

MIAMI BEACH

TERMINAL ISLAND WATER BOOSTER PUMP STATION HARDENING



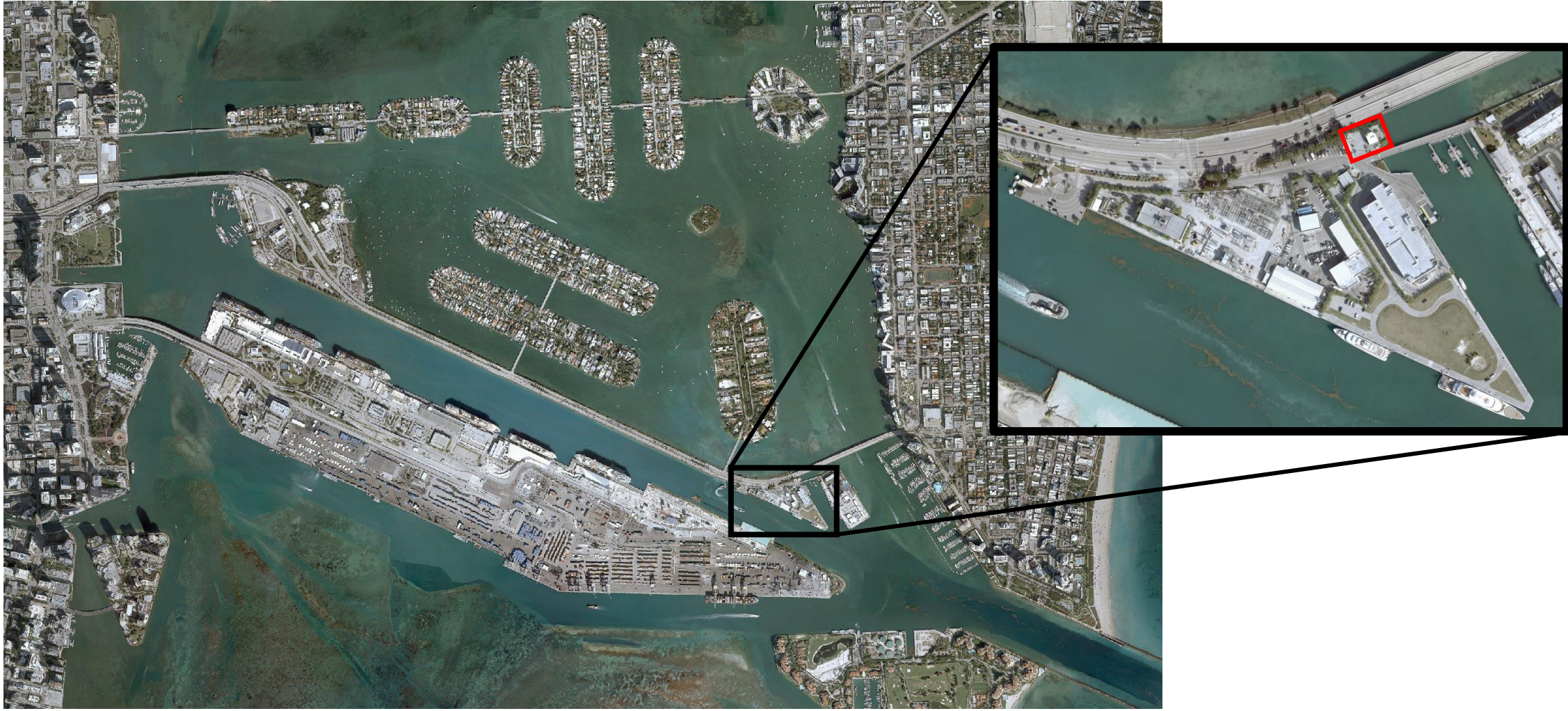
chen moore and associates

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

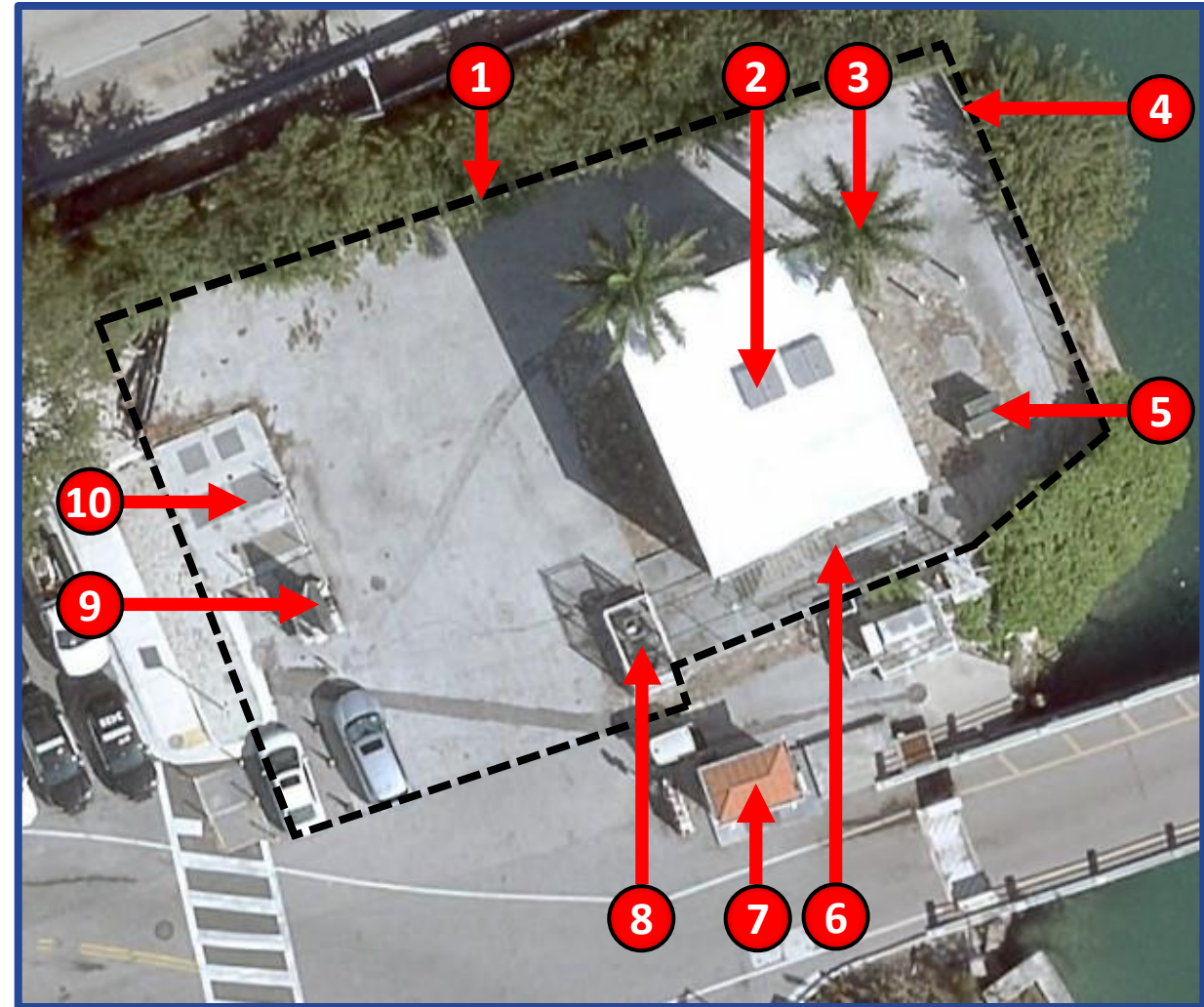
Project Location



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PUMP STATION HARDENING**

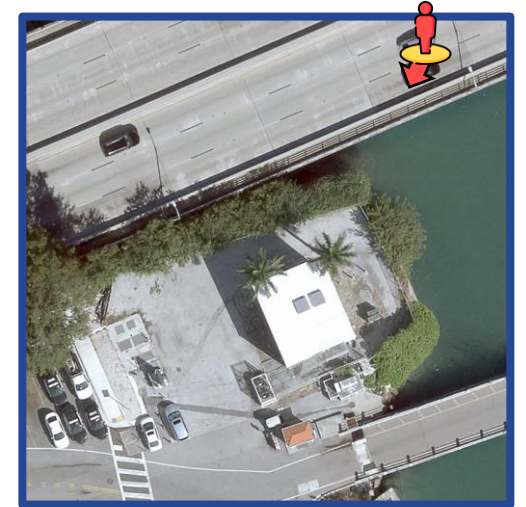
Existing Conditions/Demolition Overview

- 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



TERMINAL ISLAND WATER BOOSTER
PUMP STATION HARDENING

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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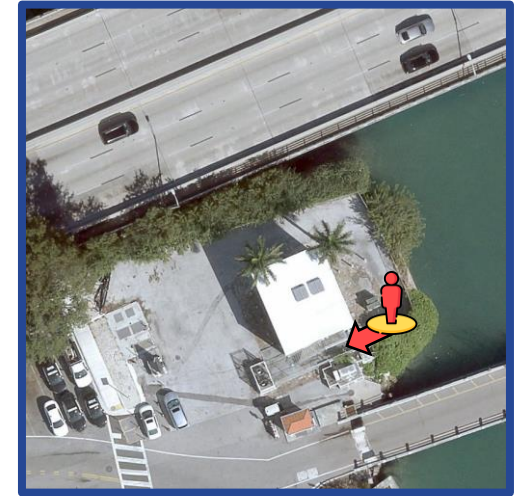
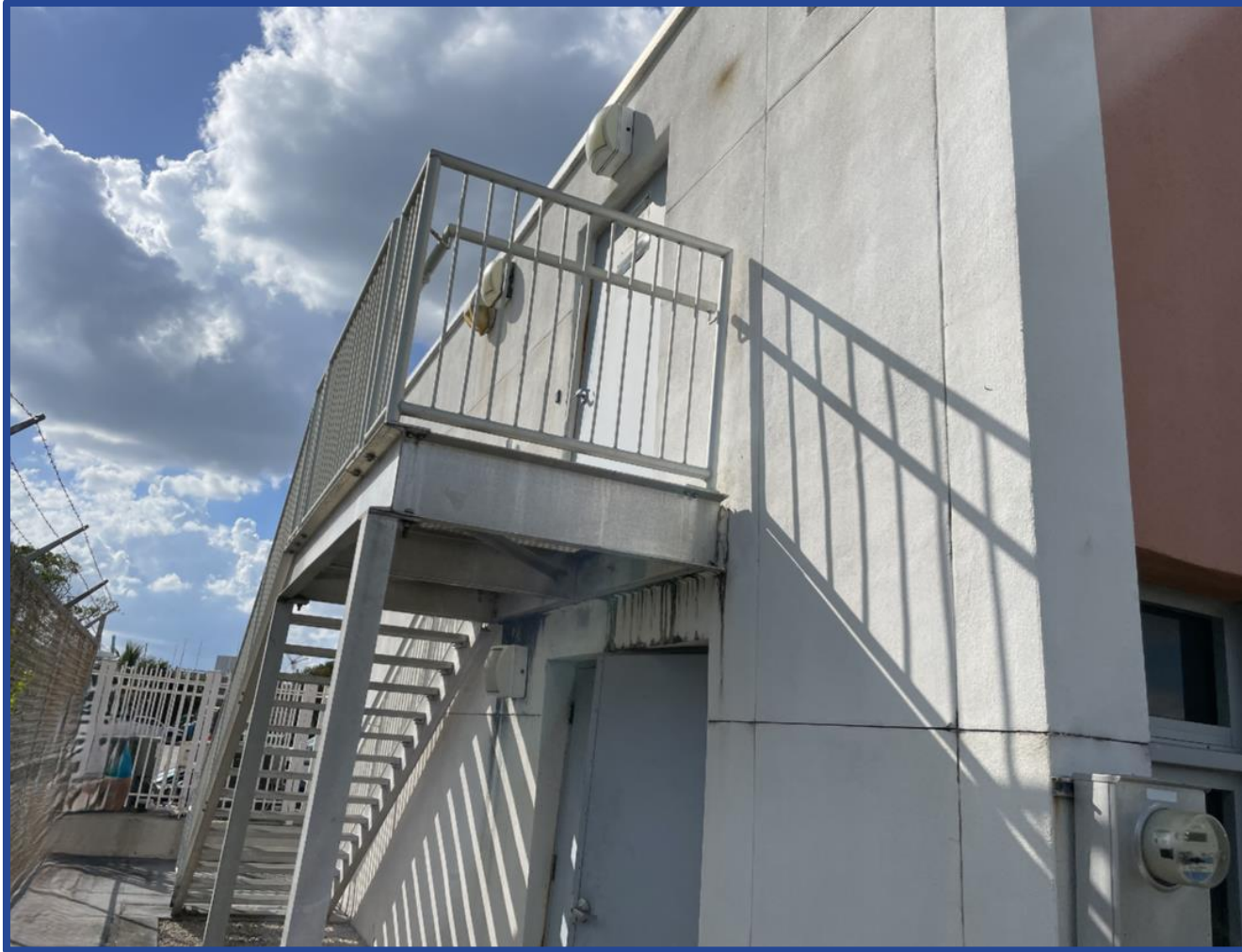
Existing Conditions (Looking SW from NE Corner)



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Existing Conditions (Looking West from SE Corner)

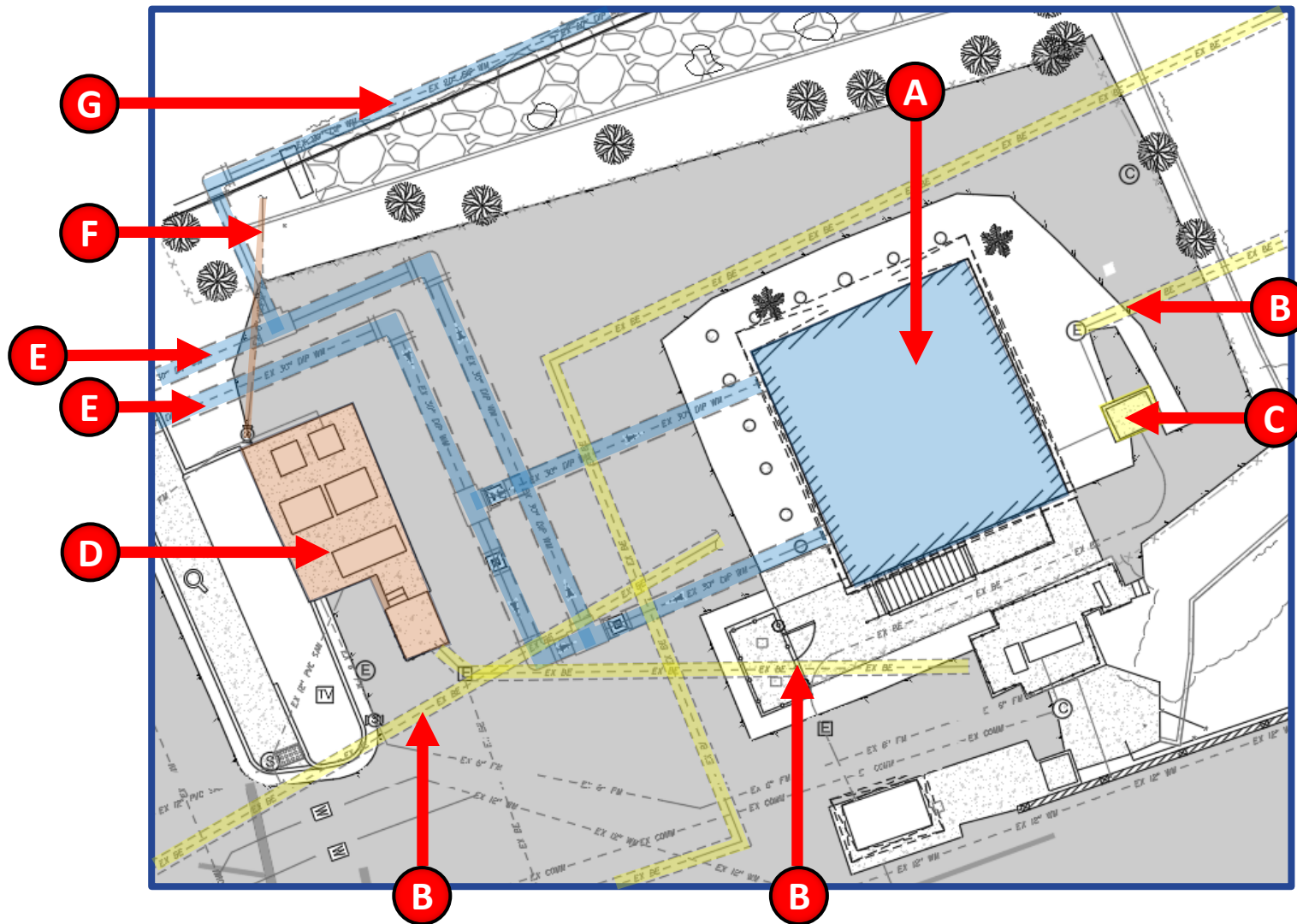


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Site Constraints

- 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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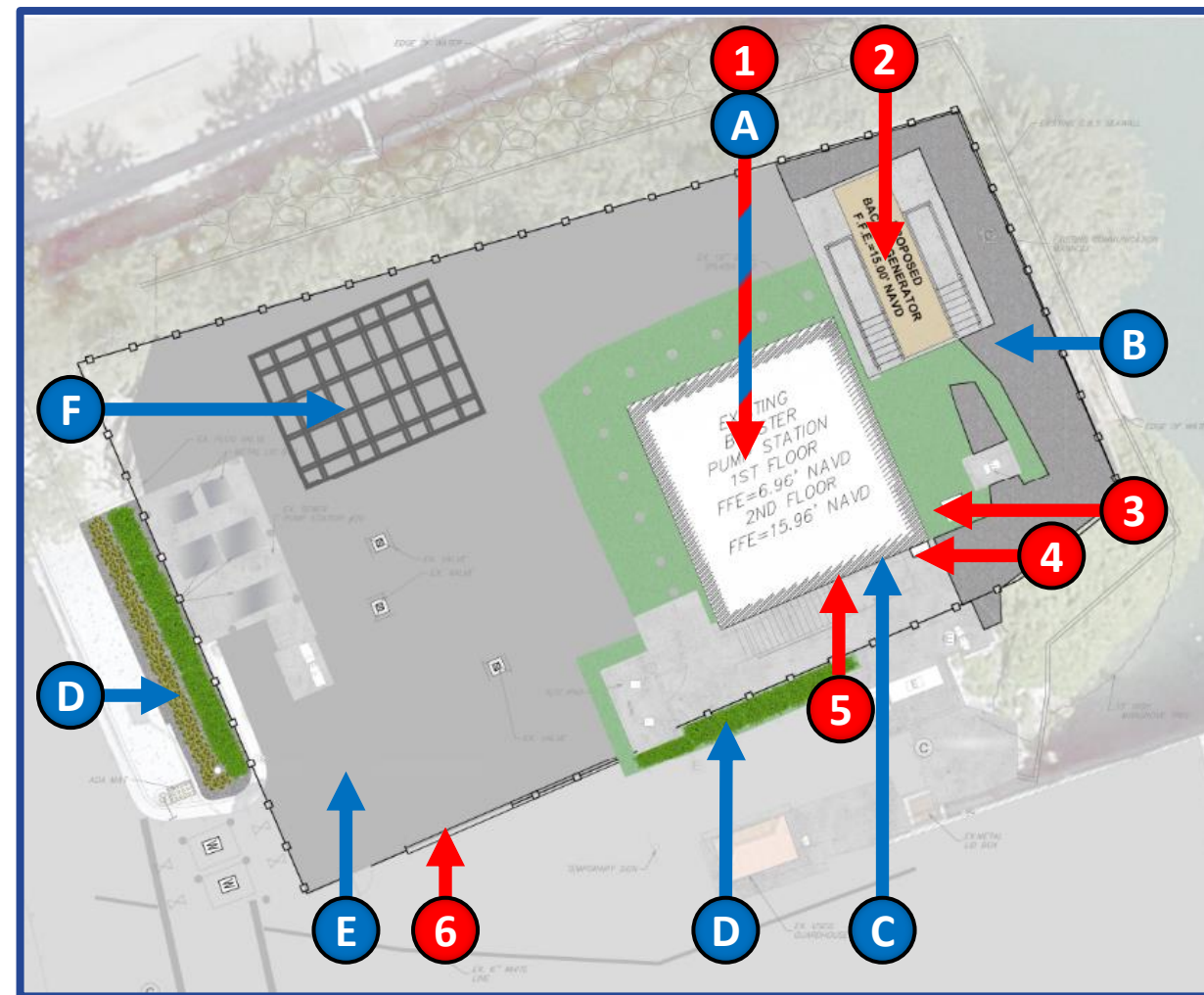
Scope of Work

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

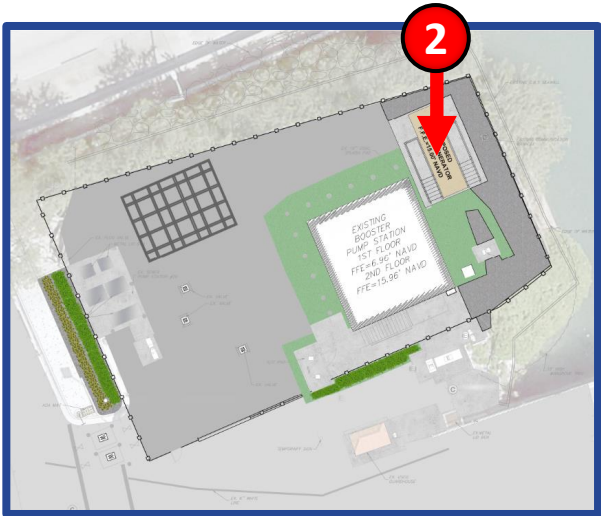
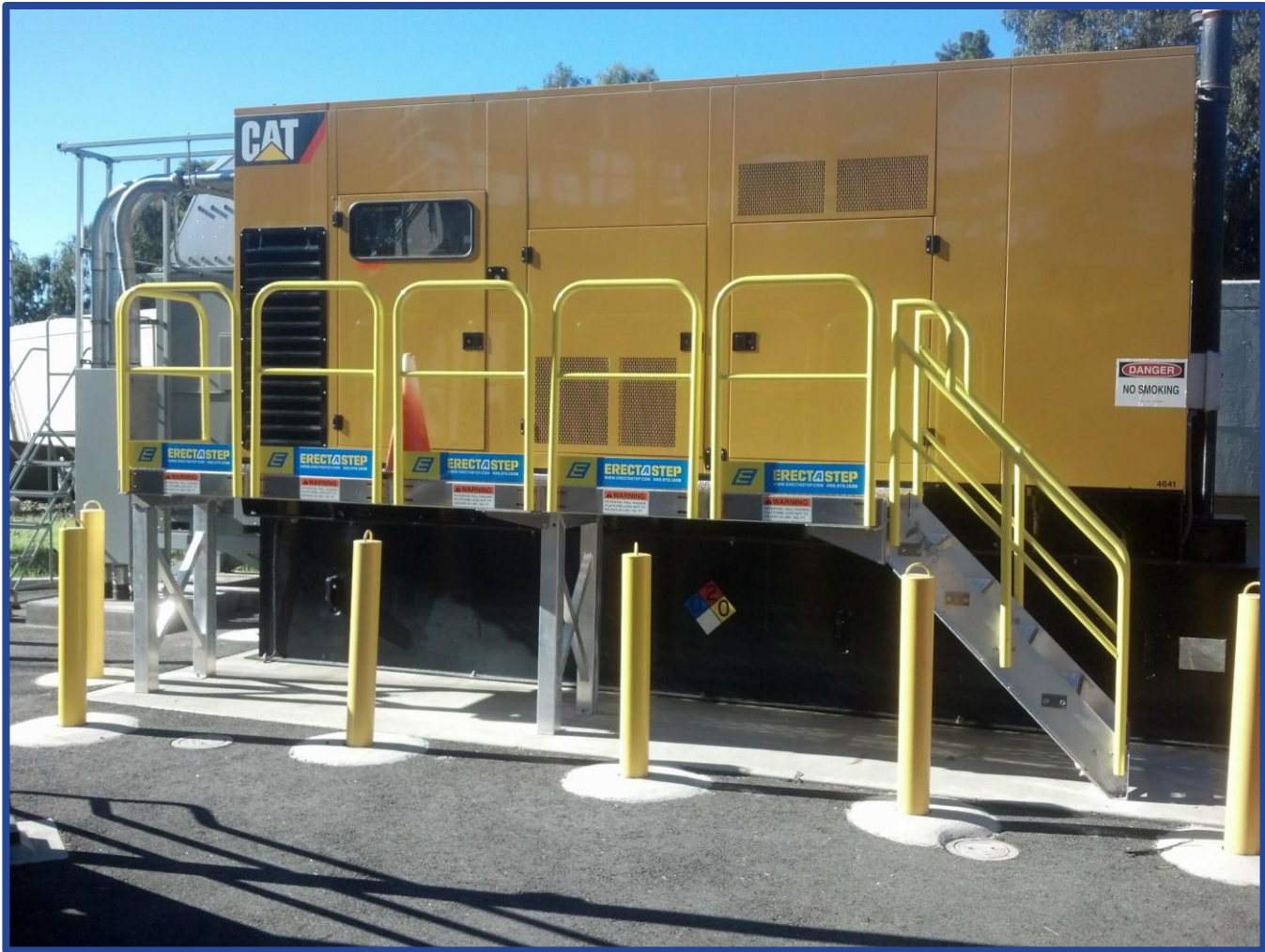
City of Miami Beach Funded

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



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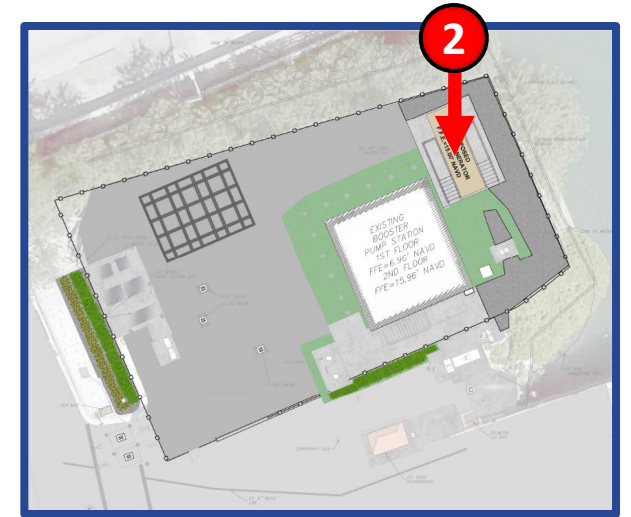
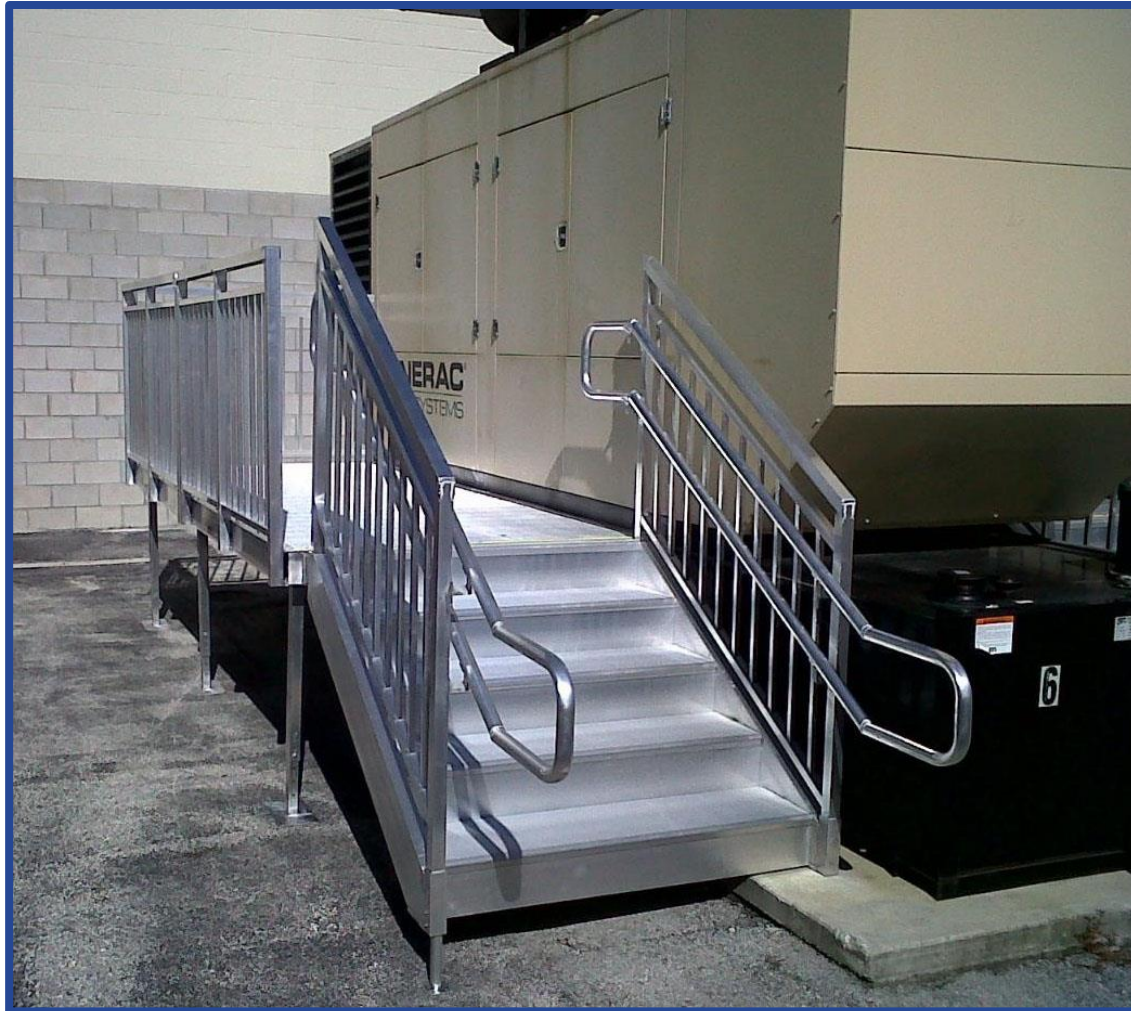
Proposed Generator (Caterpillar Example)



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Proposed Generator (Generac Example)

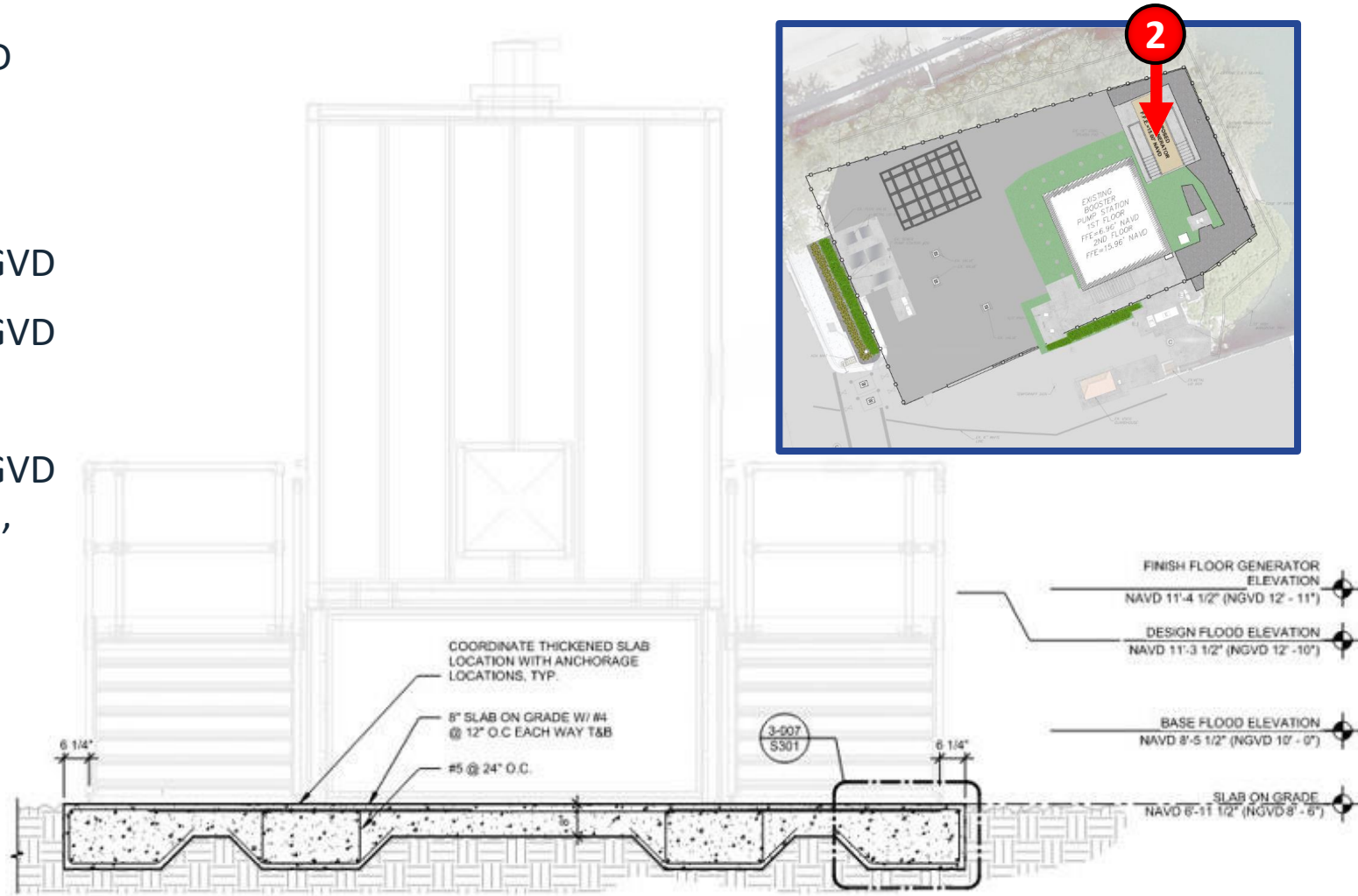


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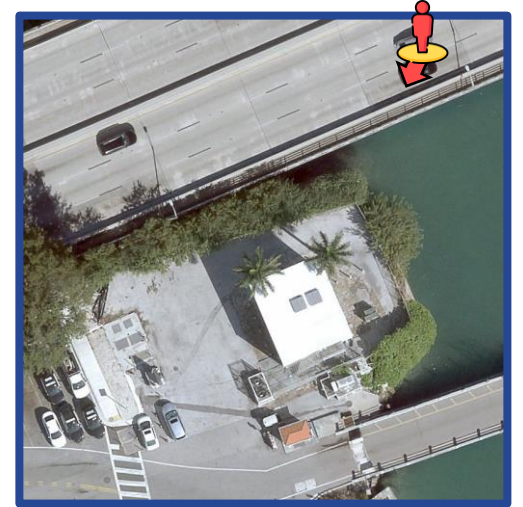
Proposed Generator & Slab (Elevations)

- 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.	

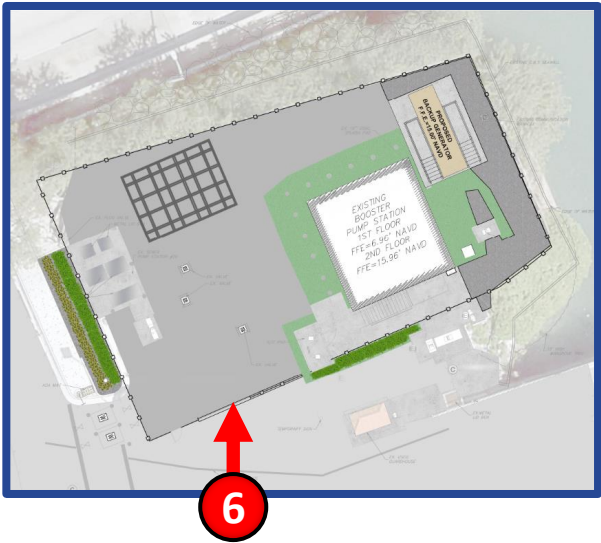


Proposed Generator (Looking SW from MacArthur Cswy)



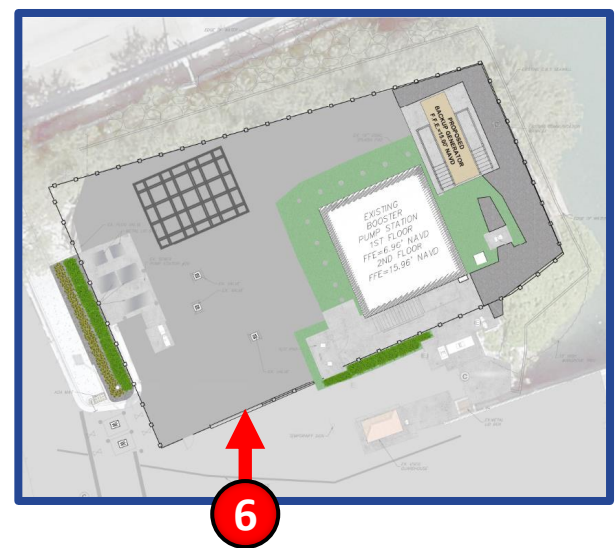
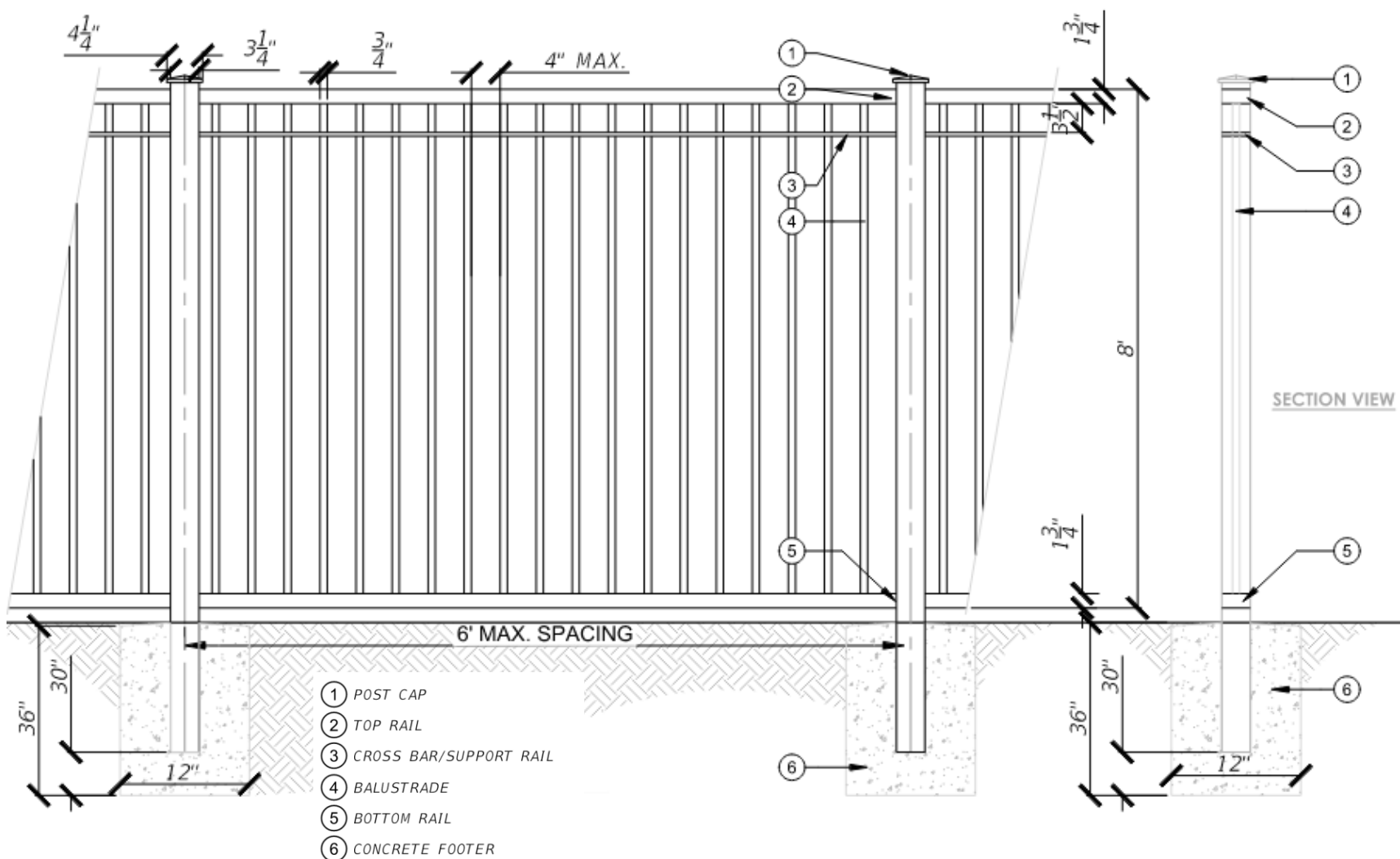
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Proposed Fence



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Proposed Fence (Details)

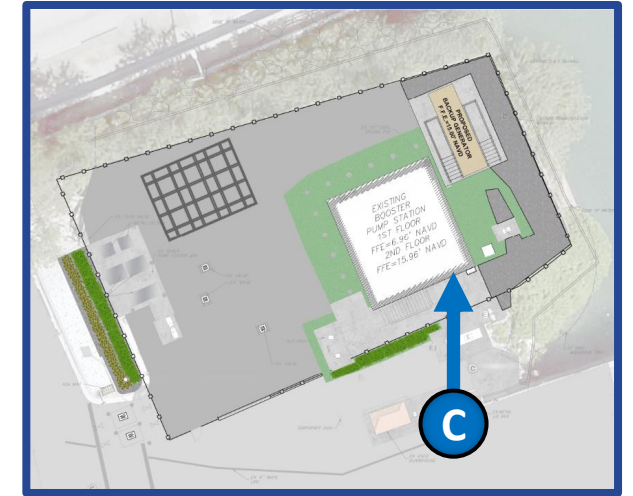
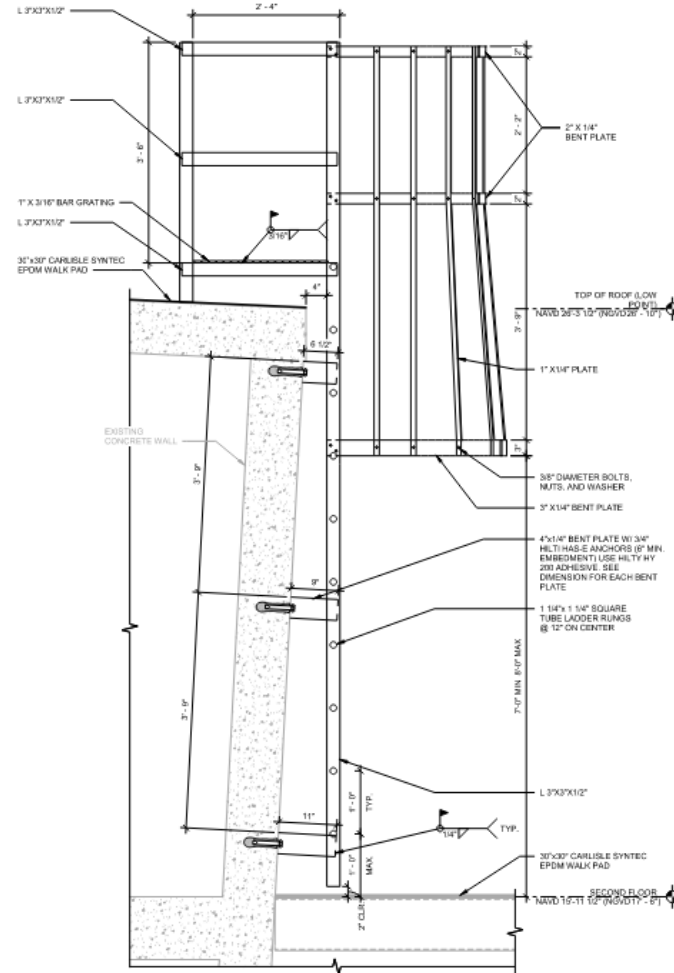
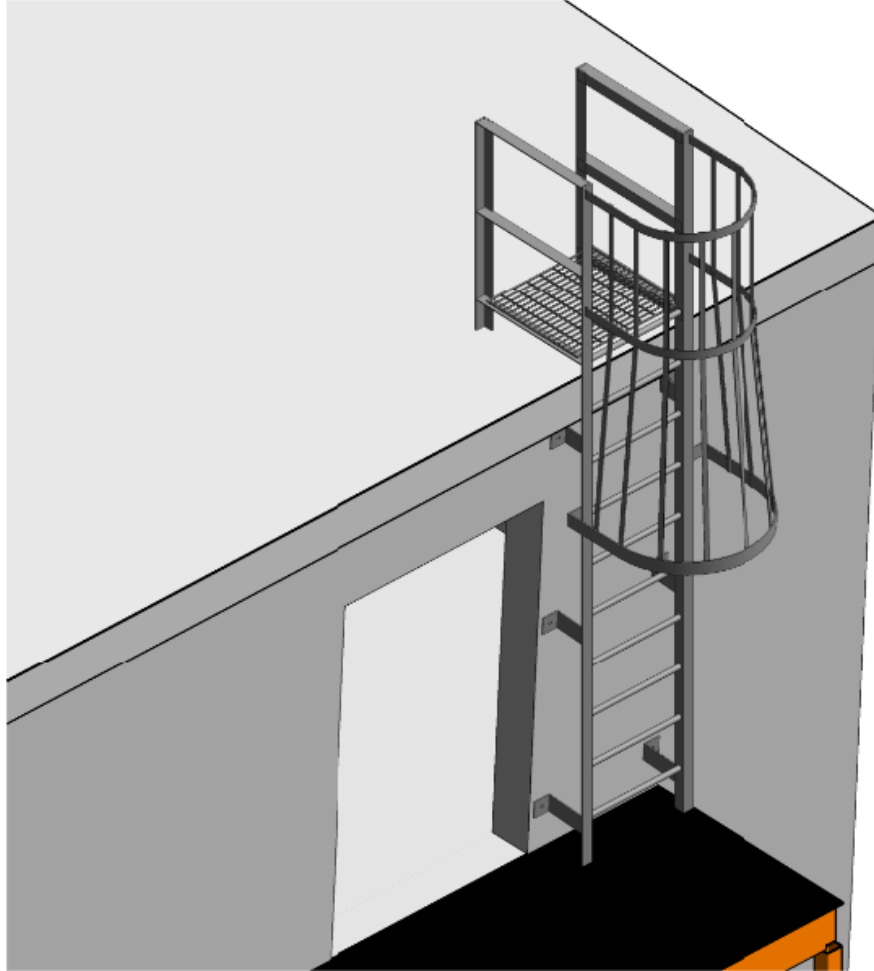


8-ft High Aluminum Fence w/
White, Powdered Coated Finish

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

Pedestrian Gate for Personnel
Access

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)

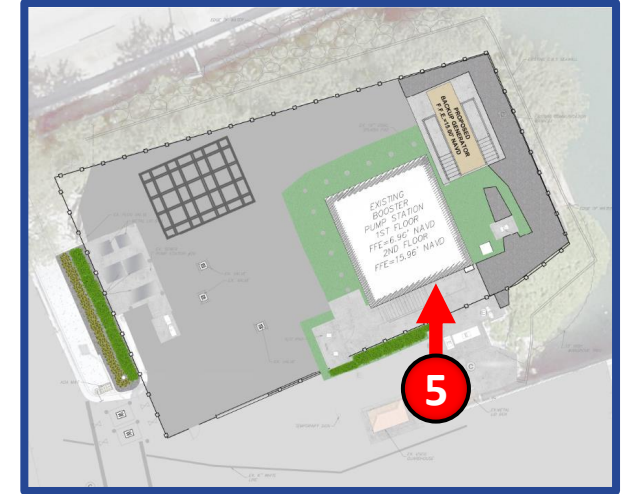
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Proposed Roof Access Ladder (View from Entrance)



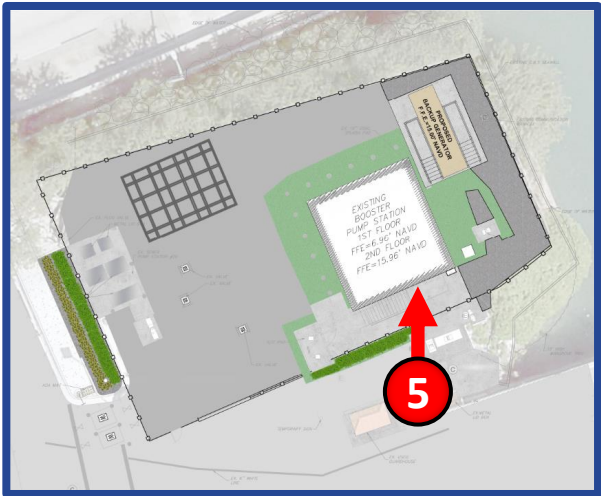
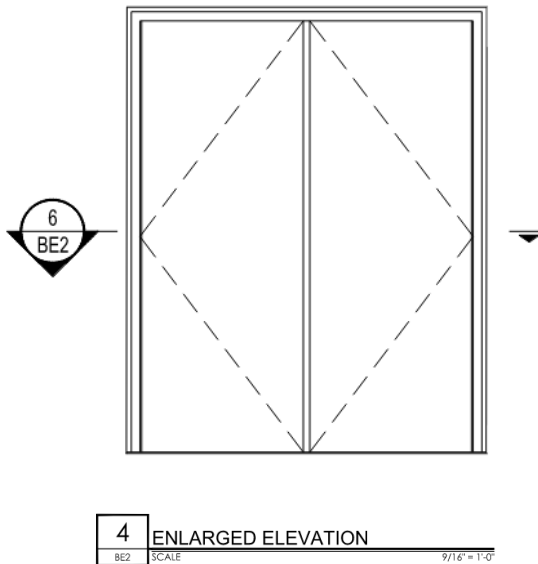
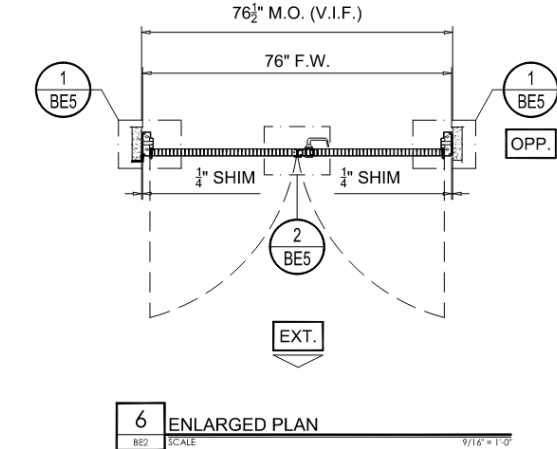
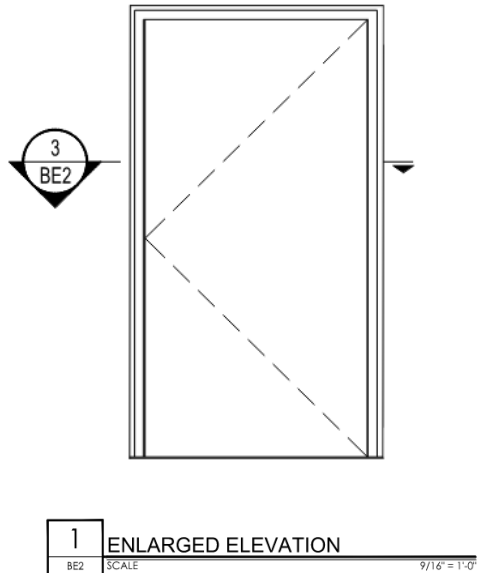
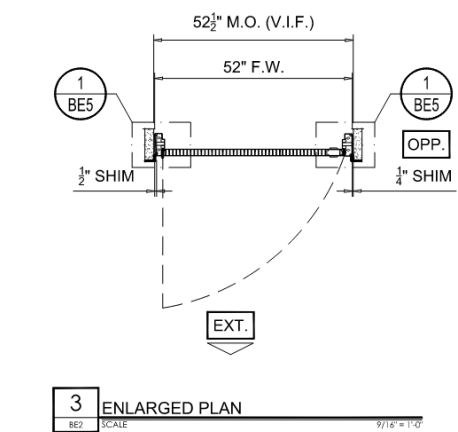
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Proposed Exterior Doors (Examples)



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Proposed Exterior Doors (Details)



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

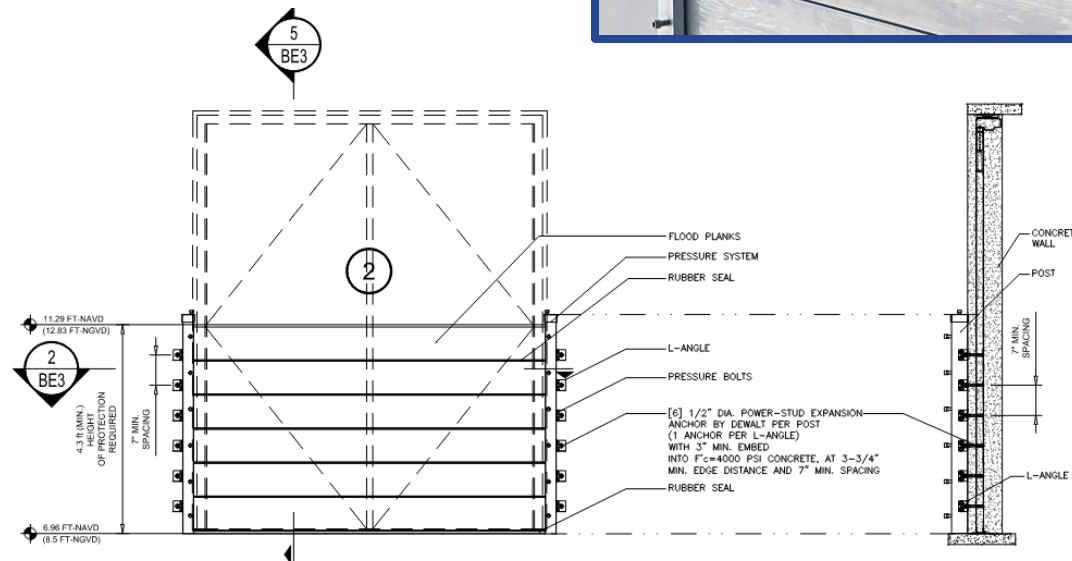
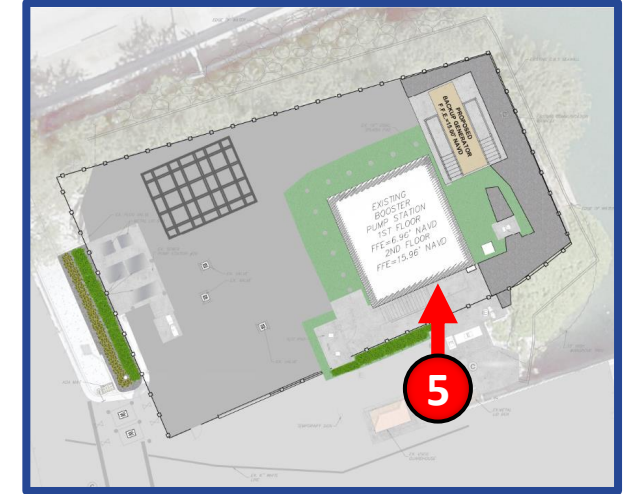
First Floor: 52" x 96" (W x H) Series LS1875 Outswing Steel Door

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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