

**Florida Utilities Coordinating Committee**

<http://www.fucc.org>

“Coordination through Cooperation”

Coordination, Cooperation, Communication, & Commitment

<b>Chair</b>	<b>Vice Chair</b>	<b>Secretary</b>	<b>Treasurer</b>
Chris Stermer (WGI)	Tara Miller (Duke Energy)	Stephen Waidley (Frontier)	Jodi Rano (Stantec)

**Spring Meeting Location:  
Hilton Ocala, FL**

Heather Dean stepped in for Stephen Waidley, while he’s out of town.

**Wednesday, August 2, 2023**

**Morning Session**

**ALL MEETINGS ARE OPEN TO ALL REGISTERED MEMBERS**

7:00am – 8:30am - **Buffett Breakfast in the Dining Room**

Breakfast Ticket is Required and will be part of your registration.

8:00 am – 11:30 am - **Meeting Registration** – Bring your business cards for the daily drawings.

8:30 –9:30 am - **FUCC Officers Meeting**

Chris Stermer, WGI, Chair

Tara Miller, Duke Energy, Vice Chair

Heather Dean, Utility Coordinator, Harbor Coordination Solutions Inc, sitting in for Stephen Waidley, Frontier Communications, Secretary.

**Jodi Rano Stantec/FDOT** Treasurer

Chris McLaughlin, MacDriller Inc./Clymer Farner Barley Surveying LLC, Historian

**Topics**

One nomination for secretary – Mark Atkininstall. Vote, then on Friday finalize.

**Treasure**

\$21,000 in PayPal, \$28,000 hotel charged, diminished to \$18,000.

Jodi hasn’t transferred deposits; this will bring the account back up from being negative.

November the contracted hotel took the deposit for the conference.

As coming in Chair, Tara Miller will work with Lori McLaughlin, discuss with Amanda, for St. Augustine.

The conference will need to cut back on some sort of expense or need to raise the registration due to the rise in price.

Think on what to cut, do happy hour, Thursday have lunch only, and Continental Breakfast.

Wednesday - no breakfast.

Demar will take care of the award banquet.

The August 2024 conference will be in Cocoa Beach, Chris McLaughlin locked this hotel in.

For the August 2025 conference, Tara will need to work on hotel reservations.

Cocoa Beach doesn’t benefit on signing longer contracts due to price inflations, this will be a year-by-year contract.

Tara work with Chris Giblem along w/ Helms Brisco, on searching hotels, and will need to fill out the RFP form.

Ask for East/West hotel locations, possibility to throw in Sarasota, Naples area as well.

Even Insurance is acquired.

Meeting adjourned 8:55am.

9:30 –10:30 am - **Steering Committee**

Chaired by Tara Miller, Duke Energy, FUCC Vice Chair  
(Steering Sub-Committee Chairs should be in attendance)

Everyone present:

- Tara Miller, Fred Valdez, Art Gilmore, Joe Sanchez, Warren Gilbreath, Demar Machuca, Kris Hayes, Lee-Ann Snipes, Trish Miller, Shayne McGlocklin, Bill Case, Brian Dean, Chris McLaughlin & Chris Stermer.

**Topics**

Nomination for incoming secretary, Mark Atkininstall.

Motion – Trish Miller

Second – Chris McLaughlin

Bring Mark up on Friday's business meeting.

**ORD concern:**

A discussion regarding ORD concern was held:

UAO is referenced below later on, link to document:

[chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/programmanagement/utilities/docs/uam/uam2017.pdf?sfvrsn=d97fd3dd\\_0](chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/programmanagement/utilities/docs/uam/uam2017.pdf?sfvrsn=d97fd3dd_0)

**Melonie Schartz [Inwood Consulting Engineers]** FUCC did receive a response from FDOT, line by line high level response of concerns, not sure if this was shared. Get sent out to everyone, in review.

The ORD meeting was in person, did not do virtual monthly meetings.

This event was taken off the calendar but will be placed back on as virtual.

Paul Hairs was unable to attend but will be on the virtual ones to discuss the topics and walk through responses.

Paul did direct us to use these plans, if needed to go to a local graphic office to get them printed out to complete. Also, there was not much feedback from the UAOs on concerns, only a statement from the FUCC, not from individual companies. If UAO companies are having issues/concerns with ORD plans, they must bring this up; otherwise, it is reflected as ORD plans are approved as a reasonable agreeable format.

This may take a bit to get all comments in and addressed, and at the August 2024 meeting, might be too soon and not get everything set, but possibly September 2024, could get everything in for concerned topics.

Patrick Overton can discuss it at the August 2024 meeting.

**Jeanna Dean [Harbor Coordination Solutions Inc]** asked if there was a way to put the response letter on the website, so everyone at the conferences can be updated on this topic.

**Robb Brown [Duke Energy]** stated Patrick Overton is not the author of the letter, but he did sign it. The UAOs will be able to change the response, vs the FUCC as a hole. Duke Energy hasn't experienced many issues, besides little stuff with the plans; however, a future topic to discussion is taking a larger project, which will have larger issues with referencing from previous page info to the new pages. A concern to think about is marking everything green for markup responses, and trying to relay what lines go where and through the pages and be understood might be okay, but might not be understood properly when in construction.

**Melonie Schartz [Inwood Consulting Engineers]** we must bring these topics up, because the more time that passes, and the UAOs experience on each project, the window of opportunity with FDOT is in a fine limited window. Concerns that could be resolved now vs two to five years down the road is a huge risk for utilities, and Engineers. Engineers create the utility conflict matrix, but the UAOs need to have all the information to help review their conflicts as a hole, and work together. The information on the ORD plans are limits and can cause unsafe conditions, in construction, when if the information was provided clearer, we could limit these unsafe conditions.

**Chris Stermer, [WGI]** – The NexGEN virtual meeting is held next week, August 9<sup>th</sup> 2023; Paul Hire has been invited, it has been stated he is the management person, he is not the CADD person, but to make sure Vern is on the call if possible, since he can discuss CADD in further details. If they want to partner with the FUCC, they need the right contact for this

discussion, Vern would be best person to answer the questions with taking over the screen, and discuss utilities file 1.14. Most utilities have not dealt with 1.14 and it hasn't hit construction, so the concerns haven't been in action.

**Jeanna Dean [Harbor Coordination Solutions Inc]** stated Paul Hires attended the last engineering meeting, and it was noted the first meeting, the UAOs were a bit unhappy, by the second was a little better, and by the third meeting stated everything was fine and that the UAOs are on board which is incorrect.

**Chris Stermer, [WGI]** – Most utilities haven't dealt with 1.14 and it hasn't hit construction.

**Robb Brown [Duke Energy]** Duke Energy discussed this concern, our members haven't had a negative experience on this yet.

**Melonie Schartz [Inwood Consulting Engineers]** The challenging part is this window in finite. It's not closed, but we really need to get a close look with the utilities. We need to look at examples, look at complex projects, with looking at these plans, typical standard etc. we need to capture the overall unsafe condition concerns.

**Josh Kelly [Ozmatic Engineering]** as utility coordinators, I know in District 5, those utility coordinators are covering the gap, where the UAO isn't getting the full exposure of how bad the process is going. On a personal opinion; FDOT is bridging the gap with utility coordinators, to soften blow to UAOs on these changes.

**Jeanna Dean [Harbor Coordination Solutions Inc]** it's being stated to just blame the EOR [Engineer of Record] if something is missed, and not the utilities. This is a dual process, between both.

**Josh Kelly [Ozmatic Engineering]** It might not make it to the UAO realm.

**Jeanna Dean [Harbor Coordination Solutions Inc]** The utility conflict matrix is getting more important, and telling the EOR, this is what we know as conflicts, but we do not know UAOs conflicts. UWS, language beginning scrutinized: to remain, to be adjusted, to be proposed, are basic statements. If changes are made in the field and there's conflicts where there were none, this should be put on the contractor, since we can't determine means and methods.

**Josh Kelly [Ozmatic Engineering]** No body is going to know the issues until we get into a multi-million dollar claim to the EOR for not catching something, and it won't be on the UAO. We do not have a good litmus test yet, to base the concerns until this happens.

**Mark Atkins [Burgess & Niple]** Some conflicts reviewed are proximity and not certain. To be clear, we have to ask for the utility agency owners to look at a 300 list of drainage, then go to that structure, to then see how close, if it's a circle or an oval, etc. is not provided as before? As an Engineer, we have to figure out the conflicts with the design, along with putting in the design for plans, no long in the profile and take the risk?

**Brian Dean [Sunshine 811]** We've reached out to FPS, Melonie have you?  
Melonie – no I have not, good point, will need to do so.

**Demar [Sarasota County Utilities]** had engineer dept do as proposed, problem government don't know much about it, to everyone's point, until it impacts us, conflicts to us is money, no impacts means no flags for concern. We don't know much on it to fight the state/give to much on state besides put on paper and help with FUCC. Impacts are unknown at this time to put on paper, but they want something definitive, and we cannot provide this.

**Melonie Schartz [Inwood Consulting Engineers]** UAM puts shared risk on conflicts, 5.2 number 3 states, "Identify to the designer utilities and utility service connections the UAO has determined to be in conflict that were not previously identified".

**Robb Brown [Duke Energy]** 5.1 number 3 states, "Conflicts with the UAO's utilities are identified to the UAO. This may be provided in a conflict matrix format when available".

**Melonie Schartz [Inwood Consulting Engineers]** Exactly, they'll fight the statement if the EOR doesn't point out the conflicts, when there are no conflicts.

**Shaun Pervis [AT&T Distribution]** – If you have an unidentified UAO, how do you work through that conflict? If we don't have to relocate, we won't, if it's not an issue we'll guard and monitor. You can't delay claim a UAO for an unknown utility, sometimes they don't want a UAO to re-write UWS for adding 30-days to adjust or do what's necessary. Issues such as gathering material, timing and budgeting prolongs the conflicts.

**Melonie Schartz [Inwood Consulting Engineers]** – A concern with nextGEN plans is that no one can provide us example of issues. Also, UAOs have to express the need for 11x17 plans. Currently there's no intent to add call outs. If a user is unaware and not shown in the work sheets for 11x17, they have to look at the previous sheets for call outs, this puts the responsibility on the UAO.

Another concern is the cost of Next GEN plans, PDF formats to last for 15 years, there are PDF free readers available, did acknowledge paper plans for field work, refer back to 11x17.

300 series transition to the large format 5.1 number 2 states, "Project drawings are provided to the UAO for markup in an agreeable format".

**Jeanna Dean [Harbor Coordination Solutions]** – Maybe we can ask for more time for the UAOs to provide markups verses the 30-days response turnaround since this process takes longer for response.

**Joe Sanchez [Florida Gas Transmission]** – FGT has had quite a few projects that were extremely time consuming, a lot of them lack information not for just the UAO but also on the project itself. Green lines allow FGT to get 90% ahead of the project which requires FGT to find issues with a project. When a firm hurries up to gather 90% equivalent of that, it doesn't have all the info, there's more time back and forth on getting the information, and I'm the only one UAO that does it in this state, it's ridiculous.

Follow 1.1 The purpose of the Utility Accommodation Manual (UAM) is to establish the utility installation or adjustment requirements for utilities within the Florida Department of Transportation's (FDOT) right of way (R/W) and is incorporated by reference into FDOT's Rule Chapter 14-46.001 F.A.C. for utilities.

**Chris Stermer [WGI]** – The Turnpike started this, and FGT has probably touched these plans more than any other UAO, which makes FGT carry a bigger hammer to file a dispute.

**Robb Brown [Duke Energy]** Duke can help write it, since Duke has experience of these topics. Share with me, I will send on behalf of Duke Energy, those who weren't here earlier, Patrick stated we need to send a letter by UAOs. I think with UAOs such as Duke Energy, AT&T and FGT, sending a letter, it would help.

**Joe Sanchez [FGT]** – A lot of these issues/concerns would be resolved with cross sections, and with what we already have acquired in the past.

**Melonie Schartz [Inwood Consulting Engineers]** ORD has a module to be bought as an add on, for cross sections.

**Robb Brown [Duke Energy]** – We need a conversation with Bryan Lantz with Florida Power & Light, we have a meeting with Will Watts FDOT, Oct 18 on his reports, we can get FP&L to take on their stance as well with their concerns/issues, this is a great topic of discussion, and would help see what challenges are occurring.

**Josh Kelly [Oz Matic]** – if they add cross sections back, there's still a problem, the cross sections don't dictate like they used to, where they stack the UAO in there, it no longer shows the UAOs that way, they're useless.

**Shaun Purvis [AT&T Distribution]** if road contractors have these issues, how are the subs doing this?

**Jeanna Dean [Harbor Coordination Solutions]** Maybe could we have a list of the 70 people.

**Melonie Schartz [Inwood Consulting Engineers]** There will be an example regarding this discussion for the 2:45-4pm meeting later today.



**Chris Stermer [WGI]** are there any additional topics?

**Brian Dean [Sunshine 811]** – Sunshine will be introducing Elliot Patterson, he is the new contact, and will be taking over

**Heather Dean [Harbor Coordination Solutions]** Stated, “Since this is a hot topic, could we move the Underground/Telecom to the NextGen Grand Ball Room meeting? I think everyone should be in attendance on this important topic”.

1pm announcement moving Permitting and UG/Telecom meeting at Grand Ball Room  
Lori need a co chair

Motion made to move Subcommittees, Underground, Telecom and Permitting to the Grand Ball Room.

Motion - Trisha Tiller [ECHO]  
Second – Lee-Anne Snipes [City of Orlando]  
Meeting Adjourned 10:24pm

HEAD COUNT OF ATTENDANCE: 27

10:30 – 11:30am

**Planning Committee**

Chaired by Mariah Mader, KCI

**Membership & Promotions**

Chaired by Melonie Schwartz – Inwood Consulting Engineers

**Banquet Planning Committee**

Chaired by Rebecca Green – Colliers Engineering

11:30 – 1:00 pm **Lunch with a member of your choice at your expense**

**Afternoon Session**

1:00 – 1:15 pm **2023 Spring Meeting Opening Comments from the Chair**

Chris Stermer, WGI, FUCC Chair

- Registration info, not to bring outside food and drink into the hotel.
- The Hilton is a non-smoking hotel, there is a designated smoking area.
- Thank you to our sponsors.
- Outstanding invoices, get with Jodi Rano.
  - There has been changes to schedule:
    - 1:30pm in this room Grand Ball Room, joint meeting.
    - 2:45pm due to NextGEN plans discussion, moving all to the Grand Ball Room.
      - Telecom and Underground Interest Group will be merged with NextGEN plans forum.

115 in attendance

1:15 –1:30 pm **Sunshine 811 Updates**, Brian Dean, Sunshine 811

1:30pm Brian Dean – West FL damage prevention. August 11 is 811 day, got some promotions. Sunshine811 30<sup>th</sup>

- Introducing: Elliot Patterson, he is our new liaison for central Florida, exactic/design tickets, [Elliot.patterson@sunshine811.com](mailto:Elliot.patterson@sunshine811.com)

Sunshine811.com/education

- 811 national celebration, sunshine811.com click tab
- Changes to Exactix, one significant change, the maps were updated, May 5-11.
- Renew design tickets, copying over old to new SSOC, make sure it covers the previous area you had previously located. Some GEO coding glitches. Latitude and Longitude, now more accurate. Dig site type, latitude/longitude might take a bit from degree to seconds, and spaces but it is better.
- Corner tickets, if you go beyond 150' of an intersection, you must continue in that direction and do two separate tickets.
- Sunshine811 turns 30 this year since it started in 1993.
- Legislative, Meeting this month, couple changes:
  - Two day to a Three day waiting period starting the day after you call locate in. when you get a code from gas company, put in code excavator date/time when start working, it's to discuss, confusing with enforcement notification. Proposal to make that a citable offence.
  - Extraordinary circumstances limit to 30 days. Notify utility if still under extraordinary circumstances, is tabled about turning off.

1:30 – 2:30 pm **FUCC Interest Group and Subcommittee Meetings**

- **Joint Use** Chaired by Bill Deal, T2UE
- **TTC/MOT Committee** Co-Chaired by, Robb Brown, Duke Energy, and Laurie Jackson, TRC
- **Power Interest Group** Co-Chaired by Martin Mikhail, Power Engineers, and Chris Buonanni, FPL

TTC/MOT Non-Standing Subcommittee was combined with both the Power Interest Group and the Joint Use Group for the Summer meeting.

We discussed the purpose of this non standing subcommittee and if we should continue to meet at every FUCC meeting. After some discussion and recommendations from the FDOT it was decided to only meet twice a year at the Fall (November) and Spring (April) meetings since the FDOT typically opens up for comments in July/August.

It was decided that Robb Brown will continue to Chair the subcommittee with Laurie Jackson continuing as the co-chair.

- **Construction** Chaired by Josh Kelly, Oz-Matic
- Please refer to the attached Presentation] .Josh Kelly FUCC D5 Plans Review ^0 Utility Coordination 2023pdf  
A discussion was held. Contact Information Provided:
- [Joshua.Kelly@oz-matic.com](mailto:Joshua.Kelly@oz-matic.com)

2:30 pm – 2:45 pm **Break**

3:00 pm – 4:00 pm **FUCC Interest Group and Subcommittee Meetings**

- **Underground Interest Group/Telecommunication** Co-Chaired by Heather Dean, Harbor Coordination Solutions, and Stephen Waidley, Frontier

Underground Interest Group Voted In:

- Chair Trish Miller [ECHO]
- Co-Chair Garth Thompson [M.G. Vera]

- **NexGen Plans** Co-Chaired by Melonie Schwartz, Inwood Consulting Engineers, and Shaun Purvis, AT&T Florida [Please refer to the attached Presentation] .MS&SP-NexGenPlansNon-[AUG.FUCC]

- A discussion was held. Contact Information Provided:

Melonie Schwartz

Inwood

[MSchwartz@inwoodinc.com](mailto:MSchwartz@inwoodinc.com)

Shaun Purvis  
AT&T Distribution  
[SP761p@att.com](mailto:SP761p@att.com)

**Permitting** Chaired by Laurie Jackson, TRC

- Chair Laurie Jackson, TRC
- Co-Chair Kathy Madderbrown KCI
- Anyone interested in getting permitting information contact Laurie Jackson, there is an agenda. Laurie would like to get one person from each municipality, not only with utility but with agencies as well to join.

115 in attendance

4:00 pm – 5:00 pm **FUCC Subcommittee Meetings (continued)**

- **Design Build** Chair by Jeanna Dean, Harbor Coordination Solutions, and Co-Chair Chris Stermer, WGI

[Please refer to the attached Presentation]

A discussion was held. Contact Information Provided: .Chris Stermer-Utility Reimbursements [AUG.FUCC DESIGN BUILD]

Chris Stermer

WGI

[Chris.Stermer@wginc.com](mailto:Chris.Stermer@wginc.com)

5:30 PM– 7:30 pm -**Networking in the Atrium Lounge** - 2 complimentary drink tickets included in meeting registration.

**NO OUTSIDE FOOD OR DRINKS ALLOWED PER OUR CONTRACT WITH HILTON**

**Thursday, August 3, 2023**

**Morning Session**

7:00am – 8:30 am **Buffett Breakfast in the Dining Room**

Breakfast Ticket is Required and will be part of your registration.

7:00 am – 8:30 am **Registration Members Networking**

(Registration will continue throughout the day)

8:30am – 8:45 am **FUCC Meeting Opening Comments**

Chris Stermer, WGI, FUCC Chair

Thank the sponsors, we couldn't do this without them.

Raffle a prize for early attendees was held.

Banquet tonight, motorcycle biker theme.

No outside food and drinks in the hotel, please smoke in non-designated areas out front of the hotel.

District 1 Liaison, Wednesday Oct 11, 2023

- FDOT Bartow Conference Center: 801 north Broadway Ave, Bartow FL 33830.

District 7 Liaison, Friday Oct 27, 2023

- Tampa Bay Golf and Country Club: 10641 Old Tampa Bay Drive, San Antonio, FL, 33576, US

**Educational Workshops**

**(All members are encouraged to attend; this is an interactive workshop and not just another presentation)**

8:45 am – 9:45 am **Power Interest Group Educational Presentation** - National Joint Utilities Notification System (NJUNS) [Please refer to the attached Presentation]

A discussion was held. Contact Information Provided: .Angie Weaver-NJUNS Overview 2023 [AUG.FUCC]

Angie Weaver

Operations Manager

[AWeaver@njuns.com](mailto:AWeaver@njuns.com)

[98 in attendance]

9:45 am – 10:00 am – Door prizes handed out. **Break**

10:00 am – 11:15 am – **Presentation, “Update on Recent Research on Transportation Related Utility Issues Nationwide”** Gary Young, Research Specialist and Cesar Quiroga, Senior Research Engineer, Utility Engineering Program, Texas A&M Transportation Institute

[Please refer to the attached Presentation] .Quiroga and Young-Update on Utility Related Research [Final] [AUG.FUCC]

A discussion was held. Contact Information Provided:

Cesar Quiroga, PhD., P.E., F. ASCE

Senior Research Engineer

Manager, Utility Engineering Program

[C-Quiroga@tti.tamu.edu](mailto:C-Quiroga@tti.tamu.edu)

Gary Young, P.G., CPG, M. ASCE

Research Specialist

Utility Engineering Program

[G-Young@itt.tamu.edu](mailto:G-Young@itt.tamu.edu)

[103 in attendance]

11:15 am - 1:00 pm **Lunch with a member of your choice at your expense**

**Afternoon Session**

1:00-1:15pm **FUCC Announcements** Presented by: Chris Stermer, WGI, FUCC Chair

1:15 -2:45pm **FDOT Forum - DUE/DUA & FDOT Personnel**

Patrick Overton, FDOT State Utilities Engineer

District Utility Administrators/Engineers will be in attendance and are available to discuss District specific issues. Please note to have great dialog, specific topics are encouraged to be submitted at least two weeks prior to the summer meeting. Please utilize the following link to submit your questions/topics of interest: <http://www.fucc.org/contact-us-1.html>

**Patrick Overton [FDOT Central Office]**

- We will work on getting a team of Utility Coordinators along with volunteers, Jeanna Dean, Josh Kelly, and DUAs get some work schedules from 4-5 projects, and some UAOs such as AT&T Shaun Purvis, FP&L Bryan Lantz, Duke Energy Robb Brown etc. We will also have one representative for each of the five UAO types, such as power, telecom, water, sewer, gas, FUCC these conferences.
- **Do a task team one here at FUCC**
- **Additional topics, signal cabinets BABA, everything inside not BABA. Exemption outside. Baba supported under CRF, 49CFR part 6-61 Triggers federal funding, reimbursable and requirements.**
- **August 9 virtual meeting, for NextGEN plans, will be including Verne.**

2:45 – 3:00 pm **Break [moved break to closure]**

3:00 – 4:00pm **Combined Interest Group, Subcommittee & Standing Committee Updates and announcements of 2022-2023 chairs:**

- **Awards/Nominations**, Chaired by Demar Machuca, Past Chair (2021/2022)
- **Planning Committee**, Chaired by Mariah Mader, KCI
- **Power Interest Group**, Co-Chaired by Martin Mikhail, Power Engineers, and Chris Buonanni, FPL
- **Telecommunications/ Underground Interest Group Interest Group**, Co-Chaired by Stephen Waidley, Frontier, Co-chaired by Heather Dean, Harbor Coordination Solutions
- **Banquet Planning Committee**, Chaired by Rebecca Green – Colliers Engineering
- **Joint Use**, Chaired by Bill Deal, T2 Utility Engineers
- **Design Build**, Co-Chaired Jeanna Dean, Harbor Coordination Solutions, and Chris Stermer, WGI
- **TCC/MOT Committee**, Co-Chaired by, Robb Brown, Duke Energy, and Laurie Jackson, TRC
- **Permitting**, Laurie Jackson, TRC
- **Construction**, Chaired by Josh Kelly, Oz-Matic
- **NexGen Plans**, Chaired by Melonie Swartz, Inwood Consulting Engineers, and Shaun Purvis, AT&T Florida

6:00pm **Awards Banquet & Buffet Dinner – Biker (Motorcycle) themed!**

**Ticket required and included in meeting registration.**

**[Guest tickets available for purchase here.](#)**

**No outside food or beverage permitted per Hilton Melbourne Beach contract.**

- **Awards/Nominations**, Chaired by Demar Machuca, Past Chair (2021/2022)

John Farkus – Robb Morris FP&L

Malcolm Yancey – Brian Dean Sunshine 811

- **Planning Committee**, Chaired by Mariah Mader, KCI

Anyone would like to help with educational, please reach out to Mariah Mader at [Mariah.Mader@KCI.com](mailto:Mariah.Mader@KCI.com).

- **Power Interest Group**, Co-Chaired by Martin Mikhail, Power Engineers, and Chris Buonanni, FPL

Anyone would like to help with Power Interest Group, please reach out to Martin Mikhail at [Martin.Mikhail@fpl.com](mailto:Martin.Mikhail@fpl.com)

- **Telecommunications/ Underground Interest Group Interest Group**, Co-Chaired by Stephen Waidley, Frontier, at [Stephen.Waidley@ftr.com](mailto:Stephen.Waidley@ftr.com) Co-chaired by Heather Dean, Harbor Coordination Solutions at [Heather@HarborCoordination.com](mailto:Heather@HarborCoordination.com)

This group has changed out the Co-Chaired contacts, please reach out to Trisha Miller [ECHO] at [Trisha.Miller@echoues.com](mailto:Trisha.Miller@echoues.com) and Garth Thompson [M.G. Vera] at [gthompson@mgvera.com](mailto:gthompson@mgvera.com)

- **Banquet Planning Committee**, Chaired by Rebecca Green – Colliers Engineering [Rebecca.Green@colliersengineering.com](mailto:Rebecca.Green@colliersengineering.com)
- **Joint Use**, Chaired by Bill Deal, T2 Utility Engineers at [William.Deal@t2ue.com](mailto:William.Deal@t2ue.com)
- **Design Build**, Co-Chaired Jeanna Dean, Harbor Coordination Solutions at [JDean@HarborCoordination.com](mailto:JDean@HarborCoordination.com) and Chris Stermer, WGI at [Chris.Stermer@wantmangroup.com](mailto:Chris.Stermer@wantmangroup.com)
- **TCC/MOT Committee**, Co-Chaired by, Robb Brown, Duke Energy at [Robb.Brown@duke-energy.com](mailto:Robb.Brown@duke-energy.com) and Laurie Jackson, TRC at [LJackson@trccompanies.com](mailto:LJackson@trccompanies.com)

Record of 124 people Robb Chair, Laurie Jackson asked to not have TCC and Power at same time. Meetings in November and April, skipping August moving forward.

- **Permitting**, Laurie Jackson, TRC [LJackson@trccompanies.com](mailto:LJackson@trccompanies.com)  
Combined, sign in sheet passed around, Kathy from KCI Co Chair

- **Construction**, Chaired by Josh Kelly, Oz-Matic [Joshua.Kelly@oz-matic.com](mailto:Joshua.Kelly@oz-matic.com)  
TCP in constructability, any topics please reach out to Josh.

- **NexGen Plans**, Chaired by Melanie Schartz [MSchwartz@inwoodinc.com](mailto:MSchwartz@inwoodinc.com)  
124 people, example of drainage structure sheets 300 and 900 series.  
Teams meeting scheduled for NextGen next Wednesday at 10am August 10<sup>th</sup>. Make sure you're added to our monthly meetings.  
Shaun Purvis, AT&T, reposted on LinkedIn, going to reach out Melonie send out regarding the conflict matrix, this takes time using the plans and determine how much effort it was and if it was helpful.

- **Bylaws**, Chris McLaughlin, [MacDriller Inc./Clymer Farner Barley Surveying LLC, [Chris@macdriller.com](mailto:Chris@macdriller.com)  
Nothing to say, a meeting was not held.  
New versions of Bylaws are posted on the website, these will be finalized from April.  
New logo on officers addendum.

**Friday, August 4, 2023**

**FUCC Business Meeting (Open to ALL Members)**

8:30am – **FUCC Networking**

9:00am – **FUCC Business Meeting**

Opening Invocation- Chris Stermer

Tribute to Flag – Robb Brown

Reading of the Minutes – Heather Dean

- Robb Brown motion made to skip reading of the minutes
- Jay Helms second
- All in favor, none opposed.

- **Historian's Report** – Chris McLaughlin [MacDriller Inc./Clymer Farner Barley Surveying LLC, [Chris@macdriller.com](mailto:Chris@macdriller.com)]

August 4 2023, news from John Crouch use to be a member FDOT Central office. Tom Dugard passed, he was the historian for 21 years prior to me [Chris McLaughlin], has been here for 10 years. Moment of silence FUCC 92-2023. Tom followed in the footsteps, 1986, retired September. Lori McLaughlin helped scanned every single one of them. Everything is digitized, in 21<sup>st</sup> century. Obituary July 6 was 82 July 1 2023, hospice house. Diagnostic congestive heart failure, active lifestyle. Obituary plugs in his doctor, excellent heart care, by doctors. 47 years professional years. Colleges and friends marvel at ability to recall roads, poles and new buildings. Enjoyed 47 year membership, president twice. Meals on wheel volunteer 26 gallons of blood donated. Chris McLaughlin met him several times.

Aug 13 hotel Jacksonville  
 17 people in attendance  
 Largest privately owned  
 May 14 1948 minutes.  
 Annual traffic control devices. Mudcat. Letter read from executive secretary.  
 Motion made to direct letter.  
 Concern of moving house etc.  
 Heavy discussion on modern telephone system.  
 Name changed to Southeast radio group.  
 Successful use antenna station range.  
 Jacksonville meetings soon to be in Tampa.  
 Channel for frequency independent telephone group, railroad interested in development.  
 AT&T had 800 open lines, southern bell plea min 2' feet of service clearance.

Mr Darlington discussed road widening in Tampa, remove trees and roots. Short notice on road widening.  
 12<sup>th</sup> of Lakeland, enjoyable steak luncheon.  
 50 years ago 8/3/1973  
 Filled in as acting secretary.  
 39 people in attendance.  
 1970s Mr. Chuck united telephone, resigned.  
 Mr Roger Coons covered, Aug 30 pub hearings. Volunteer became mandatory.  
 Multi utility stems in planning station.  
 Call 48 hours in advance of digging.  
 The cutest little member in town.  
 Glen Cock of TECO, if all utilities would adopt grid system.

25 years ago, August 7 1998

#### Treasurer's Report – Jodi Rano

Profit and lost to date Jan – June  
 Gross 40,000  
 Total expense 42,000  
 -1900  
 18,000  
 23000 PayPal  
 142 attendees unsure walk ins.  
 Deposit for St. Augustine

36,000 in sponsorship, but we're not covering expenses.  
Tara start looking at registration fees.

**Business Session** Sunshine 811 Report Brian Dean [Brian.Dean@sunshine811.com](mailto:Brian.Dean@sunshine811.com)

Thank you to the group incredible honor to have received the award.  
Locates after relocation, called out Monday to group of MA installation, relocations went under sidewalk, marked existing, contractor comes in calls in locates, paints right where old stuff was, very common now, can't do too much. Explained mapping updates.

**FDOT Central Office Report**

ASK FOR NOTES

Recap on what's getting worked on:

NextGEN continue to work to meet resolution.

Historian report, not something new, different issue.

BABA

Meeting with folks adjusted as needed statement on UWS.

Department continues QAR to be consistent throughout the state.

Thank districts here this week, 4, 5 and turn pike, Olivia from construction office.

Look forward to the next meeting and possible bring solutions to the next meeting.

**Steering Committee Approved Motions for Membership Vote** – (If Any, in accordance to the by-laws, only the following Steering Committee members are allowed to vote)

Steering Committee –Tara Miller, Chair (FUCC Vice-Chair Duke Energy)

Power – Art Gilmore, Duke Energy

Telecom – Fred Valdes, Frontier

Gas – Joe Sanchez, FGT

Water – Warren Gilbreath Hillsborough County

Sewer – Demar Machuca, Sarasota County Utilities

Governmental-Utility – Kris Hayes, Lakeland Electric

Governmental-Non-Utility – Lee-Ann Snipes, City of Orlando

Contractor – Shayne McGlocklin, Badger Daylighting

Design Consultant – Bill Case, Ayres Associates

Coordinator Consultant – Trish Miller, ECHO UES

Utility Notification Center – Brian Dean, Sunshine 811

Geospatial Consultant – Chris McLaughlin, MacDriller Inc./Clymer Farner Barley Surveying LLC,

**Business Reports**

Awards/Nominations – Demar Machuca

No updates

Planning – Mariah Mader

No updates, corrected Chris Stermer on name pronunciation: Mariah not Maria

Facebook Page – Robb Brown

No updates. Need to get with Melonie Schwartz to get it updated.

Will remove Chris Stermer and add Tara Miller for admin.

E- Business/Web Page – Lori McLaughlin

No updates – tweaked the site for menu options, working on the oldest minutes, with new layout, working with go daddy get new officer, awards photos, original letter in May with attachments and put response n website. Melonie Schwartz will send files.

Site seems easy to use, tools/attachments, need to add a drop down for letters. Link under news as well. Melonie send out notice through constant contact of files updated.

Robb notice about TTC on website? Lori to send out.

Tara to let Lori do that.

Jodi Rano asked, “can you put presentations?”



Lori McLaughlin stated, “yes in some places”.

UAM Review – Bryan Lantz

No updates not in attendance

Bylaws Review – Brian Dean and Chris McLaughlin

No updates

Membership/Promotions – Melonie Schwartz

Send steering committee for standardize memos meeting formats presentations. Update brochure set for spring 2025. Summer of 2024 start working on that. Update to website for meeting to it. Print another batch of brochures, have a stack in the coming weeks, ship Brian Dean to hand out. QR Coded added, fliers and brochures. Suggestions of sponsors will be sent. Ideas on how to get them in the first meeting and financial restraint.

Banquet Planning – Rebecca Green

Maternity leave, she would like someone to help/take this on to plan banquet, she will be back to Dead man’s party.

### **New Business/Old Business**

Changings of regime officers.

Per the bylaws current Chair become Past Chair, Vice-Chair becomes Chair and Secretary becomes Vice-Chair.

New Secretary needs to be brought in.

Past chair – Chris Stermer

Chair – Tara miller

Vice Chair – Stephen Waidley

Secretary – Mark Atkininstall [Element Engineering, soon to be Burgess & Niple]

No other nominations shown,

Motion Brian Dean Slate of officer proposed

Second Chris Hayes

Lori is a godsend in helping.

Jodi there to help.

Duties of secretary

Prepare minutes of meeting, correspondence of chair if absence of chair/vice will act in their place. Oversee committee notice, brochures, website. Prepare minutes of business meeting

Give all records to historian.

Abolished all old position, approved all new chairs.

Gauntlet given to Chris Stermer.

Tara Miller – re-establish.

Sterring committee reinstate as stand.

Stephen chair vice

All others remain the same and has to vote.

None apposed

Standing and non standing

Reestablish as well.

Non standing reinstated staying the same

Bylaws – re-established

UC – dissolve utility coordination education.

Changes interest group

Telecom Crystal Iggsten

Under Ground Trish Miller vice Garth Thompson

Power FP&L, David Fuchs, Chris Bounanni

Robb motion to adjourn.

Second Chris Stermer

11:30am – **Adjournment**

**For the most current updates and info, please visit us at [www.fucc.org](http://www.fucc.org), like us on Facebook at [www.Facebook.com/FUCC.org](https://www.facebook.com/FUCC.org) and connect with us on LinkedIn at <https://www.linkedin.com/in/florida-utilities-coordinating-committee-fucc-486044276>**

## Florida Utilities Coordinating Committee, Inc

07/24/23

## Profit &amp; Loss

Accrual Basis

January through June 2023

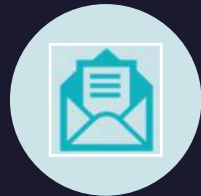
	Jan - Jun 23
<b>Ordinary Income/Expense</b>	
<b>Income</b>	
Meeting Registrations	33,815.00
Other Types of Income	
BOA Credit Card Cash Rewards	90.34
<b>Total Other Types of Income</b>	90.34
Sponsorships	6,500.00
<b>Total Income</b>	40,405.34
<b>Gross Profit</b>	40,405.34
<b>Expense</b>	
<b>Bank Service Charges</b>	
PayPal Fees	1,344.89
Square Fee	28.44
<b>Total Bank Service Charges</b>	1,373.33
<b>Business Expenses</b>	
Business Registration Fees	61.25
<b>Total Business Expenses</b>	61.25
<b>Contract Services</b>	
Accounting Fees	700.00
<b>Total Contract Services</b>	700.00
<b>Operations</b>	
Advertising and Marketing	2,638.17
Books, Subscriptions, Reference	210.00
Website	33.48
<b>Total Operations</b>	2,881.65
<b>Other Types of Expenses</b>	
Flowers and Gifts	105.53
Insurance - Liability, D and O	238.94
Other Costs	0.00
<b>Total Other Types of Expenses</b>	344.47
<b>Travel and Meetings</b>	
Door Prizes	259.06
Hotel Fees	32,467.13
Meeting Brochures / Booklets	415.35
Planning Services	3,761.13
Supplies	99.36
<b>Total Travel and Meetings</b>	37,002.03
<b>Total Expense</b>	42,362.73
<b>Net Ordinary Income</b>	-1,957.39
<b>Net Income</b>	<b>-1,957.39</b>

# NexGen Plans Non-Standing Subcommittee Monthly Meeting

## Agenda



Reviewing NexGen Drainage Structure Sheet for utility conflicts



FDOT Response Letter Received July 21, 2023



Future FDOT Workshop at the August 9<sup>th</sup> Subcommittee Meeting



Open Discussion regarding any Concerns, Needs and Solutions for NexGen Plans



Next Meeting via TEAMS – August 9, 2023 at 10 am

### General Housekeeping:

- Enter Comments / Questions in Chat
- Raise Hand if you want to speak
- For those attending by phone/audio only, we will pause for questions from those folks since they can not use Teams functions.

### Notice:

- We have a diverse grouping of individuals attending from many facets within the industry. It is important to note that the opinions expressed in this meeting are that of the individual. Consultants participating in the discussion are not speaking on the behalf of or representing the FDOT or any other agencies during the discussion.

# NexGen Plans Non-Standing Subcommittee Monthly Meeting

## Links

- FDOT Model-Centric Plans
  - <https://www.gotostage.com/channel/5f598fa79fb84067b1a7bd573efabcf1/recording/ca7c98cabafd438390bcf915c249900c/watch?source=CHANNEL>
- FDOT Connect – Creating Utility Worksheets
  - YouTube Video : <https://youtu.be/JPU5hXFO2Yg>
  - Presentation: [https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/cadd/downloads/webinars/files/microrstation-connect/fdotutilityworksheets.pdf?sfvrsn=8e517c41\\_2](https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/cadd/downloads/webinars/files/microrstation-connect/fdotutilityworksheets.pdf?sfvrsn=8e517c41_2)
- FDOT Design Manual – Refer to 2023
  - <https://www.fdot.gov/roadway/fdm/default.shtm>
- FDOT UAM
  - [https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/programmanagement/utilities/docs/uam/uam2017.pdf?sfvrsn=d97fd3dd\\_0](https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/programmanagement/utilities/docs/uam/uam2017.pdf?sfvrsn=d97fd3dd_0)

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# NexGen Plans Non-Standing Subcommittee Monthly Meeting

## Reviewing NexGen Drainage Structure Sheet for Utility Conflicts

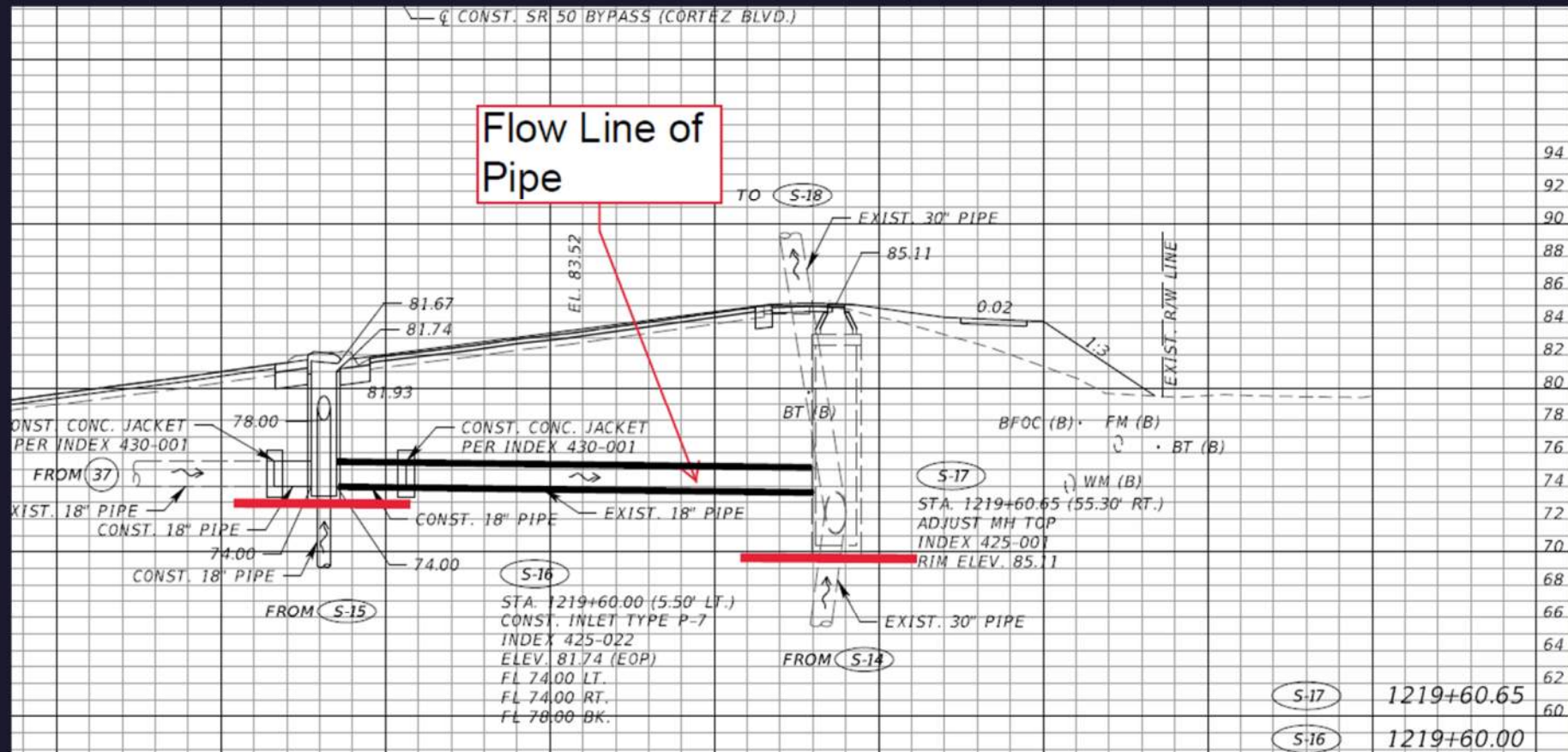
- We'd like to take a few minutes to dive a little deeper into one of the several issues we are having with the conversion to the 900 series plans on the Drainage Structure Sheets



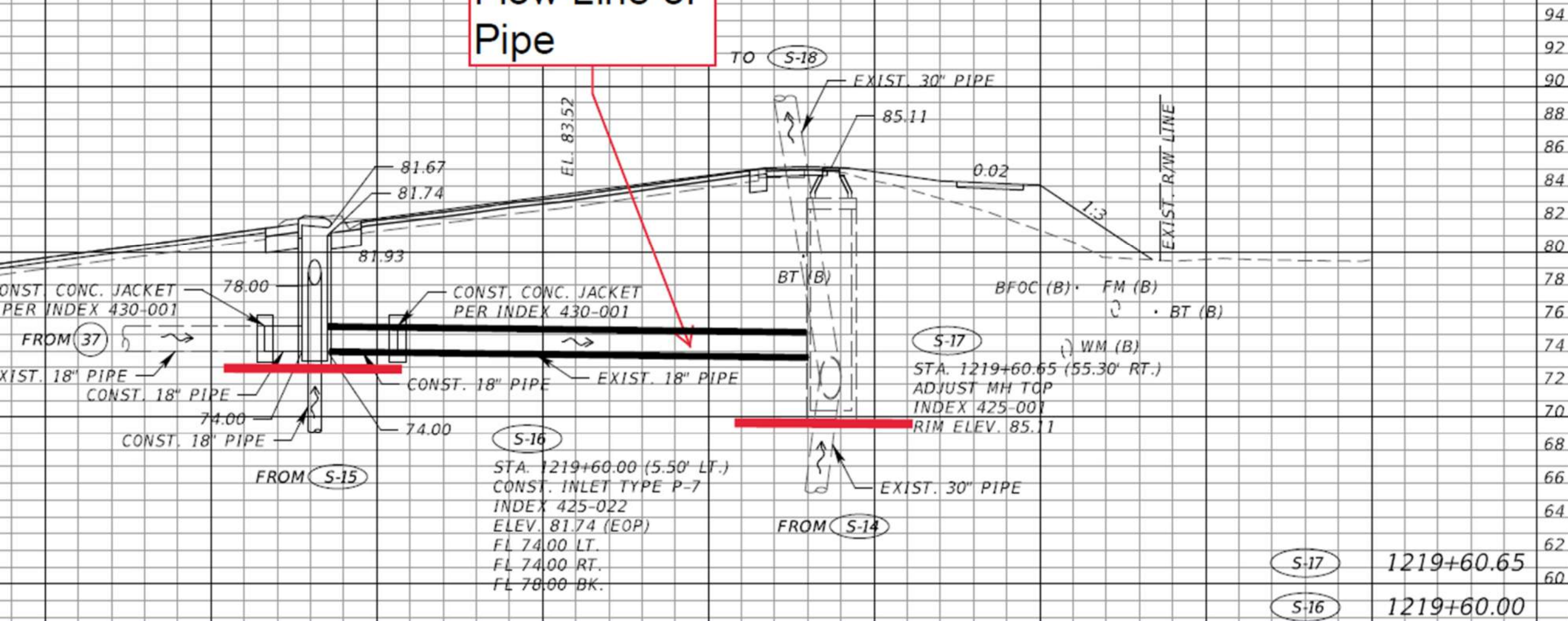
# NexGen Plans Non-Standing Subcommittee Monthly Meeting



- Let's look at the old 300 series plan sheet
- This is a typical drainage cross section that we are all accustomed to seeing
- Notice there are two structures and an 18" pipe connecting the two
- On the right we have your elevations



**Flow Line of Pipe**



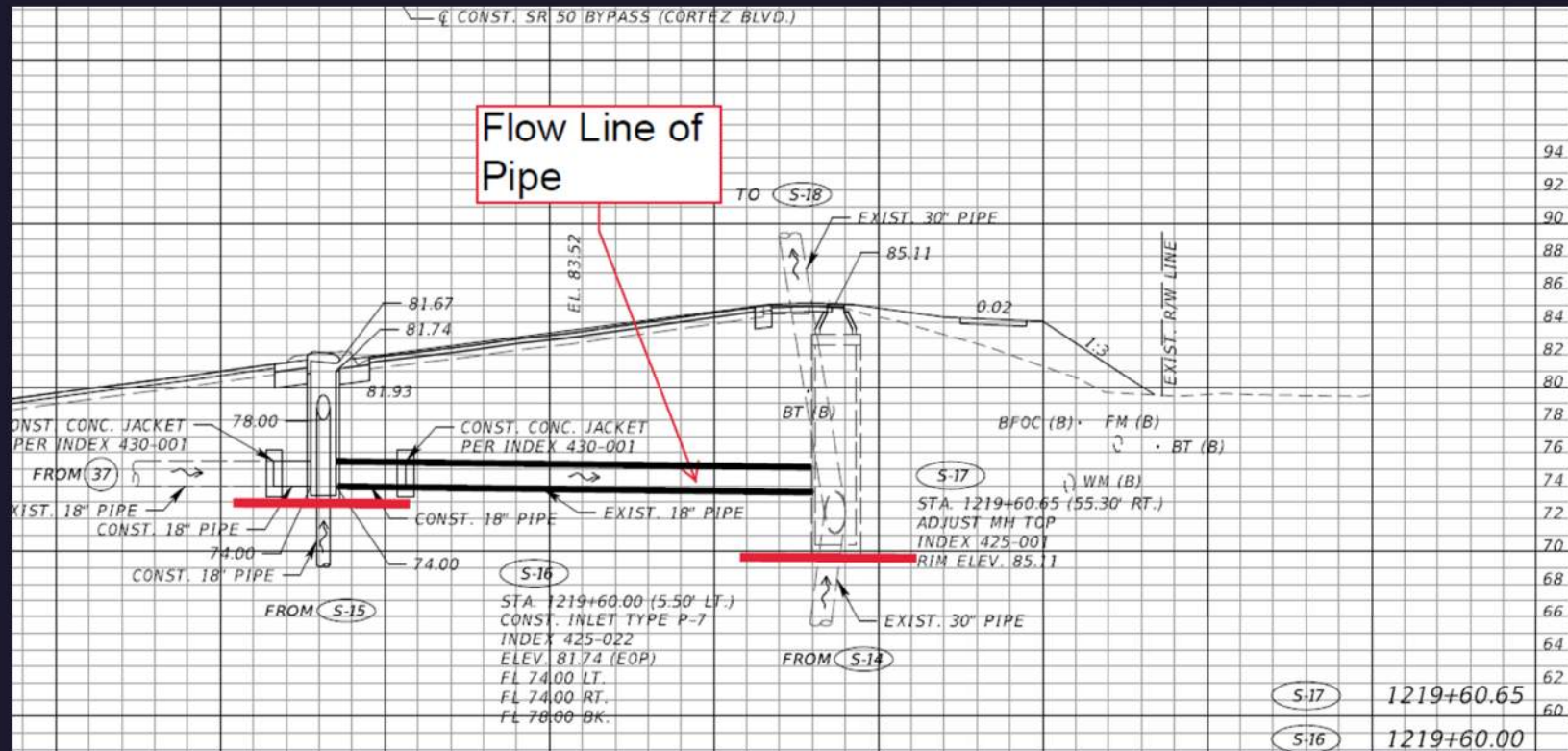
S-17	1219+60.65
S-16	1219+60.00



# NexGen Plans Non-Standing Subcommittee Monthly Meeting



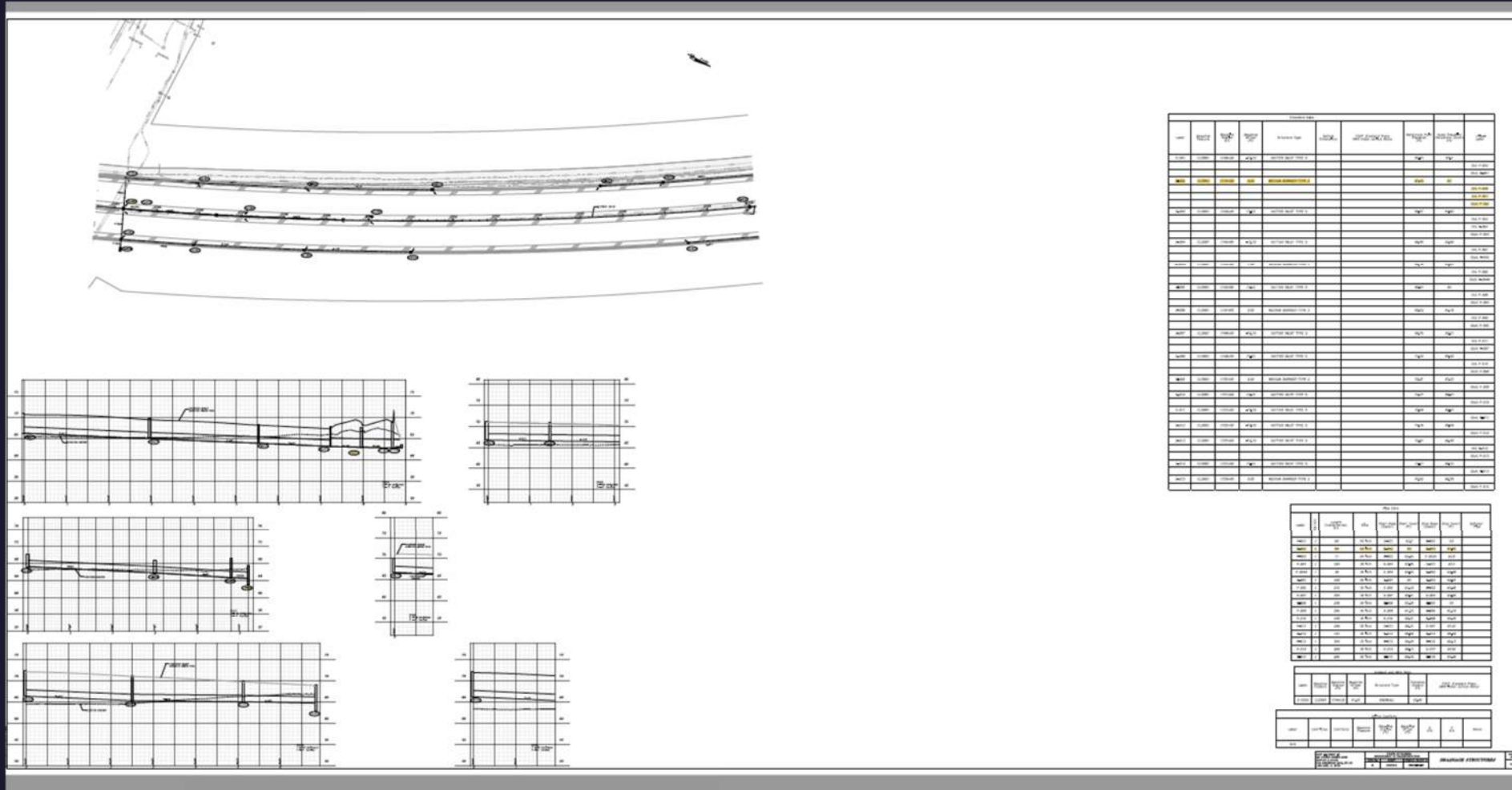
- We understand we are tying into an existing structure but let's say hypothetically these two structures are going to be replaced
- Notice that the bottom invert of both structures from the flow line of the pipe are significantly different
- I think we can all agree that this is clear and precise on what work is proposed



# NexGen Plans Non-Standing Subcommittee Monthly Meeting



- Now let's look at the new 900 series plan overview of a typical drainage section
- We have randomly selected a structure to discuss
- The next sheet is a 900 series overview



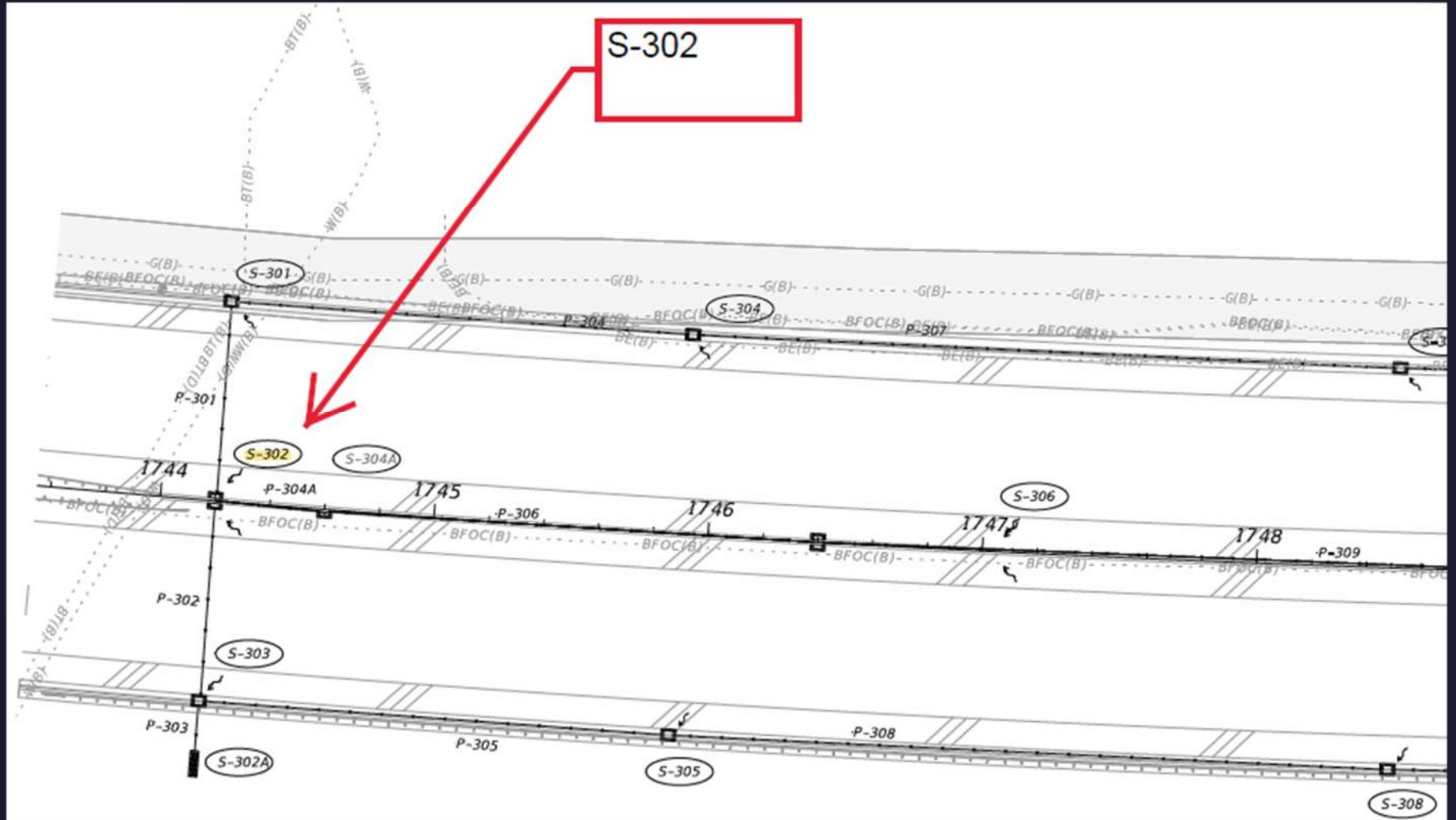




# NexGen Plans Non-Standing Subcommittee Monthly Meeting



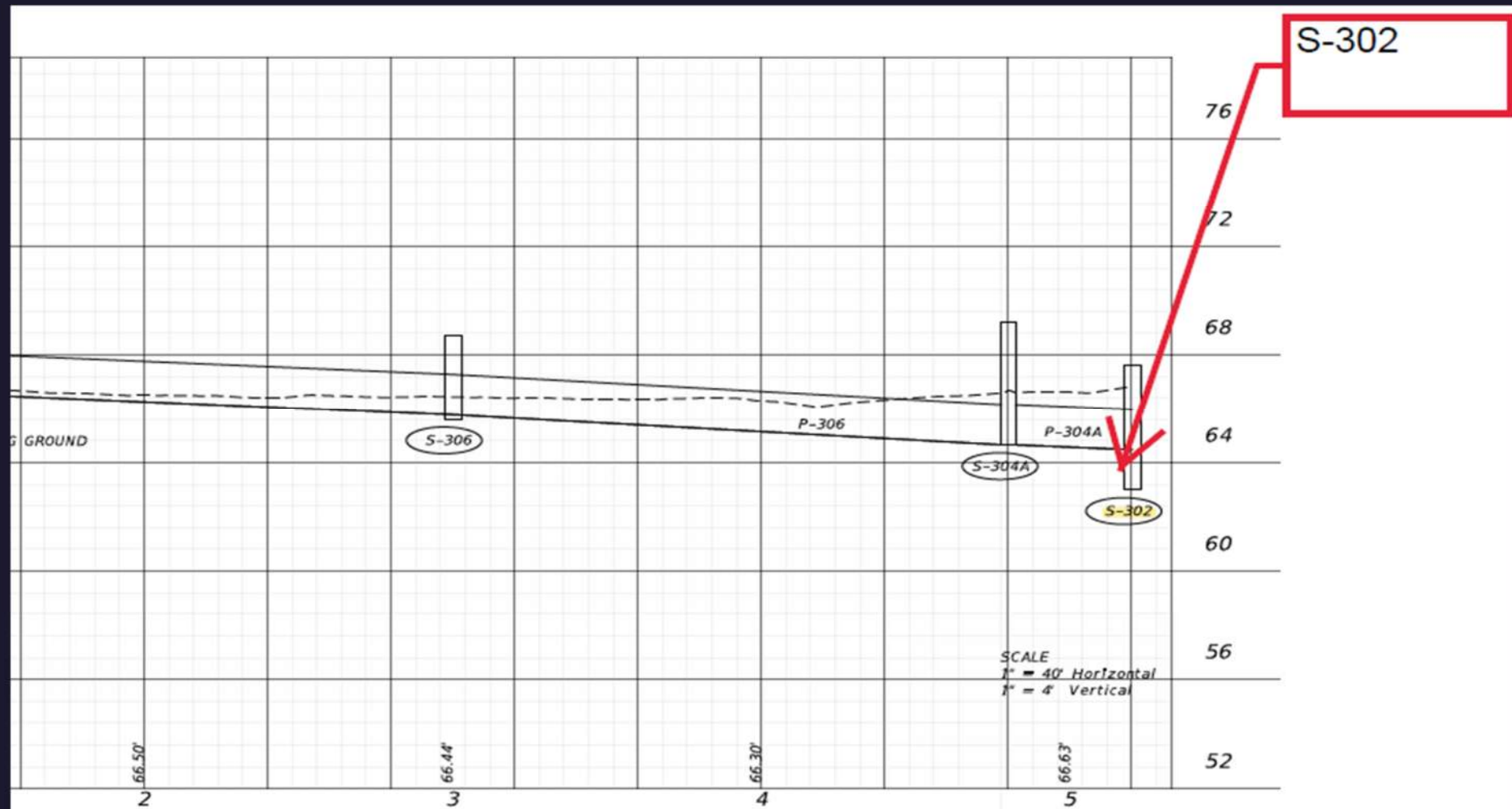
- Let's look at S-302
- I will start from the top left which is the roadway, bottom left to grade, then top right to charts



# NexGen Plans Non-Standing Subcommittee Monthly Meeting



- Grade from pipe and structures
- However, it does not give us definitive details



# NexGen Plans Non-Standing Subcommittee Monthly Meeting



- Now we move on to the Structure Data that show the reference point elevation, the sump elevation

Structure Data									
Label	Baseline Feature	Baseline Station (ft)	Baseline Offset (ft)	Structure Type	Bottom Dimensions	FDOT Standard Plans (400 index series) Notes	Reference Point Elevation (ft)	Sump Elevation (Structure Invert) (ft)	-Pipe-Label
S-301	CLSR91	1744+20	-73.13	GUTTER INLET TYPE S			67.81	63.2	
									(In) P-304
									(Out) P-301
S-302	CLSR91	1744+20	0.00	MEDIAN BARRIER TYPE 2			67.62	63	
									(In) P-306
									(In) P-301
									(Out) P-302



# NexGen Plans Non-Standing Subcommittee Monthly Meeting



Poll Question:

How many people in this room off the top of your head know the size and dimensions of a Type 2 Median Barrier structure?



A Show of Hands Please



# NexGen Plans Non-Standing Subcommittee Monthly Meeting



- Let's look at that again... Notice that this chart only references the Sump elevation grade.

Structure Data									
Label	Baseline Feature	Baseline Station (ft)	Baseline Offset (ft)	Structure Type	Bottom Dimensions	FDOT Standard Plans (400 index series) Notes	Reference Point Elevation (ft)	Sump Elevation (Structure Invert) (ft)	-Pipe-Label
S-301	CLSR91	1744+20	-73.13	GUTTER INLET TYPE S			67.81	63.2	
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									(Out) P-301
S-302	CLSR91	1744+20	0.00	MEDIAN BARRIER TYPE 2			67.62	63	
									(In) P-306
									(In) P-301
									(Out) P-302



# NexGen Plans Non-Standing Subcommittee Monthly Meeting

SO, WHAT EXACTLY IS THE SUMP ELEVATION?



The sump elevation (structure invert) refers to the inside bottom elevation of the structure



The SUDA program (drainage software that develops the table data from the model) automatically deducts one foot from the lowest pipe invert in that structure



The one foot offset down to the structure invert is to allow a cut out hole in the box which typically is a one foot bigger than the pipe diameter



# NexGen Plans Non-Standing Subcommittee Monthly Meeting

SO, WHAT EXACTLY IS THE SUMP ELEVATION?

We can see a few issues with this one, most of us do not have access to the SUDA program so finding the outside bottom invert of the pipe would have to be calculated.

This also significantly increases the margin of error.

There is nothing on this plan sheet showing me what a Type 2 median barrier structure is or the size and dimensions. Nor the thickness of the structure.

I am sure we can find it somewhere in the plan set but it should be noted on the plan sheet I am referencing.

Honestly, a type 2 of any of type of structure except for a few has not had any significance for relocation purposes until now.

# NexGen Plans Non-Standing Subcommittee Monthly Meeting



- Below is the pipe data which shows some basic information regarding the pipe length, size and invert.

Pipe Data								
Label	Barrels	Length (Construction) (ft)	Size	Start Node (Upper)	Start Invert (ft)	Stop Node (Lower)	Stop Invert (ft)	Optional Pipe
P-301	1	69	24 inch	S-301	63.2	S-302	63	
P-302	1	69	24 inch	S-302	63	S-303	62.85	
P-303	1	17	24 inch	S-303	62.85	S-302A	62.8	
P-304	1	165	18 inch	S-304	63.96	S-301	63.2	



# NexGen Plans Non-Standing Subcommittee Monthly Meeting

- I want to take a minute to say thank you but also, I felt like this is one of many the major hurdles we need to address as we continue to transition to the Next Gen Plans




# NexGen Plans Non-Standing Subcommittee Monthly Meeting

FDOT Response  
Letter Received  
July 21, 2023

# NexGen Plans Non-Standing Subcommittee Monthly Meeting

- The FDOT has submitted a response letter to the FUCC's letter to Tallahassee that was sent on May 8<sup>th</sup>.
- The committee is reviewing the letter and responses against the concerns presented in the FUCC's letter
- Discussions will be had at the next NexGen Meeting

Wednesday, August 2, 2023



**Florida Department of Transportation**  
605 Suwannee Street  
Tallahassee, FL 32399-0450

RON DESANTIS  
GOVERNOR

JARED W. PERDUE, P.E.  
SECRETARY

July 21<sup>st</sup>, 2023

Mr. Chris Stermer, Chair  
Ms. Tara Miller, Vice Chair  
Florida Utility Coordinating Committee (FUCC)  
PO Box 2561  
DeLand, FL 32721

**Subject: Utility Coordination using NexGen Plans**

Mr. Stermer and Ms. Miller:

We have received your letter dated May 8, 2023, and wish to thank you for sharing your concerns. Utility coordination is critical to the success of delivering the Department's work program and FDOT will work diligently with your committee and other interested stakeholders to resolve any issues that are a barrier to completing the necessary process. We support your recommendation to hold an in-person workshop to discuss and explore mutually agreed upon solutions that address the needs of the Utility Agency Owners (UAO).

Below are our initial responses to the "Summary of Concerns". We look forward to further discussions on these topics.

1. Concern: Not many NexGen projects to date.  
  
The use of FDM 900 series (Model-centric) for plans production has been required for projects developed using Bentley's Open Roads Designer (ORD) CADD platform for more than four years. What is called "NexGen Plans" have been making their way to construction on increasing numbers over the last year. Examples of these plans will be provided.
2. Concern: Large Format Sheets (24"x36", 36"x48", or 36"x72").  
  
FDM Table 900.3.1 provides a summary of allowable sheet sizes for each sheet used in the Contract Plans. When multiple sizes are allowed, the designer is to select the size that will most efficiently display the information. The information is complete and to the same scale regardless of sheet size selected.  
  
When the large format size is selected for the Contract Plans, and the UAO has expressed the need for 11"x17" paper prints, the Department can provide Work Sheets. These Work Sheets have the same content and accuracy as the contract plan sheet.

www.fdot.gov





Florida Department of Transportation

605 Suwannee Street  
Tallahassee, FL 32399-0450

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3. Concern: Costs associated with purchasing technology to support NexGen Plans have been delivered to UAO as PDFs for more than 15 years. UAO staff be familiar opening and viewing these files on a computer (desktop or laptop) or free PDF Reader. PDF Readers also provide the ability to measure, markup, print comments, and zoom in to get a better view of areas of concern.

It is acknowledged that some UAOs that are not as advanced with technology a require paper plans for field work. As stated above, 11"x17" Work Sheets can be provided for large format contracts plan sheets.

For a project requiring utility coordination, it is expected that a plan set would have more than three large format sheets. The approximate cost to plot a black & white format sheet at a reprographics company (Staples, Kinko, Blueprint Printing) is follows:

- 24"x36" \$2 - \$3
- 36"x48" \$4 - \$8
- 36"x72" \$6 - \$10

4. Concern: FDOT has not provided documentation, mandate, or State Stat The transition from legacy plan sets (FDM 300 series) to model-centric plan sets (900 series) began in the fall of 2018. This transition was caused by a change in CADD application used to produce the plan sheets. As part of the transition, large format plans were introduced to support the Department's digital initiatives, increase plans production efficiencies, and adapt to the new workflows required by the new CADD platform.

It is acknowledged that the UAM 5.1.2 states that "project drawings are provided UAO for markup in an agreeable format". Additional discussions are needed to determine what is needed for UAOs to complete their work.

5. Concern: Utility Work Sheets

The information provided in the Work Sheets is mirror copy, and at the same scale as the large format contract plan sheet. Currently, it is not the intent to add call out level required of a contract plan set. There may be Work Sheets that do not have certain call outs. If the user is unsure what the line is representing, they will need to look at a previous sheet that has the call out, or the contract plan sheet for clarification and then note it on the sheet that does not have the call out.

The Department's staff hour forms are being modified to compensate consultant development and delivery of Work Sheets.

6. Concern: New Drainage Structure Sheet

The Drainage Structure Sheet contains plan view and profile views that show vertical and horizontal relationship between existing utilities and drainage structures. The table data provides flow line and structure bottom elevations. The Department also provides a Utility Conflict Matrix to further identify locations of concern.

The major change is the production of profile views in lieu of drainage cross sections. A profile view of the drainage system is shown from the highest structure elevation to the outfall, illustrating pipe, structures, utilities, and existing and proposed ground.

7. Concern: Cross Sections Sheets

Cross section sheets are required to be generated and delivered separately (outside the plans set) for each design phase submittal. The Department's staff hour forms continue to have a line item to produce cross section sheets.

These sheets are batch plotted and most often are large format sheets. These sheets are considered informational and not a contract document.

8. Concern with electronic format

The Department provides all required documents in PDF format. The use of a CADD application is not needed.

9. Large File size of the NexGen Plans

One large format sheet can display up to 2 miles of the project corridor. That same 2 miles would require 15 11"x17" sheets. The large format sheet is significantly smaller in file size than the equivalent 11"x17" sheets. It is when aerial images are used in a plan set that the file size can be big.

10. Permitting Requirements per UAM

Profile views of the drainage structure system is provided in the plans. Drainage structure cross sections are no longer produced. Cross section sheets are provided as a separate PDF. Further discussion is needed to understand the issues with permitting.

We look forward to partnering with FUCC to assure continued success with the utility coordination process.

DocuSigned by:  
*Patrick Overton*  
448E602DC0AE44F...  
Patrick Overton, P.E.  
FDOT State Utility Engineer

# NexGen Plans Non-Standing Subcommittee Monthly Meeting

Future FDOT  
Workshop at the  
August 9th  
Subcommittee  
Meeting



# NexGen Plans Non-Standing Subcommittee Monthly Meeting



- FDOT will participate on the Wednesday, August 9<sup>th</sup> TEAMS meeting at 10 am
- Please plan to attend the meeting



# NexGen Plans Non-Standing Subcommittee Monthly Meeting

## Open Discussion



### Notice:

We have a diverse grouping of individuals attending from many facets within the industry. It is important to note that the opinions expressed in this meeting are that of the individual. Consultants participating in the discussion are not speaking on the behalf of or representing the FDOT or any other agencies during the discussion.



Thank You!  
We Appreciate Your  
Time in Helping to  
Find Solutions!

Co-Chairs

Shaun Purvis, AT&T Florida  
Email: [sp76lp@att.com](mailto:sp76lp@att.com)

Melonie Schwartz, Inwood  
Email: [mschwartz@inwoodinc.com](mailto:mschwartz@inwoodinc.com)

Join Us on our next  
TEAMs Meeting

August 9<sup>th</sup>  
10 am



Please fill out & pass on to the next person.

AUGUST 2023 TELECOM/UNDERGROUND INTEREST GROUP SIGN IN SHEET

FIRST	LAST	COMPANY	EMAIL	PHONE NUMBER
Heather	Dean	Harbor coordination solutions.	Heather@harborcoordination.com	727 421 4447
KADIAN	MCLEAN	FDOT - D4	KADIAN.MCLEAN@DOT.STATE.FL.US	954-777-4360
Laurie	Jackson	TRC	LJackson@TRCCompanies.com	
GREG	COKER	FPL	GREGORY.COKER@FPL.com	813-422-8232
MARIAH	MADER	KCI	mariah.mader@kci.com	954 607 9103
KATITY	MADER-BROWN	KCI	kathy.maderbrown@kci.com	954 816 6523
CARLOS	PALENZUELA	SMART CITY	C.PALENZUELA@SMARTCITY.COM	321-436-1810
Joe	Bitar	FDOT/TPK	Joe.Bitars@dot.state.fl.us	407-264-3007
MARIA	BAUCOM	AYRES	baucomm@ayresassociates.com	813 558 3367
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please fill out & pass on to the next person.

AUGUST 2023 TELECOM/UNDERGROUND INTEREST GROUP SIGN IN SHEET

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Please fill out + pass on  
to the next person

AUGUST 2023 TELECOM/UNDERGROUND INTEREST GROUP SIGN IN SHEET

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NEXGEN PLANS  
 NON-STANDING SUBCOMMITTEE MEETING  
 SUMMER 2023 MEETING - OCALA

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NEXGEN PLANS  
 NON-STANDING SUBCOMMITTEE MEETING  
 SUMMER 2023 MEETING - OCALA

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NEXGEN PLANS  
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 SUMMER 2023 MEETING - OCALA

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FDOT District 5

Plans Review

Utilities Coordination

Lessons Learned

# Topics of Discussion

## ❖ Plans Review

- What are 3 things we can be looking for in Construction during Plan Review.

1. Are there any Constructability issues?
2. Is there any hard conflicts?
3. What can we live with, and what needs to be addressed?

## ❖ Utility Coordination

- What are 3 things we can look for to see if the Utilities are following there UWS as Certified and is there any UWHC work involved in the project.
1. Have they submitted their permit, and do they need one.
  2. Is what they certified on their UWS going to work, now that we are construction.
  3. How can we get the Utilities started and completed as soon as possible.

# Plans Review

What are 3 things we can be looking for in Construction during Plan Review.



## Are there any Constructability issues?

When we are first looking at plans, we want to follow some simple but effective rules.

1. We skim through and do a surface check into the plans, does anything stand out to me?
2. Are there any Structures and Pipe that don't make sense? (ie. elevation, grade)
3. Do we have any Drilled Shafts, and Strain Pole foundations in the plans.

## Is there any hard conflicts?

When we are diving into plans a little deeper, some questions we always want to ask ourselves.

1. Are there anywhere in the plans where the storm structures and pipe cross the waterline, sanitary sewer and reclaimed pipe?
2. What is the +/- elevation of mainline pipe trunkline running through the project corridor?
3. What size and depth are the Drilled Shafts or Strain Pole foundations in the project corridor?
4. What is the proximity of the Utilities shown on the Conflict Matrix in reference to the Structures that are being installed in the Ground?

## What can we live with, and what needs to be addressed?

What can we build the job with, and what needs to be addressed before we even start construction time.

1. We want to review the MOT and the Lane Closure restrictions, are they viable.
2. Are there any ariel obstructions that can hinder an installation of a structure, mast arm, strain pole, or light pole installation.
3. Is there anything that can cause an ADA or Clear Zone requirement. (ie. pull boxes in ramps, an above ground hazard or drop off issues)
4. Do we have time to address any Procurement of Materials before time starts.

# Utility Coordination

What are 3 things we can look for to see if the Utilities are following their UWS as Certified and is there any UWHC work involved in the project.

## Have they submitted their permit, and do they need one.

What are some reasons that dictate whether they need a permit or not?

1. Will there need to be lane closures done by the UAO to perform their work? Or is it under FDOT Contractor Lane Closure?
2. Is the UAO performing Relocates, Hold - Guard & Protect, or Leaving in Place Out of Service?
3. If the UAO is not submitting a permit, are they meeting the requirements of the UAM Section 2.3 (Work Not Requiring New Permits).



## Is what they certified on their UWS going to work, now that we are construction.

What are some things that can change from Certification of the UWS, to when the Project goes to Construction.

1. Have the in-field conditions changed from what was initially there?
2. When was the date of the project let from when it was designed, did that change requirements? (ie. Buy America vs. Build America Buy America “BABA”)
3. Is the material procurement needed for the job not in the UWS?
4. Is the splicing or cutover requirements changed, and or Company buy outs and or policy changes affecting the time submitted in the UWS?
5. Did the plans have late changes in design and did not get sent to the Utilities for review and comment? (Per the UWS)

## UWS Language

Pursuant to Section 337.403 F.S., the UAO and FDOT agree to the UAO's need for relocation or adjustment to its utilities and FDOT's need for a schedule for the UAO to effect the relocation or adjustment. This utility work schedule is based on FDOT plans dated in the project information box below. Any deviation by FDOT or its contractor from these plans, may void this utility work schedule. Upon notification by FDOT of a change to these plans, the UAO may negotiate a new utility work schedule. The UAO agrees to notify FDOT and the contractor in writing prior to starting, stopping, resuming, and completing work in accordance with this utility work schedule. The UAO shall obtain a utility permit and comply with requirements of the 2017 Utility Accommodation Manual (UAM) for all work done under this utility work schedule. The UAO is not responsible for events beyond the control of the UAO that could not be reasonably anticipated by the UAO and which could not be avoided by the UAO with exercise of due diligence at the time of the occurrence.

# How can we get the Utilities started and completed as soon as possible.

Some Helpful approaches that you can apply to try and get the Utilities started early.

1. Can we get drilled shaft locations surveyed and located prior to or at the start of Construction.
2. Can we get the ROW laid out before time starts or as soon as possible.
3. Are we having a meeting or contact with the UAO prior to Construction to determine if they are prepared or have completed their work per the UWS.
4. Keep the Utilities engaged with their work is ongoing, and checking to make sure locates are performed in a timely manner and are accurate.

# Utility Work by Highway Contractor (UWHC)

Language to look for when you have a UWHC on your project.

- Section 2 E is where we tell the UAO what their responsibility is during Construction.
- Section 2 F also tells the FDOT what are responsibilities are during Construction.
- Section 2 G & H dictates to the UAO who has Authority over what.

## Lessons Learned

- The quicker we get Utilities onsite to complete their work the less chance we have of NOI's and claims.
- Anytime there are changes that effect the Utilities in Design, they must be sent to the Utilities for concurrence. Checking dates assures that the UAO was notified.
- The importance of checking the MOT plans to make sure they encompass the work that will take place.
- Is what is shown on the plans constructable.
- When we have UWHC's on the project knowing what everyone's role, is crucial.
- Getting out and walking the job will help you see the full picture of potential issues that may arise.



# Questions ?



Presenter: Josh Kelly

# Links to Standard Specifications & Design Standards

<https://www.fdot.gov/programmanagement/implemented/specbooks/default.shtm>

<https://www.fdot.gov/programmanagement/utilities/default.shtm>

# NJUNS OVERVIEW 2023 FUCC MEETING

Angie Weaver  
Operations Manager



# MEET OUR TEAM



Tim Webers, Executive Director 2014  
NJUNS Board Director, 2005-2014



Angie Weaver, Operations Manager  
2014



Mandy Johnson, Support Analyst  
2019





# AGENDA

- System Overview
  - Usage
  - Usage in Florida
  - Next to Go (NTG)
- Future enhancements







National Joint Utilities  
Notification System

# WHAT IS NJUNS?

A consortium of utilities formed to improve the communication of joint activities through web-based software that enables:

- Pole Transfer+ Notifications (violations, code or unauthorized attachments, etc)
- Pole Attachment Permitting & notifications
- Cleanup and Tracking of Double-Wood Poles





## WHAT NJUNS IS NOT

- Work Management System
- Asset Management System
- Pole Police
- Ticket Creator



# ABOUT NJUNS

- Non-profit incorporated in Georgia (1997)
  - Overseen by a Board of Directors; two per state
  - Owned by its users
  - Annual fee is cost shared by the state's users. The more companies contributing, the more affordable for everyone.
- \*\* New invoice system for 2023 is usage-based.





# NJUNS MEMBERSHIP NETWORK

- Approx. 3,800 entities utilize NJUNS through approximately 6,900 member codes
- 13,000 users in 29 states
- State user group meetings



# FLORIDA NJUNS

- **Florida Board of Directors**
- Ben Bowen – Florida Power & Light
- Randy Lyle – Tampa Electric
  
- Approx. 1,200 active users in FL
- 264 Active Member codes representing 114 companies

## Florida Sponsors

AT&T, Centurylink, Chelco, Clay Electric, Cox Communications, Florida Power & Light, GRU, Gulf Coast Electric, Gulf Power, JEA, LCEC, Duke Energy, Tampa Electric, Tri-County Electric and Verizon







# NJUNS BENEFITS

- Accountable documentation...date & time stamps
- Multiple, electronic notifications sent simultaneously
- Cost savings -Reduced postage/shipping, emails, phone calls, trips to field
- Provides permanent documentation
- Functionality to adhere to time-frames (FCC or state rules)
- Full Reporting Functionality



# REPORTING

- NJUNS offers multiple canned reports
- ✓ Any data can be extracted and exported to Excel for further manipulation. (xlsx, csv)
- Customized reports
- ✓ Staff can build customized reports, including automated reports



# TRAINING

- Training Documentation
  - ✓ User Manual
  - ✓ On-line video tutorials
  - ✓ Best Practices documentation
- Live weekly webinars by a staff member
- Training can be customized by state or for an individual company



# ASSET IMPORT TOOL

- Pole owners can upload poles into NJUNS for easier ticket creation
- ✓ Less errors
- ✓ More manageable to attachers when submitting pole attachment applications





# API

- Application Programming Interface
- ✓ Used to connect NJUNS with other systems (i.e. WMS)
- ✓ Used to create and update tickets in bulk
- ✓ Download data to be used for dashboards, databases, etc.
- ✓ Reporting



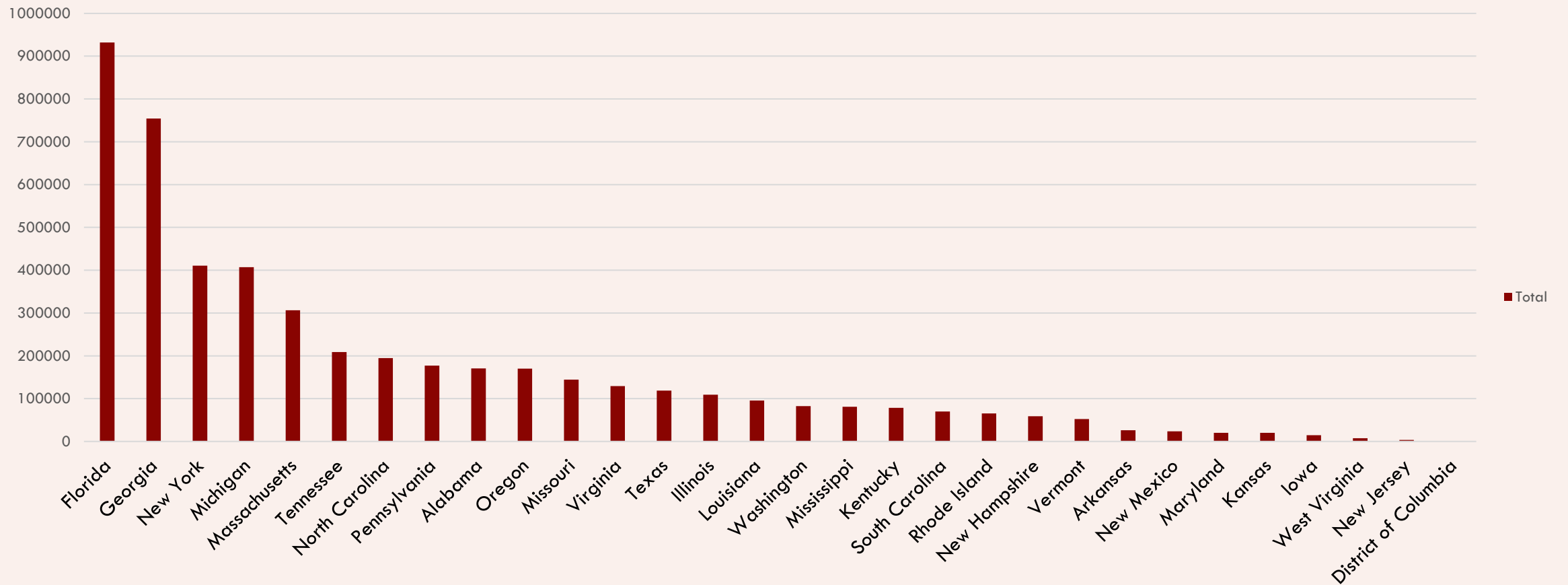
# NJUNS SUPPORT

- NJUNS provides full technical and user support
- Available Mon-Fri 8am – 5:30pm ET  
Phone: 818-485-2765  
Email at [support@njuns.com](mailto:support@njuns.com)



# NATIONWIDE USAGE - PT+

PT+ Tickets



# TOP NATIONWIDE PT CREATORS

- Florida Power & Light
- AT&T Southeast (SE States)
- Georgia Power Company
- Duke Energy (NC, SC, FL)
- DTE Energy (MI)
- Consumers Energy (MI)
- Verizon – MA/RI
- Ameren (IL)
- Verizon - NY



# TOP FLORIDA CREATORS

≈ Approx. tickets per year

- Florida Power & Light ≈ 55,000
- Duke Energy ≈ 9,000
- AT&T ≈ 8,000
- Jacksonville Electric Authority ≈ 2,000
- Clay Electric Cooperative ≈ 2,000
- Tampa Electric ≈ 1,000





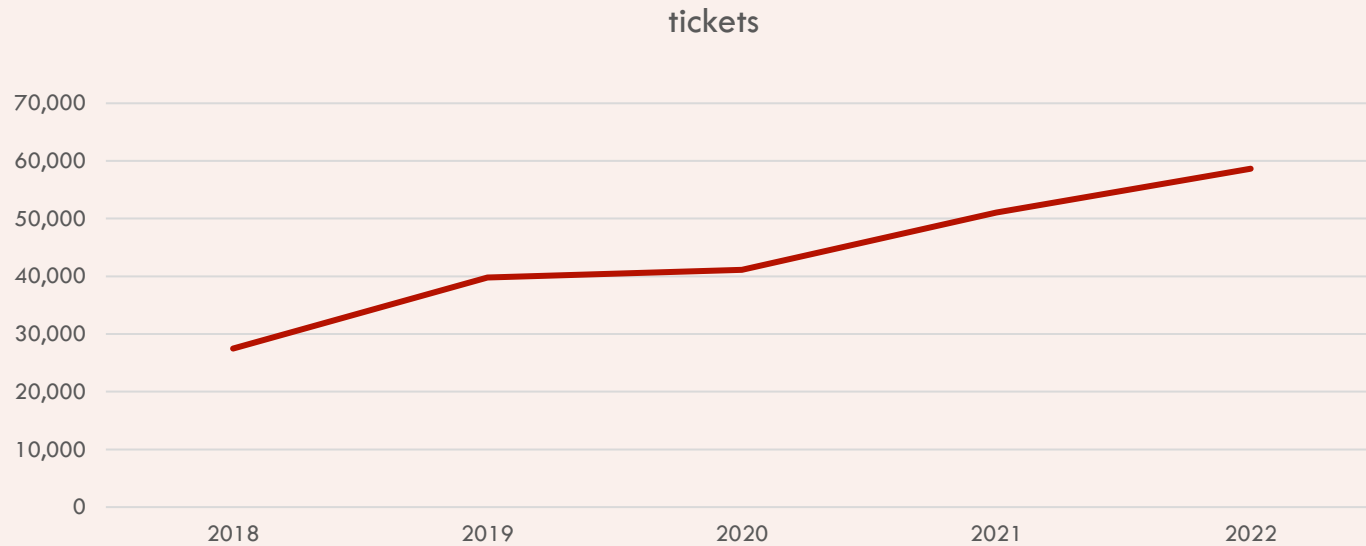
# FPL STATISTICS

2022 - June

Tickets created: 23,634  
Tickets closed: 12,972  
Tickets w/steps completed: 34,380

2023 - June

Tickets created: 16,052  
Tickets closed: 14,284  
Tickets w/steps completed: 42,317



# TOP FLORIDA UPDATERS

- Florida Power & Light
- Comcast
- AT&T
- Duke Energy
- Bright House Networks (Charter)
- Frontier Communications
- Crown Castle



# FLORIDA TICKET TYPES 2023

Ticket Type	Count of TicketType
New	13416
Transfer	12299
Pole Location Elimination	5271
Violation	2592
Pole Replacement	725
Other	92
Pole Abandonment	14
Make Ready	7
Aerial Clearance Review	2
Change of Ownership	1

Ticket Type definitions can be found on the website under Training/Best Practices. These are only suggestions.



# FLORIDA TICKET PRIORITY CODES 2023

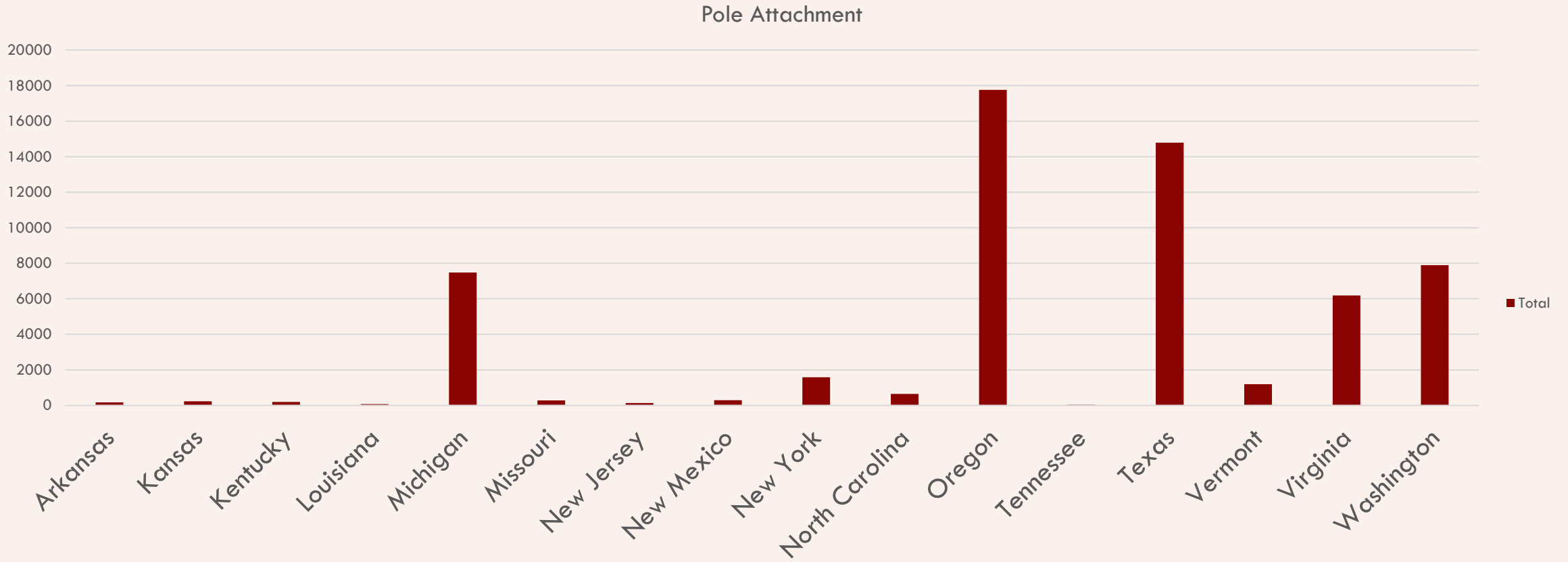
Priority Codes	Count of Priority
3	30526
6	2577
1	748
2	219
0	214
7	41
4	41
5	38
8	11
-1	4

## Florida Priority Codes

- 0 - Safety
- 1 - Customer Complaint
- 2 - Rush Work
- 3 - Maintenance/Relocations
- 4 - Make Ready
- 5 - Coordinating with Other Utilities
- 6 - Violation
- 7 - PSC Violation
- 8 - Miscellaneous
- 9 - Reserved



# POLE ATTACHMENT - NATIONWIDE USAGE





# TOP POLE ATTACHMENT USERS

- CenterPoint Energy (TX)
- PacifiCorp (WA, OR)
- Consumer Energy (MI)
- Dominion Energy (VA)
- Puget Sound Energy (WA)
- Lumen/CenturyLink (OR,WA)
- Portland General Electric (OR)
- Ziplly Fiber (OR, WA)
- Green Mountain Power (VT)



# HOW DOES NJUNS WORK?

- Web-based, can be accessed from any device with an internet connection.
- Tickets are created as a series of steps
- All parties are notified when a new ticket is Opened.
- When a company completes their step, a notification is automatically sent to the next step member telling them their step is now next to go (NTG) for completion.
- NTG means it's your turn.
- When all steps are completed the ticket creator/owner closes the ticket



Ticket #  Creator  NTG Member  Priority  \*\*  
 Status  Owner  Start Date  Pole/Asset #

[Details](#) [Poles/Assets](#) [Associations](#) [Parties](#)

**^ Details**

Work Requested Date

State  \*\*

County  \*\*

Place  \*\* x

Contact Name

Contact Phone

Contact Email

Reference Id

Misc Id

# of Poles/Assets

Remarks  [Full Screen](#)

**^ Asset 1**

House number

Street1

Cross street

Latitude

Longitude

Zip code

Private property

Pre existing

Response Request Date is when work should be completed

**^ Steps**

- 

#	Updated On	Member	Job Type	Status	Interval	NTG Start	Response Request	Completed On	Field Completed On
1	05-12-2023 11:58	<a href="#">UPC2</a>	<a href="#">SET POLE</a>	Complete	30	05-13-2023	06-11-2023	05-12-2023	05-12-2023
2	05-12-2023 11:58	<a href="#">BSTADM</a>	<a href="#">TRANSFER</a>	Complete	30	05-13-2023	06-11-2023	05-12-2023	05-12-2023
3	05-12-2023 11:58	<a href="#">UPC7</a>	<a href="#">TRANSFER</a>	NTG	30	05-13-2023	06-11-2023		
4	05-12-2023 11:58	<a href="#">UPC2</a>	<a href="#">PULL POLE</a>	Pending	30		07-11-2023		

# FUTURE ENHANCEMENTS

Ticket map icons more distinguishable





# FUTURE ENHANCEMENTS

- Identify exact location on map (instead of getting close)



- Show user location on map (good for in the field)





# FUTURE ENHANCEMENTS

Make Ready Tickets will require a Copy party or Attach step

Ticket - MR4412567 - Make Ready (MR) - MR:PT-Default

Ticket #	4412567	Creator	UPC	NTG Member	UPC	Priority	
Status	Draft	Owner	UPC2	Start Date	06-15-2023	Pole/Asset #	222

Details Poles/Assets Associations Parties

Details	Asset 1
Work Requested Date	House number
State	Street1
County	Cross street
Place	Latitude
Contact Name	Longitude
Contact Phone	Zip code
Contact Email	Private property
Reference Id	Pre existing
Misc Id	
# of Poles/Assets	
Remarks	

Required a Copy party or an Attach step. ✕



# QUESTIONS

Angie Weaver,  
Operations Manager  
818-485-2765, ext. 3  
[aweaver@njuns.com](mailto:aweaver@njuns.com)



# Research Update on Transportation-Related Utility Issues

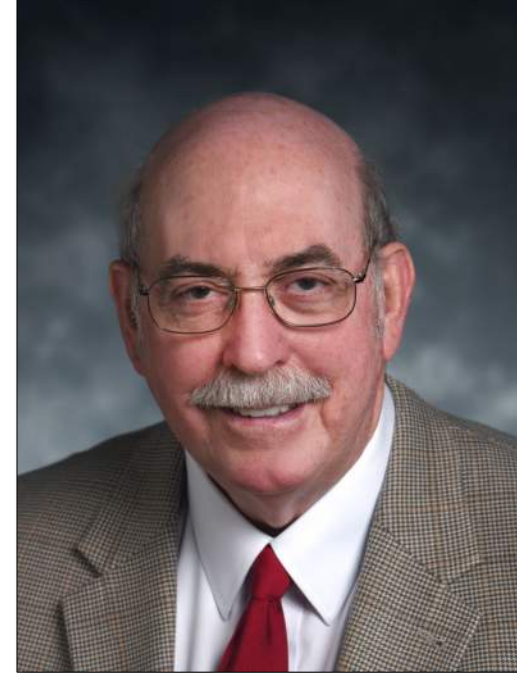
**Gary Young and Cesar Quiroga**  
Texas A&M Transportation Institute

FUCC Summer Meeting, August 2023

# Presenters



**Cesar Quiroga, PhD., P.E., F. ASCE**  
Senior Research Engineer  
Manager, Utility Engineering Program  
[c-quiroga@tti.tamu.edu](mailto:c-quiroga@tti.tamu.edu)



**Gary Young, P.G., CPG, M. ASCE**  
Research Specialist  
Utility Engineering Program  
[g-young@tti.tamu.edu](mailto:g-young@tti.tamu.edu)



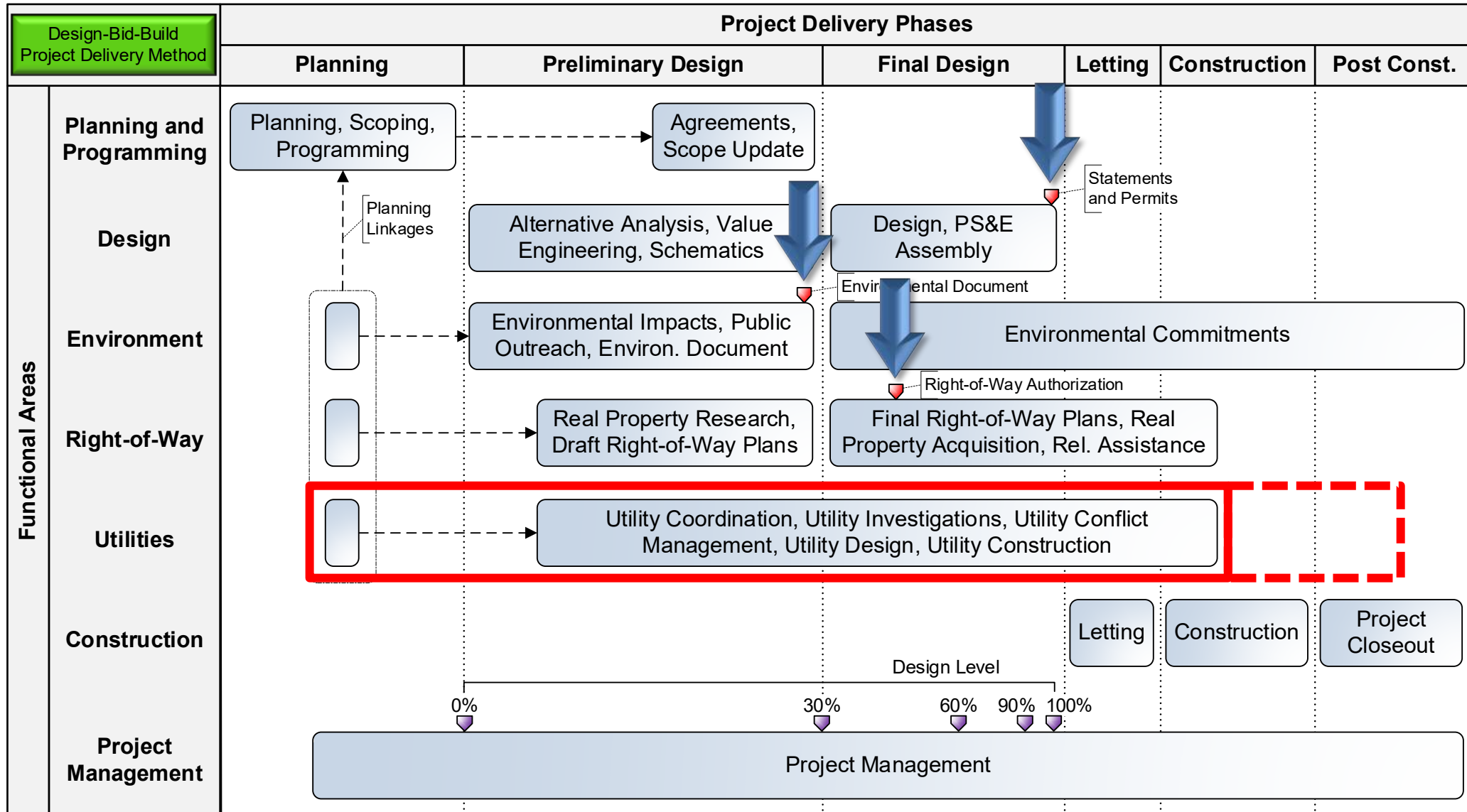
# Topics

Information in this talk comes from classes taught regularly by TTI and from completed and ongoing research.

- Utility engineering within the project delivery process
- Research and technology/knowledge transfer
- Low-cost technologies changing the way we manage utilities within the ROW
- Ongoing SUE related research
- AI processing and interpretation of utility investigation data
- Introduction to a new service coming to Florida



# Project Delivery Process



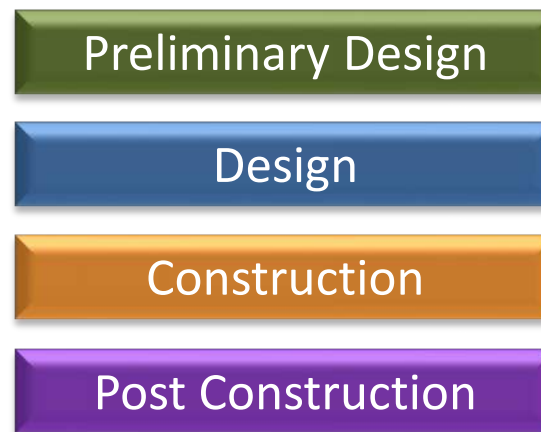


# Utility-Related Risks During Project Delivery

Results in impacts during

Impacts during Preliminary Design

Failure to recognize, address, and manage utility risks early



- Insufficient ROW assessment
- Inadequate assessment of utility needs
- Inadequate environmental review
- Suboptimal project alignment
- Insufficient project cost estimate
- Unrealistic project delivery schedule

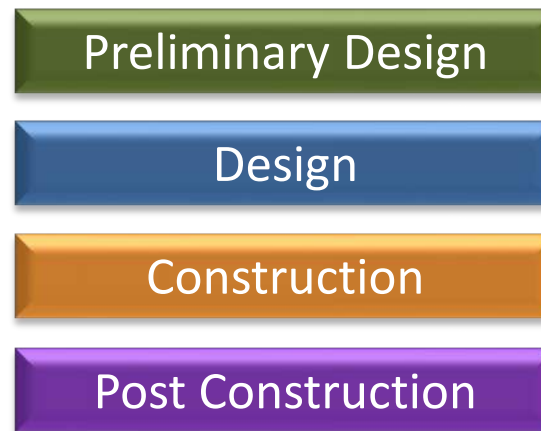


# Utility-Related Risks During Project Delivery

Results in impacts  
during

Impacts during  
Design

Failure to recognize,  
address, and manage  
utility risks early

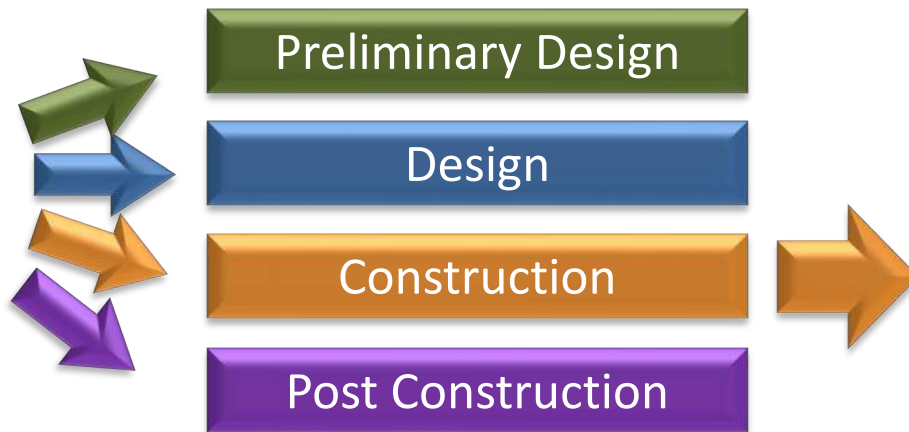


- Unnecessary utility relocations
- Suboptimal project design
- Utility process becomes part of critical path
- Letting date delays
- Insufficient project cost estimate
- Antagonistic relationship with utility owners



# Utility-Related Risks During Project Delivery

Results in impacts  
during



Impacts during  
Construction

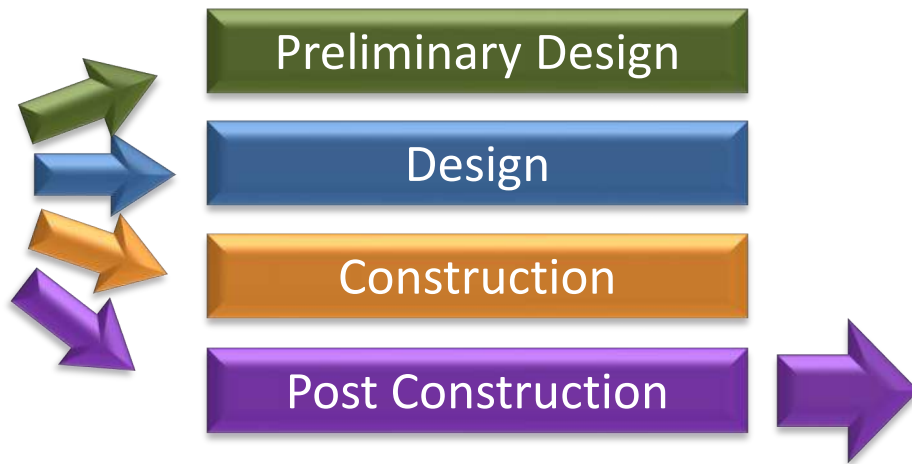
Failure to recognize,  
address, and manage  
utility risks early

- Construction site disruptions
- Damage to utility installations
- Unplanned environmental corrective actions
- Unnecessary utility relocations
- Project delays and higher project costs
- Litigation by affected stakeholders
- Public complaints about project delivery



# Utility-Related Risks During Project Delivery

Results in impacts  
during



Impacts during  
Post Construction

- Outstanding utility invoices and payments
- Unsupported actual utility relocation costs
- Delays getting federal-aid reimbursements
- Litigation by affected stakeholders
- Unplanned environmental corrective actions



# Construction Site Disruptions

- Unavailable or incorrect information about existing utilities
- Out-of-service lines not shown on the plans
- Wrong or not visible One Call markings





# Damage to Utility Installations

- Utility service interruptions
- Release of dangerous, explosive liquids and gases
- Risks to health and safety





# Unplanned Environmental Corrective Actions

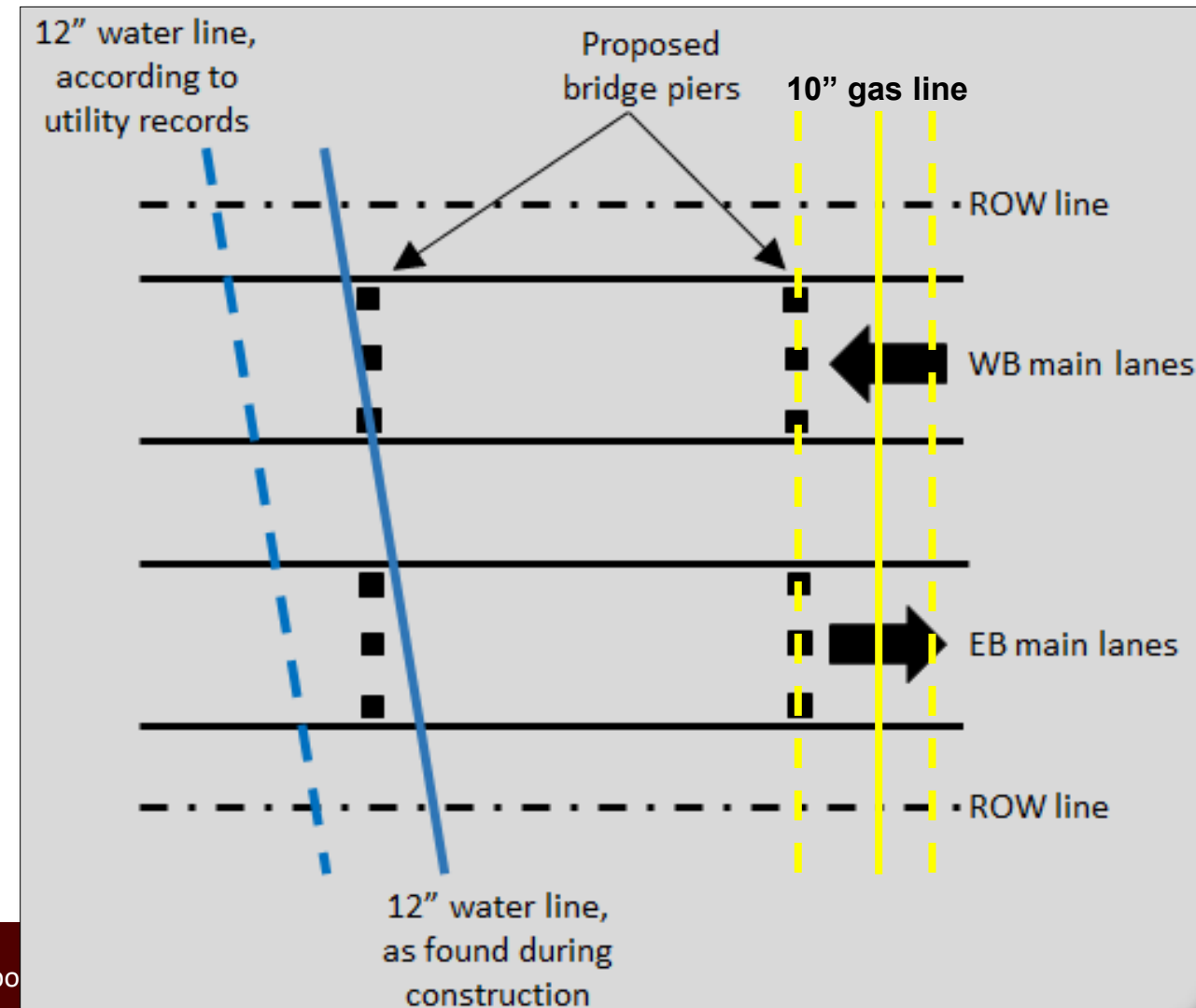
- Asbestos-cement pipes
  - Production stopped in 1970s
  - Special care for asbestos
- Underground storage tanks and piping
  - Can be explosive
  - Can leak into the ground





# Unnecessary Utility Relocations and Other Project Inefficiencies

- Inadequate utility information results in:
  - Unnecessary utility relocations
  - Incorrect design of project features





# To Bridge the Gap...

- Must understand BOTH project owner and utility needs
- Working knowledge of BOTH agency and utility owner policies, procedures, and requirements
- Experienced in identifying, prioritizing, and mitigating risks for BOTH project owner and utilities
- Cross discipline design experience:
  - Highways, drainage, structures, traffic, right of way, utilities, etc.



# To Bridge the Gap...

- Ability to perform constructability reviews involving BOTH project owner projects and utilities
- Understand construction staging and sequencing constraints for BOTH project owner and utilities
- Experienced in resolving utility field construction issues
- Ability to recognize innovative utility solutions
- Ability to establish relationships with multiple stakeholders



# Expertise Needed for Infrastructure Projects

- Highway design
- Geotechnical
- Environmental
- Traffic
- Structural
- Hydraulic
- Construction management
- **Utilities**

Certifications and graduate-level programs exist at most engineering schools for these specialties...  
**BUT NOT FOR UTILITIES**

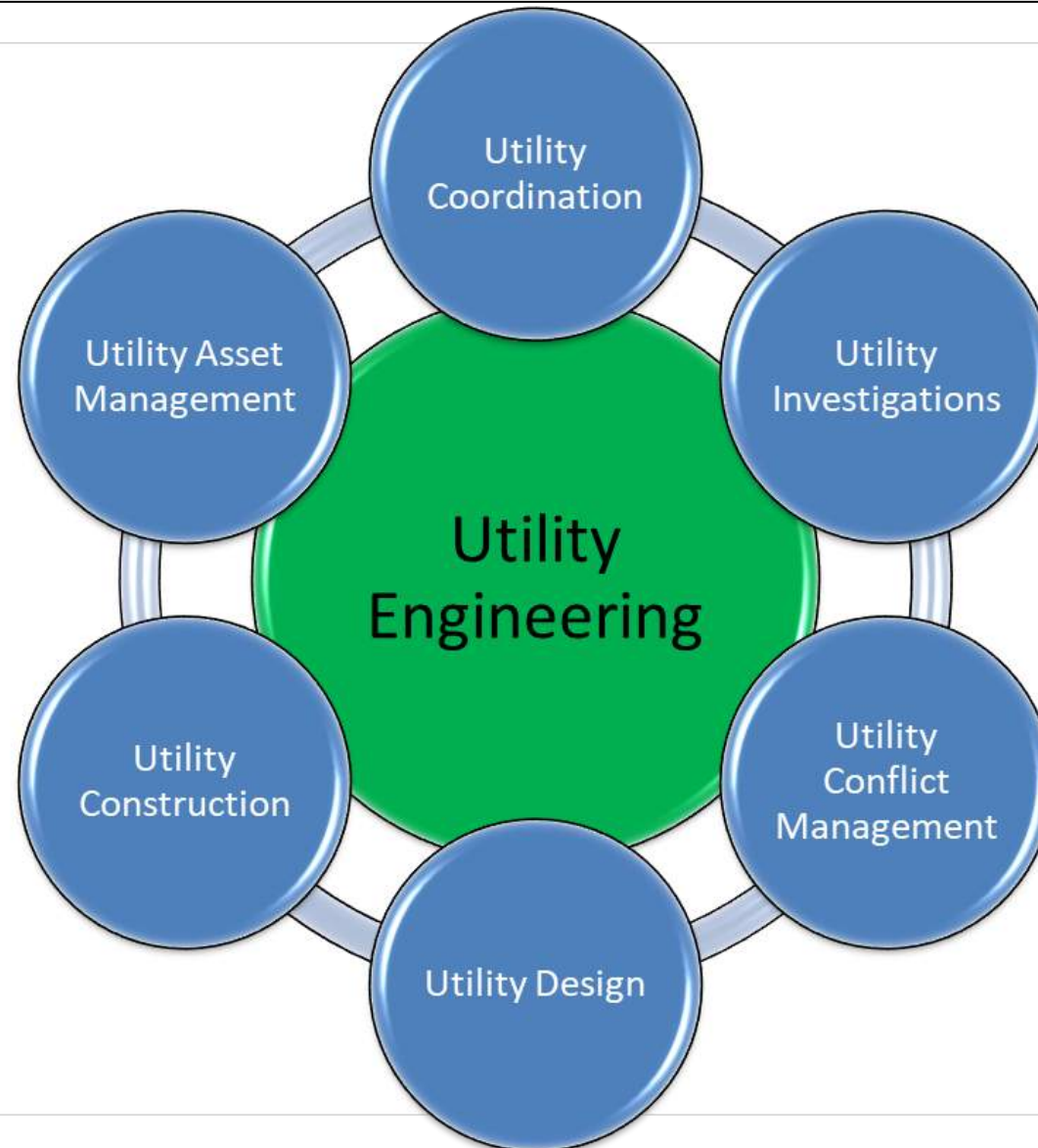


# Utility Engineering

- Utility Engineering is a branch of engineering that focuses on the planning, design, construction, operation, maintenance, and asset management of any and all utility systems, as well as the interaction (and interdependence) between utility infrastructure and other infrastructure.

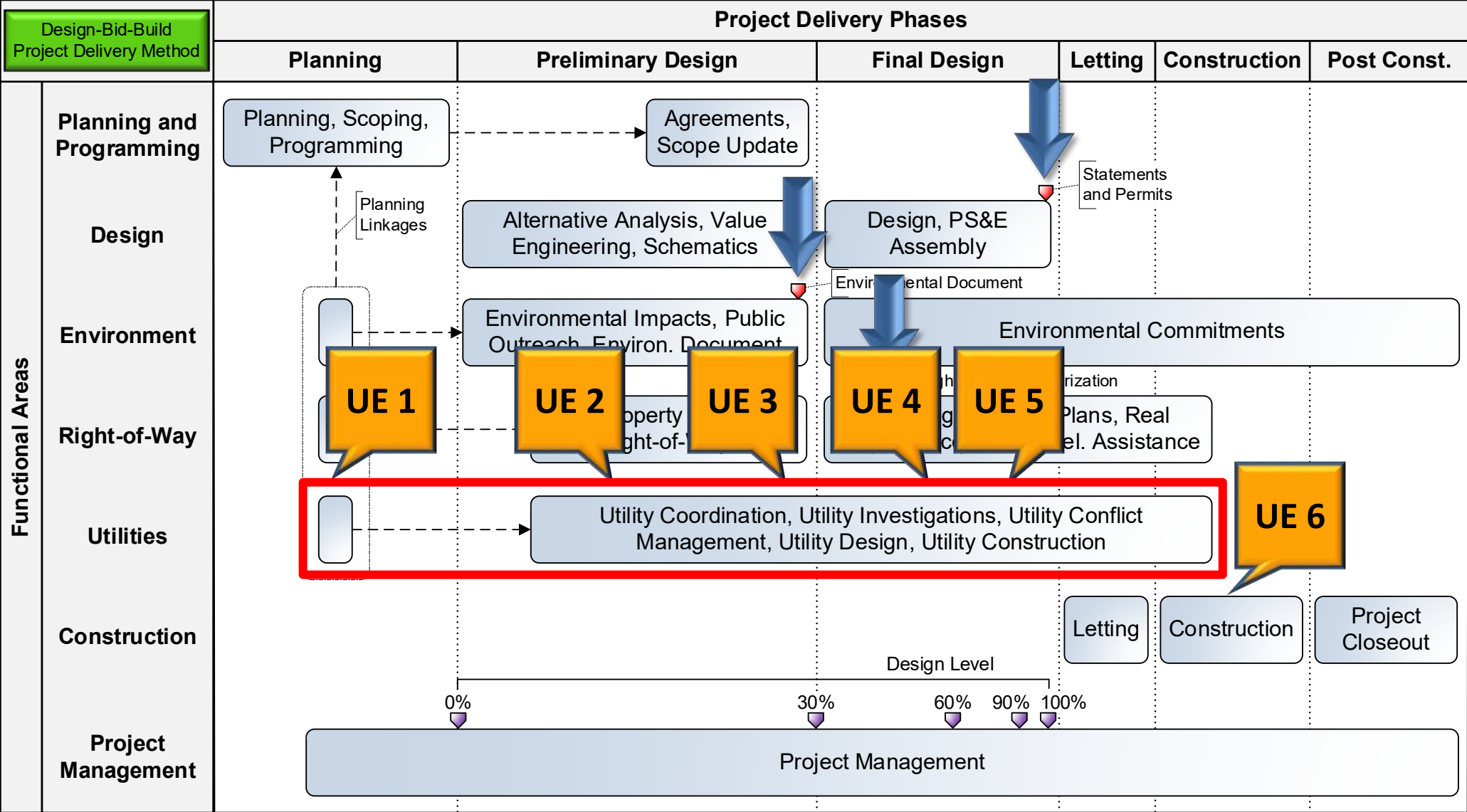


# Utility Engineering Framework





# Utility Engineering Stages





# Projects and Initiatives

- TRB Snap Search: <https://www.trb.org/InformationServices/Snap.aspx>

NATIONAL ACADEMIES Sciences Engineering Medicine

**TRANSPORTATION RESEARCH BOARD**

**TRB Snap Search: Right of Way, Utilities and Outdoor Advertising**

TRB's involvement in research on Right of Way, Utilities and Outdoor Advertising from 2019-2023

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All available Snap Searches can be accessed online here: <http://www.trb.org/InformationServices/Snap.aspx>

**TRB Research**

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- o Click here to view [search results](#) on TRB published research on Right of Way, Utilities and Outdoor Advertising within the past four years.

**Milestone Report**

- o [Access Management Manual, 2nd Edition](#)

**Specialty Reports**

- o [Critical Issues in Transportation 2019](#)
- o [COVID-19 Addendum to Critical Issues in Transportation](#)
- o [Racial Equity Addendum to Critical Issues in Transportation](#)

**Recent Reports & Publications**

- [Airport Cooperative Research Program \(ACRP\)](#)
  - o [Synthesis 110](#) - Airport Renewable Energy Projects Inventory and Case Examples
- [National Cooperative Highway Research Program \(NCHRP\)](#)
  - o [NCHRP 14-40](#) - Transforming Roadside Management and Technology Practices for the Benefit of Safety, Ecology, and Economy
  - o [NCHRP 20-07/Task 413](#) - Relocation and Acquisition of Outdoor Advertising Signs Impacted by State Highway Projects: Time and Cost Comparison
  - o [NCHRP 20-07/Task 407](#) - Utility Coordination Efficiency, Safety, Cost, and Schedule Impacts using various Contracting Methods
  - o [Legal Research Digest 87](#) - Encampments of Unhoused Individuals in Transportation Rights-of-Way: Laws and State DOT Practices
  - o [Legal Research Digest 81](#) - Legal Issues Concerning the Use of Transportation Facilities to Generate Revenue for State DOTs
  - o [Legal Research Digest 78](#) - Condemnation Hierarchy—Competing Public Uses
  - o [Legal Research Digest 76](#) - Update of Selected Studies in Transportation Law, Volume 8, Section 3: Indian Transportation Law
    - o [Report 1016](#) - Design Guidelines for Mitigating Collisions with Trees and Utility Poles
    - o [Report 1013](#) - Roadside Barrier Designs near Bridge Rail Ends with Restricted Rights-of-Way: A Guide
    - o [Report 927](#) - Access Management in the Vicinity of Interchanges, Volume 1: Practitioner's Guide
    - o [Report 927](#) - Access Management in the Vicinity of Interchanges, Volume 2: Research Overview
    - o [Report 924](#) - Application of Crash Modification Factors for Access Management, Volume 1: Practitioner's Guide
    - o [Report 924](#) - Application of Crash Modification Factors for Access Management, Volume 2: Research Overview

Updated 11/22/2022

- o [Report 943](#) - Design and Access Management Guidelines for Truck Routes: Planning and Design Guide
- o [Report 942](#) - Evaluating the Suitability of Roadway Corridors for Use by Monarch Butterflies
- o [Report 929](#) - Unsignalized Full Median Openings in Close Proximity to Signalized Intersections
- o [Synthesis 583](#) - Implementation of Subsurface Utility Engineering for Highway Design and Construction
- o [Synthesis 557](#) - Utility Pole Safety and Hazard Evaluation Approaches
- o [Synthesis 549](#) - Incorporating Roadway Access Management into Local Ordinances
- o [Web-Only Document 340](#) - Dynamic Curbside Management: Keeping Pace with New and Emerging Mobility and Technology in the Public Right-of-Way, Part 1: Dynamic Curbside Management Guide and Part 2: Conduct of Research Report
- o [Web-Only Document 336](#) - Proposed Guidelines for Fixed Objects in the Roadside Design Guide
- o [Web-Only Document 334](#) - Roadside Barrier Designs near Bridge Rail Ends with Restricted Rights-of-Way: A National Survey and Testing Reports

- [Transit Cooperative Research Program \(TCRP\)](#)
  - o [Report 233](#) - Strategies for Deterring Trespassing on Rail Transit and Commuter Rail Rights-of-Way, Volume 1: Guidebook
  - o [Report 233](#) - Strategies for Deterring Trespassing on Rail Transit and Commuter Rail Rights-of-Way, Volume 2: Research Overview

**Current & Upcoming Projects**

- **Current Projects**
  - o [NCHRP 15-69](#) - Utility Conflict Impacts During Highway Construction
  - o [NCHRP 11-08](#) - Improving Rights-of-Way Acquisition and Compensation Practices for Utility Relocation
  - o [NCHRP 15-81](#) - Guideline for Deploting Existing and Proposed Utility Facilities in Design Plans
  - o [NCHRP 20-06/Topic 23-04](#) - Laws Governing Homeless Encampments in Transportation Rights-of-Way
  - o [NCHRP 20-123\(06\)](#) - Merging and Updating AASHTO Policy on the Accommodation of Utilities within Freeway Right-of-Way and AASHTO Guide for Accommodating Utilities within Highway Right-of-Way
  - o [NCHRP Synthesis 20-05/Topic 53-04](#) - Practices for the Collection, Use, and Management of Utility As-Built Information
  - o [TCRP Synthesis I-07/Topic SA-60](#) - Examination of Transit Agency Coordination with Electric Utilities
- **Upcoming Projects**
  - o [NCHRP 08-148](#) - A Guide for Management of Out-of-Service Facilities
  - o [NCHRP 08-155](#) - Handbook for Addressing Racial Disparities in the Project Delivery Process
  - o [NCHRP 10-119](#) - Guidance for Implementing Utility Investigations in Alignment with Project Delivery
  - o [NCHRP 10-120](#) - Guide for Incorporating Right-of-Way and Utilities into Value Engineering Studies
  - o [NCHRP 17-122](#) - Evaluation of Trespassing Detection and Warning Systems in the Vicinity of Highway-Rail Grade Crossings
  - o [NCHRP 20-06/Topic 26-01](#) - Effects of Indian Treaties on Development and Operation of Transportation Facilities
  - o [NCHRP 20-139](#) - Guide for Addressing Encampments on State Transportation Rights-of-Way

**Reports from the National Academies Press on Right of Way, Utilities and Outdoor Advertising**

- o [Equitable and Resilient Infrastructure Investments](#)
- o [America's Geoheritage II: Identifying, Developing, and Preserving America's Natural Legacy](#)
- o [Quality Water from Every Tap](#)
- o [The Future of Electric Power in the United States](#)
- o [Bringing Fusion to the U.S. Grid](#)
- o [Enhancing Federal Clean Energy Innovation](#)
- o [Communications, Cyber Resilience, and the Future of the U.S. Electric Power System](#)
- o [Models to Inform Planning for the Future of Electric Power in the United States](#)
- o [Making Climate Assessments Work](#)
- o [Climate Communications Initiative Strategic Plan](#)

**Committees & Panels**

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**TRB Standing Committees** - Search by transportation mode and committee topic

- o [ACP60](#) - Access Management
- o [All60](#) - Eminent Domain and Land Use
- o [AKD60](#) - Utilities
- o [AMS20](#) - Resource Conservation and Recovery

Page 2

- o [AR060](#) - Rail Transit Infrastructure Design and Maintenance

**Task Forces** - Search for *task force* under committee here

**CRP Panels**

- o [D08148](#) - Utility Abandonment, Out of Service Plant, and Decommissioning without Removal on Public Right of Way
- o [D1108](#) - Assessing Practices for Right of Way Acquisition and Reimbursement in Utility Relocations
- o [D1569](#) - Utility Conflict Impacts during Highway Construction
- o [D1570](#) - Valuation of Permitting Utility and Communications Installations in Public ROW
- o [D1581](#) - Guideline for Deploting Existing and Proposed Utility Facilities in Design Plans
- o [D10120](#) - Guidance for Including Right-Of-Way and Utilities in Value Engineering Studies
- o [D2012306](#) - Merge and Update Policy on the Accommodation of Utilities Within Freeway Right-of-Way (2005) and A Guide for Accommodating Utilities Within Highway Right-of-Way (2005)
- o [D20129](#) - Best Management Practices to Address Encampments on State Highway Rights of Way
- o [SN5004](#) - Utility Pole Safety and Hazard Evaluation Approaches
- o [SN5205](#) - Implementation of Subsurface Utility Engineering for Highway Design and Construction
- o [ST6A60](#) - Examination of Transit Agency Coordination with Electric Utilities

**Councils**

- o [A001C](#) - Young Members Coordinating Council

**Recent and Upcoming Events**

**Upcoming TRB Conferences** - Use left hand menu to filter events

[Innovations in Travel Analysis and Planning Conference](#)  
June 4-6, 2023  
Indianapolis, IN

[National Conference on Transportation Asset Management](#)  
July 8-11, 2023  
Boston, MA

**Upcoming Events** - In the Upcoming Events tab under Types, choose what event you are interested in, search titles by keyword

**Past Events** - In the Past Events tab under Types, choose what event you are interested in, search titles by keyword

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- Reference and research assistance
- Literature searches
- Articles for TRB Committee work

The TRB Library provides training on effective and efficient use of the following TRIS resources:

- Transportation Research International Documentation (TRID) - [trid.trb.org](#) - The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation
- Transportation Research Thesaurus (TRT) - [trt.trb.org](#) - A tool to improve the indexing and retrieval of transportation information.
- Research in Progress (RIP) Database - [rip.trb.org](#) - Current or recently completed transportation research projects
- Publications Index (PubIndex) Database - [pubindex.trb.org](#) - The papers, articles and reports published by the Transportation Research Board, Strategic Highway Research Programs or the Marine Board

Contact or Questions: [TRBLibrary@nas.edu](mailto:TRBLibrary@nas.edu)

Page 3



# National Research Project Summary

Theme: Utility Accommodation	Status
AASHTO Utility Accommodation Policy Guide (NCHRP 20-123-06)	Complete
Best Practices for Utility Management in the Public Right-of-Way (Iowa DOT)	Complete
Solar Power within the Right-of-Way (California DOT)	Complete
EV Charging Infrastructure Readiness Plan (TxDOT 0-7169)	Active
Guide for Management of Out-of-Service Facilities (NCHRP 08-148)	New Active
Revenue Models for Electric Vehicle Charging (NCHRP 19-21)	Pending
NCHRP 10-140 (Managing Transportation ROW with Utility Awareness)	Anticipated



# National Research Project Summary

Theme: Utility Investigations	Status
UASs During Suboptimal Environmental Conditions (TxDOT 0-7063)	Complete
Utility Mapping with a Multi-Sensor Platform (SHRP2 R01B)	Complete
Unification for Underground Resilience Measures (NSF NYU)	Active
UAS, LiDAR, and Photogrammetry to Enhance Surveying (TxDOT 0-7157)	Active
Reconnaissance Scanning of Underground Utilities (TxDOT 0-7127)	Active
Early Identification and Location of Utility Facilities (Iowa DOT)	Active
Utility Investigations in Alignment with Project Delivery (NCHRP 10-119)	New Active
Removing Barriers for Sharing SUE and Digital As-Builts (NCHRP 10-135)	Anticipated



# National Research Project Summary

Theme – Utility Conflict Management and Utility Coordination	Status
ROW Acquisition/Utility Reimbursement Practices (NCHRP 11-08)	Complete
Project Development and Utility Coordination (Iowa DOT)	Complete
SHRP2 Implementation Assistance (FHWA)	Complete
Identification of Utility Conflicts and Solutions (SHRP2 R15B)	Complete
Utility Conflict Management (UCM) Implementation (TxDOT)	Active
Depiction of Utility Facilities in Design Plans (NCHRP 15-81)	Active
Impact of Utility Delays on Project Delivery (South Carolina DOT)	Active
UCM Implementation (Iowa DOT)	Active



# National Research Project Summary

Theme – Utility Conflict Management and Utility Coordination	Status
Guide for Incorporating ROW and Utilities in VE Studies (NCHRP 10-120)	New Active
Calculation of Reimbursement Levels for Utility Relocations (TxDOT 24-028)	Pending
Effectiveness of Construction Management Plans (TxDOT 24-040)	Pending
NCHRP 10-136 (ROW and Utility Risk Identification and Management)	Anticipated
NCHRP 10-138 (Earlier, More Effective ROW Engineering Involvement)	Anticipated



# National Research Project Summary

Theme – Construction and Utility Inspections	Status
Low-Cost Devices for Construction and Utility Inspections (TxDOT 0-7159)	Active
Utility Conflict Impacts during Construction (NCHRP 15-69)	Active



# Research Snapshots

- Utility-related change orders
- Utility investigations
- Utility conflict management (UCM)
- Construction and utility inspections

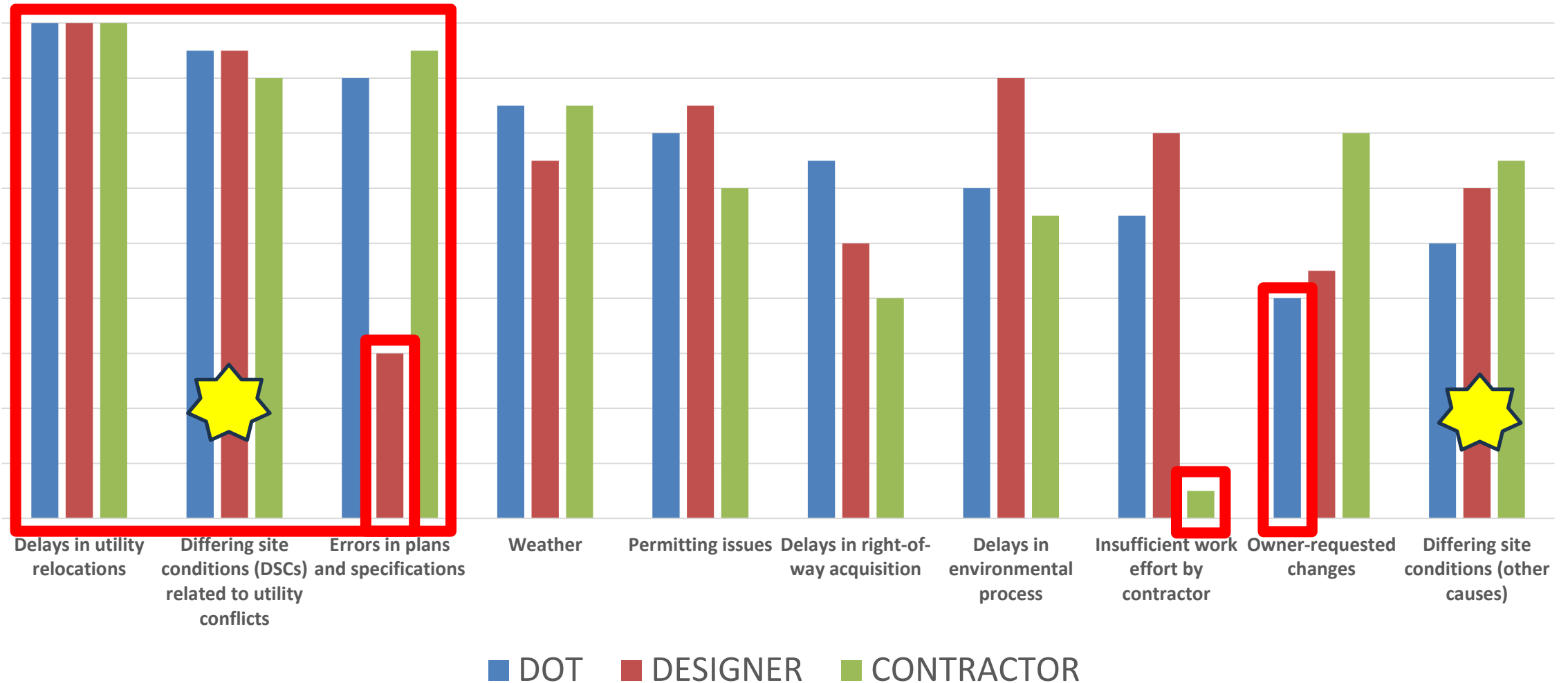


# Research Snapshots

- ➔ • **Utility-related change orders**
- Utility investigations
- Utility conflict management (UCM)
- Construction and utility inspections



# 2001 Study–Top Causes of Project Delays





# 2023 Study–Change Order Data

Case	Records	Comment
1	1,400	Utility-related issues. No change order codes.
2	4,200	Brief change order descriptions. Difficult to classify change orders.
3	11,600	Detailed change order descriptions. No change order reason codes.
4	19,900	Detailed change order descriptions. No change order reason codes.
5	250	Utility delay-related. Short description.
6	104,500	Detailed change order descriptions. Included change order reason codes.



# 2023 Study–Utility-Related (UR) Change Order Data

- Commonly used utility-related terms
- Artificial intelligence (AI) algorithms to detect trends and patterns that could indicate a change order was UR
- Review of description and justification columns
- Assignment of UR change orders to one of nine potential reasons



# 2023 Study–Utility-Related (UR) Change Order Data

- Reasons behind a substantial number of change orders:
  - Errors and omissions in PS&E
  - Inaccurate or incomplete data about existing or relocated utility facilities
  - Changes initiated by project owner, contractor, or utility owner
- Reasons behind a moderate-to-high number of change orders:
  - Delays getting utility owners to schedule utility relocations
  - Differing site conditions
- Reasons that do not often contribute to change orders:
  - Difficult or inadequate constructability of highway work or utility relocation
  - Inaccurate or deficient utility relocation work
  - Delays acquiring or clearing right-of-way or utility relocation sites

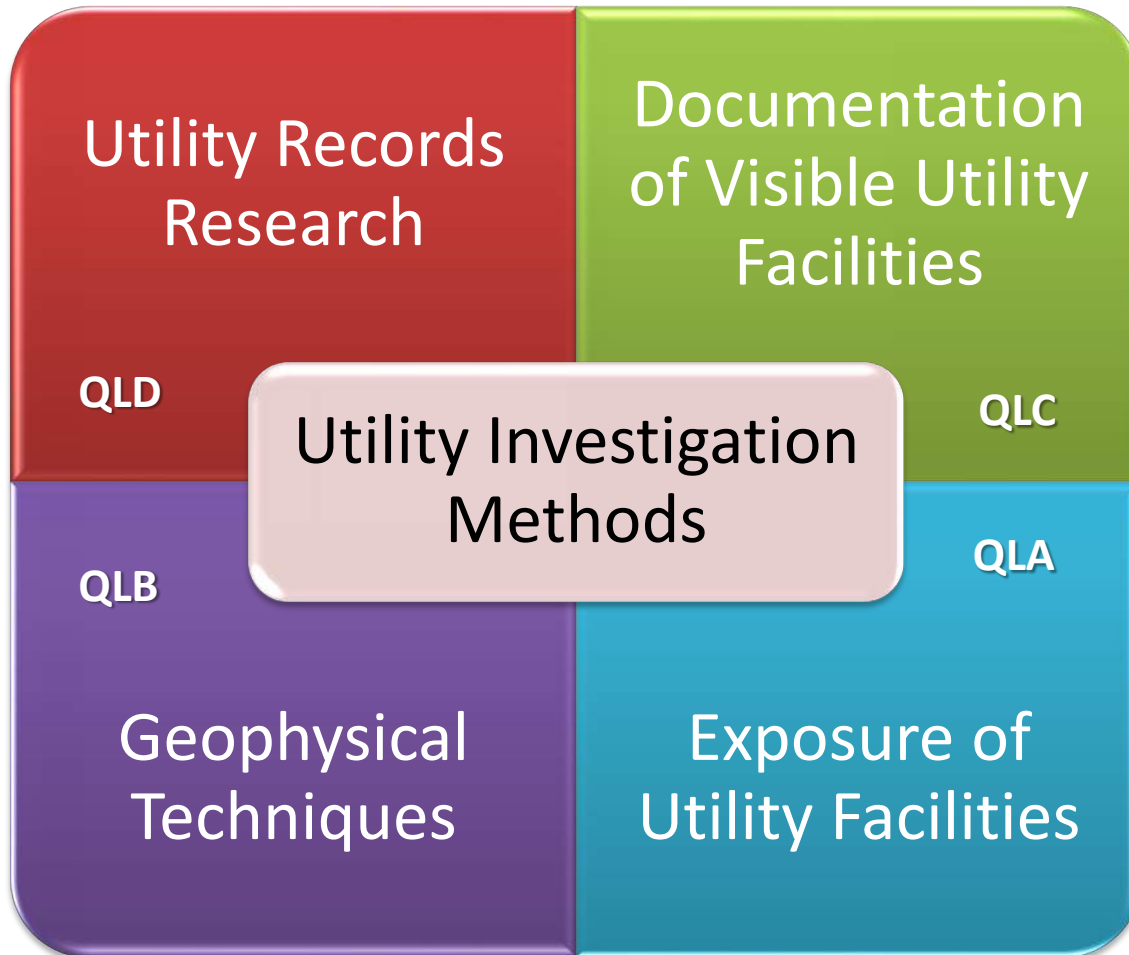


# Research Snapshots

- Utility-related change orders
- ➔ • **Utility investigations**
- Utility conflict management (UCM)
- Construction and utility inspections



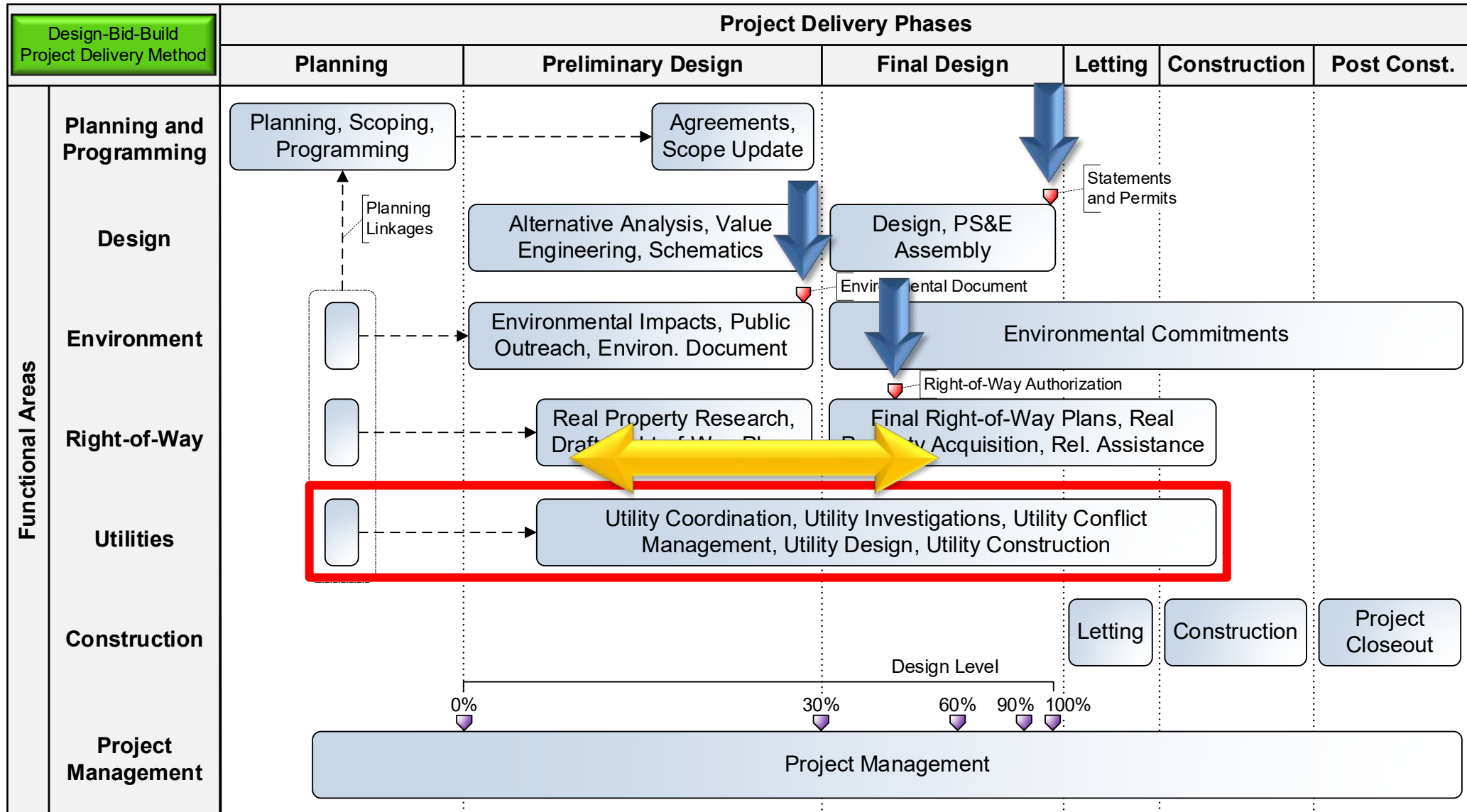
# Utility Investigation Methods



- Quality levels:
  - QLD, QLC, QLB, QLA
- Standard Guideline for Investigating and Documenting Existing Utilities
  - ASCE/UESI/CI 38-22



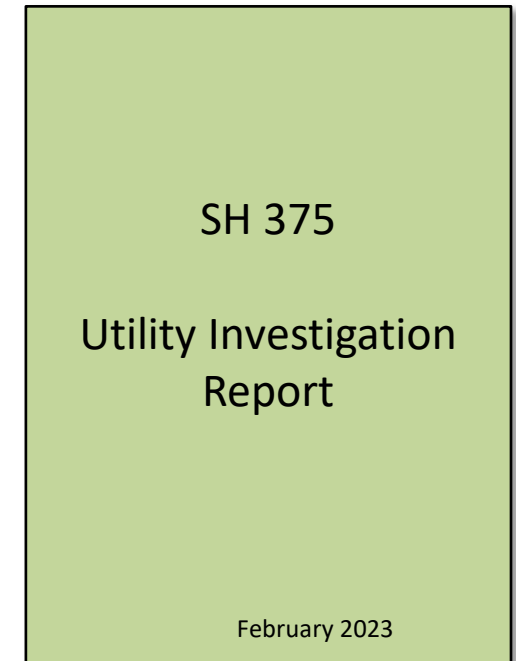
# Utility Investigation Methods





# Utility Investigation Deliverables

- Plans
- Test hole sheets
- Utility report
  - Project description
  - Methods and equipment used
  - Software used to process and depict utility data
  - Description of utilities located and depicted
  - Problems encountered and resolutions





# Best Practices for Utility Investigations

- Begin utility investigations early
- Use ASCE 38-22 for conducting utility investigations
- Use ASCE 75-22 for submitting utility investigation deliverables
- MicroStation/OpenRoads Designer:
  - Do not type in annotations/callouts to document utility features
  - Instead:
    - Use item types and properties to document utility features
    - Use annotations/call outs based on property values

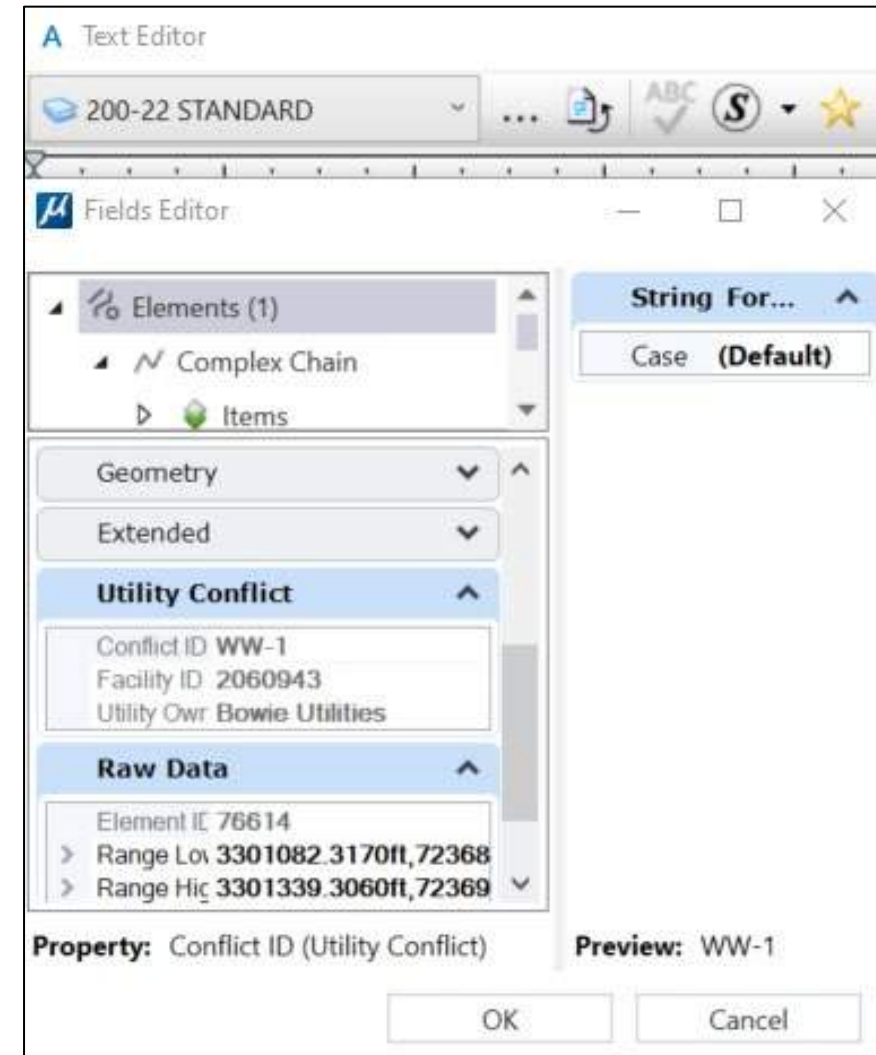
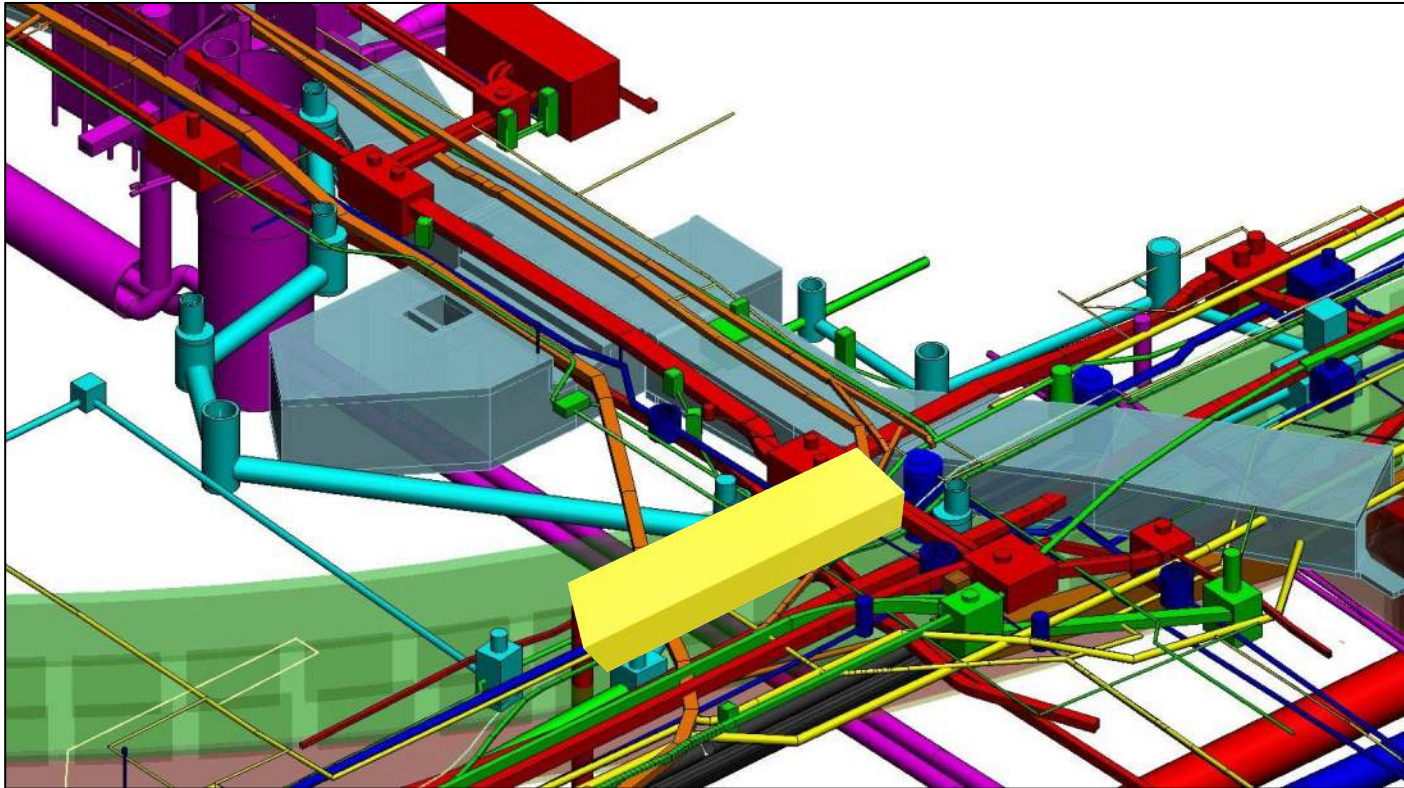


# Emerging Trends for Utility Conflict Management

- Use utility layout in MicroStation/OpenRoads Designer to:
  - Identify utility conflicts
  - Show utility conflict locations
  - Assign unique utility conflict IDs
- Integrate utility layout with utility conflict list/matrix to:
  - Prepare/maintain list of utility conflicts
  - Document utility conflict resolution alternatives



# Emerging Trends for Utility Conflict Management





# Emerging Trends for Utility Conflict Management

The image displays a software interface for utility conflict management. On the left, a 'Text Editor' window is open, showing a 'Fields Editor' panel. The 'Fields Editor' panel is divided into several sections:

- Elements (1):** A tree view showing 'Complex Chain' and 'Items'.
- Geometry:** A dropdown menu.
- Extended:** A dropdown menu.
- Utility Conflict:** A section containing:
  - Conflict ID: WW-1
  - Facility ID: 2060943
  - Utility Owr: Bowie Utilities
- Raw Data:** A section containing:
  - Element ID: 76614
  - Range Lov: 3301082.3170ft, 72368
  - Range Hic: 3301339.3060ft, 72369

At the bottom of the 'Fields Editor' panel, there are 'Property: Conflict ID (Utility Conflict)' and 'Preview: WW-1' fields, along with 'OK' and 'Cancel' buttons.

The background of the interface shows a map with utility lines. A white cloud-like shape highlights a specific area of conflict. The map includes labels for 'WESTON SMITH' and various utility lines, including 'WW' (wastewater) and 'G' (gas). Red arrows point from the highlighted area to the 'Fields Editor' panel.



# GPR Results

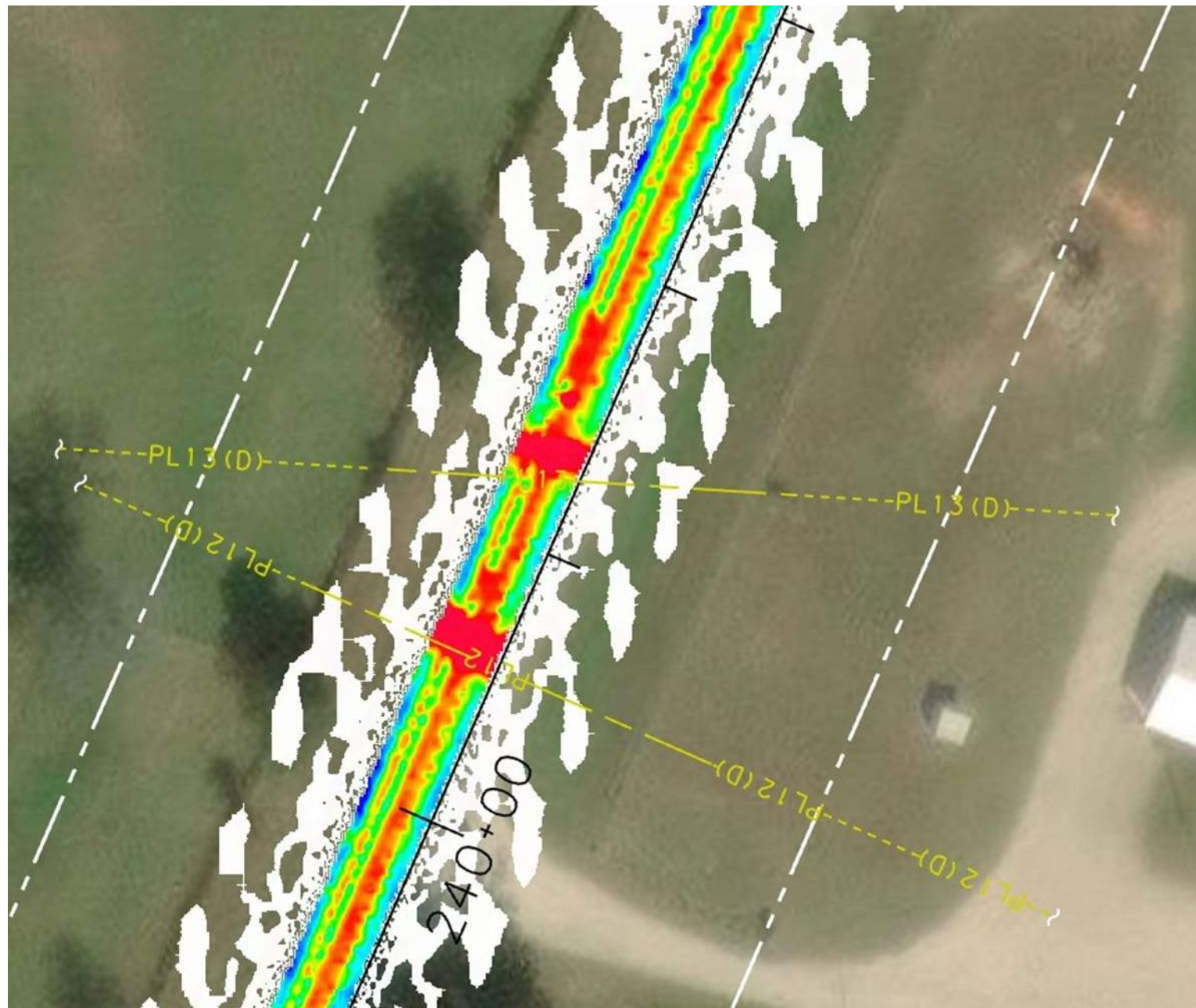
- Detected lines from SUE survey
- Detected extra lines
- X-Y-Z data



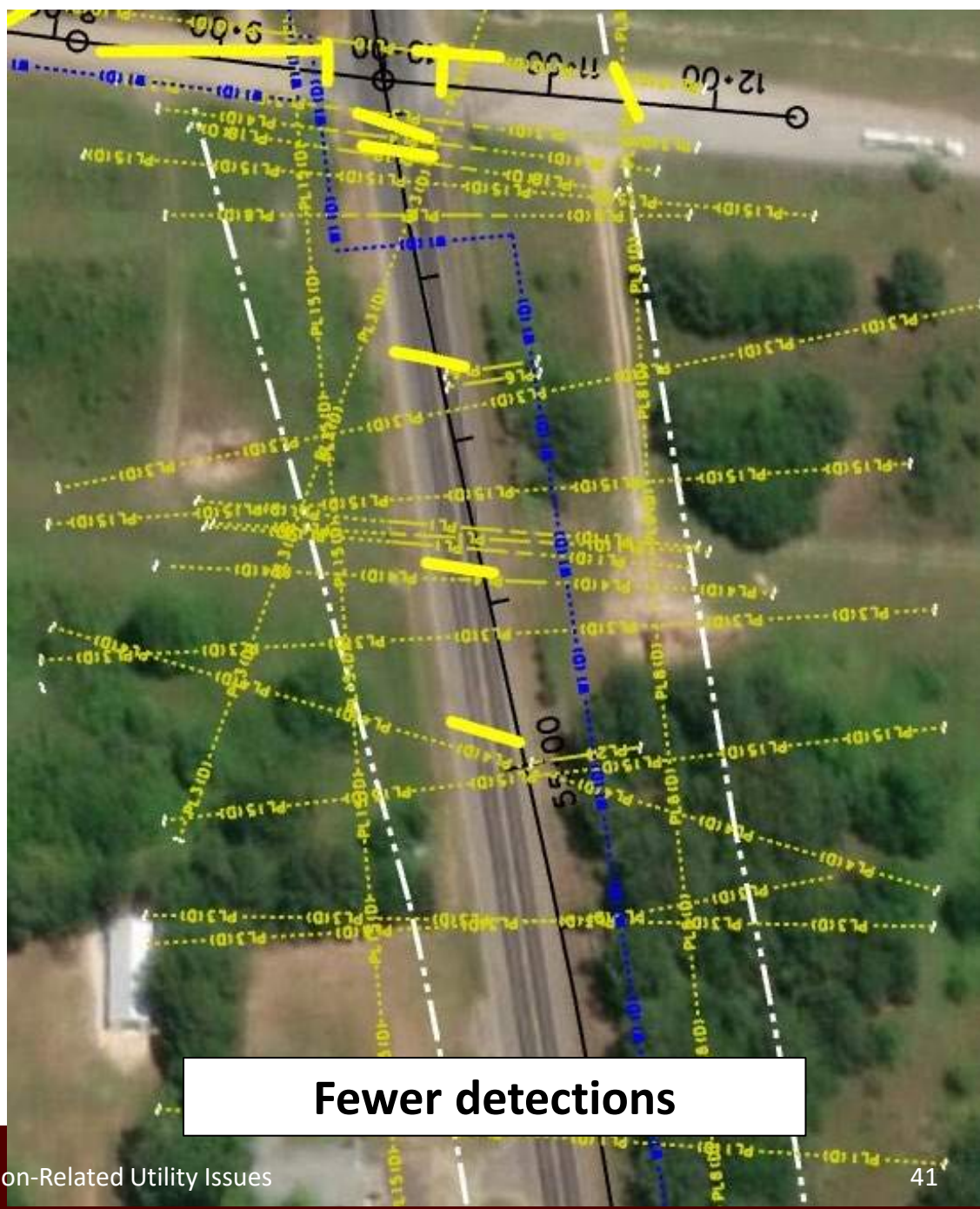
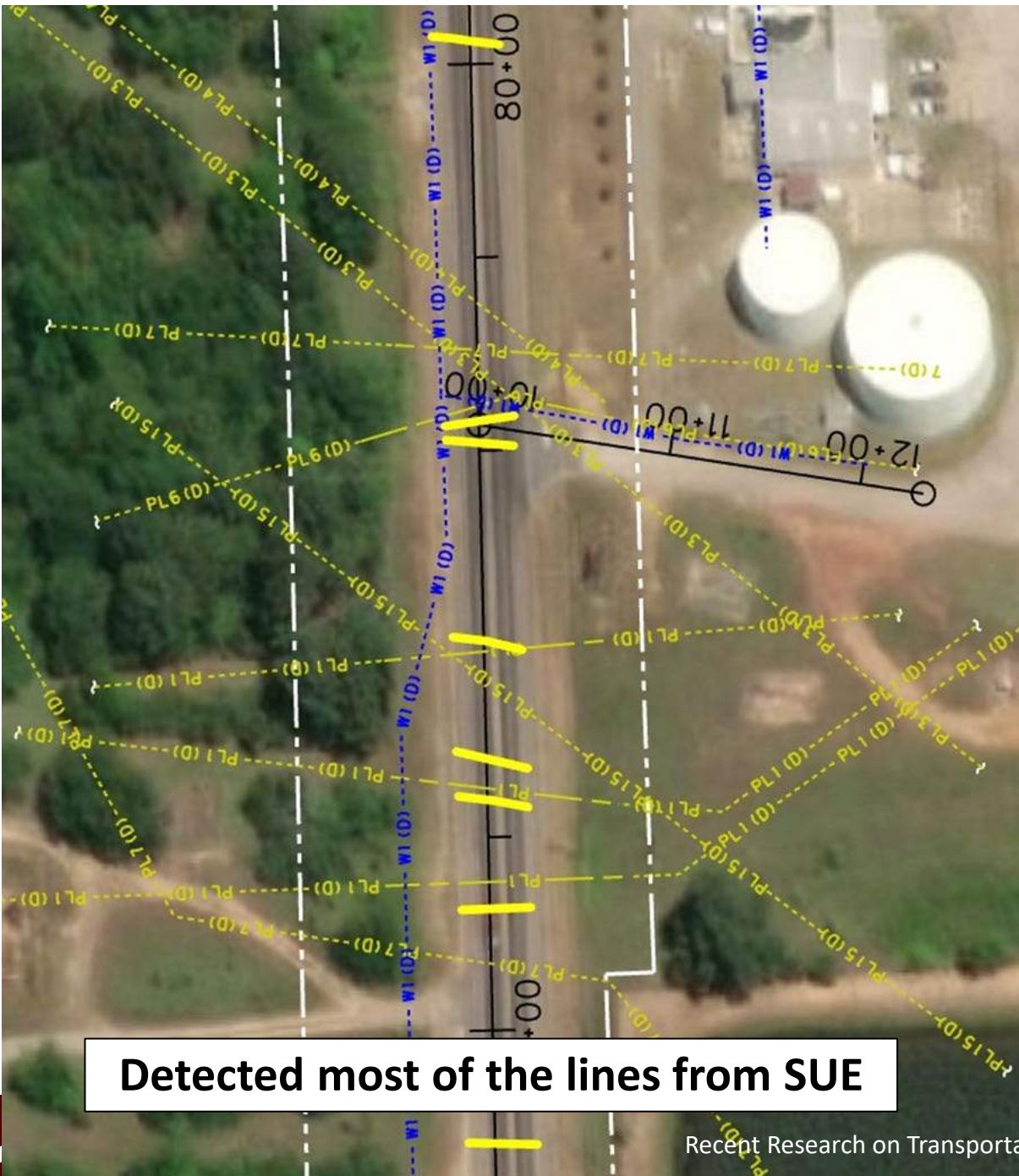


# Metal Detector Results

- Detected lines from SUE survey
- X-Y data (No Z data)









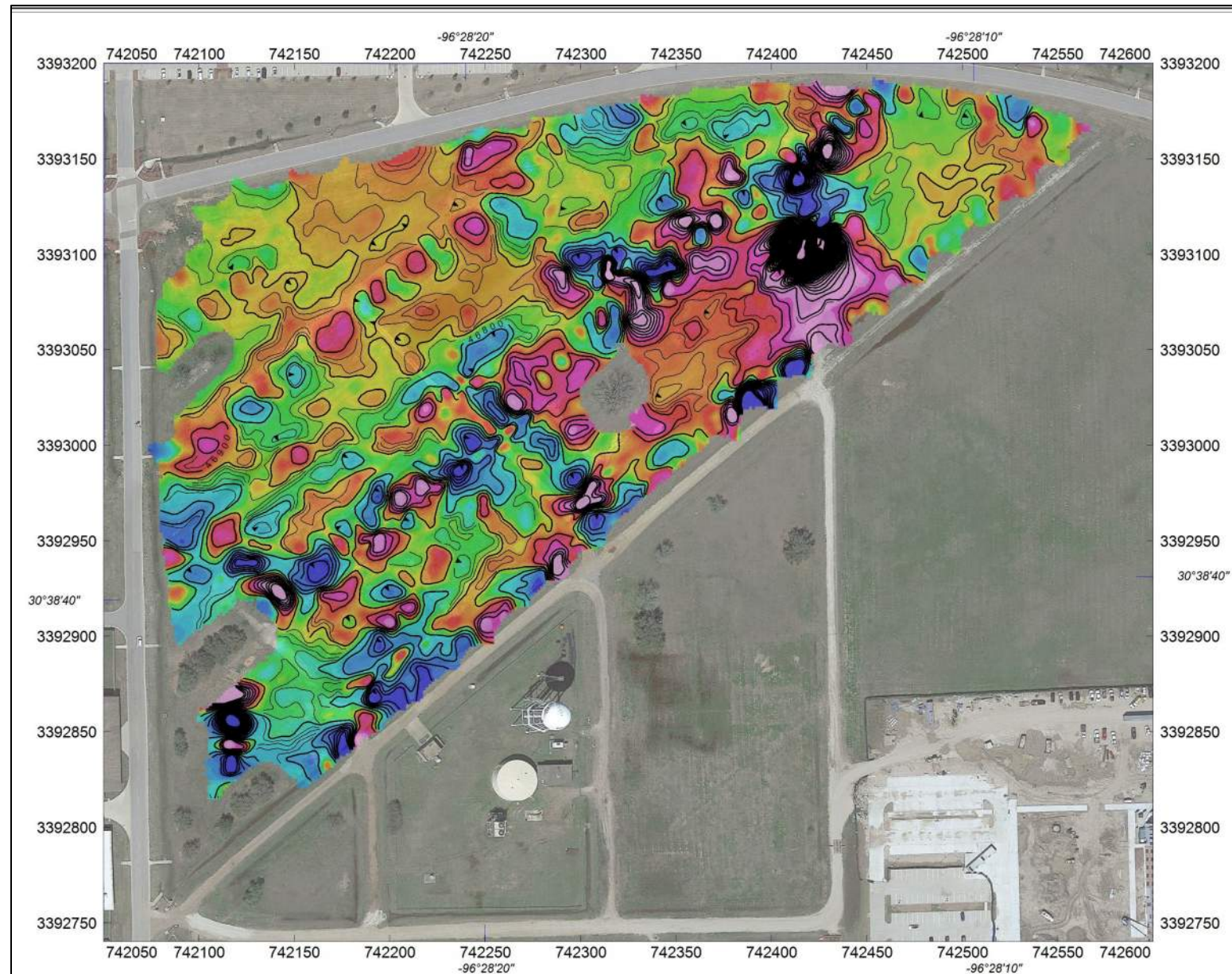


## UAS-Based Metal Detector



# UAS-Based Magnetometer Results

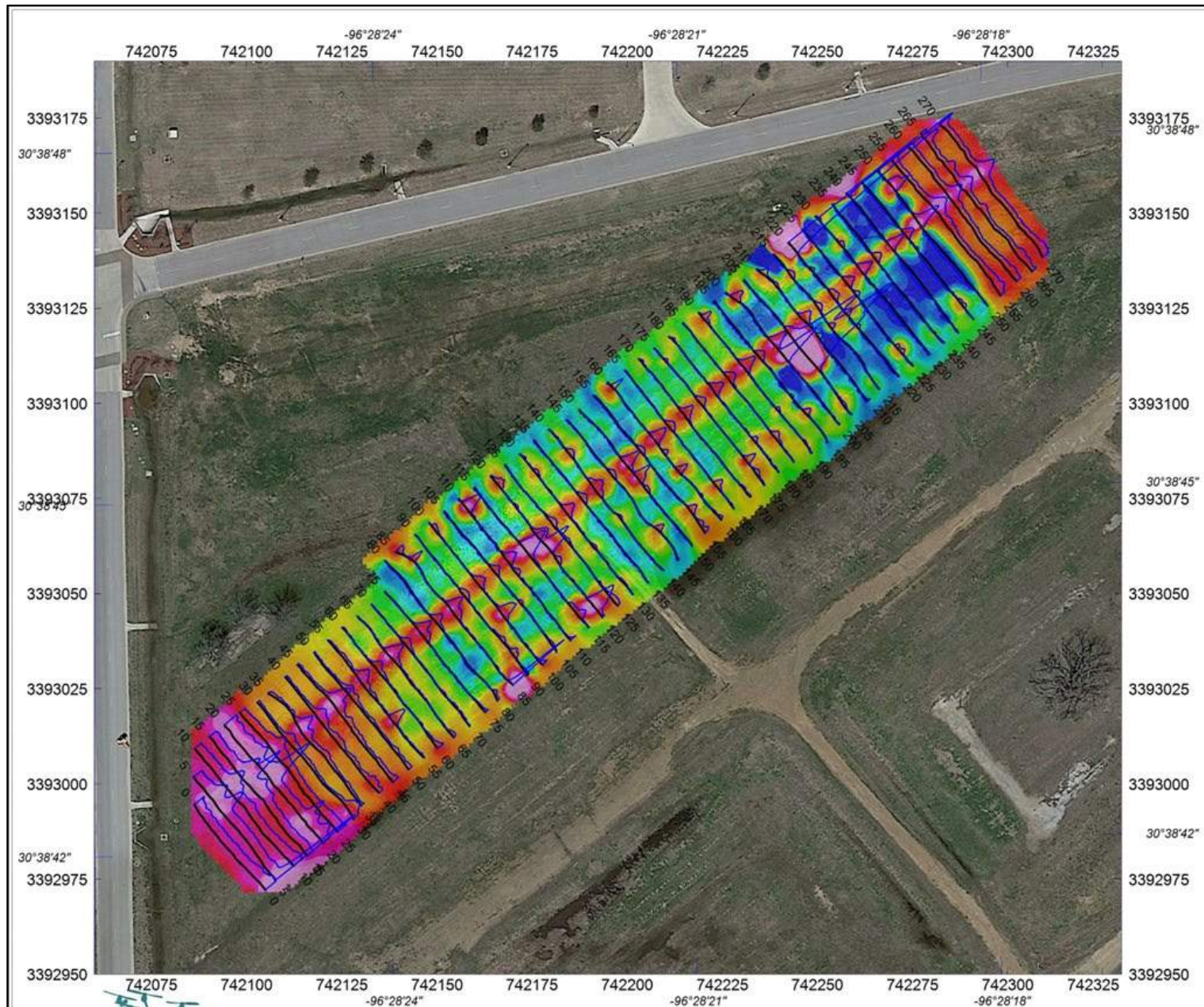
- 2D contour map
- Difficult to pin down location
- More computer processing necessary





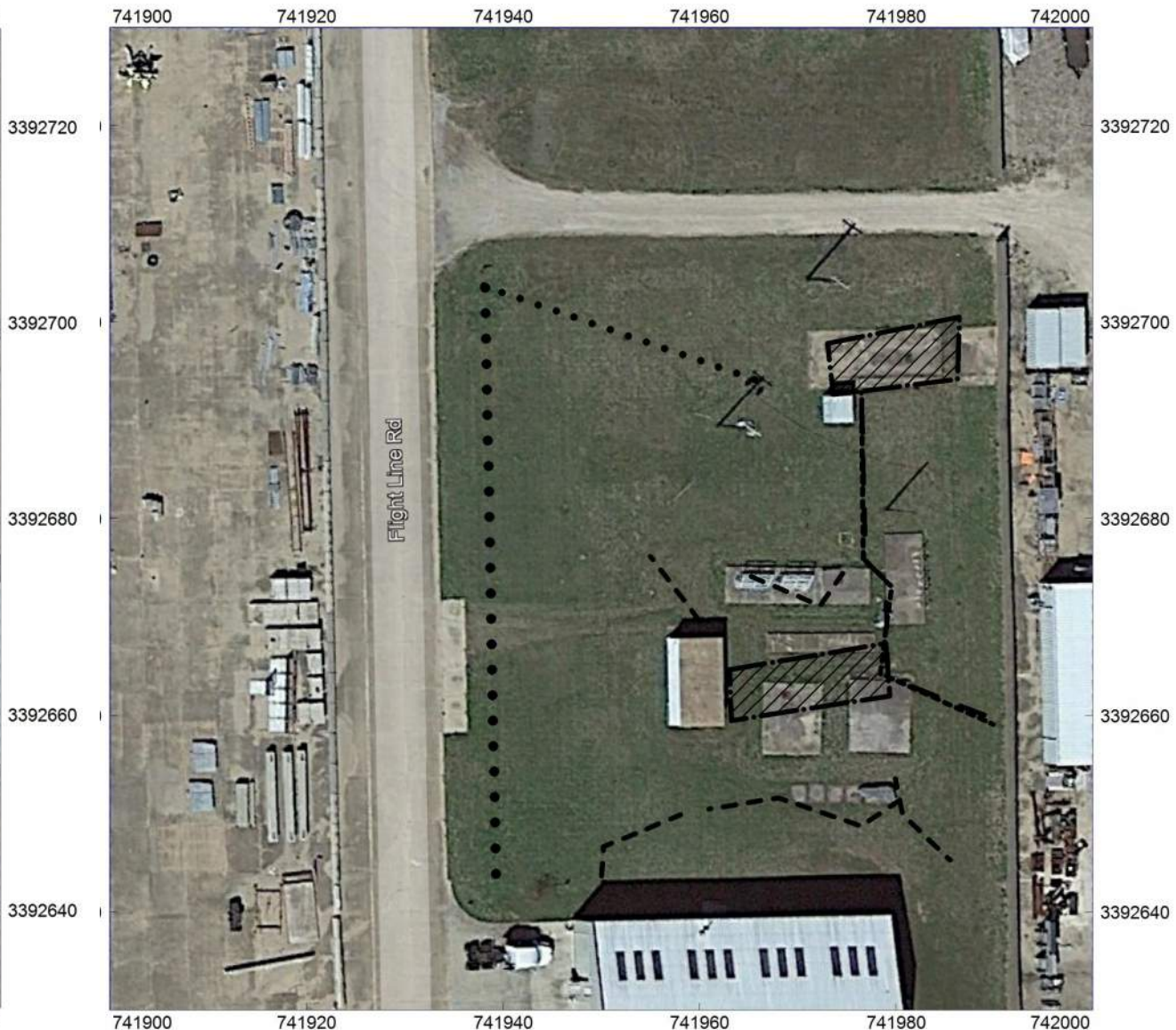
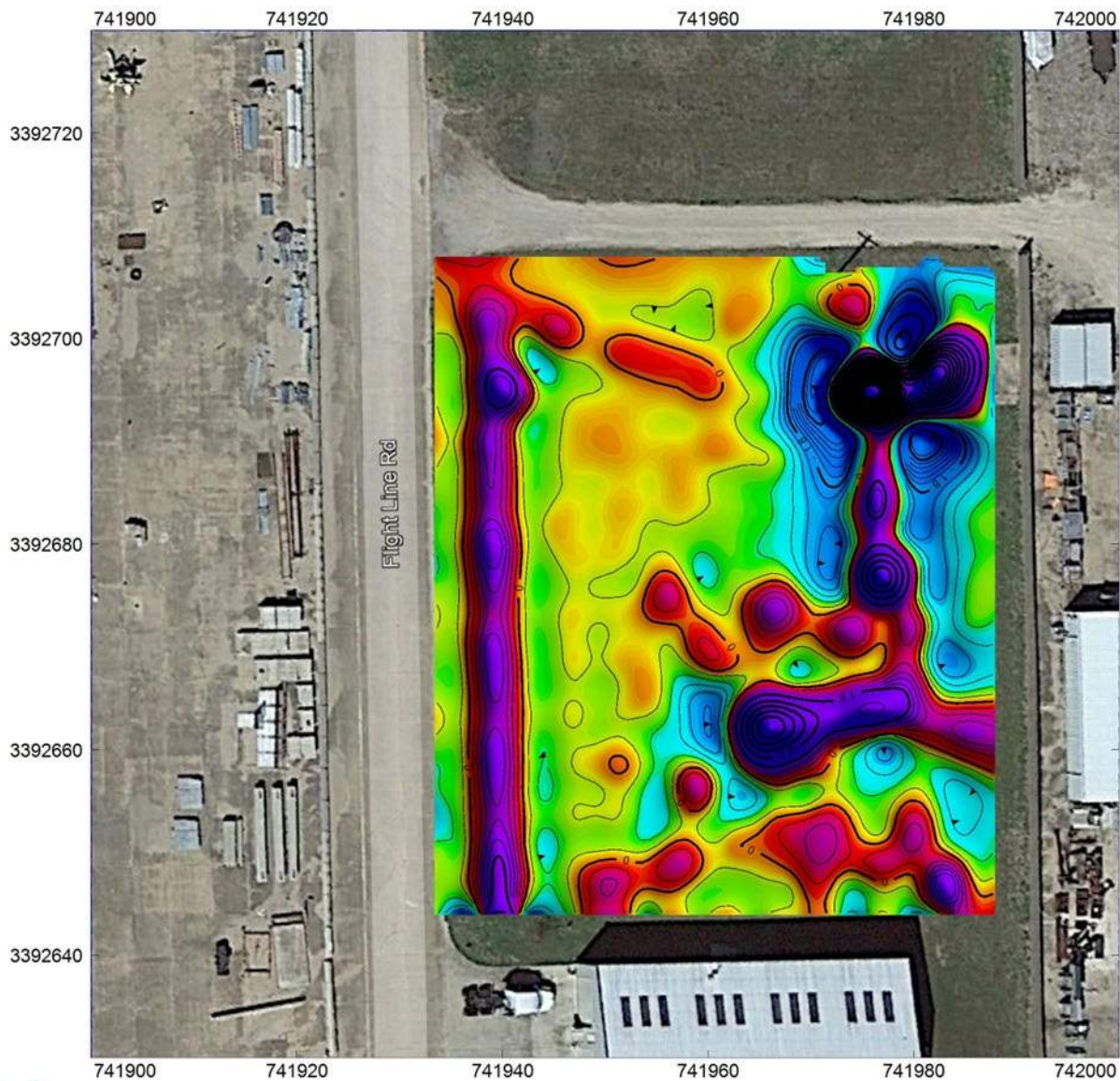
# UAS-Based Metal Detector Results

- 2D contour map
- More precise XY location than magnetometer
- More definition of XY and Z would be better





# UAS-Based Metal Detector Results





# AI-Based Processing of Geophysical Data

- Raw geophysical data: X-Y and geophysical parameter data
- Goal: Generate X-Y-Z data for location and size of pipes/utilities
- 150,000 different scenario/location combinations
- Each scenario/location combination produces a unique geophysical response on the surface
- AI algorithm “learns” the relationship between each scenario/location and its geophysical response
- Training on Texas A&M Univ. supercomputer, not needed after AI training/testing
- Then move on to real-world data
- Pilot results on total field magnetics data due in September 2023
- Project has been extended into 2024 to allow expanding to time domain electromagnetic data

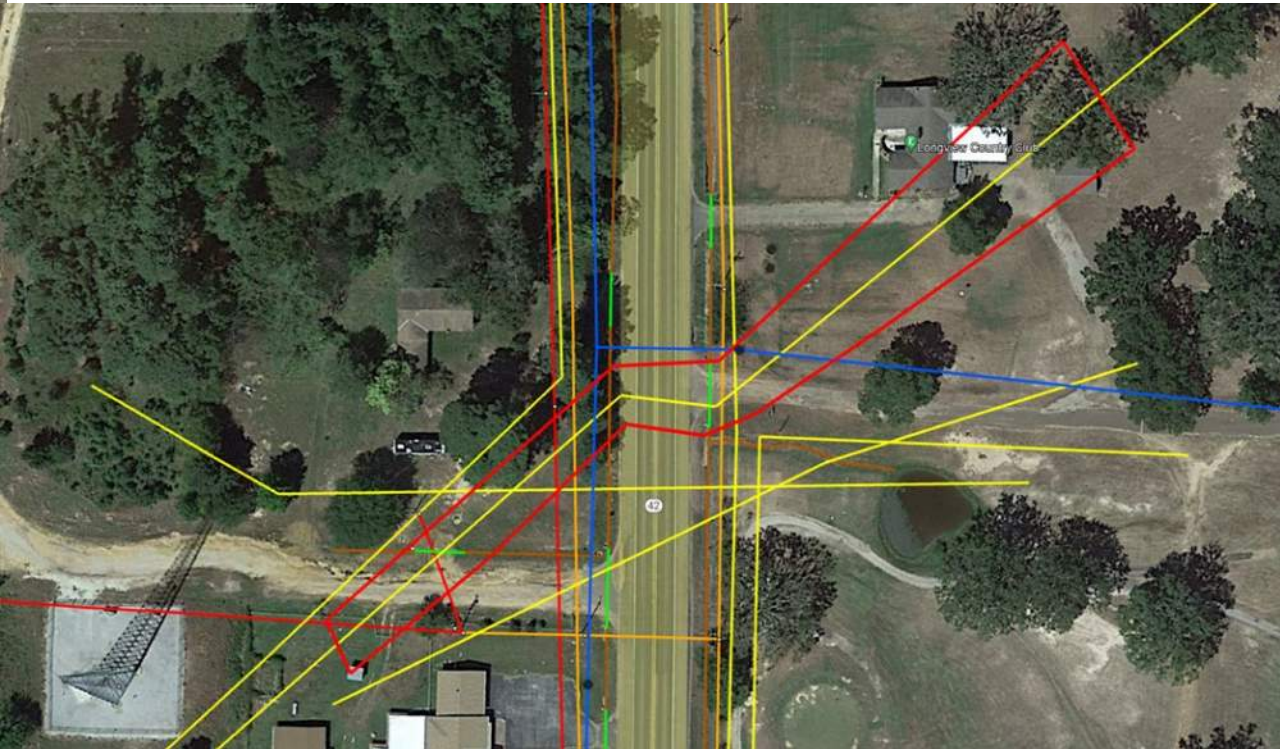
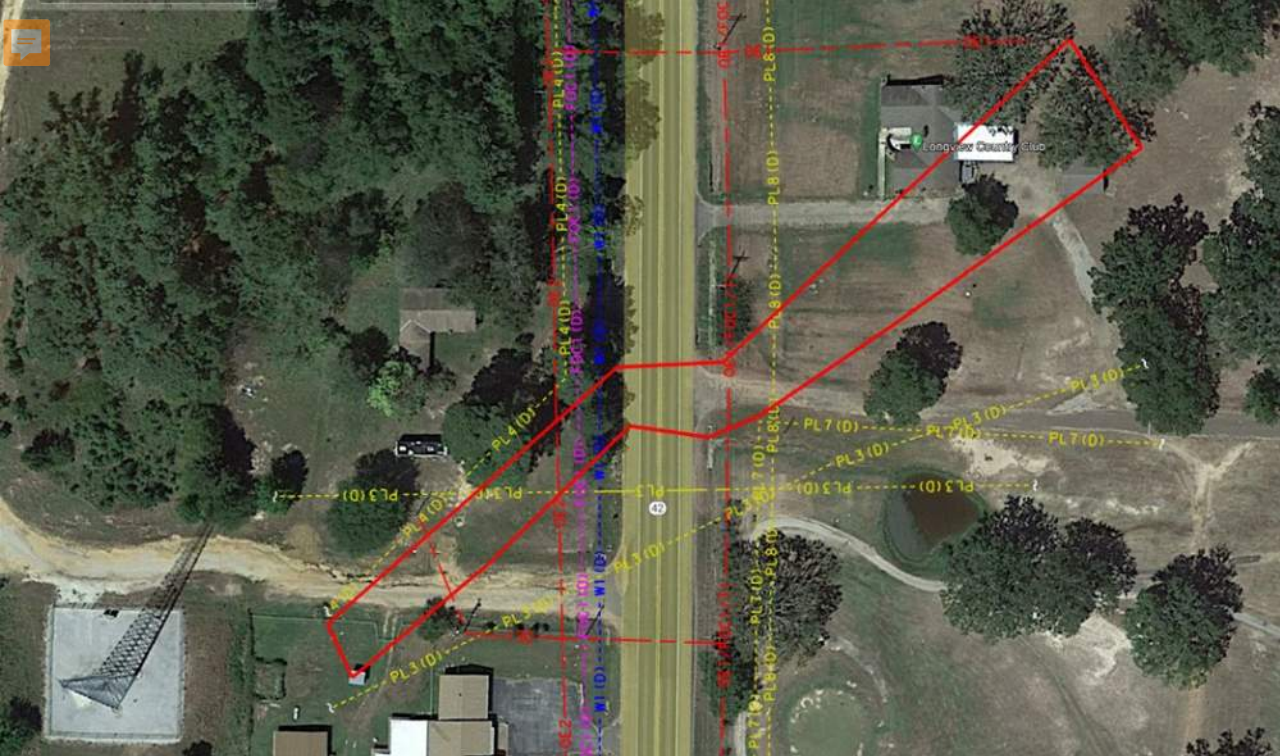


# Utility Data Aggregators (4M Analytics)

- New consultant service coming to Florida
  - Uses all available historical areal imagery plus data mining of online records
  - Produces utility map without going to the field
  - Many sources of data with differing qualities
  - People and AI algorithms still learning about utilities
- Getting closer to being usable for highway projects
- TTI has tested the service



# Additional Pipeline Crossing



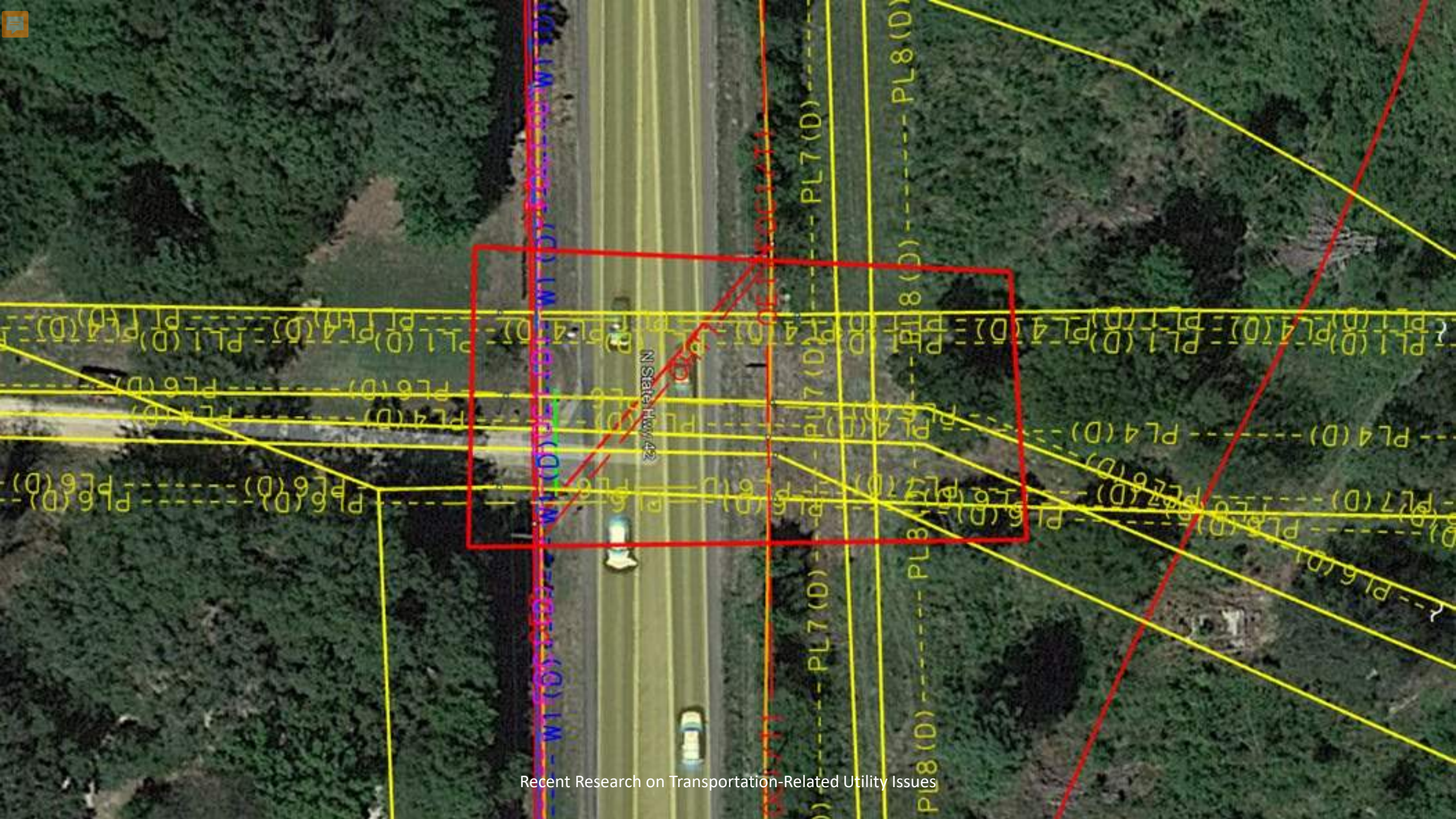




# Shifted W... ations









# Jacksonville Project





# 4M Analytics: Recommendations

- Planning stages
    - Project planning
    - Planning and pricing of SUE
    - Can be a valuable part of QLD SUE
    - Pre-bid for construction
    - Pre-construction
  - Location accuracy is dependent on quality of source data they find
  - The product has value but:
  - MAKE SURE YOU UNDERSTAND HOW TO USE WHAT YOU GET
- This is how it is being used by active customers**
- Pilot project in Florida is under consideration by FDOT**



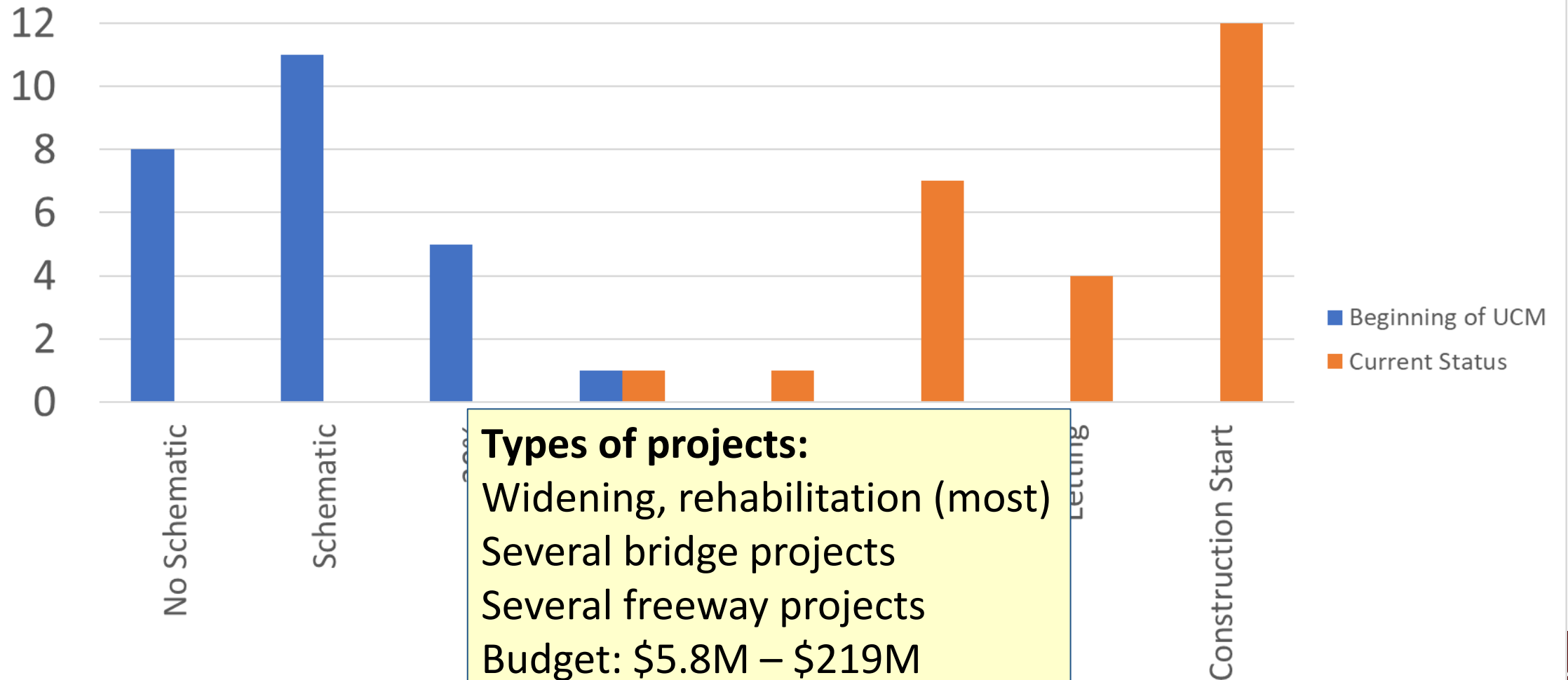
# Research Snapshots

- Utility-related change orders
- Utility investigations
- ➔ • **Utility conflict management (UCM)**
- Construction and utility inspections



# Utility Conflict Management

Number of Districts by Project Phase Completed





# Benefits of Applying UCM

- Earlier identification of existing utility facilities and conflicts
- Fewer unnecessary utility relocations
- Fewer disruptions and utility damages during construction
- Fewer utility-related change orders and claims
- More effective working relationship with utility owners



# Benefits of Applying UCM

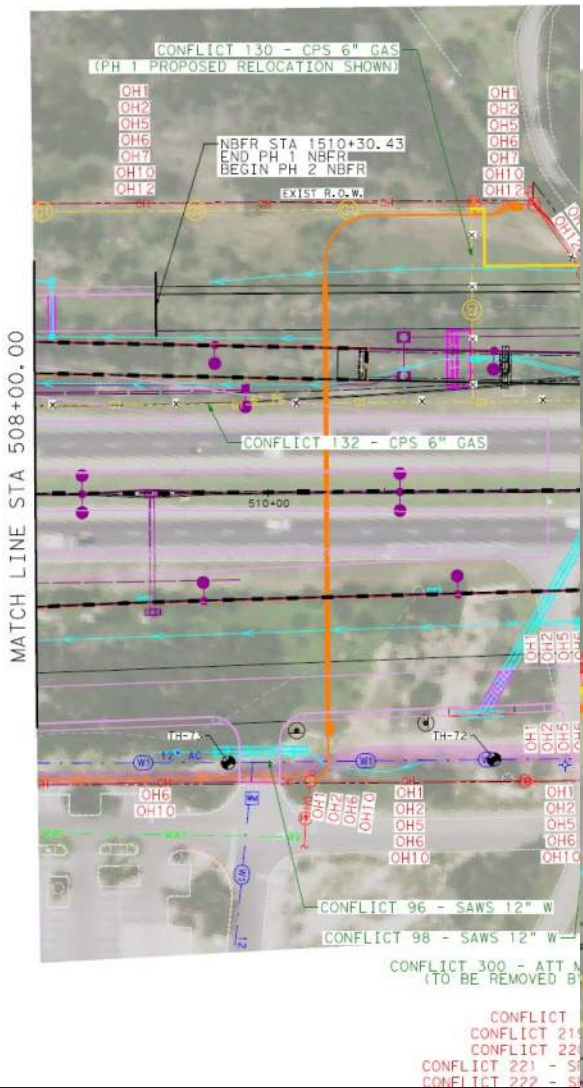
- Tangible economic and time savings:
  - UCM Implementation Phase 2:
    - Pilot projects at metro districts
    - \$11,230,000 / 38 months
    - \$13,000,000 elsewhere
  - UCM implementation Phase 3:
    - Pilot projects at non-metro districts
    - \$23,847,000 / 2 years (partial)
- Result: Strong support from HQ



# Best Practices for Utility Conflict Management

- Use utility layout (same highway design software/workspace) to:
  - Show utility conflict locations
  - Assign unique utility conflict IDs
- Update utility conflict list after updating utility layout
- Maintain and update utility layout and utility conflict list regularly
- Track utility conflicts at the utility facility level
- Start early (best during preliminary design)
- Involve stakeholders in review of utility conflicts and solutions
  - Regardless of reimbursement eligibility





MATCH LINE STA 508+00.00





- CONFLICT 9 - CPS ELEC
- CONFLICT 218 - CPS FIBER
- CONFLICT 137 - TWC FIBER
- CONFLICT 138 - SPECTRUM OH CABLE
- CONFLICT 140 - LEVEL 3 OH FO
- CONFLICT 216 - ATT CABLE - ATT

MATCH LINE STA 508+00.00

Utility Company	Utility Company Contact	Utility Conflict ID	Drawing or Sheet No.	Utility Type	Size and/or Material	Utility Conflict Description
CPS Energy		7	2	Electric		OHE with proposed pond/roadway-Crossing-Reloc in PH1
CPS Energy		9	4-12	Electric		OHE with proposed roadway-Parallel
CPS Energy		11	4-5	Electric		OHE with proposed roadway-Parallel
CPS Energy		12	5	Electric		OHE with

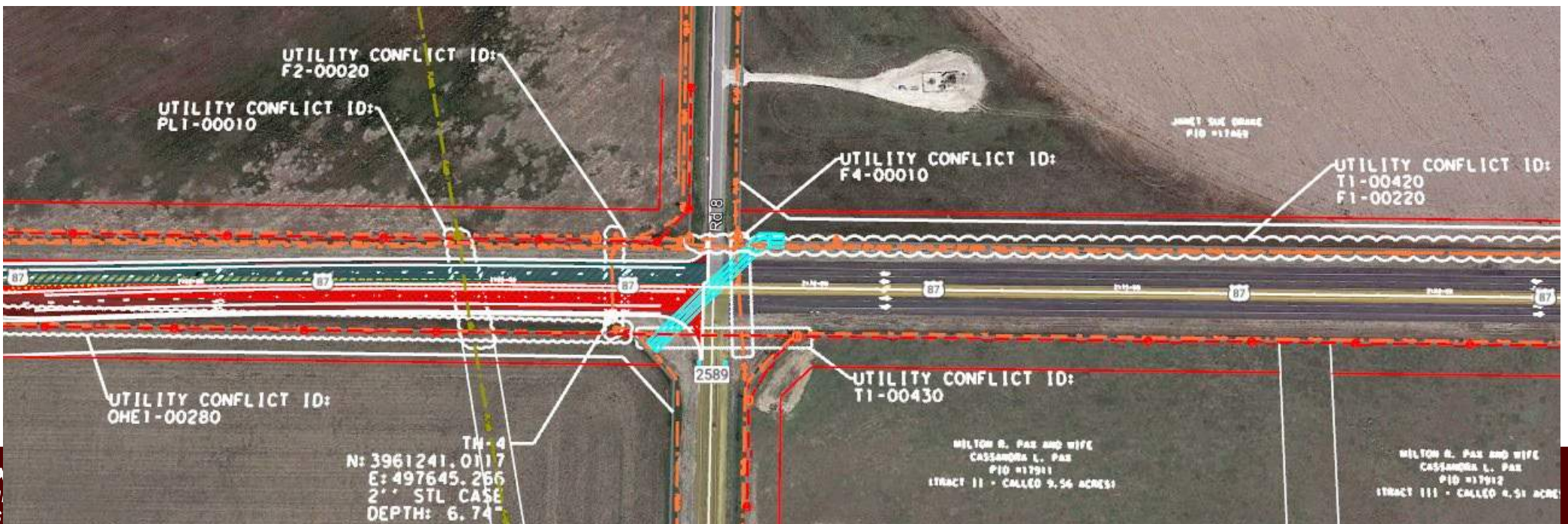
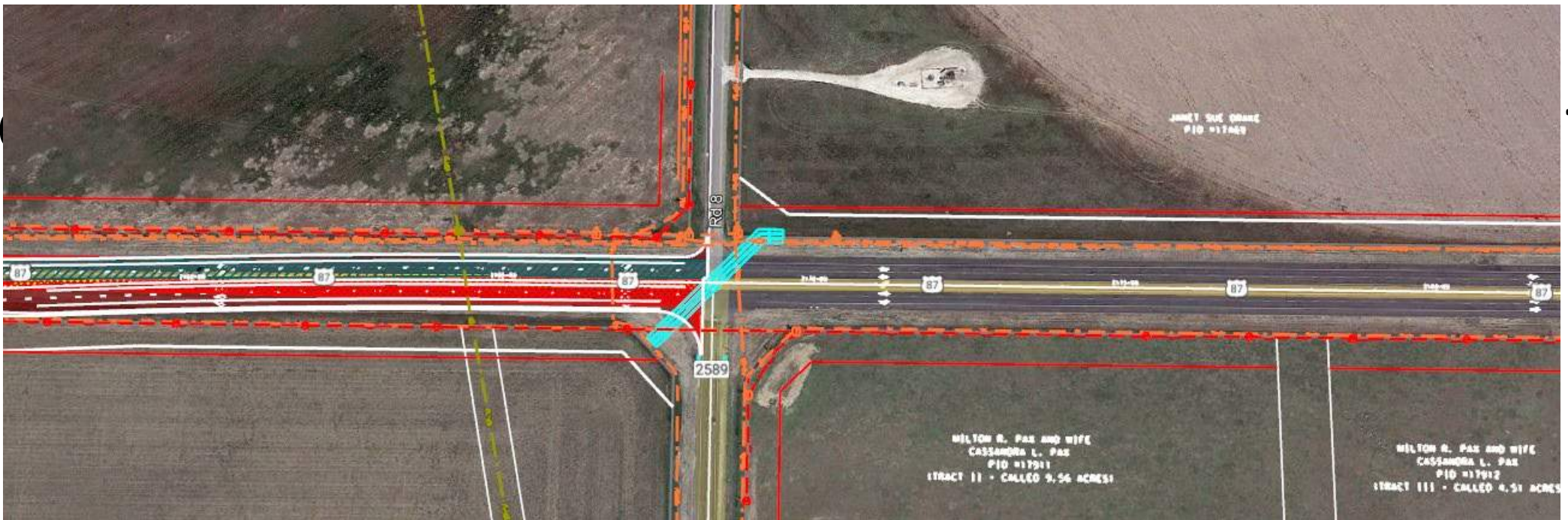
CONFLICT 193 - SPECT



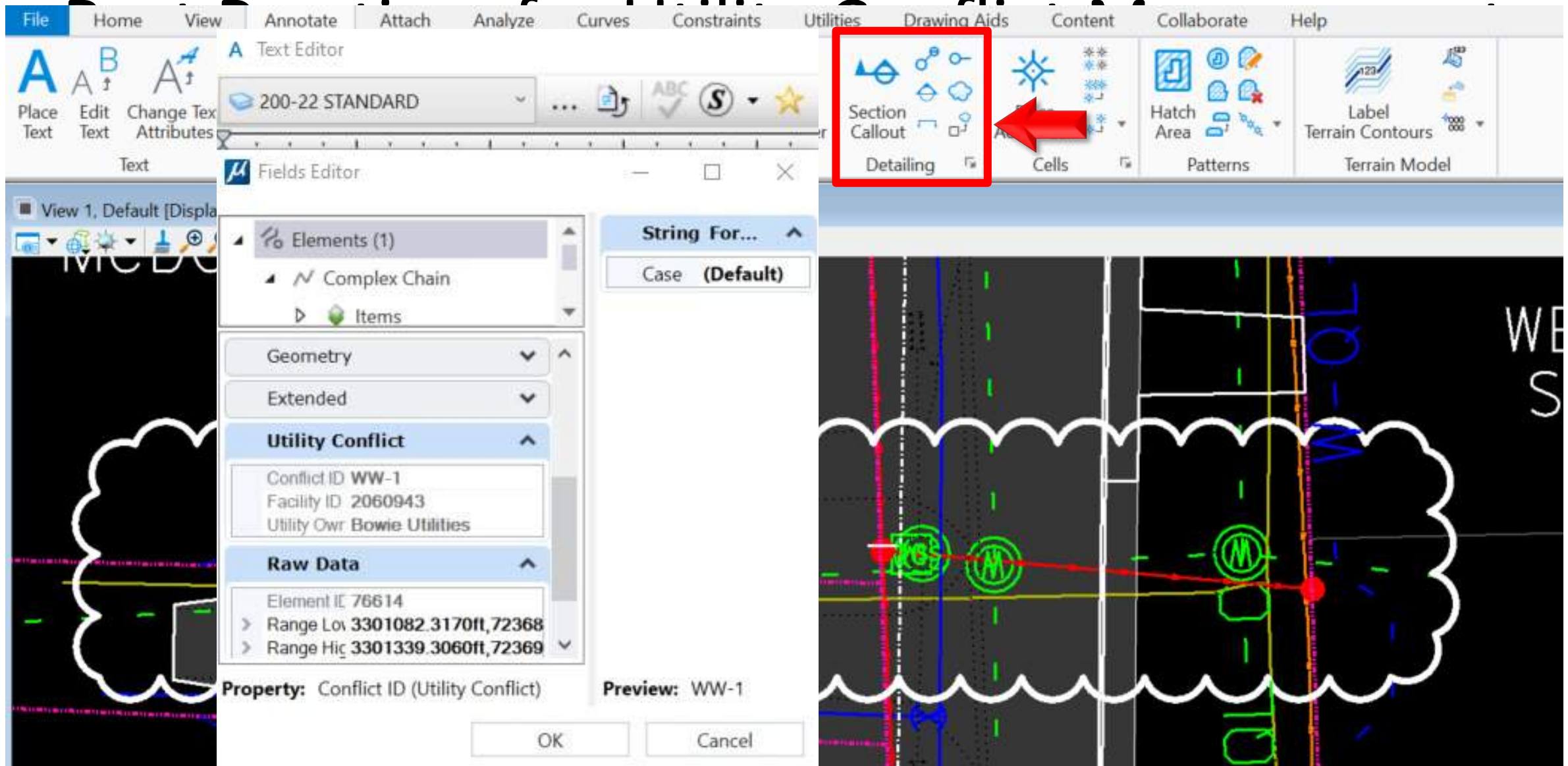


B

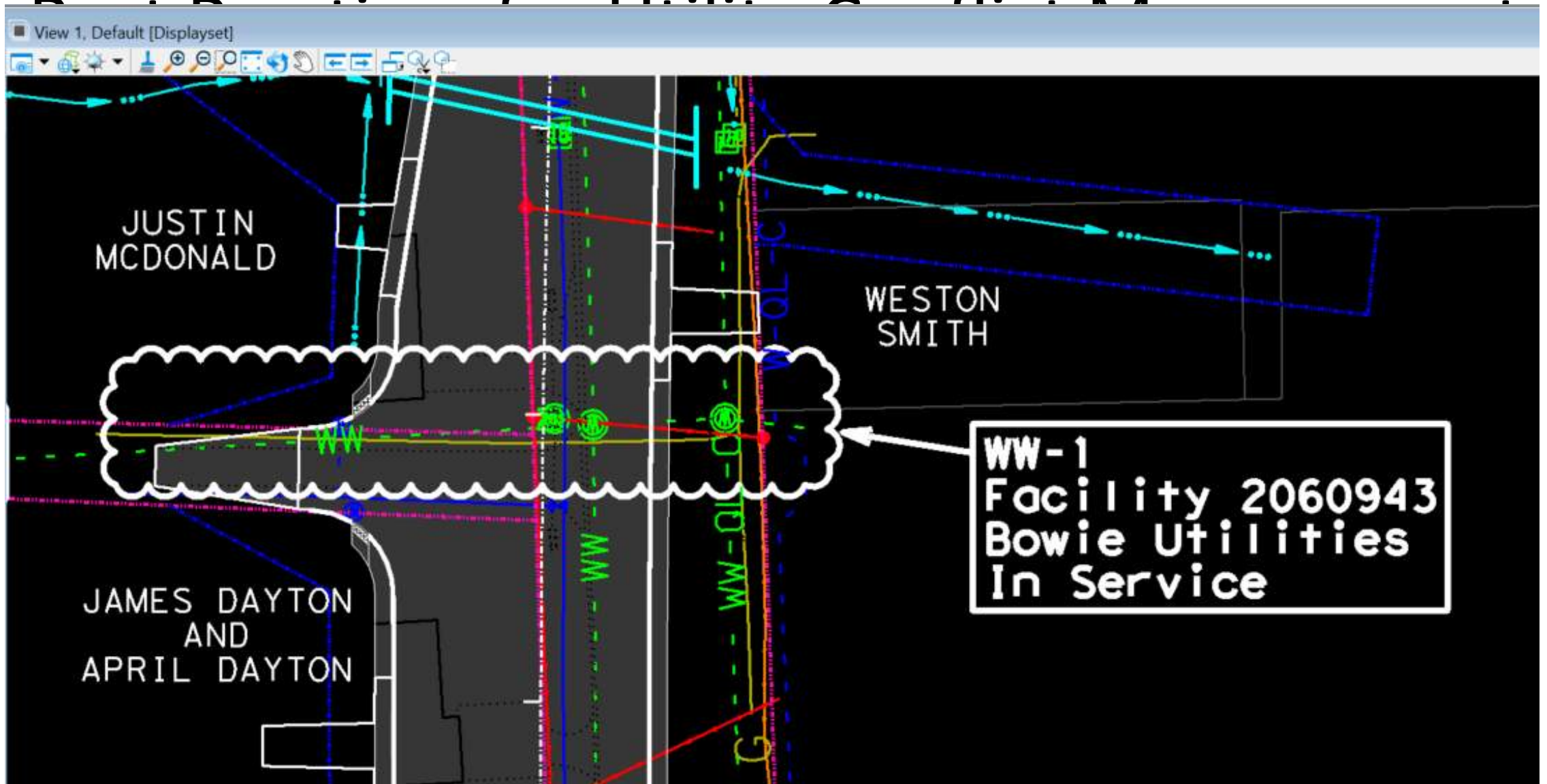
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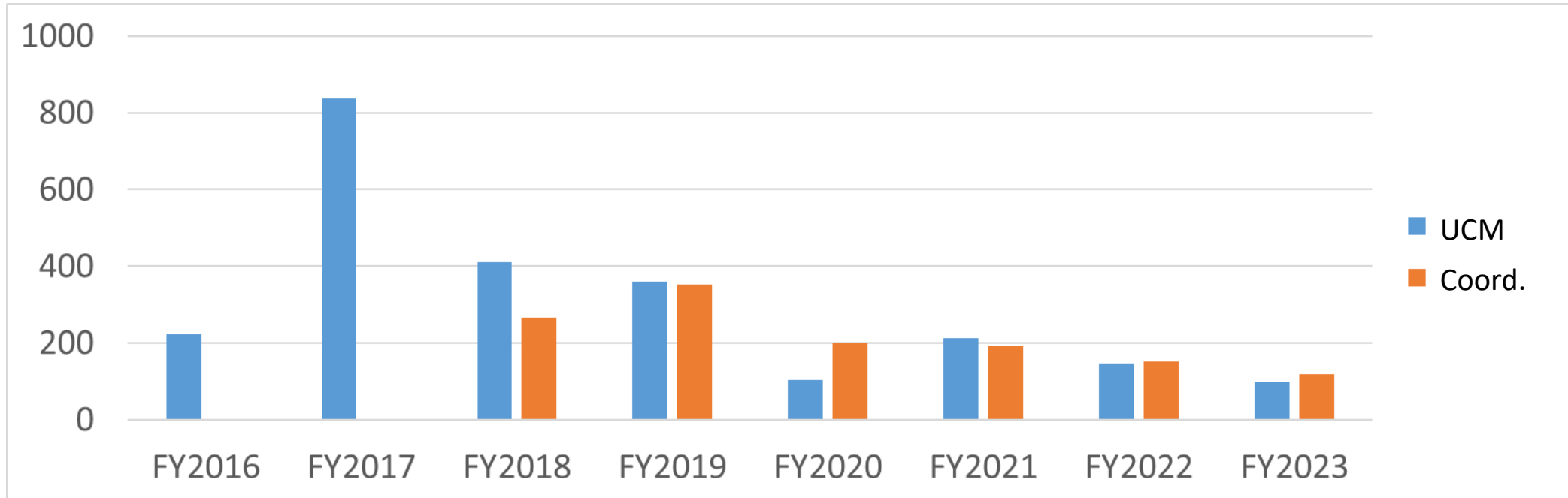








# Training and Certification



	Utility Conflict Management			Utility Coordination		
	Total	DOT	Other	Total	DOT	Other
Total	2393	1412	981	1281	768	513
Average	29	17	12	24	14	10
		59%	41%		60%	40%



# Research Snapshots

- Utility-related change orders
- Utility investigations
- Utility conflict management (UCM)
- ➔ • **Construction and utility inspections**

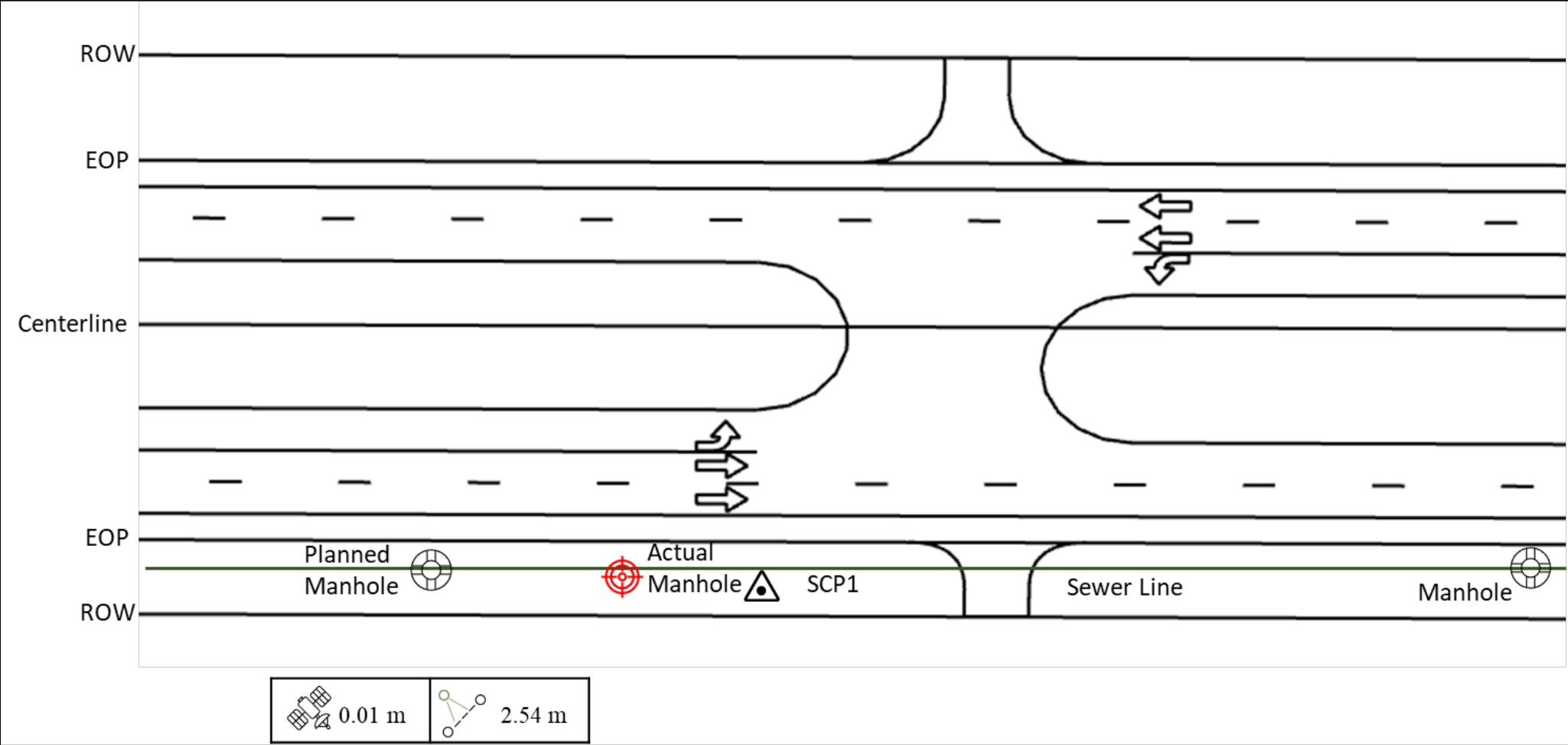


# Low-Cost Technologies for Constr./Utility Inspections

- Generalized use cases:
  - Project survey control point verification
  - Location within the required tolerance
  - Location outside of the required tolerance
  - 3D Objects—With ground control points
  - 3D Objects—With RTK
  - 3D Objects—Without ground control

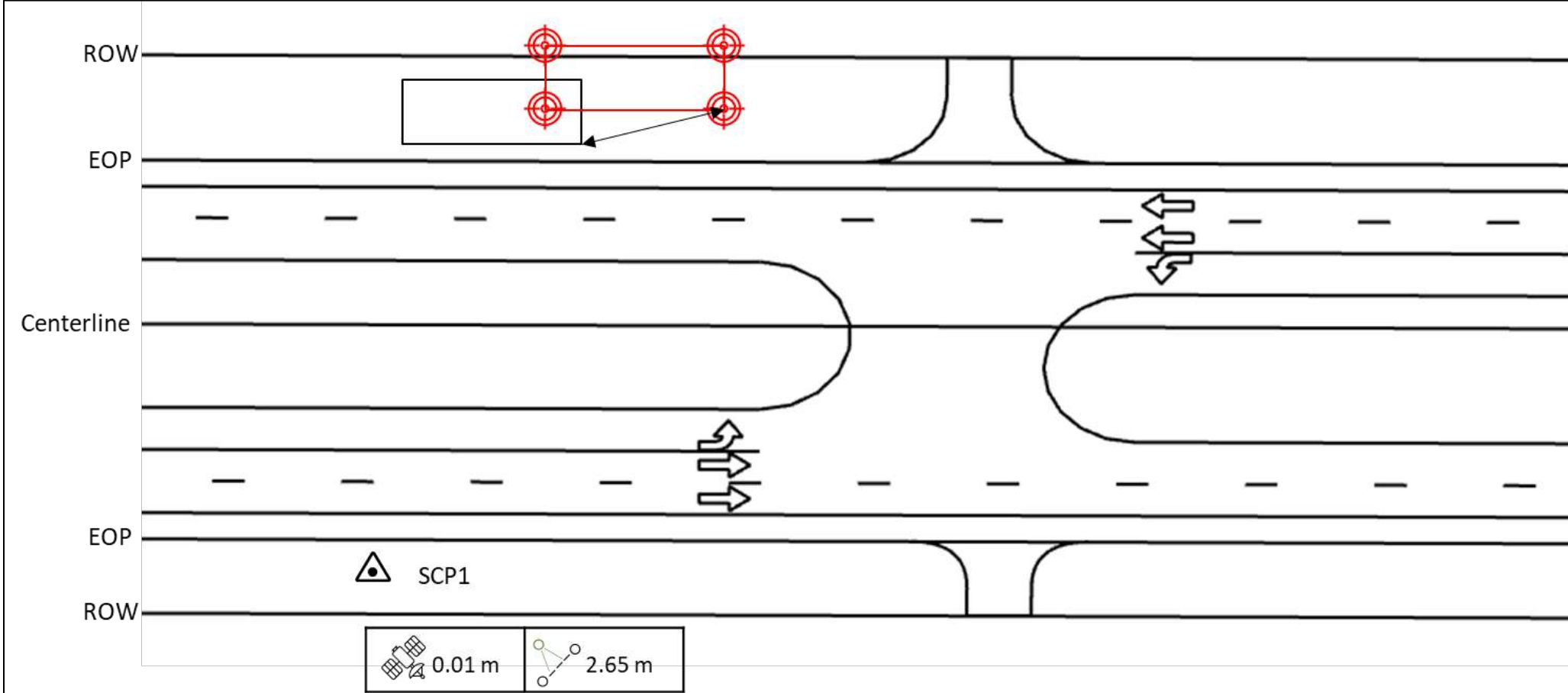


# Low-Cost Technologies for Constr./Utility Inspections





# Low-Cost Technologies for Constr./Utility Inspections





# Low-Cost Technologies for Constr./Utility Inspections

Devices
Samsung Galaxy S22
Samsung Tab Active3
Apple iPhone 14 Pro Max
Apple iPad Pro 11
Bad Elf Flex
Leica Zeno FLX100 Plus
Trimble DA2
viDoc RTK Rover
DJI Mavic 2 Pro
DJI Matrice 300 RTK
DJI Phantom 4 RTK rotary
Wingtra Gen II VTOL
FreeFly Alta X with Lidar
REDUCT ABM-30 and ABM-40/DR-2 Probes

Software
Trimble Penmap
Trimble TerraFlex *
Leica Zeno Mobile
ArcGIS Field Maps
ArcGIS QuickCapture *
ProStar PointMan
PIX4D PIX4Dcatch
PIX4D PIX4Dmapper
PIX4D PIX4Dmatic
Bentley ContextCapture



Home

Map View

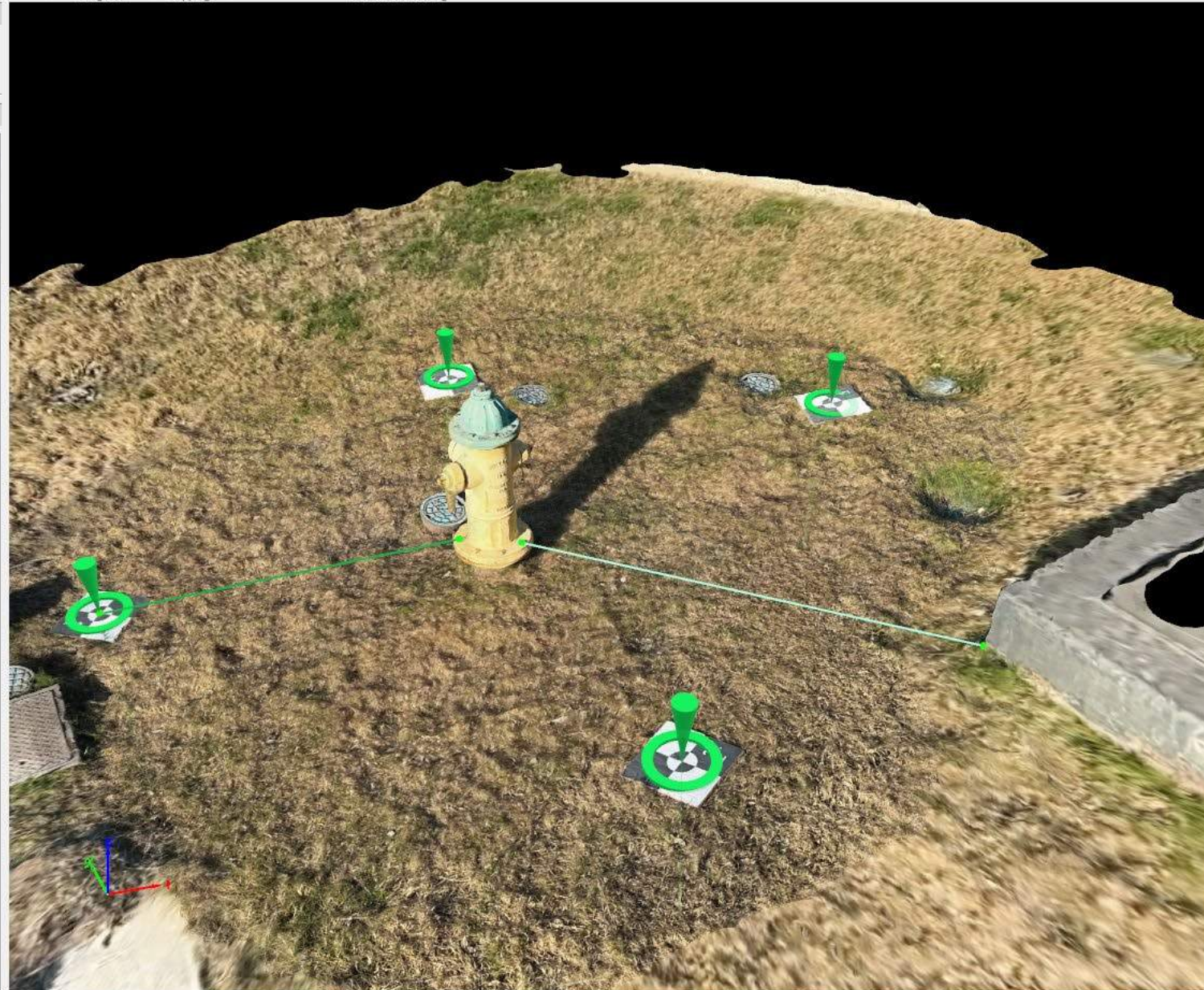
rayCloud

Volumes

Mosaic Editor

Index Calculator

- Layers
- >  Cameras
  - >  Rays
  - >  Tie Points
  - >  Point Clouds
  - >  Point Groups
  - >  Triangle Meshes
    - > Display Properties
    - Mesh Hydrant\_With\_ViDoc\_simplified\_3d\_...
  - >  Objects
    - >  Polylines
      - > Display Properties
      - Polyline 1
      - Polyline 2
    - >  Surfaces
    - >  Animation Trajectories
    - >  Orthoplanes
    - >  Scale Constraints
    - >  Orientation Constraints



Properties

Selection

Polyline 2 (Polyline)

Number of Vertices: 2

Measurements

Terrain 3D Length [m]:	1.89	error n/a
Projected 2D Length [m]:	1.89	error n/a

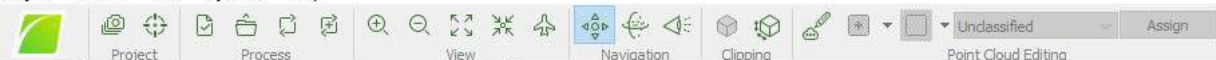
Copy to Clipboard Apply Cancel Help

Images

Image Size Zoom Level

Image_000059.jpg Polyline 2	Image_000060.jpg Polyline 2
Image_000061.jpg Polyline 2	Image_000062.jpg Polyline 2
Image_000100.jpg Polyline 2	Image_000101.jpg Polyline 2
Image_000102.jpg Polyline 2	Image_000103.jpg Polyline 2



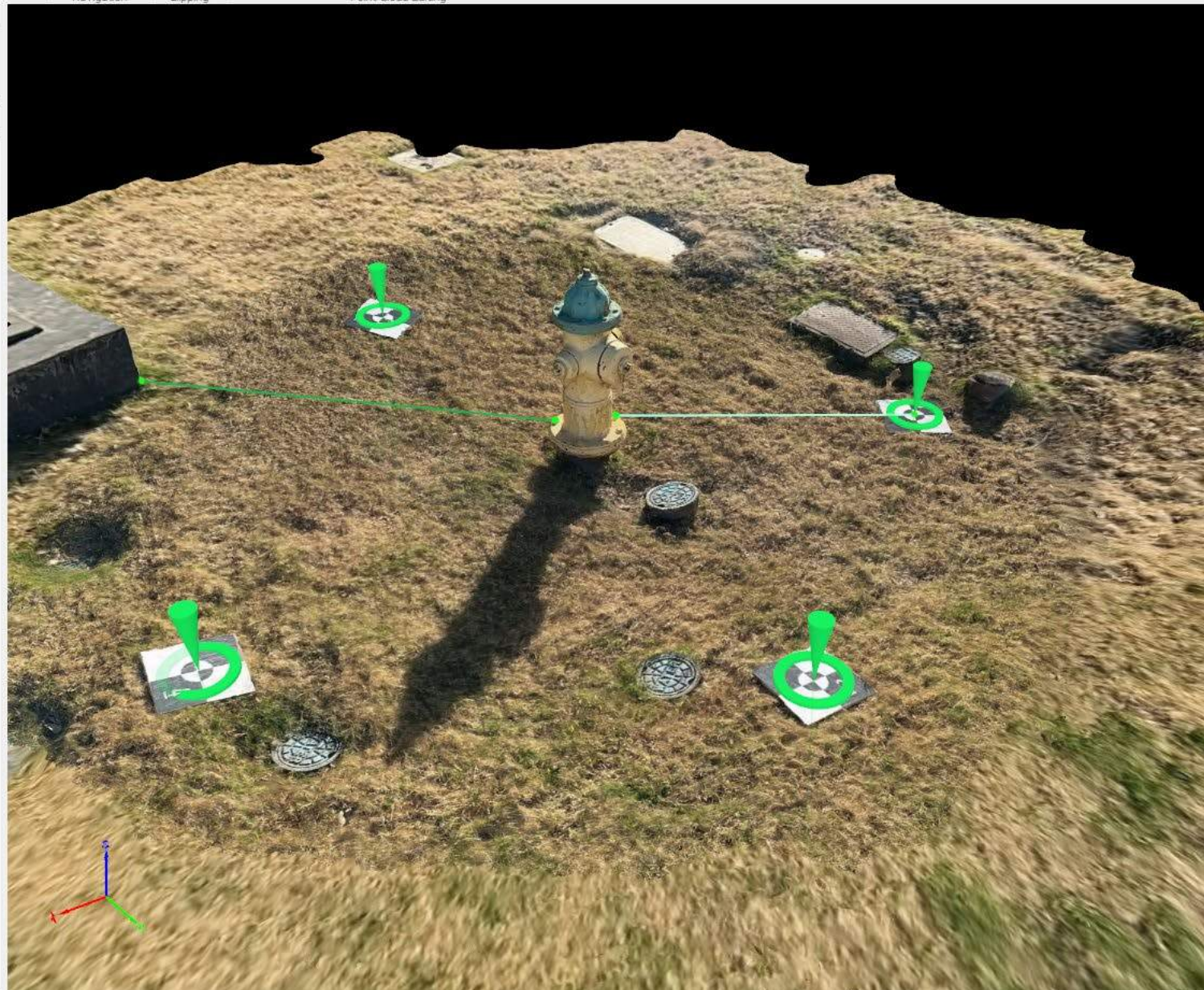


**Map View**

**rayCloud**

- Cameras
- Rays
- Tie Points
- Point Clouds
- Point Groups
- Triangle Meshes
  - Display Properties
  - Mesh Hydrant\_With\_ViDoc\_simplified\_3d...
- Objects
  - Polylines
    - Display Properties
    - Polyline 1
    - Polyline 2
  - Surfaces
  - Animation Trajectories
  - Orthoplanes
  - Scale Constraints
  - Orientation Constraints

Processing Log Output Processing Options



**Properties**

**Selection**

**Polyline 1 (Polyline)**

Number of Vertices: 3

**Measurements**

Terrain 3D Length [m]:	1.58	error n/a
Projected 2D Length [m]:	1.55	error n/a

Copy to Clipboard Apply Cancel Help

**Images**

Image Size Zoom Level



# QUESTIONS AND COMMENTS?



END





# Utility Reimbursements

Design Build Sub-Committee  
Florida Utility Coordinating Committee 2023 Summer  
Meeting-Melbourne FL.



# Utility Reimbursements

## Determination

Trigger- Utility receives a statutory contact requesting green lines or conceptual relocation plans where the utility knows they are within an easement or compensable and should be reimbursable.

The determination that a utility is reimbursable is made by the Attorney for the client (I.E. County Attorney, City Attorney, FDOT General Counsel)

*Never tell any utility they are reimbursable until the determination is made and announced by legal.*



# Utility Reimbursements

## Eligibility

What makes a utility eligible for reimbursement

1. Utility Easements
2. Prior rights (subordinations)
3. Interstate project (>90% federal funds)



# Utility Reimbursements

## Preliminary Engineering

Because they are reimbursable, all effort on their part (including consultant fees) are covered. This includes all effort to develop Red, Green, Browns (RGB's), Utility Work Schedules, permits, meeting attendance, etc...



# Utility Reimbursements

## Preliminary Engineering

Documents to be submitted by utility to be processed include:

1. Master Agreement or Project specific work agreement
2. Signed Utility Work Estimate (including backup material)

Rule 14-46.001 F.A.C. Page _ of _	Florida Department of Transportation <b>UTILITY WORK ESTIMATE</b>	Dec 14, 2016	
<b>FDOT PROJECT INFORMATION</b>			
Financial Project ID:	Federal Project ID:		
State Road Number:	County:		
FDOT Plans Dated:	District Document No.:		
<b>UTILITY AGENCY/OWNER (UAO)</b>			
Utility Company:	Job No. or Work Order No.:		
UAO Project Rep:	Phone:	E-mail:	
UAO Field Rep:	Phone:	E-mail:	
<b>SECTION A: ITEMIZED COST ESTIMATE</b>			
Item	Item Cost (\$)	Overhead (%)	Item Cost + Overhead (\$)
Preliminary Engineering			
Right of Way Acquisition			
Construction Engineering			
Construction Labor			
Materials and Supplies			
Transportation & Equipment			
Contract Construction			
Miscellaneous Expenses			
Total Cost Estimate =>			
<b>SECTION B: DEDUCTIONS</b>			
Item	Item Value (\$)		
Salvage Value			
Betterment			
Extended Service Life			
Total Deductions =>			
<b>SECTION C: REIMBURSEMENT</b>			
Total Cost Estimate from SECTION A =>			
Total Deductions from SECTION B =>			
Total Reimbursement* =>			
*Update the estimated Total Reimbursement for changes in excess of 10%			
<b>UTILITY SIGNATURE</b>			
UAO Rep. _____ Date ____/____/____			
Name _____			
Title _____			



# Utility Reimbursements

## Preliminary Engineering

### 1. Master Agreement or Project specific work agreement

<https://www.fdot.gov/programmanagement/utilities/agreements.shtm>

[Home](#) / [Program Management](#) / [Utilities](#)

## UAO/FDOT Agreements

- [1997 and later Utility Agreements](#)
- [Utility Master Agreements prior to 1997 - Joint Pole Use](#)
- [Resolutions prior to 1997](#)
- [Utility Master Agreements prior to 1997](#)
- [Utility Master Agreements by County prior to 1997](#)
- [City Utility Master Agreements prior to 1997](#)
- [Certificate of Incumbency and Authority prior to 1997](#)
- [FDOT/FGT Encroachment Agreements](#)

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**UTILITY MASTER AGREEMENT**  
(AT **UAO** AND **FDOT** EXPENSE COMBINED)

710-010-20  
UTILITIES  
OGC - 11/12  
Page 1 of 12

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**UTILITY WORK AGREEMENT**  
(**FDOT** PARTICIPATING IN EXPENSE)

Form No. 710-010-54  
UTILITIES  
10/04



# Utility Reimbursements

## Preliminary Engineering

Utility Work Estimate  
Must be signed and  
dated

*No invoice can be  
submitted for ANY  
effort that occurs  
prior to NTP received  
from FDOT*

Preliminary Engineering for utilities is a -36 Phase

Florida Department of Transportation  
**UTILITY WORK ESTIMATE**  
Dec 14, 2016

**FDOT PROJECT INFORMATION**

Financial Project ID: 123456-1-36-01	Federal Project ID:
State Road Number:	County:
FDOT Plans Dated:	District Document No.:

**UTILITY AGENCY/OWNER (UAO)**

Utility Company:	Job No. or Work Order No.:	E-mail:
UAO Project Rep:	Phone:	E-mail:
UAO Field Rep:	Phone:	E-mail:

**SECTION A: ITEMIZED COST ESTIMATE**

Item	Item Cost (\$)	Overhead (%)	Item Cost + Overhead (\$)
Preliminary Engineering	\$0.00		
Right of Way Acquisition			
Construction Engineering			
Construction Labor			

For Preliminary Engineering, only line that should be used



Preliminary Engineering for utilities is a -36 Phase

Florida Department of Transportation  
**UTILITY WORK ESTIMATE**

Dec 14, 2016

**FDOT PROJECT INFORMATION**

Financial Project ID: <b>123456-1-36-01</b>	Federal Project ID:
State Road Number:	County:
FDOT Plans Dated:	District Document No.:

**UTILITY AGENCY/OWNER (UAO)**

Utility Company:	Job No. or Work Order No.:	
UAO Project Rep:	Phone:	E-mail:
UAO Field Rep:	Phone:	E-mail:

For Preliminary Engineering, only line that should be used

**SECTION A: ITEMIZED COST ESTIMATE**

Item	Item Cost (\$)	Overhead (%)	Item Cost + Overhead (\$)
Preliminary Engineering	<b>\$0.00</b>		
Right of Way Acquisition			
Construction Engineering			
Construction Labor			
Materials and Supplies			



# Utility Reimbursements

## Construction

Utility has executed Utility Work Schedule and approved RGB. Utility wants to request reimbursement for construction cost.

Documents to be submitted by utility to be processed include:

1. Master Agreement or Project specific work agreement
2. Signed Utility Work Estimate (including backup material)
3. Executed UWS and RGB



# Utility Reimbursements

Construction

Utility Work Estimate  
Must be signed and  
dated

All documents are  
submitted to FDOT  
for processing

Preliminary  
Engineering for  
utilities is a -56  
Phase

Florida Department of Transportation  
**UTILITY WORK ESTIMATE**

Dec 14, 2016

**FDOT PROJECT INFORMATION**

Financial Project ID:	123456-1-56-01	Federal Project ID:	
State Road Number:		County:	
FDOT Plans Dated:		District Document No.:	

**UTILITY AGENCY/OWNER (UAO)**

Utility Company:	Job No. or Work Order No.:		
UAO Project Rep:	Phone:	E-mail:	
UAO Field Rep:	Phone:	E-mail:	

**SECTION A: ITEMIZED COST ESTIMATE**

Item	Item Cost (\$)	Overhead (%)	Item Cost + Overhead (\$)
Preliminary Engineering			
Right of Way Acquisition			
Construction Engineering			
Construction Labor			



Preliminary  
Engineering for  
utilities is a -56  
Phase

Florida Department of Transportation  
**UTILITY WORK ESTIMATE**

Dec 14, 2016

**FDOT PROJECT INFORMATION**

Financial Project ID: <b>123456-1-56-01</b>	Federal Project ID:
State Road Number:	County:
FDOT Plans Dated:	District Document No.:

**UTILITY AGENCY/OWNER (UAO)**

Utility Company:	Job No. or Work Order No.:	
UAO Project Rep:	Phone:	E-mail:
UAO Field Rep:	Phone:	E-mail:

**SECTION A: ITEMIZED COST ESTIMATE**

Item	Item Cost (\$)	Overhead (%)	Item Cost + Overhead (\$)
Preliminary Engineering			
Right of Way Acquisition			
Construction Engineering			
Construction Labor			



# Utility Reimbursements

## Construction

All documents are submitted to FDOT for processing. FDOT processes the request, encumbers the funds, a change order to the Master Agreement or executes Utility Work Agreement and issues NTP.

*No invoice can be submitted for ANY effort that occurs prior to NTP received from FDOT*