



## SCOPE OF WORK

### Annual Requirements Contract for Concrete Materials

#### 1.0 INTENT

The intent and purpose of this invitation to bid is to establish an annual requirements contract for concrete materials. The product will be purchased on an as-needed - basis and the awarded vendor(s) agrees to provide product in any quantity per order. The City reserves the right to request samples of products being bid prior to award of the bid.

The City reserves the right to make a bid award to either one vendor or to multiple vendors, whichever is in the best interest of the City. If the award is made to multiple vendors, it will be either as one vendor being the primary vendor and the other vendor the secondary vendor, or both vendors awarded jointly.

#### 2.0 SCOPE

The successful bidder(s), shall provide all necessary road and highway building materials (Non-Asphaltic) on an as-needed basis for the City of Arlington, for an annual requirements contract and subsequent renewal periods in strict accordance with the terms, conditions, and provisions of this solicitation

The unit prices shall include costs for all miscellaneous jobs and deliveries not specifically mentioned that are deemed essential to perform the services outlined in the solicitation. Unit prices shall include all associated costs, not limited to material, equipment, labor, and fuel. No additional charges will be accepted or paid by the City.

#### 3.0 SPECIFICATIONS FOR ROAD AND HIGHWAY BUILDING MATERIALS

1. **Ready Mix Concrete:** Concrete used for the Agreement shall be generated from a kiln that utilizes the dry manufacturing process defined as Green Cement. Contractors are required to complete certification.
  - a. Design Mix: Contractor shall provide Design n Mix number per Ready Mix Sack as Indicated in Bid Solicitation Document.
  - b. Materials passing the No. 4 sieve shall be known as "Binder". The portion of materials passing the No. 40 sieve shall be known as "Soil Binder" and shall meet the following requirements:
    - i. The liquid limit shall not exceed forty (40) when tested in accordance with the American Society for Testing and Materials (ASTM), Designation D-423.
    - ii. The plastic limit shall be determined by testing in accordance with ASTM, D-424.
    - iii. The plasticity Index shall not exceed twelve (12) or be less than four (4) when calculated in accordance with ASTM, Designation D-424.

- iv. The preparation of samples for testing according to ASTM, Designation D-423, and 0-424 shall be in accordance with requirements of ASTM, Designation D-2217.
  - v. Materials retained on the No.4 sieve shall have a wear of not more than forty-five (45) percent when tested according to ASTM, Designation C- 131.
- c. Should the Contractor elect to produce the material from local pits, the material shall be secured from sources approved by the department. Each pit utilized shall be opened to immediately expose the vertical faces of all the various strata If acceptable materials, and unless otherwise directed, the material shall be secured in successive vertical cuts extending through all the exposed strata, in order that a uniform mixed material will be secured.
  - d. Concrete materials including crushed and uncrushed gravel are unacceptable and shall be cause for rejection of material.

#### **4.0 PORTLAND CEMENT CONCRETE:**

- a. All materials used and for the storage, handling, measuring, proportioning, and mixing or combining such materials in producing concrete for structures and incidental or miscellaneous construction.
- b. Concrete shall be composed of normal Portland cement or high early strength cement, coarse aggregate, fine aggregate and water proportioned and mixed as hereinafter provided In these specifications.
- c. Portland Cement shall meet the requirements of ASTM C150, Type 1 for Normal Portland Cement, and Type If meet the requirements of AASHTO M85-Type J specifications with a maximum of 596 1r/calcium aluminate for exposure to sewage.
- d. All cement shall be sampled and tested in accordance with ASJ"M, C183, C184, C187, C188, C190 and C191, Sampling and Testing Portland Cement.
- e. Lehigh ASTM Type 1-11, low alkali, Portland cement is both a general-purpose use and a moderate sulfate use hydraulic cement that shall be used for most construction projects. Type I-II cement shall be used where precaution against moderate sulfate attack Is Important. Type I-II cement Is formulated to use in grouts, mortars and concrete.
- f. Cement physical properties shall be of a fine light gray powder and have no artificial color added and shall have minimum Blaine fineness of 280 m<sup>2</sup>/kg.
- g. Low alkali, Portland cement Is designed to be mixed with water in a environment free form acids and high sulfates.
- h. Mortar cubes strength shall be according to ASTM C150 and MSHTO M85, for Type I-II Portland cement to obtain minimum compressive strengths as follows:
  - i. 3 days -1740 psi
  - ii. 7 days -2760 psi
- i. Set times shall be according to ASTM C150 and MSHTO M85, Type I-II Portland cement paste will retain initial set in a minimum of 45 minutes, and the final set in a maximum of 375 minutes when tested using the Vicat test method.



## 5.0 FLOWABLE FILL: CONTROLLED LOW STRENGTH MATERIAL (CLSM)

- a. Portland Cement Type II low alkali Portland cement as specified In City Engineering Specification
- b. Fly Ash: Class F, fly ash in accordance with ASTM C618.

## 5.1 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 Contract Administrator.

**Safety** - Industry approved safety standards and equipment shall be used at all times.

The Contractor must be thoroughly familiar with all prevailing safety measures pertinent to its operations. This shall include, but not necessarily be limited to Environmental Protection 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 contract.

