



November 18, 2010

ADDENDUM NO. 1

PROJECT 2010-17

2010-2011 Sewer Cleaning and Closed Circuit Television (CCTV)

This addendum is hereby made part of the contract documents to the same extent as though it was originally included.

1. Replace Sheet C with the attached Sheet C
2. Replace Appendix E with the attached Appendix E.

If you have any questions or need additional information, please contact Domingo Gonzales, Engineering Assistant, at telephone (760) 255-5156

Domingo D. Gonzales

Domingo D. Gonzales
Engineer Assistant

ATTACHMENT C

ACKNOWLEDGEMENT OF INSURANCE REQUIREMENTS

Insurance Requirement Summary

The CONTRACTOR shall purchase and maintain insurance provided by insurance companies admitted in and regulated by the State of California, as required in the Contract Documents, and in amounts equal to the requirements set forth in the Contract Documents, and shall not commence work under this contract until all insurance required by the Contract Documents is obtained in a form acceptable to the CITY, nor shall the CONTRACTOR allow any subcontractor to commence work on a subcontract until all insurance required for the Subcontractor has been obtained.

CITY reserves the right to establish different coverage limits for Commercial General Liability and Property Damage including Motor Vehicle by so providing in writing as an official notice, as a permit requirement, or as a requirement contained elsewhere in the Contract. In such event, the coverage limits therein shall prevail, otherwise, the SERVICE PROVIDER shall meet the following requirements:

1. Service Provider shall procure and maintain for the duration of this Contract insurance against claims for personal injuries or property damages which may arise from or relate to the performance of the work hereunder by the Service Provider, its employees, agents, subcontractors or representatives, as follows:
 - A. Commercial General Liability, including operations, products and completed operations shall have a liability limit of [REDACTED] per occurrence for bodily injured, personal injury and property damage. If commercial general liability insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the work required by this Professional Service Agreement or the general aggregate limit shall be twice the required occurrence limit. Coverage shall at least be as broad as Insurance Services Office Commercial General Liability Coverage (Form CG 00 01) or Insurance Services Office Form (CG 00 09 11 88 CITYs and Contractors Liability Coverage Form.)
 - B. Automobile liability coverage shall be no less than \$1,000,000 per accident for bodily injury and property damage and coverage shall be at least as broad as Insurance Services Office Form CA 0001 covering Automobile Liability, Code C1 (any auto.)
 - C. Workers Compensation Insurance as required by the State of California and Employer's Liability Insurance.
 - D. Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions must be declared to and approved by CITY OF BARSTOW in advance.
 - E. CITY OF BARSTOW as Additional Insured. The Commercial General Liability and Automobile Liability Policies shall provide that CITY OF BARSTOW, its officers, officials, employees, agents, volunteers and supervising engineer are to be covered as insureds with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the Service Provider or arising out of work or operations performed by or on behalf of the Service Provider under this Professional Service Agreement , including materials, parts or equipment furnished in connection with such work or operations. For any claims related to the work formed under this Professional Service Agreement , the Service Provider's insurance coverage shall be primary as to CITY OF BARSTOW, its officers, officials, employees, agents, volunteers or supervising engineer shall be excess to Service Provider's insurance and shall not

ATTACHMENT E SCOPE OF SERVICES

PART 1: GENERAL

1.01 DEFINITIONS

The following definitions shall apply to this technical specification for CCTV Inspection Services:

1. “CITY”: CITY OF BARSTOW.
2. “CCTV”: Closed-circuit Television
3. “CONTRACTOR”: Service Provider awarded the work under this contract.
4. “Manhole”: When used to describe an access way to the sewer system or a starting/finishing location for line inspection, the term “manhole” should be construed as any access port to the sewer system.
5. “Segment”: When used to describe a section of the sewer line, the term “segment” should be construed as that portion of the sewer pipe between two manholes (access ports.)
6. “NASSCO”: National Association of Sewer Service Companies.

1.02 SCOPE OF WORK

A. GENERAL

CONTRACTOR shall furnish all labor, materials, equipment, and incidentals necessary for the inspection and cleaning of approximately 11,550 linear feet of sanitary sewer lines and manholes described herein.

The pipelines are constructed of, but not limited to, VCP, PVC-lined RCP, RCP, and PVC, and range in sizes from, but not limited to, 8-inches to 10-inches in diameter for this project. The inspection services will be provided as requested by CITY.



B. DESCRIPTION OF WORK

All Work shall conform to the “2010 Specifications for CCTV Inspection and Cleaning of Sanitary Sewers” (Attached) and the “2009 Edition of the Standard Specifications for Public Works Construction and all supplements.

CONTRACTOR shall provide Traffic Control plans if required by the appropriate permitting agency.

In addition, CONTRACTOR shall provide all traffic control in accordance with the latest Edition of California Manual of Uniform Traffic Control Devices (CAMUTCD) and all supplements. Additional local regulations may have precedence.

CONTRACTOR shall supply all signs, barriers, markers, flagmen and traffic control devices as required to maintain traffic.

C. CCTV INSPECTION AND CLEANING

Shall conform to the City of Barstow's 2010 Guidelines for CCTV Inspection of Sanitary Sewer.

1.03 SUBMITTALS

The CONTRACTOR shall submit the following to the CITY:

- A. Pre-Inspection Submittals:** Inspection operations shall not commence until the following have been received, reviewed, and approved by the CITY where noted.
1. A description, including the manufacturer's specifications, for all CCTV equipment.
 2. A description of the traffic control plan for the temporary closing of streets or traffic lanes and rerouting of traffic. The traffic control plan shall include the anticipated length of time that each specific street will have traffic disruptions, and shall conform to the regulations and standards in effect for the affected jurisdiction and Caltrans. Final scheduling shall be coordinated with the affected jurisdiction for the purpose of defining street detours, closings and interruptions of service for mass transit. Submittor will obtain and pay for all permits.
- B. Progress Submittals:** The CONTRACTOR shall submit a report no later than seven (7) days after CCTV inspection took place according to the following provisions:
1. Progress Report / Work Documentation: Progress reports shall be submitted for CITY review no later than seven (7) days after the inspection took place. CONTRACTOR's log sheets, with a section by section breakdown including comments, shall be maintained on site, in a legible manner for review at all times.
Comments on log sheets shall include notice of badly work manhole frames and covers, and badly deteriorated manhole concrete structures.
 2. All CCTV inspection footage shall be submitted on CD-ROM/DVD or External Hard Drive as defined in the 2010 Guidelines for CCTV Inspection of Sanitary Sewers
 3. All reports shall be provided in electronic format (PDF version.) and in a hard copy format as defined in the 2010 Guidelines for CCTV Inspection of Sanitary Sewers.
 4. Summary table (in MS Excel 2003, MS Word 2003, or later format) listing sewer segments cleaned (using unique numbering system to be provided by the CITY), location, unique inspection DVD tracking number, and any relevant notes.

5. All CCTV inspection footage/video clips, pictures, audio clips, databases, software, and hardware defined in the 2010 Guidelines for CCTV Inspection of Sanitary Sewers.
6. All CD-ROM or DVD must be submitted on encoded DVD playable by any North American computerbased DVD player (using WinDVD or similar computer software) and/or standard television-based video system DVD player:
 - a. All CCTV inspection footage/video clips (with audio) converted to playable encoded DVDs.
 - b. Each DVD will be labeled as defined in the 2010 Guidelines for CCTV Inspection of Sanitary Sewers.

1.04 QUALITY ASSURANCE / TRAINING REQUIREMENTS

Quality Assurance / Training Requirements shall conform to the City of Barstow's 2010 Guidelines for CCTV Inspection of Sanitary Sewer

1.05 PROJECT DESCRIPTION, REQUIREMENTS, AND CONDITIONS

Project Description, Requirements, and Conditions shall conform to the City of Barstow's 2010 Guidelines for CCTV Inspection of Sanitary Sewer.

1.06 MEASUREMENT AND PAYMENT

- A. CONTRACTOR will be paid based on the actual work performed in accordance with the unit rate schedule provided on Submitted Bid Form.
- B. CONTRACTOR shall submit all inspection reports and supporting documentation and data with an itemized invoice.
- C. All CCTV data shall be provided in accordance to the specifications of this Scope of Work. Failure to abide by the stipulations in this Scope of Work or any of the Terms and Conditions of the agreement could result in non-payment and might require re-inspection by the CONTRACTOR prior to approval of any invoices.

PART 2: CCTV PRODUCTS

2.01 VIDEO INSPECTION EQUIPMENT

Video inspection equipment shall conform to the 2010 Specifications for CCTV Inspection and Cleaning of Sanitary Sewers.

2.02 DATA COLLECTION / INSPECTION SOFTWARE

Data Collection / Inspection Software shall conform to the 2010 Specifications for CCTV Inspection and Cleaning of Sanitary Sewers.

PART 3: CCTV EXECUTION

3.01 EVALUATION CRITERIA

- A. Sewer condition grades for all CCTV evaluations in this contract shall be based upon the condition grade schedule presented in the latest edition of the NASSCO guidance, and shall conform to the 2010 Specifications for CCTV Inspection and Cleaning of Sanitary Sewers.
- B. The worst defect along the individual sewer segment will be used to give a single condition grade for that particular sewer segment; i.e., the grade for the sewer segment is based on the worst internal condition grade along the sewer segment.
- C. It will be the responsibility of the CONTRACTOR to ensure that defects are reported uniformly and consistently by all inspection crews.

3.02 PROCEDURE

- A. Prior to opening manhole covers or other access points, the atmosphere of the access point shall be checked by CONTRACTOR to ensure a non-explosive and non-hazardous atmosphere. The portable gas detection equipment shall measure and alarm the following hazardous gasses: hydrogen sulfide, carbon monoxide, methane, and low oxygen. CONTRACTOR shall ventilate all access points as required for the safe execution of the work in this contract. CONTRACTOR shall ensure that at no time the ventilation be the cause of public nuisance odor problems.
- B. Many of the manholes along the segments to be inspected under this contract have not been opened for extended periods and, therefore, may be surcharged. As such, CONTRACTOR shall exercise caution when accessing all manholes.
- C. The camera shall be moved through the sewer segment at a uniform rate, stopping when necessary to ensure proper documentation of the sewer's condition, or to "image capture" defects. **At no time 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 may be used to move the camera through the sewer line.
- D. The camera shall be stopped to inspect any areas of concern by using the pan and tilt feature of the television camera. For the purposes of this technical specification, an "area of concern" shall be considered as any one of the following:
 - 1. Locations of structural damage to the piping, manholes and other appurtenant structures, including sagging, cracked or collapsed segments.
 - 2. Locations of PVC liner or weld strip defects.
 - 3. Joints which appear to be damaged, incorrectly installed, shifted, or in anyway deficient.
 - 4. Areas in which noticeable infiltration is occurring. The approximate flow into the pipe at these locations shall be recorded as a field observation.
 - 5. Unusual or deficient conditions such as roots, storm sewer connections, and the presence of vermin, scale, corrosion, grease and grit.

6. Any other discernible feature or condition, which, in the opinion of CONTRACTOR or CITY, may pose a problem to the integrity or functionality of the sewer.
 7. All sewer service connections
- E. Whenever possible, CONTRACTOR shall complete the inspection of a pipe segment in one continuous run. CONTRACTOR shall complete each sewer segment in its entirety before stopping work for the day. No partial segment of sewer inspection will be permitted.
 - F. CONTRACTOR shall provide a minimum of four video frame snapshots per segment of pipeline between manholes regardless of the condition of the pipeline segment.
 - G. All formatted data, video and corresponding reports shall be submitted, as defined in the 2010 Guidelines for CCTV Inspection and Cleaning of Sanitary Sewers, on CDROM, DVD, or external hard drive with software, and cables to the CITY no later than seven (7) days after CCTV inspection took place. All CD-ROMs, DVDs, or external drives and their peripherals shall become the property of the CITY once submitted.

3.03 CCTV PERFORMANCE

- A. Color CCTV
All CCTV work shall use color CCTV reproduction.
- B. CCTV Picture Quality
An approved test device shall be provided and be available on site throughout the Contract, enabling the tests specified in this clause to be checked. The test card shall be Marconi Regulation Chart No. 1 or its derivatives with a color bar, clearly differentiating between colors, with no tinting, to show the following: 1) white; 2) yellow; 3) cyan; 4) green; 5) magenta; 6) red; 7) blue; 8) black.
- C. At the start of each and every working shift, the camera shall be positioned centrally and at right angles to the test card at a distance where the full test card just fills the monitor screen. The CONTRACTOR shall ensure that the edges of the test card castellations coincide with the edges of the horizontal and vertical scan (raster). The card shall be illuminated evenly and uniformly without any reflection. The type of camera used is to be identified in the test recording. The recording must show the camera being introduced into the test device and reaching its stop position. Other test devices may be used subject to approval by CITY.
- D. The electronic systems, television camera and monitor shall be of such quality as to enable the following to be achieved:
 - a. Shades of Gray. The gray scale shall show equal changes in brightness ranging from black to white with a minimum of five clearly recognizable stages.
 - b. Color. With the monitor adjusted for correct saturation, the six colors plus black and white shall be clearly resolved with the primary and complementary colors in order of decreasing luminance. The gray scale shall appear in contrasting shades of gray with no tint.
 - c. Linearity. The background grid shall show squares of equal size, without convergence/divergence over the whole of picture. The center circle shall appear round and have the correct height/width relationship ($\pm 5\%$).

- d. Resolution. The live picture must be clearly visible with no interference and capable of registering a minimum number of TV lines/pictures height lines. The resolution shall be checked with the monitor color turned down. In the case of tube cameras this shall be 600 lines.
 - e. Color Constancy. To ensure the camera shall provide similar results when used with its own illumination source, the lighting shall be fixed in intensity prior to commencing the inspection. In order to ensure color constancy, generally no variation in illumination shall take place during the inspection.
 - f. The CONTRACTOR shall note that CITY may periodically check both the live and video picture consistency against the color bar. Any differences will require re-inspect of the new length or lengths affected, at the CONTRACTOR's expense.
- E. CD-ROM Playback.
CD-ROM playback shall be capable of a resolution of a minimum of 250 lines recorded at standard speed.
- F. CCTV Focus/Iris/Illumination.
The adjustment of focus and iris shall allow optimum picture quality to be achieved and shall be remotely operated. The adjustment of focus and iris shall provide a minimum focal range from 6 inches in front of the camera's lens to infinity. The distance along the sewer in focus from the initial point of observation shall be a minimum of twice the vertical height of the sewer. The illumination must be such as to allow an even distribution of the light around the sewer perimeter without the loss of contrast, flare out of picture or shadowing.

3.04 FORMATTING

A. Video

1. At the start of each segment, a data generator shall electronically generate and clearly display on the viewing monitor and video recording a record of data as defined in the 2010 Specifications for CCTV Inspection and Cleaning of Sanitary Sewers.
2. Once the survey of the pipeline is under way, specific data should be continuously displayed on the viewing monitor and video recording. The size and position of the data display shall be such as not to interfere with the main subject of the picture yet shall be easily readable when the recording is replayed. At a minimum, the following data should be displayed but all data shall conform to the 2010 Specifications for CCTV Inspection and Cleaning of Sanitary Sewers:
 - a. Automatic update of the camera's position, in feet and tenths, in the sewer line from adjusted zero.
 - b. Upstream manhole and downstream manhole identification numbers.
3. Each segment length (consecutive manhole to manhole) shall be entered on a separate coding sheet. Thus, where CONTRACTOR elects to "pull through" a manhole during a CCTV survey, CONTRACTOR shall start a new coding sheet at the manhole "pulled through" and shall reset the distance to zero on the coding sheet, viewing monitor, and video recording.

B. CD-ROM, DVD, External Harddrive

Permanently label each CD-ROM/DVD with the following information:

- a. CITY OF BARSTOW
- b. Date Inspected (Month-Day-Year (MM-DD-YYYY))
- c. Contractor:
- d. Unique CD/DVD No:
- e. Location/s
- f. Start MH:
- g. Finish MH:

C. Report

A hardcopy and an electronic (PDF) report shall be submitted and contain the following information:

1. Report Cover
 - a. City of Barstow
 - b. Project Description
 - c. Associated DVD Number
 - d. Date
 - e. Location
 - f. Report Number
2. Table of Content (See Example in the 2010 Guideline for CCTV Inspection and Cleaning of Sanitary Sewer Cleaning)
 - a. Date
 - b. Distance
 - c. Flow Direction
 - d. Sewer ID #
 - e. Pipe Size
 - f. Location
 - g. Length
 - h. Start Manhole ID
 - i. End Manhole ID
 - j. PACP Quick Struct Rating
3. Project Information
 - a. See Example in the 2010 Guideline for CCTV Inspection and Cleaning of Sanitary Sewer Cleaning.
4. Observation Log (See Example in the 2010 Guideline for CCTV Inspection and Cleaning of Sanitary Sewer Cleaning)
 - a. Distance
 - b. Fault Observation
 - c. Time
 - d. Picture of the observation
 - e. Date
 - f. Street
 - g. Length Surveyed
 - h. Run Number
 - i. Pipe Diameter
 - j. Pipe Segment Reference (Sewer ID #)

- k. Upstream MH
 - l. Downstream MH
 - m. Direction of Survey
 - n. Material of Pipe
5. Graph of Observation (See Example in the 2010 Guideline for CCTV Inspection and Cleaning of Sanitary Sewer Cleaning)
- a. Date
 - b. Street
 - c. Length surveyed
 - d. Run Number
 - e. Diameter(Height)
 - f. Pipe Segment Reference (Sewer ID #)
 - g. Upstream Mh
 - h. Downstream Mh
 - i. Direction of Survey
 - j. Material
 - k. Graphic of Pipe Line with observations using PACP codes and length of run from starting manhole.
6. Rating Report (See Example in the 2010 Guideline for CCTV Inspection and Cleaning of Sanitary Sewer Cleaning)