



**INNOVATION** through RUL(es)IS

**TxDOT ROW**

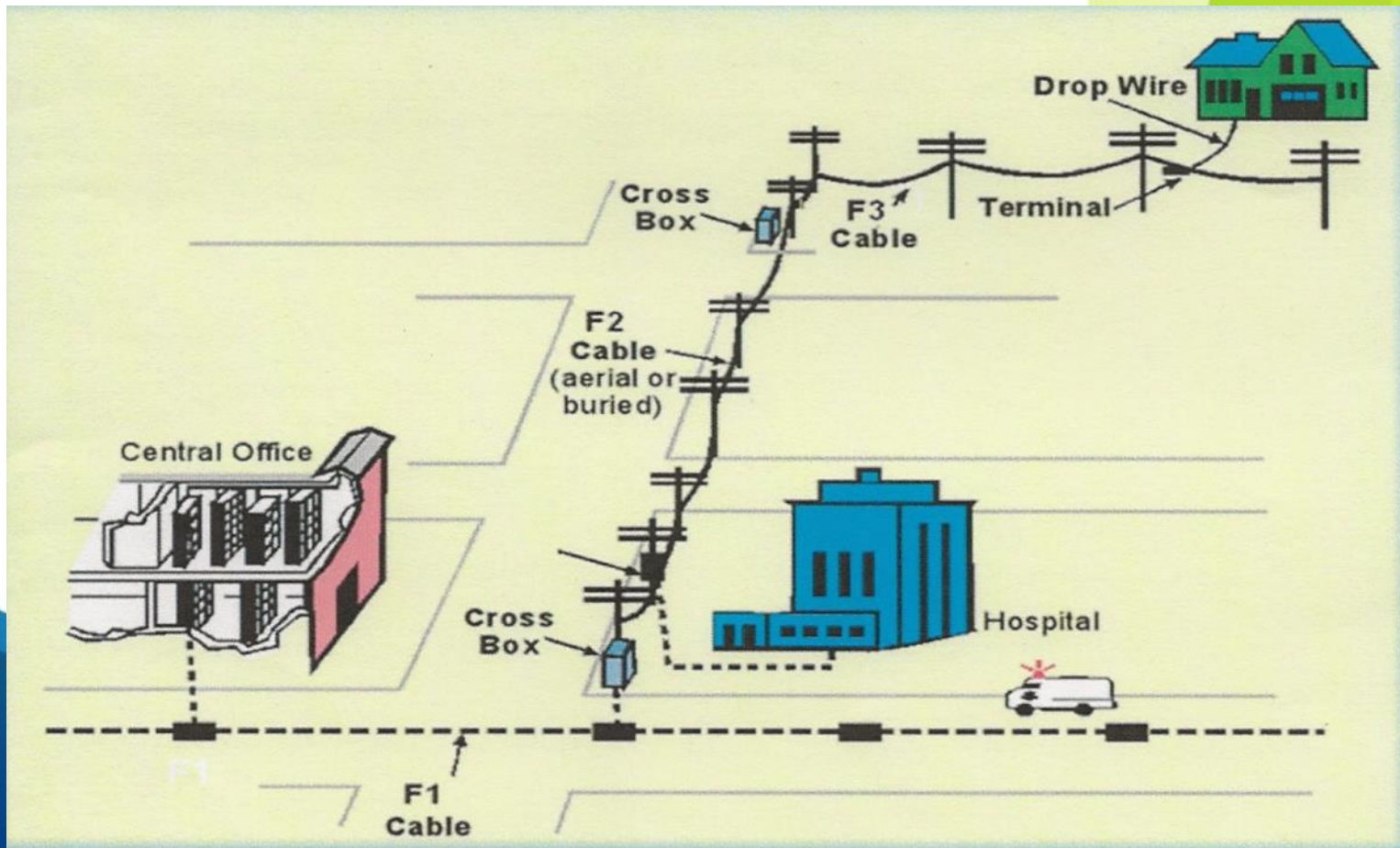
**UTILITY WEEK**

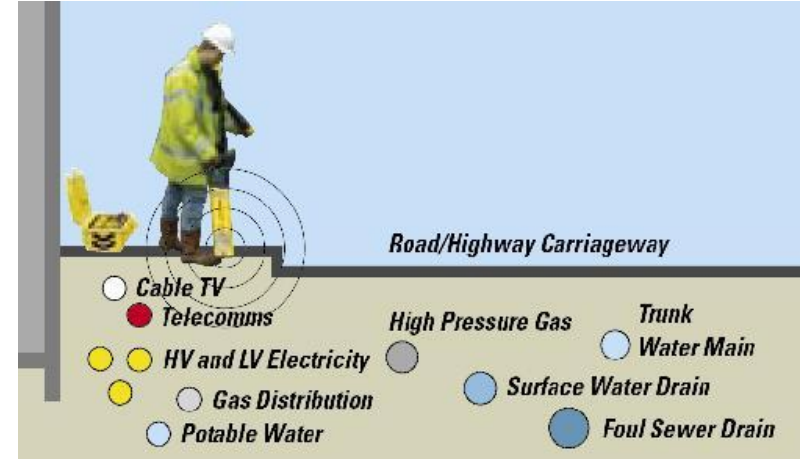
**Welcome to Track 1**

# Basics of the Telecommunications Network: The Life of a TXDOT Relocation Project



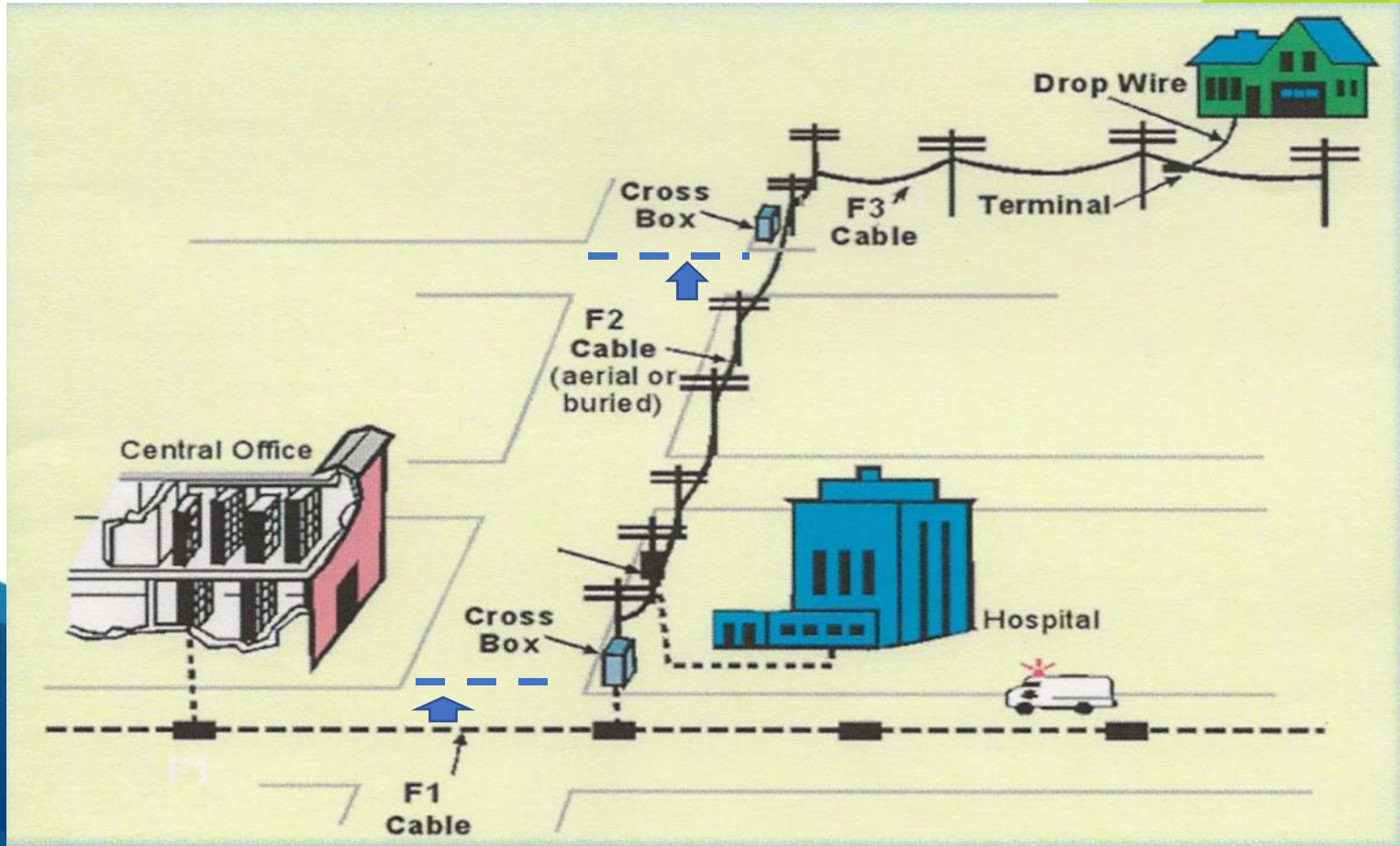
# TELECOMMUNICATIONS WIRELINE NETWORK OVERVIEW





# Various Underground Facilities

# TELECOMMUNICATIONS WIRELINE NETWORK OVERVIEW - RELOCATION



# Relocation: A Matter of Time and Cost

The “Big” Steps:

- Obtain “cleared” Rights-of-Way (i.e., other facilities)
- Trench and place new fiber or copper and/or
- Place new poles and attach fiber or copper

Prepare for “cutover” (customer notification and negotiation)

This step is time consuming.

Conduct the *splicing* work to cut lines over as quickly/smoothly as possible.



# Relocation Realities: Issues to Manage

Telecom lines must be spliced one by one. There are no shortcuts to this!

Telecom lines normally are placed lowest on utility poles and, if underground, farthest from center line of highway/road. This means AT&T and other telecoms are the LAST to move!



# The Relocation Process

- Receive TXDOT Notification of project and Schematic or 30% Plans
- Review 30% Plans and provide TXDOT As-built/Redlines to begin SUE coordination
- Work with TXDOT consultant to develop SUE prior to 60% Plans
- Receive 60% Plans
- Review 60% Plans and Confirm or eliminate conflicts
- Develop Relocations Plans
- Receive 90/95% Plans and compare 90% plans to relocation plans
- Submit UIR / Reimbursable Agreement
- Confirm ROW acquisition is Complete



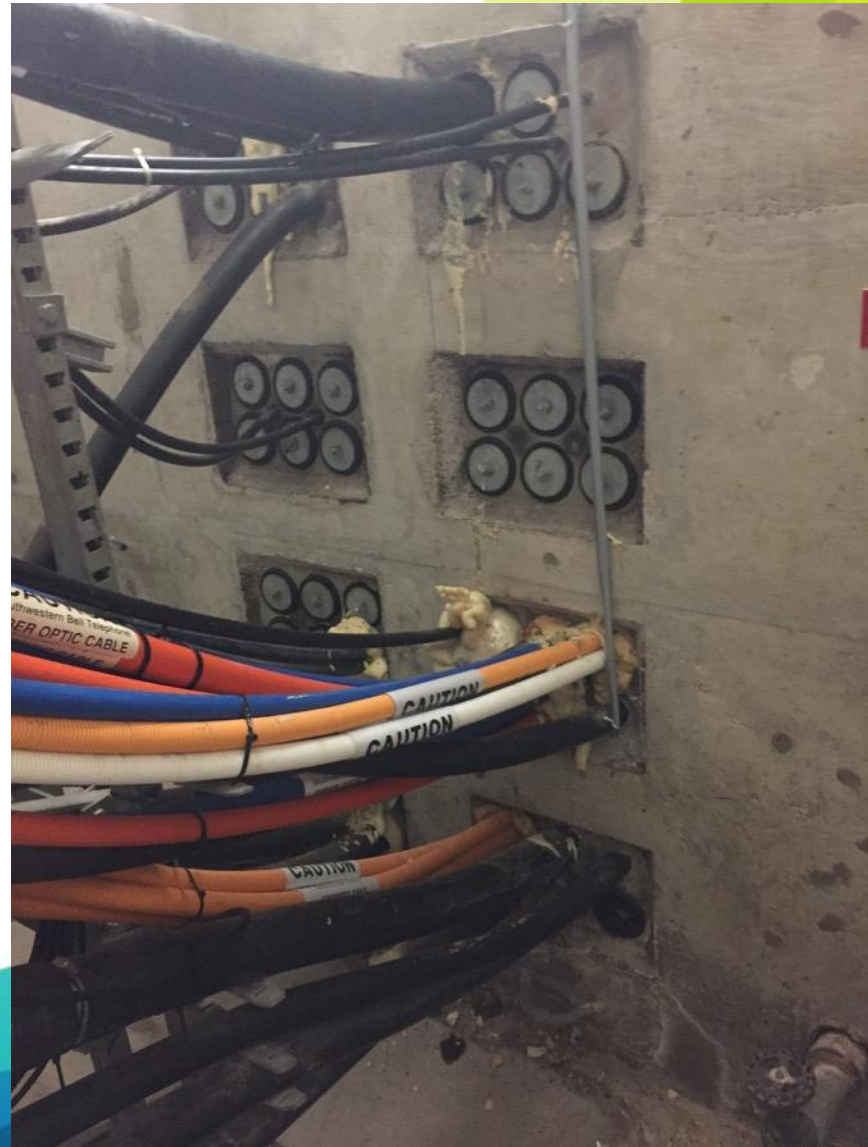


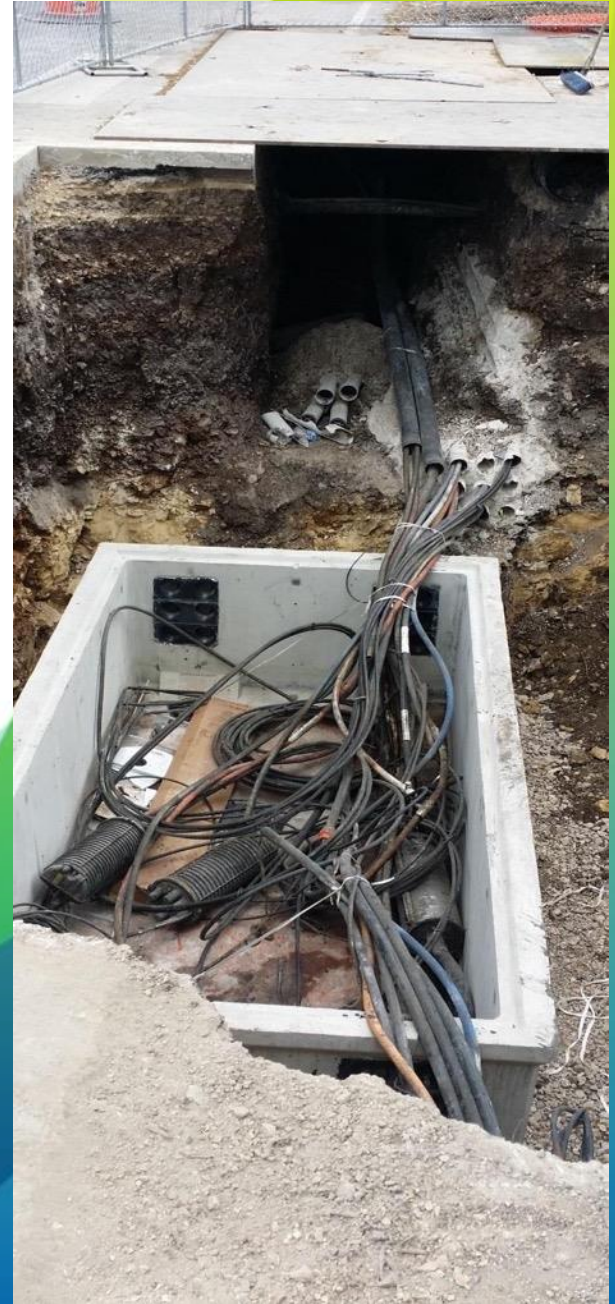
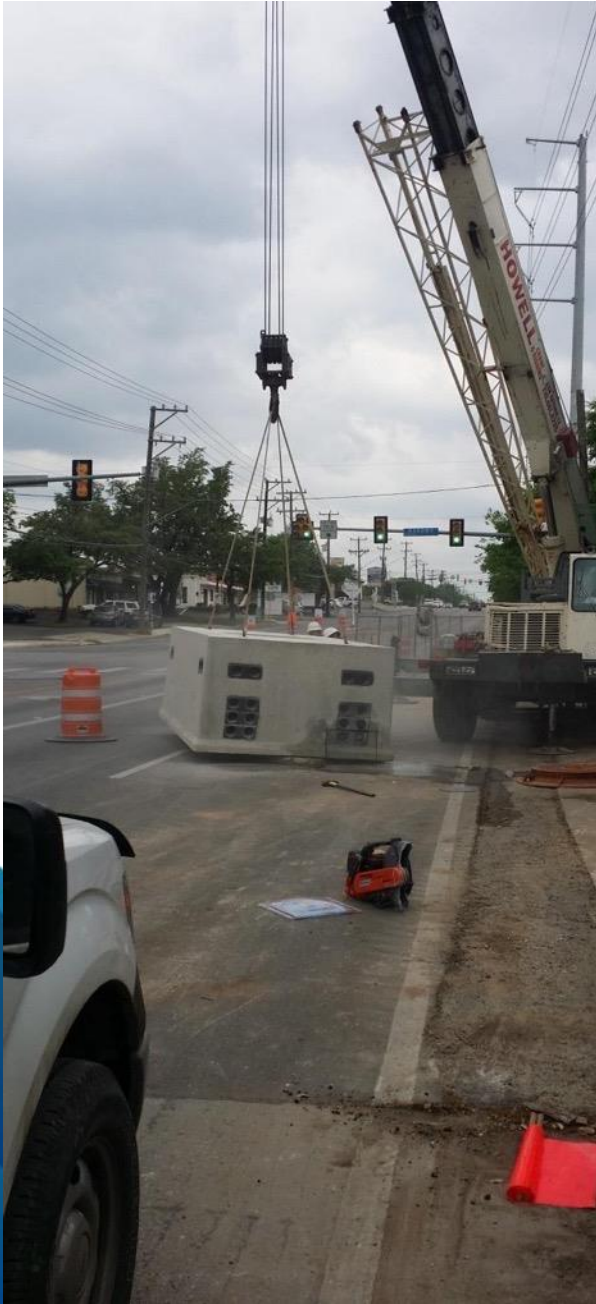
# The Relocation Process

- Determine Funding
- AT&T Engineering Submits Project to Construction
- Construction review and bid to hire contractor
- Once Permit is approved order structure material and mobilize contractor
- Build Structure
- Hire placing contractor structure build
- Once Structure footages can be proved order cable
- Order and Place electronics
- Place Cable
- Splice Cable (TXDOT projects can have thousands of hours of splicing)
- “Wreck Out” required facilities



# CENTRAL OFFICE VAULT





## INSIDE MANHOLE



## DUCT BANK INSTALLATION



# CABINETS

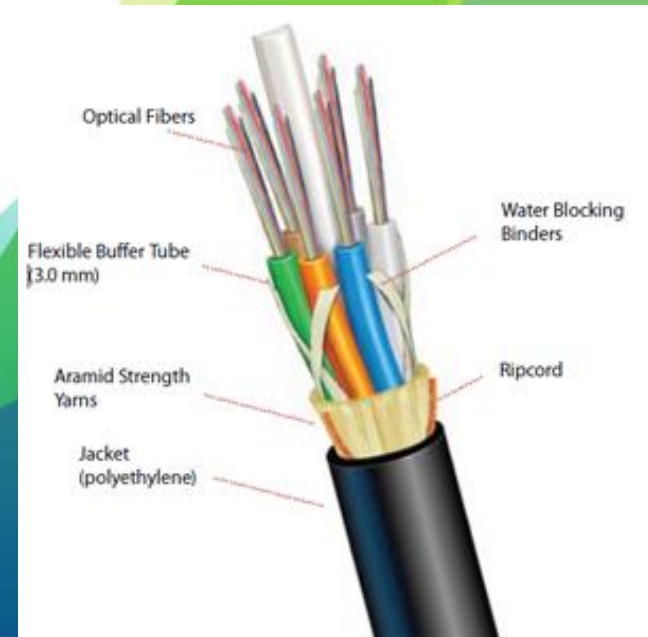
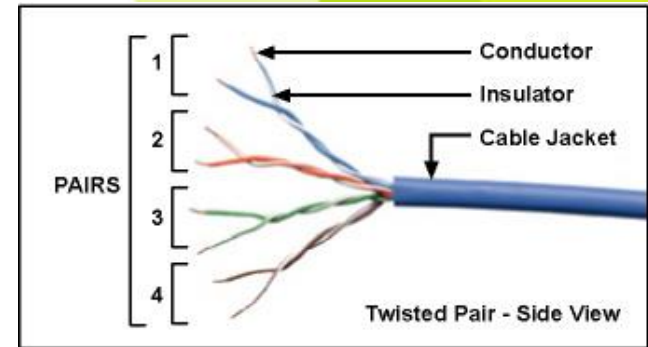


# AT&T COPPER PEDESTAL



# Splicing & Time

- Time associated with splicing varies from job to job:
- **Copper** – We still utilize the Copper Network. Copper is more time consuming to splice on a “pair by pair” basis.
- **Fiber** – We need to schedule downtime and notify customers (including businesses), as we maintain service.
- Splicing schedules/timeline
- FAA, 911 circuits need to be coordinated and must be cleared by the customers.
- This notification and coordination process could take 30-90 days to receive the clearance to cut.

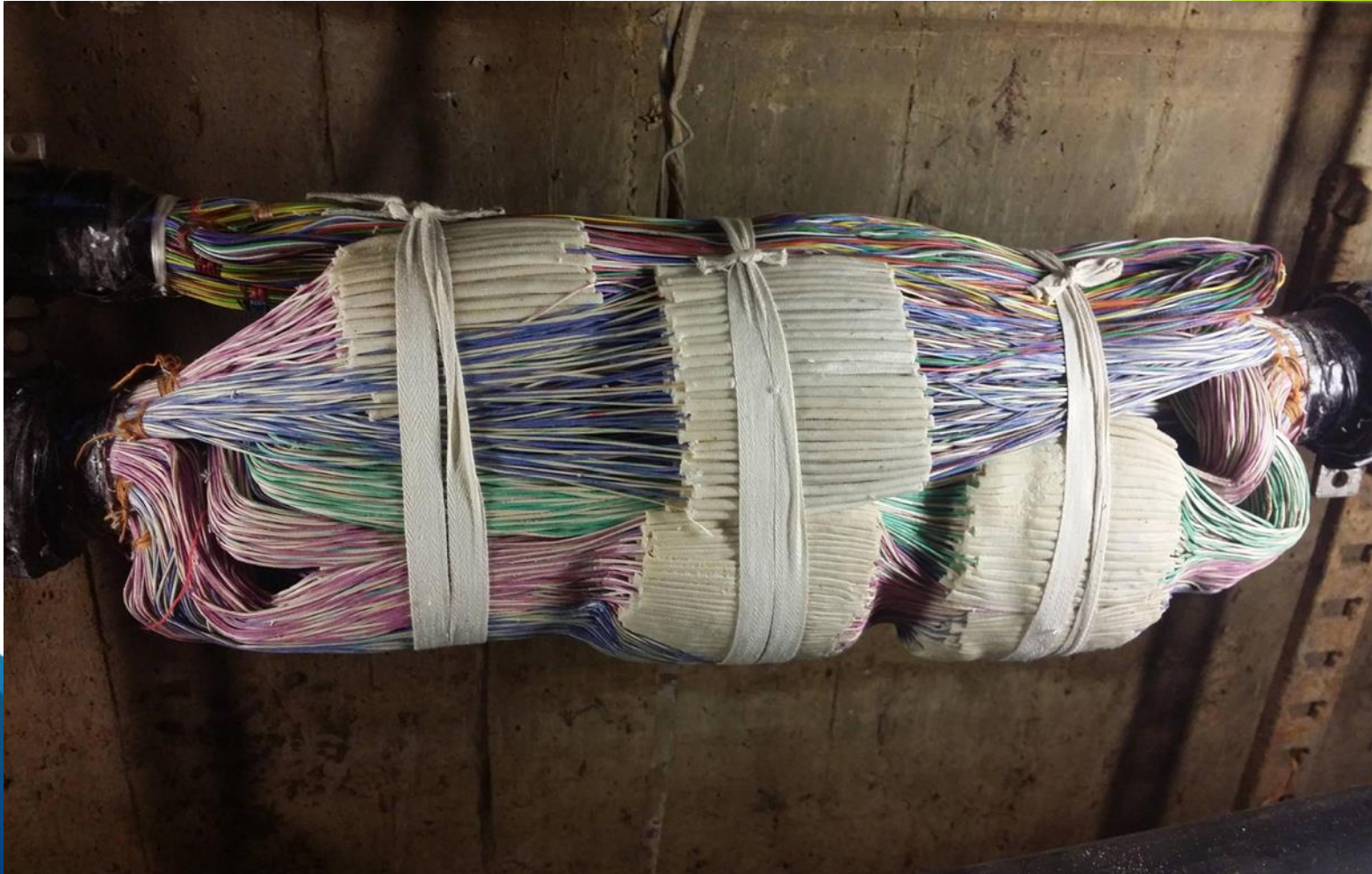




# Copper Splice



# Copper Pulp Splice



# FIBER SPLICE



# Relocation Challenges/Successes

- Biggest challenge is the time it takes to build
- TXDOT LET dates
- ROW actual acquired dates close to project let dates
- Matching up TXDOT schedule to our project duration
- Meeting TXDOT schedule when sizes and scope of our projects vary from job to job



# Questions





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**TxDOT ROW**  
**UTILITY WEEK**

**NETWORKING BREAK**  
**2:15 PM – 2:30 PM**