

# BID SOLICITATION



**City of Chattanooga**  
**101 East 11th Street, Suite G13**  
**Chattanooga, TN 37402**

## BID OPENING DATE AND TIME:

04-JAN-18 at 2:00 PM

**BID NUMBER: 304974**

## SEALED BIDS

Mail or submit two (2) signed copies of bid form to this office in the enclosed envelope. Retain one copy for your file.

## BUYER:

**PHONE #: (423) 643-7230**

**DELIVERY REQUIRED:**

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City of Chattanooga  
 101 East 11th Street, Suite G13  
 Chattanooga, TN 37402

Item	Class-Item	Quantity	Unit	Unit Price	Total
<p>Requisition No.: 163347                      Ordering Dept.: Waste Resources                      Buyer: Geoffrey Hipp 423-643-7233                      *****</p> <p><b>DESCRIPTION:</b>                      This shall be a twelve (12) month blanket contract for Sanitary/Storm Sewer Video and Sonar Services for the Waste Resources Division. The contract may be renewed for two (2) additional twelve (12) month terms under the same Terms and Conditions by Mutual Agreement. The City of Chattanooga and the Contractor may bilaterally extend the contract by Written Confirmation by both parties at least 30 days prior to the contract's current expiration date into any successive term as provided herein.                      *****</p> <p><b>ATTACHMENTS:</b>                      - Specifications                      - Iran Divestment Act                      - Affirmative Action Plan                      - Standard Terms and Conditions:                      (<a href="http://www.chattanooga.gov/purchasing/standard-terms-and-conditions">http://www.chattanooga.gov/purchasing/standard-terms-and-conditions</a>)                      *****</p> <p>*** BIDS MUST BE RECEIVED NO LATER THAN ***                      ***** 2:00 PM ON JANUARY 4, 2018 *****                      *****</p> <p>PLEASE SUBMIT BIDS IN DUPLICATE INDICATING                      BID NUMBER (304974) ON OUTSIDE PACKAGING                      *</p> <p>ALL ITEMS MUST BE QUOTED F.O.B. DESTINATION, FREIGHT ALLOWED.                      *****</p> <p>NOTE: All bids received are subject to the terms and conditions contained herein and as listed in the above referenced website. The undersigned Bidder acknowledges having received, reviewed, and agrees to be bound to these terms and conditions, unless specific written exceptions are otherwise stated.</p> <p>The City of Chattanooga reserves the right to reject any and/or all bids, waive any informalities in the bids received, and to accept any bid which in its opinion may be for the best interest of the city.</p> <p>The City of Chattanooga will be non-discriminatory in the purchase of all goods and services on the basis of race, color, or national origin.                      *****</p> <p><b>PRICE ESCALATION CLAUSE:</b>                      All prices under this contract shall remain fixed during each twelve (12) month contract period. If as a result of a general change in prices or discounts, the contractor has changed prices to all of its customers, then, at the time of contract renewal, the price under this contract may be adjusted accordingly after acceptance. All price increases must be justified by providing a copy of the prevailing labor wage or material cost increases. Prompt notice of price changes (increases or reductions) must be furnished to the Purchasing Agent at least 30 days prior to the requested effective date and the prices for these services/materials shall remain firm for twelve (12) months. The effective date of price increases shall be the date the Purchasing Agent accepts the price changes or the effective date of increase stated by contractor's notice to Purchasing Agent, whichever is later.                      *****</p> <p>PLEASE PROVIDE US WITH THE FOLLOWING INFORMATION:</p> <p>Company Name _____</p> <p>Address _____</p> <p>Phone/Toll-Free No. _____</p> <p>Fax No. _____</p> <p>E-Mail Address _____</p>					

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**DELIVERY REQUIRED:**

VENDOR

RFQ

MAIL TO

City of Chattanooga  
101 East 11th Street, Suite G13  
Chattanooga, TN 37402

Item	Class-Item	Quantity	Unit	Unit Price	Total
Contact Person's Name _____					
Estimated Delivery _____					
Minority-Owned Business ____ Small Business ____ Veteran ____					
Minority Woman Owned Business ____ Disabled Veteran ____					
Women-Owned Business ____					

NOTE: ALL BIDS RECEIVED ARE SUBJECT TO THE TERMS AND CONDITIONS

**The City is Exempt from all Federal and State Tax.  
Bids will be received at the above mentioned address.**

**ALL BIDS MUST BE SIGNED – The undersigned offers the above quoted prices under the conditions contained herein.**

COMPANY: \_\_\_\_\_

TERMS OF PAYMENT: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

NAME AND TITLE: \_\_\_\_\_

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Item	Class-Item	Quantity	Unit	Unit Price	Total
1	CCTV Inspection - 6" to 18" On Road	1	Each	_____	_____
2	CCTV Inspection - 6" to 18" Off Road	1	Each	_____	_____
3	CCTV Inspection - 20" to 36" On Road	1	Each	_____	_____
4	CCTV Inspection - 20" to 36" Off Road	1	Each	_____	_____
5	CCTV Inspection - 40" to 54" On Road	1	Each	_____	_____
6	CCTV Inspection - 40" to 54" Off Road	1	Each	_____	_____
7	CCTV Inspection - 60" to 84" On Road	1	Each	_____	_____
8	CCTV Inspection - 60" to 84" Off Road	1	Each	_____	_____
9	CCTV Inspection - Larger than 84" On Road	1	Each	_____	_____
10	CCTV Inspection - Larger than 84" Off Road	1	Each	_____	_____

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Item	Class-Item	Quantity	Unit	Unit Price	Total
11	Sonar Inspection - 8" to 21" On Road	1	Each	_____	_____
12	Sonar Inspection - 8" to 21" Off Road	1	Each	_____	_____
13	Sonar Inspection - 24" to 48" On Road	1	Each	_____	_____
14	Sonar Inspection - 24" to 48" Off Road	1	Each	_____	_____
15	Sonar Inspection - Larger than 48" On Road	1	Each	_____	_____
16	Sonar Inspection - Larger than 48" Off Road	1	Each	_____	_____
17	Combined CCTV & Sonar Inspection - 21" to 36" On Road	1	Each	_____	_____
18	Combined CCTV & Sonar Inspection - 21" to 36" Off Road	1	Each	_____	_____
19	Combined CCTV & Sonar Inspection - 42" to 48" On Road	1	Each	_____	_____
20	Combined CCTV & Sonar Inspection - 42" to 48" Off Road	1	Each	_____	_____

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Item	Class-Item	Quantity	Unit	Unit Price	Total
21	Combined CCTV & Sonar Inspection - Larger than 48" On Road	1	Each	_____	_____
22	Combined CCTV & Sonar Inspection - Larger than 48" Off Road	1	Each	_____	_____
23	Data Delivery in specified format (including QA/QC)	1	Each	_____	_____
24	CCTV Inspection – Stormwater Half Day	1	Each	_____	_____
25	CCTV Inspection - Stormwater Full Day	1	Each	_____	_____

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COMPANY: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

NAME AND TITLE: \_\_\_\_\_

***SPECIFICATIONS FOR  
ANNUAL BLANKET CONTRACT  
TO SUPPLY  
SANITARY/STORM SEWER VIDEO AND SONAR SERVICES FOR THE  
INTERCEPTOR SEWER SYSTEM  
AND RELATED FACILITIES***

***WASTE RESOURCES DIVISION  
CITY OF CHATTANOOGA, TENNESSEE***

**1.0     GENERAL**

**1.1     SCOPE OF SERVICES**

The Scope of Services included in these Specifications shall be for sanitary/storm sewer video and Sonar inspection and data analysis on an as-needed basis for the Moccasin Bend Wastewater Treatment Plant (MBWWTP) and related facilities of the Waste Resources Division, including Combined Sewer Overflow Treatment Facilities (CSOTF) Sanitary and Storm Water Pump Stations, and the City Landfills. The Moccasin Bend Wastewater Treatment Plant (MBWWTP) is located at 455 Moccasin Bend Road, Chattanooga, Tennessee 37405.

It is the responsibility of each bidder to visit the Moccasin Bend Wastewater Treatment Plant and the related Waste Resources Division facilities to determine the types of structures for which these services may be required, the associated work areas and conditions, the sizes and types of equipment and parts, the safety requirements, and any other circumstances associated with the provision of these repair/installation services.

**1.2     BASIS OF BIDDING**

The Vendor shall submit one (1) bid on the City's Standard Bid Form. The Bid shall include the labor cost per linear foot for the various pipe sizes as well as a percent markup on parts, materials, and equipment as requested by the City. **Please refer to Appendix A for a list of these items for which costs shall be provided.**

The cost per linear foot shall include any and all costs for wages, benefits, indirect costs, overhead and profit, insurance, and any other related direct or indirect cost. The cost per linear foot shall include any and all equipment necessary to perform the work described herein.

The services furnished by the Vendor will be subject to inspection and approval by the City's designated representative, but the manner and method of providing the services will be the responsibility of The Vendor.

**Line segments to be televised will not be cleaned prior to inspection except in extreme situations to be determined by the City of Chattanooga.**

Traffic Control will be the responsibility of the Vendor. The Vendor will be responsible for coordinating traffic plans with the City of Chattanooga Traffic Engineering Division.

The bid shall be awarded on the basis of the unit cost per foot as well as an evaluation of the Vendor's qualifications, experience, capabilities and other factors specified in the City Code.

### **1.3 SUBMITTALS**

#### ***1.3.1 References and Experience***

##### **A. References**

1. The Vendor shall submit a list of at least five (5) customers for whom the Vendor has performed sanitary/storm video and sonar services during the past five (5) years similar to the Moccasin Bend Wastewater Treatment Plant and/or related facilities.
2. The list shall include names, addresses, telephone numbers, and contact information for a customer representative who is knowledgeable of services provided.

##### **B. Experience**

1. The Vendor shall submit a brief company history of providing the specified services.
2. The Vendor shall provide a description of its work force including number of skilled personnel and their length of service with the company.

### **1.4 GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS**

The Vendor shall comply with rules and conditions found in the City of Chattanooga Purchasing Department's "General Conditions and Instructions to Bidders" that are a part of the invitation to Bid for the equipment or services specified herein.

### **1.5 LENGTH OF CONTRACT**

The Contract for services described herein shall be for a period of one (1) year beginning the effective date of the award of the Contract. The Vendor shall provide a firm cost per linear foot for the first year of the Contract.

The City shall have the option of extending the Contract for two (2) additional one (1) year periods.

Hourly rates shall be subject to adjustment by mutual agreement based on the Southern States CPI as published by the US Department of Labor.

## 1.6 INSURANCE

Vendor shall purchase and maintain during the life of this Agreement, insurance coverage which will satisfactorily insure Vendor against claims and liabilities which arise because of the execution of this Agreement, with the minimum insurance coverage as follows:

- a. **Commercial General Liability Insurance**, with a limit of \$1,000,000 for each occurrence and \$2,000,000 in the general aggregate.
- b. **Automobile Liability Insurance**, with a limit of \$1,000,000 for each accident, combined single limit for bodily injury and property damage.
- c. **Worker's Compensation Insurance and Employer's Liability Insurance**, in accordance with statutory requirements, with a limit of \$500,000 for each accident.
- d. **Professional Liability Insurance**, with a limit of \$1,000,000 for each claim and aggregate.

If any of the above cited policies expire during the life of this Agreement, it is the Vendor's responsibility to forward renewal Certificates within ten (10) days after the renewal date containing all the aforementioned insurance provisions. Certificates must specifically cite the following provisions:

- i. City of Chattanooga, its agents, representatives, officers, directors, officials and employees must be named an Additional Insured under the following policies:
  - a) Commercial General Liability
  - b) Auto Liability
  - c) Worker's Compensation Insurance and Employer's Liability Insurance
  - d) Professional Liability Insurance
- ii. Vendor's insurance must be primary insurance as respects performance of subject contract.
- iii. All policies, except Professional Liability Insurance, if applicable, waives rights of recovery (subrogation) against City of Chattanooga, its agents, representatives, officers, directors, officials and employees for any claims arising out of work or services performed by Vendor under this Agreement.

## 2.0 SERVICES AND OTHER REQUIREMENTS

### 2.1 GENERAL



### **2.1.1 Subcontractors**

The Vendor shall not subcontract the services or assign the contract to others without the written consent of the City of Chattanooga.

### **2.1.2 Compliance with Applicable Regulations**

All of the services provided by the Vendor shall be completed in a good and workmanlike manner. All services provided shall be in compliance with all applicable statutes, rules, ordinances and regulations of, but not limited to, the USEPA, TDEC, TDOT, OHSA, and any similar federal, state, and local laws or regulations applicable to the Vendor or to the services described herein.

The Vendor's personnel shall comply with all City, Waste Resources Division, and Moccasin Bend WWTP work rules and regulations when on site.

### **2.1.3 Inspection**

The services furnished by the Vendor shall be subject to inspection and approval by the City's designated representative, but the manner and method of providing the services shall be the responsibility of the Vendor.

### **2.1.4 Failure to Provide Services and Termination of Contract**

In the event the Vendor:

- a. Fails to initiate services on the date specified or otherwise agreed to;
- b. Fails to provide all of the required documentation for personnel, insurance, and any other documentation required by these Specifications at the specified times;
- c. After having begun services, abandons them for any reason;
- d. Suspends or refuses to continue services; or
- e. Defaults in any manner in the performance under the terms of the Contract for a period of two (2) consecutive working days (unless the Vendor is prevented from continuing for reasons beyond its control);

The City of Chattanooga shall have the right to terminate the Contract immediately upon the written notification by the City for the reasons listed above.

The City shall have the right to terminate the Contract after giving a thirty-day (30) written notice to the Vendor.

## **2.2 DESCRIPTION OF CONTRACTED SERVICES**

### **2.2.1 General**

1. The Vendor shall provide sanitary sewer/storm pipeline video, SONAR and data analysis for the various sanitary and combined sewer structures throughout the City-owned and operated wastewater and stormwater collection system, the Moccasin Bend Wastewater Treatment Plant, the City Landfill and related Waste Resources Division facilities. The Vendor shall provide all labor, benefits, tools,

equipment, fuel, materials and other related expenses necessary to provide these services.

2. The Vendor shall provide the services on an “as needed” basis as requested by the City. The City will attempt to schedule the work to optimize the use of the Vendor’s personnel and equipment when it is needed.
3. The Vendor shall be available to perform services within two (2) days of written, electronic, or verbal notification of need by the City’s representative.

### **2.2.2 Vendor Services**

#### **1. INSPECTION REQUIREMENTS**

- a. The Vendor will inspect pipelines with color Pan and Tilt CCTV or continuous scanning Sonar only or combined color Pan and Tilt CCTV/Sonar combined as specified so as to record all relevant features and to confirm their structural and service condition. Inspections of pipelines will be carried out in accordance with the reporting format determined by the City of Chattanooga.
- b. The inspected pipe should be free of debris so that the view is unobstructed. If the view is obstructed by debris, the pipe segment should be cleaned prior to redoing the inspection.
- c. The Vendor will provide current certification that operators have undergone National Association of Sewer Service Companies (NASSCO) PACP® training prior to undertaking internal condition assessment work for the City of Chattanooga. Defect coding, as well as material, shape and lining coding used throughout the project will conform to NASSCO PACP standards.
- d. The Operator must have at least 5 years experience in the coding of the Sonar image and must have reported upon more than 250,000 ft of Sonar and combined CCTV/Sonar inspections. Proof of such experience will be submitted at the time of the bid.
- e. The Vendor must use NASSCO certified data collection software (PACP version 6.0.2 or later), with final approval by the City prior to the start of the Contract.
- f. The Inspection vehicle will contain at least the following:
  - 1) The viewing area of the vehicle will be insulated against noise and extremes in temperature, including the provision of air conditioning, and will be provided with means of controlling external and internal sources of light in a manner capable of ensuring that the monitor screen display is in accordance with the specification. Seating accommodation will be provided by The Vendor to enable two (2) people, in addition to the operator, to view clearly the on-site monitor, which will display the inspection as it proceeds.
  - 2) The working area of the vehicle will be reserved for equipment, both operational and stored, and no equipment utilized within the sewer will be allowed to be stored in the viewing area.

- 3) The vehicle will be suitable for carrying the Inspection team and laborers and will be equipped with the following:
  - (a) Equipment for lifting manhole covers.
  - (b) Sewer safety equipment.
  - (c) Road safety equipment.
  - (d) Protective clothing for the Inspection teams comprising coveralls, boots gloves, hard hat, etc.
- 4) Off road vehicle must have capability to access easements in non-populated areas that may be in proximity to dense tree cover or low lying areas near a creek, stream or river.

## 2. EQUIPMENT REQUIREMENTS FOR CCTV INSPECTION

- a. The inspection equipment will be capable of inspecting a length of sewer up to at least 1500 feet when entry into the sewer may be obtained at each end and up to 750 feet where a self-propelled unit is used, where entry is possible at one end only.
- b. Each inspection unit will contain a means of transporting the CCTV camera and/or Sonar equipment in a stable condition through the sewer under Inspection. Such equipment will ensure the maintained location of the CCTV camera or Sonar equipment when used independently on or near to the central axis of a circular shaped sewer.

## 3. DATA COLLECTION REQUIREMENTS FOR CCTV INSPECTION

All inspection information shall be captured utilizing NASSCO certified data collection software and following all NASSCO PACP (version 6.0.2 or later) standard data fields, formats, and conventions as indicated in Appendices B through E.

All inspection media file naming formats and folder organizational structures must remain consistent throughout the Contract. See naming conventions in section 6. CCTV AND SONAR INSPECTION DATA SUBMITTALS below.

A digital encoded inspection video shall be continuously captured for the entire length of each inspection. All digital encoded inspection video files shall be in MPEG-1 file format. For all digital encoded inspection videos, the file naming format shall be generated using a concatenation of standard PACP database fields in the format "InspectionID"\_"Upstream\_MH"\_"Downstream\_MH"\_"Direction". CCTV inspections in which the camera lens is or becomes obstructed, dirty, greasy, etc. during the inspection, and remains so for up to 2ft, will not be accepted.

A digital still image shall be captured for each defect. All digital still images shall be in JPEG file format. For all digital still images, the file naming format shall be generated using a concatenation of standard PACP database fields in the format "InspectionID"\_"ConditionID"\_"Distance"\_"PACP\_Code".

Each digital encoded inspection video shall begin with the camera facing towards the bottom of the manhole and oriented so that the outgoing sewer connection is at the top center of the viewing screen. This position shall be held during video recording for a minimum of five (5) seconds prior to lowering the camera to the bottom of the manhole. Once the camera has been lowered into the manhole and oriented in its direction of travel, the camera shall be directed towards the top of the manhole, with this position held during video recording for a minimum of five (5) seconds prior to advancement into the sewer.

A comprehensive summary inspection report shall be generated for each inspection, and shall be in Portable Document Format (PDF). The report shall include the findings on major defects, including but not limited to fractures, displaced joints, deformation, corrosion, lateral intrusions, and dominant surface features including encrustation and silt depths. The PACP database table "Media\_Inspections" shall include two additional custom fields ("Report\_Name" and "Report\_Location") used to reference the file path and name to the inspection within the database (Refer to Appendix D).

Each sewer length (the length of the sewer between two (2) consecutive manholes) will be entered into the PACP database field "Total\_Length". If field maps are provided for the project area and include a total length, then this value will be entered into the field "Total\_Length".

When a length of sewer between two (2) consecutive manholes cannot be inspected for practical reasons, the reason for abandonment shall be described in the PACP database field "Additional\_Info". At uncharted manholes, a new inspection will be started and the footage re-set to zero (0.0).

When The Vendor elects to "pull through" a manhole during a CCTV and/or Sonar Inspection, a new inspection will be started at the manhole "pulled through", and the footage re-set to zero (0.0) at the manhole wall where the pipe exits/enters the manhole. When a reverse, or second inspection is required to complete the inspection of a sewer, the PACP database field "Reverse\_Setup" shall be populated with the value of the PACP database field "InspectionID" from the matching survey.

When an uncharted manhole is encountered during an inspection, the Vendor shall assign a temporary field-assigned ID to the manhole. This temporary field ID shall be entered into the appropriate PACP database field (either "Upstream\_MH" or "Downstream\_MH"), and the comment "uncharted MH" shall be entered in the PACP database field "Additional\_Info". The proposed naming scheme for uncharted manholes shall be approved by the City of Chattanooga prior to the start of the Contract.

#### 4. DATA COLLECTION REQUIREMENTS FOR SONAR INSPECTION

In addition to the data collection requirements for CCTV inspections, the following additional items are required for sonar inspection:

Where combined CCTV and Sonar Inspections are required, the display in the viewing area will show the combined CCTV and Sonar images of the sewer being inspected. The Sonar image will be superimposed on the real CCTV image, and continuously recorded,

as a combined operation at the time of the inspection resulting in a single combined video file for each inspection.

For each Inspection where Sonar is used, a profile report of the pipe shall be provided in PDF and show, at a minimum, pipe dimensions, water level and silt/debris level. Total volume of silt and debris shall be calculated.

The Sonar Inspection will include measurement of flow depth and silt depth. A Color, High-Resolution Sonar image of cross sections of the sewer must be taken (saved) every fifty (50) ft., or more frequently should the internal profile of the sewer change from the previously saved image. These images are to be cross-referenced to the reports and database(s) for ease of retrieval.

## 5. INSPECTION/SURVEY EQUIPMENT APPLICATIONS

- a. The following guidelines concerning the use of CCTV and Sonar will be followed, subject to the review and approval of the City of Chattanooga:
  - 1) Generally, CCTV alone shall be used for internal condition assessment where the depth of flow is less than 20% of overall sewer diameter at the start of the Inspection. The Vendor shall make an informed decision to continue solely with CCTV should the depth of flow increase beyond the 20% level but remain no greater than 40% of overall sewer diameter at any time throughout the length.
  - 2) Generally, CCTV combined with Sonar shall be used for internal condition assessment where the depth of flow of sewage varies from 20% to 75% of overall sewer diameter for sewers greater than 21-inches in diameter.
  - 3) The CCTV Camera/Sonar head shall be positioned to reduce the risk of picture distortion. In circular sewers the CCTV camera lens and/or Sonar head will be positioned, where possible, centrally within the "dry" area for the CCTV and the "wet" area for the Sonar. In non-circular sewers, picture orientation will be taken at mid-height, unless otherwise agreed, and centered horizontally. In all instances the camera lens will be positioned looking along axis of the sewer. A positioning tolerance of  $\pm 10\%$  of the vertical sewer dimension will be allowed.
  - 4) The speed of the CCTV camera in the sewer shall not exceed 30 feet per minute for CCTV Inspections ONLY. When the scanning Sonar is deployed, either stand alone or combined with CCTV, the speed shall not exceed 20 feet per minute.
  - 5) A General Condition 360° CCTV rotational scan must be implemented at every 50 foot interval (min) along sewers, and at manholes and any salient, specified, defect features. More frequent scans must be made should the condition of the pipe differ from the previous scan. The tilt must not be less than 225°.

- 6) The color palette shall have a minimum of 16 colors with text. The Sonar image, inside the viewing area will be in color.
- 7) The picture update speed shall maintain picture resolution.
- 8) The range of resolution shall be = 1/10 inch.
- 9) The maximum beam width of Sonar energy pulse shall be no greater than 2 degrees from the center of the transducer.
- 10) The transducer shall be of the continuous scanning type, the speed of which will be 1 second per 360° scan.

#### 6. CCTV AND SONAR INSPECTION DATA SUBMITTALS

- a. No later than fourteen (14) days following the completion of a pipeline Inspection, The Vendor shall submit the following:
  - 1) Two (2) hard copies of all details, i.e. typed "Full Detail" report for each inspection, showing the position and full text of each defect encountered and their grades
  - 2) An overall Summary report detailing major defects and inspections that require attention
  - 3) A list of uncharted manholes and/or pipe segments that were identified during inspections but were not shown on field maps. This list shall include the field-assigned ID and a geographic reference or description (street address, intersection, etc)
  - 4) A statistical report showing lengths of sewers inspected and a breakdown of sizes and lengths inspected.
  - 5) At regular agreed intervals, an External Hard Drive (EHD) will be submitted to the City containing a single NASSCO PACP Standard Exchange Database (version 6.0.2 or later) containing all inspections to date, encoded videos, observation photos, inspection reports in PDF format, and support files. The supplied data and information will remain the property of the City of Chattanooga.
- b. An example of a typical CCTV/Sonar Inspection final deliverable shall be submitted for approval by the City prior to the start of the Contract. The example deliverable will contain the following:
  - 1) A sample NASSCO PACP Standard Exchange Database, version 6.0.23 or later, in Microsoft Access 2003 or later file format (.mdb), as exported from the Vendor's data collection software
  - 2) A nonproprietary database as generated by the Vendor's data collection software

- 3) Example media files, including observation photos, CCTV/Sonar videos, and pdf reports; with all files consistently utilizing the required file naming conventions
  - 4) The proposed viewing software to be used with the proprietary inspections database and related media
  - 5) NASSCO PACP validation report in PDF format, demonstrating the sample is fully conforming to NASSCO PACP standards and conventions.
  - 6) Inspections database shall be fully cross-referenced to the videos, images and reports
  - 7) Example reports will be presented in both hard copy and in PDF format, and all other sample data will be presented in digital format on an EHD
- c. At the completion of the Contract, the Vendor shall supply the following on an EHD:
- 1) A single, consolidated NASSCO PACP Standard Exchange Database (version 6.0.2 or later) in Microsoft Access 2003 or later file format (.mdb) containing all inspections for the Contract
  - 2) All encoded inspection videos, observation photos, and inspection reports using required file naming formats
  - 3) A single, consolidated proprietary database containing all inspections for the Contract, as generated by the Vendor's data collection software
  - 4) Free issue software to be used for the viewing of the proprietary inspections database and related media from within the database
  5. Four (4) hours training in the use of any supplied free issue software will be included in the rates.
- d. The supplied data and information shall remain the property of the City of Chattanooga.
- e. Vendor must maintain digital copies of all files for up to three (3) years.

### **2.2.3 City Supplied Services**

The City will provide the following services;

1. Designate a Project Coordinator to coordinate each assignment and/or project with Vendor's personnel.
2. Provide hard-copy field maps for the project area, showing the name and location of known manholes, pipe segments and other sewer features
3. Provide specialized equipment such as combination sewer cleaners and CCTV trucks that are not owned and not listed by Vendor in rate schedule (Appendix B).
4. Provide access to City facilities for execution of the work.

### **3.0     EXECUTION**

#### **3.1     CONTRACT STARTING DATE**

The Contract for the full services shall begin immediately on the effective date of the award of the Contract.

#### **3.2     PAYMENT OF SERVICES**

- a. The City will make payment to the Vendor according to the City's normal policies and procedures.
- b. Before an order can be placed for routine transactions, City will request a Quote from Vendor with detailed breakdown. City may require breakdown on its own form. Once City has approved the quoted price and submits Requisition for same, it will advise Vendor of the Release Number in order to place the order. Invoices that do not reference the Release Number will not be considered complete or valid.
- c. Vendor's Invoice must list a valid E-Mail Address for billing questions and inquiries.
- d. Invoice Date is critical and Invoices must be sent to the City on the Invoice Date in order for the City's tracking system to accurately reflect the record. The Invoice Date must not precede the Ship Date or Service Date.
- e. Invoice descriptions on transaction lines must match the wording of the Purchase Order transaction lines, and reference the corresponding transaction line number of the Purchase Order. The Vendor shall not invoice the City for any item that does not correspond to a line on the Purchase Order.
- f. Items being billed on Markup line must have corresponding source Invoice, and that total and Markup breakdown must be reflected on Vendor's Invoice to the City. The Markup for items purchased on the percent Markup line, is for markup of items only. No Markup is allowed for taxes or freight charges. The taxes and freight charges will be a straight reimbursement, with no Markup.
  - g. Markup will be calculated as the following example:
    - i. If the part costs vendor \$100.00,
    - ii. and the Markup on contract is 10%,
    - iii. City will reimburse Vendor \$110.00.
- h. Vendor will be responsible for collecting signature and legible name of City employee when delivering goods and/or services and must be able to produce said Proof of Delivery ("POD") upon request. The POD must contain an itemized list of goods and/or services. The POD must accompany each Department's payment packet before presenting the Invoice with all necessary backup to City's Accounts Payable Division. Including copy of POD with Invoice is encouraged and speeds payment processing time.
- i. Vendor's Invoices that are billed inaccurately, incompletely, or otherwise unprocessable are not considered valid.



- j. When sending City a Revised Invoice, it must be clearly marked "Revised." When sending City a replacement Invoice, it must reference the Invoice Number it is replacing.
- k. Invoices to the City shall reference the City Department, Release Number, Work Order Number, and the first and last name of the City employee placing the order.
- l. Accurate Invoices, with all appropriate backup documentation, shall be sent to:

- m. City of Chattanooga
  - n. Attn: Accounts Payable Division
  - o. 101 East 11<sup>th</sup> Street, Suite 101
  - p. Chattanooga, TN 37402
- 2. [acctspayable@chattanooga.gov](mailto:acctspayable@chattanooga.gov)
  - i. and copy sent to:
    - b. Moccasin Bend Wastewater Treatment Plant
    - c. 455 Moccasin Bend Road
    - d. Chattanooga, TN 37405
- 3. [MBacctspayable@chattanooga.gov](mailto:MBacctspayable@chattanooga.gov)

## APPENDIX A

Item NO.	Internal Pipe Inspection Using	Rate	Quantity	Total
1	CCTV Inspection - 6" to 18" On Road			
2	CCTV Inspection - 6" to 18" Off Road			
3	CCTV Inspection - 20" to 36" On Road			
4	CCTV Inspection - 20" to 36" Off Road			
5	CCTV Inspection - 40" to 54" On Road			
6	CCTV Inspection - 40" to 54" Off Road			
7	CCTV Inspection - 60" to 84" On Road			
8	CCTV Inspection - 60" to 84" Off Road			
9	CCTV Inspection - Larger than 84" On Road			
10	CCTV Inspection - Larger than 84" Off Road			
11	Sonar Inspection - 8" to 21" On Road			
12	Sonar Inspection - 8" to 21" Off Road			
13	Sonar Inspection - 24" to 48" On Road			
14	Sonar Inspection - 24" to 48" Off Road			
15	Sonar Inspection - Larger than 48" On Road			
16	Sonar Inspection - Larger than 48" Off Road			
17	Combined CCTV & Sonar Inspection - 21" to 36" On Road			
18	Combined CCTV & Sonar Inspection - 21" to 36" Off Road			
19	Combined CCTV & Sonar Inspection - 42" to 48" On Road			
20	Combined CCTV & Sonar Inspection - 42" to 48" Off Road			
21	Combined CCTV & Sonar Inspection - Larger than 48" On Road			
22	Combined CCTV & Sonar Inspection - Larger than 48" Off Road			
23	Data Delivery in specified format (including QA/QC)			
24	CCTV Inspection – Stormwater Half Day			
25	CCTV Inspection - Stormwater Full Day			
Off Road = "Any manhole that is on land that is not open for public vehicle access"				

## APPENDIX B

### PACP® "Inspections" Table - Required Fields, Formats, and Conventions

All field names, data types, and descriptions are from PACP v6.0.2 unless otherwise noted. PACP fields not required by City of Chattanooga have been omitted.

Field Name	Data Type	Description of Field (bold text denotes special requirements by the City of Chattanooga)
InspectionID	AutoNumber	This field is automatically populated when any inspection information is entered. The number generated must be entered in the InspectionID field of the Conditions table for all conditions recorded during the inspection
Surveyed_By	Text	Name of individual conducting survey
Certificate_Number	Text	NASSCO PACP # of Surveyor
Owner	Text	Owner of collection system surveyed
Customer	Text	Entity commissioning the survey
Drainage_Area	Text	Common name of drainage area - <b>If field maps are provided and include drainage basins, populate this field with the drainage basin name/ID</b>
PO_Number	Text	Customer's Purchase Order Number
Pipe_Segment_Reference	Text	Client provided segment number - <b>If pipe segment number is not provided, use the convention "Upstream Manhole ID_Downstream Manhole ID"</b>
Date	Date/Time	Inspection Date
Time	Date/Time	Time of inspection
Street	Text	Street Number and Name
City	Text	City name where sewer located
Location_Details	Text	Descriptive explanation of sewer location
Upstream_MH	Text	Client provided designation for upstream manhole
Up_Rim_to_Invert	Number	Distance (ft and tenths of ft) or (meters to 2 decimal places max) from rim to invert of upstream manhole
Up_Grade_to_Invert	Number	Distance (ft and tenths of ft) or (meters to 2 decimal places max) from average grade to invert of upstream manhole
Up_Rim_to_Grade	Number	Distance (ft and tenths of ft) or (meters to 2 decimal places max) from rim to average grade of upstream manhole
Downstream_MH	Text	Client provided designation for downstream manhole
Down_Rim_to_Invert	Number	Distance (ft and tenths of ft) or (meters to 2 decimal places max) from rim to invert of downstream manhole
Down_Grade_to_Invert	Number	Distance (ft and tenths of ft) or (meters to 2 decimal places max) from average grade to invert of downstream manhole

## APPENDIX B (Continued)

Field Name	Data Type	Description of Field (bold text denotes special requirements by the City of Chattanooga)
Down_Rim_to_Grade	Number	Distance (ft and tenths of ft) or (meters to 2 decimal places max) from rim to average grade of downstream manhole
Sewer_Use	Text	Purpose of sewer
Direction	Text	Direction of survey, Upstream or Downstream
Flow_Control	Text	Type restriction of flow used
Height	Number	Diameter of sewer (or height if non-circular) to nearest inch(999) or nearest mm(99999)
Width	Number	Width of non-circular sewer to nearest inch(999) or nearest mm(99999)
Shape	Text	Sewer shape
Material	Text	Type of pipe material
Lining_Method	Text	Type of process used to line the host pipe
Pipe_Joint_Length	Number	Length of pipe joint sections measured to one decimal place whether in feet or meters
Total_Length	Number	Distance between the exit of the start manhole and the entrance of the finish measured to one decimal place whether it is feet or meters - <b>If field maps are provided for the project area and include a total length, then this value will be entered into the field "Total_Length".</b>
Length_Surveyed	Number	If the survey is abandoned, enter the actual length surveyed to one decimal place whether it is feet or meters
Year_Laid	Number	Year sewer surveyed was constructed
Year_Renewed	Number	Year sewer surveyed was renewed
Media_Label	Text	Unique identifier for tape/media
Purpose	Text	Reason for conducting survey
Sewer_Category	Text	Importance of sewer, to be provided by client
Pre-Cleaning	Text	Type of preparatory cleaning conducted prior to survey
Date_Cleaned	Date/Time	Date when sewer was cleaned prior to survey
Weather	Text	Weather conditions when survey conducted
Location_Code	Text	General description of ground cover of surveyed segment
Additional_Info	Text	Supplemental info regarding survey or segment
Reverse_Setup	Number	Specifies that a second survey has been done on the pipe segment--use inspection ID from matching survey
Sheet_Number	Number	Number used to identify individual surveys done within a group - <b>If field maps are provided, this field must be populated with the map number/ID</b>
IsImperial	Yes/No	Used to identify whether units are metric or imperial. Defaults to imperial.
PressureValue	Number	Grouting pressure value
WorkOrder	Text	Work order or Project reference for Asset Management
Project	Text	Project Title or reference for Asset Management

## APPENDIX C

### PACP® "Conditions" Table - Required Fields, Formats, and Conventions

All field names, data types, and descriptions are from PACP v6.0.2 unless otherwise noted. PACP fields not required by City of Chattanooga have been omitted.

Field Name	Data Type	Description of Field (bold text denotes special requirements by the City of Chattanooga)
ConditionID	AutoNumber	This field is automatically populated when any condition information is entered.
InspectionID	Number	Software provided designation for this inspection (THIS FIELD USED TO JOIN TABLES)
Distance	Number	Distance is measured to one decimal place to feature location whether it is in feet or meters
Counter	Number	Time into the video of the identified condition, in seconds
PACP_Code	Text	Combination of Group/Destructor and Modifier/Severity in a single data field
Continuous	Text	Continuous defect number with start (S) and finish (F) matching to denote beginning and ending of defect
Value_1st_Dimension	Number	Dimensions of defects to nearest Inch or mm
Value_2nd_Dimension	Number	Used for intrusion of tap or width of non-circular connecting pipe to nearest inch or mm
Value_Percent	Number	Used to express percentage value of defects
Joint	Yes/No	Indicates a defect located near a joint
Clock_At_From	Number	Clock At/From Position of defect/observation
Clock_To	Number	Clock To Position of defect/observation
Remarks	Text	Additional info to describe defect/coding
VCR_Time	Text	Time into the video of the identified condition in HHMMSS format with 0 used as space holder.

## APPENDIX D

### PACP®"Media\_Inspections" Table - Required Fields, Formats, and Conventions

All field names, data types, and descriptions are from PACP v6.0.2 unless otherwise noted. PACP fields not required by City of Chattanooga have been omitted.

Field Name	Data Type	Description of Field (bold text denotes special requirements by the City of Chattanooga)
MediaID	AutoNumber	This field is automatically populated when any media (picture or movie file) is saved.
InspectionID	Number	Software provided designation for this inspection (THIS FIELD USED TO JOIN TABLES)
Video_Name	Text	The name of the video file corresponding to data file - video file naming format shall be " <b>InspectionID" _ "Upstream_MH" _ "Downstream_MH" _ "Direction"</b>
Video_Location	Text	For digital recordings, path of video file relative to corresponding data file
<b>Report_Name (custom field)</b>	Text	<b>The name of the PDF report file for the inspection. File naming format shall be "<b>InspectionID" _ "Upstream_MH" _ "Downstream_MH" _ "Direction"</b></b>
<b>Report_Location (custom field)</b>	Text	<b>path of the PDF report file relative to corresponding data file</b>

## APPENDIX E

### PACP® "Media\_Conditions" Table - Required Fields, Formats, and Conventions

All field names, data types, and descriptions are from PACP v6.0.2 unless otherwise noted. PACP fields not required by City of Chattanooga have been omitted.

Field Name	Data Type	Description of Field (bold text denotes special requirements by the City of Chattanooga)
MediaCondID	AutoNumber	This field is automatically populated when any media (picture or movie file) is saved.
ConditionID	Number	Software provided designation for this inspection (THIS FIELD USED TO JOIN TABLES)
Image_Reference	Text	If digital snapshots are taken, the name or number of the image file. - <b>snapshot file naming format shall be "InspectionID" "ConditionID" "Distance" "PACP Code"</b>
Image_Path	Text	Path to digital image reference file
Video_File	Text	For digital recordings, name of the video file associated with this condition relative to the data file
Video_File_Path	Text	For digital recordings, path of the video file associated with this condition relative to the data file

Chapter No. 817 (HB0261/SB0377). "Iran Divestment Act" enacted.

Vendor Disclosure and Acknowledgement

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to § 12-12-106.

(SIGNED) \_\_\_\_\_

(PRINTED NAME) \_\_\_\_\_

(BUSINESS NAME) \_\_\_\_\_

(DATE) \_\_\_\_\_

For further information, please see website:

[https://www.tn.gov/assets/entities/generalservices/cpo/attachments/List\\_of\\_persons\\_pursuant\\_to\\_Tenn.\\_Code\\_Ann.\\_12-12-106,\\_Iran\\_Divestment\\_Act-July.pdf](https://www.tn.gov/assets/entities/generalservices/cpo/attachments/List_of_persons_pursuant_to_Tenn._Code_Ann._12-12-106,_Iran_Divestment_Act-July.pdf)



## **Affirmative Action Plan**

The City of Chattanooga is an equal opportunity employer and during the performance of this Contract, the Contractor agrees to abide by the equal opportunity goals of the City of Chattanooga as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, national origin, or handicap. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or handicap.
3. The Contractor will send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice advising said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. During the term of all construction contracts or subcontracts in excess of \$10,000 to be performed for the City of Chattanooga, the following non-discriminatory hiring practices shall be employed to provide employment opportunities for minorities and women:
  - a. All help wanted ads placed in newspapers or other publications shall contain the phrase "Equal Employment Opportunity Employer".
  - b. Seek and maintain contracts with minority groups and human relations organizations as available.
  - c. Encourage present employees to refer qualified minority group and female applicants for employment opportunities.
  - d. Use only recruitment sources which state in writing that they practice equal opportunity. Advise all recruitment sources that qualified minority group members and women will be sought for consideration for all positions when vacancies occur.

5. Minority statistics are subject to audit by City of Chattanooga staff or other governmental agency.
6. The Contractor agrees to notify the City of Chattanooga of any claim or investigation by State or Federal agencies as to discrimination.

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(Signature of Contractor)

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(Title and Name of Company)

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(Date)