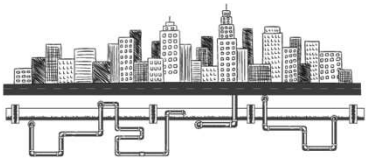

Iowa DOT RE22(012)-8H-00
Project Development and Utility Coordination as a PARTNERSHIP

Presentation by:
Deanne Popp, Iowa DOT
Roy Sturgill, Iowa State University

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Problem Identification:

Why should we consider **utility stakeholders** as **PARTNERS** on DOT projects?

"It's a national disgrace; the amounts of money we spend to relocate utilities that really don't need to be relocated." ~Paul Scott, FHWA

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Project Objective:

To develop procedures for the incorporation of partnership with utility stakeholders into the project development process at early stages.

Project Tasks:

1. Assess current **methods for utility data collection and sharing** by the DOT and UC
2. Assess current **methods for project scheduling** by the DOT
3. Identify **roles and responsibilities** for the DOT and utility stakeholder personnel

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Project Tasks (Continued):

4. Draft **policy and legislative changes**
5. **Outreach efforts** and meeting with stakeholders (ongoing)
6. Draft **manual revisions** and host **discussion meetings** among stakeholders
7. Final report and technology transfer materials

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Project Data Collection:

- Literature Review
- Review of policy and manuals
- Process Mapping with Roles & Responsibilities
- Survey across a range of stakeholders
- Participation in FHWA NHI Training
- Coordination with Other Ongoing Research
- Discussions with stakeholders and presentations at stakeholder events
- Meetings with Iowa DOT staff

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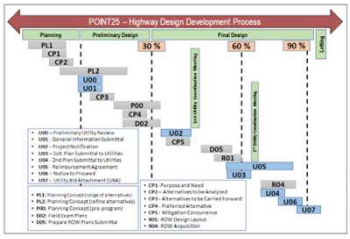
Review of Iowa DOT guidance documents and manuals.

- Policy for Accommodating and Adjustment of Utilities on the Primary Road System
- Project Development Process Manual: Guidelines for Implementing Iowa Department of Transportation's Project Development Process
- Policy for Accommodating Utilities on the County and City Non-Primary Federal-Aid Road System
- Instructional Memorandum 3.640 on Utility Accommodation and Coordination from the Local Systems Bureau to Counties and Cities

and other documents...



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Survey of DOT staff, consultants, and utility companies.

Information collected:

- Utility data collection and sharing – timing & sources
- Overall current utility coordination approach
- Main utility coordination challenges/issues
- Level of implementation of recommended best practices
- Uncover potential practices for future implementation

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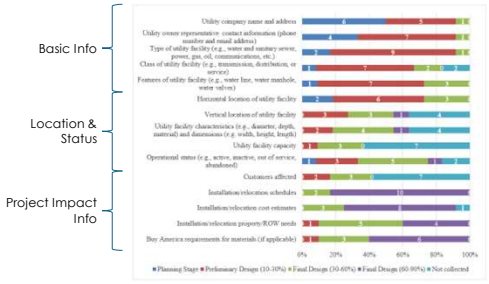
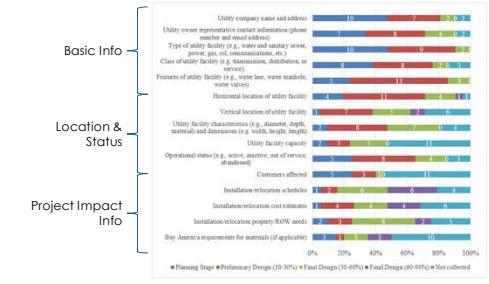
Survey of DOT staff, consultants, and utility companies.

DOT Staff – Data Collected by Phase



Survey of DOT staff, consultants, and utility companies.

Consultant – Data Collected by Phase



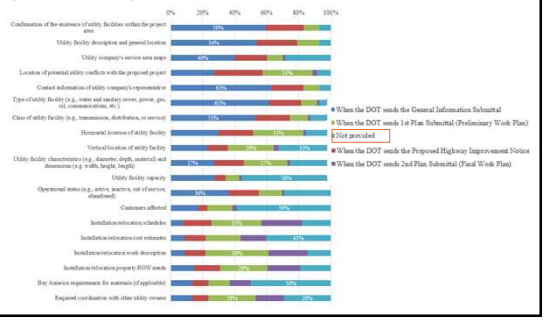
Survey of DOT staff, consultants, and utility companies.

Utility Company – Data Collected by Phase

Basic Info

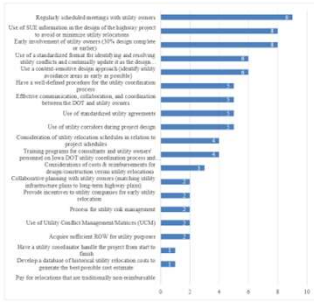
Location & Status

Project Impact Info



Survey of DOT staff, consultants, and utility companies.

DOT Staff – Recommended Practices

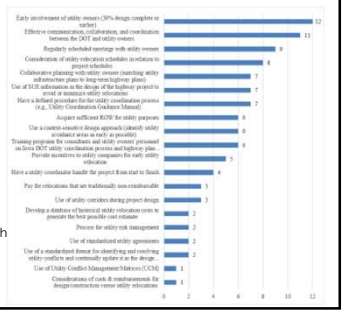


Top 3:

1. Regular meetings and communication with utility owners
2. Use of SUE in during the design of the highway project
3. Early involvement of the utility owners (30% design complete or earlier)

Survey of DOT staff, consultants, and utility companies.

Consultant – Recommended Practices



Top 3:

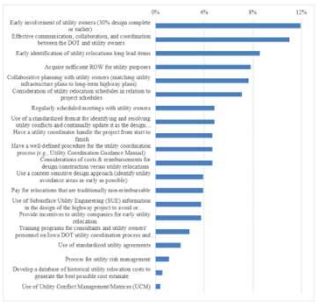
1. Early involvement of the utility owners (30% design complete or earlier)
2. Effective communication, collaboration, and coordination between the DOT and utility owners
3. Regular meetings and communication with utility owners

Survey of DOT staff, consultants, and utility companies.

Utility Company – Recommended Practices

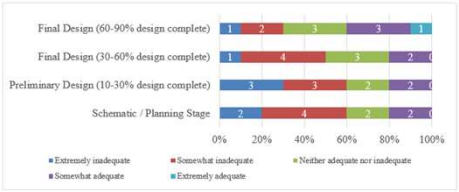
Top 4:

1. Early involvement of the utility owners (30% design complete or earlier)
2. Effective communication, collaboration, and coordination between the DOT and utility owners
3. Early identification of utility relocations long-lead items
4. Acquire sufficient ROW for utility purposes



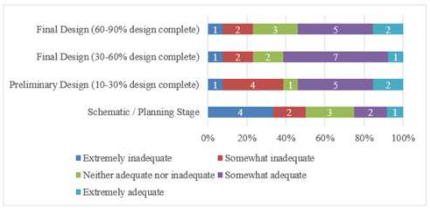
Survey of DOT staff, consultants, and utility companies.

DOT Staff – Communication Practices



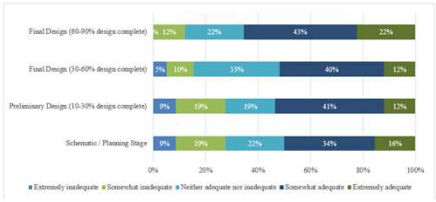
Survey of DOT staff, consultants, and utility companies.

Consultant – Communication Practices



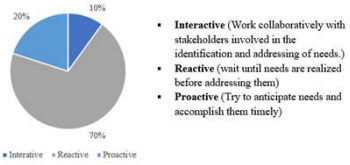
Survey of DOT staff, consultants, and utility companies.

Utility Company – Communication Practices



Survey of DOT staff, consultants, and utility companies.

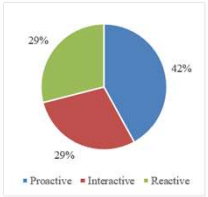
DOT Staff – View of Process



- **Interactive** (Work collaboratively with stakeholders involved in the identification and addressing of needs.)
- **Reactive** (wait until needs are realized before addressing them)
- **Proactive** (Try to anticipate needs and accomplish them timely)

Survey of DOT staff, consultants, and utility companies.

Consultant – View of Process



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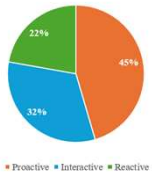
Survey of DOT staff, consultants, and utility companies.

Utility Company – View of Process



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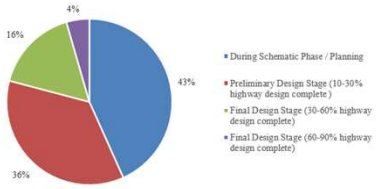
Survey of DOT staff, consultants, and utility companies.

Utility Company – When they get engaged in the project



Survey of DOT staff, consultants, and utility companies.

DOT staff and Consultants

- Reactive utility coordination approach
- Lack of meeting attendance
- Utility coordinators' workload
- Poor teamwork and communication within the DOT (silos)
- Lack of willingness to design around utilities
- Lack of responses from utilities at U-Events
- Poor records of utilities' facilities
- Roles and responsibilities definition needs improvement
- No "utility avoidance" mindset

Utility Companies

- No engagement during early stages
- ROW acquisition challenges
- No consideration of utilities during design
- Poor communication
- Acting as dictators rather than partners
- Not enough time to complete relocations
- Not notifying project design changes
- Not accounting for utility companies' design time/material acquisition for relocations

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Recommendations: A Partnership Approach

- Process Recommendations (Chapter 4)
- Roles & Responsibilities Recommendations (Chapter 4)
- Laws, Administrative Rules, & Policy Recommendations (Chapter 5)

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Recommendations: A Partnership Approach

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Recommendations: A Partnership Approach

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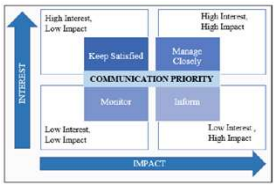
Recommendations: A Partnership Approach



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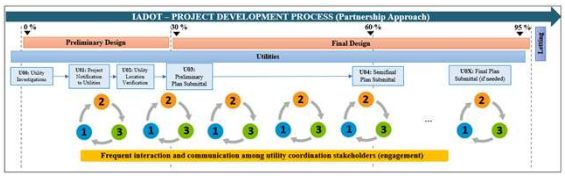
Recommendations: Earlier Involvement



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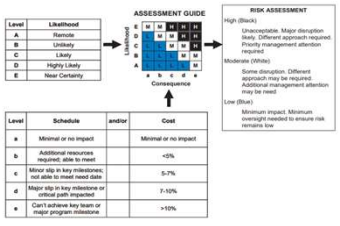
Recommendations: Risk Management

AVOID-MINIMIZE-MITIGATE

- Evaluate and then address the risks
- What are the approaches to utility investigation?
  - Do Nothing
  - Field Investigation and Records Only
  - Use One Call (Design or Dig Tickets)
  - SUM Approach
  - SUE Approach



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Recommendations: Risk Management

Timing	Constructability Review Focus/Considerations for Utilities
[D02] – Field Exam Plans (30% design completion) or once the preferred alternative has been selected.	Conducting a constructability review at this stage helps identify omissions, design errors, or potential areas where utility impacts should be avoided before proceeding with a detailed design. Making geometric changes increases in difficulty after this point, so this review provides the optimal opportunity to avoid relocations.
[D05] – Plans to ROW or when design is 60% complete	Although opportunities to avoid utility conflicts should have decreased by this point, conducting a constructability review at this stage should help identify necessary minor design changes to mitigate conflicts.
90% design completion	A review at this stage should include reviewing all utility relocation packages, especially the ones that will occur during construction. The review should evaluate the feasibility of proposed utility relocations, focusing on phasing, sequencing, any dependencies, maintenance of traffic plans, site access, and other construction-related factors. These details should be communicated to the construction contractor, preferably during a pre-bid meeting, to avoid problems during the construction phase and ensure project success.

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Research: Conclusions

Key issues highlighted within this study include:

1. **Utility-Related Delays**: Utility relocations are a significant cause of project delays and increased costs, as evidenced by both national reviews and IADOT-specific data.
2. **Inefficient Current Practices**: Existing methods often prioritize utility relocation late in the design process, leading to inefficiencies and strained relationships with utility stakeholders. There may be little or no consideration of design alterations to avoid utility impacts.
3. **Lack of Stakeholder Trust and Engagement**: The inefficient practices, lack of communication, and adversarial approach in utility coordination breed a lack of trust and engagement among stakeholders.

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Research: Conclusions

To address these issues, the following recommendations are proposed:

1. **Best Practices**: Early coordination, accurate utility data collection, and fostering partnerships are essential strategies to improve project timelines and outcomes. The Partnership Approach is further discussed below.
2. **Early Integration of Utility Stakeholders**: Incorporate utility companies into the early stages of project development to identify potential conflicts and develop collaborative solutions. This includes conducting preliminary reviews of utilities in the project area, performing utility risk assessments, and engaging utility stakeholders early in the process.
3. **Improved Data Collection and Sharing**: Establish standardized procedures for acquiring and sharing precise utility location and attribute information. This involves using Subsurface Utility Engineering (SUE) techniques, verifying utility information with utility owners, and updating project plans based on accurate utility data.

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Research: Conclusions

4. **Enhanced Coordination Methods**: Develop clear roles and responsibilities for all stakeholders involved in utility coordination and project development. This includes strategically engaging with all utility coordination stakeholders, conducting utility-related constructability reviews, and implementing Utility Conflict Management (UCM) processes.
5. **Policy and Legislative Revisions**: Update IADOT policies and guidelines to reflect the proposed improvements in utility coordination practices. This includes revising utility accommodation policies, holding non-responsive utilities accountable, and leveraging the Iowa Code to incentivize timely utility relocations.

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Research: Conclusions

The ***Partnership Approach*** outlines eight core principles that stakeholders should adopt to effectively implement the suggested changes and best practices. These principles are:

- Positive and collaborative relationships
- Avoid, minimize, and mitigate utility conflicts when feasible
- Reliable utility data for better project decisions
- Timely and proactive engagement of utility coordination stakeholders
- Normalize treating utilities as '*business partners*'
- Everyone Knows Where Everyone Goes
- Reinforce the 3Cs: Communication, Coordination, and Cooperation
- Shared vision and accountability for success among utility coordination stakeholders

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Report Structure:

- Executive Summary
- Chapter 1: Introduction
- Chapter 2: Literature Review
- Chapter 3: Assessment of the Current Utility Coordination Approach at Iowa DOT
- Chapter 4: Development of Proposed "Partnership Approach"
- Chapter 5: Recommended Revisions to Guidance Manuals and Policy
- Chapter 6: Conclusions
- Appendices

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Status: In publication review

Project Significance:

This study provides guidance for **improved collection and use of utility location data** for project development decision making and an improved process to **align and integrate project design and utility coordination.**

Questions or Discussion

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Thank you!

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