Sealed bids are invited and will be received by the Purchasing Agent of the Town of Watertown at the office of the Purchasing Agent, Town Hall Annex, 424 Main Street, Watertown, Connecticut, until 11:30 a.m., Thursday, September 20th, 2018 at which time and place they will be publicly opened and read aloud for furnishing bituminous milling and bituminous in place on various town roadways.

The Information for Bidders, Form of Bid, Form of Contract, Plans, Specifications, Form of Bid Bond, Performance and Payment Bonds, and other contract documents may be obtained or examined at the office of the Purchasing Agent, Town Hall Annex, 424 Main Street, Watertown, Connecticut 06795 or by accessing the Town of Watertown’s website at http://www.watertownct.org. Proposals must be submitted on the forms provided and in a sealed envelope plainly marked “Bid – Manila, Merrimac, Van Orman Pavement Rehabilitation “.

To receive consideration bids must be in the hands of the Purchasing Agent or his authorized representative no later than the day and hour mentioned above.

The Purchasing Agent reserves the right to accept or reject any or all bids; to waive any informality; or to accept any bid deemed in the best interests of the Town of Watertown.

The Town of Watertown reserves the right to take into account the residency of bidders within the Town of Watertown and/or the location of the bidder's business within the Town of Watertown in awarding this bid.

All bids will be considered valid for a period of sixty (60) days.

Jason Warner
Purchasing Agent
Town of Watertown
INFORMATION FOR BIDDERS

TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT 06795

Manila, Merrimac and Van Orman Street Pavement Rehabilitation
Watertown Public Works Department

BID OPENING: 11:30 a.m., Thursday, September 20th, 2018

PROPOSALS RECEIVED
All bids must be in a sealed envelope and received prior to 11:30 a.m., Thursday, September 20th, 2018 at the office of the Purchasing Agent, 424 Main Street, Watertown, Connecticut 06795.

PREPARATION OF PROPOSALS
Proposals must be made upon forms contained herein. The blank spaces in the Proposal must be filled in correctly where indicated. The Bidder must state the prices for which he proposes to do each item of the work contemplated. In case of discrepancy where both words and the numerals are requested, the words shall govern. Ditto marks are not considered writing or printing and shall not be used. The Bidder shall sign his Proposal correctly. If the Proposal is made by an individual, his name, post office address and telephone number must be shown. If made by a firm, partnership, or corporation, the Proposal must be signed by an official of the firm, partnership, or corporation authorized to sign contracts, and must show the post office address and telephone number of the firm, partnership, or corporation. Failure to do so may disqualify the bid.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, post office address, and name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to: The Purchasing Agent, Town Hall Annex, 424 Main Street, Watertown, CT 06795.

All information shall be entered in ink or by typewriter. Mistakes may be crossed out and corrections inserted before submission of your bid. The person signing the bid shall initial corrections in ink.

Corrections and/or modifications received after the closing time specified will not be accepted.

SUBMISSION OF PROPOSALS
All proposals and literature shall be submitted IN DUPLICATE on the proposal form, which is a part of these specifications.

Descriptive literature containing complete specifications must accompany each bid. If a bidder
wishes to furnish additional information, more sheets may be added.

Adobe Acrobat® Reader is required to view electronic documents on-line. If you do not have Adobe Acrobat® Reader, you may download it for free from Adobe at http://www.adobe.com/products/acrobat/readstep.html.

Response summaries will be available online at http://www.watertownct.org on the day of the bid opening.

Responses delivered via fax are received subject to the following qualifications and limitations:

1. The Town is not responsible for the confidentiality of the information transmitted.

2. The Town cannot guarantee that its fax equipment will be operational and able to receive transmittals by a particular time and date. It is the Bidder's responsibility to ensure that quotations are received in their entirety and on time at the required location. It is recommended that vendors be advised to call immediately after transmitting a document electronically to confirm complete and accurate receipt by the Town. The Town assumes no liability in the event that a bidder’s electronic transmission is not received by the Town in a timely fashion, or is not received either in its entirety or error-free.

3. Bids transmitted electronically which have a bond requirement are subject to the same submittal requirements as those responses delivered via traditional means, such as mail or hand delivery, or as otherwise stipulated by appropriate authority.

INCURRING COSTS
The Town of Watertown is not liable for any cost incurred for the preparation of proposals or submission of samples by the firms submitting proposals for the work requested in this bid document or request for proposals.

FAMILIARITY WITH THE WORK
Each bidder is considered to have examined the work to fully acquaint himself with the exact existing conditions relating to the work and has fully informed himself as to the work involved and the difficulties and restrictions attending the performance of this bid. Failure to do so will not relieve a bidder of his obligation to furnish all labor, equipment and materials necessary to carry out the work for the consideration set forth in this bid. The submission of a bid will be considered as conclusive evidence that the bidder has made such examination.

CONSIDERATION OF PRIOR SERVICE
Previous performance, quality of service and merchandise will be considered.
ADDENDA AND INTERPRETATIONS & ALTERNATE PROPOSALS

Addenda information will be available online at [http://www.watertownct.org](http://www.watertownct.org). Adobe Acrobat® Reader may be required to view this document. We strongly suggest that you check for any addenda a minimum of forty eight hours in advance of the bid deadline.

At the time of the opening of bids each bidder will be presumed to have inspected the work and to have read and to be thoroughly familiar with all of the Contract Documents (including all addenda). The failure or omission of any bidder to receive or examine any form, instruction or document shall in no way relieve any bidder from any obligation in respect to his bid.

If any person contemplating submitting a proposal is in doubt as to the true meaning of any part of these specifications, he may submit a written request for an interpretation to the Purchasing Agent. No interpretations as to the meaning of the plans, specifications or other Contract Documents will be made to any bidder orally.

Every request for such interpretation should be emailed to the Town of Watertown, Purchasing Agent, Jason Warner, [warner@watertownct.org](mailto:warner@watertownct.org) and to be given consideration, must be received at least five (5) days prior to the date fixed for the opening of Bids. Any and all such interpretations and any supplementary instructions will be in the form of written Addenda to the Specifications which, if issued, will be posted on the Town’s website for all prospective bidders to view no later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such Addendum or interpretations shall not relieve any bidder from any obligations under his bid as submitted. All Addenda so issued shall become part of the Contract Documents. Oral explanations will not be binding on the Town.

The specifications listed are to be interpreted as meaning the minimum acceptable by the Town of Watertown. Bidders are requested to submit quotations on the basis of these specifications. Alternative bids providing a broader scope and/or services than requested in these specifications may receive consideration providing such equipment and/or service is clearly explained. Any exceptions to the specifications requested herein must be clearly noted in writing and are to be included as a part of your bid proposal. If none are included it will be assumed that there are none.

Definition of the word "complete" means that each unit of the equipment proposed shall include all appurtenances, fasteners, parts, accessories, and services ordinarily catalogued.

An item equal to that named or described in the specifications may be furnished by the Bidder, except where expressly noted as “no substitutions.” The naming of any commercial name, trademark, or other identification shall not be construed to exclude any item of any manufacturer not mentioned by name, nor limit competition, but shall establish a standard of equality only. An item shall be considered equal to the item so named or described if:
A. It is at least equal in quality, durability, appearance, strength and design.

B. It will perform at least equally the function imposed by the design for the work being contracted for or the material being purchased.

C. It conforms substantially, even with deviations, to the detailed requirements for the item in the specifications.

The Bidder shall hold the Town of Watertown, its officers, agents, servants, and employees, harmless from liability of any nature or kind because of use of any copyrighted or uncopyrighted compositions, secret process, patented or unpatented inventions, articles or appliances furnished or used under this bid, and agrees to defend, at his own expense, any and all actions brought against the Town of Watertown or himself because of the unauthorized use of such articles.

**QUOTATION LIMITATION**

Bidders shall offer only **ONE ITEM AND PRICE** for each line item bid. If an or equal item is to be bid, the bidder is to select the brand and model that meets or exceeds the specified item, and submit his bid for that item.

**ESTIMATE OF WORK**

For bidding purposes, the work has been subdivided into unit price items. The quantities shown are to be considered as approximate only. The Purchasing Agent does not expressly or by implication agree that the actual quantity will correspond therewith, but reserves the right to increase or decrease the amount of any item or portion of the work as deemed necessary.

**SAMPLES**

Samples of articles, when required shall be furnished free of cost of any sort to the Town of Watertown. Samples received may be retained by the Town for future comparison. Samples which are not destroyed by testing, or which are not retained for future comparison will be returned upon request at the bidder's expense.

**WITHDRAWAL OF BID**

Bidders may withdraw their proposals at any time prior to the bid date. No agent/broker shall withdraw or cancel their proposal for a period of sixty (60) days after the bid closing date of 11:30 a.m., Thursday, September 20th, 2018. The successful agent/broker shall not withdraw, cancel or modify their proposal.

The successful bidder, upon his/her failure or refusal to sign the contract, shall forfeit to the Town as liquidated damages for such failure or refusal, an amount equal to the security deposited with his/her bid. A successful bidder shall forfeit the bid deposit if within five days after notice that the contract has been awarded to him/her, shall refuse or neglect to execute the same, the bid deposit shall be forfeited to and retained by the Town as liquidated damages for such refusal or neglect.
Bid security will be returned to all bidders except the successful bidder within five (5) calendar days after the bid award date. The date of the issuance of a Town of Watertown purchase order shall be considered the award. The bid security of the successful bidder will be returned upon receipt of the required performance bond, letter of irrevocable credit, other insurance, and any other items required by these bid specifications prior to commencing work or deliveries. If no award is made within sixty (60) days after the date of the bid opening, bid security will be returned to all bidders upon demand.

NO PERFORMANCE BONDS / PAYMENT BONDS
NO BID BOND REQUIRED

POWER OF ATTORNEY
Attorneys-in-fact who sign contract bonds must file, with each bond, a certified and effectively dated copy of their power of attorney.

EXECUTION OF CONTRACT
The party to whom the Contract is awarded, or his authorized representative, will be required to attend at the office of the Purchasing Agent of the Town of Watertown, with the sureties offered by him or them, and a current certificate of Corporate good standing issued by the Office of the Secretary of State, in which the corporation is incorporated, and execute the Contract within five (5) days from the date of the award. If the party entering into this contract is a corporation, a Corporate Resolution duly executed by the President and Secretary of the Corporation authorizing the Corporation to enter into this Contract shall be provided. In case of his failure or neglect so to do, the Town may, at its option, determine that the Bidder has abandoned the Contract, and thereupon the Proposal and acceptance shall be null and void, and bid security accompanying the Proposal shall be forfeited as liquidated damages to the Town. If the party entering into this contract is a partnership, a partnership resolution duly executed by a majority of the general partners authorizing the partnership to enter into this contract shall be provided.

SUBCONTRACTORS
A. Each bidder contemplating the use of any subcontractor shall submit a list of subcontractors as listed on the Bid Form.
B. The apparent low bidder shall file with the Town of Watertown, within five (5) days after the date of bid opening, a complete list of the names and addresses of competent, responsible and qualified subcontractors who are actually to perform major portions of the work. This in no way restricts or limits the requirement that all subcontractors must be approved by the Town.
C. Subcontractors listed on the Bid Form or those previously approved may not be changed without the approval of the Town of Watertown.

Local subcontractors, material suppliers, and labor in the Town of Watertown should be considered and sought insofar, as is practical in the performance of this project.
QUALIFICATION OF BIDDER
In determining the qualifications of a bidder, the Town may consider his record in the performance of any contracts for similar work into which he may have previously entered; and the Town expressly reserves the right to reject the bid of such bidder if such record discloses that such bidder, in the opinion of the Town, has not properly performed such contracts or has habitually, and without just cause, neglected the payment of bills or has otherwise disregarded his obligations to subcontractors, suppliers, state or local codes, men or employees of subcontractors.

The Town may make such investigation as he deems necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the Town all such information and data for this purpose as the Town may request. The Town reserves the right to reject any bid if the evidence submitted by or the investigation of such bidder fails to satisfy the Town that such bidder is properly qualified, or that such bidder misrepresented material facts in the bid documents.

DISQUALIFICATION OF BIDDERS
More than one proposal from an individual, firm, partnership, corporation, or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. Any or all proposals in which such Bidder is interested will be rejected if there is reason for believing that collusion exists among the Bidders and all participants in such collusion will not be considered in future proposals for the same work. Proposals in which the prices are obviously unbalanced may be rejected. No Contract will be awarded except to competent Bidders capable of performing the class of work contemplated.

DELIVERY
Inasmuch as this work concerns a needed public improvement, the provisions of this bid relating to the time of delivery, performance and completion of the work are of the essence of this bid. Accordingly, the successful bidder shall commence work upon receipt of the signed Purchase Order unless the Town shall authorize or direct a further delay, and shall proceed with the work diligently so as to permit completion no later than thirty (30) calendar days after receipt of the Town’s Purchase Order.

Time of delivery shall be stated as the number of calendar days following receipt of the Purchase Order by the Bidder to receipt of the goods or services by the Town of Watertown.

Prices quoted must include delivery to the Town of Watertown as specified on the Purchase Order. No charges will be allowed for parking, crating, freight, express or cartage unless specifically stated and included in this bid.

Time of delivery may be considered in the award.
PAYMENT
The Town, after inspection and acceptance of workmanship, and in consideration of the faithful performance by the Bidder of all and singular his covenants, promises, and agreements contained herein, agrees to pay the Bidder for the full completion by him of the work embraced in this Contract, within (30) Thirty Days of the receipt of the final invoice. When subcontractors or suppliers are utilized, the successful Bidder for this project shall be required to submit a Mechanics Lien Waiver, acceptable to the Town, with each progress payment and/or at time of final payment prior to any payment being made.

Time, in connection with any discount offered, will be computed from the date of delivery to the Town or from the date a correct invoice is received by the Town's Finance Department, if the latter date is later than the date of delivery.

Prices will be considered as NET, if no cash or payment discount is shown.

The successful bidder shall submit invoices to the following address:

    Town of Watertown
    Public Works Department
    61 Echo Lake Rd.
    Watertown, CT 06795

IT IS UNDERSTOOD AND AGREED THAT SHOULD A BID BE ACCEPTED, IT WILL AUTOMATICALLY BECOME THE CONTRACT OR AN ADDENDUM TO ANY CONTRACT AGREED UPON.

Notification of the bid award will be made by issuance of a purchase order. Bidders are to list their bids on the appropriate attached sheets. Bidders may attach a letter of explanation. A clear notification should be made on the standard bid sheets at the appropriate point of explanation that there is a letter of explanation attached. All bids must be NET prices.

The successful bidder shall submit an itemized invoice to the Town of Watertown for the work as described herein.

The bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Watertown, with each progress payment and at time of final payment prior to any payment being made.
At the time of award the successful bidder shall be required to supply the Town of Watertown a Certificate of Good Standing, certifying that the corporation is in fact a valid corporation and presently licensed to conduct business in the State of Connecticut.

SALES TAX
Certain materials and supplies incorporated in the work of this project are exempt from Connecticut Sales Tax. The Bidder shall familiarize himself with current regulations of the State Tax Department. The tax on materials or supplies exempted by such regulations shall not be included as part of the bid. The Town will furnish the successful Bidder sales tax exemption authorization.

COMPLIANCE WITH FEDERAL, STATE AND LOCAL CODES
The Bidder shall be responsible for full compliance with any Federal, State and/or Local codes, laws, regulations and standards, as applicable, to any project fully or partially funded by Local, State and/or Federal funding.

AWARD
The Town of Watertown reserves the right to accept or reject any bid to best serve its interests, or to hold the bids for sixty (60) days before decision.

The Town reserves the right to reject any and all bids (or any part thereof), to waive defects in proposals, or to accept any proposal deemed to be in its best interest.

Exceptions will be considered to the specification provided, providing they are listed and fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS"

Each exception will be considered as to its degree of impact and total effect on the bid. The purchaser shall determine which (if any taken) exceptions are acceptable, and this determination shall be final.

The Town of Watertown reserves the right:

1) To award bids received on the basis of individual items, or groups of items, or on the entire list of items.

2) To reject any or all bids, or any part thereof.

3) To waive any informality in the bids.

4) The Town of Watertown reserves the right to take into account the residency of bidders within the Town of Watertown and/or the location of the bidders business within the Town of Watertown in awarding this bid.

5) To accept the bid that is in the best interest of the Town of Watertown. The Purchasing Agent's decision shall be final.
INSURANCE

A. General:

The Bidder shall be responsible for maintaining insurance coverage in force for the life of the contract of the kinds and adequate amounts to secure all of the Bidder’s obligations under the contract with an insurance company with an AM Best Rating of A - VII or better licensed to write such insurance in Connecticut and acceptable to the Town of Watertown.

The insurer shall provide the Town of Watertown with Certificates of Insurance signed by an authorized representative of the insurance company(ies) prior to the performance of this contract describing the coverage and providing that the insurer shall give the Town of Watertown written notice at least thirty (30) days in advance of any termination, expiration, or any and all change in coverage.

Such insurance or renewals or replacements thereof shall remain in force during the Bidder’s responsibility under this agreement.

The Bidder at his own cost and expense shall procure and maintain all insurance required and shall name the Town of Watertown as an additional insured on all contracts except Worker’s Compensation and Professional Errors & Omissions coverage.

In order to facilitate this requirement for insurance, it is recommended that the bidder forward a copy of this exhibit to the bidder’s insurance representative(s).

B. Specific Requirements:

(1) Workers’ Compensation Insurance

The Bidder shall provide Workers’ Compensation Insurance required by law and the Employer’s Liability Insurance for at least the amounts of liability for Bodily Injury by accident of $100,000 each accident; Bodily Injury by Disease each employee of $100,000; Bodily Injury by Disease, policy limit of $500,000.

(2) Commercial General Liability Insurance

The Bidder shall carry Commercial General Liability policy (Insurance Services Office Incorporated Form CG-0001 or equivalent). A per occurrence limit of $1,000,000 is required. The Aggregate Limit will be not less than $1,000,000.
(3) Business Automobile Liability Insurance

The Bidder shall carry Business Automobile Liability Insurance. (Insurance Services Office Incorporated Form CA-00001 or equivalent). A per occurrence limit of $1,000,000 is required. “Any Auto” (symbol 1 or equivalent) is required.

C. Hold Harmless & Subcontractor’s Requirements:

The Bidder shall require the same insurance that it is required to carry by the Town of Watertown to be carried by any subcontractors and independent contractors hired by the Bidder and to obtain Certificates of Insurance before subcontractors and independent contractors are permitted to begin work.

The Bidder shall require that the Town of Watertown be named as Additional Insured on all subcontractor’s and independent contractor’s policies before they are permitted to begin work.

The Bidder and all subcontractors and independent contractors and their insurers shall waive all rights of subrogation against the Town of Watertown, and its officers, agents, servants and employees for losses arising from the work performed by each on this contract.

The Bidder assumes and agrees to hold harmless, indemnify, protect and defend the Town of Watertown against any and all liability for injuries and damages to Bidder and to Bidder’s employees, agents, subcontractors and guests, third parties or otherwise incident to or resulting from any and all operations performed by a contractor under any terms of this contract.

D. Other Data:

NOTE 1: If Bidder is only a vendor shipping goods via Common Carrier only, General Liability is required.

NOTE 2: If Bidder is a Professional, Errors & Omission coverage will be required.

NOTE 3: The Town reserves the right to amend amounts of coverage required and the types of coverage provided based on work or service to be performed.

GUARANTEE

The bidder shall unconditionally guarantee for a period of one (1) year from the date of acceptance, all materials, supplies, equipment, and services; including but not limited to its workmanship, delivery and installation. If within the guarantee period there are any defects or signs of deterioration the bidder shall repair, adjust or replace the item(s) to the complete satisfaction of the Town. These repairs, adjustments, or replacements are at the sole expense of the bidder and shall be made at such times that are agreeable to the Purchasing Agent so that it is least detrimental to instructional programs.
PERMITS
When required all licenses and permits for complying with any applicable Federal, State, and Municipal laws, codes, regulations in connection with the prosecution of the work shall be obtained by the Bidder, at no additional cost to the Town. The cost of Local permits will be assessed at sixteen cents per one thousand dollars of construction value as declared on the building permit application pursuant to State of Connecticut Statute Sec. 29-263 by the Town of Watertown. The successful contractor will be responsible for payment to the Town of Watertown Building Inspection Department.

PREVAILING WAGE RATES
The Town of Watertown shall require the payment of prevailing rates of wages in accordance with the wage section of the Connecticut General Statues 31-53, 93-392 and shall institute such investigations and periodic monitoring procedures as deemed necessary to determine compliance with labor standard provisions and the Federal requirements of the Statutes as amended.

NONDISCRIMINATION IN EMPLOYMENT
The successful bidder shall agree and warrant that, in the performance of this contract, he will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, sex, religion, or national origin in any manner prohibited by State, Federal, County, or Municipal law. A certification of Nonsegregated Facilities and a Certification Regarding Equal Employment Opportunity shall be considered a part of this contract.

DISPUTE RESOLUTION
1. Mandatory Negotiation.

   The parties agree that they will attempt to negotiate in good faith any dispute of any nature arising under this agreement. The parties shall negotiate in good faith at not less than two (2) negotiation sessions prior to seeking any resolution of any dispute by any means under Dispute Resolution provisions contained herein below. Each party shall have the right to legal representation at any such negotiation session.

2. Mandatory Mediation.

   Any dispute or question arising under the provisions of this agreement, which has not been resolved under the mandatory negotiation provision, shall be submitted to non-binding mediation before one (1) mediator agreed upon by the parties or appointed by the American Arbitration Association. Mediation proceedings shall take place at any suitable location in Watertown, Connecticut and shall be conducted in accordance with the rules and procedures of the mediation then applicable of the American Arbitration Association. If an independent mediator is agreed upon by the parties, said independent mediator shall establish the rules of such mediation. Each party shall pay one half of all costs and expenses of such mediation. The parties shall use their best efforts to reach a good faith resolution of said dispute within ninety (90) days after the commencement of the mediation proceedings. Any decision of the
mediator shall not be binding upon the parties except by agreement of the parties.

3. Election to Begin Court Proceedings.

Provided the parties have completed the mandatory negotiation proceedings and the foregoing provisions with respect to mediation notwithstanding, if either party determines that mediation is not an appropriate means to settle any such dispute, such party shall have the right to commence judicial proceedings for the purpose of settling any such dispute.

MECHANICS LIEN WAIVERS
The successful Bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Watertown, with each progress payment, and/or at time of final payment, prior to any payment made.

For further technical or administrative information contact Mr. Jason Warner, Purchasing Agent at (860) 945-5260 or via email at warner@watertownct.org.
TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT

TECHNICAL SPECIFICATIONS

Manila, Merrimac and Van Orman Street Pavement Rehabilitation
Watertown Public Works Department

This project consists of the reclaiming to a depth of approximately twelve inches to sixteen inches (12 - 16”) and subsequent paving of approximately 13,121 square yards of bituminous concrete wearing base and courses on the following streets in Oakville:

<table>
<thead>
<tr>
<th>Name</th>
<th>Street Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manila Street – Reclaim and Pave</td>
<td>Colonial Street to #108</td>
</tr>
<tr>
<td>Manila Street – Mill and Overlay</td>
<td>#108 to Morro Street</td>
</tr>
<tr>
<td>Van Orman Street – mill and overlay</td>
<td>Entire length</td>
</tr>
<tr>
<td>Merrimac Street – mill and overlay</td>
<td>Entire length</td>
</tr>
</tbody>
</table>

Work is to be performed as directed by the Town Engineer and in accordance with the sequence of construction shown on plans. A portion of Manila Street will be reclaimed, regraded, subgrade formed and compacted and then overlaid with two lifts two inch (2”) each of Class 1 bituminous concrete compacted to a total depth of approximately 4 inches (approximately 272 tons). The remainder of the project consists of milling approximately two inches (2”) of existing pavement and placing tack coat and approximately two inches (2”) of Class 1 bituminous concrete in place. Uniformed Town Police Officers are required for all work within the roadway and will be paid for directly by the Town.
BITUMINOUS CONCRETE IN PLACE
SPECIFICATIONS

Description:

On a portion of Manila street, this item shall consist of reclaiming existing pavement to a depth of twelve to sixteen (12 – 16”), removing unsuitable material, compacting, forming subgrade and then providing four inches (4”) of bituminous concrete pavement in place. The remainder of the project consists of milling approximately two inches (2”) of existing pavement and placing tack coat and approximately two inches (2”) of Class 1 bituminous concrete in place.

All work performed under this item shall be in accordance with the State of Connecticut Department of Transportation “Standard Specifications for Roads, Bridges, Facilities and Incidental Construction”, Form 817 as amended. It should be noted that reference to the Form 817 is for convenience only and that this is not an 817 job nor are all of the terms and conditions of the Form 817 applicable.

Mobilization and demobilization, saw cutting, dewatering and dust control and cleaning of milled debris from all catch basins within the project limits shall be included in the unit prices bid and shall not be considered or paid as a separate item. All maintenance and protection of traffic will be paid for at the contract lump sum price except uniformed police officers which will be paid for directly by the town.

Roadway utility structure adjustments will be done using riser rings and will be installed in advance of paving by the utility companies with some assistance by contractor personnel.

The streets to be overlaid or paved may require various degrees of application of a bituminous concrete “leveling” course to fill depressions and an overlay of the minimum 2” compacted. Still other areas may require “wedging” of various degrees to develop a reasonable cross slope. These “wedged” sections of street may require the additional application of the minimum 2” overlay compacted. The Town inspector shall determine the location and degree of application of “leveling”, “wedging” and overlay courses, if any. All areas of pavement to be overlaid and contact surfaces of curbing, manholes, etc. shall have a thin uniform coat of tack coat applied at a rate of 20 square yards per gallon prior to paving.

The unit price bids shall be for Class 1 bituminous concrete delivered and placed complete to the satisfaction of the Town Engineer, regardless of whether it is the applications of a “leveling”, “wedging”, “base”, “top” or overlay course. Asphalt escalation costs shall be included in the unit price bid and shall not be considered or paid as a separate item.

The estimated quantity of bituminous concrete for the entire project is 1,108 tons.

The estimated quantity of tack coat is 550 gallons.
The quantity shown above is to be considered as approximate only. The Town reserves the right to increase or decrease the amount of the work as may be deemed necessary.

Bidder must be able to meet the following equipment specifications:

**Paving Equipment:**
Paving equipment shall be of the self-powered type with an adapter to provide guidance of the screeding action. The screed or strike-off member shall be adjustable to the shape of the cross-section of the finished pavement. Some method shall be provided for the tilting of the screed while in operation to secure the proper "drag" and to provide compressive screeded surface required. The machine shall have a sufficient number of driving wheels so there will be no undue amount of slippage. Whenever the design of the equipment and plan of operation are such that the driving wheels travel on the finished surface of a completed pavement, said wheels shall be equipped with rubber tires or other means to protect the finished surface. Screeding members shall be preheated and means shall be provided for heating and screeding members by some method that will prevent accumulation of bituminous material. Extendable paver screeds must be of the vibratory type when used.

**Tack Coat**
Tack coat shall be applied to all milled surfaces at a rate of approximately 0.06 gallons per square yard in accordance with Form 817, Section 4.06.

**Compaction:**
After placing, each course placed to a depth of two inches (2") shall have the mat and longitudinal joints compacted to a minimum of 92.0 percent and no more than 97.0 percent density as determined by AASHTO T209 (Modified).

**Non-Vibratory Rollers:**
In general, rolling shall consist of breakdown rolling and finish rolling. Rolling shall be performed with at least two power-driven steel-wheel tandem or 3-wheel rollers weighing not less than 10 tons for each single-lane paver.

All non-vibratory rollers shall travel at a speed no greater than 5 mph (400 fpm).

**Vibratory Rollers:**
The Contractor may include a vibratory roller in the compaction train providing the vibratory roller is operated in accordance with the manufacturer's recommendations. The vibratory roller shall be of a self-propelled type specifically designed for the compaction of bituminous concrete.

Vibratory rollers shall be equipped with a speed control device which shall be set by the Contractor to prevent the roller from traveling in excess of 2-1/2 mph or 220 fpm when the roller is operating in
a vibratory mode, and 5 mph or 44fpm when the roller is operating in the static mode.

All vibratory rollers shall be shut off from the vibrating mode when reversing directions. All vibratory rollers shall be equipped with automatic reversing eccentrics (weights).

The course shall be finish-rolled with a steel-wheel tandem roller having a minimum weight of 10 tons.

Dual vibrating drum rollers meeting the requirements of a steel-wheel tandem roller and operating in the static mode may be used as the finish roller; however, this single vibratory roller shall not be used as both breakdown roller and the finish roller.

A minimum of one vibratory roller and one steel-wheel tandem roller shall be provided for each single-lane paver. The Engineer must approve the type(s) of rollers and number.

The Contractor assumes full responsibility for the cost of repairing all damages, which may occur to highway components and adjacent property. If the Engineer determines that the compaction obtained is less than specified, or damage to highway components and/or adjacent property occurs with the use of the vibratory compaction equipment, the Contractor at no additional expense shall immediately cease using the equipment and shall proceed with the work in accordance with the conventional compaction procedure outlined in the specifications.

All work shall be to the satisfaction of the Town Engineer. Work performed that is not done to the satisfaction of the Town Engineer shall be rectified to his satisfaction at no additional expense to the Town.

Weather and Seasonal Limitations

The bituminous concrete may not be placed whenever the surface is wet or frozen or the minimum air and surface temperature is 40 degrees Fahrenheit and rising.

Testing Laboratories

The Contractor shall provide, at no additional cost to the Owner, the services of approved testing laboratories to take samples of materials and perform tests as required under this Contract or as ordered by the Engineer. Town Engineer must approve proposed testing company prior to beginning of construction activities. Payment for these services shall be included under the applicable items of the Contract, unless otherwise specified. Contractor will notify on-call testing service company at least 24 hours in advance for compaction testing. Compaction tests are required on base materials prior to placing asphalt and on bituminous concrete pavement during rolling operations. A minimum of six (6) satisfactory tests per material per lift per road are required.

Method of Measurement:
The quantity of bituminous concrete will be measured for payment by the net weight, in tons,
measured in the hauling vehicles on scales. The total weight will be the summation of weigh slips of bituminous concrete actually incorporated and accepted in the work.

Cleaning of all milled bituminous material in catch basins shall not be measured for payment but shall be included in the price bid for the work.

The quantity of tack coat will be measured for payment by the number of gallons furnished and installed on the Project and approved by the Town. No tack coat shall be included that is placed in excess of the application rates specified above.

**Basis of Payment:**
The furnishing and placing of bituminous concrete will be paid for at the contract unit price per ton for “Bituminous Concrete, Class 1”, subject to the density correction (if any) as described in Section 4.06.05 of the Form 817. No payment shall be made for any work related to the replacement or correction of defective pavement.

No separate payment shall be made for material testing but the costs shall be included in the unit costs for which the work is required.

Material for Tack Coat will be paid for at the contract unit price per gallon for “Tack Coat”.
TECHNICAL SPECIFICATIONS
RECLAIMING OF BITUMINOUS PAVEMENT – (0 TO 12 INCHES)

Description

This work shall consist of the preparation of an asphalt stabilized base course composed of a mixture of existing hot mix asphalt and existing base material. It shall be performed in accordance with these specifications and conformity with the existing line, grade and cross section as directed by the Town on site. In general, the work shall consist of reclaiming approximately twelve (12) to sixteen (16) inches of existing bituminous concrete and base material, grading and compacting the reclaimed material to approximately the existing line and grade in preparation to placing new bituminous concrete. Contractor is solely responsible for dust control, which shall be included in the unit price of the work items bid. Unsuitable material, as determined by the Town, shall be excavated and disposed of off-site. Suitable material to replace unsuitable material shall be provided using either other reclaimed material from the jobsite or process gravel form off-site sources.

Unless otherwise specified, surplus suitable reclaimed material shall remain the property of the town and shall be deposited at a location within the town if required. The disposal locations, if required, shall be the materials stockpile area located off Northfield Road adjacent to the sixteenth hole of the golf course or the Hamilton Avenue Solid Waste Disposal Facility located on Old Baird Road in Watertown, Connecticut. Unsuitable material, as determined by the Town, will be properly disposed of off-site.

Reclamation/Grinding Equipment

The equipment for pulverizing and reclaiming the pavement surface shall be designed and built for pulverizing flexible pavements and shall have a minimum 6 foot cutting width. It shall be self-propelled with sufficient power, traction and stability to maintain depth and slope and shall be capable of pulverizing and mixing the existing bituminous concrete pavement and base gravel to existing line, grade and typical cross-section on existing site.

The pulverizing reclamation machine shall be equipped with a built-in automatic grade control system that can control the longitudinal profile and the transverse cross-slope to produce the specified results. The longitudinal controls shall be capable of operating from any longitudinal grade reference, including string line, ski (30 feet minimum), mobile string line (30-foot minimum), or matching shoe. The transverse controls shall have an automatic system for controlling cross-slope at a given rate.

The machine shall be capable of operating at a minimum speed of 10 feet per minute and be able to provide a 0 to 8-inch-deep cut (minimum) in one pass. It shall be designed so that the operator can at all times observe the reclamation/grinding operation without leaving the control area of the machine.
The machine shall also be equipped with a means of effectively limiting the amount of dust escaping from the reclamation operation in accordance with local, State and Federal air pollution control laws and regulations.

When reclaiming smaller areas or areas where it is impractical to use the above described equipment, the use of a smaller or lesser-equipped reclamation machine may per permitted when approved by the Town.

A sweeper equipped with a water tank, spray assembly to control dust, a pick-up broom, a dual gutter broom, and a dirt hopper shall be provided by the Contractor. The sweeper shall be capable of removing debris from the entrance road, Northfield Road and parking lot areas affected by the construction. Other sweeping equipment may be provided in lieu of the sweeper when approved by the Town.

**Materials**

All materials provided for processed aggregate base shall be in accordance with the requirements of Article M.05.01 of the form 817.

**Construction Methods**

The construction sequence shown on the Plan shall be followed. Roadway Excavation of unsuitable material shall be performed in accordance with Section 2.02 of the Form 817. Processed aggregate base supplied and installed in place of unsuitable material removed from the project shall be in accordance with Section 3.04 of the Form 817. The pavement surface to be reclaimed shall be restored to the line, grade, and typical cross-section shown on the attached detail (approximately 12 – 16”). After the material is reclaimed, it shall be graded and compacted at the line and grade specified. Formation of Subgrade shall be performed in accordance with Section 2.09 of the Form 817. The reclaiming material shall be compacted with an approved roller to uniform density of not less than 95% of the maximum density in accordance with ASTM 1556 Method D. Suitable reclaimed material shall be removed and reused elsewhere within the project limits.

Existing manhole frames, grates, water and gas gate valves shall be protected during construction operation. Items that are damaged or destroyed by contractor operations that were clearly identified during the Call Before You Dig process shall be replaced at no expense to the town. Contractor shall remove all reclaimed material form any catch basin within project limits.

The ground/reclaimed surface shall provide a satisfactory riding surface with a uniform textured appearance. The ground/reclaimed surface shall be free from gouges, excessive longitudinal grooves and ridges, oil film and other imperfections that are a result of defective equipment, improper use of equipment, or poor workman ship. Any unsatisfactory surfaces produced are the responsibility of the Contractor and shall be corrected at the Contractor’s expense.
To prevent the infiltration of ground material into the storm sewer system the contractor shall take specific care to prevent the pulverized material from falling into the inlet opening or inlet grates. Any ground material that has fallen into inlet openings or inlet grates shall be removed at the Contractor's expense.

At all permanent limits of reclamation, a clean vertical face shall be established prior to paving. No vertical faces, transverse or longitudinal, shall be left exposed to traffic. If any vertical face is formed in an area exposed to traffic a temporary paved transition will be established.

**Testing Laboratories**

The Contractor shall provide, at no additional cost to the Owner, the services of approved testing laboratories to take samples of materials and perform tests as required under this Contract or as ordered by the Engineer. Town Engineer must approve proposed testing company prior to beginning of construction activities. Payment for these services shall be included under the applicable items of the Contract, unless otherwise specified. Contractor will notify on-call testing service company at least 24 hours in advance for compaction testing. Compaction tests are required on base materials prior to placing asphalt and on bituminous concrete pavement during rolling operations. A minimum of six (6) satisfactory tests per material per lift per road are required. Contractor shall obtain Proctor tests on reclaimed materials deemed suitable for reuse prior to measuring for in-place nuclear density testing on rolled subgrade.

**Method of Measurement**

This work will be measured for payment by the number of square yards of area from which the pulverizing/reclamation of asphalt have been completed and the work accepted. No area deductions will be made for minor unground/reclaimed areas such as catch basin inlets, manholes, utility boxes and any similar structures. Unsuitable material excavated and removed from the site shall be paid for by the cubic yard under “Roadway Excavation”. Reclaimed material used for replacement material from elsewhere on-site shall not be measured or paid for separately. Replacement material from off-site shall be paid for at the contract unit price per cubic yard for “Processed Gravel” which price shall include all work to furnish and install in place suitable material. Formation of Subgrade shall be measured per square yard of subgrade, complete and accepted in place and in accordance with Section 2.09 of the Form 817. No additional measurement or payment shall be made for cleaning reclaimed material from catch basins.
**Basis of Payment**

This work will be paid for at the contract unit price per square yard for “Reclamation of Bituminous Concrete” or “Formation of Subgrade”. This price shall include all equipment, tools, labor and materials incidental thereto.

Processed Gravel shall be paid for at the contract unit price per cubic yard, as measured in place, which price shall include all labor, equipment, materials and tools incidental thereto.

Roadway Excavation shall be paid for at the contract unit price per cubic yard as measured in place by the Town. The price shall include all equipment, tools, labor and work incidental thereto, including the satisfactory disposal of unsuitable material or placement and compaction of suitable material within the project limits.

All costs incidental to the disposal of unsuitable material shall be included in the price bid per cubic yard for “Roadway Excavation.”

No separate payment shall be made for material testing but the costs shall be included in the unit costs for which the work is required.

No additional payments will be made for multiple passes with the reclamation machine to reclaim the bituminous surface.

Contractor shall be responsible for repairing or replacing any manhole covers, rings, gates, valve covers, risers or other underground utility structures damaged or destroyed by the Contractor that were marked out or clearly visible at the surface prior to grinding.
TECHNICAL SPECIFICATIONS
MILLING OF BITUMINOUS PAVEMENT – (0 to 6 INCHES)

Description

This work shall consist of the milling, removal, and disposal of existing bituminous concrete pavement from curb to curb or in the gutters only, as specified. It shall be performed in accordance with these specifications and in conformity with the line, grade, and cross-section as directed by the Town and in accordance with the standard detail (attached).

Unless otherwise specified, the milled material shall remain the property of the town and be transported and properly disposed of at the Transfer Station at Old Baird Road, Watertown, CT as directed by the transfer station operator.

Milling Equipment

The equipment for milling the pavement surface shall be designed and built for milling flexible pavements and shall have a minimum 6 foot cutting width. It shall be self-propelled with sufficient power, traction, and stability to maintain depth and slope and shall be capable of removing the existing bituminous concrete pavement to the line, grade and typical cross-section shown on the plans.

The milling machine shall be equipped with a built-in automatic grade control system that can control the longitudinal profile and the transverse cross-slope to produce the specified results. The longitudinal controls shall be capable of operating from any longitudinal grade reference, including string line, ski (30 feet minimum), mobile string line (30-foot minimum), or matching shoe. The transverse controls shall have an automatic system for controlling cross-sloe at a given rate.

The machine shall be capable of operating at a minimum speed of 10 feet per minute and be able to provide a 0 to 4-inch deep cut (minimum) in one pass. It shall be designed so that the operator can at all times observe the milling operation without leaving the control area of the machine.

The teeth on the revolving cutting drum must be continually maintained and shall be replaced as warranted to provide a uniform pavement texture.

The machine shall be equipped with an integral pickup and conveying device to immediately remove material being milled from the surface of the roadway and discharge the millings into a truck, all in one operation. The machine shall also be equipped with a means of effectively limiting the amount of dust escaping from the milling and removal operation in accordance with local, State, and Federal air pollution control laws and regulations.

When milling smaller areas or areas where it is impractical to use the above described equipment, the use of a smaller or lesser-equipped milling machine may be permitted when approved by the Town.
The Contractor shall provide spray assembly to control dust, a pick-up broom, a dual gutter broom, and a dirt hopper sweeper equipped with a water tank. The sweeper shall be capable of removing millings and loose debris from the textured pavement. Other sweeping equipment may be provided in lieu of the sweeper when approved by the Town.

**Construction Methods**

The pavement surface shall be removed to the line, grade, and typical cross-section shown on the attached detail (typically 1” to 3”). For gutter milling, each lane shall be milled a distance of ten feet (10’) from the curb or edge of pavement. The depths shall be as determined by the town in the field.

The milled surface shall provide a satisfactory riding surface with a uniform textured appearance. The milled surface shall be free from gouges, excessive longitudinal grooves and ridges, oil film, and other imperfections that are a result of defective equipment, improper use of equipment, or poor workmanship. Any unsatisfactory surfaces produced are the responsibility of the Contractor and shall be corrected at the Contractor's expense and to the satisfaction of the Town.

When removing a bituminous concrete pavement from an underlying Portland cement concrete pavement, all of the bituminous concrete pavement shall be removed to the greatest extent practicable, leaving a uniform surface of Portland cement concrete, unless otherwise directed by the Town.

Unless otherwise specified, milling shall be done to improve rideability and/or cross-slope. The existing pavement shall be removed to the depth as directed by the Town in a manner that will restore the pavement surface to a uniform cross-section and longitudinal profile. The longitudinal profile of the milled surface shall be established by a string line, mobile string line, or mobile ski. The cross-slope of the milled surface shall be established by a second sensing device or by an automatic cross-slope control mechanism. The Contractor will be responsible for providing all grades necessary to remove the material to the proper line, grade, and typical cross-section. The Town may waive the requirement for automatic grade or slope controls where the situation warrants such action.

Protection shall be provided around existing catch basin inlets, manholes, utility valve boxes, and any similar structures. Any damage to such structures as a result of the milling operation is the Contractor's responsibility and shall be repaired at the Contractor's expense.

To prevent the infiltration of milled material into the storm sewer system the Contractor shall take special care to prevent the milled material from falling into the inlet opening or inlet grates. Any milled material that has fallen into inlet openings or inlet grates shall be removed at the Contractor's expense.
At all permanent limits of milling, a clean vertical face shall be established prior to paving. No vertical faces, transverse or longitudinal, shall be left exposed to traffic. If any vertical face is formed in an area exposed to traffic a temporary paved transition will be established. If a vertical face is not formed and the milling machine is used to temporarily transition the milled pavement surface to the existing pavement surface, the length of the temporary transition shall be as directed by the Town.

Prior to opening an area which has been milled to traffic, the pavement shall be thoroughly swept with a sweeper or other approved equipment to remove, to the greatest extent practicable, material which will become airborne under traffic. This operation shall be conducted in a manner so as to minimize the potential for creation of a traffic hazard and to comply with local, State, and Federal air pollution control laws and regulations. Any damage done to traffic as a result of milled material becoming airborne is the responsibility of the Contractor and shall be repaired at the Contractor’s expense.

The milled surface will be tested with a 10-foot straightedge furnished by the Contractor. The variation of the top of rides from the testing edge of the straightedge, between any two ridge contact points, shall not exceed 3/8 inch. The variation of the top of any ridge from the bottom of the groove adjacent to that ridge shall not exceed 3/8 inch. Any point in the surface not meeting these requirements shall be corrected as directed by the Engineer at the Contractor’s expense.

The Contractor may be waived of the straightedge surface requirements stated in the preceding paragraph in areas where a surface lamination between bituminous concrete layers or a surface lamination of bituminous concrete on Portland cement concrete causes a non-uniform texture to occur. This is subject to the approval of the Engineer.

**Method of Measurement**

This work will be measured for payment by the number of square yards of area from which the milling of asphalt has been completed and the work accepted. No area deductions will be made for minor unmilled areas such as catch basin inlets, manholes, utility boxes and any similar structures.

**Basis of Payment**

This work will be paid for at the contract unit price per square yard for "Milling of Bituminous Concrete, (0 to 4 inches)." This price shall include all equipment, tools, labor, and materials incidental thereto.

No additional payments will be made for multiple passes with the milling machine to remove the bituminous surface or for mobilization/demobilization between jobsites.

No separate payments will be made for cleaning the pavement prior to paving; cleaning of milled material from catch basins, maintenance and protection of traffic except for uniformed police officers
providing protection and doing handwork removal of bituminous concrete around catch basin inlets, manholes, utility valve boxes and any similar structures; repairing surface defects as a result of the Contractors negligence; providing protection to underground utilities from the vibration of the milling operation; removal of any temporary milled transition; removal and disposal of millings; furnishing a sweeper and sweeping after milling. The costs for these items shall be included in the contract unit price.
TECHNICAL SPECIFICATIONS
FORMATION OF SUBGRADE

Description
The item for “Formation of Subgrade” shall include all labor, equipment and materials required to provide the formation of subgrade to the line and grade specified, as shown on the plans or as directed by the Town, complete and accepted in place according to Form 817, as amended and as shown on the plans. Contractor is solely responsible for dewatering and dust control, which shall be included in the unit price of the work items bid.

Construction Methods
The formation of subgrade, in accordance with the Requirements of Article 2.09 of the Form 817, as amended. Surplus material is to be deposited elsewhere in town, as directed by the Town.

Method of Measurement
This work will be measured for payment by the following:

Number of square yards of subgrade formed, coincident with outside edges of pavement, as shown on the plans or as directed by the Engineer and in accordance with Article 2.09 of the Form 817, as amended.

Basis of Payment
This work will be paid for as follows:

Contract unit price per square yard for subgrade formed, complete and accepted complete in place, which price shall include all equipment, material, labor and work incidental to as specified herein.
TECHNICAL SPECIFICATIONS
BITUMINOUS CONCRETE DRIVEWAY

Description

All labor, equipment and materials for driveway excavation, repair, base, pavement sawing and tack coat will not be measured or paid for separately, but shall be included in the unit price of the item “Bituminous Concrete Driveway”, in accordance with Form 817, Article 9.22, as amended, which shall include all labor equipment and material to provide a bituminous concrete driveway of the size and type as specified or as shown on the plans.

Materials

Materials for this work – in accordance with Article 9.22 of the Form 817, as amended. Saw cutting, dewatering, dust control and tack coating included.

Construction Methods

Bituminous concrete driveways including base – in accordance with Article 9.22 of the Form 817, as amended. Saw cutting and tack coating existing driveway or sidewalk is included.

Method of Measurement

This work will be measured for payment by the following:

1. Number of square yards of bituminous concrete driveways as shown or as directed by the Town.

2. Removal and disposal of existing pavement, process gravel base, saw cutting and tack coating will not be measured for payment but shall be included in the unit prices bid.

Basis of Payment

This work will be paid for as follows:

Contract unit price per each square yard of bituminous concrete driveway, complete and accepted in place, which price shall include all equipment, material, labor and work incidental to as specified herein.
**Basis of Payment**

This work will be paid for as follows:

Contract unit price per each square yard of bituminous concrete driveway or sidewalk, complete and accepted in place, which price shall include all equipment, material, labor and work incidental to as specified herein.
TECHNICAL SPECIFICATIONS
CURBING

Bituminous Concrete Lip Curb:

The item for “Bituminous Concrete Lip Curb (BCLC)” shall include all labor, equipment and materials required to provide the bituminous concrete lip curb, including tack coat in accordance to Form 817 and as shown on the plans. All BCLC shall be backed up by topsoil to the top of the curb, which shall be seeded and mulched in accordance with the appropriate line item. Any settlement is to be addressed prior to release of any retainage.

Materials

Bituminous Concrete Lip Curb:

Materials, including tack coat, shall conform to the requirements of Article 8.15 of the Form 817.

Construction Methods

1. Bituminous concrete lip curb – in accordance with Article 8.15 of the Form 817, as amended.
2. Tack coat material – in accordance with the Form 817, as amended.

Method of Measurement

This work will be measured for payment by the following:

1. Number of linear feet of Bituminous Concrete Lip Curb as measured along the top of the curb, as shown on the plans or as directed by the Engineer.
2. Bedding, base, and backfill will not be measured or paid for separately but the cost shall be included in the unit price bid per unit foot of curbing.

Basis of Payment

This work will be paid for as follows:

1. Contract unit price per each linear foot of bituminous concrete lip curb, complete and accepted in place, which price shall include all equipment, material, labor and work incidental to as specified herein. There will be no direct payment for furnishing, placing and compacting granular base or backfill, but the cost of this work shall be considered in the general cost of the work.
TECHNICAL SPECIFICATIONS
TOPSOIL AND TURF ESTABLISHMENT

Description

The item for “Topsoil and Turf Establishment” shall include all labor, equipment and material necessary to strip and stockpile existing topsoil, respread stockpiled topsoil to line a minimum of five inches (5”) deep, depth and grade at the locations as shown on the plans or as directed by the Engineer, rake out all stones 1” and greater in size as well as roots and other objectionable material, seed and mulch in accordance with Articles 9.44 and 9.50 of the Form 817, as amended, at the unit price per square yard.

The work will also include the installation of erosion control matting consisting of mulch and netting woven together as one unit where shown on the plans or as directed by the Town.

Materials

Topsoil, fertilizer, seed, erosion control matting and mulch shall conform to the requirements of Section M.13 of the Form 817, as amended. Seed mixture proposed to be used shall be deemed suitable for use on a residential lawn.

Construction Methods

Topsoil and Turf Establishment - in accordance with Articles 9.44 and 9.50 of the Form 817, as amended,

Erosion control matting – in accordance with Article 9.50 of the Form 817, as amended.

Topsoil is to be placed to the top of adjacent curbing. Any settlement that occurs is to be restored and reseeded as necessary to the top of the curb. Contractor shall restore topsoil, fertilize, water and seed until such time as the Town accepts the established vegetation growth.

Town will furnish baseline and benchmark for installation of improvements. Contractor to provide all other field survey required. Owner to perform as-built survey upon completion of fieldwork.

Method of Measurement

This work will be measured for payment by the following:

Number of square yards of Topsoil and Turf Establishment as shown on the plans or as directed by the Engineer. Maximum pay limit for restoration work, if included in project, shall be a maximum of three feet beyond back of curb or as indicated on plans for reclaimed areas and one foot beyond the back of the curb for milled areas.
Basis of Payment

This work will be paid for as follows:

Contract unit price per each square yard of “Topsoil and Turf Establishment”, complete and accepted in place, which price shall include all equipment, mowing, watering, maintenance, material, labor and work incidental to as specified herein. Partial payment of up to 60% may be made for work completed, but not accepted, at the option of the Town.
TECHNICAL SPECIFICATIONS
MAINTENANCE AND PROTECTION OF TRAFFIC

Article 9.71.01 – Description is supplemented by the following:

The Contractor shall maintain and protect a minimum of one lane of traffic in each direction, each lane on a paved travel path not less than 10 feet in width. Sidewalks to be closed shall be blocked off by means of “Sidewalk Closed” signs mounted on sawhorses and supplemented by barrels and cones as directed by Town.

Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor shall maintain and protect at least an alternating one-way traffic operation, on a paved travel path not less than 11 feet in width. The length of the alternating one-way traffic operation shall not exceed 300 feet and there shall be no more than one alternating one-way traffic operation within the project limits without prior approval of the Town.

The Contractor is to arrange for Uniformed Police Officers for traffic control as required by the Watertown Police Department (WPD) at (860) 945-5200 which shall be paid for directly by the town. Contractor shall be responsible for expenses for failure to cancel extra duty officers in accordance with WPD requirements.

COMMERCIAL AND RESIDENTIAL DRIVEWAYS

The Contractor shall maintain access to and egress from all commercial and residential driveways throughout the project limits. The Contractor will be allowed to close said driveways to perform the required work during those periods when the businesses are closed, unless permission is granted from the business owner to close the driveway during business hours. If a temporary closure of a residential driveway is necessary, the Contractor will coordinate with the owner to determine the time period of the closure.

Article 9.71.03 - Construction Method is supplemented as follows:

EXISTING SIGNING

The Contractor shall maintain all existing side-mounted signs throughout the projects limits for the duration of the project. The contractor shall temporarily relocate signs and sign supports as many times as deemed necessary, and install temporary sign supports if necessary and as directed by the Town.
GENERAL

Unpaved travel paths will only be permitted for areas requiring full depth and full width reconstruction, in which case, the Contractor will be allowed to maintain traffic on processed aggregate for a duration not to exceed 10 calendar days. The unpaved section shall be the full width of the road and perpendicular to the travel lanes. Opposing traffic lane dividers shall be used as a centerline.

The Contractor is required to delineate any raised structures within the travel lanes so that the structures are visible day and night, unless there are specific contract plans and provisions to temporarily lower these structures prior to the completion of work.

The Contractor shall schedule operations so that pavement removal and roadway resurfacing shall be completed full width across a roadway (bridge) section by the end of a workday (work night), or as directed by the Town.

When the installation of the intermediate courses of bituminous concrete pavement is completed for the entire roadway, the Contractor shall install the final course of bituminous concrete pavement.

When the Contractor is excavating adjacent to the roadway, the Contractor shall provide a 3-foot shoulder between the work areas and the travel lanes, with drums spaced every 50 feet. At the end of the workday, if the vertical drop-off exceeds 3 inches, the Contractor shall provide a temporary traversable slope of 4:1 or flatter that is acceptable to the Town.

If applicable, when an existing sign is removed, it shall be either relocated or replaced by a new sign the same working day.

The Contractor shall not store any material on-site which would present a safety hazard to motorists or pedestrians (e.g. fixed object or obstruct sight lines).

The field installation of a signing pattern shall constitute interference with existing traffic operations and shall not be allowed, except during the allowable periods.

Construction vehicles entering travel lanes at speeds less than the posted speed are interfering with traffic, and shall not be allowed without a lane closure. The lane closure shall be of sufficient length to allow vehicles to enter or exit the work area at posted speeds, in order to merge with existing traffic.
REQUIREMENTS FOR WINTER

Prior to winter, the Contractor shall install the final wearing surface and pavement markings on all sections of roadway repaired during that construction season.

The Contractor shall schedule a meeting with representatives of the Town of Watertown to determine what interim traffic control measures the Contractor must accomplish for the winter to provide safety to the motorist and permit adequate snow removal procedures. This meeting shall be held prior to October 31 of each year and will include, but not be limited to, discussion of the status and schedule of the following items: lane and shoulder widths, pavement restoration, traffic signal work, pavement markings, and signing.

SIGNING PATTERNS

The Contractor shall erect and maintain all signing patterns in accordance with the traffic control plans contained herein. Proper distances between advance warning signs and proper taper lengths are mandatory.

TRAFFIC CONTROL DURING CONSTRUCTION OPERATIONS

The following guidelines shall assist field personnel in determining when and what type of traffic control patterns to use for various situations. These guidelines shall provide for the safe and efficient movement of traffic through work zones and enhance the safety of work forces in the work area.

TRAFFIC CONTROL PATTERNS

Traffic control patterns shall be used when a work operation requires that all or part of any vehicle or work area protrudes onto any part of a travel lane or shoulder. For each situation, the installation of traffic control devices shall be based on the following:

- Speed and volume of traffic
- Duration of operation
- Exposure to hazards

Traffic control patterns shall be uniform, neat and orderly so as to command respect from the motorist.

In the case of a horizontal or vertical sight restriction in advance of the work area, the traffic control
pattern shall be extended to provide adequate sight distance for approaching traffic.

If a lane reduction taper is required to shift traffic, the entire length of the taper should be installed on a tangent section of roadway so that the entire taper area can be seen by the motorist.

Any existing signs that are in conflict with the traffic control patterns shall be removed, covered, or turned so that they are not readable by oncoming traffic.

When installing a traffic control pattern, a Buffer Area should be provided and this area shall be free of equipment, workers, materials and parked vehicles.

Traffic control patterns will not be required when vehicles are on an emergency patrol type activity or when a short duration stop is made and the equipment can be contained within the shoulder. Flashing lights and appropriate traffic person shall be used when required.

Although each situation must be dealt with individually, conformity with the typical traffic control plans contained herein is required. In a situation not adequately covered by the typical traffic control plans, the Contractor must contact the Town Engineer for assistance prior to setting up a traffic control pattern.

**PLACEMENT OF SIGNS**

Signs must be placed in such a position to allow motorists the opportunity to reduce their speed prior to the work area. Signs shall be installed on the same side of the roadway as the work area. On multi-lane divided highways, advance warning signs shall be installed on both sides of the highway. On directional roadways (on-ramps, off-ramps, one-way roads), where the sight distance to signs is restricted, these signs should be installed on both sides of the roadway.

**ALLOWABLE ADJUSTMENT OF SIGNS AND DEVICES SHOWN ON THE TRAFFIC CONTROL PLANS**

The traffic control plans contained herein show the location and spacing of signs and devices under ideal conditions. Signs and devices should be installed as shown on these plans whenever possible.

The proper application of the traffic control plans and installation of traffic control devices depends on actual field conditions.

Adjustments to the traffic control plans shall be made only at the direction of the Town to improve the visibility of the signs and devices and to better control traffic operations. Adjustments to the traffic control plans shall be based on safety of work forces and motorists, abutting property requirements, driveways, side roads, and the vertical and horizontal curvature of the roadway.
The Town Engineer may require that the traffic control pattern be located significantly in advance of the work area to provide better sight line to the signing and safer traffic operations through the work zone.

Table I indicates the minimum taper length required for a lane closure based on the posted speed limit of the roadway. These taper lengths shall only be used when the recommended taper lengths shown on the traffic control plans cannot be achieved.

**TABLE I – MINIMUM TAPER LENGTHS**

<table>
<thead>
<tr>
<th>POSTED SPEED LIMIT MILES PER HOUR</th>
<th>MINIMUM TAPER LENGTH IN FEET FOR A SINGLE LANE CLOSURE</th>
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<tr>
<td>30 OR LESS</td>
<td>180</td>
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<td>35</td>
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**SECTION 1. WORK ZONE SAFETY MEETINGS**

1.a) Prior to the commencement of work, a work zone safety meeting will be conducted with representatives of the Town, Municipal Police, the Contractor (Project Superintendent) and the Traffic Control Subcontractor (if different than the prime Contractor) to review the traffic operations, lines of responsibility, and operating guidelines which will be used on the project. Other work zone safety meetings during the course of the project should be scheduled as needed.
1.b) A Work Zone Safety Meeting Agenda shall be developed and used at the meeting to outline the anticipated traffic control issues during the construction of this project. Any issues that can’t be resolved at these meetings will be brought to the attention of the Town. The agenda should include:

- Review Project scope of work and time
- Review “Prosecution and Progress”
- Review “Traffic persons”
- Review “Maintenance and Protection of Traffic”
- Review Contractor’s schedule and method of operations.
- Review areas of special concern: ramps, turning roadways, medians, lane drops, etc.
- Open discussion of work zone questions and issues
- Discussion of review and approval process for changes in contract requirements as they relate to work zone areas
- Discussion of interaction with Connecticut Department of Transportation personnel.

SECTION 2. GENERAL

2.a) If the required minimum number of signs and equipment (i.e. one High Mounted Internally Illuminated Flashing Arrow for each lane closed, two TMAs, Changeable Message Sign, etc.) are not available; the traffic control pattern shall not be installed.

2.b) The Contractor shall have back-up equipment (TMAs, High Mounted Internally Illuminated Flashing Arrow, Changeable Message Sign, construction signs, cones/drums, etc.) available at all times in case of mechanical failures, etc. The only exception to this is in the case of sudden equipment breakdowns in which the pattern may be installed but the Contractor must provide replacement equipment within 24 hours.

2.c) Failure of the Contractor to have the required minimum number of signs, personnel and equipment, which results in the pattern not being installed, shall not be a reason for a time extension or claim for loss time.

2.d) In cases of legitimate differences of opinion between the Contractor and the Inspection staff, the Inspection staff shall err on the side of safety. The matter shall be brought to the Town for resolution immediately or, in the case of work after regular business hours, on the next business day.
SECTION 3. INSTALLING AND REMOVING TRAFFIC CONTROL PATTERNS

3.a) Lane Closures shall be installed beginning with the advanced warning signs and proceeding forward toward the work area.

3.b) Lane Closures shall be removed in the reverse order, beginning at the work area, or end of the traffic control pattern, and proceeding back toward the advanced warning signs.

3.c) Stopping traffic may be allowed:

  • As per the contract for such activities as blasting, steel erection, etc.
  • During paving, milling operations, etc. where, in the middle of the operation, it is necessary to flip the pattern to complete the operation on the other half of the roadway and traffic should not travel across the longitudinal joint or difference in roadway elevation.
  • To move slow moving equipment across live traffic lanes into the work area.

3.d) Under certain situations when the safety of the traveling public and/or that of the workers may be compromised due to conditions such as traffic volume, speed, roadside obstructions, or sight line deficiencies, as determined by the Town and/or State Police, traffic may be briefly impeded while installing and/or removing the advanced warning signs and the first ten traffic cones/drums only. Appropriate measures shall be taken to safely slow traffic. Once the advanced warning signs and the first ten traffic cones/drums are installed/removed, the TMAs and sign crew shall continue to install/remove the pattern as described in Section 4c and traffic shall be allowed to resume their normal travel.

3.e) The Contractor must adhere to using the proper signs, placing the signs correctly, and ensuring the proper spacing of signs.
3.f) Additional devices are required on entrance ramps, exit ramps, and intersecting roads to warn and/or move traffic into the proper travel path prior to merging/exiting with/from the main line traffic. This shall be completed before installing the mainline pattern past the ramp or intersecting roadway.

3.g) Prior to installing a pattern, any conflicting existing signs shall be covered with an opaque material. Once the pattern is removed, the existing signs shall be uncovered.

3.h) On limited access roadways, workers are prohibited from crossing the travel lanes to install and remove signs or other devices on the opposite side of the roadway. Any signs or devices on the opposite side of the roadway shall be installed and removed separately.

SECTION 4. USE OF TRAFFIC DRUMS AND TRAFFIC CONES

4.a) Traffic drums shall be used for taper channelization on limited-access roadways, ramps, and turning roadways and to delineate raised catch basins and other hazards.

4.b) Traffic drums shall be used in place of traffic cones in traffic control patterns that are in effect for more than a 36-hour duration.

4.c) Traffic Cones less than 42 inches in height shall not be used on limited-access roadways or on non-limited access roadways with a posted speed limit of 45 mph and above.

4.d) Typical spacing of traffic drums and/or cones shown on the Traffic Control Plans in the Contract are maximum spacings and may be reduced to meet actual field conditions as required.
WORK IN TRAVEL LANE AND SHOULDER
TWO LANE HIGHWAY
ALTERNATING ONE-WAY TRAFFIC OPERATIONS

HAND SIGNAL METHODS TO BE USED BY UNIFORMED FLAGGERS

THE FOLLOWING METHODS FROM SECTION 68.07, FLAGGER PROCEDURES, IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," SHALL BE USED BY UNIFORMED FLAGGERS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TRAFFIC STANDARD SHEET TR-1220 01 ENTITLED, "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

A. TO STOP TRAFFIC

TO STOP ROAD USERS, THE FLAGGER SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.

B. TO DIRECT TRAFFIC TO PROCEED

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FLAGGER SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.

C. TO ALERT OR SLOW TRAFFIC

TO ALERT OR SLOW TRAFFIC, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE FLAGGER HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.
PLEASE

IT IS A REQUIREMENT OF THIS BID THAT EACH PROPOSAL SUBMITTED MUST HAVE A DUPLICATE COPY ATTACHED.

YOUR COOPERATION IS APPRECIATED
TOWN OF WATERTOWN
WATERTOWN, CONNECTICUT 06795

BID PROPOSAL

Manila, Merrimac and Van Orman Street Pavement Rehabilitation
Watertown Public Works Department

BID OPENING: 11:30 a.m., Thursday, September 20th, 2018

TO: Jason Warner, Purchasing Agent
Town of Watertown
Town Hall Annex
424 Main Street
Watertown, CT 06795

The undersigned, as bidder, agrees to furnish labor, equipment and material for paving rehabilitating various roads as specified herein and declares that no person or persons, other than those named herein, are interested in this Proposal; that this Proposal is made without collusion with any person, firm, or corporation; that he has carefully examined the location of the proposed work, the proposed Form of Contract, and the Contract Drawings therein referred to: that no person or persons acting in any official capacity for the Town is directly or indirectly interested therein or in any portion of the profit thereof; and that he proposes and agrees, if this Proposal is accepted, to execute the Form of Contract with the Town; to provide all necessary equipment, tools, labor and deliver and to do all work and furnish all materials specified in the Contract, in the manner and time therein prescribed, and according to the requirements of the Town as therein set forth, and that he will take in full payment therefor, the following unit prices and lump sums, to wit:

FIRM _________________________________________________________________

Name ______________________________________________________________

Street ______________________________________________________________

City  State  Zip Code ________________________________________________

NAME _____________________________________________________________

Please Print

TELEPHONE NUMBER ________________________________________________

FAX NUMBER _________________________________________________________

EMAIL ADDRESS _____________________________________________________

SIGNED ____________________________________________________________DATE __________________
## PROPOSAL

The following items shall be provided in accordance with the State of Connecticut Department of Transportation “Standard Specifications for Roads, Bridges and Incidental Construction”, Form 817, as amended.

**NOTE**: The Computed Totals are for convenience in initial comparison of bids and are not an official part of this Proposal. The Town reserves the right to eliminate any Item or portion of the work, which it deems to be in its best interest.

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<tr>
<th>Description/Unit Price</th>
<th>Estimated Quantities</th>
<th>Computed Totals</th>
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<tr>
<td><strong>Item # 1</strong>&lt;br&gt;Reclaiming 0 to 16” in place</td>
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<tr>
<td>The unit price of</td>
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<tr>
<td>___________________ Dollars</td>
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<td>$________</td>
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<td>and ___________________ Cents</td>
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<td>($________ ) per square yard (S.Y.)</td>
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<tr>
<td><strong>Item # 2</strong>&lt;br&gt;Milling 0 to 2” in place</td>
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<tr>
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<td>and ___________________ Cents</td>
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<td>($________ ) per square yard (S.Y.)</td>
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<tr>
<td><strong>Item # 3</strong>&lt;br&gt;Bituminous Concrete Class 1 in Place</td>
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<td>The unit price of</td>
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<tr>
<td>___________________ Dollars</td>
<td>1,188 TONS</td>
<td>$________</td>
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<tr>
<td>and ___________________ Cents</td>
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<td>($________ ) per ton.</td>
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Item # 4
Maintenance and Protection of Traffic

The lump sum price of
_____________________________ Dollars
and __________________________ Cents
($     ) per lump sum. 1 LS $________

Item # 5
Formation of Subgrade

The unit price of
_____________________________ Dollars
and __________________________ Cents
($     ) per square (SY). 1,181 S.Y. $________

Item # 6
Bituminous Concrete Lip Curb (BCLC)

The unit price of
_____________________________ Dollars
and __________________________ Cents
($     ) per linear foot (LF). 3,840 LF $________

Item # 7
Topsoil and Turf Establishment

The unit price of
_____________________________ Dollars
and __________________________ Cents
($     ) per square yard (SY). 420 SY $________

Item # 8
Bituminous Concrete Driveway

The unit price of
_____________________________ Dollars
and __________________________ Cents
($     ) per square yard (SY). 580 SY $________

Computed Total – $____________________
**NOTE:** The Computed Totals are for convenience in initial comparison of bids and are not an official part of this Proposal. The Town reserves the right to eliminate any Item or portion of the work, which it deems to be in its best interest.

Payment Terms _________________________________________________________________

Starting Date ____________________________________________________________________

Time to Completion _____________________________________________ Working Days

Warranty _______________________________________________________________________

Have you taken any exceptions or have you deviated from our printed specification and if so, are such suggested changes clearly noted on the page provided for exceptions to specifications?

___ yes  ___ no

**EXCEPTIONS TAKEN TO SPECIFICATIONS:**

______________________________________________________________________________
______________________________________________________________________________
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RECEIPT OF ADDENDA

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NAME OF BIDDER: __________________________________________________________

OFFICIAL ADDRESS: ______________________________________________________

PHONE NUMBER: ______________________________________________________

BY: ___________________________ TITLE: ______________________________
    (Please Print)

DATE: ________________________________________________________________

SIGNATURE: ___________________________________________________________
REFERENCES

The Bidder is required to fill out the following form to enable the Owner to make inquiries and judgement as to the Bidder’s experience, skill, available financial resources, credit and business standing.

1. Number of years the Bidder has been in business as a Paving Contractor: _______________.

2. List three (3) projects of similar in nature to the project described herein that the Bidder has completed along with the approximate construction cost. Include the name, address and telephone number of a reference for each project.

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

3. List projects presently under construction by the Bidder, dollar volume of the Contract and percent completed.

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
4. Has the Bidder ever failed to complete work awarded to him; and if so, state where and why.

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

5. Does the Bidder plan to sublet any part of this work; and if so, give details.

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

6. List equipment the Bidder owns that is available for this project.

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

7. List equipment the Bidder plans to rent or purchase for this project.

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________
8. List name, address and telephone number for the following:

<table>
<thead>
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