What Utilities Wish We Knew

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Richard Miller – Citizens Energy Group
Mike Seals – Indiana-American Water Company

March 7, 2018
Agenda

• Review of Early Coordination Efforts
• Project Funding and Coordination
• Electric Companies wish we knew…
• Telecommunications Companies wish we knew…
• Water companies wish we knew…
• Gas companies wish we knew…
• Closing & Final Questions
Early Coordination Matters

• First chance to really communicate with utilities about your project
• Same personnel regardless of funding
• We don’t know what we don’t know
• Ask better questions
Electric Companies wish we knew...

- Pole lines need to stay aligned
- Order of Construction
- Transmission lines are dependent on clearance from MISO or PJM (AEP only)
- OSHA clearances
- Wing Wall Construction
- Coordinate true schedule with Contractor
- Mother Nature can mess with schedules
- Grading plans and final grade information
Telecommunications Companies wish we knew...

• Mandatory notifications prior to outtages
• Conduit duct banks can be manipulated to accommodate proposed construction
• Joint trench and/or leasing of ducts is an option
• Know what your symbols really mean
• Communicating schedules, plan revisions
• Verify that all telecoms from a design ticket are accounted for
2018 Purdue Road School
“What Utilities Wish We Knew”
West Lafayette, Indiana

March 7, 2018

Mike Seals, P.E.
Engineering Manager
Indiana-American Water Company
Upgrading our Infrastructure

INA WC
- Over 50 cities
- 4,900 miles of existing watermains
Opportunities for improvement

Work Plans

• Approved workplan
  - Ensure that the Approved Workplan is implemented.
    ◆ Field changes impact other’s workplans

• “Nature of work”- clearly describe
  - Road Re-surface or full-depth pavement ?
  - Sewer construction
  - Grade changes

• Location of project - clearly describe
  - City
  - Nearest intersection
Opportunities for improvement - Schedule

City/local funded projects
- Advance planning is a win-win for all sides
  - Notify utilities of road/sewer construction schedule
    - Prior to bidding of utilities relocation
    - Accelerated utility relocation can be costly.

Utility specific permits
- Allow sufficient time for each utility’s:
  - Erosion control?
  - Construction in Floodplain/Floodway?
  - Railroad?
Right-of-Way space is limited
Are all utilities shown on the drawings?

If not, contact the utility for verification.

<table>
<thead>
<tr>
<th>Utility</th>
<th>Marked On Site</th>
<th>Maps Provided</th>
<th>Exist in Rear of Lots</th>
<th>Notes (Overhead/Underground)</th>
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<tbody>
<tr>
<td>WATER</td>
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<td>UNDERGROUND</td>
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<tr>
<td>DRAINAGE CULVERTS</td>
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</table>

INDIANA 811 LOCATE TICKET NUMBER(S):
Evidence of Utilities present

- Fire Hydrants - every 500’ (typ.)
- Valve "box"
- Locate marks
- Watermain
Roadway construction equipment loads

Bury depths vary across the state
2018 Main Break

8” PVC-- over-deflected, main split when tapped
IDEM Sewer to Water Clearance Requirements

- Sewer-Storm & Sanitary (including laterals)
  - Min. 18” vertical
  - Min. 10’ horizontal
Questions?

New UC Email:

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*Please make a note of our new business address
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Gas Division

Co-Speaker: Richard A. Miller Jr.

What Utilities Wish We Knew
Covered in this Presentation

• Our Gas System at a glance
• What we want you to know
• Items of concern
Citizens Gas in Marion County

• Primarily located within road right-of-way
• Transmission lines
  • 120 miles of 16” and 20”
  • Operate at a minimum 300 psig
• Distribution lines
  • 4000+ miles with 65% 2” or smaller
  • Operate at a minimum 30 psig
• 280,000 gas services in Marion County
Understanding Gas Transmission

- Cannot relocate between October 1\textsuperscript{st} and May 1\textsuperscript{st}
- Regulated by Federal Regulations
  - 68 FR 69978 - Gas Transmission Integrity Management Rule or GT IM Rule
  - 49 CFR Part 192, Subpart O
  - Specifies how pipeline operators identify, prioritize, assess, evaluate, repair and validate the integrity of a pipeline
  - HCA’s – High Consequence Areas
Understanding Gas Transmission

• Required to inspect pipe interior condition and exterior coating
  • Knowing when a public improvement project is occurring could be beneficial for this work
• Replacing some sections to make the system piggable for smart pig inspection
• Average cost to relocate 20” transmission gas mains is $450.00 per foot
We Want You to Know...

• Multiple projects on the same schedule
• Send an e-mail reminder of project deadlines
• Provide notification of schedule changes
• Restart coordination if the project has been delayed for more than a year
This was a Close Call
Citizens Gas had just relocated an 8” wr gas main that was in the deck of Central Avenue over Fall Creek days before this collapse.
We Want You to Know...

• Don’t assume resurfacing or a curb & sidewalk project won’t involve gas line relocation or replacement
  • Lines with a history of leaks may be replaced in conjunction with the project
  • Avoids damage to new roadway/transportation facilities to repair a leak at a later date
• Will relocate off a bridge or bridge deck and underground at the edge of the slope
We Want You to Know...

• Cathodic Protection Systems
  • Sacrificial magnesium anodes pull electrons away from the gas main
  • Protection levels between -0.85 and -1.20 volts
  • Rectifier beds to protect against corrosion

• Survey locates pick up gas valve box locations
  • Where there are gas valves, there are gas mains
In Summary

• Citizens Gas Facility Mileage and Operating Pressures
• Items to Consider and What we want you to know
• Items of Concern
Question Time
Contact Information

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