

**Legend**

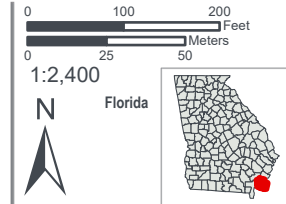
- ▭ Project Boundary (Approx. 10.72 ac)
- ▭ Existing Structures
- ▭ Proposed Replacement
- DNR Wetland/CPMA Line
- MLW Line
- 50ft Marsh Buffer
- Edge of Marsh
- ↔ Measurement Lines

**Figure 6: Distances**  
**74113 WREH West Saint Marys St**

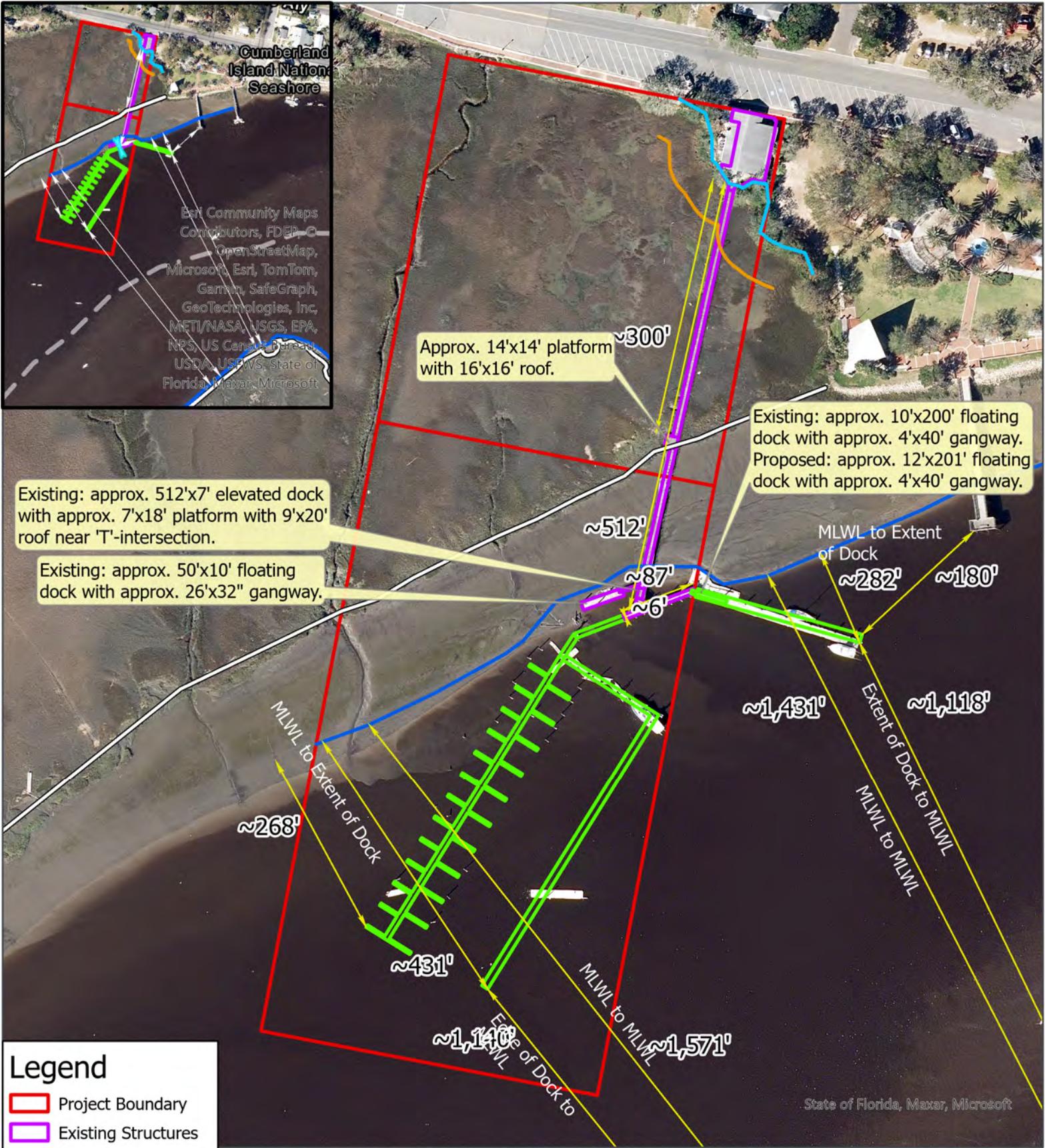
**307 West St. Marys St**  
**RE# S40 05 004**  
**(30.7192869°, -81.5528700°)**

St. Mary's, Camden County, Georgia

Date: October 2023  
 Base map provided by NOAA 2018. Property boundaries based on georeferenced CAD data provided by Bellingham Marine.







**Legend**

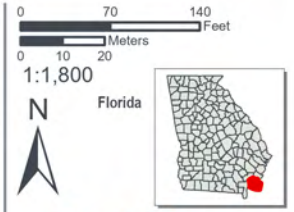
- ▭ Project Boundary
- ▭ Existing Structures
- ▭ Proposed Replacement
- DNR Wetland/CMPA Line
- MLW Line
- 50ft Marsh Buffer
- Edge of Marsh
- Measurement Lines

**Figure 5: Proposed Site Conditions  
74113 WREH West Saint Marys St**

**307 West St. Marys St  
RE# S40 05 004  
(30.7192869°, -81.5528700°)**

St. Mary's, Camden County, Georgia

Date: March 2024  
Base map provided by NOAA 2018. Property boundaries based on georeferenced CAD data provided by Bellingham Marine.





# LANG'S MARINA

## ST.MARY'S, GEORGIA

Permit Set

### UNIFLOAT®

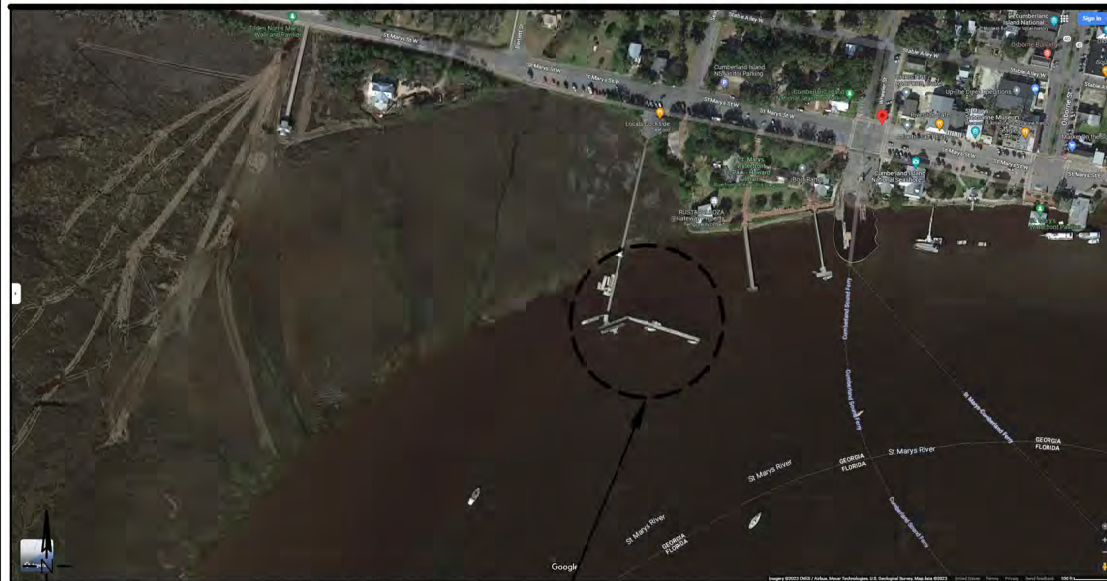
Precision Engineered Flotation Systems

**WARNING:**  
BELLINGHAM MARINE INDUSTRIES HAS BEEN NOTIFIED BY ITS WOOD PRESERVERS THAT THE CHEMICALS USED IN THE WOOD TREATMENT PROCESS ARE KNOWN TO CAUSE CANCER.

**CAUTION:**  
FLOAT SYSTEMS ARE UNSTABLE WHEN PLACED IN WATER PRIOR TO ASSEMBLY IN THEIR FINAL INTENDED CONFIGURATION. MODULES OR SUBASSEMBLIES SHOULD BE HANDLED WITH CARE DURING INSTALLATION AND SHOULD NEVER BE STOOD OR WALKED UPON PRIOR TO FINISHED ASSEMBLY.

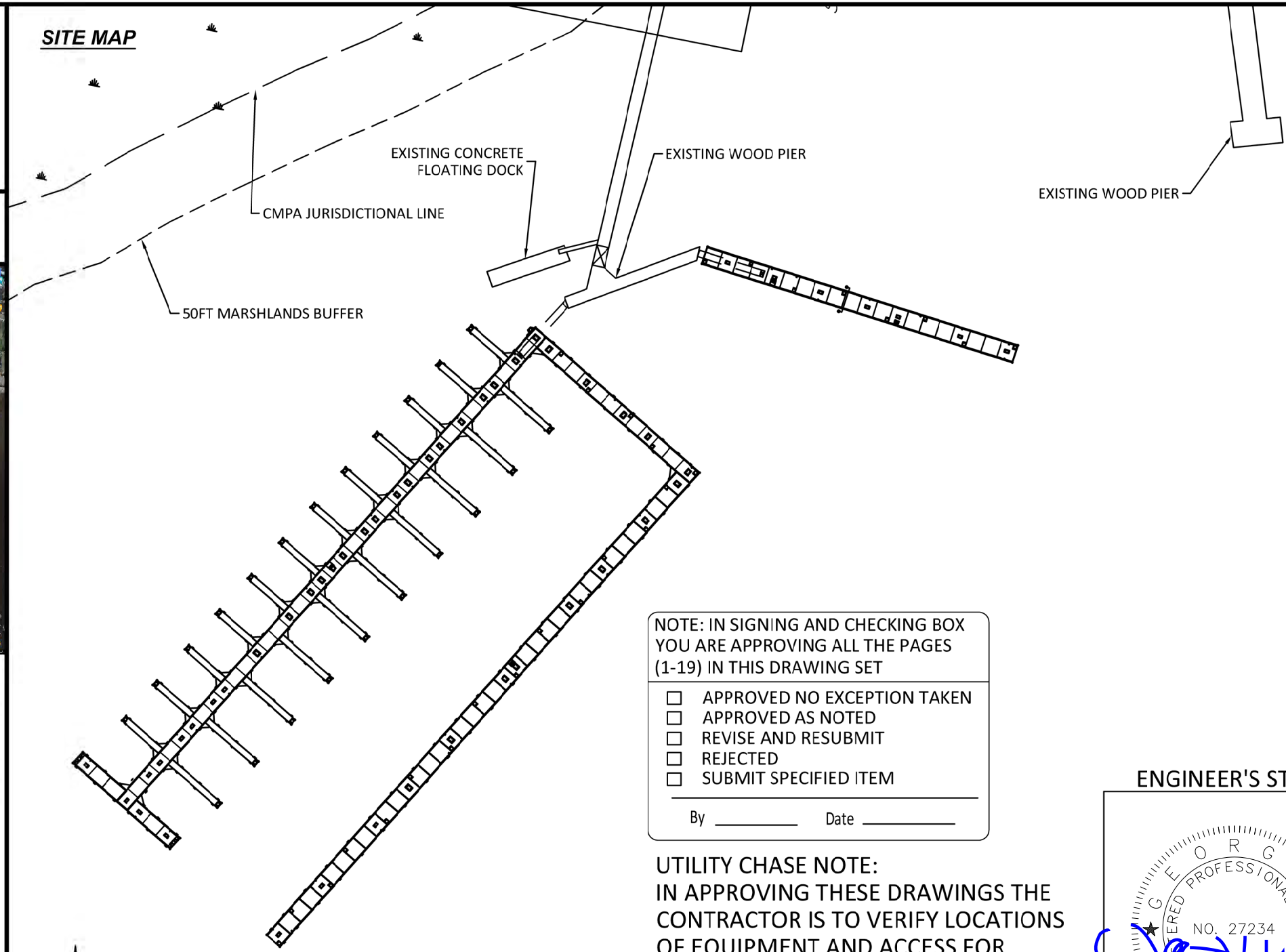
**VICINITY MAP**

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PROJECT LOCATION

**SITE MAP**



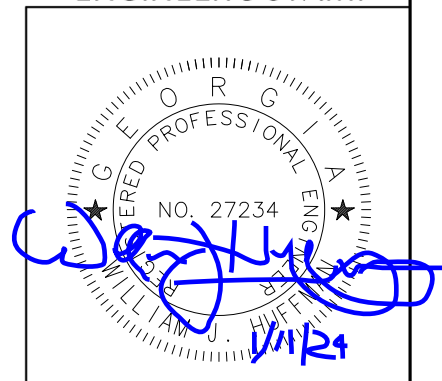
NOTE: IN SIGNING AND CHECKING BOX YOU ARE APPROVING ALL THE PAGES (1-19) IN THIS DRAWING SET

- APPROVED NO EXCEPTION TAKEN
- APPROVED AS NOTED
- REVISE AND RESUBMIT
- REJECTED
- SUBMIT SPECIFIED ITEM

By \_\_\_\_\_ Date \_\_\_\_\_

**UTILITY CHASE NOTE:**  
IN APPROVING THESE DRAWINGS THE CONTRACTOR IS TO VERIFY LOCATIONS OF EQUIPMENT AND ACCESS FOR UTILITIES.  
APPROVED DRAWINGS WILL BE FABRICATED ACCORDINGLY .

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**PROJECT DESCRIPTION**

CONSTRUCTING NEW FLOATING DOCK SYSTEM AS FOLLOWS:  
1. DESIGN, PROCUREMENT, & MANUFACTURE OF NEW DOCK.

**CONTACT INFORMATION**

**PROJECT ADDRESS:**  
100 ST. MARY'S ST.  
ST. MARY'S, GA. 31558

**OWNER:**  
ST. MARY'S PROPERTY HOLDINGS, LLC  
581705 WHITE OAK ROAD  
YULEE, FLORIDA 32097

**CONTRACTOR:**  
BARNETT SOUTHERN CORPORATION  
ATTN: SAM HOLLOWAY  
106 N. ALEXANDER AVE  
WASHINGTON, GA 30673

**SUPPLIER:**  
BELLINGHAM MARINE INDUSTRIES, INC. (SE)  
ATTN: JEFF PRATT, GENERAL MANAGER  
1813 DENNIS ST.  
JACKSONVILLE, FL. 32204  
TEL: 904-358-3362

**STRUCTURAL ENGINEER:**  
STRUCTURAL SYSTEMS ANALYSIS (SSA)  
ATTN: WILLIAM J. HUFFMAN JR. P.E.  
7 POPLAR DRIVE-SUITE B  
P.O. BOX 67 ROSMAN, N.C. 28772  
TEL: 912-484-7374

**GANGWAY MANUFACTURE:**  
BELLINGHAM MARINE INDUSTRIES, INC. (SE)  
ATTN: JEFF PRATT, GENERAL MANAGER  
1813 DENNIS ST.  
JACKSONVILLE, FL. 32204



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PROJECT NUMBER:  
**6291**

ENGINEER / DESIGNER:  
WH

PROJECT MANAGER:  
MG

CHECKED BY:  
EC

LANG'S MARINA  
ST. MARY'S, GEORGIA

TITLE

SCALE: 1"=70'  
(SHEET SIZE 11" x 17")

DRAWN BY: NR

DATE: 11/29/23

DRAWING: T1

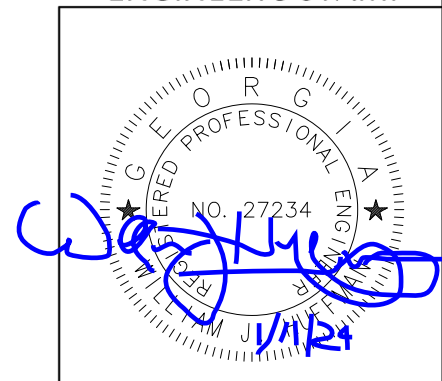
SHEET NO.: 1 of 19

NO.	DATE	DESCRIPTION	BY
REVISIONS			

INDEX			
REV. STATUS	DRAWING	SHEET NO.	DRAWING DESCRIPTION
	T1	1	TITLE SHEET
	IDX1	2	INDEX SHEET
	G1	3	GENERAL NOTES
1	P1	4	PILE DESIGN
	OL1	5	LAYOUT
	PL1	6	PILE LAYOUT
1	U1	7	UTILITY LAYOUT
	H1	7.1	HYDROGRAPHIC SURVEY
	A2	8	DETAILS
	A3	9	DETAILS
	A4	10	DETAILS
	A5	11	DETAILS
1	A6	12	DETAILS
	A6.1	13	DETAILS
	A7	14	DETAILS
	A7.1	15	DETAILS
	A7.2	16	DETAILS
	S8	17	STEEL FABRICATION DETAILS
	C1	18	CONTOUR DETAIL
	C2	19	CONTOUR DETAIL

- REVISION LOG:
1. LIGHT POLE LOCATIONS ADDED TO SHEETS 4, 7, AND 16. (1-9-24)
  2. SHEET 4 PILE DESIGN DATUM CHANGED PER ENGINEER (1-9-24)
  3. LIGHT DETAIL ADDED TO SHEET 12 (1-9-24)

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NO.	DATE	DESCRIPTION	BY
1.	1-9-24	REVISED INDEX SEE REVISION LOG FOR REVISION DETAILS	NR
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**LANG'S MARINA  
ST. MARY'S, GEORGIA**

**INDEX**

SCALE: AS SHOWN  
(SHEET SIZE 11" x 17")

DRAWN BY: NR

DATE: 11/29/23

DRAWING: IDX1

SHEET NO.: 2 of 19



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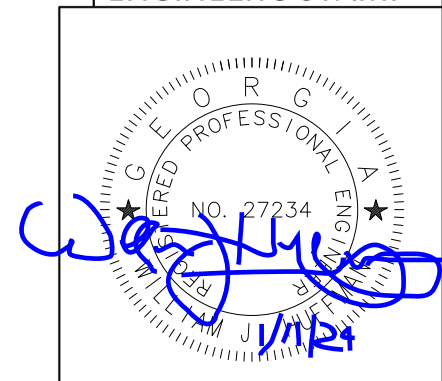
ABBREVIATIONS

GENERAL NOTES

- WHEN THESE DRAWINGS AND DESIGN ARE BASED ON A "PROPOSED SURVEY", IT IS ADVISABLE TO HAVE AN ACTUAL "AS BUILT SURVEY" PRIOR TO EARLY PRODUCTION. RELEASE BASED ON A PROPOSED SURVEY IS THE CUSTOMER'S RESPONSIBILITY.
- CAUTION: FLOAT SYSTEMS ARE UNSTABLE WHEN PLACED IN WATER PRIOR TO ASSEMBLY IN THEIR FINAL INTENDED CONFIGURATION. MODULES OR SUBASSEMBLIES SHOULD BE HANDLED WITH CARE DURING INSTALLATION AND SHOULD NEVER BE STOOD OR WALKED UPON PRIOR TO FINISHED ASSEMBLY.
- WARNING: BELLINGHAM MARINE INDUSTRIES, INC. HAS BEEN NOTIFIED BY ITS WOOD PRESERVERS THAT THE CHEMICALS USED IN THE WOOD TREATMENT PROCESS ARE KNOWN TO CAUSE CANCER.
- NOTE: PVC SLEEVES CAST INTO FLOAT MODULES ARE NOT CONTINUOUS THRU THE ASSEMBLED DOCK. THERE IS A 3 1/2" APPROXIMATE GAP BETWEEN FLOAT MODULES. THIS SYSTEM IS DESIGNED TO PROVIDE ONLY A SLEEVE FOR WHATEVER WIRING/CONDUIT SYSTEM IS REQUIRED BY THE ELECTRICAL SYSTEM DESIGNER AND LOCAL CODE AUTHORITY.
- NOTE: STEEL WELDMENTS ARE HOT DIPPED GALVANIZED (HDG) AFTER FABRICATION. ALL NUTS, BOLTS, AND WASHERS WILL BE A307 HDG STEEL, OR STAINLESS STEEL GRADE 304. THE GALVANIZED COATING ON HDG STEEL PARTS IS A SACRIFICIAL MATERIAL THAT DEGRADES OVER TIME. GALVANIZED PARTS WILL CORRODE AFTER EXPOSURE TO SALTWATER, AND HAVE A LIFE EXPECTANCY OF 5 TO 10 YEARS. ROUTINE MAINTENANCE AND/OR REPLACEMENT WILL BE REQUIRED.

&	and	%	Percent
@	at	±	Plus or Minus
A.C.O.E.	Army Corps of Engineers	PL.	Plate
ALUM.	Aluminum	PCF	Pounds per Cubic Foot
A.S.	Anti-Skid	P.O.C.	Point of Connection
x	by	PSI	Pounds per Square Inch
CB	Carriage Bolt	P.T.	Pressure Treated
☒	Center Line	PVC	Polyvinyl Chloride
C-C	Center to Center	PL.	Plate
C.F.	Cubic Foot/Feet	PW	Plate Washer
C.I.P.	Cast in Place	QTY.	Quantity
CLR.	Clear	REINF.	Reinforced, reinforcement
CW	Cleat Washer	REQ'D	Required
CONC.	Concrete	SQ.	Square
CONT.	Continuous	SQW	Square Washer
C.Y.	Cubic Yard	S.F.	Square Foot
°	Degrees	SIM.	Similar
D.F.	Douglas Fir	SHT.	Sheet
DWG	DWG	S.S.	Stainless Steel
D.L.	Dead Load	T.O.C.	Top of Concrete
DET.	Detail	T.O.S.	Top of Slope
∅ or DIA.	Diameter	T.S.	Tube Steel
ELEV. or EL.	Elevation	TYP.	Typical
EXIST. or (E)	Existing	THK.	Thick
EA.	Each	U.N.O.	Unless Otherwise Noted
Fab.	Fabrication	UHMW	Ultra High Molecular Weight
F.B.	Flat Bar	VERT.	Vertical
FH	Flat Head	W.W.F.	Welded Wire Fabric
F.R.P.	Fiber Reinforced Polymer	W.W.M.	Welded Wire Mesh
FT.	Foot	w/	with
FW	Flat Washer	W.	Wide, Width
GA.	Gage	X.H.W.	Extreme High Water
GALV.	Galvanized	X.L.W.	Extreme Low Water
GLB	Glue Laminated Beam		
H.D.	Heavy Duty		
H.D.G.	Hot Dip Galvanized		
HDPE	High Density Polyethylene		
HW	Hardware		
HN	Hex Nut		
IN.	Inch(es)		
LBS. or #	pound(s)		
LAM	Laminated		
LIN	Linear/lineal		
LG	Long		
L.L.	Live Load		
LW	Lock Washer		
MLLW	Mean Lower Low Water		
MAX.	Maximum		
MB	Machine Bolt		
MDPE	Medium Density Polyethylene		
MFR	Manufacturer		
MM	Millimeter		
MIN.	Minimum		
N.I.C.	Not In Contract		
NO. or #	Number		
(N)	New		
NTS	Not To Scale		
O.A.	Overall		
O.C.	On Center		
OPP.	Opposite		

ENGINEER'S STAMP



NO.	DATE	DESCRIPTION	BY
REVISIONS			



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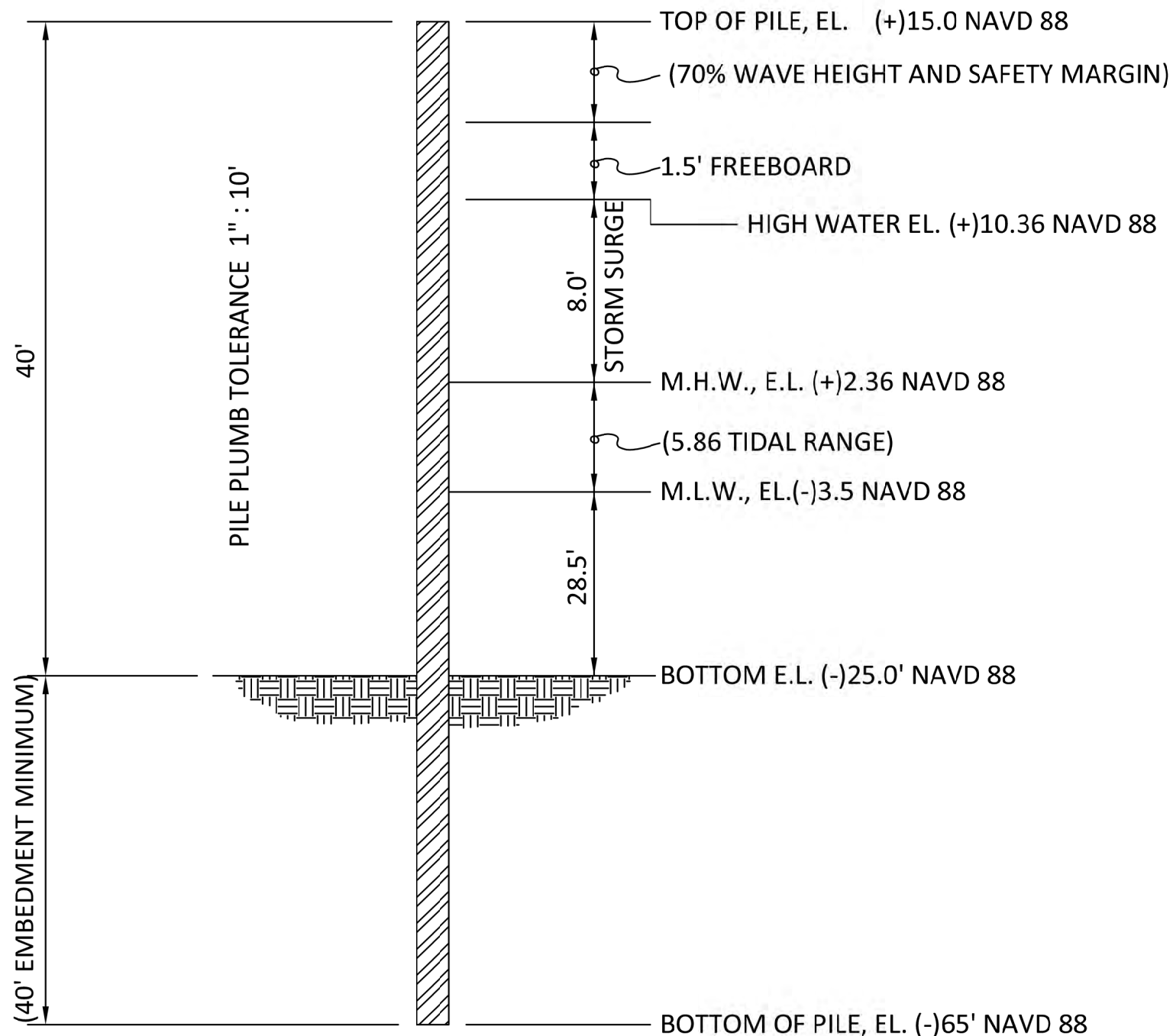
PROJECT NUMBER: <b>6291</b>
ENGINEER / DESIGNER: WH
PROJECT MANAGER: MG
CHECKED BY: EC

**LANG'S MARINA  
ST. MARY'S, GEORGIA**

**GENERAL NOTES**

SCALE: AS SHOWN (SHEET SIZE 11" x 17")
DRAWN BY: NR
DATE: 11/29/23
DRAWING: G1
SHEET NO.: 3 of 19





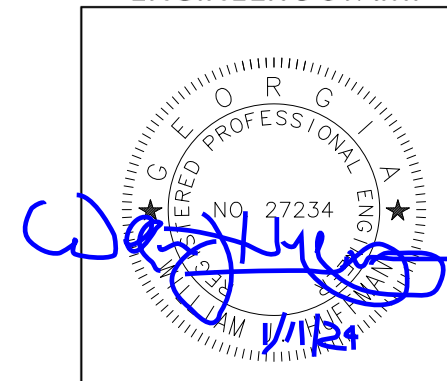
TOTAL LENGTH OF PILE, L = 80'

DESIGN CRITERIA: THE UNIFLOAT SYSTEM PROPOSED AND WARRANTED HEREIN IS BASED UPON THE FOLLOWING DESIGN CRITERIA:

**Lang's Marina West Criteria**

- Maximum Wind Speed Occupied - 72 MPH - (ASCE 7-16: 3 second gust)
- Maximum Wind Speed Unoccupied - 90 MPH - (ASCE 7-16: 3 second gust)
- Largest Average Vessel - 40 feet (Maximum 50% Occupied with 15% Shielding allowed)
- Largest Single Vessel - 120 feet (Not Occupied during Storm Conditions)
- Layout of Docks - As supplied by Owner (With Main Tree and Side Tie Docks)
- Storm Duration - 2.0 Hour Maximum
- Anticipated Surge - (+/-) 8.0 feet above 100 year flood elevation
- Top of Pile Elevation - (+) 15.0 NAVD 88
- Existing Bottom Depth - (+/-) -25.0 NAVD 88 (Owner to provide hydrographic survey) <sup>REV 1</sup>
- Occupied Wave at Site - 1.5 feet / 2.0 second period (As estimated from local conditions on site - Owner is responsible for wind/wave study to verify conditions)
- Boat Wake - Not greater than governing wave
- Current - 3.0 FPS Occupied
- Pile Type - 16"Ø Steel Pipe Pile -1/2" wall ASTM A-252 Grade 3 (50 ksi Minimum) with 45' Coal Tar Epoxy Coating 16 Mil DFT or 18" HDPE Pipe or 18" x 18" prestressed concrete with 12 each 1/2" LoLax strands stressed to 30,800 lbs and 7,500 psi concrete with DCI Corrosion Inhibitor at 3.0 gal/yd
- Suggested Layout of Piling - Included on Layout Plan
- Size of Dock Walers Required - Double 4" x 12" SYP with single rods - 16 rods per 10' float and SR/SP for 0810 and 1010 modules
- Size of SPF Dock Walers Required - Single 4" x 10" SYP with 4 single rods per waler joints
- Number of 16"Ø Steel - 52 each Total on Main Tree and 380' & 200' Side Tie Docks
- Length of Piling - 80 feet assumed for all docks (Need Geotechnical Information)
- Depth of Required Penetration - 40 feet (Owner to Provide Geotechnical Study)
- Freeboard - 18 inches at Tree and 24" Side Tie under dead load only - 30 PSF Live Load
- Proposed 2 each 6' x 40' gangways with 50 PSF LL and L/180 deflection limited

ENGINEER'S STAMP



NO.	DATE	DESCRIPTION	BY
1	1-9-24	EXISTING BOTTOM DEPTH CHANGED TO 25'-0" NAVD 88	NR
REVISIONS			

**Bellingham MARINE**  
 THE WORLD'S MOST COMPREHENSIVE MARINA BUILDER

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ENGINEER / DESIGNER: WH
PROJECT MANAGER: MG
CHECKED BY: EC

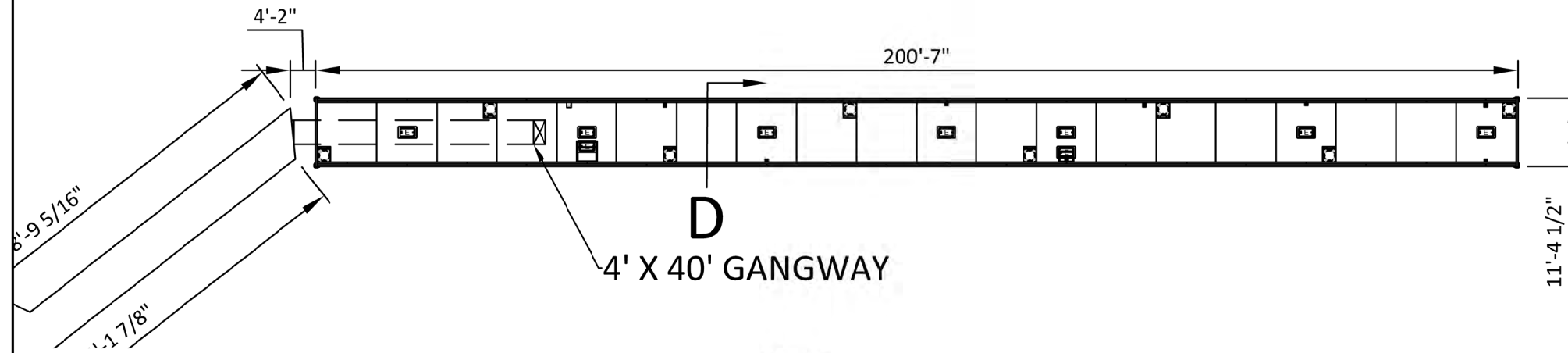
**LANGS MARINA  
ST. MARY'S, GEORGIA**

**PILE DESIGN**

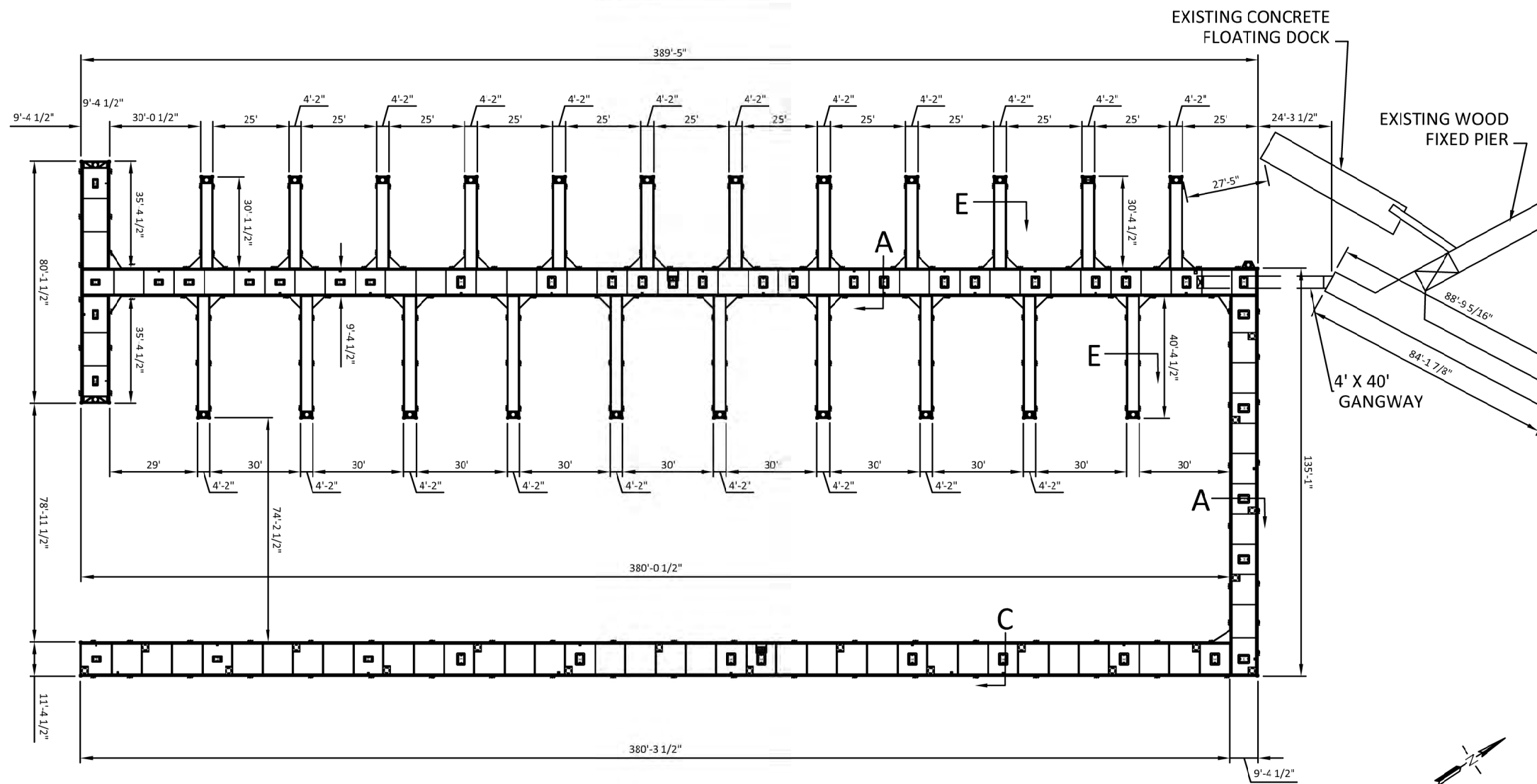
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DATE: 11/29/23
DRAWING: P1
SHEET NO.: 4 of 19



15,687 TOTAL CONSTRUCTION SF

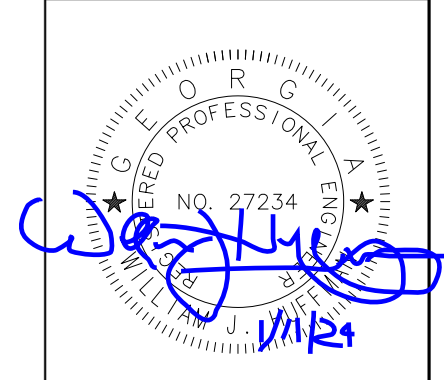


SCALE: 1"=25'-0"



SCALE: 1"=45'-0"

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PROJECT NUMBER:  
**6291**

ENGINEER / DESIGNER:  
 WH

PROJECT MANAGER:  
 MG

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**LANG'S MARINA  
 ST. MARY'S, GEORGIA  
 LAYOUT**

SCALE: VARIES (SHEET SIZE 11" x 17")

DRAWN BY: NR

DATE: 11/29/23

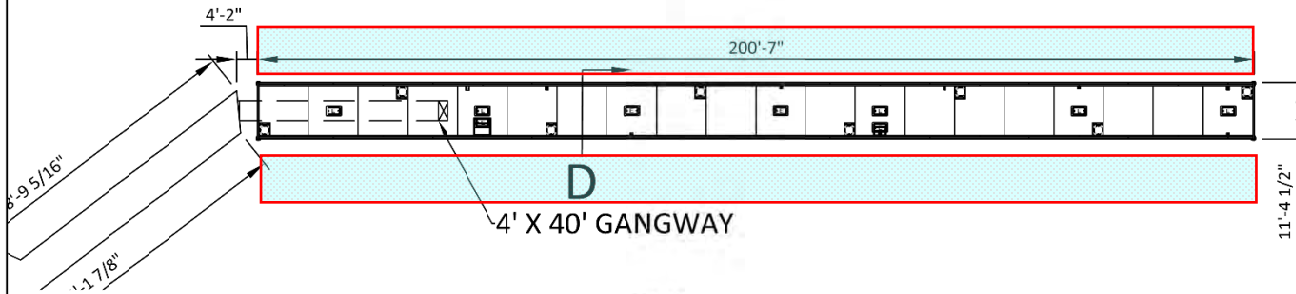
DRAWING: OL1

SHEET NO.: 5 of 19



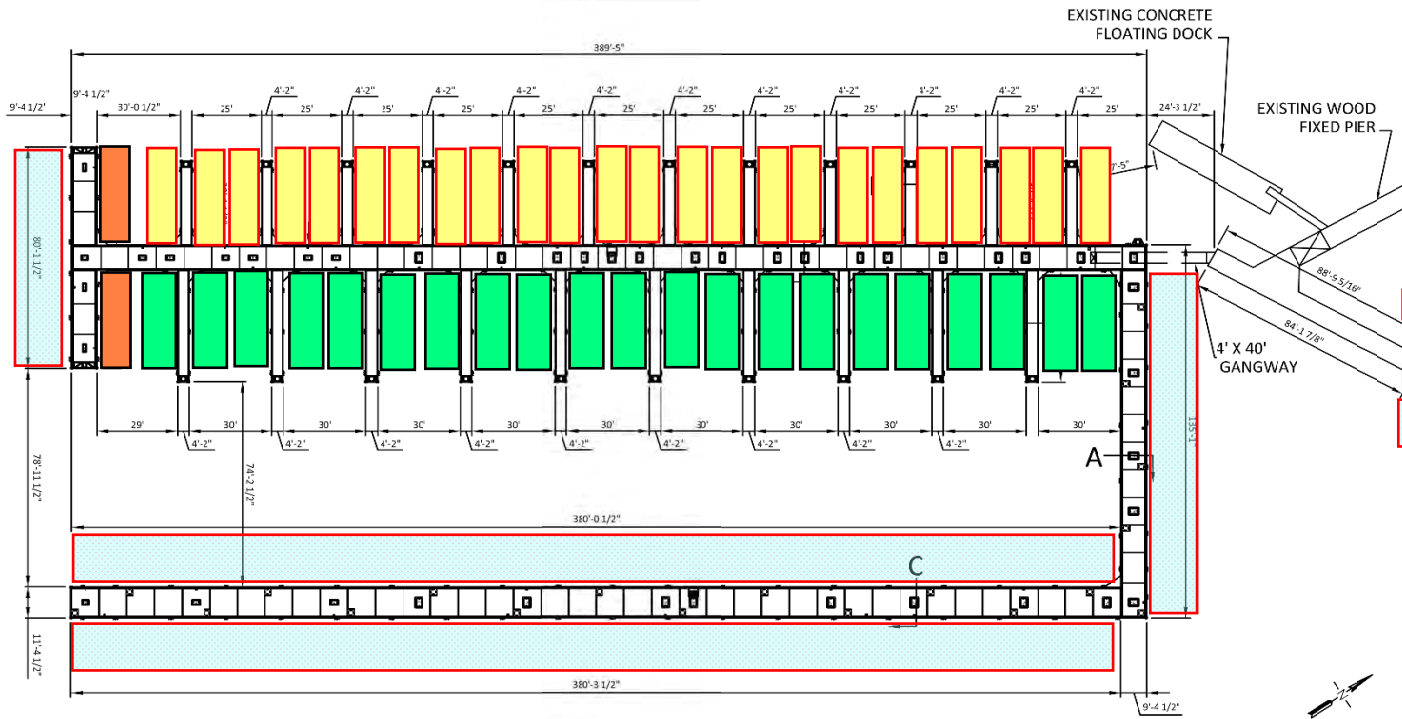
FOR PERMITTING PURPOSES ONLY-NOT FOR CONSTRUCTION

15,687 TOTAL CONSTRUCTION SF



Slip Count:  
Side Tie - 400'

SCALE: 1"=25'-0"



Slip Count:  
30' - 24 each  
35' - 2 each  
40' - 21 each  
Side Tie - 975'

SCALE: 1"=45'-0"

ENGINEER'S STAMP



NO.	DATE	DESCRIPTION	BY
REVISIONS			



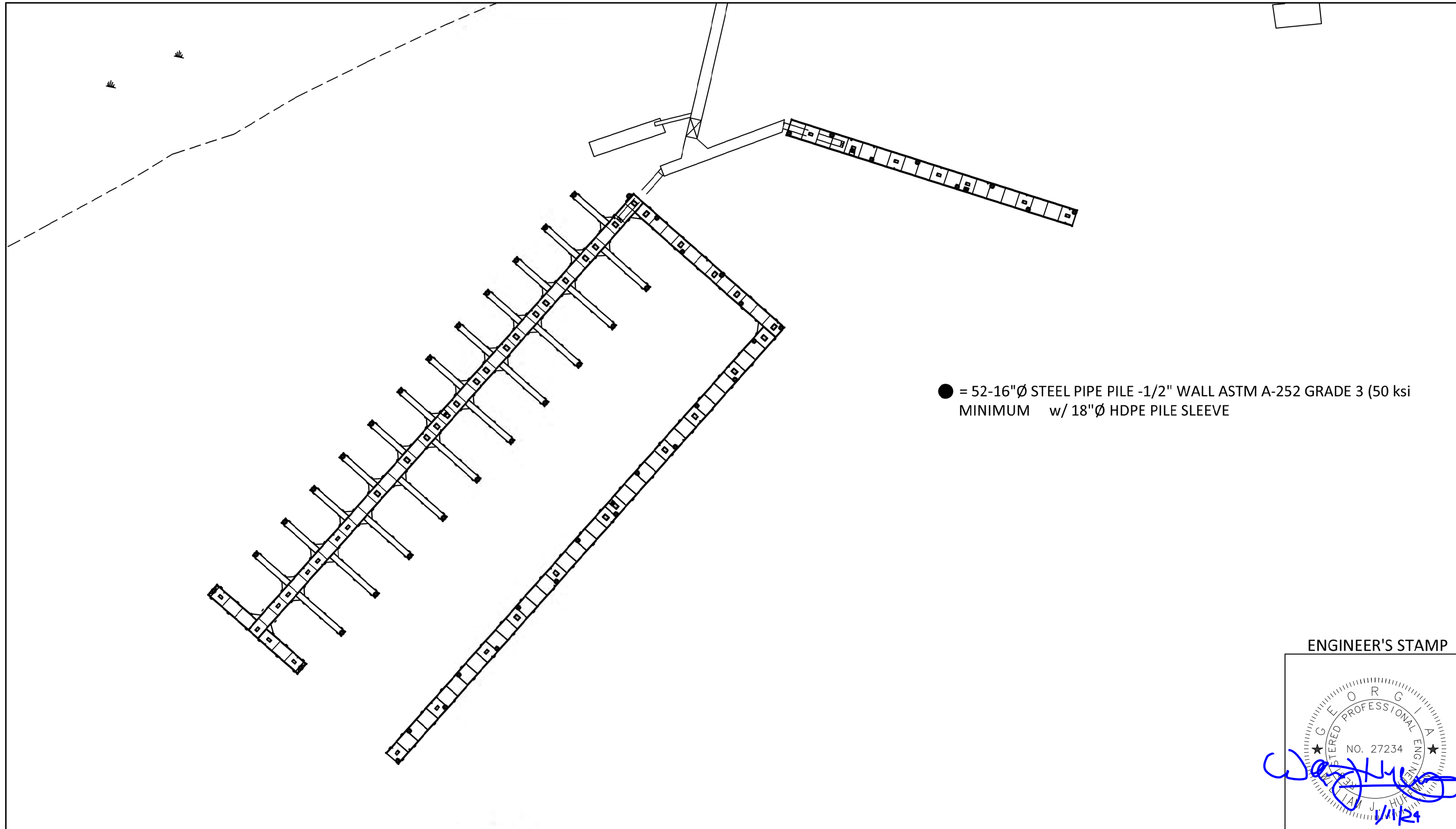
THE WORLD'S MOST COMPREHENSIVE MARINA BUILDER

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PROJECT NUMBER:  
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ENGINEER / DESIGNER:  
WH  
PROJECT MANAGER:  
MG  
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EC

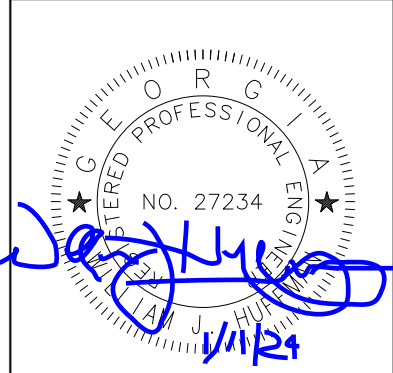
LANG'S MARINA  
ST. MARY'S, GEORGIA  
LAYOUT

SCALE: VARIES (SHEET SIZE 11" x 17")
DRAWN BY: NR
DATE: 11/29/23
DRAWING: OLI
SHEET NO.: 5 of 19



● = 52-16"Ø STEEL PIPE PILE -1/2" WALL ASTM A-252 GRADE 3 (50 ksi MINIMUM w/ 18"Ø HDPE PILE SLEEVE

ENGINEER'S STAMP



NO.	DATE	DESCRIPTION	BY
REVISIONS			

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**MARINE**  
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PROJECT NUMBER:  
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ENGINEER / DESIGNER:  
WH

PROJECT MANAGER:  
MG

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**LANG'S MARINA**  
**ST.MARY'S, GEORGIA**

**PILE LAYOUT**

SCALE: 1"=60'  
(SHEET SIZE 11" x 17")

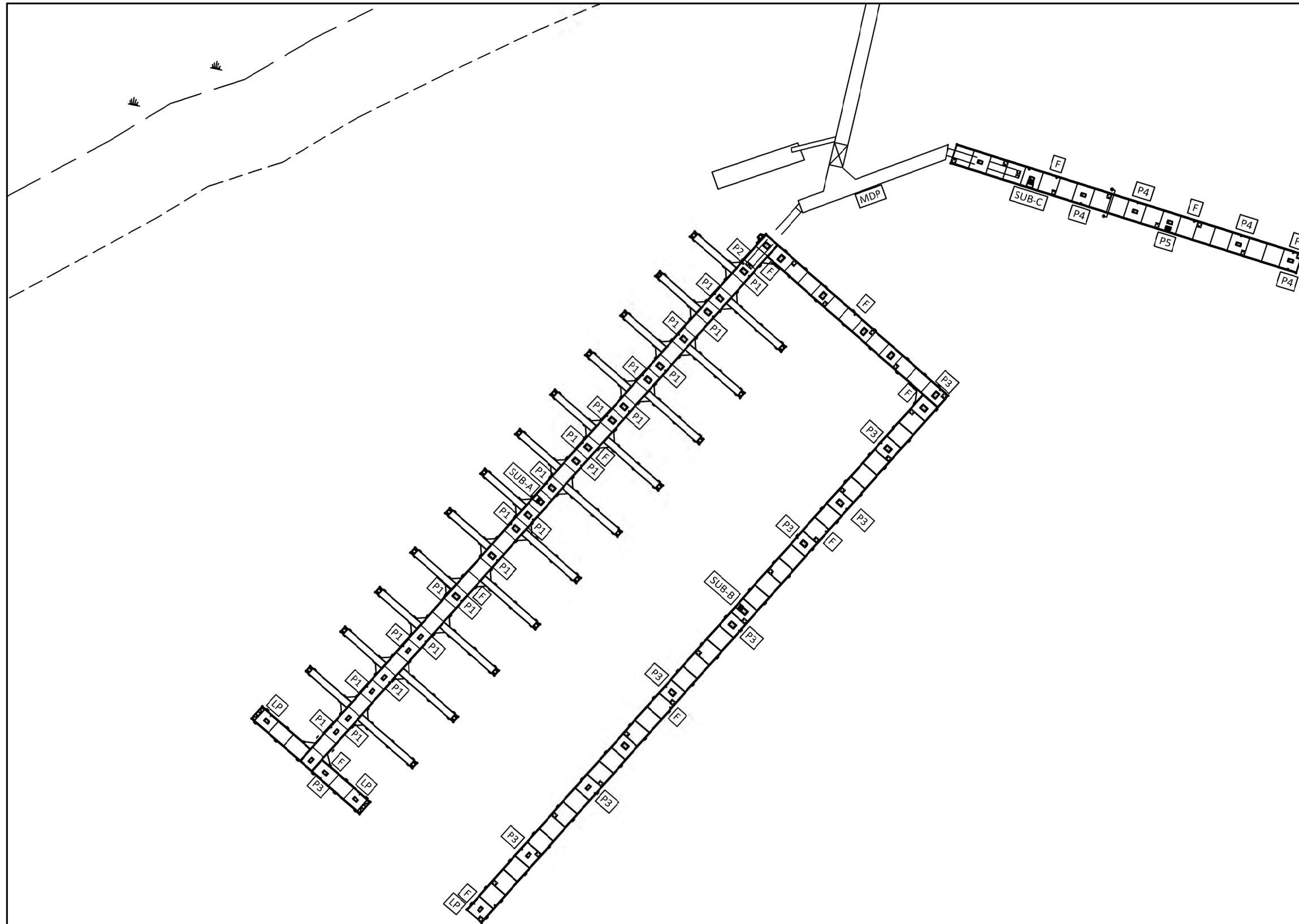
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DATE: 11/29/23

DRAWING: PL1

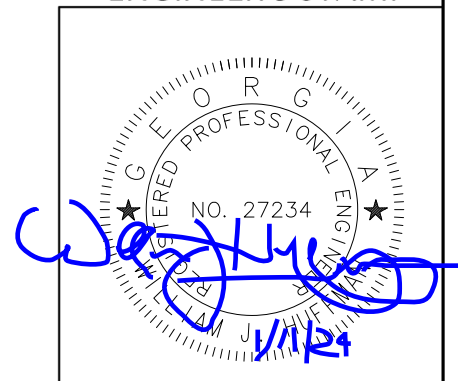
SHEET NO.: 6 of 19





CLIENT TO PROVIDE LOCATION AND QUANTITY OF UTILITIES		
QTY.	SYMBOL	SPECS
	P1	HARBOR LIGHT
	P2	HARBOR LIGHT
	P3	HARBOR LIGHT
	P4	HARBOR LIGHT
	P5	COMMANDER
	F	FIRE RISER
	SUB-A	GTX UNIT SUBSTATION
	SUB-B	GTX UNIT SUBSTATION
	SUB-C	GTX UNIT SUBSTATION
	MDP	MAIN DISCONNECT
REV 1	LP	LIGHT POLE

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NO.	DATE	DESCRIPTION	BY
1	1-9-24	LIGHT POLE LOCATIONS ADDED	NR
REVISIONS			

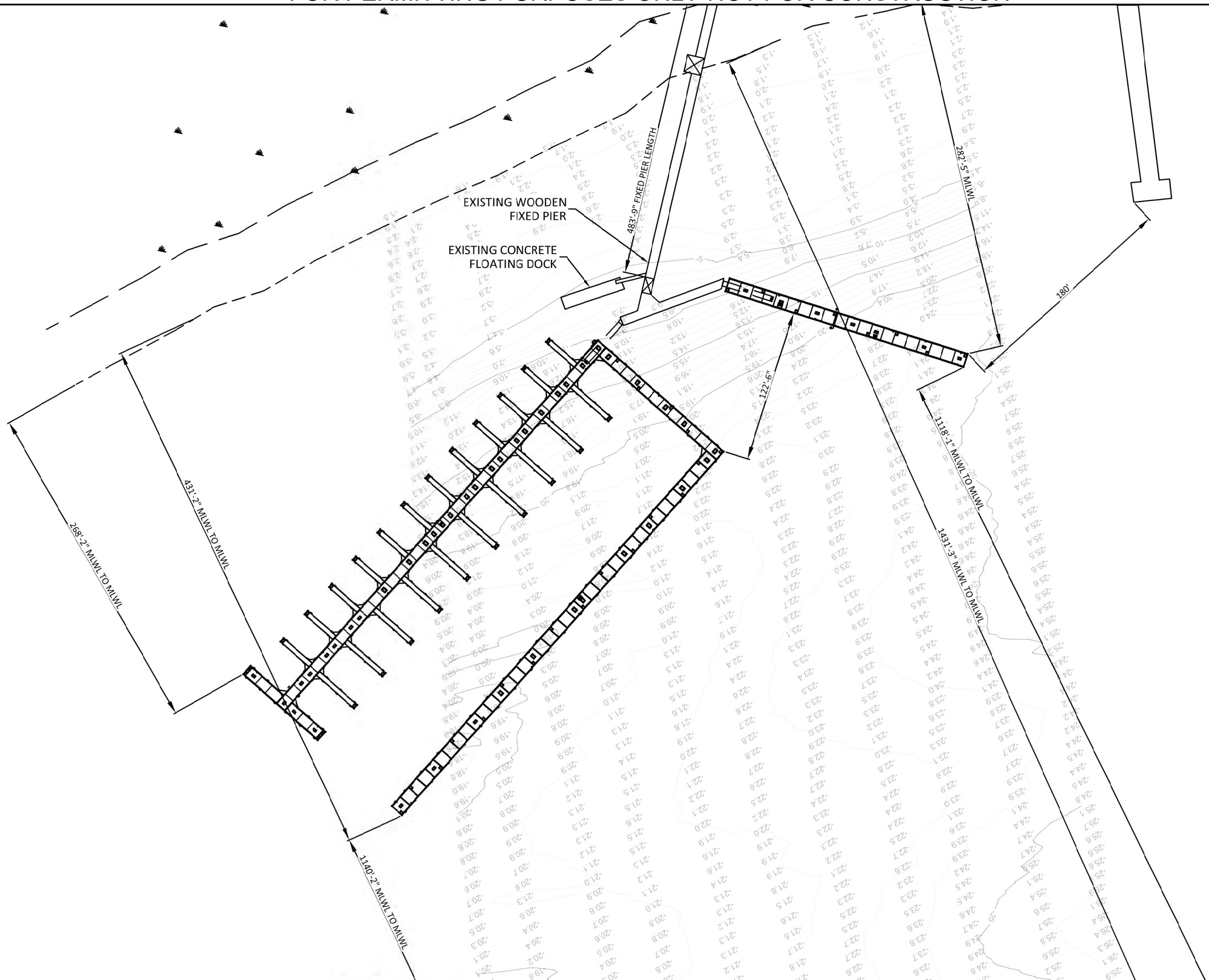
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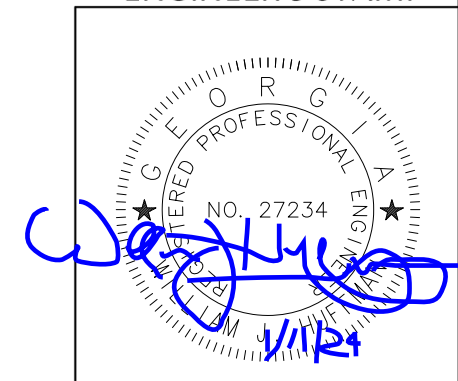
PROJECT NUMBER:  
**6291**  
 ENGINEER / DESIGNER:  
 WH  
 PROJECT MANAGER:  
 MG  
 CHECKED BY:  
 EC

**LANGS MARINA  
 ST.MARY'S, GEORGIA  
 UTILITY LAYOUT**

SCALE: 1"=60'  
 (SHEET SIZE 11" x 17")  
 DRAWN BY: NR  
 DATE: 11/29/23  
 DRAWING: U1  
 SHEET NO.: 7 of 19



ENGINEER'S STAMP



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REVISIONS			

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 THE WORLD'S MOST COMPREHENSIVE MARINA BUILDER

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PROJECT NUMBER:  
**6291**

ENGINEER / DESIGNER:  
 WH

PROJECT MANAGER:  
 MG

CHECKED BY:  
 EC

**LANGS MARINA  
 ST. MARY'S, GEORGIA**

**HYDROGRAPHIC SURVEY**

SCALE: 1"=85'  
 (SHEET SIZE 11" x 17")

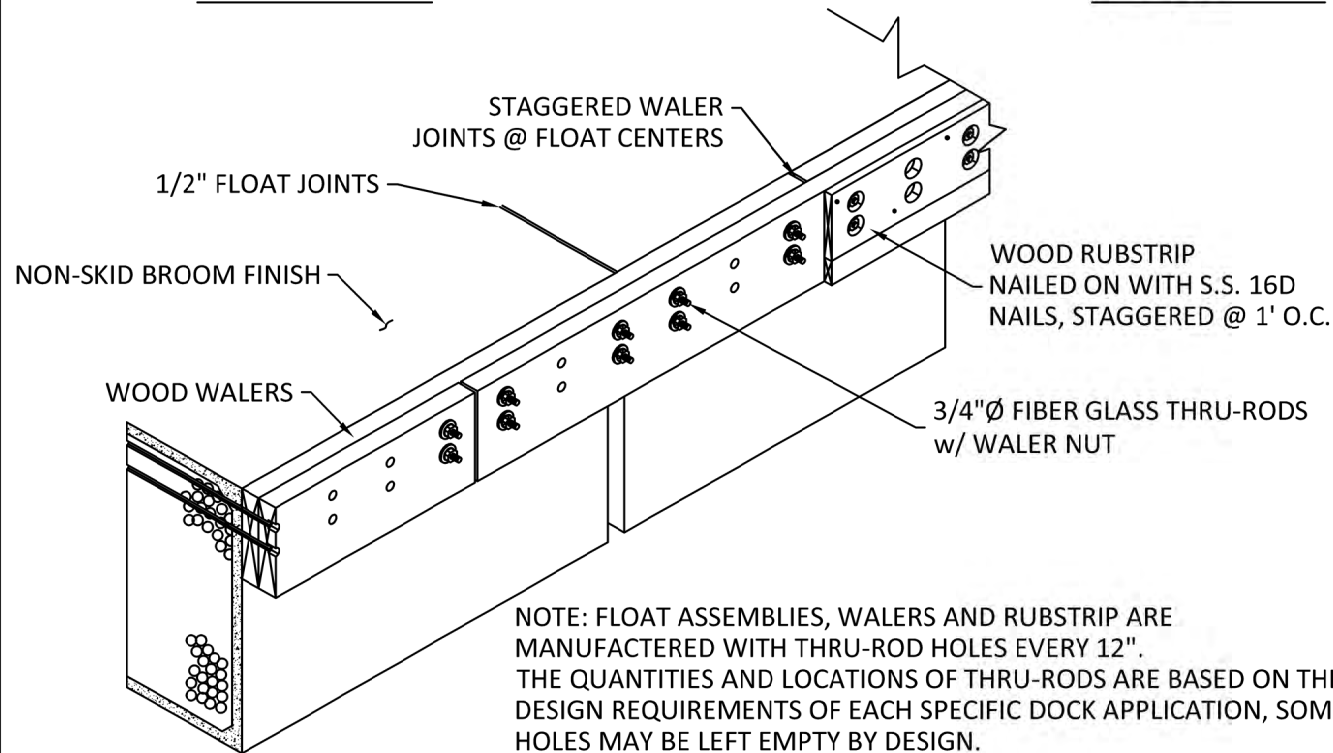
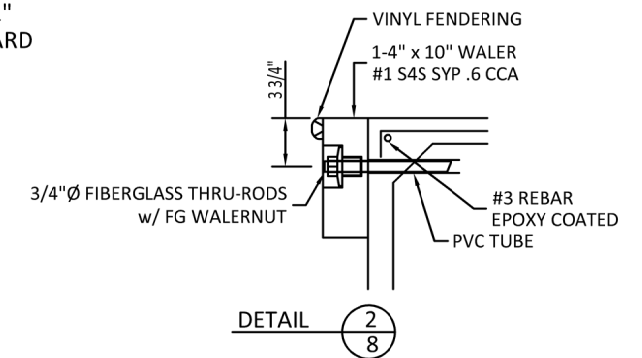
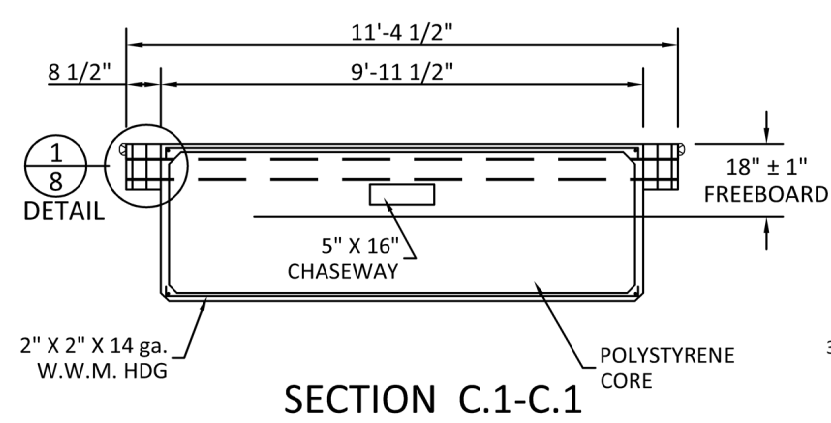
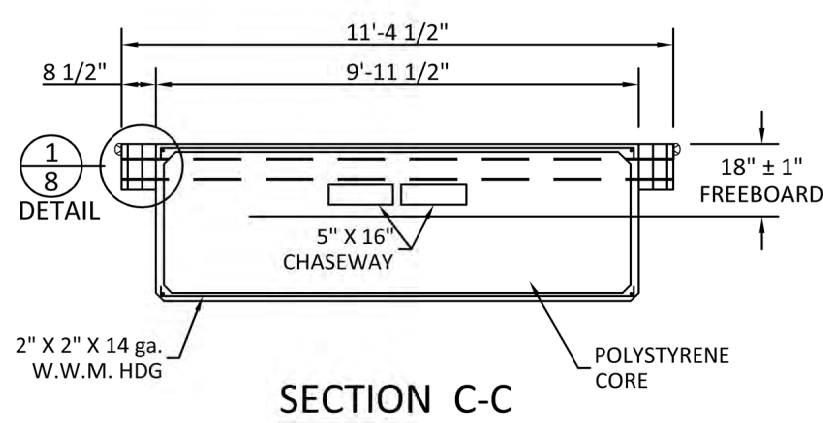
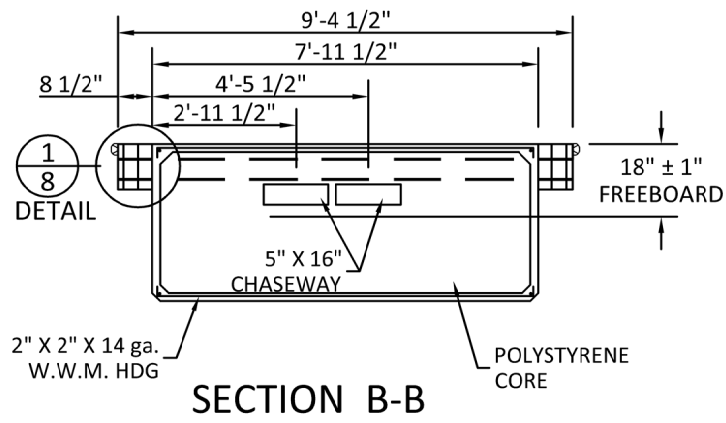
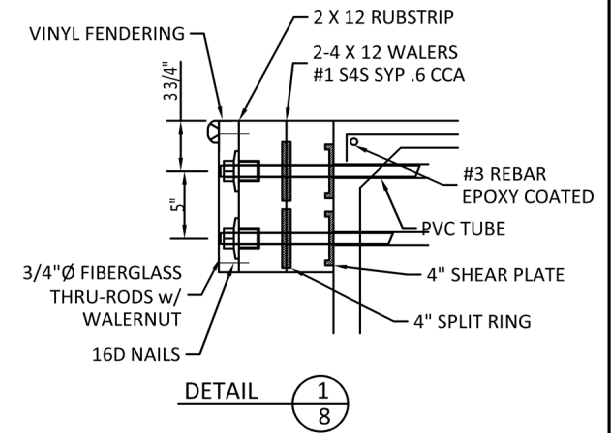
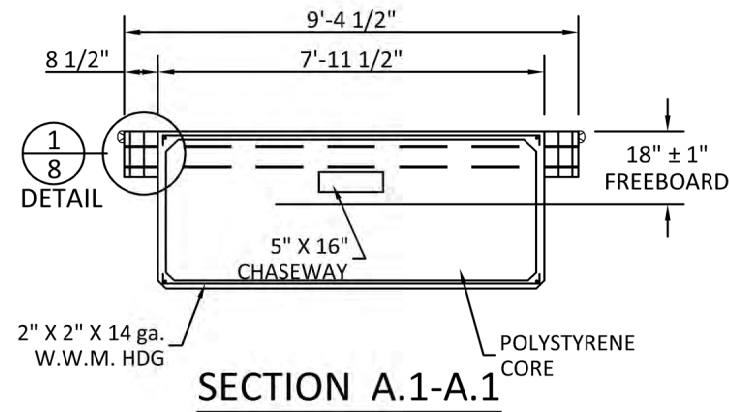
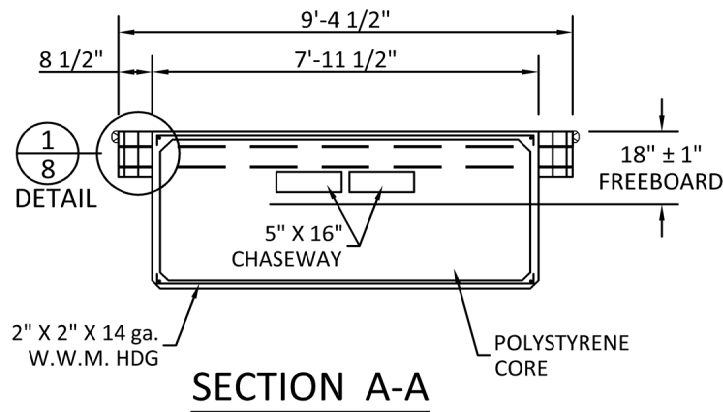
DRAWN BY: NR

DATE: 11/29/23

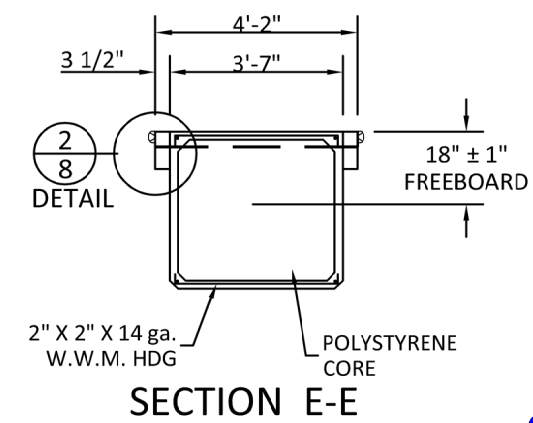
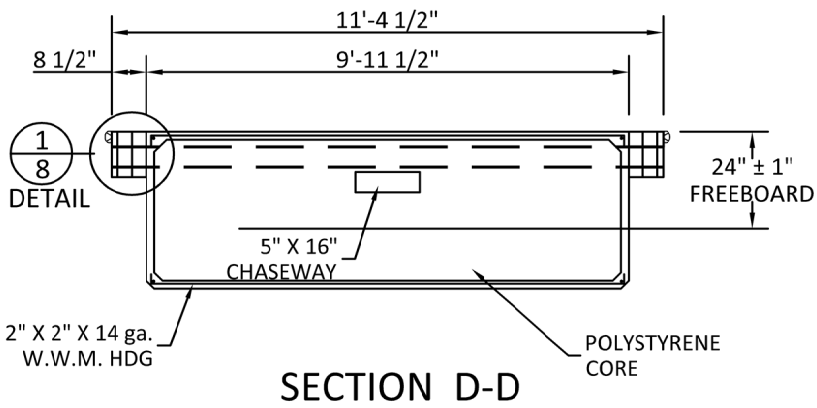
DRAWING: H1

SHEET NO.: 7.1 of 19

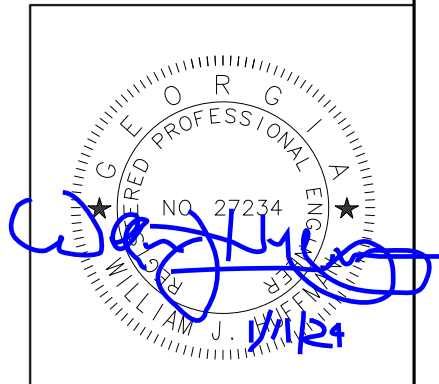




NOTE: FLOAT ASSEMBLIES, WALERS AND RUBSTRIP ARE MANUFACTURED WITH THRU-ROD HOLES EVERY 12". THE QUANTITIES AND LOCATIONS OF THRU-RODS ARE BASED ON THE DESIGN REQUIREMENTS OF EACH SPECIFIC DOCK APPLICATION, SOME HOLES MAY BE LEFT EMPTY BY DESIGN.



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FLOAT ASSEMBLY DETAIL

NO.	DATE	DESCRIPTION	BY
REVISIONS			

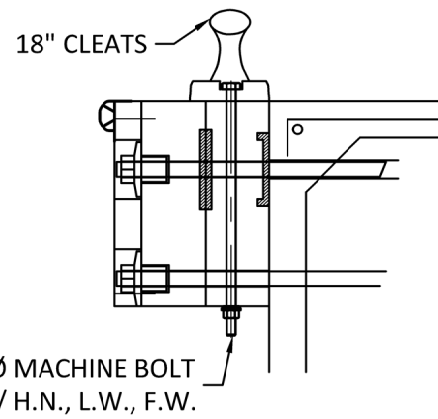
**Bellingham MARINE**  
THE WORLD'S MOST COMPREHENSIVE MARINA BUILDER

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**6291**  
ENGINEER / DESIGNER:  
WH  
PROJECT MANAGER:  
MG  
CHECKED BY:  
EC

LANGS MARINA  
ST. MARY'S, GEORGIA  
**DETAILS**

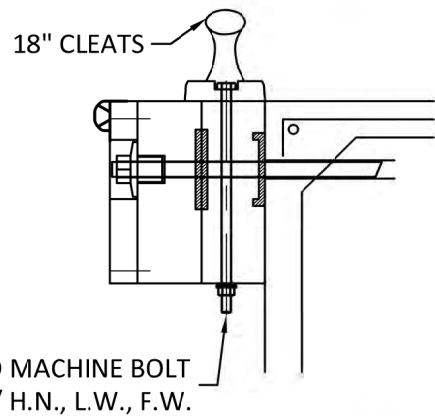
SCALE: AS SHOWN (SHEET SIZE 11" x 17")  
DRAWN BY: NR  
DATE: 11/29/23  
DRAWING: A2  
SHEET NO.: 8 of 19



18" CLEATS  
3/4"Ø MACHINE BOLT  
w/ H.N., L.W., F.W.

**CLEAT ATTACHMENT DETAIL**

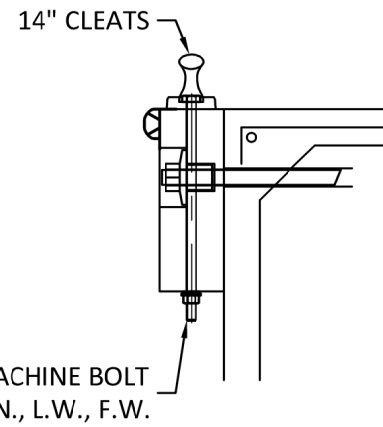
- NOTES:
1. CLEATS ARE INSTALLED ON INSIDE WALER
  2. CLEATS AT THE END SHALL BE INBOARD OF THE LAST THRU-ROD
  3. AVOID LOCATING CLEATS AT FLOAT JOINTS
  4. CLEATS SHALL BE 6" MIN FROM NEAREST WOOD SPLICE



18" CLEATS  
3/4"Ø MACHINE BOLT  
w/ H.N., L.W., F.W.

**CLEAT ATTACHMENT DETAIL**

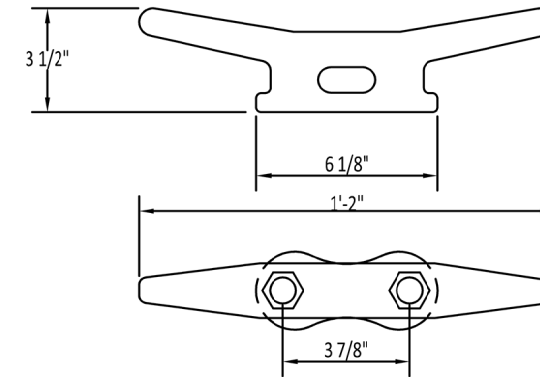
- NOTES:
1. CLEATS ARE INSTALLED ON INSIDE WALER
  2. CLEATS AT THE END SHALL BE INBOARD OF THE LAST THRU-ROD
  3. AVOID LOCATING CLEATS AT FLOAT JOINTS
  4. CLEATS SHALL BE 6" MIN FROM NEAREST WOOD SPLICE



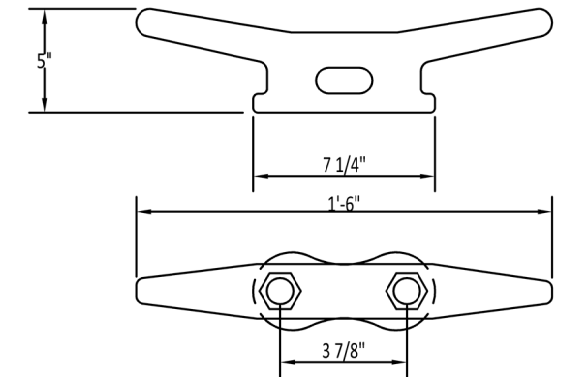
14" CLEATS  
1/2"Ø MACHINE BOLT  
w/ H.N., L.W., F.W.

**CLEAT ATTACHMENT DETAIL**

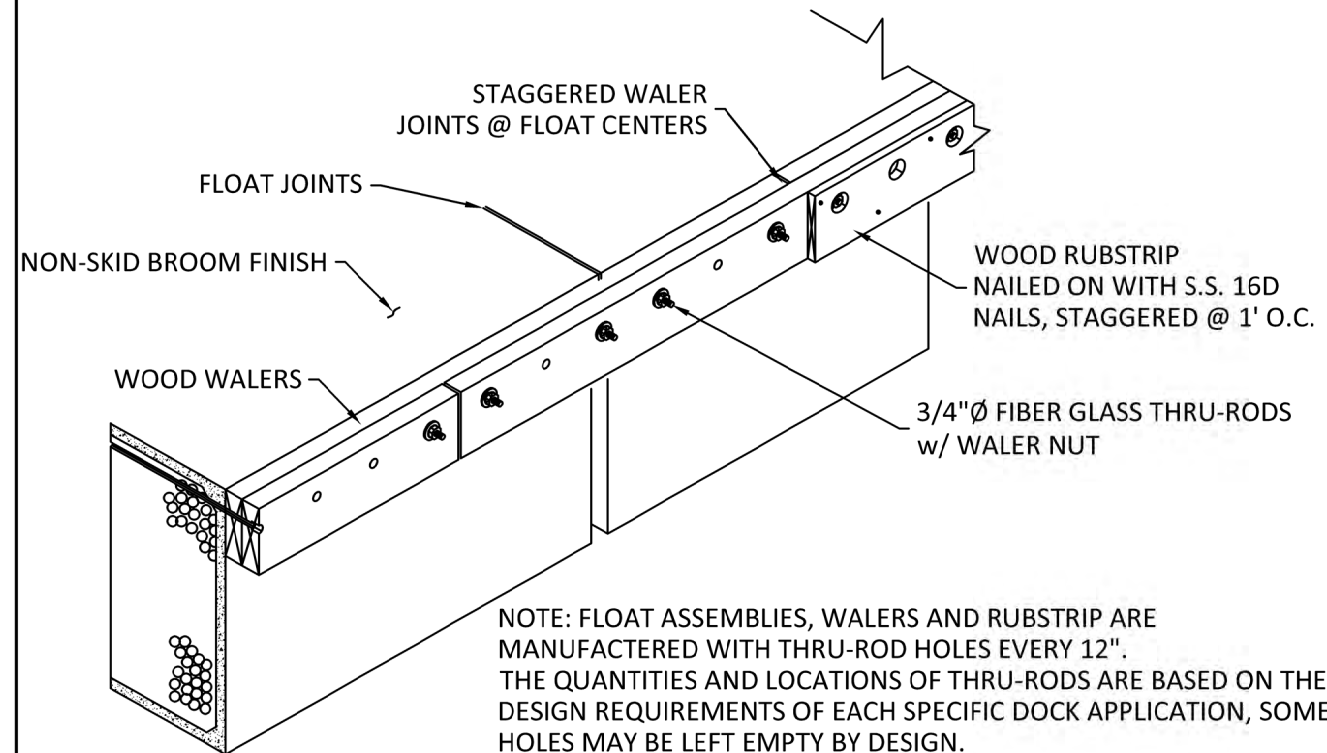
- NOTES:
1. CLEATS ARE INSTALLED ON INSIDE WALER
  2. CLEATS AT THE END SHALL BE INBOARD OF THE LAST THRU-ROD
  3. AVOID LOCATING CLEATS AT FLOAT JOINTS
  4. CLEATS SHALL BE 6" MIN FROM NEAREST WOOD SPLICE



**14" GALVANIZED CLEAT**

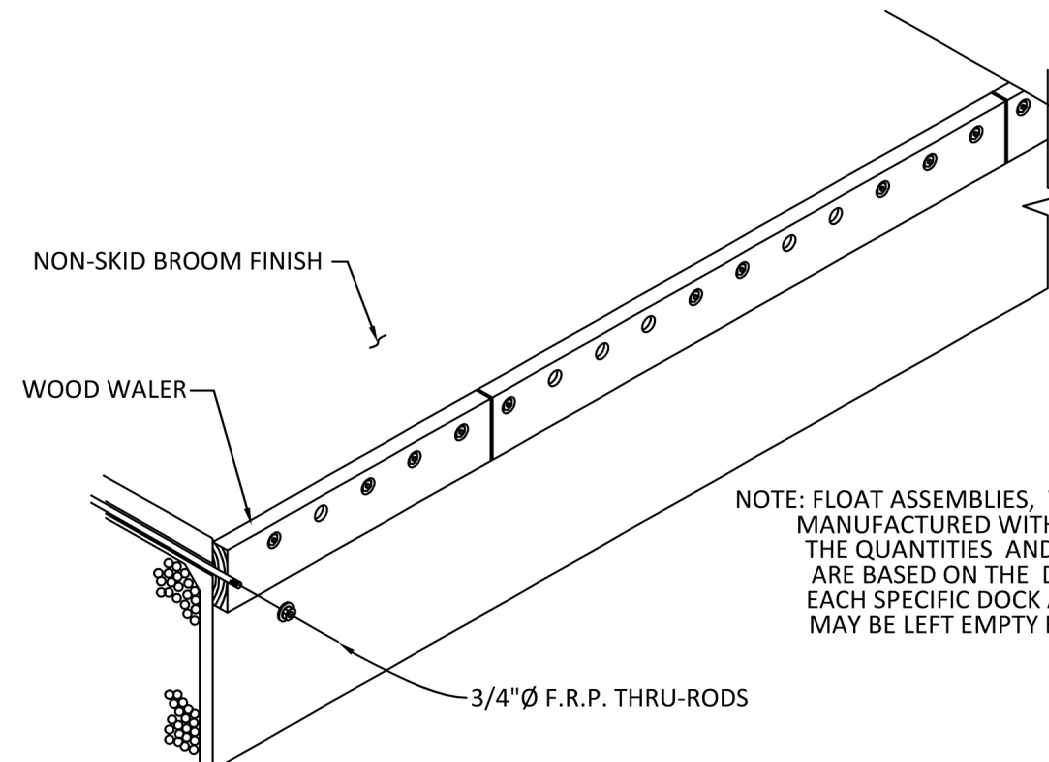


**18" GALVANIZED CLEAT**



NOTE: FLOAT ASSEMBLIES, WALERS AND RUBSTRIP ARE MANUFACTURED WITH THRU-ROD HOLES EVERY 12". THE QUANTITIES AND LOCATIONS OF THRU-RODS ARE BASED ON THE DESIGN REQUIREMENTS OF EACH SPECIFIC DOCK APPLICATION, SOME HOLES MAY BE LEFT EMPTY BY DESIGN.

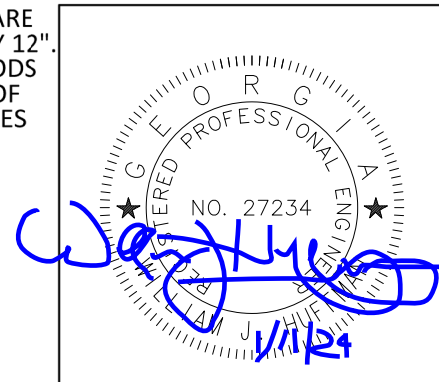
**FLOAT ASSEMBLY DETAIL**



NOTE: FLOAT ASSEMBLIES, WALERS AND RUBSTRIP ARE MANUFACTURED WITH THRU ROD HOLES EVERY 12". THE QUANTITIES AND LOCATIONS OF THRU RODS ARE BASED ON THE DESIGN REQUIREMENTS OF EACH SPECIFIC DOCK APPLICATION, SOME HOLES MAY BE LEFT EMPTY BY DESIGN.

**FLOAT ASSEMBLY DETAIL**

**ENGINEER'S STAMP**



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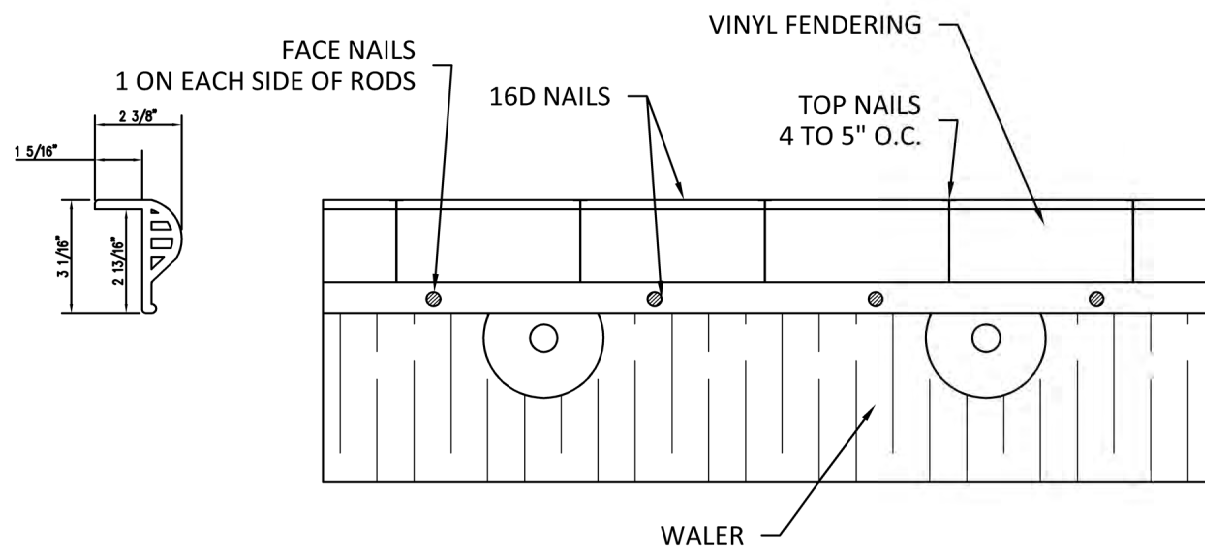
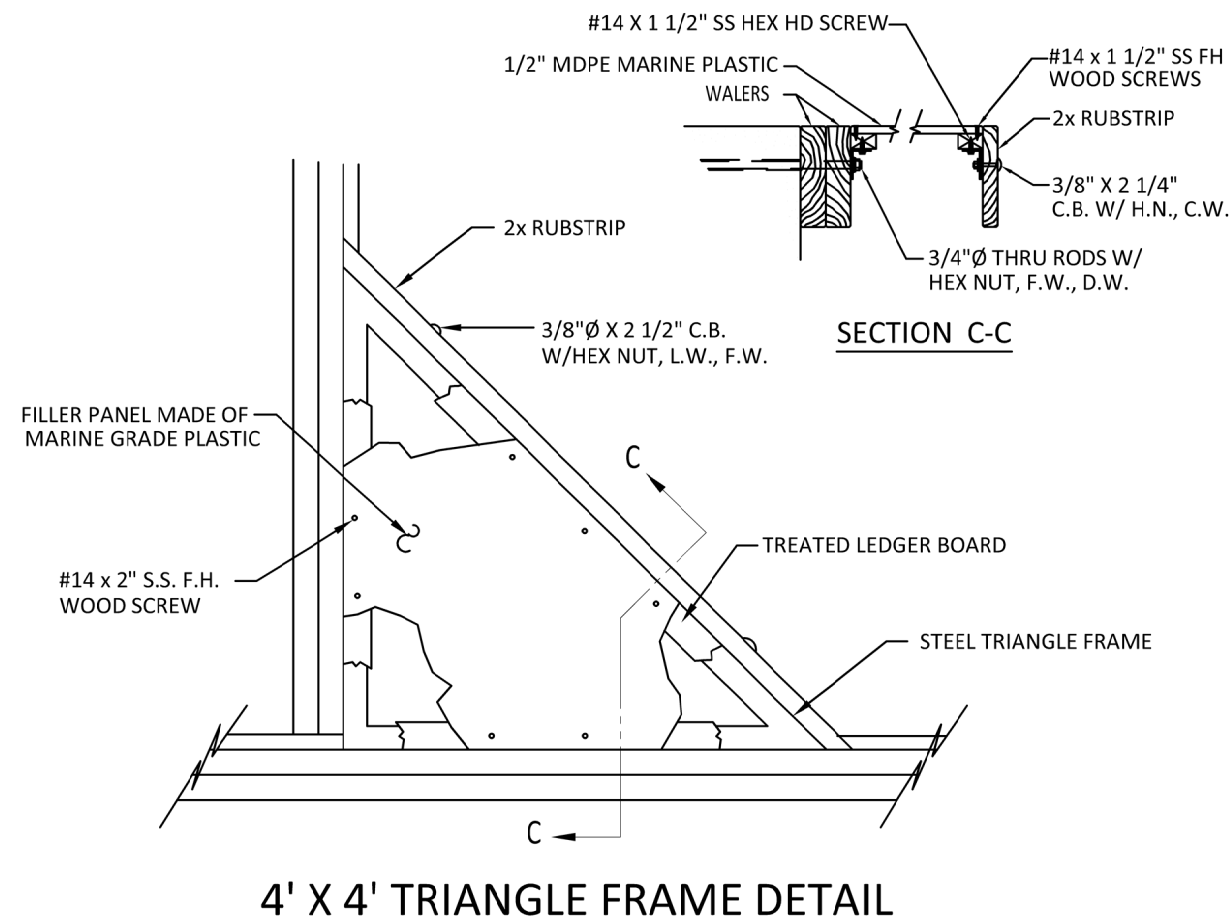
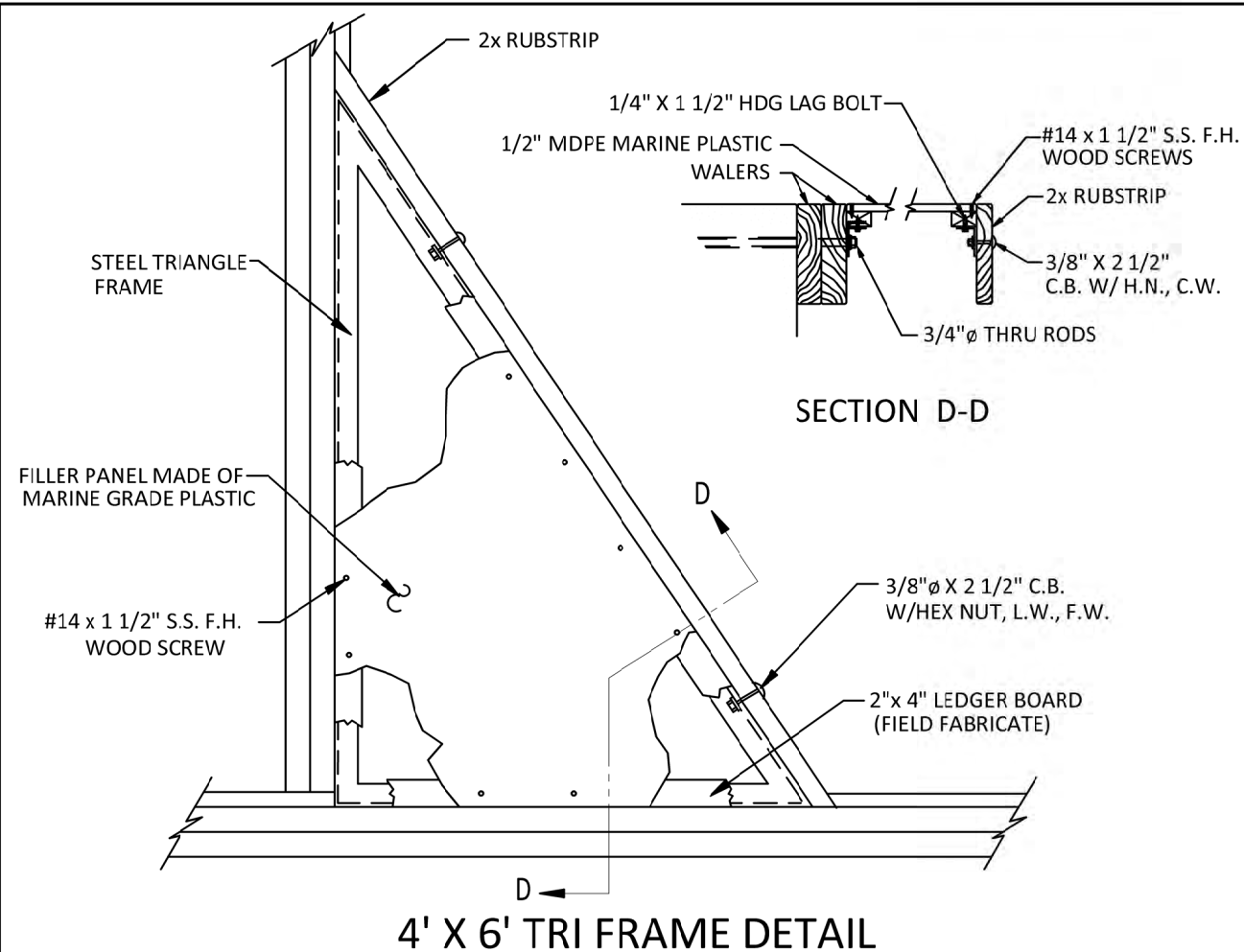
PROJECT NUMBER: <b>6291</b>
ENGINEER / DESIGNER: WH
PROJECT MANAGER: MG
CHECKED BY: EC

**LANGS MARINA  
ST. MARY'S, GEORGIA**

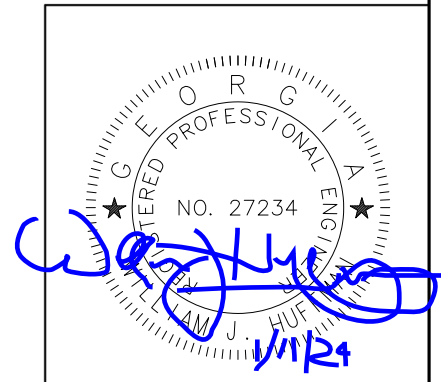
**DETAILS**

SCALE: AS SHOWN (SHEET SIZE 11" x 17")
DRAWN BY: NR
DATE: 11/29/23
DRAWING: A3
SHEET NO.: 9 of 19





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**Bellingham**  
**MARINE**

THE WORLD'S MOST  
COMPREHENSIVE  
MARINA BUILDER

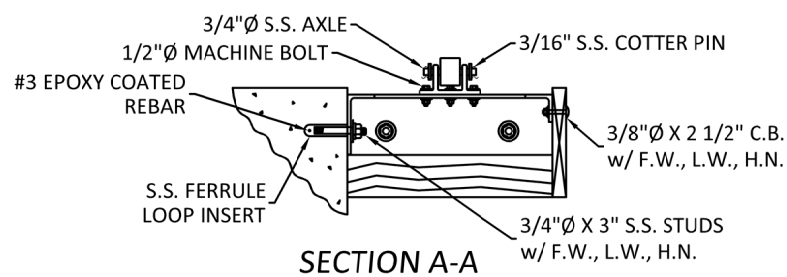
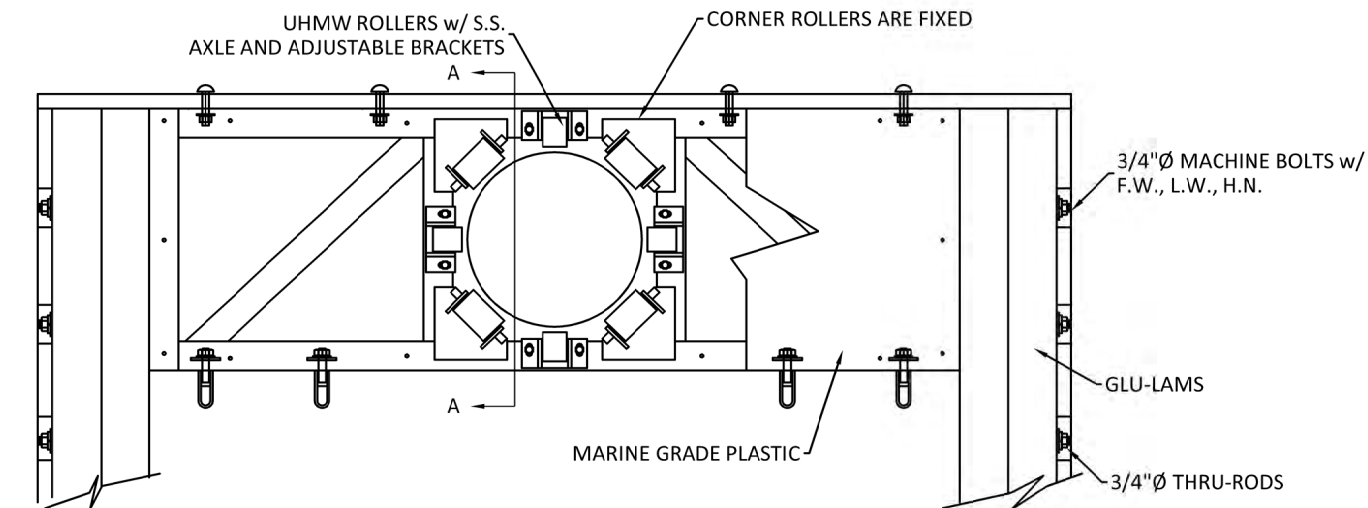
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PROJECT MANAGER: MG
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**LANGS MARINA**  
**ST. MARY'S, GEORGIA**

**DETAILS**

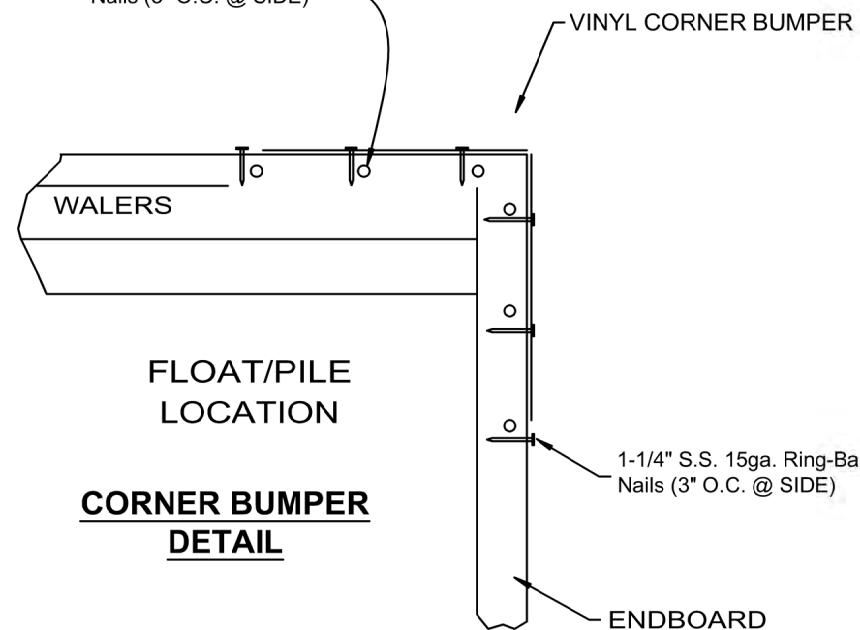
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DRAWN BY: NR
DATE: 11/29/23
DRAWING: A4
SHEET NO.: 10 of 19



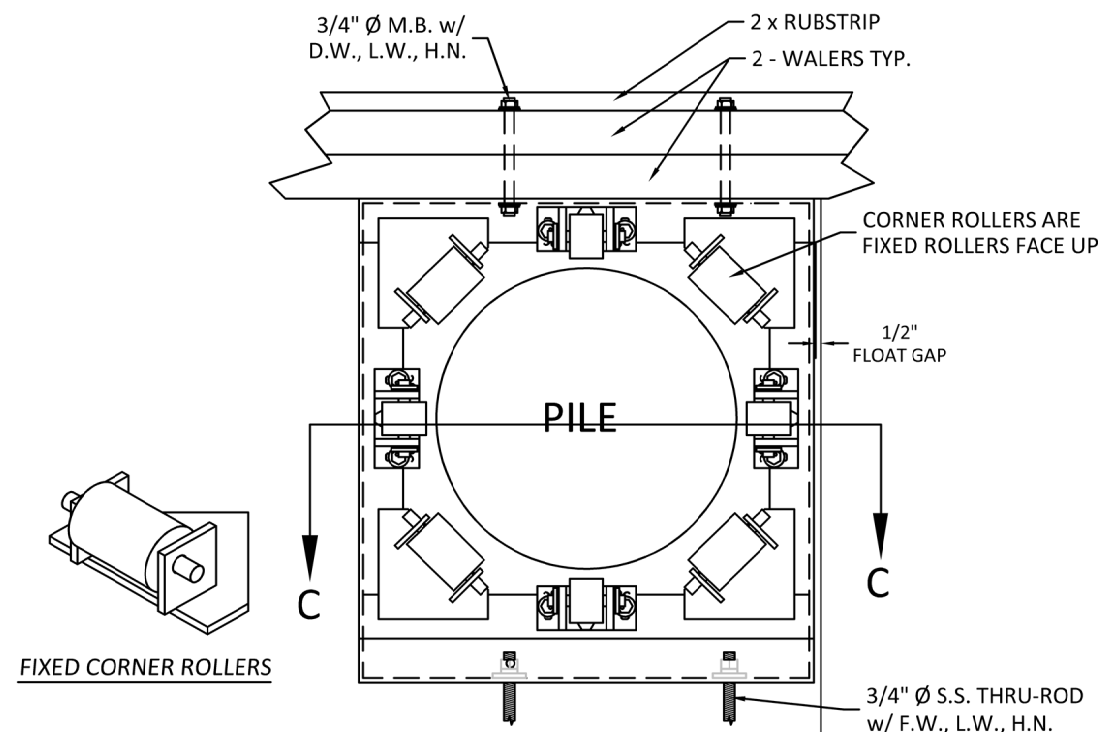
SECTION A-A

**18"Ø END PILE GUIDE**

1-1/4" S.S. 15ga. Ring-Barb Nails (3" O.C. @ SIDE)



**CORNER BUMPER DETAIL**



FIXED CORNER ROLLERS

1/2" Ø x 1 1/2" M.B. w/ F.W., L.W., H.N.

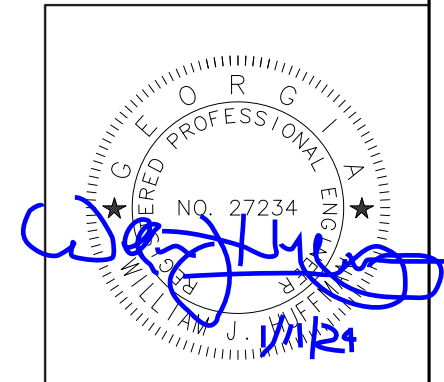
3/4" Ø H.D.G. THRU-ROD w/ F.W., L.W., H.N.

SECTION C-C

**NOTCH PILE GUIDE DETAIL**

ADJUSTABLE ROLLERS w/ 3/4" AXLE AND 3/16" S.S. COTTER PINS

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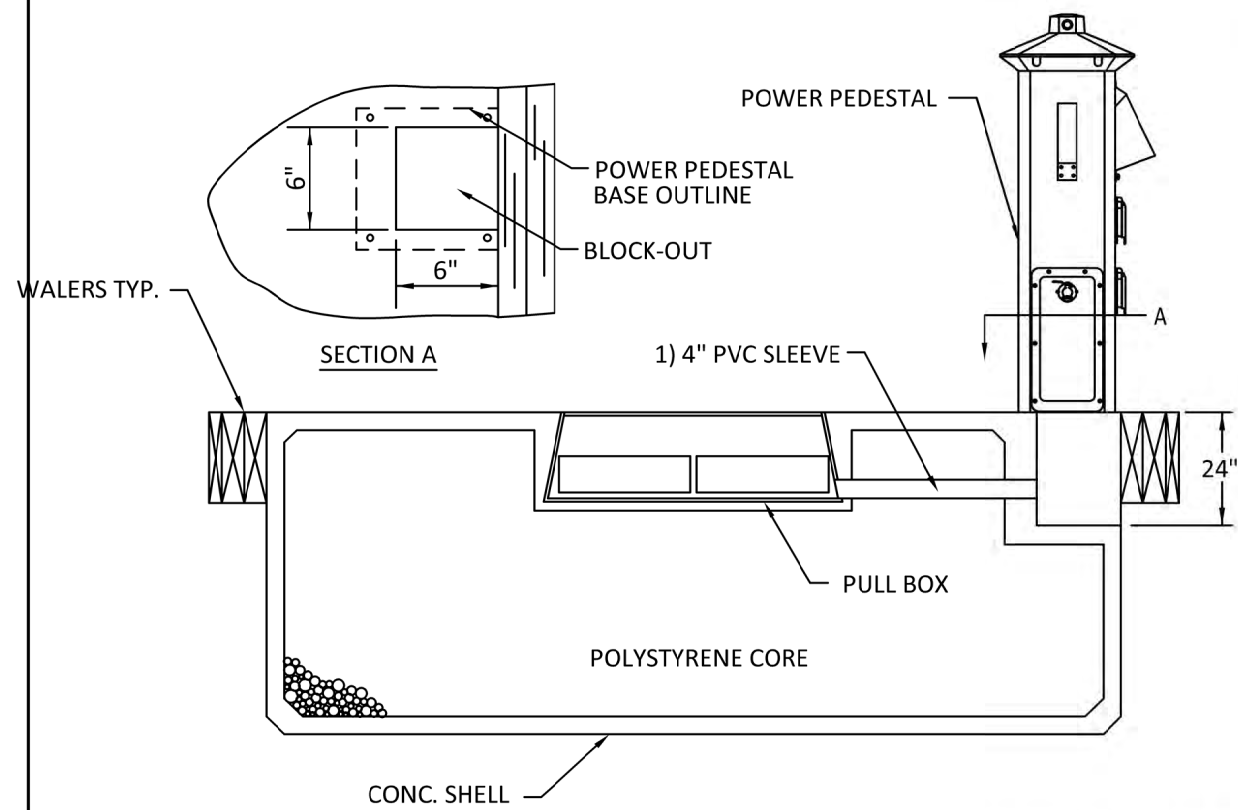
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 ENGINEER / DESIGNER:  
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 PROJECT MANAGER:  
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 CHECKED BY:  
 EC

**LANGS MARINA  
 ST. MARY'S, GEORGIA  
 DETAILS**

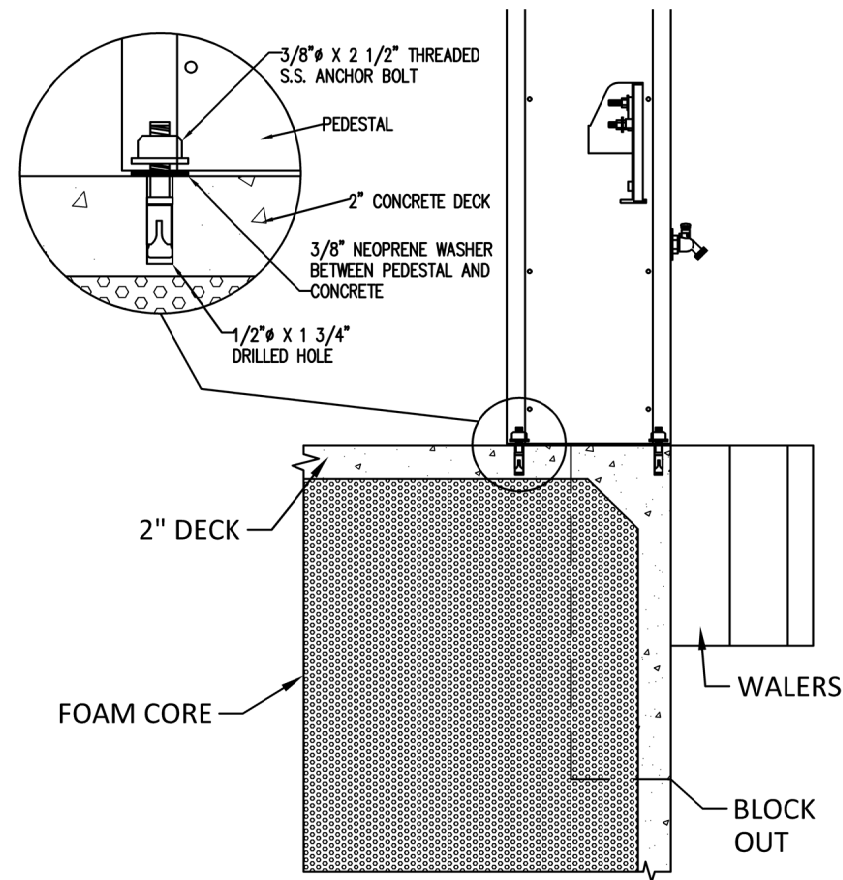
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 DATE: 11/29/23  
 DRAWING: A5  
 SHEET NO.: 11 of 19



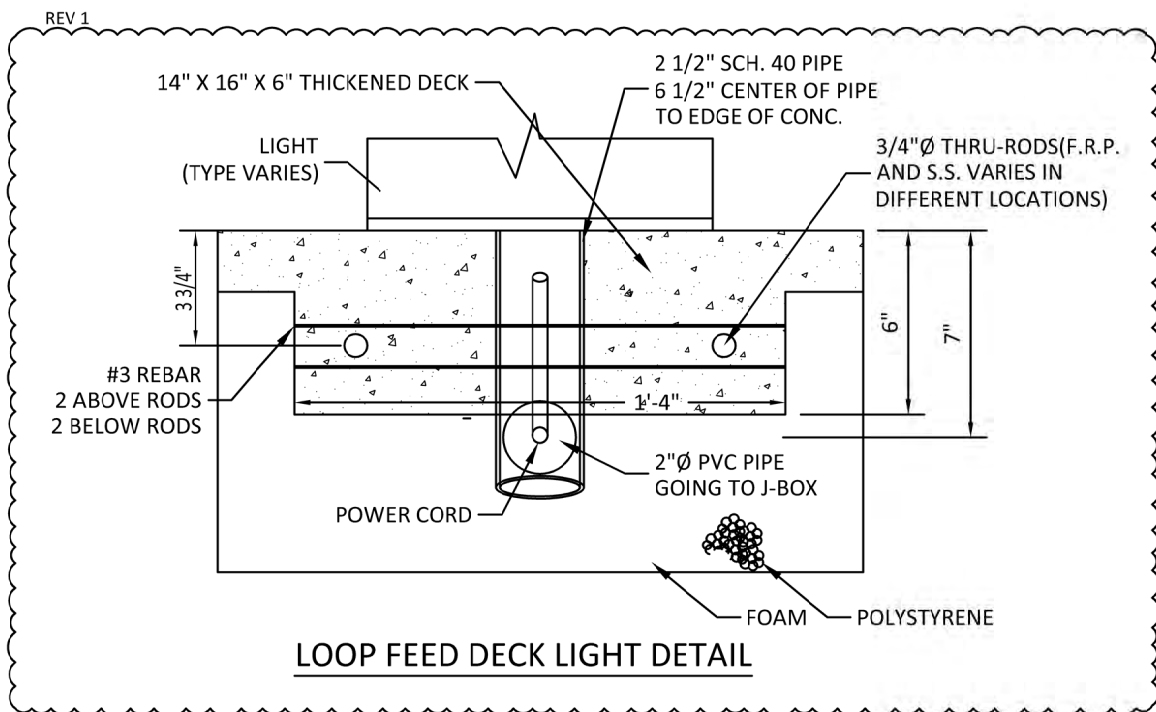


**TYPICAL POWER PEDESTAL INSTALLATION**

- NOTES: 1. MOUNT PEDESTAL BASE USING SS STUDS EPOXIED INTO THICKENED DECK.  
 2. PEDESTAL AND MOUNTING STUDS BY OTHERS.  
 3. PVC SLEEVES ARE NOT ELECT CONDUIT.

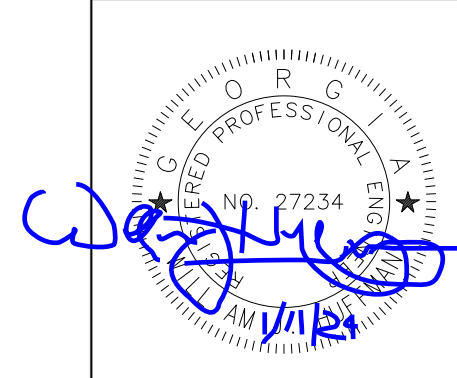


**PEDESTAL INSTALLATION DETAIL**



**LOOP FEED DECK LIGHT DETAIL**

**ENGINEER'S STAMP**



1	1-9-24	LIGHT DETAIL ADDED	NR
REVISIONS			
NO.	DATE	DESCRIPTION	BY

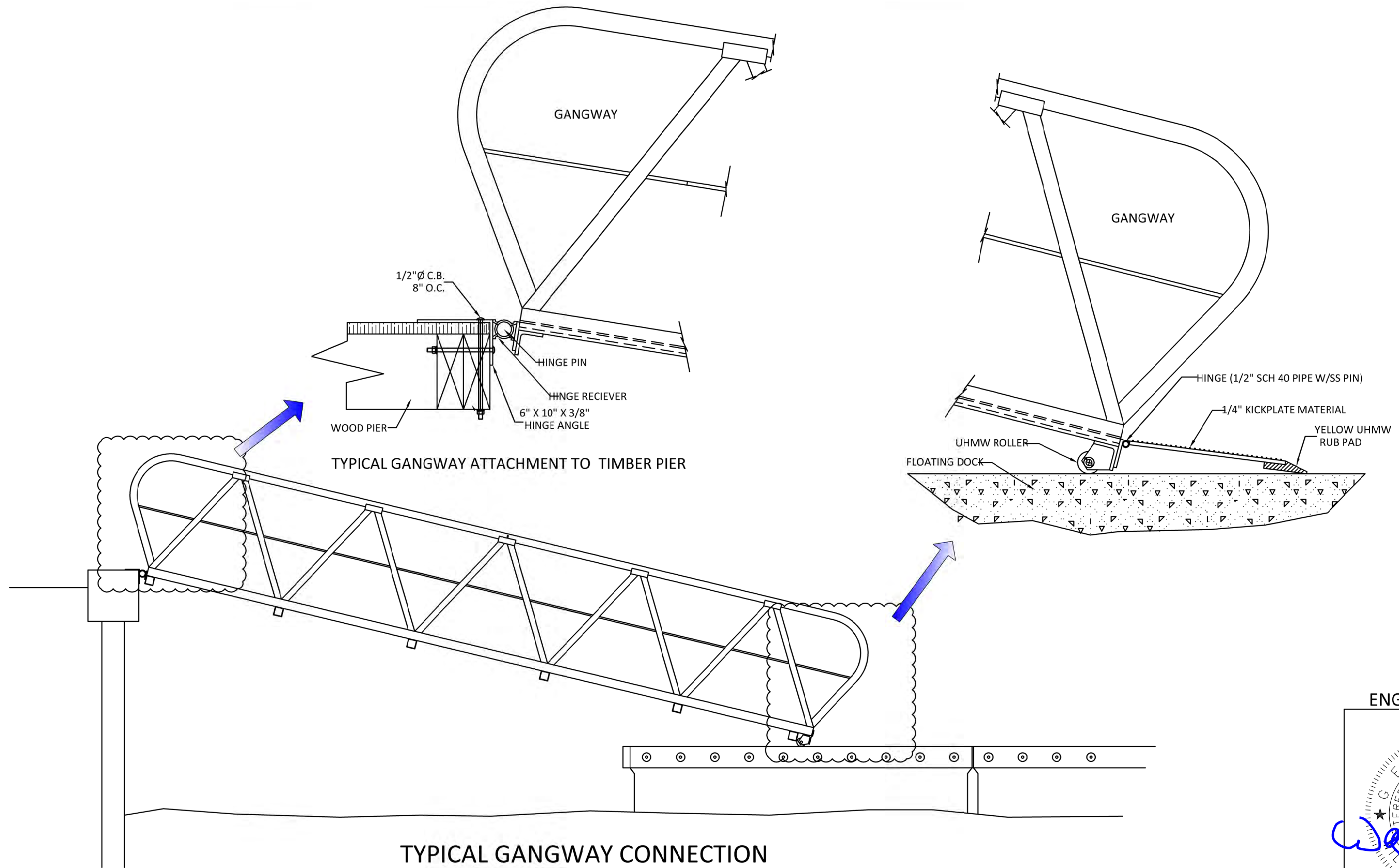
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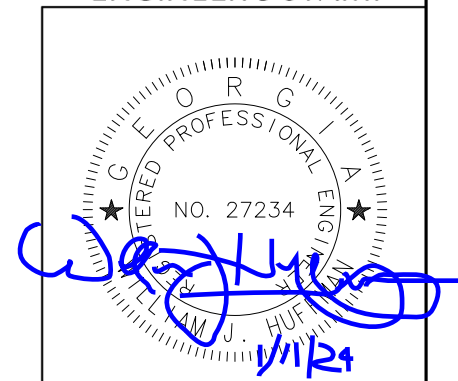
PROJECT NUMBER:  
**6291**  
 ENGINEER / DESIGNER:  
 WH  
 PROJECT MANAGER:  
 MG  
 CHECKED BY:  
 MG

**LANGS MARINA  
 ST. MARY'S, GEORGIA**  
**DETAILS**

SCALE: AS SHOWN  
 (SHEET SIZE 11" x 17")  
 DRAWN BY: NR  
 DATE: 11/29/23  
 DRAWING: A6  
 SHEET NO.: 12 of 19



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PROJECT NUMBER:  
**6291**

ENGINEER / DESIGNER:  
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PROJECT MANAGER:  
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**LANGS MARINA  
 ST. MARY'S, GEORGIA**

**DETAILS**

SCALE: AS SHOWN  
 (SHEET SIZE 11" x 17")

DRAWN BY: NR

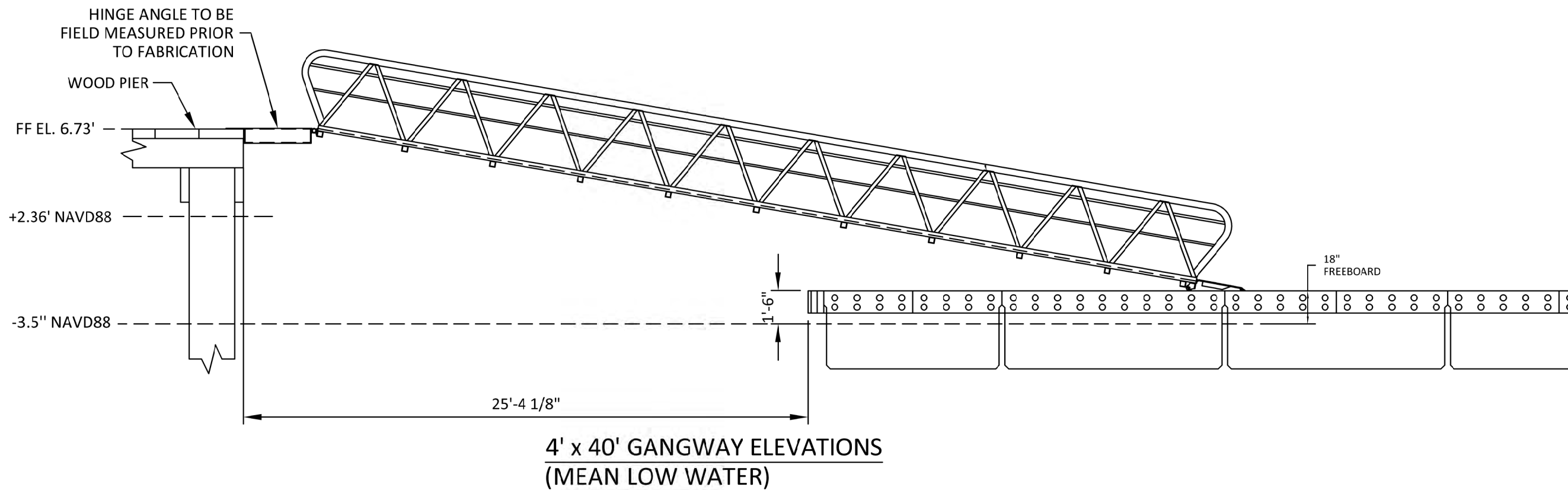
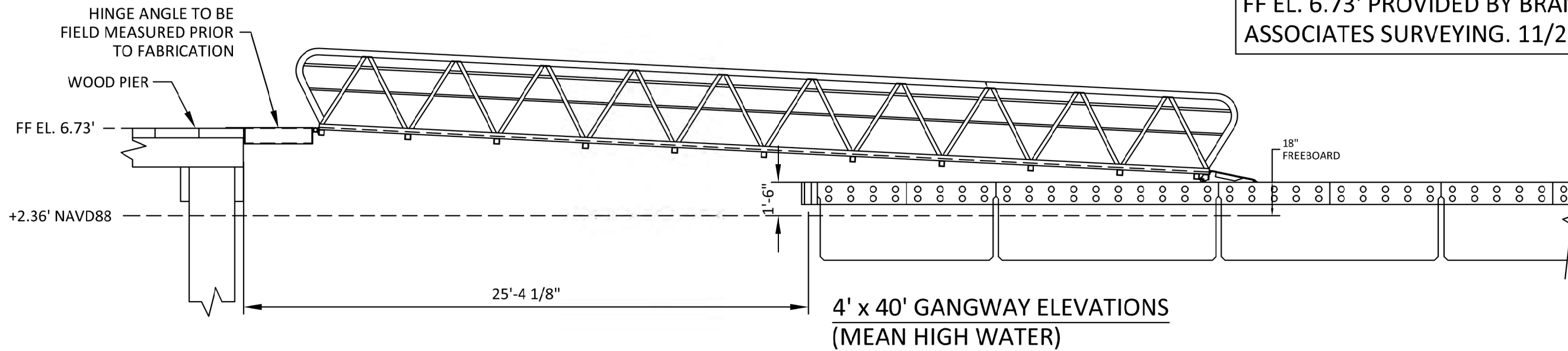
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DRAWING: A7

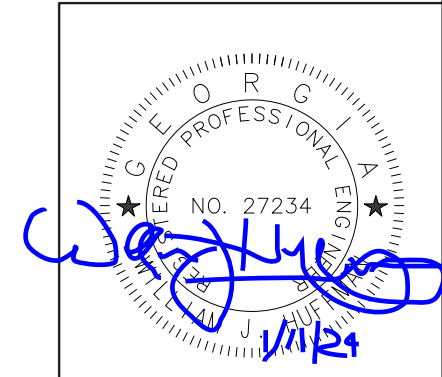
SHEET NO.: 13 of 19



NOTE:  
FF EL. 6.73' PROVIDED BY BRANDON ASSOCIATES SURVEYING. 11/29/23



ENGINEER'S STAMP



NO.	DATE	DESCRIPTION	BY
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PROJECT NUMBER:  
**6291**

ENGINEER / DESIGNER:  
WH

PROJECT MANAGER:  
MG

CHECKED BY:  
EC

**LANGS MARINA  
ST. MARY'S, GEORGIA**

**DETAILS**

SCALE: AS SHOWN  
(SHEET SIZE 11" x 17")

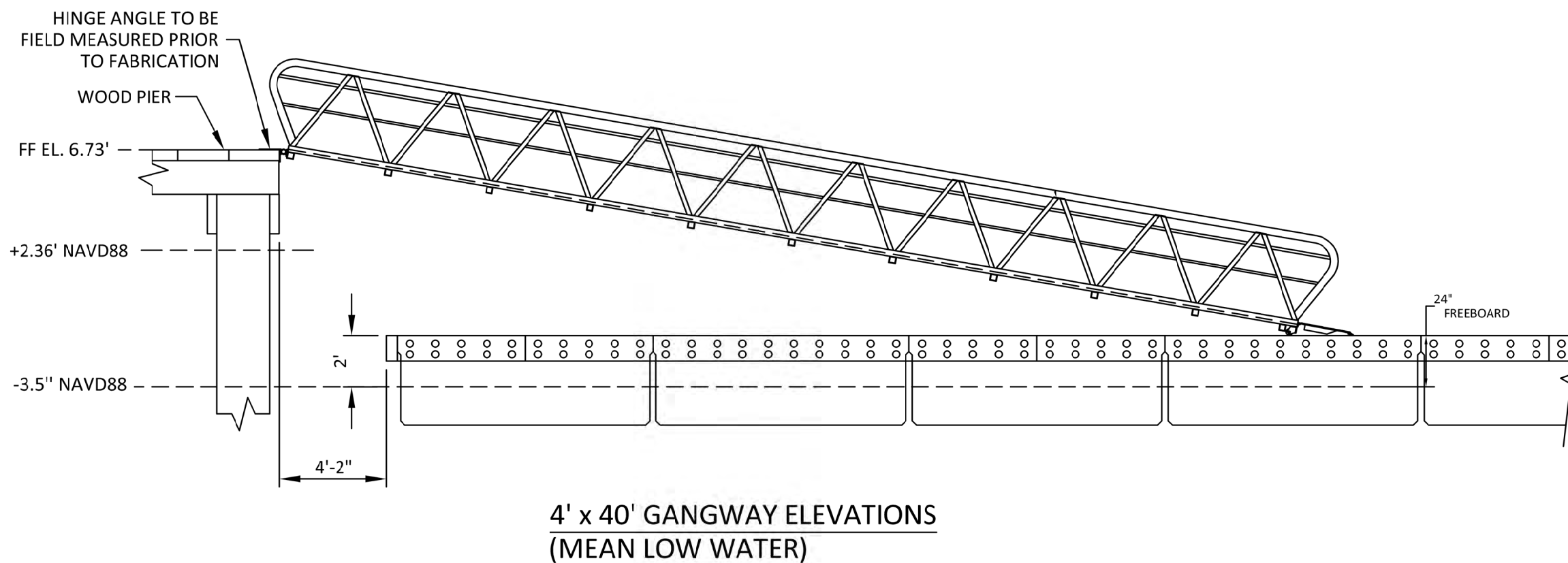
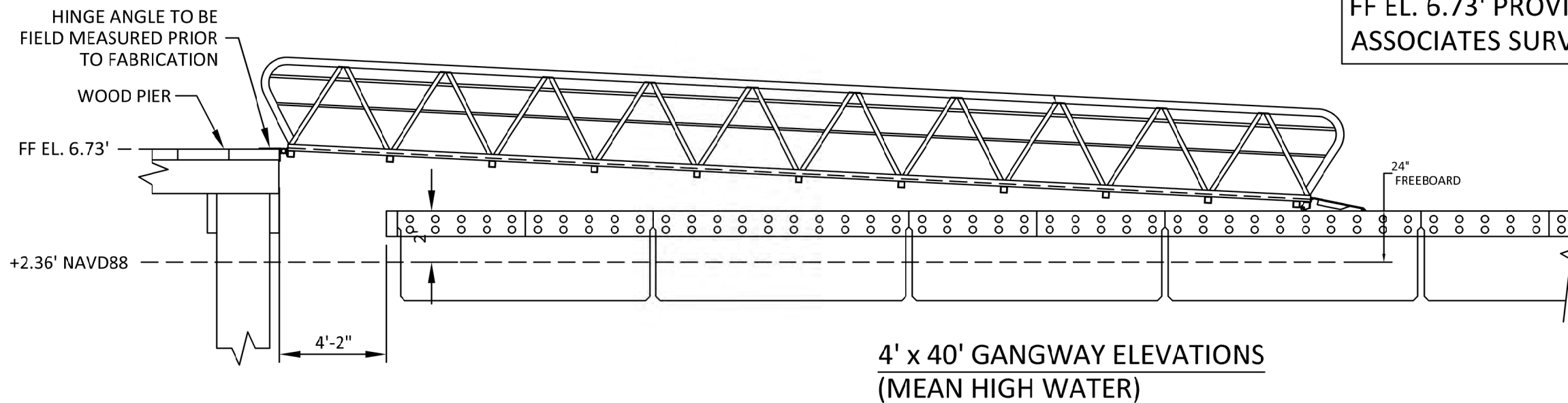
DRAWN BY: NR

DATE: 11/29/23

DRAWING: A7.1

SHEET NO.: 14 of 19

NOTE:  
FF EL. 6.73' PROVIDED BY BRANDON ASSOCIATES SURVEYING. 11/29/23



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NO.	DATE	DESCRIPTION	BY
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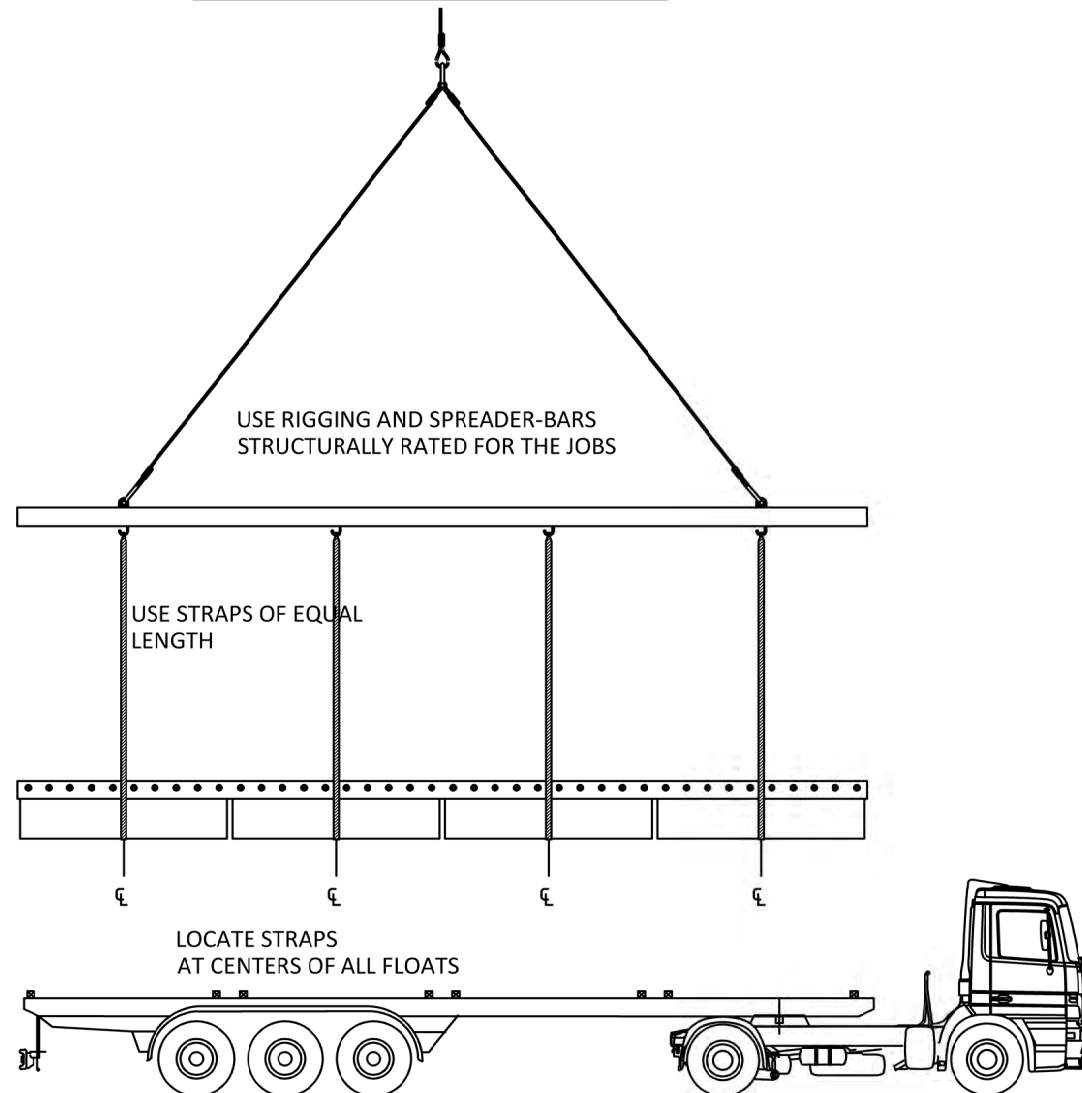
PROJECT NUMBER:  
**6291**  
ENGINEER / DESIGNER:  
WH  
PROJECT MANAGER:  
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CHECKED BY:  
EC

LANGS MARINA  
ST.MARY'S, GEORGIA  
DETAILS

SCALE: AS SHOWN  
(SHEET SIZE 11" x 17")  
DRAWN BY: NR  
DATE: 11/29/23  
DRAWING: A7.2  
SHEET NO.: 15 of 19

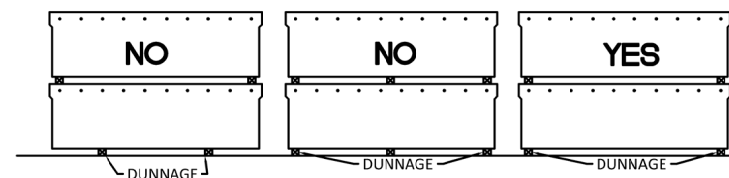
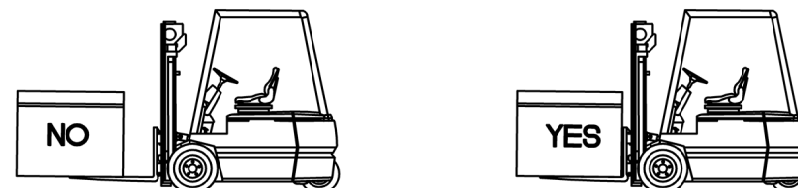
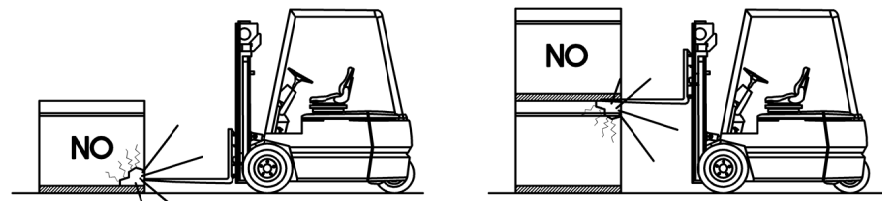


**CONCRETE FLOAT HANDLING**  
HANDLE FLOATS CAREFULLY!



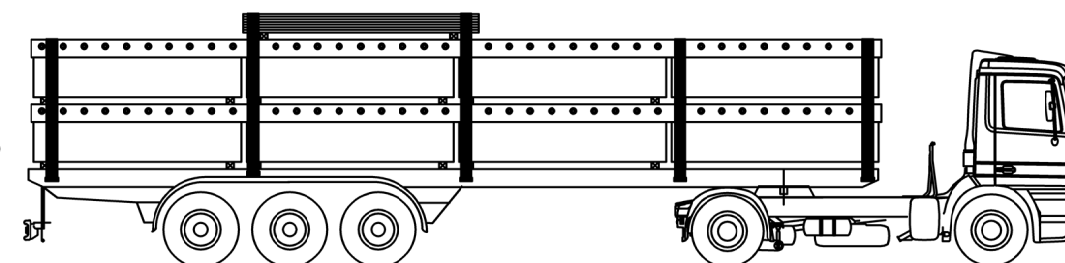
**HANDLE FLOATS CAREFULLY !**

- SPACE FORKS AS FAR APART AS POSSIBLE.
- AVOID ROUGH TERRAIN.



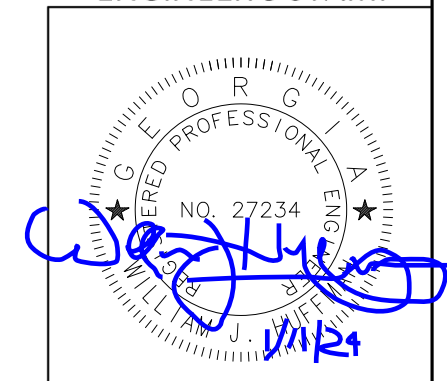
- Place dunnage at end walls of float.  
DO NOT place dunnage anywhere else or damage to the float may occur.

- Space tie down straps at dunnage locations only
- Use softeners under straps to protect walers.
- Check straps periodically to ensure tightness



- Do not stack floats more than
  - 2 High     3 High     4 High
  - do not stack floats

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PROJECT NUMBER:  
**6291**

ENGINEER / DESIGNER:  
WH

PROJECT MANAGER:  
MG

CHECKED BY:  
EC

**LANGS MARINA**  
**ST. MARY'S, GEORGIA**

**DETAILS**

SCALE: AS SHOWN  
(SHEET SIZE 11" x 17")

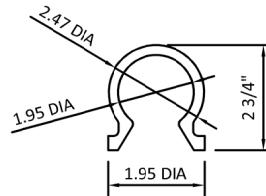
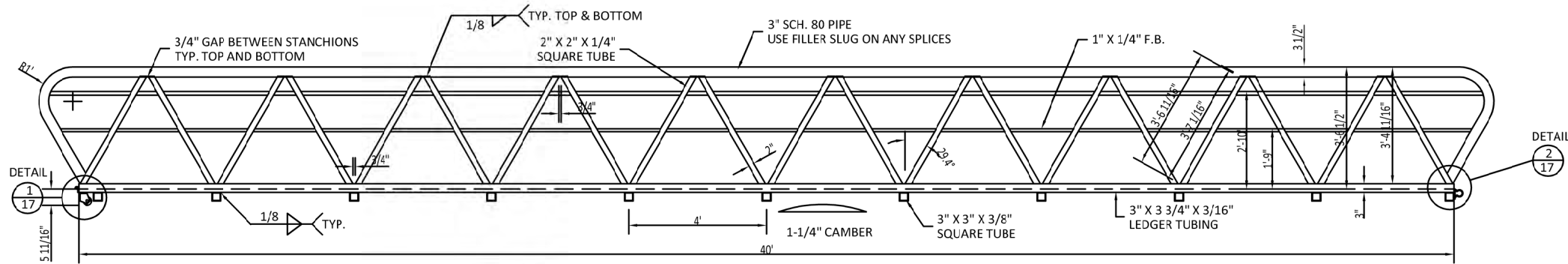
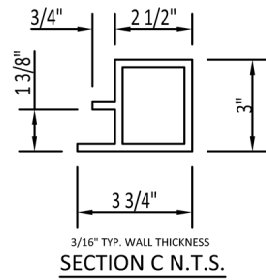
DRAWN BY: NR

DATE: 11/29/23

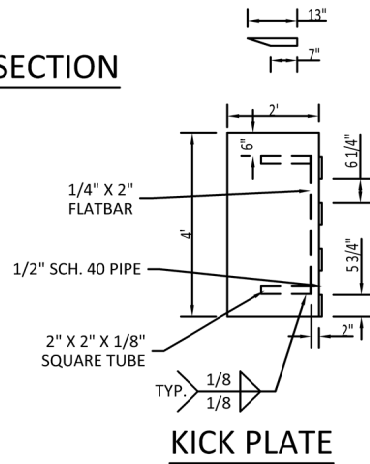
DRAWING: A8

SHEET NO.: 16 of 19

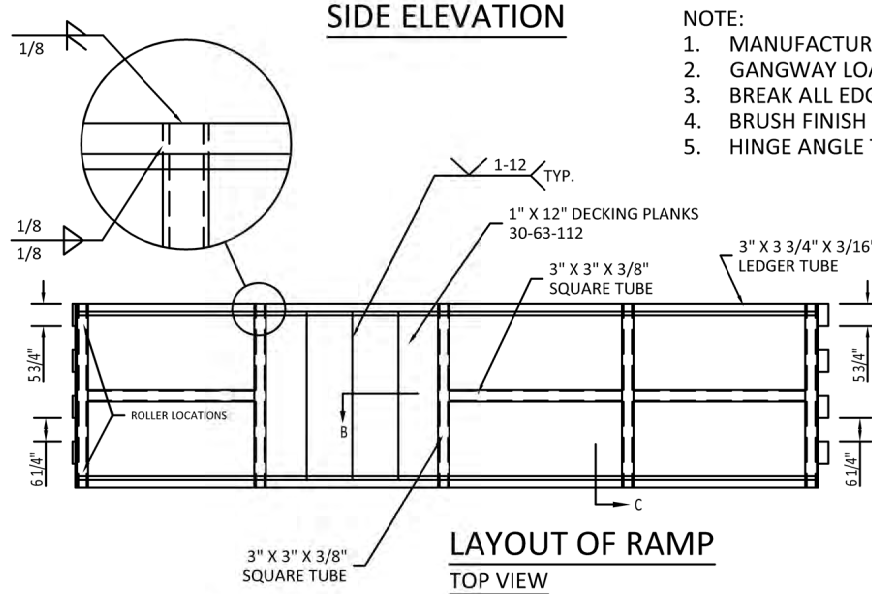
# FOR PERMITTING PURPOSES ONLY-NOT FOR CONSTRUCTION



**HINGE RECEIVER SECTION**

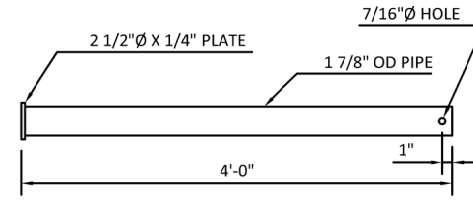


**KICK PLATE**

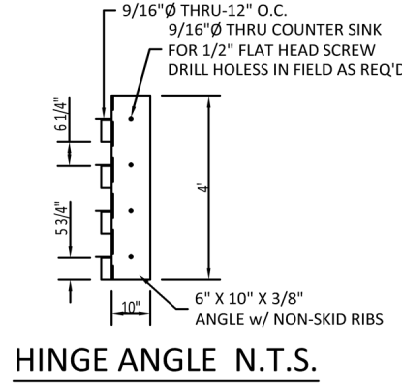


**LAYOUT OF RAMP  
TOP VIEW**

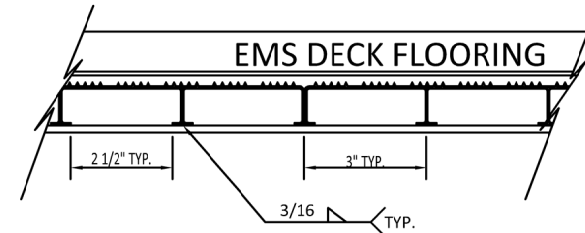
- NOTE:**
1. MANUFACTURE FROM 6061-T6 ALUMINUM
  2. GANGWAY LOADING SHALL NOT EXCEED 50 PSF
  3. BREAK ALL EDGES ABOVE DECK LEVEL
  4. BRUSH FINISH PIPE RAIL AFTER ASSEMBLY
  5. HINGE ANGLE TO BE MEASURED IN-FIELD PRIOR TO FABRICATION



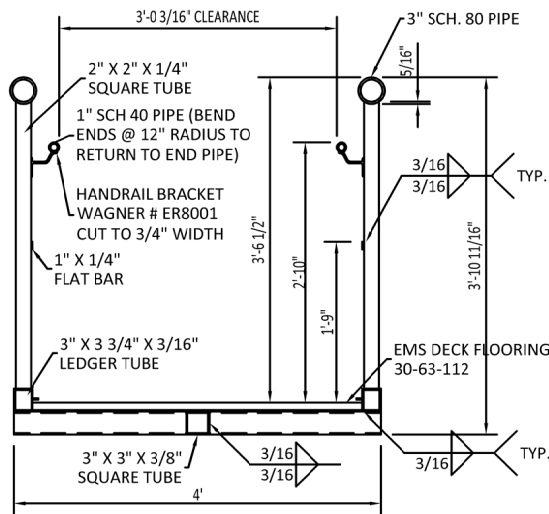
**HINGE PIN N.T.S.**



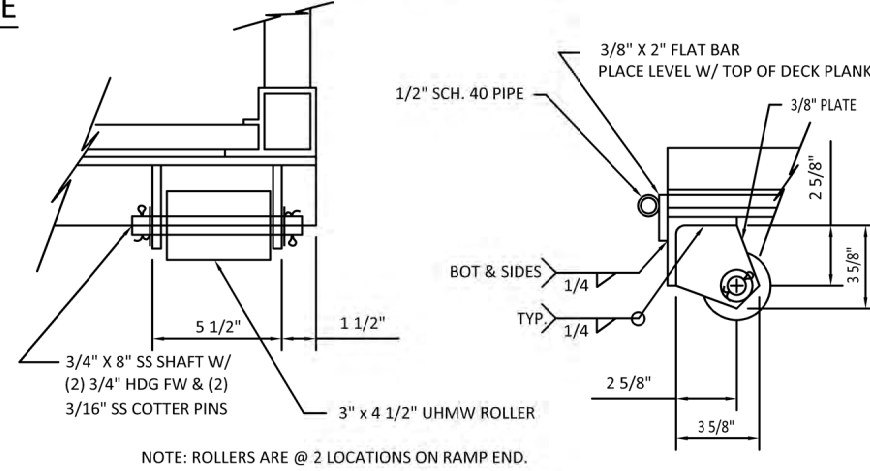
**HINGE ANGLE N.T.S.**



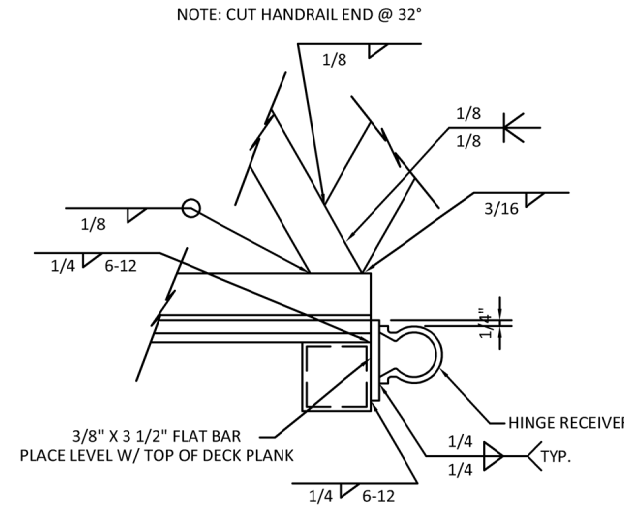
**SECTION B N.T.S.**



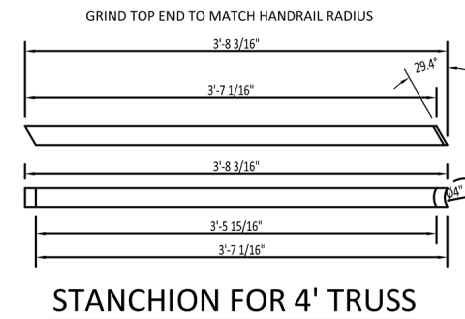
**SECTION A-A N.T.S.**



**DETAIL 1  
N.T.S.**



**DETAIL 2  
N.T.S.**



**STANCHION FOR 4' TRUSS**

**ENGINEER'S STAMP**



**4' X 40' 50 PSF ADA GANGWAY  
2 REQUIRED**

NO.	DATE	DESCRIPTION	BY
REVISIONS			

**Bellingham MARINE**  
THE WORLD'S MOST COMPREHENSIVE MARINA BUILDER

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PROJECT NUMBER:  
**6291**

ENGINEER / DESIGNER:  
WH

PROJECT MANAGER:  
MG

CHECKED BY:  
EC

**LANGS MARINA  
ST. MARY'S, GEORGIA**

**STEEL FABRICATION DETAILS**

SCALE: AS SHOWN  
(SHEET SIZE 11" x 17")

DRAWN BY: NR

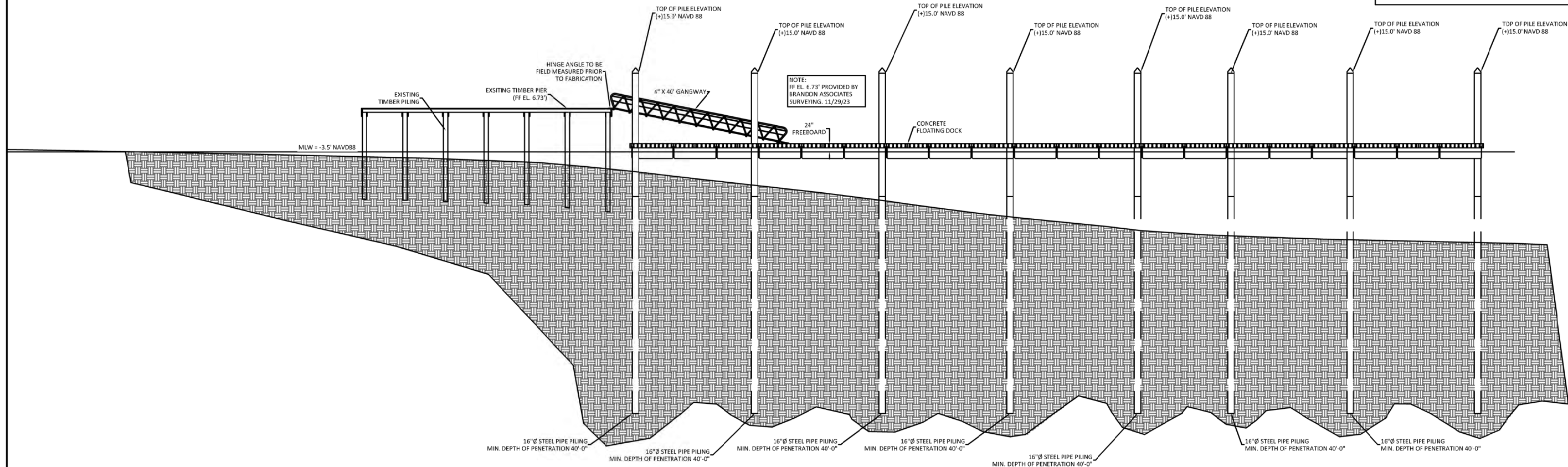
DATE: 11/29/23

DRAWING: S8

SHEET NO.: 17 of 19

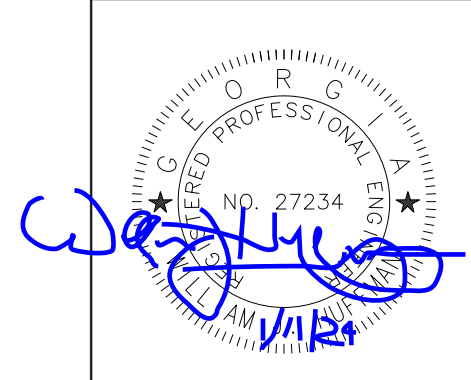


NOTE:  
DUE TO EXSITING/UNKNOWN  
CONDITIONS PILE LEGNTHS WILL VARY.



GROUND CONTOUR DETAIL  
24" FREEBOARD HEIGHT

ENGINEER'S STAMP



NO.	DATE	DESCRIPTION	BY
REVISIONS			

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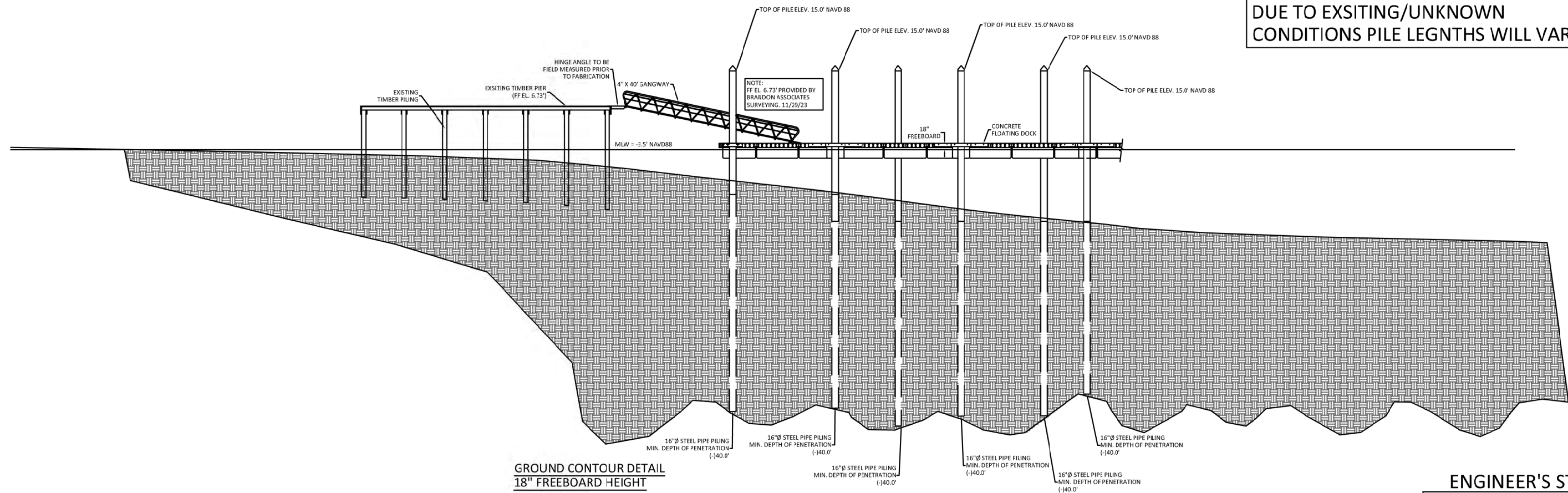
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PROJECT NUMBER:  
**6291**  
ENGINEER / DESIGNER:  
WH  
PROJECT MANAGER:  
MG  
CHECKED BY:  
EC

**LANGS MARINA  
ST. MARY'S, GEORGIA  
CONTOUR DETAIL**

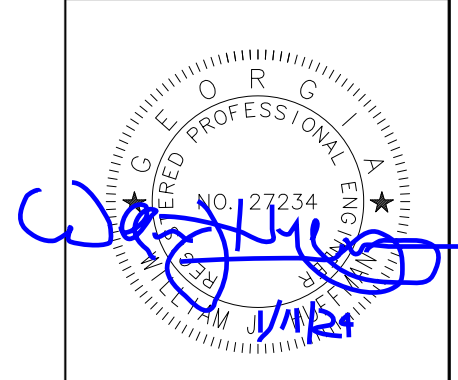
SCALE: 1"=10'-0"  
(SHEET SIZE 11" x 17")  
DRAWN BY: NR  
DATE: 11/30/23  
DRAWING: C1  
SHEET NO.: 18 of 19

NOTE:  
DUE TO EXSITING/UNKNOWN  
CONDITIONS PILE LEGNTHS WILL VARY.



GROUND CONTOUR DETAIL  
18" FREEBOARD HEIGHT

ENGINEER'S STAMP



NO.	DATE	DESCRIPTION	BY
		REVISIONS	

**Bellingham**  
**MARINE**  
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COMPREHENSIVE  
MARINA BUILDER

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PROJECT NUMBER:  
**6291**

ENGINEER / DESIGNER:  
WH

PROJECT MANAGER:  
MG

CHECKED BY:  
EC

**LANGS MARINA**  
**ST.MARY'S, GEORGIA**

**CONTOUR DETAIL**

SCALE: 1"=25'-0"  
(SHEET SIZE 11" x 17")

DRAWN BY: NR

DATE: 11/30/23

DRAWING: C2

SHEET NO.: 19 of 19