

Company Name	Aries Industries, Inc.
Doing Business as (if applicable)	
Contact Person for Solicitation Response	Mike Burczyk
Phone	262-446-5631
Email	Mike.burczyk@ariesindustries.com
Address For Purchase Orders-Number & Street-Post Office Box (some companies have ordering addresses that are are different than the payment address)	550 Elizabeth Street
City, State, Zip	Waukesha, WI 53186
Contact Person for Contract/Ordering/Price Information/Equipment Additions/Changes/Discontinuations	Mike Burczyk
Phone	262-446-5631
Fax	
Email	Mike.burczyk@ariesindustries.com
Secondary Contact for Contract/Ordering	Cody Vandiver
Phone	262-446-5631
Fax	262-896-7099
Email	Cody.Vandiver@ariesindustries.com
Address For Payment-Number & Street-Post Office Box (some companies have a different Payment/remittance address than the ordering address)	550 Elizabeth Street
City, State, Zip	Waukesha, WI 53186
Contact Person/Department for payment	Linda Perrin (Accounts Receivable) Jodi Marx (Accounts payable)
Phone	Linda: 262-446-5609 Jodi: 262-446-5608
Fax	262-446-5695
Email	Linda.perrin@ariesindustries.com
Counties You can provide products/warranty service/repair parts to	<input checked="" type="checkbox"/> All counties in Oklahoma OR just these counties: _____
	(include any special conditions, such as territory or district maps on a separate sheet)
Continued-counties	OR all BUT these counties:
Trade-ins	<input type="checkbox"/> Available <input checked="" type="checkbox"/> Not Available (Include any special conditions on a separate sheet)
Payment Discount (i.e. 15 days)	Net <u>30</u> days
Supplier will be responsible for notifying the contracting officer when the contact information changes.	Notes: (Special ordering instructions-please attach any special instructions on a separate sheet)

ATTACHMENT E

Sewer Inspection Equipment

If you have different discounts for different sizes of equipment or options, you WILL have to list the items. If you need more space, attach sheets in the same format as this

BRAND	MODEL	Price Book/Catalog Date of Manufacturer's Current Published Retail Price List	Percentage off discount %
Aries	Seeker SK3100	Aries SW193 Pricing, Aug2013	5
Aries	Seeker SK3300	Aries SW193 Pricing, Aug2013	5
Aries	Seeker SK3300	Aries SW193 Pricing, Aug2013	5
Aries	Pathfinder 4.70.39	Aries SW193 Pricing, Aug2013	5
Aries	Saturn 4.70.37	Aries SW193 Pricing, Aug2013	5
Aries	LETS	Aries SW193 Pricing, Aug2013	5
Aries	Hi-Cube 2.02.55	Aries SW193 Pricing, Aug2013	5
Aries	Cargo Van 2.02.56	Aries SW193 Pricing, Aug2013	5
Aries	Trailer 2.02.57	Aries SW193 Pricing, Aug2013	5
Aries	Cameras	Aries SW193 Pricing, Aug2013	5
Aries	Tractors	Aries SW193 Pricing, Aug2013	5
Aries	Software	Aries SW193 Pricing, Aug2013	5
Aries	Raptor Cutter	Aries SW193 Pricing, Aug2013	5
Aries	Grout Rehab	Aries SW193 Pricing, Aug2013	5
Aries	Miscellaneous Items	Aries SW193 Pricing, Aug2013	5

Attachments/Accessories: 5 %

Options: 5 %

Installation Charge: Per individual quote request

Special Notes: Please see file titled Aries SW193 Pricing.xls

Additional information for ordering from Aries (taken from Aries response to the solicitation)

Base packages are provided with many options.

The standard one-year warranty terms document is provided.

A one-year warranty extension is also available and will be added at the request of the end user.

Quotes will be individually prepared once requested.

Installation charges are included for all Aries factory installations, and can also be added for field installations of our equipment on an individual basis.

Multiple unit discounts will be also offered on an individual, not contract-wide basis.

A 5% list price discount is offered. Any parts listed via our website will not have a discount offered at this time.

CONTRACT
State of Oklahoma

Dispatch via Print

Supplier 0000366099
ARIES INDUSTRIES INC
550 ELIZABETH ST
WAUKESHA WI 53186
USA

Contract ID		Page	
00000000000000000000000003580		1 of 1	
Contract Dates	Currency	Rate Type	Rate Date
08/27/2013 to 08/26/2016	USD	CRRNT	PO Date
Description:		Contract Maximum	
SW193-Sewer Equipment		0.00	

TYPE: STATEWIDE

Tax Exempt? Y Tax Exempt ID:736017987

Contract Lines:

Line #	Cat CD / Item ID / Item Desc	UOM	Minimum Order		Maximum / Open	
			Qty	Amt	Qty	Amt
1	20111610 / Sewer Equipment Agency fill in type of Sewer Equipment and price at time of order. Pricing/Discount information is attached to the Vendor Contact and order information document.	EA	1.00	0.00	0.00	0.00
	Contract Base Pricing			0.01000	EA	0001
2	20111610 / Options/Accessories This line is for options. See options pricing/discount on attachments to the Vendor information and order documents.	EA	1.00	0.00	0.00	0.00
	Contract Base Pricing			0.01000	EA	0001

COMMENTS:

Final = The price is final after adjustments
Hard = Apply adjustments regardless of other adjustments
Skip = Skip adjustments if any other adjustments have been applied

Authorized Signature

EQUIPMENT PROPOSAL

Specifications

COMPONENT LISTS – BASE PACKAGES

Aries Seeker

SK3x00: System Specifications

1 SEEKER Portable Color Camera Inspection System including:

- 1 Built-in 6.4" LCD monitor
- 1 100, 200, or 300 feet of push cable with wheeled coiler assembly
- 1 Built-in electronic footage counter with overlay to display camera distance, from point-of-entry, on LCD monitor
- 1 Built-in fully integrated 12V DC battery pack
- 1 Collapsible telescoping handle
- 1 Centering skid for 3" to 6" diameter pipes

2 Manuals – operation and maintenance, DVD format

2 Spare parts catalogs, DVD format

1 Delivery of system

1 One year warranty, TV system

Aries Pathfinder

4.70.39 – System Specifications

1 System Control Unit ("SCU") assembly mounted in a Hardigg-style, ATA airline-rated shipping case. Major built-in components are:

- 1 Non-glare 8.4" color flat screen TV monitor
- 1 Audio speaker system
- 1 Video recorder bypass switch
- 1 Set of video recorder audio and video jacks
- 1 Microphone jack
- 1 Audio recording microphone
- 1 Camera power selector switch, micro/mainline
- 1 Light power selector switch, micro/mainline
- 1 5-position lighthouse selector switch
- 1 Lighthouse protection system with an auto reset circuit breaker and trip indicator light
- 1 Lighthouse intensity control knob
- 1 AC power switch
- 1 Set of individual circuit breakers for AC power input/lighthouse power output/camera power output
- 1 120V AC power input GFI protected plug with cord
- 1 120V AC duplex GFI protected outlet
- 1 Military connector for SCU to reel interconnect cable (prewired for push reel, pull reel, tractor and on-screen footage features)
- 1 Multi-function system diagnostic test meter with concurrent volt and amp LED readout
- 1 Storage compartment mounted in shipping case protective cover
- 1 Expansion slot and keyboard tray position for VL5000 data display module and keyboard
- 1 Internal digital recorder with USB output, 16GB flash drive, and (2) remote controls

EQUIPMENT PROPOSAL

Specifications

- 1 Aries VL5000 Video Data Display and Report Writer System with:**
 - 1 Data display control module, panel mounted
 - 1 Alphanumeric full "QWERTY" keyboard for video titling and report data input (must be built in control unit for storage safety)

- 1 Aries PE3510 Pathfinder series zoom pan and tilt camera w/ high intensity LED light ring, including:**
 - 1 Pathfinder zoom pan and tilt camera w/ 360° continuous rotation
 - 1 40X zoom (10X optical & 4X digital)
 - 1 Lens wiper for clearing lens obstructions on-demand
 - 1 Maintenance-free forward facing true color warm white directional LED lighting modules, positioned in the arms of the camera
 - 1 Maintenance-free true color warm white directional LED directional lighting system with for inspecting up to 36" pipelines
 - 1 White balance optimization with (4) selectable settings
 - 1 "Starlite" light enhancement feature with (4) user selectable enhancement steps
 - 1 "One Touch Scanning" feature with (2) user selectable continuous joint scan presets
 - 1 "Quick Look" preset view positions (6) (Up, Down, Right, Left, Lat R, Lat L)
 - 1 Fast-check pressure monitoring system
 - 1 On-screen camera diagnostics functions including:
 - Camera model, serial number, software revision
 - Camera operating hours, regulated voltage value, head temperature
 - Camera internal pressure, control error recognition, LED current value
 - 1 Camera/tractor storage and transport case
 - 1 Spare parts / camera recharge kit
 - 1 Test cable, Pathfinder system
 - 1 Desktop dual mode camera controller including: joystick for axial rotation and pan and tilt angle; remote focus; zoom in/out; home, diagnostics, white balance, Starlite, and preset switches

- 1 Aries TR3300 Pathfinder steerable self-propelled transporter for relined 6" to 24" lines, including:**
 - 1 Tractor assembly with continuous duty drive motors
 - 6 3³/₈" rubber wheels for relined 6" lines
 - 4 4³/₈" rubber wheels for 8"-15" sewer lines
 - 4 4³/₈" extended hub rubber tires for 10"-18" sewer lines
 - 4 5" extended hub rubber tires for 12"-24" sewer lines
 - 4 5" double wide "dually" extended hub wheels for larger lines
 - 1 Fast-check pressure monitoring system
 - 1 Manual camera lifting mechanism
 - 1 Rear viewing camera with LED lighting
 - 1 Auxiliary high power detachable light head
 - 1 512 Hz detachable locating beacon
 - 1 Storage and transport case
 - 1 Set maintenance parts

EQUIPMENT PROPOSAL

Specifications

- 1 Hand-held Pathfinder series tractor controller
- 1 Tractor power supply and control interface box to SCU
- 1 Pathfinder cable and reel assembly, including:**
 - 1 Lightweight frame, drum and motor assembly with clutch and cable level wind assembly
 - 1 Footage meter with local LCD footage display and encoder for footage signal to remote video data display system
 - 1 Emergency hand crank arm
 - 1 Hand held reel controller with 20' cable
 - 1 1000' of lightweight low friction multi-conductor cable
 - 1 Sealed continuous contact collector assembly, 12 slip rings minimum
 - 1 Telescoping swivel cable guide
 - 1 Interconnect cable to TV system electronics
 - 1 Removable wheeled dolly frame
- 1 Cable manhole guide system including:**
 - 1 Manhole top roller assembly
 - 1 Insertion and extractor pole assembly and tractor adapter
 - 1 Tiger tail bottom cable guide
- 2 Manuals – operation and maintenance**
- 2 Manuals – spare parts**
- 1 Maintenance tool kit**
- 1 Delivery of system**
- 1 Day of training**
- 1 One year warranty, TV system**

Aries Saturn

4.70.37: System Specifications

- 1 System Control Unit ("SCU") assembly mounted in a Hardigg-style, ATA airline-rated shipping case. Major built-in components are:**
 - 1 Non-glare 8.4" color flat screen TV monitor
 - 1 Audio speaker system
 - 1 Video recorder bypass switch
 - 1 Set of video recorder audio and video jacks
 - 1 Microphone jack
 - 1 Audio recording microphone
 - 1 Camera power selector switch, micro/mainline
 - 1 Light power selector switch, micro/mainline
 - 1 5-position lighthouse selector switch
 - 1 Lighthouse protection system with an auto reset circuit breaker and trip indicator light
 - 1 Lighthouse intensity control knob
 - 1 AC power switch

EQUIPMENT PROPOSAL

Specifications

- 1 Set of individual circuit breakers for AC power input/lighthouse power output/camera power output
 - 1 120V AC power input GFI protected plug with cord
 - 1 120V AC duplex GFI protected outlet
 - 1 Military connector for SCU to reel interconnect cable (prewired for push reel, pull reel, tractor and on-screen footage features)
 - 1 Multi-function system diagnostic test meter with concurrent volt and amp LED readout
 - 1 Storage compartment mounted in shipping case protective cover
 - 1 Expansion slot and keyboard tray position for VL5000 data display module and keyboard
 - 1 Internal digital recorder with USB output, 16GB flash drive, and (2) remote controls
- 1 Aries VL5000 Video Data Display and Report Writer System with:**
- 1 Data display control module, panel mounted
 - 1 Alphanumeric full "QWERTY" keyboard for video titling and report data input (must be built in control unit for storage safety)
- 1 Aries PE2620 "Illumi-Zoom" multi-conductor, pan and tilt radial view, LED-illuminated, zoom, color sewer TV camera, consisting of:**
- 1 Maintenance-free directional camera LED light system for 6" to 72" pipes and ducts
 - 1 Built-in diagnostics system to monitor camera operating conditions
 - 1 Camera storage and transport case
 - 1 Spare parts kit
 - 1 Test cable, components to 12-pin PCU connector
- Camera features include:
- Infinite axial rotation
 - 300° pan & tilt rotation
 - 40X zoom (10X optical & 4X digital)
 - Automatic or remote adjustable focus
 - Automatic or remote adjustable iris
 - Automatic home feature with forks at side of camera head
 - Automatic white balance circuitry
 - NTSC color imaging module
 - SMARTEK internal diagnostic system
 - 0.1 Lux low-light STARLITE mode
- 1 SCU camera controller including: joystick for axial rotation and pan and tilt angle; remote focus; remote iris; zoom in/out; diagnostics pushbutton; and home switch
- 1 Aries TR3001 "Badger" self-propelled wheeled camera transporter for 8" to 15" lines, components include:**
- 1 Tractor assembly with continuous duty drive motor
 - 1 Set each of 3-3/8", 4-3/8" and 5" rubber tires for 8"-15" sewer lines
 - 1 Set transmission couplings and width adjustment bars for operation up to 15" sewer lines
 - 1 Plywood storage and shipping box with removable cover
 - 1 Set maintenance parts
 - 1 SCU transporter controller with speed adjustment and forward/reverse

EQUIPMENT PROPOSAL

Specifications

- 1 Portable TV cable reel assembly including:**
 - 1 Slip ring signal collector assembly, prewired for camera and tractor transporter
 - 1 Cable reel drum with brake, mounted on wheeled frame with handle
 - 1 Motor drive, 120VAC with variable speed drive and electric clutch
 - 1 Footage head with mechanical counter, automatic level wind and footage encoder mechanism
- 1 Combination TV transmission and tow cable assembly, .43" diameter, Kevlar™ armored, 2,000 lb. rating, 1,000' Red Maxx, to include:**
 - 1 Cable terminal connector, 12-pin molded
 - 1 Dummy plug, 12-pin
 - 1 Tow/tag line bridle set, multi-conductor cable
 - 1 Standard strain relief
 - 1 Clam-shell style strain relief
 - 1 Cable terminal repair kit
- 1 Cable manhole guide system including:**
 - 1 Manhole top roller assembly
 - 1 Insertion and extractor pole assembly and tractor adapter
 - 1 Tiger tail bottom cable guide
- 2 Manuals – operation and maintenance**
- 2 Manuals – spare parts**
- 1 Maintenance tool kit**
- 1 Delivery of system**
- 1 Day of training**
- 1 One year warranty, TV system**

Aries Vehicles

2.02.55: Hi-Cube System Specifications

- 1 Customer-supplied cutaway or cab/chassis, to which Aries includes:**
 - 2 Full width rear bumper steps, high grip tread
 - 1 Backup alarm
 - 2 Adjustable LED floodlights, mounted above rear doors

Hi-Cube Body

Aluminum construction

84" interior clear height

96" exterior width

Minimum interior load space of 185"

Flat floor with undercoating

Rear door grab handles, qty.2

Full opening rear doors with 3 hinges per door, cam lock, and positive hold-open clamps at head height

EQUIPMENT PROPOSAL

Specifications

Aerodynamic wind fairing with full height walkthrough sliding lockable door to cab area
OR Side door, 24" wide, with qty.2 or 3 RV-style pull out steps and grab handle DEPENDING
ON CHASSIS

1 7,000W, gas powered, commercial grade generator, 120V, 60 Hz, with electric local and remote start/stop control to include:

- 1 Generator enclosure lined with fire retardant and noise reduction material
- 1 Hinged, vented cover with lock mechanism and air spring supports
- 1 Exhaust system with internal muffler
- 1 Auxiliary battery, 12V DC and case
- 1 DC converter, 45A
- 1 Electric distribution panel and circuit breaker box, 12P
- 1 Electric supply transfer system, house power or generator system, automatic, 50A
- 1 35' cord and house power receptacle with cover
- 1 System engineering panel to include:
 - 1 Generator volt meter
 - 1 Generator frequency meter
 - 1 Generator hour meter
 - 1 Generator start/stop switch

1 Hi-cube "Command Center" control room interior including:

- 1 Lonplate non-skid floor covering
- 1 Brune Slate Formica laminated surface wall covering
- 1 White embossed ceiling cover
- 1 Bulkhead wall with sliding Plexiglas window and swing passage door to equipment room
- 1 Roof mounted air conditioner, 13500 BTU with 5600 BTU heat strip
- 1 Modular control center, 19" rack mounted above the bulkhead window
- 1 Ergonomically contoured and finished control desk
- 1 Fluorescent lighting system
- 3 Quad grounded 120V AC sockets
- 1 Operator chair, swivel with casters

1 Hi-cube van equipment room interior including:

- 1 Aluminum treadplate non-skid floor covering
- 1 Embossed aluminum laminated surface wall covering
- 1 White embossed ceiling cover
- 4 Quad electrical outlets, 120V AC grounded
- 1 Duplex weatherproof GFCI electrical outlet, 120VAC
- 1 Fluorescent lighting system
- 1 Set equipment storage brackets and hooks
- 1 Work bench with Lonplate worktop and vise
- 1 Storage shelves over work bench approximately 4' long with fluorescent light underneath
- 1 Tie down brackets along floor, shipped loose
- 1 Fire extinguisher, 10lb, 4A60 B:C rating, OSHA/DOT-approved

1 15" LCD flat panel multimedia monitor, mounted to desktop

EQUIPMENT PROPOSAL

Specifications

1 Digital Video Recorder system, including:

- 1 Modular control center, 19" rack mount location
- 1 Unit to compress video in MPEG4 format
- 2 Remote controls with functions including: record, fast forward, pause, frame advance, slow motion, search, stop and rewind
- 1 16GB USB flash drive
- 1 Set of interconnect cabling
- 1 Audio recording microphone, swivel neck

1 Aries VL5000 Video Data Display including:

- 1 Data Display control module, panel mounted
- 1 Alpha/Numeric Full QWERTY Keyboard for video titling and report data input for VL5000 Display

1 Color TV power control unit, multi-conductor, modular control center mount, with:

- 1 Camera power supply with adjustable voltage and amp level, DC amp and voltmeters, on/off switch and circuit breaker
- 1 TV camera light head intensity control with on/off switch and circuit breaker
- 1 Light head power supply with DC amp and voltmeters, switch and circuit breaker
- 1 Light head power selector switch, 5-position with light head bulb overdrive auto resetting protective circuit breaker
- 1 Set pre-wired connections for tractor and/or pan and tilt camera controllers

1 Aries PE2620 "Illumi-Zoom" multi-conductor, pan and tilt radial view, LED-illuminated, zoom, color sewer TV camera, consisting of:

- 1 Maintenance-free directional camera LED light system for 6" to 72" pipes and ducts
 - 1 Built-in diagnostics system to monitor camera operating conditions
 - 1 Camera storage and transport case
 - 1 Spare parts kit
 - 1 Test cable, components to 12-pin PCU connector
- Camera features include:
- Infinite axial rotation
 - 300° pan & tilt rotation
 - 40X zoom (10X optical & 4X digital)
 - Automatic or remote adjustable focus
 - Automatic or remote adjustable iris
 - Automatic home feature with forks at side of camera head
 - Automatic white balance circuitry
 - NTSC color imaging module
 - SMARTEK internal diagnostic system
 - 0.1 Lux low-light STARLITE mode
- 1 Desktop camera controller including: joystick for axial rotation and pan and tilt angle; remote focus; remote iris; zoom in/out; diagnostics pushbutton; and home switch

EQUIPMENT PROPOSAL

Specifications

- 1 Aries TR3001 “Badger” self-propelled wheeled camera transporter for 8” to 15” lines, components include:**
 - 1 Tractor assembly with continuous duty drive motor
 - 1 Set each of 3-3/8”, 4-3/8” and 5” rubber tires for 8”-15” sewer lines
 - 1 Plywood storage and shipping box with removable cover
 - 1 Set maintenance parts
 - 1 Desktop transporter controller with speed adjustment and forward/reverse
 - 1 Foot pedal controller, rear of vehicle

- 1 Television cable reel with power level wind, electric motor drive, and multi-ratio manual transmission, to include:**
 - 1 Footage meter on TV reel level wind assembly with local mechanical footage readout and encoder for footage signal to remote video data display system
 - 1 Transmission control linkage at control console
 - 1 Local reel mount electrical and mechanical control
 - 1 Remote desktop electrical and mechanical controls
 - 1 Sealed continuous contact collector assembly, 12 slip rings minimum
 - 1 Drop down cable guide assembly
 - 1 Drip pan with drain
 - 1 24-pin switchover and test cable system

- 1 Combination TV transmission and tow cable assembly, .43" diameter, Kevlar™ armored, 2,000 lb. rating, 1,000' Red Maxx, to include:**
 - 1 Cable terminal connector, 12-pin molded
 - 1 Dummy plug, 12-pin
 - 1 Tow/tag line bridle set, multi-conductor cable
 - 1 Clam-shell style strain relief
 - 1 Cable terminal repair kit

- 1 Cable manhole guide system including:**
 - 1 Manhole top roller assembly
 - 1 Manhole bottom roller assembly and adapter hook
 - 5 Quick lock extension poles
 - 1 Insertion and extractor pole assembly and tractor adapter
 - 1 Down hole pole mounting bracket

- 2 DVD – operation / maintenance and spare parts manuals**
- 1 Maintenance tool kit**
- 1 Delivery of system**
- 2 Days of training**
- 1 One year warranty, TV system**

2.02.56 – Cargo Van System Specifications

1 Vehicle modification package, including:

- 1 Extended 24" top, white
- 1 Back-up alarm
- 2 Adjustable LED flood lights, rear

1 7,000W, gas powered, commercial grade generator, 120V, 60 Hz, with electric local and remote start/stop control to include:

- 1 Generator enclosure lined with fire retardant and noise reduction material
- 1 Hinged, vented doors with lock mechanism
- 1 Exhaust system with internal muffler
- 1 Auxiliary battery, 12V DC and case
- 1 DC converter, 45A
- 1 Electric distribution panel and circuit breaker box, 8P
- 1 Electric supply transfer system, house power or generator system, automatic, 50A
- 1 35' cord and house power receptacle with cover
- 1 System engineering panel to include:
 - 1 Generator volt meter
 - 1 Generator frequency meter
 - 1 Generator hour meter
 - 1 Generator start/stop switch

1 Van control room interior including:

- 1 Lonplate non-skid floor covering
- 1 Brune Slate Formica laminated wall covering
- 1 Bulkhead wall with Plexiglas sliding window, equipment room viewing
- 1 Roof mount air conditioner, 13500 BTU with 5600 BTU heat strip
- 1 Fluorescent lighting system
- 2 Quad grounded 120V AC sockets
- 1 Operator chair, swivel with casters
- 1 Modular control center, 19" rack mount, located above the bulkhead window
- 1 Fire extinguisher, 10 BC rating

1 Van equipment room interior including:

- 1 Aluminum tread plate flooring
- 1 Duplex GFI 120V AC socket
- 1 Fluorescent lighting system
- 1 Set equipment storage hooks, shipped loose
- 1 Tie down brackets along floor, shipped loose
- 1 Fire extinguisher, 10lb, 4A60 B:C rating, OSHA/DOT-approved

1 15" LCD flat panel multimedia monitor, mounted to control room desktop

EQUIPMENT PROPOSAL

Specifications

- 1 Digital Video Recorder system, including:**
 - 1 Modular control center, 19" rack mount location
 - 1 Unit to compress video in MPEG4 format
 - 2 Remote controls with functions including: record, fast forward, pause, frame advance, slow motion, search, stop and rewind
 - 1 16GB USB flash drive
 - 1 Set of interconnect cabling
 - 1 Audio recording microphone, swivel neck

- 1 Aries VL5000 Video Data Display including:**
 - 1 Data Display control module, panel mounted
 - 1 Alpha/Numeric Full QWERTY Keyboard for video titling and report data input for VL5000 Display

- 1 Color TV power control unit, multi-conductor, modular control center mount, with:**
 - 1 Camera power supply with adjustable voltage and amp level, DC amp and voltmeters, on/off switch and circuit breaker
 - 1 TV camera light head intensity control with on/off switch and circuit breaker
 - 1 Light head power supply with DC amp and voltmeters, switch and circuit breaker
 - 1 Light head power selector switch, 5-position with light head bulb overdrive auto resetting protective circuit breaker
 - 1 Set pre-wired connections for tractor and/or pan and tilt camera controllers

- 1 Aries PE2620 "Illumi-Zoom" multi-conductor, pan and tilt radial view, LED-illuminated, zoom, color sewer TV camera, consisting of:**
 - 1 Maintenance-free directional camera LED light system for 6" to 72" pipes and ducts
 - 1 Built-in diagnostics system to monitor camera operating conditions
 - 1 Camera storage and transport case
 - 1 Spare parts kit
 - 1 Test cable, components to 12-pin PCU connector

Camera features include:

 - Infinite axial rotation
 - 300° pan & tilt rotation
 - 40X zoom (10X optical & 4X digital)
 - Automatic or remote adjustable focus
 - Automatic or remote adjustable iris
 - Automatic home feature with forks at side of camera head
 - Automatic white balance circuitry
 - NTSC color imaging module
 - SMARTEK internal diagnostic system
 - 0.1 Lux low-light STARLITE mode
 - 1 Desktop camera controller including: joystick for axial rotation and pan and tilt angle; remote focus; remote iris; zoom in/out; diagnostics pushbutton; and home switch

EQUIPMENT PROPOSAL

Specifications

- 1 Aries TR3001 “Badger” self-propelled wheeled camera transporter for 8” to 15” lines, components include:**
 - 1 Tractor assembly with continuous duty drive motor
 - 1 Set each of 3-3/8”, 4-3/8” and 5” rubber tires for 8”-15” sewer lines
 - 1 Set transmission couplings and width adjustment bars for operation up to 15" sewer lines
 - 1 Plywood storage and shipping box with removable cover
 - 1 Set maintenance parts
 - 1 Desktop transporter controller with speed adjustment and forward/reverse
 - 1 Foot pedal controller, rear of vehicle
- 1 Television cable reel with power level wind, electric motor drive, and multi-ratio manual transmission, to include:**
 - 1 Footage meter on TV reel level wind assembly with local mechanical footage readout and encoder for footage signal to remote video data display system
 - 1 Transmission control linkage at control console
 - 1 Local reel mount electrical and mechanical control
 - 1 Remote desktop electrical and mechanical controls
 - 1 Sealed continuous contact collector assembly, 12 slip rings minimum
 - 1 Drop down cable guide assembly
 - 1 Drip pan with drain
 - 1 24-pin switchover and test cable system
- 1 Combination TV transmission and tow cable assembly, .43" diameter, Kevlar™ armored, 2,000 lb. rating, 1,000' Red Maxx, to include:**
 - 1 Cable terminal connector, 12-pin molded
 - 1 Dummy plug, 12-pin
 - 1 Tow/tag line bridle set, multi-conductor cable
 - 1 Clam-shell style strain relief
 - 1 Cable terminal repair kit
- 1 Cable manhole guide system including:**
 - 1 Manhole top roller assembly
 - 1 Manhole bottom roller assembly and adapter hook
 - 5 Quick lock extension poles
 - 1 Insertion and extractor pole assembly and tractor adapter
 - 1 Down hole pole storage tube
- 2 DVD – operation / maintenance and spare parts manuals**
- 1 Maintenance tool kit**
- 1 Delivery of system**
- 2 Days of training**
- 1 One year warranty, TV system**

2.02.57 – Trailer System Specifications

- 1 Tandem Axle Trailer, 7'x14' body, 7000 GVWR. See detailed spec for full vehicle specifications, to which Aries will include:**
- 2 Adjustable LED flood lights, rear

Trailer, 7'x14' Tandem Axle, 7,000 lb. GVWR

Standard Construction

Interior dimensions: 80" wide x 83" high x 144" long
Gross Vehicle Weight Rating: 7,000 lbs
Dexter independent torsion suspension axles
Trailer-rated radial tires
Modular-styled wheels w/E-coat prime & powder coat finish
All-wheel electric brakes w/12V breakaway switch, battery included
Welded in place safety chains
Phosphate power washed and all exposed metal painted
Z-Tech undercoated frame
Long life coating on all fasteners
Automotive style weather stripping
Formed steel rear header with recessed clearance lights
Double 8" I-Beam Mainframe
12" on-center Floor Members
.030 exterior aluminum with 16" on-center wall posts
Aluminum fenders
Aluminum roof with 24" on-center bows
ABS molded license plate holder with light

Additional Construction

Extended triple tube tongue with 2-5/16" ball hitch
ATP stone guard on front of trailer
Reinforced roof for air conditioning unit
Stabilizer jacks at corners
32" curbside door with bar lock
Double swing full opening rear doors with semi-style cam locks
Interior finished in white vinyl

- 1 7,000W, gas powered, commercial grade generator, 120V, 60 Hz, with electric local and remote start/stop control to include:**
- 1 OEM generator enclosure, tongue mounted, with 14-gallon EVAP-certified fuel tank
- 1 Hinged, vented doors with lock mechanism
- 1 Exhaust system with internal muffler
- 1 Auxiliary battery, 12V DC and case
- 1 DC converter, 45A
- 1 Electric distribution panel and circuit breaker box, 8P
- 1 Electric supply transfer system, house power or generator system, automatic, 50A
- 1 35' cord and house power receptacle with cover

EQUIPMENT PROPOSAL

Specifications

- 1 System engineering panel to include:
 - 1 Generator volt meter
 - 1 Generator frequency meter
 - 1 Generator hour meter
 - 1 Generator start/stop switch
- 1 **Trailer control room interior including:**
 - 1 Lonplate non-skid floor covering
 - 1 White laminated surface wall and ceiling covering
 - 1 Bulkhead wall with Plexiglas window and swing passage door to equipment room
 - 1 Roof mounted air conditioner, 13500btu with 5600btu heat strip
 - 1 Modular control center, 19" rack mounted above bulkhead window
 - 1 Ergonomically contoured and finished control desk
 - 1 Fluorescent lighting system
 - 3 Quad grounded 120V AC sockets
 - 1 Operator chair, swivel with casters
- 1 **Trailer equipment room interior including:**
 - 1 Aluminum treadplate flooring
 - 1 White laminated surface wall and ceiling covering
 - 2 Duplex electrical outlets, 120V AC grounded
 - 1 Duplex weatherproof GFCI electrical outlet, 120VAC
 - 1 Fluorescent lighting system
 - 1 Set equipment storage brackets and hooks
 - 1 Work bench with Lonplate worktop and vise
 - 1 Storage shelves over work bench approximately 4' long with fluorescent light underneath
 - 1 Tie down brackets along floor, shipped loose
 - 1 Fire extinguisher, 10lb, 4A60 B:C rating, OSHA/DOT-approved
- 1 **15" LCD flat panel multimedia monitor, mounted to control room desktop**
- 1 **Digital Video Recorder system, including:**
 - 1 Modular control center, 19" rack mount location
 - 1 Unit to compress video in MPEG4 format
 - 2 Remote controls with functions including: record, fast forward, pause, frame advance, slow motion, search, stop and rewind
 - 1 16GB USB flash drive
 - 1 Set of interconnect cabling
 - 1 Audio recording microphone, swivel neck
- 1 **Aries VL5000 Video Data Display including:**
 - 1 Data Display control module, panel mounted
 - 1 Alpha/Numeric Full QWERTY Keyboard for video titling and report data input for VL5000 Display

EQUIPMENT PROPOSAL

Specifications

- 1 **Color TV power control unit, multi-conductor, modular control center mount, with:**
 - 1 Camera power supply with adjustable voltage and amp level, DC amp and voltmeters, on/off switch and circuit breaker
 - 1 TV camera light head intensity control with on/off switch and circuit breaker
 - 1 Light head power supply with DC amp and voltmeters, switch and circuit breaker
 - 1 Light head power selector switch, 5-position with light head bulb overdrive auto resetting protective circuit breaker
 - 1 Set pre-wired connections for tractor and/or pan and tilt camera controllers

- 1 **Aries PE2620 "Illumi-Zoom" multi-conductor, pan and tilt radial view, LED-illuminated, zoom, color sewer TV camera, consisting of:**
 - 1 Maintenance-free directional camera LED light system for 6" to 72" pipes and ducts
 - 1 Built-in diagnostics system to monitor camera operating conditions
 - 1 Camera storage and transport case
 - 1 Spare parts kit
 - 1 Test cable, components to 12-pin PCU connector
Camera features include:
Infinite axial rotation
300° pan & tilt rotation
40X zoom (10X optical & 4X digital)
Automatic or remote adjustable focus
Automatic or remote adjustable iris
Automatic home feature with forks at side of camera head
Automatic white balance circuitry
NTSC color imaging module
SMARTEK internal diagnostic system
0.1 Lux low-light STARLITE mode
 - 1 Desktop camera controller including: joystick for axial rotation and pan and tilt angle; remote focus; remote iris; zoom in/out; diagnostics pushbutton; and home switch

- 1 **Aries TR3001 "Badger" self-propelled wheeled camera transporter for 8" to 15" lines, components include:**
 - 1 Tractor assembly with continuous duty drive motor
 - 1 Set each of 3-3/8", 4-3/8" and 5" rubber tires for 8"-15" sewer lines
 - 1 Plywood storage and shipping box with removable cover
 - 1 Set maintenance parts
 - 1 Desktop transporter controller with speed adjustment and forward/reverse
 - 1 Foot pedal controller, rear of vehicle

- 1 **Television cable reel with power level wind, electric motor drive, and multi-ratio manual transmission, to include:**
 - 1 Footage meter on TV reel level wind assembly with local mechanical footage readout and encoder for footage signal to remote video data display system
 - 1 Transmission control linkage at control console
 - 1 Local reel mount electrical and mechanical control
 - 1 Remote desktop electrical and mechanical controls

EQUIPMENT PROPOSAL

Specifications

- 1 Sealed continuous contact collector assembly, 12 slip rings minimum
- 1 Drop down cable guide assembly
- 1 Drip pan with drain
- 1 24-pin switchover and test cable system

- 1 Combination TV transmission and tow cable assembly, .43" diameter, Kevlar™ armored, 2,000 lb. rating, 1,000' Red Maxx, to include:**
 - 1 Cable terminal connector, 12-pin molded
 - 1 Dummy plug, 12-pin
 - 1 Tow/tag line bridle set, multi-conductor cable
 - 1 Clam-shell style strain relief
 - 1 Cable terminal repair kit

- 1 Cable manhole guide system including:**
 - 1 Manhole top roller assembly
 - 1 Manhole bottom roller assembly and adapter hook
 - 5 Quick lock extension poles
 - 1 Insertion and extractor pole assembly and tractor adapter
 - 1 Down hole pole mounting bracket

- 2 DVD – operation / maintenance and spare parts manuals**
- 1 Maintenance tool kit**
- 1 Delivery of system**
- 2 Days of training**
- 1 One year warranty, TV system**

EQUIPMENT PROPOSAL

Specifications

OPTION PACKAGES

Note – detailed specifications available upon request

SK3200.1: Add Roller Skid

- 1 Roller skid assembly for 6-12 inch pipe

SK3200.2: Add Titler and Keyboard

- 1 Titler and keyboard

SK3200.3: Add DVR Recording Unit

- 1 PVR MPEG4 recording unit with 16GB SD card and USB adapter

SK3200.4: Add Mainline Cable Interface

- 1 Adapter cable to mainline TV cable connector

SK3200.5: Add Wireless Video Transmitter

- 1 Wireless video transmitter and receiver with interface A/B switch to mainline video equipment

SK3200.6: Add RF Transmitter Port

- 1 Port for application of signal transmitter to apply signal to entire push cable length, transmitter provided separately

SK3200.7: Add ST930 Self-Leveling Camera and Seeker Kit

1 ST930 push camera system, including:

- 1 Color mini-camera mounted in self-leveling frame
- 1 1.8" diameter stainless steel waterproof camera housing
- 1 Built-in solid state 12 LED light source, sealed for life, adjustable intensity
- 1 Built-in Integral 512 Hz beacon for accurate camera location in both metallic and non-metallic pipes
- 1 Storage and transport case
- 1 Spring neck device with connection from camera head to push cable

SK3200.8: Add PE3600 Pan and Tilt Camera and Seeker Kit

1 Aries PE3600 pan and tilt camera w/ high intensity LED light ring, including:

- 1 Pan and tilt camera w/ infinite axial and pan/tilt rotation
- 1 Lens/light wiper to clear obstructions
- 1 Maintenance-free true color warm white directional LED directional lighting system with internal regulators for inspecting up to 24" pipelines
- 1 Remote focus (continuous)
- 1 Internal beacon electronics (On/off control)
- 1 "Smart Upright Home" circuitry (electronic gravity sensor)
- 1 Camera/tractor storage and transport case
- 1 Spare parts / camera recharge kit
- 1 Remote key-fob style controller for push system applications

EQUIPMENT PROPOSAL

Specifications

SK3200.9: Add Steering Probe for PE3600 Camera

- 1 Steering probe, PE3600 camera

4.70.37.4: Substitute PE3410 Camera for PE3510

4.70.39.1: Substitute PE3410 Camera for PE3510

2.02.55.E-2: Substitute PE3410 Pathfinder Zoom Camera (Pan Home) for PE2620

2.02.56.E-2: Substitute PE3410 Pathfinder Zoom Camera (Pan Home) for PE2620

2.02.57.E-2: Substitute PE3410 Pathfinder Zoom Camera (Pan Home) for PE2620

PE3410-SK: PE3410 PFZ Camera (Pan Home) with Case, Manual, and Spare Kit

1 Aries PE3410 Pathfinder series zoom pan and tilt camera w/ high intensity LED light ring, including:

- 1 Pathfinder zoom pan and tilt camera w/ 360° continuous rotation
- 1 40X zoom (10X optical & 4X digital)
- 1 Lens wiper for clearing lens obstructions on-demand
- 1 Maintenance-free forward facing true color warm white directional LED lighting modules, positioned in the arms of the camera
- 1 Maintenance-free true color warm white directional LED directional lighting system with for inspecting up to 36" pipelines
- 1 White balance optimization with (4) selectable settings
- 1 "Starlite" light enhancement feature with (4) user selectable enhancement steps
- 1 "One Touch Scanning" feature with (2) user selectable continuous joint scan presets
- 1 "Quick Look" preset view positions (6) (Up, Down, Right, Left, Lat R, Lat L)
- 1 Fast-check pressure monitoring system
- 1 On-screen camera diagnostics functions including:
 - Camera model, serial number, software revision
 - Camera operating hours, regulated voltage value, head temperature
 - Camera internal pressure, control error recognition, LED current value
- 1 Camera/tractor storage and transport case
- 1 Camera recharge kit

4.70.37.5: Substitute PE3410 Camera for PE3510

2.02.55.E-3: Substitute PE3510 Pathfinder Zoom Camera (Pan Home) for PE2620

2.02.56.E-3: Substitute PE3510 Pathfinder Zoom Camera (Pan Home) for PE2620

2.02.57.E-3: Substitute PE3510 Pathfinder Zoom Camera (Pan Home) for PE2620

PE3510-SK: PE3410 PFZ Camera (Tilt Home) with Case, Manual, and Spare Kit

1 Aries PE3510 Pathfinder series zoom pan and tilt camera w/ high intensity LED light ring, including:

- 1 Pathfinder zoom pan and tilt camera w/ 360° continuous rotation
- 1 40X zoom (10X optical & 4X digital)
- 1 Lens wiper for clearing lens obstructions on-demand
- 1 Maintenance-free forward facing true color warm white directional LED lighting modules, positioned in the arms of the camera
- 1 Maintenance-free true color warm white directional LED directional lighting system with for inspecting up to 36" pipelines
- 1 White balance optimization with (4) selectable settings
- 1 "Starlite" light enhancement feature with (4) user selectable enhancement steps

EQUIPMENT PROPOSAL

Specifications

- 1 "One Touch Scanning" feature with (2) user selectable continuous joint scan presets
- 1 "Quick Look" preset view positions (6) (Up, Down, Right, Left, Lat R, Lat L)
- 1 Fast-check pressure monitoring system
- 1 On-screen camera diagnostics functions including:
 - Camera model, serial number, software revision
 - Camera operating hours, regulated voltage value, head temperature
 - Camera internal pressure, control error recognition, LED current value
- 1 Camera/tractor storage and transport case
- 1 Camera recharge kit

4.70.39.2: Substitute TR3400 Pathfinder XL for TR3300

4.70.37.10: Substitute TR3400 Pathfinder XL for TR3001

2.02.55.F-6: Substitute TR3400 Pathfinder XL for TR3001

2.02.56.F-6: Substitute TR3400 Pathfinder XL for TR3001

2.02.57.F-6: Substitute TR3400 Pathfinder XL for TR3001

1 Aries TR3400 Pathfinder XL steerable self-propelled transporter for relined 8" and larger lines, including:

- 1 Tractor assembly with continuous duty drive motors with auto release clutches
- 1 Electric lift assembly for operation in 8" and above pipelines
- 1 Set each of 3", 4" and 5" rubber tires for 8"-30" sewer lines
- 1 Tractor power supply and control module with volt and amp meters, circuit breakers (2), on/off switch and directional control display, rack mount location.
- 1 Desktop hand-held controller with speed, direction and camera lift controls
- 1 Plywood storage and shipping box with removable cover
- 1 Set accessory items
- 1 Set maintenance/spare parts including pressurization kit
- 1 Integral 512 Hz sonde/locating beacon
- 1 Integral inclinometer
- 1 Rear tip up cable connector with integral rear viewing camera and LED lighting
- 1 Detachable auxiliary light head

4.70.39.3: Substitute PR3302 reel with 1200' cable

1 Pathfinder cable and reel assembly, including:

- 1 Lightweight frame, drum and motor assembly with clutch and cable level wind assembly
- 1 Footage meter with local LCD footage display and encoder for footage signal to remote video data display system
- 1 Emergency hand crank arm
- 1 1200' of lightweight low friction multi-conductor cable
- 1 Sealed continuous contact collector assembly, 12 slip rings minimum
- 1 Telescoping swivel cable guide roller assembly
- 1 Interconnect cable to TV system electronics
- 1 Removable wheeled dolly frame

4.70.39.4: Add Reel Control Pendant

- 1 Hand held reel controller with 20' cable

EQUIPMENT PROPOSAL

Specifications

4.70.39.5: Add PR3300 Reel Mount

- 1 Reel mounting kit with drip pan

4.70.37.1: Substitute 500' M/C Cable for 1000'

1 Combination TV transmission and tow cable assembly, .43" diameter, Kevlar™ armored, 2,000 lb. rating, 500' Red Maxx, to include:

- 1 Cable terminal connector, 12-pin molded
- 1 Dummy plug, 12-pin
- 1 Tow/tag line bridle set, multi-conductor cable
- 1 Standard strain relief
- 1 Clam-shell style strain relief
- 1 Cable terminal repair kit

4.70.37.2: Substitute PR1200 Vehicle Reel for PR7230

1 Television cable reel with power level wind, electric motor drive, and multi-ratio manual transmission, to include:

- 1 Footage meter on TV reel level wind assembly with local mechanical footage readout and encoder for footage signal to remote video data display system
- 1 Transmission control linkage at control console
- 1 Local reel mount electrical and mechanical control
- 1 Remote desktop electrical and mechanical controls
- 1 Sealed continuous contact collector assembly, 12 slip rings minimum
- 1 Drop down cable guide assembly
- 1 Drip pan with drain
- 1 24-pin switchover and test cable system

4.70.37.3: Substitute PE2720 Illumi-Zoom LED Camera (Pan Home) for PE2620

2.02.55.E-1: Substitute PE2720 Illumi-Zoom LED Camera (Pan Home) for PE2620

2.02.56.E-1: Substitute PE2720 Illumi-Zoom LED Camera (Pan Home) for PE2620

2.02.57.E-1: Substitute PE2720 Illumi-Zoom LED Camera (Pan Home) for PE2620

PE2720-SK: PE2720 Camera (Pan Home), with Case, Manual, and Spare Kit

1 Aries PE2720 "Illumi-Zoom" multi-conductor, pan and tilt radial view, LED-illuminated, zoom, color sewer TV camera, consisting of:

- 1 Maintenance-free directional camera LED light system for 6" to 96" pipes and ducts
 - 1 Built-in diagnostics system to monitor camera operating conditions
 - 1 Camera storage and transport case
 - 1 Camera recharge kit
 - 1 Test cable, components to 12-pin PCU connector
- Camera features include:
- Infinite axial rotation
 - 300° pan & tilt rotation
 - 40X zoom (10X optical & 4X digital)
 - Automatic or remote adjustable focus
 - Automatic or remote adjustable iris
 - Automatic home feature with forks at top and bottom of camera head
 - Automatic white balance circuitry

EQUIPMENT PROPOSAL

Specifications

NTSC color imaging module
SMARTEK internal diagnostic system
0.1 Lux low-light STARLITE mode

4.70.37.6: Substitute TR2000 Mini-Taurus for TR3001

2.02.55.F-1: Substitute TR2000 Mini-Taurus for TR3001

2.02.56.F-1: Substitute TR2000 Mini-Taurus for TR3001

2.02.57.F-1: Substitute TR2000 Mini-Taurus for TR3001

TR2000-SK: TR2000 Taurus Kit with Case, Manuals, and Spare Kit

1 Aries TR2000 “Taurus” self-propelled tread drive camera transporter for 6” to 15” lines, components including:

- 1 Tractor assembly with continuous duty drive motor
- 1 Set transmission couplings and weighted adjustment bars for operation in 8” to 15” sewer lines
- 1 Plywood storage and shipping box with removable cover
- 1 Set maintenance parts

4.70.37.7: Substitute TR2120 Mini-Taurus for TR3001

2.02.55.F-2: Substitute TR2120 Mini-Taurus for TR3001

2.02.56.F-2: Substitute TR2120 Mini-Taurus for TR3001

2.02.57.F-2: Substitute TR2120 Mini-Taurus for TR3001

TR2120-SK: TR2120 Mini-Taurus Kit with Case, Manuals, and Spare Kit

1 Aries TR2120 “Mini-Taurus” self-propelled tread drive camera transporter for 6” to 15” lines, components including:

- 1 Tractor assembly with continuous duty drive motor
- 1 Set transmission couplings and weighted adjustment bars for operation in 8” to 15” sewer lines
- 1 Plywood storage and shipping box with removable cover
- 1 Set maintenance parts

4.70.37.8: Substitute TR3030 Badger for TR3001

2.02.55.F-3: Substitute TR3030 Badger for TR3001

2.02.56.F-3: Substitute TR3030 Badger for TR3001

2.02.57.F-3: Substitute TR3030 Badger for TR3001

TR3030-SK: TR3030 Badger Kit with Case, Manuals, and Spare Kit

1 Aries TR3030 “Badger” self-propelled wheeled camera transporter for 8” to 15” lines, components include:

- 1 Tractor assembly with continuous duty drive motor
- 1 Articulating rear cable connection
- 1 Set each of 3” reverse offset, 4” reverse offset, and 5” rubber tires for 8”-15” sewer lines
- 1 Plywood storage and shipping box with removable cover
- 1 Set maintenance parts

4.70.37.9: Substitute TR3101 Mini-Badger for TR3001

2.02.55.F-4: Substitute TR3101 Mini-Badger for TR3001

2.02.56.F-4: Substitute TR3101 Mini-Badger for TR3001

EQUIPMENT PROPOSAL

Specifications

2.02.57.F-4: Substitute TR3101 Mini-Badger for TR3001

TR3101-SK: TR3101 Mini-Badger Kit with Case, Manuals, and Spare Kit

1 Aries TR3101 “Mini-Badger” self-propelled wheeled camera transporter for 6” to 15” lines, components include:

- 1 Tractor assembly with continuous duty drive motor
- 1 Set each of 3”, 4” and 5” rubber tires for 6” to 30” sewer lines
- 1 Set transmission couplings and weighted adjustment bars for operation in 8” to 15” sewer lines (no bars required for 6”)
- 1 Plywood storage and shipping box with removable cover
- 1 Set maintenance parts

4.70.37.11: Add Pull Reel Van Mount and Downrigger

- 1 Vehicle-mounting kit with drop-down cable guide

4.70.37.12: Add Deskmount Control System for SCU

- 1 Desktop camera controller including: joystick for axial rotation and pan and tilt angle; remote focus; remote iris; zoom in/out; diagnostics pushbutton; and home switch
- 1 Desktop transporter controller with speed adjustment and forward/reverse

2.02.55.A-1: Add (2) Strobes to Roof

2.02.56.A-1: Add (2) Strobes to Roof

2.02.57.A-1: Add Front and Rear Strobes to Roof

- 2 Amber strobe lights, 1ea mounted front and rear of roof, with controls in cab

2.02.55.A-2: Add (2) Side Mounted Strobes

2.02.56.A-2: Add (2) Side Mounted Strobes

2.02.57.A-2: Add (2) Side Mounted Strobes

- 2 Amber strobe lights, 1ea mounted side of body, with controls in cab

2.02.55.A-3: Add (2) Corner Mounted Strobes

2.02.56.A-3: Add (2) Corner Mounted Strobes

- 2 Amber strobe lights, mounted front or rear of vehicle, with controls in cab

2.02.55.A-4: Add Rear Facing Arrow Bar

2.02.56.A-4: Add Rear Facing Arrow Bar

2.02.57.A-3: Add Rear Facing Arrow Bar

- 1 Arrow bar, mounted rear facing, with controls in cab

2.02.55.A-5: Add Front Facing Arrow Bar

2.02.56.A-5: Add Front Facing Arrow Bar

- 1 Arrow bar, mounted front facing, with controls in cab

2.02.55.A-6: Add Underbody Storage Box, 36x18x18

- 1 Underbody lockable steel storage box, 36x18x18

EQUIPMENT PROPOSAL

Specifications

2.02.55.A-7: Add 24" Wide Flipup Bumper Step

- 1 Positive locking flip up rear bumper step, 24" wide, high grip tread

2.02.55.A-8: Add Hitch Receiver Tube

- 1 Class 3 trailer hitch receiver tube and 7P trailer hookup

2.02.55.A-9: Add Cold Weather Operating Door

- 1 Cold weather pass through latching panel, LR door

2.02.55.A-10: Add Rear Viewing Camera System

2.02.56.A-8: Add Rear Viewing Camera System

- 1 Reverse-viewing camera with LCD display within view of driver

2.02.56.A-6: Substitute Sprinter-Class Outfitting for Cargo Van

1 Sprinter control room interior including:

- 1 Lonplate non-skid floor covering
- 1 Brune Slate Formica laminated surface wall covering
- 1 White embossed ceiling cover
- 1 Bulkhead wall with sliding Plexiglas sliding window, equipment room viewing
- 1 Roof mounted air conditioner, 13500 BTU with 5600 BTU heat strip
- 1 Fluorescent lighting system
- 2 Duplex grounded 120V AC sockets
- 1 Operator chair, swivel with casters
- 1 Fire extinguisher, 10lb, 4A60 B:C rating, OSHA/DOT-approved
- 1 Modular control center, 19" rack mount, located above the bulkhead window

1 Sprinter equipment room interior including:

- 1 Aluminum tread plate flooring
- 1 Brune Slate Formica laminated surface wall covering
- 1 White embossed ceiling cover
- 1 Duplex GFI 120V AC socket
- 1 Fluorescent lighting system
- 1 Set equipment storage brackets and hooks, shipped loose
- 1 Workbench with Lonplate top and vise

2.02.57.A-4: Substitute 6x12 Trailer and Outfitting with Bulkhead and Rack

Trailer, 6'x12' Single Axle, 5,000 lb. GVWR

Standard Construction

Interior dimensions: 68" wide x 79" high x 144" long

Gross Vehicle Weight Rating: 5,000 lbs

32" Side Door with bar lock

Galvanized Underbelly

Dust Proof Sidewall design

Dexter Independent Torsion Suspension Axles

Trailer Rated Radial Tires

Modular-Styled Wheels w/E-Coat Prime & Powder Coat Finish

EQUIPMENT PROPOSAL

Specifications

All Wheel Electric Brakes w/12V Breakaway switch, battery included
Welded in place safety chains
ABS Front Cap
Aerodynamic Front End
Phosphate Power Washed and all exposed metal painted
Long life coating on all fasteners
Automotive style weather stripping
Formed Steel Rear Header with Recessed Clearance lights
Double 8" I-Beam Mainframe
16" on center Floor Members
.030 Exterior Metal with 16" on center wall posts
Aluminum Fenders
.080 Hard Aluminum Top Wrap with Drip Edge
Riveted Roof Seams
ABS Molded License Plate Holder with light

Additional Construction

Extended triple tube tongue with 2-5/16" ball hitch
ATP Stoneguard on front of trailer
Reinforced roof for air conditioning unit
Stabilizer jacks at rear corners
32" curbside door
Double swing full opening rear doors with semi-style cam locks
Interior finished in white vinyl

1 Trailer control room interior including:

- 1 Lonplate non-skid floor covering
- 1 White laminated surface wall and ceiling covering
- 1 Bulkhead wall with Plexiglas window and swing passage door to equipment room
- 1 Roof mounted air conditioner, 13500btu with 5600btu heat strip
- 1 Modular control center, 19" rack mounted above desktop
- 1 Ergonomically contoured and finished control desk
- 1 Fluorescent lighting system
- 2 Duplex grounded 120V AC sockets
- 1 Operator chair, swivel with casters

1 Trailer equipment room interior including:

- 1 Aluminum treadplate flooring
- 1 White laminated surface wall and ceiling covering
- 2 Duplex electrical outlets, 120V AC grounded
- 2 Fluorescent lighting system
- 1 Set equipment storage brackets and hooks
- 1 Tie down brackets along floor
- 1 Fire extinguisher, 10lb, 4A60 B:C rating, OSHA/DOT-approved

EQUIPMENT PROPOSAL

Specifications

2.02.55.B-1: Substitute 7.5kW Quiet DIESEL Generator for 7kW

2.02.56.B-1: Substitute 7.5kW Quiet DIESEL Generator for 7kW

1 7,500W quiet, diesel powered, commercial grade generator, 120V, 60 Hz, with electric local and remote start/stop control to include:

- 1 Quiet diesel engine package, 71dB at 10ft under full load
- 1 Generator enclosure lined with fire retardant and noise reduction material
- 1 Hinged, vented cover with lock mechanism and air spring supports
- 1 Airflow separating mounting bridge
- 1 Exhaust system with internal muffler
- 1 Auxiliary battery, 12V DC and case
- 1 DC converter, 45A
- 1 Electric distribution panel and circuit breaker box, 12P
- 1 Electric supply transfer system, house power or generator system, automatic, 50A
- 1 35' cord and house power receptacle with cover
- 1 System engineering panel to include:
 - 1 Generator volt meter
 - 1 Generator frequency meter
 - 1 Generator hour meter
 - 1 Generator start/stop switch

2.02.55.B-2: Substitute 12kW Quiet DIESEL Generator for 7kW

1 12,000W quiet, diesel-powered, commercial grade generator, 120V/240V, 60 Hz, with electric local and remote start/stop control to include:

- 1 Quiet diesel engine package, 69dB at 10ft under full load
- 1 Generator enclosure lined with fire retardant and noise reduction material
- 1 Hinged, vented cover with lock mechanism and air spring supports
- 1 Airflow separating mounting bridge
- 1 Exhaust system with internal muffler
- 1 Auxiliary battery, 12V DC and case
- 1 DC converter, 45A
- 1 Electric distribution panel and circuit breaker box, 12P
- 1 Electric supply transfer system, house power or generator system, automatic, 50A
- 1 35' cord and house power receptacle with cover
- 1 System engineering panel to include:
 - 1 Generator volt meter
 - 1 Generator frequency meter
 - 1 Generator hour meter
 - 1 Generator start/stop switch

2.02.55.B-3: Substitute 20kW DIESEL Generator for 7kW

1 20,000W, diesel-powered, commercial grade generator, 120V/208V, 60Hz, 3Ø with electric local and remote start/stop control to include:

- 1 Generator enclosure lined with fire retardant and noise reduction material
- 1 Hinged, vented cover with lock mechanism and air spring supports
- 1 Double track slide out rail assembly for external servicing
- 1 Exhaust system with external muffler

EQUIPMENT PROPOSAL

Specifications

- 1 Auxiliary battery, 12V DC and case
- 1 DC converter, 45A
- 1 Electric distribution panel and circuit breaker box, 20P
- 1 Electric supply transfer system, house power or generator system, automatic, 50A
- 1 35' cord and house power receptacle with cover
- 1 System engineering panel to include:
 - 1 Generator volt meter
 - 1 Generator frequency meter
 - 1 Generator start/stop switch
 - 1 Generator hour meter

2.02.55.B-4: Substitute 2.5kW Inverter with (2) Gel-Cell Batteries Genset

2.02.56.B-2: Substitute 2.5kW Inverter with (2) Gel-Cell Batteries Genset

1 2.5 kW true sine wave inverter with internal battery charger to include:

- 1 Battery isolator
- 2 8D gel cell installed in individual vented case
- 1 Electric power transfer system, house or generator
- 1 Electric distribution panel and circuit breaker box
- 1 House power exterior connection with cover
- 1 35' house power cord with plug and socket
- 1 Remote LCD control panel mounted in engineering room

2.02.55.B-5: Additional Gel-Cell Battery for Inverter System

2.02.56.B-3: Additional Gel-Cell Battery for Inverter System

- 1 8D gel cell installed in individual vented case

2.02.55.C-1: Add Padded Bench Seat to Control Room

2.02.57.C-1: Add Padded Bench Seat to Control Room

- 1 Padded bench seat with storage underneath

2.02.55.C-2: Add Tall Closet to Control Room

2.02.57.C-2: Add Tall Closet to Control Room

- 1 Closet/cabinet/storage space with shelves, 20"W x 20"D x 60"H minimum

2.02.55.C-3: Add Half-Height Closet to Control Room

2.02.56.C-1: Add Half-Height Closet to Control Room

2.02.57.C-3: Add Half-Height Closet to Control Room

- 1 Closet/cabinet/storage space with shelves, 20"W x 20"D x 30"H minimum

2.02.55.C-4: Add 1500W Wall Heater

2.02.56.C-2: Add 1500W Wall Heater

2.02.57.C-4: Add 1500W Wall Heater

- 1 Wall mounted 1500-Watt heater

EQUIPMENT PROPOSAL

Specifications

2.02.55.C-5: Substitute Overhead Cabinet Above Workbench for Shelves

2.02.57.C-5: Substitute Overhead Cabinet Above Workbench for Shelves

- 1 Storage cabinet over work bench with sliding doors

2.02.55.C-6: Add Aluminum Shelving Unit to Equipment Room

2.02.57.C-6: Add Aluminum Shelving Unit to Equipment Room

- 1 Equipment aluminum storage shelves, 3 levels, 36x18, between reel and bulkhead

2.02.55.C-7: Add Tool Chest to Equipment Room

2.02.56.C-3: Add Tool Chest to Equipment Room

2.02.57.C-7: Add Tool Chest to Equipment Room

- 1 7-drawer tool chest

2.02.55.C-8: Add Reel Mounted Hoist

2.02.56.C-4: Add Reel Mounted Hoist

2.02.57.C-8: Add Reel Mounted Hoist

1 Equipment hoist, 500lb. rating

- 1 Mounting brackets to reinforced floor or TV reel

2.02.55.C-9: Add Air Compressor, 2hp, with Retractable 25' Hose

2.02.56.C-5: Add Air Compressor, 2hp, with retractable 25' hose

2.02.57.C-9: Add Air Compressor, 2hp, with Retractable 25' Hose

1 Air compressor, single stage, 2hp, 4.1 cfm delivery at 90 psi

- 1 4.3-gallon air tank
- 1 25' 3/8" diameter hose on auto-retractable reel

2.02.55.C-10: Add 11-gallon Air Tank

2.02.56.C-6: Add 11-gallon Air Tank

2.02.57.C-10: Add 11-gallon Air Tank

- 1 11-gallon air tank

2.02.55.C-11: Add 8-gallon Washdown System with 25' Retractable Hose

2.02.56.C-7: Add 8-gallon Washdown System with 25' Retractable Hose

2.02.57.C-11: Add 8-gallon Washdown System with 25' Retractable Hose

1 Water wash down system for equipment clean-up including:

- 1 Water storage tank, 8-gallon
- 1 Set of fill, vent and drain connections
- 1 Water tank demand pump
- 1 25' retractable wash down hose with spring-loaded hand nozzle

2.02.55.C-12: Add 12-gallon Washdown System with 25' Retractable Hose

2.02.56.C-8: Add 12-gallon Washdown System with 25' Retractable Hose

2.02.57.C-12: Add 12-gallon Washdown System with 25' Retractable Hose

1 Water wash down system for equipment clean-up including:

- 1 Water storage tank, 12-gallon

EQUIPMENT PROPOSAL

Specifications

- 1 Set of fill, vent and drain connections
- 1 Water tank demand pump
- 1 25' retractable wash down hose with spring-loaded hand nozzle

2.02.55.C-13: Add 16-gallon Washdown System with 25' Retractable Hose

2.02.56.C-9: Add 16-gallon Washdown System with 25' Retractable Hose

2.02.57.C-13: Add 16-gallon Washdown System with 25' Retractable Hose

1 Water wash down system for equipment clean-up including:

- 1 Water storage tank, 16-gallon
- 1 Set of fill, vent and drain connections
- 1 Water tank demand pump
- 1 25' retractable wash down hose with spring-loaded hand nozzle

2.02.55.C-14: Add 19-gallon Washdown System with 25' Retractable Hose

2.02.56.C-10: Add 19-gallon Washdown System with 25' Retractable Hose

2.02.57.C-14: Add 19-gallon Washdown System with 25' Retractable Hose

1 Water wash down system for equipment clean-up including:

- 1 Water storage tank, 19-gallon
- 1 Set of fill, vent and drain connections
- 1 Water tank demand pump
- 1 25' retractable wash down hose with spring-loaded hand nozzle

2.02.55.C-15: Add 26-gallon Washdown System with 25' Retractable Hose

1 Water wash down system for equipment clean-up including:

- 1 Water storage tank, 26-gallon
- 1 Set of fill, vent and drain connections
- 1 Water tank demand pump
- 1 25' retractable wash down hose with spring-loaded hand nozzle

2.02.55.C-16: Add 35-gallon Washdown System with 25' Retractable Hose

1 Water wash down system for equipment clean-up including:

- 1 Water storage tank, 35-gallon
- 1 Set of fill, vent and drain connections
- 1 Water tank demand pump
- 1 25' retractable wash down hose with spring-loaded hand nozzle

2.02.55.C-17: Substitute 50' Retractable Hose for 25'

2.02.56.C-11: Substitute 50' Retractable Hose for 25'

2.02.57.C-15: Substitute 50' Retractable Hose for 25'

- 1 50' retractable wash down hose with spring-loaded hand nozzle

2.02.55.C-18: Add Bathroom Closet with Waterflush Toilet, Light, and Vent

1 Toilet closet complete with carpentry, door and vent including:

- 1 Soap dispenser, towel rack, and toilet paper dispenser
- 1 Water flush toilet and drain
- 1 Vent fan and overhead light

EQUIPMENT PROPOSAL

Specifications

2.02.55.C-19: Add Sink and 8g Graywater Tank

1 Wash sink with faucet, drain and 8-gallon gray water tank

2.02.55.D-1: Substitute 17" Monitor for 15"

2.02.56.D-1: Substitute 17" Monitor for 15"

2.02.57.D-1: Substitute 17" Monitor for 15"

1 17" LCD flat panel multimedia monitor

2.02.55.D-2: Substitute 19" Monitor for 15"

2.02.56.D-2: Substitute 19" Monitor for 15"

2.02.57.D-2: Substitute 19" Monitor for 15"

1 19" LCD flat panel multimedia monitor

2.02.55.D-3: Delete Video Recorder

2.02.56.D-3: Delete Video Recorder

2.02.57.D-3: Delete Video Recorder

2.02.55.F-6: Substitute TR3300 Pathfinder for TR3001

2.02.56.F-6: Substitute TR3300 Pathfinder for TR3001

2.02.57.F-6: Substitute TR3300 Pathfinder for TR3001

1 Aries TR3300 Pathfinder steerable self-propelled transporter for relined 6" to 24" lines, including:

- 1 Tractor assembly with continuous duty drive motors
- 6 3³/₈" rubber wheels for relined 6" lines
- 4 4³/₈" rubber wheels for 8"-15" sewer lines
- 4 4³/₈" extended hub rubber tires for 10"-18" sewer lines
- 4 5" extended hub rubber tires for 12"-24" sewer lines
- 1 Fast-check pressure monitoring system
- 1 Manual camera lifting mechanism
- 1 Integrated inclinometer system
- 1 Rear viewing camera with LED lighting
- 1 Auxiliary high power detachable light head
- 1 512 Hz detachable locating beacon
- 1 Storage and transport case
- 1 Set maintenance parts
- 1 Tractor power supply and control module with volt and amp meters, circuit breakers (2), on/off switch and direction control display, rack mount location
- 1 Hand-held Pathfinder series tractor controller
- 4 5" double wide "dually" extended hub wheels for larger lines

EQUIPMENT PROPOSAL

Specifications

2.02.55.G-1: Substitute 1200' RedMaxx Cable for 1000'

2.02.56.G-1: Substitute 1200' RedMaxx Cable for 1000'

2.02.57.G-1: Substitute 1200' RedMaxx Cable for 1000'

1 Combination TV transmission and tow cable assembly, .43" diameter, Kevlar™ armored, 2,000 lb. rating, 1,200' Red Maxx, to include:

- 1 Cable terminal connector, 12-pin molded
- 1 Dummy plug, 12-pin
- 1 Tow/tag line bridle set, multi-conductor cable
- 1 Clam-shell style strain relief
- 1 Cable terminal repair kit

2.02.55.G-2: Substitute 1500' RedMaxx Cable for 1000'

2.02.56.G-2: Substitute 1500' RedMaxx Cable for 1000'

2.02.57.G-2: Substitute 1500' RedMaxx Cable for 1000'

1 Combination TV transmission and tow cable assembly, .43" diameter, Kevlar™ armored, 2,000 lb. rating, 1,500' Red Maxx, to include:

- 1 Cable terminal connector, 12-pin molded
- 1 Dummy plug, 12-pin
- 1 Tow/tag line bridle set, multi-conductor cable
- 1 Clam-shell style strain relief
- 1 Cable terminal repair kit

2.02.55.G-3: Substitute 1000' Pathfinder Reel for Standard 1000' Truck Reel

2.02.56.G-3: Substitute 1000' Pathfinder Reel for Standard 1000' Truck Reel

2.02.57.G-3: Substitute 1000' Pathfinder Reel for Standard 1000' Truck Reel

2.02.55.G-4: Add 1000' Pathfinder Reel to Truck

2.02.56.G-4: Add 1000' Pathfinder Reel to Truck

2.02.57.G-4: Add 1000' Pathfinder Reel to Truck

1 Pathfinder cable and reel assembly, including:

- 1 Heavy-duty frame, drum and motor assembly with clutch and cable level wind assembly
- 1 Footage meter with local LCD footage display and encoder for footage signal to remote video data display system
- 1 Hand held reel controller with 20' cable
- 1 Emergency hand crank arm
- 1 1000' of lightweight low friction multi-conductor cable
- 1 Sealed continuous contact collector assembly, 12 slip rings minimum
- 1 Telescoping swivel cable guide roller assembly
- 1 Drip pan with drain
- 1 Interconnect cable to TV system electronics

EQUIPMENT PROPOSAL

Specifications

2.02.55.G-4: Substitute 1200' Pathfinder Reel for Standard 1000' Truck Reel

2.02.56.G-4: Substitute 1200' Pathfinder Reel for Standard 1000' Truck Reel

2.02.57.G-4: Substitute 1200' Pathfinder Reel for Standard 1000' Truck Reel

1 Pathfinder cable and reel assembly, including:

- 1 Heavy-duty frame, drum and motor assembly with clutch and cable level wind assembly
- 1 Footage meter with local LCD footage display and encoder for footage signal to remote video data display system
- 1 Hand held reel controller with 20' cable
- 1 Emergency hand crank arm
- 1 1200' of lightweight low friction multi-conductor cable
- 1 Sealed continuous contact collector assembly, 12 slip rings minimum
- 1 Telescoping swivel cable guide roller assembly
- 1 Drip pan with drain
- 1 Interconnect cable to TV system electronics

2.02.55.G-4: Add 1000' RedMaxx Reel to Truck

2.02.56.G-6: Add 1000' RedMaxx Reel to Truck

2.02.57.G-6: Add 1000' RedMaxx Reel to Truck

1 Television cable reel with power level wind, electric motor drive, and multi-ratio manual transmission, to include:

- 1 Heavy duty steel frame
- 1 Footage meter on TV reel level wind assembly with local mechanical footage readout and encoder for footage signal to remote video data display system
- 1 Transmission control linkage at control console
- 1 Local reel mount electrical and mechanical control
- 1 Remote desktop electrical and mechanical controls
- 1 Sealed continuous contact collector assembly, 12 slip rings minimum
- 1 Drop down cable guide assembly
- 1 Drip pan with drain
- 1 24-pin switchover and test cable system

1 Combination TV transmission and tow cable assembly, .43" diameter, Kevlar™ armored, 2,000 lb. rating, 1,000' Red Maxx, to include:

- 1 Cable terminal connector, 12-pin molded
- 1 Dummy plug, 12-pin
- 1 Tow/tag line bridle set, multi-conductor cable
- 1 Clam-shell style strain relief
- 1 Cable terminal repair kit

2.02.55.G-7: Add Clutch System to RedMaxx Reel

2.02.56.G-7: Add Clutch System to RedMaxx Reel

2.02.57.G-7: Add Clutch System to RedMaxx Reel

1 Television cable reel with power level wind, clutched electric motor drive, to include:

- 1 Heavy duty steel frame
- 1 Footage meter on TV reel level wind assembly with local mechanical footage readout and encoder for footage signal to remote video data display system

EQUIPMENT PROPOSAL

Specifications

- 1 Local reel mount electrical controls with emergency stop
- 1 Remote desktop electrical controls
- 1 Sealed continuous contact collector assembly, 12 slip rings minimum
- 1 Drop down cable guide assembly
- 1 Drip pan with drain
- 1 24-pin switchover and test cable system

2.02.55.H-1: Substitute Vehicle Single Cond. Electronics & Reel for Multi-Cond.

2.02.56.H-1: Substitute Vehicle Single Cond. Electronics & Reel for Multi-Cond.

2.02.57.H-1: Substitute Vehicle Single Cond. Electronics & Reel for Multi-Cond.

1 System power supply with adjustable voltage level, current and voltage meters, and on/off switch, rack mounted

1 Camera control unit with 7-function diagnostic meter, controller connector, and power switch, rack mounted

1 Portable desktop system controller, matched to system equipment

1 Television cable reel with power level wind, electric motor drive, and multi-ratio manual transmission, to include:

- 1 Footage meter on TV reel level wind assembly with local mechanical footage readout and encoder for footage signal to remote video data display system
- 1 Transmission control linkage at control console
- 1 Remote desktop electrical and mechanical controls
- 1 Local reel mount electrical and mechanical control
- 1 Sealed continuous contact collector assembly, 3 slip rings minimum
- 1 Drop down cable guide assembly
- 1 Drip pan with drain

1 Combination Video Transmission/Tow Cable Single-Conductor, .270" diameter, 5,600 lb. Rating, 1,500' single conductor, to include:

- 1 NRTL-approved cable terminal connector
- 1 Tow/tag line bridle set, single conductor cable
- 1 Cable terminal repair kit

ST930-SK: ST930 Self-Leveling LED Mini-Camera and Case

1 ST930 push camera system, including:

- 1 Color mini-camera mounted in self-leveling frame
- 1 1.8" diameter stainless steel waterproof camera housing
- 1 Built-in solid state 12 LED light source, sealed for life, adjustable intensity
- 1 Built-in Integral 512 Hz Sonde for accurate camera location in both metallic and non-metallic pipes
- 1 Storage and transport case

EQUIPMENT PROPOSAL

Specifications

PE2620-SK: PE2620 Camera (Tilt Home), with Case, Manual, and Spare Kit

1 Aries PE2620 “Illumi-Zoom” multi-conductor, pan and tilt radial view, LED-illuminated, zoom, color sewer TV camera, consisting of:

- 1 Maintenance-free directional camera LED light system for 6" to 96" pipes and ducts
 - 1 Built-in diagnostics system to monitor camera operating conditions
 - 1 Camera storage and transport case
 - 1 Camera pressurization kit
- Camera features include:
- Infinite axial rotation
 - 300° pan & tilt rotation
 - 40X zoom (10X optical & 4X digital)
 - Automatic or remote adjustable focus
 - Automatic or remote adjustable iris
 - Automatic home feature with forks at side of camera head
 - Automatic white balance circuitry
 - NTSC color imaging module
 - SMARTEK internal diagnostic system
 - 0.1 Lux low-light STARLITE mode

PE3600-Badger-SK: PE3600 Pan and Tilt Push Camera and Kit for Badger Operation

1 Aries PE3600 pan and tilt camera w/ high intensity LED light ring, including:

- 1 Pan and tilt camera w/ infinite axial and pan/tilt rotation
- 1 Maintenance-free true color warm white directional LED directional lighting system with internal regulators for inspecting up to 24" pipelines
- 1 Remote focus (continuous)
- 1 Internal beacon electronics (On/off control)
- 1 “Smart Upright Home” circuitry (electronic gravity sensor)
- 1 Lens/light wiper to clear obstructions
- 1 Camera storage and transport case
- 1 Spare parts / camera recharge kit
- 1 Electromechanical adapters for Badger-series transporters

PE3600-PF-SK: PE3600 Pan and Tilt Push Camera and Kit for Pathfinder Operation

1 Aries PE3600 pan and tilt camera w/ high intensity LED light ring, including:

- 1 Pan and tilt camera w/ infinite axial and pan/tilt rotation
- 1 Maintenance-free true color warm white directional LED directional lighting system with internal regulators for inspecting up to 24" pipelines
- 1 Remote focus (continuous)
- 1 Internal beacon electronics (On/off control)
- 1 “Smart Upright Home” circuitry (electronic gravity sensor)
- 1 Lens/light wiper to clear obstructions
- 1 Camera storage and transport case
- 1 Spare parts / camera recharge kit
- 1 Electromechanical interconnection from camera head Pathfinder connector

EQUIPMENT PROPOSAL

Specifications

RC3400-SK: Camera Controller with Cable

- 1 Desktop camera controller including: joystick for axial rotation and pan and tilt angle; remote focus; remote iris; zoom in/out; diagnostics pushbutton; and home switch

LH-M: Add Multi-Conductor Lighthead

1 Aries LH-Series High performance lighthead, for 15" and higher sewer lines with parabolic reflectors and two (2) field replaceable lamps

- 1 Interconnect cable with appropriate mainline cable interconnection

2.02.55.H-2: Substitute SC1306 Illumi-Zoom SC Camera for PE2620

2.02.56.H-2: Substitute SC1306 Illumi-Zoom SC Camera for PE2620

2.02.57.H-2: Substitute SC1306 Illumi-Zoom SC Camera for PE2620

SC1306-SK: SC1306 Illumi-Zoom SC LED Camera with Case, Manual, and Spare Kit

1 Aries SC1306 "Illumi-Zoom" single conductor, pan and tilt radial view, zoom color sewer TV camera consisting of:

- 1 Directional Camera Light System for 6" to 48" Pipes, LED
 - 1 Camera Storage and Transport Case
 - 1 Spare Parts Kit
- Camera features include:
- 360° axial rotation
 - 230° average pan and tilt rotation
 - 40X zoom (10X optical & 4X digital)
 - Auto or remote adjustable focus
 - Auto or remote adjustable iris
 - Automatic home feature with forks at top and bottom of camera head
 - White balance selection
 - NTSC color imaging module
 - SMARTEK internal diagnostic system
 - 0.1 Lux low-light STARLITE mode

TR3001-SK: TR3001 Badger Kit with Case, Manuals, and Spare Kit

1 Aries TR3001 "Badger" self-propelled wheeled camera transporter for 8" to 15" lines, components include:

- 1 Tractor assembly with continuous duty drive motor
- 1 Set each of 3-3/8", 4-3/8" and 5" rubber tires for 8"-15" sewer lines
- 1 Plywood storage and shipping box with removable cover
- 1 Set maintenance parts

TR3300-SK: TR3300 Steerable Pathfinder Tractor Kit with Case, Manuals, and Spare Kit

1 Aries TR3300 Pathfinder steerable self-propelled transporter for relined 6" to 24" lines, including:

- 1 Tractor assembly with continuous duty drive motors
- 6 3 3/8" rubber wheels for relined 6" lines
- 4 4 3/8" rubber wheels for 8"-15" sewer lines
- 4 4 3/8" extended hub rubber tires for 10"-18" sewer lines
- 4 5" extended hub rubber tires for 12"-24" sewer lines

EQUIPMENT PROPOSAL

Specifications

- 4 5" dually extended hub rubber tires for 15" and larger sewer lines
- 1 Fast-check pressure monitoring system
- 1 Integrated inclinometer system
- 1 Manual camera lifting mechanism
- 1 Rear viewing camera with LED lighting
- 1 Auxiliary high power detachable light head
- 1 512 Hz detachable locating beacon
- 1 Storage and transport case
- 1 Set maintenance parts

TR3310-SK: TR3310 Pathfinder Lift Tractor Kit with Case, Manuals, and Spare Kit

1 Aries TR3310 Pathfinder steerable self-propelled transporter for relined 6" to 24" lines, including:

- 1 Tractor assembly with continuous duty drive motors
- 6 3³/₈" rubber wheels for relined 6" lines
- 4 4³/₈" rubber wheels for 6" & 8" sewer lines
- 4 4³/₈" extended hub rubber tires for 8" sewer lines
- 4 5" extended hub rubber tires for 10" - 15" sewer lines
- 4 5" dually extended hub rubber tires for 15" and larger sewer lines
- 1 Fast-check pressure monitoring system
- 1 Integrated inclinometer system
- 1 Integrated 512 Hz locating beacon
- 1 Remotely-operated electric camera lifting mechanism
- 1 Rear viewing camera with LED lighting
- 1 Auxiliary high power detachable light head
- 1 Storage and transport case
- 1 Set maintenance parts

TR3400-PF-SK: TR3400 Pathfinder XL Tractor System for Pathfinder Cable with Case, Manuals, and Spare Kit

1 Aries TR3400 Pathfinder XL steerable self-propelled transporter for relined 8" and larger lines, including:

- 1 Tractor assembly with continuous duty drive motors with auto release clutches
- 1 Electric lift assembly for operation in 8" and above pipelines
- 1 Set each of 3", 4" and 5" rubber tires for 8"-30" sewer lines
- 1 Plywood storage and shipping box with removable cover
- 1 Set accessory items
- 1 Set maintenance/spare parts including pressurization kit
- 1 Integral 512 Hz sonde/locating beacon
- 1 Integral inclinometer
- 1 Rear tip up cable connector with integral rear viewing camera and LED lighting
- 1 Detachable auxiliary light head
- 1 Interconnection system for Pathfinder cable

EQUIPMENT PROPOSAL

Specifications

TR3400-RM-SK: TR3400 Pathfinder XL Tractor System for RedMaxx Cable with Case, Manuals, and Spare Kit

1 Aries TR3400 Pathfinder XL steerable self-propelled transporter for relined 8" and larger lines, including:

- 1 Tractor assembly with continuous duty drive motors with auto release clutches
- 1 Electric lift assembly for operation in 8" and above pipelines
- 1 Set each of 3", 4" and 5" rubber tires for 8"-30" sewer lines
- 1 Plywood storage and shipping box with removable cover
- 1 Set accessory items
- 1 Set maintenance/spare parts including pressurization kit
- 1 Integral 512 Hz sonde/locating beacon
- 1 Integral inclinometer
- 1 Rear tip up cable connector with integral rear viewing camera and LED lighting
- 1 Detachable auxiliary light head
- 1 Interconnection system for RedMaxx cable

TR7000-SK: TR7000 Steerable Titan System with Auxiliary Lighting

1 Aries TR7000 "Titan" steerable storm sewer tractor, 21" to 120" lines, components including:

- 1 Power forward and power reverse stainless steel, sealed mechanical clutch with forward, reverse and free wheel neutral position
- 2 Electric motor drives, 1/4 hp total, continuous duty rated, waterproof housing
- 1 Easily removing wheel hubs
- 1 Adjustable wheel axle length for large line stability, 19" or 24" tractor width
- 1 Set four 11" diameter tires
- 1 Remote auto camera lift
- 1 Built-in lighting system, 300 watts with auxiliary power box
- 1 Lifting bracket for lowering into and retrieving from manholes

TC3004-SK: Tractor Control System (Multi-Conductor Only)

- 1 Flush mount desktop transporter controller with speed adjustment and forward/reverse

TC3200-SK: Steerable Tractor Control System (Multi-Conductor Only)

- 1 Hand-held steerable tractor control joystick
- 1 Tractor power supply and control module with volt and amp meters, circuit breakers (2), on/off switch and direction control display, rack mount location

TC7000-SK: Titan Steerable Tractor Control System (Multi-Conductor Only)

- 1 Tractor controller, with right and left side joysticks, speed controls, dual isolation transformers, DC power drives with overload circuit breakers, and voltage and current meters

BT931017: Camera and Tractor Control System (Single Conductor Only)

1 Portable desktop system controller, matched to system equipment

EQUIPMENT PROPOSAL

Specifications

BT931018: Camera and Titan Tractor Control System (Single Conductor Only)

1 Portable desktop system controller with joystick, matched to system equipment

589006: 24" Kit for TR2000

- 1 Set transmission couplings and width adjustment bars for operation up to 24" sewer lines

950045: 24" Kit for TR2120

- 1 Set transmission couplings and width adjustment bars for operation up to 24" sewer lines

950240: 24" Kit for TR3001

- 1 Set transmission couplings and width adjustment bars for operation up to 24" sewer lines

950193: 24" Kit for TR3101

- 1 Set transmission couplings and width adjustment bars for operation up to 24" sewer lines

584298: Large Line Kit for TR3001/TR3030/TR3020 with 8" Wheels

- 1 Large diameter pipe kit with geared side rails and 8" diameter rubber tires for operation up to 36" lines

584299: Large Line Kit for TR3001/TR3030/TR3020 with 10" Wheels

- 1 Large diameter pipe kit with geared side rails and 10" diameter rubber tires for operation up to 48" lines

580182: Large Line Kit for TR3001/TR3030/TR3020 with 8" and 10" Wheels

- 1 Large diameter pipe kit with geared side rails and 8" and 10" diameter rubber tires for operation up to 48" lines

584203: Large Line Kit for TR3101 with 8" Wheels

- 1 Large diameter pipe kit with geared side rails and 8" diameter rubber tires for operation up to 36" lines

584066: Large Line Kit for TR3101 with 10" Wheels

- 1 Large diameter pipe kit with geared side rails and 10" diameter rubber tires for operation up to 48" lines

587221: Large Line Kit for TR3400 with 8" Wheels

- 1 Large diameter pipe kit with geared side rails and 8" diameter rubber tires for operation up to 36" lines

587219: Large Line Kit for TR3400 with 10" Wheels

- 1 Large diameter pipe kit with geared side rails and 10" diameter rubber tires for operation up to 48" lines

587205: Large Line Kit for TR3400 with 8" and 10" Wheels

- 1 Large diameter pipe kit with geared side rails and 8" and 10" diameter rubber tires for operation up to 48" lines

EQUIPMENT PROPOSAL

Specifications

587220: *Track Drive Kit for TR3400*

- 1 Tread drive conversion kit, TR3400

584293: *Additional Set of (4) "Dually" Wheels for TR3300*

- 4 5" extended hub "dually" rubber wheels

583053: *Manual Lift for Badger-Series*

- 1 Scissor lift assembly

LH-P: *Add Pathfinder Lighthouse*

- 1 Detachable auxiliary light head

587092: *Add Spare 512Hz Detachable Beacon*

- 1 Detachable 512Hz beacon transmitter

750301: *Add 512Hz Detachable Beacon*

- 1 512Hz detachable beacon, battery powered**

TR-C: *Add Carbide Wheel (ea)*

- 1 Carbide-impregnated high traction wheel, quantity and size to be determined at time of quote

TR-T19: *Set of (4) 19" Titan Wheels*

- 4 19" pneumatic aggressive tread wheels, TR7000 hubs

2.02.55.H-3: *Substitute TR2015 Taurus SC for TR3001*

2.02.56.H-3: *Substitute TR2015 Taurus SC for TR3001*

2.02.57.H-3: *Substitute TR2015 Taurus SC for TR3001*

TR2015-SK: *TR2015 Taurus SC Tractor System*

- 1 Aries TR2015 "Taurus" single conductor, self-propelled tread drive transporter for 6" to 15" lines, components including:**

- 1 Tractor assembly with continuous duty drive motor
- 1 Electronic control module removable without breaking module seal or motor gearbox assembly
- 1 Set transmission couplings and weighted adjustment bars for operation in 8" to 15" sewer lines
- 1 Plywood storage and shipping box with removable cover
- 1 Set maintenance and operation parts

EQUIPMENT PROPOSAL

Specifications

2.02.55.H-4: Substitute TR3020 Badger SC for TR3001

2.02.56.H-4: Substitute TR3020 Badger SC for TR3001

2.02.57.H-4: Substitute TR3020 Badger SC for TR3001

TR3020-SK: TR3020 Badger SC Tractor System

1 Aries TR3020 "Badger" single conductor, self-propelled wheel drive transporter for 6" to 15" lines, including:

- 1 Tractor assembly with continuous duty drive motor
- 1 Set each of 3", 4" and 5" rubber tires for 6"-15" sewer lines
- 1 Plywood storage and shipping box with removable cover
- 1 Set maintenance parts

TR7015-SK: TR7015 Steerable Titan SC Tractor System

1 Aries TR7015 "Titan SC" steerable storm sewer tractor, 21" to 120" lines, components including:

- 1 Power forward and power reverse stainless steel, sealed mechanical clutch with forward, reverse and free wheel neutral position
- 2 Electric motor drives, continuous duty rated, waterproof housing
- 1 Easily removing wheel hubs
- 1 Adjustable wheel axle length for large line stability, 19" or 24" tractor width
- 1 Truck system interface switch
- 1 Set each of four 11" diameter tires
- 1 Remote auto camera lift
- 1 Built-in lighting system, 100 watts
- 1 Lifting bracket for lowering into and retrieving from manholes

LE2165- CFG: LE2165 Chute Style Tread Drive Launcher System with Reel and Controls

1 Aries LE2165 Lateral Evaluation Televising System (LETS) with fixed locating camera, including:

- 1 Launcher frame assembly for operation in 8" to 15" lines with tread tractor drive and continuous duty drive motor including:
 - 1 Set tractor tread spreaders and drive transmission couplings for 10", 12", and 15" mains
 - 1 Launch drive unit with rotation and insertion angle positioners, and push cable drive unit
- 1 LETS Control box including:
 - 1 Insertion/retraction control for push camera
 - 1 Variable push speed control with auto resetting overload circuit breaker
 - 1 Set volt and amp meters
 - 1 Joystick insertion control for elevation and rotation
 - 1 PIP selector control
 - 1 Footage pop-up and reset control
 - 1 Camera selector switch, lateral push or mainline fixed camera
 - 1 Interconnect cable, control box to power control unit
- 1 Mini push camera, color, self-leveling, with lighthouse, push skid, and spare parts
- 1 Fixed mini camera, positioning
- 2 Push cable assemblies (.52"), 120', for 3", 4" and 6" laterals, including spring neck device with integrated 512Hz beacon
- 1 Set spare parts

EQUIPMENT PROPOSAL

Specifications

- 1 Set of test cables for lateral push and mainline fixed cameras
- 1 Truck mounted LETS motorized automatic combination retrieval / storage reel with clutch system, slip ring collector assembly, and 1,000' of multi-conductor video cable
- 1 Set of video A/B switching equipment for mainline or LETS operation
- 1 "Tigertail" downhole guide tube

LE3165-CFG: LE3165 Chute Style Wheel Drive Launcher System with Reel and Controls

1 Aries LE3165 Lateral Evaluation Televising System (LETS) with fixed locating camera, including:

- 1 Tractor assembly with continuous duty drive motor
- 1 Set each of 3", 4" and 5" rubber tires for 8"-15" sewer lines
- 1 Set transmission couplings for operation up to 15" sewer lines
- 1 Launch drive unit with rotation and insertion angle positioners, and push cable drive unit
- 1 LETS Control box including:
 - 1 Insertion/retraction control for push camera
 - 1 Variable push speed control with auto resetting overload circuit breaker
 - 1 Set volt and amp meters
 - 1 Joystick insertion control for elevation and rotation
 - 1 PIP selector control
 - 1 Footage pop-up and reset control
 - 1 Camera selector switch, lateral push or mainline fixed camera
 - 1 Interconnect cable, control box to power control unit
- 1 Mini push camera, color, self-leveling, with lighthouse, push skid, and spare parts
- 1 Fixed mini camera, positioning
- 2 Push cable assemblies (.52"), 120', for 3", 4" and 6" laterals, including spring neck device with integrated 512Hz beacon
- 1 Set spare parts
- 1 Set of test cables for lateral push and mainline fixed cameras
- 1 Truck mounted LETS motorized automatic combination retrieval / storage reel with clutch system, slip ring collector assembly, and 1,000' of multi-conductor video cable
- 1 Set of video A/B switching equipment for mainline or LETS operation
- 1 "Tigertail" downhole guide tube

LE3260-CFG: LE3260 6" Wheel Drive Launcher System with Reel and Controls

1 Aries LE3260 Lateral Evaluation Televising System (LETS) with fixed locating camera, including:

- 1 Tractor/launcher assembly with
 - Front viewing camera
 - Rear viewing camera
 - Tip-up connector
 - Lateral launcher with rotation and insertion angle positioners, and push cable drive
 - Lateral footage encoder
- 1 Set each of 3", 4" and 5" rubber tires for 6" to 12" sewer lines
- 1 Launch chute for use in 6" & 6" relined pipe
- 1 Launch chute for use in 8"-12" sewer lines
- 1 LETS control box including:

EQUIPMENT PROPOSAL

Specifications

- Insertion/retraction control for push camera
- Variable push speed control with auto resetting overload circuit breaker
- Set volt and amp meters
- Joystick insertion control for elevation and rotation
- PIP selector control
- Footage pop-up and reset control
- Camera selector switch, lateral push or mainline fixed camera
- 1 Interconnect cable, control box to power control unit
- 1 Mini push camera, color, self-leveling, with lighthead and spare parts including:
 - 1 Push skid sleeve
- 2 Push cable assemblies (.52"), 120', for 3", 4" and 6" laterals, including:
- 2 Spring neck devices with integrated 512Hz beacon
- 1 Set spare parts
- 1 Set of test cables for lateral push and mainline fixed cameras
- 1 Truck mounted LETS motorized automatic combination retrieval / storage reel with clutch system, slip ring collector assembly, and 1,000' of multi-conductor video cable
- 1 Set of video A/B switching equipment for mainline or LETS operation
- 1 "Tigertail" downhole guide tube

ST930-LETS-SK: ST930 self-leveling camera for LETS operation

- 1 Mini push camera, color, self-leveling, with lighthead and spare parts including:
 - 2 Push skids, sleeve type
 - 1 Spring neck device with integrated 512Hz beacon
- 1 Storage and transport case
- 1 Spring neck for installation to LETS push cable

PE3600-LETS-SK: PE3600 pan and tilt camera for LETS operation

- 1 Aries PE3600 pan and tilt push camera w/ high intensity LED light ring, including:
 - 1 Pan and tilt camera w/ infinite axial and pan/tilt rotation
 - 1 Maintenance-free true color warm white directional LED directional lighting system with internal regulators
 - 1 Remote focus (continuous)
 - 1 Internal beacon electronics (On/off control)
 - 1 "Smart Upright Home" circuitry (electronic gravity sensor)
 - 1 Lens/light wiper to clear obstructions
 - 1 Camera/tractor storage and transport case
 - 1 Camera recharge kit
 - 1 Test cable

841745: 80' push cable for LETS (ea)

- 1 Push cable assembly (.52" diameter), 80', for 3", 4" and 6" laterals

841747: 120' push cable for LETS (ea)

- 1 Push cable assembly (.52" diameter), 120', for 3", 4" and 6" laterals

EQUIPMENT PROPOSAL

Specifications

841766: 150' push cable for LETS (ea)

- 1 Push cable assembly (.52" diameter), 150', for 3", 4" and 6" laterals

CS1000: Rack Mount Computer System with UPS and 15" Monitor

1 Rack-mounted computer and video overlay system, including:

- 1 Industrial hardened case with air filtering, shock mounts for hard drive and CPU fan, peripheral cards support bar, 19" rack, 3U high
 - 2.66GHz Intel Quad Core i5 processor
 - 8GB of RAM, DDR3
 - 1TB SATA hard drive, 7200rpm, storage
 - 120GB solid state hard drive, boot
 - (1) LAN port, rear of PC
 - (12) USB ports, (2) located on front of PC
 - DVD burner, 48x CD-R, 36x CD-RW, 24x DVD±R, 16x DVD-ROM, 8x DVD+R, 6x DVD-R, 12x DVD±DL
- 1 Wireless keyboard and optical mouse
- 1 Windows 7 operating system, with 32-bit capability
- 1 1TB USB-connection external hard drive
- 1 UPS back-up battery system, rack mount

1 15" LCD flat panel multimedia monitor, mounted to control room desktop

CS1001: Laptop Computer

1 Laptop computer, with features including:

Dell Latitude E5550/5550, BTX
5th Generation Intel Core i5-5200U (Dual Core, 2.2GHz, 3M cache) Lat 5550
Windows 7 Professional English/French 64bit (Includes Windows 8.1 Pro license)
Intel Core i5-5200U Processor Base, Intel HD Graphics 5500
Microsoft Office Trial, MUI, OptiPlex, Precision, Latitude
4GB (1x4GB) 1600MHz DDR3L Memory
Internal Dual Pointing Keyboard (English)
500GB 2.5inch Serial ATA (7,200 Rpm) Hard Drive, Latitude
Intel Dual Band Wireless-AC 7265AC 802.11ac/a/b/g/n 2x2 + Bluetooth 4.0 LE Half Mini Card
Intel Management Engine Components Installer
Non-Touch HD LCD Back Cover with Camera, WLAN only
15.6 HD (1366x768) Anti-Glare LCD with Camera
Primary 4-cell 51W/HR Battery
Windows 8.1 DVD OS Recovery(English)
Dell Backup and Recovery Basic
Power Cord : US
Dell Limited Hardware Warranty
ProSupport: 7x24 Technical Support, 3 Years
ProSupport: Next Business Day Onsite, 1 Year
ProSupport: Next Business Day Onsite, 2 Year Extended
65 Watt AC Adapter

EQUIPMENT PROPOSAL

Specifications

E-Port, 130W Simple Port Replicator (Docking station), USB3.0 for Latitude E-Family,
Customer Kit
Dell External USB Slim DVD +/-RW Optical Drive

CS1002: Ink Jet Printer

- 1 Ink Jet printer, color, HP, USB port

CS1100: PipeOptix Software

1 Aries PipeOptix pipeline inspection and reporting software suite

- 1 Video capture device

CS1200: Pipetech Scan v6 Software with MPEG Compression

1 Pipetech Scan software and license

CS1201: Pipetech Scan Manhole Reporting Module

- 1 Scan manhole reporting module

CS1202: Pipetech Scan Lateral Reporting Module

- 1 Scan lateral reporting module

CS1203: Pipetech Scan GIS Data Integration Module with ESRI ArcEngine

- 1 Scan GIS data exchange utility
- 1 ESRI runtime license

CS1204: Pipetech Day of Onsite Training

1 Day of training, software

CS1205: Pipetech Check Offline Software

- 1 Pipetech Check quality control database software

CS1206: Pipetech View Offline Software

- 1 Pipetech View project viewing software

CS1207: Pipetech View Editing Module

- 1 View Edit module for video editing

CS1208: Pipetech View Data Query Module

- 1 View Query module for data administration

CS1209: Pipetech View GIS Module

- 1 View GIS data exchange utility

EQUIPMENT PROPOSAL

Specifications

CS1300: WinCan v8 Entry

1 WinCan version 8 software package, including:

- 1 Core module and license

CS1301: WinCan v8 Overlay Control Module

- 1 Overlay control module

CS1302: WinCan v8 Digital Video Compression Module for Rack PC

- 1 Digital video compression module and PCI hardware

CS1303: WinCan v8 Digital Video Compression Module for Laptop

- 1 Digital video compression module and USB hardware

CS1305: WinCan v8 Manhole Reporting Module

- 1 Manhole inspection module

CS1306: WinCan v8 Lateral Reporting Module

- 1 Lateral inspection module

CS1307: WinCan v8 Map Module

- 1 WinCan Map module

CS1308: WinCan v8 Analysis Module

- 1 WinCan Analysis module

CS1309: WinCan v8 Inclination Reporting Module

- 1 Inclination Module for Data Software

CS1310: WinCan Day of Onsite Training

1 Day of training, software

CS1400: Pipelogix Full Reporting Software

1 Pipelogix Full inspection and reporting software suite

CS1401: Pipelogix Lite Reporting Software

1 Pipelogix Lite pipeline inspection and reporting software suite

CS1403: Pipelogix DVS Video Compression Module

- 1 Pipelogix DVS digital video compression module

CS1404: Pipelogix Manhole Reporting Module

- 1 Pipelogix manhole reporting add-on module

CS1405: Pipelogix GIS Exchange Utility

- 1 Pipelogix GIS for truck
- 1 ESRI runtime license

EQUIPMENT PROPOSAL

Specifications

CS1406: Pipelogix 3-day Onsite Training Package

3 Day training session, software

CS1500: IT Pipes Software Package

1 Infrastructure Technologies software package, including:

- 1 IT Pipes Core module and license
- 1 IT Pipes Overlay control module
- 1 IT Pipes Video Capture video compression module and hardware
- 1 PACP 4.4 certified software coding system and database import/export

2 Day training session, software

CS1501: IT Pipes GIS Send

- 1 IT Pipes GIS Send data exchange module

CS1502: IT Pipes Day of Onsite Training

1 Day of training, software

CS1600: M/C Electronics with PCU, DVD, Overlay, and 15" Monitor

1 15" LCD flat panel multimedia monitor, mounted to control room desktop

1 Digital Video Recorder system, including:

- 1 Modular control center, 19" rack mount location
- 1 Unit to compress video in MPEG4 format
- 2 Remote controls with functions including: record, fast forward, pause, frame advance, slow motion, search, stop and rewind
- 1 16GB USB flash drive
- 1 Set of interconnect cabling
- 1 Audio recording microphone, swivel neck

1 Aries VL5000 Video Data Display including:

- 1 Data Display control module, panel mounted
- 1 Alpha/Numeric Full QWERTY Keyboard for video titling and report data input for VL5000 Display

1 Color TV power control unit, multi-conductor, modular control center mount, with:

- 1 Camera power supply with adjustable voltage and amp level, DC amp and voltmeters, on/off switch and circuit breaker
- 1 TV camera light head intensity control with on/off switch and circuit breaker
- 1 Light head power supply with DC amp and voltmeters, switch and circuit breaker
- 1 Light head power selector switch, 5-position with light head bulb overdrive auto resetting protective circuit breaker
- 1 Set pre-wired connections for tractor and/or pan and tilt camera controllers

EQUIPMENT PROPOSAL

Specifications

CS1601: S/C Electronics with PCU, DVD, Overlay, and 15" Monitor

1 15" LCD flat panel multimedia monitor, mounted to control room desktop

1 Digital Video Recorder system, including:

- 1 Modular control center, 19" rack mount location
- 1 Unit to compress video in MPEG4 format
- 2 Remote controls with functions including: record, fast forward, pause, frame advance, slow motion, search, stop and rewind
- 1 16GB USB flash drive
- 1 Set of interconnect cabling
- 1 Audio recording microphone, swivel neck

1 Aries VL5000 Video Data Display including:

- 1 Data Display control module, panel mounted
- 1 Alpha/Numeric Full QWERTY Keyboard for video titling and report data input for VL5000 Display

1 System power supply with adjustable voltage level, current and voltage meters, and on/off switch, rack mounted

1 Camera control unit with 7-function diagnostic meter, controller connector, and power switch, rack mounted

1 Portable desktop system controller, matched to system equipment

CS5000: Substitute PC5000 for Standard Controller

1 Aries Master Controller system, with:

- 1 Rack mounted control unit
- 2 Hand held controllers for camera and tractor operation
- 1 Monitoring and control software

CT2200s: Add CT2200 Cutter System per spec

1 Aries RAPTOR lateral reinstatement cutter system for 6" to 15" relined pipes, including:

- 1 Cutter body with internal air purge
 - 1 Cutter air motor, 0.7hp, 25000rpm, with 1/4" collet assembly
 - 1 Cutter slide head, 6" to 8" lines
 - 1 Cutter slide head, 8" to 12" lines
 - 1 Cutter slide head, 12" to 15"
 - 1 Set of skids for 6" to 8" lines
 - 1 Set of skids for 8" to 12" lines
 - 1 Set of skids for 12" to 15" lines
 - 1 Set of spare parts and extra collets
 - 1 Set of cutting bits
 - 1 Set of interconnect cables
- 1 Cutter controller with single joystick and interconnect cable

EQUIPMENT PROPOSAL

Specifications

- 1 System spare parts kit
- 1 Test cable

375321: Add 1.0 hp Motor to Cutter

- 1 Cutter air motor, 1.0hp, 25000rpm, with 3/8" collet assembly

CT2200s.2: Spare Cutter Body

- 1 Cutter body with internal air purge

CFN501: Add Cutter Hose Reel and Outfitting per spec

1 Hose and reel assembly, including:

- 1 800' section of 5/8" 300psi air hose
- 1 18" wide hose reel and frame with roller assembly
- 1 Electric rewind motor, variable speed
- 1 4-speed rewind transmission
- 1 Rewind speed control
- 1 Transmission linkage for RedMaxx cable reel
- 1 Interconnect plumbing, reel to compressor, with glad-hand for tow-behind operation
 - 1 Header assembly with solenoid valve assembly with quick dump valve
 - 1 Tow-behind compressor quick connect fitting, rear of vehicle
- 1 Coalescing type compressed air filter with auto drain
- 1 Flexible swivel air hose leader from hose end to cutter head
- 1 Air hose with spring-loaded hand nozzle, 25' retractable

1 Additional transfer plug assembly, 24-pin, TV/CUT

310104: Add On-Board Air Compressor System for Raptor

1 PTO Vanair compressor system for operation of reinstatement cutter, including:

- 1 Rotary screw type compressor, 125cfm @ 150psi
- 1 Installed on Allison PTO provision
- 1 Engine electronic governor interface
- 1 Oil cooler and air separator
- 1 Compressed air aftercooler
- 1 Compressor performance gauge panel showing air pressure, temperature, and oil temperature

MS1017-SK: Add Grout System per spec

1 Additional outfitting package items, including:

- 1 Sealing control panel, mounted above desk level
- 1 Parts storage bins and shelf, mounted on wall above equipment room worktop
- 1 First aid kit
- 1 16oz eye wash station mounted over sink area
- 1 Ventilation fan over chemical tank area

1 Low viscosity grout chemical pumping system with stainless steel plumbing, including:

- 1 Pump system, including:
 - 1 Electric motor variable speed with reduction gear and chain drive

EQUIPMENT PROPOSAL

Specifications

- 2 CAT triplex piston pumps, positive displacement 1:1 ratio
 - 1 Pump mounting frame
 - 1 316 stainless steel wetted plumbing parts
 - 2 Filters, chemical line suction with spares
 - 2 Pump manifold assemblies with stainless steel quick disconnects, suction and bypass valves, and adjustable pressure by-pass
 - 1 Drip pan, stainless steel, under grout pumps
 - 1 Chemical tank assembly, including:
 - 2 65-gallon working capacity polyethylene tanks with level sight gauge markings, screw-on vented DOT covers, and 2 industrial electric mixers with motors separated from top of tank
 - 1 Wall mounted electric vent fan at chemical tank location
 - 1 Drip pan, stainless steel, under chemical tanks
 - 1 12P pigtail cable with camera and packer connections
 - 2 Camera 5-pin adapter cables
 - 2 Camera 5-pin extension cables
 - 1 Pressure transmitter (transducer)
 - 2 Transducer connection cables, short
 - 1 Transducer connection cable, long
- 1 Penta grout and test hose line assembly including:**
- 1 Penta hose, 800', 2 x 1/2" chemical lines and 3 x 3/8" air lines for packer ends, lateral plug inflate/deflate, and void test (all hoses color coded and bonded into one assembly)
 - 2 Stainless steel check valve assemblies, chemical hoses with spare parts
 - 2 Sets of hose termination stainless steel locking quick disconnects, same at both ends
 - 1 Set interconnect hoses from penta line to packer stainless steel quick connectors including required stainless steel quick connectors with anti-drip check valves
 - 1 Joint testing/sealing piping adapter with transducer connection
- 1 Penta hose reel electric motor powered rewind with multi-ratio manual transmission including:**
- Stainless steel quad, 5-passage rotary joint
 - Stainless steel drum
 - Steel frame with stainless on lower segments
 - Electric reel drive motor and control, reel mount
 - Multi-ratio transmission, with reel-mount control linkage
 - 1 Drip pan, stainless steel, under reel
 - 1 Dump valve for rapid packer deflation
- 1 Rack mounted control panel including:**
- Air supply (compressor) pressure gauge
 - System (control) pressure regulator and gauge
 - End element pressure regulator and gauge
 - End hose pressure gauge
 - Void control pressure regulator and gauge
 - Sleeve, third (center) element, pressure regulator and gauge

EQUIPMENT PROPOSAL

Specifications

Sleeve hose pressure gauge
End (high pressure inflate) timer control
Void pressure read-out from transducer
Void test timer with reset
Rapid and standard end element inflate control button
Void test inflate control
Void hold test control
Sleeve inflate control
Deflate/stop control
Single joint grout usage totalizer
Instrument air dryer and filter

1 Water system including:

- 1 Water storage tank, 82 gallon
- 1 Heater, water tank, 750W
- 1 Set of fill, vent and drain connections
- 1 Water system control panel
- 1 Water faucet at chemical tank location
- 1 Wash down hose with spring-loaded hand nozzle, 25' retractable
- 1 Wash sink with faucet and drain

1 Air compressor system, 5.6 cfm @ 125 psi, including:

- 1 1.5hp 115V motor
- 1 Receiver tank, 30 gallons with drain valve, mounted under body
- 1 Safety relief valve
- 1 Disconnect coupler with service ball valve, hose end
- 1 Equipment room interconnect tube air compressor to service hose
- 1 Air hose with spring-loaded hand nozzle, 25' retractable

1 Grout testing kit, including:

- 1 Pressure test kit, including:
 - 1 8" PVC pipe section
 - 1 Pressure gauge
 - 1 Kit for transducer testing with cable, multimeter, and test clips
- 1 Hose adapters with quick disconnect fittings
- 1 Check valve test hose kit

1 Grout system field kit with consumables, repair, and safety equipment

- 1 Manhole top roller assembly, penta hose
- 1 Manhole bottom roller assembly for cable and penta hose, and adapter hook

LS230-SK: Add Lateral Grouting System

1 Lateral packer inflation and control system, including:

- 1 Lateral packer control panel, installed in proximity to main grout controls
- 1 Vacuum pump with 0.75hp motor and tongue mounted lockable aluminum enclosure

EQUIPMENT PROPOSAL

Specifications

- 1 Vacuum tank, 18 gallon, underbody mounted
- 1 Vacuum line liquid separator
- 1 Set interconnect wiring and fittings

PI2000: Add Inclinator System to Multi-Conductor

1 Aries inclinometer system, with features including:

- Angle measurement $\pm 20^\circ$
- Accuracy beyond 0.1°
- Resolution beyond 0.1°
- In-fixture calibration, accurate measurement with minimum setup
- Tilt sensor, solid state accelerometer

Float-SK: Add Float System with LH300 Lighthouse

1 Aries camera float system for high flow applications

- 1 Camera mounting bracket
- 1 Bottom skid protector

1 Aries LH300 auxiliary lighthouse, 255W, for 18" and larger pipes

- 1 Interconnect cable for appropriate mainline cable

RL530: Add RL530 Locator with Bag

- 1 Hand held locator (512 Hz) and soft carrying case

450006: 19" Rack with Carpentry

- 1 Modular control center, 19" rack, with access paneling
 - 1 Surge suppressor
 - 1 15A plug for electrical input
 - 1 Video distributor and amplifier box

570178: ATV Portable Enclosure

1 Aries ATV enclosure semi-portable system including:

- 1 Rugged frame with sealed access panels and front top-hinged gas assist door
- 1 Storage compartment
- 1 Welded steel frame
- 2 Forklift pockets
- 1 Electric distribution panel and circuit breaker box
- 1 House power exterior connection with cover
- 1 25' house power cord with plug and socket
- 1 Pole storage tube

PT Skid8: Add Pull Skid for 8" to 30" Lines

1 TV camera skid assembly for 8" to 30" mainline sewers with:

- 1 Skid and yoke for 8" through 30" lines, including:
 - 3 Top runners
 - 2 Bottom runners, stainless steel
 - 2 Bridles, TV skid, (tag and tow)

EQUIPMENT PROPOSAL

Specifications

- 1 Set 8" to 15" pipeline spacer plates

PT Skid6: Add Pull Skid for 6" Lines

- 1 Skid & yoke, 6" diameter lines

SYS104: Add Remote Winch with (1000') 3/16" Cable and 500' Manual Cord Reel

1 Remote winch system including:

- 1 Power remote winch, including:
 - 1 Hinged, fold-down frame with pin locks
 - 1 1/2hp high torque power driver
 - 1 3/16" stainless steel winch tow cable, 1,000'
 - 1 Power winch drum emergency hand crank
 - 1 120V drive motor
- 1 500' 14/4 power cord with manual rewind and 20' extension cord
- 1 Power winch controller mounted in control room desk
- 1 Winch connector installed on left rear of rear door jamb
- 1 Hand held remote power winch controller, local manhole operation

SYS103: Sub Power Rewind 800' for 500' Manual Cord Reel

- 1 800' 12/4 power cord with power rewind, controller, and 20' extension cord