# Storm Secure Underground Program: Potential Overhead Lateral Scenarios

## June 14, 2021

STORM SECURE
UNDERGROUND PROGRAM

# Overhead (OH) construction will be utilized for specific cases within the SSUP program

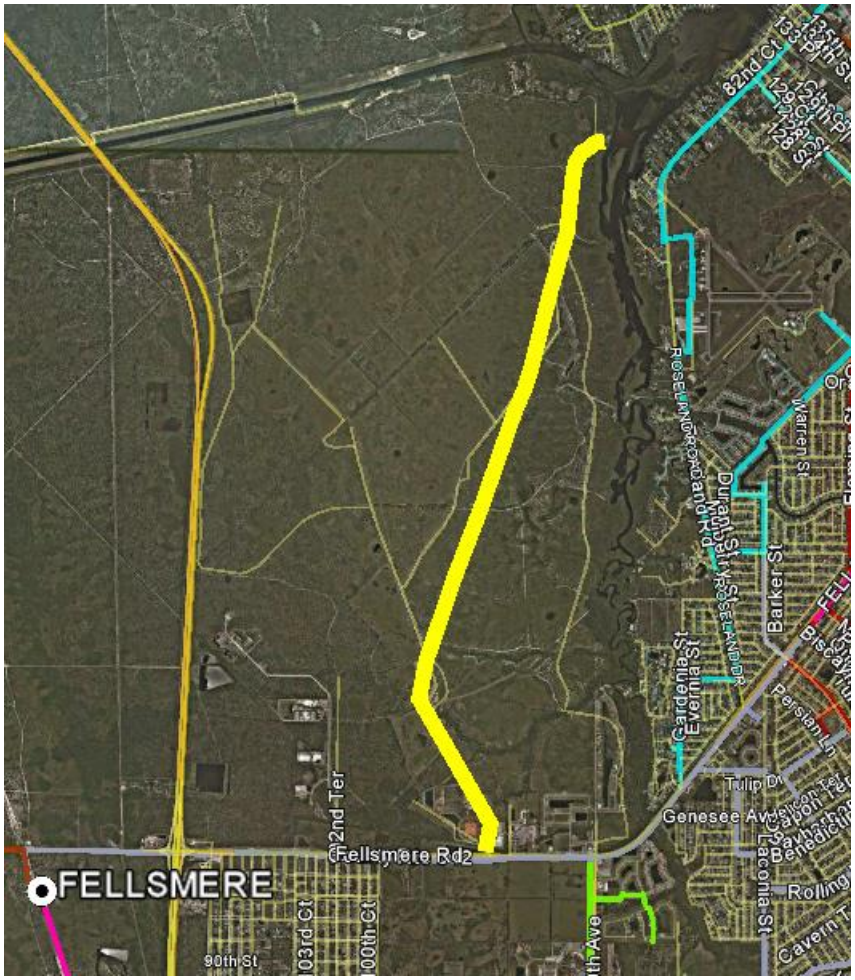
## OH Construction Considerations

- **Engineering limitations, terrain, and growth are factors**
  - Laterals with no active or no residential customers (golf course pumps, farm pumps, campgrounds, orange groves, etc.)
  - Laterals (typically commercial) where undergrounding is not possible due to space and equipment limitations
    - Structures built to right of way
  - Inaccessibility (swamp, wetlands, etc.)
  - Customers not willing to provide an easement for transformer placement
  - New construction in the area driven by growth
    - Developers buying blocks at a time with uncertainty of future need for specific laterals

**SSUP will strive to underground (UG) laterals to drive storm resiliency**

# Laterals with low customer counts and no active residential customers may not be cost effective to underground

## Sebastian State Park



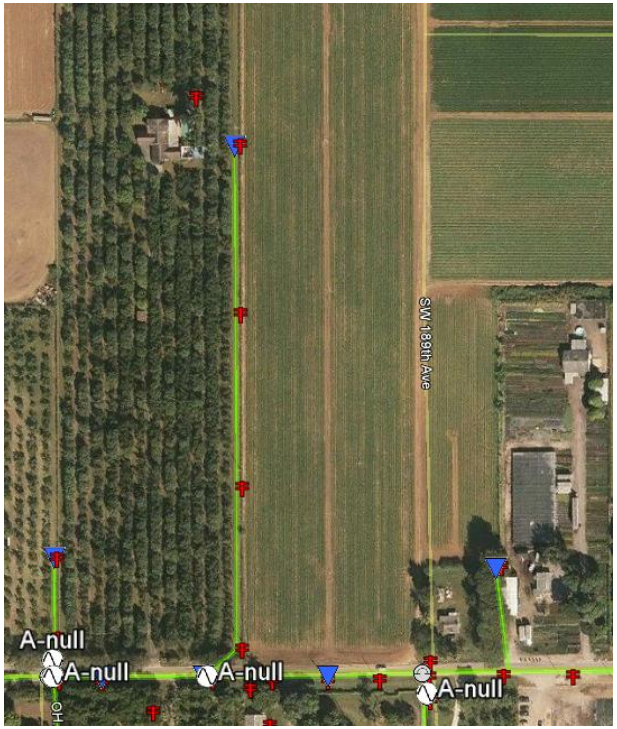

OH lateral is 4.75 miles long through a state park

- Only 5 customers (0 residential)
- No serious vegetation concerns
- Difficult terrain for undergrounding and would require state approval (or easements)
- Substantial environmental considerations necessary
- Similar examples could be orange groves, farmland, and golf courses

**Recommendation: Leave OH as-is**

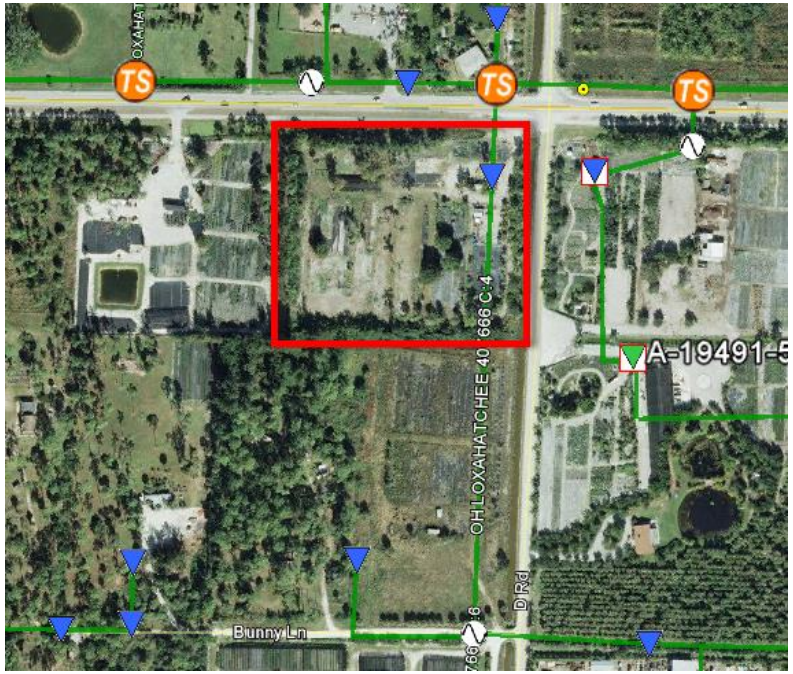
# Farmland could also be better served to remain overhead

- Low customer count per mile, very few residential customers
- The digging and tilling in soil required for farming could be restrictive to property owners and possibly dangerous with underground lines and transformers (TX)
- Few vegetation concerns
- Historically, unless we can find existing easement, it may be very difficult to acquire new easements for UG from these owners
- ~40% of laterals on Avocado (2022 design plan) appear to have these concerns




# Some laterals will have customers unwilling to grant FPL easements for undergrounding

## Loxahatchee Groves




In limited cases, we find a customer who is a "hard no" for granting an easement:

- First option is to pursue alternate locations for our facilities and acquire easements
- When that approach fails, it may be necessary to leave the lateral OH
- Goal will be to UG everything possible and minimize what is left OH to just the property that refused to grant an easement
- Example left, leave span from Trip Saver to the TX overhead and underground the rest
- More prominent in rural areas because there is less opportunity to install the PMTX on a neighboring property due to service lengths

**Recommendation: Leave part of lateral OH, underground the rest**

# Commercial areas that lack space or the property owner is unwilling to grant easements for underground facilities


- **This lateral is 0.27 miles and serves 245 customers**
- **Assumption is we can install UG and convert OH**
  - Need to identify existing easements
  - Possible environmental and permitting concerns in the area of the canal
- **Vaults fed radially usually cannot be re-fed with loop**
- **A new easement will be proposed in the area of the bright green line to close the loop**
  - If customer is unwilling to grant easement, our options will be limited



FPL 000443
20220051-EI

# Dense urban areas are often built directly to Right of Way and/or lack space for PMTX

## Miami-Dade


- In dense or urban areas, there may not be space for PMTX or other UG facilities because structures are built to the right of way
- In example left, an open delta PMTX and easement would require customer to give up valuable parking spaces
- Another example is through a boatyard. Every piece of the property is covered in concrete and is utilized for parking or boat storage
- We will encounter strict limitations on our ability to directional bore and place transformer within the property