

Dinner Key Breakwater and Resilience Improvements



Project Introduction

- September 2017, Hurricane Irma causes extensive damage to Dinner Key Marina.
- City of Miami, with funding from FEMA and FIND, embarks on a multi-year restoration of the Marina. Repairs and upgrades include:
 - Storm damage repair and mitigation
 - Upgraded utilities (water, sewer, fire line and electrical)
 - The addition of Wi-Fi access and security cameras
 - Concrete and Finger Pier repairs of the nine (9) piers in the Marina
 - Enhanced public safety and access to a community-friendly atmosphere
 - Improved quality of life through shared spaces for long-term live aboard and visiting boaters, as well as for local and visiting residents
- Summer 2019, City of Miami requests supplementary funding from FEMA to implement a comprehensive mitigation plan to protect the marina and moorage.
- October 2021, Dinner Key Marina repairs and upgrades are complete.
- Fall 2021, City of Miami solicits Cummins Cederberg to execute the design and permitting of coastal structures that would further increase the resilience of the marina.

1935



1929



1930



Image Source: HistoryMiami



1940

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0 250 500 1,000 Feet
Map Scale: 1:7,994 1 in = 666 feet

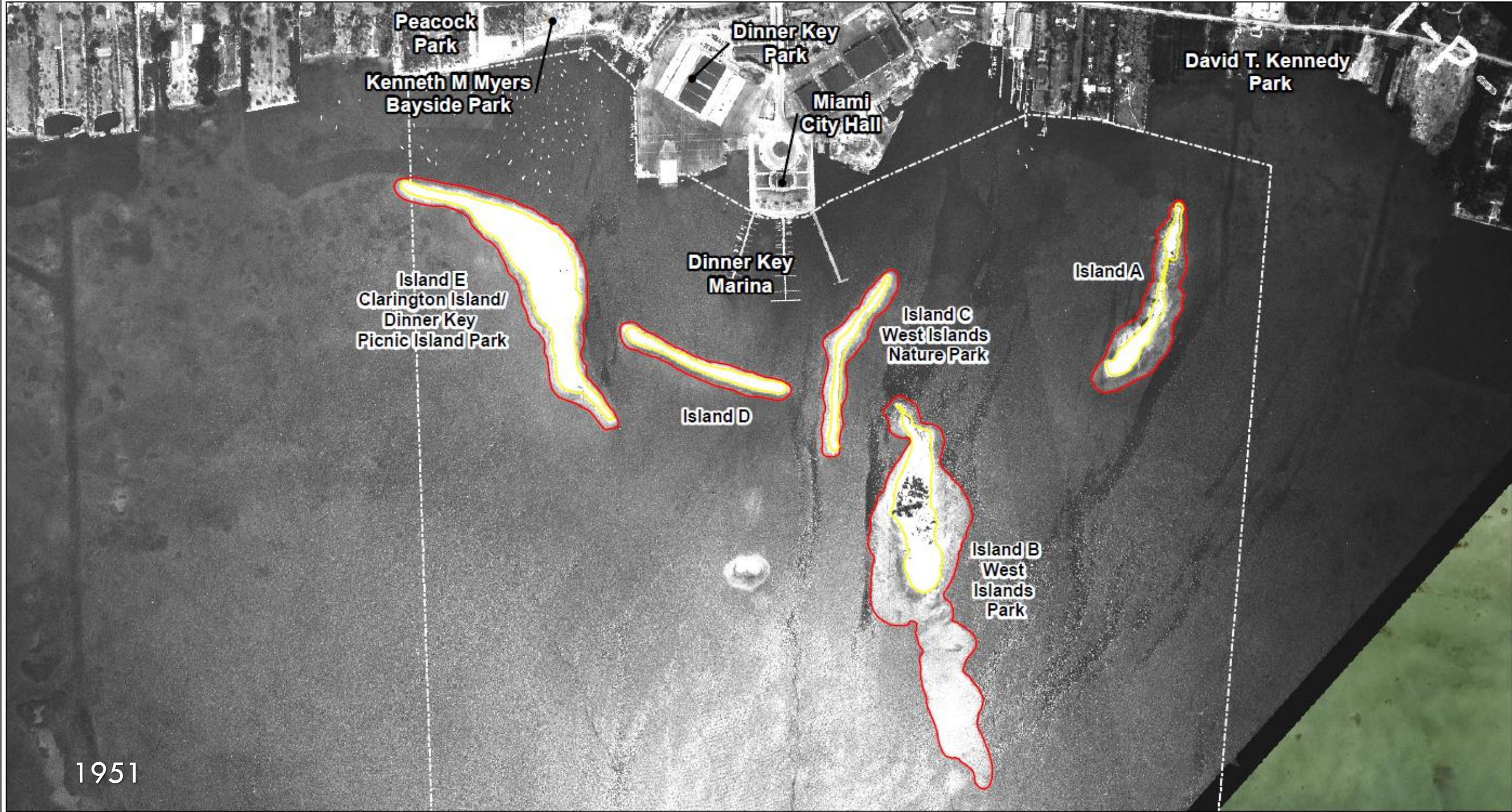
Project:
Dinner Key Marina Breakwaters Mitigation

Client:
City of Miami

Sheet Title:
Aerial Imagery
1940

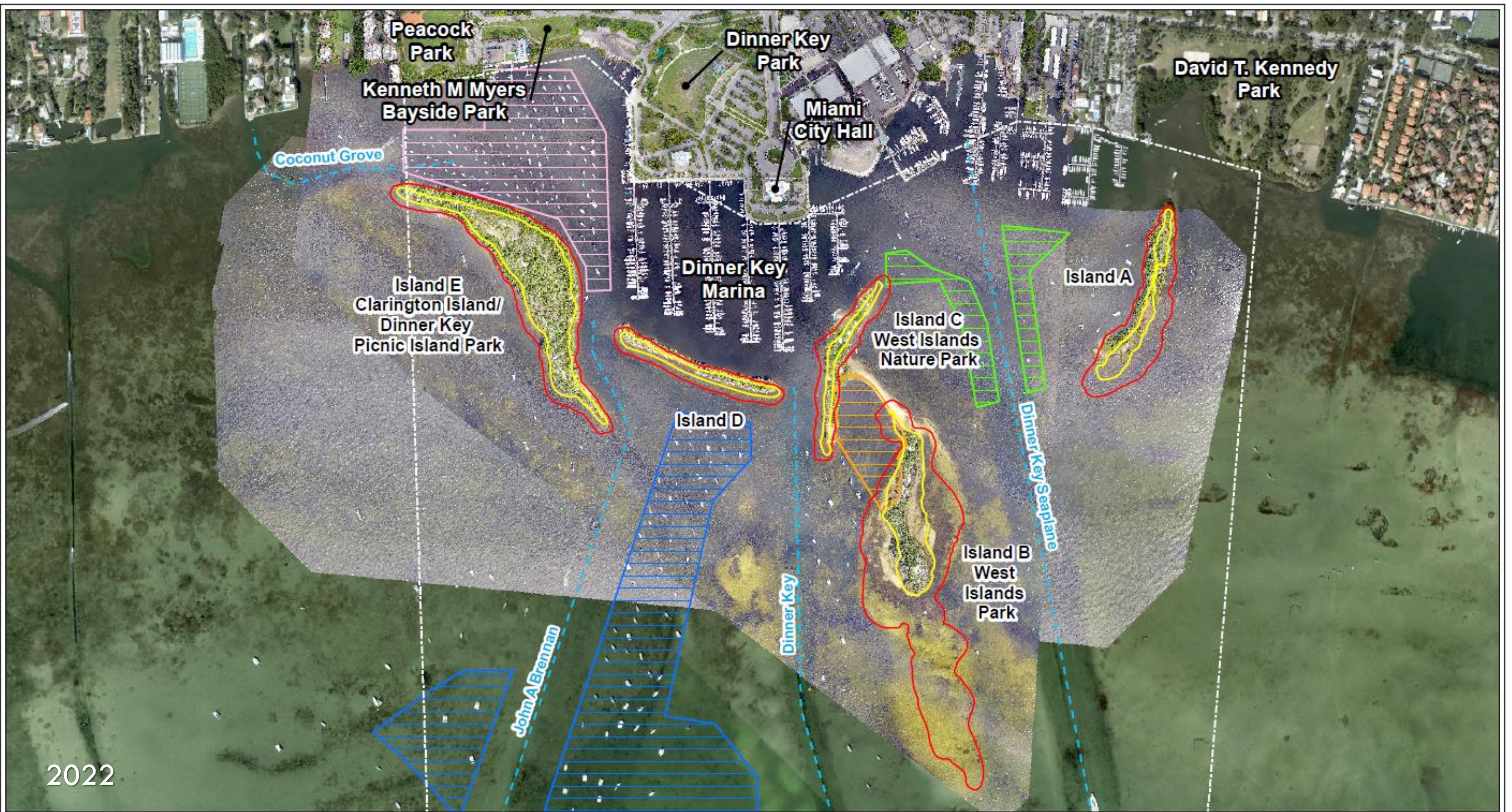
Notes:
1. Background Imagery Source (Date): State of Florida (01/23/2021)





1951

<p>CUMMINS CEDERBERG Coastal & Marine Engineering</p> <p>Miami Fort Lauderdale Jupiter St. Petersburg Tallahassee 201 Alhambra Circle, Suite 801, Coral Gables, FL 33134 T: +1 305-741-8155 F: +1 305-974-1989 www.cumminscederberg.com</p>	<p>0 250 500 1,000 Feet</p> <p>Map Scale: 1:6,600 1 in = 550 feet</p>	<p>Client: City of Miami</p>	<p>Legend</p> <ul style="list-style-type: none"> — 1951 Emergent Shoreline — 1951 Submerged Footprint 1949 Submerged Lands Corrective Deed Boundary (Deed 19448) <p>Notes: 1. Background Imagery Source (Date): State of Florida (01/23/2021)</p>	
	<p>Project: Dinner Key Marina Breakwaters Mitigation</p>	<p>Sheet Title: Submerged Footprint 1951 Aerial</p>		



2022

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0 250 500 1,000 Feet
Map Scale: 1:6,600 1 in = 550 feet

Project:
Dinner Key Marina Breakwaters Mitigation

Client:
City of Miami

Sheet Title:
Submerged Footprint
2022 Drone Aerial

Legend

- 1951 Emergent Shoreline
- 1951 Submerged Footprint
- - - Channel
- 1949 Submerged Lands Corrective Deed Boundary (Deed 19448)
- ▨ Dinner Key Mooring Field
- ▨ Dinner Key North Mooring Field
- ▨ Coconut Grove Sailing Club Mooring Field
- ▨ Vessel Exclusion Zone

Notes:
1. Drone Imagery Source (Date): Cummins Cederberg, Inc. (07/18/2022 and 8/2/2022)
2. Background Imagery Source (Date): State of Florida (01/23/2021)



HURRICANE IRMA 2017



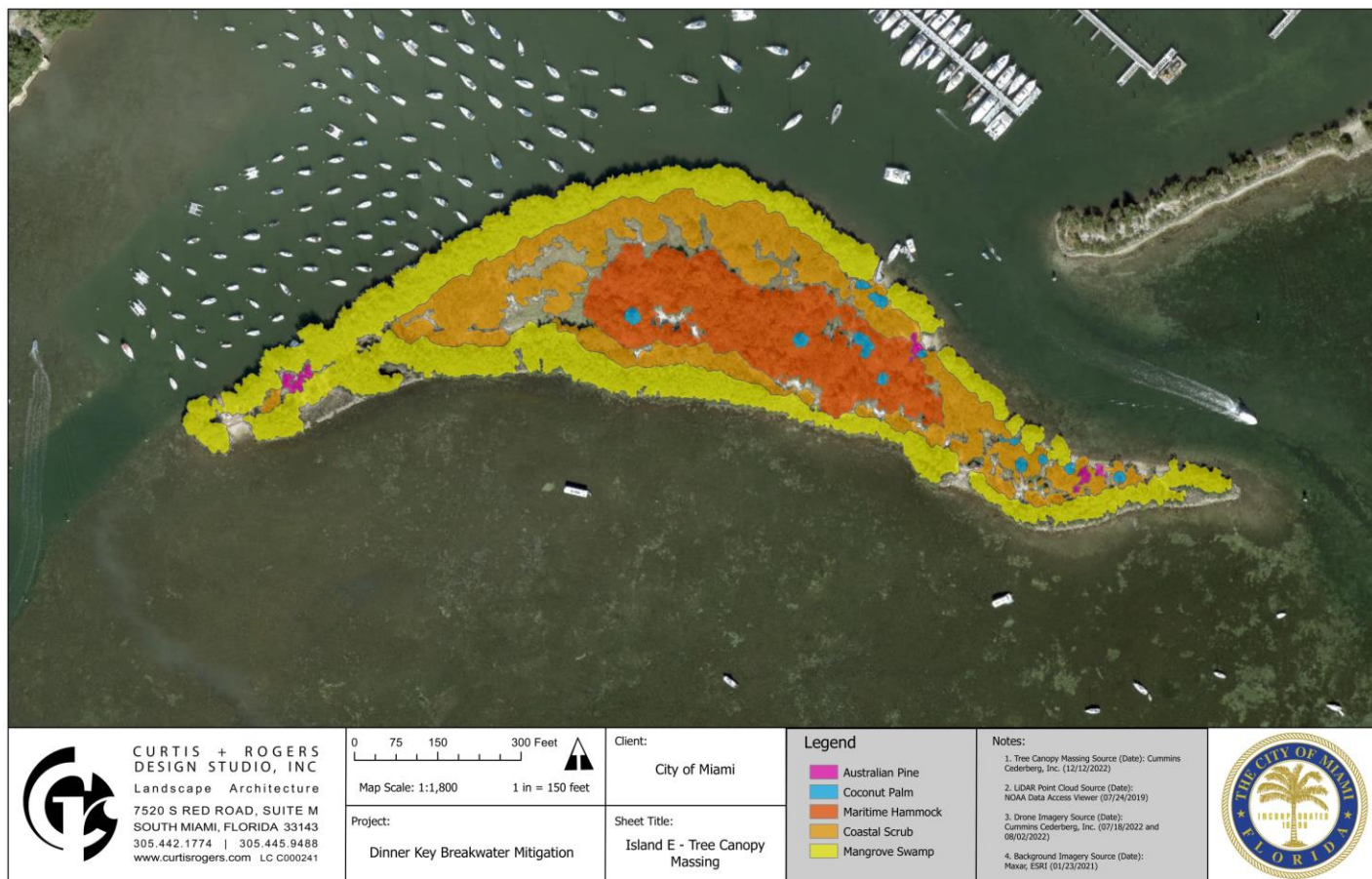
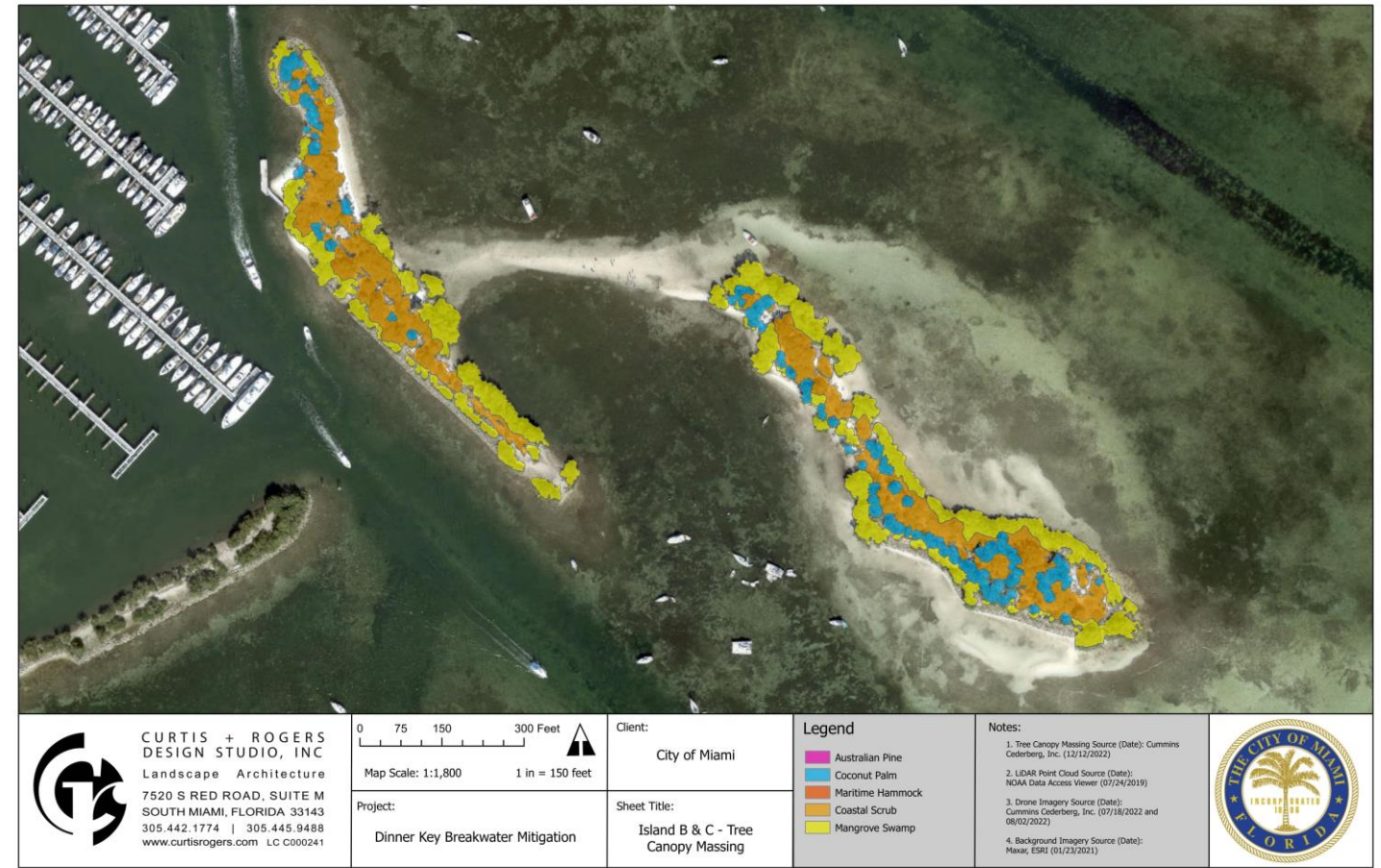
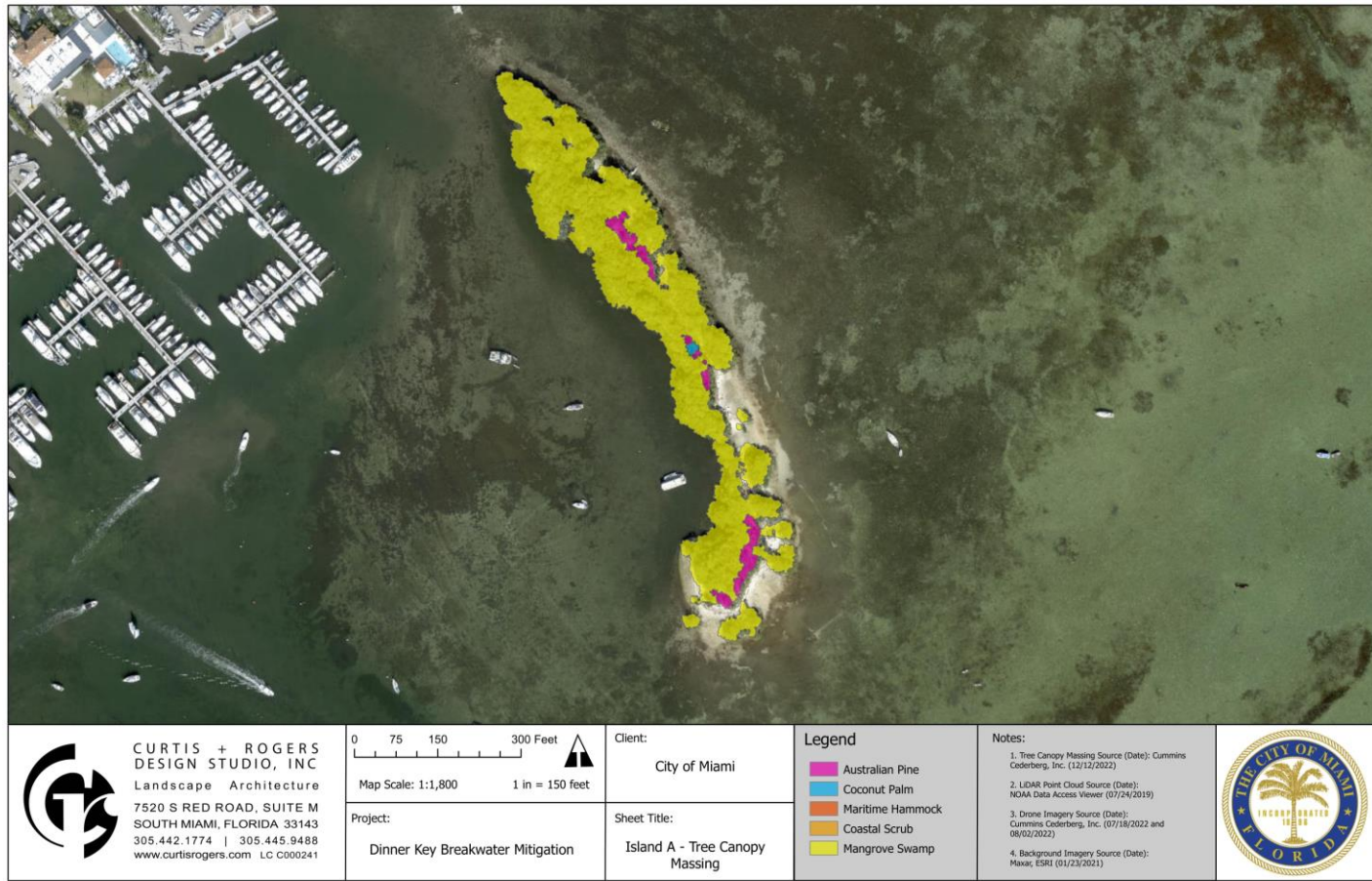
Image Source: Dinner Key Marina Staff



Scope of Work

- **FEMA Grant:** To lessen and/or prevent damages from future similar events, the City has requested supplementary 406 mitigation funding to implement a comprehensive mitigation plan to *protect the marina and moorage*. This plan consists of *strengthening and hardening of existing and repaired structures as well as comprehensive shoreline protection measures*.
- **City of Miami:** Prepare three conceptual plans, of varying levels of design, showing the *layout of proposed improvements for all five islands* and potential additional features such as islands or rock breakwaters. The plans will also *include new design amenities* for the islands, as well as *innovative concepts to increase the overall resilience* and protection the islands offer to the region.

Tree Canopy Identification




Shoreline Identification





Amenity Identification



 <p>CURTIS + ROGERS DESIGN STUDIO, INC Landscape Architecture 7520 S RED ROAD, SUITE M SOUTH MIAMI, FLORIDA 33143 305.442.1774 305.445.9488 www.curtisrogers.com LC C000241</p>	<p>0 75 150 300 Feet</p> <p>Map Scale: 1:1,800 1 in = 150 feet</p>	<p>Client: City of Miami</p>	<p>Legend</p> <ul style="list-style-type: none"> - - - Pedestrian Connections Dock Temporary Shelter Chickee Hut Activated Area 	<p>Notes:</p> <ol style="list-style-type: none"> 1. Existing Amenities Source (Date): Curtis + Rogers Design Studio, Inc. (08/21/2022) 2. Drone Imagery Source (Date): Cummins Cederberg, Inc. (07/18/2022 and 08/02/2022) 3. Background Imagery Source (Date): Maxar, ESRI (01/23/2021) 	
	<p>Project: Dinner Key Breakwater Mitigation</p>	<p>Sheet Title: Island B & C - Existing Amenities</p>			



 <p>CURTIS + ROGERS DESIGN STUDIO, INC Landscape Architecture 7520 S RED ROAD, SUITE M SOUTH MIAMI, FLORIDA 33143 305.442.1774 305.445.9488 www.curtisrogers.com LC C000241</p>	<p>0 75 150 300 Feet</p> <p>Map Scale: 1:1,800 1 in = 150 feet</p>	<p>Client: City of Miami</p>	<p>Legend</p> <ul style="list-style-type: none"> - - - Pedestrian Connections Dock Temporary Shelter Chickee Hut Activated Area 	<p>Notes:</p> <ol style="list-style-type: none"> 1. Existing Amenities Source (Date): Curtis + Rogers Design Studio, Inc. (08/21/2022) 2. Drone Imagery Source (Date): Cummins Cederberg, Inc. (07/18/2022 and 08/02/2022) 3. Background Imagery Source (Date): Maxar, ESRI (01/23/2021) 	
	<p>Project: Dinner Key Breakwater Mitigation</p>	<p>Sheet Title: Island E - Existing Amenities</p>			



Project Schedule

1. Phase I (Fall of 2022)

1. Data Collection and Analyses (July – December 2022) ✓
2. Stakeholder Outreach (September - October 2022) ✓
3. Public Outreach (January 2023) ←
4. Concepts (February 2023)

2. Phase II (2023 – 2027)

1. Design and Permitting (2023 – 2025)
2. Bidding and Construction (2025 – 2027)



ENGAGEMENT ACTIVITIES



THANK YOU FOR PARTICIPATING!



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