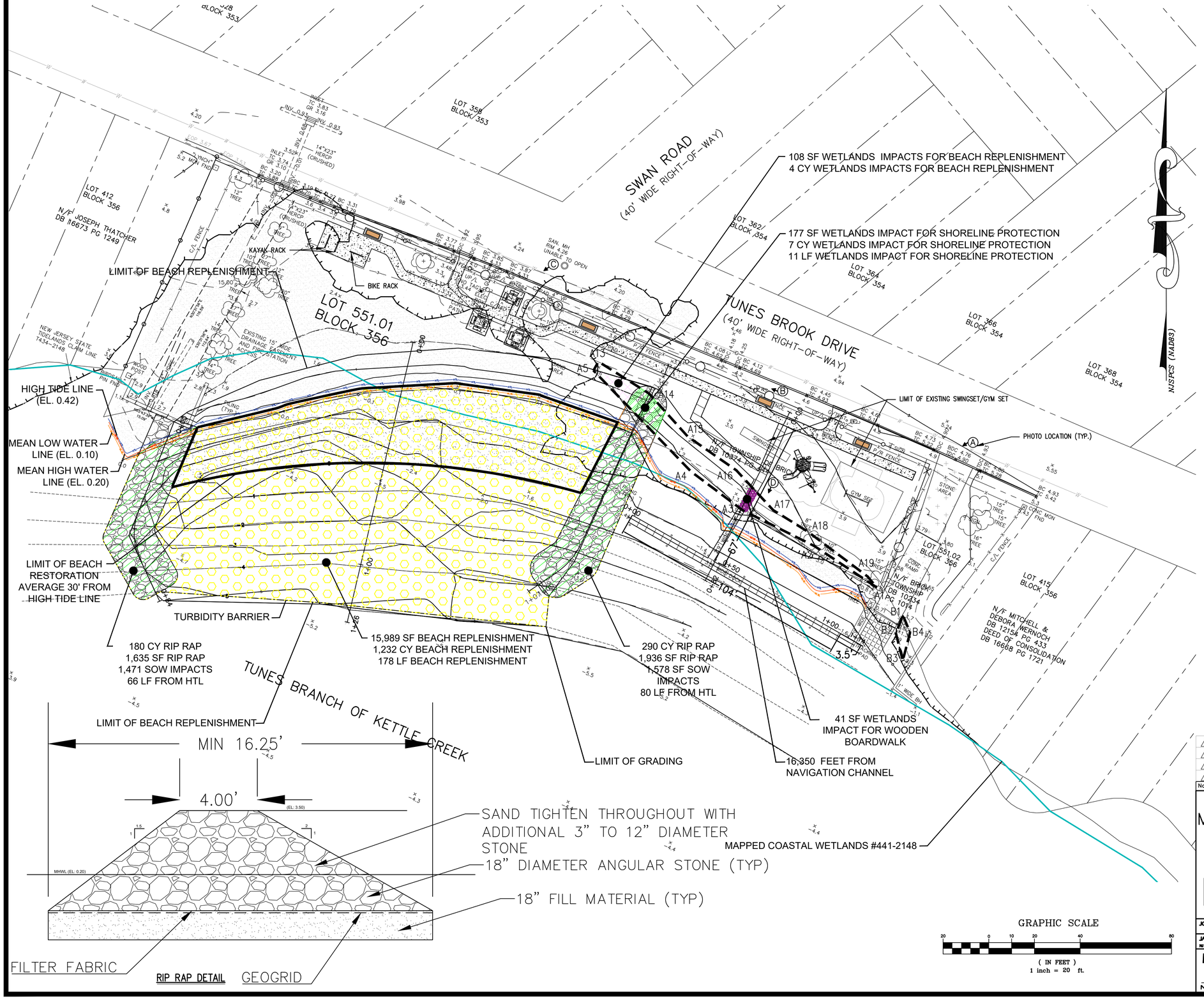

RIP RAP DETAIL

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TREE PROTECTION / PRESERVATION MEASURES:

1. ALL GRADING AND EARTHWORK IN THE VICINITY OF THE DRIPLINE TO BE COMPLETED IN THE PRESENCE OF A LICENSED TREE EXPERT.
2. ANY SURFACE ROOTS ENCOUNTERED SHALL BE CLEANLY FLUSH CUT WITH SHARP AND SANITIZED PRUNING INSTRUMENTS.
3. AT NO TIME SHALL EQUIPMENT BE STORED OR UNNECESSARY COMPACTION OCCUR WITHIN DRIPLINE OF ANY TREE THAT IS TO REMAIN.
4. TREES SHALL BE WATERED THOROUGHLY UNTIL PROJECT CLOSE-OUT.
5. ANY QUESTIONS OR CONCERNS SHALL BE BROUGHT TO THE ATTENTION OF THE TOWNSHIP LICENSED TREE EXPERT IMMEDIATELY BEFORE PROCEEDING.
6. BASE MAP FOR THIS PLAN IS ENTITLED "MALLARD POINT PARK, LOT 551.01, BLOCK 356, TOWNSHIP OF BRICK, OCEAN CO., NJ DATED MAY 3, 2018, SIGNED BY MICHAEL J. McGURL, PLS, CME ASSOCIATES.
7. THE PROJECT SITE IS LOCATED WITHIN FEMA ZONE AE EL. 5'.
8. NGVD 29 DATUM CONVERSION: NGVD 29 DATUM = NAVD 88 + 1 FOOT
7. A TOTAL OF 1,530 SQ. FT OF NEW IMPERVIOUS SURFACES ARE PROPOSED INCLUDING THE WALKWAY.
8. A TOTAL OF 40,612 SQ. FT OF LAND DISTRUBANCE IS PROPOSED.
9. TIDE RANGE INFORMATION IS AS FOLLOWS BASED ON TIDAL STUDIES 853-2786 (MANTOLOKING, BARNEGAT BAY, NJ) & 853-2721 (TALL PINES CAMP, METEDECONK RIVER, NJ) ELEVATIONS CONVERTED TO NAVD88:
   HIGH TIDE WATER LINE EL. 0.42 (NAVD88)
   MEAN HIGH WATER LINE EL. 0.20 (NAVD88)
   MEAN LOW WATER LINE EL. 0.10 (NAVD88)
10. ALL IMPORTED SAND MATERIAL FOR THE BEACH REPLENISHMENT WILL MEET THE DEFINITION OF CLEAN FILL, PURSUANT TO THE NJDEP'S TECHNICAL REQUIREMENTS FOR SITE REMEDIATION, PER N.J.A.C. 7:26E-1.8.
11. REPLACEMENT OF BOARDWALK/DOCK ENTAILS REPLACING ALL PILES, DECKING AND ANY OTHER APPURTENANCES IN KIND. NO PILES TO BE LOCATED WITHIN WETLANDS, BOARDWALK TO COMPLETELY SPAN WETLANDS AREA. PILES SHALL BE 8" DIAMETER, NATURALLY TAPERED SOUTHERN YELLOW PINE, LENGTH TO BE DETERMINED. PILES SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS ASSOCIATION. PILES SHALL BE DRIVEN VIA LAND AND BARGE MOUNTED VIBRATORY TAMPER. PILES MAY BE AUGERED FOR THE FIRST TEN FEET OF PLACEMENT. RESISTANCE FORMULA BY E.N.R. METHOD, BLOWS PER FOOT 6" > 10 SECONDS. CONTRACTOR SHALL UTILIZE CUSHION BLOCKS ON ALL PILES DRIVEN TO REDUCE THE NOISES ASSOCIATED WITH PILE DRIVING OPERATIONS.
12. COMPOSITE DECKING TO BE TAMKO EVERGRAIN CAPECOD GREY 2"X6" OR APPROVED EQUAL.
13. CONSTRUCTION OF DOCK REQUIRES 24 PILES

- PROPOSED PAVED WALKWAY
- PROPOSED 6' HIGH VINYL CHAINLINK FENCE
- WETLAND BOUNDARY
- HIGH TIDE WATER LINE, EL 0.42 (NAVD)
- MEAN HIGH WATER LINE, EL. 0.20 (NAVD)
- MEAN LOW WATER LINE, EL. 0.10 (NAVD)
- TOP OF BANK
- COASTAL A LIMIT OF MODERATE WAVE ACTION AND ZONE AE (ELE. 8)
- 1970 COASTAL WETLAND LINE
- PHOTO LOCATION
- TIDELANDS CLAIM LINE

ENVIRONMENTAL IMPACT TABLE

TOTAL IMPACTS TOTALS 19,403 SF

- DENOTES 177 S.F. OF VEGETATED FRESHWATER WETLANDS IMPACTS FOR SHORELINE PROTECTION
- DENOTES 15,989 S.F. OF BEACH REPLENISHMENT
- DENOTES 108 S.F. OF WETLANDS IMPACTS FOR BEACH REPLENISHMENT
- DENOTES 41 S.F. OF FRESHWATER WETLANDS IMPACTS WOODEN BOARDWALK
- DENOTES 3,088 S.F. OF SHORELINE PROTECTION

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2	REVISED PER ACOE COMMENTS	05/03/2023	PMK	PMK
1	REVISED PER ACOE COMMENTS	03/01/2023	PMK	PMK

TOWNSHIP OF BRICK
OCEAN COUNTY, NEW JERSEY

MALLARD POINT PARK IMPROVEMENTS

BLOCK 356, LOT 551.01
ACOE PERMIT PLAN

CVE ASSOCIATES
CONSULTING AND MUNICIPAL ENGINEERS
3141 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859 — 1660 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1974

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DOUGLAS M. ROHMEYER, P.E.
NEW JERSEY PROFESSIONAL ENGINEER N.J. LIC. 46437

SCALE 1"=20' | DRAWN BY PMK
DESIGNED BY DEP | CHECKED BY DMR
DATE 02/01/2023 | SHEET 1 OF 2

COVER: PERM PLAN
DRAWING No.: WETLANDS
FILE No.: BT-210

EverGrain Composite Decking

TAMKO

Decking Installation Instructions

EverGrain Envision Ballistic Composite Decking

IMPORTANT EVERGRAIN® AND EVERGRAIN® ENVISION® PRODUCT INFORMATION

- Make safety of the workplace the prime consideration. Always wear the proper protective clothing and safety equipment and adhere to all safety guidelines contained herein.
- MODIFICATION TO THE BOARD, OTHER THAN AS STATED IN THESE INSTALLATION INSTRUCTIONS (SUCH AS CUTTING TO LENGTH, DRILLING FASTENER HOLE, ETC.) MAY COMPROMISE THE INTEGRITY OF THE BOARD WHICH COULD LEAD TO PREMATURE DEGRADATION.
- EverGrain and EverGrain Envision ("Envision") is specially made with natural board to board color variation. **Layout and view all boards prior to cutting and fastening to ensure the desired look is achieved.**
- As with all walking surfaces, decking products located in higher traffic areas may show wear earlier than other areas. Dragging furniture or other objects across the product will cause surface scratches.
- Discuss any desired material changes, including color issues, with the supplier prior to cutting or fastening the decking to the structure.
- The weathering process for EverGrain and Envision decking products will vary due to region, climate, rain, sunlight exposure, etc. Some variations in decking shade will appear due to weathering that will occur at the supplier's yard prior to shipment and due to different lots. For best results, use material from the same date code (stamped on the bottom of boards) whenever possible.
- The color of EverGrain and Envision decking products will usually weather to a lighter shade after several months of exposure to the environment. Color may vary across profiles.
- EverGrain and Envision decking have a more flexible feel than wood primarily during the heat of summer. This is a natural condition that will not affect the ability of the decking to perform as warranted. For a more rigid feel, reduce joist span spacing by 4".
- EverGrain and Envision decking and railing products must be installed in accordance with the installation instructions. Deviations from these instructions may result in unsatisfactory performance, create a potential safety hazard and may exclude coverage of your decking and/or railing material under the limited warranty.
- EverGrain and Envision decking products must never be applied directly to any solid surface (concrete, membranes, etc.) or in conjunction with systems where inadequate drainage or improper ventilation are found. There must be proper ventilation and adequate air circulation underneath the deck to promote the evaporation of any water or moisture.
- Fire and other sources of excessive heat may damage EverGrain and Envision deck boards. Damage caused by fire or other heat sources may include melting, sagging, warping, discoloration, charring, increased expansion or contraction, accelerated weathering, etc.
- Low-E glass is one potential source of excessive heat because it is designed to reflect more sunlight than traditional glass. This enhanced reflectivity combined with any irregularity in the window glass can concentrate sunlight onto the deck and cause heat build-up on areas of the deck surface. When this occurs, damage to EverGrain or Envision decking is possible. Contact the manufacturer of the product which contains the Low-E glass for suggestions to reduce or eliminate the reflected heat.
- Composite decking will retain heat when exposed to direct or reflected sunlight. Exercise caution if walking barefoot as footwear may be required.

LUMBER SIZES & DIMENSIONS

Nominal Size	Actual Size
1" x 6" x (12', 16' or 20') EverGrain and Envision	15/16" x 5-1/2"
2" x 6" x (16' or 20') EverGrain only	1-7/16" x 5-1/2"
8" EverGrain Skirting (12')	1/2" x 7-1/4"
12" EverGrain Skirting (12')	1/2" x 11-7/8"
12" Envision Skirting (12')	7/16" x 12"
All Tolerances +/- 1/16"	

DECKING SPAN CHART

Maximum center-to-center spans with a minimum of three joists are shown below. EverGrain and Envision decking products must not be applied to a solid surface.

Center-To-Center Span

Board Size	Span[1] (90°)	Span[1] (up to 45°)	Stair Tread [2]
1" x 6"	16"	12"	12"
2" x 6"	24"	16"	16"

[1] Live Load Rating of 100 lb/ft².
[2] Continuous two-span installation.

EverGrain and Envision decking have a more flexible feel than wood primarily during the heat of summer. This is a natural condition that will not affect the ability of the decking to perform as warranted. For a more rigid feel, reduce joist span spacing by 4". Decking must not be cantilevered (overhang edge of deck) because structural support is required. EverGrain and Envision decking products are non-structural construction products. The decking products must not be used as a structural member; including joists, load bearing columns, stringers, or beams.

For best results, add an additional joist at the butt joints to increase stiffness.

CUTTING & DRILLING

When working with EverGrain and Envision decking products, saw blades and router bits with carbide tips are recommended. Saw blades must be sharp. The use of dull saw blades will result in damage to the outer layer of Envision boards. For best results, use blades with two teeth per inch. To avoid clogging when drilling holes, frequently remove shavings by raising the drill bit out of the hole.

Modification to the board, other than as stated in these installation instructions (such as cutting to length, drilling fastener hole, etc.) may compromise the integrity of the board which could lead to premature degradation.

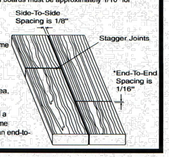
SPACING

EverGrain and Envision decking and skirting products will expand and contract with changes in temperature. The amount of expansion and contraction will vary depending upon board size and temperature. Smaller boards will expand less and larger board sizes will expand more. When installing decking, side-to-side spacing must be a minimum of 1/8" between adjacent boards.*

* End-to-end spacing between boards must be approximately 1/16" for every 20-degree increment of temperature difference between the temperature during installation and the maximum expected summertime temperature in your area.

*Butt joints of boards must be staggered. A sister joist must be utilized at the butt joint to provide a greater fastening area.

EXAMPLE:
80°F at time of installation and a maximum expected summertime temperature of 100°F equals an end-to-end spacing of 1/16".



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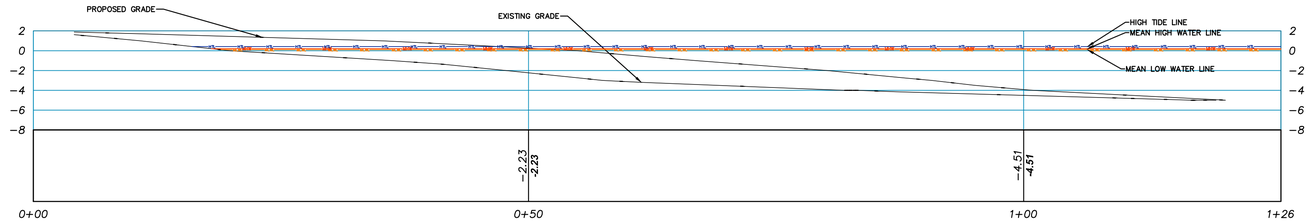
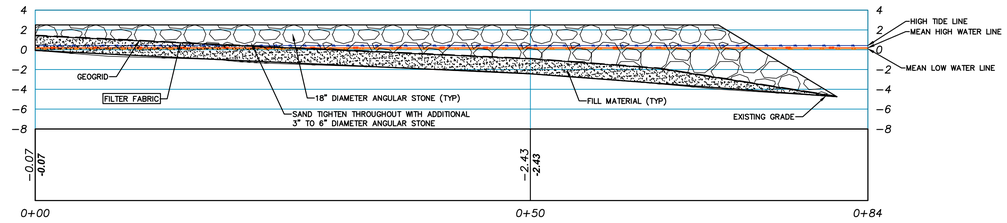


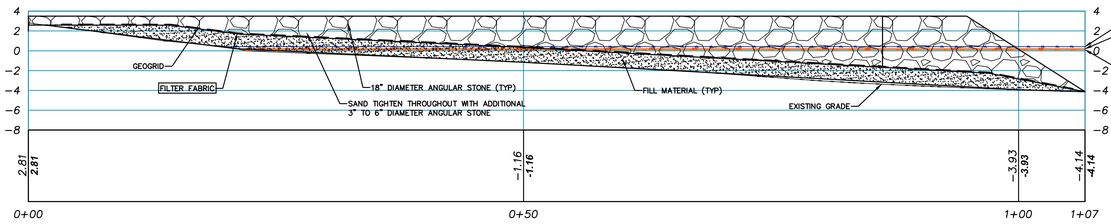
PROFILE: BEACH PROFILE

HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 5'



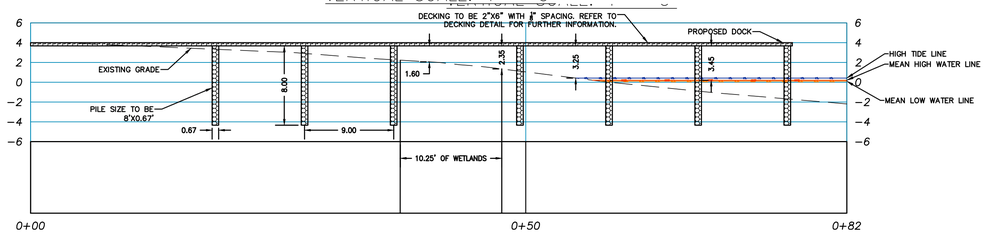
PROFILE: Left Groin

HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 5'



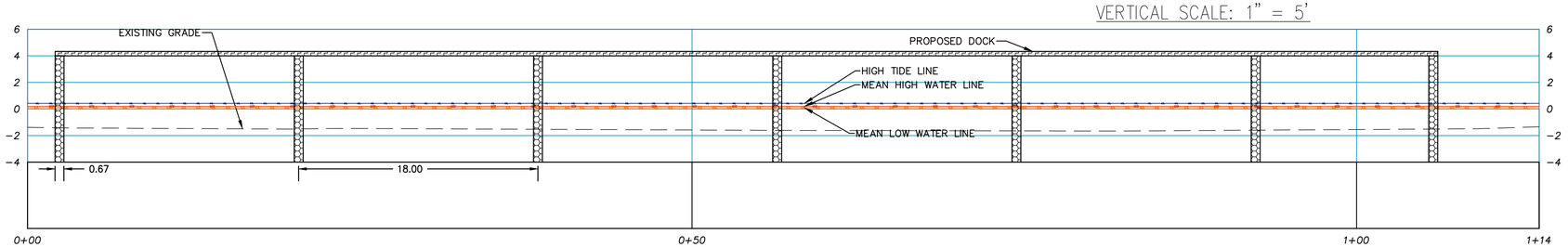
PROFILE: Alignment – Right Groin

HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 5'



PROFILE: DOCK

HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 5'



PROFILE: Alignment – Dock in Water

HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 5'

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SCALE	AS SHOWN
DRAWN BY	PMK
DESIGNED BY	DEP
CHECKED BY	DMR
DATE	02/01/2023
SHEET	2 OF 2

COV NAME: PERM PLAN
DRAWING No.: WETLANDS
FILE No.: BT-210