete Paving of Town Roads

You are hereby notified to commence Work in accordance with the Agreement dated _____ on or before _____ and you are to complete the Work on _____.

The date of completion of all Work is therefore _____.

OWNER:

Town of Raymond, New Hampshire

By: _____

Name: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged:

By: _____

Title: _____

this _____ day of _____, 20_____

By: _____

Title: _____

END OF SECTION

BID FORM

PART A. BID

Proposal of _____ (hereinafter called "**BIDDER**"), organized and existing under the laws of the State of _____, doing business as:

Insert "a corporation", "a partnership", or "an individual", as applicable

To the Town of Raymond, New Hampshire (hereinafter called "**Owner**") in compliance with your Invitation for Bids, BIDDER hereby proposes to perform all work for the Bituminous Concrete Paving of Town roads, in strict accordance with the Contract Documents, within the time set forth therein and at the prices stated below.

By submission of this Bid, the BIDDER certifies and, in the case of joint Bid, each party thereto certifies as to his own organization, that this Bid has been arrived at independently, without consultation, communication or other agreement, as to any matter relating to this Bid, with any other BIDDER or with any competitor.

The BIDDER declares that no person in the employ of the Owner is pecuniary interested in this proposal or in the Contract for the Work which he proposes to do, that he has carefully examined the Contract and Specification and has informed himself fully in regard to all conditions pertaining to the site where the Work is to be done and has carefully estimated the Work. He understands that the Owner, it's agent and employees, are not to be in any manner held responsible for the accuracy of, or bound by, any estimates or plans or locations of underground structures relating to the Work, and that if any have been given or made, they are to be considered solely as a base for filling out and comparing the several proposals.

The BIDDER proposes to furnish all the labor, equipment, permitting, engineering, surveying and materials required for carrying out the Work in accordance with the accompanying Specifications for the sum specified herein, subject to additions and deductions according to the Specifications, and in all respects according to the terms thereof.

BIDDER hereby agrees to commence Work under this Contract on or before the date to be specified in the Notice to Proceed and to substantially complete the Project within 60 consecutive calendar days thereafter but in no case any later than November 14, 2023. BIDDER further agrees to pay, as liquidated damages, the sum of Five Hundred Dollars (\$500.00) for each consecutive calendar day thereafter. If in the opinion of the Director of Public Works, extenuating circumstances exist and or issues exist with the coordination, timing and provision of Owner provided work which warrant an extension of contract time, such an extension of time may be granted.

The BIDDER proposes and agrees that within 10 days next after the day on which the Notice of Award of this Contract shall be given to him or mailed to him at the address hereinafter given, he will sign three (3) copies of the Agreement in the form provided and deliver the Agreement to the Owner.

Prior to delivery, the BIDDER shall provide the Owner with three (3) copies of performance and payment bonds

and/or approved alternative bonding method, and three (3) Certificates of Insurance for the prescribed amounts.

The BIDDER acknowledges receipt of the following addenda:

No. _____, dated _____, 2023

No. _____, dated _____, 2023

Part B. SCHEDULE OF PRICES

This proposal shall be filled in by the BIDDER with the prices written in both **words and numerals** and the extensions made by the Contractor. In case of discrepancy between words and numerals, the amount shown in words shall govern.

The successful bid shall be based on the bid item price for wearing course of bituminous concrete pavement (item 1 below).

The quantities requested are for estimating purposes only and will not be used for lowest BIDDER determination.

The BIDDER acknowledges that the Town of Raymond reserves the right to modify, adjust and or eliminate elements of the scope of work and related quantities.

The BIDDER agrees to perform all the necessary labor, supply all equipment, furnish all materials, provide necessary engineering, surveying, permitting, construction and do all the work described in these Contract documents for the following single per item cost.

The BIDDER further certifies by submitting a formal bid, that he / she has visited each proposed work site to accurately assess the scope of the construction, construction logistics, traffic management effort, extent of erosion control, volume of shoulder and driveway transition material and degree of difficulty.

SHIM AND OVERLAY PAVING

1. Machine applied bituminous concrete wearing course:

Bid item price for providing bituminous concrete wearing course inclusive of the application of hot tack coating, machine application of the wearing course (NH DOT Type F) of Bituminous Concrete on the designated roads and associated paved driveway aprons as well as any unidentified locations within the Town of Raymond:

Estimated tonnage: 7,600 Bid Price Per Ton: \$ _____

Total dollars and cents for this item based on the estimated quantity identified above:

\$ _____ dollars and _____ cents

2. Machine applied bituminous concrete binder course;

Bid item price for providing bituminous concrete binder course inclusive of installation of hot emulsion tack coat, machine application of binder course (NHDOT Type B) of Bituminous Concrete paving on the designated road and associated paved driveway aprons as well as any unidentified locations within the Town of Raymond:

Estimated tonnage: 100

Bid Price Per Ton: \$ _____

Total dollars and cents for this item based on the estimated quantity identified above:

\$ _____ dollars and _____ cents

3. Hand applied bituminous concrete wearing course;

Bid item price for providing bituminous concrete wearing course inclusive of the application of hot tack coating, hand application of shim paving of wearing course (NHDOT Type F) of Bituminous Concrete on the designated roads and associated paved driveway aprons as well as any unidentified locations within the Town of Raymond:

Estimated tonnage: 50

Bid Price Per Ton: \$ _____

Total dollars and cents for this item based on the estimated quantity identified above:

\$ _____ dollars and _____ cents

4. Crushed Gravel;

Bid item price for providing and installation of crushed gravel against new paved surface on road shoulders and gravel drive aprons including the spreading, leveling and compacting said crushed gravel on the designated road and any unidentified locations within the Town of Raymond:

Estimated Cubic Yards: 1,400

Bid Price Per CY: \$ _____

Total dollars and cents for this item based on the estimated quantity identified above:

\$ _____ dollars and _____ cents

5. Road Keyways, Keycutting;

Bid item price for providing and performing keyway grinding in place of existing bituminous concrete pavement surfaces as indicated within the Town of Raymond:

Estimated Linear Feet: 1,200

Bid Price Per LF: \$ _____

Total dollars and cents for this item based on the estimated quantity identified above:

\$ _____ dollars and _____ cents

6. Adjusting Drainage, and Utility Structures installed;

Bid item price for adjusting and repairing (if necessary) drainage utility frames and covers to finish grade of overlay pavement as indicated within the Town of Raymond:

Estimated per Each: 25

Bid Price Per Each: \$ _____

Total dollars and cents for this item based on the estimated quantity identified above:

\$ _____ dollars and _____ cents

7. In place reclaim grinding;

Bid item price for providing and performing reclaim grinding in place, blending of supplemental crushed stone as directed, re-grading and compacting of existing bituminous concrete pavement surfaces.

Estimated square yards: 450

Bid Price Per SYD: \$ _____

Total dollars and cents for this item based on the estimated quantity identified above:

\$ _____ dollars and _____ cents

8. Supplemental stone blended base;

Bid item price for providing and installing supplemental 1 ½ " crushed stone as directed, during any reclaim process to provide added stabilization of the road base. Work includes spreading and blending during or after the reclaim process but before final grading operations on the designated road and any unidentified locations within the Town of Raymond:

Assumed cubic yards: 70

Bid Price Per CY: \$ _____

Total dollars and cents for this item based on the Assumed quantity identified above:

\$ _____ dollars and _____ cents

9. Cold Planing Bituminous Surfaces;

Bid item price for providing and performing Cold Planing in place, as directed, of existing bituminous concrete pavement surfaces.

Estimated square yards: 500 **Bid Price Per SYD: \$** _____

Total dollars and cents for this item based on the estimated quantity identified above:

\$ _____ dollars and _____ cents

10. NHDOT Signalize Intersection - Loop Detection work (If necessary);

Bid item price for all work associated with the accommodation and re-establishment of the traffic control elements such as loop detectors located at the intersection with State Route 27 that are impacted by the road reconstruction work. The replacement loops shall be installed in accordance with NHDOT specifications and to the satisfaction of the duly authorized representative of the NHDOT.

ALL INCLUSIVE LUMP SUM **Bid Price LUMP SUM: \$** _____

Total dollars and cents for this item based on the estimated quantity identified above:

\$ _____ dollars and _____ cents

Basis of Award:

GRAND TOTAL OF ALL PROPOSED WORK \$ _____

[BASED ON ALL ESTIMATED QUANTITIES LISTED ABOVE ITEMS 1-10]

\$ _____ dollars and _____ cents

BIDDER AFFIDAVIT

I, _____, a duly authorized representative of:
Name

_____, hereby certify that this organization has;
BIDDER / Name of Company

- A. not defaulted on any contract within three years prior to July 1, 2023,
- B. maintained a permanent place of business in the State of New Hampshire,
- C. an adequate number of properly trained personnel and equipment to perform the work of this contract in a reliable and expeditious manner,
- D. suitable financial status to meet all obligations incident to the all aspects of the work of this contract,
- E. staff with the appropriate technical experience in the class of work involved,
- F. registered with the Secretary of State of New Hampshire to do business in New Hampshire and are in good standing,
- G. not failed to perform satisfactorily on contracts of a similar nature,
- H. a current edition of the Standard Specifications for Road and Bridge Construction, State of New Hampshire, Department of Transportation and if familiar with all sections relevant to the work required by this contract,
- I. a minimum of fifteen (15) years' experience in the placement of asphalt pavement products,
- J. **read the Bid Documents in their entirety**, and hereby submits a formal Bid with the full understanding of the required work and associated technical specifications,
- K. representative(s) of this firm have visited the listed work areas and are familiar with the terrain, neighborhoods, logistical constrains, and other site-specific features which may impact the execution of the work.

Signed: _____ Date _____
Duly Authorized Representative

State of New Hampshire
County of _____

Execution of this Affidavit was acknowledged before me this _____ day of _____, 2023,

by: _____
BIDDER / Name of Company

Notary Public
My commission expires:
Seal or Stamp:

CONTRACTOR ESTIMATING WORKSHEET

Shim and Overlay Estimate

Item	Location	Shim (tons)	+	Overlay (tons)	=	Total (tons)
A.	Prescott Rd. (12,200' +/- x 26' wide +/-) 1.5 inches thick	_____	+	_____	=	_____
B.	Old Manchester Rd. & Wight St. (4,780' +/- x 30' wide +/-) 1.5 inches thick	_____	+	_____	=	_____
C.	Randy Lane (1,420' +/- x 26' wide +/-) 1.5 inches thick	_____	+	_____	=	_____
D.	Epping St. (2,300' +/- x 26' wide +/-) 1.5 inches thick	_____	+	_____	=	_____
E.	Scribner Rd. & Green Rd (3,000' +/- x 26' wide +/-) 1.5 inches thick	_____	+	_____	=	_____

Reclaim Grinding and Binder Course Estimate

A.	Ashley Court (57' +/- x 24' wide +/-) 2" thickness of binder	_____ Tons	X	_____ cost per Ton	=	\$ _____
	Supplemental Stone (1 ½ crushed stone)	25 CY+/-	X	_____ cost per CY	=	\$ _____
	Ashley Court Overlay (505' +/- x 24' wide +/-) 1.5 inches thick	_____ Tons	+	_____ cost per Ton	=	_____
Total Estimated Cost						\$ _____
B.	Riverside Drive (81' +/- x 30' wide +/-) 2" thickness of binder	_____ Tons	X	_____ cost per Ton	=	\$ _____
	Supplemental Stone (1 ½ crushed stone)	45 CY+/-	X	_____ cost per CY	=	\$ _____
Total Estimated Cost						\$ _____

PART C. BID CONDITIONS

The BIDDER understands that the Owner reserves the right to reject any or all Bids and to waive any informalities in the Bidding for any reason which the Owner determines to be in the best interest of the Town. The BIDDER agrees that the Bid shall be valid and may not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of acceptance of this Bid, the BIDDER shall execute the formal Contract attached, and deliver the Contract to the Owner within 10 days.

This Bid may be accepted by the Owner at any time within 30 days of the opening of Bids.

In case this Bid shall be accepted by the Owner, and the undersigned shall fail to execute the Contract within 10 days from the date of Notice of Award of the Contract, then the Owner may, at his option, determine that the undersigned has abandoned the Contract and, thereupon, this Bid shall be null and void.

The full name and residence of all persons and parties interested in the foregoing Bid as principals are as follows:

PART D. - EXECUTION

By: _____

Name: _____
(Printed)

Seal
(if corporation)

Date: _____

Business Address: _____

Telephone Number: _____

GENERAL CONDITIONS

1. GENERAL COORDINATION
2. PAYMENTS
3. CHANGE ORDERS
4. PRE-CONSTRUCTION CONFERENCE
5. QUALITY CONTROL
6. MAINTENANCE OF TRAFFIC
7. PROTECTION AND RESTORATION OF PROPERTY
8. ACCESS
9. TEMPORARY CONTROLS AND SERVICES
10. FINAL CLEARING
11. WARRANTY
12. NO PAYMENT FOR DELAY
13. LIQUIDATED DAMAGES
14. PERFORMANCE AND PAYMENT BONDS
15. INSURANCE
16. SUB-SURFACE CONDITIONS
17. PERMITS
18. WASTE MATERIAL DISPOSAL
19. CONTRACT CLOSE OUT
20. ATTORNEY'S FEES AND COSTS

1. GENERAL COORDINATION

This contract involves road paving and reconstruction tasks as outline elsewhere in the Bid Documents which result in a complete and functional bituminous concrete road surface in accordance with State of New Hampshire Standard Specifications for Highways and Bridges, most current edition and these contract documents.

With prior approval from the Director of Public Works, proper neighborhood and Town wide notification, appropriate signage and flagging as necessary, isolated work zones that are mutually agreed upon may be closed to two-way traffic in a phased manner, during regular work hours (8:00 a.m. to 4:00 p.m.), but must be opened to two-way traffic each night and all weekend. One way traffic must be maintained at all times.

The Contractor shall limit his use of the project premises for work, for storage, and for access to allow public use after work hours, on weekend and on state holidays.

The Contractor shall coordinate his work with the Owner's Police, Water, Highway and Fire Departments and Ambulance and Dispatch Center. The Contractor shall supply emergency numbers for 24-hour contact.

All work shall be constructed in accordance with these Contract Documents and State of New Hampshire Department of Transportation Standard Specifications for Highway and Bridges, most current edition, whichever is the more stringent.

2. PAYMENTS

Once each month, the Contractor shall prepare an Application for Payment which shall identify the quantity and cost of work that has been completed for that month. No more than one payment application per month will be allowed.

The Owner shall have the right to review the Application for Payment and reject some if, in their opinion, payment is not warranted and/or if the submitted payment documents do not include full and complete detailed documentation.

Payments to the contractor will be made for the actual work performed and completed within that payment period only.

The payment of any Application for Payment shall in no way relieve the Contractor of his obligation to repair or replace any defective parts of the construction, or to be responsible for all damage due to such defects during the construction period and one year thereafter. Partial payments shall be made monthly, as the work progresses. All partial payments shall be subject to correction in the final Application for Payment.

3. CHANGE ORDERS

The Owner may at any time, as the need arises, order changes within the scope of the Work without invalidating the Agreement. If such changes increase or decrease the amount due under the Contract Documents or in the time required for performance of the Work, an equitable adjustment shall be authorized by written Change Order.

The Owner also may, at any time, by issuing a written Field Order, make changes in the details of the Work. The Contractor shall proceed with the performance of any changes in the work so ordered by the Owner unless the Contractor believes that such written Field Order entitles the Contractor to a change in Contract Price or Time,

or both, in which event the Contractor shall give the Owner written notice thereof within seven (7) days after the receipt of the ordered change. Thereafter the Contractor shall document the basis for the change in Contract price or Time within thirty (30) days. The Contractor shall not execute such changes, pending the receipt of an executed Change Order or further instruction from the Owner.

The Contract Price may be changed only by a written Change Order. The value of any Work covered by a Change Order or by any claim for increase or decrease in the Contract Price shall be determined by one or more of the following methods, in the order of precedence listed below:

- a. Unit prices previously approved.
- b. An agreed lump sum.

4. PRE-CONSTRUCTION CONFERENCE

After execution of the Agreement, but before starting any construction, a pre-construction conference shall be held. The attendance of the Contractor and his site superintendent shall be mandatory. The Owner shall notify representatives of fire, police, highway, ambulance, dispatch, electric, telephone and all other impacted parties, and request their attendance and participation. Policies and procedures for the duration of project relative to access, emergency traffic, progress schedules, payments, etc. shall be discussed and resolved at this meeting. The meeting shall be held in the town office, at a mutually agreed upon time.

5. QUALITY CONTROL

It is the Owner's intent that all Work shall be in compliance with Town of Raymond Subdivision Regulations and/or State of New Hampshire, Department of Transportation Standard Specifications for Highways and Bridges, most current edition. As such, it shall be the Contractor's responsibility to obtain letters of compliance and sieve gradations for all materials to be incorporated into the Work. Additionally, modified proctor values shall also be supplied by the Contractor for any granular materials approved for use on the project. All test results shall be recent and current, and shall have been performed by a testing laboratory acceptable to the Owner. The Contractor shall bear the cost of said tests.

The Owner shall only be responsible for ordering in-place density tests and paying for same.

Where reference is made to a specification it is understood that the latest revisions thereof shall apply. In case of conflict, the more stringent specifications shall take precedence.

It shall be the Contractor's responsibility to obtain letters of compliance and shop drawings for all materials to be incorporated into the Work.

6. MAINTENANCE OF TRAFFIC

It shall be the Contractor's responsibility to provide and maintain safe and passable traffic accommodations for public and private travel; prevent dust nuisance; furnish, erect, maintain and remove construction signs, barricades, delineators, lights, flashers, and other warning devices used to delineate the construction zone and notify the motoring public of its approach. The Contractor shall take all necessary precautions for the protection of the work and safety of the public. The Contractor will be held responsible for all damage to the work from traffic, pedestrians, animals, or any other cause due to lack of adequate traffic controlling devices, flaggers and traffic management.

Traffic management is especially critical during reclaiming and grading operations when the soft soils or windrows are generated. In no case shall a roadway be rendered impassable by neighborhood passenger vehicles without prior approval of the Director of Public Works. Reclaim and grading operations shall be

undertaken in a manner that provides at least one functional, compacted surface travel lane at all times to the greatest extent possible.

A roadway traffic management plan depicting type and location of the traffic management signage package shall be proposed by the Contractor, but must be approved by the Owner before Work may begin.

Additionally, it may be necessary to employ flag persons during certain phases of the construction project. The Contractor shall arrange for obtaining and paying flag persons. The need for flag persons shall be determined by the Owner. In the event that the work requires a police presence for traffic control, it shall be the responsibility of the CONTRACTOR to reimburse the Police Department for all costs associated with this effort.

All work, labor, and material necessary to maintain traffic to the satisfaction of the Owner, shall be the responsibility of the CONTRACTOR.

Maintenance of Traffic Considerations and Expectations:

Maintaining local travel in one lane around the Shim and Overlay paving operations should be very manageable with proper signage and flaggers. Those neighborhoods with no alternate points of access cannot be accommodated by detours. In certain cases, such as Industrial Drive, weekend work will be required.

Maintaining local travel on Harriman Hill Road, Ham Road and Lakeview Road will require careful planning. With appropriate signage, a road detour may be implemented that redirects daytime through traffic. These roads would need to be reopened to through traffic during the late afternoon and for the evening.

Given the close proximity of these roads to each other, only one road detour can be implemented at a time.

New Hampshire Department of Transportation

Prescott Road and Epping Road meet and tie into State Route 27 and Prescott Road at its most southern end meets and ties into State Route 107. The intersection of Harriman Hill Road and State Route 27 is a signalized intersection with loop detectors on the Harriman Hill Road leg of the intersection. This will require the coordination and posting of traffic management signs with the appropriate district office.

7. PROTECTION AND RESTORATION OF PROPERTY

The Contractor shall use every precaution to prevent injury or damage to wires, poles, or other property of public utilities; trees, shrubbery, crops, and fences along and adjacent to the right-of-way, all underground structures such as pipes and conduits, within or outside of the right-of-way.

The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the work, or at any time due to defective work or materials, and said responsibility will not be released until it has been repaired or replaced shall have been completed and accepted prior to completion of the Contract.

When or where any direct or indirect damage or injury is done to public or private property by or on account of

any act, omission, neglect, or misconduct in the execution of the work, or as a result of the failure to perform work by the Contractor, the Contractor shall restore, at its own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing rebuilding, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in an acceptable manner.

If the Contractor fails to repair, rebuild, or otherwise restore such property as may be deemed necessary, the Owner, after 48 hours notice, may proceed to do so, and the cost thereof may be deducted from any money due or which may become due the Contractor under the contract.

8. ACCESS

Continuous access for emergency responders and access to local abutting businesses and residences is mandatory. No road closure will be permitted without advanced notification to the neighborhood and prior approval from the Director of Public Works. It is required that any full road closure be kept to as short a duration as possible. Absent a fully functional detour system, no full road closure of greater than a few minutes will be allowed.

Two-way traffic must be restored no later than 4:00 p.m. on each workday and may not be disrupted before 8:00 a.m. of each workday. However, the Contractor may begin work at 7:00 a.m. and continue until 5:30 p.m., as long as traffic flow is maintained during these extended hours. One-way traffic must be maintained at all times.

The traveling surface allocated to maintenance of traffic must be either paved or compacted gravel. At no time should vehicles be expected to traverse active reclaim zones to access their respective driveways.

9. TEMPORARY CONTROLS AND SERVICES

It shall be the Contractor's responsibility to provide all temporary controls and services relative to the project, including but not limited to, water, solid waste, electricity, telephone, sanitary facilities, lighting, vermin, dust, and erosion controls.

Dust and traffic control may be ordered by the Town. The Contractor shall have methods of dust control readily available for use at all times. Dust control as ordered by the Town shall be provided at no additional cost.

Additionally, erosion and sedimentation control and prevention shall be the Contractor's responsibility and will be of critical importance to the Owner. The Contractor shall provide a plan depicting the scope of erosion control measures to be deployed prior to the commencement of work. Erosion control measures shall be provided and maintained at no additional cost.

10. FINAL CLEANING

Upon completion of all Work items, it shall be the Contractor's final responsibility to remove all equipment, tools, excess paving materials, waste materials, debris and rubbish from the site, and dispose of same in a legal, environmentally safe manner.

11. WARRANTY

The Contractor shall warrant his Work for a period of one year from the time of final completion from all defects due to faulty materials or workmanship, and the Contractor shall promptly make such corrections as may be

necessary by reason of such defect.

The Owner will give notice of observed defects with reasonable promptness.

12. NO PAYMENT FOR DELAY

No extra payment shall be made for delay beyond the control of the Contractor or Owner (i.e. weather, war, strike, etc.) However, additional contract time may be granted upon approval by the Owner.

13. LIQUIDATED DAMAGES

The Bid and Agreement documents contain a paragraph specifying the Contract Time stated as a number of consecutive calendar days following execution of the Contract, and the dollar amount of liquidated damages to be paid to the Owner for each calendar day beyond the specified completion period that the work remains uncompleted.

The date of beginning and the Contract Time for the work are essential conditions of the Contract Documents and the work embraced shall be commenced on the date specified in the Notice to Proceed.

The Contractor will proceed with the Work at such rate of progress to insure Final Completion within the Contract Time. It is expressly understood and agreed, by and between the Contractor and Owner, that the Contract Time for the completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the Work.

If the Contractor shall fail to fully complete the Work within the Contract Time, or extension of time granted by the Owner, then the Contractor will pay to the Owner the amount for liquidated damages as specified in the Bid and Agreement for each calendar day that the Contractor shall be in default after the time stipulated in the Bid and Agreement.

No extra payment shall be made for delay beyond the control of the Contractor or Owner (i.e. weather, war, strike, etc.)

14. PERFORMANCE AND PAYMENT BONDS

The Contractor shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents.

These Bonds shall remain in effect at least one (1) year after the date when final payment becomes due, except as otherwise provided by Law or Regulation or by the Contract Documents. All Bonds shall be in the forms prescribed by Law or Regulation or by the Contract Documents and executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies: as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

If the surety of any Bond furnished by a Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of the preceding paragraph, the Contractor shall within five (5) days thereafter substitute another

Bond and surety, both of which must be acceptable to the Owner.

As an alternative to the payment and performance bonds specified, the Contractor may provide the Town with a Passbook Savings Account, Certificate of Deposit, or cash. Any of the above shall place the Town of Raymond as its sole beneficiary. The use of any of the bond alternative is at the discretion of the Town alone.

15. INSURANCE

The Contractor shall purchase and maintain such comprehensive general liability and other insurance as is appropriate for the work being performed. The insurance shall include the specific coverages and be written for not less than the limits of liability and coverages identified or required by law, whichever is greater. All policies shall contain a provision that the coverage will not be canceled, changed or renewal refused until a thirty (30) day written notice is given to the Owner. All insurances shall remain in effect until final payment. Certifications from the insurance carrier shall be submitted in three (3) copies and shall state the type of coverage, limits of liability, and expiration date.

The limits of liability for the liability insurance required shall provide coverages for not less than the following amounts or greater where required by law:

Workman's Compensation and Employee's Liability	\$ 100,000 (each accident) \$ 500,000 (disease Policy limit) \$ 100,000 (disease each employee)
Owner's Contractor's Protective Liability	\$1,000,000 (combined single limit)
Excess Liability (umbrella form)	\$1,000,000 (B.I. & P.D. comb.)
Automotive Liability (all owned auto's, hired auto's, non-hired auto's private or otherwise)	\$1,000,000 (B.I.-per person) \$1,000,000 (B.I.-per person) \$1,000,000 (P.D.)
General Liability (comprehensive premises operations, explosion products, contractual independent contractors, board form property damage, personal injury)	\$1,000,000 (B.I.& P.D.comb.) (each occurrence) \$1,000,000 (B.I.& P.D.comb.) (aggregate)

ADDITIONAL INSURED

All liability policies shall include the Town of Raymond, New Hampshire as named Additional Insured.

- 1) The Contractor's insurance shall be primary in the event of a loss.
- 2) The Additional Insured endorsement must include language specifically stating that the entity is to be covered for all activities performed by, or on behalf of, the contractor, including the Town of Raymond's general

supervision of the Contractor.

3) Town of Raymond, New Hampshire shall be listed as a Certificate Holder and Additional Insured.

16. SUB-SURFACE CONDITIONS

Determination of sub-surface conditions is the sole responsibility of the Contractor. The Owner will make no determination regarding existence or lack thereof of bedrock, ledge, groundwater, utilities, or any sub-surface conditions, etc. It shall be the Contractor's responsibility to satisfy himself as to existence, extent and location of any and all sub-surface conditions which might affect the design and the Works.

17. PERMITS

It shall be the responsibility of the Contractor to obtain all federal, state, and local permits which may be required and necessary to perform the Work. The Town will assist the Contractor, when possible, in obtaining said permits. The Cost for any permits or fees associated with same shall be borne by the Contractor.

18. WASTE MATERIAL DISPOSAL

The Contractor shall be responsible for disposal of all waste products resulting from the work. All material shall be removed from the site and disposed of in an environmentally safe manner consistent with all applicable local, state, and federal laws.

19. CONTRACT CLOSE OUT

Neither the final payment nor the release of remaining retainage shall be approved until the Contractor submits the following in acceptable form to the Owner, where applicable.

1. Contractor's Affidavit of Release of Liens
2. Consent of Surety Company to Final Payment
3. Certificate of Final Completion of work
4. Contractor's Affidavit of Payment of Debts & Claims
5. Warranties and Bonds
6. Project Record Documents
7. Operations and Maintenance Data

20. ATTORNEY'S FEES AND COSTS

The contractor agrees to indemnify the Town from any and all liability, loss or damage including but not limited to, bodily injury, illness, death or property damage, which the contractor becomes legally obligated to pay, including reasonable attorney's fees, investigative and discovery costs, court costs, as a result of claims, demands, costs, or judgments against the Town arising out of this agreement, caused by or arising out of the negligence, fault, breach of warranty, product liability or strict liability of the contractor, and/or third parties, whether such negligence, fault, breach of warranty, products liability or strict liability is sole, joint or several.

END OF SECTION

TECHNICAL SPECIFICATIONS

1. **Reference Standards**
2. **Submittals**
3. **Locations**
4. **Pavement Thickness**
5. **Materials**
6. **Equipment**
7. **Preparation**
8. **Sequence**
9. **Limitations**
10. **Temperature**
11. **Joints**
12. **Consolidation**
13. **Defects**
14. **Markings**
15. **Reclaim Grindings in Place**
16. **Cold Planing Bituminous Surfaces**
17. **Pavement Keyways/Keycutting**
18. **Adjusting Drainage and Utility Structures**
19. **Field Concrete for Structure Adjustment**
20. **Cleanup**
21. **Measurement**
22. **Payment**

1. REFERENCE STANDARDS

All work shall be performed in accordance with State of New Hampshire Department of Transportation, (NHDOT), Standard Specifications for Road and Bridge Construction (latest edition).

2 SUBMITTALS

All asphalt mix designs shall be in accordance with NHDOT Standard Specifications Division 300 and Division 400 and shall be submitted to the TOWN as required.

3. LOCATIONS

Work shall be at locations identified in the Summary of the Work and/or where directed by the Director of Public Works.

4. PAVEMENT THICKNESS

Thickness of the shim shall be sufficient to level and restore a reasonable cross slope to the subject roadways.

Thickness of the wearing course overlay shall be no less than one inch (1.5") **after compaction**.

Thickness of winter binder course shall be **not less** than two inches (2") **after compaction** where two inches is specified and **not less** than three inches (3") **after compaction** where three inches is specified (if necessary)

The crushed gravel shoulder material shall be compacted by roller to a thickness such that the shoulder shall be level with the road edge and have a 5% cross slope for a minimum of three (3) feet extending away from the road edge for its entire length, both sides.

5. MATERIALS

Tack Coat shall be HFMS-2 Emulsified Asphalt conforming to the NHDOT requirements of 702, Table 2 and 2E.

Shim Course shall consist of NHDOT Type F (3/8") bituminous asphalt mix.

Overlay Course shall consist of NHDOT Type F (3/8") bituminous asphalt mix.

Binder Course shall be consistent with NHDOT Type B (3/4") bituminous asphalt mix.

All Backer Coarse mixes specified shall conform to NHDOT Standard Specifications for Road and Bridge Construction (latest edition) Section 401; Sub-section 2-Materials.

Temporary Overlay Markers (TOM) shall be self-adhering, double sided reflective, colored yellow.

Centerline pavement markings as required to replace existing pavement markings. Installation to be in accordance with NHDOT standard specifications.

6. EQUIPMENT

- A. All Hot Tack Coat shall be delivered and applied by a heated and metered distributor tank truck. Tack wagons shall not be permitted.
- B. All paving shall be applied utilizing a long bodied, self-propelled paver of a type acceptable to the Director of Public Works and capable of spreading the required thickness and width of pavement. Short bodied pavers and hot boxes shall not be allowed.
- C. Consolidation and compaction of the mix shall be implemented with an eight to twelve ton (8-12 ton) self-propelled tandem steel drum roller. Vibratory rollers will be allowed if properly weighted and only operated in the static mode. The secondary finishing rolling operation shall be performed with a steel roller.

Rubber tired rollers are not permitted.

- D. Centerline and stop bar paint striping equipment including stencils as may be required to replicate the existing pavement markings.

7. PREPARATION

Erosion controls shall be installed within the active work zones as necessary to avoid pollution of any area water bodies.

All roads shall be swept clean with a power broom prior to application of the hot emulsion tack coat and shim course. Sweeping shall be performed to the Town's satisfaction.

At limits of shim and overlay work, a cold plane keyway shall be milled across the width of the roadway into the existing pavement to the thickness of the overlay. The butt joint shall have a minimum transition taper distance of 7 feet.

All vertical cold plane keyway joints pavement edges shall be uniformly coated with bituminous material (emulsion) immediately prior to installation of overlay pavement.

Road surfaces to be shim and overlaid or just overlaid shall receive a hot emulsion tack coat of emulsified asphalt uniformly applied with an approved heated metered distributor tank truck. Tack wagons not permitted.

During construction, the Contractor shall take precautions sufficient to avoid the leaching runoff of polluting substances such as silt, clay, fuels, oils, bitumens, calcium chloride and any other polluting materials which are unsightly or which may be harmful to humans, fish or other life, into groundwater and surface waters of the State.

8. SEQUENCE

The roads shall be swept clean, joints cut, hot emulsion tack coat and shim coat shall be applied and immediately thereafter overlay of the specified depth. Upon completion of the bituminous concrete roadway and driveway transition paving, reflective centerline delineators shall be applied, and then road shoulders shall be side dressed with crushed gravel extending out three feet, gravel driveway transitions as directed extending not more than eight feet, compacted with a roller and swept clean.

Prior to placing any mix, a pre-paving conference shall be held with the Town to discuss the proposed paving schedule, cold planning operations, dust control, source of mix, type and amount of equipment to be used, sequence of paving pattern, rate of mix supply, traffic control, and general continuity of the operation. Special attention shall be made to the paving pattern sequence to minimize cold joints.

9. TEMPERATURE LIMITATIONS

Bituminous asphalt mixes shall be placed only when the underlying surface is clean, dry, frost free and the surface temperature is above forty-five degrees Fahrenheit (45-degree F) and rising.

10. ASPHALT TEMPERATURES

The temperature of the bituminous asphalt material shall be a minimum of two hundred and seventy-five degrees Fahrenheit (275 degrees F) with a maximum temperature of three hundred and fifty degrees Fahrenheit (350 degree F) when it is spread. The rate of material delivery is critical to placing material within the correct temperature range.

11. JOINTS

The contractor shall cold plane keyway joints at all locations where shim and overlay meets existing pavement, not inclusive of driveway aprons.

All keyway joints shall be sealed w/ emulsion and top coated with black beauty

Application of each mix course shall be as nearly continuous as possible. The number of transverse joints shall be kept to a minimum. Longitudinal joints shall be centered on the existing paved surface.

Stopping of the paver shall only be done in emergencies.

If the Town's representative determines that the paving operations result in excessive stopping of the paver, the Town may suspend all paving operations until the contractor makes arrangements to synchronize the rate of paving with the rate of material delivery.

12. CONSOLIDATION

All courses shall be rolled until all roller marks are eliminated and maximum compaction is attained.

13. DEFECTS

Any displacement occurring as a result of reversing the direction of the roller, or from other causes, shall be corrected at once. Care shall be exercised in rolling not to displace the line and grade of the edges of the bituminous mixture.

Any identified defects in any aspect of the work shall be corrected to the satisfaction of the Town of Raymond prior to payment for said work.

14. PAVEMENT MARKINGS

All existing pavement markings shall be restored following the installation of new pavement.

Centerline marking shall be re-established immediately after paving by affixing two temporary overlay markers (TOM's) at 100 foot intervals followed by the application of painted centerline and stop bar pavement markings within 3 calendar days.

If no pavement markings currently exist, the centerline shall be re-established immediately after paving by affixing two temporary overlay markers (TOM's) at 100 foot intervals over the length of all new roadway pavement.

All temporary and permanent centerline pavement markings shall be carefully, accurately laid out and placed along the centerline.

15. RECLAIM GRINDING IN PLACE

Roads slated to receive in place reclaim grinding shall be ground to the full width of the paved surface and to the full depth of ten inches, with an approved mechanical grinder.

The ground bituminous concrete shall be thoroughly ground and mixed with under laying soil resulting in a clean, uniform compactable material.

Supplemental stone shall be blended into the subgrade as directed by the Town.

After grinding and blending in supplemental stone, the resulting material shall be regraded to reflect a cross slope with a minimum cross slope of 2% and a maximum of 4%. Final grade of road profile and cross slope to be approved by the Town of Raymond prior to the installation of new binder course. All excess materials to be removed and legally disposed of. Curves shall be graded to restore the proper transitions and superelevations.

After regrading, the road surface shall be recompacted to 95% of the resultant grindings modified proctor value.

Operational coordination of work is necessary to maintain at least one lane travel for local neighborhood travel.

16. COLD PLANING BITUMINOUS SURFACES

This work shall consist of the removal of existing bituminous pavement, by planing or milling type equipment, to the depth and grade shown on the plans or ordered.

This work shall consist of constructing Rumble Strips by making depressions into bituminous pavement to the depth and dimensions shown on the plans and as specified below.

This work shall also consist of removing existing rumble strips and inlaying pavement in the removed area. The intent is to inlay within a short period of time after planing the existing rumble strip.

The asphalt mix to inlay the removed rumble strip shall consist of a 3/8" (9.5 mm), 75 gyration N design mix.

Equipment used for planing of bituminous surfaces shall be a power-operated rotary planing or milling machine capable of uniformly removing the existing bituminous surfaces.

Equipment for milling new rumble strips shall consist of a rotary type cutting head with a maximum outside diameter of 24 in. (600 mm) and a length of 16 in. (400 mm) or 12 in. (300 mm). The cutting head shall have cutting tips arranged in such a pattern as to provide a relatively smooth cut (approximately 1/16 of an in. (1.5 millimeters) between peaks and valleys). The cutting head(s) shall be on its own independent suspension from that of the power unit to allow the tool to self align with the slope of the shoulder and/or any irregularities in the shoulder surface. The cutting tool shall be equipped with guides to provide consistent alignment of each cut in relation to the roadway and to provide uniformity and consistency throughout the project. Equipment that tears, distorts or otherwise damages the pavement adjacent to the milled depression will not be allowed.

The existing bituminous surface shall be removed by a planing or milling machine capable of removing, in one or more passes, bituminous material to the depth specified. The equipment shall be capable of accurately establishing profile grades by an automatic grade control system referencing from either the existing pavement or from an established independent grade line.

The equipment shall have an effective means for controlling dust.

When performing night operations, the Contractor shall provide sufficient lighting at the work site to ensure the same degree of accuracy in workmanship and conditions regarding safety as would be obtained in daylight.

Constructing Rumble Strips. Rumble strips shall not be constructed until 30 days after placement of new hot bituminous pavement, unless authorized by the DPW. The depressions shall have a concave circular shape with a minimum 1/2 in. (12.5 mm) depth at the center and 5/8 in. (15.6 mm) maximum depth. Rumble strips shall be placed in the roadway according to the patterns and dimensions shown on the plans.

Shoulder rumble strips shall be milled 16 in. (400 mm) in length measured perpendicular to the direction of travel.

Centerline rumble strips shall be milled 12 in. (300 mm) in length, measured perpendicular to the direction of travel, or as directed in the plans.

Removal of Rumble Strips. Existing centerline and shoulder rumble strips scheduled for overlay shall be removed to eliminate their effects on the new pavement surface. Rumble strips shall be removed by milling a nominal depth of 1 inch.

Milled material not designated for salvage shall become property of the Contractor and shall be removed and disposed of in an approved manner.

Prior to reopening the area to traffic, all equipment shall be removed to a location where it does not present a hazard to traffic and the pavement shall be cleaned by sweeping or flushing.

Asphalt Inlay of Rumble Strip Area. The milled area of removed rumbles shall be inlaid to match the existing pavement surface with hot bituminous pavement (placed by machine). The placement method shall be capable of spreading the mixtures with a finish that is smooth, uniform in density and texture, and free from hollows, tears, gouges, corrugations, and other irregularities.

Compaction shall not have a specific method or compaction requirement, but shall follow the general practices of 401.3.12. Compaction efforts shall be provided by vibratory rollers having a minimum weight of three tons. Pneumatic rollers are not required.

Cold planing bituminous surfaces, as shown on the plans or as ordered, will be measured by the square yard (square meter) as determined by the actual surface measurements of the lengths and widths of the bituminous areas removed.

The nominal depth of material removed will be as shown on the plans.

Rumble strips; and remove and inlay existing rumble strips will be measured by the linear foot (linear meter) to the nearest one tenth of a foot (meter).

The accepted quantities for cold planing bituminous surfaces to the nominal depth specified will be paid for at the contract unit price per square yard (square meter).

The accepted quantity for rumble strips; and remove and inlay existing rumble strips , will be paid for at the contract unit price per linear foot (linear meter).

Project lighting or overtime required due to night operations will be subsidiary to the cold planing.

17. PAVEMENT KEYWAYS/KEYCUTTING

Pavement keycutting shall consist of cold planing asphalt concrete pavement adjacent to the lip of gutters, and across street intersections, as shown on the Plans.

Cold planing for pavement keycutting shall be to a minimum depth of one and one-half inches (1-1/2") adjacent to the gutter lip and shall be tapered to the existing pavement grade over a distance of approximately twelve feet (12') from the gutter lip, as shown or specified in the Contract or as otherwise directed by the Town of Raymond.

At cross-streets within the limits of the Work, pavement keycutting shall continue in a straight line from curb line to curb line parallel to the direction of work. Elevation differences between the pavement keycutting and cross-streets shall be lessened with temporary asphalt concrete tapers. The slope of the temporary asphalt concrete tapers shall not be greater than one inch (1") vertical in twelve inches (12") horizontal. Asphalt concrete for tapers shall be commercial quality and may be spread and compacted by any method that will produce a smooth riding surface. Temporary asphalt concrete tapers and all loose material from the underlying surface shall be completely removed before placing the permanent surfacing.

At the end of each Working Day there shall not be any elevation difference between planed and unplaned pavement in the traveled vehicle lanes. Any differences that parallel the centerline of the street shall be sloped by either temporary asphalt concrete tapers or additional planing to produce a bevel within the planed pavement. The slope of either the temporary asphalt concrete tapers or the bevel shall not be greater than one inch (1") vertical in twelve inches (12") horizontal. When temporary asphalt concrete tapers are used, asphalt concrete for tapers shall be Type "B" commercial quality and may be spread and compacted by any method that will produce a smooth riding surface.

Temporary asphalt concrete tapers and all loose material from the underlying surface shall be completely removed before placing the permanent surfacing. Elevation differences between planed pavement and lips of gutters are not required to be sloped.

Elevation differences perpendicular to the centerline of the street or elevation differences between the planed street and cross-streets shall be lessened with temporary asphalt concrete tapers, as specified above.

Temporary asphalt concrete tapers and all loose material from the underlying surface shall be completely removed before placing the permanent surfacing.

Cold planing asphalt concrete for pavement keycutting will be measured by the linear foot for the pavement keycutting width shown or specified in the Contract. The quantity to be paid for will be the actual length of pavement cold planed, irrespective of the number of passes required to obtain the specified depth.

The price paid per linear foot for pavement keycutting for the width shown on the Plans includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in pavement keycutting, complete in lace, including disposal or transport of planed material, as shown or specified in the Contract, specified in these Specifications, and directed by the Town of Raymond.

Full compensation for furnishing asphalt concrete for temporary tapers and for constructing, maintaining, removing, and disposing of the tapers is included in the prices paid for the various items of work involved in cold planning asphalt concrete pavement, and no additional compensation will be paid.

18. ADJUSTING DRAINAGE AND UTILITY STRUCTURES

The work shall consist of adjusting the masonry and castings of present structures, as required, to conform to newly proposed line and grade changes in accordance with these specifications.

Concrete for these structures shall meet the requirements of that specified in FIELD CONCRETE section.

When the line or grade or both the line and grade of the structure changes by 6 inches or less, the structure shall be adjusted to line and grade. The masonry shall be removed to such a depth as directed by the DPW and new masonry shall be constructed to the proposed design.

Measurement and payment for this work is per each structure as indicated in Bid Form.

19. FIELD CONCRETE FOR STRUCTURE ADJUSTMENT

This Section covers concrete and all related items necessary to place and finish concrete work associated with raising and repairing drainage structures.

The following standards form a part of this specification:

- American Concrete Institute (ACI)
- ACI 304 Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete.
- ACI 305 Recommended Practice for Hot Weather Concreting
- ACI 306 Recommended Practice for Cold Weather Concreting
- ACI SP-66 ACI Detailing Manual
- ACI 318 Building Code Requirements for Reinforced Concrete
- American Society for Testing and Materials (ASTM)
- ASTM A615 Deformed and Plain Billet-Steel bars for Concrete Reinforcement
- ASTM C33 Concrete Aggregates

ASTM C94 Ready-Mixed Concrete
ASTM C143 Test for Slump of Portland Cement Concrete
ASTM C150 Portland Cement
ASTM C260 Air Entraining Admixtures for Concrete
ASTM C494 Chemical Admixtures for Concrete

Six copies of the statement of materials constituting the design of mixes for each size aggregate as required by ASTM C94 shall be submitted to the department within one week following award of the Contract, if deemed necessary by the DPW.

All concrete, reinforced or nonreinforced shall have a 28 day compressive strength of 3000 psi unless otherwise noted on the design drawings. A minimum of 5.5 sacks of cement per cubic yard and a maximum water cement ratio of 6.9 gallons per sack shall be used.

Concrete shall conform to ASTM C94. The Contractor shall be responsible for the design of the concrete mixtures. Slump shall be a maximum of 4-inches and a minimum of 2-inches, determined in accordance with ASTM C143.

Admixtures shall be as specified in subsection 2.05. No additional admixtures shall be used unless approved by the DPW.

No additional water, except for the amount indicated by the design mix shall be added to the Concrete without the prior permission of the DPW.

Reinforcing as shown on the plans or as directed by the DPW, shall conform to ACI 318 and ASTM A615 and shall be detailed in accordance with ACI SP-66. All Steel reinforcing bars shall be grade 60.

The cement shall be an approved brand of American manufactured Portland Cement, Type II conforming to the applicable requirements of ASTM C150.

Except as otherwise noted, aggregate shall conform to the requirements of ASTM C33.

Maximum size aggregate shall be 3/4 inch.

All concrete (unless otherwise directed) shall contain an air-entraining agent. Air entrained concrete shall have air content by volume of 4 to 8 percent for 1/2 inch aggregate.

Air entraining agent shall be in accordance with ASTM C260 and shall be Darex AEA, as manufactured by W.R. Grace & Company; Placewel (air entraining Type), as manufactured by Johns Manville; Sika AER as manufactured by Sika Chemical Company; or an approved equal product.

Water reducing agent shall be WRDA, as manufactured by W.R. Grace & Company; Placewel (non-air entraining Type) as manufactured by Johns Manville; Sika Plastiment as manufactured by Sika Chemical Company; or an approved equal product.

15. Water reducing agent-retarder shall be "Daratard," as manufactured by W.R. Grace & Company; Sika Plastiment as manufactured by Sika Chemical Company; or an approved equal product.

Water for concrete shall be potable, free of deleterious amounts of oil, acid, alkali, organic matter and other deleterious substances.

Before placing concrete, forms and the space to be occupied by the concrete shall be thoroughly cleaned, and reinforcing steel and embedded metal shall be free from dirt, oil, mill scale, loose rust, paint, or the material which would tend to reduce the bond.

Earth, concrete, masonry, or other water permeable material against which concrete is to be placed shall be thoroughly saturated with water immediately before concrete is placed.

No concrete shall be placed until the consolidation of the ground and the arrangement and details of forms and reinforcing have been inspected and approved by the DPW.

Fill concrete shall be placed in those locations as indicated on the design drawings. Fill concrete shall consist of materials as previously specified, with a minimum 28-day compressive strength of 3000 psi.

Before fill concrete is placed, the following procedures shall be used to prepare surfaces; all dirt, scum and laitance shall be removed by chipping and washing. The clean, roughened base surface shall be saturated with water, but shall have no free water on the surface. A coat of 1:2 cement-sand grout, approximately 1/8-inch thick, shall be well scrubbed into the thoroughly dampened concrete base. The concrete fill shall be placed immediately, before grout has dried or set.

Fill concrete shall be brought to lines and grades as shown on the design drawings.

Concrete shall not be placed on frozen ground and no frozen material or material containing ice shall be used. Materials for concrete shall be heated when temperature is below 40°F, or is expected to fall to below 40°F, within 73 hours, and the concrete after placing shall be protected by covering, heat, or both.

All details of Contractor's handling and protecting of concrete during freezing weather shall be subject to the approval and direction of the DPW. All procedures shall be in accordance with provisions of ACI 306.

Concrete just placed shall be protected from the direct rays of the sun and the forms and reinforcement just prior to placing shall be sprinkled with cold water. The Contractor shall make every effort to minimize delays, which will result in excessive mixing of the concrete after arrival on the job.

During periods of excessively hot weather (90°F or above), ingredients in the concrete shall be cooled insofar as possible and cold mixing water shall be used to maintain the temperature of the concrete at permissible levels all in accordance with the provisions of ACI 305. Any concrete with a temperature above 90°F, when ready for placement will not be acceptable, and will be rejected.

Concrete inspection and testing shall be performed by the DPW or by an inspection laboratory-, designated by the DPW, engaged and paid for by the Town of Raymond. Owner Testing equipment shall be supplied by the laboratory, and the preparation of samples and all testing shall be performed by the laboratory personnel. Full assistance and cooperation, concrete for samples, and such auxiliary personnel and equipment as needed shall be provided by the Contractor.

At least 4 standard compression test cylinders shall be made and tested and 1 slump test from each day's placement of concrete. A minimum of four compression test cylinders shall be made and tested for each 100

cubic yards of each type and design strength of concrete placed. One cylinder shall be tested at 7 days, and two at 28 days. The fourth cylinder from each set shall be kept until the 28 day test report on the second and third cylinders in the same set has been received. If the average compressive strength of the two 28 day cylinders does not achieve the required level, the DPW may elect to test the fourth cylinder immediately or test it after 56 days. If job experience indicates additional cylinder tests or other tests are required for proper control or determination of concrete quality, such tests shall be made.

The DPW shall have the right to reject concrete represented by low strength tests. Rejected concrete shall be promptly removed and replaced with concrete conforming to the specification. The decision of the DPW as to whether substandard concrete is to be accepted or rejected shall be final.

No additional measurement or payment will be made for the work specified in this section. Unless otherwise noted in the Specifications, the cost of all labor, equipment and materials to furnish this work shall be included in the Unit Bid Prices in the Contractors Base Proposal.

20. CLEAN UP

Any bituminous material remaining on exposed surfaces, curbs or masonry structures shall be removed by the CONTRACTOR.

All materials left from the truck clean up area and project sites shall be removed by the CONTRACTOR.

21. MEASUREMENT

Measurement shall be the actual number of tons of bituminous concrete mix delivered, applied and approved by the Town; tons of crushed gravel applied to the shoulders and square yards of existing road surface ground in place.

Quantities to be by Plant Batch Tickets delivered with each truck at time of application.

Contractor shall provide Owner with **two copies** of Plant Batch Ticket at time of delivery and with submission of payment request. Quantities shall be verified by yield tests performed in the field by the Owner. Quantities shall be rounded to the nearest tenth of a ton.

The thickness of pavement shall be measured in its compacted state.

22. PAYMENT

Payment shall be made at the unit price bid for the actual number of tons applied, square yards of pavement reclaimed, square yards of pavement cold planed, tons of gravel shoulder material installed and accepted by the Town in the field.

All bid unit prices shall be full compensation to cover all work, materials, bidding and contract requirements.

Payment will be withheld for any work deemed defective. When work has been corrected to the satisfaction of the Town of Raymond, payment will be submitted for processing.

END OF SECTION

APPENDICES

MAPS OF ROADS IN THIS CONTRACT