

# MIAMI BEACH

## TERMINAL ISLAND WATER BOOSTER PUMP STATION HARDENING



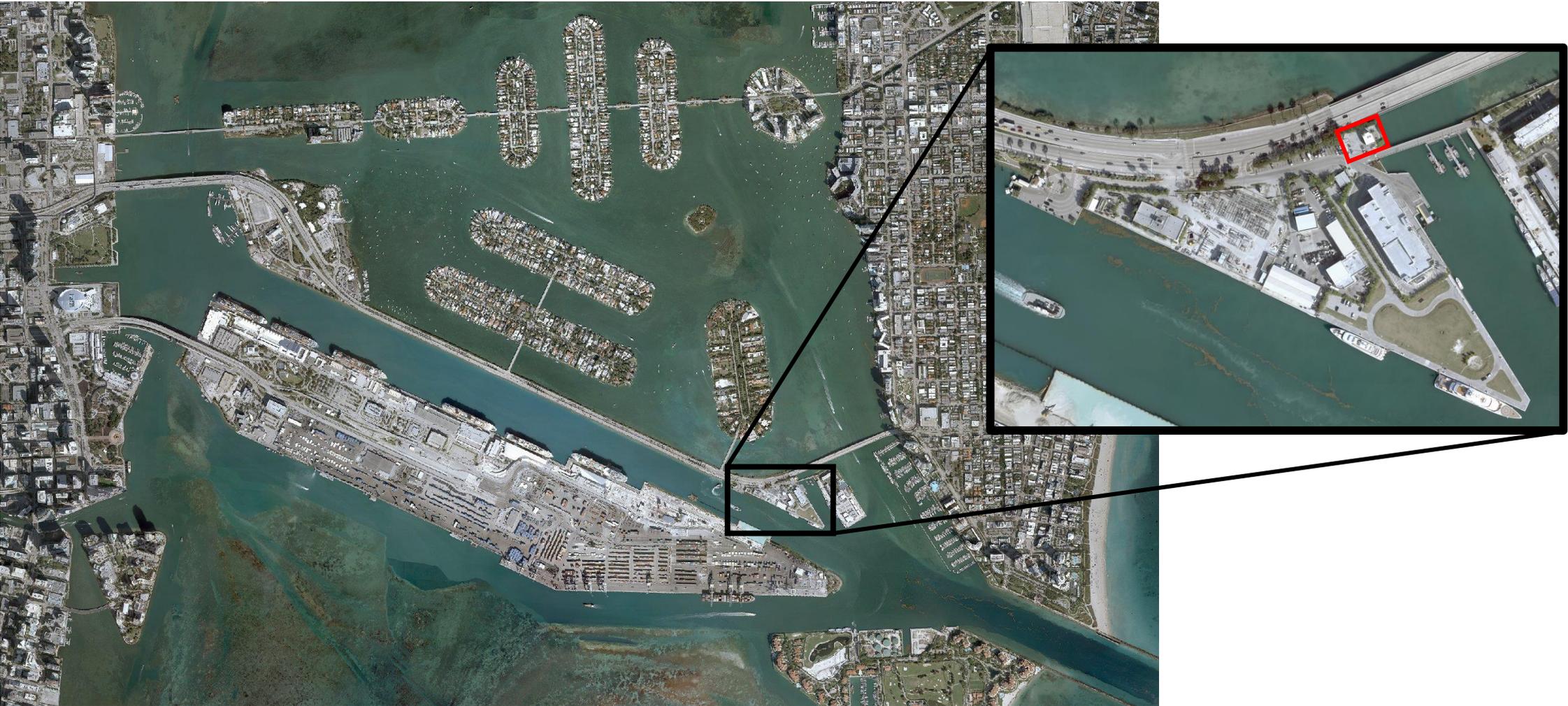
chen moore and associates

112 Terminal Island, Miami Beach,  
Florida 33139

# Agenda

- Existing Conditions
- Site constraints
- Scope of Work
  - DEO Funded
  - City Funded
- Proposed Exterior Improvements
  - Generator
  - Fence
  - Roof Access Ladder
  - Exterior Doors
- Questions

# Project Location

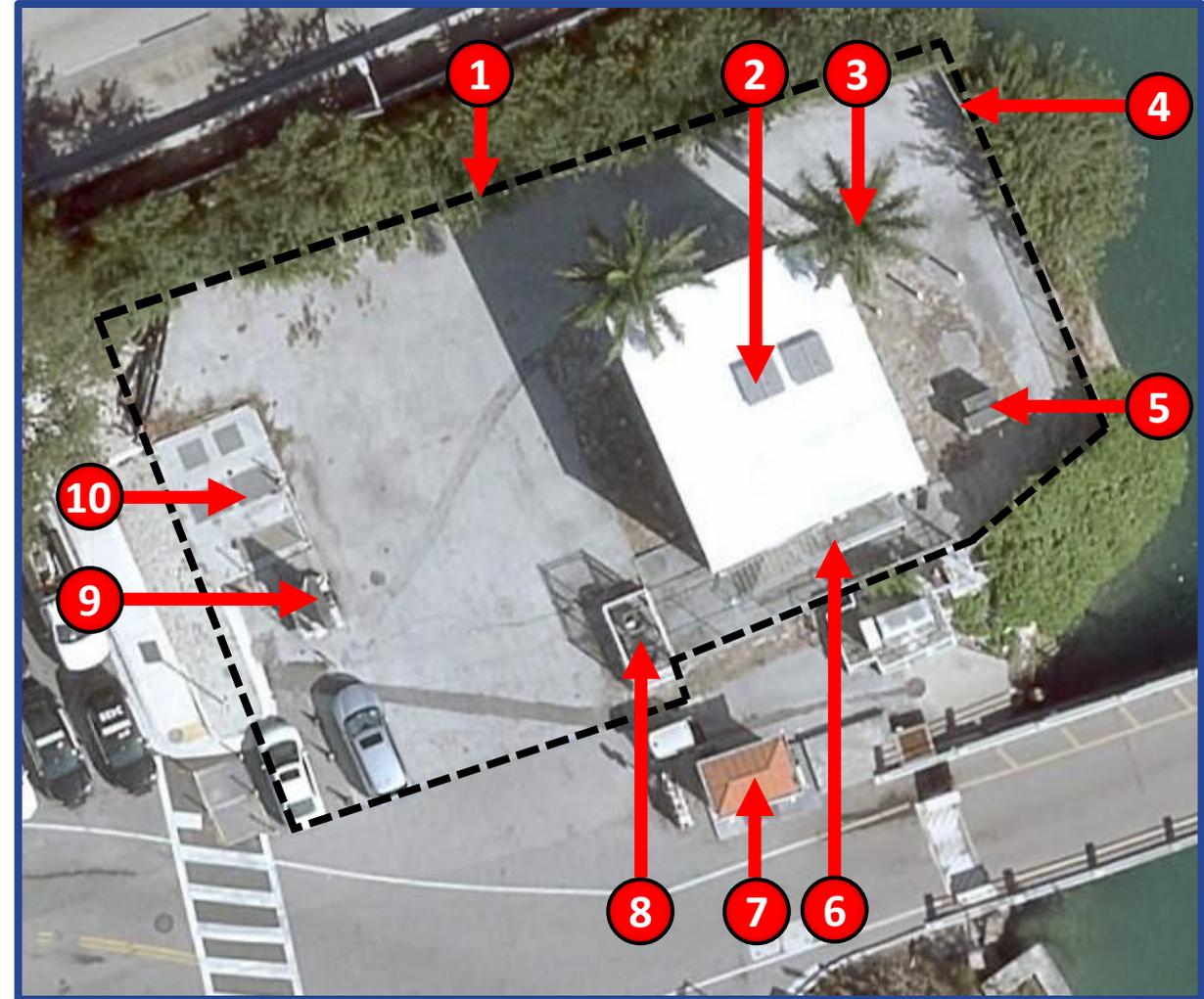


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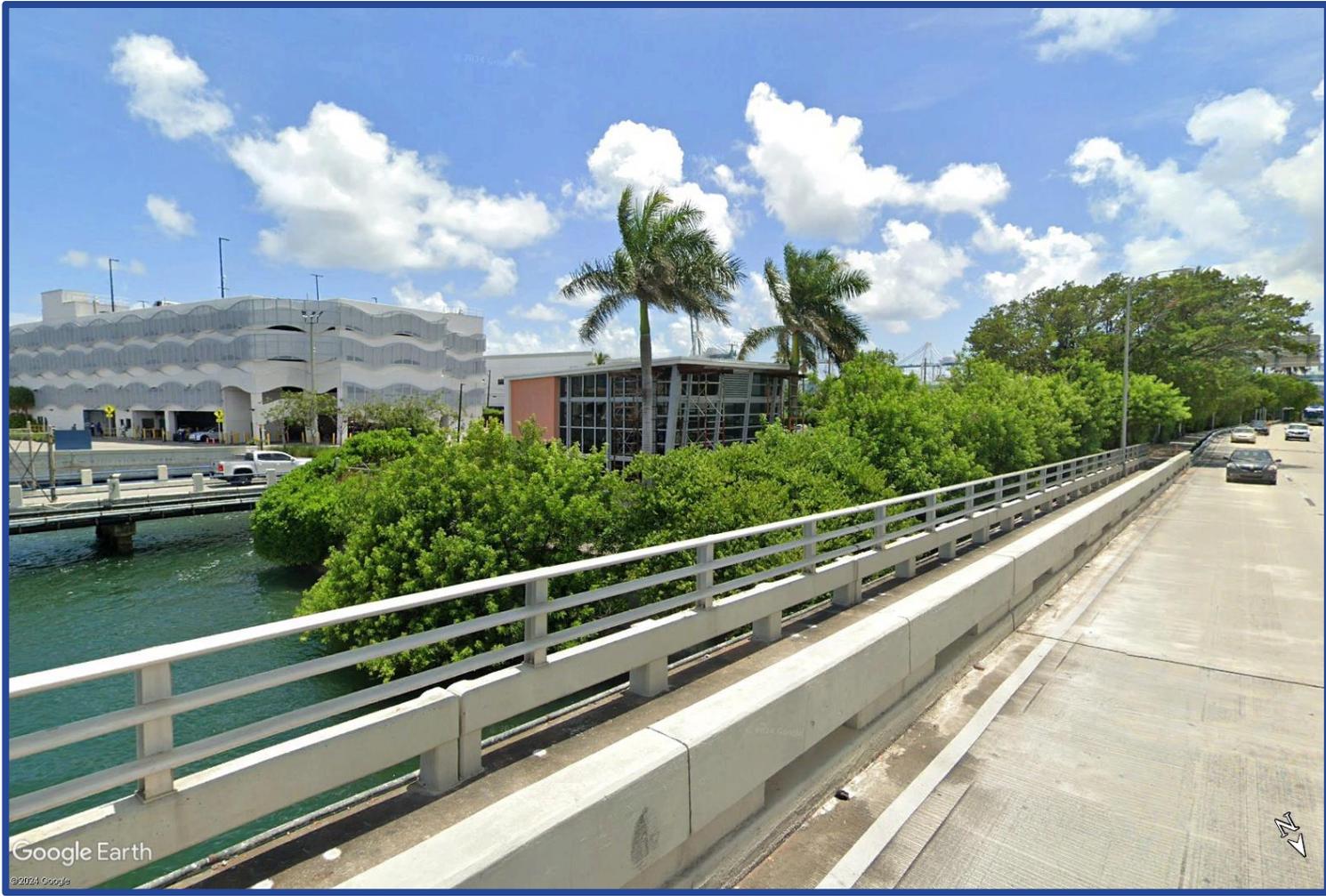
# Existing Conditions/Demolition Overview

- 1 Project Limits
- 2 Booster Pump Station
- 3 Palm Tree (To Be Removed)
- 4 6-ft High Chain Link Fence (To Be Removed & Replaced)
- 5 FP&L Transformer
- 6 Staircase & 2nd Floor Platform
- 7 U.S. Coast Guard Guardhouse
- 8 A/C Unit Enclosure
- 9 Sewer Pump Station Control Panels
- 10 Miami Beach Sewer Pump Station #30



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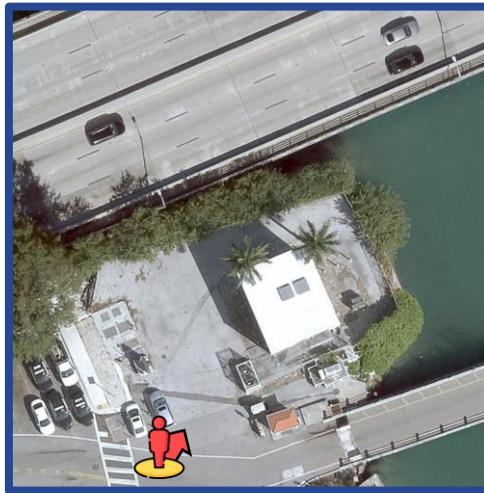
# Existing Conditions (Looking SW from MacArthur Cswy)



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# Existing Conditions (Looking NE from Site Entrance)



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# Existing Conditions (Looking South from NE Corner)



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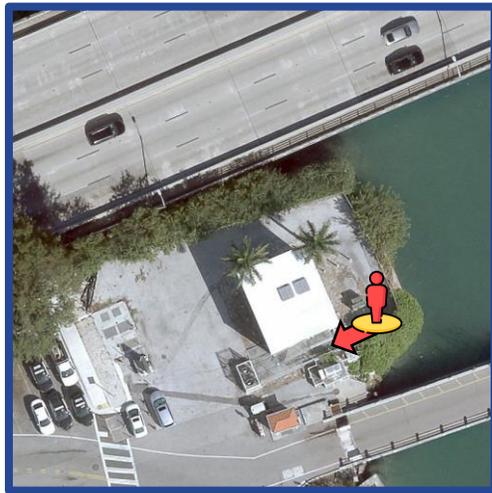
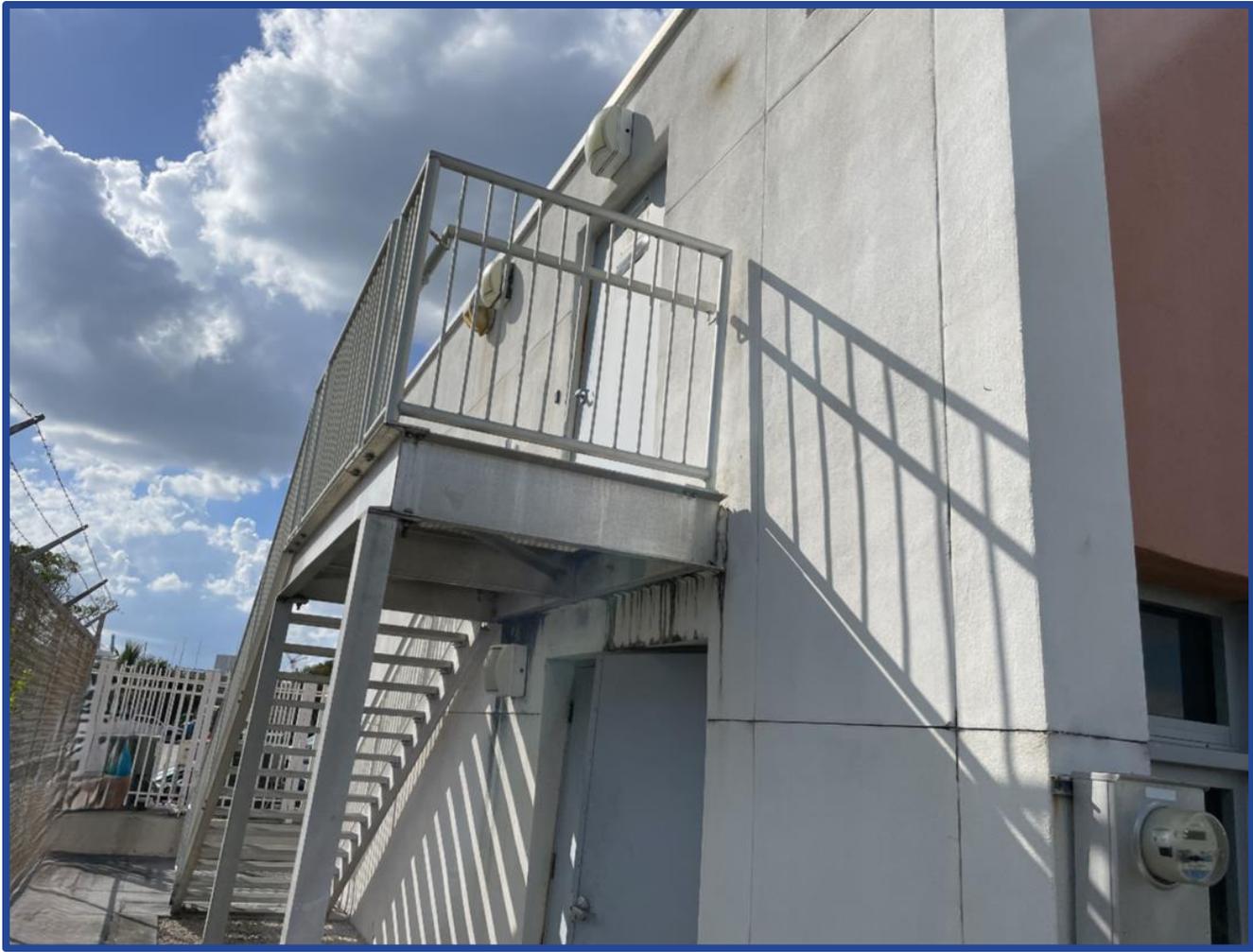
# Existing Conditions (Looking SW from NE Corner)



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# Existing Conditions (Looking West from SE Corner)

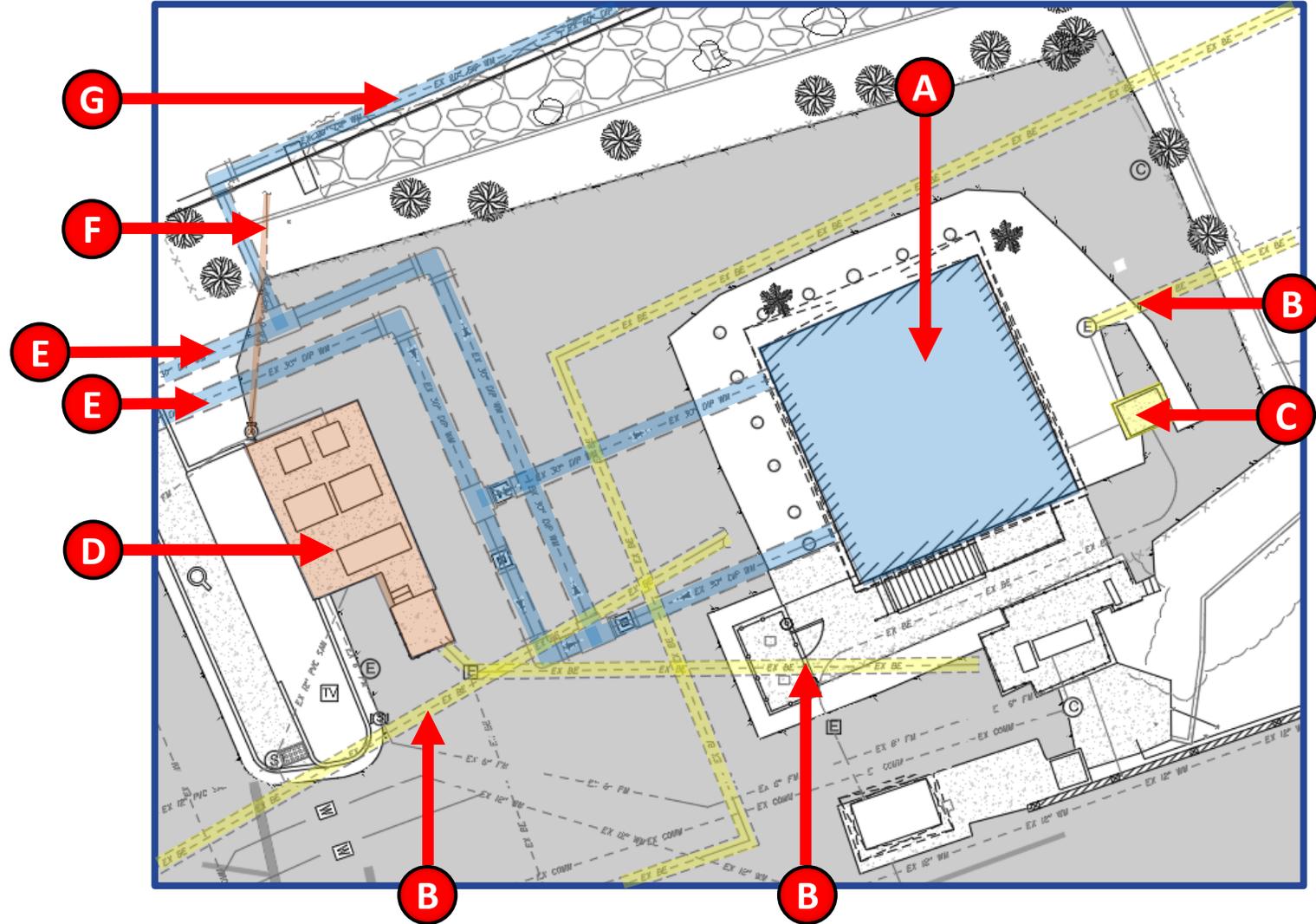


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# Site Constraints

- A** Booster Pump Station
- B** FP&L Duct Bank
- C** FP&L Transformer
- D** Miami Beach Sewer Pump Station #30
- E** 30" Underground Water Main
- F** 8" Above-Ground Temporary Force Main
- G** 20" Underground Water Main



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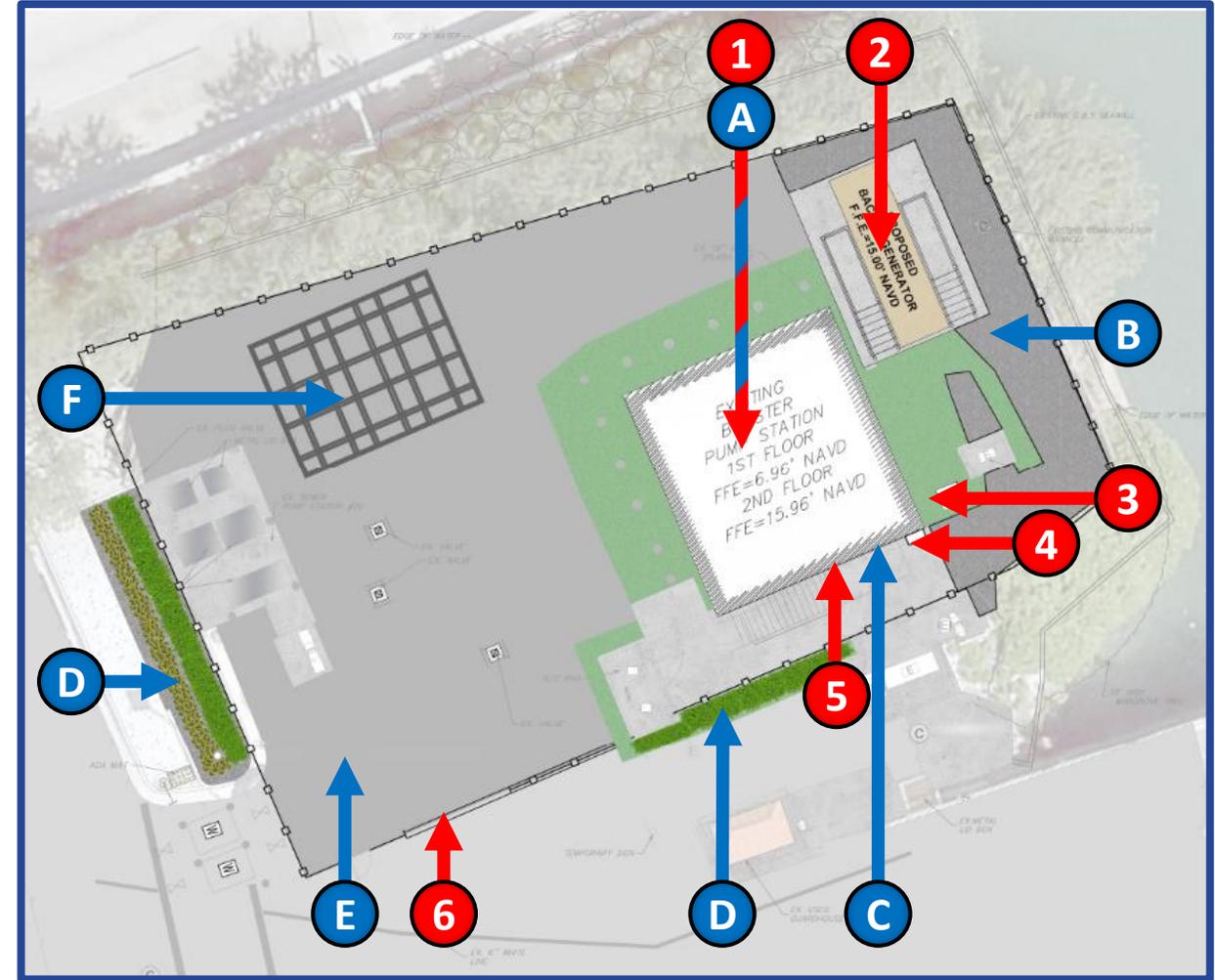
# Scope of Work

## DEO Funded

- 1 Booster Pump Station Interior Improvements
- 2 Permanent On-site Generator
- 3 Electrical Pull Box
- 4 Main Disconnect Switch
- 5 First & Second Floor Exterior Door Improvements
- 6 8-ft High Aluminum Fence & Gate

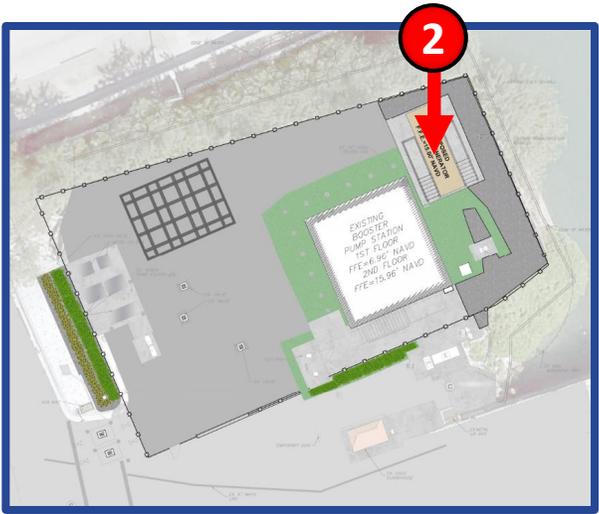
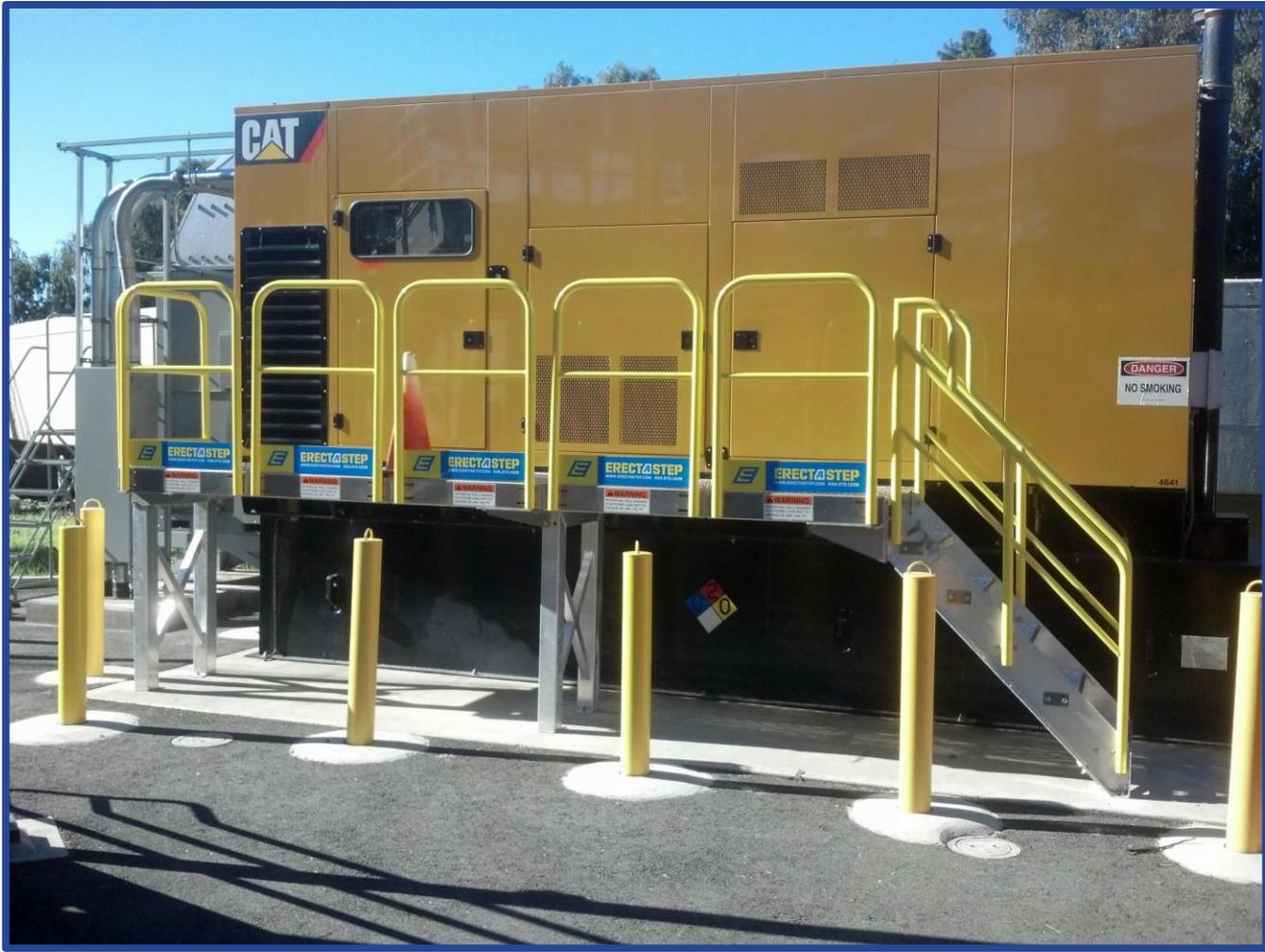
## City of Miami Beach Funded

- A Booster Pump Station Interior Improvements
- B Gravel Ground Cover
- C Roof Access Ladder
- D Landscape Screening
- E Milled and Resurfaced Asphalt
- F Temporary Bypass Staging Area



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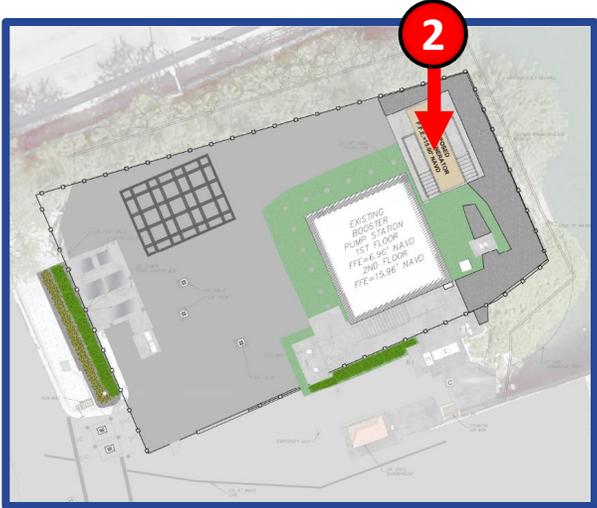
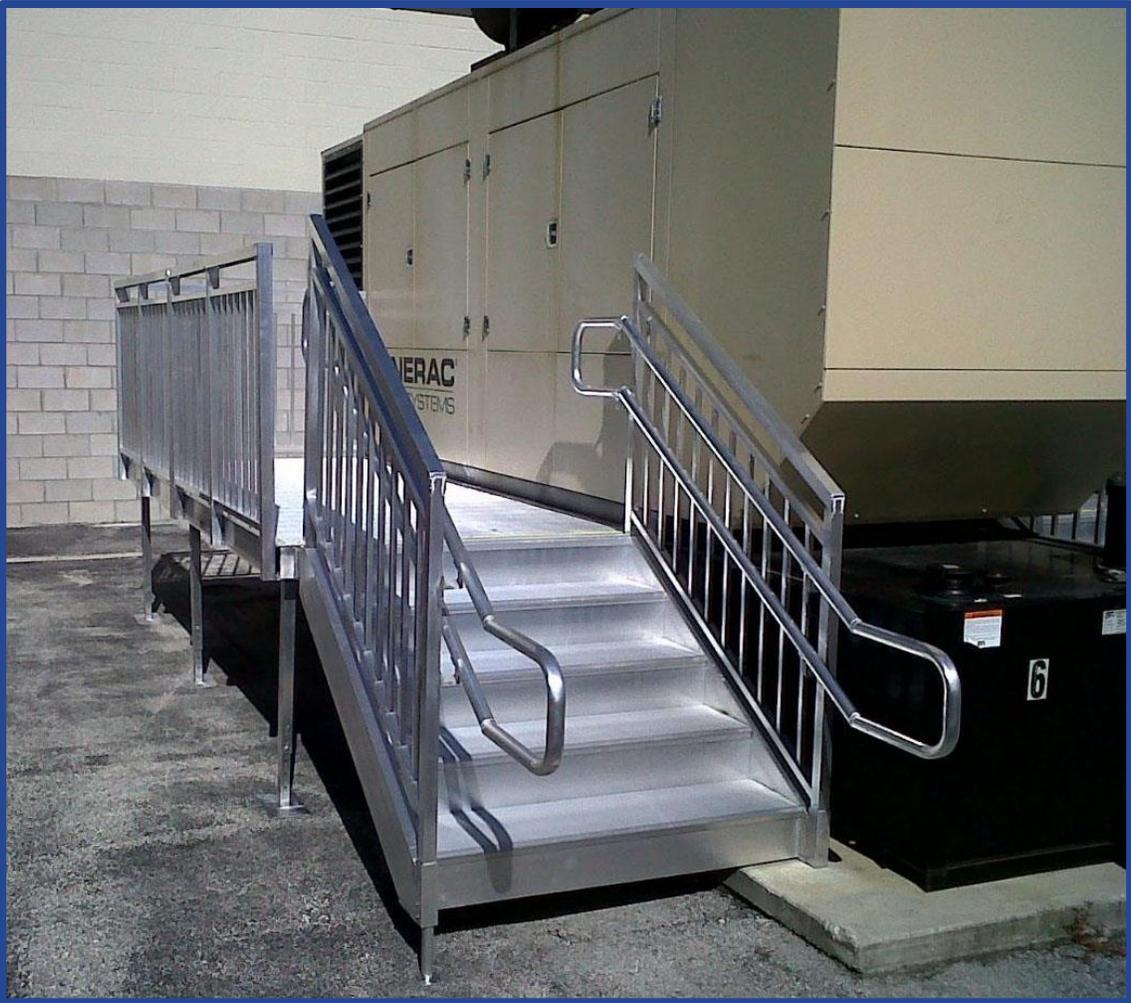
# Proposed Generator (Caterpillar Example)



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# Proposed Generator (Generac Example)



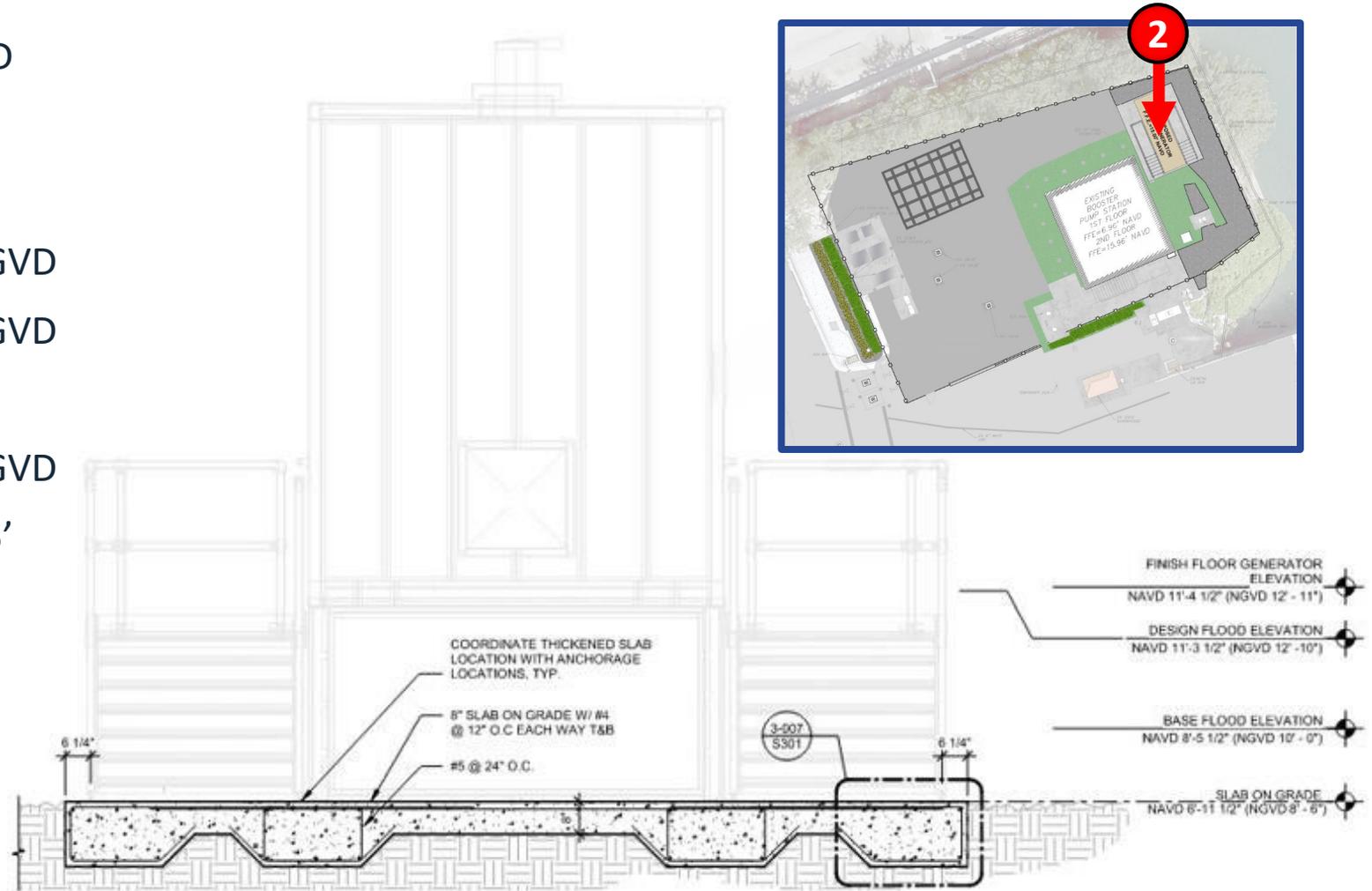
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# Proposed Generator & Slab (Elevations)

- Base Flood Elevation: 10 ft-NGVD
- Freeboard: 2 ft.
- Sea Level Rise Projection (2064): 10 in.
- Design Flood Elevation: 12'-10" NGVD
- Generator Bottom Elevation: 12'-11" NGVD
- Generator Height: 10 ft.
- Generator Top Elevation: 22'-11" NGVD
- Slab dimensions: 18'-6" x 25'
- Number of Bollards: 3

THICKENED SLAB SCHEDULE					
MARK*	SIZE	THICKNESS	TOP & BOTT.* REINF. CONT.	TOP & BOTT.* REINF. TRANSV.	REMARKS
TS-2.0	2' - 0" x CONT.	1' - 4"	(3)-#5	#5 @ 10" O.C.	
TS-2.0A	2' - 0" x CONT.	1' - 4"	(3)-#5	#5 @ 10" O.C.	



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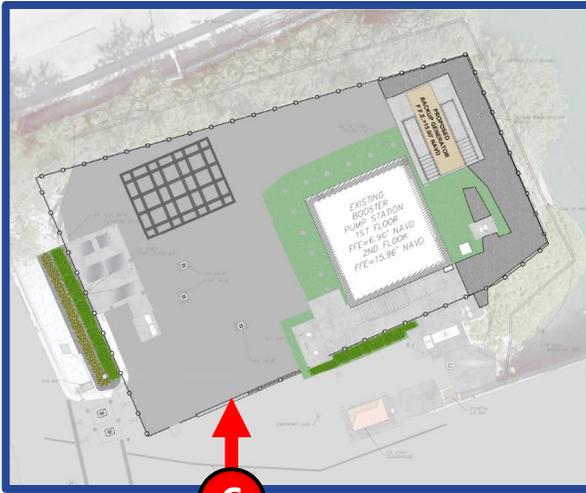
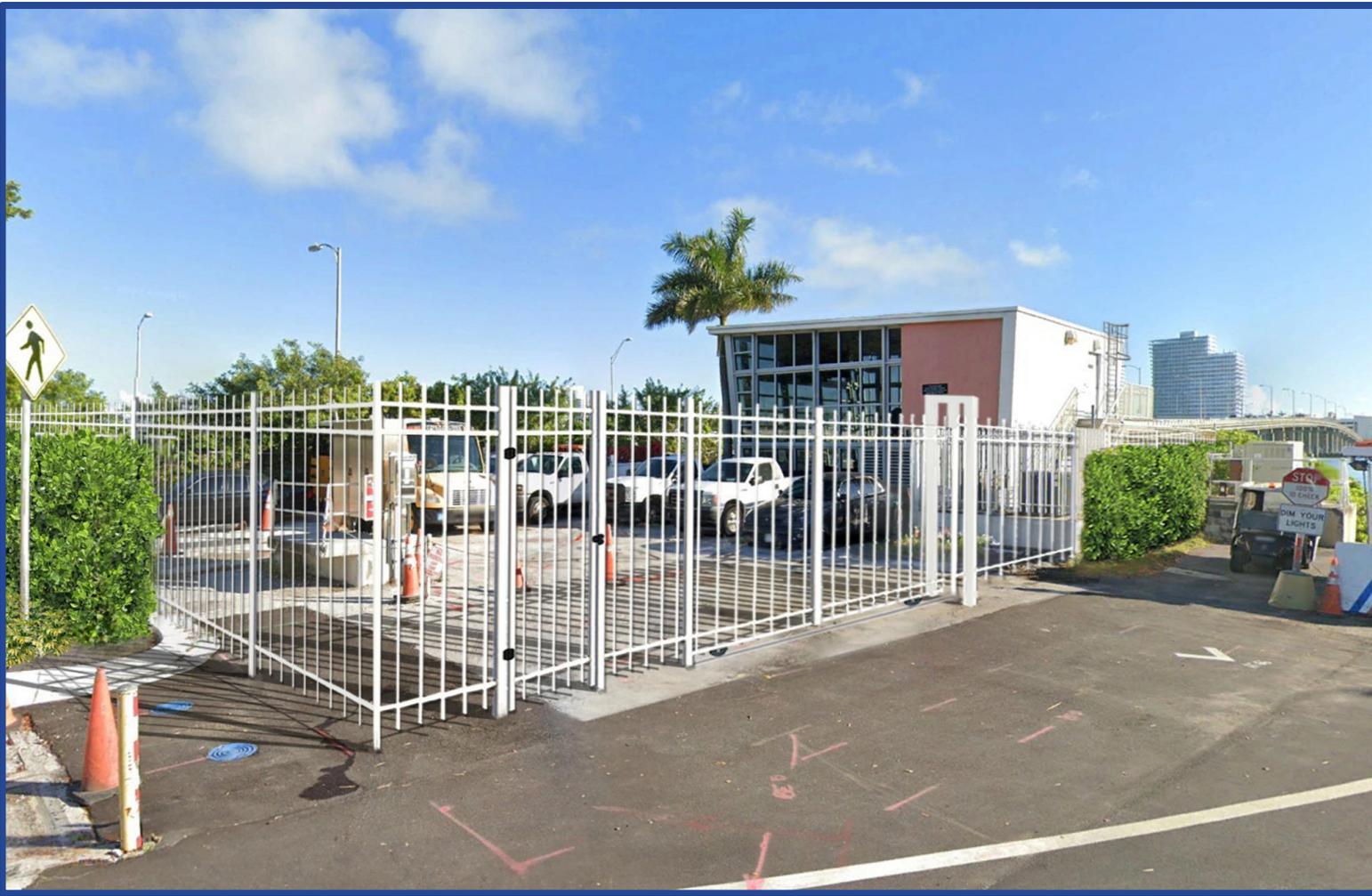
# Proposed Generator (Looking SW from MacArthur Cswy)



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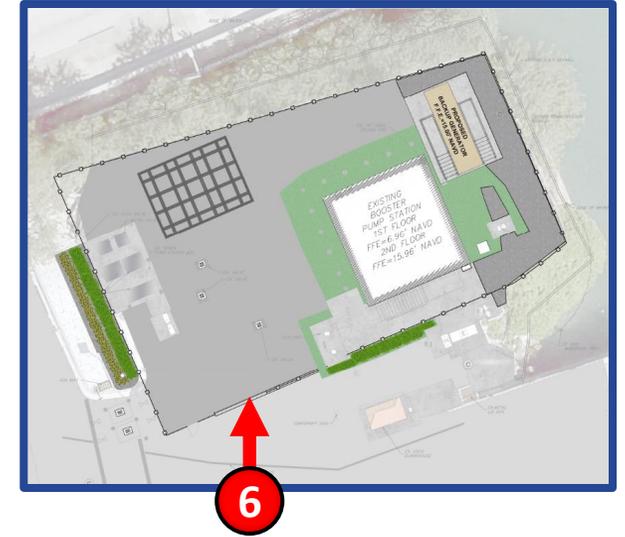
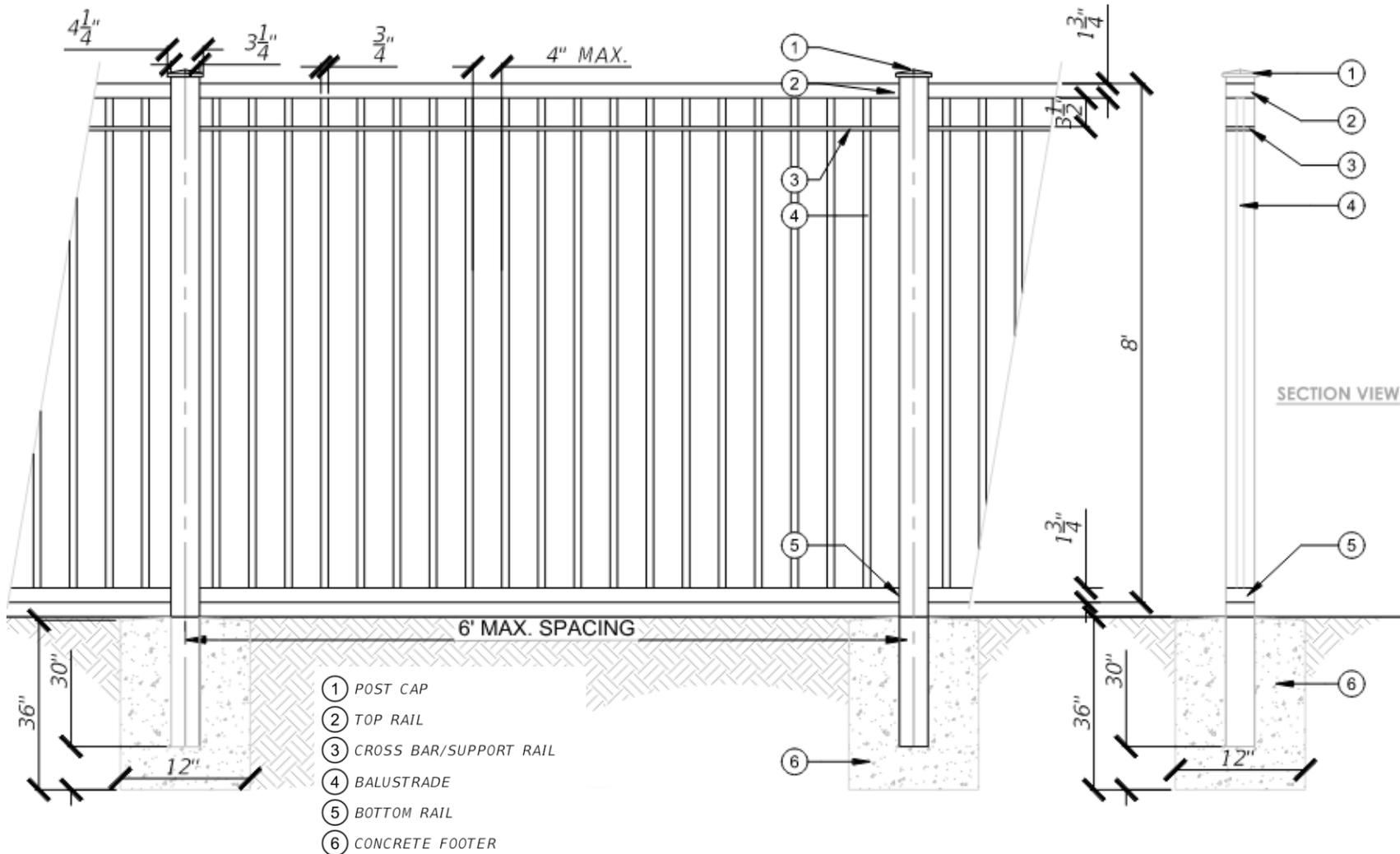
# Proposed Fence



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# Proposed Fence (Details)



8-ft High Aluminum Fence w/  
White, Powdered Coated Finish

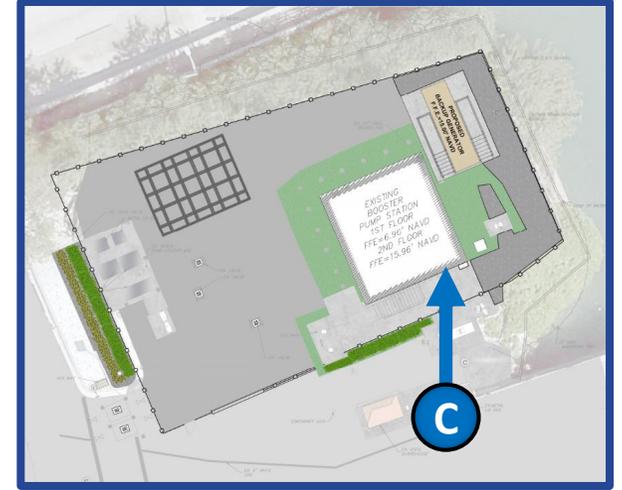
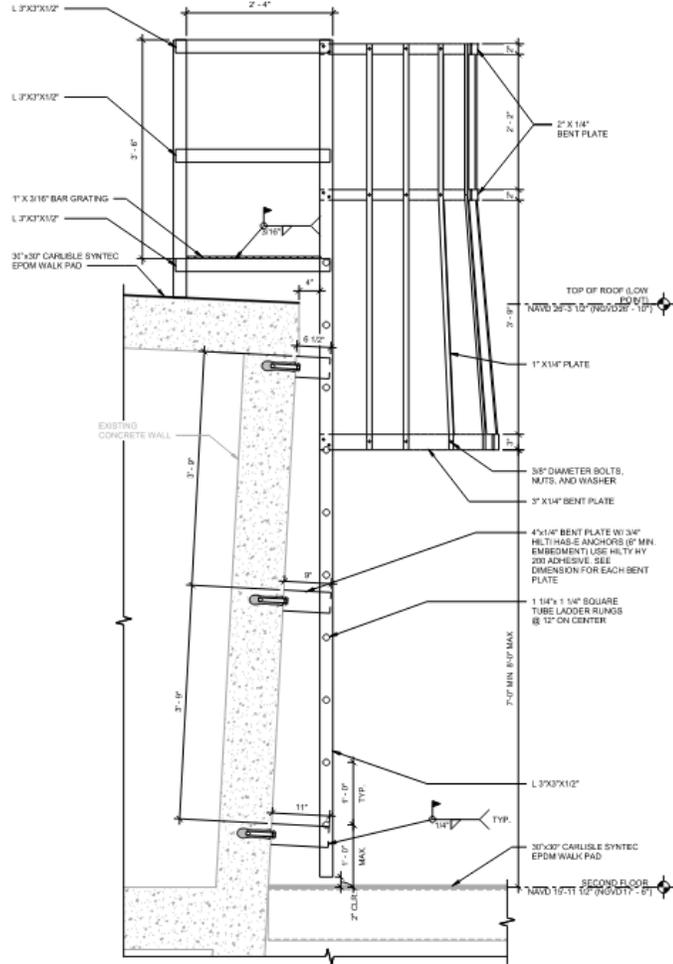
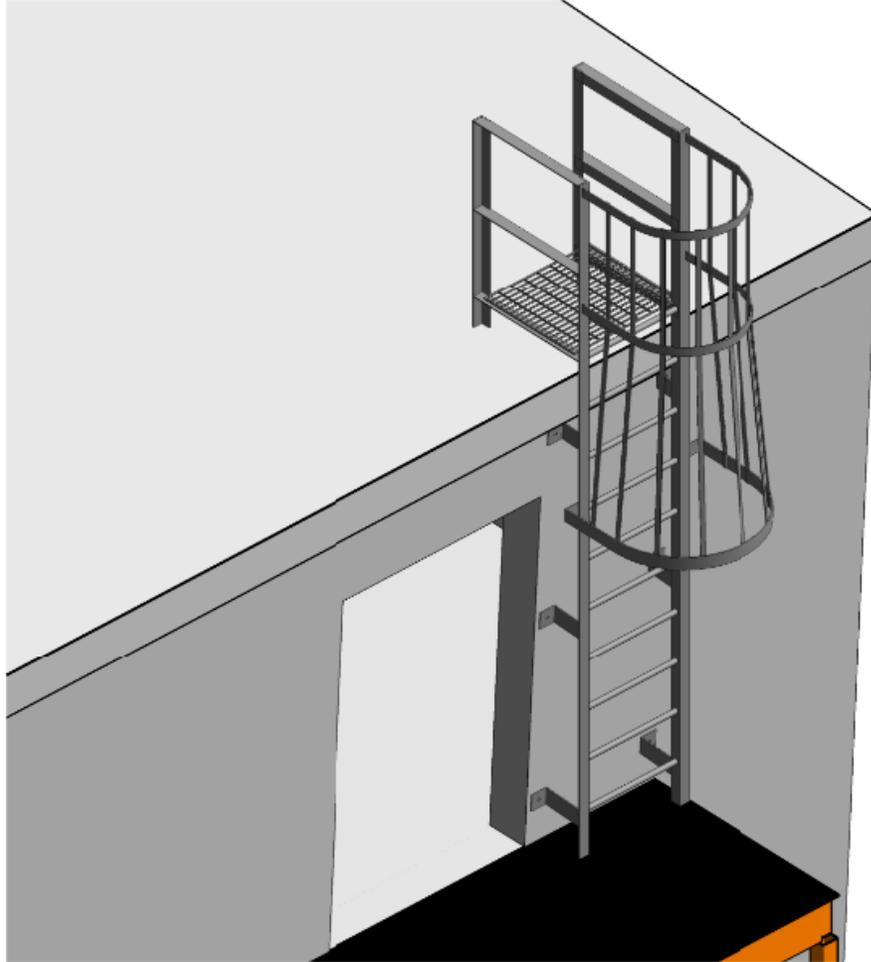
15-ft Long Proposed Rolling  
Gate for Vehicular Access to  
Stations

Pedestrian Gate for Personnel  
Access

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# Proposed Roof Access Ladder

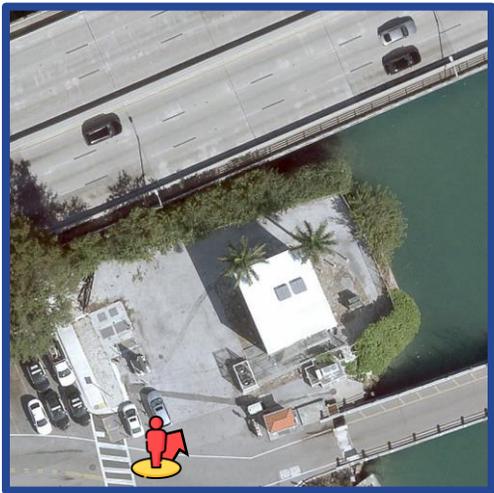
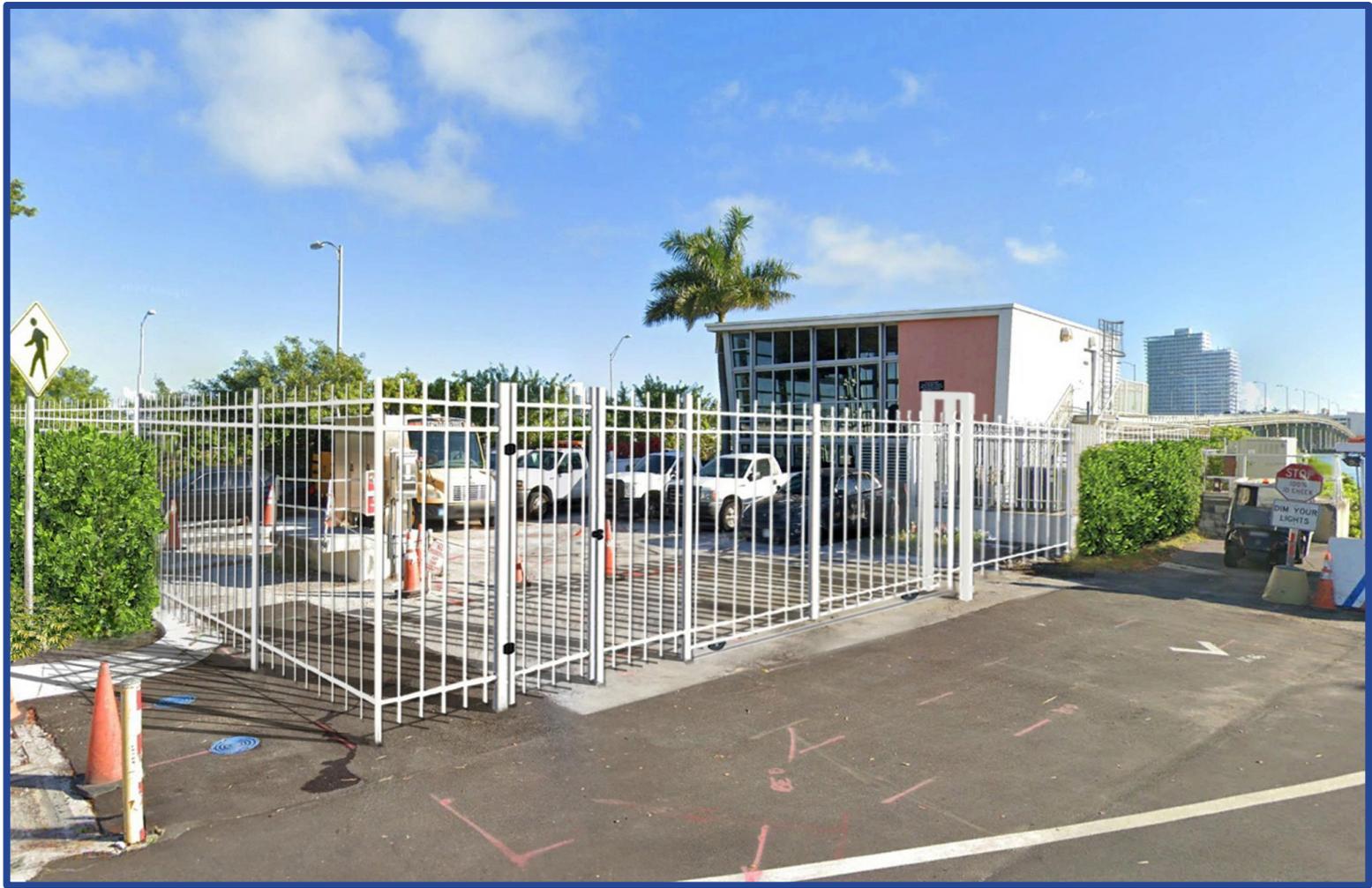


Wall-Mounted Roof Access Ladder  
 To Be Installed on Second Floor  
 Skid Resistant Tread-Grip Ladder Rung  
 Fall Protection System  
 (3M™ DBI-SALA® LAD-SAF™  
 Cable Vertical Safety System)

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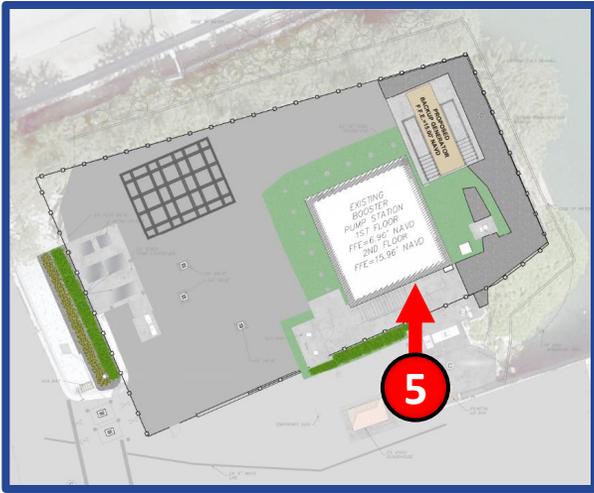
# Proposed Roof Access Ladder (View from Entrance)



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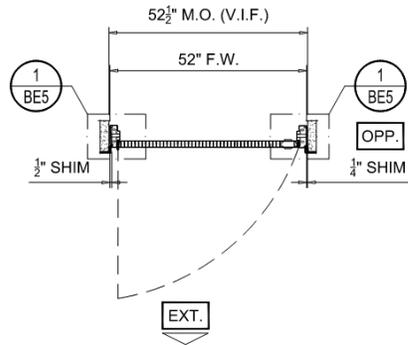
# Proposed Exterior Doors (Examples)



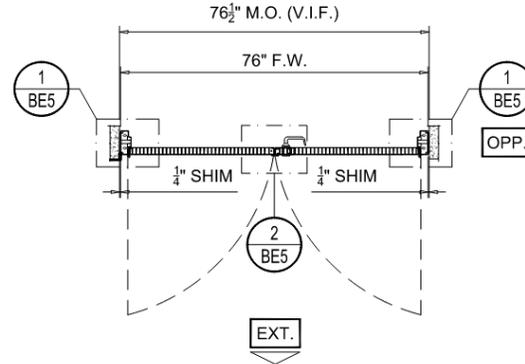
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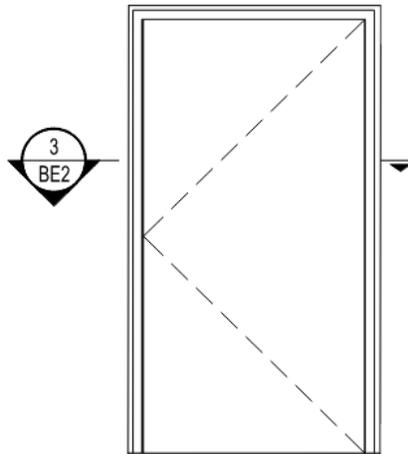
# Proposed Exterior Doors (Details)



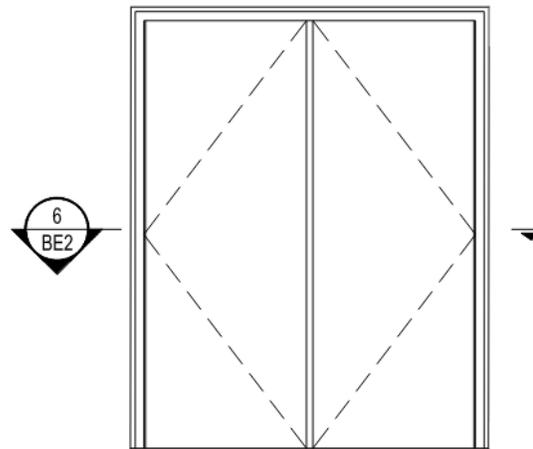
3 ENLARGED PLAN  
SCALE 9/16" = 1'-0"



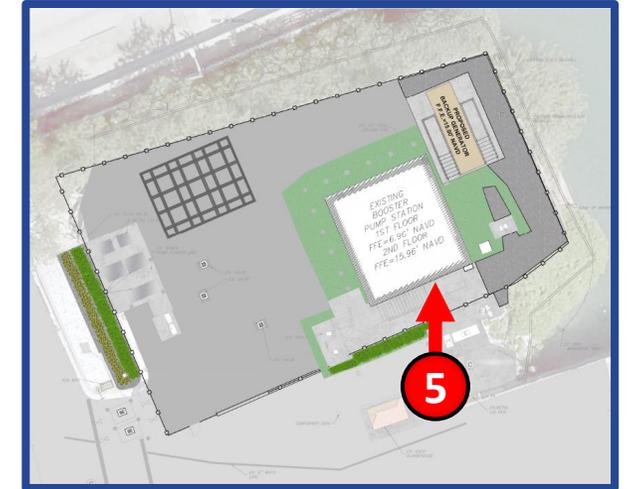
6 ENLARGED PLAN  
SCALE 9/16" = 1'-0"



1 ENLARGED ELEVATION  
SCALE 9/16" = 1'-0"



4 ENLARGED ELEVATION  
SCALE 9/16" = 1'-0"



Per Miami-Dade County Notice of Approval (NOA) #21-0708.15

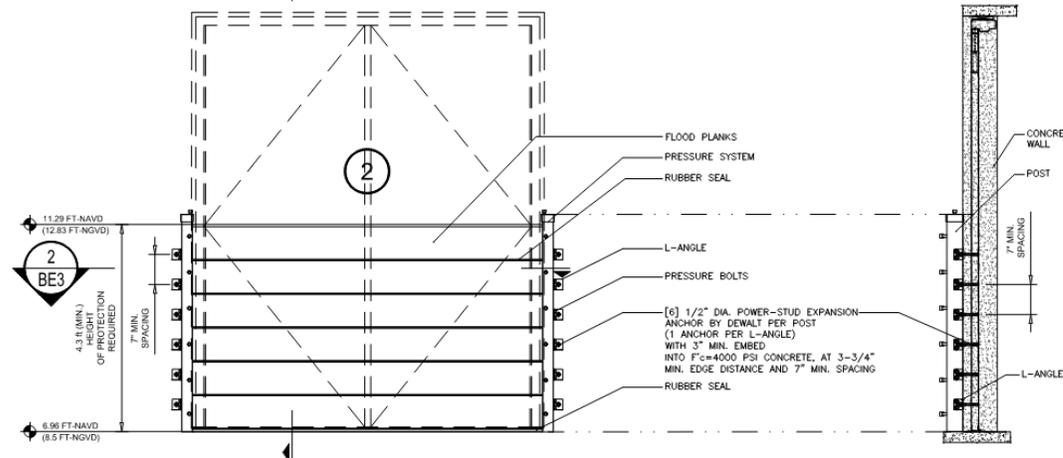
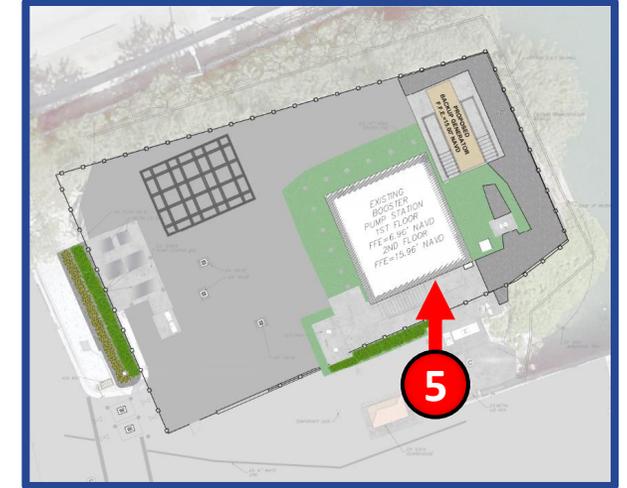
First Floor: 52" x 96" (W x H) Series LS1875 Outswing Steel Door

Second Floor: 76" x 96" (W x H) Series LS1875 Outswing Steel Door

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# Proposed First Floor Exterior Door (Floodproofing)



Hammerhead Aluminum Flood Planks  
 Exterior Mounted Posts  
 Design Flood Elevation: 12'-10" NGVD  
 Ex. Bottom Slab Elevation: 8'-6" NGVD  
 Flood Protection Min. Height: 4'-4"

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# Closing Remarks & Questions



**Gregory Mendez, PE**

*Principal Engineer - Civil / Office Leader - Miami*



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