

A QUANTA SERVICES COMPANY

IRBY CONSTRUCTION: Overhead to Underground Turnkey Solutions

Irby Construction **Overhead to Underground: The Three Pillars**

Design Outreach Construction

Design: \$ Outreach: \$ Construction: \$ Total CPM: \$

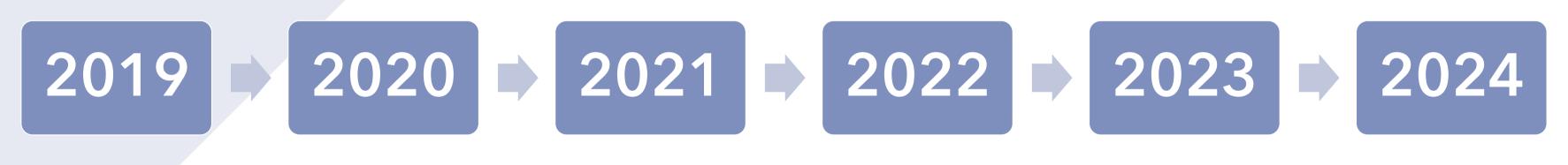


Estimated Cost Per Mile





Our Overhead to Underground Projects by the Numbers: Design and Outreach



71 Miles

35 Miles

78 Miles

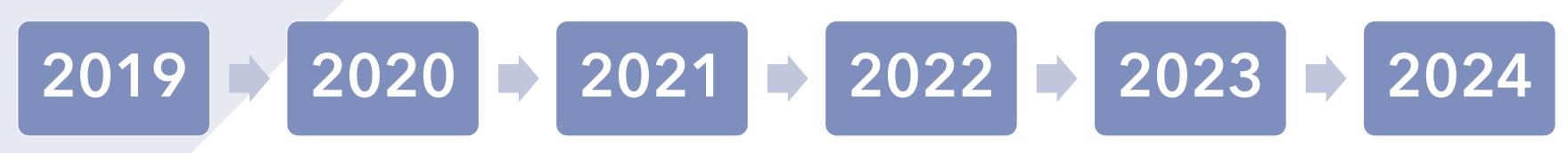
139 Miles

161 Miles

130 Miles



Our Overhead to Underground Projects by the Numbers: Construction



17 Miles

28 Miles

44 Miles

76 Miles

96 Miles

99 Miles



Overhead to Underground

Design and Outreach Process

Initial Feeder Assignment

Project Breakouts

Design Field Work

Conceptual Design

Outreach

Easement Completion

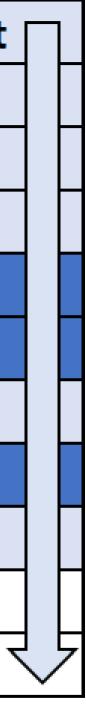
Preliminary Design

Full COS Completion

Final Design

Permitting

Construction



Design

Outreach

Irby Construction **Distribution Design**

Duke - Substation Optimization SECO - Engineering Services FPL - Storm Secure Underground Program TECO – SPP, DWPR, Turnkey Lighting

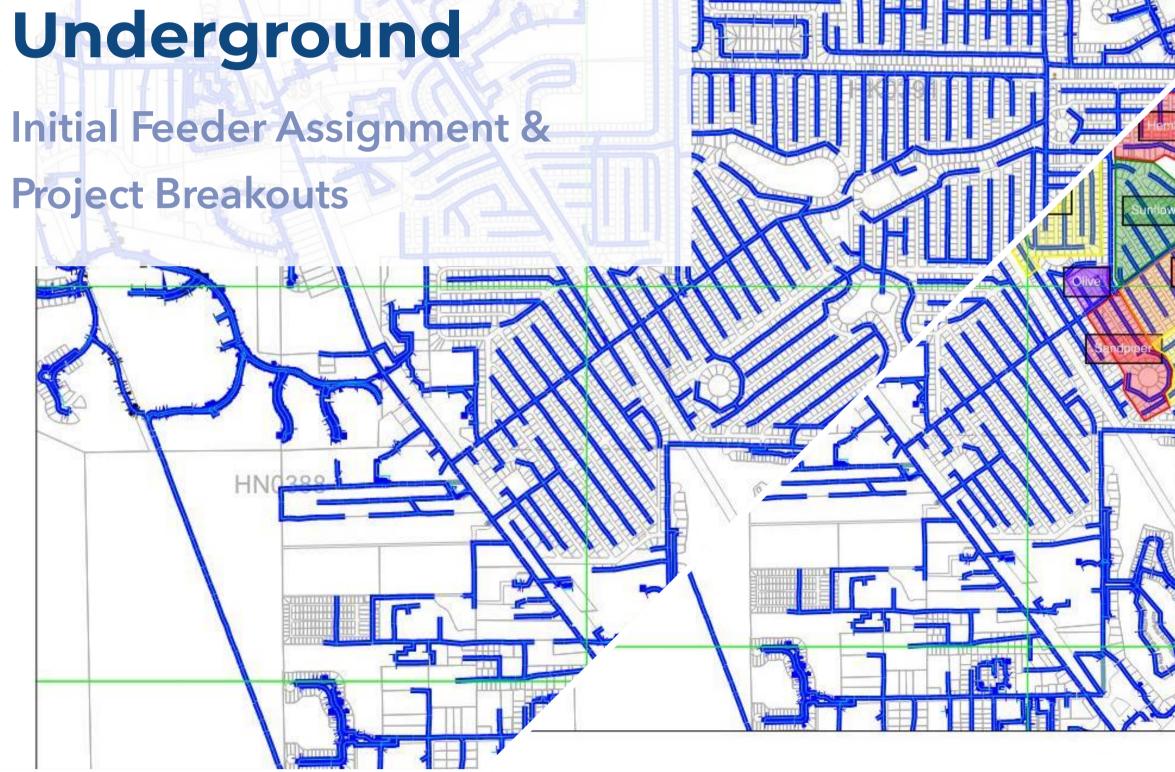
- New development \bullet
- **Overhead to underground conversion** \bullet
- **Road projects** \bullet
- **Feeder hardening** \bullet
- Lateral hardening \bullet
- Lighting \bullet
- Reconductor •
- Permitting \bullet

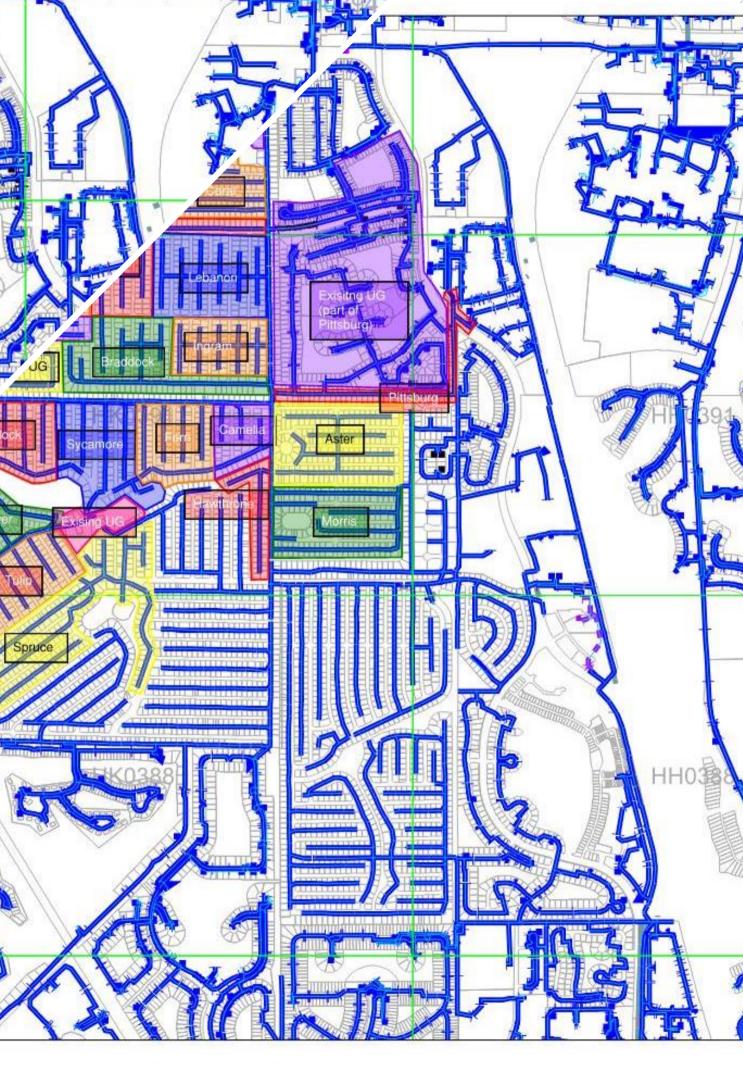
- Irby Construction Distribution Design provides turnkey solutions
- across all facets of electric distribution.

Irby Construction Distribution Design: Overhead to

Initial Feeder Assignment &

Project Breakouts





Irby Construction Distribution Design: Overhead to Underground

Conceptual Design Phase

The conceptual design phase begins with field work by our distribution design team

- Inventory of existing equipment in the field
- Identifying field conditions and constructability
- Verifying meter locations and services

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The Irby Construction Distribution Design Team then completes a working conceptual design

- Loop loading
- **Single Phase TX Locations**
- Services

- **Commercial customers**
- Switch gear install

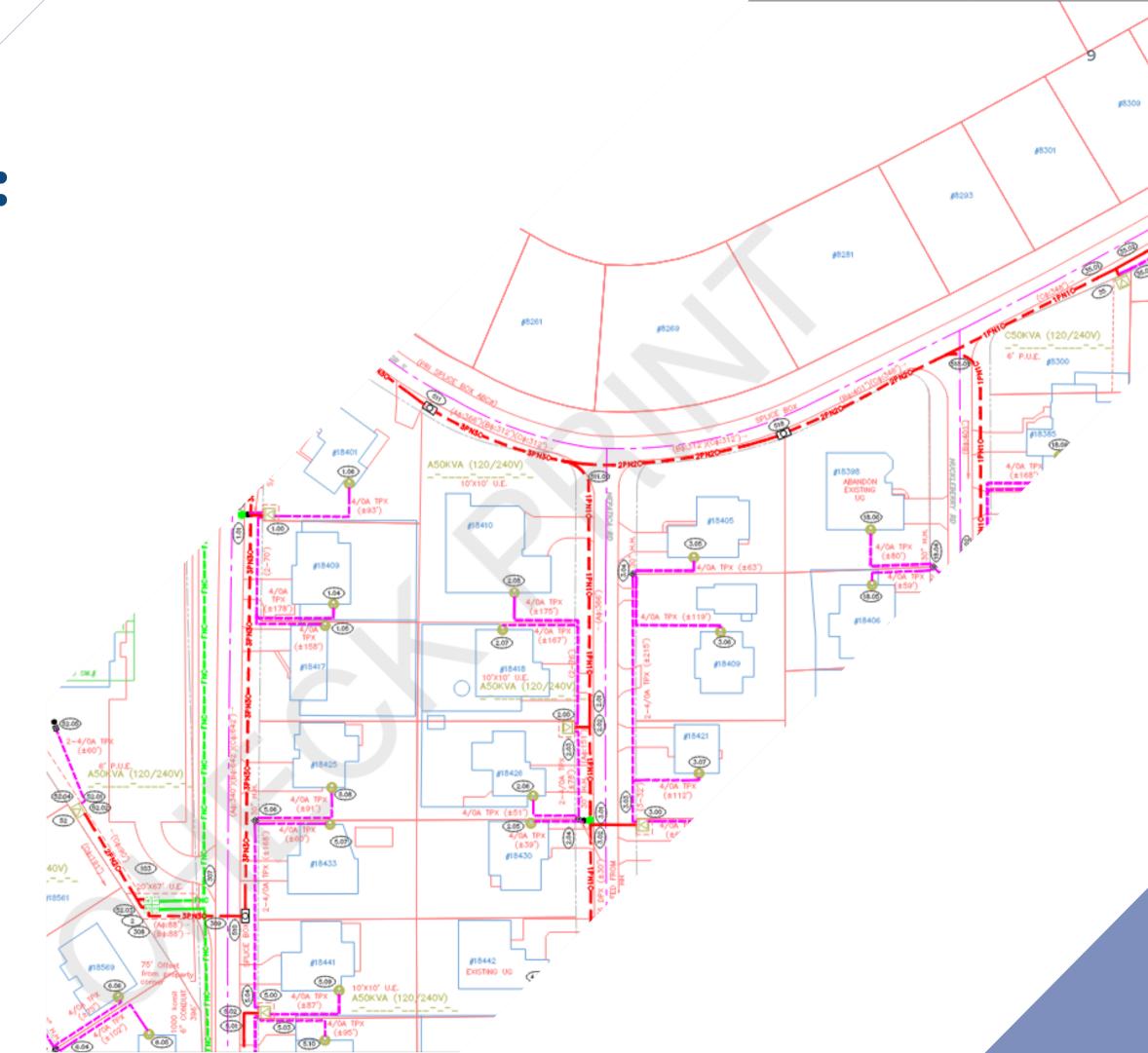
Term pole identification



Irby Construction Distribution Design: Overhead to Underground Preliminary Design Phase

Once all signed easements have been received by the Irby Construction Customer Outreach Team the design is moved to the preliminary design phase

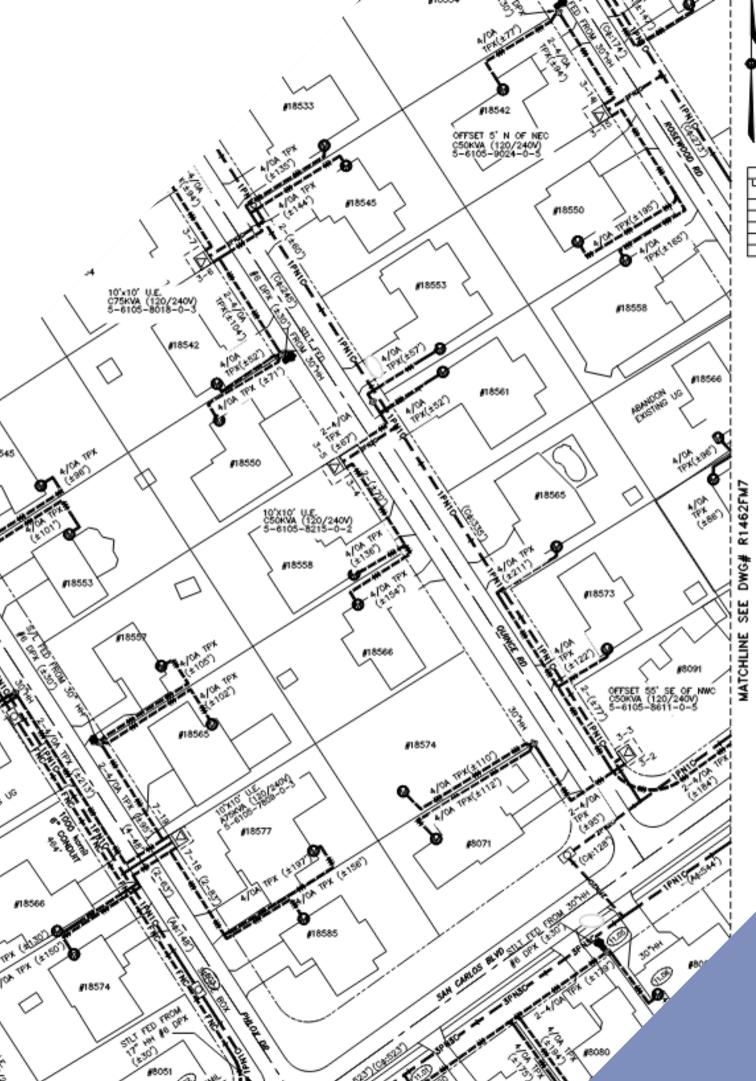
- Final transformer locations
- Voltage Drop & Flicker calculations
- Pole foreman
- Cable pulls
- CU Inputs



Irby Construction Distribution Design: Overhead to Underground Final Design Phase

The final design phase captures all changes requested following the client's review of the preliminary design.

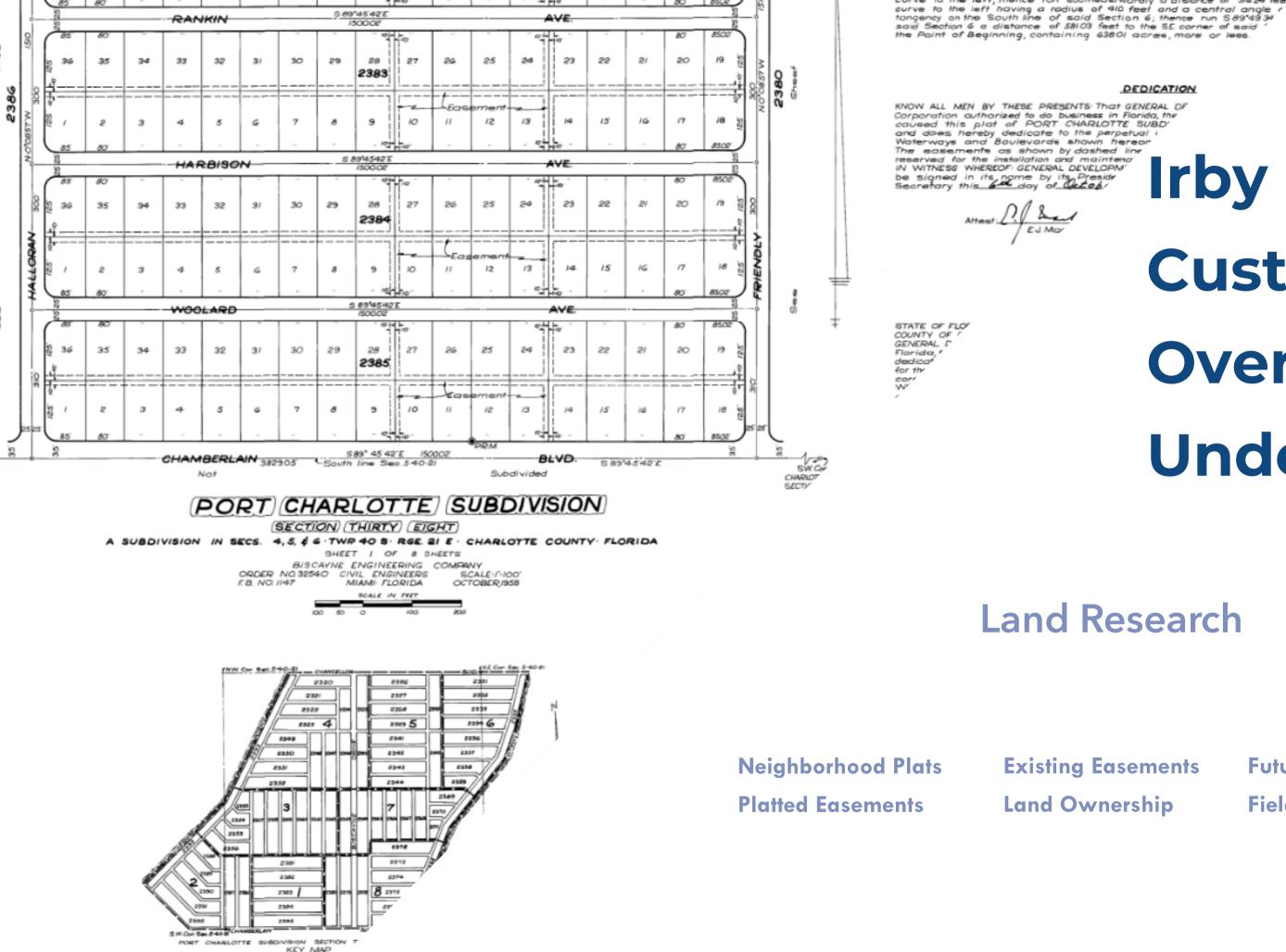
During the final design phase permit packages are built for the client.



Irby Construction Customer Outreach: Overhead to Underground

Land Research Customer Interaction Land Acquisition Project Coordination Easement Recording Irby Construction deploys an in-house customer outreach team which receives conceptual designs and delivers final transformer locations.

We believe in clear, concise, honest messaging to discuss project impacts and project benefits to property owners while securing the necessary construction notes, service agreements and utility easements.



Scale 1.1000

DEDICATION

Irby Construction Customer Outreach: Overhead to Underground

Future Development Field Conditions



Initiating Customer Contact

Our Customer Outreach Team initiates customer contact through a combination of the Utilities Customer Communications Systems and mass mailings of supplied project materials.

Irby Construction Customer Outreach: Overhead to Underground



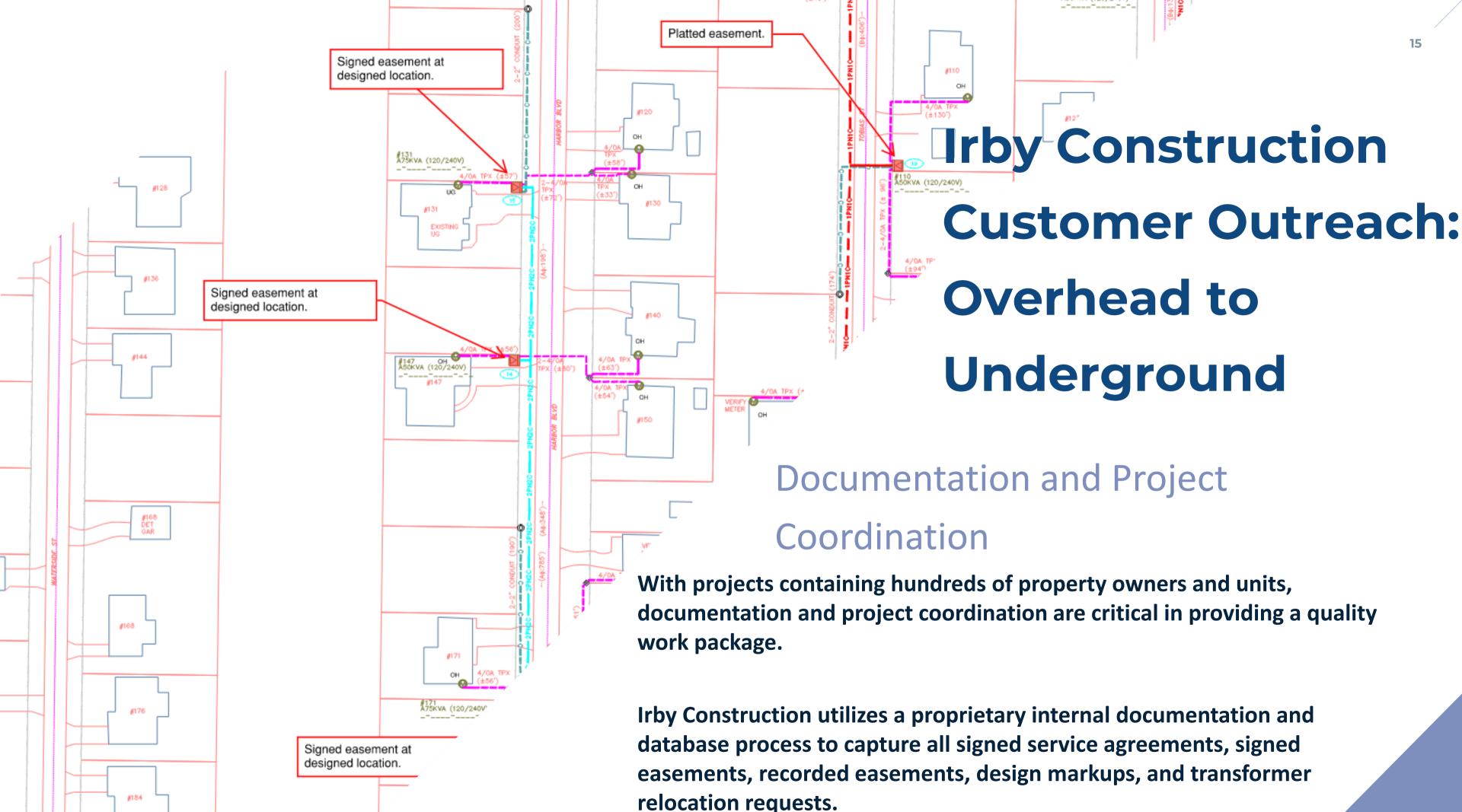
Equipment 4 could be by the

Active Outreach

The Irby Construction Customer Outreach Team utilizes a blended schedule of office work and field work. This ensures our ability to professionally represent the utility while receiving the necessary information and documentation from property owners:

- Construction Notes
- Service Agreements
- Easements

Irby Construction Customer Outreach: Overhead to Underground



Irby Construction: Overhead to Underground Construction

Site Assessment Pre-Construction Bore Wire Pull Switch In New Loop Strip Out Restoration Irby Construction has developed a thorough pre-construction process to ensure that construction work is completed without delay, while maintaining the utilities expectations as well as their customers.

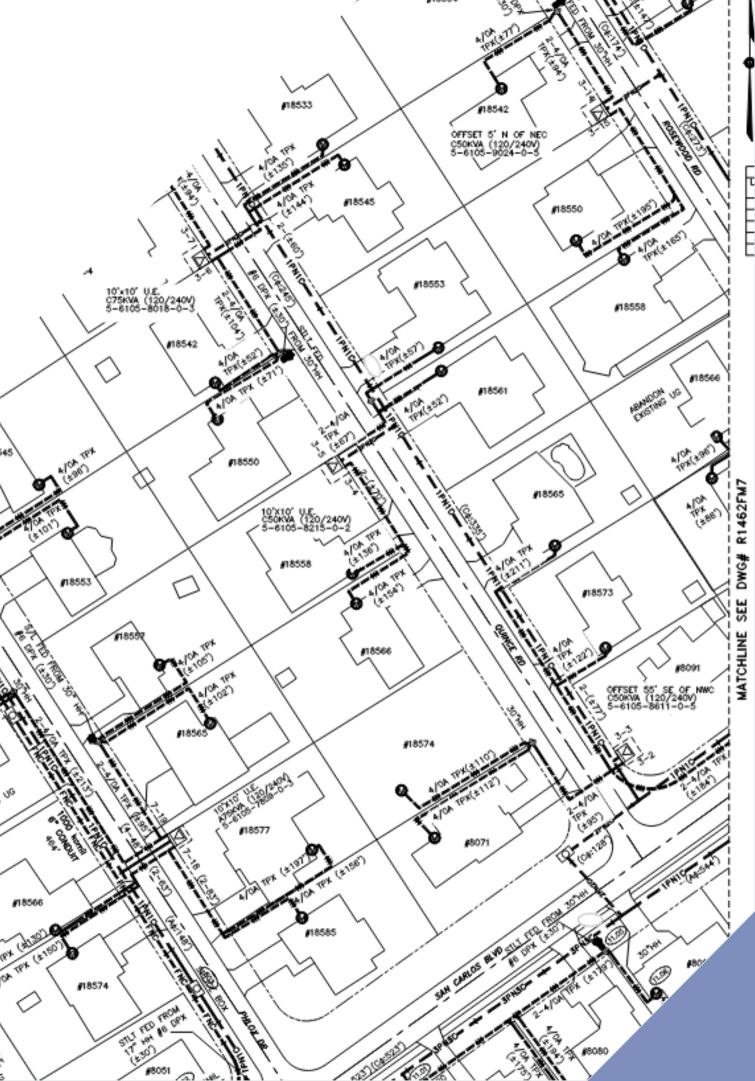
During active construction work is completed in meticulous steps that coincide with communication and information Irby Customer Outreach Specialists have reviewed with the property owners to ensure all expectations are met.

Irby Construction: Overhead to Underground Construction

Site Assessment

Before work begins on a project Irby Construction completes a comprehensive site assessment to include:

- Identify changes in field conditions
- Verify easement constructability
- Review new home construction and services



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Irby Construction: Overhead to Underground Construction Pre-Construction Meeting

Irby Construction leads a pre-construction meeting with all support staff in the project area immediately before active construction that includes:

- Utility Customer Representative(s)
- General Foreman
- Line Foreman
- Bore Foreman
- Restoration Foreman
- Customer Outreach Specialist
- Customer Engagement Specialist

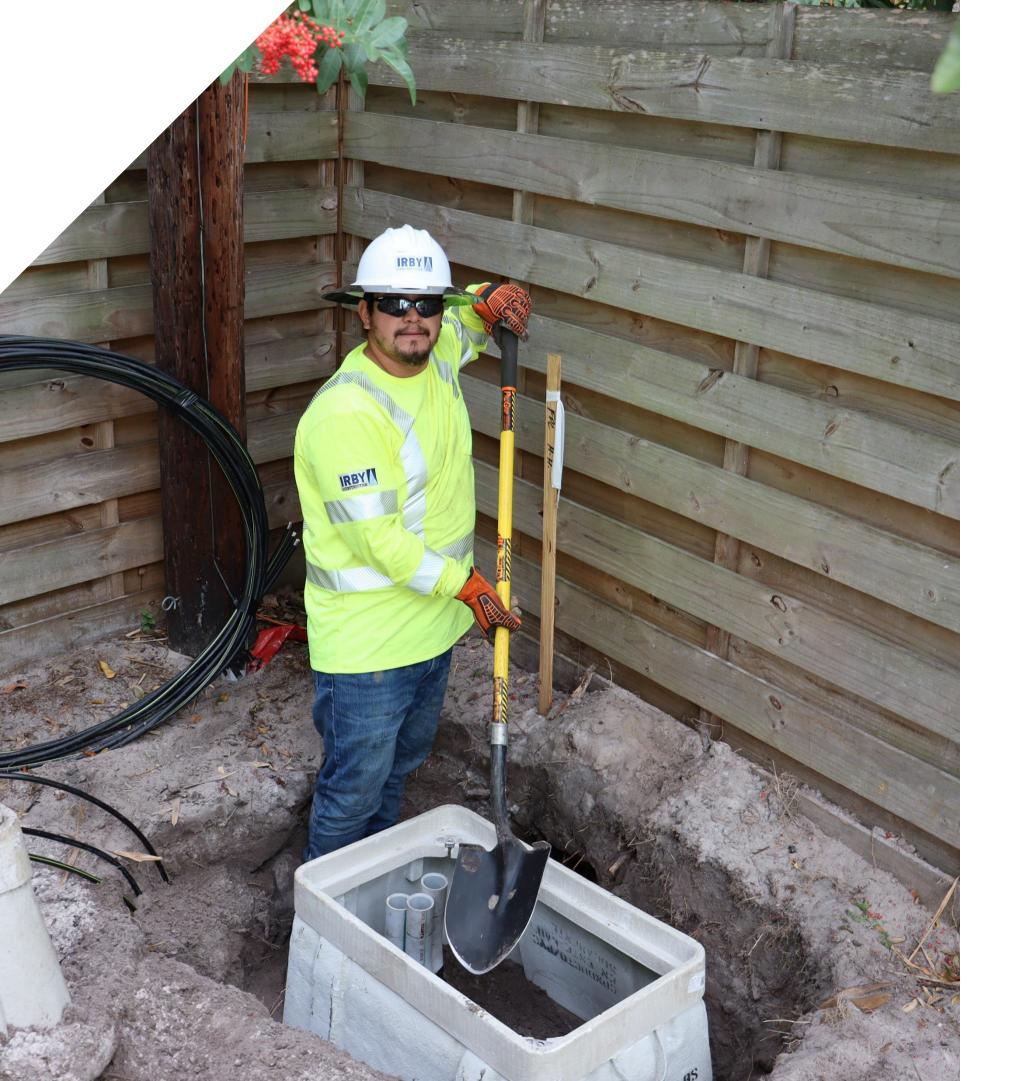




Irby Construction: Overhead to Underground Construction

Boring

Active construction starts with directional boring of primary and secondary lines. Typically, primary and secondary lines are bored simultaneously to avoid continued impact to the ROW and customers property.



Equipment

Once conduit is in place Irby Construction proceeds with wire pull, building junction boxes on homes, and placing equipment in private utility easements and ROW corridors.

Irby Construction: Overhead to

Underground

Construction

Wire Pull, Junction Boxes and





Irby Construction: Overhead to Underground Construction Energizing New Loops and Strip Out

Once all new infrastructure is in place the underground loops are energized while strip-out of overhead infrastructure is completed.

Irby Construction: Overhead to Underground Construction

Restoration and Damage Claims

Irby Construction's restoration crews follow our construction crews re-pouring cut concrete, re-seeding/re-sodding grassy areas disturbed during construction, and ensuring there is no wash-out near PMTX installations.

In the event of a customer damage claim, our Customer Engagement Specialist will personally meet with the customer to review the concern, any preconstruction photos, and act immediately towards a resolution.



Irby Construction **Overhead to Underground: The Three Pillars**

Design Outreach Construction

Design: \$ Outreach: \$ Construction: \$ Total CPM: \$



Estimated Cost Per Mile



