



ADDENDUM #3

4TH STREET SEWER REHABILITATION

BID #13/14-019 – PWP# WA-2014-165

BIDS DUE NO LATER THAN: 1:45 PM ON MAY 7, 2014

PUBLIC BID OPENING: 2:00 PM ON MAY 7, 2014

This addendum is to notify all potential proposers of clarifications made to the Bid documents as stated below.

REVISED Bid Date:

The revised bid date has now been established as May 7, 2014. Bids must be in the hands of the Contracts and Risk Manager at 431 Prater Way, Sparks, Nevada, NO LATER THAN **1:45 PM ON MAY 7, 2014**. Bids postmarked prior to, but not received until after this deadline will not be accepted. Bids will be opened and publicly read at **2:00 PM ON MAY 7, 2014, 2014**, at Sparks City Hall, 431 Prater Way Sparks, NV 89431. (**NOTE: TIME BIDS ARE DUE IS DIFFERENT FROM BID OPENING TIME**)

The anticipated date for award of the construction contract and the project schedule remain unchanged.

Addition Technical Specifications:

The following sections are hereby added to the technical specifications for this project:

Section 02951 TV Inspection of Sewer Pipelines

Section 02965 Sewer Line Cleaning

Copies of these sections may be found starting on the 3rd page of this addendum.

Clarifications to Technical Specification Section 02736:

a. at Part 1.2.B: strike-out the reference to “02961 – Cementitious Manhole Rehab

b. at Part 3.6.F.5, last paragraph: Replace the last paragraph of this Part with the following:
“A pre-liner will not be required for this installation.”

c. at Part 3.6.G: Add the following text as item 1 and re-number the existing items as 2 through 5, in existing numeric order, respectively.

New item 1. “Where indicated in the drawings, insert the new CIPP liner through the existing manholes and pipe segments, then cut openings through the CIPP liner to expose the invert. Seal the cut edges of the CIPP to the manhole base.”

d. at Part 3.6.H: first paragraph; strike out “...(Specification Section 02963) ...” and replace with “...(as shown in plan detail 6-/D-2)...”.

e. at Part 3.6.H, last paragraph: Replace the last paragraph of this Part with the following:

“Recorded CCTV inspection shall be done in each sewer lateral from the clean-out box using a “push camera” inserted to view the service lateral to the mainline sewer connection.”

- f. at Part 3.6.J, last sentence of this paragraph: Replace the last sentence with the following:
... “The video camera shall include tilt head technology and shall include full view of service laterals. Service laterals shall be visually inspected with a “push camera” inserted from the clean-out box and extended to the mainline.”

Earlier Cleaning of Sewer Main:

The sewer mains to be lined in this project were hydraulically cleaned within the last 12 months. The Contractor will be responsible to thoroughly clean the sewers for the work in this project.

Please note and adjust your bid according to the revisions, additions, deletions, clarifications or modifications as presented on this Addendum #3, which are made a part of this bid. NOTE: To avoid disqualification, this Addendum 3 (and any other addenda) must be signed by an authorized representative of the bidding firm in the space provided and must be submitted with your firm’s sealed proposal. Failure to return this addendum, duly signed, may be cause for rejection of the bid. ALL ADDENDA SHOULD BE SIGNED AND PLACED IN SEQUENTIAL ORDER AND ATTACHED TO THE FRONT OF THE BID PACKAGE, COMPLETE WITH ALL REQUIRED DOCUMENTS.

CONTRACTOR BUSINESS NAME

X _____
Authorized Signature

Printed Name of Person Signing

Dan Marran, C.P.M., CPPO
Contracts and Risk Manager

May 1, 2014

SECTION 02951
TV INSPECTION OF SEWER PIPELINES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Pipeline flushing and cleaning
 - 2. TV inspection of sewer pipelines
 - 3. Audio-video taping of pipeline interior

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02736 – Cured-In-Place Pipe
- B. Section 02965 – Sewer Line Cleaning

1.3 REFERENCES

- A. Electronics Industries Association (EIA).
- B. National Association of Sewer Service Companies (NASSCO).
- C. NASSCO's Pipeline Assessment and Certification Program (PACP).

1.4 SUBMITTALS

- A. In accordance with Standard Specifications for Public Works Construction (Orange Book).
- B. Submit completed DVD, identified by disc number, project name, street name, right-of-way property name, and manhole numbers.
- C. DVD becomes property of Owner

- D. Submit cleaning and television inspection logs for each section of sewer line to be rehabilitated and two (2) copies of color videotapes for work performed. Include the following minimum information: stationing and location of lateral services, wyes or tees, clock references, pipe joints, infiltration/inflow defects, cracks, leaks offset joints, and other information required to assess condition of sewer.
- E. Submit a specific, detailed description of proposed bypass pumping system to include written description of plan and addressing quantity, capacity, and location of pumping equipment. Submit spill plan to address any spills that might occur.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with local agency having jurisdiction
- B. All Closed Circuit TV (CCTV) inspections shall be performed in accordance with Pipeline Assessment and Certification Program (PACP) standards including the specific date and time of inspection.
- C. The television camera used for the inspection shall be one specifically designed and constructed for such inspection. Use cameras with video output capable of producing minimum of 600 lines of horizontal resolution at center; optimum imagery with minimum illumination (suitable to allow a clear pictures of the entire periphery of the pipe); and meet requirements of EIA Stand Video Signal.

1.6 QUALIFICATIONS

- A. All CCTV Inspection be performed by CCTV personnel who are trained and certified in the use of NASSCO's Pipeline Assessment and Certification Program(PACP)
- B. Applicator: Company specializing in performing work of this section with minimum three years documented experience.

PART 2 PRODUCTS

2.1 DVD

- A. Audio track containing simultaneously recorded narrative commentary and evaluations of operator describing in detail condition of pipeline interior.

PART 3 EXECUTION

3.1 PREPARATION

- A. Flush and clean pipeline interiors to remove sludge, dirt, sand, stone, grease, and other materials from pipe to ensure clear view of interior conditions.
- B. Intercept flushed debris at next downstream manhole by use of weir or screening device; remove and dispose of debris off site.
- C. Furnish materials, labor, equipment, power, and maintenance to implement a temporary bypass pumping system around work area for time required to complete TV inspection.

3.2 APPLICATION

A. Closed-Circuit TV Camera System

- 1. Utilize cameras specifically designed and constructed for closed-circuit sewer line inspection. Utilize camera equipment with pan and tilt capability to view each lateral connection at multiple angles.
- 2. Utilize camera capable of moving upstream and downstream; minimum 1,000 feet horizontal distance with one setup; direct reading cable position meter.
- 3. The camera television monitor, and other components of the video system shall be capable of producing picture quality to the satisfaction of the Owner's Representative; and if unsatisfactory, equipment shall be removed and no payment will be made for an unsatisfactory inspection.
- 4. The camera shall be moved through the line in either direction at a moderate rate, stopping when necessary to permit proper documentation of the sewer's condition. In no case will the television camera be pulled at a speed greater than 30 feet per minute. Manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line. If, during the inspection operation, the television camera will not pass through the entire manhole section, the Contractor shall set up his equipment so that the inspection can be performed from the opposite manhole. If, again, the camera fails to pass through the entire manhole section, the inspection shall be considered complete noted as Survey Abandoned at no additional inspection will be required.
- 5. When manually operated winches are used to pull the television camera through the line, telephones or other suitable means of communication shall be set up between the two manholes of the section being inspected to insure good communications between members of the crew.

6. The importance of accurate distance measurements is emphasized. Measurement for location of defects shall be above ground by means of a meter device. Marking on the cable, or the like, which would require interpolation for depth of manhole, will not be allowed. Accuracy of the distance meter shall be checked by use of a walking meter, roll-a-tape, or other suitable device, and the accuracy shall be satisfactory to the Owner's Representative.

3.3 FIELD QUALITY CONTROL

A. Pipeline Inspection

1. Television Inspection Logs: Electronic media location records shall be kept by the Contractor and will clearly show the location, by distance in 1/10 of a foot from the manhole wall, in relation to an adjacent manhole of each infiltration point observed during inspection. In addition, other points of significance such as locations of building sewers, unusual conditions (flat grades, dips, deflection joints, open joints), roots, storm sewer connections, cracks, fractures, broken pipe, presence of scale and corrosion, and other discernible features, as defined in the NASSCO's Pipeline Assessment and Certification Program (PACP) defect codes, will be recorded on electronic media and a copy of such records will be supplied to the Owner.
2. Digital photographs of the pipe condition and all defects shall be taken by the Contractor. Photographs shall be located by distance in 1/10 of a foot, from the manhole wall, in relation to an adjacent manhole.
3. Electronic media recordings: The purpose of electronic media recording shall be to supply a visual and audio record of problem areas of the lines that may be replayed by the Owner. Each original electronic media recording of conditions and defects will be delivered to the Customer upon completion of a specific line section.
4. Video with pipe section plugged as to view 100 percent inside pipe diameter; use flow control methods as specified for bypass pumping system to eliminate surcharging and reduce flow.

END OF SECTION

SECTION 02965

SEWER LINE CLEANING

PART 1 GENERAL

1.1 DESCRIPTION

The Contractor shall perform an initial sewer cleaning of all debris, roots and other materials that would prevent the proper installation of the liner as described here within this specification. Several passes, if necessary, with a piece of high-pressure jet cleaning equipment shall be performed until all debris is removed from the pipe. If roots are present, root cutters or mechanical brushes shall be attached to the jet nozzle and sent through the line to remove all root intrusions. All spoils removed from the pipe shall be properly disposed of by the Contractor.

PART 2 MATERIALS

Not used.

PART 3 EXECUTION

3.1 CLEANING EQUIPMENT:

- A. **Hydraulically Propelled Equipment:** The equipment used shall be of a movable dam type and be constructed in such a way that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the sewer. The movable dam shall be equal in diameter to the pipe being cleaned and shall provide a flexible scraper around the outer periphery to insure removal of grease. If sewer cleaning balls or other equipment which cannot be collapsed are used, special precautions to prevent flooding of the sewers and public or private property shall be taken.
- B. **High-Velocity Jet (Hydrocleaning) Equipment:** All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more high-velocity nozzles. The nozzles shall be capable of producing a scouring action from 15 to 45 degrees in all size lines designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floor. The gun shall be capable of producing flows from a fine spray to a solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel. The NASSCO Jetter Code of Practice shall be consulted as a guide for the selection of

different type nozzles and recommended pressure applications for various cleaning requirements

- C. Mechanically Powered Equipment: Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. A power rodding machine shall be either a sectional or continuous rod type capable of holding a minimum of 750 feet of rod. The rod shall be specifically heat treated steel. To insure safe operation, the machine shall be fully enclosed and have an automatic safety clutch or relief valve.

- D. Large Diameter Cleaning: For cleaning large diameter sewer, storm or combination pipes, consideration should be given to a combination hydraulic high volume water and solids separation system. The flow from the sewer will provide water for the pump operation so no potable water is necessary and treatment costs are not a factor. Water volume of up to 250 GPM at 2000 PSI+ will move solids to the downstream manhole in high flow conditions. The separation system will dewater solids to 95% (passing a paint filter test) and transfer them to a dump truck for transport to a sewage treatment plant or approved landfill. Sewer water will be filtered to a point where it can be used in the pump for continuous cleaning. No by-passing of sewer flows will be necessary. The unit shall be capable of 24 hour operation and the unit shall not leave the manhole until a section is fully cleaned.

3.2 CLEANING PRECAUTIONS:

During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow in the sewer line are used, precautions shall be taken to insure that the water pressure created does not damage or cause flooding of public or private property being served by the sewer. When possible, the flow of sewage in the sewer shall be utilized to provide the necessary pressure for hydraulic cleaning devices. When additional water from fire hydrants is necessary to avoid delay in normal work procedures, the water shall be conserved and not used unnecessarily. No fire hydrant shall be obstructed in case of a fire in the area served by the hydrant.

3.3 SEWER CLEANING:

The designated sewer manhole sections shall be cleaned using hydraulically propelled, high-velocity jet, or mechanically powered equipment. Selection of the equipment used shall be based on the conditions of lines at the time the work commences. The equipment and methods selected shall be satisfactory to the Owner's Representative. The equipment shall be capable of removing dirt, grease, rocks, sand, and other materials and obstructions from the sewer lines and manholes. If cleaning of an entire section cannot be successfully performed from one manhole, the equipment shall be set up on the other manhole and cleaning again attempted. If, again, successful cleaning cannot be performed or the equipment fails to traverse the entire manhole section, it will be assumed that a major blockage exists and the cleaning effort shall be abandoned.

3.4 ROOT REMOVAL:

Roots shall be removed in the designated sections where root intrusion is a problem. Special attention should be used during the cleaning operation to assure almost complete removal of roots from the joints. Any roots which could prevent the seating of a packer or could prevent the proper application of chemical sealants shall be removed. Procedures may include the use of mechanical equipment such as rodding machines, bucket machines and winches using root cutters and porcupines, and equipment such as high-velocity jet cleaners. Chemical root treatment may be used at the option of the Contractor.

3.5 CHEMICAL ROOT TREATMENT:

To aid in the removal of roots and at the option of the Contractor, manhole sections that have root intrusion may be treated with an approved herbicide. The application of the herbicide to the roots shall be done in accordance with the manufacturer's recommendations and specifications in such a manner to preclude damage to surrounding vegetation. Any damaged vegetation so designated by the Engineer shall be replaced by the Contractor at no additional cost to the Owner. All safety precautions as recommended by the manufacturer shall be adhered to concerning handling and application of the herbicide.

END OF SECTION