Infrastructure Solutions Group Inc.

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Quote From:

Infrastructure Solutions Group, Inc. 8383 Old Richfood Road Mechanicsville, VA 23116



Quote To:

Virginia Sheriff's Association

Prepared by: Pete Kurz VSA ITEM# 3350 - Build

Description	Quantity	Unit Price
Rovver X Basic Mainline Inspection System		\$85,997.00
Rovver X Pro Mainline Inspection System		\$98,578.00
Rovver X Pro Mainline Inspection System w/ 500' Re	l eel I	\$124,900.00
Rovver X Basic Mainline System w/ 400 Crawler		\$120,029.00
Rovver X Pro Mainline System w/ 400 Crawler		\$139,741.00
?	ovver X Pro Mainline Inspection System ovver X Pro Mainline Inspection System w/ 500' Re ovver X Basic Mainline System w/ 400 Crawler	ovver X Pro Mainline Inspection System ovver X Pro Mainline Inspection System w/ 500' Reel ovver X Basic Mainline System w/ 400 Crawler



The Power of One

Safe, Easy and Advanced Sewer Inspection Crawler



The Power of One

ROVVER X is the one system that lets you do everything—control inspections, view and record digital video, log observations, generate reports, and link directly to asset-management software. All this capability is packed into a simple three-piece layout, with no CCU or other components to clutter your truck.

ROVVER X is built on a powerful digital backbone. Not only can you add side-scanning, laser profiling and lateral launch, you can view status from onboard sensors, automate tasks with macros, and measure defects on-screen. And future capabilities are limitless—ROVVER X's firmware updates automatically to the latest features and accessory support.

Technology aside, ROVVER X is built for the rigors of sewer work. Twelve wheel options—plus camera lift, carriage and lamp accessories—mean ROVVER X transforms in seconds to inspect any line. Its steerable six-wheel drive navigates past obstacles, and overlapping wheels climb offsets better than tracks.

Responsive Controls

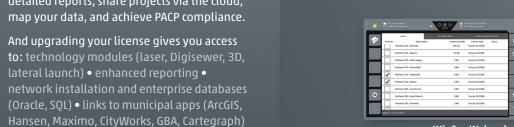
Control multiple camera and crawler functions at once. • View live and recorded video directly on controller. • Use macros to automate inspection tasks like joint scanning. • Access specialized functions using intuitive touchscreen interface. • Measure features and defects.



Recording

Store digital video and images, and export them via USB media, network port or Wi-Fi. • Review footage directly onscreer

Log observations on touchscreen. or use WinCan for full reporting. Overlay text on video withou external hardware. • View system



WinCan VX software now comes standard

you database your inspections, deliver

with every ROVVER X system. WinCan VX lets

And upgrading your license gives you access

to: technology modules (laser, Digisewer, 3D, lateral launch) • enhanced reporting •





Envirosight

Remote Control

Supplied standard, this single-channel wireless remote lets you control camera, crawler, lift and reel.

Capture superior video resolution. • Illuminate distant targets with 50% brighter LED light. • Boost imination in large pipelines with auxiliary lamp.

Remotely adjust camera height over 7" range with lift accessory. • Handle pipe of any size, material and condition with 12 wheel options. •

Control any number of camera and crawler functions at once. • Pivot in place with zero-degree turning. • Use macros to automate tasks (like joint scanning). • Avoid high-cent

Crawl up to 1000' with standard reel. • Overcom power. • Prevent tangles and maximize range with cable tension control. • Control reel direction, force, speed and mode directly from pendant.

Measurement

Track pipe grade with inclinometer. • Monitor emperature/pressure with onboard sensors. • Locate crawler using built-in sonde. • Easily add laser profiling and side-scanning. • Size defects with twin

Inspect from truck, pickup or ATV using simple 3-component system. • Run off generator or inverter. • Inspect pipelines 6-72" diameter with single, reconfigurable crawler. • Store 1000' of strong, lightweight cable on compact, automated reel. •



Complete Capability With many wheel options—plus a detachable lift, carriage and auxiliary lamp—ROVVER X is the only single system that lets you inspect lines 4–96" diameter. With quick-change wheels, you'll be ready in seconds to handle any combination of pipe size, material and condition. (See wheel chart on reverse panel.)

(down to 4" with available RX 95 crawler body)

Power to Maneuver

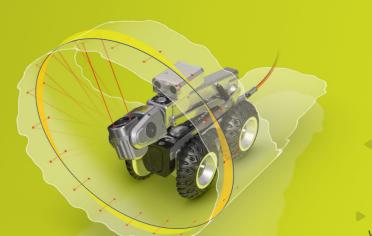
ROVVER was the first crawler with steerable 6-wheel drive, giving operators the agility to navigate past obstacles that stop other crawlers.

> ROVVER X adds to that legacy with CAN-bus controls, which allow you to perform multiple functions at once. Now you can steer while panning the camera and adjusting camera lift height. Proportional joysticks give you fine control over speed and direction, and also let you pivot in place.

Digisewer. Generate side-scans that capture every detail from pipe wall. With Digisewer, you can inspect three times faster than with CCTV—at a cost and learning curve anyone can manage. With the Digisewer laser ring, you can also measure pipe ovality.

Laser. Onboard lasers can be used to measure defects and ovality. With an optional laser profiling accessory attached, WinCan's laser module can track cross-section along the

Lateral Launch. The ROVVER X SAT lateral launch add-on lets you inspect laterals from a mainline, ideal for finding gas line cross-bores and illicit flows. It integrates with any existing







pipe to determine ovality and create a geometric model.

ROVVER X system, reducing cost and equipment clutter.

Onboard Intelligence

ROVVER X uses CAN-bus, the same technology found in modern automobiles. This gives it capabilities not available anywhere else:

Automatic Updates: When connected to the Internet, the pendant updates its firmware automatically, ensuring the latest features.

Concurrent Control: Digital communications let you control any number of camera, crawler and accessory functions at once.

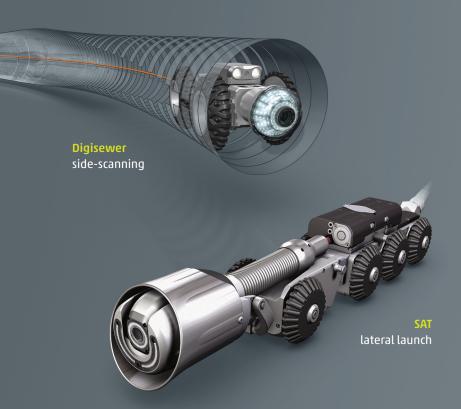


Agility & Uptime: With only six conductors, lightweight ROVVER X cable is easy to pull long distances, and also easy to reterminate. Kevlar gives it a 1000-lb. break strength, and a tough jacket maximizes abrasion resistance.

Future-Readiness: ROVVER X evolves with technology, which means its capabilities can grow with your needs.

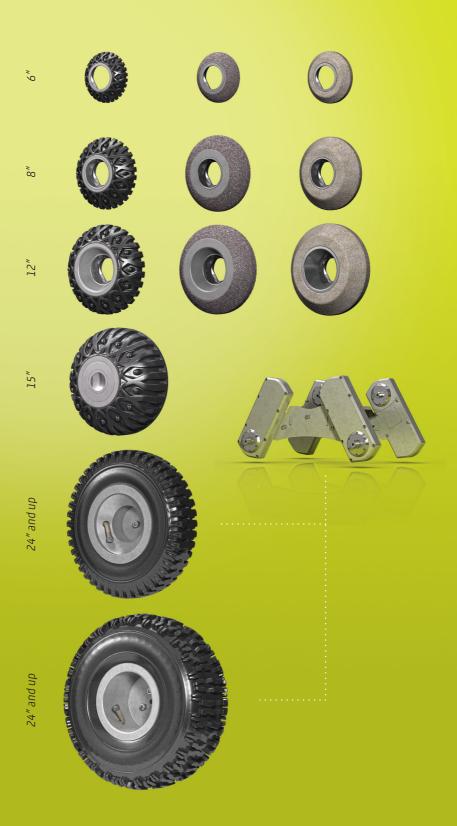
Information: Access system status, from real-time sensor data to lifetime service and operating history.

Self-Diagnostics: Connect to a PC with ROVVER X Studio, and our technicians can log in to read error codes and run diagnostics.



Quick-Change Wheels

Swapping in seconds with no tools, ROVVER X quick-change wheels address any combination of pipeline diameter, material and condition.



system

ratings		CE, NRTL
power 120-2	40 Vā	ac, 60 Hz
viewing capability pipelin	es 4-	-96" dia.

camera (RCX90)

imagercolor ½4" CCD
resolution
zoom lens 120× (10× optical, 12× digital)
pressure rating 1 bar
features auto shutter; auto/manual focus
illumination dimmable 40-LED array
$\it articulation \ldots \pm 145 \ deg \ tilt; infinite pan$
measurementtwin laser diodes
sensing temperature, pressure, pan/tilt
$size \dots 6.6" \times 3.1" \times 2.8" (168 \times 81 \times 72 \text{ mm})$
weight
materials aluminum, stainless steel

crawler (RX130)

wheels6
turn radiusdown to 0.0"
camera color rear-view with tri-LED lamp
sensors pitch, roll, temperature, pressure
pressure rating 1 bar
$size \dots 12.2" \times 4.4" \times 3.2" (310 \times 111 \times 90 \text{ mm})$
weight
materials aluminum, stainless steel
sonde transmitter

control pendant (vc500)

 controls
 joysticks, touchscreen, power, stop

 touchscreen
 10.1" color TFT, 1280×800 pixels,

 1280 cd/m², 150-deg view angle

 video capture
 MPEG-4 AVC (H.256)

 image capture
 JPEG or PNG

 internal storage
 32 GB

 connectivity
 LAN (R!45), USB, Wi-Fi, HDMI, BNC

 size
 11" × 10.5" × 2.8" (280 × 267 × 71 mm)

 weight
 4 lb (1.81 kg)

 housing
 plastic (ABS, PC), IP55-rated

 operating temp
 32 to 140°F

 storage temp
 -22 to 158°F

aux. lamp (optional)

lamps four (4) tri-LED lamps
dimensions 4.6"×5.2"×5.2" (117×132×132 mm)
materials aluminum, stainless steel



cable reel (RAX300)

<i>cable length</i> 1000′ (300 n	n)
cable diameter ¹ /4" (6.5 mm	n)
cable weight0.03 lb/	ft
cable strength 1000 l	ιb
cable conductors	6
controls (local) power, emergency sto	P
controls (via pendant) auto/manual, speed	d,
forward/reverse, pull strengt	th
sensors tension, ti	lt
size 24.2"×12.4"×19.3" (620×315×490 mm	1)
weight	J)
connections pendant, service, video in/ou	υt

camera lift (optional)

carriage (optional)

wheelbase (w/l)	14.5"/12.2" (368/310 mm)
weight	34.2 lb (15.5 kg)
materials	aluminum, stainless steel

aux. lamp/rear camera (optional)

forward illumination	twin tri-LED lamps
cameracolor re	ar-view with tri-LED lamp
sonde transmitter	33 kHz / 512 Hz
materials	aluminum, stainless steel

basic system

- RX130 crawler body
- RCX90 camera head
- RAX300 reel with 1000' cable
- VC500 control pendant
- WinCan VX software (basic)
- single-channel digital wireless remote control
- small rubber wheels (6)
- medium rubber wheels (4)
- medium grease wheels (4)
- climber wheels (2)
- large rubber wheels (4)
- crawler body transport case
- camera head transport case
- tools (wrenches, pressure kit)

options/accessories

- laser profiler
- Digisewer side-scan camera
- lateral launch crawler/reel
- remote camera lift
- large-pipe carriage
- large- and small-dia. crawlers
- aux. lamp/rear-view camera
- desktop mount for pendant
- USB media for pendant
- wheel sets (see chart on flap)
- cable management accessories
- lowering devices
- WinCan VX software (advanced)
- other accessories



www.envirosight.com (866) 936-8476 111 Canfield Ave., Unit B3 Randolph, NJ 07869

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We've analyzed the preferences of our inspection vehicle customers to identify the most popular configurations. We offer these as our Preferred <u>Build-Outs.</u>

We can also build inspection vehicles of any chassis and size, with production facilities on each coast for responsive delivery. We stock select chassis and boxes, and can retrofit new systems into existing trucks.

underground understood

Rise to the occasion

Whether you're battling high flows, deep mud or big obstacles—or simply need the height and illumination to inspect pipe as large as 10' plus—count on the RX400's brute force to conquer the toughest jobs.

Illuminated rear-view camera

Selectable 512/640 Hz sonde

DigiSewer and laser compatibility

Sensors for tilt, roll, height, pressure and temp

4 aimable LED tri-lamps and 2 LED path lamps

Rangefinders to center camera, measure diameter

Expansion port for elevated rear-view camera





total integration

The RX400 works with all other ROVVER X components, so upgrading your capability has never been easier and more affordable.



vertical range

With its remote-operated lift, the RX400 centers camera view in lines 24-59" diameter (or up to 79" diameter with optional extension accessory).



extreme capability

Powerful drive train and ground clearance are just the beginning—rear view camera, auxiliary lamps, laser rangefinders, sonde, sensors and expansion port are all built in.



