

TOWN OF GRAFTON

Department of Public Works



INVITATION FOR BIDS

CHIP SEALING SERVICES

TOWN OF GRAFTON, MA

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The Town of Grafton acting through its Board of Selectmen is seeking sealed bids from a qualified firm to furnish Chip Sealing Services. Bids submitted in a sealed envelope marked "**CHIP SEALING SERVICES**" will be received in the Public Works Office, 30 Providence Road, Grafton, MA 01519 until 9:00 AM on Tuesday, June 21, 2016, when all bids received will be opened and read aloud.

Specifications are available in the Department of Public Works Office during normal business hours.

Bids shall be accompanied by a bid security in acceptable form as outlined in the specifications in the amount of five percent (5%) of the bid.

A labor and materials payment bond in the amount of one hundred percent (100%) of the contract amount will be required.

Wage rates as determined by the Commissioner of Labor and Industries under M.G.L. Chapter 149, Sections 26 to 27D shall prevail on this project.

The Board of Selectmen reserves the Right to reject any and all bids in whole or in part and to accept the bid it deems to be in the best interest of the Town pursuant to M.G.L. c. 30B.

Timothy McInerney
Town Administrator

Publish in the Grafton News

Publish in the Central Register

CHIP SEAL SPECIFICATIONS

1. DEFINITIONS

The term Superintendent shall mean the Superintendent of Streets of the awarding authority.

The term Designee shall mean an employee of the awarding authority, designated by the Superintendent.

The term Contractor shall mean a professional company contracted by the awarding authority to perform work under this agreement.

2. DESCRIPTION

Work under this contract shall consist of the Contractor furnishing and applying liquid asphalt and stone on properly prepared bituminous streets. Bid quantities are approximate only; payment shall be for actual quantities applied to streets. Streets to be stone sealed shall be selected by the Superintendent or his/her Designee.

3. MATERIALS

a. Liquid Asphalt

Liquid asphalt grades shall be: CRS-2 (3% Latex), CMS-2 (3% Latex), RS-2 (3% Latex), HFMS-2 (3% Latex), or MC-3000 conforming to AASHTO specifications M208, M140 or M82.

b. Latex Additive

The latex additive shall be Ultrapave 70 (Anionic) or Ultrapave 1156 (Cationic) or equivalent conforming to the following specifications. It is required that the latex be co-milled at the bulk emulsion facility, to ensure complete and balanced blending. The emulsion manufacturing plant must be open to inspection by the awarding authority.

	<u>Anionic</u>	<u>Cationic</u>
Monomer Ratio (Butadiene/Styrene)	(76+/-2/24 +/-2)	(76 +/-2/24 +/-2)
Solids, min %	67	59
Solids, min lbs. /gal.	5.2	4.8
Coagulum (80 mesh screen) max	0.1 %	0.1 %
pH of Latex	9.5 – 10.5	4.0 – 5.5
Brookfield Visc	800 -2000	5000 max

(Model RVT, #3 spindle @20RPM)		
Mechanical Stability	Excellent	Excellent

a. Stone

Stone shall be crushed quarry stone, free from dust, soft stone or other contaminants, with a minimum of 70% of the stones have a fractured face. All stone shall satisfy a 35% maximum for the L.A. Abrasion Test; and a 35% maximum for the Flakiness Index Test.

REQUIRED STONE GRADATION
9.5 mm, (3/8"), STONE

<u>SIEVE SIZE</u>	<u>% PASSING</u>
12.5 mm, (1/2")	100
9.5 mm, (3/8")	85 – 100
6.3 mm, (1/4")	10 – 60
4.75 mm, (#4)	0 – 25
2.36 mm, (#8)	0 – 5

Maximum passing 0.075mm, (#200), sieve shall not exceed 2.0%, wet washed, for all sized aggregates used in surface treatments.

1. MATERIAL QUANTITIES

The quantity of asphalt material to be used shall be in the range of 1.6 to 2.3 liters per square meter, (0.35 to 0.50 gallons per square yard), or the quantity of MC-3000 to be used shall be in the range of 1.1 to 1.6 liters per square meter, (0.25 to 0.35 gallons per square yard). Cover aggregate shall be spread in the range of 10.9 to 16.3 kilograms per square meter, (20 to 30 pounds per square yard). The Contractor will use lab tests to design specific material quantities to meet existing field conditions. Variations in material quantities will be made without adjustment to contract unit price. The Contractor must maintain a laboratory open to the inspection of the awarding agency.

2. EQUIPMENT

The equipment used by the Contractor shall include, but not be limited to, one or more of the following:

a. Asphalt Distributor

The asphalt distributor shall contain suitable mechanical circulating and heating mechanisms to provide a uniform approved temperature of the entire mass of material. The distributor shall be equipped with a radar type sensor used to measure ground speed, and feed a Digital Volumetric Accumulator capable of measuring liters applied and distance traveled. It shall be capable of applying asphalt material in accurately measured

quantities at any rate between 0.5 to 9.1 liters per square meter, (0.1 to 2.0 gallons per square yard), of roadway surface, at any length of spray bar up to 4.9 meters, (16 feet). The distributor shall be capable of maintaining a uniform rate of distribution of asphalt material regardless of change in grade, width or direction of the road. It shall be equipped with an electronic control for setting asphalt pump discharge rate and on/off switching of spray for nozzles in 0.30 meter, (one foot), increments which shall be located in the truck cab. The spray nozzles and pressure system shall provide a sufficient and uniform fan-shaped spray of asphalt material throughout the entire length of the spray bar at all times while operating. The spray shall completely cover the roadway surface receiving the treatment.

b. Aggregate Spreader

The Aggregate spreader shall be hydrostatically driven and self-propelled. It may be equipped with a hydraulically controlled variable adjustable head that is capable of spreading stone in widths from 1.4 to 5.4 meters, (4.5 to 18 feet). The spreader shall be mounted on pneumatic tires, and shall apply the stone on the road surface in a manner that ensures that the tires do not contact the road surface until after the stone has been applied. The unit shall be equipped with an electronic radar type sensor used to measure ground speed and will automatically adjust the stone application rate depending on width of application and the speed of chip spreader. It shall have the ability to apply stone on any grade from 0 – 6%. The spreader shall be equipped with an integral hopper with a minimum capacity of 4.5 metric tons, (5 tons), of stone which shall be filled by trucks in a manner which ensures that the truck tires never come in contact with the asphalt-treated road surfaces until the stone has been properly applied. To maintain constant stone application, a self-locking truck hitch will permit towing of aggregate trucks without stopping the chip spreader. It will be capable of maintaining positive engagement over irregular terrain.

c. Rollers

At least one rubber tired and one steel wheeled roller shall be used on each treated surface immediately after the stone has been applied. Each roller shall have a compacting width of not less than 1.5 meters, (5 feet). Each roller shall have a gross weight of not less than 7.2 metric tons, (8 tons), and contact pressure adjustable from 1400 to 2000 kPa, (200 to 300psi).

d. Trucks

Rear discharge conveyor-fed trucks in sufficient number and size must be used to deliver stone to the spreader.

3. CONSTRUCTION METHODS

a. Streets to be Treated

The Superintendent shall determine the streets which shall receive stone seal treatment. Measurements of streets to be treated shall be made by the Contractor and the Superintendent of his/her Designee, and the Contractor shall prepare a cost estimate for each street prior to beginning work.

b. Surface Preparation

Surface preparation, which may include pothole patching, truing and leveling, adjusting of street irons (valve covers, manhole covers, drop inlet gratings), etc., will be the responsibility of the awarding authority and will be completed before the contractor moves onto the job.

Immediately prior to the application of asphalt materials, Highway Department personnel shall remove small branches and other debris, and uses a mechanical street sweeper to clean any loose material from the pavement surface.

The Contractor shall protect manhole covers, drop inlets, catch basins, curbs, and any other structures within the shoulder and street areas against the application of the surface treatment materials.

c. Weather Limitations

Work will not be done unless the road surface is dry. No work shall be done during rain or foggy periods. No work shall be done if the ambient temperature is below 10 degrees C, (50 degrees F).

d. Spreading Asphalt and Stone

Prior to application of asphalt material on any street, sufficient quantities of materials to cover the entire street at the specified rates shall be on the site and ready for application. The awarding authority shall be responsible for providing the Contractor with an aggregate storage area near the job site. The asphalt material shall not be applied more than 90 meters, (300 feet), in advance of the self-propelled aggregate spreader. **AT NO TIME SHALL ANY ASPHALT MATERIAL BE ON ANY ROAD SURFACE FOR MORE THAN FIFTEEN MINUTES BEFORE IT IS COVERED WITH STONE.**

e. Rolling

Initial rolling shall be done immediately following the application of treated stone. Rollers shall be operated at a speed that will not displace aggregate.

f. Traffic Control

Traffic control is the sole responsibility of the awarding authority. Unless otherwise specified, the roadway shall be kept open to traffic at all times, with traffic discontinued on the lane being surface treated. Controlled traffic may be permitted as soon as the final layer is applied and rolled. A recommended

maximum speed of 30 km/h, (20 mph), should be maintained for a period of two (2) hours.

g. Surplus Aggregate

Surplus aggregate shall be swept off of the road surfaces by the Highway Department, and shall be the property of the awarding authority. Sweeping will be done after stone seal has properly cured, and care will be taken not to dislodge imbedded aggregate or damage the surface.

4. PERFORMANCE

The awarding authority will not award this contract unless the Contractor furnished satisfactory evidence of his/her ability and experience to perform this work, and that he/she has sufficient capital and equipment to enable him/her to prosecute the work successfully and to complete it within the time named in the contract. The Contractor shall not sublet any portion of this contract, and will own all equipment used to complete such contract. As part of the bid, the Contractor must submit a list of six similar and successfully completed jobs, whose relevance to the proposed job shall be deemed by the awarding authority. The name, address, and telephone number of a contact person involved with each of these projects must be included so they can be investigated prior to the award of the contract. It will be the responsibility of each bidder to visit the job site with the Highway Superintendent.

5. METHOD OF PAYMENT

Payment for work under this agreement shall be made at the contract unit price per square yard times the number of square yards, measured by the Contractor and the Superintendent or his/her designee, of road surface treated. Price per square yard shall be for complete in place quantities. Upon completion of work, and acceptance by the Superintendent, the Contractor shall submit a payment request to the Superintendent. Payment shall be net thirty (30) days.

6. GUARANTEE

Any material or workmanship found to be defective for up to one (1) year from the date of acceptance by the Superintendent shall be replaced by the Contractor at no cost to the awarding authority. Upon notification of defective material or workmanship, the Contractor shall immediately replace such defective areas.

Right to Reject Bids

The Awarding Authority reserves the right to waive any information, to reject any or all bids and to accept that bid which is in the best interest of the Town of Grafton.

Method of Award

- A. The award of the contract will be made within forty-five (45) days, Saturdays, Sundays and Legal Holidays excluded, after the opening of the bids. The contractor will be sent a written notification of the award
- B. The award of the contract will be made to the contractor who submits the lowest responsible and eligible bid.
- C. If the contractor selected fails to execute a contract in accordance with the items of the bid, an award may be made to the contractor who submits the next lowest responsible and eligible bid.

Execution of Contracts

The prepared contract forms and bond forms will be sent to the contractor, who shall execute and deliver the contract and furnish the required surety and insurance to the Town Administrator within ten (10) business days after presentation thereof in accordance with the bid; and shall furnish the executed contract, a payment bond which shall be in the sum of 100% of the contract price the premium of which is to be paid by the contractor and is included in the contract price. The surety company must be qualified to do business under the laws of the Commonwealth of Massachusetts and must be satisfactory to the Town. Attorneys-in-fact who sign bonds must file with the bond a certified and effectively dated copy of the Power of Attorney.

Labor:

Regular work shall be done during normal working hours as defined in the Bid Package Specification. The contractor shall be aware of the prevailing wage rates and health and welfare contributions as set forth by the Massachusetts Prevailing Wage rates as determined by the commissioner of Labor and Industries under the provisions of M.G.L. chapter 149, sections 26 through 27D shall prevail on this project and of all applicable safety laws of the Commonwealth and the Federal Occupational Safety and Health Act.

Insurance:

The contractor shall carry and maintain until acceptance of work such Worker's Compensation, Public Liability, Contingent Public Liability, Property Damage and Contingent Property Damage Insurance, as shall protect him and any sub-contractor performing work covered by this Contract from all claims and liability for damages for personal injury, including accidental death, and for property damage which may arise from operation under this Contract, whether such operations be by himself or by any sub-contractor or by anyone directly or indirectly employed by either of them. The amounts of such insurance shall be as follows:

The contractor shall provide automobile liability insurance for hired and non-owned automobiles with the following limits:

Bodily Injury	\$1,000,000 (Combined Single Limit)
Property	\$1,000,000

All insurance coverage shall remain in effect throughout the term of this contract.

Certificate in duplicate of insurance coverage as detailed above, with policy numbers and dates of expiration, must be submitted with the signed Contract. Evidence of insurance certificates shall name Town as an additional insured and the premium is part of bid price.

Withholding of Payments:

The Town may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any payment to such extent as may be necessary in its opinion to protect the Town from loss on account of:

- A. Defective work not remedied;
- B. Claims filed or reasonable evidence indicating probable filing of claims;
- C. Failure of the Contractor to make payments properly to sub-contractors or for material or labor;
- D. A reasonable doubt that the Contract can be completed for the balance then unpaid; and
- E. Damage to another Contractor.

Withholding of payments shall be in strict compliance with statutory Requirements.

Sales Tax Exemption:

The Town of Grafton is exempt from the State Sales Tax under the Sales Act, Chapter 14 of the Acts of 1966 and all amendments thereto. Grafton's Tax Exempt No. is 046-001-159. All purchases of supplies and materials in relation to this work are therefore exempt. This should be considered when pricing this project.

Certifications

All Bidders are required to submit the following:

- Certificate of Non-Collusion – ATTACHMENT A
- Certificate of Tax Compliance – ATTACHMENT B

CERTIFICATION OF GOOD FAITH

The undersigned certifies under pains and penalties of perjury that this contract has been obtained 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.

The Contractor by:

 Print Name

 Title/Authority

CERTIFICATE OF STATE TAX COMPLIANCE

Pursuant to Massachusetts General Laws, Chapter 62C, Section 49A

_____, authorized signatory for
name of signatory

_____, whose
name of contractor

principal place of business is at _____,

_____ does hereby certify under the pains and penalties of perjury that
_____ has paid all
name of contractor

Massachusetts taxes and has complied with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

Signature

Date

BID FORM

**MODIFIED ASPHALT CHIP SEAL WITH RUBBER POLYMER
IN-PLACE**

The bidder proposes to:

A. Supply Rubber Modified Asphalt Emulsion, 3/8" (ASTM #8) Trap Rock Chip Stone, Asphalt Distributors, Stone Chipspreader, Pneumatic Tired Roller, experienced Placement Crew, and Haul Trucks, as required by the Bid Specifications.

B. Truck the materials to the various Town road locations and place as directed by the Town and the Bid Specifications.

C. Accomplish the work according to the following unit price:

Rubber Modified Asphalt Emulsion Chipseal, In-Place (approx. 50,000 sq. yds.)

Price per Square Yard \$ _____

Total Extended Bid Price, in figures _____

Total Extended Bid Price, in words _____

DEPARTMENT OF PUBLIC WORKS
TOWN OF GRAFTON
SPECIFICATIONS AND SUMMARY OF WORK FOR
CHIP SEALING SERVICES
CERTIFICATE OF NON-COLLUSION

The undersigned certifies under the 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.

Company: _____ Telephone: _____

Address: _____

Signed: _____ Date: _____

Title: _____