



GPS/RFID Pilot Program

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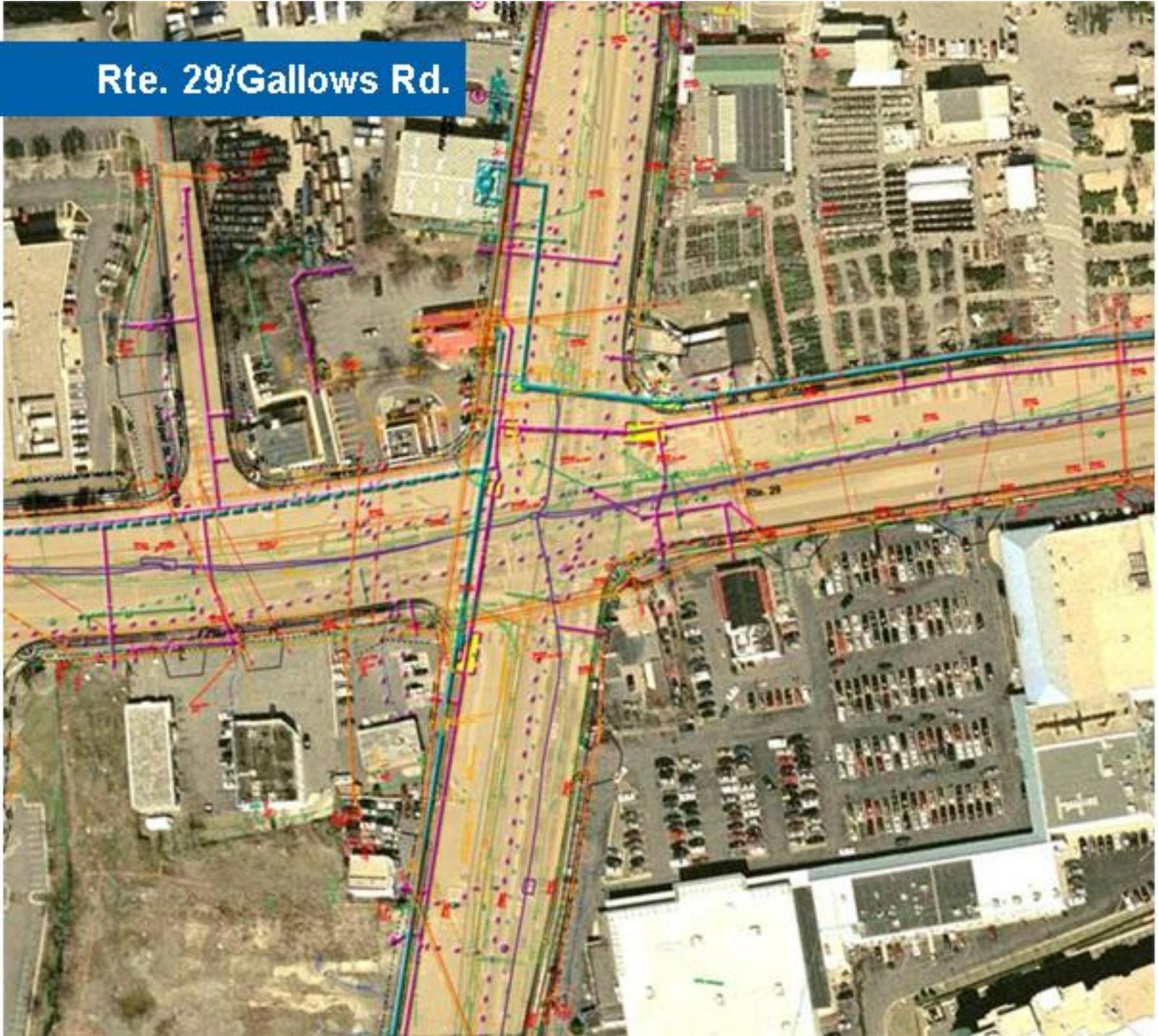
GPS Concept

- Increase accuracy locating underground facilities.
- Reduce the amount of mismarked utilities with more precise records of existing utilities.
- GPS coordinates directs you to the vicinity of the utility.

GPS/RFID Pilot Program

- **Compiles Utility Information.**
- **Assign each programmable RFID tag with GPS coordinates for mapping purposes.**
- **RFID tags increase the accuracy of utility locating on the projects.**
- **RFID will provide this information to Locators, and Excavators.**
- **Does not supersede any Miss Utility Laws.**

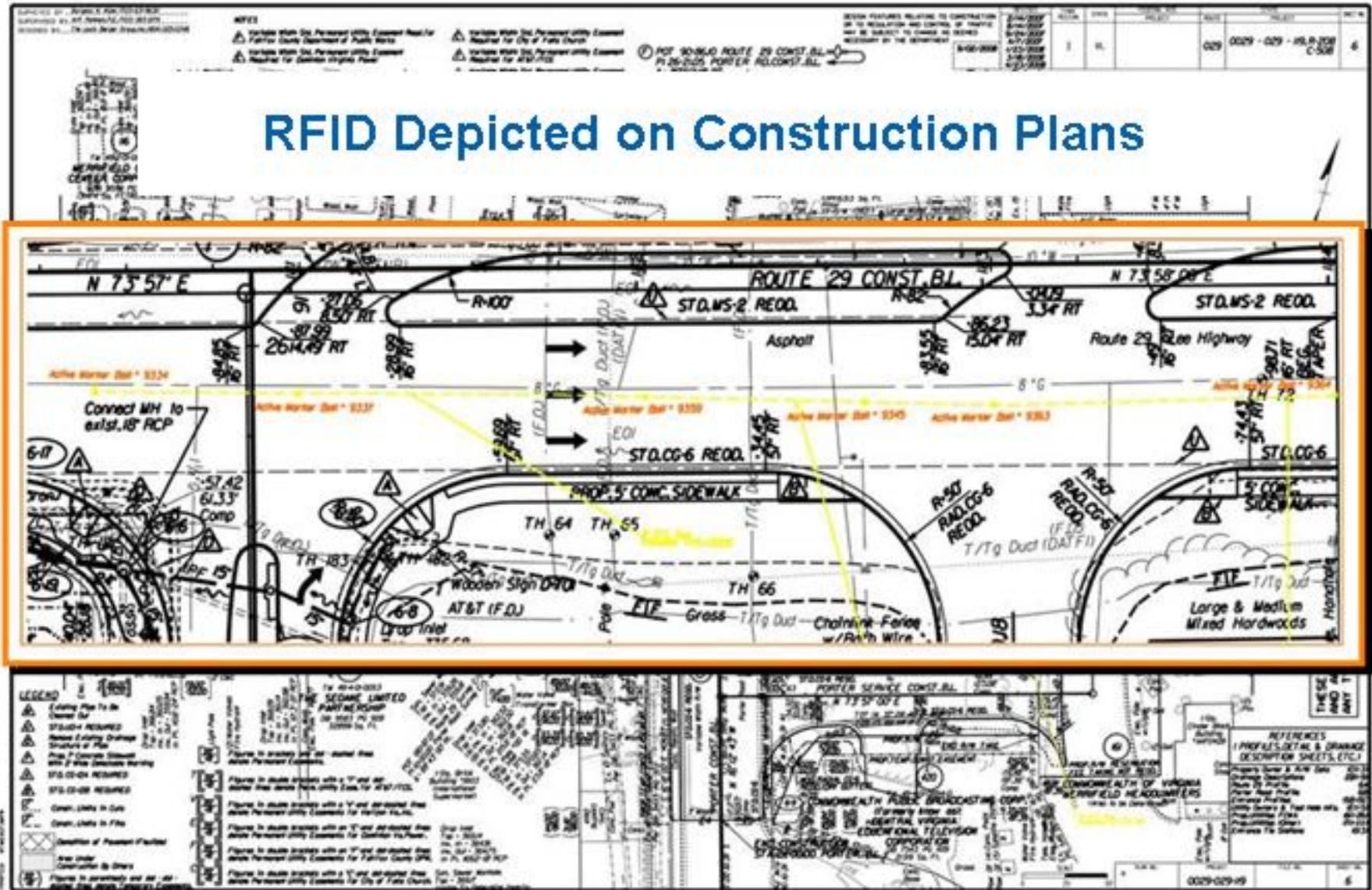
Rte. 29/Gallows Rd.

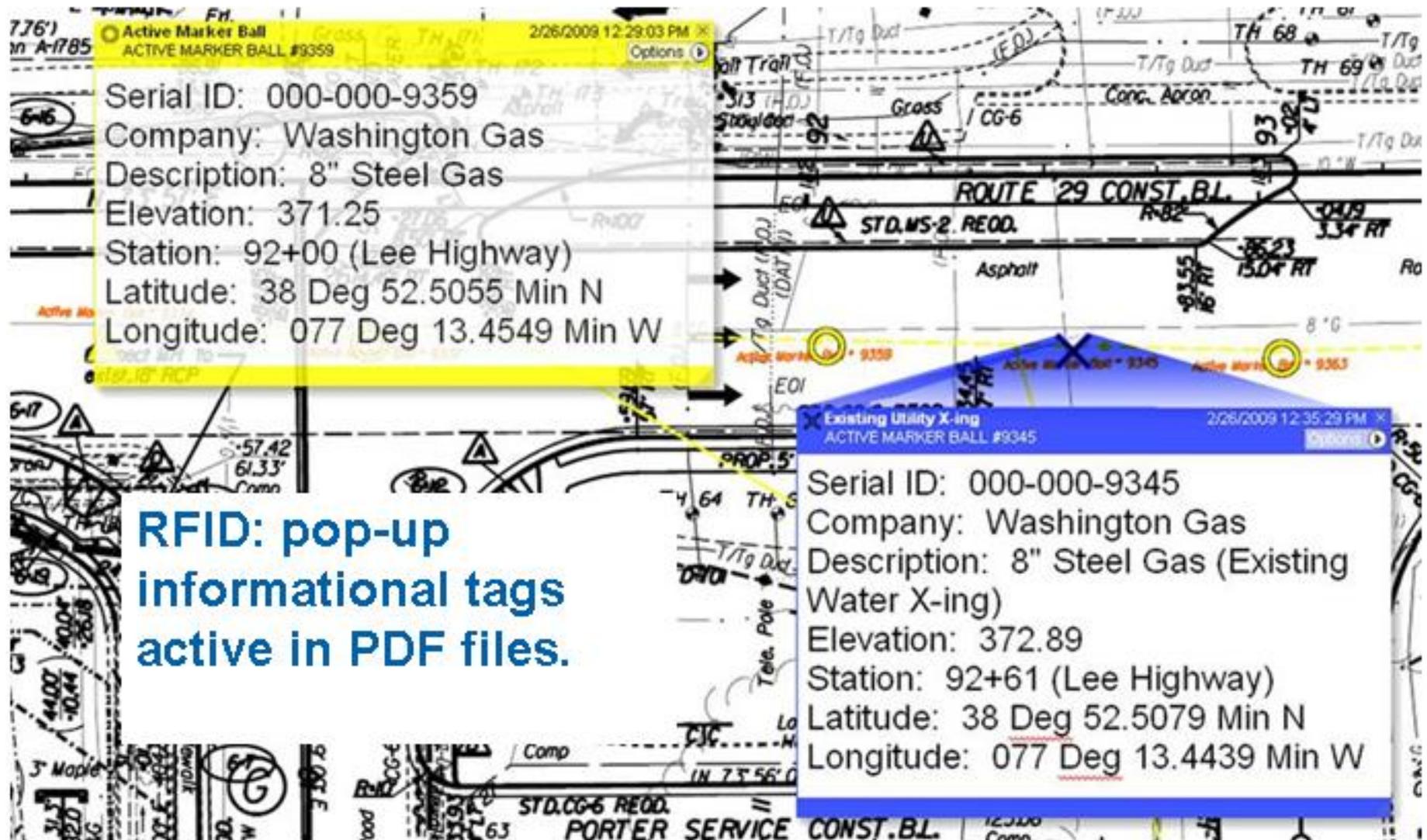


Protocol of RFID Installation

- **Install RFID tags on relocated facilities every 100' for metallic pipes and every 50' for non-metallic pipes. They are also installed at every horizontal or vertical directional change, critical existing utility crossings, service connections, and abandoned facilities.**
- **Install RFID on existing facilities during test pit operations.**
- **Programmable RFID tags provide pertinent information about the facility (Owner, Type, Elevation, etc.).**
- **Provide this information to the Utility Owners on a monthly basis.**

RFID Depicted on Construction Plans





RFID: pop-up informational tags active in PDF files.

Overview of Benefits

- Enhances damage prevention and public safety throughout the Commonwealth of Virginia.
- Conveys the knowledge obtained from the VDOT design and field operations to the Utility Owners.
- Enables utility companies to work together.
- RFID tags provide pertinent information for future use.

Cost Analysis

Rt. 29/Gallows Rd. Project

With RFID Program
\$10,000

Costs includes:
Materials
Programming
Installation

Possibilities without RFID

Damage
Repair of facility
Contractor down time
Delay to traveling public
Fire/Rescue/Police response
Lost revenue for property owner
Lost revenue for utility company

Personal injury or loss of life
Priceless!

New Initiatives

- Install programmable RFID tags during the preliminary engineering stage of the project when the existing utilities are designated as part of the beginning phase of the best value plan concept.
- VUPS, GTI, and VDOT are involved in an initiative to provide the RFID information to the locating community.
- Consideration is being made to implement this system into the Land Use Permit acquisition requirements.

Special Thanks

- **Rick Pevarski – VUPS**
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- **Bill Hymes – Washington Gas**
- **Matt Reynolds – VDOT**
- **Matt Fraser – Utility Sales Associates**