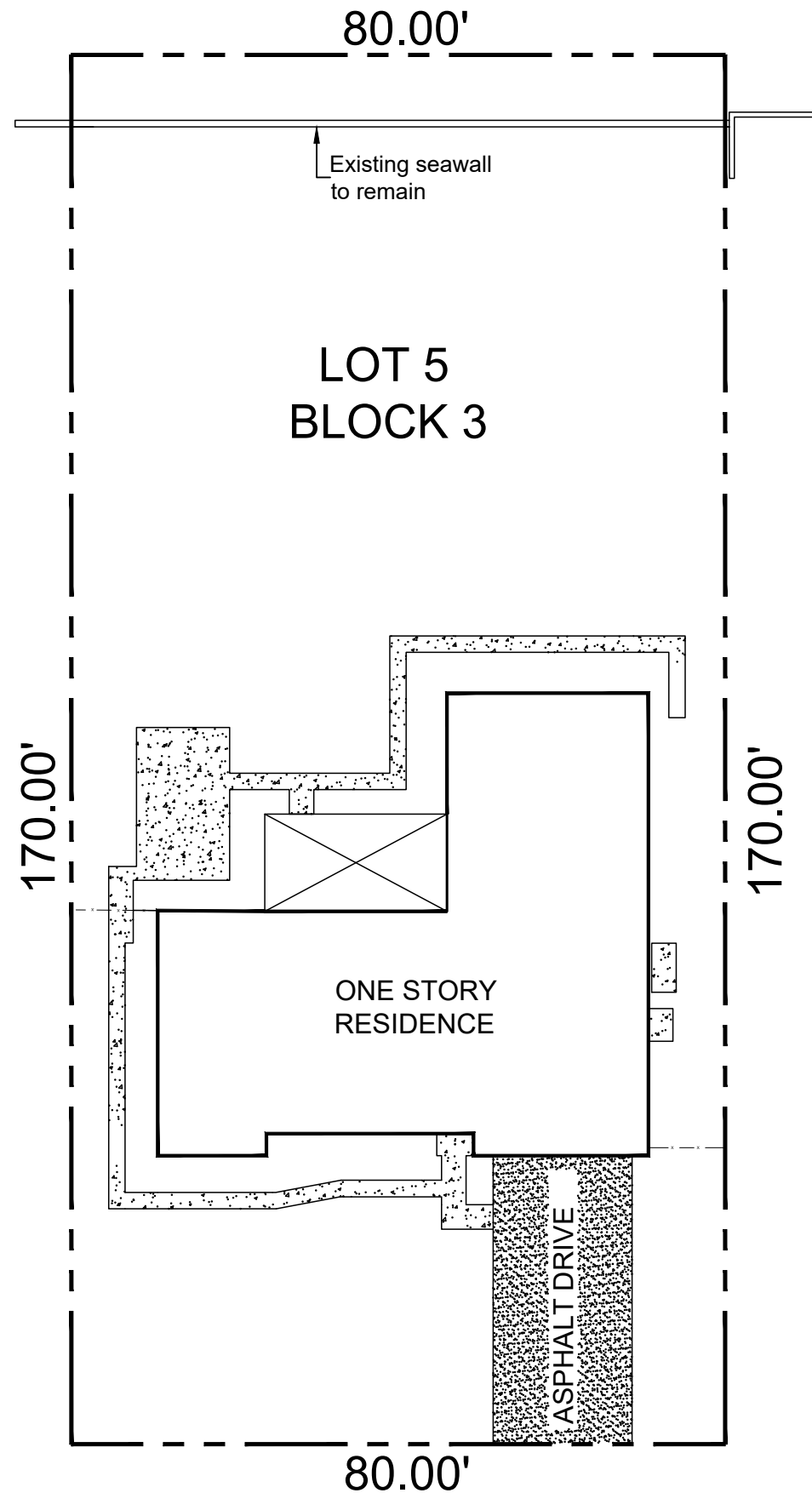




80' CANAL R/W



Existing Site Plan

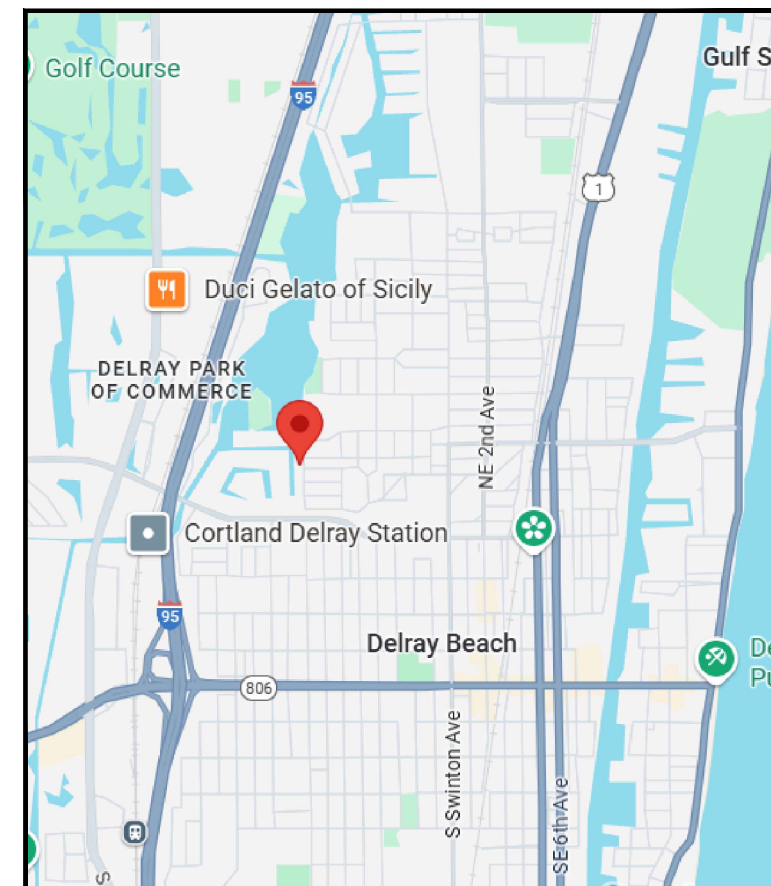
Scale: 1" = 20'

See attached survey supplied by owner for exact property information.
No tree will be removed or replanted as part of this permit

PROPERTY DETAIL

LOCATION ADDRESS	614 NW 8TH AVE
MUNICIPALITY	DELRAY BEACH
PARCEL CONTROL NUMBER	12-43-46-08-18-003-0050
SUBDIVISION	LAKE IDA SHORES IN
OFFICIAL RECORDS BOOK/PAGE	35286 / 1689
SALE DATE	09/13/2024
LEGAL DESCRIPTION	LAKE IDA SHORES LT 5 BLK 3

Location Map



Project Engineer

MW ENGINEERING, INC
902 NE 1 Street Suite #2
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WWW.MwEngineering.net

Contractor

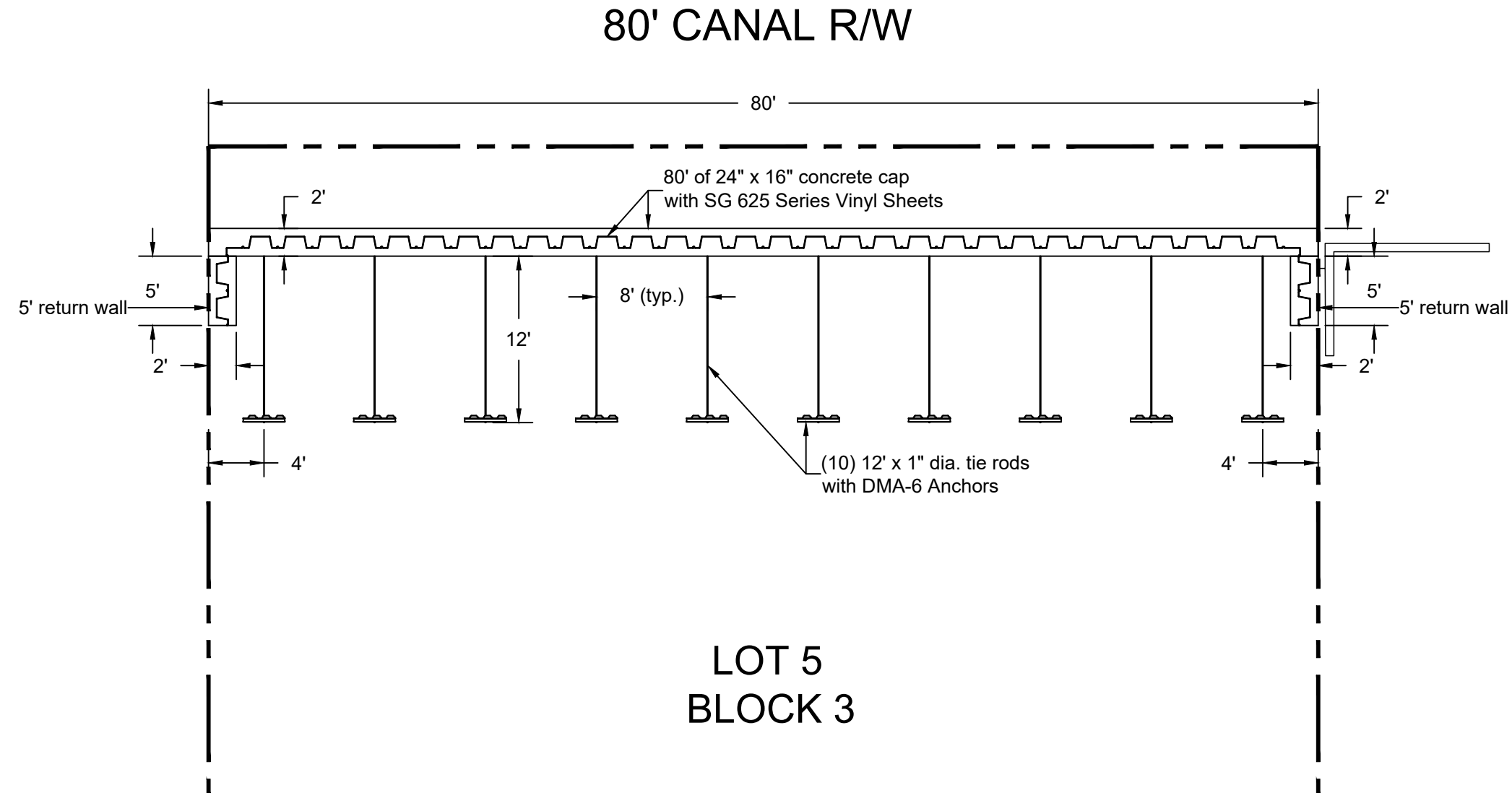
SOUTHEAST MARINE CONSTRUCTION, INC
1121 NW 51 Court
Fort Lauderdale, FL 33309
(954) 630-2300

Project Information

New Seawall 500
Stepan Bettina
614 NW 8 Avenue
Delray Beach, FL 33344

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Proposed Site Plan

Scale: 1" = 10'

1. It is the responsibility of the owner's engineer to provide site observation and inspections in order for the owner's engineer to execute the "Engineers Certification of Completion" Exactly as stated on page C-14 from the City of Delray Beach Current Minimum Construction Standards and Specifications.
2. Any damage to any roadway pavement like utility cuts or edge repair shall be milled and resurfaced for 50' each way past the limit of the damage per City of Delray Beach Standard Detail GU 1.0." This Detail is to be shown in the Engineering Plan set.
3. Any trees or shrubs placed within water, sewer or drainage easements shall conform to the City of Delray Beach Standard Details; LD 1.0 & LD 2.0." These Details are to be shown on the Landscape Plans.

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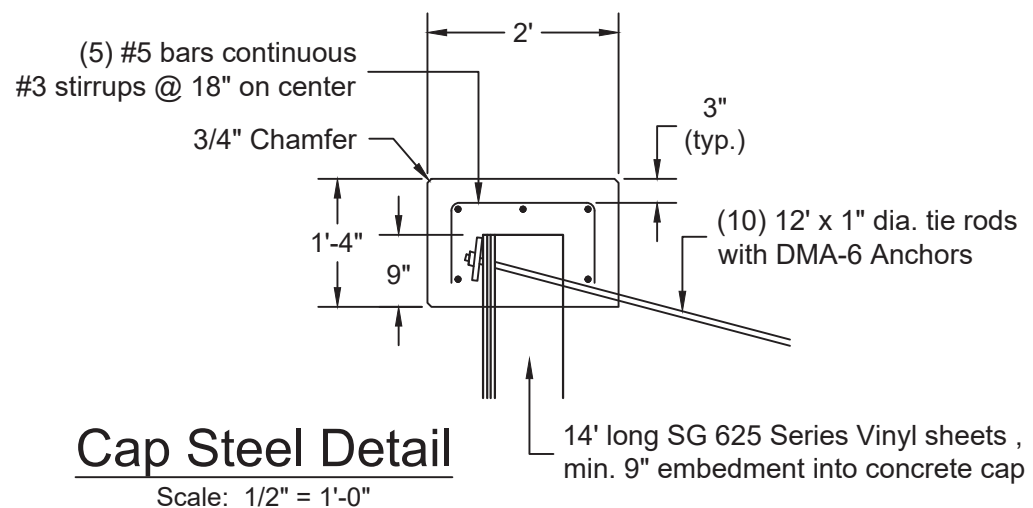
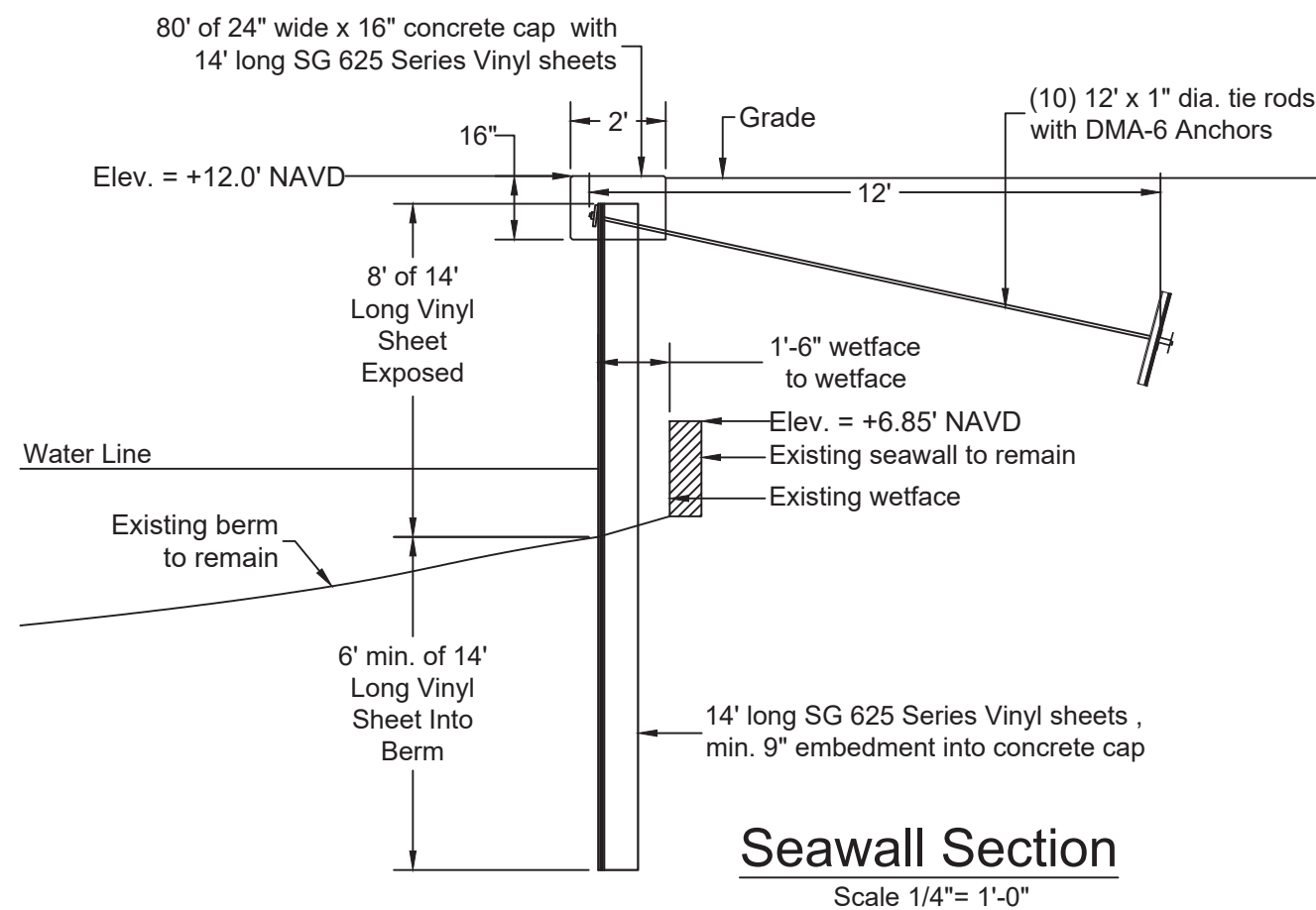
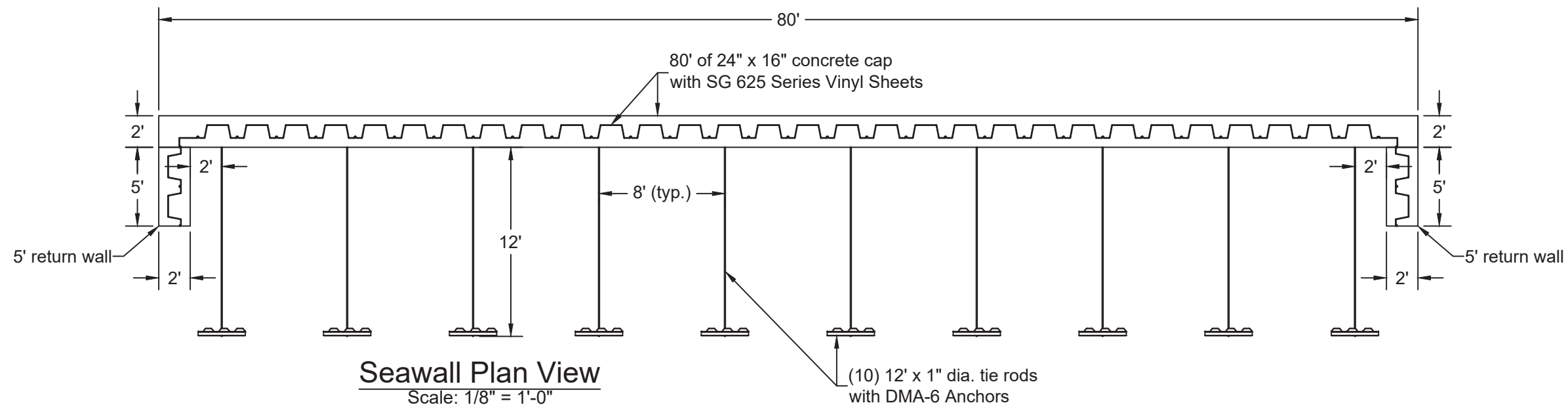
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Stepan Bettina
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Delray Beach, FL 33344

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New Seawall 500
Bettina Stepan
614 NW 8 Avenue
Delray Beach, FL 33344

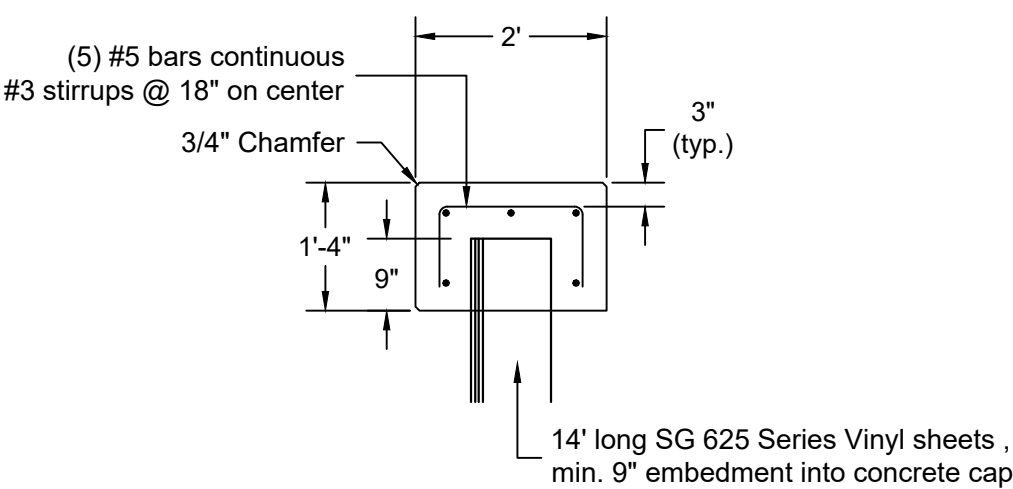
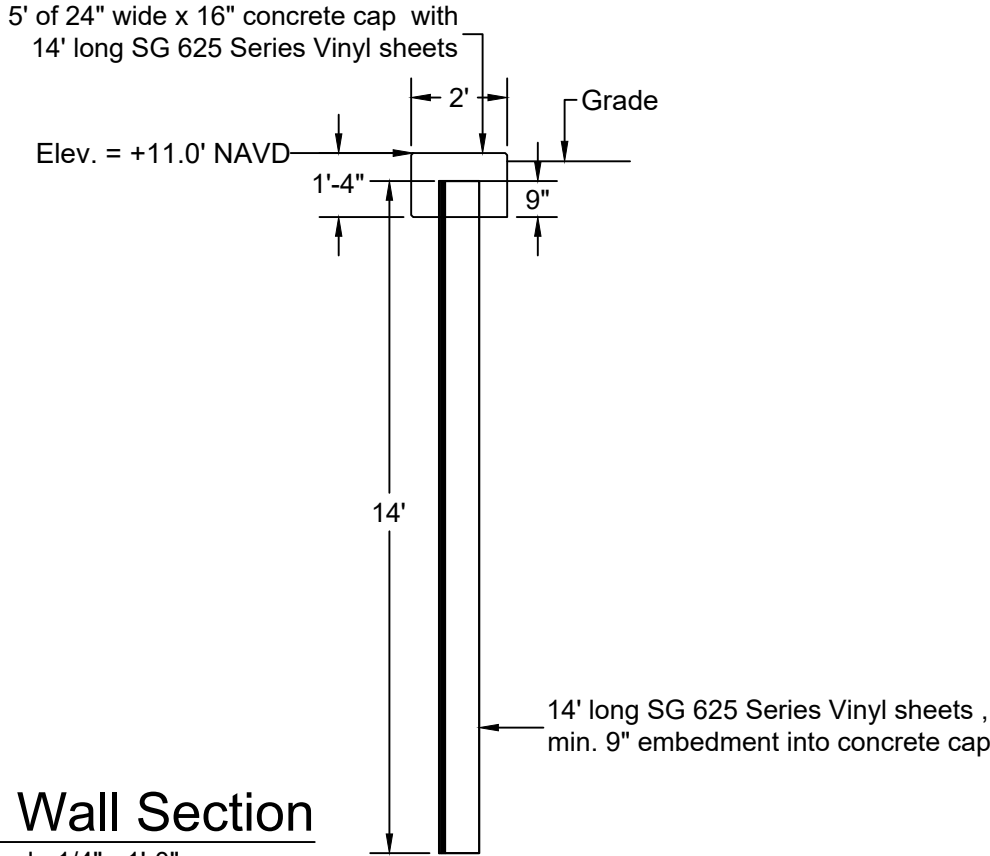
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Return Wall Section

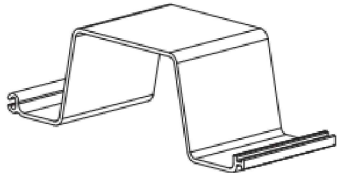
Scale 1/4"= 1'-0"



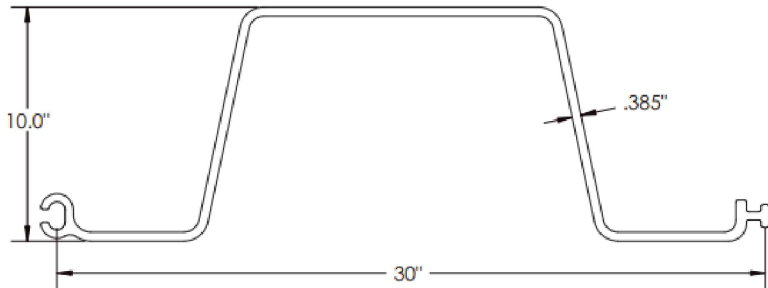
Return Wall Cap Steel Detail

Scale: 1/2" = 1'-0"

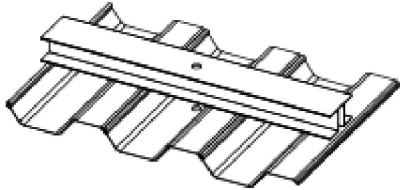
SG-625



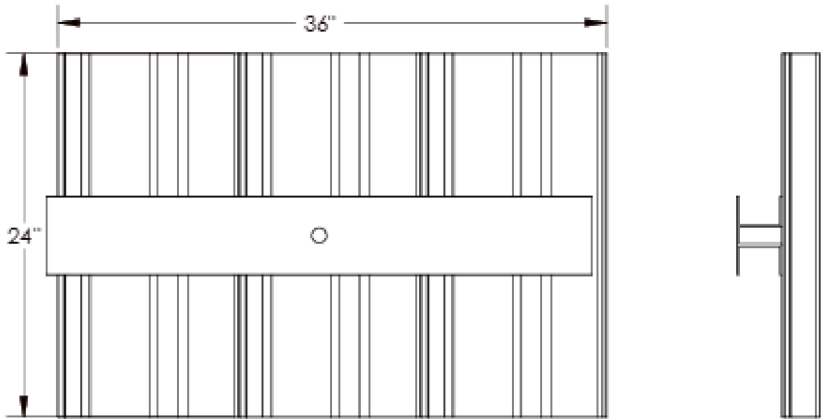
Allowable Moment (M)	6,507 ft-lb/ft	28.94 kN-m/m
Section Modulus (Z)	24.4 in ³ /ft	1,312 cm ³ /m
Moment of Inertia (I)	122 in ⁴ /ft	16,660 cm ⁴ /m
Impact Strength	15,000 in-lbs/in ²	2,625 N-mm/mm ²
Thickness (t)	0.385 in	9.8 mm
Section Depth	10.0 in	254 mm
Section Width	30 in	762 mm
Material	Weatherable Rigid Vinyl	
Standard Colors	Grey, Clay	
Technology	Box Profile, I-Beam Lock, XCR™	
Standard Packaging	6 sheets/bundle	



DMA-6 Anchor



Bearing Area	6 ft ²	
Longitudinal (Sheet) Max Allowable Bending Moment	2,700 ft-lb	3,661 N-m
Transverse (Beam) Max Allowable Bending Moment	2,204 ft-lb	2,988 N-m
Max Allowable Rod Load	21,711 lbs	96,575 N
Material/Features	6061-T6 Aluminum; Fully Welded	
Tie Rod Compatibility	7/8" Aluminum Rod	



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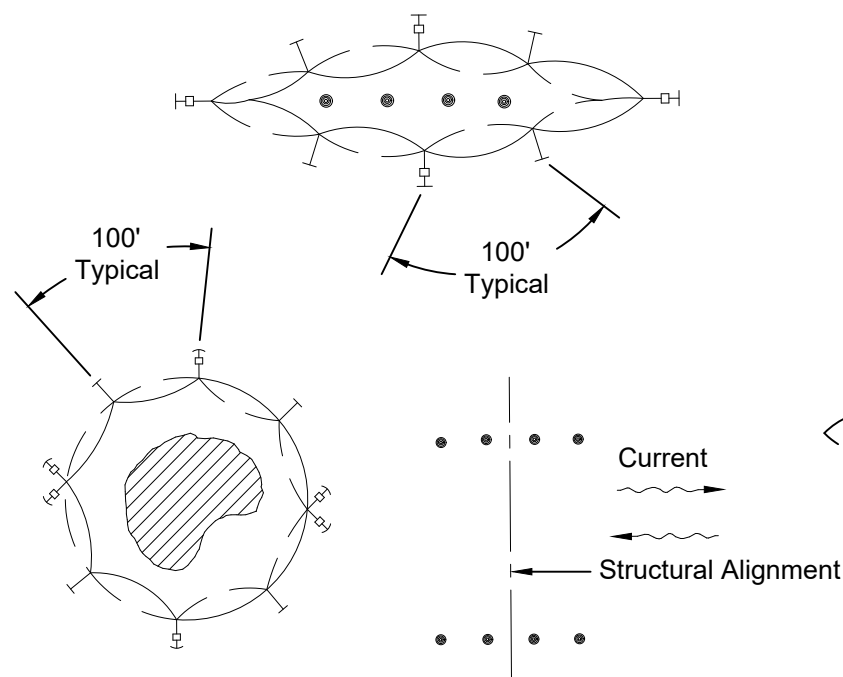
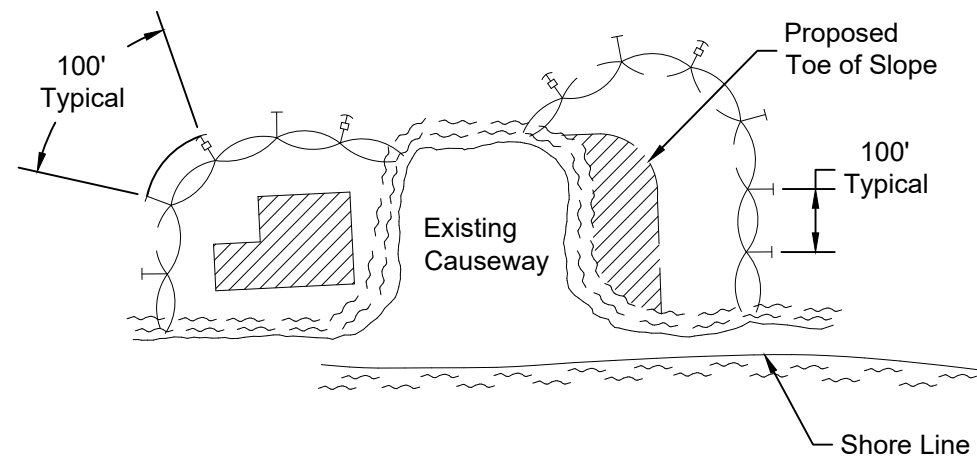
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Stepan Bettina
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Delray Beach, FL 33344






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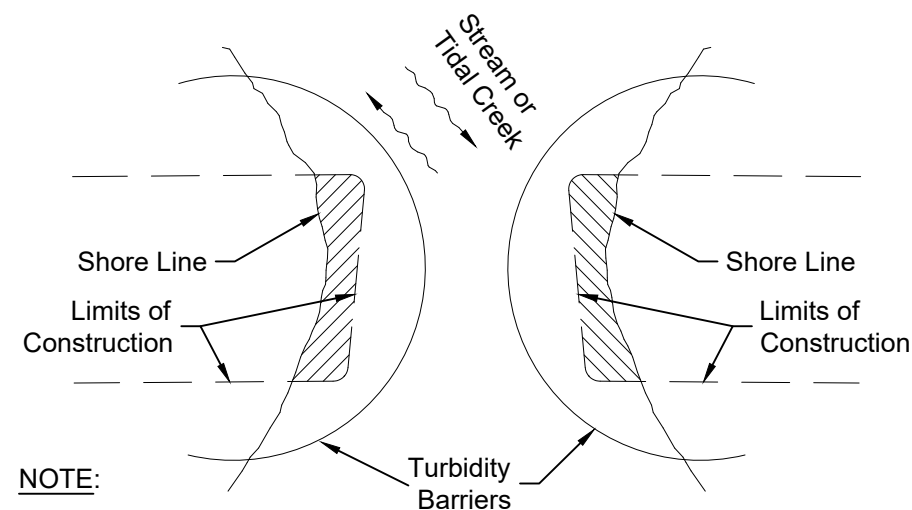
LEGEND

-  Pile Locations
-  Dredge or Fill Area
-  Mooring Buoy with Anchor
-  Anchor
-  Barrier Movement Due To Current Action

Stake or Anchor every 100' (typical)

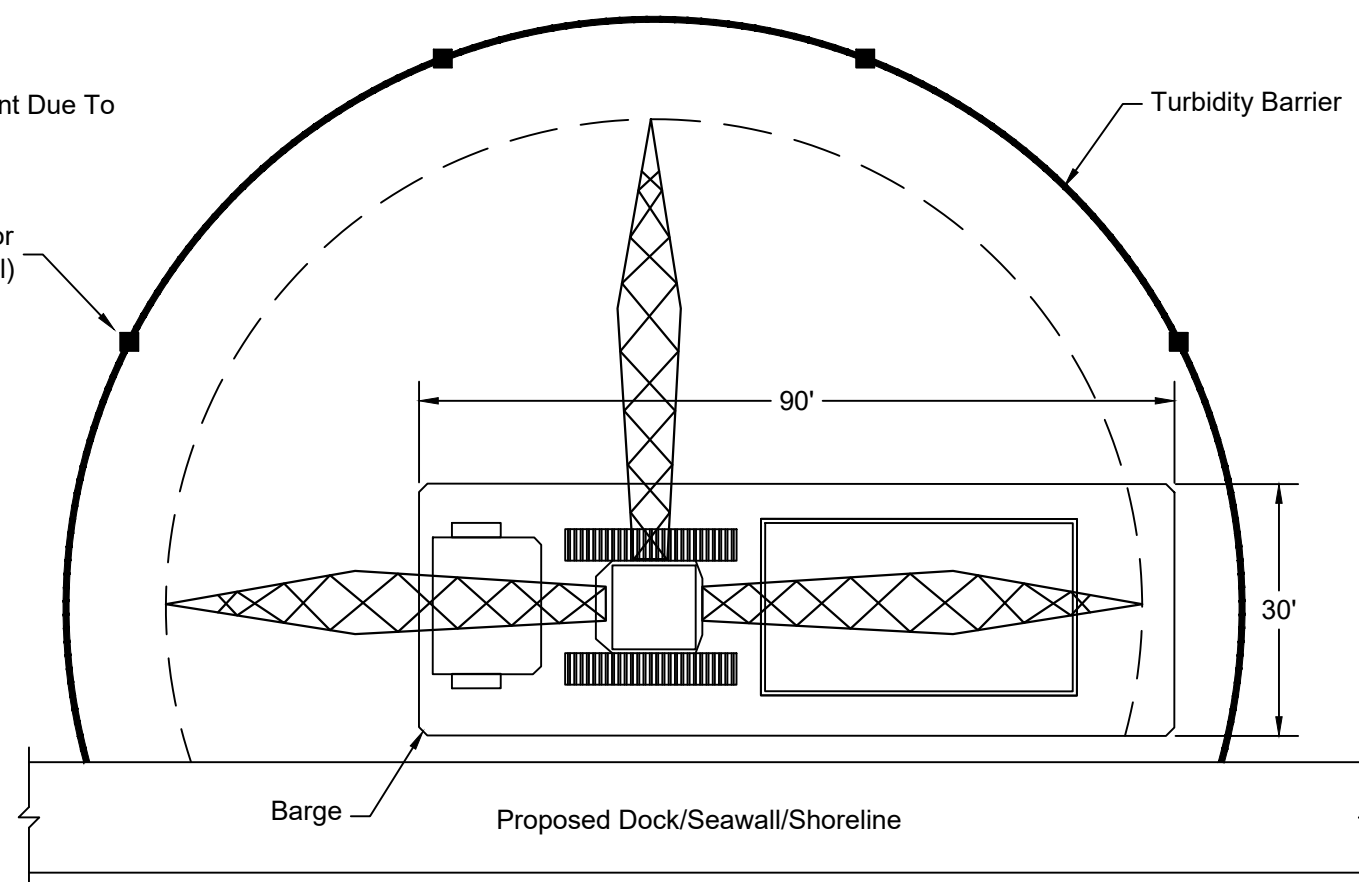
NOTES:

1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the Standard Specifications.



NOTE:

Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer of Record.



TURBIDITY BARRIER APPLICATIONS

Project Engineer

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GENERAL NOTES:

- Construction to follow the Florida Building Code 8th Edition (2023) and amendments as applicable and all Local, State and Federal Laws.
- Licensed contractor shall verify the existing conditions prior to the commencement of the work. Any conflicts or omissions between existing conditions or the various elements of the working drawing shall be brought to the attention of the Engineer prior to the commencement of the work. The Licensed Contractor and all subcontractors are responsible for all lines, elevations, and measurements in connection with their work.
- Do not scale drawings for dimensions.
- Any deviation and/or substitution from the information provided herein shall be submitted to the Engineer for approval prior to commencement of work.
- All unanticipated or unforeseen demolition and/or new construction conditions which require deviation from the plans and notes herein shall be reported to the Engineer prior to commencement of work.
- All new work and/or materials shall conform to all requirements of each administrative body having jurisdiction in each appertaining circumstance.
- All new materials and/or patchwork shall be provided to match existing materials and/or adjoining work where practical except as specifically noted herein.
- Licensed Contractor to shall use all possible care to protect all existing materials, surfaces, and furnishings from damage during all phases of construction.
- Licensed Contractor to verify location of existing utilities prior to commencing work.
- The Licensed contractor to install and remove all shoring and bracing as required for the proper execution of the work.
- Licensed Contractor to obtain all permits as necessary from all Local, State, and Federal agencies.
- Turbidity barriers to be marked with site contractor's company name using permanent markings no smaller than 3 inches in height on the top of the barrier.

PILE DRIVING:

- Piles shall be driven using an approved cushion block consisting of material so arranged so as to provide the transmission of hammer energy.
- Piles shall be driven to a minimum allowable bearing capacity of 10 tons for wood, 25 tons for concrete, and 5 tons for pin piles, a minimum of 8' into berm or refusal.
- Piles shall be driven with a drop hammer or gravity hammer provided the hammer shall weight no less than 3,000 pounds, and the fall of the hammer shall not exceed 6'.
- Piles shall be driven with a variation of not more than $\frac{1}{4}$ inch per foot from the vertical, or from the batter line indicated, with a maximum variation of the head of the pile from the position shown on the plans of not more than three inches.
- Where piling must penetrate strata offering high resistance to driving, the structural engineer of record or special inspector may require that the piles be set in pre-drilled or punched holes. The piles shall reach their final penetration by driving.

CONCRETE NOTES:

- Concrete shall conform to ACI 318-19 and shall be regular weight, sulfate resistant, with a design strength of 5000 psi at 28 days with a maximum water-cementitious materials ratio, by weight aggregate concrete of 0.40.
- Owner shall employ and pay for testing services from an independent testing laboratory for concrete sampling and testing in accordance with ASTM.
- Licensed contractor is responsible for the adequacy of forms and shoring and for safe practice in their use and removal.
- Concrete cover shall be 3" unless otherwise noted on the approved drawings.
- Reinforcing steel shall be in conformance with the latest version of ASTM A615 Grade 60 specifications. All reinforcement shall be placed in accordance with ACI 315 and ACI Manual of Standard Practice.
- Fiber Reinforced Polymer (FRP) Reinforcing Bars may be used in lieu of reinforcing steel. FRP shall meet FDOT specification 932-3.1 - Use only solid, round, thermoset basalt fiber reinforced polymer (BFRP), glass fiber reinforced polymer (GFRP) or carbon fiber reinforced polymer (CFRP) reinforcing bars from producers currently on the FDOT's Production Facility Listing.
- Splices in reinforcing bars shall be not be less than 48 bar diameters and reinforcing shall be continuous around all corners and changes in direction. Continuity shall be provided at corners or changes in direction by bending the longitudinal steel around the corner 48 bar diameters.
- Defective, cracked or loose concrete areas must be cut out, the rebar must be cleaned, coated with zinc and repaired with at least 3" of expoxy-concrete mix or gunnite concrete with sulfate-resistant cement.

PILE NOTES:

- Concrete piles shall attain 6000 psi compressive strength in 28 days.
- Concrete piles shall be reinforced with four - $\frac{7}{16}$ "Ø lo-lax strands, 270 kips, and 5 ga. spiral ties.
- Concrete piles shall be 12"x12" square, minimum length of 20'.
- Concrete piles shall be cut to leave strands exposed a min. of 18" and tied to dock or cap steel or drill and epoxy (2) #5 12"x18" hook bars 6" into pile.

Project Engineer

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