What Contractors Wish We Knew
SPEAKERS

• Natalie Parks, USI Consultants
• Dan Osborn, Indiana Constructors, Inc.
• John Agresta, The Hoosier Company
• Andrew Schouten, Phend Brown, Inc.
• JR Pitcock, Milestone Contractors
PROJECT STAKEHOLDERS

• Project Owner
• Consultant
• Utilities
• Property Owners
• Environment
• *Contractors*
WHEN DESIGN MEETS CONSTRUCTION

• 105 IAC 13 assumes a CRADLE TO GRAVE mentality
• Utility Coordination does not end at Letting
• Collaboration and cooperation begins between design, work plan, and field work
• Communicate risks established in design to the Contractor
• Manage ongoing relocation efforts and risk mitigation
• Don't just hand off the utility coordination to the PE/S in the field... **STAY ENGAGED**
WHEN DESIGN MEETS CONSTRUCTION

• Work Plan Review is critical
  • Combined relocation drawing
  • Gantt Charts
  • Constructability review

RELOCATION PLAN REVIEW

General Review Items:
- Station & Offset of Existing/Utilities Provided
- Utility shown on Cross Sections
- No Permanent Facilities in Temp R/W
- Review Traffic Signals
- Review Lighting
- Review Existing Facilities to Remain
- Review Proposed Facilities
- Review MOT
- Review Erosion Control
- Review Construction Limits
- Review Environmental Commitments

Underground Facility Review:
- Existing Facilities to Remain Identified
- Existing Facilities to be Retired Identified
- Proposed Facilities Identified
- Size and Material Information Provided
- Method of Installation Provided
- Proposed Elevation Provided
- Review Subgrade Requirements
- Review Drainage/Structure Clearances
- Review ditch Clearances
- Identified Manhole Cover to be Adjusted
- Review Pile Driving Limits
- Review Encroachment Requirements

Overhead Line Review:
- Existing Facilities to Remain Identified
- Proposed Facilities Identified
- Retired Facilities Identified
- Review Clear Zone Requirements
- Review Drainage/Structure Clearances
- Review Ditches
- Review ADA Requirements
- Minimum Overhead Clearances
- Review Overhang Encroachments
- Review Underbuild Relocations

Constructability Review:
- Reviewed Equipment Limitations
- Reviewed OSHA Clearances
- Reviewed Pile Driving/Gravel Needs
- Reviewed Construction Phasing
- Reviewed Vehicle Access for Bridges
- Reviewed Contractor Access to Site

When Design Meets Construction

• Work Plan Review is critical
• Combined relocation drawing
• Gantt Charts
• Constructability review
WHEN DESIGN MEETS CONSTRUCTION

• 105 IAC 13-3-4(a): Utility Coordinator Responsibility
  • Notice to proceed not less than 30 days before utility is required to begin work
  • Utility acknowledgement within 15 days of receipt

• 105 IAC 13-3-4(c): Contractor Responsibility
  • Good faith notice not less than 15 days before the work is expected to be complete
  • Follow up with confirmation no less than 5 days before work is expected to be complete

• 105 IAC 13-3-4(d): Utility Responsibility
  • Notify Department & Contractor at least 5 days prior to working within the R/W
  • Notify Department & Contractor when work is complete
WHEN DESIGN MEETS CONSTRUCTION

• Post Design Expectations:
  • Follow up with utilities regarding relocation schedule
  • Attend meetings as required
  • Review revisions to the work plans
  • Coordinate unexpected conflicts or unknown facilities
UTILITY COORDINATION IN THE CONSTRUCTION INDUSTRY

• Promotes feedback between stakeholders & industry
• Reduces delays
• Reduces construction cost inflation
• Improves work force efficiency
• Maintains plan conformance
HIGHWAY FUNDING

• Contract awards have increased significantly since 2017
  • Local: 2016-2021 – 111% increase
  • INDOT: 2016-2021 – 54% increase
UTILITIES IN THE FIELD

• Utility Coordination should occur before, during, and after design.

• Fiber line permit was not communicated to the City Engineer or utility coordinator

• Fiber line was not shown on design plans but located by 811

• 4 week delay to negotiate relocation
UTILITIES IN THE FIELD

• Conduct a preconstruction utility walk through with project owner, utilities, utility coordinator, and contractor.
  • Allows for identification of issues prior to start of construction.
  • All stakeholders are present and able to work together right away to eliminate issues.
  • Investigate and verify geospatial location within project limits.
UTILITIES IN THE FIELD
UTILITIES IN THE FIELD

• Utility relocation markups presented on one set of plans, prepared by the Utility Coordinator.
UTILITIES IN THE FIELD

• Provide a right-of-way layout for utilities
  • Beneficial to both project owner and project contractor.
  • Cost is absorbed by the owner
    • Front end as layout cost during design
    • Back end as change order and delay during construction.
UTILITIES IN THE FIELD

- Successful utility coordination takes teamwork:
  - Project Owner
  - Contractor
  - Designer
  - Utility
UTILITIES IN THE FIELD

• Utility coordination is not just working through design conflicts with utilities
• Includes any utilities that need to be brought TO the project
• Delaying a project or adding work negatively affects bidding strategy
UTILITIES IN THE FIELD

• Power supply planning crucial during project development & design

• Permanent facilities
  • Signals
  • Lighting
  • ITS

• Temporary facilities
  • Signals
  • ITS

• Coordination during construction results in increased costs & potential for delays
COMMON CHALLENGES

• Seasonal Timing is Critical
  • Lost time between Stage 3 design & Contractor NTP
  • Seasonal workforce
  • Seasonal site conditions
  • Seasonal letting months
  • Contract time sets
  • Reduce risk of changes, delays, disputes, costs
COMMON CHALLENGES

• When does utility coordinator participation stop?
  • Creates variability in workflows and information
  • Commonly occurs at project handoff to PE/S

• What would work better?
  • LPA using the same organization for PE/S as the Utility Coordinator
COMMON CHALLENGES

• Challenges to pre-cons
  • Compliance or planning & strategy meeting?
  • Time lapse between contract award & precon
  • Utilities present new information at pre-con
  • Coordination lapse between work plan approvals & award

• Suggestions
  • Pre-letting planning & verification for utilities
  • Pre-letting utility CPM schedule development
  • Planning & strategy meetings as soon as possible after the award
COMMON CHALLENGES

• Quality Control issues with Utilities
  • Work plans change
  • MOT criteria conflicts
  • New/unknown utility installations
  • QC inspection during installation
RED FLAGS

- Utilities require ROW clearing & staking
- NTP is not issued = material procurement not started
- Conflicting utility schedules & key ICD dates
- Pre-letting utility conversations conflict with CIB
- Seasonal bid due date timing
- CPM schedule for major activities
Red Flags

- Contractor Means & Methods
RED FLAGS

• Facilities under the proposed pavement & subgrade treatment
OWNER & CONTRACTOR CONSEQUENCES

- Budget
- Schedule
- Construction acceleration
- Seasonal labor force employment
- Backlog & resource forecasts
- Reduced resource capacity
OWNER & CONTRACTOR CONSEQUENCES

• Minimize bad PR & community information
• Minimize business, community & road user disruptions
• Maximize availability of resources
• Maximize budget & capital
QUESTIONS???
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THANK YOU!!!