

SCOPE OF WORK

INTENT

The intent of this invitation to bid is to establish an annual requirements contract for the purchase of hot mix asphalt concrete for use by the Streets Division of the Public Works Department. The City will take delivery of materials at the awarded vendor's plant site in city-owned trucks. At the City's discretion, this contract can be awarded to one vendor or multiple, whichever is most advantageous to the City. In all cases, the City reserves the right to purchase hot mix asphalt concrete from the plant closest to the job site.

1. PAVING MIXTURES:

a. <u>Mixture Design</u>: The Job Mix Formula shall be designed by the Contractor in accordance with the requirements of this Special Provision, TXDOT Bulletin C-14 and TXDOT Test Method Tex-204-F and tested in accordance with TXDOT Test Methods Tex-201-F and Tex-202-F, with the exception that the laboratory density will be determined as a percentage of the mixture maximum theoretical density. The maximum theoretical specific gravity shall be determined in accordance with TXDOT Test Method Tex-227-F on trial samples of the mixture near optimum asphalt content and conform to the requirements herein.

The Contractor shall submit the Job or Plant Mix Formula for review on forms acceptable to the City for each source of supply and type of mixtures specified. Total sand content shall not exceed 18% for Type "D" mix. The bulk specific gravity will be determined for each aggregate to be used in the design mixture. The mixture shall be designed to produce a mixture within the density and stability requirements shown below. In addition, washed gradations of the aggregate in the job mix formula shall be plotted on the 0.45 power chart for comparison with the maximum density line.

b. <u>Stability and Density</u>: The mixture shall be designed to produce an acceptable mixture within tolerance, at or near optimum density. The mixture molded in the laboratory in accordance with TXDOT Test Method Tex-206-F and the bulk specific gravity of the laboratory compacted mixture determined in accordance with TXDOT Test Method Tex-207-F should have the following percent of maximum theoretical density as measured by TXDOT Test Method Tex-227-F and stability conforming to TXDOT Test Method Tex-208-F:

Optimum Density Range	<u>Stability, Percent</u>
95 to 97 Percent	Not Less than 42

2. <u>Types</u>: The paving mixtures shall consist of a uniform mixture of coarse aggregate, fine aggregate, and asphaltic material. Mineral filler may also be required.



When properly proportioned, the mineral aggregate shall produce a gradation which will conform to the limitations for master grading given for the type specified unless otherwise shown on plans. The gradation will be determined in accordance with TXDOT Test Method Tex-200-F (Dry Sieve Analysis) and shall be based on aggregate only. The amount of asphaltic material shall conform to the limitations shown for the paving type specified in the following tables.

a. <u>Type "B" (Fine Grade Binder or Leveling-up Course):</u>

	Percent Aggregate by Weight or Volume	Tolerance
Passing 1" sieve	100	- 2%
Passing 7/8" sieve	95 to 100	± 5%
Passing 5/8" sieve	75 to 95	± 5%
Passing 3/8" sieve	60 to 80	± 5%
Passing No. 4 sieve	40 to 60	± 5%
Passing No. 10 sieve	27 to 40	± 5%
Passing No. 40 sieve	10 to 25	± 3%
Passing No. 80 sieve	3 to 13	± 3%
Passing No. 200 sieve	1 to 6	± 3%

The asphaltic material shall form from 3.5 to 7 percent by weight or volume of the mixture (tolerances are $\pm 0.5\%$ by weight or $\pm 1.2\%$ by volume), unless specified otherwise on the plans. (Rev. 5/13)

b. <u>Type "D" (Fine Grade Surface Course):</u>

	Percent Aggregate by Weight or Volume	Tolerance
Passing 1/2" sieve	100	- 2%
Passing 3/8" sieve	85 to 100	± 5%
Passing No. 4 sieve	50 to 70	± 5%
Passing No. 10 sieve	32 to 42	± 5%
Passing No. 40 sieve	11 to 26	± 3%
Passing No. 80 sieve	4 to 14	± 3%
Passing No. 200 sieve	1 to 6	± 3%

The asphaltic material shall form from 4 to 8 percent by weight or volume of the mixture (tolerances are $\pm 0.5\%$ by weight or $\pm 1.2\%$ by volume). (Rev. 5/13)



- 3. <u>Sampling and Testing for Field Control</u>: Extraction tests for bitumen content and aggregate gradation shall be made as requested by the Public Works and Transportation Field Operations
- 4. Managers. Extraction tests shall conform to TXDOT Test Method Tex-210-F. Tests for stability of the asphalt mixture shall conform to TXDOT Test Method Tex-208-F. The mixture shall not vary from the grading proportions of the aggregate and the asphalt content by more than the respective tolerances and shall be within the limits specified for master grading. The City will pay for material testing when a test is required by the Field Operations Managers. If the tests fail the contractor is responsible for the next round of tests until mix design meets requirements.
- 5. <u>Tolerances in Relation to Approved Design</u>: The aggregate portion of the paving mixture produced shall not vary from the design gradation by more than the tolerances shown in the above tables. The material passing the No. 200 sieve is further restricted to conform to the limitations for the master grading for the type specified. The asphaltic material portion of the paving mixture shall not vary from the design amount by more than the allowed tolerance and is also restricted to conform to the master limits. The method of test for determining the aggregate gradation and asphalt content of the mixture shall be TXDOT Test Method Tex-210-F or other methods of proven accuracy.
- <u>Recycled Asphalt Pavement (RAP)</u>: All RAP Material must meet TxDOT item number 340. Do not exceed 15% RAP by weight in Type "B" mixtures; or 5% RAP by weight in Type "D" mixtures. (Rev. 5/13)

PLANT INSPECTION

The City reserves the right to inspect bidder's facilities, prior to award of the contract, and anytime during contract term, to ensure that the plant capacity is adequate to satisfy the contract and the city trucks can be loaded with asphalt at the same time other customer's trucks can be receiving asphalt from the operation.

PICK UP

Public Works Field Operations trucks will take delivery of materials at the awarded vendor's plant site in city-owned trucks. A certified delivery/weigh ticket must be provided for each individual load. In order to maintain the city schedule, city trucks may not be delayed in waiting for delivery of materials at the contractor's plant for more than 15 minutes.



ORDERING

Prior to the beginning of each month, the Street Division will initiate orders by issuing a Purchase order (PO). No product is to be issued without purchase order authorization. PO's will be issued telephonically. A signed delivery/weigh ticket shall be issued for each load of asphalt delivered or picked up.

PRICING AND ADJUSTMENTS

Pricing must remain firm for ninety (90) day increments. This contract provides for a price increase every ninety (90) days, if needed, based upon price changes the bidder receives on liquid asphalt from the supplier. All bidders desiring consideration of a price increase must supply documentation in the form of current liquid asphalt invoice copies from bidder's supplier, showing the average cost per ton for the previous ninety (90) day period. All other factors that affect the price of hot mix asphaltic concrete should be incorporated into the bid price.

PAYMENT

Payment will be processed upon receipt of the monthly invoice and itemized list of tickets. Invoices must reference the current Purchase Order (PO) number. Payment will be made for material received, by the ton, at the current approved pricing. Payment will be delayed if the prices listed on the invoice do not comply with the approved pricing as outlined in the contract. No payment will be made without a certified weigh ticket.

CONTRACTOR RESPONSIBILITIES

Supervision – The Contractor shall, during all periods of contract performance, provide competent supervision of his employees to assure complete and satisfactory fulfillment of the work and the terms of this contract. The Contractor or a capable, fully authorized representative must be immediately available during all work activities to receive any and all special instructions from the Facilities Manager or designee.

Safety – The Contractor must be thoroughly familiar with all prevailing safety measures pertinent to its operation. This shall include, but not necessarily be limited to Environmental Health Agency (EPA) regulations, Arlington City Ordinances, and Occupational Safety and Health Agency (OSHA) regulations. In addition, the Contractor shall be wholly responsible for instructing its employees in these safety measures and seeing that they are fully complied with in every respect.

Hazards – The Contractor shall at no time permit placing or use of equipment in such manner as to block traffic lanes or to create safety hazards. Contractor personnel shall provide appropriate warning devices when necessary and cooperate in the fullest in allowing through passage of other vehicles and personnel, even to the point of interrupting their own work, if necessary.

Defective Work and Damages – The Contractor shall be wholly responsible for and shall promptly correct or restore all defective work or damages to any/all City facilities caused by its activities. Restoration and



correction shall be to the complete satisfaction of the City. This shall apply to any part of a building, its appurtenances, the adjacent grounds, or any other tangible damage incurred in the performance of the Contract. Failure by the Contractor to proceed promptly with corrective actions may be cause for cancellation of this contract with amount(s) necessary to correct defective work and/or damage being withheld from payments due or to become due to the Contractor.