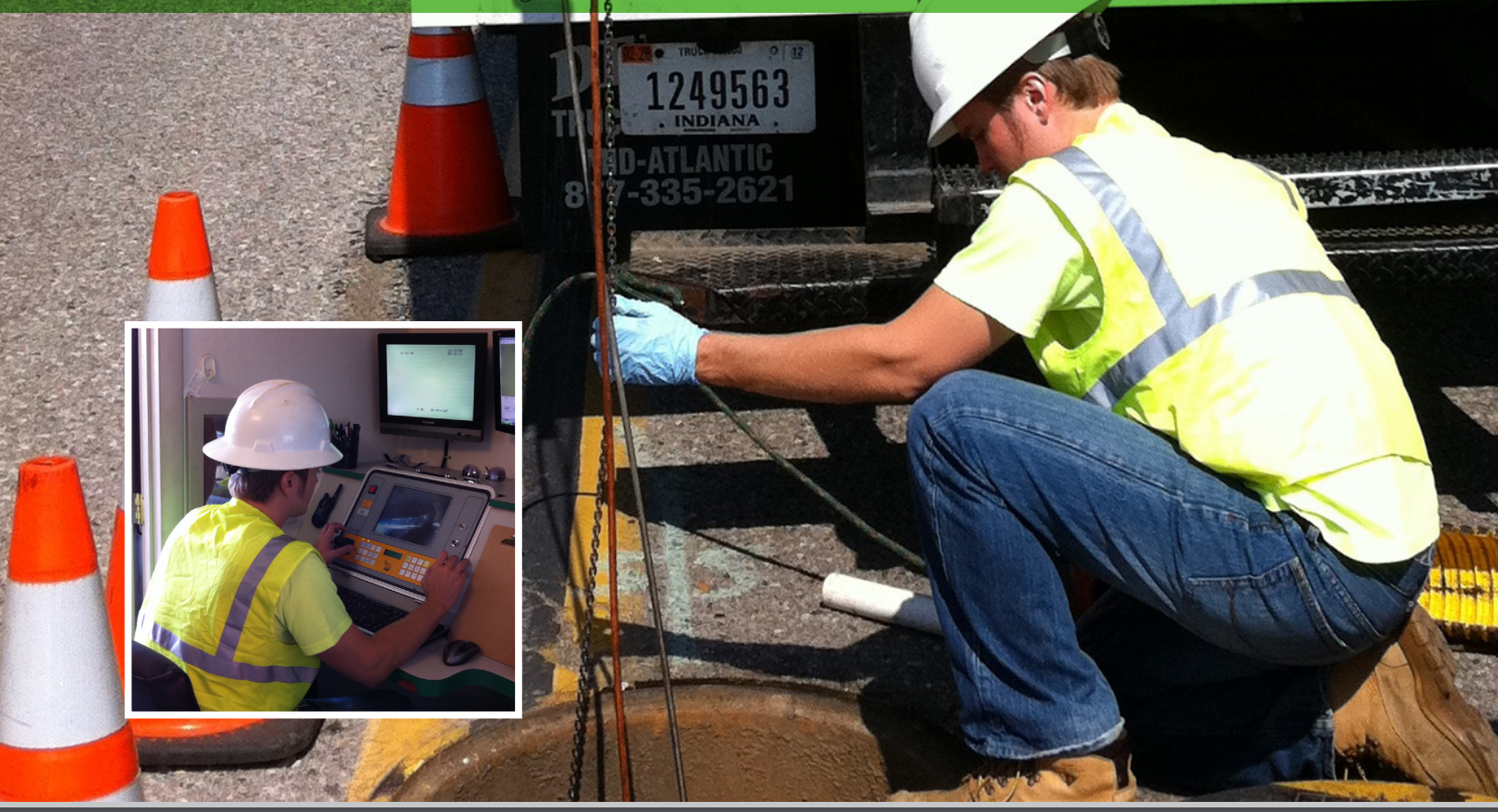
sewer

HYDROMAX USA

Advanced Water, Wastewater and Gas Data Collection

Transforming **Infrastructure Data** into **Actionable Business Intelligence**



understand the present | **protect the future**

WELCOME TO HYDROMAX USA,
UNPARALLELED SOLUTIONS FOR SEWER SYSTEM EVALUATION AND CONDITION ASSESSMENT.

Hydromax USA understands the importance of providing high quality data to support expensive infrastructure improvement decisions. In many systems, sewer problems are the result of numerous, often interrelated issues. Any successful rehabilitation is dependent on accurate identification of each problem through a systematic approach.

Therefore, it is often necessary to employ several assessment techniques and/or technologies to fully understand a system. With vast experience in mapping, field data collection and back-office data analysis, HUSA has unparalleled ability with sewer system evaluation and condition assessment techniques.

FLOW MONITORING

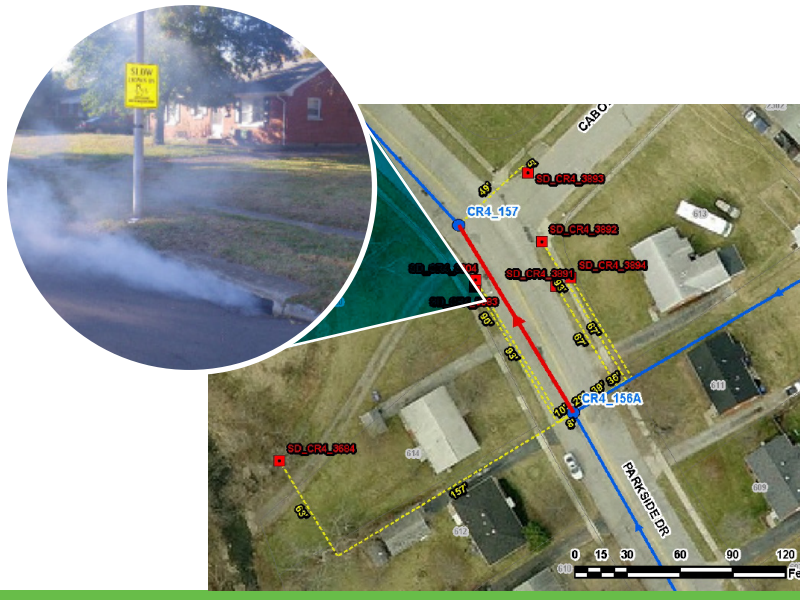
Flow metering identifies flows at locations within a sewer system; ideally providing data showing changes in flow patterns during different weather conditions at different times throughout a monitoring period. Temporary flow monitoring is usually one of the first actions taken to better understand the problematic areas within a collection system. It may also be performed to verify the success of rehabilitation projects associated with inflow/infiltration (I/I) removal. Since 2003, HUSA personnel have installed thousands of flow monitors across the country. HUSA uses the latest in monitoring equipment to provide both temporary and permanent flow monitoring in collection systems.

MANHOLE INSPECTIONS

Manhole inspections are performed to help identify sources of Inflow & Infiltration (I/I) and to determine the structural condition of the manhole. Manhole inspections also help to verify or correct existing sewer maps. HUSA uses GPS technology to perform manhole inspections and locate the positions of the manholes with sub-meter accuracy. The GPS locations make it easy to communicate and document that each manhole was inspected and the location was not confused with another manhole due to any difficulties in reading maps.

SMOKE TESTING

Smoke testing is an inexpensive technique to identify sources of I/I and improper connections within collection systems. Smoke testing is performed by injecting non-toxic smoke into the sewer system using a blower system. Potential sewer defects are identified where the smoke escapes the system and appears on the surface. HUSA performs smoke testing using GPS technology to locate and describe system defects. Handheld GPS units provide mapping grade coordinates, while trained technicians record detailed information about the observed defects.



DATA MANAGEMENT

All field collected data is routed through **HUSA's Louisville Data Center** (LDC), where it is processed, formatted and thoroughly checked for quality. Our team of Data Analysts and GIS Professionals are the final piece in our turnkey process to ensure accurate and easily interpreted data, empowering the contractor, engineer and utility owner to make the right decisions regarding their buried infrastructure.

CCTV INSPECTION

CCTV inspection generally consists of a remotely operated camera, mounted on a self-propelled robotic crawler that is connected to a video monitor at the surface. These systems are contained within a cargo van or a box truck; however, for easements or difficult-to-access locations, HUSA has portable CCTV systems mounted on easement machines or all-terrain, amphibious vehicles. Most CCTV inspections are conducted in accordance with the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification Program (PACP). All HUSA CCTV operators and data analysts are PACP certified by HUSA's in-house certified PACP trainer.

The purpose of Closed Circuit Television Inspection (CCTV) is to determine:

- **Structural condition**
- **Location of O&M and structural defects**
- **Evidence of inflow and infiltration (I/I)**
- **Identify size and material of construction**
- **Locate service laterals**
- **Locate obstructions, such as roots, grease, debris and cross-bores**

MULTI-SENSOR INSPECTION (MSI)

Multi-sensor inspection comprises any combination of inspection technologies, such as camera, sonar and laser. The key is to present the data in an efficient, easy-to-understand format that accurately describes corrosion, sedimentation and structural defects. HUSA has significant experience with several multi-sensor technologies offering advanced capabilities, such as continuous & simultaneous data collection with easily interpreted data in open-source formats.

To learn more about our complete sewer inspection services, visit hydromaxusa.com.

HYDROMAX USA hydromaxusa.com

Indiana Office (Corporate)
344 Inderrieden Rd
Chandler, IN 47610
Phone: (877) 389-2227
Fax: (812) 925-3911

Seattle Office
6500 Ursula Pl
Seattle, WA 98108
Phone: (812) 987-1551
Fax: (502) 565-0239

Louisville Office (Data Center)
11492 Bluegrass Parkway, Suite 106
Louisville, KY 40299
Phone: (502) 500-1399
Fax: (502) 565-0239

Cincinnati Office
71 Cavalier Blvd, Suite 122
Florence, KY 41042
Phone: (859) 512-7878
Fax: (859) 525-7200

Tampa Office
2500 Drane Field Road, Suite 204
Lakeland, FL 33811
Phone: (813) 305-6610
Fax: (502)565-0239