

**Merrimack Valley Planning Commission**

**Invitation for Bid**

**Road Maintenance Services and Related Materials**

**MVPC 2017 Road Services**

**Bid Due Date: Thursday, May 5, 2016, 11:00 A.M.**

**Merrimack Valley Planning Commission  
160 Main Street  
Haverhill, MA 01830**

**Telephone: (978) 374 - 0519**

[munipurchasing@comcast.net](mailto:munipurchasing@comcast.net)

**Merrimack Valley Planning Commission  
150 Main Street  
Haverhill, MA 01830-5875**

**2017 MVPC Road Services**

**I. General Information and Bid Submission Requirements**

- A. Sealed bids are requested by the Merrimack Valley Planning Commission (MVPC) from qualified firms for Highway Maintenance Services to include Catch Basin Cleaning, Street Sweeping, Random Crack Sealing, Pavement Markings and Guardrails and Bituminous Concrete for the following communities: Amesbury, Boxford, Lawrence, Merrimac, Newburyport, Salisbury, and West Newbury (Municipalities). Envelopes containing sealed bids will be accepted at the Merrimack Valley Planning Commission, 160 Main Street, Haverhill, Massachusetts 01830 until the time indicated and will be publicly opened and read.
- B. Bids are to be submitted by 11:00 a.m., Thursday, May 5, 2016, at which time they will be publicly opened and read. Postmarks will not be considered. Bids submitted on any other form will not be accepted as valid bids. Envelopes should be clearly marked "2017 MVPC Road Services". Bids will be available for public inspection two (2) business days after the bid opening.
- C. Each Municipality will award the contract within sixty (60) days after the bid opening. The actual award may be extended up to thirty (30) days by mutual agreement between each Municipality and the lowest responsive and responsible bidder.
- D. Addenda: If any changes are made to the Invitation for Bid (IFB), an addendum will be issued. Addenda will be mailed, faxed, or emailed to all bidders on record as having downloaded / picked up the IFB. Contractors shall be responsible for ensuring that all addenda are in receipt prior to bid deadline. The MVPC will require acknowledgement of any addenda issued to be included on the bid form.
- E. Questions concerning this bid must be submitted in writing to: MVPC Purchasing, email [munipurchasing@comcast.net](mailto:munipurchasing@comcast.net) before 11:00 am on Thursday, April 21, 2016. Question may be delivered, mailed, emailed or faxed. Written responses will be mailed, emailed or faxed to all bidders on record as having picked up the IFB.
- F. A bidder may correct, modify or withdraw a bid by written notice received prior to the time and date set for the bid opening. Bid modifications must be submitted in a sealed envelope clearly labeled "Modification No. \_\_\_\_\_." Each modification must be numbered in sequence and must reference the original IFB.
- G. After the bid opening, a bidder may not change any provision of the bid in a manner prejudicial to the interests of the Municipalities or fair competition. Minor informalities will be waived or the bidder will be allowed to correct them. If a mistake and the intended bid are evident on the face of the bid document, the mistake will be corrected to reflect the intended correct bid, and the bidder will be notified in writing.
- H. Bid Bond: This proposal shall be accompanied by a bid deposit in the form of a bid bond, or a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company, payable to the City of Haverhill. A bid bond shall be (a) in a form satisfactory to the awarding authority, (b) with a surety company qualified to do business in the commonwealth and satisfactory to the awarding authority and (c) conditioned upon the faithful performance by the principal of the agreements contained in the bid. The amount of such bid deposit shall be five (5) per cent of the value of the bid.
- I. Payment Bond: The successful bidder must furnish a Payment Bond for fifty (50) of the full sum of the guaranteed maximum price by a surety company licensed to do business in the commonwealth and whose name appears on the United States Treasury Department Circular 570.
- J. The MVPC may cancel this IFB, or reject in whole or in part any and all bids, if the MVPC determines that the cancellation or rejection serves the best interests of the MVPC and the Municipalities.
- K. All bid prices submitted for this IFB must remain firm for sixty (60) days following the bid opening.
- L. Each bidder will submit three (3) copies of all required forms. All Bids must include a Bid Pricing Sheet – Appendix C; Non-collusion and Tax Compliance Form – Appendix D and References – Appendix E.
- M. A bid must be signed as follow: 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.

## **II. Purchase Description:**

- A. The Municipalities will purchase Highway Maintenance Services to include Catch Basin Cleaning, Street Sweeping, Random Crack Sealing, Pavement Markings, Guardrails and Bituminous Concrete.
- B. Each Municipality has provided estimated quantities for each bid item. These estimated quantities are for bid purposes only and cannot be guaranteed. See Appendix B – Estimated Quantities by Municipality.
- C. Road Maintenance Service work done under this Contract shall be in conformance with the 1988 Massachusetts DOT Department Standard Specifications for Highways and Bridges, the Supplemental Specifications, and the 2003 Manual on Uniform Traffic Control Devices, all as amended, and these Special Provisions.
- D. It is the MVPC’s intent to contract for one (1) year period commencing on or about July 1, 2016. The MVPC, at its sole discretion, reserves the right to renew the contract for one (1) additional one (1) year period.
- E. Price Adjustments: Portland Cement. The Base Price for this agreement is \$116.00 / ton.
  - i. The Base Price of Portland cement on a project 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 (see below) and found in the Notice to Contractors.
  - ii. The Period Price of Portland cement will be determined by using the latest published price, in dollars per ton (U.S.), for Portland cement (Type I) quoted for Boston, U.S.A. in the Engineering News-Record (ENR), Construction Economics section or at ENR website <http://www.enr.com> under “Construction Economics”. The Period Price will be posted on the MassHighway website at <http://www.massdot.state.ma.us/highway/DoingBusinessWithUs/Construction/PriceAdjustments.aspx>.
  - iii. The Contract Price of the Portland cement concrete mix 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.
  - iv. The price adjustment applies only to the actual Portland cement content in the mix placed on the job in accordance with the Standard Specifications for Highways and Bridges, Division III, Section M4.02.01. No adjustments will be made for any cement replacement materials such as fly ash or ground granulated blast furnace slag.
  - v. The Price Adjustment will be a separate payment item. It will be determined by multiplying the number of cubic yards (cubic meters) of Portland cement concrete placed during each monthly period times the Portland cement content percentage times the variance in price between the Base Price and Period Price of Portland cement.
  - vi. 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.
  - vii. No Price Adjustment will be allowed beyond the Completion Date of this Contract, unless there is a Department-approved extension of time.

**III. Rule for Award:** Contract(s) will be awarded by each Municipality to the responsive and responsible bidder offering the lowest cost for each line item in Appendix C.

**IV. Bid Pricing Sheet:** See Appendix C.

**V. Non Collusion Form and Tax Compliance Form:** See Appendix D.

**VI. References:** Complete Appendix E with the following information.

- A. Commercial: Three (3) communities that you have provided similar services in the last three (3) years.
- B. Financial References demonstrate a stable and secure financial position. Successful bidders may be requested by the Municipality to provide a business information report or business profile from a credit reporting agency dated no earlier than sixty (60) days prior to bid submission date.

**VII. Additional Contract Terms & Conditions:**

- A. The successful bidder shall comply with all applicable federal, state and local laws and regulations.
- B. Purchases made by the Municipalities are exempt from taxes and bid prices must exclude any taxes. Tax exemption certificates will be furnished upon request.
- C. All words, signatures and figures submitted on the bid shall be in ink. Proposals, which are conditional, obscure or which contain additions not called for, erasures, alterations or irregularities, or any prices, which contain abnormally high or low amounts for any item, may be rejected as informal. More than one proposal from the same bidder will not be considered.
- D. Unless otherwise provided by law, the Contractor will indemnify and hold harmless the Municipalities against any and all liability, loss, damages, costs or expenses for personal injury or damage to real or tangible personal property that the each Municipality may sustain, incur or be required to pay, arising out of or in connection with the performance of the Contract by reason of any negligent action/inaction or willful misconduct by the Contractor, its agents, servants or employees.
- E. Failure to perform when such failure is due to an Act of God, public enemy, fire, earthquake, floods, transportation, embargoes, or other similar causes beyond the control of the contractor, shall be good and sufficient reason for excuse from contractual liability.
- F. No subletting of the award, or assignment of monies due or to become due, shall be made without written consent of the awarding authority.
- G. Indemnification: The contractor shall assume the defense, indemnify and hold harmless the municipality, the municipality's agents and employees from and against all losses and all claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against them, including attorneys fees, by reasons of acts, inactions, omissions, negligence, reckless or intentional misconduct caused by or related to any and all activities of the Contractor, its agents, officers, employees or subcontractors.
- H. Massachusetts Prevailing Wages: The Division of Occupational Safety issues prevailing wage schedules to cities, towns, counties, districts, authorities, and agencies of the commonwealth for construction projects and several other types of public work. These prevailing wage schedules contain hourly wage rates that workers must receive when working on a public project. The wage schedules for this IFB are attached in Appendix F.
- I. Funding: All contracts awarded as part of this bid shall be subject to availability of funds from each Municipalities appropriation. If funds are not appropriated for this purpose, the Municipality may terminate this contract and shall not be obligated to make any further payments.

**Appendix A**  
**2017 MVPC Road Services**  
**Specifications**

**GENERAL TERMS AND CONDITIONS**

**WORK SCHEDULE**

The successful bidder shall commence SITE Work within ten (10) working days of receiving a Notice to Proceed from a Municipality.

Work is restricted to a normal eight-hour day, five-day week, with the successful bidder 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 specific Community.

**PROGRESS OF WORK**

The successful bidder shall promptly start and continue actual construction work under this Contract with the necessary equipment to properly execute and complete this Contract in the specified time.

No cessation of Contractor's operations will be allowed without the approval of the Municipality. The rate of progress shall be satisfactory to the Municipality. The successful bidder shall furnish to the Engineer a schedule for the Work prior to the start of construction.

**ROAD SAFETY and POLICE SERVICES**

Each Municipality shall provide all Police Detail services at no cost to the Contractor to direct traffic when such protection is deemed required by the Municipality. The successful bidder shall be solely responsible for contacting, ordering and scheduling police traffic details with the local Police Department and DPW. If the Contractor must cancel police services, he must be aware of and do so within the time limits set by the respective Police Department.

**PUBLIC SAFETY AND CONVENIENCE & TRAFFIC CONTROL**

The successful bidder shall be required without additional compensation to provide safe and convenient access to all abutters during the prosecution of the Work.

Where traffic cones are the standard operating procedure for ant tasks specified herein, the successful bidder shall have sufficient cones, personnel and trucks to conform to this procedure to provide safety within the work zone and for the motoring public. The successful bidder's equipment shall have high intensity flashing lights or rotary beacon(s) installed to provide adequate warning to motorists approaching the work area or work equipment from the front and rear.

**CLEANUP**

Cleanup shall be done on a daily basis. At the end of each working period, the successful bidder shall remove all equipment from the traveled way. The successful bidder shall ensure that all safety marking and warning devices are satisfactorily in place prior to leaving any job.

During the course of the Work, the successful bidder shall keep the site of his operations in as clean and neat condition as is possible. He shall dispose of any and all residue resulting from the construction work and, at the conclusion of the work; he shall remove and haul away any surplus excavation and any other refuse remaining from the construction operations, and shall leave the entire site of the work in a neat and orderly condition.

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.

**EMERGENCY CONTACTS**

A list of personnel and their telephone numbers shall be submitted to the Municipality and the Public Works Director and also to the local Police Departments

**PROVISIONS FOR TRAVEL AND PROSECUTION OF THE WORK**

For services that require traffic control, the successful bidder shall supply and use traffic control devices, positioning and methodology, conforming with the Manual on Uniform Traffic Control Devices (MUTCD) and MHD Work Zone Safety Guidelines at no additional cost to the Municipality. Traffic control devices required only during working hour operations shall be removed at the end of each working day. Signs having messages that are irrelevant to normal traffic conditions shall be removed or properly covered at the end of each work period. Signs shall be kept clean at all times and legends shall be distinctive and unmarred.

Particular care should be taken to establish and maintain methods and procedures that will not create unnecessary or unusual hazards to public safety.

### **DISPOSAL OF SURPLUS or CONTAMINATED MATERIALS**

All materials not required or needed for use on the Project, and not required to be removed and stacked, shall become the property of the successful bidder and shall be removed from the site and legally disposed of.

It is noted that any Catch Basins or Drain Lines that may contain hazardous or contaminated materials will become the property of the successful bidder and disposed of in accordance with DEP Rules and Regulations. Such disposal shall be documented and a copy of the disposal Bill of Lading or Receipt of disposed contaminated material shall be provided to the Municipality by the successful bidder.

### **WEATHER LIMITATIONS**

The WEATHER can and will affect the successful bidder's work performance. The Municipality reserves the right and sole discretion to prohibit work of days when weather is of sufficient intensity that would impede effective prosecution of work tasks due to conditions of street surface conditions.

Where it has been determined that a Local Police Detail service is necessary for public safety in any work locations specified in contract documents linked to these bid documents, it is incumbent on the Contractor to notify the local Police Department that contract will not be performed on the day of the scheduled Police Detail service. If such notice is not given by the Contractor, or his representative, the contractor will be responsible for said detail.

## **CATCH BASIN CLEANING**

The Work under this item consists of the cleaning of existing catch basins and drainage pipes. Work under this item shall be performed under the direction and to the satisfaction of the Director of Public Works, or his designated agent

Catch Basin cleaning will be paid for at the Contract unit price. The Contract unit price shall include all labor, equipment, transportation within the Community and incidental costs required to complete the Work. The Work under this item does not include the removal and legal disposal of hazardous material.

### **Catch Basin and Drain Manhole Cleaning.**

The work to be done under this contract shall consist of removing the accumulated dirt, refuse and other debris from each catch basin, the gutter mouth of curb inlets, and properly disposing of the materials removed. Drain manholes are considered catch basins in this contract.

Communities will predetermine, at a minimum, at least 30 catch basins for performance evaluation, which will be inspected by the DPW after they have been cleaned. The Contractor shall in each case remove the grate, clean the catch basin, including scraping the sides of the basin, to the satisfaction of the Director of Public Works or his designee, and carefully replace the grate. The catch basin shall be considered clean when remaining material in the catch basin is not more than four inches in depth, if leveled, and there is no visual evidence that would impede free flow of storm water.

### **Sequence of Cleaning**

The Community will make available to the Contractor Work Route Maps showing the sequence in which the Contractor will proceed in cleaning the catch basin. The Contractor shall provide to the Public Works

Department on a weekly basis a report containing the location and number of catch basins cleaned during the week, estimated quantity of material removed and the total number of catch basins cleaned year to date.

**Start/Completion Time**

The time frame for cleaning of catch basins will be from April to November.

**Basin/Drain Cleaning Methods**

Each catch basin is to be thoroughly cleaned of sand, silt, and debris from the lower portion of the basin (i.e., basin sump) by mechanical means or hand labor. Jetting or rodding may be required to loosen debris materials to assure complete removal.

The Contractor is to remove the basin grate, thoroughly clean the catch basin and reset the grate prior to leaving the basin. It is anticipated that clam trucks or Vac Trucks, will be utilized for this contract award. The Contractor shall notify the Utilities Superintendent of any broken grates or frames, undermined basins, plugged or broken pipe connections, or any suspicious pipe inlets observed during the cleaning operations. Any deficiencies shall be noted in a weekly written report. If a basin does not have a sump it shall be noted in the report. During the operation, care shall be taken by the contractor not to damage grate, frame, catch basin, pipe, or curbing. If damage is caused by the negligence of the Contractor the damaged parts shall be satisfactory repaired or replaced at the Contractor's expense. The material removed from the catch basins shall be transported immediately to the approved disposal area in trucks that will not spill or leak the material along the roadway. Any material falling on the roadway shall be noted in the report.

**Traffic Control:** The Contractor is solely responsible for all traffic control, signage and personnel as is necessary to provide for the safety of workmen, equipment, and the traveling public. The Contractor shall not block or stop the normal flow of traffic.

**Method of Measurement:** Each basin satisfactorily cleaned will be measured as a complete unit. Basins not satisfactorily cleaned will be brought to the Contractor's attention and re-cleaned at no additional cost. A basin, which cannot be cleaned due to a structural defect or absence of a sump, will not be measured for payment. The Contractor shall mark the top of the catch basin grate with paint after it has been cleaned.

**Basis of Payment:** All cleaned and approved catch basins will be paid for at the contract unit price. This price shall include all equipment, fuel, tools, transportation, traffic control, and labor incidental to the completion of the removal of the material in accordance with the provisions of these specifications.

**STREET SWEEPING**

**Scope of Work:** The Contractor shall provide sweepers and operators to perform street sweeping service, in accordance with their requirements as identified by their respective Director of Public Works, or his designated agent.

**Contract Hours:** Work to be performed during designated hours, which may be other than normal work hours of the Department of Public Works. It shall be the awarded Contractor's responsibility to contact each Participating Community to determine and potential work schedules.

Specific intersections, routes or other high traffic areas may be designated as Non Peak Hour Work Zones by the DPW.

**Sweeping Operations:** The Communities shall provide route maps, authorized access to use of hydrants for water, and either a dump truck or designated dumpsite for emptying sweepers at the option of the Director of Public Works, or his designated agent.

**Disposal:** Street sweepings may be disposed of within the limits of the Participating Community at a place(s) designated by said community.

**Equipment:** All equipment provided by the awarded Contractor shall be of good condition and have all systems working properly. All brooms and pick-up assemblies shall be of good quality such that this equipment may sweep normal road dirt in one passes. All broom cycles shall operate independently of ground speed such that a reduction of ground speed will not effect brooming action. Each sweeper shall have independent wet system capable of controlling dust.

**Communication:** The Community may choose to loan a portable radio to the contract sweeper such that communications may be made with Community support truck designated to haul road sweepings. This radio shall be the Contractor's responsibility and subject to replacement in kind if the contractor loses or damages said radio. Replacement of radio will be new and no allowance will be made for depreciation.

**Response Time:** After award of contract and a "request for service" has been issued by the Director of Public Works, or his designated agent, the Contractor is obligated to provide service within three (3) working days of said request. The "request for service" may be made either by phone, FAX, letter, or email. The Contractor shall respond back to the Department of Public Works within two (2) hours by an employee in authority who can speak on behalf of the Contractor. Failure to meet these obligations may subject the Contractor to penalties of non-compliance, after one written warning by the Director of Public Works. Continued non-compliance to this obligation may subject the Contractor to loss of Contract and that the Contractor may be assessed the difference in unit cost between their bid and the next lowest bidder.

#### **Use of Fire Hydrant**

The Contractor shall be allowed the use of certain hydrants, as assigned by the Director of Public Works, as may be necessary to prosecute the specified work. Water will be furnished free of charge by the Community for the tasks specified in the contract only. However, accurate records will be required of the Contractor as to the date location time and estimated amount of water drawn from the hydrant. Reports must be submitted to the DPW at the end of each workday. The Contractor must be familiar with the process of drawing hydrant water and closing of the valves and must supply all tools, hoses and equipment to make the connections.

### **RANDOM CRACK SEALING**

#### **Crack Sealing Process "A" (8% Fiber Content)**

**SCOPE OF WORK** The Work covered by this section of the specification consists of furnishing all plant, labor, equipment and materials to perform all operations in connection with the cleaning and sealing of construction and random cracks in bituminous concrete pavement, and vegetation removal and sterilization of cracks where necessary.

#### **MATERIAL**

The crack filling material shall be a modified asphalt-fiber compound designed especially for improving strength and performance of the parent asphalt sealant.

- a. The asphalt binder shall consist of a blend of neat asphalt binder and chemically modified crumb rubber (CMCR) that meets the following specifications:
  - PG 64-34 or PG 70-34 after modification.
  - Viscosity of not more than 3PaS at 300 degrees F.
  - Modification at a minimum shall consist of 5% CMCR and the maximum particle size for the CMCR shall be 80 mesh (#80 sieve).
  - The performance grade of the neat asphalt binder shall not exceed a PG 58-XX.
  - The asphalt supplier shall provide testing for the neat asphalt binder and modified asphalt binder in accordance with AASHTO M320.
- b. Fiber reinforcing materials shall be short-length polyester fibers having the following properties:
  - Length\* 0.25in. +0.02
  - Elongation at Break; ASTM D2256-90 38%
  - Melting Point; ASTM D3418-82 >475 degrees F (246 degrees C)
  - Crimps/Inc.; ASTM D3937-90 None
  - Cross Section Round



Denier; ASTM D1577-90 4.5 Nominal dpf  
Tensile Strength; ASTM D2256-90 >70,000 psi  
Diameter 0.0085 in. \*\*  
Specific Gravity; ASTM D792-91 1.32 to 1.40

\* At temperatures ranging from ambient to maximum finished product mix temperature  
\*\* Subject to Normal Variations

Modified asphalt-fiber compound shall be mixed at a rate of 8% fiber weight to weight of asphalt cement. This compound having the same chemical base provides compatibility and exhibits excellent bond strengths. The fiber functions to redistribute high stress and strain concentrations that are imposed on the sealant by thermal sources, traffic loading, etc.

**EQUIPMENT:** Equipment used in the performance of the work shall be subject to engineer approval and maintained on a satisfactory condition at all times.

**Air Compressor:** Air compressors shall be portable and capable of furnishing not less than 160 cubic feet of air per minute at not less than 90 psi at the nozzle. The compressors shall be equipped with traps that will maintain the compressed air free of oil and water.

In addition to air compression, any manually operated, gas powered air-broom or self-propelled sweeper designed especially for use in cleaning highway pavements shall be used to remove debris, dirt and dust from the cracks.

**Melter:** The unit used to melt or maintain the crack sealant compound at the recommended application temperature shall be the indirect fire type. It shall be equipped with a remote heat exchanger and air circulation pump capable of maintaining a consistent temperature of the heat transfer oil. The heat transfer oil shall be circulated to all sides and the bottom of the vat containing the crack sealant compound making a continuous loop back to the heat exchanger and having a flash point of not less than 660 degrees F. The melter shall be equipped with a satisfactory means of agitating the crack sealant at all times. This may be accomplished by continuous stirring with mechanically operated paddles and/or by a circulating gear pump attached to the melter. The melter must be equipped with a thermostatic control calibrated between 200 degrees F and 550 degrees F. and must be capable of pumping an 8% fiber content blend.

### **PREPARATION OF CRACKS**

**Debris and Vegetation Removal:** All cracks shall be clean and sterilized by use of a propane air torch generating 2000 degrees F. and 3000 foot/second velocity to eliminate all vegetation, dirt, moisture and seeds. All debris removed from the cracks shall be removed from the pavement surface immediately by means of a power sweeper, hand or air broom.

**General:** No crack sealant material shall be applied in wet cracks or where frost, snow or ice is present or when the ambient temperature is below 25 degrees F.

### **PREPARATION AND PLACEMENT OF SEALANT:**

The asphalt –fiber sealant compound shall be thoroughly mixed for a minimum of one hour before application can begin. Whenever material is added to the tank, sealing operations shall be suspended for one hour to allow for the minimum required mixing time. Minimum application temperature shall be 320 degrees F.

Sealant shall be delivered to the pavement cracks through a high-pressure hose line and application shoe. Diameter of the applicator shoe is not to exceed 3.5 inches. Once the pavement cracks are sealed the width of the sealant on the pavement, “over banding” shall not exceed 3 inches. When traffic requires immediate use of the roadway, a boiler slag aggregate shall be broadcast over the cracks to prevent the sealant from being picked up.

**WORKMANSHIP:** All workmanship shall be of the highest quality and any excess of spilled sealant shall be removed from the pavement by approved methods and discarded. Any workmanship determined to be below the high standards of the particular craft involve will not be accepted, and will be corrected and /or replaced as required by the engineer in charge.

**PERFORMANCE:** A Municipality will not award a contract for this work if the bidder cannot furnish satisfactory evidence that it has the ability and experience to perform this class of work and that it has sufficient capital and equipment to enable it to perform this class of work successfully and to complete it within the time requested.

Properly formulated and mixed asphalt fiber compound over banding shall not exceed three inches (3") in width. Penalties will be imposed upon the contractor by the community for over banding beyond three inches.

A Municipality may require a contractor to successfully perform a 200-foot test strip in the field prior to commencing work using this method.

Manufacturer's certificate of material compliance shall be furnished to the engineer in charge certifying conformance with the above materials specification and prior to its application.

### **Crack Sealing Process "B" (6-8% Fiber Content)**

**SCOPE OF WORK** The Work covered by this section of the specification consists of furnishing all plant, labor, equipment and materials to perform all operations in connection with the cleaning and sealing of construction and random cracks in bituminous concrete pavement, and vegetation removal and sterilization of cracks where necessary.

**MATERIAL** The crack sealer shall be a modified asphalt-fiber compound designed especially for improving strength and performance of the parent asphalt sealant Modified asphalt-fiber compound shall be mixed at a rate of 6-8% fiber weight to weight of asphalt cement.

- a. Asphalt Sealant shall be a Grade PG 58-28 (formerly AC-10), GP 64-22, or PG 64-28 (formally AC-20) with a penetration of 75-100.
- b. Fiber reinforcing materials shall be short-length polyester fibers having the following properties:
  - Length 7mm
  - Elongation at Break 33% plus or minus 9% (Fully Drawn)
  - Melting Temperature 480 degrees F minimum
  - Ignition Temperature 1,000 degrees F. minim
  - Tensile Strength 75,000 psi plus or minus 5,000 psi
  - Diameter 0.0008 inch plus or minus 0.0001 inch
  - Specific Gravity; ASTM D792-91 1.32 to 1.40

This compound having the same chemical base provides compatibility and exhibits excellent bond strength. The fiber functions to redistribute high stress and strain concentrations that are imposed on the sealant by thermal sources, traffic loading, etc.

**EQUIPMENT:** Equipment used in the performance of the work shall be subject to engineer approval and maintained on a satisfactory condition at all times.

**Air Compressor:** Air compressors shall be portable and capable of furnishing not less than 100 cubic feet of air per minute at not less than 90 psi at the nozzle. The compressors shall be equipped with traps that will maintain the compressed air free of oil and water.

In addition to air compression, any manually operated, gas powered air-broom or self-propelled sweeper designed especially for use in cleaning highway pavements shall be used to remove debris, dirt and dust from the cracks.

**Melter:** The unit used to melt or maintain the crack sealant compound at the recommended application temperature shall be the indirect fire type. It shall be equipped with a remote heat exchanger and air circulation pump capable of maintaining a consistent temperature of the heat transfer oil. The heat transfer oil shall be circulated to all sides and the bottom of the vat containing the crack sealant compound making a continuous loop back to the heat exchanger

and having a flash point of not less than 660 degrees F. The melter shall be equipped with a satisfactory means of agitating the crack sealant at all times. This may be accomplished by continuous stirring with mechanically operated paddles and/or by a circulating gear pump attached to the melter. The melter must be equipped with a thermostatic control calibrated between 200 degrees F and 550 degrees F. and must be capable of pumping an 8% fiber content blend.

### **PREPARATION OF CRACKS**

Debris Removal: All cracks shall be blown clean by high-pressure air. All old material and debris removed from the cracks shall be removed from the pavement surface immediately by means of a power sweeper, hand or air broom.

Vegetation – When cracks show evidence of vegetation, it shall be removed and sterilized by use of propane torch unit generating 2000 degrees and 3000 foot/second velocity to eliminate all vegetation, dirt moisture and seeds.

General: No crack sealant material shall be applied in wet cracks or where frost, snow or ice is present or when the ambient temperature is below 25 degrees F.

### **PREPARATION AND PLACEMENT OF SEALANT:**

Joint sealing material shall be heated and applied at a temperature specified by the manufacturer and approved by the engineer. Minimum application temperature shall be 320 degrees F.

Sealant shall be delivered to the pavement cracks through a high-pressure hose line and application shoe. Once the pavement cracks are sealed the width of the sealant on the pavement, “over banding” shall not exceed **4 inches**. When traffic requires immediate use of the roadway, a boiler slag aggregate shall be broadcast over the cracks to prevent the sealant from being picked up.

**WORKMANSHIP:** All workmanship shall be of the highest quality and any excess of spilled sealant shall be removed from the pavement by approved methods and discarded. Any workmanship determined to be below the high standards of the particular craft involved will not be accepted, and will be corrected and /or replaced as required by the engineer in charge.

**PERFORMANCE:** A Municipality will not award a contract for this work if the bidder cannot furnish satisfactory evidence that it has the ability and experience to perform this class of work and that it has sufficient capital and equipment to enable it to perform this class of work successfully and to complete it within the time requested.

Properly formulated and mixed asphalt fiber compound over banding shall not exceed three inches (3”) in width. Penalties will be imposed upon the contractor by the community for over banding beyond three inches. A Community **may** require a contractor to successfully perform a 200-foot test strip in the field prior to commencing work using this method.

Manufacturer’s certificate of material compliance shall be furnished to the engineer in charge certifying conformance with the above materials specification and prior to its application.

## **PAVEMENT MARKINGS** (Not ReflectORIZED Paint)

### **4” TRAFFIC LINE (WATER BASED PAINT) Including ARROWS/LEGENDS (PAINTED)**

The Work shall include the furnishing and installing of traffic paint. The white and yellow traffic paint shall be installed as 4” wide double solid, single solid and broken lines.

#### **Equipment**

The Contractor shall supply 1 long line spray truck, manufactured with stainless steel components to properly apply fast-dry water borne traffic paint, capable of applying solid lines in a sharp and true manner. The unit must have a minimum paint tank capacity of 400 gallons. The long line spray truck must be capable of producing an acceptable 4” wide single or double line at the application rate 320 lineal feet per one gallon of paint while traveling at a minimum of 7 miles per hour.

The Contractor shall supply 1 cone truck (rack body with hydraulic tail gate) with 300 cones.

The above units shall include protective devices and warning signs for the painting operation. Each unit shall be radio controlled with a portable unit available for the Highway Division lead truck.

The Contractor shall supply 2 operating personnel for the spray truck and 3 cone setters/retriever personnel for the traffic cone setting truck. The Contractor will place traffic cones on all freshly painted lines to reduce tracking.

#### **Contractor Responsibilities**

The Contractor shall complete the painting as indicated herein, subject to weather conditions, such as wet or extremely cold pavement. The interruptions for weather will be at the discretion of the Municipality. The Contractor shall have backup equipment available to him in the event of a breakdown.

The successful bidder shall have a supervisor or foreman, experienced in this field of work, available to direct operations. The supervisor or foreman will report to the Highway Division Superintendent or his designee, any problem, as well as, give daily progress reports.

The successful bidder must show by past performance that he is capable of performing a Contract of this magnitude.

#### **4" TRAFFIC LINES (CHLORINATED RUBBER PAINT) - Including ARROWS/LEGENDS**

The Work shall include the installation traffic paint. The white and yellow traffic paint shall be installed as 4" or 6" wide double solid, single solid and broken lines.

The application rates shall be 1 gallon of paint per 320 linear feet of 4" and 6" wide line.

#### **Equipment**

The Contractor shall supply 1 long line spray truck, manufactured with stainless steel components to properly apply fast-dry chlorinated rubber traffic paint, capable of applying solid lines in a sharp and true manner. The unit must have a minimum paint tank capacity of 400 gallons. The long line spray truck must be capable of producing an acceptable 4" or 6" wide single or double line at the application rate 320 lineal feet per one gallon of paint while traveling at a minimum of 7 miles per hour.

The Contractor shall supply 1 cone truck (rack body with hydraulic tail gate) with 300 cones. The above units shall include protective devices and warning signs for the painting operation. Each unit shall be radio controlled with a portable unit available for the Highway Division lead truck.

The Contractor shall supply 2 operating personnel for the spray truck and 3 cone setters/retriever personnel for the traffic cone setting truck. The Contractor will place traffic cones on all freshly painted lines to reduce tracking.

#### **Contractor Responsibilities**

The Contractor shall complete the painting as indicated herein, subject to weather conditions, such as wet or extremely cold pavement. The interruptions for weather will be at the discretion of the Highway Division. The Contractor shall have backup equipment available to him in the event of a breakdown.

The Contractor shall have a supervisor or foreman, experienced in this field of work, available to direct operations. The supervisor or foreman will report to the Highway Division Superintendent or his designee, any problem, as well as, give daily progress reports.

The Contractor must show by past performance that he is capable of performing a Contract of this magnitude.

The Contractor shall be responsible for satisfying the paint manufacturer's requirements for keeping the interior of the totes free from skins, paint buildup, etc. during the length of the Contract.

## Guardrails

### West Newbury

#### Steel W Beam Highway Guard (Single Faced)

- Guardrail panels -13' - 6" long, 6" overlap at each end, type SS, (single faced) 12 gauge, galvanized.
- Guardrail Posts - Steel "H" posts, WIF 6, 6' - 6" long, 8.5 lbs./ft., galvanized. Post spacing shall be 6' - 3" on center.
- All necessary connecting hardware and modular offset blocks.
- All posts to be machine driven and set plumb to a depth of approximately four feet.
- All materials shall be hot dipped galvanized and new.

Where applicable, all materials and details shall meet or exceed Commonwealth of Massachusetts Department of Public Works, Standard Specifications for Highways and Bridges and construction and Traffic Standard Details, as most recently amended.

### CONSTRUCTION METHODS

Wood guard posts or steel posts shall be set plumb in hand dug or mechanically dug holes, then backfilled with acceptable material placed in layers and thoroughly compacted.

Wood guard posts or steel posts to be set in areas of proposed bituminous concrete or cement concrete shall be erected prior to laying the surrounding finished surface unless otherwise permitted by the Projects Engineer.

Where standard embedment of a post is not feasible because of underground obstructions, such as utilities, footings, culverts and ledge, a modified post installation shall be made as so directed by the Projects Engineer.

Steel beam rail shall be erected so as to form a smooth continuous rail conforming to the required line and grade. The splicing of the rail elements shall be lapped so that the exposed end of each element is away from approaching traffic. The holes in the rail element nearer the posts shall be slotted to facilitate erection and to permit expansion. The rail elements shall make contact with each other at each splice.

All bolts, except where otherwise required at expansion joints, shall be drawn tight. Bolts through expansion shall be drawn up as tightly as possible without being too tight to prevent the rail elements from sliding past one another longitudinally.

This work shall consist of the installation of guardrails in accordance with these specifications and in close conformity with the lines and grades as established by the Town.

Where applicable, all materials and details shall meet or exceed Commonwealth of Massachusetts Department of Public Works, Standard Specifications for Highways and Bridges and construction and Traffic Standard Details, as most recently amended.

COMPENSATION: Steel Beam Highway Guard will be measured along the top of the rail element from the center to center of end posts of required guardrail.

### Details:

- Traffic Control: The contractor shall be responsible for maintenance of traffic and protection of the work site during his work.
- Amount of Work: Work will be scheduled and performed as needed to the limit of the available funds.
- Clean Up: The contractor shall remove all construction materials, excess excavation materials equipment and other debris remaining as a result of his construction operation and shall restore the site to a neat and orderly condition.

## Bituminous Concrete

### **MATERIALS**

Materials shall meet the requirements in the current subsections of *Standard Specifications for Highway Bridges*, Section M-3, Bituminous Materials and any related amendment. Award of bituminous concrete FOB will be made to pick up sites within a twenty-five mile or 25 minute drive of the respective Public Works facility.

**Bituminous concrete FOB unit cost shall be for year round mix; no increase for “winter mix” will be considered.** Temperature of bituminous concrete shall be 325-350 degrees Fahrenheit at the plant. Municipality reserves the right to inspect and refuse any loads due to graduation, consistency, weight, temperature or any other area it deems necessary to maintain the highest quality of material received.

### **MEASUREMENT AND PAYMENT**

Payment for Bituminous Concrete installed in place shall be made at the contract unit price per ton times the number of tons placed. Payment for bituminous concrete delivered to the plant in the case of bituminous concrete disposal, or picked up in case of bituminous concrete FOB shall be made at the contract unit price per ton times the number of tons delivered or picked up.

These prices per ton shall be full compensation for furnishing all materials, for delivering, storing, and placing these materials and for all labor, equipment, and tools incidentals necessary to complete the work as hereinbefore described.

**Appendix B**  
**2017 MVPC Road Services**  
**Estimated Quantities by Municipality**

| <b>Service</b>                        | <b>Municipality</b> | <b>Unit of Measure</b>  | <b>2017 FY Estimated Quantity</b> |
|---------------------------------------|---------------------|-------------------------|-----------------------------------|
| Catch Basin: Clam Shell Cleaning      | Amesbury            | # Of Basins             | 2,500                             |
| Catch Basin: Clam Shell Cleaning      | Boxford             | # Of Basins             | 875                               |
| Catch Basin: Clam Shell Cleaning      | Merrimac            | # Of Basins             | 630                               |
| Catch Basin: Clam Shell Cleaning      | Salisbury           | # Of Basins             | 650                               |
| Catch Basin: Clam Shell Cleaning      | West Newbury        | # Of Basins             | 400                               |
|                                       |                     | <b>Total Basins</b>     | <b>5,055</b>                      |
|                                       |                     |                         |                                   |
| Catch Basin: Vacuum Truck Cleaning    | Newburyport         | # Of Basins             | 400                               |
|                                       |                     | <b>Total Basins</b>     | <b>400</b>                        |
|                                       |                     |                         |                                   |
| Street Sweeping                       | Boxford             | Curb Miles              | 200                               |
| Street Sweeping                       | Newburyport         | Curb Miles              | 250                               |
| Street Sweeping                       | Salisbury           | Curb Miles              | 80                                |
| Street Sweeping                       | West Newbury        | Curb Miles              | 20                                |
|                                       |                     | <b>Total Curb Miles</b> | <b>550</b>                        |
|                                       |                     |                         |                                   |
| Random Crack Sealing – Process A      | Amesbury            | Linear Feet             | 20,000                            |
| Random Crack Sealing – Process A      | Newburyport         | Linear Feet             | 40,000                            |
| Random Crack Sealing – Process B      | Boxford             | Day Rate                | 5 Days                            |
| Random Crack Sealing – Process B      | Merrimac            | Day Rate                | 5 Days                            |
| Random Crack Sealing – Process B      | Salisbury           | Linear Feet             | 10,000                            |
| Random Crack Sealing – Process B      | West Newbury        | Day Rate                | 10 Days                           |
|                                       |                     |                         |                                   |
|                                       |                     |                         |                                   |
| <b>Pavement Markings: Water Based</b> |                     |                         |                                   |
| 4" Double Yellow                      | Amesbury            | Linear Feet             | 40,000                            |
| 4" Single Line                        | Amesbury            | Linear Feet             | 80,000                            |
| 4" White Line                         | Lawrence            | Linear Feet             | 60,000                            |
| 4" Yellow Center Line                 | Lawrence            | Linear Feet             | 12,000                            |
| 4" Double Yellow                      | Merrimac            | Linear Feet             | 68,000                            |
| 4" White Fog                          | Merrimac            | Linear Feet             | 135,000                           |
| 12" Cross Walk & Stop Line            | Newburyport         | Linear Feet             | 25,000                            |
| 4" Double Yellow                      | Newburyport         | Linear Feet             | 23,000                            |
| 4" Single Line                        | Newburyport         | Linear Feet             | 7,500                             |
| 4" Double Yellow                      | Salisbury           | Linear Feet             | 100,000                           |
| 12" Cross Walk & Stop Line            | West Newbury        | Linear Feet             | 2,000                             |
| 4" Single Line                        | West Newbury        | Linear Feet             | 60,000                            |

**Appendix B**  
**2017 MVPC Road Services**  
**Estimated Quantities by Municipality**

| <b>Service</b>                                   | <b>Municipality</b> | <b>Unit of Measure</b> | <b>2017 FY Estimated Quantity</b> |
|--|---------------------|------------------------|-----------------------------------|
| <b>Pavement Markings: Chlorinated Rubber</b>     |                     |                        |                                   |
| 4" Double Yellow                                 | Boxford             | Linear Feet            | 550,000                           |
| 4" Single White                                  | Boxford             | Linear Feet            | 300,000                           |
| 4" Double Yellow                                 | Lawrence            | Linear Feet            | 300,000                           |
| <b>Pavement Markings: Epoxy / Thermoplastic</b>  |                     |                        |                                   |
| "Only" Signs                                     | Lawrence            | Linear Feet            | 50                                |
| 12" White Line                                   | Lawrence            | Linear Feet            | 16,000                            |
| 4" Double Yellow Line                            | Lawrence            | Linear Feet            | 3,000                             |
| 4" White Line                                    | Lawrence            | Linear Feet            | 3,500                             |
| Curved Arrows                                    | Lawrence            | Linear Feet            | 50                                |
| Double Arrows                                    | Lawrence            | Linear Feet            | 20                                |
| Straight Arrows                                  | Lawrence            | Linear Feet            | 30                                |
| 12" White Line                                   | Newburyport         | Linear Feet            | 8,000                             |
| 4" Double Yellow Line                            | Newburyport         | Linear Feet            | 15,000                            |
| 4" Single White Line                             | Newburyport         | Linear Feet            | 20,000                            |
| 12" Cross Walk & Stop Line                       | West Newbury        | Linear Feet            | 2,000                             |
| <b>Guard Rails</b>                               |                     |                        |                                   |
| Single Face Galvanized Guard Rail                | West Newbury        | Linear Feet            | 1,000                             |
| <b>Bituminous Concrete</b>                       |                     |                        |                                   |
| Type I Bituminous Concrete<br>(Pick up at plant) | Newburyport         | Ton                    | 2,000                             |



**Appendix C  
2017 MVPC Road Services  
Bid Pricing Sheet (1 of 2)**

| Service                          | Unit of Measure | 2017 FY Estimated Quantity | Unit Price / with Disposal | Total Cost / with Disposal | Unit Price / without Disposal | Total Cost / without Disposal |
|----------------------------------|-----------------|----------------------------|----------------------------|----------------------------|-------------------------------|-------------------------------|
| Catch Basin: Clam Shell Cleaning | # Of Basins     | 5,055                      |                            |                            |                               |                               |

|                                    |             |     |  |  |  |  |
|------------------------------------|-------------|-----|--|--|--|--|
| Catch Basin: Vacuum Truck Cleaning | # Of Basins | 400 |  |  |  |  |
|------------------------------------|-------------|-----|--|--|--|--|

|                 |            |     |  |  |  |  |
|-----------------|------------|-----|--|--|--|--|
| Street Sweeping | Curb Miles | 550 |  |  |  |  |
|-----------------|------------|-----|--|--|--|--|

| Service                          | Unit of Measure | 2017 FY Estimated Quantity | Unit Price | Total Cost |
|----------------------------------|-----------------|----------------------------|------------|------------|
| Random Crack Sealing – Process A | Linear Feet     | 60,000                     |            |            |
| Random Crack Sealing – Process B | Linear Feet     | 10,000                     |            |            |
| Random Crack Sealing – Process B | Day Rate        | 20                         |            |            |

| Pavement Markings: Water Based | Unit of Measure | 2017 FY Estimated Quantity | Unit Price | Total Cost |
|--------------------------------|-----------------|----------------------------|------------|------------|
| 4” White Fog Line              | Linear Feet     | 135,000                    |            |            |
| 4” Double Yellow               | Linear Feet     | 231,000                    |            |            |
| 4” Single Line                 | Linear Feet     | 147,500                    |            |            |
| 12” Cross Walk & Stop Line     | Linear Feet     | 27,000                     |            |            |
| 4” White Line                  | Linear Feet     | 60,000                     |            |            |
| 4” Yellow Center Line          | Linear Feet     | 12,000                     |            |            |

| Pavement Markings: Chlorinated Rubber | Unit of Measure | 2017 FY Estimated Quantity | Unit Price | Total Cost |
|---------------------------------------|-----------------|----------------------------|------------|------------|
| 4” Double Yellow Line                 | Linear Feet     | 850,000                    |            |            |
| 4” Single White                       | Linear Feet     | 300,000                    |            |            |

**Appendix C  
2017 MVPC Road Services  
Bid Pricing Sheet (2 of 2)**

| <b>Pavement Markings:<br/>Epoxy / Thermoplastic</b> | <b>Unit of<br/>Measure</b> | <b>2017 FY<br/>Estimated<br/>Quantity</b> | <b>Epoxy<br/>Unit Price</b> | <b>Epoxy<br/>Total Cost</b> | <b>Thermoplastic<br/>Unit Price</b> | <b>Thermoplastic<br/>Total Cost</b> |
|---|----------------------------|---|-----------------------------|-----------------------------|-------------------------------------|-------------------------------------|
| 4" Double Yellow Line                               | Linear Feet                | 18,000                                    |                             |                             |                                     |                                     |
| 12" White Line                                      | Linear Feet                | 24,000                                    |                             |                             |                                     |                                     |
| 4" Single White Line                                | Linear Feet                | 20,000                                    |                             |                             |                                     |                                     |
| 4" White Line                                       | Linear Feet                | 3,500                                     |                             |                             |                                     |                                     |
| 12" Cross Walk & Stop Line                          | Linear Feet                | 2,000                                     |                             |                             |                                     |                                     |
| Straight Arrows                                     | Linear Feet                | 30  |                             |                             |                                     |                                     |
| Double Arrows                                       | Linear Feet                | 20  |                             |                             |                                     |                                     |
| Curved Arrows                                       | Linear Feet                | 50  |                             |                             |                                     |                                     |
| "Only" Signs  | Linear Feet                | 50  |                             |                             |                                     |                                     |

| <b>Guardrails</b>                 | <b>Unit of<br/>Measure</b> | <b>2017 FY<br/>Estimated<br/>Quantity</b> | <b>Unit Price</b> | <b>Total Cost</b> |
|-----------------------------------|----------------------------|---|-------------------|-------------------|
| Single Face Galvanized Guard Rail | Linear Feet                | 1,000                                     |                   |                   |

| <b>Bituminous Concrete</b>                      | <b>Unit of<br/>Measure</b> | <b>2017 FY<br/>Estimated<br/>Quantity</b> | <b>Unit Price</b> | <b>Total Price</b> |
|---|----------------------------|---|-------------------|--------------------|
| Type I Bituminous Concrete (picked up at plant) | Ton                        | 2,000                                     |                   |                    |

**This IFB includes addenda numbered \_\_\_\_\_**

**Bidder** \_\_\_\_\_

**Address** \_\_\_\_\_  
\_\_\_\_\_

**Signature of Company Official** \_\_\_\_\_

**Printed Name of Company Official** \_\_\_\_\_

**Title of Company Official** \_\_\_\_\_  
**Phone number** \_\_\_\_\_

**E-Mail** \_\_\_\_\_

**Date** \_\_\_\_\_

**Appendix D**  
**2017 MVPC Road Services**  
**Non-Collusion Form & Tax Compliance Form**

**I. 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 or individuals.

\_\_\_\_\_  
Signature of individual submitting bid or proposal

\_\_\_\_\_  
Name of Business

**II. TAX COMPLIANCE CERTIFICATION**

Pursuant to M.G.L. Chapter 62C, Sec. 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.

\_\_\_\_\_  
Signature of individual submitting bid or proposal

\_\_\_\_\_  
Name of Business

**Appendix E**  
**2017 MVPC Road Services**  
**References**

Provide the names of three (3) municipalities that your have provided Road Services in the last three (3) years.

| <b>Company</b> | <b>Contact</b> | <b>Address</b> | <b>Phone Number</b> |
|----------------|----------------|----------------|---------------------|
|                |                |                |                     |
|                |                |                |                     |
|                |                |                |                     |
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|                |                |                |                     |

**Appendix F**  
**2017 MVPC Road Services**  
**Massachusetts Prevailing Wages**

The wage schedules for this IFB are attached.