

HIGHLAND SHORES BOAT RAMP REPAIR CONSTRUCTION PLANS

PREPARED FOR:
MANATEE COUNTY BOARD OF COMMISSIONERS

INDEX

1. COVER SHEET
2. EXISTING CONDITIONS
3. PROPOSED BOAT RAMP REPAIR PLAN
4. BOAT RAMP REPAIR DETAILS AND NOTES
5. PROPOSED MARGINAL DOCK PLAN
6. MARGINAL DOCK AND MOORING PILE TYPICAL SECTIONS AND NOTES
7. DOCK AND SEAWALL REPAIR DETAILS AND NOTES

PUBLISHED TIDAL INFORMATION

TIDAL DATUMS AT BRADENTON, MANATEE RIVER ARE BASED ON FLORIDA 872 6247 TIDE STATION, PUBLISHED 05-11-2015.

LENGTH OF SERIES = 1 YEAR
 TIME PERIOD = JANUARY 1977 - DECEMBER 1977
 TIDAL EPOCH = 1983 - 2001
 CONTROL TIDE STATION = 872 6520 ST PETERSBURG, TAMPA BAY

ELEVATIONS OF TIDAL DATUMS ARE REFERENCED IN NAVD 1988.

MEAN HIGH WATER (MHW) = +0.47 FT NAVD
 MEAN TIDE LEVEL (MTL) = -0.35 FT NAVD
 MEAN LOW WATER (MLW) = -1.18 FT NAVD
 MEAN LOWER LOW WATER (MLLW) = -1.51 FT NAVD

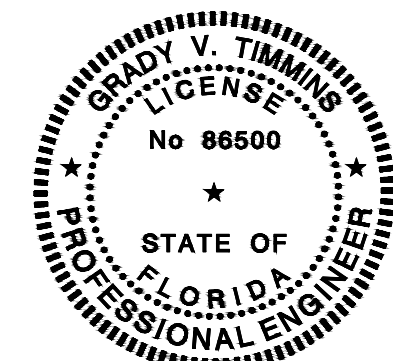
NOTES

1. SURVEY COMPLETED BY COASTAL ENGINEERING CONSULTANTS, INC., ON 3/11/2021.
2. POST-CONSTRUCTION BATHYMETRIC SURVEY COMPLETED BY COASTAL ENGINEERING CONSULTANTS, INC., ON 5/13/2019.
3. PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE WEST ZONE OF FLORIDA AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83).
4. ELEVATIONS SHOWN HEREON ARE IN FEET AND TENTHS AND REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988). REFERENCE BENCHMARK: W 565, EL. = 8.73 FT NAVD AND SAINT LUCIE, EL. = 6.90 FT NAVD.
5. SURVEY ACCURACY STANDARDS, QUALITY CONTROL, AND QUALITY ASSURANCE REQUIREMENTS WERE FOLLOWED DURING THIS SURVEY IN ACCORDANCE WITH USACE EM 1110-2-1003, HYDROGRAPHIC SURVEYING MANUAL, 11/30/2013.
6. INFORMATION SHOWN HEREON REFLECTS CONDITIONS AS THEY EXISTED ON THE SURVEY DATE SHOWN AND CAN ONLY BE CONSIDERED INDICATIVE OF CONDITIONS AT THAT TIME.
7. AERIAL PHOTOGRAPHY OBTAINED FROM THE FLORIDA DEPARTMENT OF TRANSPORTATION, DATED 2022.
7. CONTRACTOR SHALL NOT DISTURB AREAS BEYOND DESIGNATED WORK AREA.
9. PRIOR TO EXCAVATION CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UTILITIES, IRRIGATION AND DRAINS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZATION OF EXISTING STRUCTURES AND FILL DURING CONSTRUCTION.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION AND CONTROL OF ANY EROSION, SEDIMENTATION OR SURFACE WATER TURBIDITY CAUSED BY HIS ACTIVITY. UTILIZE SYNTHETIC BALES, TEMPORARY BERMING, SOD SEED, AND MULCH TO CONTROL EROSION AS REQUIRED OR DIRECTED BY THE OWNER OR ENGINEER.
12. DURING CONSTRUCTION, EXISTING GRATE INLET AND JUNCTION BOX OPENINGS SHALL BE COVERED WITH FILTER FABRIC (MIRAFI 140N OR APPROVED EQUAL) TO PREVENT DEBRIS AND FILL FROM FALLING INTO THE INLET.
13. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION, ANY DEVIATION IN PLAN INFORMATION SHALL BE REPORTED TO THE ENGINEER AND OWNER'S REPRESENTATIVE IMMEDIATELY.
13. CONTRACTOR IS REQUIRED TO OBTAIN FROM THE ENGINEER AND OWNER WRITTEN APPROVAL FOR ANY DEVIATION IN PLANS AND/OR SPECIFICATIONS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND USAGE OF THE EXISTING STREETS ADJACENT TO THE PROJECT. ALL TRAFFIC MAINTENANCE CONTROL SHALL BE IN ACCORDANCE WITH FLORIDA MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET CONSTRUCTION, MAINTENANCE, AND UTILITY OPERATIONS. TRAFFIC CONTROL OPERATION PROCEDURES SHALL BE SUBMITTED TO OWNER FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION.

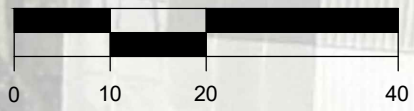


LOCATION MAP
N.T.S.

DATE: 5/21/2024	SCALE: AS NOTED	CLIENT: MANATEE COUNTY
DRAWN: GVT/F.B.	CHECKED: MAK/P.G.	TITLE: HIGHLAND SHORES BOAT RAMP COVER SHEET
SEC.:	TWP.:	ACAD NO.:
20204-C.dwg	20204-C.dwg	20,204
REF. NO.:	NO.:	DATE:
		BY:
		REVISION DESCRIPTION:



COASTAL ENGINEERING CONSULTANTS, INC.
 Serving Florida Since 1977
 28421 BONITA CROSSINGS BLVD
 BONITA SPRINGS, FL 34135



351 SHORE DRIVE
(PRIVATE RESIDENCE - DO NOT
BLOCK DRIVE WAY)

CATCH BASIN

SHORE DR

CONCRETE
PAVEMENT
APRON

- LEGEND**
- J = PORTA JOHN
 - T = TRASH CAN
 - = SIGN
 - ☆ = LIGHT
 - ① = BOAT RAMP PANEL

HIGHLAND SHORES
BOAT RAMP SIGN

353 SHORE DRIVE

CONCRETE
SLAB

TIMBER BOLLARD (TYP)

SEAWALL

PARKING
STOP (TYP)

CONCRETE
PAD

SIDEWALK (TYP)

ADA PARKING SIGN

CHAIN LINK FENCE

INFORMATION KIOSK

PARK HOURS SIGN

MARGINAL DOCK

CONCRETE PILE (TYP)

SEAWALL

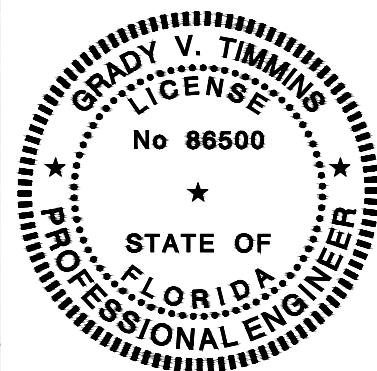
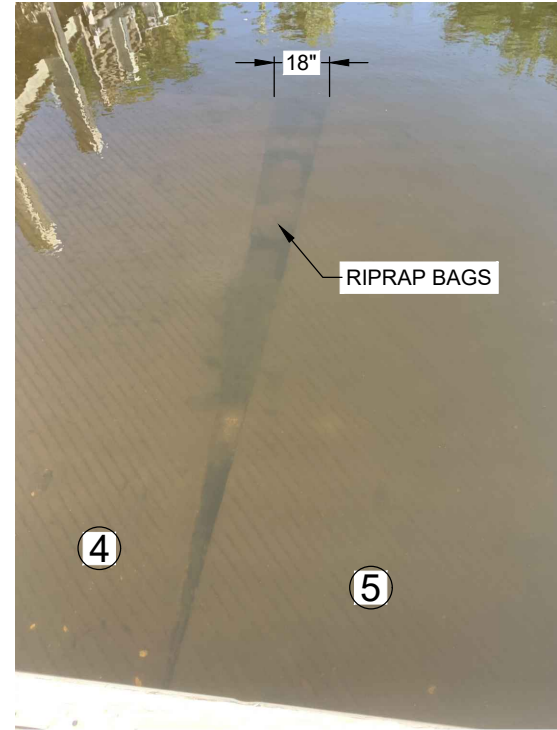
MARGINAL DOCK

BOARDING
PIER

10'x16'x8" BOAT
RAMP PANEL (TYP)
TO BE REALIGNED

PERMITTED DREDGE CUT
(-5.18' NAVD / -4' MLW)

BOAT RAMP PANEL TO BE REALIGNED



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RNG.:		20204-C.dwg	
NO.:		20,204	
BY:		DATE:	
REVISION DESCRIPTION:			

MANATEE COUNTY

HIGHLAND SHORES BOAT RAMP
EXISTING CONDITIONS

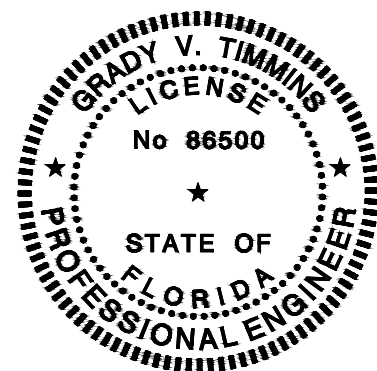
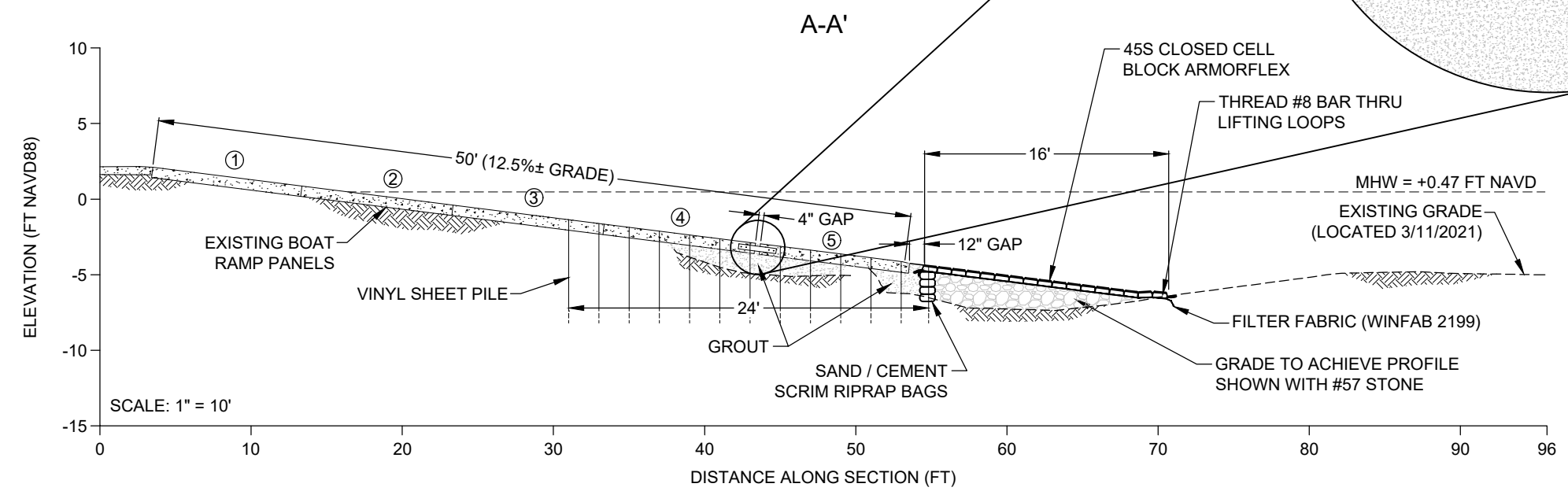
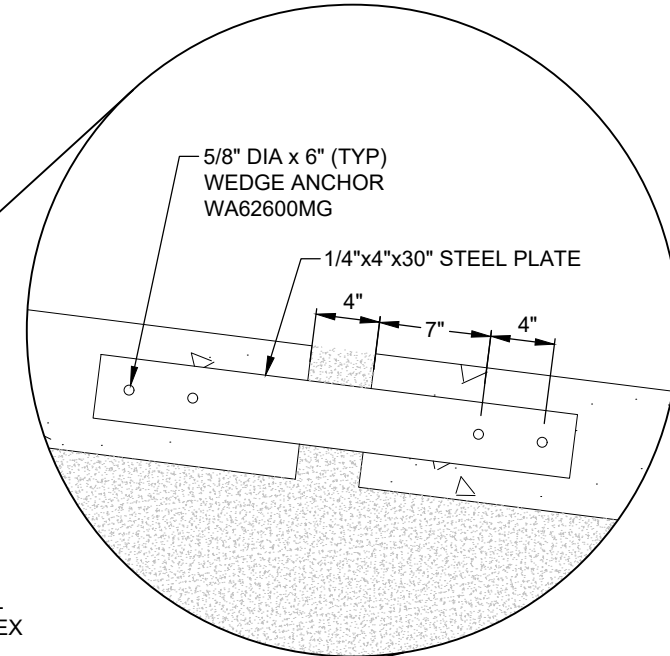
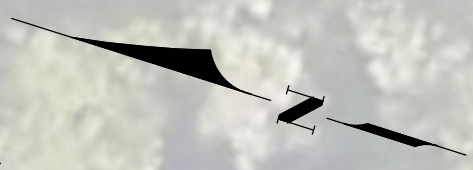
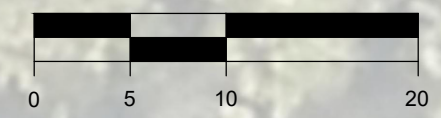
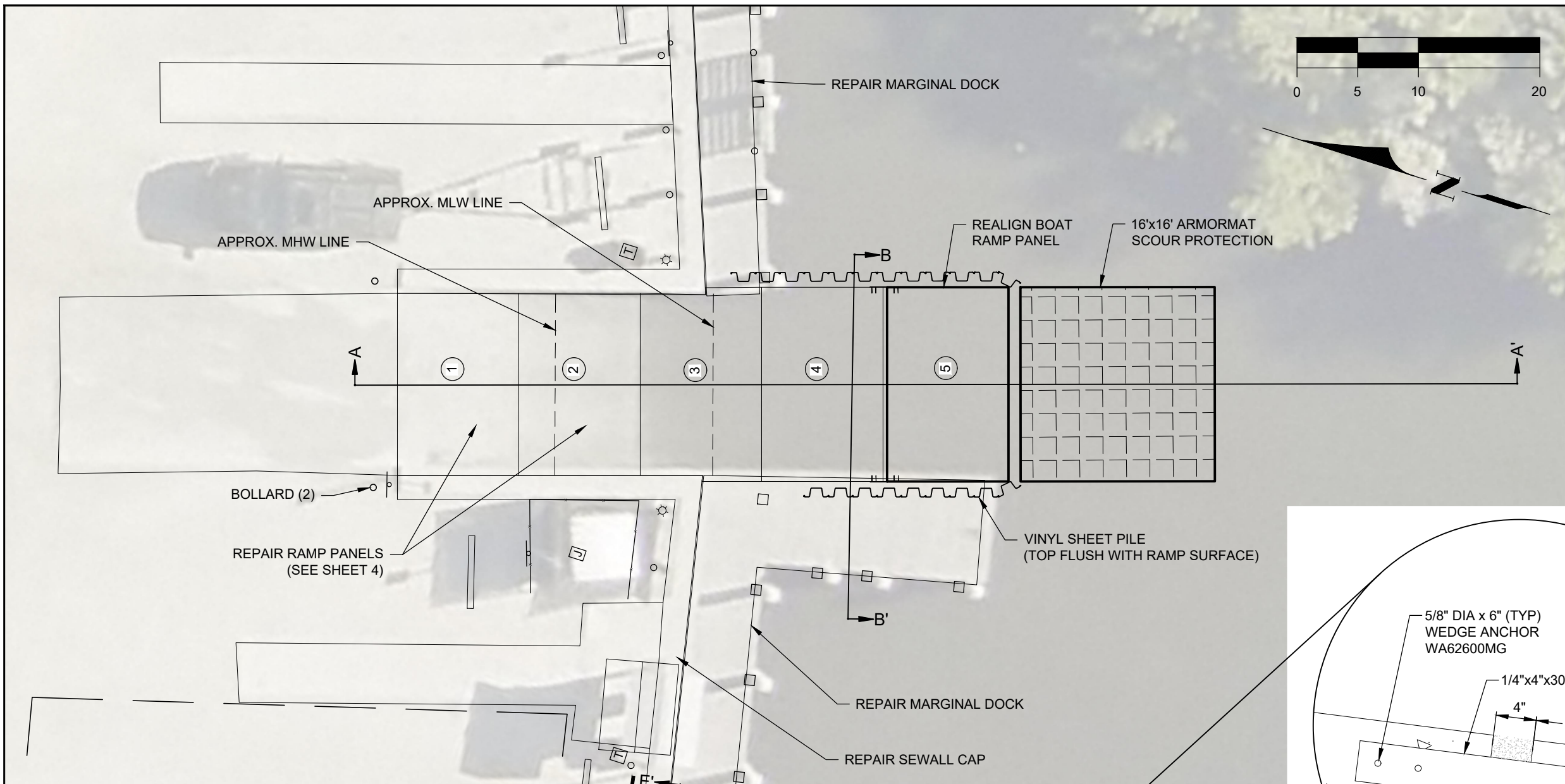
CLIENT: COASTAL AND MARINE ENGINEERING SERVICES
ENVIRONMENTAL SERVICES
GEOLOGICAL SERVICES
SURVEY AND MAPPING

TITLE:

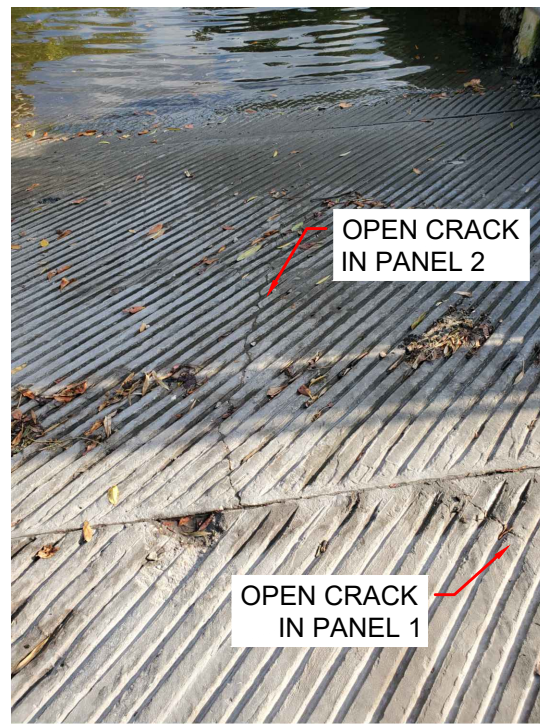
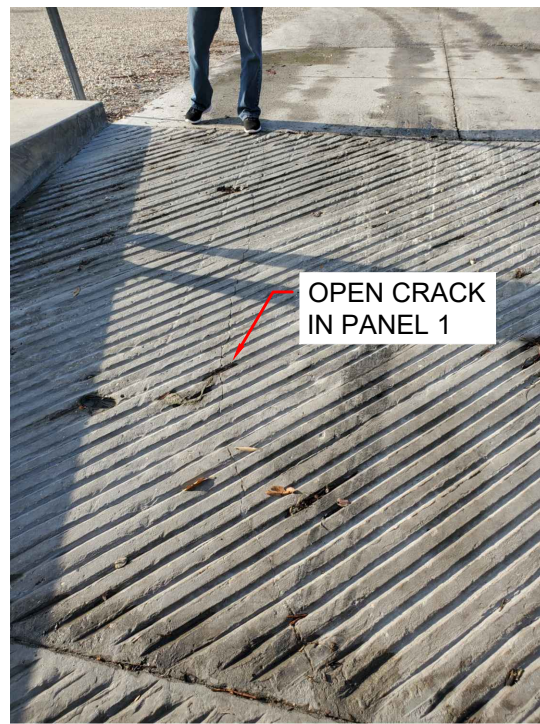
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BONITA SPRINGS, FL 34135

SHEET 2 OF 7
FILE NO.: 20204-C2



DATE: 5/21/2024		SCALE: AS NOTED	
DRAWN: GVT/FB	CHECKED: MAK/PG	DATE: 20,204	BY:
SEC:	TWP:	ACAD NO: 20204-C.dwg	NO:
REF. NO:			REVISION DESCRIPTION:
MANATEE COUNTY		HIGHLAND SHORES BOAT RAMP	
CLIENT: COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING		TITLE: PROPOSED BOAT RAMP REPAIR PLAN	
PHONE: (239)643-2324 FAX: (239)643-1143 www.coastalengineering.com E-Mail: info@cecill.com		SHEET 3 OF 7 FILE NO.: 20204-C3	

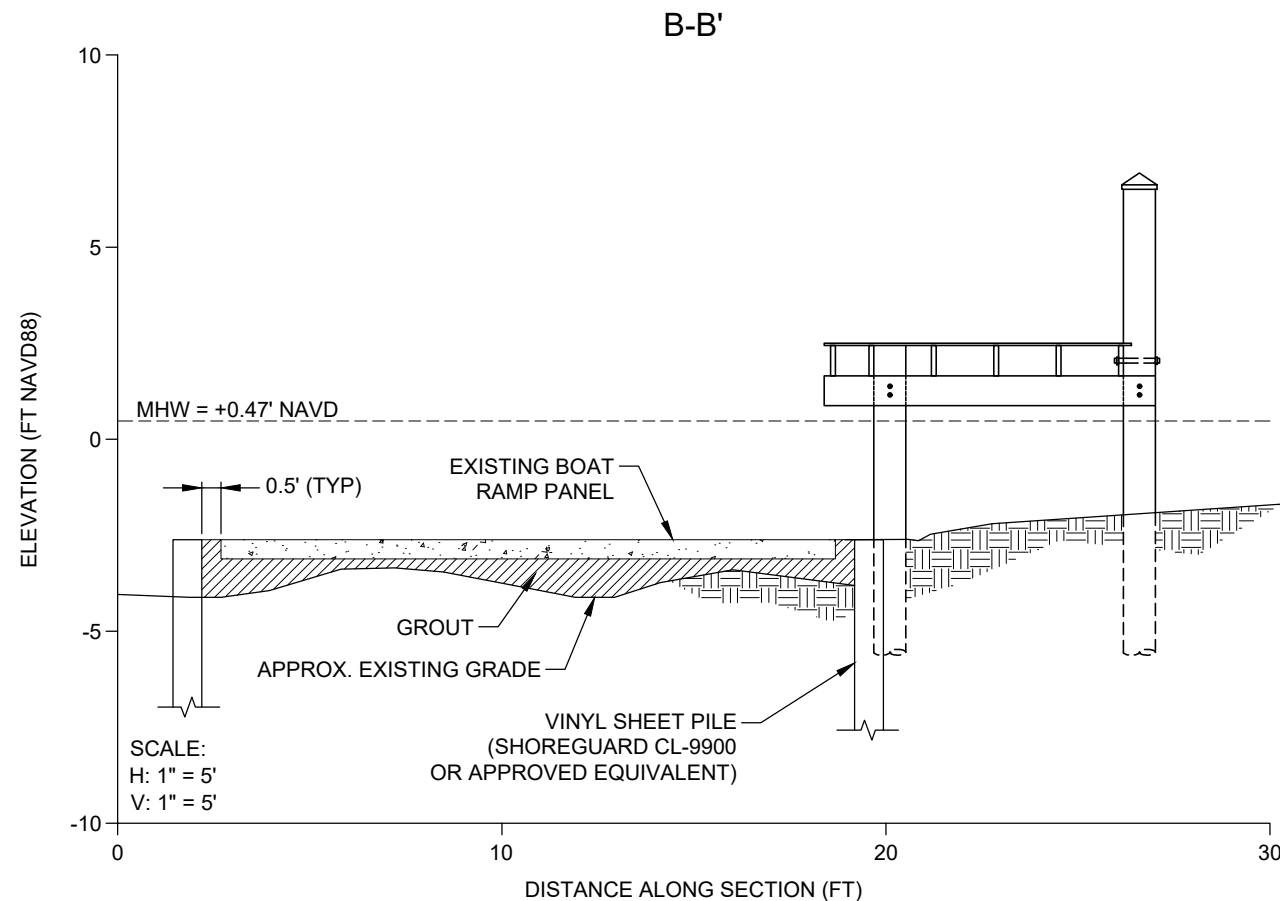


BOAT RAMP REPAIR NOTES

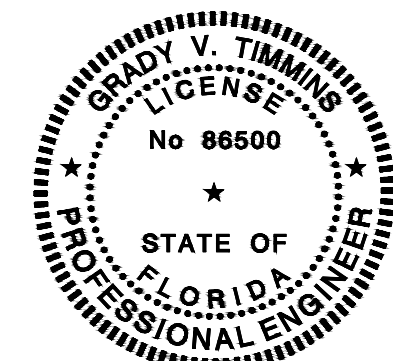
- PANELS 1 AND 2 EACH EXHIBIT A CRACK 10 FT LONG BY UP TO 1/8 INCH WIDE. SEE PHOTOS.
- USE A MINIMUM BLADE WIDTH OF 1/4 INCH TO CHASE CRACKS ON RAMP PANELS 1 AND 2. DEPTH OF CUT SHALL BE 1/2 INCH.
- CLEAN CRACKS AFTER CUTTING WITH HIGH PRESSURE WATER BLAST (MIN. 4,500 PSI) METHODS. USE COMPRESSED AIR TO DRY CRACKS AND CONCRETE PRIOR TO APPLYING REPAIR PRODUCT.
- FILL CRACKS WITH KAUFMAN PRODUCTS, INC. SUREPOXY LM GEL. SILICA SAND MAY BE USED AS FILLER UP TO 10 PERCENT BY VOLUME OF EPOXY. OVERFILL CRACKS TO MINIMIZE WATER PONDING OVER CRACK REPAIRS AT BOTTOM OF V-GROOVES.
- PANEL 5 SHIFTED APPROXIMATELY 18 INCHES ALONG THE EASTERN SIDE OF RAMP AND APPROXIMATELY 1 INCH ALONG THE WESTERN SIDE.
- EACH 10'x16' PANEL HAS FOUR (4) PICKUP POINTS.
- REMOVE EXISTING SAND/CEMENT RIPRAP BAGS AND OTHER DEBRIS BETWEEN PANELS 4 AND 5.
- CONTRACTOR SHALL REALIGN PANEL 5 PARALLEL WITH PANEL 4 LEAVING A UNIFORM 4 INCHES (+/-) GAP.
- CONNECT EAST AND WEST EDGES OF PANELS 4 AND 5 USING 1/4 INCH THK x 4 INCHES W x 30 INCHES L STEEL PLATES FASTENED WITH SIMPSON STRONG TIE-WA62600MG, 5/8" x 6", WEDGE-ALL® WEDGE ANCHORS, FOUR (4) PER PLATE.
- CONTRACTOR SHALL SELECT SUITABLE VINYL SHEET PILE PRODUCT TO BE USED AS GROUT FORM.
- VINYL SHEET PILES SHALL BE USED AS FORMS FOR PUMPING GROUT. MINIMUM LENGTH OF SHEET PILES SHALL BE 4 FEET. CONTRACTOR RESPONSIBLE FOR STABILITY OF SHEET PILES WHILE PUMPING GROUT.
- PUMP 3,000 PSI CONCRETE GROUT INTO VOIDS BENEATH SLABS. MAINTAIN END OF DISCHARGE HOSE BELOW SURFACE OF NEW CONCRETE THROUGHOUT PUMPING OPERATION.
- BEGIN FILLING VOIDS AT TOE OF RAMP AND PROGRESS LANDWARD. COUNTY REPRESENTATIVE MUST BE PRESENT DURING INSTALLATION.
- FILL VOIDS AT EACH PANEL ALLOWING GROUT TO RISE TO THE LEVEL OF THE NEXT HIGHER PANEL BEFORE MOVING GROUT NOZZLE. TROWEL EXCESS CONCRETE FLUSH WITH SLABS AFTER ALLOWING TIME FOR CONCRETE TO CURE. REMOVE AND DISPOSE OF EXCESS CONCRETE.
- VINYL SHEET PILE SHALL BE CUT FLUSH WITH RAMP SLABS.

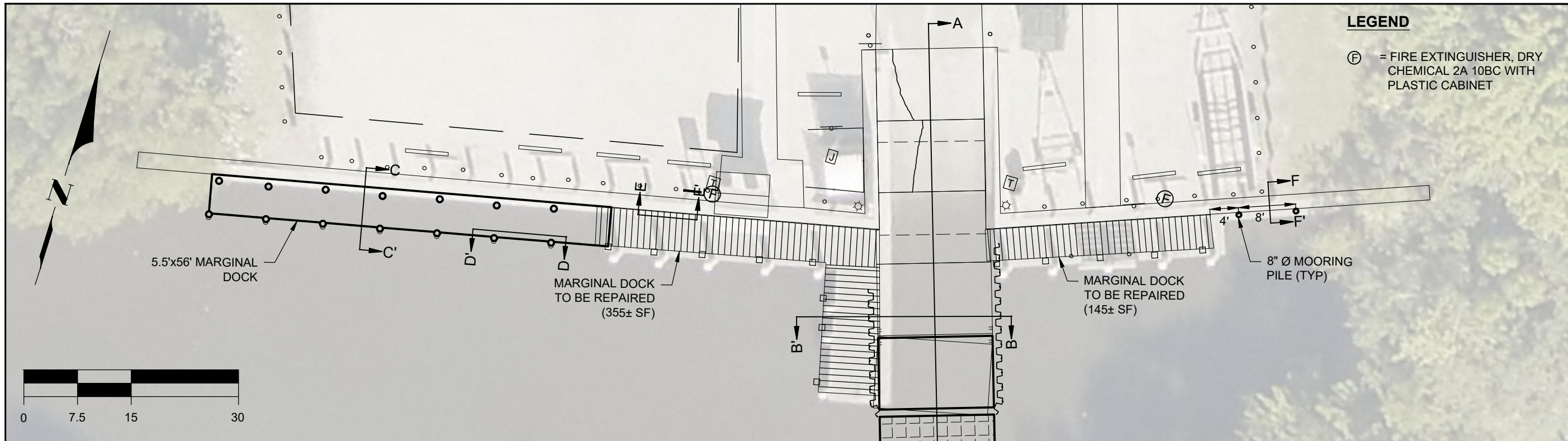
CONCRETE ARMORMAT NOTES

- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS AT RAMP TOE AND IN SCOUR HOLE.
- GRADE CHANNEL BOTTOM TO ELEVATIONS SHOW ON PLANS. SURFACE SHALL BE SMOOTH, FREE OF OBSTRUCTIONS, DEPRESSIONS AND HUMPS.
- SLOPE SHALL BE UNIFORM. TOLERANCE FOR GRADE SHALL BE +0.3' TO -0.6'.
- FINISH GRADE SHALL BE INSPECTED AND APPROVED BY COUNTY REPRESENTATIVE PRIOR TO INSTALLATION OF ARMORMAT.
- VERTICALLY STACK SAND/CEMENT SCRIM RIPRAP BAGS 12 INCHES FROM RAMP TOE. BAGS SHALL BE STAGGERED IN A BRICK-LIKE FASHION AND PINNED WITH #5 REBAR. MINIMUM ONE PIN THROUGH EACH BAG. PINS SHALL HAVE MINIMUM 18-INCH PENETRATION INTO CHANNEL BOTTOM.
- CONTRACTOR SHALL INSTALL FILTER FABRIC SO AS TO MINIMIZE THE NUMBER OF JOINTS AND SEAMS. JOINTS SHALL HAVE A MINIMUM OF 3 FEET OF OVERLAP. FABRIC SHALL BE WINFAB 2199 OR APPROVED EQUIVALENT.
- CONCRETE MATS SHALL BE PLACED END TO END AND/OR SIDE BY SIDE, SO THAT THE MATS ABUT EACH OTHER. OVERLAP OF MATS SHALL NOT BE PERMITTED.
- LIFTING LOOPS ON MATS ABUTTING END TO END SHALL BE FASTENED TOGETHER IN PLACE WITH STAINLESS STEEL CABLE CLAMPS. TWO CLAMPS PER PAIR OF LOOPS.
- MATS ABUTTING SIDE BY SIDE SHALL BE STITCHED TOGETHER IN PLACE WITH POLYESTER CABLE OF THE SAME SIZE AND CAPACITY USED IN MATS. MINIMUM ONE LOOP FASTENED WITH A STAINLESS STEEL CABLE CLAMP EVERY 2 FEET.
- ANCHOR END OF MATS CLOSEST TO RAMP BY THREADING #8 REINFORCING STEEL THROUGH EACH OF THE LIFTING LOOPS. END OF MATS AND STEEL SHALL BE ENCAPSULATED IN GROUT WHEN VOIDS BENEATH PANELS ARE FILLED.
- ANCHOR SEAWARD END OF MATS BY THREADING #8 REINFORCING STEEL THROUGH EACH OF THE LIFTING LOOPS.
- GAPS BETWEEN MATS LARGER THAN 6 INCHES SHALL BE GROUTED.



DATE: 5/21/2024	SCALE: AS NOTED	DATE: 5/21/2024	SCALE: AS NOTED
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CHECKED: MAK	PG: MAK	CHECKED: MAK	PG: MAK
SEC: TWP	RNG: TWP	SEC: TWP	RNG: TWP
ACAD NO: 20204-C.dwg	NO: 20,204	ACAD NO: 20204-C.dwg	NO: 20,204
REF. NO:	DATE:	REF. NO:	DATE:
MANATEE COUNTY		MANATEE COUNTY	
HIGHLAND SHORES BOAT RAMP		HIGHLAND SHORES BOAT RAMP	
BOAT RAMP REPAIR		BOAT RAMP REPAIR	
DETAILS AND NOTES		DETAILS AND NOTES	
CLIENT: COASTAL AND MARINE ENGINEERING SERVICES		CLIENT: COASTAL AND MARINE ENGINEERING SERVICES	
TITTLE: ENVIRONMENTAL SERVICES		TITTLE: ENVIRONMENTAL SERVICES	
SURVEY AND MAPPING		SURVEY AND MAPPING	
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SHEET 4 OF 7		SHEET 4 OF 7	
FILE NO.: 20204-C4		FILE NO.: 20204-C4	

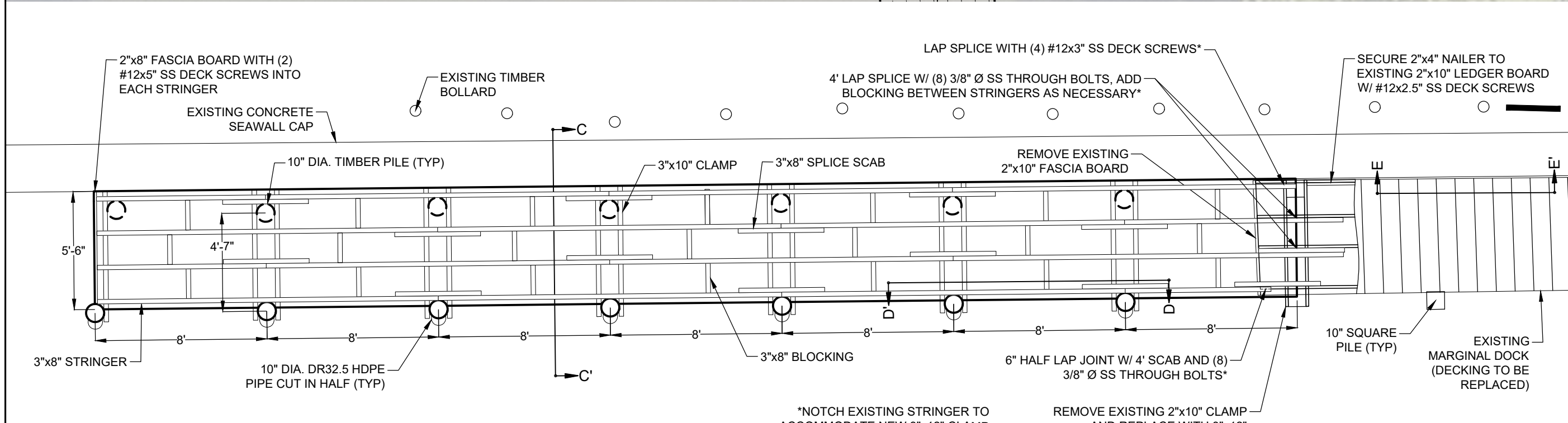




LEGEND

⊕ = FIRE EXTINGUISHER, DRY CHEMICAL 2A 10BC WITH PLASTIC CABINET

DATE:	5/21/2024	SCALE:	AS NOTED
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SEC.		TWP.	
ACAD NO.	20204-C.dwg	RNG.	
REF. NO.		NO.	20,204
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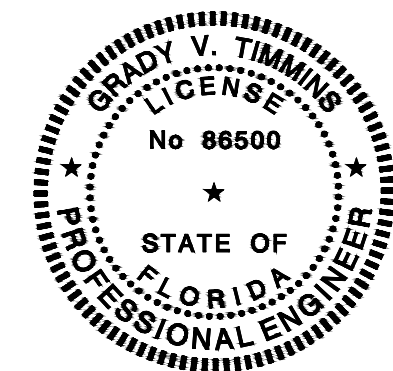
SCALE: 1" = 5'

MANATEE COUNTY
 HIGHLAND SHORES BOAT RAMP
 PROPOSED MARGINAL DOCK PLAN

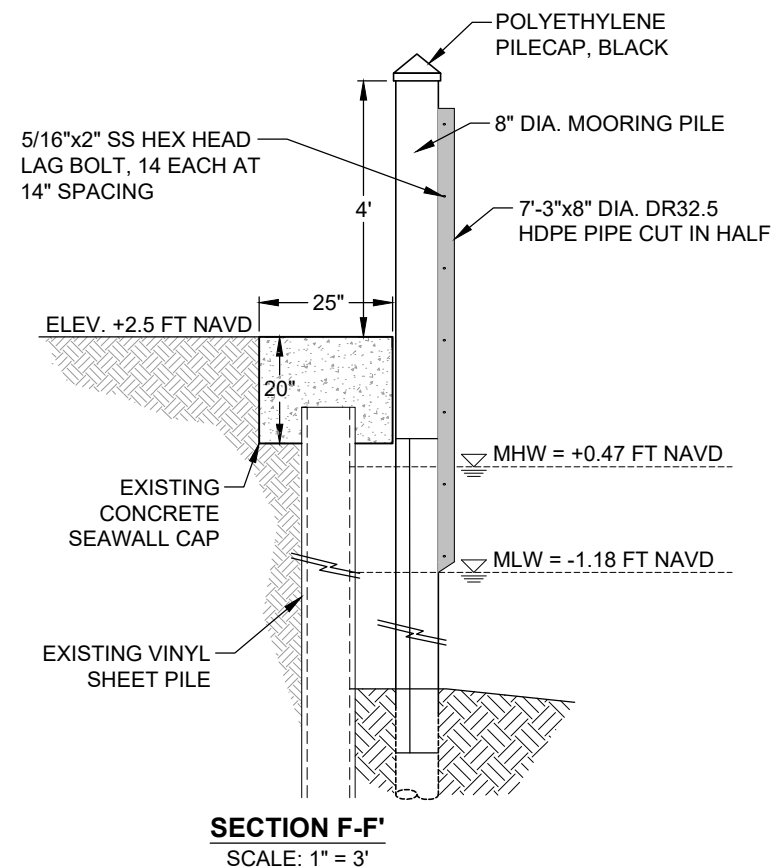
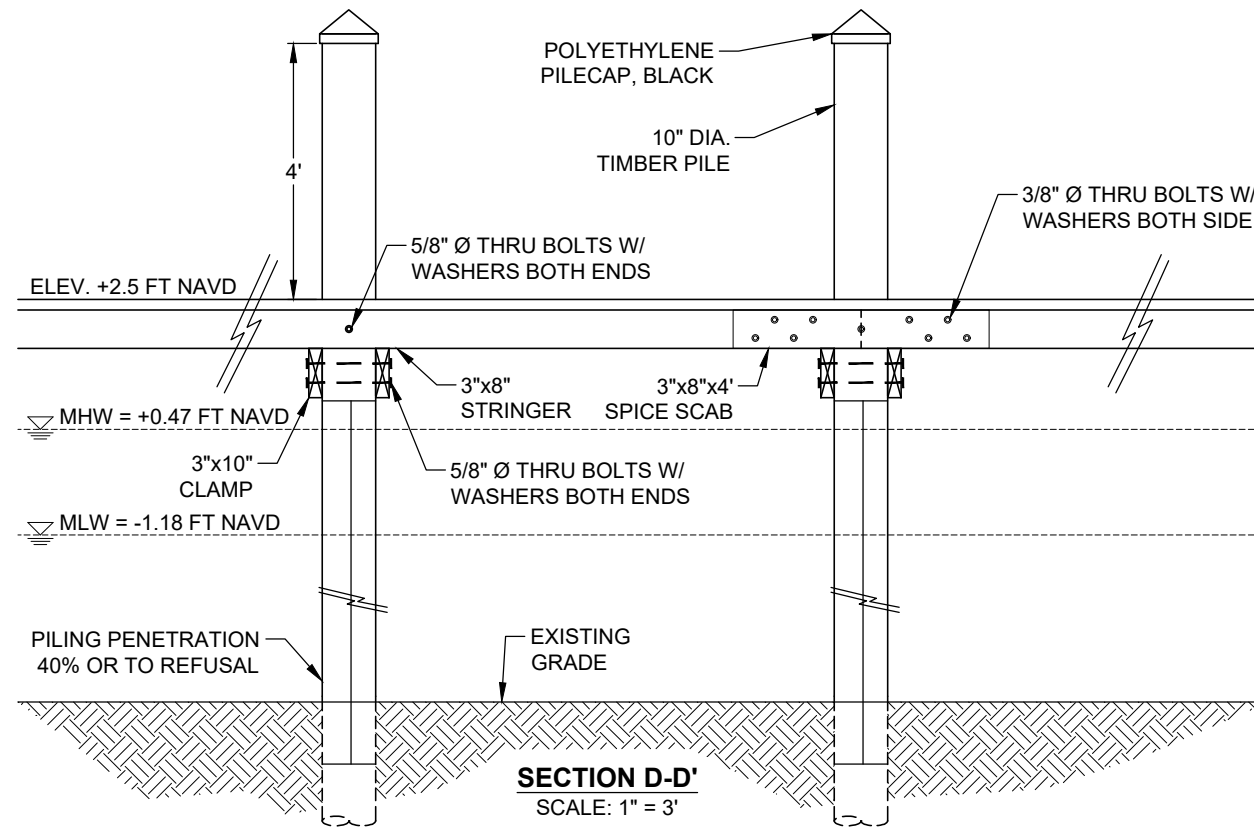
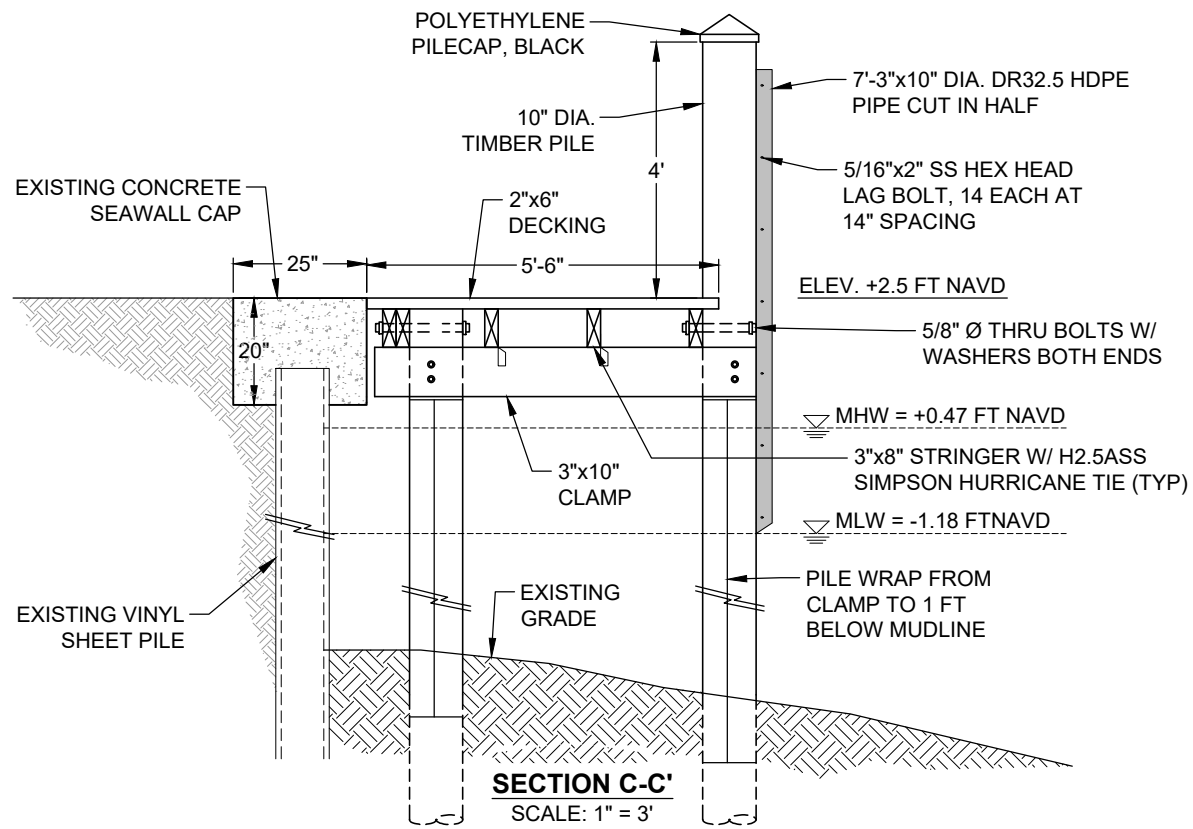
CLIENT: MANATEE COUNTY
 TITLE: HIGHLAND SHORES BOAT RAMP PROPOSED MARGINAL DOCK PLAN

COASTAL AND MARINE ENGINEERING
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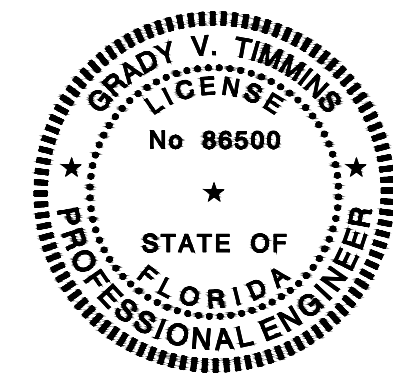
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 BONITA SPRINGS, FL 34135



DOCK CONSTRUCTION NOTES

1. BEVEL TOP EDGE OF PILES AND DECKING TO REMOVE SPLINTERS.
2. RECESS ALL OUTBOARD FACING BOLT HEADS FLUSH WITH PILE.
3. ALL FASTENERS AND HARDWARE SHALL BE 304 STAINLESS STEEL.
4. ALL PILES SHALL ACHIEVE A MINIMUM PENETRATION OF 40 PERCENT OF THE OVERALL LENGTH OR A MINIMUM OF 8 FEET, WHICHEVER IS GREATER.
5. ALL TIMBER PILES SHALL BE WRAPPED WITH A 0.30 MIL SHEETING MANUFACTURED BY PERMA PILE OR APPROVED EQUAL. THE SHEETING IS TO PREVENT PRESERVATIVE TREATMENT FROM LEACHING INTO THE ENVIRONMENT AND TO PROHIBIT MARINE BORER ATTACK. THE SHEETING MUST OVERLAP A MINIMUM OF 6 INCHES AT SEAMS, LAP JOINTS, AND PROVIDE A COMPLETE BARRIER TO THE TIMBER. MINIMUM 1 1/4" LONG 304 STAINLESS STEEL ROOFING NAILS, SPACED NO GREATER THAN 2 INCHES APART ALONG SEAMS, LAP JOINTS, AND EDGES OF SHEETING. THE SHEETING SHALL EXTEND FROM BOTTOM OF CLAMPS DOWN TO 1 FOOT BELOW THE EXISTING MUDLINE. VERTICAL SEAMS SHALL BE ORIENTATED TOWARD THE UNDERSIDE OF THE PIER.
6. ALL PILES EXTENDING ABOVE DECK SHALL BE TREATED WITH TWO HEAVY COATS OF WATER BASED COPPER NAPHTHENATE SOLUTION CONTAINING A MINIMUM OF 2 PERCENT COPPER METAL THEN SEALED WITH HEAVY APPLICATION OF 100% SILICONE ROOF COATING (BLACK). PILES SHALL THEN BE FITTED WITH A BLACK POLYETHYLENE CONE PILE CAP MANUFACTURED BY INTERNATIONAL DOCK PRODUCTS, INC. OR APPROVED EQUIVALENT AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. EACH PILE SHALL BE MEASURED AND FITTED WITH CORRECT SIZE CAP. CAPS SHOULD FIT SNUG, BUT NOT CAUSE DEFORMATION. GAPS BETWEEN THE PILE AND CAP SHALL NOT EXCEED 1/2".
7. SEAL TOPS OF CUT OFF PILES WITH TWO HEAVY COATS OF WATER BASED COPPER NAPHTHENATE SOLUTION CONTAINING A MINIMUM OF 2 PERCENT COPPER METAL AND 0.30 MIL HDPE SHEETING ADHERED TO PILE WITH HEAVY APPLICATION OF 100% SILICONE ROOF COATING (BLACK).
8. CONTRACTOR SHALL TREAT ALL FIELD CUT PRESSURE TREATED TIMBER WITH TWO HEAVY COATS OF WATER BASED COPPER NAPHTHENATE SOLUTION CONTAINING A MINIMUM OF 2 PERCENT COPPER METAL.
9. DECKING SHALL BE 2"x6" WEARDECK (BY OWENS CORNING) OR APPROVED EQUIVALENT. COLOR TO BE DETERMINED BY COUNTY. TRANSITION SHALL BE SMOOTH BETWEEN TOP OF SEAWALL CAP BEAM AND EXISTING MARGINAL DOCK.
10. STRINGER SPLICES SHALL BE STAGGERED. INTERNAL STRINGERS SHALL BE TOE NAILED TO CLAMP WITH 16D SS RING SHANK NAIL.
11. INSTALL ONE SIMPSON H2.5ASS TIE ON EACH INTERNAL STRINGER AT EVERY BENT. INSTALL TIE WITH STAINLESS STEEL FASTENERS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

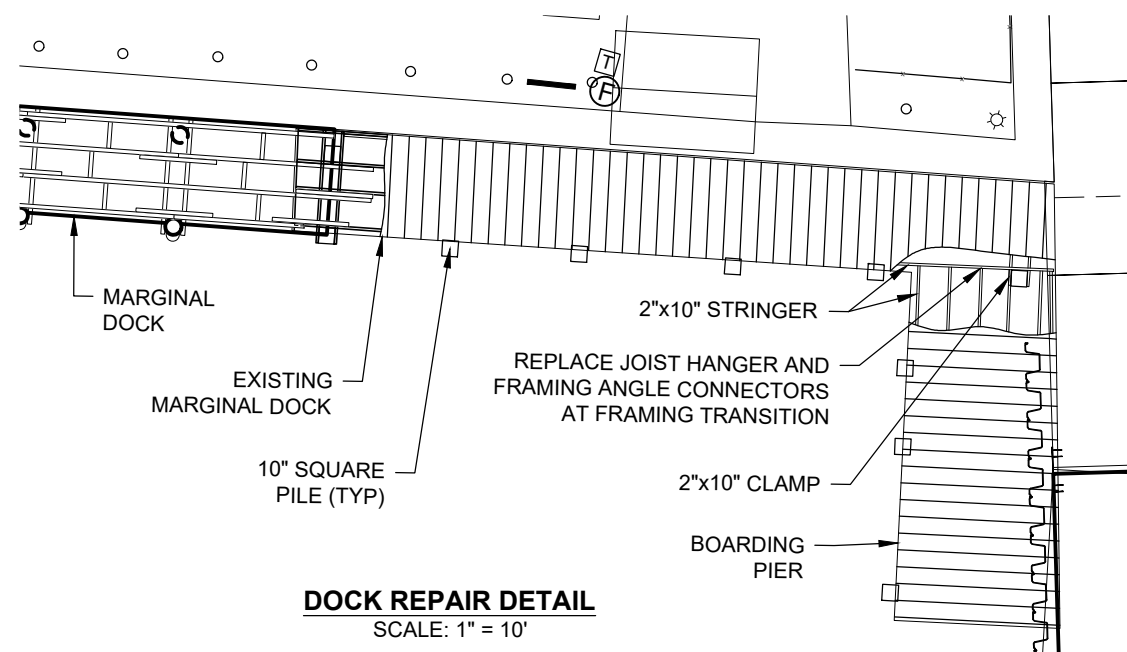
DATE: 5/21/2024	SCALE: AS NOTED	CLIENT: MANATEE COUNTY
DRAWN: GVT/FB	CHECKED: MAK/PG	TITLE: HIGHLAND SHORES BOAT RAMP MARGINAL DOCK AND MOORING PILE TYPICAL SECTIONS AND NOTES
SEC.:	TWP.:	ACAD NO. 20204-C.dwg
REF. NO.:	NO. 20,204	REVISION DESCRIPTION:
	BY:	
	DATE:	



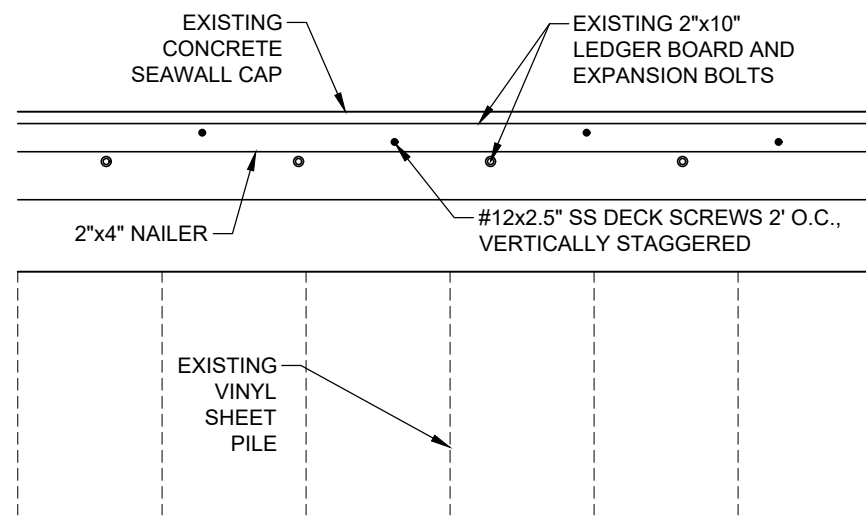
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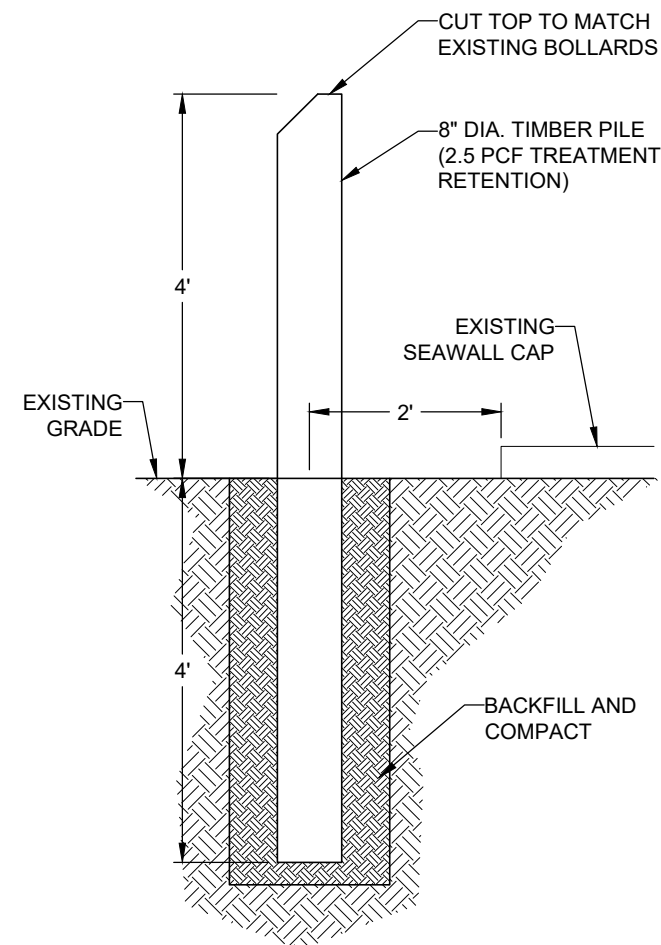
DOCK REPAIR DETAIL
SCALE: 1" = 10'



SECTION E-E'
SCALE: 1" = 2'

DOCK REPAIR NOTES

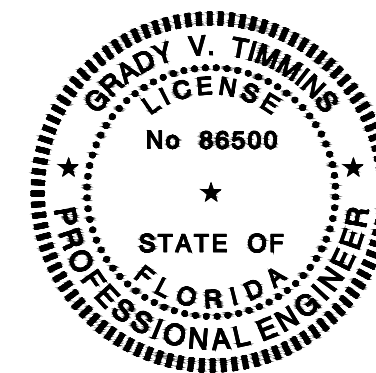
1. CONTRACTOR SHALL REMOVE EXISTING IPE DECKING, STACK, AND STORE ON-SITE FOR COUNTY REMOVAL.
2. NO REPLACEMENT OF THE TIMBER SUBSTRUCTURE IS REQUIRED.
3. INSTALL HU210SS JOIST HANGERS AND A34SS FRAMING ANGLES AT MARGINAL DOCK AND BOARDING PIER INTERSECTION. INSTALL FRAMING ANGLES ON INBOARD SIDE OF OUTBOARD STRINGERS ONLY.
4. INSTALL ONE SIMPSON H2.5ASS TIE ON EACH STRINGER AT EVERY BENT. CONTRACTOR SHALL VERIFY DIMENSIONS OF FRAMING MEMBERS AND CONNECTORS PRIOR TO INSTALLING TO ENSURE PROPER CONNECTOR IS USED.
5. CONTRACTOR SHALL INSTALL SIMPSON CONNECTORS WITH STAINLESS STEEL FASTENERS AND PER MANUFACTURER'S SPECIFICATIONS.
6. MARGINAL DOCKS DECKING SHALL BE REPLACED WITH 2"x6" WEARDECK (BY OWENS CORNING) OR APPROVED EQUIVALENT. COLOR TO BE DETERMINED BY COUNTY. TRANSITION SHALL BE SMOOTH BETWEEN TOP OF CAP BEAM AND NEW MARGINAL DOCK.
7. FIRE EXTINGUISHERS AND CABINETS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 303. CABINETS SHALL BE FASTENED WITH SS DECK SCREWS. LOCATION TO BE FIELD DETERMINED BY COUNTY.
8. CONTRACTOR SHALL TIGHTEN ALL EXISTING SUBSTRUCTURE HARDWARE.



TYPICAL BOLLARD DETAIL
SCALE: 1" = 2'

SEAWALL CAP BEAM REPAIR NOTES

1. SPALLS IN CAP BEAM HAVE BEEN PREVIOUSLY REPAIRED WITH MORTAR PATCHES. PATCHES ARE DETERIORATED AND FAILING.
2. REPAIR CAP BEAM WITH KAUFMAN PRODUCTS, INC. EPOXY BONDING AGENTS PRIOR TO INSTALLING NEW MARGINAL DOCK AND REPAIRING EXISTING MARGINAL DOCKS.
3. CHIP AND REMOVE ALL MORTAR FROM ALL ACCESSIBLE PREVIOUSLY REPAIRED AREAS.
4. MINOR TRIMMING OF VEGETATION MAY BE REQUIRED.
5. NO REPAIRS SHALL REQUIRE DISASSEMBLY OF THE DOCK SUBSTRUCTURES.
6. SAW CUT PERIMETER OF SPALL REPAIR TO ENSURE MINIMUM 1/4 INCH DEPTH OF REPAIR AREA.
7. PREPARE SURFACE TO BE PATCHED BY HIGH PRESSURE WATER BLAST (MIN. 4,500 PSI), SCABBLER OR OTHER APPROPRIATE MECHANICAL MEANS TO OBTAIN AN EXPOSED AGGREGATE SURFACE PROFILE OF ±1/16 INCH.
8. PRIME PREPARED SUBSTRATE WITH BRUSH OR SPRAYED APPLIED COAT SUREPOXY HM IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
9. USE DURACRETE II VOFT TO REPAIR SPALLS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
10. PRODUCT MUST BE SCRUBBED INTO THE SUBSTRATE, FILLING ALL PORES AND VOIDS. FORCE MATERIAL AGAINST EDGE OF REPAIR, WORKING TOWARD CENTER.
11. AFTER FILLING REPAIR, CONSOLIDATE, THEN SCREED.
12. MATERIAL MAY BE APPLIED IN MULTIPLE LIFTS AS NECESSARY.
13. REPAIRS SHALL BE SMOOTH AND CONTINUOUS TO FINISHED CONCRETE.
14. USE A MINIMUM BLADE WIDTH OF 1/8 INCH TO CHASE AND OPEN ALL ACCESSIBLE CRACKS ON CAP BEAM. DEPTH OF CUT SHALL BE 1/2 INCH.
15. CLEAN CRACKS AFTER CUTTING WITH HIGH PRESSURE WATER BLAST (MIN. 4,500 PSI) METHODS. USE COMPRESSED AIR TO DRY CRACKS AND CONCRETE PRIOR TO APPLYING REPAIR PRODUCT.
16. FILL CRACKS WITH SUREPOXY LM GEL. SILICA SAND MAY BE USED AS FILLER UP TO 10 PERCENT BY VOLUME OF EPOXY. CRACKS SHALL BE OVER FILLED AND GROUND SMOOTH AFTER CURING.
17. CLEAN ALL ACCESSIBLE SURFACES OF CAP BEAM WITH HIGH PRESSURE WATER BLAST (MIN. 4,500 PSI) METHODS. USE COMPRESSED AIR TO DRY CONCRETE PRIOR TO APPLYING EPOXY TOPCOAT.
18. APPLY TWO (2) COATS OF SUREPOXY HIBILD 8 MILS THICK IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS TO ACCESSIBLE TOP AND WATERWARD FACE OF CAP BEAM. PRODUCT DOES NOT NEED TO BE PLACED BELOW LEDGER BOARD OF EXISTING MARGINAL DOCKS. PRODUCT COLOR LIGHT GRAY. BROADCAST AND BACKROLL SILICA SAND IN FINAL HORIZONTAL SURFACE COAT.



DATE: 5/21/2024		SCALE: AS NOTED	
DRAWN: GVT/FB	CHECKED: MAK/PG	TWP: RRG	ACAD NO: 20204-C.dwg
SEC:	REF. NO:	NO.:	DATE:
MANATEE COUNTY		BY:	
HIGHLAND SHORES BOAT RAMP DOCK AND SEAWALL REPAIR		REVISION DESCRIPTION:	
DETAILS AND NOTES		20,204	
CLIENT: COASTAL AND MARINE ENGINEERING ENVIRONMENTAL SERVICES GEOLOGICAL SERVICES SURVEY AND MAPPING		PHONE: (239)643-2324 FAX: (239)643-1143 www.coastalengineering.com E-Mail: info@cecill.com	
TITLE: MANATEE COUNTY		SHEET 7 OF 7	
CONTRACTOR: COASTAL ENGINEERING CONSULTANTS INC. Serving Florida Since 1977 28421 BONITA CROSSINGS BLVD BONITA SPRINGS, FL 34135		FILE NO.: 20204-C7	