Governmental Roadway Relocations

FECA June 2025

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Topics

Locating Existing Facilities

Identifying Conflicts

RGBs

Conflict Mitigation

Utility Work Schedules

Build America, Buy America Act

Locating Existing Facilities

Identification, Verification, and Data Collection

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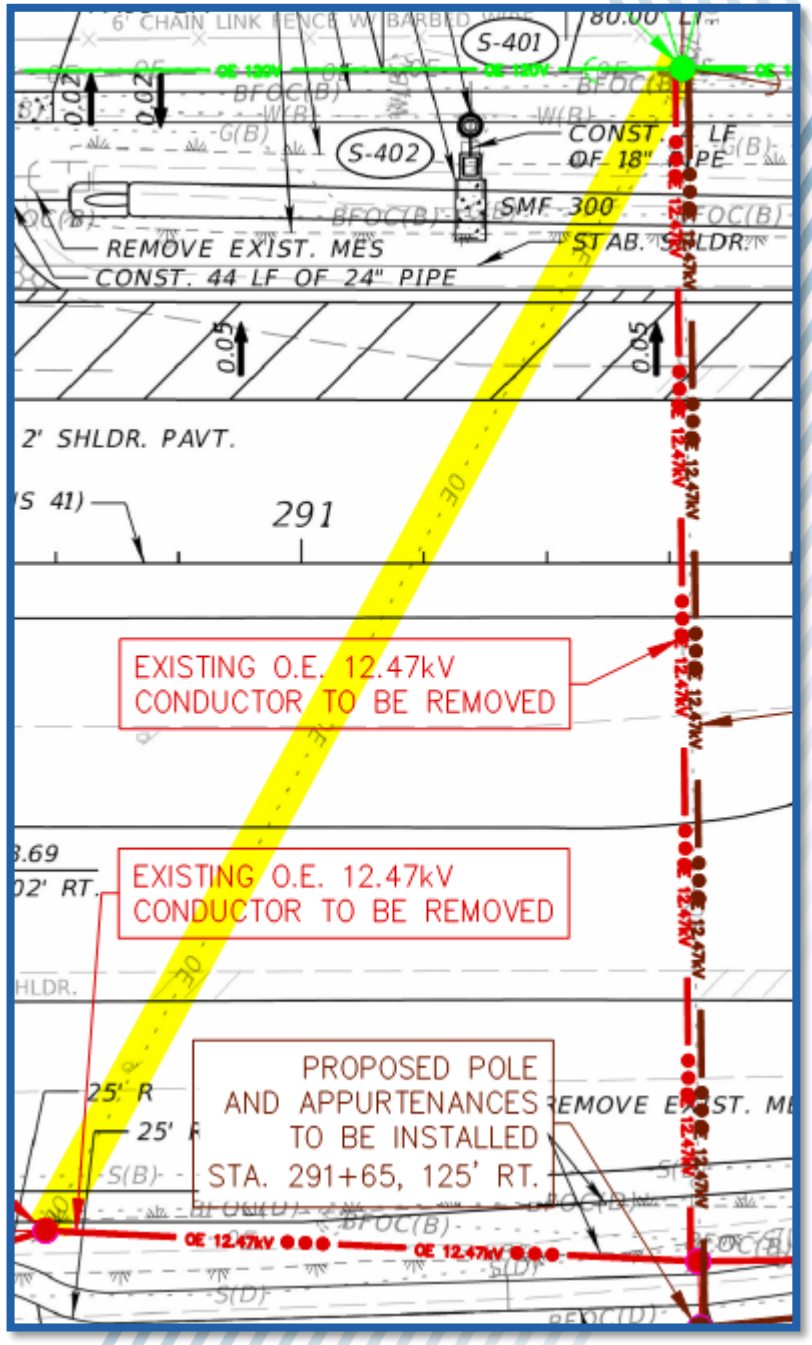
Locating Facilities

- Be cautious of the provided located facilities from the Utility Adjustment Sheets
  - These are typically Quality Level D – information obtained solely from a review of utility records (FL Statute 556.102)
  - Level D locates can help provide an idea of the facilities in the area, but are often limited in accuracy and comprehensiveness
- Sources to verify existing facilities:
  - GEO Rectified Imagery
  - Internal Utility Records
  - Open-Source Mapping
  - Field Verification



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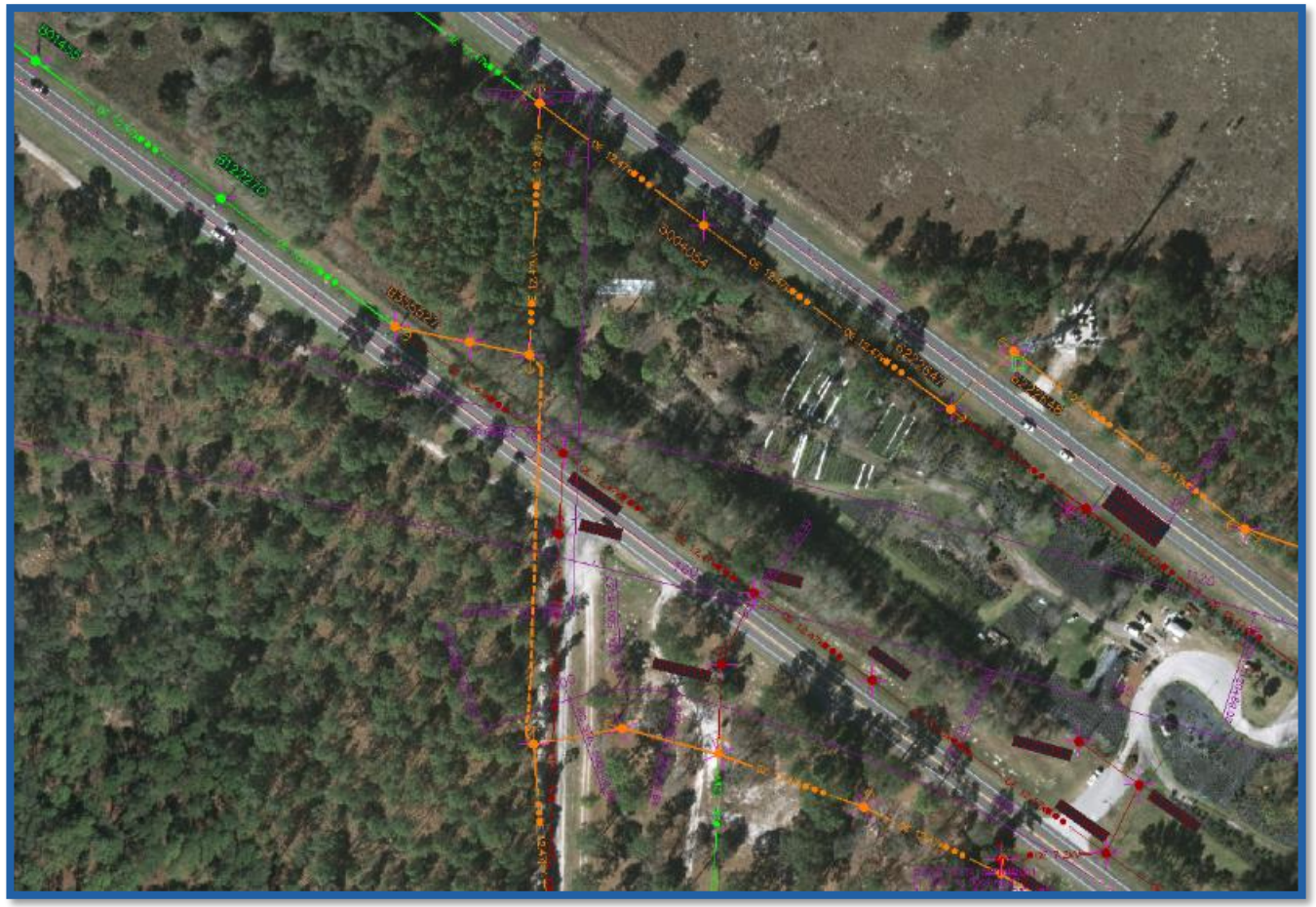
GEO Rectified Imagery



- Aerial photos that are GEO rectified to a NAD (North American Datum) 83 coordinate system with a tolerance of +/- one meter

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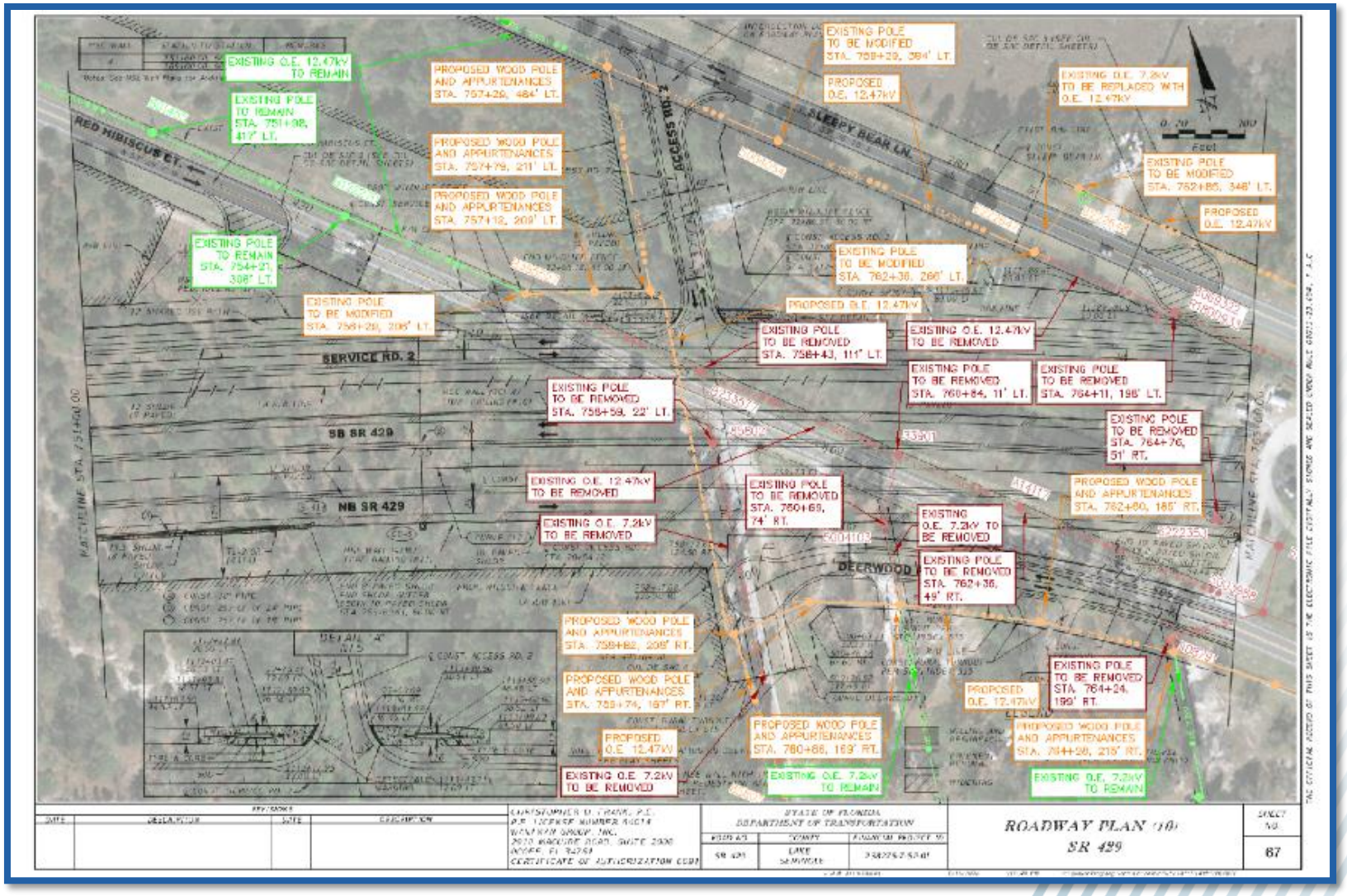
GEO Rectified Imagery

- Allows the designer to overlay existing facilities on top of the aerial photos and compare facility locations to provided Utility Adjustment Sheets



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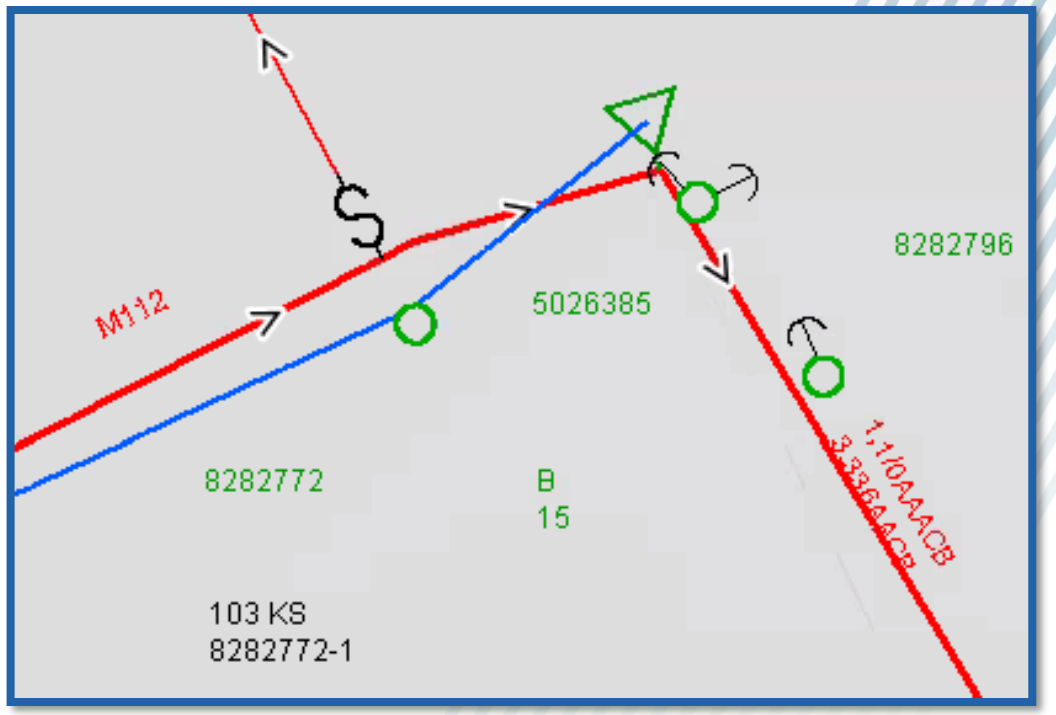
Internal Utility Records

- Until locates are conducted, this is the most reliable source of identifying underground facilities as they cannot be viewed with most other sources
- Identify equipment associated with facilities that may still cause conflicts
  - Examples: down guys and anchors, pedestals, pull-boxes, pole heights, overhead cables
- Additional information to assist with field verification
  - Examples: equipment identification numbers, specialized equipment
- Allows designer to look at the system beyond the construction limits
  - RGBs are just the first step in an overall design process
- Identifying facilities that may be targets on unrelated projects



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Open-Source Mapping

- Examples: Google Maps, Google Earth, Bing, OpenStreetMap, County Property Appraisers
- Used side-by-side with Internal Utility Records
- **Always check dates** Image capture: Dec 2016 © 2018 Google

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Field Verification

- The most reliable and precise source of identification
- Field photos, measurements, and notes
- After field verification is performed, designers can update the Internal Utility Records to keep the utility's mapping system accurate

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Conflict Mitigation

How to find and mitigate conflicts in a RGB plan set

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RGB Creation

- All facilities that break ground
  - Not all overhead equipment need to be shown
- Station numbers
  - Corresponds to Utility Work Schedule (UWS)
- Color coordinating text
- Makeup of facilities
  - Examples: denoting the number of phases, size of pipe, voltages, facility identification numbers
- Easements
  - Reimbursable
  - New easements required/utilizing existing easements

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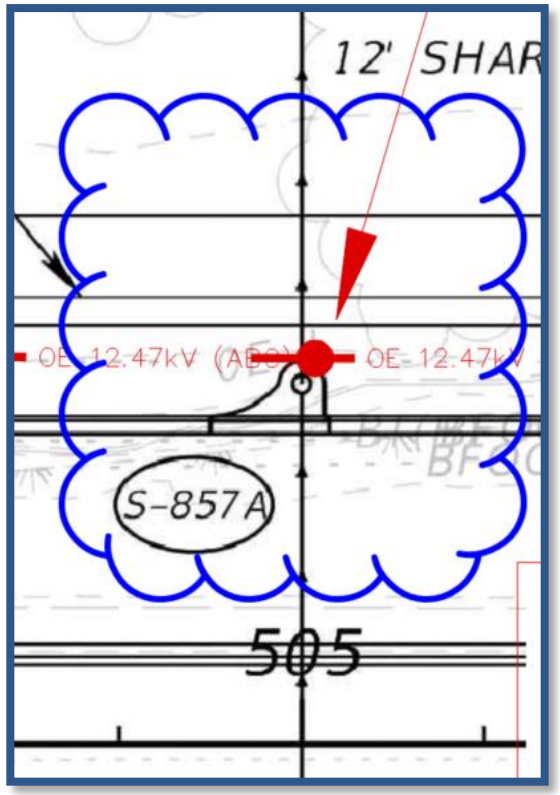
RGB Conflicts



- What is a conflict?
  - A conflict is when an existing utility facility impedes the proposed roadway design
- How are conflicts determined?
  - On a roadway plan, proposed changes are shown in a dark black color while existing conditions are presented with a light grey color
  - A designer will review the RGB plan sheet and compare the existing facilities with the proposed changes
  - If a facility overlaps with a proposed change, then the facility will be labeled, in red, as a conflict
  - Designers must also cross reference other sections of the roadway plan set to ensure all conflicts are discovered. These sections include, but are not limited to, the following:
    - Cross Sections
    - Drainage
    - Signalization & Signage
    - Roadway Profiles
    - Temporary Traffic Plan

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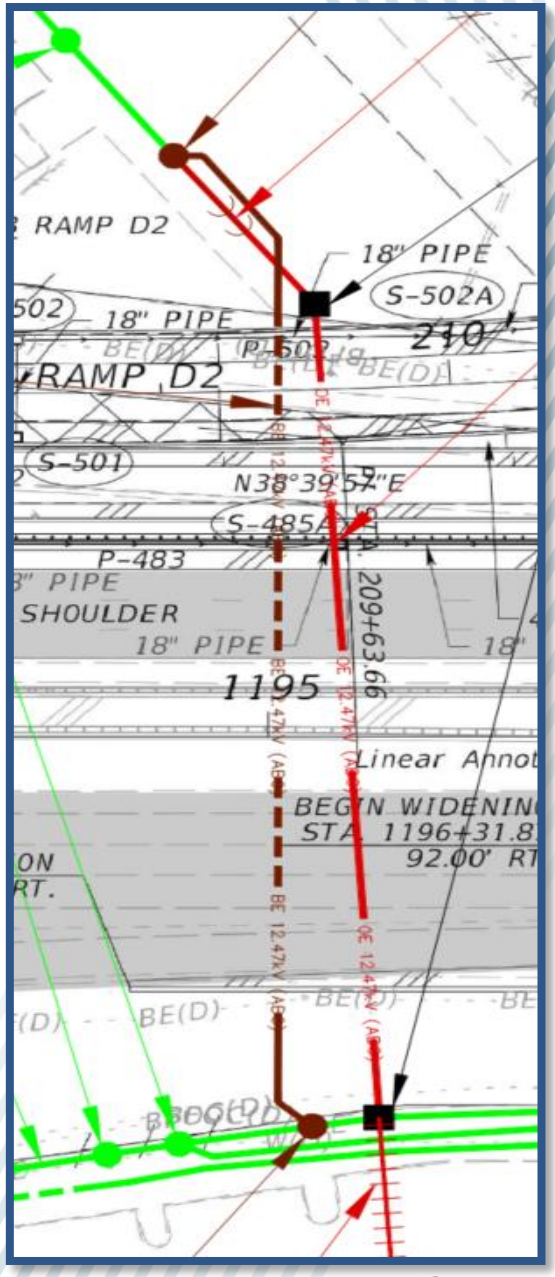
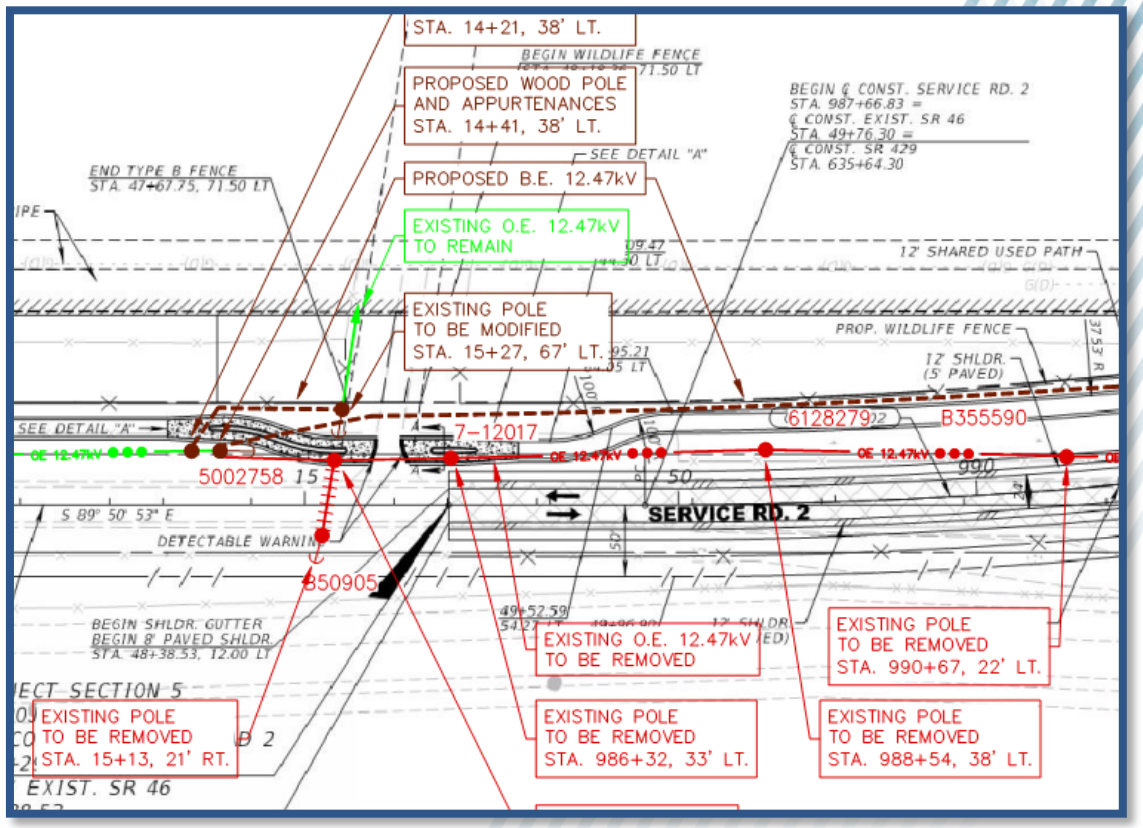
RGB Conflict Mitigation

- What is conflict mitigation?
  - Conflict mitigation is the process, by which, a designer relocates existing facilities, that conflict with proposed roadway modifications, to locations that will not be in conflict
- How does a designer properly relocate facilities?
  - Choose locations where minimal roadway work is to occur
    - Utilize the back of right of way
    - Easements might be needed
  - Cross reference other sections of the roadway set
    - This is crucial when determining underground paths as these sections will show potential conflict depths
    - It can also show you how grade changes can affect pole setting depths
  - Connect roadway plan sheets together to ensure a cohesive design
    - When your design crosses from one sheet to the next connect them together
    - This allows you to see if your proposed changes will have any downstream effects



Benefits of Utilizing AutoCAD for RGBs

- Use of Designer CAD files (i.e. alignment files)
  - Allows you to generate station offset labels
  - Enables the Utility designer to overlay facilities overtop of imagery, but still effectively position the facilities on the roadway plans to the proper scale.
- Sheet files can be utilized and updated continuously
- CAD files can be shared with the Utility Coordinator, FDOT, roadway contractor, or other utilities
  - Permits others to overlay their own facilities on top of your base file
- Create templates, line types, blocks, and layers
  - Allows a standardized product



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Utility Work Schedules (UWS)

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Utility Work Schedules (UWS)

- Line-item version of the RGB plan set
- The UWS is:
  - A contract with the Governmental agency (usually FDOT) or its agent
  - Schedule for relocating utility facilities, intended to protect the utility company
  - Negotiable
- FDOT, County, and City have varying templates for a UWS
- Includes the following:
  - Project & Utility information
  - Legal Signatures of Utility Representative, Engineer of Record, & FDOT Representative
  - Allocation of working days that are to occur before and during project construction
  - Special constraints (i.e weather delays, emergency numbers, etc.) – Section B
  - Table with the following information for each line item
    - Act Number
    - Utility Facility (type, size, material, status)
    - Station Offset (To and From)
    - Utility Work Activity Description
    - Dependent Activity
    - TCP Phase
    - Consecutive Calendar Day(s) (Before and During) Construction

SECTION C: UAO's WORK ACTIVITIES

Act. No.	Utility Facility (type, size, material, status)	From Station/ Offset	To Station/ Offset	Utility Work Activity Description	Dependent Activity	TCP Phase	Consecutive Calendar Days Prior to Const.	Consecutive Calendar Days During Const.
ROADWAY PLAN (11)								
1	Proposed Pole and Appurtenances	1195+15, 161' RT	N/A	To be installed; Non-compliant Buy America materials to be used until they can be replaced with Buy America compliant materials later.	ROW staked, cleared, grubbed, etc.	Phase 1	0	10
2	Proposed BE 12.47kV Conductor	1195+15, 161' RT	1194+87, 212' LT	To be installed.	Act. 1 & 2	Phase 1	0	27
3	Proposed Pole and Appurtenances	1194+87, 212' LT	N/A	To be installed; Non-compliant Buy America materials to be used until they can be replaced with Buy America compliant materials later.	ROW staked, cleared, grubbed, etc.	Phase 1	0	10
4	Existing Pole (LBV-45) and Appurtenances	1195+42, 158' RT	N/A	To remain in place and in service.	N/A	Phase 1	0	1
5	Existing OE 12.47kV Conductor	1195+42, 158' RT	1195+16, 176' LT	To be removed.	All proposed facilities installed and energized; Will require coordination with law enforcement and FDOT for rolling roadblock needed for removal.	Phase 1	0	5
6	Existing Pole (LBV-46) and Appurtenances	1195+16, 176' LT	N/A	To remain in place and in service.	N/A	Phase 1	0	1

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Utility Work Schedules (UWS)

When to complete a UWS:

- **30% plan submittal** – complete “green” only RGBS showing existing utilities, NO UWS
- **60% plan submittal** – full RGB and recommended to only complete “Title Page” and “Section B” of the UWS unless specifically requested to certify the utilities by the Utility Coordinator
  - Do not sign the UWS at this stage
- **90% plan submittal** – Revise 60% RGB and complete full UWS
  - UWS should only be signed after review is completed by the Utility Coordinator and all negotiations of calendar days and “Section B” are finalized and agreed upon

- **No Conflict or No Facilities** – recommended to provide a one-day UWS along with “Section B” notes applicable to the project
  - Recommended to never submit “No Conflict” letter – this opens the utility to be liable for any project delays should a utility conflict be identified by the road contractor

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UWS – Section B: UAO Special Conditions/Constraints

- Recommended to add the following information:
  - **Emergency contact number for utility for nights, weekends, and holidays**
  - **Calendar day and crew availability response limitations due to emergency and weather situations**
    - *Line crew availability may be affected or limited due to our required response to emergency conditions. This limitation will be dependent upon the severity of the emergency.*
    - *Work estimated in "Consecutive Calendar Days" is assumed to be non-inclement weather days. UAO's resources can also be affected by weather not directly contacting the Florida region as the company supports other utility companies in surrounding areas and states.*
  - **Clearing/staking/grading requirements**
    - *FDOT, or its contractor, is responsible to clear and grub the right-of-way (including, but not limited to, trees, buildings, private signs, and billboards). Upon request right-of-way, stationing, finished grade and FDOT structure staking must be provided, and prior to installation of this UAO's facilities*
  - **Utility Joint User constraints with facility removals**
    - *This UAO's poles scheduled to be removed will be removed within Ten (10) working days from the time they are cleared by all joint users and notification by FDOT provided to this UAO's representative.*
  - **Switching and/or de-energization constraints**
    - *Both pole line circuits may not be de-energized at the same time.*
  - **Working Hours Conditions**
    - *All normal relocation activities performed by this UAO will be done during its regular scheduled working hours. No nighttime relocation activities involving energized conductors or equipment will be performed, except for outage restoration or other such emergency work.*
  - **Required notice for pole holds**
    - *Any temporary bracing or holding of this UAO's poles, existing or proposed, required for FDOT construction will require Ten Days (10) working days advance notice by FDOT to this UAO's representative.*
  - **Bucket truck and maintenance access for existing facilities**
    - *Bucket truck access must be maintained to all this UAO's existing and proposed pole, pull box and switchgear locations throughout the duration of the project construction for maintenance and outage restoration.*

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Federal Highway Administration Build America, Buy America Act

Buy American Act (BAA)

- Predecessor to Build America, Buy America (BABA)
- Requires utilities to purchase materials that are manufactured in America if 90% of the material is comprised of steel or iron
- Utilities only needed to adhere to BAA for the following reasons:
  - A project received federal funds
  - Utility relocation work was reimbursable

Build America, Buy America (BABA)

- BABA is the evolution of BAA making BABA the new law of the land
- Requires all materials utilized in a federally funded infrastructure project, to be manufactured in America
- BABA will not be exclusive to reimbursable projects as was the case with BAA
- For a material to be considered BABA compliant, 55% of the manufactured part's components, by cost, must be mined, produced, or manufactured in the United States
- The 55% requirement will subsequently become effective for projects obligated on or after October 1, 2026

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Questions?

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