

MIAMI MARINE STADIUM BOAT RAMP

FOR
CITY OF MIAMI
VIRGINIA KEY, FL 33149



Commission:

Mayor

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Vice Chairman / D1 Commissioner

Alex Diaz de la Portilla

D3 Commissioner

Joe Carollo

D4 Commissioner

Manolo Reyes

D5 Commissioner

Keon Hardemon

City Manager

Emilio T. Gonzalez Ph. D

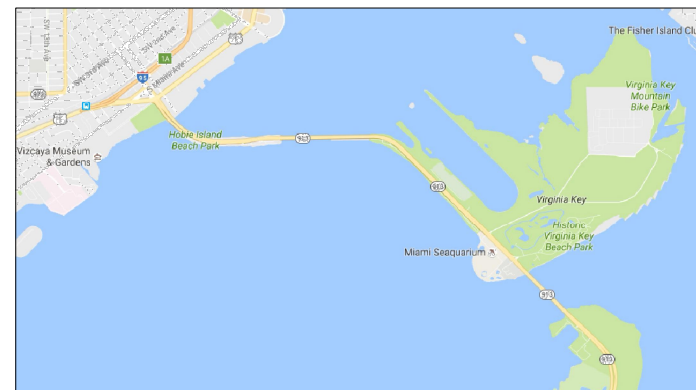
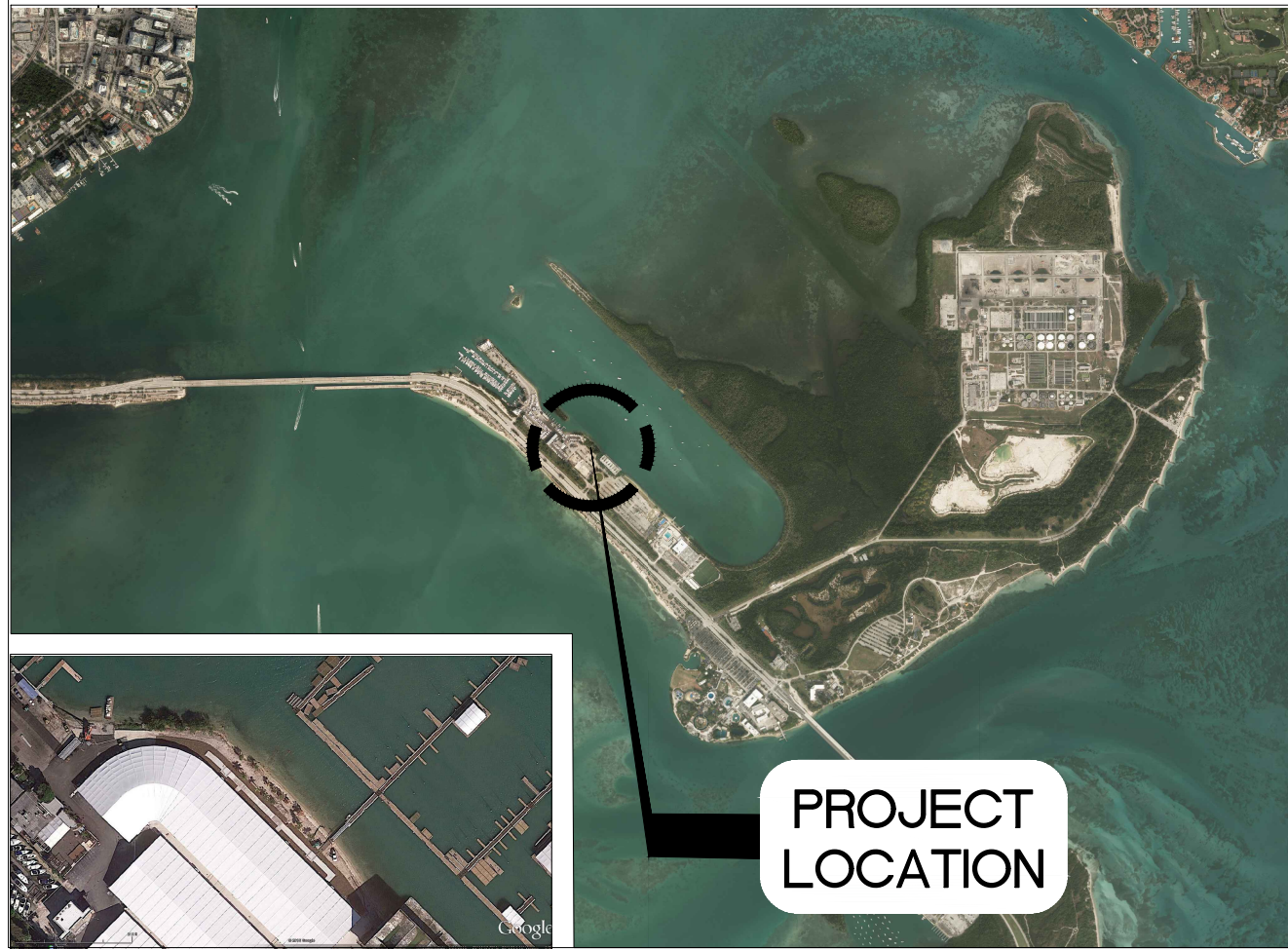
Capital Improvements

Program Director

Steven C. Williamson

LOCATION:
3501 RICKENBACKER CSWY Miami, FL 33149-1021

LEGAL DESCRIPTION:
17 18 54 42 20.487 AC M/L BEG 1709.52FTW & 1954.40FTNW OF SE COR OF SEC TH N 45 DEG W 3075FT S 00 DEG W 650FT 45 DEG E2620FT N 44 DEG E 460FT TO POB LESS BEG 1709FTS & 1954.40FTNW OF SE COR OF SEC TH SW263FT NW90FT NE63FT NW245FT NE200FT SE335FT TO POB LESS PORT OF CITY OF MIAMI OWNED LAND ON VIRGINIA



VICINITY MAP N.T.S.



MIAMI MARINE STADIUM BOAT RAMP PROJECT LOCATION MAP

N.T.S.

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GOVERNING STANDARDS AND SPECIFICATIONS:

- FLORIDA DEPARTMENT OF TRANSPORTATION 2020 DESIGN MANUAL AND FY 2020-21 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.
- CITY OF MIAMI ENGINEERING STANDARDS FOR DESIGN AND CONSTRUCTION DATED DECEMBER 2010
- MIAMI 21 CODE DATED MAY 2010.



CITY OF MIAMI
OFFICE OF CAPITAL IMPROVEMENTS

Project Name
CITY OF MIAMI
OFFICE OF CAPITAL IMPROVEMENTS
MIAMI MARINE STADIUM
3501 Rickenbacker Causeway
CITY OF MIAMI, FLORIDA

Revision	Description	Date

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Scale
FRANCISCO ALONSO, P.E.
STATE OF FLORIDA LICENSE NO. 66918
201 Alhambra Circle, Suite 900
Coral Gables, Florida 33134
Drawing Title
MARINE STADIUM BOAT RAMP

Scale	AS SHOWN	Designed	MA	COVER SHEET

1. General

- 1.1. The work consists of providing all construction, labor, equipment, material and operations in connection with the repair of the seawall and related improvements as shown on these drawings.
1.2. Any discrepancies in the plans with the field conditions shall be brought to the immediate attention of the Engineer.
1.3. The contractor shall take all necessary precautions to protect existing structures in the project vicinity.
1.4. Utilities are not shown in the plans. Contractor is responsible for locating all present utilities prior to construction.
1.5. Contractor is responsible for providing proper clearance and protection to all overhead wires and obstructions.
1.6. The Contractor shall exclude the public from the work areas in the immediate vicinity of operations.
1.7. All new structural work including concrete and reinforcement shall be accurately field measured and dimensions verified by the Contractor prior to ordering materials.
1.8. No construction shall commence until all required permits and approvals have been secured and the contractor has been issued Notice to Proceed.
1.9. Attention is directed to the fact that these plans may have been changed in size by reproduction.
1.10. Construction work shall be executed in accordance with all local, state, and national building codes and governing regulations.
1.11. Extend existing drainage pipes through steel sheet pile at same elevation.

2. Layout and Testing

- 2.1. All construction stakeout shall be performed by and paid for by the contractor under the supervision of a surveyor registered in the state of Florida. All testing and inspection for concrete materials shall be in accordance with FDOT specifications and shall be performed by an independent testing laboratory.

3. Demolition

- 3.1. Contractor shall verify the extents, location and quantities of existing elements to be removed.
3.2. All debris within the limits of the project shall be hauled off site by the Contractor, as directed by the Owner, and disposed of at an appropriate facility.
3.3. Contractor shall not damage any structural components beyond the demolition requirements depicted in these drawings. Any damage shall be repaired at the Contractor's expense.

4. Concrete

- 4.1. Forms for this work shall be made of either wood or metal. They shall be straight and free of warp or bends. They shall have sufficient strength and rigidity, when staked, to resist the pressure of the concrete without springing.
4.2. Just prior to placing the concrete any wooden forms shall be moistened and all steel reinforcing shall be rinsed with fresh water.
4.3. Contractor shall be prepared to place concrete of lower members of the marine structures in submerged conditions utilizing tremie methods at no additional cost.
4.4. No concrete shall be poured during unfavorable weather or sea conditions.
4.5. All steel shall have a minimum of 3 inches concrete cover, unless otherwise noted.
4.6. Cast-in-place concrete shall be a minimum of 5,000 PSI compressive strength at 28 days.
4.7. No water shall be added to concrete at the job site unless authorized by the Engineer or Special Inspector.
4.8. When surface finishing is completed, the structure shall be protected against wave splash for two days and cured per applicable paragraphs of Section 400-16 of the FDOT Standard Specifications.
4.9. A surface penetrant sealer of alkyl-alkoxy silane classification, such as BASF Enviroseal, or approved equal shall be applied all exposed concrete.
4.10. Apply Sika Armatec 110 bonding agent, or approved equal, at construction joints prior to placement of new concrete.
4.11. Components not constructed according to these specifications shall be removed and replaced properly at the expense of the contractor.

- 4.12. The faces of the finished structures shall be true, straight, and of uniform width, free from humps, sags, or other irregularities except as specified in the plans.
4.13. Concrete Formworkers and Finishers: The contractor shall supply a sufficient number of experienced concrete formworkers and finishers in order to complete the work.
4.14. Concrete Transportation: Concrete delivered from a ready mix plant shall be transported in accordance to FDOT Section 345-13.
4.15. Reinforced Concrete Materials Testing: The Contractor shall have an independent testing laboratory test the concrete used in the work.
4.16. Adhesive bonded dowels shall be installed in accordance with FDOT Section 416.

5. Steel

- 5.1. All reinforcing bar shall conform to ASTM A615, Grade 60, deformed bars free from loose rust and scale.
5.2. Reinforcing steel, supports, and tie wire shall be hot-dipped galvanized in accordance with ASTM A767.
5.3. MMFX or CHROMX 4100 steel can be used as an alternate to hot-dipped galvanized steel at Contractor's option, with no additional cost to owner.
5.4. Steel shall be placed as shown in the plans. All accessories shall be plastic only to support reinforcing exposed to weather.
5.5. WWM shall conform to ASTM A185 or A497.
5.6. Contractor to allow 10% additional reinforcing steel to be used at engineer's discretion during construction.

6. Concrete Piles

- 6.1. Piles shall be 14" square prestressed concrete piles with (8) 0.6" diameter strands, grade 270 ksi, LRS.
6.2. Concrete to be minimum 6,000 psi, and follow FDOT Class-V concrete specifications.
6.3. Piles shall be driven a minimum of 20 feet. Pile logs shall be recorded for all driven piles & shall be submitted to engineer for approval prior to pile cut-off or cap pour.
6.4. Piles shall be cut off at elevations shown in the plans and sections herein.
6.5. Contractor to submit shop drawings for concrete piles.
6.6. Piles shall be from a FDOT certified facility of prestressed concrete products.
6.7. Piling shall be installed in accordance with geotechnical report, unless otherwise noted.
6.8. Refer to geotechnical report by NV5 dated April 24, 2018 for soil boring logs.
6.9. Piles may be pre-punched but must be driven to final tip elevation.

7. Tidal Data

- 7.1. Contractor may need to adjust his work plan to account for actual water levels and changing water levels. The site may be subject to variable wave and surge conditions and it is the responsibility of the contractor to provide temporary support for marine structures and shoreline during construction.

8. Submittals

- 8.1. Review of submittals by the structural engineer is for general conformance with the design concept as presented by the contract documents.
8.2. All shop drawings must bear evidence of the Contractor's approval prior to submitting to the Engineer.
8.3. The following minimum submittals shall be prepared by the Contractor and submitted to the Engineer for review and approval prior to related construction activity:
8.3.1. Schedule for completion of work with tasks and durations defined
8.3.2. Demolition Methods & Disposal Plan
8.3.3. Concrete Mix Design
8.3.4. Reinforcing Steel
8.3.5. Precast concrete piles/slabs
8.3.6. Floating Docks (specialty engineered item)
8.3.7. Rock/Gravel
8.3.8. Pile caps
8.4. Submittals for specialty engineered items shall be signed/sealed by Florida Professional Engineer.

9. Design Criteria

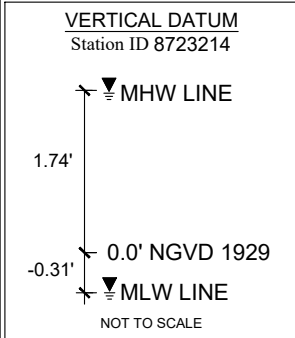
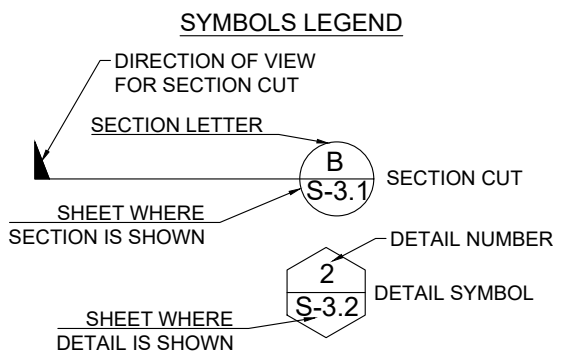
- 9.1. FBC 2014, ASCE 7-10 unoccupied wind Vult= 175 mph, Vasd = 136 mph, Risk Cat. II, Exp. D, Gcpi = 0 occupied wind V= 40 mph (sustained)
9.2. Dock/Ramp LL = 100 psf.
9.3. Design Vessel LOA = 40'
9.4. Occupied Wave Ht. = 1.5 ft
Unoccupied Wave Ht. = 2 ft
Storm Surge = 2 ft (Mean Range NOAA)

- 9.5. FDOT std. spec. for road & bridge construction.

10. Rock/Revetment

- 10.1. Proposed rock source(s) must be approved for use by the engineer prior to the commencement of the work.
10.2. All rock shall meet the following minimum requirements.
10.3.1. Minimum specific gravity of 2.25 (140.5 pcf).
10.3.2. soundness 15% max loss (astm c88)
10.3.3. Such character that it will not disintegrate from the action of air, water, or the conditions of handling and placing.
10.3.4. Rough angular quarried material with a shape that assures interlocking with adjacent rock.
10.4. All rock will be subject to on-site random sampling and testing.
10.5. Rock used for the revetment construction shall conform to the following size ranges:
10.5.1. Weight: 80 - 260 lbs
10.5.2. Nominal dimension: 1 - 1.5 ft
10.5.3. The least dimension of any rock shall not be less than one-third (1/3) of the greatest dimension of that rock.
11. Geotechnical
11.1. Subgrade for ramp slab shall be prepared in accordance with geotechnical report by NV5, dated april 2018.
12. Lumber
12.1. Design is in accordance with 2017 Florida Building Code & ASCE 7-10.
12.2. All dimensional lumber shall be pressure treated, no. 1 dense grade SYP or better and comply with A.I.T.C. 109-69 specifications unless otherwise noted.

ABBREVIATIONS table listing terms like ACI, ASTM, CONT, CTD, FDEP, FDOT, KSI, LOA, MHW, MIN, MLW, NAVD, NGVD, PERA, PSI, TYP, USACE, W/C, UNO.



PROJECT: MIAMI MARINE STADIUM BOAT RAMPS
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SEAL
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CC PROJECT NO. 39102
DRAWN VC
CHECKED
SCALE AS SHOWN
SHEET TITLE GENERAL NOTES
SHEET 2 OF 9
CM-1.0

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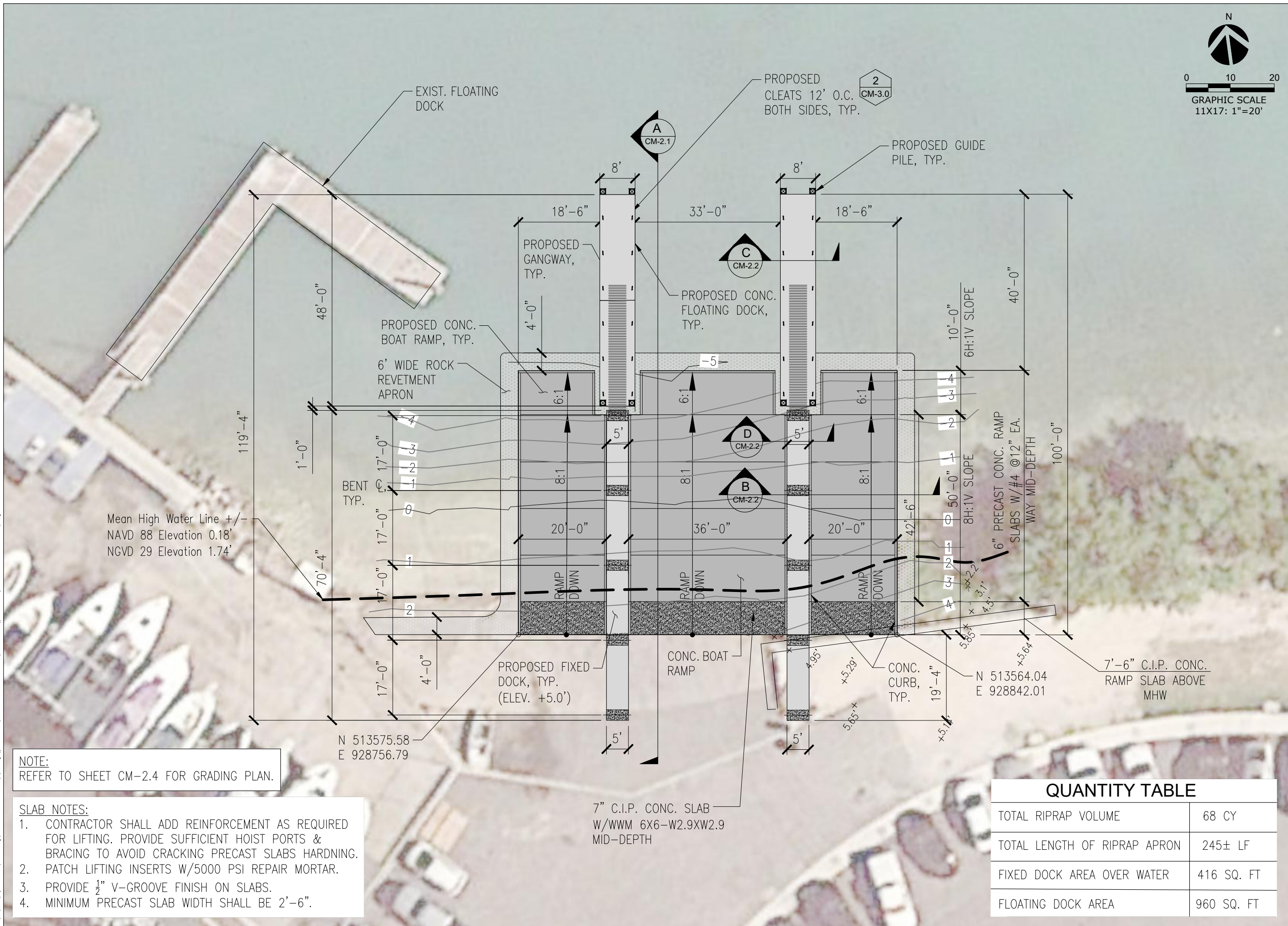


PROJECT
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 BOAT RAMPS**
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NOTE:
 REFER TO SHEET CM-2.4 FOR GRADING PLAN.

- SLAB NOTES:**
- CONTRACTOR SHALL ADD REINFORCEMENT AS REQUIRED FOR LIFTING. PROVIDE SUFFICIENT HOIST PORTS & BRACING TO AVOID CRACKING PRECAST SLABS HARDNING.
 - PATCH LIFTING INSERTS W/5000 PSI REPAIR MORTAR.
 - PROVIDE 1/2" V-GROOVE FINISH ON SLABS.
 - MINIMUM PRECAST SLAB WIDTH SHALL BE 2'-6".

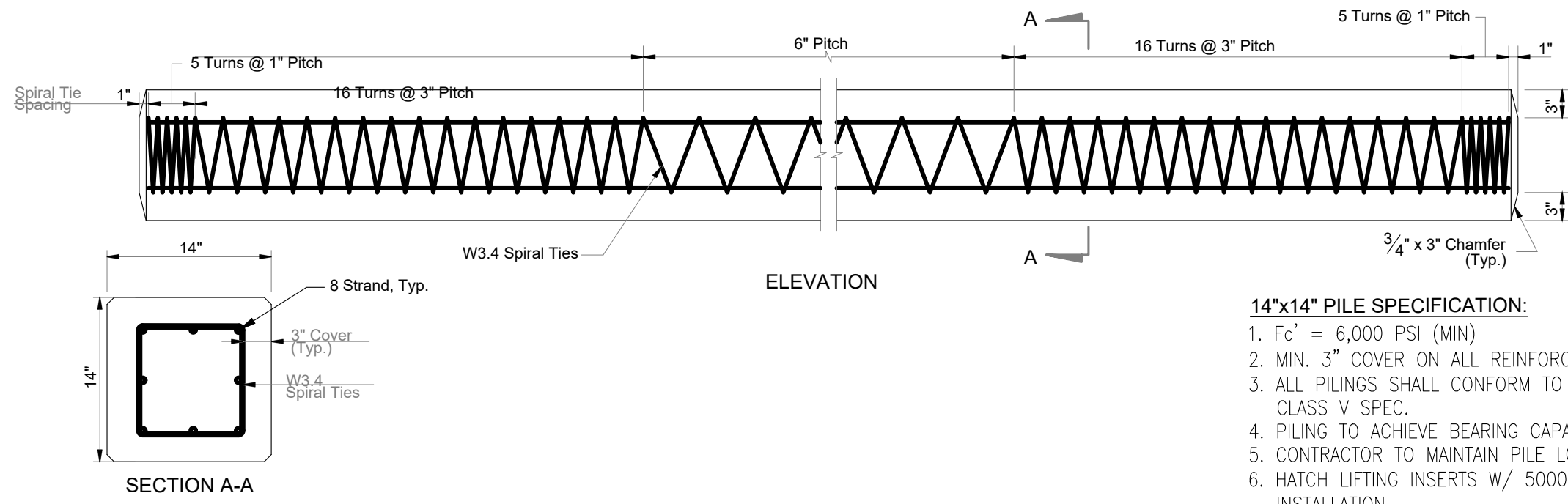
QUANTITY TABLE	
TOTAL RIPRAP VOLUME	68 CY
TOTAL LENGTH OF RIPRAP APRON	245± LF
FIXED DOCK AREA OVER WATER	416 SQ. FT
FLOATING DOCK AREA	960 SQ. FT

SEAL	
JASON S. TAYLOR, P.E. #60277	
DATE	ISSUE
01/02/2020	DERM COMMENTS
11/22/2019	DERM COMMENTS
06/11/2019	100% CONSTRUCTION DOCUMENTS
	SUBMISSION / REVISION

CC PROJECT NO.	39102
DRAWN	VC
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SCALE	AS SHOWN
SHEET TITLE	
PROPOSED RAMP PLAN	

SHEET 4 OF 9
CM-2.0

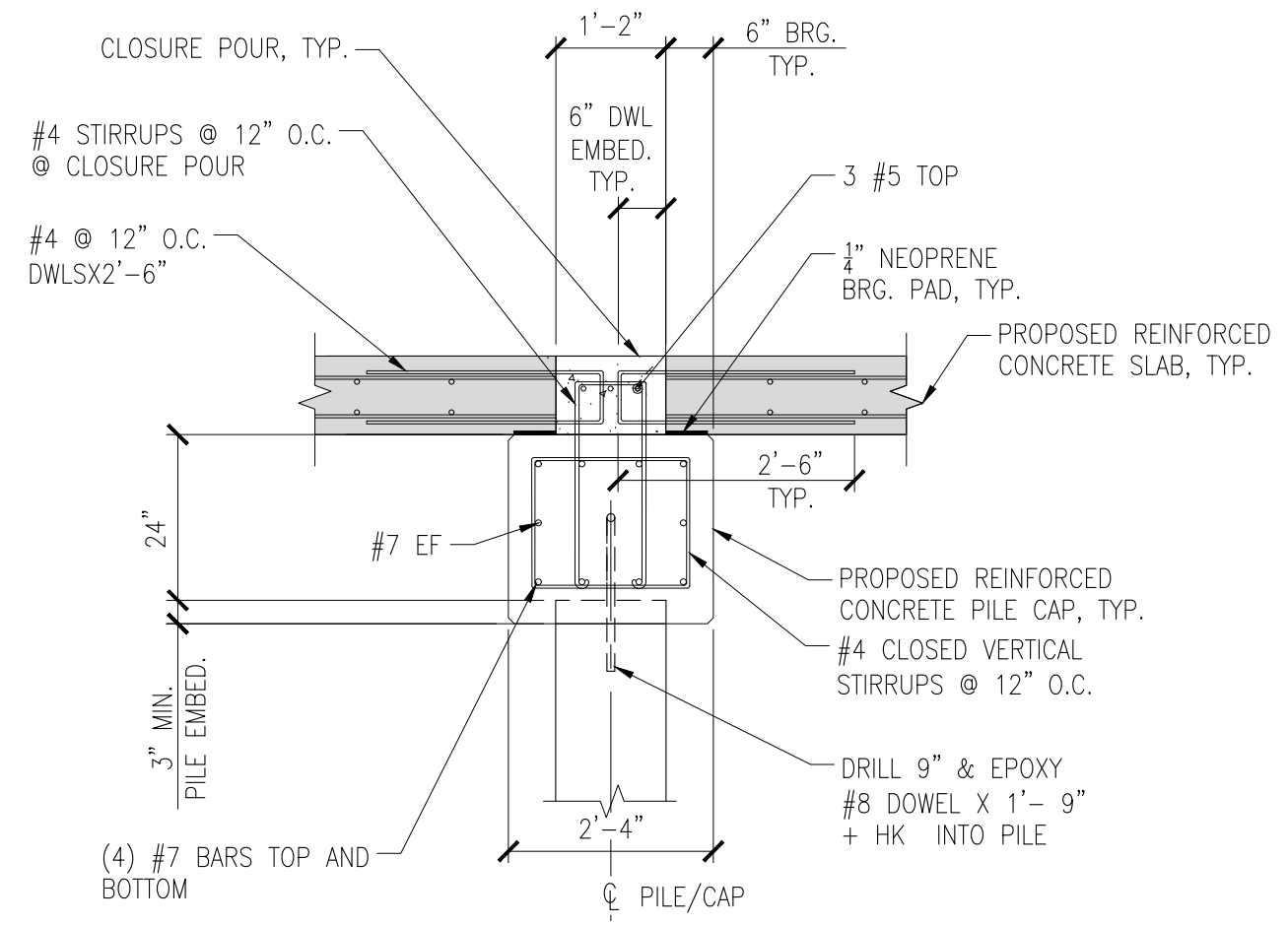
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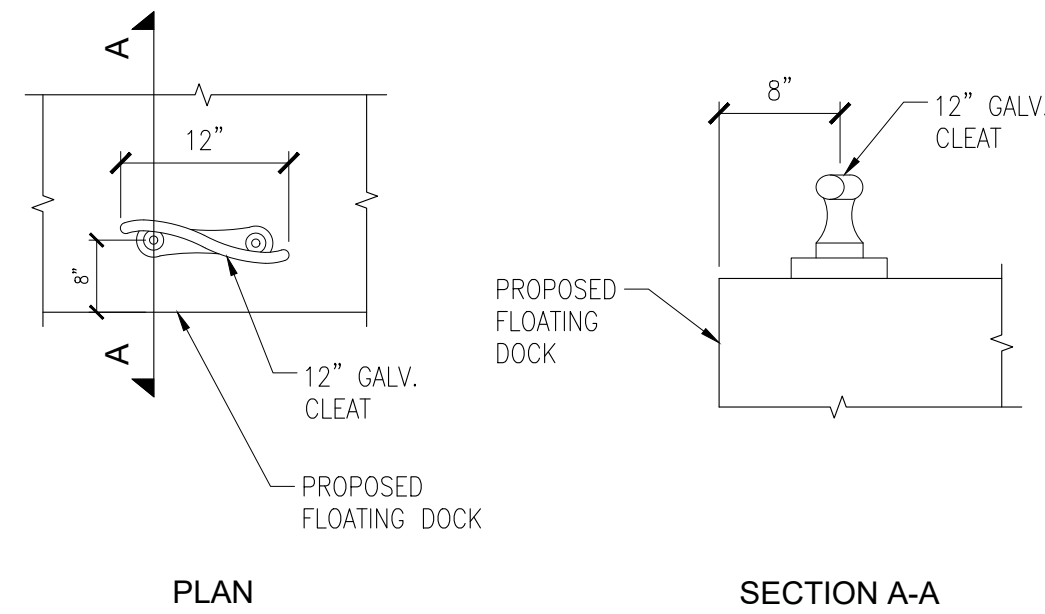
14"x14" PILE SPECIFICATION:

1. $F_c' = 6,000$ PSI (MIN)
2. MIN. 3" COVER ON ALL REINFORCEMENT.
3. ALL PILING SHALL CONFORM TO FDOT CONCR. CLASS V SPEC.
4. PILING TO ACHIEVE BEARING CAPACITY OF 40 TONS
5. CONTRACTOR TO MAINTAIN PILE LOGS.
6. HATCH LIFTING INSERTS W/ 5000 psi MORTAR AFTER INSTALLATION.

PROPOSED P.S CONCRETE PILE DETAIL (TYP.) 1
 N.T.S. CM-2.0



PILE CAP REINFORCING DETAIL E
 SCALE: 1:3 (11X17) CM-2.2



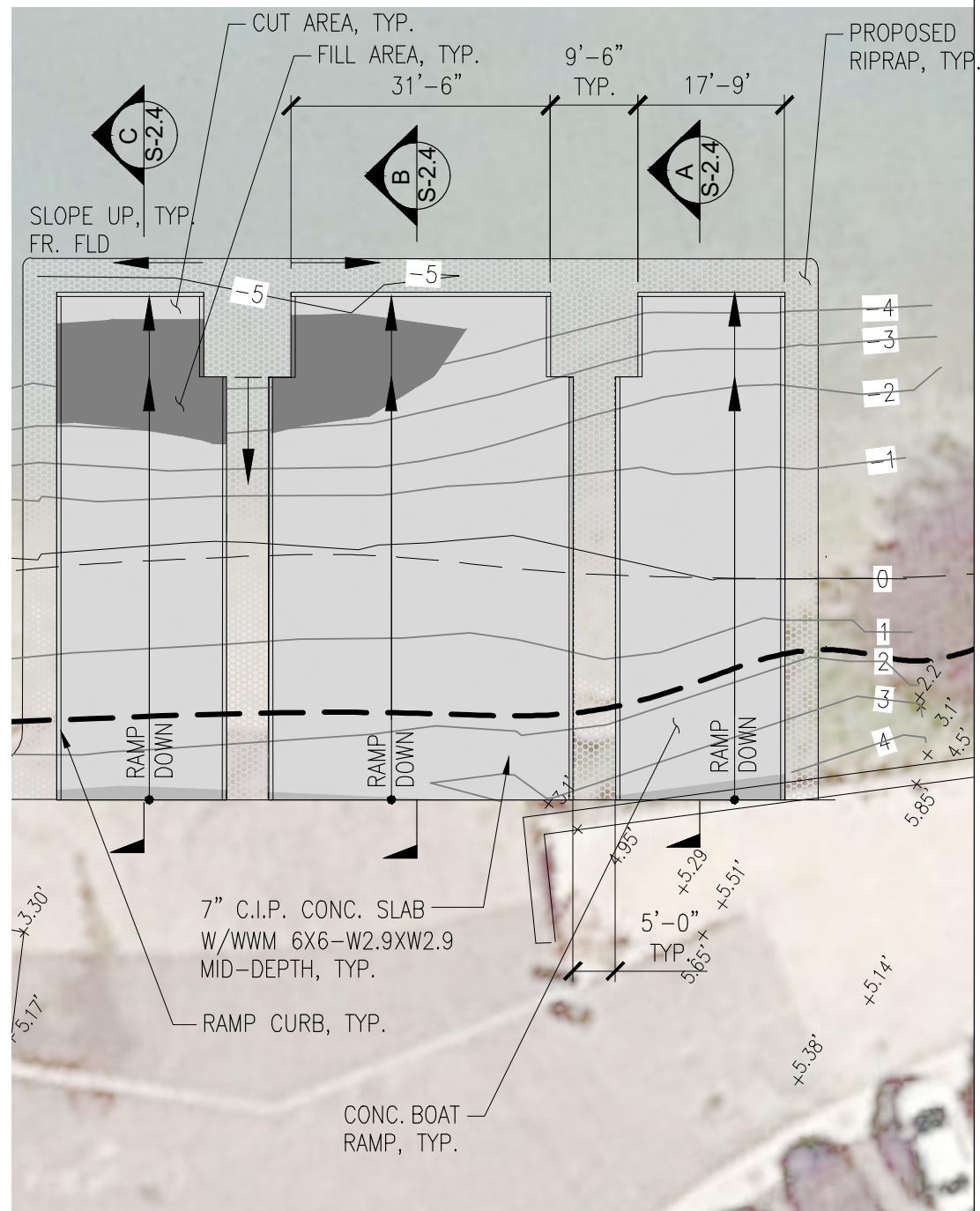
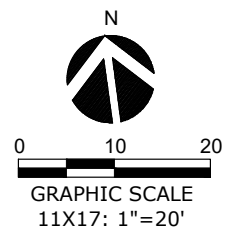
CLEAT DETAIL 2
 N.T.S. CM-2.0

SEAL	
ISSUE	DATE
DERM COMMENTS	01/02/2020
DERM COMMENTS	11/22/2019
100% CONSTRUCTION DOCUMENTS	06/11/2019
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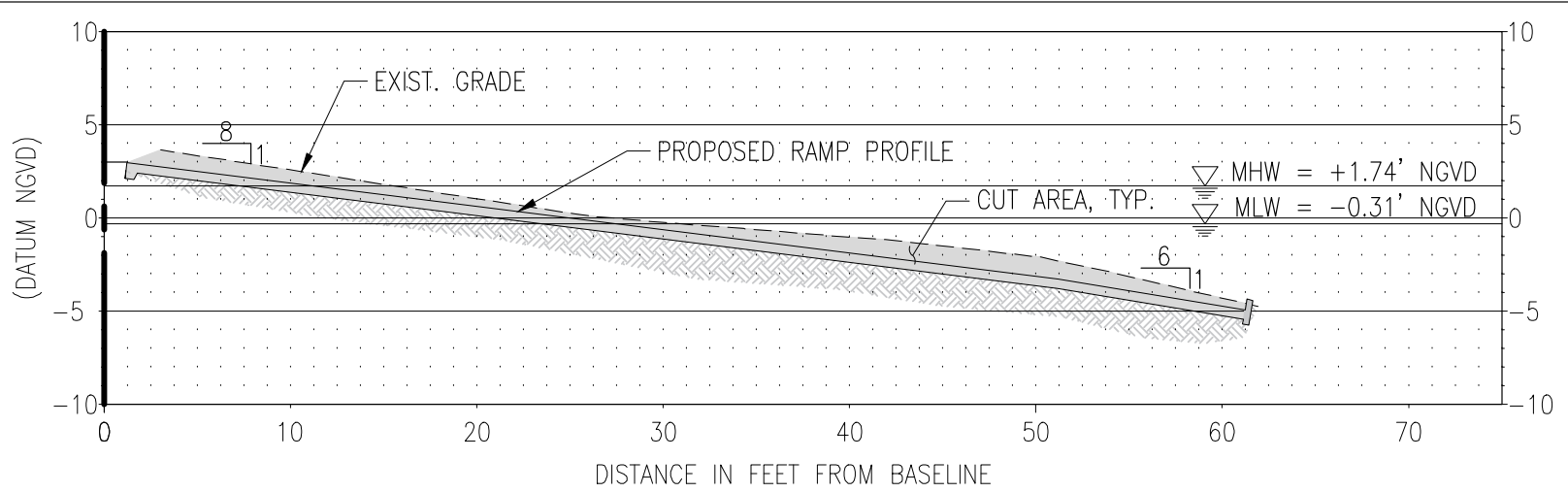
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DETAILS

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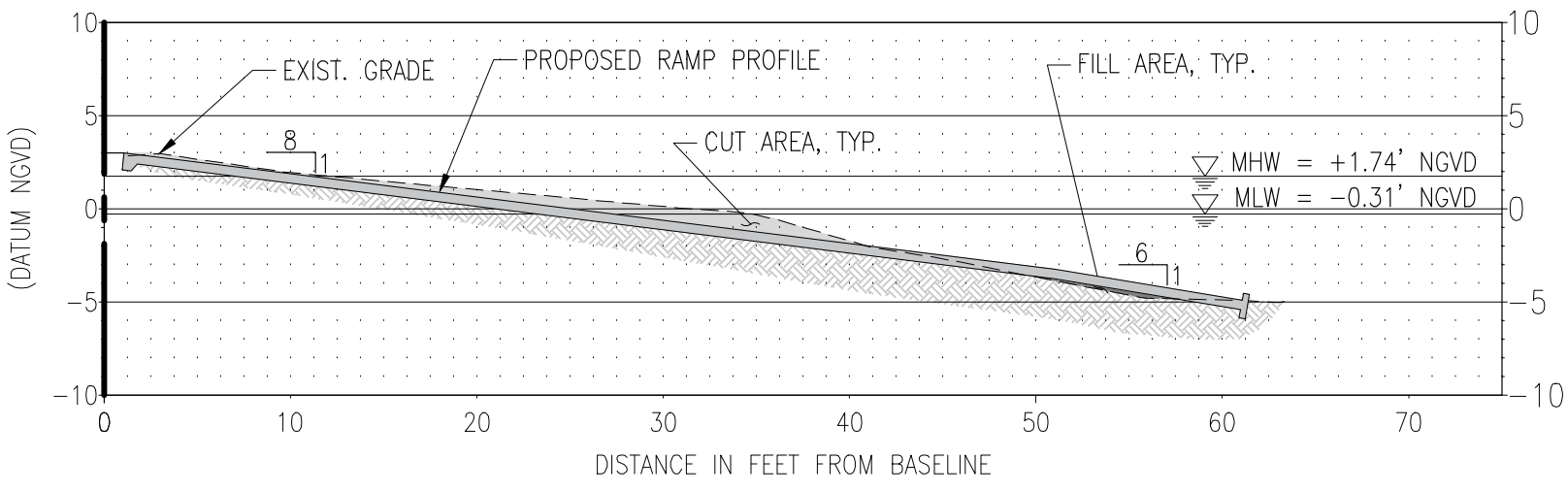


QUANTITY TABLE		
TOTAL CUT VOLUME	123.1 CY	3,323.7 CF
TOTAL CUT VOLUME (BELOW MHW)	103.2 CY	2,786.4 CF
TOTAL FILL VOLUME (BELOW MHW)	4.69 CY	126.6 CF
TOTAL RIPRAP AREA		1660 SF

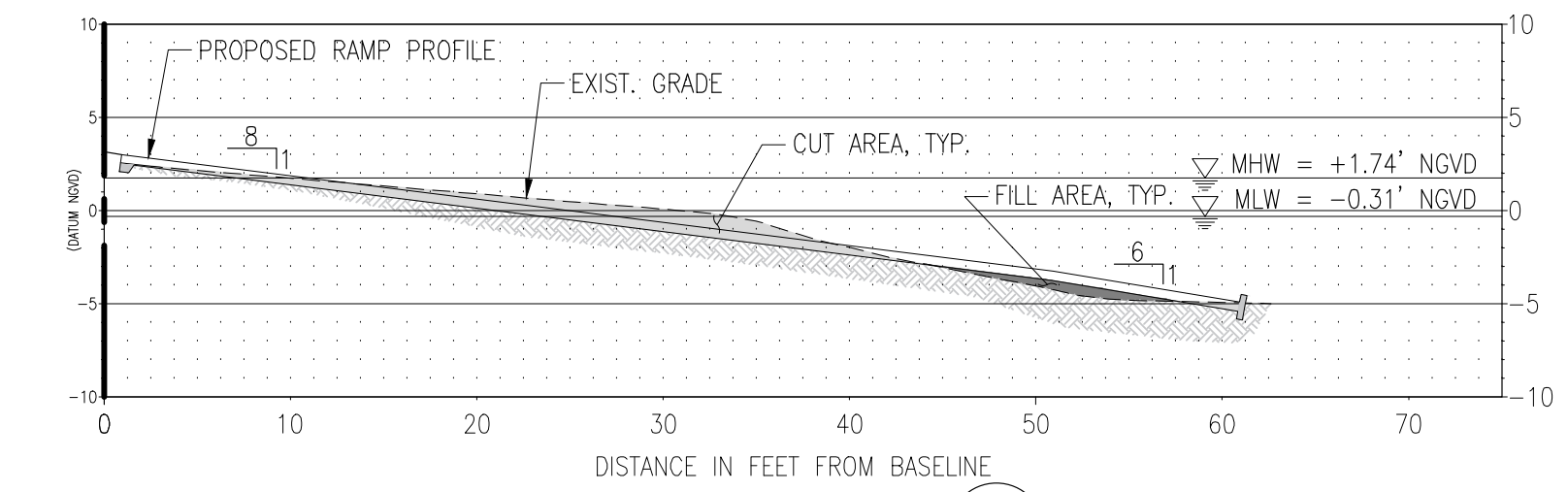
LEGEND	
	CUT AREA
	FILL AREA



SECTION A
SCALE: H1:10 V1:5(11X17) CM-2.4



SECTION B
SCALE: H1:10 V1:5(11X17) CM-2.4



SECTION C
SCALE: H1:10 V1:5(11X17) CM-2.4

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SEAL

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SHEET TITLE
PROPOSED GRADING PLAN

SHEET 8 OF 9

CM-2.4

