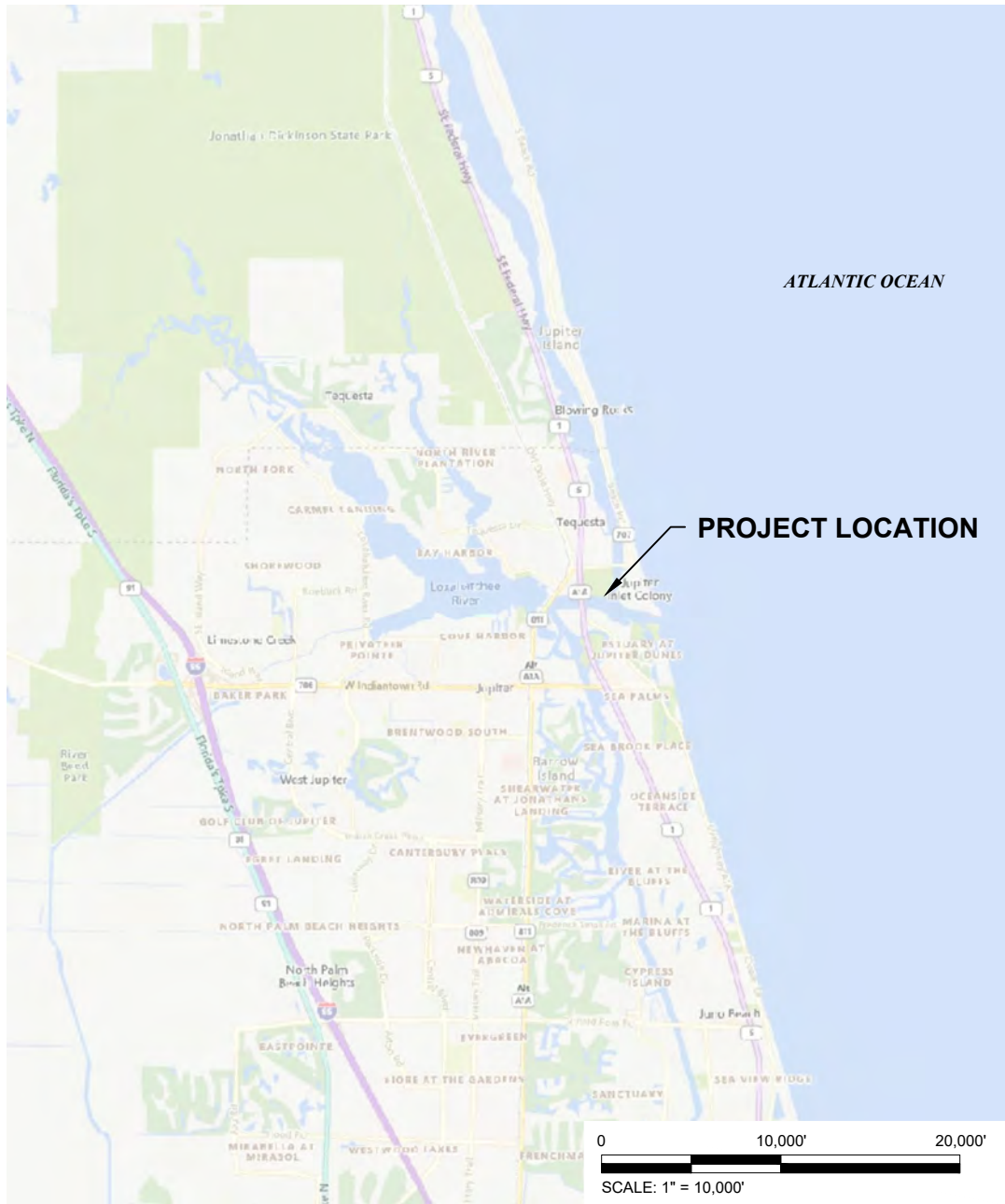
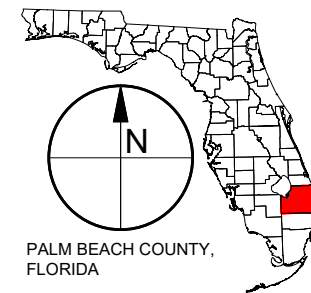


BUREAU OF LAND MANAGEMENT JUPITER INLET LIGHTHOUSE OUTSTANDING
NATURAL AREA SHORELINE STABILIZATION
PALM BEACH COUNTY, FLORIDA



LOCATION MAP

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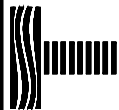
VICINITY MAP

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL
FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.
NOT FOR CONSTRUCTION

PROJECT	C2021-084
DRAWN BY	AF
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DATE	APR 2023

FIGURE 1
TITLE SHEET
BLM JILONA SHORELINE STABILIZATION
PALM BEACH COUNTY, FLORIDA

TAYLOR ENGINEERING INC.
10199 SOUTHSIDE BLVD SUITE 310
JACKSONVILLE, FLORIDA 32256
REGISTRY # 4815



PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

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GENERAL NOTES: 1. DRAWING REFERENCES THE FLORIDA STATE PLANE EAST, NORTH AMERICAN DATUM OF 1983 (NAD83). 2. ALL ELEVATIONS REFERENCE THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD88). ELEVATIONS IN FEET UNLESS NOTED OTHERWISE. 3. AERIAL IMAGERY AND BATHYMETRY RECORDED BY TAYLOR ENGINEERING, INC., JANUARY 14, 2022. AERIAL IMAGERY SUPPLEMENTED WITH GOOGLE EARTH, 2022. AERIAL IMAGERY IS FOR INFORMATIONAL PURPOSES ONLY, NO ACCURACY IS IMPLIED. 4. EXISTING RIPRAP, BULKHEAD, BATTER PILES, AND SEAWALL PERMITTED UNDER THE US COAST GUARD JUPITER INLET LIGHTHOUSE SHORELINE STABILIZATION PROJECT (FDEP PERMIT NO. 50-0271618-002/003-EI ISSUED APRIL 2010 AND MODIFIED SEPTEMBER 2011). 5. EXISTING BREAKWATERS, OBSERVATION PIER, AND MANGROVE RESTORATION PERMITTED UNDER THE JUPITER INLET DISTRICT LIVING SHORELINE PROJECT (FDEP PERMIT NO. 50-0374419-002-EI ISSUED MAY 2020 AND USACE PERMIT NO. SAJ-2019-01674 (NWGP-LCK) ISSUED JULY 2019). 6. TOPOGRAPHIC, ELEVATION CONTOURS, AND MEAN HIGH-WATER LINE (MHWL) SURVEY PERFORMED BY TAYLOR ENGINEERING, INC., SEPTEMBER 2022. 7. JURISDICTIONAL WETLANDS, SEAGRASS, MANGROVE AND OYSTER HABITAT EXTENTS SURVEYED BY TAYLOR ENGINEERING, INC., JULY 14-15, 2022. 8. HIGH TIDE OBSERVATIONS RECORDED JULY 14-15, 2023 BY TAYLOR ENGINEERING. 9. SEAGRASS LOCATIONS SHOWN HEREIN MAY EXTEND WATERWARD BEYOND THE SURVEY LIMITS. A PRECONSTRUCTION SEAGRASS SURVEY SHALL BE PERFORMED TO CONFIRM SEAGRASS LOCATIONS IMMEDIATELY PRIOR TO CONSTRUCTION. 10. FEDERAL NAVIGATION CHANNEL LIMITS OBTAINED FROM THE U.S. ARMY CORPS OF ENGINEERS JACKSONVILLE DISTRICT, SURVEY PERFORMED 2014. 11. TIDAL DATUM OBTAINED FROM NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, JANUARY 2022. 12. WORK VESSELS (E.G., BARGES, TUGS, ETC.) SHALL MAINTAIN AT LEAST 1 FT OF CLEAR DISTANCE BETWEEN THE LOWEST DRAFT OF THE VESSEL AND THE BOTTOM. NO SPUDGING IS ALLOWED OVER SEAGRASS. 13. NO DREDGING IS PROPOSED. 14. NO IMPACT TO MANGROVES OR SUBMERGED AQUATIC VEGETATION IS PROPOSED. IMPACTS TO SALT MARSH WILL BE COMPENSATED BY THE PROPOSED PLANTING AREAS. 15. CONSTRUCTION SHALL NOT IMPACT CULTURAL RESOURCES. CONTACTOR SHALL MONITOR FOR EVIDENCE OF ARCHAEOLOGICAL MATERIALS DURING GROUND EXCAVATION. SEE PERMIT CONDITIONS FOR ADDITIONAL REQUIREMENTS. 16. CONSTRUCTION SHALL NOT VIOLATE STATE WATER QUALITY STANDARDS. 17. MATERIAL QUANTITIES AND AREAS ARE ESTIMATED BASED ON THE EXISTING CONDITIONS AT THE TIME OF THE SURVEYS LISTED ABOVE. 18. TURBIDITY CURTAINS SHALL SURROUND ACTIVE WORK AREAS. TURBIDITY CURTAINS SHALL BE LOCATED AND REPOSITIONED BY THE CONTRACTOR USING BEST MANAGEMENT PRACTICES TO ASSURE WATER QUALITY STANDARDS ARE MAINTAINED THROUGHOUT CONSTRUCTION. 19. EDUCATIONAL SIGNS WILL BE INCORPORATED AS APPROPRIATE AND WILL INCLUDE ALL SIGNS AS REQUIRED BY THE FLORIDA FISH AND WILDLIFE COMMISSION AND THE NATIONAL MARINE FISHERIES SERVICE. 20. THESE PLANS ARE IN PRELIMINARY FORM FOR REGULATORY REVIEW. THESE PLANS ARE NOT FOR CONSTRUCTION. QUANTITIES ARE ESTIMATED AND SUBJECT TO CHANGE. GENERAL ROCK SILL AND REVETMENT NOTES 1. CONSTRUCTION OF THE ROCK SILLS AND REVETMENTS SHALL BE WATER-BASED TO THE GREATEST EXTENT PRACTICAL. IF NEARSHORE WATER DEPTHS PRECLUDE WORK VESSEL ACCESS, CONTRACTOR MAY USE LOW-PRESSURE TRACK EQUIPMENT TO ACCESS SHALLOW DEPTHS. 2. ROCK SILLS AND REVETMENTS ARE INTENDED TO MITIGATE EFFECTS OF SEA LEVEL RISE, INCREASE STORM RESILIENCY, AND ENHANCE PRODUCTIVITY OF EXISTING AND PROPOSED MANGROVE AND SALT MARSH HABITATS. THESE STRUCTURES WILL ALSO PROVIDE OYSTER HABITAT. 3. ROCK SILLS AND REVETMENTS WILL BE COMPRISED OF ARMOR STONES, WITHOUT BEDDING FOUNDATION, THAT ARE SUFFICIENTLY MASSIVE TO REMAIN IN PLACE DURING A 20-YR RETURN PERIOD STORM CONDITION. 4. IN LOCATIONS WHERE EXISTING CONCRETE DEBRIS ARE NOT PRESENT, GEOTEXTILE FILTER FABRIC WILL BE INSTALLED PRIOR TO PLACEMENT OF ARMOR STONES. IN LOCATIONS WHERE EXISTING CONCRETE DEBRIS ARE PRESENT, ARMOR STONE WILL BE PLACED DIRECTLY ATOP DEBRIS IN SUCH MANNER TO ENSURE STABILITY. 5. CREST WIDTH OF ROCK SILLS AND REVETMENTS IS 5 FT AT AN ELEVATION AROUND +2 FT (NAVD88). ROCK SILLS AND REVETMENTS SHALL EXTEND 2 FT TO 4 FT ABOVE THE WATER'S SURFACE DURING NORMAL CONDITIONS 6. ROCK SILLS AND REVETMENTS WILL LOCATE BETWEEN 10 – 33 FT FROM THE MEAN HIGH WATER LINE. 7. THE EXACT LOCATION OF THE ROCK SILLS AND REVETMENTS ARE SUBJECT TO ALTERATION DURING CONSTRUCTION AND WILL BE BASED ON FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. PLACEMENT OF ARMOR STONE ON OR OVER SEAGRASS OR EXISTING MANGROVES WILL BE AVOIDED AT ALL TIMES. GENERAL UPLAND FEATURE NOTES 1. TERRACE CONSTRUCTION SHALL BE LAND-BASED TO THE GREATEST EXTENT PRACTICAL. IF WORK MUST BE CONDUCTED IN THE NEARSHORE, CONTRACTOR MAY USE LOW-PRESSURE TRACK EQUIPMENT TO ACCESS SHALLOW DEPTHS. 2. TERRACE CONSTRUCTION SHALL INCLUDE THE INSTALLATION OF TWO RETAINING WALLS LANDWARD OF THE MEAN HIGH WATER LINE. THE RETAINING WALLS WILL BE COMPRISED OF COMPOSITE SHEET PILES WITH CAP, AND HELICAL AND DEADMAN ANCHORS. 3. SERIES OF STAIRS WILL ALLOW FOR PEDESTRIAN ACCESS FROM THE TOP OF THE WALL TO THE SHORELINE. 4. FENCES WILL BE INSTALLED AROUND THE STAIRS/LANDINGS AND ALONG THE LOWER RETAINING WALL. POST AND ROPE STYLE FENCES WILL BE INSTALLED ALONG THE UPPER RETAINING WALL. 5. NATIVE SALT-TOLERANT UPLAND PLANTS WILL BE PLANTED BETWEEN THE RETAINING WALLS IN AREAS NOT DESIGNATED FOR PEDESTRIAN ACCESS. 6. THE EXISTING EDUCATION AREA PAVILION WILL BE REMOVED AND REPLACED BY A LARGER PAVILION. PART OF THIS REPLACEMENT INCLUDES RAISING THE CONCRETE SLAB BY 6" TO MITIGATE AGAINST THE EFFECTS OF SEA LEVEL RISE AND INCREASE STORM RESILIENCY. 7. AN ADA-ACCESSIBLE CONCRETE PATHWAY WILL CONNECT ONE OF THE PARKING AREAS TO THE EDUCATION AREA AND WILL ALSO CONNECT TO EXISTING ADA-ACCESSIBLE WALKWAYS IN FRONT OF THE LIGHTHOUSE. 8. FILL WILL BE USED AS REQUIRED TO MAINTAIN 3:1 SIDE-SLOPES. THESE SIDE SLOPES WILL BE GRASSED OR OTHERWISE VEGETATED FOLLOWING CONSTRUCTION OF THE WALKWAY. 9. A FOOT-WASHING STATION WILL BE INSTALLED BETWEEN THE PROPOSED CONCRETE WALKWAY PATHWAY AND THE EXISTING TIMBER OBSERVATION PIER. 10. TRAIL IMPROVEMENTS WILL OCCUR AS NEEDED TO CONNECT THE EXISTING PATHWAYS WITH THE PROPOSED RECREATION AREAS. THESE IMPROVEMENTS COMPRISE VEGETATION REMOVAL AND GRADING. NO IMPERVIOUS SURFACES ARE PROPOSED FOR THESE IMPROVEMENTS. 11. POCKET COVE BEACH CREATION WILL INCLUDE GRADING AND REMOVAL OF UPLAND AND SALT MARSH VEGETATION LANDWARD OF THE MEAN HIGH WATER LINE. SALT MARSH REMOVAL WILL BE COMPENSATED THROUGH SALT MARSH PLANTING ELSEWHERE ON THE PROJECT SITE. 12. POCKET COVE BEACH CREATION WILL NOT INCLUDE REMOVAL OF MANGROVES. MANGROVES WILL BE IDENTIFIED (FLAGGED) PRIOR TO CONSTRUCTION BY A QUALIFIED SCIENTIST. 13. TIMBER WALKOVERS WILL ALLOW FOR PEDESTRIAN ACCESS TO THE POCKET COVE BEACH FROM EXISTING AND PROPOSED PATHWAYS. 14. THE EXACT LOCATION OF THE RETAINING WALLS, TRAIL IMPROVEMENTS, AND OTHER UPLAND FEATURES ARE SUBJECT TO ALTERATION DURING CONSTRUCTION AND WILL BE BASED ON FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. ALL WORK WILL BE SITED IN THE UPLANDS. GENERAL PILE-SUPPORTED STRUCTURES NOTES 1. PILE INSTALLATION SHALL BE WATER-BASED TO THE GREATEST EXTENT PRACTICAL. IF NEARSHORE WATER DEPTHS PRECLUDE WORK VESSEL ACCESS, CONTRACTOR MAY USE LOW-PRESSURE TRACK EQUIPMENT TO ACCESS SHALLOW DEPTHS. 2. NO OVER-WATER FUELING FACILITIES (PUMPS OR PERMANENT PLUMBING), LIVEBOARDS, OR SEWAGE PUMP OUT SYSTEMS ARE PROPOSED. 3. STRUCTURE ELEVATIONS AND CONSTRUCTION MATERIALS ARE SUBJECT TO CHANGE IN THE FINAL DESIGN. PILE EMBEDMENT AND DIMENSIONS WILL BE DETERMINED DURING FINAL DESIGN. 4. PILINGS WILL BE CONCRETE, WRAPPED AND/OR TREATED TIMBER, OR OTHERWISE MADE OF NON-LEACHING MATERIALS. 5. PILINGS WILL BE INSTALLED BY IMPACT HAMMER. CONTRACTOR TO UTILIZE TURBIDITY CURTAINS TO AVOID ALL IMPACTS TO AQUATIC VEGETATION. 6. PILE SUPPORTED ARTIFICIAL REEFS WILL COMPRISE "DISKS" MADE OF CLEAN CONCRETE, ROCK, AND/OR OYSTER SHELLS THAT ARE STACKED ON PILES AND ARE EASILY ADJUSTED TO ACCOMMODATE SEA LEVEL RISE. 7. IN THE VICINITY OF THE EXISTING LIVING SHORELINE, SOME PILINGS MAY INCLUDE SIGNAGE RESTRICTING MOTORIZED VESSEL ACCESS. THESE PILING REPLACE THE BUOYS AND ASSOCIATED SIGNAGE RESTRICTING MOTORIZED VESSELS THAT ARE CURRENTLY IN PLACE. INVASIVE / EXOTIC / NUISANCE SPECIES REMOVAL 1. ROUTINE VEGETATION SURVEYS HAVE IDENTIFIED 28 FLORIDA INVASIVE SPECIES COUNCIL (FISC) CATEGORY I OR II SPECIES THAT OCCUR AT THE ONA. THE BLM CONSIDERS ALL 28 OF THE FISC IDENTIFIED CATEGORY I AND II INVASIVE SPECIES TO BE UNDER MAINTENANCE BASED ON AN ANNUAL INVENTORY, TREATMENT, AND MONITORING PROGRAM. 2. BRAZILIAN PEPPER (SCHINUS TEREBINTHIFOLIUS), AUSTRALIAN PINE (CASUARINA SPP.), ROSARY PEA (ABRUS PRECATORIUS), AND SEASIDE MAHOE (THESPESIA POPULNEA), CATEGORY 1 INVASIVE/EXOTIC SPECIES, AS WELL AS LEAD TREE (LEUCAENA LEUCOCEPHALA), CATEGORY 2 INVASIVE/EXOTIC SPECIES, EXIST WITHIN THE DISTURBED TROPICAL MARITIME HAMMOCK HABITAT (WITHIN WETLANDS ABOVE THE MEAN HIGH-WATER LINE). 3. VEGETATION WILL BE REMOVED IN ITS ENTIRETY, AS PRACTICAL. NO ROOT RAKING IS PROPOSED. 4. DURING CONSTRUCTION ACTIVITIES, EQUIPMENT AND VEHICLES WILL BE WASHED AND CLEANED TO ELIMINATE OR REDUCE INTRODUCTION OF NEW WEED SPECIES VIA ANTHROPOGENIC VECTORS ASSOCIATED WITH THIS PROJECT.	PROJECTC2021-084 DRAWN BYAF SHEET2 of 13 DATEAPR 2023 FIGURE 2 GENERAL NOTES BLM JILONA SHORELINE STABILIZATION PALM BEACH COUNTY, FLORIDA	TAYLOR ENGINEERING INC. 10199 SOUTHSIDE BLVD SUITE 310 JACKSONVILLE, FLORIDA 32256 REGISTRY # 4815
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PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

PROPOSED SEGMENTED BREAKWATER PLAN

1. NUMBER OF INDIVIDUAL STONE BREAKWATERS: 30
 - a. NUMBER OF EXPERIMENTAL STONE BREAKWATERS: 2
2. MAXIMUM BREAKWATER DISTANCE FROM THE MHWL IS 75 FT
3. SLOPE OF BREAKWATERS: VARIES (1.5H:1V TO 2H:1V)
4. ARMOR STONE SIZE (D50 / W50): 1.5 FT / 525 LBS
5. BEDDING AND CHINKING STONE SIZE (D50 / W50): 0.5 FT / 20 LBS
6. TOTAL LENGTH OF BREAKWATERS: 1,408 FT
7. TOTAL AREA BREAKWATER FOOTPRINT: 41,376 SF / 0.95 ACRES
8. TOTAL BREAKWATER VOLUME: 149,113 CF / 5,523 CY
 - a. ARMOR STONE VOLUME: 107,737 CF / 3,990 CY
 - b. BEDDING STONE VOLUME: 41,376 CF / 1,532 CY

PROPOSED ROCK SILL PLAN

1. NUMBER OF INDIVIDUAL ROCK SILLS: 5
2. MAXIMUM ROCK SILL DISTANCE FROM THE MHWL IS 33 FT
3. SLOPE OF ROCK SILL: VARIES (1.5H:1V TO 2H:1V)
4. ARMOR STONE SIZE (D50 / W50): 1.5 FT / 525 LBS
5. CHINKING STONE SIZE (D50 / W50): 0.5 FT / 20 LBS
6. TOTAL LENGTH OF ROCK SILLS: 1,100 FT
7. TOTAL AREA ROCK SILL FOOTPRINT: 18,636 SF / 0.43 ACRES
 - a. ABOVE MHWL: 1,674 SF / 0.04 ACRES
 - b. BELOW MHWL: 16,962 SF / 0.39 ACRES
8. TOTAL ROCK SILL VOLUME: 27,471 CF / 1,017 CY
 - a. ABOVE MHWL: 496 CF / 18 CY
 - b. BELOW MHWL: 26,975 CF / 999 CY

PROPOSED REVETMENT PLAN

1. NUMBER OF INDIVIDUAL REVETMENTS: 5
2. MAXIMUM REVETMENT DISTANCE FROM THE MHWL IS 35 FT
3. SLOPE OF REVETMENT: VARIES (1.5H:1V TO 2H:1V)
4. ARMOR STONE SIZE (D50 / W50): 1.5 ft / 525 LBS
5. CHINKING STONE SIZE (D50 / W50): 0.5 ft / 20 LBS
6. TOTAL LENGTH OF REVETMENTS: 1,034 FT
7. TOTAL AREA REVETMENT FOOTPRINT: 20,634 SF / 0.47 ACRES
 - a. ABOVE MHWL: 3,586 SF / 0.08 ACRES
 - b. BELOW MHWL: 17,048 SF / 0.39 ACRES
8. TOTAL REVETMENT VOLUME: 67,690 CF / 2,507 CY
 - a. ABOVE MHWL: 7,794 CF / 289 CY
 - b. BELOW MHWL: 59,896 CF / 2,218 CY

PROPOSED UPLAND FEATURES PLAN

1. TERRACE
 - a. LENGTH OF UPPER RETAINING WALL: 846 FT
 - b. LENGTH OF LOWER RETAINING WALL: 846 FT
 - c. TOTAL AREA TERRACE: 16,920 SF / 0.39 ACRES
 - i. TOTAL AREA NATIVE PLANTING: 13,283 SF / 0.30 ACRES
 - d. NUMBER OF STAIRWELLS: 7
 - e. TOTAL LENGTH OF FENCE: 232 FT
 - f. TOTAL LENGTH OF POST AND ROPE: 300 FT
 - g. RETAINING WALLS ARE LOCATED ENTIRELY IN THE UPLANDS.
2. ADA-ACCESSIBLE CONCRETE PATHWAY
 - a. LENGTH OF CONCRETE PATHWAY: 430 FT
 - b. TOTAL AREA OF CONCRETE PATHWAY: 5,292 SF / 0.12 ACRES
 - i. TOTAL IMPERVIOUS AREA: 3,517 SF / 0.08 ACRES
 - c. SIDE SLOPE OF CONCRETE PATHWAY: 3H:1V
3. PAVILION REPLACEMENT
 - a. TOTAL AREA OF EXISTING PAVILION: 270 SF
 - b. TOTAL AREA OF PROPOSED PAVILION: 740 SF

4. TRAIL IMPROVEMENT
 - a. TOTAL LENGTH OF PROPOSED TRAILS: 150 FT
 - b. TOTAL AREA OF PROPOSED TRAILS: 1,200 SF
 - c. TRAIL IMPROVEMENT COMPRISES PERVIOUS SURFACES ONLY.
5. POCKET BEACH CREATION
 - a. TOTAL AREA OF POCKET BEACH: 2,811 SF / 0.06 ACRES
 - b. TOTAL NUMBER OF BEACH ACCESS: 3

PROPOSED MITIGATION PLANTING PLAN

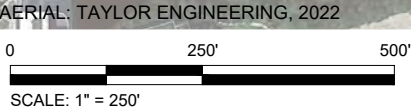
1. TOTAL PLANTING AREA: 9,803 SF / 0.23 ACRES
 - a. TOTAL AREA MANGROVE PLANTING: 5,718 SF / 0.13 ACRES
 - i. MANGROVE PLANTING ELEVATIONS: -2 FT TO -0.5 FT NAVD88
 - b. TOTAL AREA SALT MARSH PLANTING: 4,085 SF / 0.09 ACRES
 - i. SALT MARSH PLANTING ELEVATIONS: -0.5 FT TO 2 FT NAVD88
2. MAXIMUM PLANTING AREA DISTANCE FROM THE MHWL IS 18 FT
3. MANGROVE AND SALT MARSH PLANTING ADAPTIVE MANAGEMENT IS PROPOSED.
4. MANGROVE SPECIES PROPOSED FOR PLANTING INCLUDE RED MANGROVES (*RHIZOPHORA MANGLE*), WHITE MANGROVES (*LAGUNCULARIA RACEMOSA*), AND BLACK MANGROVES (*AVICENNIA GERMINANS*).
5. SALT MARSH SPECIES PROPOSED FOR PLANTING INCLUDE SMOOTH CORDGRASS (*SPARTINA ALTERNIFLORA*) AND SEA OXEYE DAISY (*BORRICHIA FRUTESCENS*)
6. CLEAN SAND FILL MAY BE USED TO PREPARE RESTORATION AREAS. MAXIMUM FILL DENSITY 1 CY / FT.

PROPOSED PILE-SUPPORTED STRUCTURE PLAN

1. BOARDWALK ACCESS PATHWAYS
 - a. NUMBER OF ACCESS PATHWAYS: 2
 - b. TOTAL LENGTH OF ACCESS PATHWAYS: 135 FT
 - i. ABOVE MHWL: 130 FT
 - ii. BELOW MHWL: 5 FT
 - c. TOTAL AREA OF ACCESS PATHWAYS: 947 SF
 - i. ABOVE MHWL: 912 SF
 - ii. BELOW MHWL: 35 SF
 - d. WIDTH OF ACCESS PATHWAYS: 6 FT
 - e. DECKING, STAIRS, PILES, AND HANDRAILS WILL BE TIMBER.
2. BOARDWALK
 - a. TOTAL NUMBER OF PILES (BELOW MHWL): 180
 - i. PILE TYPE: TIMBER
 - ii. PILE SIZE: 10"
 - b. TOTAL LENGTH OF BOARDWALK: 793 FT
 - i. ABOVE MHWL: 90 FT
 - ii. BELOW MHWL: 703 FT
 - c. TOTAL AREA OF BOARDWALK: 8,511 SF / 0.2 ACRES
 - i. ABOVE MHWL: 844 SF / 0.02 ACRES
 - ii. BELOW MHWL: 7,667 SF / 0.18 ACRES
 - iii. ABOVE MANGROVES: 585 SF / 0.01 ACRES
 - d. WIDTH OF BOARDWALK: 8 FT – 16 FT
 - e. OPEN GRATED DECKING WILL BE USED FOR THE ENTIRE EXTENT OF THE BOARDWALK. TIMBER HANDRAILS WILL ALSO BE IN PLACE FOR THE EXTENT OF THE BOARDWALK.

3. **FLOATING DOCK**
 - a. TOTAL NUMBER OF PERMANENT SLIPS (WITH BOATLIFT): 1
 - b. TOTAL NUMBER OF FLEXIBLE MOORING SLIPS: 3
 - c. MAXIMUM NUMBER OF VESSELS MOORED AT ONE TIME: 10
 - d. TOTAL NUMBER OF PILES: 15
 - i. PILE TYPE: PSC
 - ii. PILE SIZE: 18" SQ.
 - e. TOTAL LENGTH OF ALUMINUM GANGWAY: 54 FT
 - f. TOTAL AREA OF FLOATING DOCK: 1,252 SF / 0.03 ACRES
4. **ARTIFICIAL REEFS**
 - a. TOTAL NUMBER OF PILES: 5
 - i. PILE TYPE: TIMBER
 - ii. PILE SIZE: 10"
5. **OTHER PILES**
 - a. TOTAL NUMBER OF OTHER PILES: 74
 - i. TOTAL NUMBER OF CONCRETE PILES: 57
 - ii. TOTAL NUMBER OF TIMBER PILES: 17
 - b. TOTAL NUMBER OF OTHER PILES WITH SIGNS: 8

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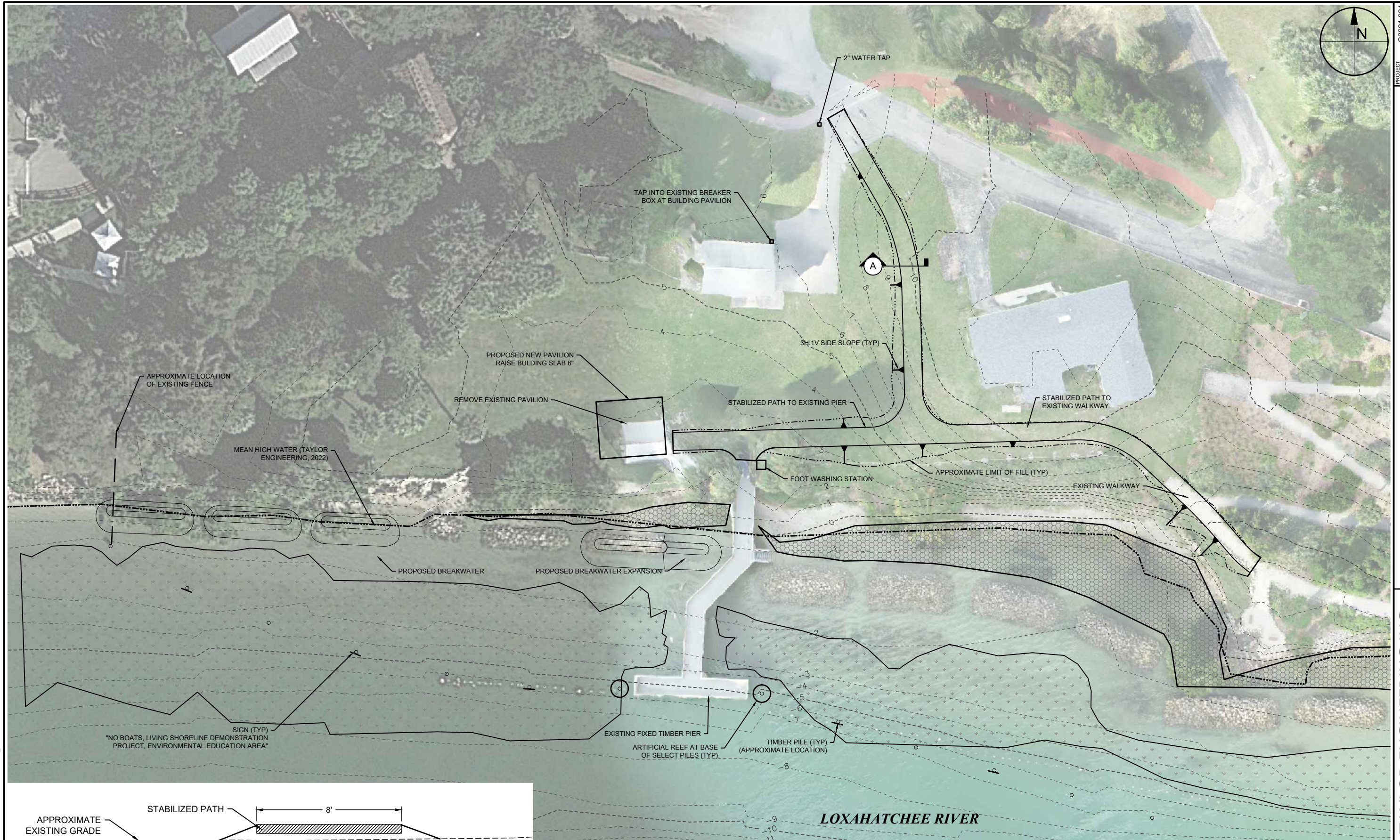
TAYLOR ENGINEERING INC.
10199 SOUTHSIDE BLVD SUITE 310
JACKSONVILLE, FLORIDA 32256
REGISTRY # 4815

FIGURE 4
PROJECT OVERVIEW
BLM JILONA SHORELINE STABILIZATION
PALM BEACH COUNTY, FLORIDA

PROJECT	C2021-084
DRAWN BY	AF
SHEET	4 of 13
DATE	APR 2023

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A TYPICAL PATH CROSS-SECTION
SCALE: 1" = 5'

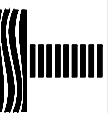
PEDESTRIAN WALKWAY PLAN
SCALE: 1" = 40'

- LEGEND:
- EXISTING SEAGRASS
 - EXISTING MANGROVES

PROJECT	C2021-084
DRAWN BY	AF
SHEET	5 of 13
DATE	APR 2023

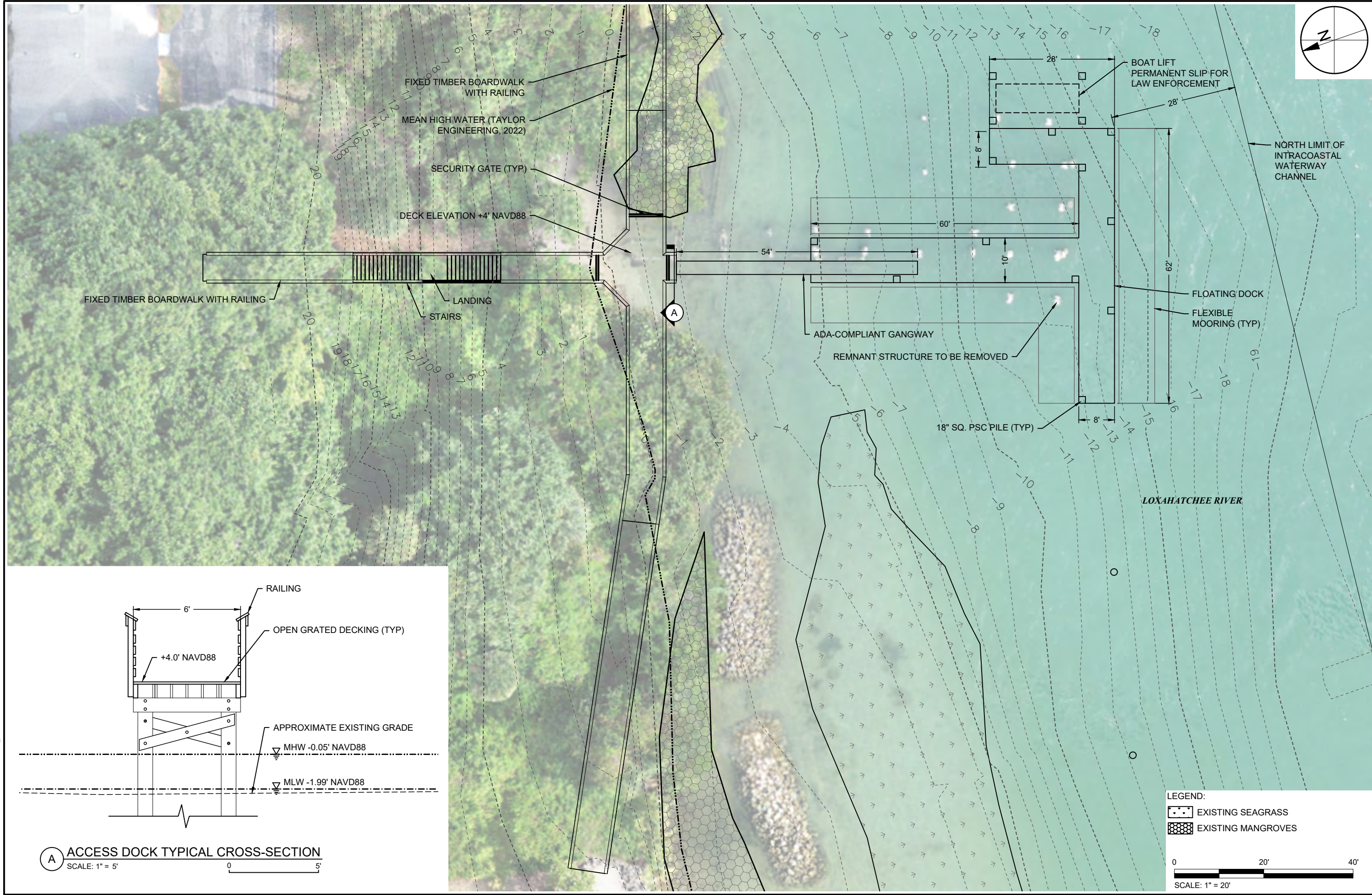
FIGURE 5
PEDESTRIAN WALKWAY PLAN AND CROSS-SECTION
BLM JILONA SHORELINE STABILIZATION
PALM BEACH COUNTY, FLORIDA

TAYLOR ENGINEERING INC.
10199 SOUTHSIDE BLVD SUITE 310
JACKSONVILLE, FLORIDA 32256
REGISTRY # 4815



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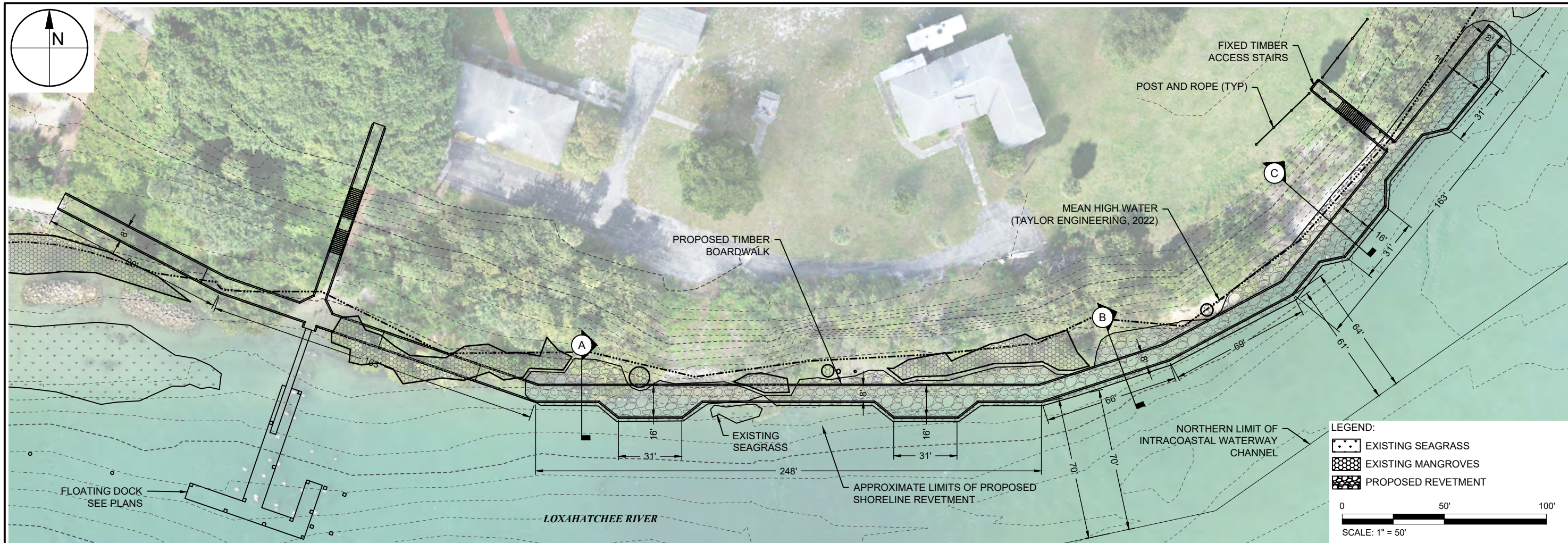
PROJECT	C2021-084
DRAWN BY	AF
SHEET	6 of 13
DATE	APR 2023

FIGURE 6
FLOATING DOCK PLAN AND CROSS-SECTIONS
BLM JILONA SHORELINE STABILIZATION
PALM BEACH COUNTY, FLORIDA

TAYLOR ENGINEERING INC.
10199 SOUTHSIDE BLVD SUITE 310
JACKSONVILLE, FLORIDA 32256
REGISTRY # 4815

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

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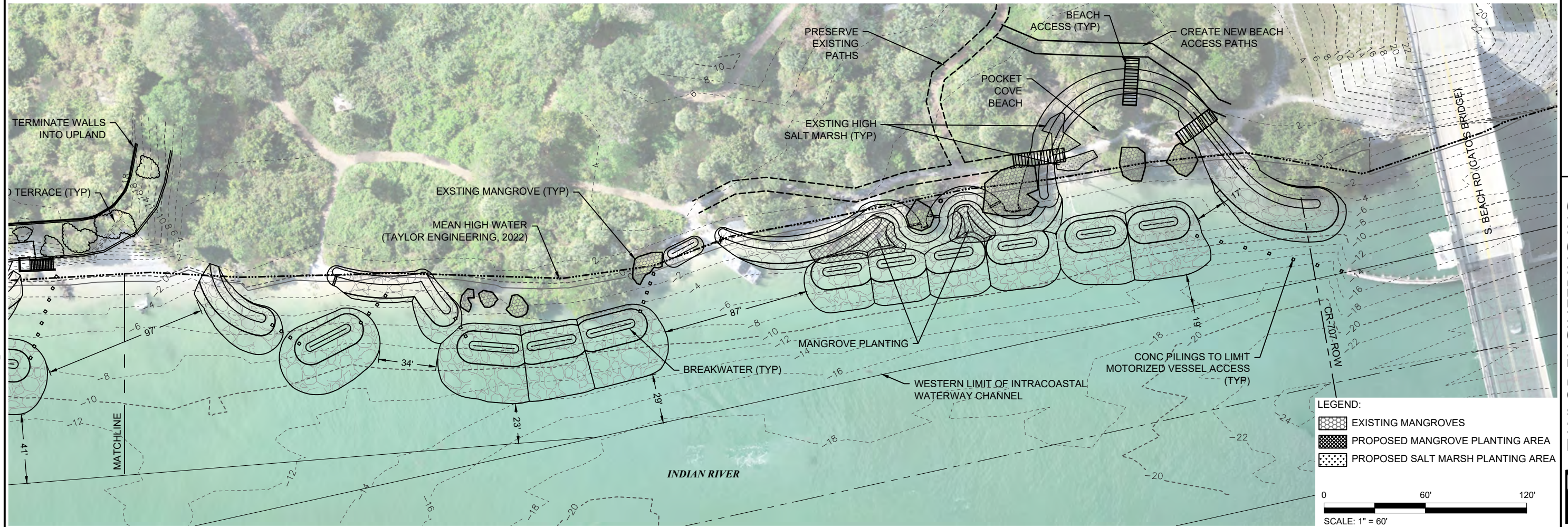
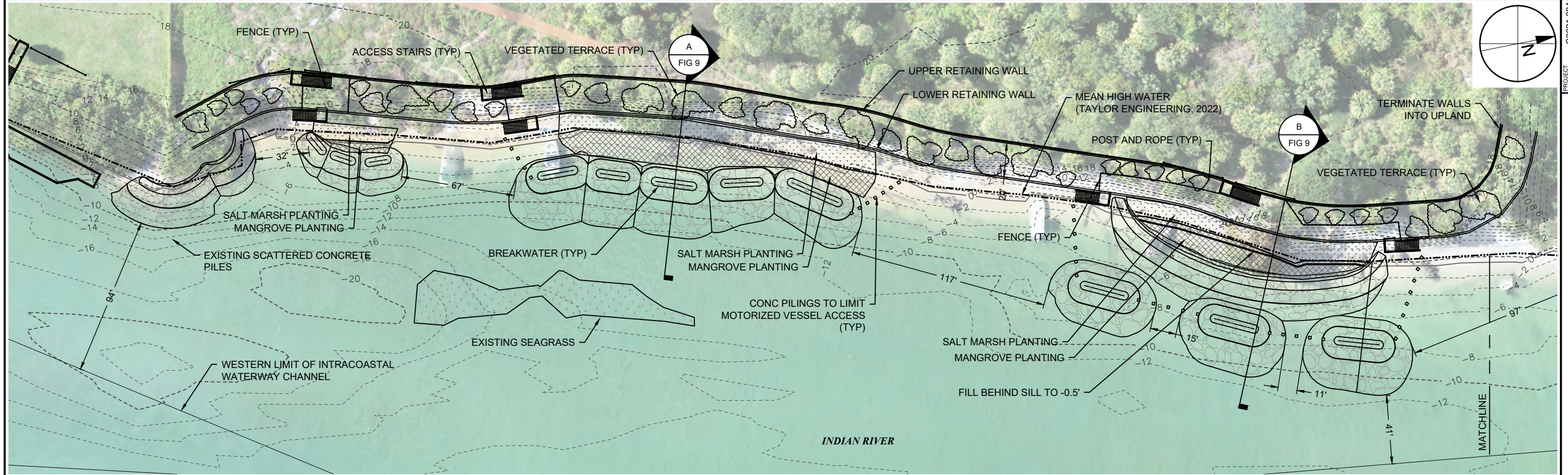


A TIMBER BOARDWALK TYPICAL SECTION
SCALE: 1" = 5'

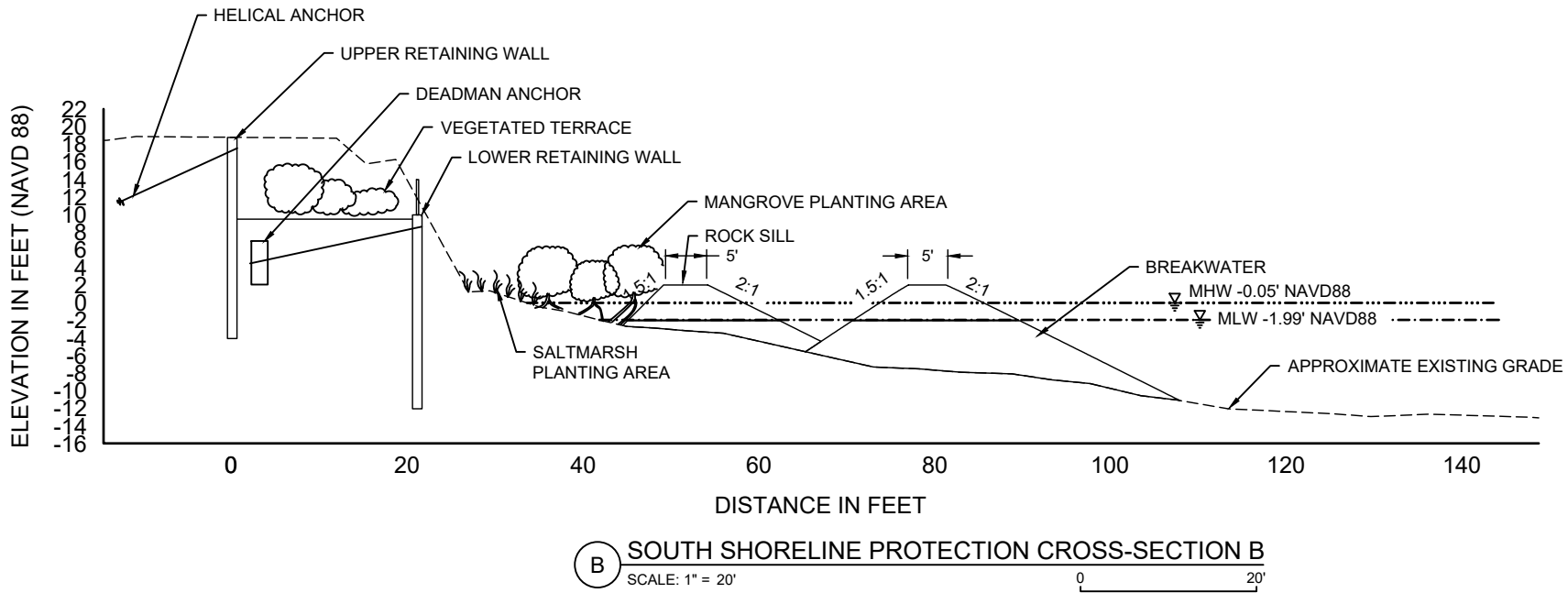
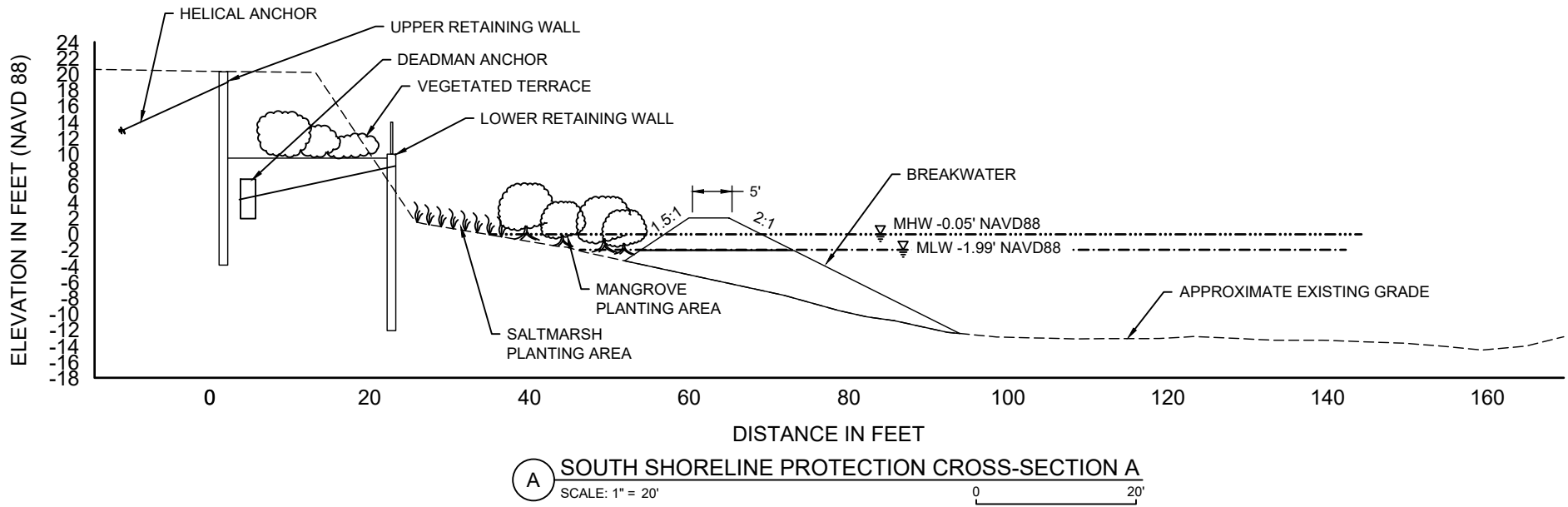
B TYPICAL BOARDWALK SHORELINE PROTECTION SECTION
SCALE: 1" = 6'

C TIMBER BOARDWALK WIDENER TYPICAL SECTION
SCALE: 1" = 5'

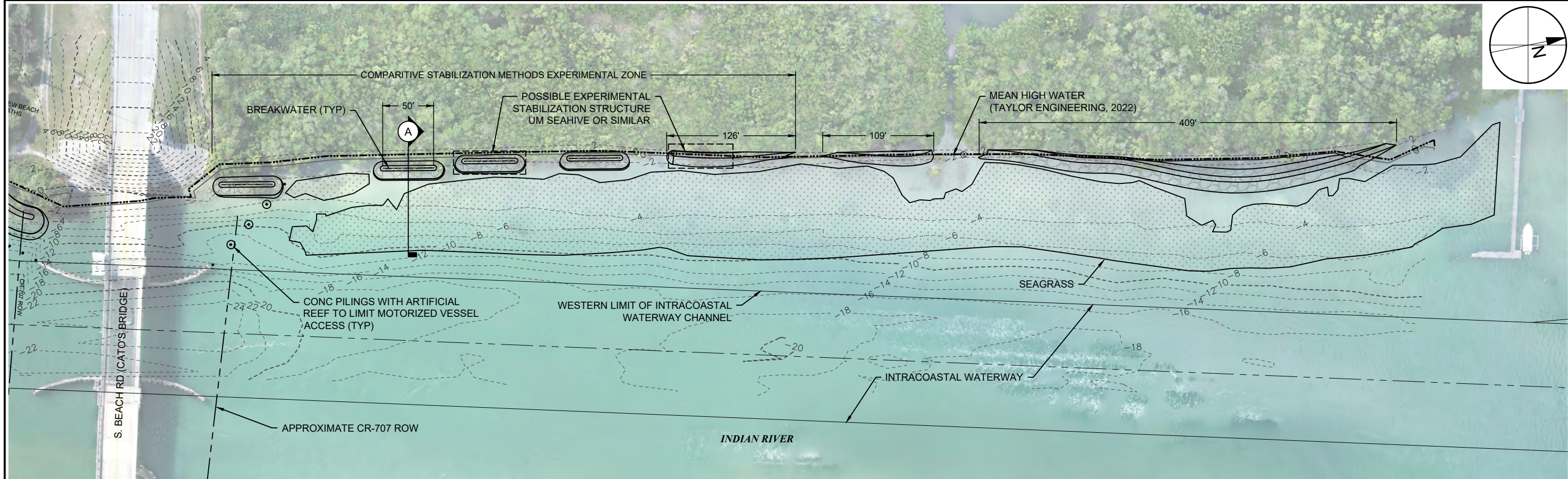
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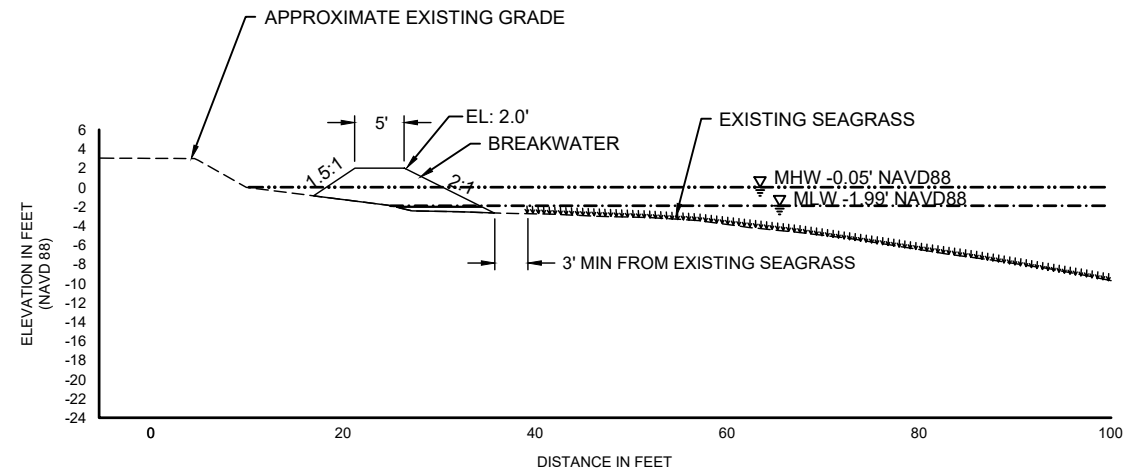
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NORTH SHORELINE PROTECTION PLAN
SCALE: 1" = 100'

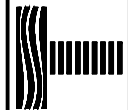


A NORTH SHORELINE PROTECTION TYPICAL CROSS-SECTION
SCALE: 1" = 20'

PROJECT	C2021-084
DRAWN BY	AF
SHEET	10 of 13
DATE	APR 2023

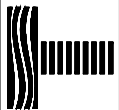
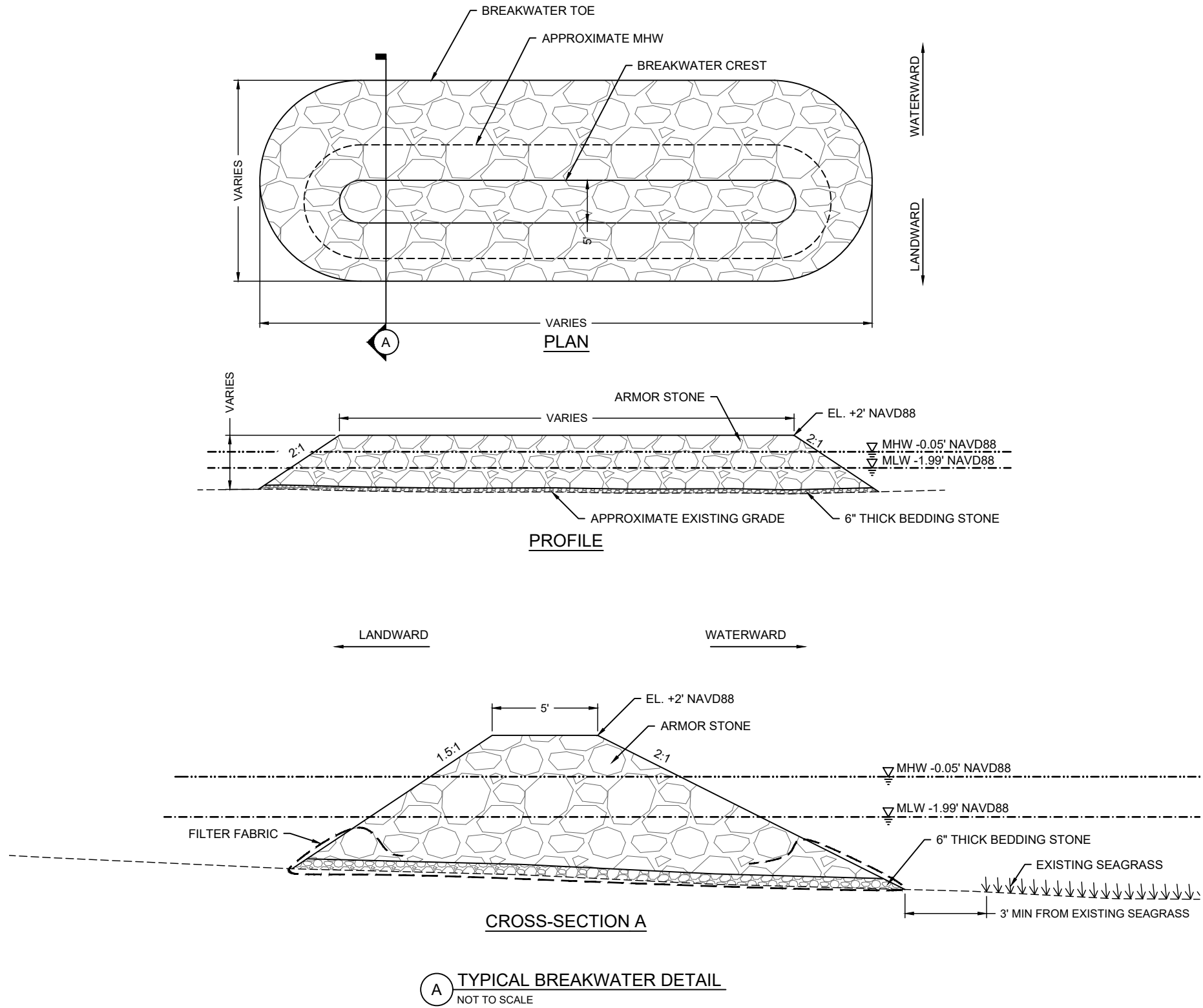
FIGURE 10
NORTH SHORELINE PLAN AND CROSS-SECTIONS
BLM JILONA SHORELINE STABILIZATION
PALM BEACH COUNTY, FLORIDA

TAYLOR ENGINEERING INC.
10199 SOUTHSIDE BLVD SUITE 310
JACKSONVILLE, FLORIDA 32256
REGISTRY # 4815



PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

ANTON FLEWELLING X:\SYS\PROJECTS\C2021-084_JUPITER\BLM\PERMIT\C2021-084-P-SHORELINE PLAN.DWG 4/20/2023 11:01:50 AM



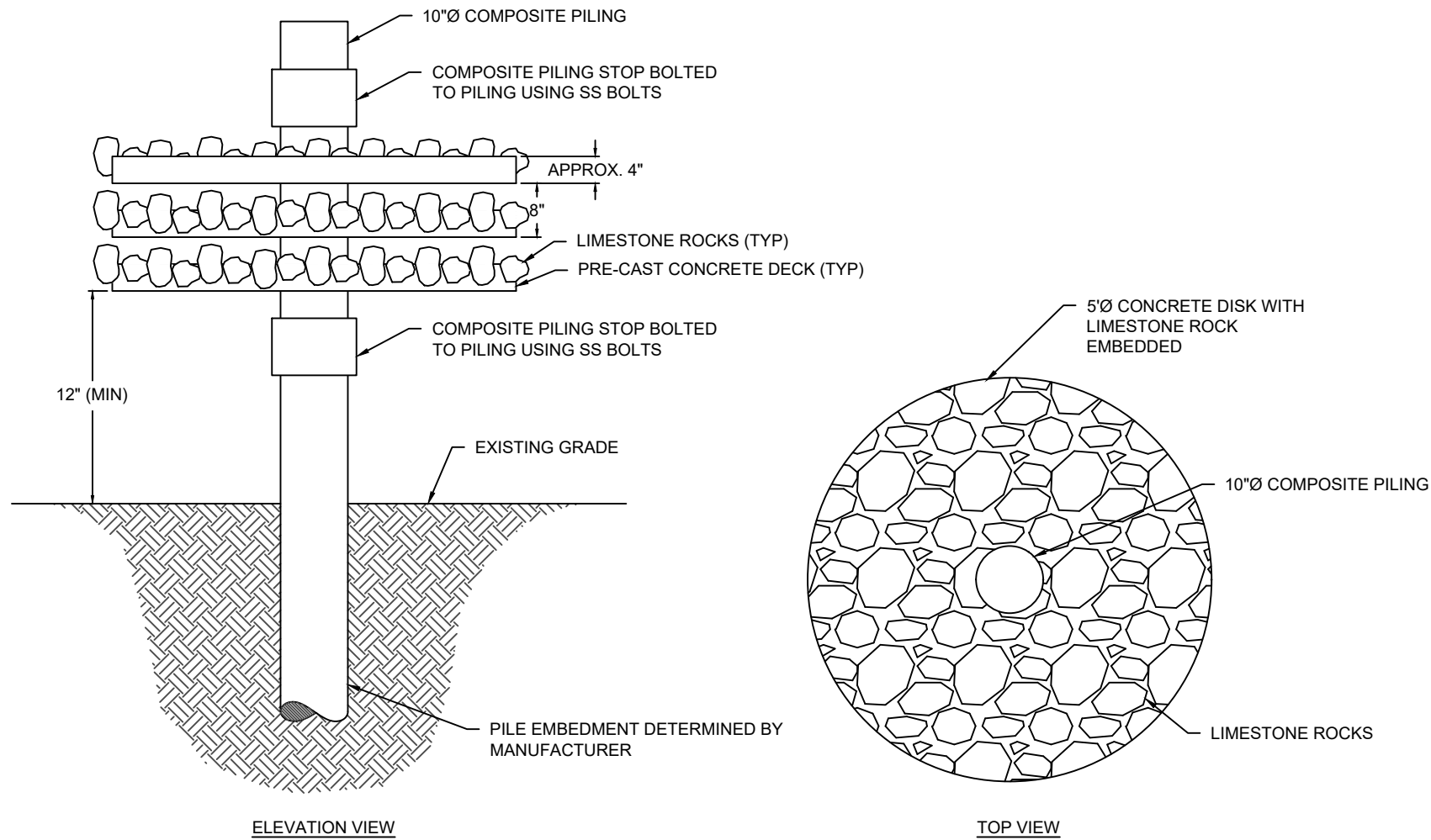
TAYLOR ENGINEERING INC.
10199 SOUTHSIDE BLVD SUITE 310
JACKSONVILLE, FLORIDA 32256
REGISTRY # 4815

FIGURE 11
TYPICAL BREAKWATER DETAIL
BLM JILONA SHORELINE STABILIZATION
PALM BEACH COUNTY, FLORIDA

PROJECT	C2021-084
DRAWN BY	AF
SHEET	11 of 13
DATE	APR 2023

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

ANTON FLEWELLING X:\SYS\PROJECTS\C2021-084_JUPITER\BIM\PERMIT\C2021-084-P-SHORELINE PLAN.DWG 4/20/2023 11:01:54 AM

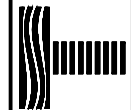


PRE-FABRICATED MULTI-MEDIA REEF MODULE
NOT TO SCALE

PROJECT	C2021-084
DRAWN BY	AF
SHEET	12 of 13
DATE	APR 2023

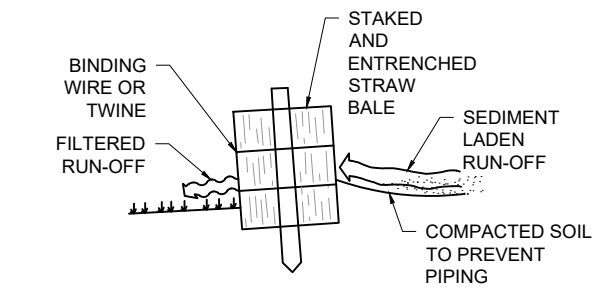
FIGURE 12
TYPICAL ARTIFICIAL REEF DETAIL
BLM JILONA SHORELINE STABILIZATION
PALM BEACH COUNTY, FLORIDA

TAYLOR ENGINEERING INC.
10199 SOUTHSIDE BLVD SUITE 310
JACKSONVILLE, FLORIDA 32256
REGISTRY # 4815

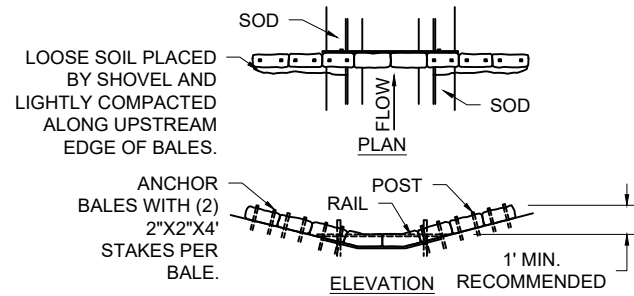


PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.

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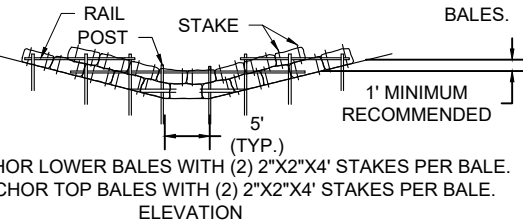
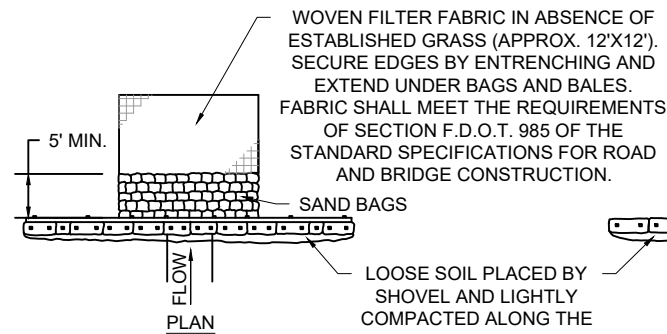


CROSS SECTION OF A PROPERLY INSTALLED STRAW BALE



SPACING: BALE BARRIERS FOR PAVED DITCHES SHOULD BE SPACED IN ACCORDANCE WITH CHART I, SHEET 1 OF 3, INDEX NO. 102 OF THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS.

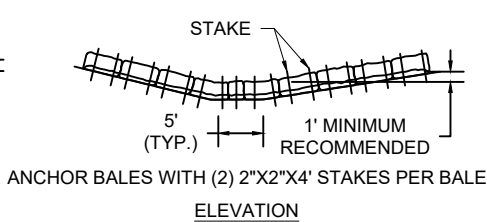
STRAW BALE BARRIER FOR PAVED DITCH



ANCHOR LOWER BALES WITH (2) 2"X2"X4" STAKES PER BALE.
ANCHOR TOP BALES WITH (2) 2"X2"X4" STAKES PER BALE.

APPLICATION AND SPACING OF TYPES I & TYPES II HAY BALE BARRIERS SHALL BE IN ACCORDANCE WITH SHEET 1 OF 3, F.D.O.T. INDEX NO. 102

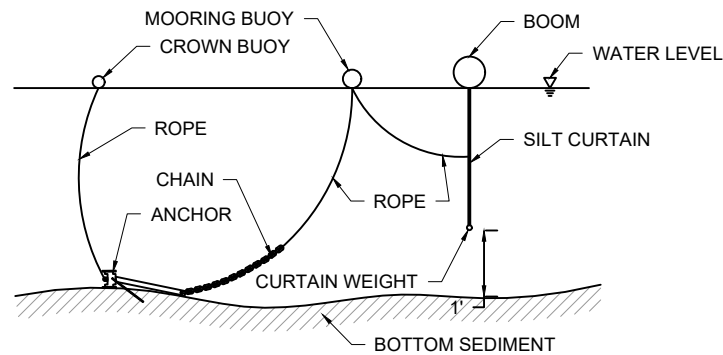
TYPE II



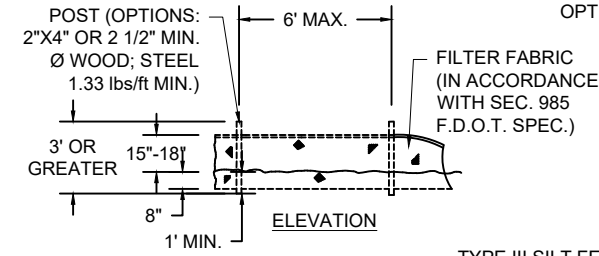
ANCHOR BALES WITH (2) 2"X2"X4" STAKES PER BALE

TYPE I

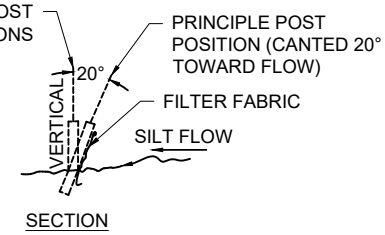
TYPICAL STRAW BALE DETAIL



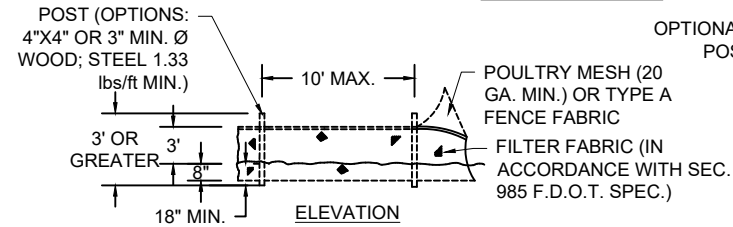
TURBIDITY CURTAIN DETAIL



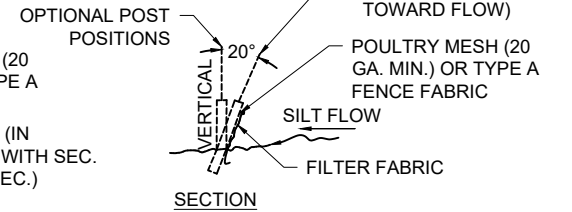
TYPE III SILT FENCE



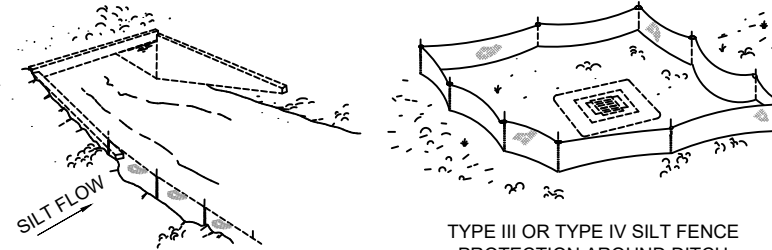
SECTION



TYPE IV SILT FENCE

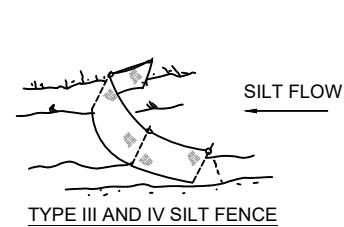


SECTION



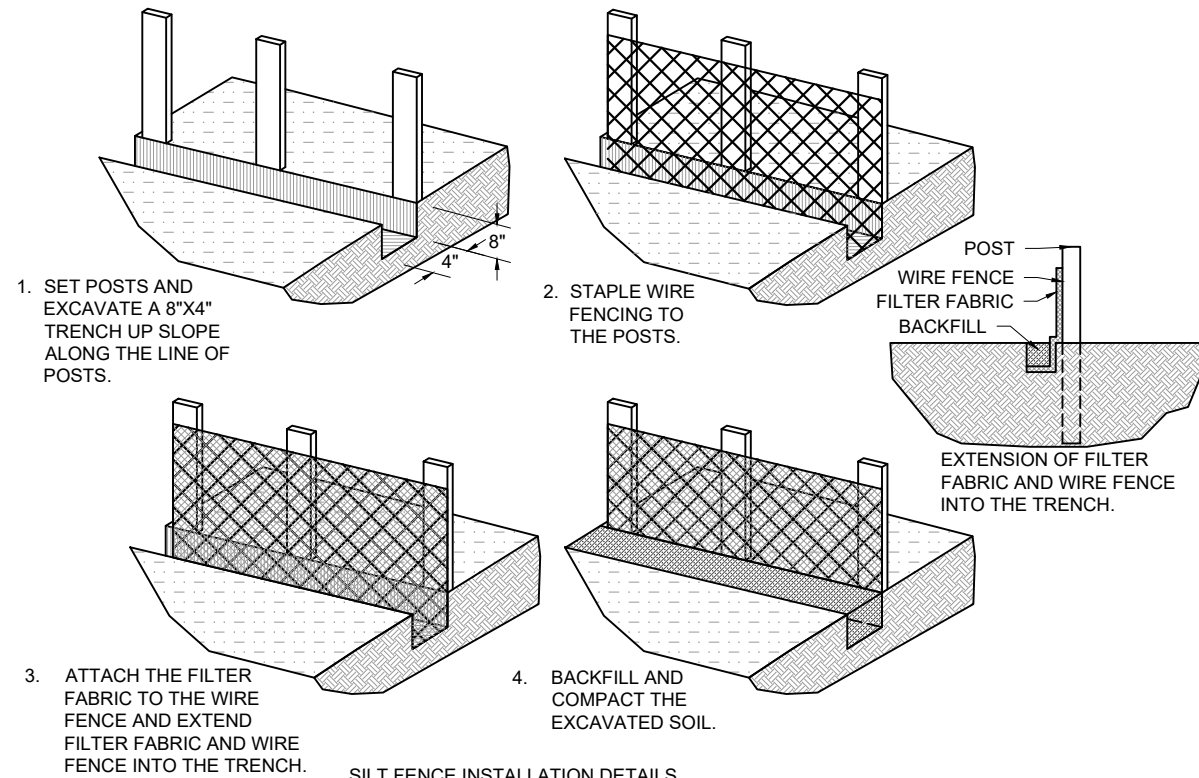
TYPE III OR TYPE IV SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS.

TYPE III OR TYPE IV SILT FENCE



DITCH INSTALLATION AND SPACING FOR TYPE III & TYPE IV FENCE TO BE IN ACCORDANCE WITH SHEET 1 OF 3, OF THE F.D.O.T. INDEX NO. 102

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.



SILT FENCE INSTALLATION DETAILS