

# GALLATIN PUBLIC UTILITIES

## Bid Proposal

Item: **Mobile CCTV Inspection Unit**

Bid Date: \_\_\_\_\_

Company Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

### **Bid Information**

- (1) **Prices F.O.B., 249 Hancock Street, Gallatin, Tennessee 37066.**
- (2) Owner reserves the right to order from other suppliers if delivery dates are not satisfactory to this department.
- (3) Vendor must furnish manufacturer's product description and warranties.
- (4) The department reserves the right to waive informalities and to accept or reject any and/or all bids.
- (5) Submit bids in a sealed envelope bearing the name and address of the bidder on the outside.
- (6) Delivery dates over **30** days must be noted in the bid.

Bid: **Mobile CCTV Inspection Unit**

Date: **January 16, 2014**

Time: **2:00 p.m. CST**

If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope, addressed to the attention of the Assistant Superintendent, Gallatin Public Utilities, 239 Hancock Street, Gallatin, Tennessee 37066.

**NO BIDS SHALL BE FAXED**

**Specifications: Mobile CCTV Inspection Unit – See Attached Specifications.**

<b>Size &amp; Type</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Amount</b>
<b>1. Mobile CCTV Inspection Unit</b>	<b>1</b>		

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Signature of Authorized Representative: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

E-mail: \_\_\_\_\_

## **SPECIFICATIONS FOR MOBILE (OFF-ROAD) CCTV SANITARY SEWER INSPECTION UNIT**

**The Mobile CCTV Sanitary Sewer Inspection Unit shall be a new, current production, Department approved model, with the following minimum specifications:**

All equipment (cameras, transporters, software, etc.) to be supplied with this bid shall be fully compatible with the Department's existing CCTV Sanitary Sewer Inspection Truck.

### **1. Base Station Construction**

Designed to be transported via a Kubota RTV1100 worksite utility vehicle

Rugged, compact, lightweight, weatherproof enclosure

Aluminum water-tight enclosure with rubber gaskets and seals

The unit shall be constructed of protective aluminum sheets with an industrial grade weather resistant paint finish

The unit shall feature removable panels to provide easy access for service and maintenance

The front door shall be sealed, hinged, lockable, and supported by gas shocks, this shall also allow it to serve as an awning when in the open position

A partition shall separate the video cable reel (along with tractor and camera storage) from the power control unit, monitor, and data acquisition system

A storage drawer for the transporters and cameras shall be mounted under the video cable reel

The power control unit, monitor, data acquisition system, and controller shall be rack mounted.

The racks shall be mounted with "shock-isolators" to prevent equipment damage during off-road use (jarring and vibrations)

The unit shall have a storage drawer for electronic components

Pull-out keyboard tray

The unit shall be equipped with forklift skids for easy removal of the unit

### **2. Base Station**

Unit shall be capable of operating wheeled and tracked transporters for 6 inch to 200 inch pipe (including Department's existing transporters)

Unit shall be capable of operating pan/tilt/zoom cameras (including Department's existing CCTV cameras)

Unit shall provide for the wireless control of all camera, transporter, and video cable reel functions

Honda 3000 watt portable generator – Model EU3000iS

Power cord

Front mount for generator

Ten (10) gallon portable wash-down system

**3. CCTV Transmission/Tow Cable Assembly and Reel**

1,000 feet of platinum multi-conductor Kevlar fiber armored cable – 0.350 inch diameter  
Kevlar armored cable terminal connector  
Stainless steel bullet connection – field repairable **(NO SCOTCHCAST)**  
Cable strain relief  
Power level wind and multi-ratio manual transmission  
Footage meter with local counter and remote electronic counter  
Local reel mount electrical and mechanical control  
Sealed, continuous contact slip-ring assembly  
Auto pay-out system

**4. Pan, Tilt, and Zoom Camera System**

Solid state color sewer TV camera  
Waterproof to 50 psi  
Pan & rotate camera head, 40:1 zoom ratio, 10x optical zoom, 4x digital zoom, NTSC color standard, 4x light integration  
Camera lighting system with integrated white LED light modules for 6 inch relined pipe through 48 inch pipe  
Field replaceable LED light modules  
Built-in diagnostics  
Built-in sonde, 512 Hz  
Camera transportation and storage case

**5. Pan, Tilt, and Zoom Camera System**

Solid state color sewer TV camera  
Waterproof to 50 psi  
Pan & rotate camera head, 40:1 zoom ratio, 10x optical zoom, 4x digital zoom, NTSC color standard, 4x light integration  
Camera lighting system with integrated white LED light modules for 6 inch relined pipe through 48 inch pipe  
Field replaceable LED light modules  
Built-in diagnostics  
Built-in sonde, 512 Hz  
Camera transportation and storage case

**NOTE: The cameras shall connect directly into the transporter; external cables for connecting the camera to the transporter are not acceptable**

**6. Self-Propelled, Non-steerable, Compact Wheeled Camera Transporter With Ability to Add Tracks**

Transporter shall be designed for inspecting pipe 6"–30" in diameter

Transporter shall operate with sufficient power and traction to inspect a minimum of 1,200 feet under normal conditions

Pan, Tilt, and Zoom camera shall plug directly into the transporter with no external cables

The transporter shall be constructed of aluminum alloy, brass, and/or stainless steel

The transporter shall include weighted adapters to optically center the camera in 8"-15" diameter pipe

The transporter connector shall integrate directly with the camera, with a cam-locking action

Forward, powered reverse, and free-wheel capabilities

Six (6) wheel drive transporter assembly to include motor and enclosed drive train

Set of driven rubber wheels to inspect 6" pipe

8" rubber wheel kit for compact transporter

6" steel wheel kit for PVC pipe - compact transporter

8" steel wheel kit for PVC pipe – compact transporter

## **7. Self Propelled Camera Transporter – Wheel Driven**

Transporter shall be designed for inspecting pipe 8" in diameter and larger

Transporter shall operate with sufficient power and traction to inspect a minimum of 1,000 feet under normal conditions

The transporter shall be constructed of aluminum alloy, brass, and/or stainless steel

A two (2) speed transmission to maximize torque in large diameter pipe

Manual shifter on camera carrier

Forward, powered reverse, and free-wheel capabilities

Six (6) wheel drive transporter assembly to include motor and enclosed drive train

Tip-up rear 3-pin connector

Electronic camera lift for large pipe transporters

The electronic camera lift shall be remote controlled, capable of infinitely variable lift

The electronic camera lift shall be designed for use in 10"-36" diameter pipe

Set of six (6) driven rubber wheels to inspect 8" pipe

10"-15" tire kit, includes six (6) 10"-15" tires and six (6) outer hubs

18"-60" knobby tires – four (4)

8" steel wheel kit for PVC pipe, includes six (6) 8" steel wheels

10"-15" steel wheel kit for PVC pipe, includes four (4) 10"-15" steel wheels

12"-15" pneumatic tires wheel set

## **Camera Control System/Monitor**

Power Control Unit Assembly – Rack Mount

Camera Control Unit Assembly – Rack Mount

Shall control all functions of the power control unit, the camera, and the transporter

Alpha-numeric information display with multi-paging and defect coding

Remote "QWERTY" keyboard for data entry

Shall include two (2) USB ports, two (2) external video monitor ports, audio/video

VCR/DVD input/output lugs

On screen footage display

WRC and PACP codes

Portable Controller – handheld wireless game pad type integrated controller for the camera, reel, and transporter  
 Joystick control for pan & tilt zoom camera (360° Rotate and 330° Optical Pan)  
 Joystick control for all steering functions, and forward/reverse directions for the transporter  
 All other controls for camera, including camera iris and focus override, zoom, camera lights, shutter control, camera diagnostics, and auto home  
 Cruise control to set speed for hands free operation  
 Controls for camera lift operation  
 All reel controls, including retrieve, release, and variable speed  
 Portable Controller – handheld wireless game pad type integrated controller for the camera, reel, and transporter  
 Joystick control for pan & tilt zoom camera (360° Rotate and 330° Optical Pan)  
 Joystick control for all steering functions, and forward/reverse directions for the transporter  
 All other controls for camera, including camera iris and focus override, zoom, camera lights, shutter control, camera diagnostics, and auto home  
 Cruise control to set speed for hands free operation  
 Controls for camera lift operation  
 All reel controls, including retrieve, release, and variable speed  
 19 inch (minimum) color industrial flat screen TV monitor – NTSC/PAL Color standards  
 A DVD recorder system with DVD player/recorder, rack mount for DVD, cable assemblies to power control unit

## **7. Pipeline Data Collection and Real Time Video Capture System**

Motherboard w/1155 Socket and Intel Z77 chipset  
 Intel Core i7-2600K Sandy Bridge 3.4 GHz Processor  
 Eight (8) GB DDR3 1600 RAM  
 Video capture device for MPEG 1/2/4 WMV  
 Intel HD Graphics 3000 on board display adapter  
 Two (2) LAN on-board network connections – 10/100/1000 Mbps  
 Six (6) USB 2.0 ports – 4 in the rear, 2 in the front  
 Six (6) USB 3.0 ports – 4 in the rear, 2 in the front  
 Two (2) RS232 serial ports  
 Bluetooth v4.0/v3.0 + HS  
 WiFi IEEE 802.11 a/b/g/n  
 On-board sound  
 Internal 20x DVD+/-RW DVD burner, 40x CD-RW  
 500 GB SATA hard drive – 7,200 RPM  
 120GB Solid State Drive – SATA3  
 400 watt 1U ATX power supply  
 8.7" mini keyboard  
 Optical mouse  
 Desktop color ink jet printer, 600 x 1200 dpi – Hewlett-Packard  
 Windows 7 Professional 64-bit operating system  
 GRANITE XP Inspection Edition software – current version  
 Two Viewer editions included at no charge

ESRI GIS module software  
Shall be a registered business partner of ESRI  
ARCGIS runtime Engine Software  
Manhole-nodes module software  
Scoring module software  
Scheduler module software  
Hard copy user manual  
CD copy user manual  
Enhanced software support – one year minimum

**11. TV Inspection Accessories and Cable Manhole Guide System**

Invert roller assembly  
Six (6) quick coupling extension poles  
Manhole adapter claw hooks  
Manhole top roller assembly  
Equipment retrieval tool

**12. On-site Operator Training**

A minimum of three (3) days on-site operator training shall be provided. Training shall include field operation of unit, as well as software implementation and usage. All training shall be conducted by factory-trained representatives.  
Training shall be provided for all selected Gallatin Public Utilities personnel.

**13. Optional Equipment**

Spare parts manual  
Two - Operation, maintenance, and instruction manuals

**14. The equipment shall include parts book and service manuals.**

**15. The equipment shall include all standard equipment and safety equipment.**