

INVITATION FOR BIDS Miscellaneous Paving – Pavement Management Program – 2021 Bid # DPW-21-B-030

I. GENERAL INFORMATION AND PROPOSAL SUBMISSION REQUIREMENTS

• All Bids must be delivered by 11:00 am on Thursday, March 25, 2021 to:

Procurement Department Westwood Town Hall 580 High Street Westwood MA 02090

- Westwood Town Hall is closed to the public due to COVID-19 concerns. To promote the health and safety of bidders and town employees, the following procedures are in effect and may affect your bid submission.
 - If the bidder is using a delivery service, the package <u>must be signed for</u> by a Westwood Town Hall staff to be considered properly delivered.
 - Bids sent by courier can only be dropped off in the Town Mail Drop Box. The drop box is a green mailbox in front of Town Hall labeled "Town Hall Mail Drop Only."
- Bidders who wish to attend the Bid Opening can do so by telephone conference call. To attend, call 1-888-296-6828. When prompted, enter Participant Passcode #756869.
- Bids will be scanned and posted to the Town website, <u>www.townhall.westwood.ma.us</u>, as soon as practicable after the opening.
- Bids received after the time and date established herein **SHALL NOT** be accepted or considered, regardless of the cause for delay in the receipt of such proposal(s).
- If, at the time of the scheduled proposal due date, the Westwood Town Hall is closed due to uncontrolled events, such as fire, wind, or building evacuation, the proposal opening will be postponed until 12:00 noon on the next normal business day. Proposals will be accepted until that date and time.
- Submit the proposal in a sealed envelope clearly marked "*Bid # DPW-21-B-030, Miscellaneous Paving Pavement Management Program 2021.*"
- The proposal <u>must</u> include a Non-Collusion form, a Tax Compliance Certificate and the other Attachments listed below.
- The proposal <u>must</u> also include a Bid Signature Form. When the Bid Signature Form is completed, it declares:
 - \circ $\;$ The only parties interested in this bid are the Principals named herein.
 - No officer, agent or employee of the Town of Westwood has a direct or indirect interest in this bid.



• Contractors must be pre-qualified (or officially waived contractor) with the Massachusetts Department of Transportation at the time of submitting their bid to the Town. The MassDOT Prequalification Office will provide the Town with an official and a waiver contractor list for all contractors prequalified in the specified class of work within the parameters of this project. Only those bidders listed in the official or waiver contractor lists issued by the MassDOT Prequalification Office will be allowed to submit a bid and receive an award of contract.

• There will be no pre-bid conference for this project.

The deadline for bidder questions on the project will be 4:00 pm on March 18, 2021. Bidders shall make written request to the Westwood Director of Public Works, Todd Korchin at tkorchin@townhall.westwood.ma.us, Subject: Miscellaneous Paving – Pavement Management Program – 2021.

• Bid Form

- Each bid shall be accompanied by a bid deposit in the form of a certified, bank, Treasurer's or cashier's check or a bid bond issued by a surety company licensed by the Commonwealth of Massachusetts, in the amount of five percent (5%) of the total bid price (including all alternates), made payable to the Town of Westwood.
- All bid deposits except that of the lowest responsible bidder shall be returned within five (5) days, Saturday, Sunday and legal holidays excluded, after the opening of the bids.
- The Bidder whose Bid is accepted agrees to furnish the Contract Bonds, each in the sum of the full amount of the Bid and/or Contract Price as determined by the Town, and duly executed and acknowledged by the said bidder as Principal and by a surety company qualified to do business under the laws of the Commonwealth of Massachusetts and satisfactory to the Town, as Surety, for the faithful performance of the Contract and payment for labor and materials. The premiums for such Bonds shall be paid by the Contractor.
- The bidder to whom the bid is awarded will be required to execute an Agreement within sixty (60) calendar days from the date when the Notice of Award is received. In the event the bidder fails to execute an Agreement with the Town, the Town may consider the bidder to be in default, in which case the bid deposit shall become the property of the Town.
- Should the bidder fail to fulfill any of his/her agreements as herein above set forth, the Town shall have the right to retain as liquidated damages the amount of the bid check or cash which shall become the Town's property. If a bid bond was given, it is agreed that the amount thereof shall be paid as liquidated damages to the Town by the Surety. The Town reserves the right to assess additional liquidated damages.
- All prices, except at the extended totals, shall be stated in both words and figures. In the event of a discrepancy between the price in words and the price in figures, the written word shall govern. In the event of a discrepancy between mathematical totals and the totals stated, the mathematical totals shall govern.
- Unbalanced bidding is expressly prohibited, and all unit bid prices will be compared for reasonable conformance with the engineer's estimate. The Town has the right to reject award of a bid, or part thereof, to protect the public interest if it is apparent that a bid is mathematically unbalanced, the bidder front-end loads its bid as to amount to an advanced



payment, there are extreme variations from the engineer's estimate or other bids received, if in the opinion of the Town, the unit prices create a reasonable doubt that the apparent low bidder will actually result in the lowest cost to the Department, and/or if the overall competitive bidding process has been jeopardized.

- The estimated quantities shown are based solely upon a reasonable assessment of the project parameters, thus the Contractor is advised that the actual quantities may vary substantially as field conditions may necessitate. Regardless of the amount of actual quantities, however, the quoted unit prices shall always apply.
- There is no separate labor charge under this bid: unit prices shall include full compensation for all labor, materials, tools and equipment, and all incidentals necessary to complete the work as specified herein.
- In case of death, disability, or other unforeseen circumstances affecting the bidder, which materially impairs the bidder's ability to execute an Agreement and perform the required service, such bid deposit may be returned to the bidder by the Town.
- The proposal must be signed as follows: 1) if the bidder is an individual, by her/him personally; 2) if the bidder is a partnership, by the name of the partnership, followed by the signature of each general partner; and 3) if the bidder is a corporation, by the authorized officer, whose signature must be attested to by the Clerk/Secretary of the corporation and the corporate seal affixed.
- Any bid may be withdrawn prior to the bid's submittal due date. However, bidders may not withdraw or modify their bid for a period of ninety (90) days following the opening of bids.
- The contract will be awarded within thirty (30) days after the proposal receipt. The time for award may be extended for up to 45 additional days by mutual agreement between the Town and the apparent lowest responsive and responsible bidder.
- Questions concerning this invitation for proposals must be submitted <u>in</u> <u>writing</u> to: Procurement Department, Westwood Town Hall, 580 High Street, Westwood, MA 02090 or by email at <u>Procurement@townhall.westwood.ma.us</u>. Questions may be delivered or mailed. Written responses will be posted on the Westwood Town Hall website.
- Any and/or all work is subject to available funds. The Town reserves the right to waive any informalities in, or to reject, any or all bids should the Town deem it to be in the Town's best interest to do so.
- The Town of Westwood may cancel this IFB, or reject in whole or in part any and all proposals, if the Town determines that cancellation or rejection serves the best interests of the Town.
- Below is a list of all Attachments. Bidders should note that Attachments D-J <u>must be completed and be</u> <u>submitted</u> with the bid documents.
 - Attachment A Special Provisions
 - Attachment B Monthly Price Adjustments
 - Attachment C Wage Rates
 - Attachment D Bid Item Sheet
 - Attachment E Bid Pricing Sheet



- Attachment F Labor Harmony and OSHA Training
- Attachment G Certificate of Non-Collusion
- Attachment H Tax Compliance Certificate
- Attachment I Signature Page
- o Attachment J Reference Form

II. PURCHASE DESCRIPTION/SCOPE OF SUPPLIES/SERVICE

The work under this contract includes, but is not necessarily limited to, providing all necessary labor, materials, and equipment required to provide cleaning, general preparation, resetting/adjusting of utility castings, pavement milling, installation of an overlay course, installation of a stamped asphalt median, pavement markings, and all other specified and incidental work on Pond Lane, Clapboardtree Street, High Rock Street, and Hartford Street.

Other:

The Town of Westwood reserves the right to add or delete from the scope of work.

All work above must be completed within **120** days from the notice to proceed.

The Contractor shall work continuously on the project until all work included in the contract is complete.

The Contractor shall coordinate the phasing of this project with the Town's sidewalk and curbing work within the project limits. Construction staging, scheduling, and sequencing shall be submitted to the Town for approval prior to commencing work. The sidewalk and curbing work at a given location must be completed before paving can commence.

Unit Quantities Specified:

- Quantities and measurements indicated in this IFB are for bidding and contract purposes only. Quantities and measurements ACTUALLY supplied or placed in the Work and verified by the Engineer shall determine payment.
- If the actual Work requires greater or lesser quantities than those quantities indicated in the Bid Form, Contractor shall provide the required quantities at the unit price contracted.

General Conditions:

 Temporary Traffic Control shall be the sole responsibility of the Contractor as approved and/or directed by the Engineer. All temporary traffic control shall conform to the applicable requirements of Section 850 of the Standard Specifications, The Manual on Uniform Traffic Control Devices (MUTCD), and/or as directed by the Engineer.

The Contractor shall furnish, erect, maintain, wash, move, adjust, repair, relocate, re-erect, and store all temporary construction signs, sign mountings, portable barricades, traffic cones, delineators, and other warning devices when, where, and as specified.

Temporary Traffic Control devices shall cover all work related to the furnishing, installation, maintenance, and movement of traffic protective devices on the project. The Contractor shall provide a



sufficient number of signs and other warning devices as required by the nature of the work as determined by the MUTCD and/or the Engineer. Devices that do not meet or exceed MUTCD standards will not be considered an acceptable means for temporarily controlling traffic.

When, in the opinion of the Engineer, the sign or device shall be so severely damaged as to warrant replacement, the Contractor shall provide a new device.

The Contractor shall keep all signs, barricades, and other protective devices in proper position, clean, and legible at all times. Care shall be taken so that weeds, shrubbery, construction materials and equipment, and spoil are not allowed to obscure any sign, lights, or barricade. Signs that do not apply to existing conditions shall be removed or adjusted so that the legend is not visible to approaching traffic. All signs and markers shall indicate actual conditions existing and shall be moved, removed, or changed immediately, as conditions require. When construction is not in progress, all unnecessary signs will be adequately covered.

No work is to be undertaken until the Contractor has established construction signs and/or safety devices around and about the project zone periphery. To that end, the Contractor shall not commence operations until he has verified that semi-permanent signs (i.e., 'Road Under Construction') and/or daily signing, (i.e., 'Detour') has been appropriately established. The Contractor shall be responsible for establishing supplemental signage, and/or safety devices, as he deemed necessary in order to further provide for the safety of the pedestrian and the motoring public, as well as for affording the opportunity to move the construction process forward without interruption. Under this clause, the Contractor shall work closely with the Engineer in order to coordinate the signing activities in a timely and reasonable manner. Said devices shall conform to the Temporary Traffic Control section of the most recent version of the Manual on Uniform Traffic Control Devices (MUTCD). Further, due to the nature of this work, the Contractor shall be required, from time to time, to erect, move, relocate, repair, and/or to remove at days end, any site sign in order to either expedite his work or to otherwise accommodate the safety and/or delineate the project zone and/or its active or inactive detour status and route line, and this work shall be done either at his discretion and/or at the request of the Engineer. Non-compliance with any such request, as herein described, shall be grounds for the Engineer to halt work until such remedial measures have been taken, and any such loss of time by the Contractor shall be at his own expense. Any devices provided which are lost, stolen, destroyed or deemed unacceptable while their use is required on the project shall be replaced without additional compensation.

If, after notice by the Engineer, signage is determined to be inadequate, the Engineer may withhold payment until it is addressed satisfactorily by the Contractor. Temporary traffic control shall include all labor, materials, and equipment associated with (but not limited to) furnishing, erecting, maintaining, washing, movement, adjustment, repair, relocation, re-erection, storing of all temporary construction signs, sign mountings, portable barricades, traffic cones, delineators, drum barricades, channelizing devices, and all other devices, clean-up, legal disposal of all materials, and all other incidentals required to finish the work, complete and accepted by the Engineer. Any damage shall be the Contractor's responsibility.

Delivery Requirements: All delivery charges shall be included in the price of the service.

• The Delivery should be made to: Town of Westwood



50 Carby Street Westwood MA 02090

Insurance Specifications:

- <u>Workman's Compensation</u>: The Contractor shall, before commencing performances of this contract, provide, by insurance, for the payment of compensation in the furnishing of other benefits under General Laws, Ch. 152 to all persons to be employed under the Contract and shall continue such insurance in full force and effect for the term of the Contract, all in accordance with Massachusetts General Laws, chapter 149, S34A.
- <u>Bodily Injury Liability Including Death</u>: The Contractor shall take and maintain during the life of the Contract insurance coverage in the amount of one million dollars on account of any one person and one million dollars on account of any one accident and one million dollars aggregate limit. Extra territorial and guest clause shall be included.
- **<u>Property Damage Liability</u>**: The Contractor shall take out and maintain during the life of the Contract property damage liability insurance in the amount of one million dollars in the aggregate.
- <u>Motor Vehicles Including Hired Vehicles</u>: The Contractor shall take out and maintain during the life of the Contract motor vehicle insurance for bodily injury liability including death in the amount of one million dollars on account of any one person and one million dollars on account of any one accident. Additionally, property damage liability in the amount of one million dollars on account of any one accident and one million dollars aggregate. The contractor covenants and agrees to hold the town and its employees, agents and officials, harmless from loss or damage for personal injury and/or property damage arising from or in connection with operations under this Contract.
- <u>Indemnification Clause</u>: The Contractor acknowledges and agrees that he is responsible, as an Independent Contractor, for all operations under this Contract and for all acts of his employees and agents hereunder, and agrees that he will indemnify and hold harmless the Town and its officers, Boards, its employees, and Environmental Partners from any loss, damage, cost, charge, expense or claim which may be made against it or them or to which it or they may be subject by reason of an alleged act, action, neglect, omission or default on the part of the Contractor or any of his agents, servant, or employees and will pay promptly on demand all costs and expenses of the investigation and defense thereof, including attorney's fees and expenses. And, if any claim is made, the Town may retain out of any payments, then, or thereafter due to the Contractor, a sufficient amount to protect it completely against such claim, costs and expenses. The public liability and property damage insurance and owners contingent policies, as the case may be, shall include the above-stated Indemnification Clause.

Construction Specifications:

• All items of work shall be referenced to the "Commonwealth of Massachusetts Highway Department Standard Specifications for Highways and Bridges", dated 2021, and shall include all subsequent revisions.



- Items that shall be considered incidental to the contract include, but are not limited to, mobilization and any other incidentals as listed. Incidental items shall not be measured for payment and will not be compensated separately but shall be identified to be included as payment for respective other associated work items.
- Work within or adjacent to school zones shall be scheduled to coordinate with school closings, recesses, and vacations. No work shall be constructed in school zones while in session.
- The Contractor shall work to keep the construction zone compressed whenever possible. The length of the construction zone shall be approved by the Engineer before work is started.
- The Contractor is referred to the Special Provisions in Attachment A for items specific to this contract whose specifications differ from those providing in the above document.

III. PRICING AND PAYMENT

- Contract payment will be by the unit price method or the lump sum method as indicated on the Bid Proposal. Unit prices are to include cost of all necessary materials, labor, equipment, overhead, profit and other applicable costs.
- The Town reserves the right to increase or decrease the scope of the Contract work by up to and including twenty-five percent (25%) of the original scope without adjusting the lump sums or unit prices.
- The Town shall pay and the Contractor shall receive the prices stipulated in the bid made a part hereof as full compensation for everything performed and for all risks and obligations undertaken by the Contractor under and as required by the Contract.
- Final payment for Work governed by unit prices will be made based on the actual measurements and quantities accepted by the Engineer multiplied by the unit price for work that is incorporated in or made necessary by the Work.

IV. QUALITY REQUIREMENTS

- Bidders must provide all of the items described in Section II: Purchase Description/Scope of Services and comply with all Section I: Proposal Submission Requirements. Missing information may cause the proposal to be considered unresponsive.
- To be considered a responsive bid, the entire project must be bid. The owner intends to award all items to a single contractor. Accordingly, contractors must bid on all items of work, and the low bidder will be the contractor whose total bid price is the lowest. The bid quantities are not guaranteed, and their primary purpose is for the determination of the low bidder.
- All deliveries must comply with the Specifications identified above in Section II, Purchase Description/Scope of Supplies/Services.



• Bidders must have satisfactory performance under **at least five (5) different contracts** similar in size to the proposed contract. Contract information will be provided as part of Attachment J, Reference Form.

V. RULE FOR AWARD

 The responsive and responsible bidder meeting the requirements described in described in Section II: Purchase Description/Scope of Services and offering the lowest <u>Base Bid Price</u> described in Attachment D, Bid Item Sheet.



ATTACHMENT A SPECIAL PROVISIONS

Miscellaneous Paving – Pavement Management Program – 2021 Westwood, Massachusetts

SCOPE OF WORK

The work under this contract includes, but is not necessarily limited to, providing all necessary labor, materials, and equipment required to provide cleaning, general preparation, resetting/adjusting of utility castings, pavement milling, installation of an overlay course, installation of a stamped asphalt median, pavement markings, and all other specified and incidental work on Pond Lane, Clapboardtree Street, High Rock Street, and Hartford Street.

All work done under this contract shall be in conformance with the Commonwealth of Massachusetts Department of Transportation Standard Specifications for Highways and Bridges dated 2021, Massachusetts Department of Transportation Construction Standard Details dated October 2017, the latest Manual on Uniform Traffic Control Devices for Streets and Highways with Massachusetts Amendments, the latest Public-Right-of-Way Accessibility Guidelines (PROWAG), and the latest United States Access Board's ADA and ABA accessibility guidelines will govern. **Please note: Each pay item shall conform to the Massachusetts Department of Transportation Standard Specifications and to the provided Special Provisions provided in this Bid Document.**

The General Conditions, Supplementary Conditions and these Special Provisions shall take precedence over the General Requirements of Division 1 of the Standard Specifications of the Massachusetts Department of Transportation (MassDOT).

The Contractor is responsible to secure staging area(s) for storing construction equipment and materials for construction as incidental to this project. No separate payment shall be made.

WORK SCHEDULE

Work on this project is restricted to a normal eight-hour day, five-day week, with the Contractor and all Subcontractors working on the same shift. No work shall be done on this Contract on Saturdays, Sundays or holidays or on the day before or the day after a long weekend which involves a holiday without prior approval by the Town of Westwood.

No work that will disrupt travel on the existing roadways (lane closures, lane shifts, trenching, etc.) shall be done before 7:00 AM and after 3:00 PM. A minimum of one lane in each direction will be maintained at all times (7:00 AM to 3:00 PM) with the exception of brief periods approved by the Town. Pedestrian access on all sidewalks shall be maintained at all times. The normal hours of



operation shall be dictated by the Town. A written request shall be issued by the Contractor for any deviation to hours of operation for approval by the Town. Bids should not assume that any requests shall be granted.

The Contractor shall submit an updated project schedule to the Town weekly or as requested by the Town during construction period for review and approval.

No work shall be allowed on the Memorial Day Weekend or Fourth of July weekend.

The Contractor shall submit an updated project schedule to the Town weekly or as requested by the Town during construction period for review and approval.

The Contractor shall work continuously on the project until all work included in the contract is complete. The project shall be completed within 120 days from notice to proceed.

AUDIO-VIDEO RECORDING

The Contractor shall provide all labor, materials, and equipment necessary to furnish high quality color audio and video recording of the existing pre-construction conditions of the project area as specified herein.

The Contractor shall submit to the Engineer / Town one original and one copy of a continuous color audio video DVD recording or other format as requested by the Town. The recording shall be submitted to and approved by the Town prior to any construction activity.

The Town reserves the right to reject the audio-video recording because of poor quality, unintelligible audio, or uncontrolled pan or zoom. Any recording rejected by the Engineer / Town shall be re-recorded at no additional cost. Under no circumstances shall construction begin until the Town has received and accepted the audio-video recordings.

The taping shall be performed by a qualified, establish audio-video recording firm knowledgeable in construction practices and experienced in the implementation of established inspection procedures. This task shall be completed with a representative from the Engineering Division. Notice shall be provided to the engineering division at least 48 hours prior to anticipate videotaping efforts.

The cost of this task shall be considered incidental to this project. No additional compensation shall be requested to the Town.



PUBLIC SAFETY AND CONVENIENCE

The Contractor shall provide necessary access for fire apparatus and other emergency vehicles through the work zones to abutting properties at all times.

Sweeping and cleaning of surfaces beyond the limits of the project to clean up material caused by spillage or vehicular tracking during the various phases of the work shall be considered as incidental to the work being performed under the Contract and there will be no additional compensation.

The Contractor shall make his own investigation to assure that no damage to existing structures, drainage lines, traffic signal conduits, and other utilities will occur as a result of his operations.

The Contractor shall notify "Mass. DIG SAFE" and procure a DIG SAFE number of each location prior to disturbing ground in any way.

"DIG-SAFE" Call Center: Telephone 1-888-344-7233

PROTECTION OF UNDERGROUND FACILITIES

The Contractor, in constructing or installing facilities alongside or near sanitary sewers, storm drains, water or gas pipes, electric or telephone conduits, poles, sidewalks, walls, vaults or other structures shall, at his expense, sustain them securely in place, cooperating with the officers and agents of the various utility companies and municipal departments which control them, so that the services of these structures shall be maintained. The Contractor shall also be responsible for the repair or replacement, at his own expense, of any damage to such structures caused by his acts or neglect, and shall leave them in the same condition as they existed prior to commencement of the work. In case of damage to utilities, the Contractor shall promptly notify the utility owner and shall, if requested by the Engineer or Town, furnish labor and equipment to work temporarily under the utility owner's direction in providing access to the utility. Pipes or other structures damaged by the operation of the Contractor may be repaired by the Department or by the utility owner that suffers the loss. The cost of such repairs shall be borne by the Contractor, without compensation therefore. The Contractor shall be borne the responsibility and cost to coordinate if a pole needs to be secure in place while construction is in progress.

If, as the work progresses, it is found that any of the utility structures are so placed as to render it impracticable, in the judgment of the Engineer or the Town, to do the work called for under this Contract, the Contractor shall protect and maintain the services in such utilities and structures and the Owner will, as soon thereafter as reasonable, cause the position of the utilities to be changed or take such other actions deemed suitable and proper.



If live service connections are to be interrupted by excavations of any kind, the Contractor shall not break the service until new services are provided. Abandoned services shall be plugged off or otherwise made secure.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all the work involved in protecting or repairing property as specified in this section, shall be considered included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefore.

<u>NOTICE TO OWNERS OF UTILITIES</u> (Supplementing Subsections 5.05, 7.13 and 7.18)

Written notice shall be given by the Contractor to all public service corporations or officials owning or having charge of publicly or privately owned utilities in the project vicinity of the Contractor's intention to commence operations affecting such utilities at least two weeks in advance of the commencement of such operations, and the Contractor shall at that time file a copy of such notice with the Engineer / Town.

The Contractor shall also be responsible for notifying the Town of Westwood, in writing, at least two weeks in advance of commencement of work. The Contractor shall also coordinate with the Town, as required, throughout the duration of the project, so that all the Town utilities may be located and all required permits may be obtained.

The Contract Plans indicate the approximate location of known utilities in the vicinity of the work. The accuracy and completeness of the information is not guaranteed.

Any damage to these utilities caused by negligence of the Contractor shall be repaired by the Contractor at their own expense and as accepted by the Engineer / Town.

It is the intent of these Special Provisions that the Contractor having been given due notice hereof will safeguard the utilities during construction and shall assume liability for damage, relieving the Town of Westwood from any liability.

A list of public and private utilities can be found on the MassDOT website at: https://www.mass.gov/info-details/utility-contacts-by-district-and-municipality

Select District 6 on top of the webpage, select Westwood, and then locate the utility. The Contractor shall inform the following officials in each area that he assigned to work:

Superintendent, Department of Public Works or Town Engineer, Superintendent, Water and Sewer Department,

Police and Fire Department, Electric Department



Town officials are shown on the following website: https://www.mass.gov/lists/massachusetts-city-and-town-websites

The following are the names of owners and representatives of the principal utilities affected, but completeness of this list is not guaranteed:

ELECTRIC Eversource Electric 50 Duchaine Blvd New Bedford, MA, 02745 Contact: Richard Comeau Telephone: 508-441-5881 <u>GAS</u> Enbridge 8 Wilson Way Westwood, MA 02090 Contact: Kathy Aruda Telephone: 508-938-7728

Eversource Gas 157 Cordaville Road, 3113 Southborough, MA 01772 Contact: Jeffrey Evans-Mongeon Telephone: 508-305-6970

<u>TELEPHONE</u> Verizon 385 Myles Standish Boulevard Taunton, MA 02780 Contact: Karen Mealey Telephone: 508-828-6437

<u>SEWER</u> Westwood DPW - Sewer 50 Carby Street Westwood, MA 02090 Contact: Todd Korchin Telephone: 978-251-2578 <u>WATER</u>

Dedham-Westwood Water District P.O. Box 9137 Dedham, MA 02027 Contact: Stephen Locke Telephone: 781-329-7090

MWRA 2 Griffin Way Chelsea, MA 02150 Contact: Kevin McKenna Telephone: 617-222-3361



NATIONAL GRID EMERGENCY TELEPHONE NUMBERS

<u>GAS:</u> Emergency: 1-800-233-5325 New Service: 1- 877-696-4743 Customer Support: 1-800-732-3400

ELECTRIC:

Outage/ Emergency: 1-800-465-1212 New Service: 1-800-375-4730 Customer Support: 1-800-322-3223

EVERSOURCE EMERGENCY TELEPHONE NUMBERS

<u>GAS:</u> Outage/ Emergency: 800-592-2000 New Service: 866-678-2744 Customer Support: 800-592-2000

ELECTRIC:

Outage/ Emergency: 800-592-2000 or 844-726-7562 New Service: 1-888-633-3797 (1-888-need pwr) Customer Support: 1-800-340-9822

PRICE ADJUSTMENT

NOTICE: In accordance with MGL Chapter 303 Section 60 and Chapter 86 of the Acts of 2008, this contract shall be subject to the provisions relative to energy escalation. A price adjustment for liquid asphalt and Portland cement shall be made on a monthly basis when the monthly change exceeds +/- 5 percent. Base prices for this contract shall be the New Method period prices posted on the MassDOT website at the following link for the month of the Contract bid opening:

MassDOT Contract Price Adjustments | Mass.gov

See Attachment B for further details on the monthly price adjustments for hot mix asphalt (HMA) mixtures and diesel fuel and gasoline.



<u>ITEM 415.2</u> <u>YARD</u>

PAVEMENT FINE MILLING

SQUARE

Work under this item shall conform to the relevant provisions under Section 400 of the standard specifications and the following:

The contractor shall be responsible for the transport and disposal of material milled from the existing road in this project. The contractor shall bear all costs associated with the milling, collection, transport, and disposal of the milled material from this project. The disposal shall be performed in accordance with all applicable local, state, and federal laws and/or regulations.

All required sawcutting in the existing pavement at all limits of work shall be considered incidental to the cost of this item.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 415.2 shall be measured and paid for at the Contract unit price per square yard, complete in place, which price shall include all labor, materials, equipment, sawcutting, and incidentals required to complete the work.



ITEM 450.53 SUPERPAVE LEVELING COURSE – 12.5 (SLC – 12.5)

<u>TON</u>

Work under this item shall conform to the relevant provisions under Section 400 of the standard specifications and the following:

The work under this item shall consist of placing a leveling course in areas of rutting or in areas where adjustments to the roadway grade are needed to achieve adequate drainage prior to placing surface courses. The contractor shall place a leveling course in areas as determined by the Town or Engineer. Prior to placing the leveling course, the contractor shall spreads suitable tack coat emulsion meeting the material requirements of the Standard Specifications to ensure a proper bond between the leveling course and existing pavement. The tack coat must be applied by a truck or trailer to ensure even spreading at the appropriate rate.

Tack coat will be used at a rate of 0.08 GAL/SY prior to placement of the leveling course unless directed not to do so by the Town or Engineer.

Tonnage shall be determined by weight slips submitted to the Town or Engineer. This number will also be verified by the inch per square yard method of determining tonnage (inches of approved thickness, multiplied by square yard unit measurement, multiplied by the volume-to-weight conversion factor of 0.056 tons/inch/square yard).

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 450.53 shall be measured and paid for at the Contract unit price per square yard, complete in place, which price shall include all labor, materials, equipment and incidentals required to complete the work.



ITEM 450.54

HOT MIX ASPHALT SPEED HUMP

Work under this item shall conform to the relevant provisions under Section 400 of the standard specifications and the following:

The work under this under item shall include the removal and disposal of the existing speed humps within the project limits and furnishing and installation of new speed humps in-kind. Speed humps are to be installed in accordance with the Speed Hump Details provided in the drawings.

All required sawcutting in the existing pavement at all limits of speed hump work shall be considered incidental to the cost of this item.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 450.54 shall be measured and paid for at the contract bid price per each, which price shall be full compensation for all labor, equipment, materials, sawcutting, and all incidentals necessary to complete the work to the satisfaction of the Engineer.



ITEM 702.

TOWN OF WESTWOOD COMMONWEALTH OF MASSACHUSETTS

HOT MIX ASPHALT SIDEWALK OR DRIVEWAY

TON

Work under this item shall conform to the relevant provisions under Section 702 of the standard specifications and the following:

All required sawcutting of existing driveway or sidewalk pavement at all limits of work shall be considered incidental to the cost of this item.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 702. shall be measured and paid for at the Contract unit price per ton, which price shall include all labor, materials, equipment, sawcutting, and incidentals required to complete the work.



ITEM 706.9

TEXTURIZED DECORATIVE PAVEMENT

SQUARE YARD

The work under this Item shall be in accordance with Section 860 of Standard Specifications for Highways and Bridges and the following: The work under this Item shall include preparation of the pavement surface in conjunction with the application of one or more courses of a polymer modified flexible cement surfacing material that may be used as a complete light, durable, skid resistant, composite wearing surface, or textured and colored on sections of pavement to simulate hand laid brick and/or conventional masonry where shown on the plans or as directed by the Engineer.

This work shall be for the proposed median at the Pond Street/Clapboardtree Street Intersection and labeled as "stamped asphalt median" on the plans. The color shall be brick red and the pattern shall be standard size cobblestone arranged in a running bond, brick orientation.

PREPARATION

The areas to be surfaced with the specified material(s) must be structurally sound and may consist of either asphalt or cement concrete. When these material(s) are intended for application on a newly paved asphalt surface a curing period will be required to ensure that no concentration of oils are present. A suitable approved pavement heater may be employed to expedite curing when a delayed work schedule is not advisable.

Surface preparation will then be performed in the following general manner:

The pavement surface is to be thoroughly cleaned by approved methods removing all contaminants that may prevent proper adhesion of the new surfacing material(s). A suitable approved pavement heater shall be employed where surface oils, fuel and the like exist on the surface, to remove these incompatible materials. New bituminous concrete shall be added as necessary, thermally bonded to the pavement and compacted to achieve a density equal to the surrounding or adjacent pavement. No work shall be initiated until the surface condition conforms to manufacturer recommended standards for both structure and cleanliness.

All applications shall be installed in a neat and uniform manner by approved methods. The Contractor will be responsible for furnishing and placing a sufficient number of safety cones together with caution tape to adequately protect all work zones, and to insure the orderly flow of vehicular and pedestrian traffic.

Residues resulting from this element of the work shall be immediately removed from the jobsite(s) and must be disposed of in a proper manner. There will be no additional compensation for the disposal of



ITEM 706.9 (Continued)

excess or unused materials. Pavement sections where the surfacing work is incomplete must be left in a neat and clean condition, satisfactory to the Engineer at the end of each workday.

INSTALLATION

Contractor shall be responsible for the preparation, placement and patterning of the polymer modified flexible surfacing material(s) for all applications according to the manufacturer's guidelines and subject to the approval of the Engineer. When required, this composite paving material shall be uniformly and homogeneously formulated with color stable pigments and surface textured to simulate hand laid brick and/or masonry.

A simulated mockup consisting of the color(s) and pattern(s) as selected by the Engineer and the Town, will be constructed, within a designated section of the overall work area, at least five working (5) days prior to the initiation of this phase of construction. The mockup site will be determined by the Engineer. Weather permitting and only with approval of the completed sample section, the work shall begin. The cost of the mockup shall be included in the unit price for this item and shall encompass a minimum surface area of 3'x3'.

A working knowledge of the specialized technology contained within these specifications is required. Only certified applicators may be employed for this work. In the event that this material and/or surfacing system constitutes or is claimed to constitute proprietary technology subject to U.S. Patent protection, the Contractor will be required to furnish written evidence satisfactory to the Owner that he/she is an accredited, authorized and/or licensed installer of the patented material/process.

The installation phase of this work shall be performed in the following general manner:

Using manufacturer prescribed methods and equipment as described herein, the Contractor shall properly blend and mix the water, polymer modified cement, aggregate and pigments (color will be selected by the Town) to achieve the desired consistency. The polymer shall be an acrylic based material furnished in an aqueous emulsified state to prevent the loss of internal strength and bond which may result in cohesive and adhesive failure. The measuring and mixing operation shall be capable of producing a workable, consistent, homogeneous mixture for the intended application. Only then shall the Contractor apply the composite to the surface of a hardened, structurally sound bituminous concrete pavement as directed.

Using specialized equipment and tools as necessary the desired ultra-thin composite mixture shall be sufficiently and uniformly applied to the surface. The finished material must be capable of being spread to a consistent build thickness of as little as .0625 inches per layer. Segregation of the mixed material shall be avoided. Should this condition present itself the material and/or application must be corrected immediately or replaced, as determined by the Engineer. When this newly constructed ultra-thin finish



ITEM 706.9 (Continued)

is applied over bituminous concrete it shall provide a flexible, fuel, skid and UV resistant surface, which results in a reduction of susceptibility to natural oxidation.

No material shall be applied when precipitation is present or imminent inclement weather will prevent proper curing. No material may be allowed to exceed the workability limitations of the composite mixture.

Hand applications will be utilized for smaller sections when a color distinction and/or surface pattern is required. Patterned applications intended to resemble masonry will be constructed in two (2) layers and colors in accordance with the design drawings or as otherwise directed by the Town.

Finish patterns and colors may only be applied after the first course has adequately cured.

Once the newly finished surfaces have cured sufficiently, the application area may be opened to vehicular and/or pedestrian traffic. Any residue resulting from this work shall be removed and disposed of in a proper manner. The completed work area is to be left in a neat and clean condition, satisfactory to the Engineer.

The Contractor shall take reasonable precautions and steps during construction to prevent bodily harm or injury or damage to adjacent structures such as curbing, sidewalks, drainage, or water supply facilities. If during the execution of the work, the Contractor, through willfulness or carelessness, permits or causes any damage to public or private property, the cost of repair or replacement shall be the responsibility of the Contractor at no expense to the Town.

The Contractor shall maintain minimum ten (10) foot vehicular travel lanes at all times during this operation unless otherwise approved.

MATERIALS

The composite material(s) used for this polymer modified thin surfacing system must support a documented performance history satisfactory to the Town that is compatible with the functions and characteristics detailed within these specifications. This material must also be able to demonstrate long term adhesion, flexibility and abrasion resistance characteristics, scrub ability, as well as color stability, chemical and fuel resistance.

The Contactor will be required to furnish to the Engineer five (5) applications that have been placed on main thoroughfares, complete with contact information and locations using the material(s) as specified herein. The ultra-thin layer polymer composite(s) used on these projects must support a documented



ITEM 706.9 (Continued)

history of field performance and integrity for the type of work described herein for a minimum period of five (5) years. No waiver of this condition will be allowed.

The composite material shall be flexible with form stability which is compatible with existing bituminous pavements and be formulated using polymer modifications as necessary to suit local traffic and climate conditions. The specified polymer modified composite material(s) when mixed and cured in accordance with manufacturer's guidelines shall demonstrate the physical properties outlined in the following table.

MATERIAL PROPERTIES

Physical Properties	<u>Test Method</u>	<u>Minimum Test Value</u>
Compressive Strength	ASTM C 39	3,100 PSI
Solar Reflectivity Index	ASTM EI918 ASTM C 1549	>29
Shear Bond Adhesion	ASTM C 1583	>250 PSI
Skid Resistance (mixed)	ASTM E-274	>40
Tensile Strength	ASTM C 190	615 PSI (3.9 MPa)
Freeze-Thaw Scaling Resistance	ASTM C672-98	0

MATERIAL COMPONENTS

<u>Water</u>. The water used in mixing these composite(s) shall be of potable quality and free from soluble salts.

<u>Chemical Admixtures/pigments</u>. All chemical admixtures shall be introduced during the manufacturing process. Pigments may only be added on site to achieve a particular color quality or tint preference as directed.

<u>Surface Sealer</u>. A suitable approved surface sealer, if required, may be applied to the polymer modified composite(s) to provide additional protection in fueling areas, or to prevent surface efflorescence when colors are utilized.

<u>Material Verification</u>. Upon request the Contractor shall provide a Certificate of Analysis (COA) for the polymer emulsion, aggregate and aggregate dry blend verifying that the materials meet the specific requirements outlined herein.

Questionable product with just cause may be subjected to all of the specified testing procedures. All material testing will be conducted by a third party independent certified laboratory acceptable to the Engineer, and will be the financial responsibility of the Contractor. Samples failing in any test category





ITEM 706.9 (Continued)

will result in immediate rejection of the material from further consideration or use and may disqualify the contractor from this phase of the work.

Material(s) furnished pursuant to this work shall not be harmful to humans or the environment and must possess a Design for the Environment (DfE) as designated by the United States Environmental Protection Agency (EPA).

No payment will be rendered for any work until a manufacturer's certificate of compliance has been furnished by the Contractor. A Material Safety Data Sheet (MSDS) will also be required before any work is initiated.

EQUIPMENT

Contractor must have access to and be familiar with the specialized machinery and tools necessary to perform the procedures as outlined and contained within these technical specifications. These items shall include but not be limited to dedicated surfacing equipment designed exclusively for use in applying thin layer polymer modified composite(s), appropriate trucks, air compressors, miscellaneous dispensers, mixers, applicators, heaters, cutters and/or specialized tools etc.

To ensure optimum work site efficiency and project safety considerations, multiple crews may be required when hand applications or custom patterns as described previously are necessary.

MOBILIZATION

Construction of these flexible ultra-thin surfaces shall commence within twenty-four (24) hours of written notification to proceed as issued by the Contractor. Work shall commence within this timeframe without regard to the number of mobilizations that may be required by the Engineer to complete this work.

Due to the logistical complications inherent to this type of specialized construction, and given the general project size, scope, schedule and public safety concerns, the Contractor may not assume that a single mobilization will be sufficient to complete this entire phase of the work required in a safe and orderly fashion. No separate payment will be made for any additional mobilization or demobilization as may be necessary to complete the project.



ITEM 706.9 (Continued)

GUARANTEE / WARRANTY

The Contractor shall warranty all applications from defects resulting from improper workmanship and faulty or inferior materials for a minimum period of three (3) years. All defective materials and/or substandard work will be corrected or replaced within the warranty period as directed by the Engineer.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Item 706.9 Texturized Decorative Pavement will be measured for payment by the Square Yard, completed in place.

Item 706.9 Texturized Decorative Pavement will be paid for at the Contract unit price per Square Yard, which price shall include all labor, materials, equipment, mobilization, expansion joint filler, sawcutting, mockup and incidental costs required to complete this work including ancillary preparation of the pavement. No payment deductions will be made for structures within the work area such as manholes, catch basins or water covers.



<u>ITEM 864.07</u> FOOT	PAVEMENT ARROW AND LEGENDS (EPOXY)	<u>SQUARE</u>
ITEM 868.06	6 INCH REFLECTORIZED WHITE LINE (EPOXY)	LINEAR
<u>FOOT</u> ITEM 868.12	12 INCH REFLECTORIZED WHITE LINE (EPOXY)	LINEAR
<u>FOOT</u> ITEM 869.06	6 INCH REFLECTORIZED YELLOW LINE (EPOXY)	<u>LINEAR</u>
<u>FOOT</u> ITEM 869.12	12 INCH REFLECTORIZED YELLOW LINE (EPOXY)	LINEAR
FOOT		

Work under these items cover white and yellow epoxy reflectorized pavement striping material that is sprayed onto the pavement. Following a surface application of glass beads and upon drying, the resultant marking is a reflectorized stripe of specified thickness and width that is capable of resisting deformation by traffic. Work under these items shall conform to the relevant provisions of Section 860 of the Standard Specifications and the following:

MATERIAL REQUIREMENTS

Regular-Dry Epoxy Suggested Suppliers					
BRAND NAME	SUPPLIER/LOCATION				
Epoplex LS50	Epoplex - Stonhard Inc. Maple Shade, NJ				
Hotline TM 8212 (Part A White) Hotline TM 8213 (part A Yellow) Hotline TM 8214 (Part B Hardener or Converter)	Baltimore Paint and Chemical Co. Division of Sherwin-Willliams Baltimore, MD Edison, NJ				
Lumiline, Lumiline II	Accent Stripe, Inc. Orchard Park, NY				
Poly-Carb Mark 55.3	Poly-Carb Inc. Solon, OH				
Super Lifeline II, III	Linear Dynamics Ball Ground, GA				
Thermopoxy Series 100	Technical Coatings Corp.				



Part A (Series 101 White) Part A (Series 102 Yellow) Part B (Series 103) Alpharetta, GA



ITEMS 864.07 through 869.12 (Continued)

Epoxy Material

Composition

The epoxy resin composition shall be specifically formulated for use as a pavement marking material and for hot-spray application at elevated temperatures. The type and amounts of epoxy resins and curing agents shall be at the option of the manufacturer, providing the other composition and physical requirements of this specification are met.

The epoxy marking material shall be two-component (Part A and Part B), 100% solids type system formulated and designed to provide a simple volumetric mixing ratio (e.g., two volumes of Part A to one volume of Part B).

The epoxy marking material shall be supplied as either a regular-dry or a slow-dry material. Regular-dry may be used for all marking patterns. Slow-dry material is intended for marking hatchlines, edgelines, and other marking patterns located out of the general path of traffic.

All acceptances of uninstalled epoxy marking material shall expire six (6) months after the date of manufacture.

Part A of both white and yellow shall conform to the following requirements:

PERCENT BY WEIGHT OF PART A

WHITE Pigment - 18 Minimum, Titanium Dioxide (ASTM D476, Type II) Epoxy Resin - 75 to 82

YELLOW Pigment - 18 Minimum, Titanium Dioxide (ASTM D476, Type II) 5 Minimum, Organic Yellow, Epoxy Resin – 73 to 77

The entire pigment composition shall consist of either titanium dioxide or titanium dioxide and organic yellow. No extender pigments are permitted. Yellow pigment shall be lead-free.

The epoxy content of the epoxy resin in Part A will be tested in accordance with ASTM D 1652 and calculated as the weight per epoxy equivalent (WPE) for both white and yellow. The epoxy content will be determined on a pigment free basis. The epoxy content (WPE) shall meet a target value provided by the manufacturer and approved by the Department. A \pm 50 tolerance will be applied to the target value to establish the acceptance range.



ITEMS 864.07 through 869.12 (Continued)

The amine value of Part B shall be tested in accordance with ASTM D2074(2) to determine its total amine value. The total amine shall meet a target value provided by the manufacturer and approved by the Department. A ± 50 tolerance will be applied to the target value to establish the acceptance range. The manufacturer may specify an alternate test method for determining the amine value subject to the approval of the Town.

• Physical Properties of Mixed Components (Part A and Part B).

Unless otherwise noted, all samples are to be prepared tested at an ambient temperature of 23 \pm 2°C.

a. Color

Yellowness Index (ASTM D-1925).

- cure 72 hours after sample preparation
- Take yellow index reading, XYZ C/2°, following 72 hour cure and preceding QUV
- Maximum index before QUV: 8.0
- Place sample in QUV for 72 hours
- Maximum index after QUV: 20

Typical White Standard	Typical Yellow Standard	
X78.5	X52.7	
Y81.1	Y48.1	
Z90.4	Z7.6	
Y14.7		

b. Directional Reflectance

The white epoxy composition (without glass spheres) shall have a daylight directional reflectance of not less than 84% relative to a magnesium oxide standard when tested in accordance with ASTM E1347.

The yellow epoxy composition (without glass spheres) shall have a daylight directional reflectance of not less than 55 % relative to a magnesium oxide standard when tested in accordance with ASTM E 1347.

c. Drying Time (Laboratory)

When tested in accordance with ASTM D711 as modified below, regular-dry epoxy marking material shall reach a no-pick-up time in 30 minutes or less.



ITEMS 864.07 through 869.12 (Continued)

Under these same test conditions, slow-dry epoxy marking material shall reach a no-pick-up time in 60 minutes or less. A Bird Applicator or other suitable instrument shall be used to spread a nominal 15 ± 1 mil thick wet film. Reflective glass spheres shall be immediately dropped onto the epoxy film at a rate of 18 pounds per gallon.

d. Drying Time (Field)

When installed at 77°F at the specified wet film thickness and reflectorized with glass spheres, regular-dry and slow-dry epoxy markings shall reach a no-track condition in approximately 30 minutes, and 60 minutes, respectively.

Dry to "no-tracking" shall be considered as the condition where no visual deposition of the epoxy marking to the pavement surface is observed when viewed from a distance of 50 feet, after a passenger car is passed over the line.

e. Hardness

The epoxy composition when tested in accordance with ASTM D2240 shall have a Shore D hardness of between 75 and 100. Samples shall be allowed to cure for not less than 72 hours nor more than 96 hours prior to testing.

f. Infrared Spectrophotometer Analysis (ASTM D2621)

Samples of Part A and Part B shall be analyzed by infrared spectrography. The spectrum of each component shall be a reasonable match to the spectrum of the original formulation accepted by the Department.

• Reflective Glass Spheres

Reflective glass spheres for drop-on application shall conform to the following requirements:

The glass spheres shall be colorless, clean, transparent, free from milkiness or excessive air bubbles, and essentially clean from surface scarring or scratching. They shall be spherical in shape and at least 80 % of the glass beads shall be true spheres when tested in accordance with ASTM is D-1155, Procedure A. The refractive index of the spheres shall be a minimum of 1.5 as determined by the liquid immersion method at 77°F. The silica content of the glass spheres shall not be less than 60%. The glass spheres shall have the following gradation when tested in accordance with ASTM D-1214.



ITEMS 864.07 through 869.12 (Continued)

DOUBLE DROP METHOD

ΤΥΡΕ Ι		ТҮРЕ	TYPE II	
Sieve Opening	% Retained	Sieve Opening	% Retained	
No. 10	0	No. 20	0 - 5	
No. 12	0 - 5	No. 30	5 - 20	
No. 14	5 - 20	No. 50	30 - 50	
No. 16	40 - 80	No. 80	9 - 32	
No. 18	10 - 40	No. 100	0 - 5	
No. 20	0 - 5	Pan	0 - 2	
Pan	0 - 2			

The glass spheres, Type I, shall be coated with a silane-type adherence coating to enhance embedding in and adherence to the applied binder film. The coated beads shall emit a yellowgreen fluorescence when tested by the Danayl Chloride test procedure. The Type II glass spheres shall be treated with a moisture-proof coating. The beads shall show no tendency to adsorb moisture in storage and shall remain free of clusters and lumps. The beads shall flow freely from the dispensing equipment at any time when surface and atmospheric conditions are satisfactory for marking operations. The moisture-resistance of the glass spheres shall be determined on the basis of the following test:

Place one kilogram of spheres in a washed cotton bag having a thread count of approximately 52 per square inch (warp and woof) and immerse the bag in a container of water for 30 seconds. Remove the bag and force excess water from the sample by squeezing the bag. Suspend and allow to drain for two hours at room temperature $(73 \pm 2^{\circ}F)$. Then mix the sample in the bag by shaking thoroughly. Pour the sample slowly into a clean, dry glass funnel having a stem 4 inches in length, with a 0.4 inch inside diameter stem entrance opening and a minimum exit opening of 0.25 inches. The entire sample shall flow freely through the funnel without stoppage. When first introduced into the funnel, if the spheres clog, it is permissible to lightly tap the funnel to initiate the flow.

Reflective glass spheres may be accepted at the job site on the basis of the manufacturer's certification, or they may be submitted to the Research and Materials Laboratory for testing.

• Packaging and Shipment

Epoxy pavement marking materials shall be shipped to the job site in strong, substantial containers. Individual containers shall be plainly marked with the following information:

Name of Product
 Item Number



ITEMS 864.07 through 869.12 (Continued)

- 3. Lot Number
- 4. Batch Number
- 5. Test Number
- 6. Date of Manufacture
- 7. Date of Expiration of Acceptance (6 months from date of manufacture)
- 8. The Statement (as appropriate): "Part A Contains Pigment and Epoxy Resin," or "Part B Contains Catalyst"
- 9. Quantity
- 10. Mixing Proportions, Application Temperature and Instructions
- 11. Safety Information
- 12. Manufacturer's Name and Address

Reflective glass spheres shall be shipped in moisture resistant bags. Each bag shall be marked with the name and address of the manufacturer and the name and net weight of the material.

EQUIPMENT AND APPLICATION REQUIREMENTS

Striping Equipment

The equipment shall have a system capable of spraying the epoxy paint in the manufacturer's recommended proportions and be mounted on a truck of sufficient size and stability, and with an adequate power source to produce lines of uniform dimension and prevent application failure. It shall be capable of placing stripes on the left and right sides and of placing two intermittent lines simultaneously. It shall also be capable of applying glass beads at the rate of 25 pounds per gallon. All guns must be in full view of the operator at all times. The equipment shall be provided with a metering device to register the accumulated installed footage for each gun each day. Each vehicle shall include at least one operator who shall be a technical expert in equipment operations and epoxy application techniques.

Equipment shall have such a design that the pressure gauges for each proportioning pump are constantly visible to the operator at all times during its operation so that any fluctuation and pressure difference can be addressed immediately.

Surface Preparation

The pavement surface on which the epoxy paint material is placed shall be clean and dry. Existing traffic markings shall be removed by blasting or grinding. The curing compound on Portland cement concrete shall also be removed. Existing markings shall be removed so that at least 95% of the underlying pavement is visible. The abrasive material shall be removed from the pavement surface before the pavement is opened to uncontrolled traffic flow.



ITEMS 864.07 through 869.12 (Continued)

Application

• Ероху

The epoxy paint markings shall have a thickness of 25 mils \pm 1mil, calculated without drop-on glass beads. All markings shall have uniform thickness with a uniform distribution of glass beads throughout the line width. The width of lines shall be as specified with a tolerance of 0.25 inch. Markings shall have sharp edges and cutoff at the ends.

• Glass Beads

The glass beads shall be applied by the double drop method, which requires that Type I and Type II reflective glass spheres be injected into or dropped onto the liquid epoxy marking. Each type shall be applied simultaneously, at a minimum rate of 10 to 13 pounds per gallon of resin with a minimum total application of 25 pounds per gallon. Type I beads shall be applied first, immediately followed by Type II beads. The beads shall adhere to the cured epoxy or all marking operations shall cease until corrections are made.

• Temperature Limitations

During marking operations, the pavement surface where the epoxy is to be placed shall have a minimum temperature of 40° F and the air temperature shall be at least 35° F. The pavement surface temperature, and the air temperature shall be determined at the start of each day of marking operation and at any time deemed necessary by the Engineer. The spraying temperatures shall be in accordance with the manufacturer's recommendations.

• Application Rates

Application rates will be checked by the Engineer at convenient intervals by comparing tallies of materials used to the length of lines placed. For initial application and occasionally during the course of work, the Engineer may also check application to a pre-weighed sheet specifically placed for test purposes. Drop-on spheres shall not be applied in this test.

• Protecting Newly installed Markings

Newly installed markings shall be protected from tracking during the setting period by one or more of the following methods:



ITEMS 864.07 through 869.12 (Continued)

- 1) Cone off wet lines from traffic
- 2) Use a convoy of moving vehicles to prevent traffic from crossing wet lines
- 3) Saturate lines with glass beads to prevent tracking.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Items 864.07, 868.06, 868.12, 869.06, and 869.12 shall be measured and paid for at the Contract unit price per linear foot, which price shall include all labor, materials, equipment and incidental costs required to complete the work.



ITEM 999.

POLICE SERVICES

LUMP SUM

GENERAL

The Contractor shall furnish police services required to direct traffic on existing roadways where traffic is maintained.

The Contractor shall provide such police officers as may be deemed necessary by either the Engineer and/or Town for the direction and control of all traffic traveling within and through the project area. The police officers shall be obtained from the Town Police Department as applicable. The police officers shall be paid by the Contractor at the prevailing rate of wages established by the Town of Westwood.

ALLOWANCE FOR POLICE SERVICES

Allowances of Fifty Three Thousand Dollars (\$53,000.00) for the furnishing of police services has been included in all bids. This allowance is determined by multiplying the number of hours estimated as necessary by the prevailing hourly rate of wages established for such services. The Contractor shall submit certified copies of itemized bills of services rendered for review and approval by the Engineer and/or Town. The allowance will be adjusted to the actual amount paid for authorized and approved police services as stipulated and shall include other payments due to any legal requirements of the State and Federal governments.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

The quantity to be paid for under this item shall be the actual amount paid by the Contractor to provide satisfactory police services as stipulated and required. Any overhead costs shall be included in the prices bid for the other items of the Contract.

**** END OF SPECIAL PROVISIONS ****



Attachment B Monthly Price Adjustments

MONTHLY PRICE ADJUSTMENT FOR HOT MIX ASPHALT (HMA) MIXTURES ENGLISH UNITS Revised: 02/02/2009

This provision applies to all projects using greater than 100 tons of hot mix asphalt (HMA) mixtures containing liquid asphalt cement as stipulated in the Notice to Contractors section of the bid documents.

The Price Adjustment will be based on the variance in price for the liquid asphalt component only from the Base Price to the Period Price. It shall not include transportation or other charges. This Price Adjustment will occur on a monthly basis.

BASE PRICE

The Base Price of liquid asphalt on a project as listed in the Notice to Contractors section of the bid documents is a fixed price determined at the time of bid by the Department by using the same method as for the determination of the Period Price detailed below.

PERIOD PRICE

Please note that, starting December 15, 2008, two sets of period prices will be posted each month on the MassHighway website at http://www.mhd.state.ma.us/. They will be labeled "New Asphalt Period Price Method" and "Old Asphalt Period Price Method".

NEW ASPHALT PERIOD PRICE METHOD

The "New Asphalt Period Price Method" is for contracts bid after December 15, 2008 and will show the Period Price of liquid asphalt for each monthly period as determined by MassHighway using the average selling price per standard ton of PG64-28 paving grade (primary binder classification) asphalt, FOB manufacturer's terminal, as listed under the "East Coast Market - New England, Boston, Massachusetts area" section of the Poten & Partners, Inc. "Asphalt Weekly Monitor". This average selling price is listed in the issue having a publication date of the second Friday of the month and will be posted as the Period Price for that month. MassHighway will post this

Period Price on this website within two (2) business days following their receipt of the relevant issue of the "Asphalt Weekly Monitor". Poten and Partners has granted MassHighway the right to publish this specific asphalt price information sourced from the Asphalt Weekly Monitor.

OLD ASPHALT PERIOD PRICE METHOD

The "Old Asphalt Period Price Method" Period Price will be for contracts bid on or before December 15, 2008 and will contain liquid asphalt prices as determined by the old or previous method. These prices will continue to be posted on MassHighway's website until all contracts using the "Old Asphalt Period Price Method" Period Price have been closed.





NEW AND OLD ASPHALT PERIOD PRICE METHODS

The paragraphs below apply to both the New and the Old Asphalt Period Price Methods.

The Contract Price of the hot mix asphalt mixture will be paid under the respective item in the Contract. The price adjustment, as herein provided, upwards or downwards, will be made after the work has been performed, using the monthly period price for the month during which the work was performed.

The Price Adjustment applies only to the actual virgin liquid asphalt content in the mixture placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M3.11.03.

The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of tons of hot mix asphalt mixtures placed during each monthly period times the liquid asphalt content percentage times the variance in price between Base Price and Period Price of liquid asphalt. This Price Adjustment will be paid only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments.

No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department approved extension of time.



MONTHLY PRICE ADJUSTMENT FOR DIESEL FUEL AND GASOLINE – ENGLISH UNITS Revised: 01/26/2009

This monthly fuel price adjustment is inserted in this contract because the national and worldwide energy situation has made the future cost of fuel unpredictable. This adjustment will provide for either additional compensation to the Contractor or repayment to the Commonwealth, depending on an increase or decrease in the average price of diesel fuel or gasoline.

This adjustment will be based on fuel usage factors for various items of work developed by the Highway Research Board in Circular 158, dated July 1974. These factors will be multiplied by the quantities of work done in each item during each monthly period and further multiplied by the variance in price from the Base Price to the Period Price.

The Base Price of Diesel Fuel and Gasoline will be the price as indicated in the Department's web site (www.mhd.state.ma.us) for the month in which the contract was bid, which includes State Tax. The Period Price will be the average of prices charged to the State, including State Tax for the bulk purchases made during each month.

This adjustment will be effected only if the variance from the Base Price is 5% or more for a monthly period. The complete adjustment will be paid in all cases with no deduction of the 5% from either upward or downward adjustments. No adjustment will be paid for work done beyond the extended completion date of any contract.

Any adjustment (increase or decrease) to estimated quantities made to each item at the time of final payment will have the fuel price adjustment figured at the average period price for the entire term of the project for the difference of quantity.

The fuel price adjustment will apply only to the following items of work at the fuel factors shown:

ITEMS COVERED	FUEL FACTORS		
	Diesel	Gasoline	
Excavation: and Borrow Work:	0.29	0.15	
Items 120, 120.1, 121, 123, 124, 125, 127, 129.3, 140, 140.1, 141, 142, 143, 144., 150, 150.1, 151 and 151.1 (Both Factors used)	Gallons / CY.	Gallons / CY	
Surfacing Work: All Items containing Hot Mix Asphalt	2.90 Gallons / Ton	Does Not Apply	

**** END OF ATTACHMENT B ****



ATTACHMENT C WAGE RATES



ATTACHMENT D BID ITEM SHEET

The Bidder shall insert unit prices for each item in ink, in both words and figures, and is to show a total bid price (unit price x estimated quantities). In the event a discrepancy between the written words and figures, the written words shall govern. In the event an error in the bidders total bid price, the corrected total bid obtained by the summation of the products of the unit prices multiplied by the respective quantities shall stand as the bidder's total bid price.

Unbalanced bidding is expressly prohibited, and all unit bid prices will be compared for reasonable conformance with the engineer's estimate. The Owner has the right to reject award of a bid, or part thereof, to protect the public interest if it is apparent that a bid is mathematically unbalanced, the bidder front-end loads its bid as to amount to an advanced payment, there are extreme variations from the engineer's estimate or other bids received, if in the opinion of the Owner, the unit prices create a reasonable doubt that the apparent low bidder will actually result in the lowest cost to the Owner, and/or if the overall competitive bidding process has been jeopardized.

*The estimated quantities shown here are based solely upon a reasonable assessment of the project parameters, thus the Bidder is advised that the actual quantities may vary substantially as field conditions may necessitate.

There is no separate labor charge under this bid: unit prices shall include full compensation for all labor, materials, tools and equipment, and all incidentals necessary to complete the work as specified herein.

Signature of individual submitting bid or proposal

Printed Name of individual submitting bid or proposal

Business Phone Number

Printed Name of company submitting bid or proposal

Business Email



Bidder Name: Pho	one Number:		
ITEM DESCRIPTION & BID PRICE	EST QTY.*		1
ITEM 120.1: UNCLASSIFIED EXCAVATION THE SUM OF:			
DOLLARS	140	СҮ	\$
AND CENTS	110	C.	Ý
(\$) PER UNIT			
ITEM 151: GRAVEL BORROW			
THE SUM OF: DOLLARS	100	СҮ	\$
AND CENTS	100	01	Ý
(\$) PER UNIT			
ITEM 170: FINE GRADING AND COMPACTING – SUBGRADE AREA			
THE SUM OF: DOLLARS			
AND CENTS	420	SY	\$
(\$) PER UNIT			
ITEM 220: DRAINAGE STRUCTURE ADJUSTED			
THE SUM OF: DOLLARS			
AND CENTS	43	EA	\$
(\$) PER UNIT			



Bidder Name: Pho	one Number:		
ITEM DESCRIPTION & BID PRICE	EST QTY.*	UNIT	1
ITEM 220.7: SANITARY STRUCTURE ADJUSTED THE SUM OF:DOLLARS			
AND CENTS (\$) PER UNIT	16	EA	\$
ITEM 358: GATE BOX ADJUSTED THE SUM OF:	16	EA	\$
ITEM 415.2: PAVEMENT FINE MILLING THE SUM OF:	46,570	SY	\$
ITEM 450.23: SUPERPAVE SURFACE COURSE – 12.5 (SSC – 12.5) THE SUM OF:	5,220	TON	\$



Bidder Name: Pho	one Number:		
ITEM DESCRIPTION & BID PRICE	EST QTY.*	1	1
ITEM 450.53: SUPERPAVE LEVELING COURSE – 12.5 (SLC – 12.5) THE SUM OF:	270	TON	\$
ITEM 450.54: HOT MIX ASPHALT SPEED HUMP THE SUM OF:	2	EA	\$
ITEM 452: ASPHALT EMULSION FOR TACK COAT THE SUM OF:	4,100	GAL	\$
ITEM 453: HMA JOINT SEALANT THE SUM OF: DOLLARS AND CENTS (\$) PER UNIT	14,980	FT	\$



Bidder Name: Ph	one Number:		
ITEM DESCRIPTION & BID PRICE	EST QTY.*	UNIT	TOTAL
ITEM 702: HOT MIX ASPHALT SIDEWALK OR DRIVEWAY THE SUM OF:DOLLARS			
AND CENTS	100	TON	\$
(\$) PER UNIT ITEM 706.9: TEXTURIZED DECORATIVE PAVEMENT			
THE SUM OF: DOLLARS	40	SY	\$
AND CENTS (\$) PER UNIT			
ITEM 852: SAFETY SIGNING FOR TRAFFIC MANAGEMENT THE SUM OF: DOLLARS AND CENTS (\$) PER UNIT	130	SF	\$
ITEM 856.12: PORTABLE CHANGEABLE MESSAGE SIGN THE SUM OF:	160	DAY	\$



Bidder Name: Ph	one Number:		
ITEM DESCRIPTION & BID PRICE	EST QTY.*	UNIT	TOTAL
ITEM 859: REFLECTORIZED DRUM THE SUM OF: DOLLARS AND CENTS	2,310	DAY	\$
(\$) PER UNIT			
ITEM 864.07: PAVEMENT ARROW AND LEGENDS (EPOXY) THE SUM OF:DOLLARS ANDCENTS (\$) PER UNIT	180	FT	\$
ITEM 868.06: 6 INCH REFLECTORIZED WHITE LINE (EPOXY) THE SUM OF:DOLLARS ANDCENTS (\$) PER UNIT	26,060	FT	\$
ITEM 868.12: 12 INCH REFLECTORIZED WHITE LINE (EPOXY) THE SUM OF: DOLLARS AND CENTS (\$) PER UNIT	13,520	FT	\$



Bidder Name: Pł	one Number:		
ITEM DESCRIPTION & BID PRICE	EST QTY.*	UNIT	TOTAL
ITEM 869.06: 6 INCH REFLECTORIZED YELLOW LINE (EPOXY)			
THE SUM OF: DOLLARS			
AND CENTS	26,790	FT	\$
(\$) PER UNIT			
ITEM 869.12: 12 INCH REFLECTORIZED YELLOW LINE (EPOXY)			
THE SUM OF: DOLLARS			
AND CENTS	20	FT	\$
(\$) PER UNIT			
ITEM 999: POLICE SERVICES			
THE SUM OF: <i>Fifty Three Thousand</i> DOLLARS			
	1	LS	\$ <u>53,000</u>
AND Zero CENTS			
(\$) PER UNIT			
TOTAL BID:			
		D	OLLARS
AND			CENTS
(\$)
Amount in Figures			



ATTACHMENT E BID PRICING SHEET

Bid form must be completed in ink or by typewriter. The bid price for each item on the form shall be stated in figures. Discrepancies between indicated sum of any column(s) and the correct sum of any column(s) will be resolved in favor of the correct sum. Please Attach Additional Sheets if necessary.

BASE BID PRICE

The Bidder submits this bid proposal to perform all of the work (including labor and materials) as described in the solicitation for this Base Bid Price (including the costs for all Allowances, Incidentals, Bonds, and Addenda):

	Total Bid in figures	\$
	Total Bid in words	\$
Signatu	ire of individual submitt	ng bid or proposal

Printed Name of individual submitting bid or proposal

Business Phone Number

Printed Name of company submitting bid or proposal

Business Email



ATTACHMENT F LABOR HARMONY AND OSHA TRAINING

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that he will comply fully with all laws and regulations applicable to awards made subject to section 44A.

(Signature of authorized individual submitting proposal)

(Printed Name)

(Name of Bidder (if different than name))

(Date)



ATTACHMENT G CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

Signature of individual submitting bid or proposal

Printed Name of individual submitting bid or proposal

Name of business



ATTACHMENT H TAX COMPLIANCE CERTIFICATION

Pursuant to M.G.L. c. 62C, §49A, I certify under the penalties of perjury that, to the best of my knowledge and belief, I am in compliance with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support. Signed under the penalties of perjury.

Signature of individual submitting bid or proposal

Printed Name of individual submitting bid or proposal

Name of business



ATTACHMENT I SIGNATURE PAGE

This Bid must bear the written signature of the Bidder or authorized agent of the Bidder. If the Bidder is a corporation or a partnership, the Bid must be signed by a duly authorized officer of such corporation or by a partner; the title of such officer must be stated.

The bidder hereby acknowledges the receipt of, and has included in this BID, the following Addenda:

(To be filled in by Bidder, if Addendums are issues.)

Addendum No	dated
Addendum No.	dated

Addendum No. ______, dated ______

Signature

Name of Corporation, Company or Individual

Printed Name of Person Authorized to Sign

Title

Email Address



ATTACHMENT K REFERENCE FORM

Bidder:

The following shall accompany the bid and is required as evidence of the bidder's qualifications to perform the work, as bid upon, in accordance with the contract drawings and specifications. This statement must be notarized. All questions must be answered. Additional data may be submitted on separate attached sheets. When assessing bidder's qualification, the Town will not be limited to information provided herein. The Town intends to use information outside this document to assess Bidder Qualifications.

1.	Name of Bidder					
2.	Permanent Main Office Address					
3.	Official Mailing Address for This Contract					
4.	When Organized?					
5.	Where Incorporate	d, If a Corporatio	n			
6.	Years Contracting u	nder Present Na	me			
7.	List contracts on ha	nd, and those co	mpleted similar in na	ture to this kind of	project.	
Owner	Engineer	Contract	Description	Contract Amount	Completion Date	



11.

12.

13.

TOWN OF WESTWOOD COMMONWEALTH OF MASSACHUSETTS

- 8. List any work the firm has failed to complete in the last five years, state where and why.
- 9. If you have <u>ever</u> defaulted on any contract, state where and why.

10. List full names of all principals (i.e., Officers, Directors, Partners, Owners) interested in this bid.

Name	Title	Firm
State name(s) and qua	lifications of resident supervisor	(s) for this project.
State name(s) and qua	lifications of resident supervisor	(s) for this project.
State name(s) and qua	lifications of resident supervisor	s) for this project.
State name(s) and qua	lifications of resident supervisor	(s) for this project.
	lifications of resident supervisor(



Name	Address	

14. The undersigned hereby authorized and requests any person, firm or corporation, to furnish all information requested by the Owner and/or its designated agents relative to the recitals comprising this Statement of the Bidder's Qualifications.

Dated at	this	day of		20	
			(Name of Bidder)		
			Ву:		
			 (Title)		
State of			(IIIe)		
County of					
		being duly s	worn in person, dep	ooses and says	
that he is		of		,	
(Title)	(Nar	of, (Name of Bidder)		
that he is the fi	rm's duly authorized	agent to execute th	ese contract docum	ients, and that the	
answers to the	foregoing questions	and all statements t	herein contained ar	e correct and true.	
Subscribed and	sworn to before me	this	day of	20	
()					

(SEAL)

(Notary Public)