

RESOLUTION 10-93

**A RESOLUTION TO AUTHORIZE THE PURCHASE
OF A CAMERA SYSTEM FOR SEWER LINE INSPECTIONS**

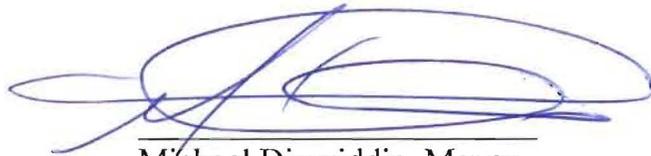
WHEREAS, the City of Spring Hill is in need of a camera system to inspect sewer lines; and

WHEREAS, the City of Spring Hill advertised Request for Proposals on August 3, 2010 and accepted proposals on September 7, 2010 at 2:00 p.m.; and

WHEREAS, City Staff received and reviewed two proposals; and

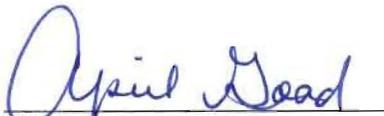
NOW, THEREFORE BE IT RESOLVED, that the City of Spring Hill authorizes the purchase of a Camera System for Sewer Line Inspections, as recommended by staff, from Sansom Equipment Company at a price of \$89,182.43.

Passed and adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on the 18th day of October, 2010.

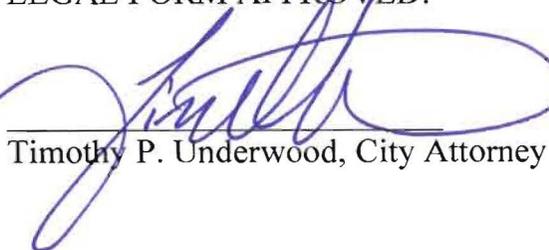


Michael Dinwiddie, Mayor

ATTEST:


April Goad, City Recorder

LEGAL FORM APPROVED:


Timothy P. Underwood, City Attorney

RFP RESULTS
 For
City of Spring Hill, Tennessee
Camera for Sewer Line Inspections

BID OPENING: Tuesday, September 7, 2010 2:00 P.M.

CONTRACTOR	QUOTE
ECA-SSI Tulsa, OK	\$134,990.00
Sansom Equipment Company Birmingham, AL	\$ 89,182.43

The City of Spring Hill opened sealed proposals on the above referenced project. Acceptance of proposals closed at 2:00 p.m. City Staff present were: Jim Smith, Finance Director/Assistant City Administrator, and April Goad, City Recorder. Also present was Randy Finney with ECA SSI attached list of bidder representatives

Jim Smith opened proposals and thanked Mr. Finney for participating.

After Staff Review and Recommendation, Spring Hill Board of Mayor and Aldermen scheduled to deliberate on Monday, September 20, 2010, 7:00 p.m. (Deferred to October 18, 2010 8:00 p.m.)

The Bid opening concluded at 2:11 p.m.

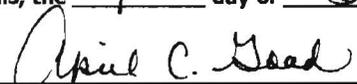
CERTIFICATION:

State of Tennessee
 Maury County
 City of Spring Hill

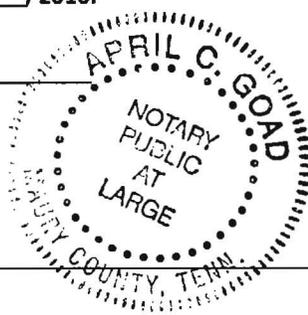
I hereby certify that this is a true copy of the original documents.

Description: Proposals - Camera - Sewer Line

This, the 7th day of September, 2010.

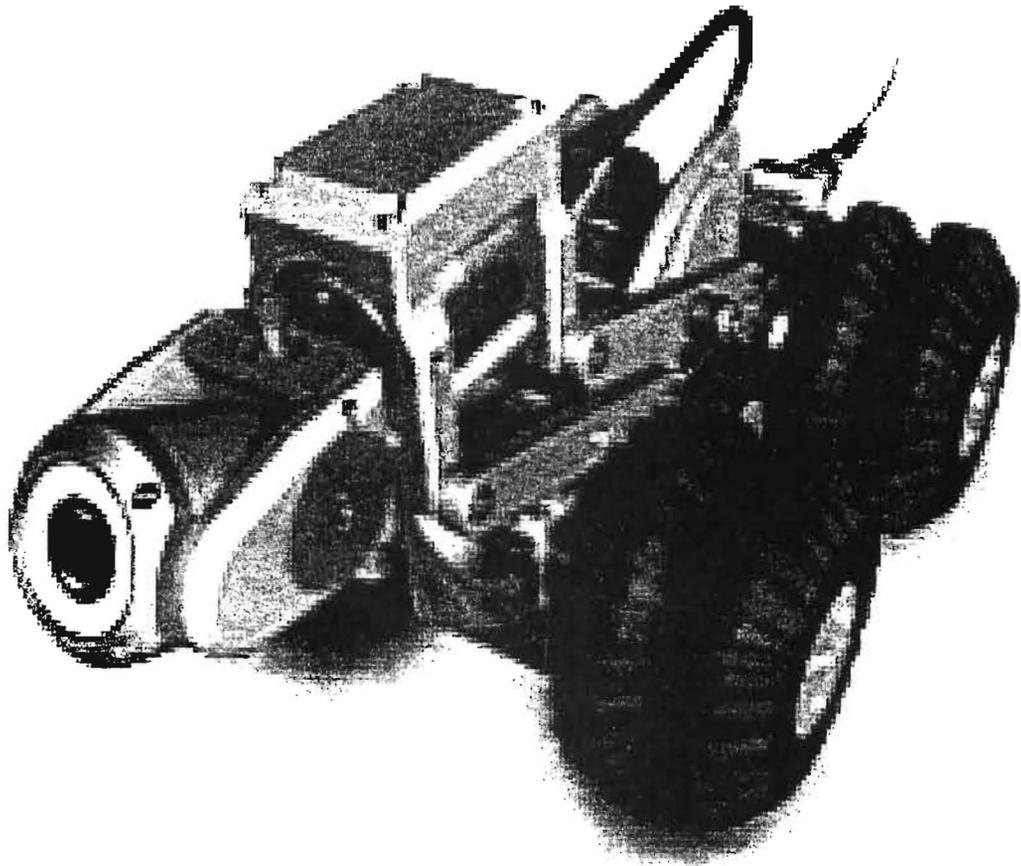

 April C. Goad, Notary Public
 City Recorder, City of Spring Hill, Tennessee

My Commission Expires: June 19, 2012



City of Spring Hill. TN EnviroSight Rover Proposal:

Submitted By: Sansom Equipment Company



**SANSOM
EQUIPMENT
COMPANY INC.**

Zane Kilgo
Cell 205-835-0796

P.O. Box 360041 Birmingham, Alabama 35236
1225 Vanderbilt Road Birmingham, Alabama 35234
Office 205-324-3104 / Toll Free 800-501-0757 / Fax 205-324-2679
E-Mail: zane.kilgo@secequip.com / www.secequip.com



**VACTOR
LEACH**

GIANT-YAC

**PRO-PATCH
WITKE**



3.00 PRICING AND DELIVERY SCHEDULE

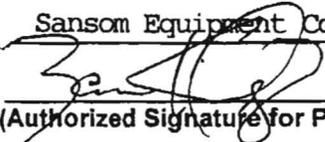
Proposal of Sansom Equipment Co., Inc.
(Proposer Company Name)
To: The City of Spring Hill
Ref.: Camera System for Sewer Line Inspections

Ladies and Gentlemen:
Having carefully examined all the specifications and requirements of this RFP and any attachments thereto, the undersigned proposes to furnish the Camera System for Sewer Line Inspections required pursuant to the above referenced Request for Proposal upon the terms quoted below.

GRAND TOTAL: \$ 89,182.43

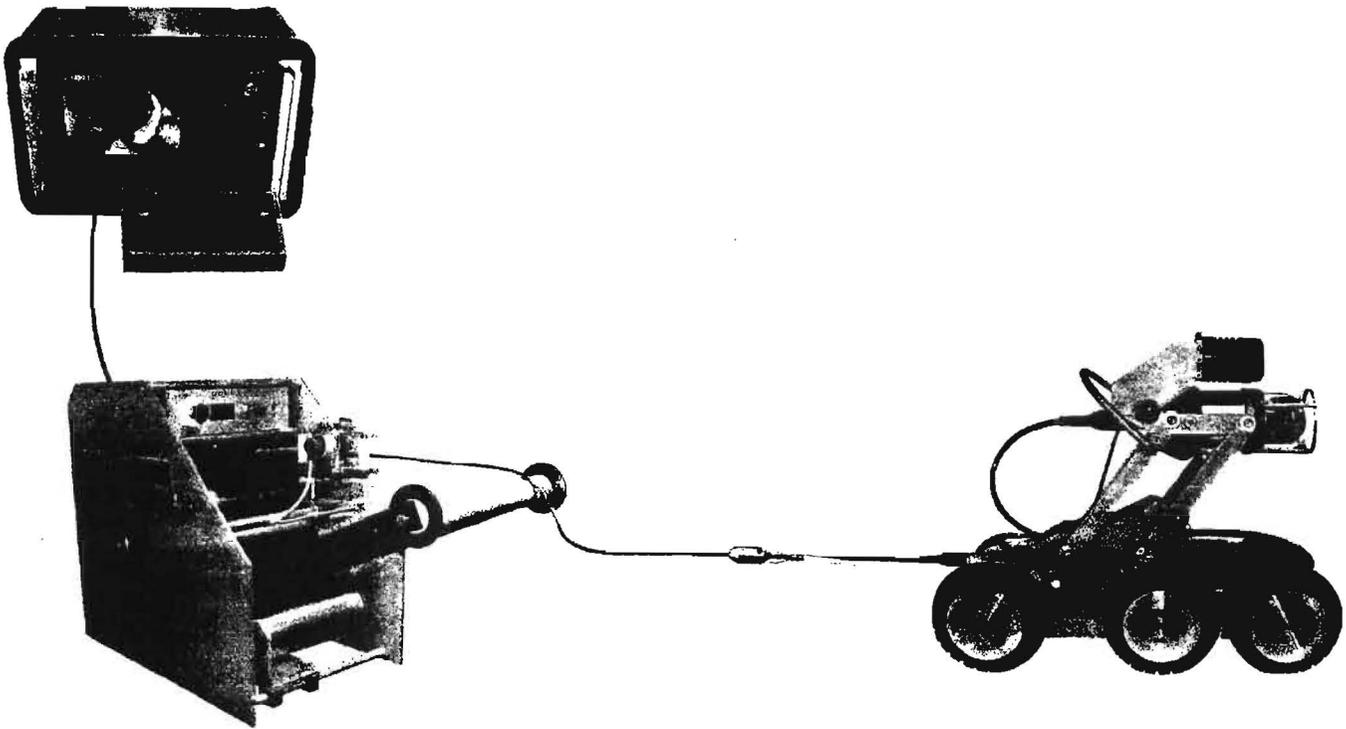
Delivery schedule of events and time periods
30-60 days after receipt of order

Respectfully submitted,

Proposer: Sansom Equipment Co., Inc.
By: 
(Authorized Signature for Proposer)
Name: Zane Kilgo
Title: Vice President
Date: 9-2-10

CAMERA SYSTEM FOR SEWER LINE INSPECTION

Submitted to:
SPRING HILL TENNESSEE



3.00 PRICING AND DELIVERY SCHEDULE

Proposal of: ECA – SSI
(Proposer Company Name)

To: The City of Spring Hill

Ref.: Camera System for Sewer Line Inspections

Ladies and Gentlemen:

Having carefully examined all the specifications and requirements of this RFP and any attachments thereto, the undersigned proposes to furnish the Camera System for Sewer Line Inspections required pursuant to the above referenced Request for Proposal upon the terms quoted below.

Total for Line 1 of Spring Hill RFP: \$ 51,995.00*

Total for Line 2 of Spring Hill RFP: \$ 82,995.00*

Optional Show Unit: \$ 79,995.00

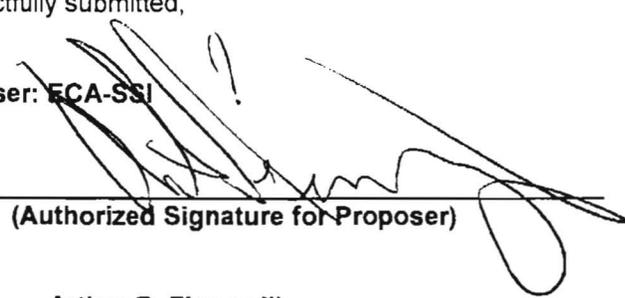
GRAND TOTAL: \$ See line item details above \$134,990.00*

Delivery schedule of events and time periods

90 to 120 after receipt of order

Respectfully submitted,

Proposer: ECA-SSI

By: 
(Authorized Signature for Proposer)

Name: Arthur R. Finney III

Title: Sales Manager – Pipe Inspection

Date: September 7, 2010

CITY OF SPRING HILL, TENNESSEE
CONTRACT DOCUMENTS
&
SPECIFICATIONS
FOR
A CAMERA SYSTEM FOR
SEWER LINE INSPECTIONS



August 3, 2010

REQUEST FOR PROPOSALS
For A Camera System for Sewer Line Inspections
City of Spring Hill, Tennessee

Sealed Proposals will be received by the City of Spring Hill, Tennessee, for a Camera System for Sewer Line Inspections at City Hall, 199 Town Center Parkway, Spring Hill, Tennessee 37174, on or before September 7, 2010 at 2:00pm CST. The envelope containing the proposal must be sealed and plainly marked "Proposal for a Camera System for Sewer Line Inspections".

Proposals must be made on the Proposal Forms and in accordance with Instructions to Bidders furnished by the City of Spring Hill.

The defined terms appearing in the General Specifications apply to all Contract Documents.

The City reserves the right to reject any or all Proposals regarding the Camera System for Sewer Line Inspections, to waive irregularities and/or informalities in any Proposal, and to make an award in any manner, consistent with law, deemed in the best interest of the City.

INSTRUCTIONS TO BIDDERS
CAMERA SYSTEM FOR SEWER LINE INSPECTIONS

1. RECEIPT AND OPENING OF PROPOSALS

The City of Spring Hill invites and will receive Proposals on the forms attached hereto, all information on which must be appropriately completed. Proposals will be received at City Hall until 2:00pm CST on September 7, 2010, and publicly opened and read aloud on the aforesaid date. The envelopes containing the Proposals must be sealed and addressed to April Goad, City Recorder, 199 Town Center Parkway, Spring Hill, TN 37174 and plainly marked "Proposal for A Camera System for Sewer Line Inspections". Proposals will not be accepted via fax machine or internet email.

2. PREPARATION OF THE PROPOSAL

All Proposals shall be made on the Proposal Form attached hereto and shall give the amount of bids for work and must be signed by the Bidders. Blank spaces in each Proposal Form together with appropriate schedules must be completed in full in ink or typewritten.

If a unit price or a lump sum already entered by the Bidder on the Proposal Form is to be altered, it shall be crossed out with ink and the new unit price or lump sum bid entered above or below it, and initialed by the Bidder in ink.

Each Proposal, together with appropriate schedules, must be submitted in a sealed envelope bearing on the outside the name of the Bidder, its address, and plainly marked "Proposal for A Camera System for Sewer Line Inspections". If forwarding by mail, the sealed envelope containing the Proposal must be enclosed in another envelope addressed as specified in the Proposal. The City may consider as irregular any Proposal not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all Proposals.

Any Proposal may be withdrawn prior to the above-scheduled time for the opening of Proposals or authorized postponement thereof.

Any Proposal received after the time and date specified above shall not be considered.

3. AWARD OF THE CONTRACT

The Contract shall be deemed as having been awarded when formal notice of the award is mailed by the City to the Bidder.

The Bidder to whom the Contract is awarded will be required to execute 3 copies of the Contract on the form attached. In case of the Bidder's refusal or failure to do so within ten (10) days after its receipt of formal notice of award, Bidder will be considered to have abandoned all rights and interests in the award and the award may then be made to the next best qualified Bidder or the work readvertised for Proposals as the City may elect.

These criteria are to be utilized in the evaluation of qualifications for development of the shortlist of those bidders to be considered for interviews and/or negotiations. Individual criteria may be assigned varying weights at the City's discretion to reflect relative importance. Bidders are required to address each evaluation criterion in the order listed and to be specific in presenting their qualifications.

- a. Qualifications of the Vendor
- b. Experience of the Vendor
- c. References
- d. Stability and Evidence of long-term viability of the Vendor
- e. Adherence of the Product to the Technical Specifications
- f. Pricing

4. SCOPE OF WORK

The work under this Contract shall consist of the items contained in the General Specifications and Proposal, including all incidentals necessary to fully complete said work in accordance with the Contract Documents.

5. CONDITIONS

Each Bidder shall fully acquaint itself with conditions relating to the scope and restrictions attending the execution of the work under Contract. Bidders shall thoroughly examine and be familiar with the Specifications. It is also expected that the Bidders will obtain information concerning the conditions at locations that may affect its work.

The failure or omission of any Bidder to receive or examine any form, instrument, addendum or other document, or to acquaint itself with existing conditions, shall in no way relieve it of any obligations with respect to his Proposal or to the Contract. The City shall make all such documents available to the Bidder.

The Bidder shall make its own determination as to conditions and shall assume all risk and responsibility and shall complete the work in and under conditions it may encounter or create, without extra cost to the City.

The Bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over the work to be performed shall apply to the Contract throughout, and they will be deemed to be included in the Contract as though written out in full in the Contract.

6. ADDENDA AND EXPLANATIONS

Explanations desired by a prospective Bidder shall be requested of the City in writing, and if explanations are necessary, a reply shall be made in the form of an Addendum, a copy of which will be forwarded to each Bidder. Every request for such explanation shall be in writing (email) addressed to April Goad, Recorder at agoad@springhilltn.org. Any verbal statements regarding same by any person prior to the award shall be unauthoritative and not binding.

Addenda issued to Bidders prior to date of receipt of Proposals shall become a part of the Contract Documents, and all Proposals shall include the work described in the Addenda.

No inquiry received within seven (7) days of the date fixed for the submission and opening of Proposals will be given consideration.

Any and all such interpretations and any supplemental instructions will be in the form of written Addenda, which, if issued, shall be emailed to all prospective Bidders, no later than five (5) days prior to the date fixed for the opening of Proposals.

7. NAME, ADDRESS, AND LEGAL STATUS OF THE BIDDER

The Proposal must be properly signed in ink and the address of the Bidder given. The legal status of the Bidder, whether corporation, partnership, or individual, shall also be stated in the Proposal.

A corporation shall execute the Proposal by its duly authorized officers in accordance with its corporate by-laws and shall also list the state in which it is incorporated. A partnership Bidder shall give full names of all partners. Partnership and individual Bidders will be required to state in the Proposal the names of all persons interested therein.

The place of residence of each Bidder, or the office address in the case of a firm or company, with county and state and telephone number, must be given after his signature.

If the Bidder is a joint venture consisting of a combination of any or all of the above entities, each joint venturer shall execute the Proposal.

Anyone signing a Proposal as an agent of another or others must submit with his Proposal legal evidence of his authority to do so.

8. COMPETENCY OF BIDDER

The opening and reading of the Proposal shall not be construed as an acceptance of the Bidder as a qualified, responsible Bidder. The City reserves the right to determine the competence and responsibility of a Bidder from its knowledge of the Bidder's qualifications or from other sources.

The City shall require submission with the Proposal of the following supporting data regarding the qualifications of the Bidder in order to determine whether it is a qualified, responsible Bidder. The Bidder will be required to furnish the following information:

- (a) An itemized list of the Bidder's equipment available for use on the Contract.
- (b) A copy of the latest available certified financial statement of the Bidder (or its parent corporation if individual subsidiary or division financial statements are not prepared and generally available) certified by independent certified public accountants.
- (c) Evidence that the Bidder is in good standing under the laws of the State of Tennessee, and, in the case of corporations organized under the laws of any other State, evidence that the Bidder is licensed to do business and in good standing under the laws of the State of Tennessee or a sworn statement that it will take all necessary action to become so licensed if its Proposal is accepted.
- (d) Evidence, in form and substance satisfactory to City, that Bidder (or Bidder's subsidiaries or affiliates) has been in existence as a going concern for in excess of five (5) years and possesses not less than five (5) years actual operating experience as a going concern in mass notification systems.

In the event that the City shall require additional certified supporting data regarding the qualifications of the Bidder in order to determine whether he is a qualified responsible bidder, the Bidder may be required to furnish any or all of the following information sworn to under oath:

- (a) Evidence that the Bidder is capable of commencing performance as required in the Contract Documents.
- (b) Evidence, in form and substance satisfactory to City, that Bidder possesses as a going concern the managerial and financial capacities to perform all phases of the work called for in the Contract Documents.
- (c) Such additional information as will satisfy the City that the Bidder is adequately prepared to fulfill the Contract.

9. DISQUALIFICATION OF BIDDERS

Although not intended to be an exhaustive list of causes for disqualification, any one or more of the following causes, among others, may be considered sufficient for the disqualification of a Bidder and the rejection of its Proposal:

- (a) Evidence of collusion among Bidders.
- (b) Lack of competency as revealed by either financial statements, experience or equipment statements as submitted, or other factors.
- (c) Lack of responsibility as shown by past work, judged from the standpoint of workmanship as submitted.
- (d) Default on a previous municipal contract for failure to perform.

10. METHOD OF AWARD

The City reserves the right to accept any Proposal or to reject any or all Proposals, and to waive defects or irregularities in any Proposal. In particular, any alteration, erasure or interlineations of the Contract Documents and of the Proposal shall render the accompanying Proposal irregular and subject to (but not requiring) rejection by the City.

CAMERA SYSTEM FOR SEWER LINE INSPECTIONS
SPECIFICATIONS AND ADDITIONAL QUESTIONS

1.0 EQUIPMENT

- a. Rover 125 Outpost Zoom System – Rover 125 Steerable Crawler with set of (6) small wheels, set of (4) medium wheels, set of (4) large wheels, set of (4) medium grease wheels and shipping case. RA 200 motorized cable reel complete with 200 meters of cable. Control unit for mounting in outpost.
- b. Outpost Portable Enclosure/Inspection Platform – Aluminum box is 46.5 inch H x 42.25 W x 42.25 D. Exterior is painted silver, interior is painted non-glaring black. Box interior has shelving for monitor, VCR, CCU and cable reel, plus single tool drawer. Includes shield to prevent ingress of rain.
- c. Outpost Washdown System Upgrade – Includes a 25 ft. self-winding hose reel housed in the upper right rear compartment. 15-gallon fresh water tank is included with 110 volt pump with 40 psi and outside fresh water fill.
- d. (1) Super Aggressive medium wheel for 8" line (BLUE WITH spikes) – 4.33" diameter (110 mm) optional
- e. 15-inch LCD monitor - 15-inch flat panel LCD TV (Sharp, Sony or equivalent)
- f. DVD recorder – DVD recorder. Progressive-scan DVD recorder with 50-100 GB hard drive and time-slip playback.
- g. Adjustable camera raise kit – Raises camera on Rover 125 Crawler 2"-5".
- h. Top Manhole Cable Roller – Aluminum frame and rubber wheel with bearings protects cable from manhole top cover edge and reduces friction to improve crawler performance.
- i. Tyger tail for manhole bottom cable protection – 2-inch diameter rubber sleeve to protect cable from manhole bottom pipe entry.
- j. Rover 125 Crawler Rear View Camera – Rear viewing b/w camera with LED aux lamps for Rover 125 crawler with compatible mounting top plate.
- k. Push Camera System:
 - Camera – Self-leveling; 1.3 diameter x 2.4" length; 1.6 skid diameter x 1.4" length; 0.45lb weight; 72,000 mcd LED illumination; minimum 0.5 lux image sensitivity; 10 mm rod compatibility; stainless steel housing with scratch-resistant sapphire window; 6 bar submersion; diagnostic toolkit to isolate problems and minimize downtime
 - Controller/Recorder – 16.7" x 9.5" x 13"; 26 lb; 8" TFT LCD display; 45 hr (via 60 GB internal hard drive) recording capacity; full QWERTY waterproof USB keyboard; multi function with 16-page capacity (24 characters x 9 lines per page) text generator; selectable ft/m counters with onscreen display and displays on stand alone digital readout; MPEG4 digital video out via USB; composite video via RCA jack analog video in/out; ABX plastic construction (waterproof when closed); controls to include power, SONDE activate/frequency select, illumination level, mic on/off, file/function/menu navigation, record/playback, counter units/reset; rechargeable internal Ni-MH battery power, 12 Vdc, 120-240 Vac; UL rating, CE, resists shock per IEC 6006802031, resists water per IEC 60529
 - Push Rod/Frame – 100' or 200' cable length; 10 mm push rod diameter; 21" x 20" x 9"; 32 lb weight; switchable SONDE 512 Hz / 640 Hz / 33 kHz, 5 watts, 12 ft range (typical); water resistance per IP54 (withstands pressure-washing); stainless steel frame; epoxy/Kevlar-reinforced push rod (4000-lb breaking strain)

Or equivalent.

2.00 ADDITIONAL SPECIFICATIONS

Please mark YES or NO to each individual specification. If NO, write below specification what is offered. If equipment being offered arrives at City and does not meet specifications, the equipment will be deemed unacceptable and will be sent back to the bidder.

a. Zooming Pan & Tilt Color Camera

The pan & tilt camera must connect directly to the cable and to any crawler without modification to the cable, control unit or any other part of the system. When connected to any crawler there shall be no external wires, connectors, clamps or tie-downs.

YES _____ NO _____

Exception:

The camera will pan (+/- 175 degrees) and tilt (+/- 135 degrees) allowing for full view of laterals, joints and other various observations. Camera will have the ability to view behind crawlers to inspect upstream lateral rubber seals on gravity flow PVC pipes. The pan/tilt will have mechanical stops to avoid slip-ring maintenance issues and prevent camera from being inadvertently positioned into dirty flow at the bottom of the pipe.

YES _____ NO _____

Exception:

The camera must have 10x optical and 4x digital zoom capability for viewing up laterals and magnifying observations.

YES _____ NO _____

Exception:

Camera construction shall include all solid-state circuitry designed to withstand shocks and vibrations while being pushed, pulled or propelled through the pipe. All camera electronics shall be of modular construction for ease of exchange and repair, and shall be designed to facilitate future upgrades. The housing shall be fully sealed and waterproof to withstand external pressure up to 15 psi without damage or leaking. The front of the camera housing shall have a windshield made of impact resistant, distortion free material.

YES _____ NO _____

Exception:

The camera shall be IP68 rated for underwater environments.

YES _____ NO _____

Exception:

The camera power supply shall be provided from a solid-state power source and the camera input shall be 12 volts DC. The lighting for the camera shall be supplied through an isolated power supply and shall regulate the light voltage up to a nominal 3 volts DC. The pan/tilt motor power shall be 12 V/3 watt.

YES _____ NO _____

Exception:

The camera shall be designed for easy removal and installation from the cable or tractor by using a single T-bar tool to keyed stainless steel waterproof swivel loc-tite camera and cable connections. Other types of connectors will not be acceptable.

YES _____ NO _____

Exception:

Camera illumination must be provided with a minimum of 28 field replaceable LED's which shall have a 50 degree lighting angle and provide 45,000 mcd/piece.

YES _____ NO _____

Exception:

The camera shall have a visible internal pressure indicator allowing the operator to detect a pressure loss. A solid red indicator will show when the system is over-pressurized, green indicator when the system is holding between 5 and 10 lbs of pressure and blinking red indicator when pressure is below 5 lbs. The camera shall have a shraeder valve for purge and pressurization of the camera body. Pressurization prevents the ingress of water during an accident and provides dry internal air to prevent fogging of inner lens during changing external temperatures.

YES _____ NO _____

Exception:

The camera shall pan and tilt at the same time to increase speed of inspection and home position placement when continuing forward. Cameras that require the operator to stop and pan and tilt separately will be deemed unacceptable.

YES _____ NO _____

Exception:

The camera must weigh a maximum of 3.75 pounds/1.7 kg. The camera must have a maximum size of 79mm x 110mm x 75mm to fit into a diameter of 3.5". Side stainless steel plates must be a minimum of 13 mm for increased durability when inserting the camera into a manhole. The rotation axle must be made of a minimum 15mm stainless steel.

YES _____ NO _____

Exception:

The following camera functions must be able to be controlled via a remote pendant:

1. Single click for normal zoom in/out
2. Double click same button for full in/out zoom position
3. Hold down for longer than 1.5 seconds for fast zoom in/out
4. Shutter speed button for up, down and auto
5. Focus button for near, far and auto
6. Home button for centering pan/tilt to center forward position
7. Double click home button to set wide zoom setting
8. Joystick control for pan/tilt
9. Rheostat control of lighting

Pan and tilt head must have integrated clutch for pan and tilt motor.

YES _____ NO _____

Exception:

b. Steerable Motorized 6" to 24" Crawler

The system shall include a gear driven; all wheel drive tractor to carry the camera for rapid remote inspection of pipes ranging from 6" to 24" in diameter. The tractor shall provide sufficient traction, under suitable conditions, to tow 660 feet of transmission cable. Such traction shall be provided by six gear driven wheels with tapered tires. Tractors propelled by belts or continuous tracks will not be acceptable.

YES _____ NO _____

Exception:

The tractor shall have forward/reverse and left/right steerable movement via the pendant control and the CCU.

YES _____ NO _____

Exception:

Both the camera and cable shall be easily removed from the tractor unit with a T-bar tool to facilitate productivity and service. This connector shall have a lifetime warranty. T-bar tool turns a cam lock no more than 2" to secure and release the cable or camera. Systems that need more than one tool, screws or wires will be deemed unacceptable.

YES _____ NO _____

Exception:

The tractor shall have a maximum size of 3" wide by 3 3/10" high to allow proper clearance in 6" and lined pipe. Also, to allow for performance in soft sediment and debris and ease of use the tractor shall weigh a minimum 17.5 lbs and 20 lbs with pan/tilt camera attached. The tractor shall be no longer than 15" with pan/tilt camera attached to easily navigate smaller pipe and turns without rolling or impediment.

YES _____ NO _____

Exception:

The tractor shall be powered by (2) 20 watt DC motors.

YES _____ NO _____

Exception:

The tractor front bottom edge shall be solid anodized aluminum and be curved upward to assist with moving over and through common debris and obstacles.

YES _____ NO _____

Exception:

In order to prevent leaking and bending due to the torque and stress generated by a small steerable crawler, the chassis shall be a single piece of machined aluminum with only a top plate to access control boards, a

bottom plate to access motors and (2) zinc plated brass side cover plates to access gears. Bronze or brass bodies of soft metals will not be acceptable for chassis construction.

YES _____ NO _____

Exception:

All wheels shall have tapered edges to conform to pipe sidewall. The tractor shall have a machined key fitting on all (6) axles to facilitate easy use and ensure an exact fit with all wheels. Machined axle key must be able to be replaced in the field without having to replace the axle. Tractors without keyways or keyway fittings that can be replaced in the field without removal of the axle will be deemed unacceptable. Spacers and wheel sizes will attach with a single screw. No plates or spacer bars will be accepted.

YES _____ NO _____

Exception:

The tractor shall be equipped with the following wheel and hardware sets:

1. (4) common 36 mm x 20 mm wide axle extensions
2. (6) 3.33" diameter grooved rubber wheels
3. (4) 4.33" diameter grooved rubber wheels
4. (4) 4.33" diameter soft composite grease wheels with traction grit impregnation
5. (4) 5.31" diameter grooved rubber wheels

Optional additional wheels and carbide, high traction wheels must also be available. Crawler must offer different wheel compositions and designs for differing pipe sizes and conditions.

YES _____ NO _____

Exception:

The tractor must have a single, waterproof threaded connection port for additional lighting located behind the center area. It must be (2) mechanical threaded holes to solidly adhere auxiliary lighting. The tractor shall also allow for the addition of camera riser kits for the manual lift of the pan/tilt camera above the crawler for better centering and lighting of larger pipe diameters and navigation of high-flow conditions. Centering of the camera is required to conform to PACP and WRc recommended practices and enables the use of digital scanning upgrade opportunities.

YES _____ NO _____

Exception:

The tractor shall have a visible internal pressure indicator allowing the operator to detect a pressure loss. A solid red indicator will show when the system is over-pressurized, green indicator when the system is holding between 5 and 10 lbs of pressure and blinking red indicator when pressure is below 5 lbs. The water depth rating of the crawler shall not be less than 1 bar or 33 feet. The tractor shall have a shraeder valve for purge and pressurization of the tractor body. Pressurization prevents the ingress of water during an accident.

The tractor shall have a tilting rear cable connector that points vertically when deploying the system into a manhole, but can tilt into a horizontal position during operation in order to protect cable and connector during deployment. The tractor shall have a strain relief system for the cable that is comprised of (2) high strength steel cables and a aluminum capture device to secure to cable brass fitting.

YES _____ NO _____

Exception:

The tractor shall allow for a removable bottom weight plate which can be used to increase the crawler weight by 5 lbs. (2) threaded bolts must attach this plate for ease of installation and removal.

YES _____ NO _____

Exception:

60% or more of the entire length of any available camera must be protected and housed within the crawler to help prevent pressure and damage to camera and to keep even balance when the system is in use.

YES _____ NO _____

Exception:

The tractor shall have a 512 HZ integral sonde to allow for locating crawler with a receiver. The tractor shall allow for future digital camera technology upgrade without modification of the tractor body. The tractor shall have an integral inclinometer.

YES _____ NO _____

Exception:

To preserve the value of this investment, the tractor must have the ability to accept upgrades with modification. The following technologies must be available:

1. Digital Scan Evaluation
2. Laser Profiler
3. Rear Viewing Camera (in addition to main camera head described above)

YES _____ NO _____

Exception:

No brass shall be used in any part of the crawler.

YES _____ NO _____

Exception:

c. Camera Control Unit (CCU)

The system controls must be contained in a damage resistant housing with carrying handles. The CCU shall include circuit protection for individual electronic components. This is to be incorporated in case of power interruption, surges, component malfunction or inadvertent mis-operation of the system.

YES _____ NO _____

Exception:

The control unit must be available in configurations for complete portability with embedded color video monitor in addition to rack mounted for vehicle installation.

YES _____ NO _____

Exception:

The control unit shall not weigh more than 30 lbs. It will not be larger than 21" W x 18" D x 6" H. It will operate on 115V / 60W / 4 amps or 230V / 50W / 2 amps.

The CCU shall contain the following controls, inputs and outputs:

1. Keyboard input
2. Video out BNC connector
3. RS232 output for text and footage data to potential software
4. Hour meter

5. Red/green fuse indicator per slide out card
6. Control cable receptacle to cable reel
7. 90V / 240V universal AC power supply
8. External video BNC connector
9. Pendant control cable receptacle
10. External D connector for pendant and pendant cable
11. Power on/off switch

YES _____ NO _____

Exception:

The pendant control shall have the following functions:

1. Forward/reverse, left/right tractor joystick control
2. Rheostat variable tractor speed control
3. Single click normal zoom in/out
4. Double click same button for full zoom in/out
5. Hold down for 1.5 seconds for fast zoom in/out
6. Focus far, near and auto
7. Center pan/tilt to center forward position
8. Double click home button for wide zoom setting
9. Joystick control for pan/tilt
10. Rheostat control for variable light

YES _____ NO _____

Exception:

The proposed system shall have electronic controls for the CCU mounted on modular slide out cards for ease of repair/replacement. The cards are to include:

1. Video Card
2. Text generator card
3. 12V power card
4. Main power card
5. Camera card

YES _____ NO _____

Exception:

The CCU shall operate larger or smaller crawlers with no need for additional control unit or cable upgrades. The pendant controller will also be equipped to operate smaller or larger crawlers without modifications.

YES _____ NO _____

Exception:

d. Text Generator

The system shall include a video text generator capable of displaying alphanumeric text material directly onto the video monitor. The facility for this data shall remain in memory when the unit is powered off and must be retained without system use for a minimum of (30) days.

YES _____ NO _____

Exception:

The video text generator shall supply at least seven (7) separate screen page memories for text storage and display. Screen page memories must be selected by no more than (2) keystrokes at any time during the inspection. Each screen page memory shall contain a minimum capacity of (32) characters across by (20) lines down allowing for flexibility in formatting footage, date, time, job descriptions, defect codes, etc. in any location desired.

YES _____ NO _____

Exception:

Characters generated by the video text generator shall be available in the following formats:

1. Black on video
2. Black on white background
3. White on video
4. White on black background

YES _____ NO _____

Exception:

Footage of cable extended shall appear on the screen in conjunction with the cable counter. Reset or preset of the footage counter shall also be possible using the video text generator. Time and date shall be maintained by keypad and displayed on the screen at the discretion of the operator. Date and time shall remain in memory when the unit is powered off.

YES _____ NO _____

Exception:

At least seven (7) special fields shall be provided in which recurring data may be programmed and selected for entry onto the screen by no more than two (2) keystrokes. These fields shall have a capacity of no less than thirty (30) characters and shall be placed onto any screen page as selected by the operator. These special fields shall retain all information when the unit is powered off for a minimum of thirty (30) days. In addition, arrows pointing UP, DOWN, RIGHT and LEFT shall be provided by the character set.

A QWERTY keyboard shall be provided.

YES ____ NO ____

Exception:

e. Motorized Auto-Sensing Cable Drum

A cable drum shall be provided to contain the cable for camera and crawler operation. The hub of the cable drum shall be equipped with a continuous contact slip-ring assembly to allow the cable to be dispensed and retrieved while the camera and tractor are operational. The slip-ring contacts shall be of an alloy of gold and rhodium and must be housed in an environmentally sealed housing.

YES ____ NO ____

Exception:

Cable payout and retrieve must happen **AUTOMATICALLY** via a motorized system with sensors that operate the cable drum at the speed and direction of the crawler. Cable shall be paid-out toward the crawler so the crawler does not have to pull the cable off the reel and reduce power and traction. **Cable reels that require operator control or lack the ability to operate in tandem with the speed and direction of the crawler without operator intervention will be deemed unacceptable.**

YES ____ NO ____

Exception:

The cable reel must be equipped with an automatic level wind system which will help neatly roll and store cable without excessive loops or tangles.

YES ____ NO ____

Exception:

The cable reel must have a red lighted emergency stop switch. To further enhance safety, the cable drum must have an automatic shutdown if the reel is tilted beyond (30) degrees.

YES ____ NO ____

Exception:

The cable reel must have a normal and inverse switch which allows the crawler controls to be used normally if the crawler was to flip and be operated in an upside down position. The cable reel shall have the ability to be operated in both automatic and manual modes. The system must have back-up manual crank arm in case of power loss.

YES ____ NO ____

Exception:

Reel front panel must have LCD readout of footage. The reel must also have an outward cable rolling arm to assist with the pressures of cable when the crawler is being reversed and for ease of deployment when the crawler is moving forward. Roller and arms must be able to be stored in an upright position when not in use to facilitate portability.

YES ____ NO ____

Exception:

The cable reel system must have an overheat sensor so motors will not be destroyed should the reel pull on an object that is immovable for a long period of time. The cable drum must have speed and torque controls to adjust for differing pipe conditions and user preferences.

YES ____ NO ____

Exception:

The cable reel shall weigh no more than 95 lbs with a full 660' compliment of cable installed. It must be able to be carried easily in the field with a top handle and have the ability to work with a 165' extension cable to the CCU.

YES _____ NO _____

Exception:

The cable reel must come with a stationary mounting plate where cable drum remains secure, but can easily be removed for maintenance, shipping or portable use without the use of tools or loose hardware.

YES _____ NO _____

Exception:

The cable reel must come in a UPS capable shipping case.

YES _____ NO _____

Exception:

A footage counter must be included which measures the amount a cable extended. It shall be mounted on the level-wind mechanism and be constructed of machined aluminum. It shall have the necessary guide wheels to maintain cable tension. The footage counter shall function electronically and transmit footage data for monitor display and video recording in increments of 0.1 foot steps.

YES _____ NO _____

Exception:

The cable drum shall be no larger than 14" x 21" x 20" and will pull no more than (2) amps at 115V.

YES _____ NO _____

Exception:

f. Transmission Cable

660' of continuous length multi-conductor cable shall be provided. The cable must be Kevlar reinforced and have a minimum break strength of 500 lbs. The cable shall be no greater than .27" in diameter and weigh no more than 15 lbs per 328 feet.

YES _____ NO _____

Exception:

The cable must be able to connect to the camera and crawler independently and must be adequate to facilitate any future upgrades to the system (i.e., digital scanning camera).

YES _____ NO _____

Exception:

The cable must be easily removed from the cable reel without tools in the event of maintenance or repair.

YES _____ NO _____

Exception:

The outer jacket must be tear and scrape resistant. It must be smooth to reduce friction and water resistant.

YES _____ NO _____

Exception:

The camera/crawler connect end shall be a solid stainless steel, bayonet style connector that locks with a single quarter turn. It must have a minimum 8" steel armored jacket to prevent cable damage while navigating pipe bends and during entry. The connector must have an electrical keyway for proper alignment of cable to camera/crawler without damaging electrical pins. Connector end must be a minimum 12 mm stainless wall thickness with minimum 2 mm points to mechanically secure to camera/crawler.

YES _____ NO _____

Exception:

The cable must be able to be directly reterminated without the need for epoxy. Scotch cast style units that require lengthy cure times will be deemed unacceptable.

YES _____ NO _____

Exception:

The cable must have easy, single twist style connector for tool-less and easy connection to all available cable drums.

YES _____ NO _____

Exception:

g. 7 x 12 Cargo Trailer

- Tandem axle, manufacturers standard white
- Full width dual swing out rear doors and single front curbside door, electric brakes

YES _____ NO _____

Exception:

h. Operators Area

- The operators area shall include a bulkhead wall with 18" pass through door
- Gray rubber sheeting desk surface
- Over desk rear facing rack mount for components with an access door on the side
- One 2'-110 volt overhead fluorescent light
- Oversized tinted Plexi-glass window in bulkhead wall
- Operators chair and several wall outlets
- The walls will be factory finished plywood and painted white
- The ceiling will be covered with dark colored carpeting
- The floor will be covered with black diamond pattern industrial rubber flooring
- Electrical package shall include a Shore Power Cord and Breaker Box with 12V converter
- Install shall include a roof mounted 13,500 BTU air conditioner with 5,600 BTU heat strip
- One 19" LCD monitor in operators area

YES _____ NO _____

Exception:

i. Equipment Area

- Equipment area build out shall include a heavy duty storage/tool chest with work bench top
- There will be one 2' ceiling mounted fluorescent light
- The walls will be covered with factory finished plywood and painted white
- The ceiling will be covered with white FRP
- One 19" LCD monitor for video viewing inside the equipment area
- There will be 2 – GFI wall outlets
- The floor will be covered with black diamond pattern industrial rubber flooring
- Roof mounted work area flood lights (2)
- Wiring for rear facing monitor
- Tool package: manhole hook, sledge, pry bar, shovel (wall mounted)
- Wash down system to include a 15 gallon tank, 50' retractable hose reel, pump, front carpeted bench

YES _____ NO _____

Exception:

j. Power Package

- EU6500 KW Honda Super Quiet (Honda only) generator tongue mounted

YES _____ NO _____

Exception:

k. Exterior Lighting

- Rear roof mounted strobe
- Directional light bar on rear of unit

YES _____ NO _____

Exception:

l. The build out shall also include the following accessories:

- Boat clamp on rear driver side
- Wall mounted pendant tray
- Wall mounted storage shelf

YES _____ NO _____

Exception:

- m. MAINTENANCE PACKAGE (INCLUDED IN PRICE) – Three (3) year complete care package on tractor, camera, reel and cable. Bidder is completely responsible for the tractor, camera, reel and cable for the entire three years at NO COST to the City of Spring Hill. This will include two (2) complete rolls of cable to be supplied and also up to two customer mishaps on the camera and tractor. For example, if the City of Spring Hill drops the camera and tractor and damage the equipment, then the bidder is responsible for up to two (2) of these occasions at NO COST to the customer during the three years. Bidder is also responsible for all re-terminations of cable, if cable is damaged or cut.

YES _____ NO _____

Exception:

Actual crawler and software being bid must be upgradeable to pipe scanning.

YES _____ NO _____

Bidder must have a Parts & Service facility within a reasonable distance of the City of Spring Hill.

YES _____ NO _____

State location & distance to Parts & Service facility _____

All warranty & service work must be done on site or at bidder's Parts & Service Facility.

YES _____ NO _____

3.00 PRICING AND DELIVERY SCHEDULE

Proposal of _____
(Proposer Company Name)
To: The City of Spring Hill
Ref.: Camera System for Sewer Line Inspections

Ladies and Gentlemen:
Having carefully examined all the specifications and requirements of this RFP and any attachments thereto, the undersigned proposes to furnish the Camera System for Sewer Line Inspections required pursuant to the above referenced Request for Proposal upon the terms quoted below.

GRAND TOTAL: \$ _____

Delivery schedule of events and time periods

Respectfully submitted,

Proposer: _____

By: _____
(Authorized Signature for Proposer)

Name: _____

Title: _____

Date: _____

