

PHILLIPS LANDING BOAT RAMP

Contract No. NAT-201801/Phillips.Landing

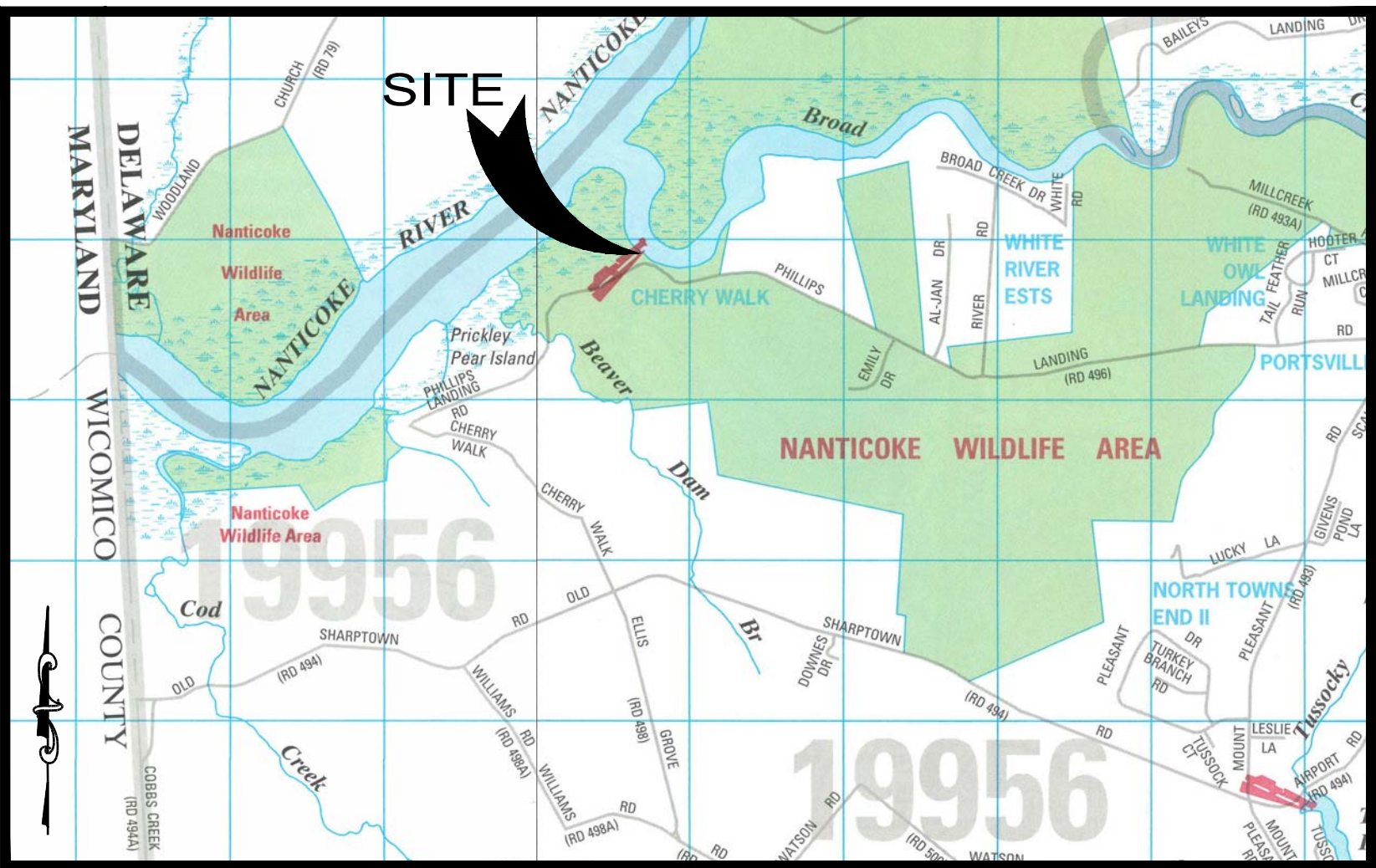
State of Delaware

Department of Natural Resources and

Environmental Control

Division of Fish and Wildlife

ABBREVIATIONS	
ABBR.	DESCRIPTION
Ac.	ACRE
c.c.	CENTER TO CENTER
C	CENTER LINE
CONC.	CONCRETE
DEG.	DEGREE
DIA.	DIAMETER
ELEV.	ELEVATION
EX.	EXISTING
Ft.	FOOT
GA.	GAUGE
HP	HIGH POINT
In.	INCH
Lb.	POUND
MAX.	MAXIMUM
M.H.W	MEAN HIGH WATER
MIN.	MINIMUM
M.L.W.	MEAN LOW WATER
N/A	NOT APPLICABLE
N.I.C	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
o.c.	ON CENTER
o.c.e.w.	ON CENTER EACH WAY
PSI	POUND PER SQUARE INCH
RCP	REINFORCED CONCRETE PIPE
SF	SQUARE FEET
s.s.	STAINLESS STEEL
ABBR.	STATION
STD.	STANDARD
TYP.	TYPICAL



LOCATION MAP

SCALE : 1" = 2500'

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First Edition Map 28, Grid A10

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Andrews, Miller & Associates

A Division of:



DAVIS,
BOWEN &
FRIEDEL, INC.

ARCHITECTS ENGINEERS SURVEYORS

EASTON, MARYLAND (410) 770-4744
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441

A.M.A. JOB NO. 1945A006

JULY 2018

GENERAL NOTES

- MEAN TIDAL RANGE IS 2.5'.
- VERTICAL DATUM IS MLW, BASED ON EXISTING TIDE GAUGE, ELEV. 5.0 FEET.
- TOPOGRAPHIC AND BATHYMETRIC DATA SHOWN WAS TAKEN ON MARCH 15, 2013 & JANUARY 31, 2017 BY DAVIS, BOWEN & FRIEDEL, INC.
- ACCORDING TO THE FLOOD INSURANCE RATE MAP (FIRM), MAP #10005C0400J, PANEL 0400, THE SITE IS LOCATED IN ZONE "AE" (100 YEAR FLOOD ELEVATION 5') NAVD 88 DATUM. THE ENTIRE PROPERTY IS WITHIN THE 100 YEAR FLOOD PLAIN.
- THE CONTRACTOR SHALL CALL "MISS UTILITY" (1-800-282-8555) A MINIMUM OF 48 HOURS IN ADVANCE OF ANY EXCAVATION, BORING, PILE DRIVING AND/OR DIGGING FOR THE LOCATION OF UNDERGROUND UTILITY LINES.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
- THE CONTRACTOR SHALL PROVIDE ENERGY STAR APPLIANCES, EQUIPMENT, SYSTEMS, ETC. TO THE MAXIMUM EXTENT POSSIBLE ACCORDING TO DELAWARE CODE, TITLE 29, CHAPTER 69, SECTION 6939.
- LIMIT OF DISTURBANCE = 4,940 SF
LAND DISTURBANCE ABOVE MEAN HIGH WATER (MHW) IS BELOW 5,000 SF THEREFORE STORMWATER MANAGEMENT AND EROSION SEDIMENT CONTROL REVIEW IS NOT REQUIRED.
- THERE SHALL BE NO WATER WORK FROM AUGUST 15 TO NOVEMBER 1 OR MARCH 15 TO JUNE 1 OF ANY YEAR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CONSTRUCTION IN ACCORDANCE WITH ALL STATE AND FEDERAL PERMITS.

CERTIFICATION OF OWNERSHIP

I, JOHN CLARK, HEREBY CERTIFY THAT THE STATE OF DELAWARE IS THE OWNER OF THE PROPERTY WHICH IS SUBJECT OF THIS PLAN AND THAT THE LAND USE ACTION PROPOSED BY THIS PLAN IS MADE AT MY DIRECTION.

JOHN CLARK
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
DIVISION OF FISH & WILDLIFE

DATE

OWNER'S CERTIFICATION

I, THE UNDERSIGNED, CERTIFY THAT:

- THE PERPETUAL MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT FACILITIES, INCLUDING THE CONSTRUCTED WETLANDS AND PAVERS, SHALL BE THE RESPONSIBILITY OF THE OWNER.
- ALL LAND CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED PLAN, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE LAND DISTURBING ACTIVITIES WILL HAVE A SEDIMENT AND STORMWATER MANAGEMENT CERTIFICATION FROM THE DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL, AND
- AUTHORIZE THE RIGHT OF ENTRY FOR ON-SITE INSPECTIONS BY STATE OF DELAWARE, DEPARTMENT OF NATURAL RESOURCE AND ENVIRONMENTAL CONTROL COMPLIANCE PERSONNEL AND/OR AUTHORIZED AGENTS.

MR. JOHN CLARK
DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DIVISION OF FISH AND WILDLIFE
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

DATE

CERTIFICATION OF PLAN ACCURACY

I, JASON P. LOAR, P.E., HEREBY CERTIFY THAT I AM A PROFESSIONAL ENGINEER WITH A BACKGROUND IN CIVIL ENGINEERING IN THE STATE OF DELAWARE, AND THAT THE PLAN SHOWN AND DESCRIBED HEREON, IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY ACCEPTED SURVEYING STANDARDS AND PRACTICES.



JASON P. LOAR, P.E. #14959

DATE

DESIGNER CERTIFICATION

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE CURRENT DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK AND THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.

SIGNATURE
JASON P. LOAR



7-6-18
DATE

14959

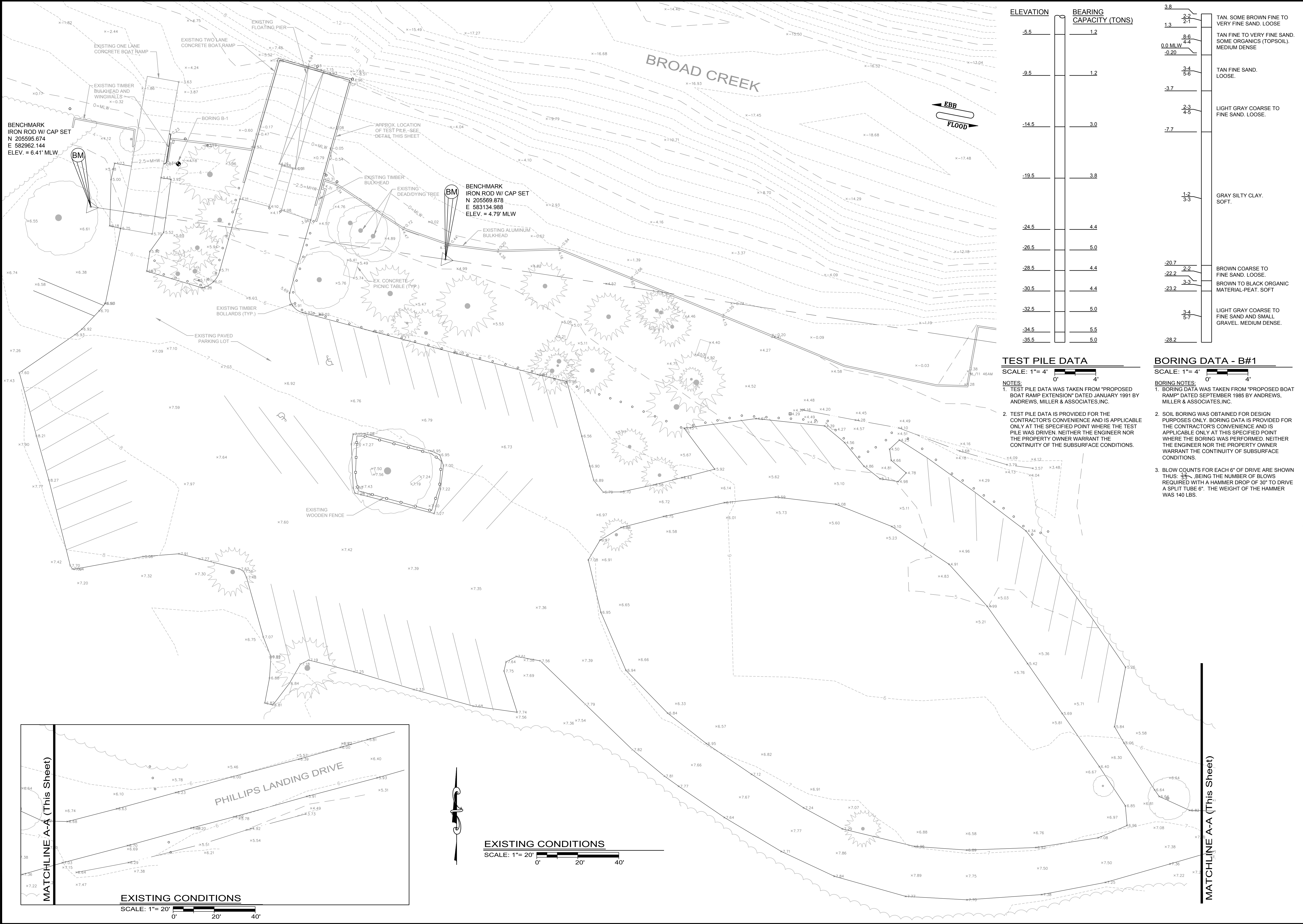
DELAWARE REG. NO.

SHEET

C-1

1 of 6

P:\DRAFT\1945A006\Phillips Landing\BROWING\20200118 11:53:26 AM.dwg, Existing, 20200118 11:53:26 AM, User: Andrew Miller, AutoCAD PDF (Small Plot) Plot3



REVISIONS		BY	
NO.	DATE	ITEM	

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A Division of:
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EASTON, MARYLAND (410) 770-4744
SUSSEX COUNTY, DELAWARE (302) 424-1441

EXISTING CONDITIONS	
FOR STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL DIVISION OF FISH AND WILDLIFE AT PHILLIPS LANDING BOAT RAMP SUSSEX COUNTY, DELAWARE	
DRAWN SMS	DESIGNED KBE
CHECKED JPL	DATE JULY 2018
SCALE 1"= 20'	
PROJ. NO. 1945A006	
Dwg No. C-2	
2 of 6	

P:\081184\006 Phillips Landing Bldg\C-3-C-4.dwg, Proposed, 7/20/2018 11:53:31 AM, User: JML, Title: Phillips Landing Bldg\C-3-C-4.dwg, Sheet: 3 of 6

KAYAK LAUNCH CONSTRUCTION NOTES:
1. IN LIEU OF MANUFACTURERS RECOMMENDATIONS, MOBI-MAT SHALL BE ATTACHED TO THE EXISTING CONCRETE SLAB WITH 1/2" x 3" WIDE HDPE MARINE BOARD WITH TAPCON 3/8" x 2 1/2" WHITE ULTRASHIELD (6" C.C.) OR EQUAL ON ALL SIDES.
2. MOBI-MAT SHALL BE INSTALLED AS FAR DOWN THE RAMP AS POSSIBLE WITHOUT UTILIZING A COFFERDAM. RECOMMEND INSTALLING AT LOW TIDE.

PROPOSED 10' WIDE, 50' LONG MOBI-MAT RECAPTH GRADE, AFX BROWN EAGLE OR APPROVED EQUAL, ANCHOR PER MANUFACTURER RECOMMENDATIONS.

BENCHMARK
IRON ROD W/ CAP SET
N 205595.674
E 582962.144
ELEV. = 6.41' MLW

REMOVE EXISTING CONCRETE AND REPLACE WITH A HERRINGBONE SURFACE EXPAND CONCRETE SURFACE AND GRAVEL BASE TO PROVIDE A 3-LANE BOAT RAMP.

TP #1

EX. PILE TO BE REMOVED

PROPOSED 3 LANE BOAT RAMP WITH 2 FLOATING PIERS. SEE BOAT RAMP SITE PLAN, SHEET C-4.

REMOVE EXISTING ALUMINUM BULKHEAD TO THE LIMIT SHOWN

BENCHMARK
IRON ROD W/ CAP SET
N 205599.878
E 583134.988
ELEV. = 4.79' MLW

PROTECT EXISTING TREES AND THEIR ROOT SYSTEMS (TYP)

REMOVE EXISTING BITUMINOUS PAVEMENT

PROPOSED CONCRETE LEVELING PAD

REMOVE EXISTING TIMBER BOLLARDS AS NECESSARY FOR CONSTRUCTION (TYP)

PARKING SPACE STRIPING SHALL BE 4" WIDE WHITE PAVEMENT MARKING PAINT, TYP.

ADA ACCESSIBLE ROUTE STRIPING SHALL BE 4" WIDE WHITE PAVEMENT MARKING PAINT @ 45', 32" CC

HANDICAP SYMBOL, TYP - 4, SEE DETAIL SHEET C-6

PROPOSED HATCHED STRIPING SHALL BE 4" WIDE YELLOW PAVEMENT MARKING PAINT @ 45', 32" CC

PROPOSED MILL & OVERLAY, TYP. SEE DETAIL SHEET C-6

PROPOSED TRAFFIC FLOW DIRECTION ARROW, TYP - 9, SEE DETAIL SHEET C-6

SIGN LEGEND

SIGN	QUANTITY
1a. STOP (R1-1)	1
2a. DO NOT ENTER (R5-1)	2
3a. VAN PARKING - ADA	2
4a. CAR PARKING - ADA	1

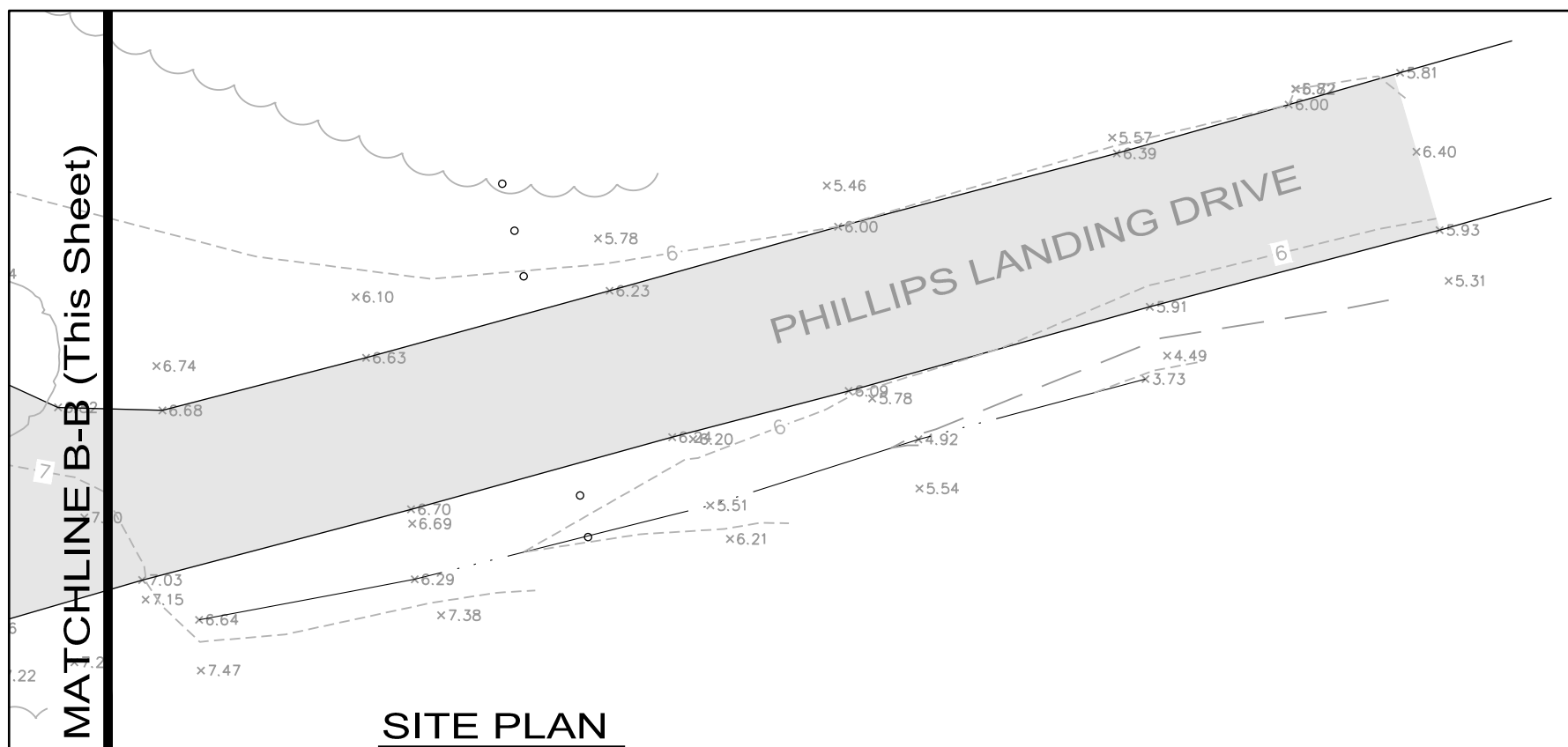
EROSION AND SEDIMENT CONTROL LEGEND

ITEM	PROPOSED	DE STANDARD DETAIL *
LIMIT OF DISTURBANCE	LOD	N/A
PUMPING PIT - TYPE 1	PP-1	DE-ESC-3.2.2.1
GEOTEXTILE DEWATERING BAG	GB	DE-ESC-3.2.1.2
PORTABLE SEDIMENT TANK	ST	DE-ESC-3.2.1.1

* SEE DELAWARE EROSION & SEDIMENT CONTROL HANDBOOK, LATEST EDITION FOR STANDARD DETAILS AND SPECIFICATIONS.

SITE PLAN

SCALE: 1" = 20'



SIGN	QUANTITY
1a. STOP (R1-1)	1
2a. DO NOT ENTER (R5-1)	2
3a. VAN PARKING - ADA	2
4a. CAR PARKING - ADA	1

EROSION AND SEDIMENT CONTROL LEGEND

ITEM	PROPOSED	DE STANDARD DETAIL *
LIMIT OF DISTURBANCE	LOD	N/A
PUMPING PIT - TYPE 1	PP-1	DE-ESC-3.2.2.1
GEOTEXTILE DEWATERING BAG	GB	DE-ESC-3.2.1.2
PORTABLE SEDIMENT TANK	ST	DE-ESC-3.2.1.1

* SEE DELAWARE EROSION & SEDIMENT CONTROL HANDBOOK, LATEST EDITION FOR STANDARD DETAILS AND SPECIFICATIONS.

SITE PLAN

SCALE: 1" = 20'

NO.	DATE	REVISIONS	BY

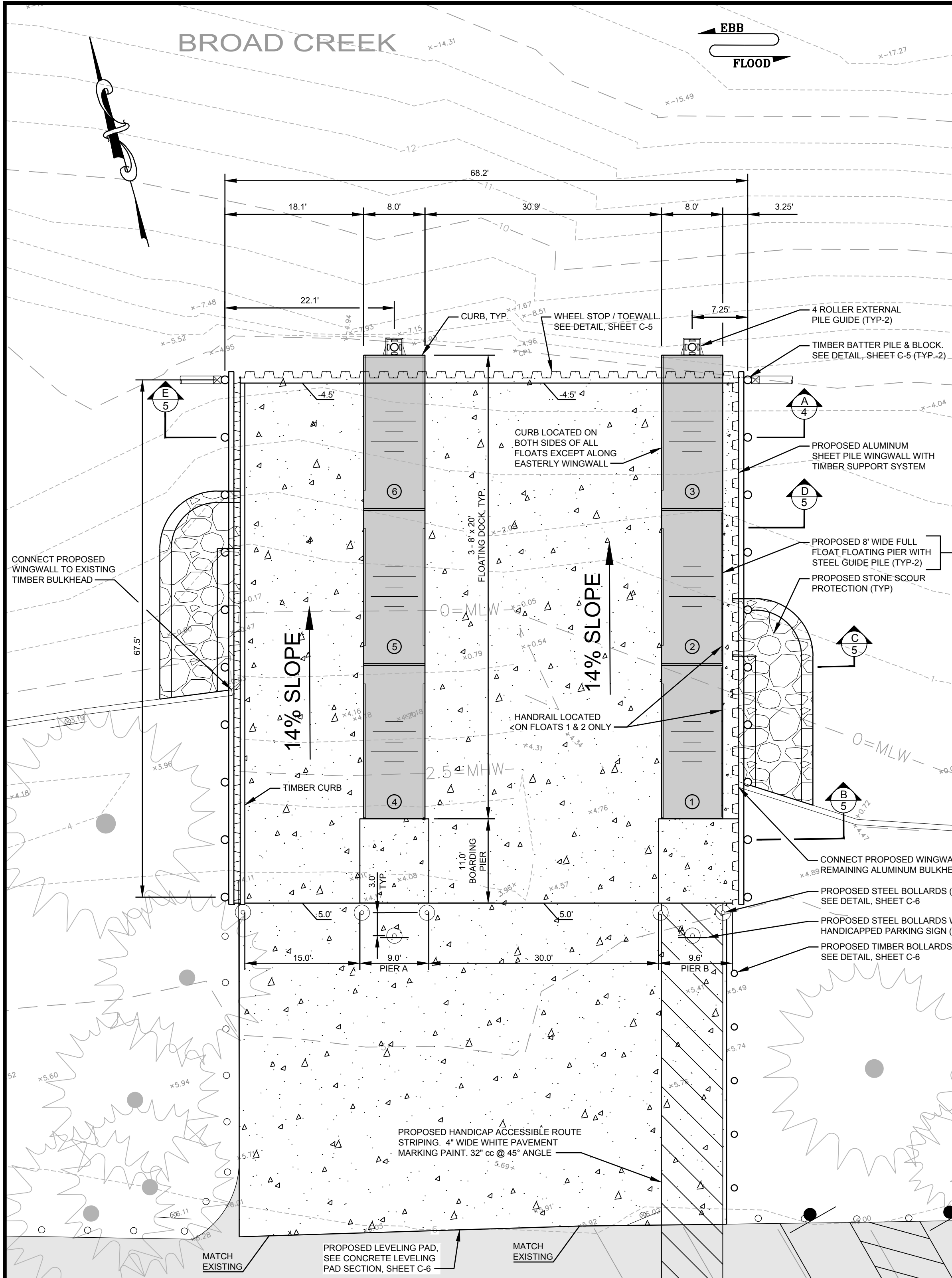


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SUSSEX COUNTY, DELAWARE (302) 424-1441

SITE PLAN
FOR
STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DIVISION OF FISH AND WILDLIFE
at
PHILLIPS LANDING BOAT RAMP
SUSSEX COUNTY, DELAWARE

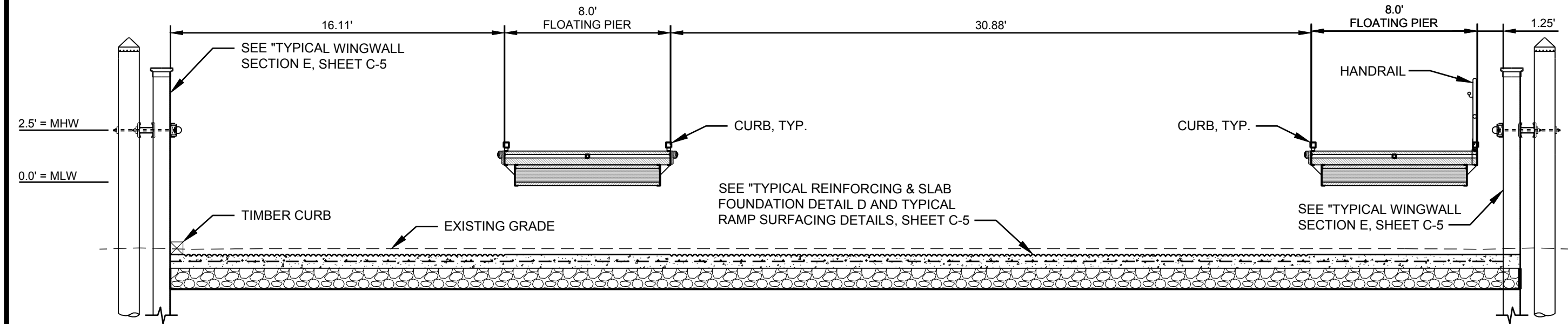
DRAWN	DESIGNED	CHECKED
SMS	KBE	JPL
DATE	DATE	DATE
JULY 2018	JULY 2018	JULY 2018
SCALE	SCALE	SCALE
1" = 20'	1" = 20'	1" = 20'
PROJ. NO.	PROJ. NO.	PROJ. NO.
1945A006	1945A006	1945A006
DWG. NO.	DWG. NO.	DWG. NO.
C-3	C-3	C-3
3 of 6	3 of 6	3 of 6

Phillips Landing RTA



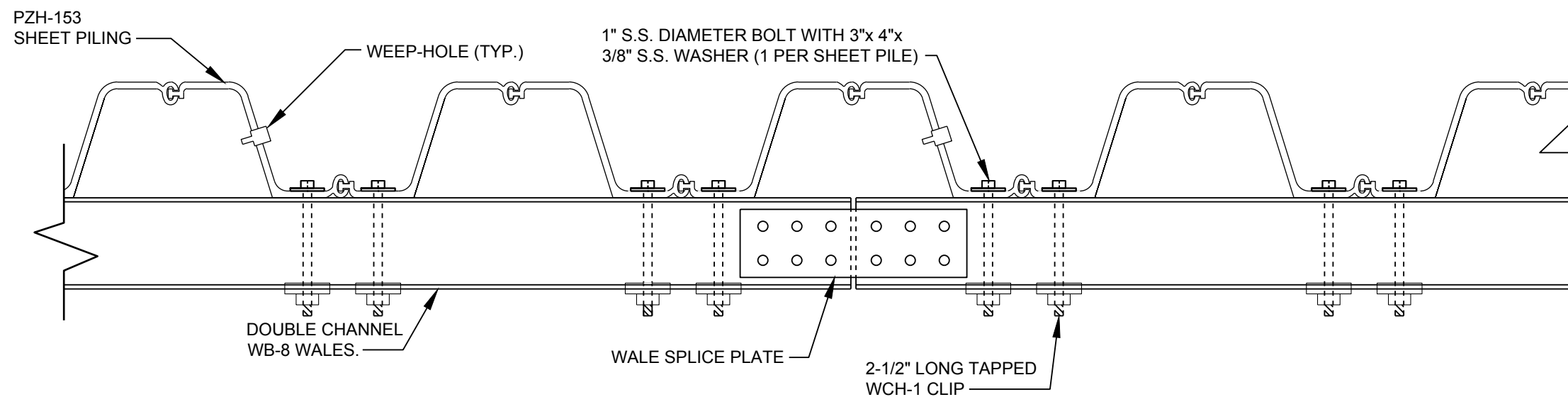
SITE PLAN

SCALE: 1"= 10'



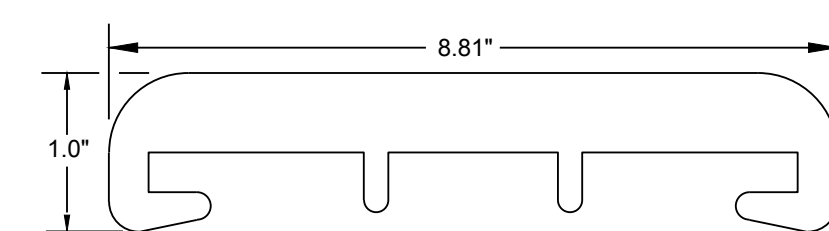
BOAT RAMP SECTION A

SCALE: 1"=5'



TYPICAL WB-8 WALE PLAN

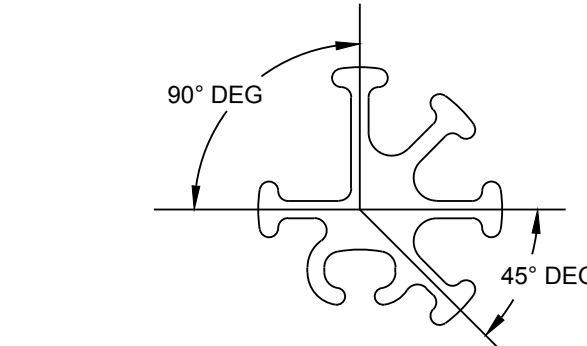
SCALE: 1"=1'



WALE CLIP WCH-1

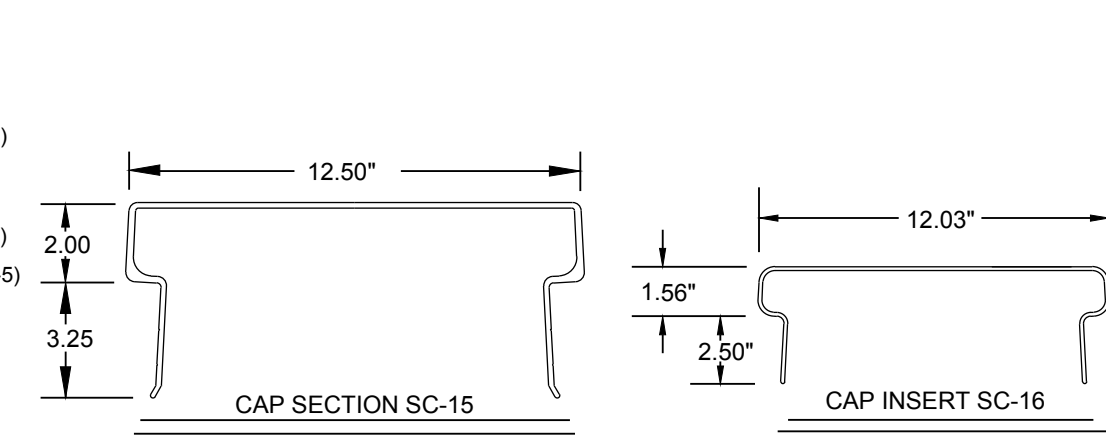
SCALE: NONE
NOTE: DETAIL PROVIDED BY GATOR DOCK & MARINE

FLOATING BOARDING PIERS SHOWN AS A REFERENCE. DNREC WILL PROVIDE SEPARATELY. CONTRACTOR SHALL INSTALL PER SHOP DRAWINGS.



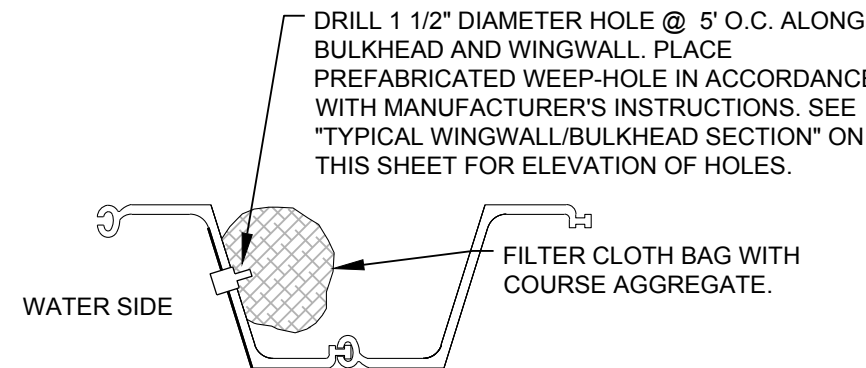
MULTIPURPOSE CORNER

SCALE: 1"=2'



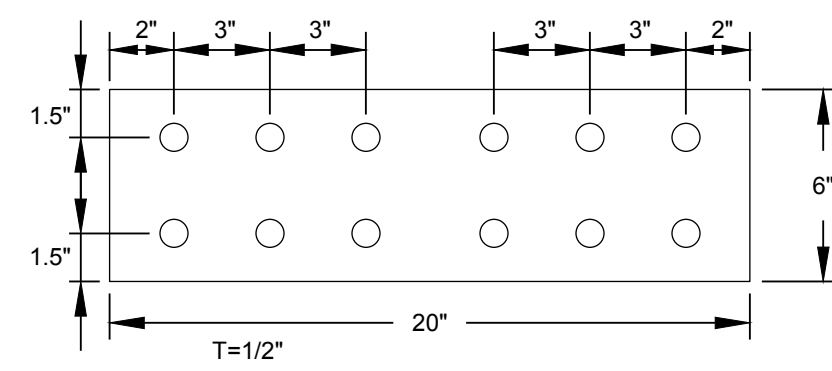
TYPICAL ALUMINUM CAP DETAILS

SCALE: NONE
NOTE: DETAIL PROVIDED BY GATOR DOCK & MARINE



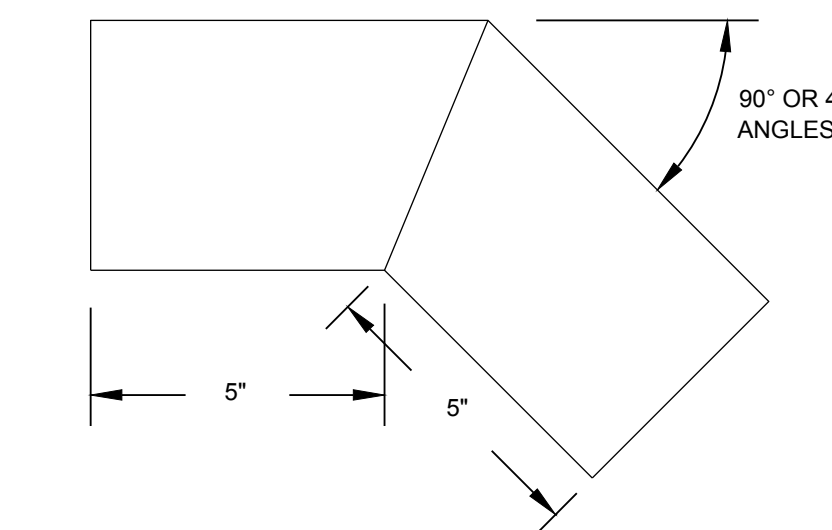
WEEP HOLE DETAIL

SCALE: NONE



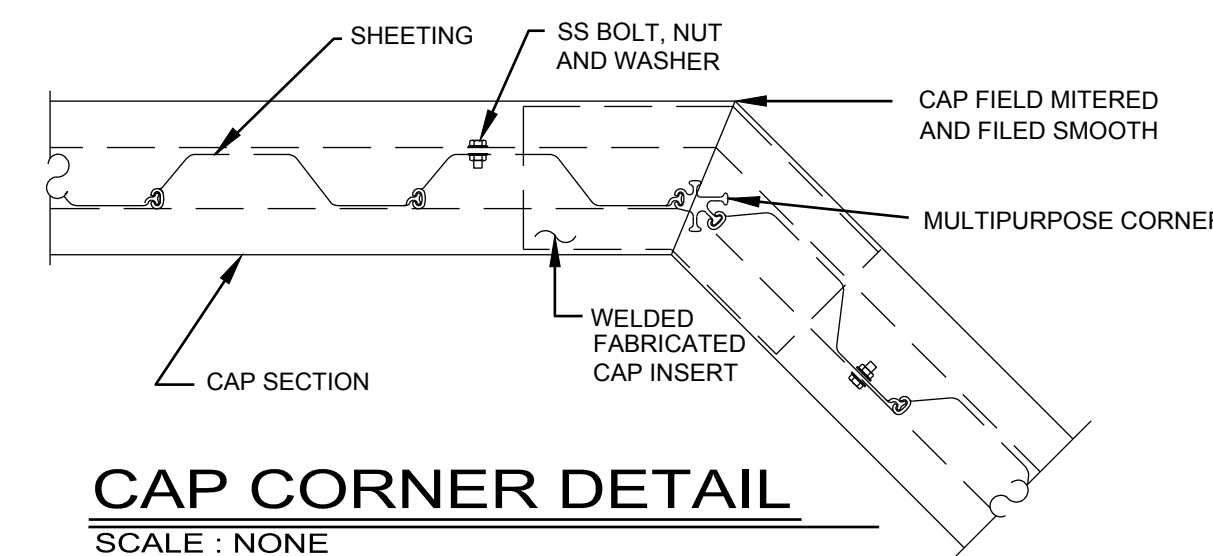
WALE SPLICE PLATE

SCALE: 1" = 0.5'
NOTE: DETAIL PROVIDED BY GATOR DOCK & MARINE



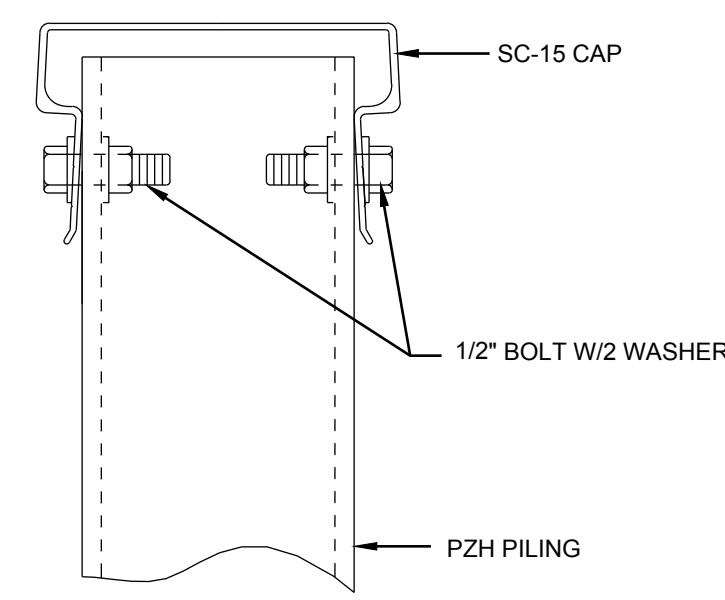
FABRICATED CAP INSERT

SCALE: NONE
NOTE: DETAIL PROVIDED BY GATOR DOCK & MARINE



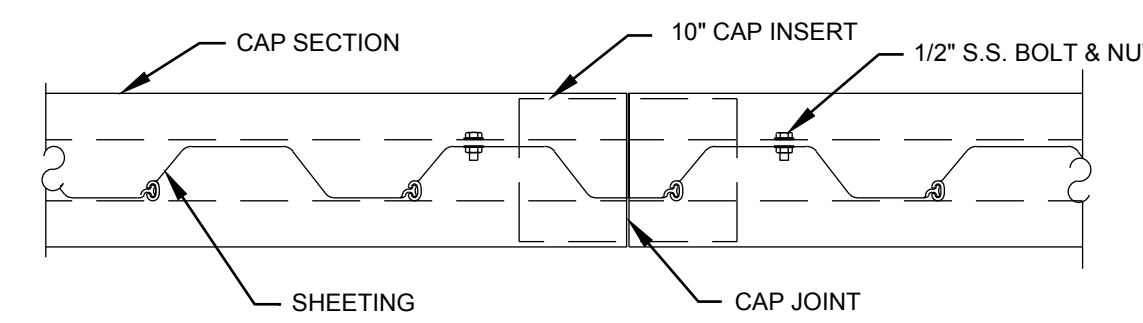
CAP CORNER DETAIL

SCALE: NONE
NOTE: DETAIL PROVIDED BY GATOR DOCK & MARINE



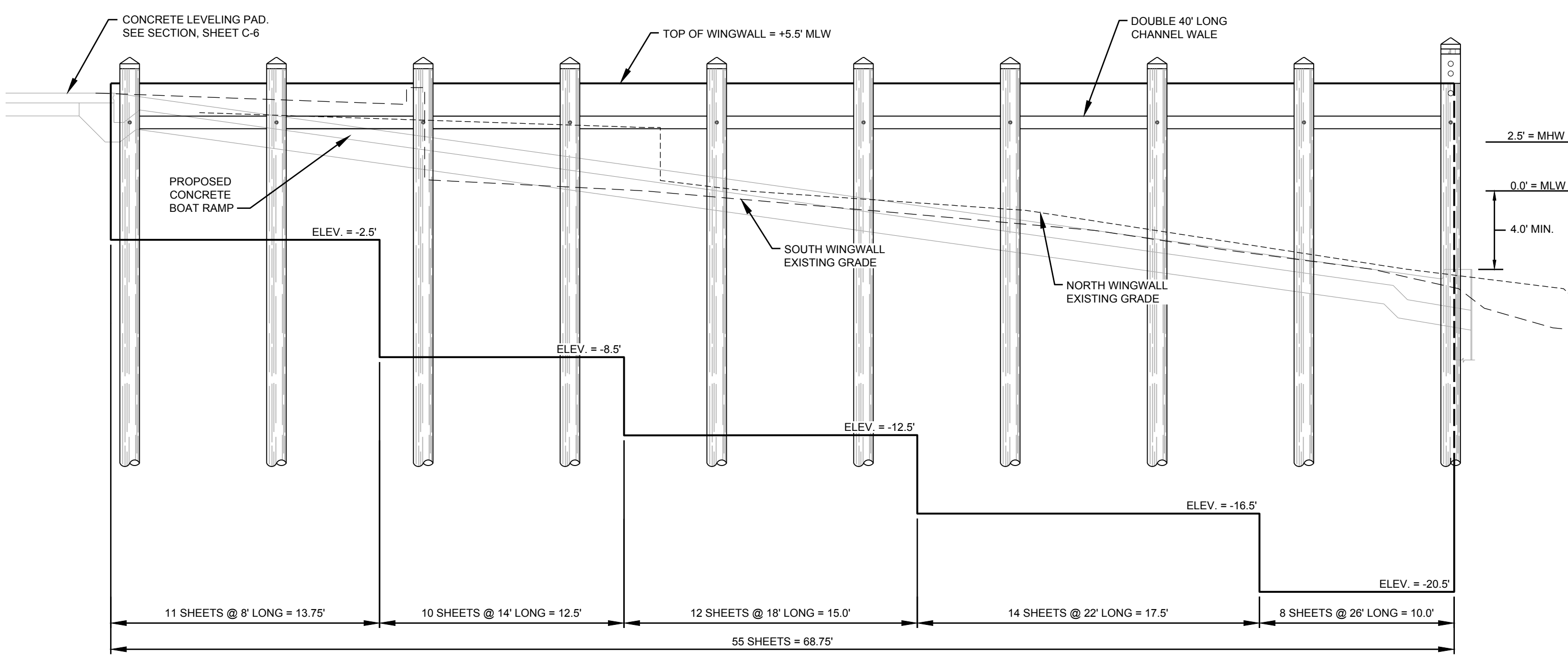
SC-15 CAP DETAIL

SCALE: NONE
NOTE: DETAIL PROVIDED BY GATOR DOCK & MARINE



CAP JOINT DETAIL

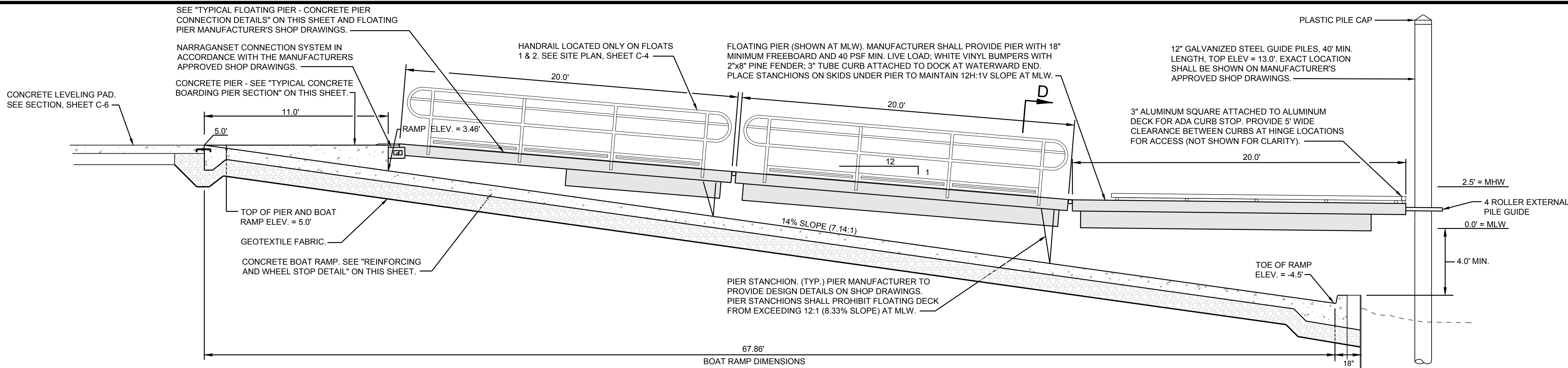
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NOTE: DETAIL PROVIDED BY GATOR DOCK & MARINE



TYPICAL WINGWALL ELEVATION

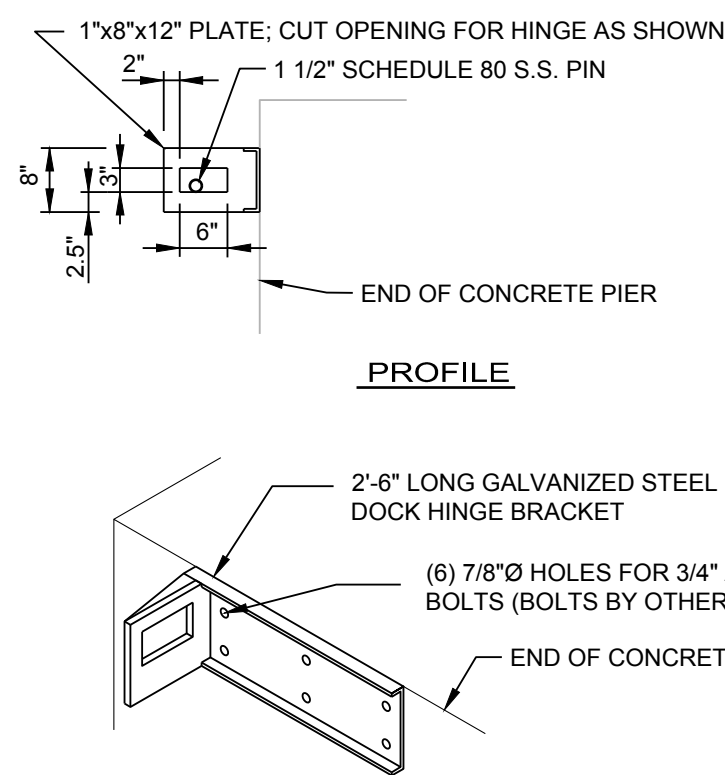
SCALE: 1"=5'

REVISEMENTS	NO.	DATE	BY	ITEM
Andrews, Miller & Associates ARCHITECTS ENGINEERS SURVEYORS A Division of: DAVIS, BOWEN & FRIEDEL, INC. EASTON, MARYLAND (410) 770-4744 SUSSEX COUNTY, DELAWARE (302) 424-1441				
BOAT RAMP SITE PLAN & DETAILS				
FOR STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL DIVISION OF FISH AND WILDLIFE at PHILLIPS LANDING BOAT RAMP SUSSEX COUNTY, DELAWARE				
DRAWN	DESIGNED	CHECKED		
SMS	KBE	JPL		
DATE JULY 2018				
SCALE AS SHOWN				
PROJ. NO. 1945A006				
Dwg No. C-4				
4 of 6				



TYPICAL BOARDING PIER/BOAT RAMP PROFILE

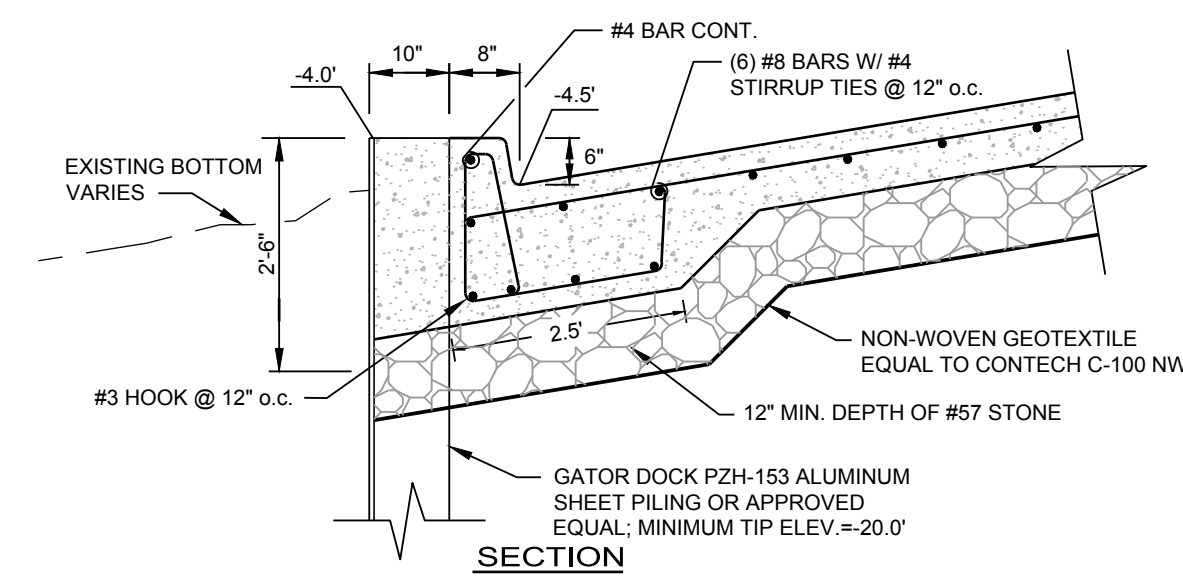
SCALE: 1"= 4'



- NOTES:
- CHANNELS & PLATES SHALL BE A-36 STEEL AND HOT DIPPED GALVANIZED.
 - FLOATING PIER MANUFACTURER SHALL PROVIDE DESIGN FOR ACTUAL CONNECTION USING THEIR SPECIFIC SYSTEM ON THEIR SHOP DRAWINGS. DETAILS SHOWN HEREON FOR SCHEMATIC PURPOSES ONLY.

TYPICAL FLOATING PIER - CONCRETE PIER CONNECTION DETAILS

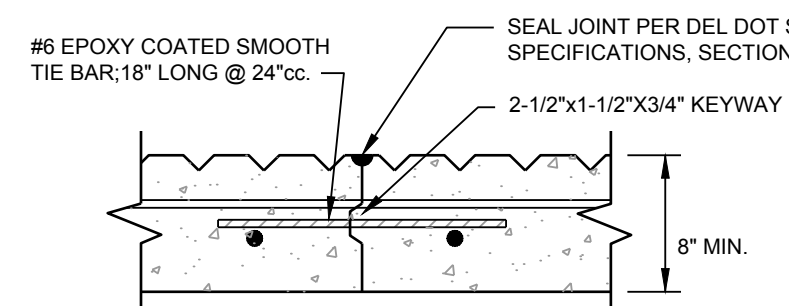
SCALE: 1"= 2'



- NOTES:
- ALL HARDWARE IN CONTACT WITH ALUMINUM SHALL BE STAINLESS STEEL (SS).
 - ALL CONCRETE SHALL BE DELDOT CLASS A (4500 PSI).
 - ALL ALUMINUM IN CONTACT WITH CONCRETE SHALL BE COATED WITH COAL TAR EPOXY.
 - CONTRACTOR SHALL BRACE TOE WALL AS NEEDED TO MAINTAIN WALLS ALIGNMENT DURING CONSTRUCTION.

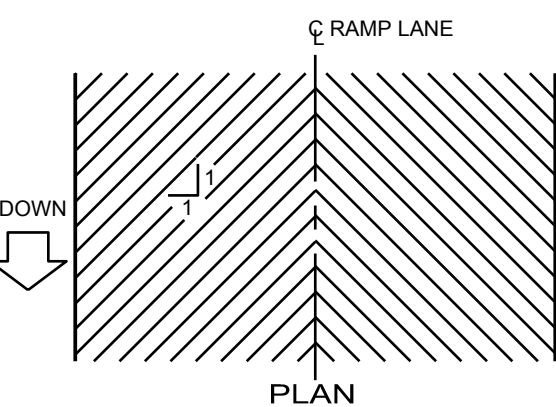
TYPICAL WHEEL STOP DETAIL

SCALE: 1"= 2'



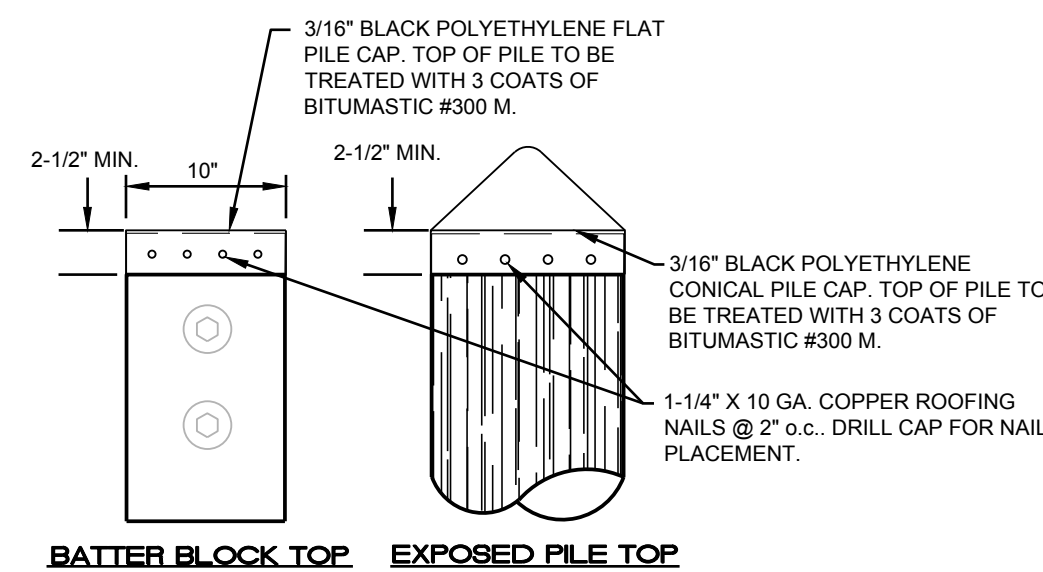
TYPICAL CONSTRUCTION JOINT DETAIL

NO SCALE



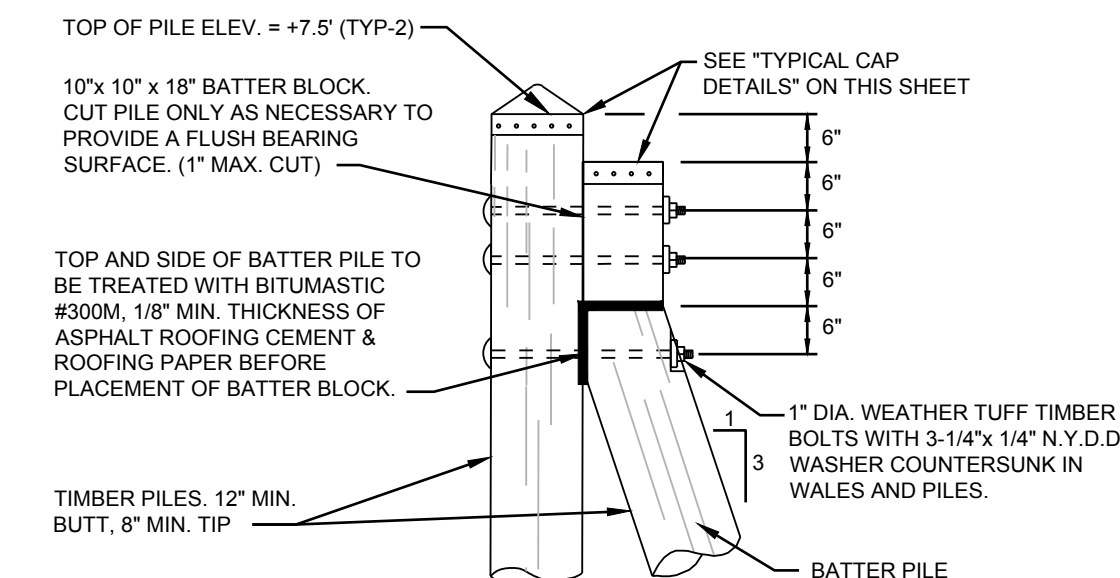
TYPICAL RAMP SURFACING DETAILS

NO SCALE



TYPICAL CAP DETAILS

SCALE: 1"= 1'



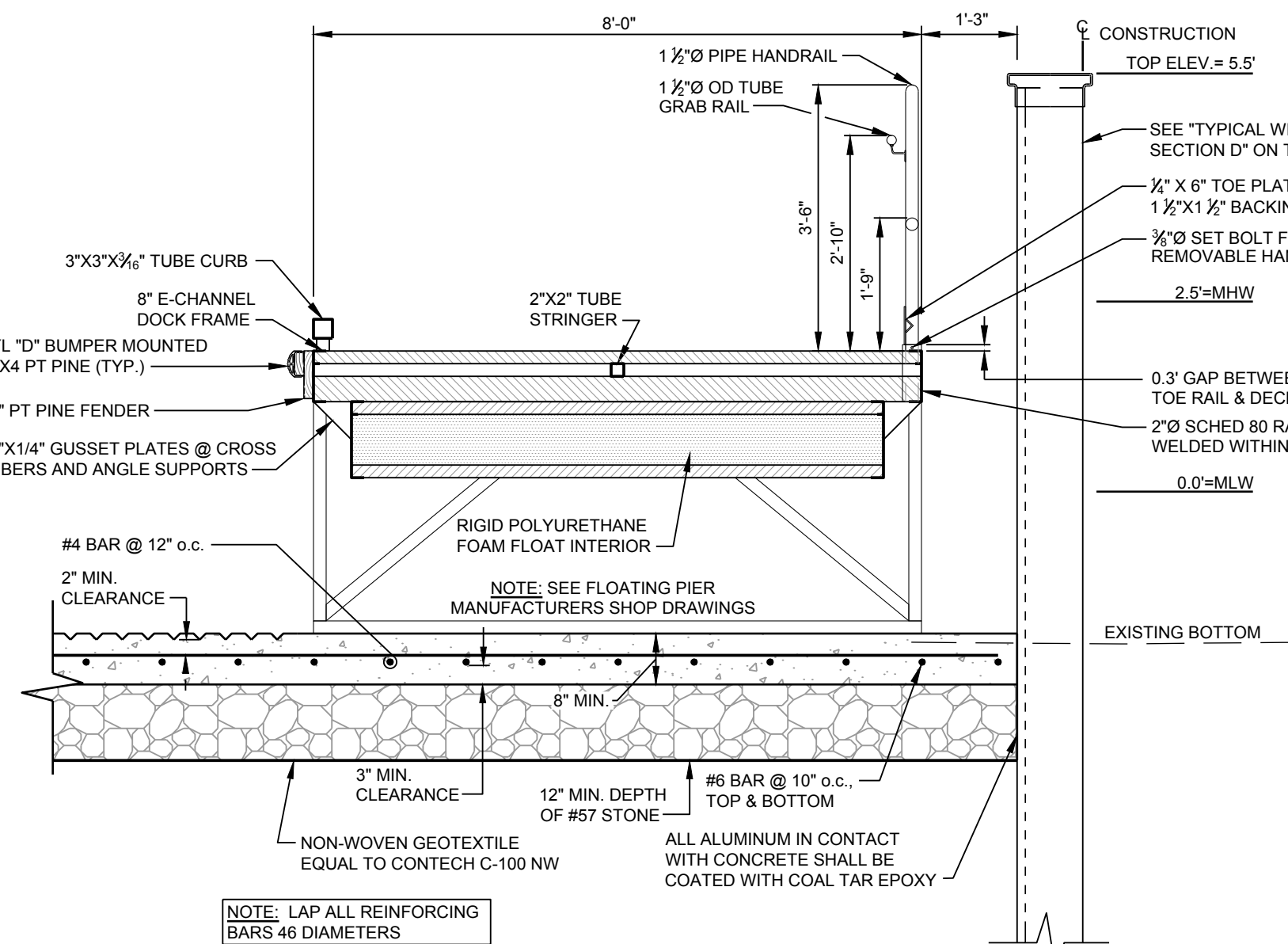
TYPICAL BATTER BLOCK DETAIL

SCALE: 1"= 1'

- NOTES:
- CONTRACTOR SHALL PLACE BITUMASTIC COATING ON ALUMINUM WHENEVER ALUMINUM IS IN CONTACT WITH CONCRETE AND C.C.A. TREATED TIMBER MATERIALS.
 - BASE BID LENGTH FOR ALL TIMBER AND STEEL PILES SHALL BE 40'.

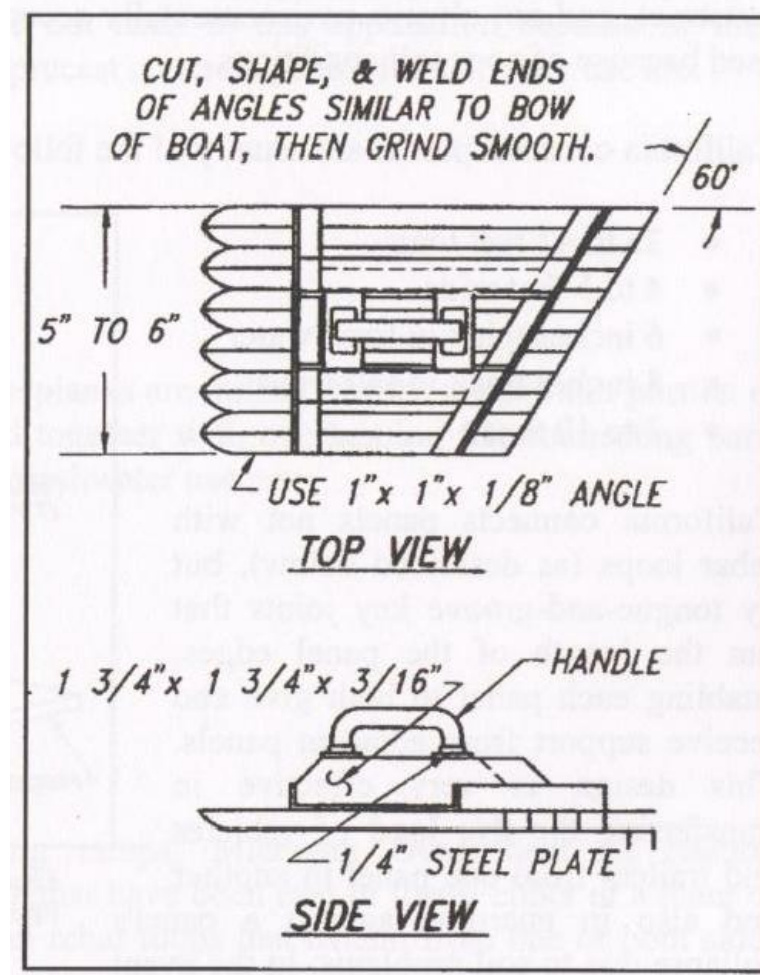
TYPICAL WINGWALL SECTION E

SCALE: 1"= 2'

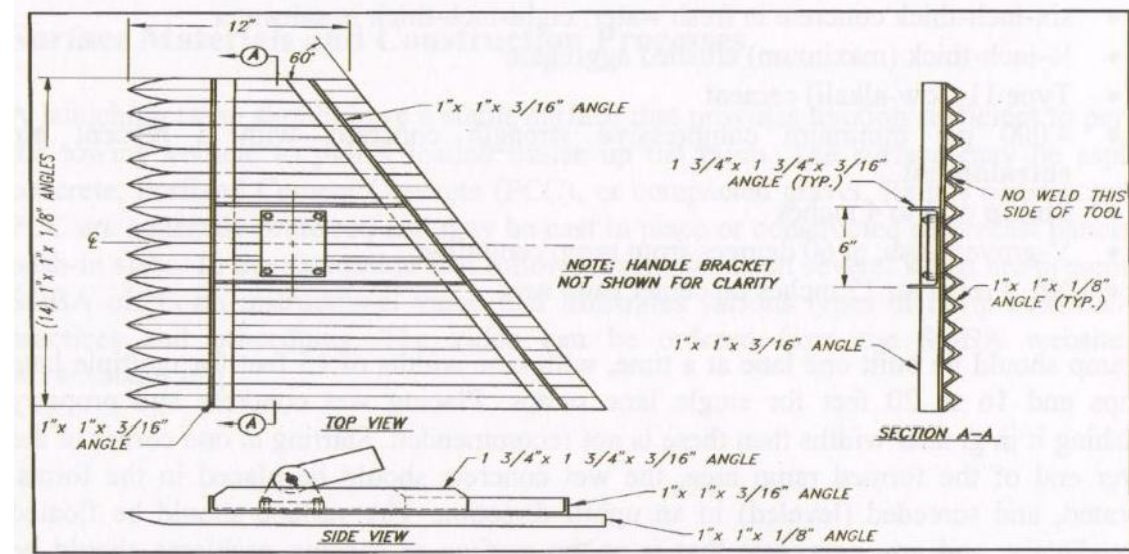


TYPICAL FLOATING PIER DETAIL & TYPICAL REINFORCING & SLAB FOUNDATION DETAIL D

SCALE: 1"= 2'



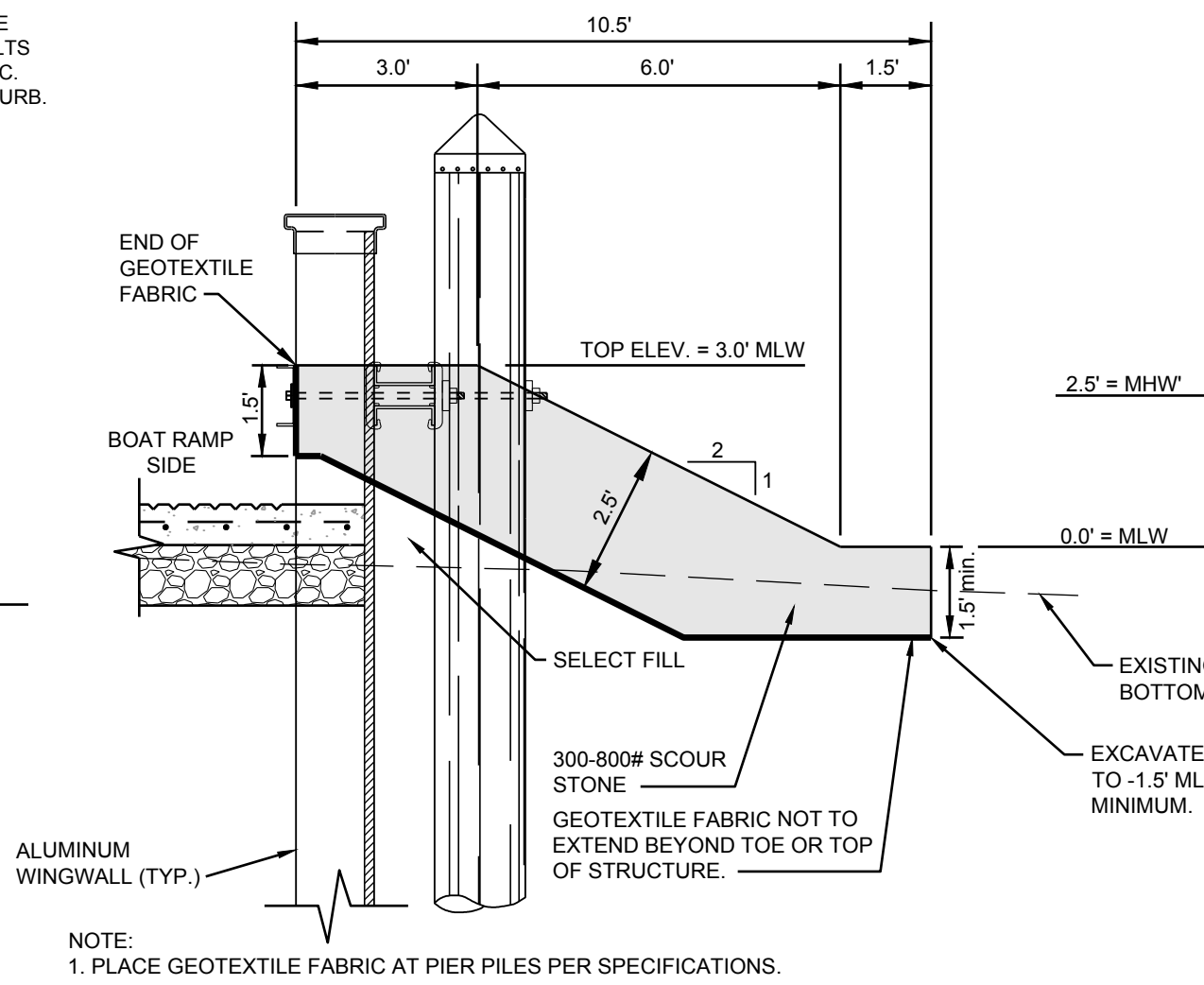
TOOL USED TO COMPLETE THE EDGES OF V-GROOVES IN WET CONCRETE.



NOTE: DETAILS TAKEN FROM S.O.B.A. HANDBOOK. TOOLS TO BE PROVIDED TO CONTRACTOR BY OWNER.

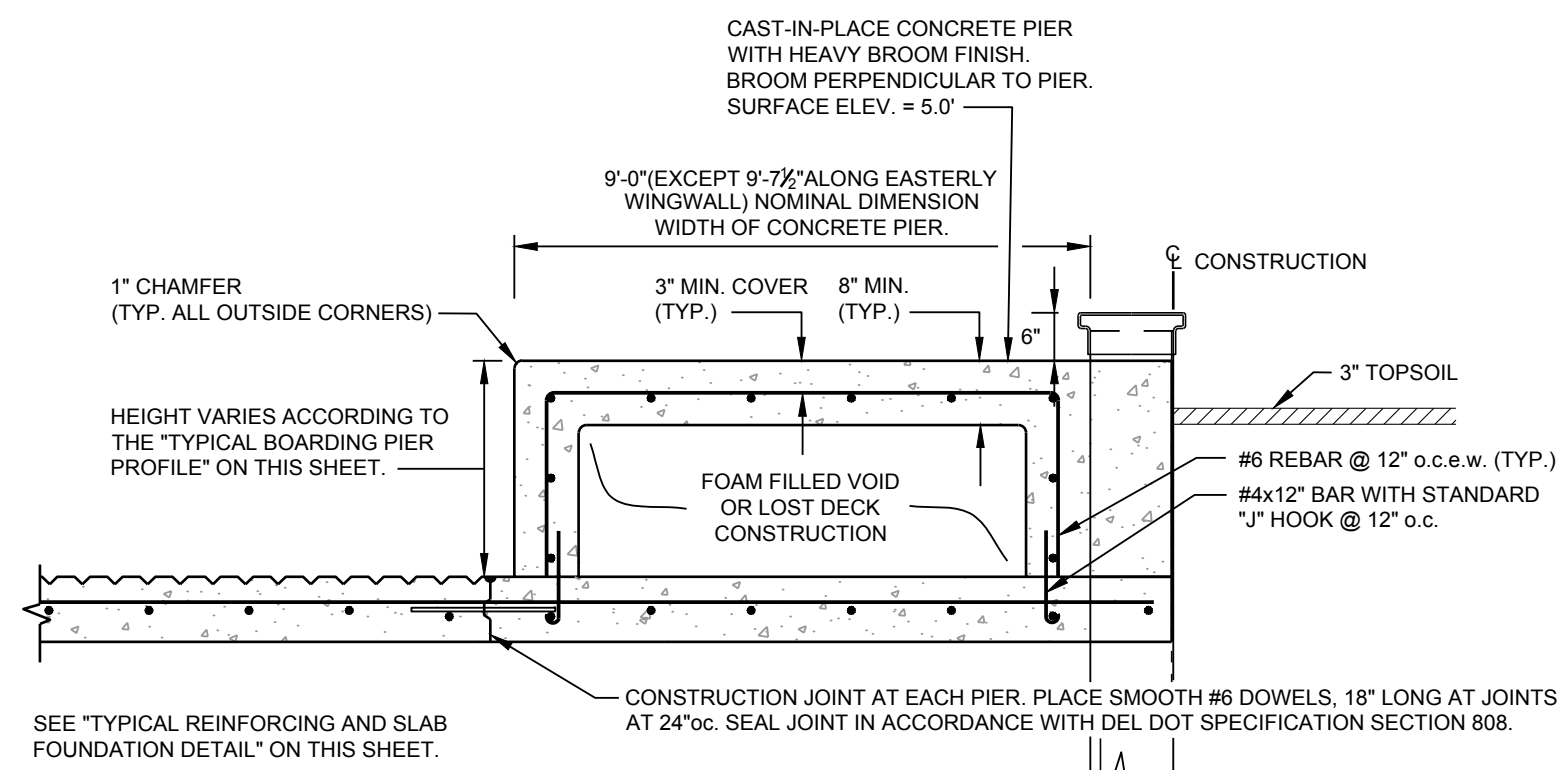
RAMP SURFACE GROOVING TOOL DETAILS

SCALE: NONE



SCOUR STONE - SECTION C

SCALE: 1"= 3'



TYPICAL CONCRETE BOARDING PIER SECTION B

NOT TO SCALE

NO.	DATE	REVISIONS	BY

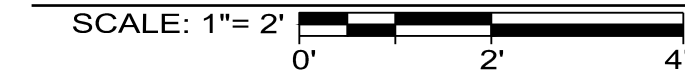
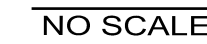


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SUSSEX COUNTY, DELAWARE (302) 424-1441

BOAT RAMP DETAILS
FOR
STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
DIVISION OF FISH AND WILDLIFE
at
PHILLIPS LANDING BOAT RAMP
SUSSEX COUNTY, DELAWARE

DRAWN	DESIGNED	CHECKED
SMS	KBE	JPL
DATE	DATE	DATE
JULY 2018	JULY 2018	JULY 2018
SCALE	SCALE	SCALE
As Shown	As Shown	As Shown
PROJ. NO.	PROJ. NO.	PROJ. NO.
1945A006	1945A006	1945A006
DWG. NO.	DWG. NO.	DWG. NO.
C-5	C-5	C-5
5 of 6	5 of 6	5 of 6

Phillips Landing RTA



C-6