

Lake Patricia and Lake Katherine

Underground

Utility Conversion





What is it?



Before After

A satellite view of a tropical cyclone over the ocean, showing a distinct eye and spiral cloud bands. The text "Why Do it?" is overlaid in the center. "Why" is in white, "Do" is in red, and "it?" is in white.

Why Do it?



Why Do it?

Increases Reliability

Increases Safety

Increases Community Aesthetics

Creates a More Resilient Community

Have other communities
done this?

Daytona Beach Shores

Village of Key Biscayne

Long
Boat
Key

Ormond
Beach

Holly Hill

Town of Palm Beach

Golden Beach

Lake Worth

Palm
Beach
Shores

South Daytona

Sunny Isles Beach

Gulfstream

Jupiter Inlet
Colony

Miami
Beach

Daytona
Beach

Pompano
Beach

Hollywood
Beach

Town of Jupiter Island

The background of the slide is a grayscale photograph of a utility pole with several power lines stretching across the frame. To the right, there are large, leafy trees. The sky is filled with soft, white clouds. The overall scene is a typical outdoor utility setting.

Things to Consider

Pros/Cons
Construction Impacts
Capital Cost
Funding and Financing

Pros and Cons

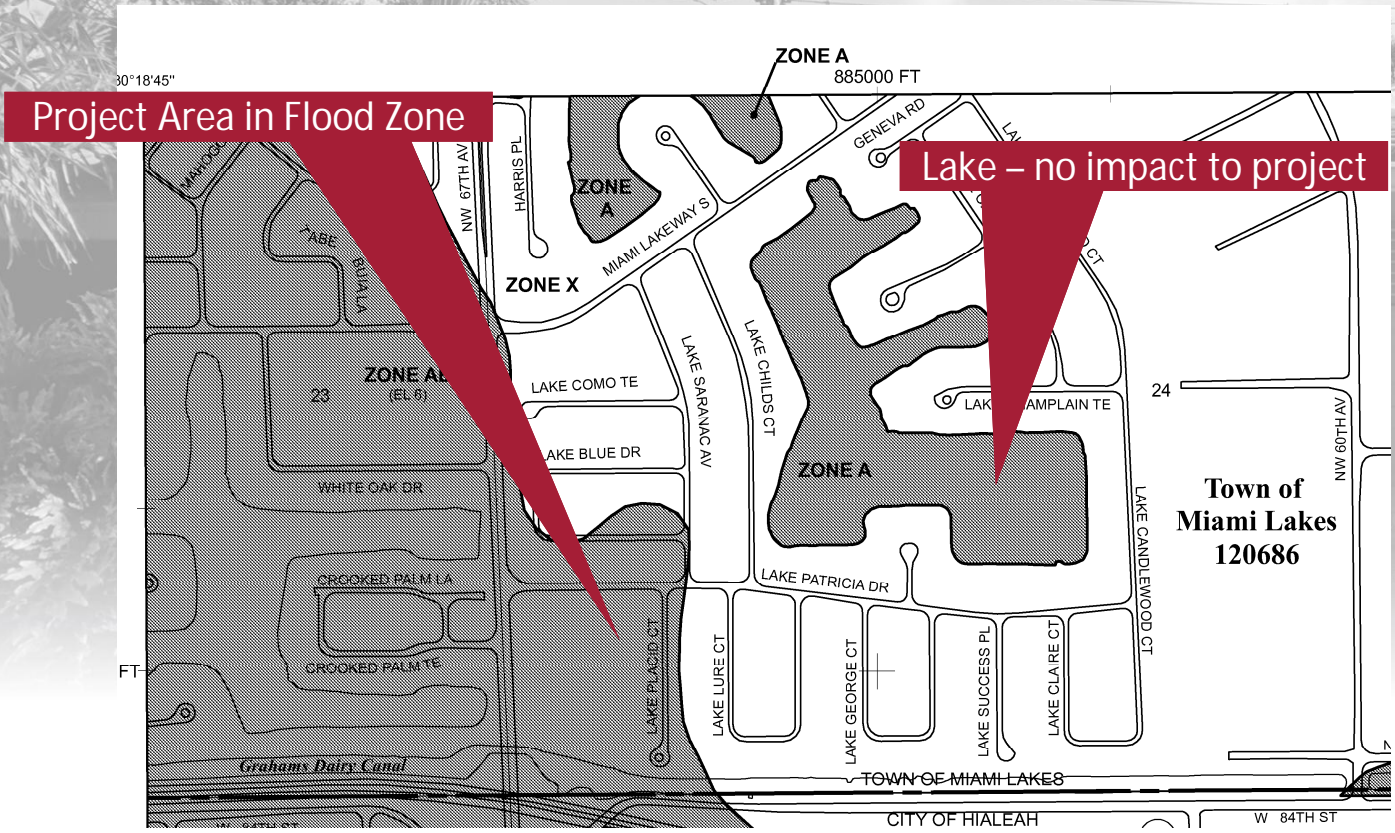
A recent FPL report showed that on average, over the course of a year:

- Overhead customers were without power for 108.1 minutes, compared to 19.4 minutes for underground customers (82% improvement).
- Overhead customers had 1.35 service interruptions, compared to 0.40 for underground customers (70% improvement).
- Outages lasted 80.0 minutes for overhead customers, compared to 48.7 for underground customers (39% improvement).
- To completely resolve an outage for all affected customers, it took 161 minutes for an overhead system, compared to 205 minutes for an underground system.

Pros and Cons

- Underground systems generally are more aesthetically pleasing.
- Animal and human contact with electrified parts is less common with underground systems.
- Underground systems are less susceptible to wind-related damage.
- Underground systems can be more susceptible to flood-related damage.
- Underground outages typically take longer to fully restore, but many customers can be brought back online before the repairs are complete because systems are looped.
- Like all construction projects, there will be impacts to the community when the system is being built.

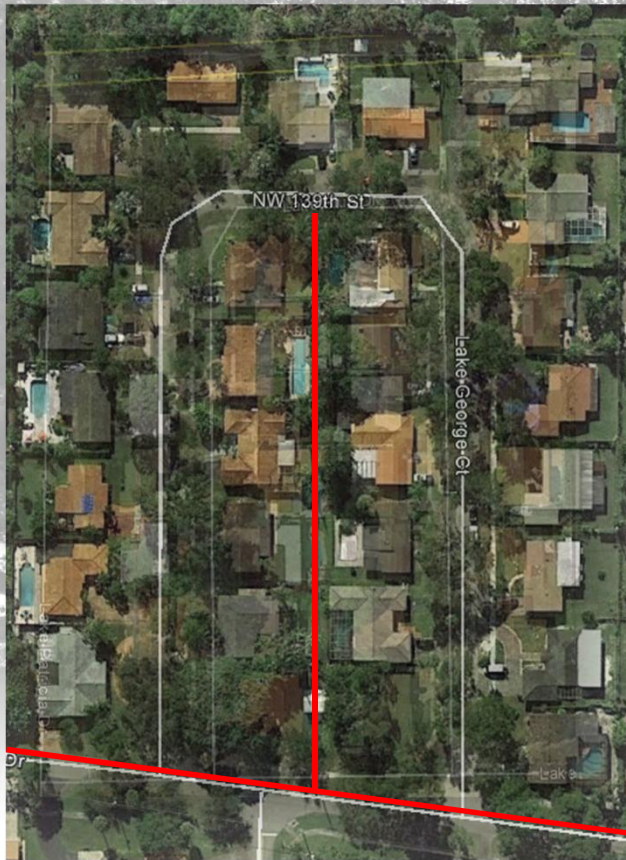
Flood Map



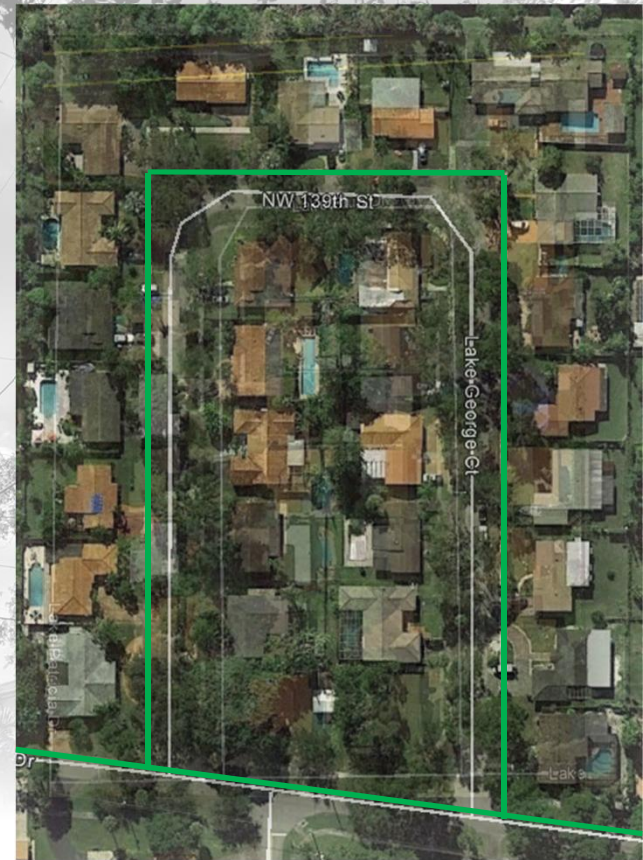
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Overhead vs. Underground Design



Existing - Overhead Radial



Proposed - Underground Loop

Construction Phase



Directional Boring



Open Cut Trench

Construction Phase



Equipment Pad Installation



Wire Terminations

Construction Phase



Service Installation



Pavement Restoration/Pole Removal

Existing

Facilities

Approximately 6 miles of
existing overhead lines

Number of properties: 465

Single Family: 464

Homestead Exemption: 405

Taxable Value Minimum: \$142,727

Taxable Value Maximum: \$2,063,782

Taxable Value Sum: \$110,817,613

Approximate Linear Feet of Utilities: 25,200 ft



Anticipated Cost

Total Cost of Conversion:
\$12 million to \$15 million



Next Steps



Next Steps

Kimley »» Horn

Expect More. Experience Better.