



# NORTH CAROLINA

Department of Transportation

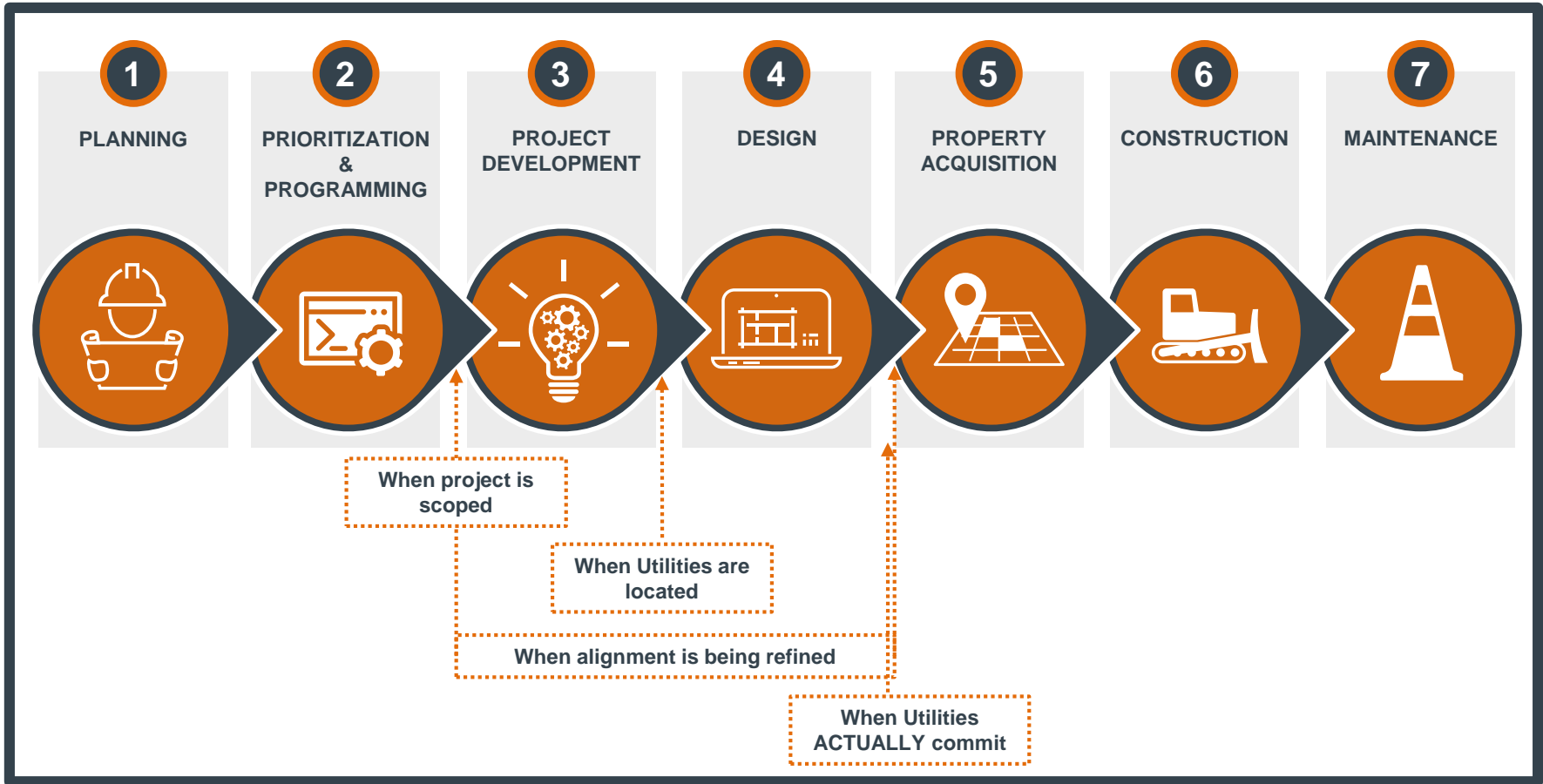


# Importance of Utilities Data in NCDOT Project Delivery

November 6, 2019



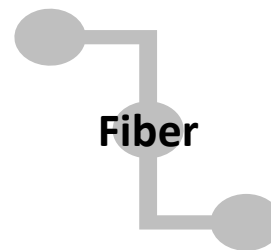
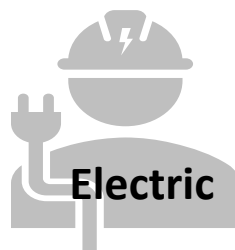
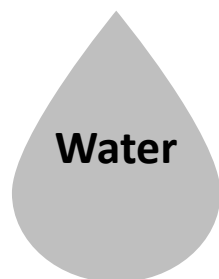
# NCDOT Project Delivery



Improving Project Delivery = Knowing More Earlier = Better Scope, Schedule, Budget

# Utilities: A Complicated Task

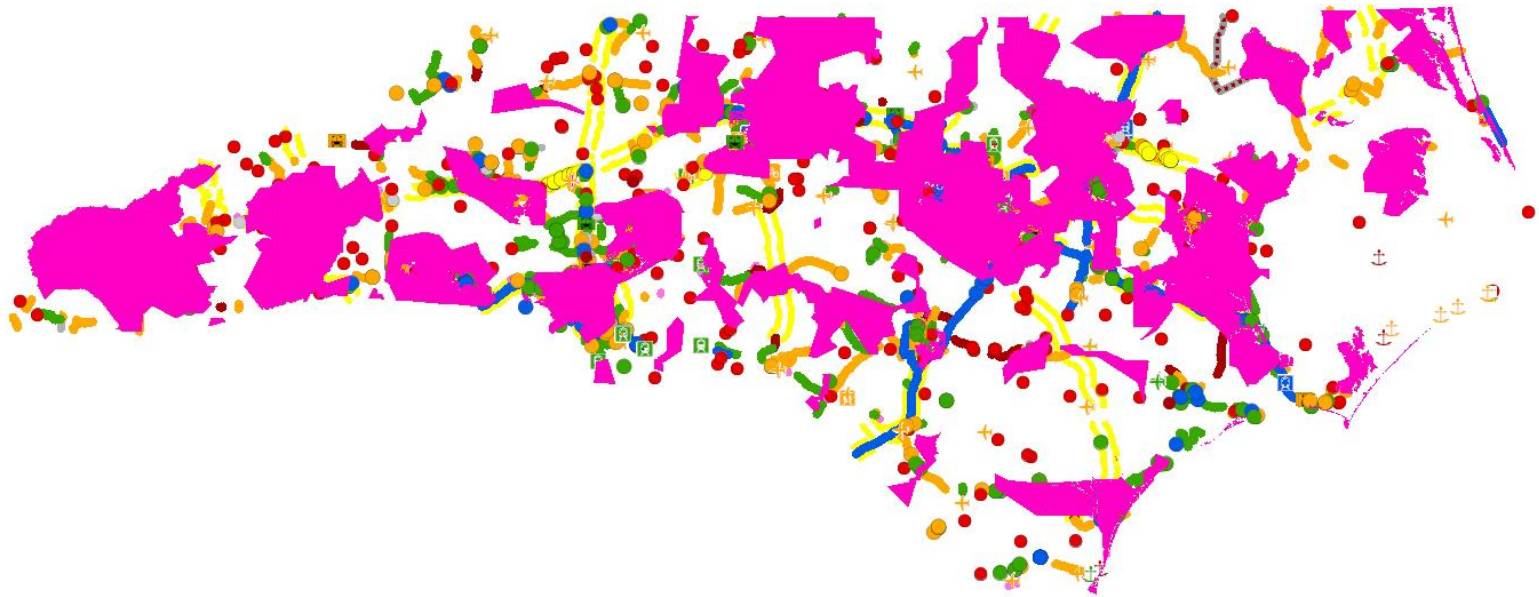
- Over 400 unique utility providers in state
- Diverse services & providers



# Example: Power Providers

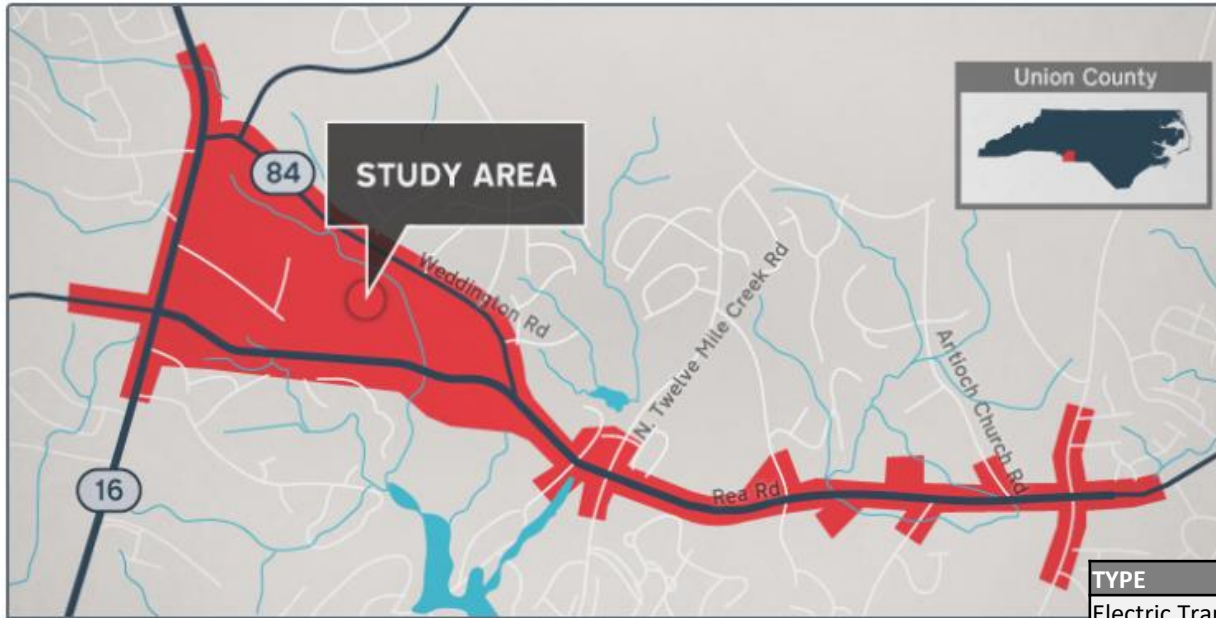
- 105 different power providers in the state
  - Power Companies
    - Duke
    - Dominion
    - Others
  - Electric Membership Corporations (EMC)
  - Municipalities
  - Schools/Universities

# Example: Power Providers



Layer	Features	No Duke/No Dominion	% Remaining
STIP Points	796 pts	399 pts	50.1
STIP Lines	22959560 lf	11685082 lf	50.8

# NCDOT Project U-3467



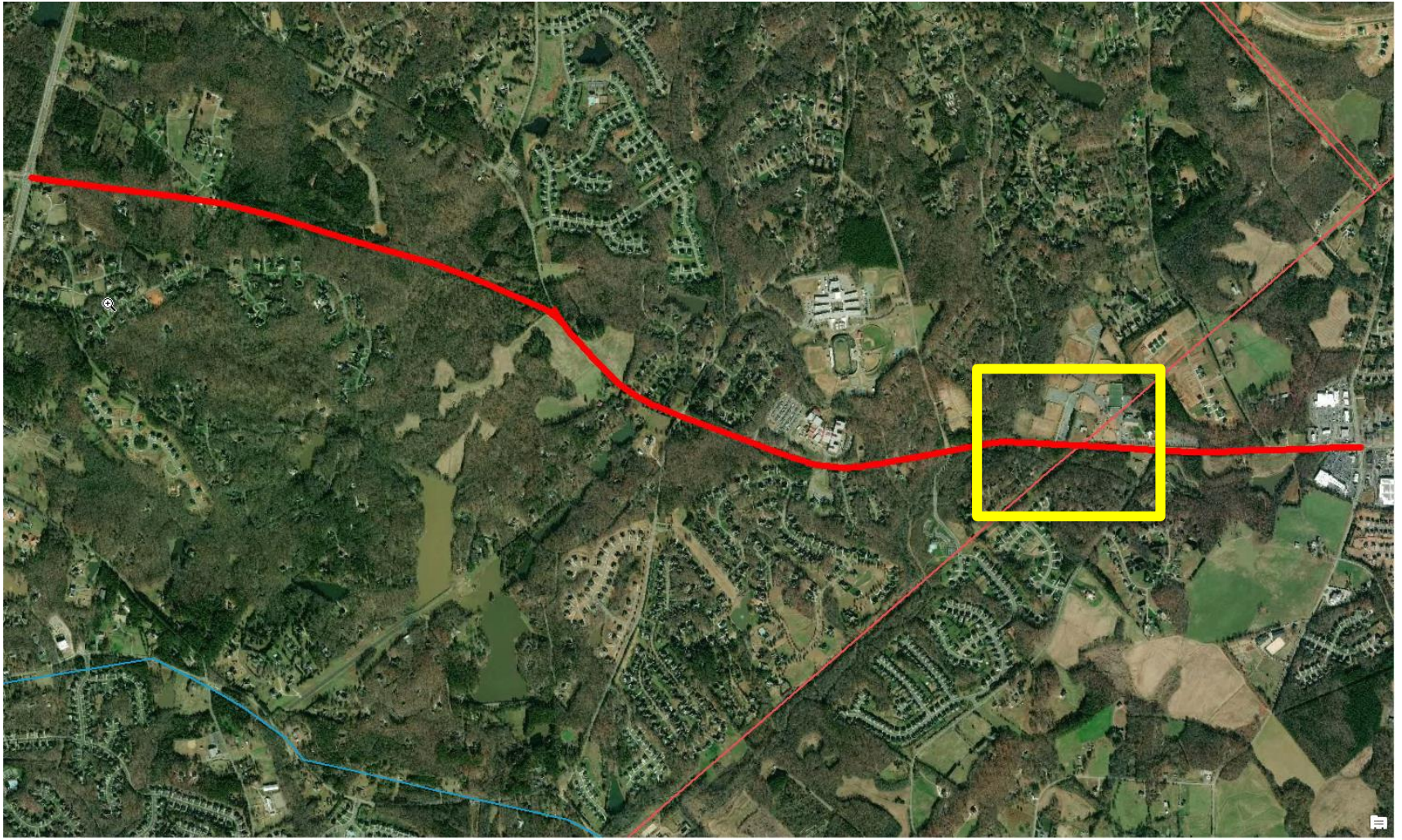
The map above shows only the project's general location. ([View detailed maps](#))

<b>County:</b> Union	<b>Estimated Cost:</b> \$49 million
<b>Status:</b> In Development	<b>Start Date:</b> 2019
<b>STIP Number:</b> U-3467	<b>Completion Date:</b> TBD

TYPE	UTILITY
Electric Transmission	DUKE Energy
Electric Distribution	DUKE Energy
Electric Distribution	Union Power Cooperative
CATV	Spectrum (Charter/TWC)
TOLL/DATA	Conterra (Broadplex)
TOLL/DATA	CenturyLink {Level3}
TOLL/DATA	MCI-Metro
LOCAL Telephone	Windstream (Verizon/GTE)
Water	Union County Water & Sewer
Sewer	Union County Water & Sewer
Natural Gas Distribution	Piedmont Natural Gas
Natural Gas TRANSMISSION	Piedmont Natural Gas

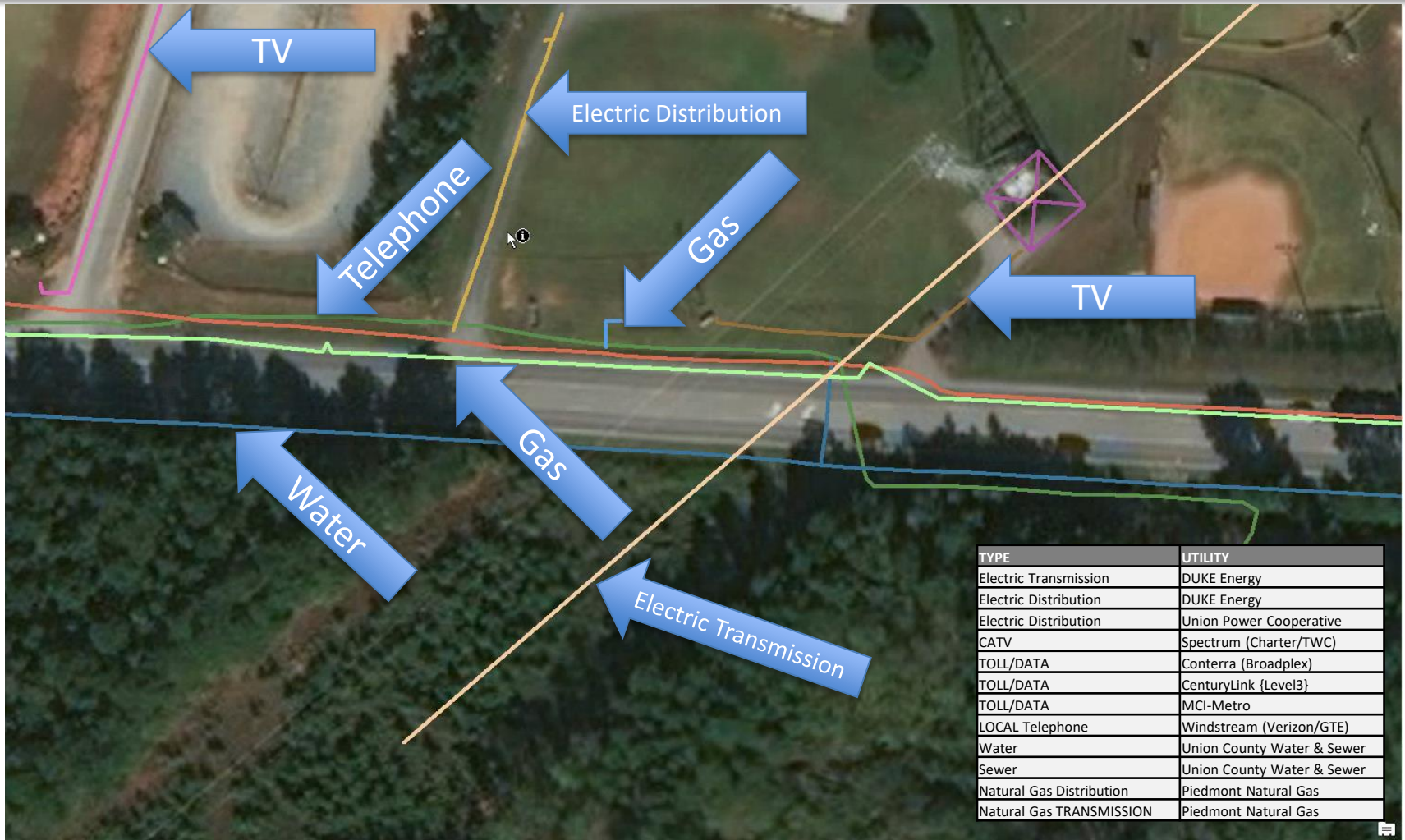


# NCDOT Project U-3467





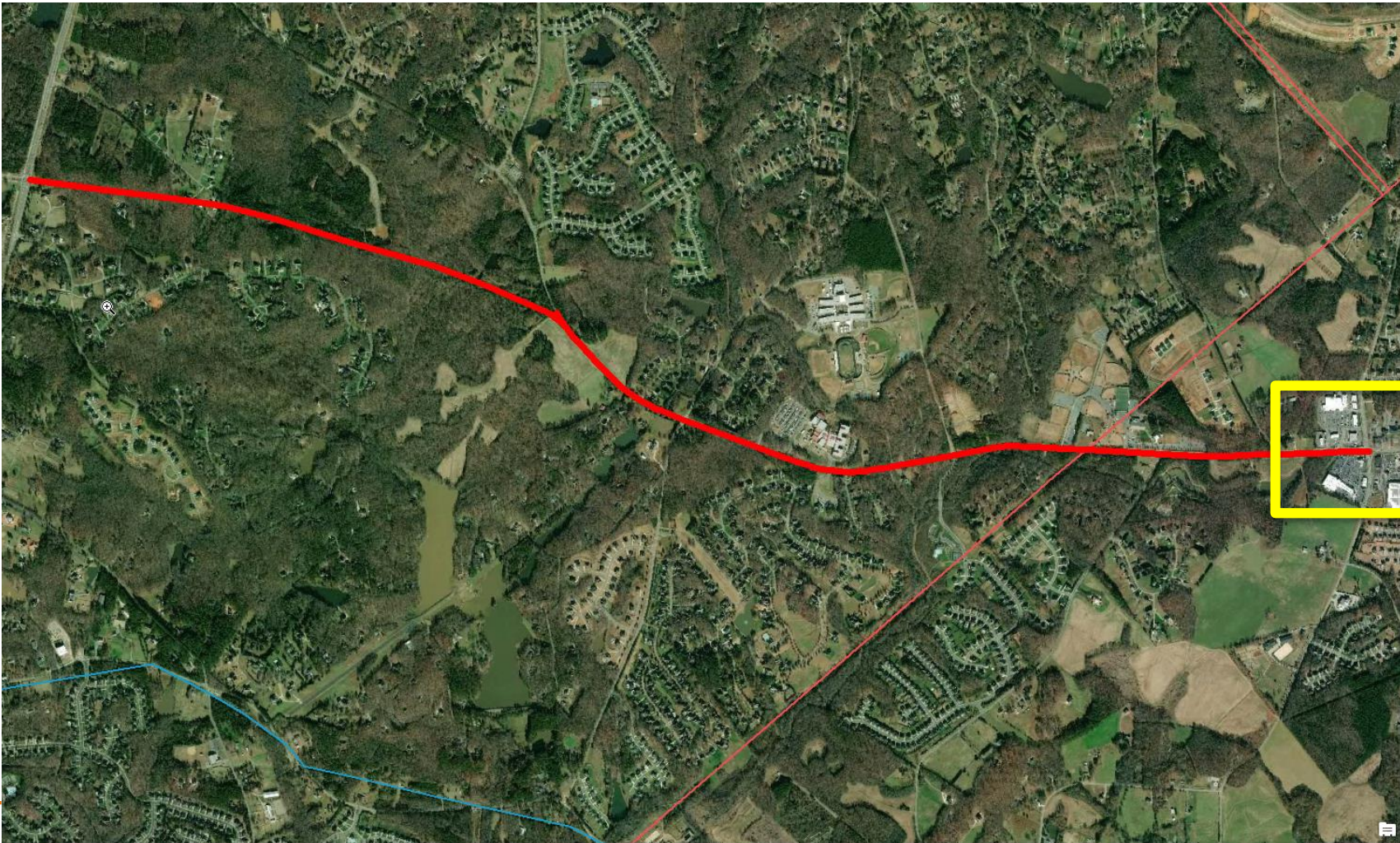
# NCDOT Project U-3467



TYPE	UTILITY
Electric Transmission	DUKE Energy
Electric Distribution	DUKE Energy
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CATV	Spectrum (Charter/TWC)
TOLL/DATA	Conterra (Broadplex)
TOLL/DATA	CenturyLink {Level3}
TOLL/DATA	MCI-Metro
LOCAL Telephone	Windstream (Verizon/GTE)
Water	Union County Water & Sewer
Sewer	Union County Water & Sewer
Natural Gas Distribution	Piedmont Natural Gas
Natural Gas TRANSMISSION	Piedmont Natural Gas

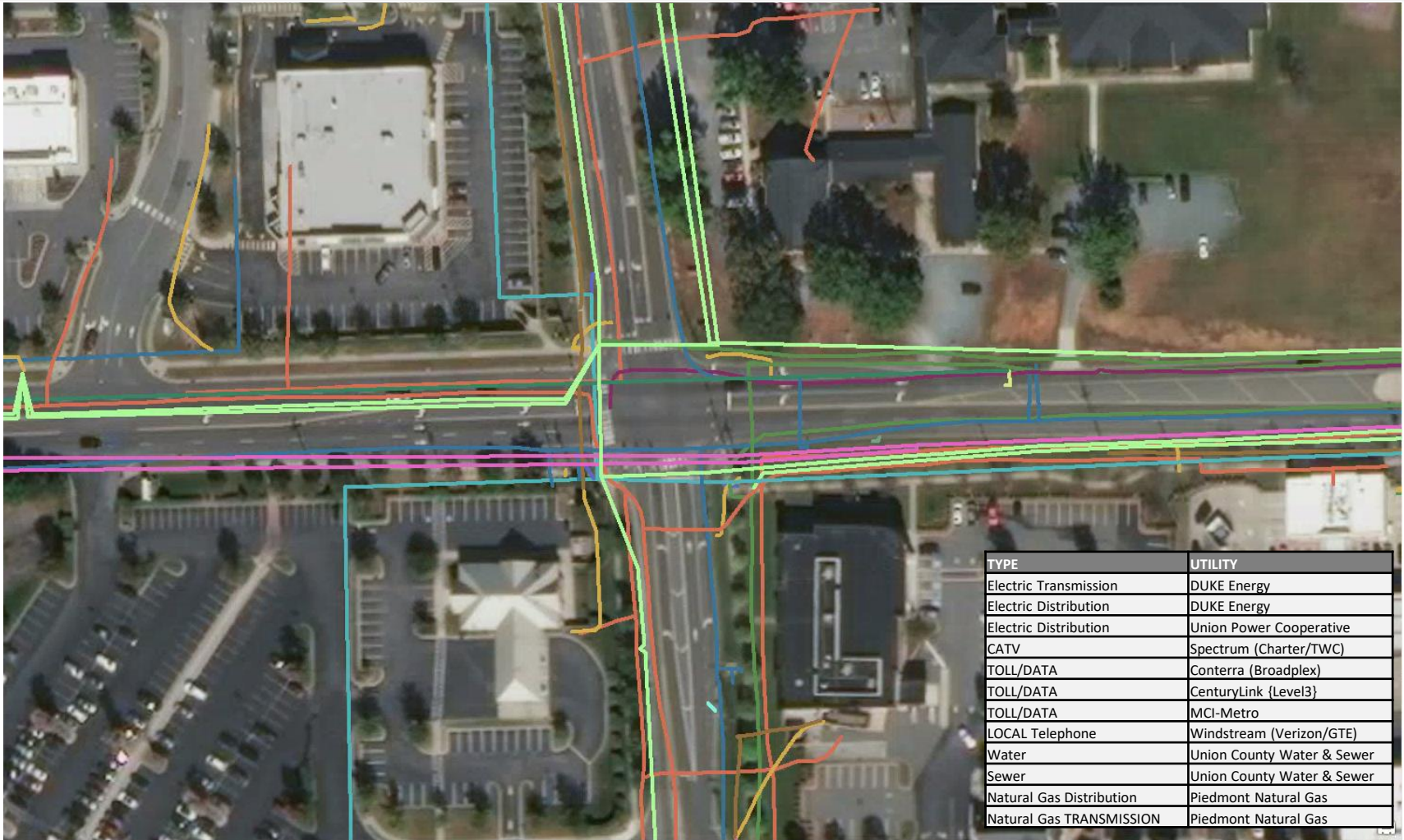


# NCDOT Project U-3467



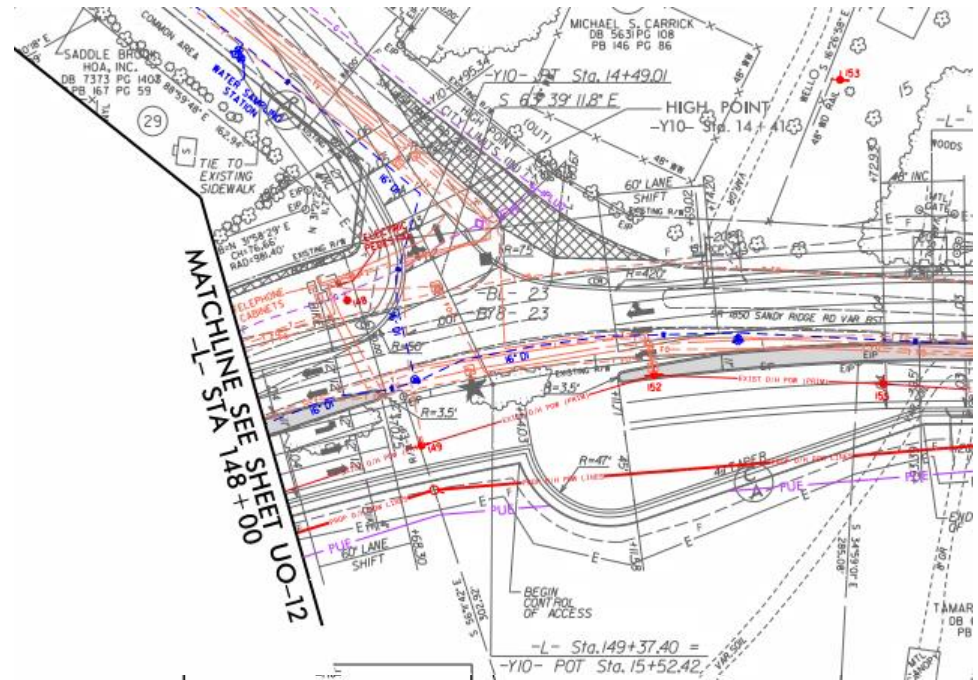


# NCDOT Project U-3467



# Costs

- Current costs of not knowing enough early
  - Altered preliminary design decisions
  - Recurring design revisions (As late as 25% plans)
  - Difficult utility coordination
  - Schedule delays
    - Utility needs to schedule move
    - DOT must wait until complete
  - Budget increases
    - DOT (No MOA outside ROW)
    - Utility (MOA inside ROW)
  - Loss of trust
    - Utility/DOT
    - DOT/Public
- All of these translate directly to \$\$\$





# We are trying...

- Contacted 811 directly via Project ATLAS
  - No Success
- Contacted 811 directly via DOT Encroachments
  - No Success
- Investigating, via the internet, for open source data
  - Limited success
- Engaging consultants to contact individual utilities
  - Maser Engineering via ATLAS
- Engaging consultants to assess the issue from the executive level
  - KPMG via DOT Mgmt

# Potential Use in ATLAS

**A** Advancing  
**T** Transportation through  
**L** Linkages  
**A** Automation and  
**S** Screening



[ATLAS Screening Tool](#)

# Thoughts moving forward...

- Security is essential
    - Location information can remain abstracted
    - State requirements
      - NCID
      - Active Directory (EADS, NCDOT etc.)
      - ArcGIS Portal
    - Private Security Postures and Preferences
      - Unknowns
  - Embracing Web Services
    - Architecture/Cloud
    - Culture changes
-



# What can NCGICC do?

- Advocacy
- Communication with Utility Owners
- Crafting Tactical Relationships
- Gather Feedback on the issue
  - Construct Use Cases
- Form a Committee
  - Similar to Parcel Map Initiative
- Blanket MOA or MOU similar to 811

# Questions?

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