

**TECHNICAL SPECIFICATIONS  
FOR INTERCEPTOR AND SIPHON INSPECTION/CLEANING**

**A. GENERAL**

Contractor shall furnish all labor, materials, equipment, traffic control, transportation, and supervision necessary for siphon and interceptor inspection and cleaning work at various project sites in the District/Agency's service area. Work shall include, but not limited to: locating manholes with sewer maps; provision of traffic control, provision of truck and/or trailer; provision of debris pumps; placement and removal of sandbags; provision of cleaning equipment; provision of winches, provision of cables, provision of water, provisions of pumps and suction hosing, removal and disposal of grease, grit, and debris; provision of debris traps/forks, provision of air meters, provision of confined space entry, provision of traffic control including traffic control devices and flaggers, provision of siphon and interceptor sewer SONAR AND CCTV inspection including submittal of completed inspections in digital format; and provision of night work permits and encroachment permits where required. Some cities may require a traffic control plan that is prepared by a traffic control engineer. Contractor shall be paid for the actual work performed based on the Schedule of Quantities and Prices.

**B. COMMENCEMENT, EXECUTION, AND COMPLETION OF WORK**

1. Interceptors and Siphons ranging in size from 24 to 360 inches in diameter and up to 2000 feet in length between access structures. The interceptors and siphons shall be cleaned on a performance basis such that all loose material shall be removed from the pipe. Contractor shall remove material so as to return a pipe segment back to a minimum of 95% of its original carrying capacity (NASSCO Definition for Clean). Pipe material can be ductile iron, reinforced concrete, vitrified clay, steel, high density polyethylene, or a combination of the listed material.
2. Work Order Procedure
  - a. The Contractor shall respond in writing to the District/Agency Representative or Contracting Officer within twenty four (24) hours of receipt of a Work Order Package.
    - i. A Work Order Package will include detailed description of pipe diameter, material of pipe, location of work, and expected work duration.
  - b. The Contractor's written response shall include a detailed a schedule showing the start dates specified in the Work Order and the progress the Contractor will follow to complete each individual task location within the time limit specified in the Work Order.

- c. In addition to a submitted schedule, Contractor shall submit an extension of quantities per the unit prices established in the attached Schedule of Quantities so as to establish a Not To Exceed price for work to be completed as described by the Work Order Package.
  - d. The Contractor shall start work on the locations within seven (7) calendar days, once an acknowledgement by the Contractor of receipt of Work Order Package is executed.
  - e. The Contractor shall complete all such work on a Work Order Package without interruption or delay within the time limit as specified in the Work Order
3. Execution of the Work
- a. Contractor will need to inspect the condition of the interceptor and/or siphon prior to cleaning via a closed circuit TV system and Sonar inspection. Upon inspecting the condition of the interceptor/siphon, the Contractor shall submit to the District/Agency the pre-inspection video, PACP inspection reports, sonar video and sedimentation profiles along with the method and plan to clean the interceptor/siphon.
  - b. The District/Agency will review the inspection data along with the plan to determine if the method of cleaning is suitable for the interceptor and/or siphon. Once approved, the Contractor shall clean the interceptor/siphon following the submitted plan. In the event the District/Agency does not approve the plan, the Contractor can choose to re-submit a different plan or work with District/Agency staff to develop a plan to clean the interceptor and or siphon.
  - c. Once cleaned, the interceptor and/or siphon shall be re-examined with a closed circuit TV and Sonar inspection system and the resulting video shall be submitted to the District/Agency. The District/Agency will then compare the before and after videos to verify the siphon is free from debris. In the event the District/Agency is not satisfied based on the standards above, the Contractor shall re-submit another plan to re-clean the siphon to the District/Agency for approval. The process will then repeat as laid out above until the District/Agency is satisfied.
  - d. Contractor shall prosecute the work with sufficient forces, construction plant, and equipment and shall work such hours, including extra shifts, night work, and overtime operations as may be necessary to ensure completion of the work in accordance with the Release Schedule. The District/Agency will work with Contractor to develop a mutually agreeable schedule on a job-by-job basis. The District/Agency will give Contractor at least one (1) week notice regarding

anticipated work.

- e. Contractor shall be solely responsible for traffic control. Contractor shall submit a traffic control plan for each arterial and downtown street to the District/Agency for review and the local agencies having jurisdiction. As a minimum, placement of adequate pre-warning and detour signs to control vehicular and pedestrian traffic shall be required. The Traffic Control Plan shall conform to the "Work Area Traffic Control Handbook," the latest edition.
- f. Contractor shall conform to the District/Agency Safety Requirements for Sewer Construction Projects. On-site public safety measures are the responsibility of the Contractor. This includes all necessary safety permits. Contractor shall comply with all applicable OSHA requirements.
- g. Contractor shall obtain all necessary Encroachment Permits prior to sewer maintenance work. The District/Agency will reimburse Contractor only the permit fees as required to perform the work. Contractor's time to obtain all necessary permits shall be at the Contractor's expense. Contractor shall properly notify District/Agency and the States', City's and/or County's Public Works official in accordance with the requirements in the Encroachment Permits or a minimum of 24 hours from Monday through Friday (excluding holidays) prior to starting such work, unless performing an emergency repair as defined and agreed upon by the District/Agency. When night and early morning work is undertaken, Contractor shall first obtain all necessary permits from all entities having jurisdiction prior to starting such work. The Contractor shall also comply with all noise ordinance requirements.

#### 4. Equipment Requirements

- a. High-velocity, hydraulically-propelled (Hydro-Cleaning) equipment as specified in the latest edition of the American Public Works Association "Standard Specifications for Public Works Construction" ("Green Book"), shall be used on this Contract.
- b. The Contractor shall use a dual truck, high-velocity jetter accompanied by a debris collection system that is a closed-loop, non-odor emitting process. The dual truck system shall be designed so as to combine the power of both the upstream truck and downstream truck to a common jetter nozzle inside of the pipe. The system shall be capable of pulling the nozzle upstream at a minimum of 100 LF/Minute. The jetter shall be rated for a minimum volume of 350 gpm with a pressure of 2000 psi at the pump. The hose reel for jetting shall have a hose capable reaching a minimum of 2000 ft.
- c. The Contractor shall use a non-odor emitting closed-loop dewatering system to remove sand and grit from the sewer. The high-velocity jetter shall be inserted

into the sewer and used to move the slurry of debris and water to a downstream high-speed solid extraction submersible pump system. A submersible pump, capable of processing a minimum of 2500 gpm, shall be used to transfer the solids and water into a fully enclosed, sealed grit/water separator capable of simultaneously capturing grit and sand while decanting the water back into the sewer. The grit/water separator container must also be able to transport the solid waste safely without emitting odor.

- d. Cleaning equipment shall be capable of utilizing water from a public hydrant or grey water from the sewer system for jetting activity.
- e. Sewers shall remain in service during the cleaning process.
- f. The cleaning process shall not allow sediment or debris to escape downstream during the cleaning operation.

#### 5. Material Disposal

- a. Contractor shall remove the debris trapped in the sewer and dispose of only that debris at a designated Material Classification Area (“MCA”). Contractor will not be required to pay for the testing and or disposal cost of material extracted during the cleaning process.
  - b. If the District/Agency determines that the Contractor is to be responsible for material classification and disposal, then the Contractor will first furnish all testing per Title 22 standards (CAM 17, SVOC’s, VOC’s, TPH, PAH, Pesticides, PCB’s, and Asbestos), so as to determine the class of waste to be disposed of. After material has been adequately classified, then material is to be manifested to the appropriate landfill, and transported by the contractor for disposal. Cost of testing, classification, transportation and disposal of waste is to be negotiated and agreed to in writing prior to the beginning of work.
  - c. Contractor shall be responsible for keeping debris off the public and/or private streets and storm drains adjacent to the work area. Contractor shall clean-up any debris that spills onto public and/or private streets and storm drains adjacent to the work area. The public and/or private streets shall not be used to store materials or to park vehicles for extended periods of time as per City or County ordinances and permits.
6. Contractor shall restore the existing ground, landscaping, striping, message signs, etc. to its original or better condition as determined by the District/Agency or the local agencies having jurisdiction.
7. Contractor shall prevent contract operations from causing a stoppage or overflow. In the event of a stoppage or overflow the contractor shall immediately notify the

District/Agency's Collection System Operations. The Contractor shall remove the stoppage and contain and mitigate the overflow. Overflows shall be mitigated to District/Agency standards including property damage overflows that shall require cleaning and restoration to Institute of Inspection, Cleaning and Restoration (IICRC) standards. All costs for damages occasioned by the overflow are the responsibility of the contractor and the District/Agency must be notified immediately of any and all sewer overflow(s).

### **C. MEASUREMENT AND PAYMENT**

1. Contractor shall track daily job progress using a daily work log. This daily log will track all quantities of work performed to include but not limited to the following:
  - a. Date/Time
  - b. Weather
  - c. Job Progress
  - d. Labor
  - e. Equipment
  - f. Materials
  - g. Impacts
  - h. Meetings
  - i. Change Order Progress
2. Daily work logs will be used to justify quantity of work performed on a specific Work Order Package. On the 25<sup>th</sup> of each month, Contractor shall submit its billing only for actual work performed. Actual quantities of work performed will be extended using the unit rates established in the Schedule of Quantities (attachment 1). In addition to submitting a Schedule of Quantities of work performed, Contractor shall also provide all daily work tags associated with completed job progress for the specific month in the billing cycle.
3. Payments are due Net 30 days after approved invoice.

### **D. QUALIFICATION REQUIREMENTS**

1. Contractor shall submit an experience statement with the bid documents on the day of the bid. If an experience statement is not submitted with the Contractor's bid documents, then the Contractor's bid may be deemed non-responsive.
2. Experience Statement Requirements:
  - a. Contractor shall provide a minimum of 5 project references, completed within the last 10 years, with a minimum of 3 different clients.
  - b. Each project reference shall include the following information.
    - i. Agency/District Contact information
    - ii. Project Title
    - iii. Original Contract Value and Final Contract Value. Should a difference of

- more than 10% exist then a detailed explanation shall be included to explain the variance.
- iv. Project Start date, Project Completion Date, Original Contract Duration, Final Contract Duration. Should a difference exist between the Original and Final Contract Duration, then a detailed explanation shall be included to explain the variance.
  - v. Scope of work to and an explanation of how the scope of work relates to the relevant scope of work included in this contract.
  - vi. Challenges experienced in each contract, and explanation of how these challenges were addressed and ultimately overcome.

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