



City of Coos Bay
Request for Quote
for the Purchase of a
Sewer Camera Pipe Inspection Unit

NOTICE

The City of Coos Bay is accepting Quotes for a sewer camera pipe inspection unit (complete build) for the purposes of investigating the City's sanitary and storm sewers. The Request for Quote (RFQ) is available from the City of Coos Bay's website www.coosbay.org. A hard copy of the scope of work may be obtained at the address above or by calling (541) 269-1181 ext. 2247. The City invites qualified individuals or companies to submit a Quote based upon the specifications contained within this RFQ.

SUBMISSION OF PROPOSAL PACKAGE

To receive consideration, quotes must be submitted in accordance with the following instructions:

1. All proposal packages shall be delivered to:

City of Coos Bay
Public Works & Development
Attn: Jennifer Wirsing
500 Central Avenue
Coos Bay, OR 97420
2. Submit four (4) copies of the Quote (Include the attached Specification Sheet) by Noon, July 7, 2014.
3. The proposals must be clearly marked "PROPOSAL TO PURCHASE TV TRUCK".
4. All proposal packages must include the total purchase price along with the itemized prices as indicated on the specifications sheet.
5. If you have any questions, please contact Jennifer Wirsing, Engineering Service Coordinator at (541) 269-1181, ext. 2247 or jwirsing@coosbay.org. Prior to contact, please review the entire RFQ.
6. The City of Coos Bay reserves the right to reject any and all proposals, and has the right, at its sole discretion, to accept the proposal it considers most favorable to the City's interest and the right to waive minor irregularities in procedures.

**CITY OF COOS BAY
INSTRUCTIONS TO BIDDERS
FOR THE
REQUEST FOR QUOTE FOR PURCHASE
OF A SEWER CAMERA PIPE INSPECTION UNIT**

GENERAL INSTRUCTIONS

The City of Coos Bay invites qualified individuals or firms to submit a proposal package to provide the purchase price as described in the specifications set forth in this request for quote (RFQ). All quotes are subject to the provisions and requirements of the City of Coos Bay Rules of Local Contract Review and the Oregon Revised Statutes, the Attorney General's Model Public Contract Rules

RFP PACKAGE REQUIREMENTS

Your RFQ package, at a minimum, shall include the following:

1. Completed and Signed Specifications Sheet

BACKGROUND AND SCOPE OF WORK

Description of Property:

The City of Coos Bay's operation crew routinely investigates the City's sanitary and storm sewer. The crew has been utilizing a single conductor camera (RST NOVASTAR SALE MODEL 010-01655-01, SERIAL NUMBER C1A40202). This camera is only 5 years old, however the vehicle and the equipment in the vehicle is old, outdated, and deteriorated. Due to the age of the vehicle and the equipment (with the exception of the camera), the decision was made to purchase a new Television Truck. The new sewer camera pipe inspection unit will be supported by IT Pipes software.

Scope of Work:

A complete build is being requested for this quote. The specifications are on the following page. Please note that the one requirement is that the build must be compatible with the current camera that the City owns. If the bidder feels that there is equipment missing from the specification sheet that will prevent the City from meeting this requirement, it is anticipated by the City that the bidder will provide additional information as to what added equipment is needed, quantities, and prices.

The unit furnished under this quote shall be the manufacturer's latest model and design. Any additions, deletions, or variations from the following specifications must be noted. It is also required that the bidder will furnish descriptive literature with specifications and options pertaining to the model being bid. Literature must include all options available with cost for each option. Any additional specifications or information necessary to qualify the equipment may also be furnished. If more than one brand or model is bid, bidder will photo copy this bid sheet. A separate bid sheet must be submitted for each make or model being bid. Make or model units not submitted at time of bid with a complete bid sheet will not be considered.

FORM MUST BE FILLED OUT COMPLETELY FOR BID TO BE VALID

The following specifications are for one (1) Sewer Pipe Camera Inspection unit:

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
CHASSIS				
STANDARD EQUIPMENT				
1. Dual Rear Wheels				
2. Mono Beam Front Axle				
4. Front and rear stabilizer bars.				
5. Coolant temp, gauge, tachometer, voltmeter, oil pressure gauge, fuel gauge				
6. Daytime halogen running lights				
7. Five roof mounted clearance lights				
8. Lighting: interior dome light				
9. Safety belts: two lap/shoulder assemblies w/three point design.				
10. Tilt steering column.				
11. Power Steering				
12. Sun visors: LH & RH.				
13. Fog Lights				
14. Engine block Heater				
15. Class III Receiver & 7 pin Connector				
16. SSA22 Super Spring Overloads				
BRAKE SYSTEM				
1. 4 Wheel power hydraulic disc anti-lock braking system.				
2. Trailer brake controller.				
ENGINE				
1. Minimum 362 hp gasoline engine meeting Federal emissions for chassis model year.				
2. 175 amp alternator.				

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3. 750 amp 78 amp hours (Ah) HD battery with run down protection.				
TRANSMISSION				
1. 5 speed automatic transmission required, column mounted shifter.				
2. Part-time four-wheel drive with manual transfer case shift, manual locking hubs.				
FRONT AXLE & EQUIPMENT				
1. 4,600 lb capacity front axle.				
2. Front axle must have heavy duty shock absorbers.				
REAR AXLE				
1. Single speed axle.				
2. 9,600 lb rear axle capacity.				
3. Must have rear shock absorbers, heavy duty.				
4. 14,500lb GVW minimum rating.				
CHASSIS				
1. Cab to axle must be 118".				
2. Two front frame mounted tow hooks.				
3. 55 (US) gallon fuel tank.				
4. (2) Front safety cone holders, frame mounted.				
CAB EQUIPMENT				
1. Integral air conditioning.				
2. Power L & R outside mirrors.				
3. Door glass: fully tinted, power door glass LH, RH.				
4. AM/FM radio.				
5. Floor mat: vinyl w/insulation.				
6. Variable pitch backup alarm.				
PAINT				

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1. Solid color exterior paint, prefer white or approved equal.				
TIRES				
1. Front & Rear – radial tubeless, LT225/70SR19.5 BSW AS.				
WHEELS				
1. Wheels: 16" x 6" White Painted Steel				
REAR BOX				
1. Rear cargo box must be 17' X 8' X 7'.				
2. Rear door must be a full width roll up door.				
3. Must have low mounted rear step bumper for easy entry into rear compartment.				
4. Lockable sliding storage drawer installed in bumper on drivers' side				
5. Aluminum paneling for box to be white in color.				
6. Must have full height pass thru door from chassis into the box				
LIGHTING SYSTEM				
1. All exterior tail and marker lights to be LED.				
2. Interior lighting to all LED lighting.				
POWER SUPPLY				
1. Onan 5.5KW gasoline EFI generator, fuel supply from chassis. Installed and ready for use.				
2. Generator shall be under mounted on the passenger side of aluminum box at floor level in a vented cabinet provided by manufacture of the generator				

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3. To have 12 volt power inverter rated at 55 Amps that meets required 12VDC loads.				
4. To have easy accessible AC circuit breaker panel with resettable breakers that meets or exceeds anticipated loads.				
5. Shore power exterior connection with spring load cover shall be located on exterior of truck body box street side.				
6. Remote Start/Stop shall be accomplished from the Mainline Controller/Power Unit located in the office section of the truck.				
REAR BOX EXTERIOR				
1. (4) Roof mounted LED light bar, Whelen Model# R2LPHPA shall be included, (2) located on the front corners of the box and (2) located at the rear corners of the box.				
2. Beacon switch shall be mounted inside the cab above drivers' door.				
3. A Sequential LED Light Bar, Whelen Model# TANF85 shall be located at rear of truck with controls located in cab above drivers' door.				
4. A 30" wide open grate/grip folding step shall be included for operator safety while entering and exiting equipment room.				
5. Under-mount lockable storage box (36"W x 20"D x 18"H) shall be installed under the box on driver's side of vehicle.				

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6. 110VAC weatherproof outlet shall be installed at rear of box on drivers' side.				
7. A 14,400 BTU under mounted air conditioner with heat strip shall be installed under box behind chassis cab on street side.				
8. An undermount storage compartment located at rear center of the box for the downhole poles shall be installed.				
9. (2) 110V Flood Lights to be installed at rear of the box for night work.				
10. CAT5 Network Port installed on street side of box for data collection computer.				
REAR BOX INTERIOR COMPARTMENTS				
1. Interior shall be divided into (2) two compartments: Equipment Room and Viewing Room.				
2. All electrical fixtures shall be UL approved for external use in wet environment				
3. All wiring shall meet applicable codes to include NEC				
4. Pass through door shall be mounted in bulkhead wall to divide the viewing room from equipment room				
5. The wall between viewing room and equipment room shall be manufactured using 2X4 construction.				

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6. All Joints and corners shall be protected by molding.				
7. All walls and ceiling shall have 1" rigid insulation 4.0 "R", ¼" luan plywood with embossed FRP Structoglass material with 0.09 nominal thicknesses.				
INTERIOR VIEWING ROOM(OFFICE)				
1. Walls and Ceilings shall have 1" rigid insulation 4.0 "R" and covered with ¼ " FRP Structoglass embossed laminate.				
2. An L Shaped Desk Top with Ergonomically contoured and finished edges shall be installed at operator's station.				
3. A 13,770 Roof mount A/C with Heat Strip shall be installed on the roof with the controls accessible from the office area.				
4. The mainline controller shall be ergonomically installed in "L" shaped desk top, providing necessary power and controls for operating and monitoring the TV inspection system				
5. A minimum 24" flat screen NTSC video monitor shall be mounted on desk top.				
6. A 20" x 32" tinted sliding window. Window shall be mounted in bulkhead wall with full view of rear equipment room operations.				
8. Sub Floor shall be 3/8 " AC exterior rated plywood covered with seamless Armstrong industrial rated non-skid floor covering.				

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9. Filing cabinet with locking drawers shall be located under counter top desk.				
10. Two (2) Florescent indirect lights shall be located in viewing room with light switch installed on passenger side of box near bulkhead wall door.				
11. Two (2) Duplex grounded 120V AC socket for electrical use shall be provided.				
12. Operator chair with castors and provisions to be secured to desk top while in transit shall be provided.				
13. 19" Industrial rack mount cabinet to accommodate additional rack mounted components shall be installed above the desk top on bulkhead wall.				
14. Full access to electronics via hinged door in equipment room shall be provided.				
15. 12 Volt accessory outlet shall be installed in interior viewing room near desk top for easy access.				
16. A 1,500 BTU Wall Heater shall be installed under the desk for climate control.				
DATA COLLECTION SYSTEM HARDWARE				
1. Case: CHENBRO RM42300 4U Steel Case with Front and Rear Fans				
2. 8GB ofDDR3 1.33Mhz Non-ECC Ram				
3. Windows 7 Professional 64 Bit				
4. Nero 12 Essential				

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5. Fox Conn 19-in-1 Card Reader				
6. Seasonic PS/2 Single PSU 600W Power Supply				
7. Intel BLKDH87MC Motherboard with Integrated Video Card (DVI & HDMI).				
8. Intel Core i7-4770 3.4GHz (3.8GHz Turbo Boost) 4 x 256.KB L2 Cache 8MB L3 Cache LGA 1150 84W Quad-Core Desktop Processor.				
9. Lite-On 24X DVD-RW SATA Burner.				
10. 1 TB HDD Harddrive Disk				
11. Minimum of (4) RS232 Serial Ports.				
12. Logitech Wireless USB Keyboard and Mouse with unifying receiver.				
13. AT&T Natural Voices for high quality speaking of observations and headers.				
14. Vision Tek 900273 Radeon HD 4350 & Hauppauge Win TV 1250 Capture Card.				
15. (2) XBOB 4 Text Overlay and Distance Encoder with Video Sync Restore; (1) Mainline & (1) Lateral Inspection System.				
16. 3 Year Onsite Warranty on main computer components from manufacture.				
17. Two Year Phone and Remote Support via Internet Required.				
18. Receiver, GPS, USB, Global SAT BU-353.				
19. Color LaserJet Printer Installed in Office.				

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20. 24" LCD Computer Monitor installed on Desktop.				
INTERIOR EQUIPMENT ROOM				
1. Supplied box flooring shall be sealed and covered with a waterproof, non-skid surface i.e. Line-X or Rhino Liner as well as 1" up all walls in the equipment room.				
2. Walls and Ceiling shall have 1" ridge insulation 4.0 "R" and be constructed of ¼ " external plywood covered with embossed fiberglass reinforced (RFP) material.				
3. Workbench shall be covered with Lonseal Lonplate waterproof, non-skid surface.				
4. A retractable worklight mounted on street side at the rear of the box shall be supplied.				
5. Indirect florescent 5' light shall be located on the bulkhead wall				
6. An 18" florescent light shall be located underneath the overhead cabinet of the workbench.				
7. A minimum of (8) 110V AC grounded outlets shall be located in various locations throughout the equipment room.				
8. A (5) drawer industrial grade tool box allowing for the storage of tools and additional equipment shall be supplied.				
9. A 4" vise shall be mounted in equipment room on top of the (5) drawer tool box.				

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10. A minimum 24" flat screen NTSC TV monitor shall be mounted near the ceiling on bulkhead wall, viewable from the outside rear of truck to assist in placement of the camera and transporter.				
11. A 5lb 10 BC Rated fire extinguisher shall be provided and mounted in the equipment room.				
12. An overhead storage cabinet shall be mounted above the work bench.				
13. A 12 volt accessory outlet to be installed on street side in close proximity to mainline cable reel for use of spot light if deemed necessary.				
WASHDOWN SYSTEM				
1. A water storage tank, 30 gallon minimum, with 12V DC 60 psi minimum, 5.4 GPM demand water pump shall be provided and located under workbench and insulated against freezing.				
2. Water shall be supplied by a 20 ft auto-retractable hose on a reel with a spray nozzle.				
3. Stainless Steel sink with gooseneck faucet with on/off controls for washing hands shall be provided and mounted in work bench.				
4. The waste water holding tank shall be self contained and located under workbench and insulated.				
CAMERA/TRACTOR POWER SUPPLY				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
1. Mainline controller is to be the latest design available, it shall be tested and approved by an N.R.T.L (Nationally Recognized Testing Laboratory) as defined by CFR 29 1910.399. The word "Listed" shall be prominently marked on the surface of the controller.				
2. The mainline controller shall provide all the necessary power and controls for operating and monitoring television inspection system and processing circuitry to extract video transmitted by the camera in the NTSC format.				
3. The mainline controller electrical systems shall be all solid state circuits.				
4. A face plate shall be permanently labeled designating the function or purpose of the various switches, meters and controls.				
5. The panel shall be ergonomically (angle) mounted in the desk top with a faceplate having a heavy gauge finish and contained in a damage resistant case.				
6. The back plate of the controller shall contain all required plug-ins for the various locking cable connections. Each connection shall be separately indexed and labeled.				
7. The controller shall be divided into three (3) sections: power, camera and cable reel controls.				

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8. The power section shall include an AC volt meter, Hz meter, and generator hour meter and generator start/stop switch.				
9. An internal solid-state circuit interrupter, with LED indicator, shall be provided to allow instantaneous shut off of camera power should an overload occur.				
10. The camera section shall have an operation indicator that toggles between output voltage and current from the camera power supply.				
11. A 1/4" panel mount stereo jack shall be provided for the connection of a multiple function control box for all cameras and transporters.				
12. Camera/Tractor diagnostic cable to be included.				
CAMERA/TRACTOR CONTROLLER				
1. A dual function control box is an all in one unit to control all the functions of the camera and transporter, including steering, elevation of camera and adjustment for the camera lights.				
2. Main controller for the camerasystem is to be mounted to workstation and be a joy stick type.				

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3. The front panel of the dual joystick controller shall include two (2) joysticks. One (1) for camera functions; pan and tilt, and clock wise and counter clock wise rotation. One (1) for transporter functions; forward, stop, reverse and left or right steering.				
4. The camera section of the control unit shall contain (8) momentary rocker switches to provide for camera functions and adjustments. Iris, focus, light control, shutter, gain, white balance, back lighting, display, home and reset switch shall be included.				
5. The desktop controller shall have a home button that allows the return of the camera head to a straight forward and upright position.				
6. The tractor section of the control unit shall have two (2) momentary rocker switches. One (1) switch to provide elevation up and down and one (1) switch for stop and freewheel.				
7. The dual joystick desktop controller shall provide an LED to indicate current transporter mode.				
8. The dual joystick controller shall carry a 5 year minimum limited manufacturer warranty.				
9. Wireless hand held "PS2" style controller included shall control all camera and tractor functions as well as mainline cable reel functions.				
CAMERA RETRIEVAL CABLE REEL				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
1. The cable reel shall include a cable drum capable of storing 2000' of ¼" double armored, single conductor coaxial cable.				
2. The reel shall come with 1500 FT of ¼" double armored single conductor coaxial cable.				
3. A ¾ Hp variable speed motor with a chain driven, multi-ratio (2) speed transmission shall be provided.				
4. The cable reel shall have sufficient power to retrieve a 250lb item from a minimum distance of 2000'.				
5. The cable reel front panel shall have an On/Off switch, gear selector switch, in/out cable direction switch and speed control knob.				
6. The cable reel electronics shall incorporate microprocessor technology.				
7. Circuitry and firmware shall be provided as a safety feature to prevent the cable reel from powering up, unless the cable reel drum speed is adjusted to its lowest setting.				
8. The cable drum shall stop until drum speed is adjusted to lowest setting when switching operation from viewing room to equipment room.				
9. Protection against accidental reversal of the cable drum while in motion, or shifting gears if cable drum is above an acceptable speed shall be provided.				

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10. The cable reel shall have a built-in serial communication feature to communicate with compatible equipment.				
11. The cable reel shall incorporate a built-in failsafe component to disable the reel's main power in the event of a microprocessor or electronics malfunction.				
12. A "STOP" switch shall be provided to immediately stop the reel as an additional safety feature.				
13. The cable reel shall be constructed of heavy-duty aircraft Milspec 6061 powder coated aluminum, and be corrosion resistant. <u>Reels manufactured utilizing painted steel that are subject to corrosion will be deemed unacceptable.</u>				
14. The aluminum cable drum shall be supported by self-aligning, heavy duty, sealed pillow block bearings with grease fittings.				
15. Mainline cable reel dimensions shall not exceed 36" in length and 19" high and 26" wide.				
16. A Mercury wetted slip ring assembly that is permanently sealed shall be used to provide noise-free video transmission and maintenance free operation. <u>Systems using continuous contact rotary slip rings, which are subject to wear and contamination, shall not be</u>				

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<u>acceptable.</u>				
17. An automatic level wind assembly shall be installed in the cable reel frame utilizing heavy duty, self-aligning, sealed pillow block bearings with grease fittings.				
18. A chain drive shall connect the level wind shaft to the cable drum for proper timing of cable rewind.				
19. The automatic level wind shaft shall be a minimum of 1-1/4" diameter steel for durability.				
20. A footage meter with electronic encoder shall supply footage data to any installed to data collection information system.				
21. A mechanical footage counter shall be provided at the mainline cable reel.				
22. The reel shall be operable from either the mainline controller at the operator's station, or the mainline cable reel.				
23. The mainline cable reel, when in a neutral position, shall be completely disengaged from any gear or chain drive mechanism.				
24. The mainline cable reel shall carry a minimum 5 year limited manufacturer warranty.				

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CAMERA RETRIEVAL CABLE				
1. A combination double steel armored towing and transmission single conductor cable shall be provided in a continuous length up to 1500'.				
2. The cable shall have at a minimum, break strength of 5,400 lb and shall be no more than ¼" in diameter.				
3. The cable shall be torque balanced to prevent unraveling or stretching.				
4. The coaxial shield shall be used as a system ground. <u>Any systems using the coaxial shield as power conductor shall be deemed unacceptable.</u>				
5. A cable grip shall be included to transfer the cable towing strength to the camera skid runners or camera transporter.				
6. To keep downtime to a minimum, a water tight, reusable bullet connector, allowing for simple in-field re-termination, shall be provided.				
7. The reusable bullet connector shall be constructed of durable stainless steel and protected by a delrin sleeve. <u>Any system not utilizing a reusable cable termination shall be deemed acceptable due to excess down time.</u>				

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8. A screw-on connector shall be provided for the transporter/camera connection. <u>Any system utilizing a “Y” connector to distribute power to the camera and tractor shall be deemed unacceptable.</u>				
9. A metal screw-on protective cap shall be provided for protection of the reusable bullet connector when not in use.				
10. The armored cable shall carry a minimum 5 year limited manufacturer warranty.				
PAN & ROTATE ZOOM CAMERA				
1. Cameras that use separate conductors for the light power, camera power and video, therefore requiring cable that is difficult to terminate in the field shall be deemed unacceptable.				
2. The Single Conductor camera shall be designed to inspect relined pipe 6” and larger.				
3. The Single Conductor camera shall provide a clear, close up view of the pipe wall & defects, while operating on up to 3000’ of Single Conductor cable.				
4. The directional camera head shall be capable of 330-degree axial rotation and 270-degree lateral swing or any combination, enabling 360-degree viewing of laterals perpendicular to the direction of camera travel.				
5. Lighting adequate for 6” to 30” pipe shall be built into and pan/rotate with the camera head.				

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6. The sensor sensitivity shall be rated at 0.19 lux or less.				
7. The camera shall provide a horizontal resolution of 470 lines.				
8. A f/1.4 lens shall provide a 70-degree diagonal field of view.				
9. The camera shall have 2 compact high flux LED arrays each containing 4 bright white, light emitting diodes.				
10. LED array shall be rated for a minimum life span of 50,000 hours or 24 years of 40 hour work weeks.				
11. Lamp intensity, lens focus, iris aperture, camera head pan and tilt shall be remotely controlled and adjusted from the viewing station and at the mainline cable reel.				
12. The camera shall have 7 adjustable light settings from off to full intensity, and be fully functional with the lights turned off.				
13. The camera shall have micro processors to provide programmable features for pan/tilt, home position and default light intensity.				
14. The camera housing shall be fabricated from MIL spec 6061 aircraft aluminum that is hard anodized to MIL spec A-8265 type III, class 2, to resist scratching and corrosion.				

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15. Directional head shall have distortion-free, optical grade sapphire glass windows for protection of the camera lens and LED arrays.				
16. The camera body dimensions shall be a maximum of 2" x 3" x 10-1/2", with an overall maximum length of 15-1/2".				
17. The rotational movements of the directional camera head shall operate within a 3-1/2" opening, allowing full pan/tilt of the head within 6" pipe.				
18. The camera rotating head shall be mechanically driven with a gear train and precision DC motors. <u>Belt driven rotating camera heads shall be deemed unacceptable.</u>				
19. Operating temperature ranges of the camera shall be 0 degrees to 40 degrees centigrade and shall be sealed to withstand external pressure up to 50 psi without leaking.				
20. A self-sealing pressure test port shall be provided on the camera back to check and maintain internal camera pressure.				

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21. A sharp true color image, solid state CCD image with at least 379,000 pixels transmitted on modulated video bandwidths reproducing a low volt video signal at the monitor after transmission up to 3000' of single conductor cable shall be provided.				
22. Signal-to-noise ratio shall be at 46dB with no geometric distortion of the image.				
23. Camera shall be controlled remotely by an auxiliary control box.				
24. The camera shall have 40:1 zoom range; 10x optical zoom and 4x digital zoom.				
25. An automatic voltage circuit shall be utilized to protect the camera lights from over voltage and shall display an on screen warning when camera is exceeding voltage requirements				
27. A color bar generator shall be programmed into the camera and shall be capable of activation from the viewing station, enabling the user to check or adjust the color retention and contrast on the monitoring equipment.				
28. The camera shall be interchangeable with all RST full size transporters.				
29. The camera shall carry a minimum 2 year warranty and the LED light arrays shall carry a lifetime warranty.				
SELF PROPELLED STEERABLE TRANSPORTER				

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1. Self Propelled Remotely Controlled Single Conductor Steerable Camera Transporter shall be provided for inspection of pipelines ranging from relined 6" to 30" in diameter. The transporter assembly shall be designed to operate on up to 3000 ft. of single conductor cable.				
2. The self propelled transporter shall be capable of operating on the same single conductor cable that operates the camera.				
3. The transporter shall connect to the single conductor cable utilizing a reusable bullet connector.				
4. The transporter shall be powered by two 90 watt rare earth permanent magnet motors, enclosed in a watertight housing.				
5. The transporter shall be specifically designed to meet requirements for producing adequate power to accept 6" and larger wheels without having to change gears. Internal controls shall automatically increase the torque when under heavy load. <u>Transporters that require external shifters shall be deemed unacceptable.</u>				
6. Heavy-duty motors shall incorporate over-voltage and temperature protections.				
7. The transporter shall be equipped with three (3) forward speeds, stop, reverse and free wheel capabilities.				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
8. The transporter shall have the ability to steer around debris and obstacles within the pipe and turn 360 degrees on its own axis. The transporter shall have the ability to steer in both forward and reverse direction of travel.				
9. The transporter shall provide a free wheel mode for easy retrieval by the single conductor cable and reel to reduce wear on the drive motors and increase productivity. <u>Transporters that do not freewheel shall be deemed unacceptable.</u>				
10. Transporter shall have a water resistance per IPX7 and working temperature range of -10 degrees to + 40 degrees C.				
11. The transporter length shall not exceed 19" and when loaded with a camera shall not exceed 24" in overall length.				
12. The transporter shall be gear driven and all wheel drive. <u>Transporters drive systems utilizing belts or chains shall be deemed unacceptable.</u>				
13. A self-sealing pressure test port shall be provided on the transporter back plate to check and maintain internal pressure.				
14. A bottom ballast plate allowing for extra weight and traction in greasy pipe shall be provided as standard.				
15. The transporter shall include motorized scissor lift to raise and lower the camera remotely via the auxiliary dual joystick desktop controller.				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
16. Rear-viewing color camera with LED lighting, usable in 6" and up pipe sizes shall use the same desktop controller used for all the camera and tractor functions.				
17. The transporter shall utilize multiple wheel combinations for inspection of pipe sizes up to 30" and shall be interchangeable with the use of a single fastener.				
18. The transporter shall be shipped in a diamond plate, damage –resistant foam lined case.				
19. A carbide wheel set shall be included in the system, which would include the following parts: Six (6) - brass hubs that are bolted to the axles that have snap ring retainers to hold the different size wheels without changing hubs. Six (6) - 2.70" OD & 3.30" OD & (4) 4.40" OD solid metal wheels, with metal carbide bits brazed onto the wheel, for traction in 6 inch to 12 inch lines. One (1) -snap ring pliers to change wheels.				
20. The transporter shall come with (3) sets of rubber tires for inspecting 6" -24" pipe.				
21. The Self Propelled Single Conductor Steerable Wheeled Camera Transporter shall carry a 2 year limited manufacture warranty.				
DOWN HOLE CABLE GUIDE SYSTEM				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
1. A manhole cable guide roller shall be provided to protect cable and pipe from damage during the inspection.				
2. Six (6) 5 foot quick coupling spring loaded extension poles made from 1" galvanized steel pipe shall be supplied.				
3. Manhole adaptor hook shall be supplied to secure the guide system to manhole ring.				
4. A manhole top roller assembly shall be supplied to provide topside cable protection.				
5. A lowering rope to assist in placing the camera/transporter into manhole.				
6. An outrigger articulating arm shall extend 36" from the cable reel mounted in rear of the vehicle for over-the-hole positioning and have a roller head that will rotate 180 degrees to allow the cable to be pulled from the right or left of the vehicle.				
PUSH CAMERA CONTROLLER (Optional)				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
1. 1500 Series Controller/Power Supply; Power Requirement: 120VAC 60Hz, housed in a rugged self-contained pelican case to protect the internal components.				
2. 15" TFT Flat Panel LCD Display with Sun Hood, 4:3 Screen Aspect Ratio, 1024 x 768 High Resolution, 400:1 Contrast Ratio Brightness: 260cd/m2, Viewing Angle: 40° Up/ 70° down/ Left Right 70° Screen size: 13.77' W x 10.23' H.				
3. DV Recorder with remote control.				
4. Built-in on-screen Footage Counter and Display.				
5. Single interconnect cable to cable reel and optional footage counter.				
PUSH CAMERA REEL (Optional)				
1. 30" Diameter Basket				
2. Lightweight Steel Frame				
3. The push cable shall have a 18 gage stranded copper conductor, in the center of the fiberglass strength member and a braided copper shield around the outside and be covered by a 0.07 thick Polyethylene jacket.				
4. The push cable shall be no larger than 0.32" in diameter and have a fiberglass strength member centered in the cable with a minimum				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
diameter of 0.19".				
4. Mercury Wetted Slip Ring assembly for video transmission				
5. Drag Brake Assembly				
PUSH CAMREA (Optional)				
1. Material: Stainless Steel. Diameter: 1-3/8"; Overall Length: 2.9"				
2. Self Leveling Head (auto upright) Color Camera.				
3. Lens 3.00 mm; The lens assembly is recessed into the head and is protected from the environment by a sealed, distortion free sapphire window.				
4. Eight high-intensity bright white LED's; Light intensity is adjustable from the controller.				
5. Camera Electronics: · Circuitry is all solid state, single conductor · 10 bit Digital Signal Processing (DSP) produces 480 TV lines (Horizontal) · ¼ inch diagonal solid state CCD Image Sensor Pixels: 768 H x 464 V (NTSC) · Camera Operating Voltage: <12 VDC				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
6. Push Camera must be powered independently with push camera controller or with mainline controller in truck mounted system with 1514 Converter Box.				
7. Rabco 4"-6" Skid Assembly for Camera.				
8. Rabco 8"-12" Adjustable skid assembly for camera.				
9. Rabco 6"-12" Universal skid light kit				
10. Push Camera System must carry a 1 year manufacturer limited warranty.				
SONDE & RECEIVER				
1. 512Hz Sonde Transmitter; powered by camera system; Transmitter shall be molded into watertight rubber housing with plug in pigtail allowing for easy installation and removal not requiring the need for servicing of tractor or camera. <u>Sonde Transmitters that are located with-in the camera or tractor shall be deemed unacceptable.</u>				
2. Rycom battery operated 512Hz sonde transmitter.				
3. 512Hz Sonde Receiver, battery powered with LCD readout for frequency, depth and signal strength.				
TRAINING REQUIREMENTS				
1. Two days of equipment training for two - four people.				
ADDITIONAL OPTIONAL EQUIPMENT				
1. Refrigerator installed in office				
2. Microwave installed in office.				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
3. Inclination Option for Data Collection Software.				
4. Inclination Hardware for Pan & Tilt Zoom Camera.				
5. Laser Crack measurement tool for mainline camera.				
6. Steerable, Single Conductor Large Diameter Pipe Transporter 24" - 120", motorized camera lift able to be remotely operated inside vehicle.				
7. Large Pipe Wheel and Extension Kit for Steerable Storm Drain Tractor.				
8. Four-Wheel Drive, Single Conductor Small Diameter pipe Tractor to inspect 4" - 12" lines; 3 forward speeds, one reverse speed and stop function. Tractor is to have permanent magnet motor for drive train.				
9. Single Conductor Pan & Tilt Camera for use with small diameter pipe tractor with 360 degrees continuous rotate ability and 270 degrees panning capability. Compact, rugged, aluminum and stainless steel housing				
WARRANTY				
1. Complete warranty or list individual component warranties.				
ADDITIONAL REQUIREMENTS				
1. All new equipment must be compatible with the City's current RST single conductor system.				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
2. The City's existing equipment must be compatible with the new equipment being proposed in this bid.				
3. Manufacture must have lifetime loaner program available at no cost for use of equipment by the City.				
DELIVERY				
1. Successful bidder must arrange with the City a minimum of 14 days in advance prior to delivery and training and must include all delivery cost in the bid.				
2. Unit must be completed and delivered to the City NLT 120 days after receipt of chassis.				
SPARE PARTS				
1. To have main line terminal end included.				
2. To have camera pig tail included.				
3. To have pigtail terminal end connector included.				
4. To have gas pressurization kit included.				
5. To have spare strain relief assembly included.				
SONDE & RECEIVER				
1. 512Hz Sonde Transmitter; powered by camera system; Transmitter shall be molded into watertight rubber housing with plug in pigtail allowing for easy installation and removal not requiring the need for servicing of tractor or camera. <u>Sonde Transmitters that are located with-in the camera or tractor shall be deemed unacceptable.</u>				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
2. Rycom battery operated 512Hz sonde transmitter.				
3. 512Hz Sonde Receiver, battery powered with LCD readout for frequency, depth and signal strength.				
TRAINING REQUIREMENTS				
1. Three days of software and equipment training for two - four people.				
OPTIONAL EQUIPMENT				
1. Inclination Option for Data Collection Software.				
2. Inclination Hardware for Pan & Tilt Zoom Camera.				
3. Laser Crack measurement tool for mainline camera.				
4. Steerable, Single Conductor Large Diameter Pipe Transporter 24" - 120", motorized camera lift able to be remotely operated inside vehicle.				
5. Large Pipe Wheel and Extension Kit for Steerable Storm Drain Tractor.				
6. Four-Wheel Drive, Single Conductor Small Diameter pipe Tractor to inspect 4" - 12" lines; 3 forward speeds, one reverse speed and stop function. Tractor is to have permanent magnet motor for drive train.				
7. Single Conductor Pan & Tilt Camera for use with small diameter pipe tractor with 360 degree continuous rotate ability and 270 degree panning capability. Compact, rugged, aluminum and stainless steel housing				
WARRANTY				
1. Software Technical Support - 2 Years				
2. Complete warranty or list individual component warranties.				

MINIMUM REQUIREMENTS	YES	NO	IF NO, INDICATE ALTERNATIVE TO BE SUPPLIED. IF EQUIPMENT MEETS AND/OR SURPASSES REQUIREMENTS, INDICATE IN DETAIL BELOW. ATTACH SHEETS IF NEEDED.	PRICE
ADDITIONAL REQUIREMENTS				
1. All new equipment must be compatible with the City's current RST single conductor system.				
2. The City's existing equipment must be compatible with the new equipment being proposed in this bid.				
3. Manufacture must have lifetime loaner program available at no cost for use of equipment by the City.				
DELIVERY				
1. Successful bidder must arrange with the City a minimum of 14 days in advance prior to delivery and training and must include all delivery cost in the bid.				
2. Unit must be completed and delivered to the City NLT 120 days after receipt of chassis.				

Name of Company or Individual Submitting Quote

**Duly Authorized Representative
(Print Name)**

Signature

Date

Date That Truck Can Be Delivered To Coos Bay

GENERAL INFORMATION

Request for Additional Information: Proposers may submit questions or a request for additional

information. All questions and/or requests must be submitted either by mail or email no later than June 27th, 2014:

City of Coos Bay
Public Works & Development
Attn: Jennifer Wirsing
500 Central Avenue
Coos Bay, OR 97420
jwirsing@coosbay.org

All requests for additional information, must clearly reference the "Quote to Purchase TV Truck". All requests must be received no later than, June 27, 2014. The responses to the requests will be made available at the City's website: www.coosbay.org. Hard copies can be mailed upon request.

Schedule of Request for RFQ Events

RFQ Advertised (The world)	June 19 and 24, 2014
RFQ Advertised (The world)	June 20 and 23, 2014
Request for Additional Information	June 27, 2014
Quote Due	Noon, July 7, 2014
Council Consideration of Sale	July 15, 2014
Award of Sale	July 24, 2014

Quote Withdrawal: Any Quote may be withdrawn at any time before the "Quote Due" date and time by providing a written request for the withdrawal to the issuing office. A duly authorized representative of the agency shall make the request. Withdrawal of a Quote will not preclude the proposer from filing a new Quote.

Address: City of Coos Bay
Public Works and Development Department
500 Central Avenue
Coos Bay OR 97420

Ownership of Documents: Any material submitted by a proposer shall become the property of the City. Materials submitted after a contract is signed will be subject to the ownership provision of the executed contract.

Confidentiality of Information: All information and data furnished to the proposer by the City and all other documents to which the proposer's employees have access during the preparation and submittal of the Proposal shall be treated as confidential to the City. Any oral or written disclosure to unauthorized individuals is prohibited.

Public Record: All Proposals and information submitted by proposers are not open for public inspection until after the notice of intent to award a contract is issued. Except for exempt materials, all Proposals and information submitted by proposers will be available for viewing after the evaluation process is complete and the notice of intent to award is sent to all participating parties.

Indemnity: The Purchaser shall hold harmless, indemnify, and save the City, its officers, employees, and agents, from any and all liability claims, losses, or damages arising or alleged to arise during the performance of the work described herein by reason of any act or omission of the Purchaser or any of its agents, employees or representatives. The indemnity applies to both active and passive acts and/or other conduct.