Integrating Project Delivery-Design, ROW, and Utilities



ROAD SCHOOL 2022



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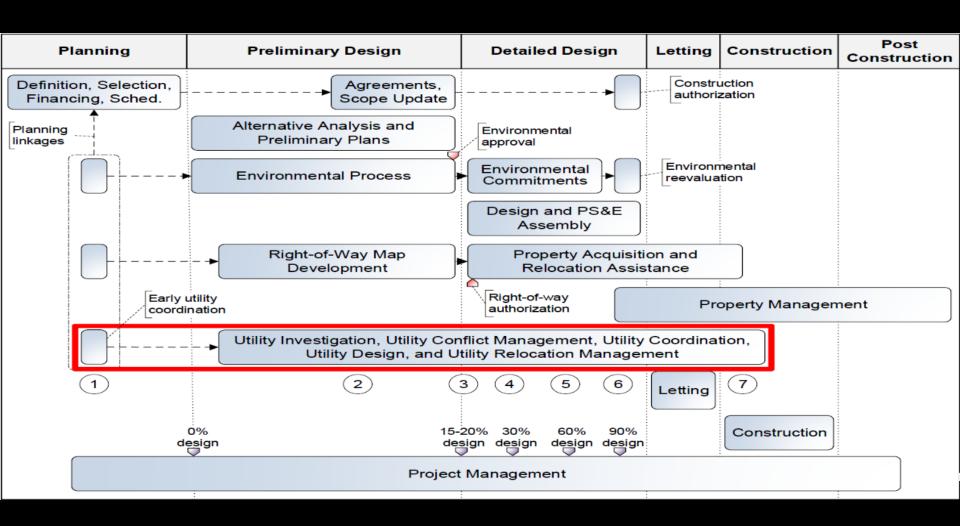
Matt Witt, INDOT Kenny Franklin, Parsons

Why?

Integrating these two critical path items into the design and overall project delivery will immediately improve the Reliability in Delivery!



How is utility coordination evolving?



Build a utility awareness throughout project development







What are some common steps for traditional utility coordination?







Results of traditional steps

- Unforeseen Surprises
- Unnecessary Relocations
- Unnecessary Costs
- Unnecessary Frustration





Order of operations is important

Remember this?



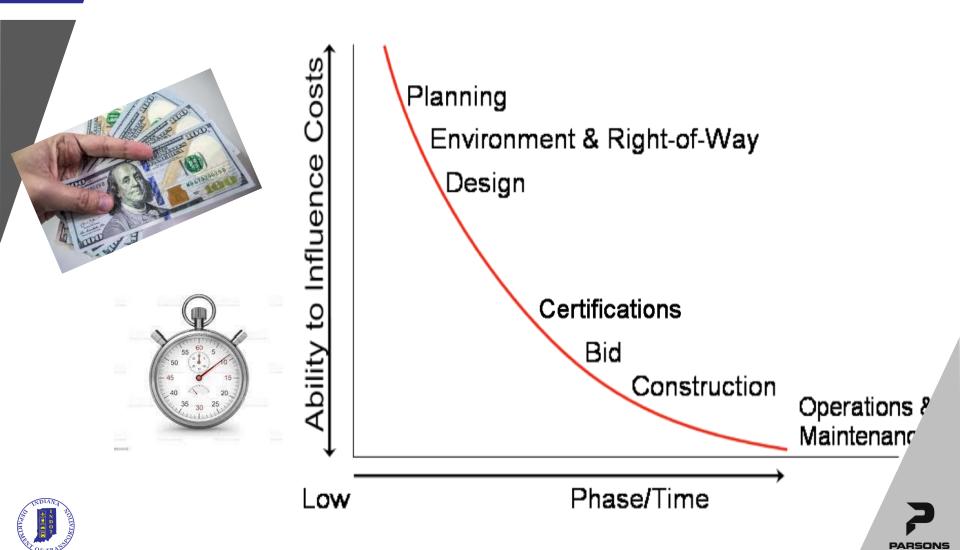
Without it, you get:







Early and effective coordination saves



Utility conflict management approach

Planning/scoping



Assist with scheduling and budgeting in the project scoping



Identify property interests and row challenges



Collect utility information from records



Populate a utility list





What if?

we...

...Understand the need for utility information early

- ...Treat the Preliminary
 Field Check (PFC) as a
 Stakeholder's meeting
- ...Understand how utility relocation impacts the acquisition process both appraising and buying





Utility conflict management approach

During Project Design

- Advanced levels of utility investigations
- Confirm and depict all existing utility infrastructure
- Build a design tolerance zone
- Build utility conflict list
- Submit UCL





How are you past PFC without utility information?



- How do you know your R/W plan is enough?
- How did you design drainage without Utility info?
- How are you proceeding with the NEPA document?





Utility information necessary to start Right-of-Way engineering

Who is present?

- Gas
- Electrical
- Water

What facilities are present?

- Distribution
- Transmission

Where

- Aerial
- Underground

Policies, Tolerances, and Regulations

- OSHA Crain Regulations
- Vibratory compaction
- 10 State
 Standards

How will relocation affect the parcels being acquired?

- Tree removal
- Open drainage
- Enclosed drainage





Everyone knows where everyone goes







Why do we even allow utilities in Right-of-Way

"The right-of-way must be devoted exclusively to public highway purposes. However, § 1.23(c) permits certain non-highway uses of the right-of-way which are found to be in the public interest provided such uses do not impair the highway or interfere with the free and safe flow of traffic thereon. As previously discussed above in "Public Interest Finding," such a public interest finding has been made for utilities."

-Federal Utility Program Guide 2003





Federal Rules regarding replacement Right-of-Way

"....when a State or locality routinely dedicates or permits a portion of the road and street right-of-way for use by utilities in accordance with established standard criteria pursuant to State law, ordinance, or administrative practice, such right-of-way may be considered eligible for Federal-aid reimbursement as an integral part of the project right-of-way."

-Federal Utility Program Guide 2003





Intersections of Utility and ROW



Discussion in Scoping and planning



Septics and wells



What utilities are present



Easement research and review



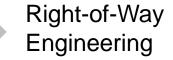


Review Environmental concerns i.e Sec. 106 4F, Wetlands













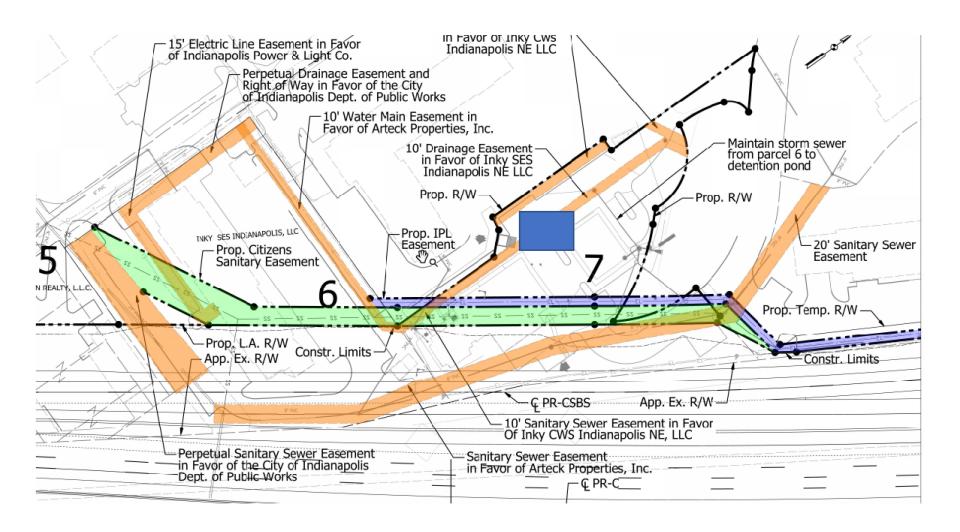
Where Utilities and ROW Intersect

- Determine who is to buy the ROW the utility needs
- Identify the prioritization of acquisition
- Clearing and Staking
- What else?









SR 5 Widening

Utilities concerns

- Right of way was in appraising prior to knowing where utilities were and what type of facilities existed in the project limits
- Gas line was 4" steel running 90psi
- Town water and sewer were not completely known.

Impacts

- Redesign of the roadway width
- Redesign of storm drainage
- Timing of Reimburseables
- Less than desirable time-set
 - Utility Exception at letting
 - High bid
 - Re-Let

BUDGET!!!!!





SR 114 Over the Eel River Bridge Replacement











SR 16 Denver Small Towns Project









Where do ROW and Utility coordination efforts intersect?

Identify probable row needs for utilities in planning Review Utility
easement
documents to
establish
budgets

"Everyone knows where everyone goes" in ROW Eng!!

Determine the plan for clearing and staking

Prioritize
acquisition
with critical
path including
utilities

Address subordination of existing utility easements as a team

Consider purchasing utility easements with row acquisition





Resource links

- http://Fhwa.dot.gov/utilities
 - Program Guide
 - National Program Review
- https://www.in.gov/indot/doing-business-withindot/consultants/designers/utilities/





Questions?

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