



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, AL 36628-0001

CESAM RD-A
PUBLIC NOTICE NO. SAM-2022-00666-EAH

November 15, 2022

JOINT PUBLIC NOTICE
U.S. ARMY CORPS OF ENGINEERS AND
STATE OF ALABAMA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

REQUEST TO IMPACT OPEN WATERS AND WETLANDS IN CONJUNCTION
WITH THE DEVELOPMENT OF A PUBLIC BOAT LAUNCH AND RECREATION
AREA ON BAYOU LA BATRE, IN MOBILE COUNTY, ALABAMA

TO WHOM IT MAY CONCERN: This District has received an application for a Department of the Army permit pursuant to Section 10 of the River and Harbor Act of 1899 (33 USC 403) and 404 of the Clean Water Act (33 USC 1344). This public notice is being distributed to all known interested persons to assist in developing facts on which a decision by the U.S. Army Corps of Engineers (USACE) can be based. Please communicate this information to interested parties.

APPLICANTS: Mobile County Commission
Attention: Mr. Matthew Jones
205 Government Street
Mobile, Alabama 36644-1600

AGENT: Moffatt & Nichols
Attention: Ms. Meg Goecker
11 N. Water Street, Suite 20220
Mobile, Alabama 36602

LOCATION/WATERS: Bayou La Batre Canal; 14880 City Docks Road; within Section 38, Township 8 South, Range 3 West; beginning at Latitude: 30.382791° North, Longitude: -88.269094° West; Bayou La Batre, Mobile County, Alabama

PROJECT PURPOSE: The purpose of the project is to support the local citizens and commercial fishing industry by providing a multipurpose recreational and business development amenity for the Town of Bayou La Batre.

PROPOSED WORK: Following the removal of existing shoreline and waterward structures within the project area, the applicant proposes the replacement of existing bulkhead structures within the basin, construction of a new boat ramp with revetment, docking facilities, and a kayak launch. The project would occur within approximately 2.2-acres of estuarine waterbottoms and result in the permanent loss of 0.17-acre of emergent wetlands. Bulkhead reconstruction will include installation of steel sheet pile bulkhead with concrete cap along 1,430 linear feet of shoreline and replacement of a 106-linear-foot bulkhead by installing steel sheet pile 36-inches waterward of the existing

wall. Backfill will include an estimated 4,875 cubic yards (CY) of clean fill material to be discharged below the plane of Mean High Water (MHW). The new four (4) lane concrete boat ramp would require the discharge of 1,920 CY of concrete and revetment stone below MHW. A $\pm 7,500$ -square-foot (SF) shoreline revetment would be constructed along the southern edge of the basin and would include the discharge of 260 CY of clean fill and riprap material. Docking facilities would provide one-hundred-one (101) open slips and would include the installation of $\pm 22,213$ SF of floating aluminum dockage, a ± 274 SF floating fuel dock, $\pm 1,182$ SF of floating aluminium boarding dockage, and $\pm 1,460$ SF of floating transient and connecting dockage. Ancillary infrastructure includes eight (8) gangways and two (2) concrete access platforms totaling ± 216 SF. Floating dockage is anticipated to be moored with ninety-two (92) steel pipe guide piles to be 100-feet-long with approximately 33ft extending from the waterbottoms. A new ± 805 SF floating kayak launch would be moored by four steel pipe guidelines and provide two (2) launching lanes.

AVOIDANCE & MINIMIZATION: The applicant's submitted statement on avoidance and minimization indicates that design alternatives were considered to optimize the use of the project site and minimize impacts to wetlands in the project area. Approximately 0.09-acre of wetlands would be avoided by the project activities. At this time, the U.S. Army Corps of Engineers (USACE) has not determined the adequacy of the applicant's avoidance and minimization efforts for the proposed activity.

MITIGATION: The applicant has requested that no compensatory mitigation be required for direct impacts to 0.17-acre of emergent wetlands due to the scale of the impacts and the condition of the impaired, disturbed wetlands. At this time, the U.S. Army Corps of Engineers (USACE) has not determined the adequacy of the applicant's mitigation proposal.

WATER QUALITY/COASTAL ZONE MANAGEMENT (CZM): The applicant has applied for certification from the State of Alabama in accordance with Section 401(a)(1) of the Clean Water Act, and for a consistency determination regarding Coastal Zone regulations in accordance with the Alabama Coastal Area Management Program. Upon completion of the required advertising and public comment review, a determination relative to Water Quality Certification and Coastal Zone consistency will be made by the Alabama Department of Environmental Management (ADEM).

This notice will serve as the notification to the Administrator of the Environmental Protection Agency (EPA) pursuant to section 401(a)(2) of the Clean Water Act.

HISTORIC PROPERTIES: In accordance with Section 106 of the National Historic Preservation Act, and Appendix C of 33 CFR Part 325, the undertaking defined in this notice is being considered for the potential to affect cultural and historic properties within the permit area. The USACE has determined that the permit area encompasses the entire project to occur within waters of the United States, as well as portions of the adjacent uplands that have the potential to be disturbed by those activities, including that which would be utilized for construction access and equipment and materials staging.

The USACE has not yet determined the proposed project's effect on cultural resources or historic properties within the current Permit Area. Coordination with the SHPO and federally-recognized American Indian tribes will be performed separately from this notice, as determined to be appropriate.

ENDANGERED SPECIES: Preliminary review of this application and the U.S. Department of the Interior's List of Endangered and Threatened Wildlife and Plants indicate the proposed activity may affect the West Indian manatee (T) and will have no effect on the following listed endangered or threatened species with the potential to exist within the watershed of the permit area: wood stork (T), gopher tortoise (T), black pine snake (T), eastern indigo snake (T), and Gulf sturgeon (T). There is no designated critical habitat within the project action area. The above determination is based on review of the Standard Local Operating Procedures for Endangered Species (SLOPES) programmatic agreement species effects determination keys for the aforementioned listed species and is being coordinated with the USFWS via this Public Notice.

ESSENTIAL FISH HABITAT: This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The proposed project would encompass approximately 9.75-acres of non-vegetated estuarine substrate within and adjacent to the existing manmade basin, which includes the footprint of the shoreline protection structures, the boat ramp, and docking facilities. The discharge of fill material adjacent to the project shoreline would have the potential to affect any benthic organisms, filter feeders, and fin-fish in the immediate area. Neighboring benthic communities, filter feeders, and fin-fish within the water column would have the potential to be stressed by any migrant sediments and/or suspended particulates generated during the temporary period of construction. Due to the proposed use of turbidity barriers and the temporary nature of the activities, effects are expected to be minor and temporary, and benthic communities within the project area are expected to repopulate rapidly. Our initial determination is that the proposed action would not have an adverse impact on EFH or federally managed fisheries due to the minor area of impact and proposed mitigation activities. Our final determination relative to project impacts and the need for mitigative measures is subject to review by and coordination with the National Marine Fisheries Service.

This public notice is being distributed to all known interested persons in order to assist in developing facts on which a decision by the USACE can be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation,

shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers (USACE) is soliciting comments from the public, from federal, state and local agencies and officials, and from other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the USACE to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state with particularity, the reasons for holding a public hearing.

Evaluation of the probable impacts involving deposits of dredged or fill material into waters of the United States will include the application of guidelines established by the Administrator of the U.S. Environmental Protection Agency.

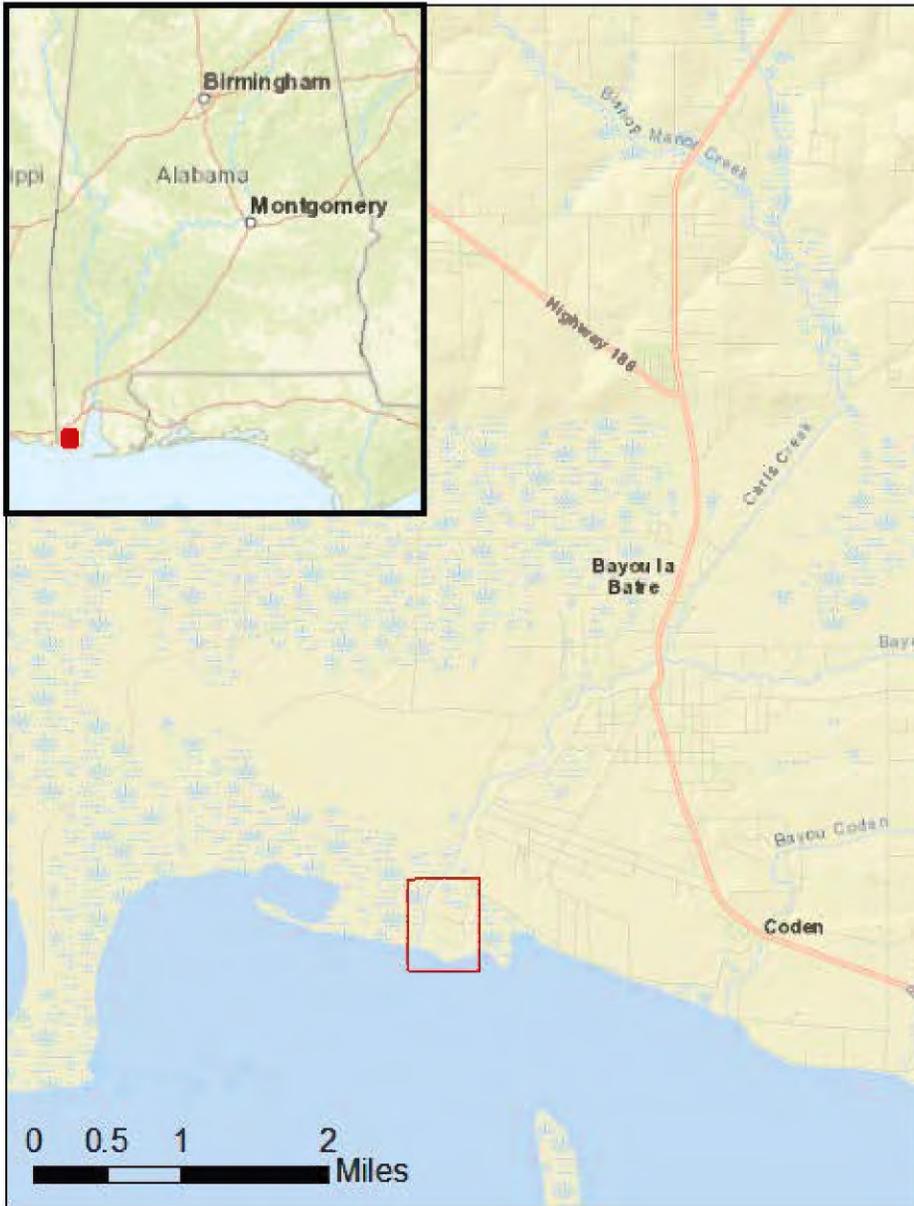
Correspondence concerning this public notice should refer to Public Notice Number **SAM-2022-00666-EAH** and should be directed via email to the project manager, Ms. Elizabeth A. Hamilton, at elizabeth.a.hamilton@usace.army.mil, or to the U.S. Army Corps of Engineers, Mobile District, Regulatory Division, Attention: Ms. Elizabeth A. Hamilton, Post Office Box 2288, Mobile, Alabama 36628-0001. Copies of all comments should be furnished to the Alabama Department of Environmental Management at coastal@adem.alabama.gov, or sent to: Alabama Department of Environmental Management, Mobile Branch / Coastal Section 3664 Dauphin Street, Suite B, Mobile, Alabama 36608.

All Comments should be received no later than 30 days from the date of this Public Notice. If you have any questions concerning this publication, you may contact the project manager, Ms. Elizabeth Hamilton by email at elizabeth.a.hamilton@usace.army.mil, or at (251) 694-3781. Please refer to the Public Notice Number **SAM-2022-00666-EAH**, in any communication concerning this project.

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/Missions/Regulatory.aspx.

MOBILE DISTRICT
U.S. Army Corps of Engineers

Attachments

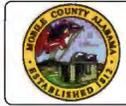


0 0.5 1 2 Miles



Limit of Disturbance

550 275 0 550 Feet



DATE	2022-09-15
DESIGNED BY	DK
CHECKED BY	HA/EG
DATE	10/14/22
DESIGNED BY	PC/ER
CHECKED BY	MS/MS
DATE	12/08/22
DESIGNED BY	MS/MS
CHECKED BY	MS/MS

**CITY DOCKS IMPROVEMENTS
BAYOU LA BATRE**

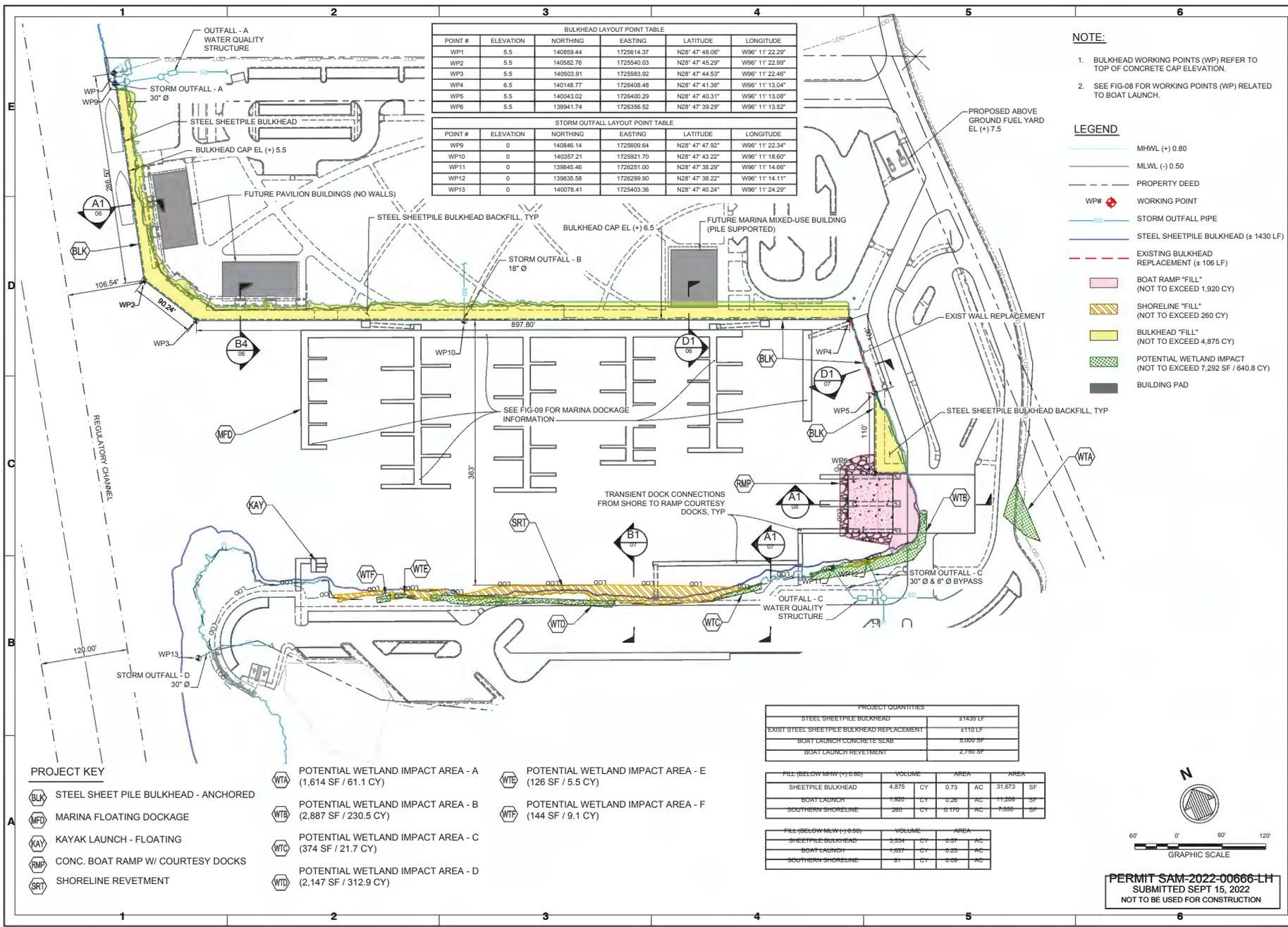
OVERALL SITE PLAN

DATE	2022-09-15
DESIGNED BY	DK
CHECKED BY	HA/EG
DATE	10/14/22
DESIGNED BY	PC/ER
CHECKED BY	MS/MS
DATE	12/08/22
DESIGNED BY	MS/MS
CHECKED BY	MS/MS



FIG 05

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POINT #	ELEVATION	NORTHING	EASTING	LATITUDE	LONGITUDE
WP1	5.5	140859.44	1725614.37	N28° 47' 48.06"	W96° 11' 22.29"
WP2	5.5	140582.76	1725540.03	N28° 47' 45.29"	W96° 11' 22.99"
WP3	5.5	140503.91	1725583.92	N28° 47' 44.53"	W96° 11' 22.46"
WP4	6.5	140148.77	1726408.48	N28° 47' 41.36"	W96° 11' 13.04"
WP5	5.5	140043.02	1726400.29	N28° 47' 40.31"	W96° 11' 13.08"
WP6	5.5	139941.74	1726356.52	N28° 47' 39.29"	W96° 11' 13.52"

POINT #	ELEVATION	NORTHING	EASTING	LATITUDE	LONGITUDE
WP9	0	140846.14	1725609.64	N28° 47' 47.92"	W96° 11' 22.34"
WP10	0	140357.21	1725921.70	N28° 47' 43.22"	W96° 11' 18.60"
WP11	0	139845.46	1726251.00	N28° 47' 38.29"	W96° 11' 14.66"
WP12	0	139835.58	1726299.90	N28° 47' 38.22"	W96° 11' 14.11"
WP13	0	140078.41	1725403.36	N28° 47' 40.24"	W96° 11' 24.29"

NOTE:

- BULKHEAD WORKING POINTS (WP) REFER TO TOP OF CONCRETE CAP ELEVATION.
- SEE FIG-08 FOR WORKING POINTS (WP) RELATED TO BOAT LAUNCH.

- LEGEND**
- MHWL (+) 0.80
 - MLWL (-) 0.50
 - PROPERTY DEED
 - WORKING POINT
 - STORM OUTFALL PIPE
 - STEEL SHEETPILE BULKHEAD (± 1430 LF)
 - EXISTING BULKHEAD REPLACEMENT (± 108 LF)
 - BOAT RAMP "FILL" (NOT TO EXCEED 1,920 CY)
 - SHORELINE "FILL" (NOT TO EXCEED 280 CY)
 - BULKHEAD "FILL" (NOT TO EXCEED 4,875 CY)
 - POTENTIAL WETLAND IMPACT (NOT TO EXCEED 7,292 SF / 640.8 CY)
 - BUILDING PAD

PROJECT KEY

- BLK STEEL SHEET PILE BULKHEAD - ANCHORED
- MFD MARINA FLOATING DOCKAGE
- KAY KAYAK LAUNCH - FLOATING
- RMP CONC. BOAT RAMP W/ COURTESY DOCKS
- SRT SHORELINE REVETMENT

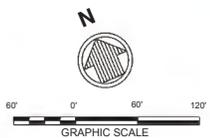
- WTA POTENTIAL WETLAND IMPACT AREA - A (1,614 SF / 61.1 CY)
- WTB POTENTIAL WETLAND IMPACT AREA - B (2,887 SF / 230.5 CY)
- WTC POTENTIAL WETLAND IMPACT AREA - C (374 SF / 21.7 CY)
- WTD POTENTIAL WETLAND IMPACT AREA - D (2,147 SF / 312.9 CY)

- WTE POTENTIAL WETLAND IMPACT AREA - E (126 SF / 5.5 CY)
- WTF POTENTIAL WETLAND IMPACT AREA - F (144 SF / 9.1 CY)

STEEL SHEETPILE BULKHEAD	1433 LF
EXIST STEEL SHEETPILE BULKHEAD REPLACEMENT	110 LF
BOAT LAUNCH CONCRETE SLAB	3,000 SF
BOAT LAUNCH REVETMENT	2,750 SF

FILL (BELOW MHW (+) 0.80)	VOLUME	AREA	AREA
SHEETPILE BULKHEAD	4,875 CY	0.73 AC	31,673 SF
BOAT LAUNCH	1,920 CY	0.26 AC	11,208 SF
SOUTHERN SHORELINE	280 CY	0.170 AC	7,555 SF

FILL (BELOW MLWL (-) 0.50)	VOLUME	AREA	AREA
SHEETPILE BULKHEAD	3,534 CY	0.57 AC	24,318 SF
BOAT LAUNCH	1,057 CY	0.25 AC	10,710 SF
SOUTHERN SHORELINE	61 CY	0.09 AC	3,810 SF



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 SUBMITTED SEPT 15, 2022
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DATE	REV
2022-09-15	0
DESIGNED BY	CHKD BY
DK	MJG
DRAWN BY	DATE
MJG	10/14/22
SCALE	PROJECT NO.
AS NOTED	107402
DATE	SCALE
2022-09-15	AS NOTED
PROJECT NO.	NO. OF SHEETS
107402	12 (8 SHEETS)

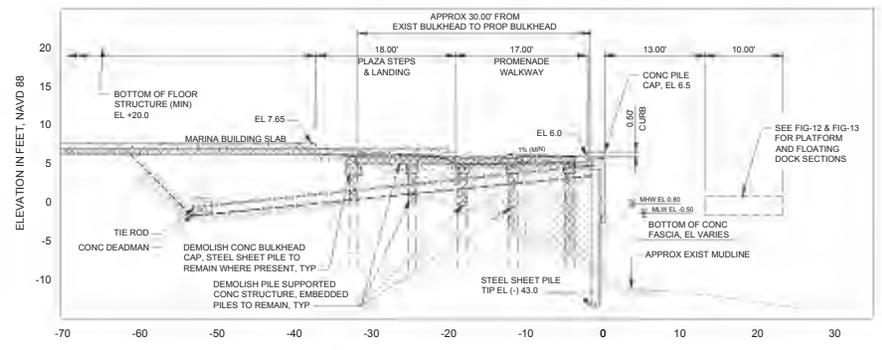
CITY DOCKS IMPROVEMENTS
BAYOU LA BATRE
TYPICAL SECTIONS
1 OF 2

DATE	REV
2022-09-15	0
DESIGNED BY	CHKD BY
DK	MJG
DRAWN BY	DATE
MJG	10/14/22
SCALE	PROJECT NO.
AS NOTED	107402
DATE	SCALE
2022-09-15	AS NOTED
PROJECT NO.	NO. OF SHEETS
107402	12 (8 SHEETS)

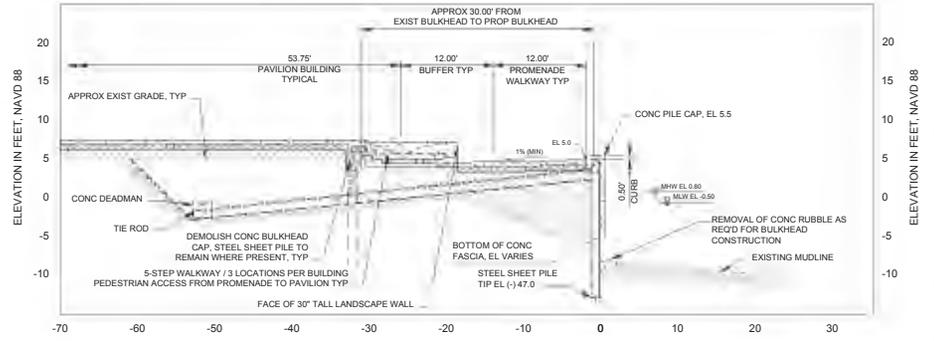
1111 WATER STREET
MOBILE, AL 36682
motcraft & nichol

SEAL

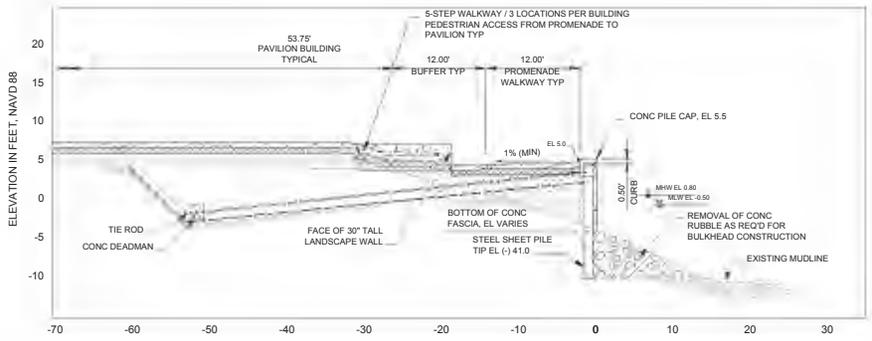
FIG
06
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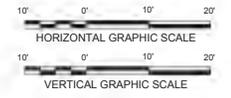
D1
05
STEEL SHEETPILE BULKHEAD TYPICAL SECTION 3
SCALE: AS NOTED



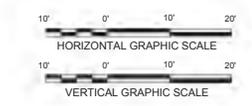
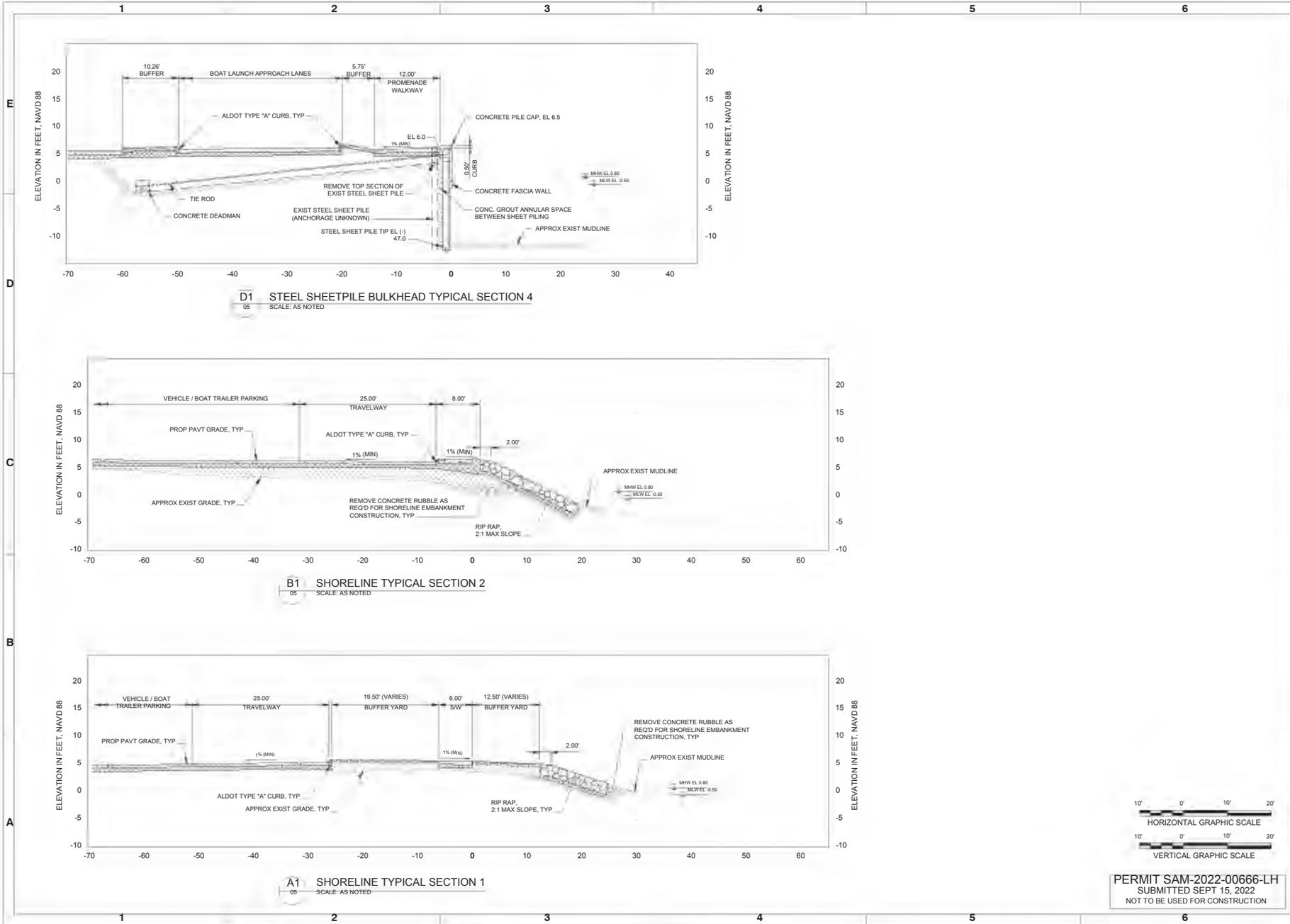
B4
05
STEEL SHEETPILE BULKHEAD TYPICAL SECTION 2
SCALE: AS NOTED



A1
05
STEEL SHEETPILE BULKHEAD TYPICAL SECTION 1
SCALE: AS NOTED



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NOT TO BE USED FOR CONSTRUCTION



**CITY DOCKS IMPROVEMENTS
BAYOU LA BATRE**

**TYPICAL SECTIONS
2 OF 2**

Date:	2022-09-15	Rev:	0
Drawn by:	DK	MAN Project No:	11074-02
Checked by:	MM/EG	Drawing scale:	AS NOTED
Reviewed by:	PP/PR	Per sheets:	12 (8 SHEETS)
Submitted by:	MOVA/MS/MO/ML		

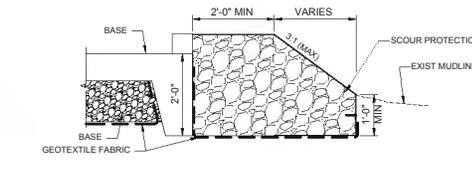
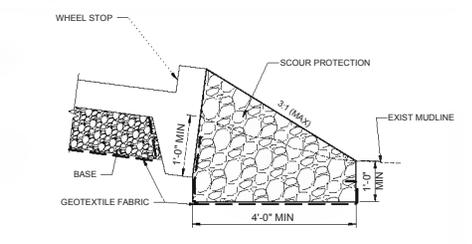
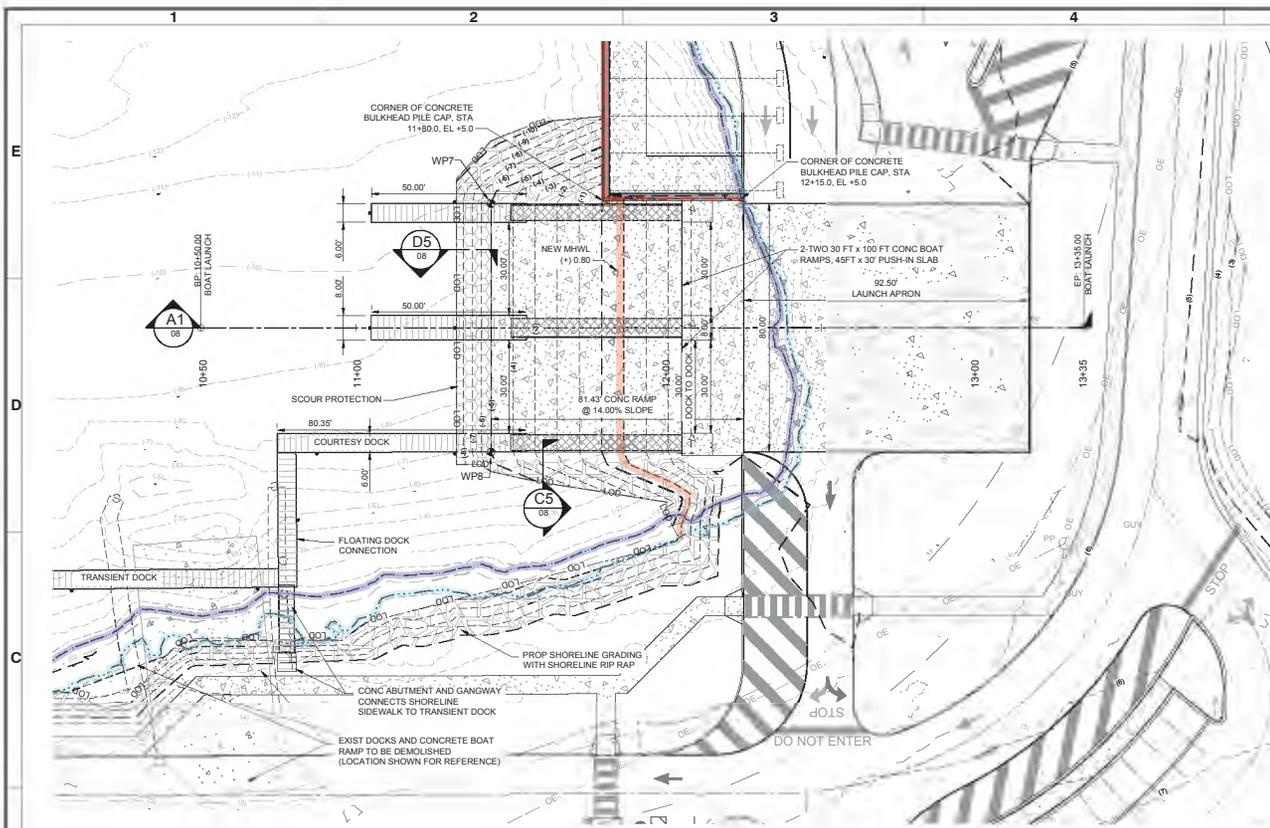


111 WATER STREET
MOBILE, AL 36682

SEAL

**FIG
07**

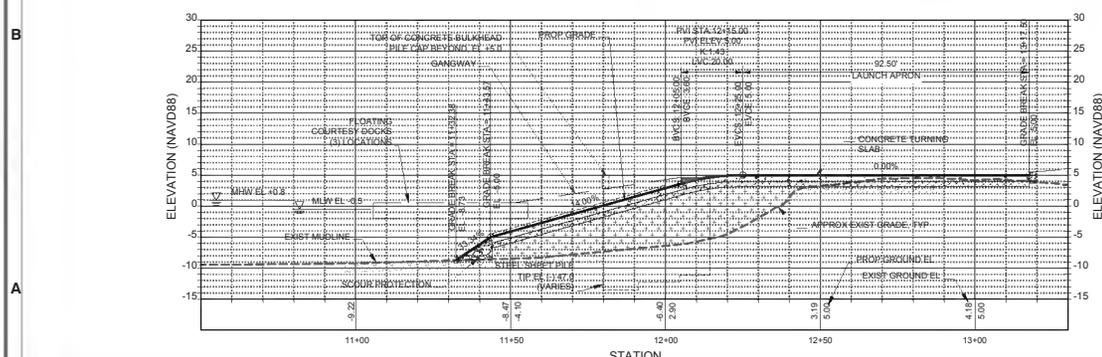
INDEX: 7 OF 23



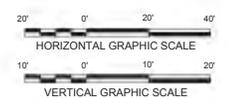
BOAT LAUNCH LAYOUT POINT TABLE

POINT #	ELEVATION	NORTHING	EASTING	LATITUDE	LONGITUDE
WP7	-5.00	139954.76	1726322.46	N11° 15' 34.17"	E15° 32' 08.37"
WP8	-5.00	139881.33	1726290.73	N11° 15' 31.79"	E15° 32' 07.35"

NOTES:
1-



- HATCH LEGEND:**
- DOCKS AND GANGWAYS
 - SCOUR PROTECTION
 - BOAT RAMP BASE AGGREGATE "FILL"
 - BOAT RAMP EMBANKMENT "FILL"
 - MHWL (+) 0.80
 - MLWL (-) 0.50
 - NEW MHWL
 - LOD - LIMITS OF DISTURBANCE (LOD)
 - STEEL SHEETPILE BULKHEAD



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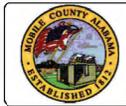
CITY DOCKS IMPROVEMENTS
BAYOU LA BATRE
BOAT LAUNCH
PLAN & PROFILE

DATE: 2022-09-15
REV: 0
DRAWN BY: MAM PAPERNO
CHECKED BY: EG
DESIGNED BY: MAM PAPERNO
SCALE: AS NOTED
SHEET NO: 12 (8 SHEETS)
TOTAL SHEETS: 12



11N WATER STREET
MOBILE, AL 36688

FIG
08
INDEX: 8 OF 23



DATE	2022-09-15
BY	EG
CHKD BY	EG
DATE	2022-09-15
BY	EG
CHKD BY	EG
DATE	2022-09-15
BY	EG
CHKD BY	EG

CITY DOCKS IMPROVEMENTS
BAYOU LA BATRE

OVERALL MARINA LAYOUT

DATE	2022-09-15
BY	EG
CHKD BY	EG
DATE	2022-09-15
BY	EG
CHKD BY	EG
DATE	2022-09-15
BY	EG
CHKD BY	EG

11N WATER STREET
MOBILE, AL 36682

SEAL

FIG
09

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LEGEND:

- 50 ○ DOUBLE SLIP + SIZE
- 65 ○ SINGLE SLIP + SIZE
- 65/80 ○ DOUBLE SLIP + SIZE/SIZE
- A □ DOCK DESIGNATION
- WORK POINT
- LIMITS OF SLIP

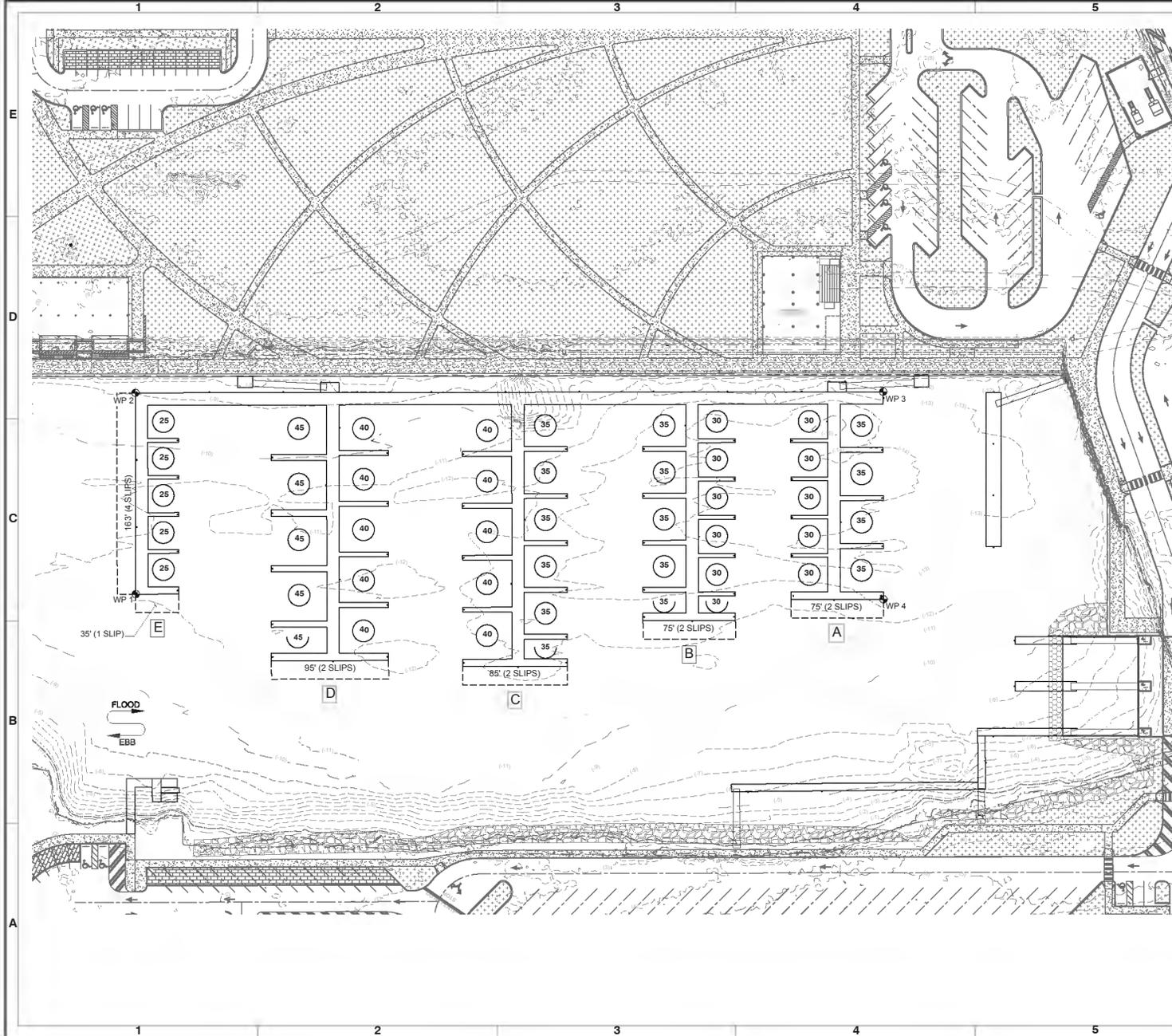
SLIP MIX			
SLIP SIZE	QUANTITY	%	LEASABLE LF
25	10	10%	250
30	21	21%	630
35	28	28%	980
40	20	20%	800
45	9	9%	405
T-HEAD SIDE TIES	9	9%	365
EXTERIOR SIDE TIES	4	4%	163
TOTAL	101	100%	3593

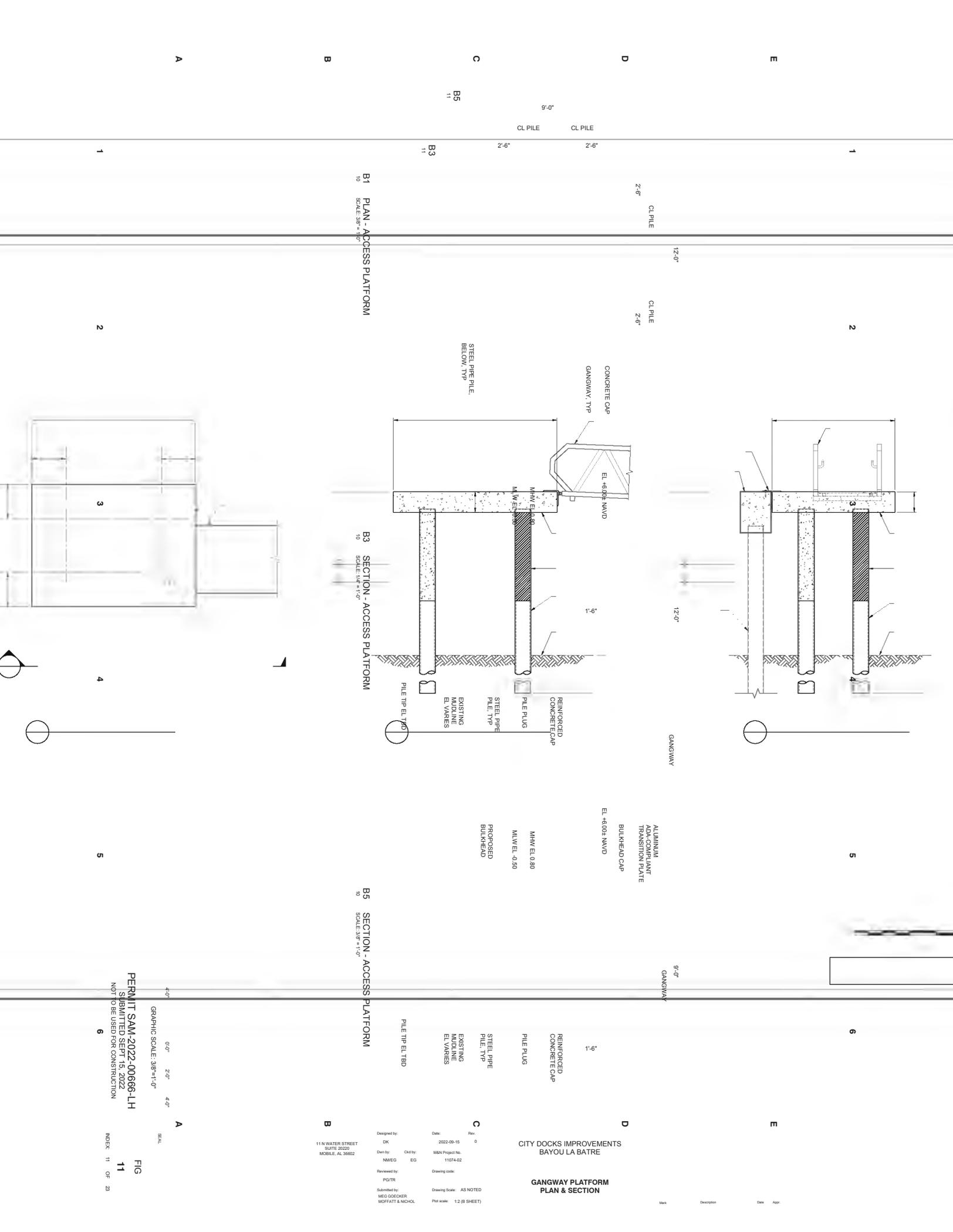
MARINA QUANTITIES	
DESCRIPTION	AREA (SF)
MAIN WALKWAY	6062.5
FLOATING DOCK A	2750
FLOATING DOCK B	3150
FLOATING DOCK C	3910
FLOATING DOCK D	4120
FLOATING DOCK E	1980
SERVICE DOCK	1500
BOARDING DOCK 1	300
BOARDING DOCK 2	400
BOARDING DOCK 3	482
CONNECTING DOCK	260
TRANSIENT DOCK	1200
GANGWAYS (5 TOTAL)	1216
ACCESS PLATFORMS (2 TOTAL)	216
LANDING DOCK (2 TOTAL)	240
KAYAK LAUNCH	805
TOTAL	28,591.5

WORK POINT TABLE		
POINT #	NORTHING	EASTING
WP 1	140,284.79	1,725,646.34
WP 2	140,434.49	1,725,710.81
WP 3	140,194.68	1,726,267.62
WP 4	140,040.38	1,726,201.16



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SUBMITTED SEPT 15, 2022
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B1 PLAN - ACCESS PLATFORM
SCALE: 3/8" = 1'-0"

B3 SECTION - ACCESS PLATFORM
SCALE: 1/4" = 1'-0"

B5 SECTION - ACCESS PLATFORM
SCALE: 3/8" = 1'-0"

PERMIT SAM-2022-00686-LH
SUBMITTED SEPT 15, 2022
NOT TO BE USED FOR CONSTRUCTION

FIG 11
INDEX 11 OF 23

11 N WATER STREET
SUITE 2025
MOBILE, AL 36682

Designed by: DK
Date: 2022-09-15
Drawn by: NMEG
Checked by: EG
Reviewed by: PGTR
Submitted by: MEG GOECKER
MOFFATT & NICKOL

Drawing code: 11074-02
Drawing Scale: AS NOTED
Plot scale: 1/2 (B SHEET)

CITY DOCKS IMPROVEMENTS
BAYOU LA BATRE
GANGWAY PLATFORM
PLAN & SECTION

Mark Description Date App



DATE	2022-09-15
BY	DK
PROJECT NO.	11074-02
DATE	10/04/22
CHKD BY	EG
DATE	
REVIEWED BY	PPR
DATE	
APPROVED BY	AS NOTED
DATE	
PROJECT NO.	11074-02
DATE	12/08/22

CITY DOCKS IMPROVEMENTS
BAYOU LA BATRE

FLOATING DOCK DETAILS

DATE	2022-09-15
BY	DK
PROJECT NO.	11074-02
DATE	10/04/22
CHKD BY	EG
DATE	
REVIEWED BY	PPR
DATE	
APPROVED BY	AS NOTED
DATE	
PROJECT NO.	11074-02
DATE	12/08/22

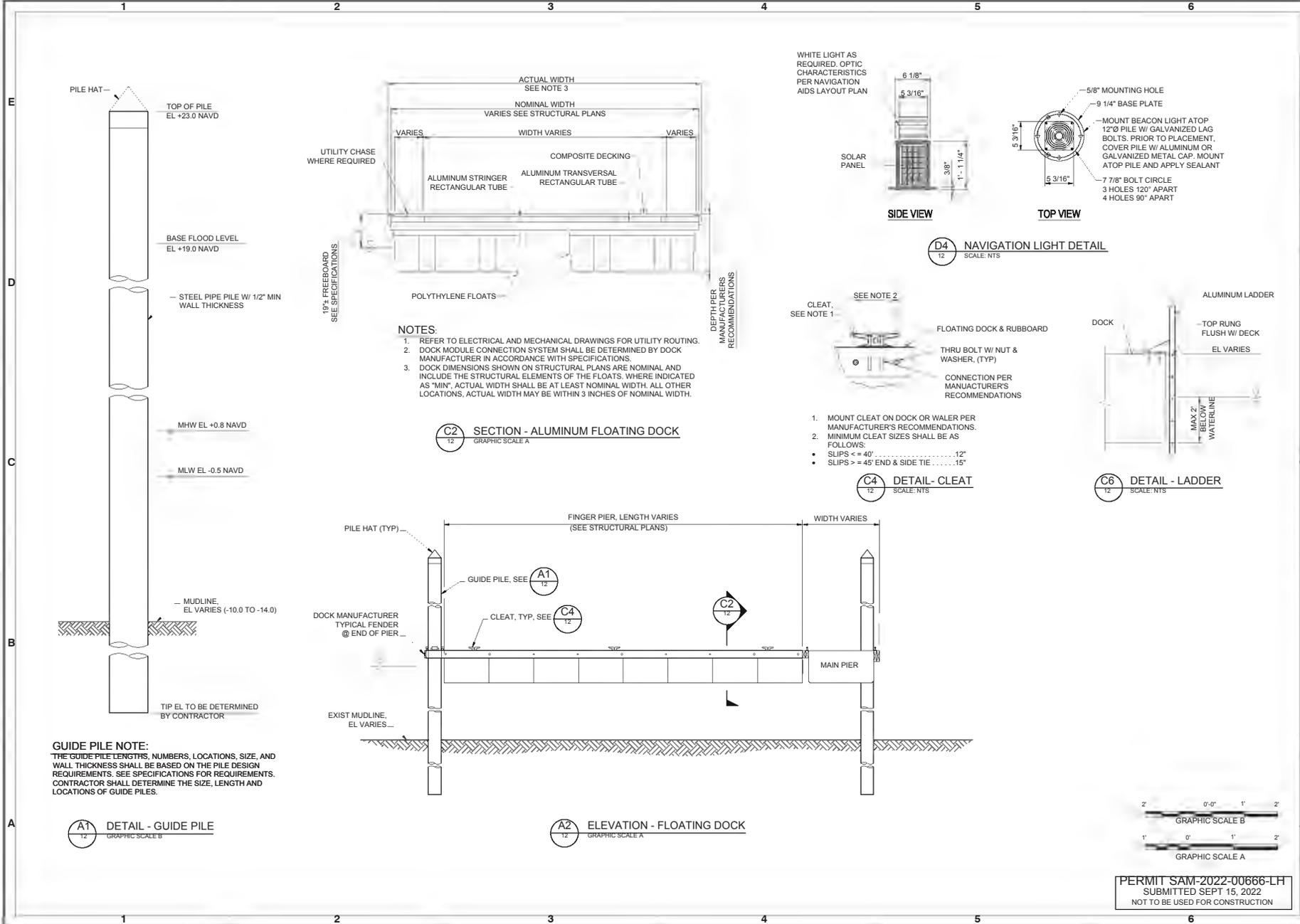
11N WATER STREET
MOBILE, AL 36682

metcraft & nichel

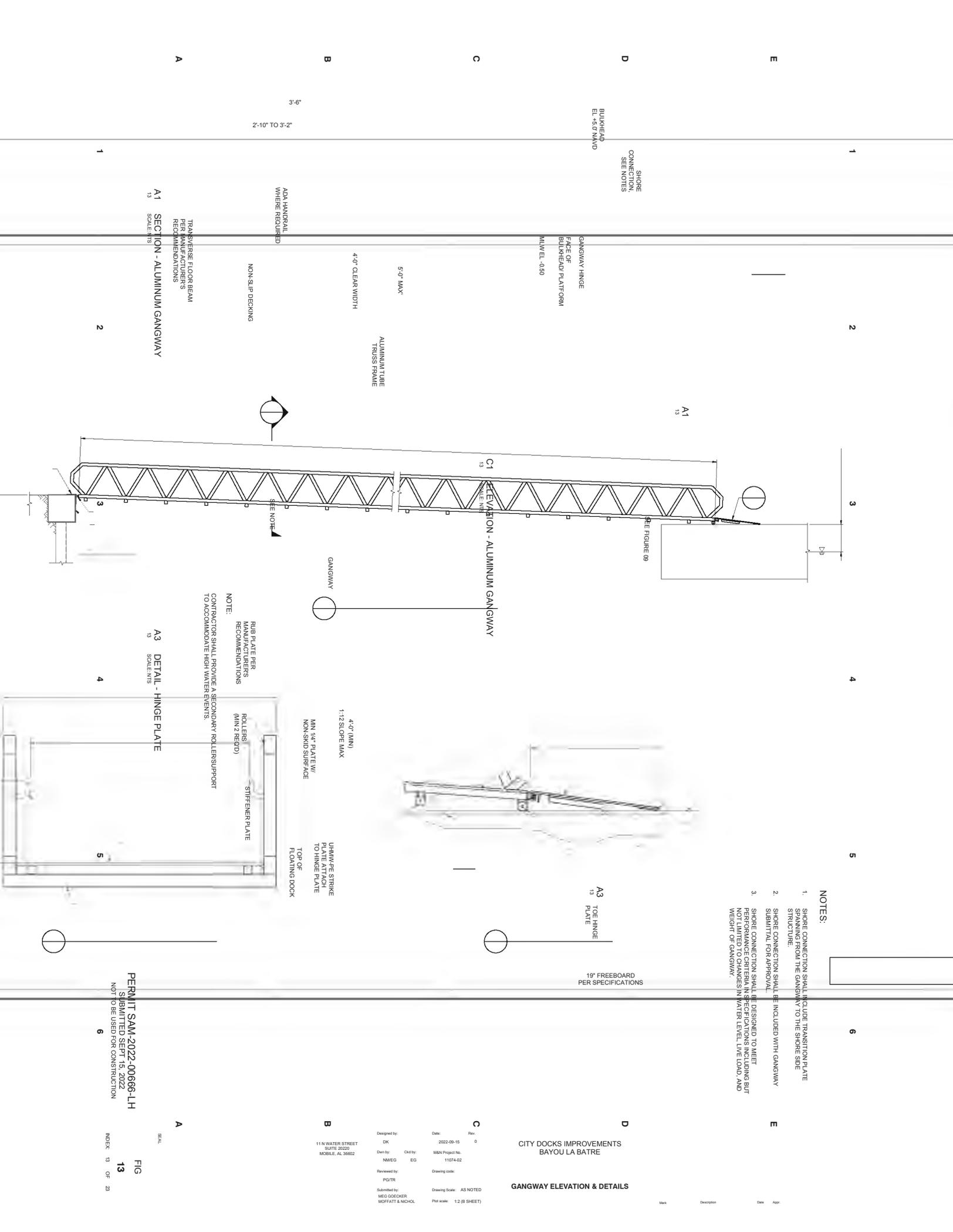
SEAL

FIG
12

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PERMIT SAM-2022-00666-LH
SUBMITTED SEPT 15, 2022
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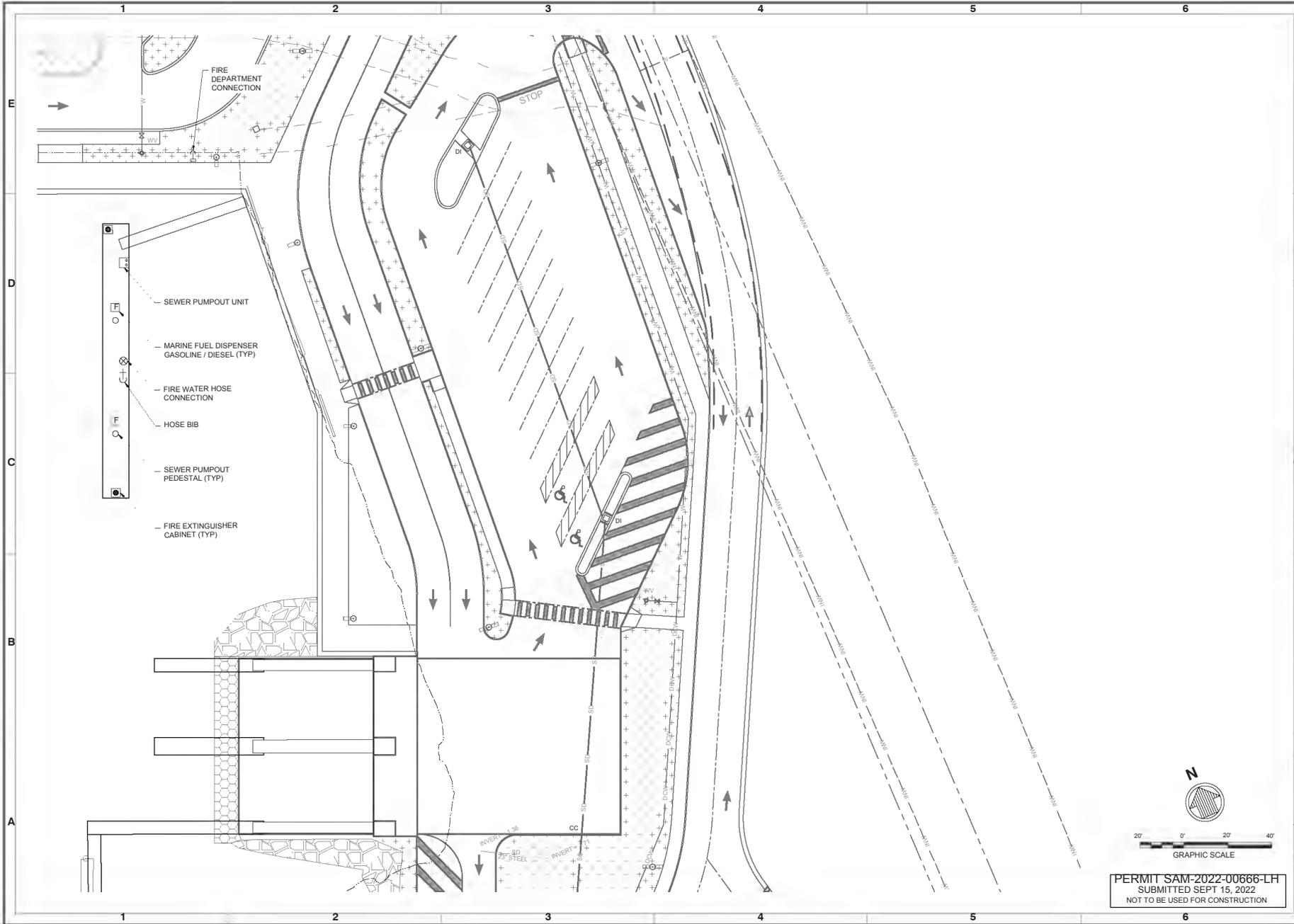
- NOTES:**
1. SHORE CONNECTION SHALL INCLUDE TRANSITION PLATE SPANNING FROM THE GANGWAY TO THE SHORE SIDE STRUCTURE.
 2. SHORE CONNECTION SHALL BE INCLUDED WITH GANGWAY SUBMITTAL FOR APPROVAL.
 3. SHORE CONNECTION SHALL BE DESIGNED TO MEET PERFORMANCE CRITERIA IN SPECIFICATIONS INCLUDING BUT NOT LIMITED TO: WIND, WAVES, CURRENTS, WATER LEVEL, LIVE LOAD, AND WEIGHT OF GANGWAY.

**CITY DOCKS IMPROVEMENTS
 BAYOU LA BATRE
 GANGWAY ELEVATION & DETAILS**

Designed by: DK
 Date: 2022-09-15
 Drawn by: NMEG
 Ckd by: EG
 MSN Project No. 11074-02
 Drawing code:
 Drawing Scale: AS NOTED
 Plot scale: 1/2 (B SHEET)

PERMIT SAM-2022-00666-LH
 SUBMITTED SEPT 15, 2022
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FIG 13
 OF 23
 INDEX



DATE	2022-09-15
REV	0
DESIGNED BY	DK
CHECKED BY	MM/EG
DRAWN BY	MM/EG
PROJECT NO.	1109402
DATE	10/14/22
SCALE	AS NOTED
SHEET NO.	15 OF 23
TOTAL SHEETS	23

CITY DOCKS IMPROVEMENTS
BAYOU LA BATRE

SERVICE DOCK

DATE	2022-09-15
REV	0
DESIGNED BY	DK
CHECKED BY	MM/EG
DRAWN BY	MM/EG
PROJECT NO.	1109402
DATE	10/14/22
SCALE	AS NOTED
SHEET NO.	15 OF 23
TOTAL SHEETS	23

11N WATER STREET
MOBILE, AL 36682

mettett & nichel

SEAL

FIG
15

INDEX: 15 OF 23

THE QUANTITIES SHOWN ARE APPROXIMATE AND SUBJECT TO CHANGE WITHOUT NOTICE. THESE QUANTITIES DO NOT INCLUDE THE QUANTITIES FOR THE CONSTRUCTION OF THE DOCK STRUCTURE.

MATERIALS:

1. TURBIDITY CURTAIN BARRIERS SHALL BE ORANGE IN COLOR IN ORDER TO ATTRACT THE ATTENTION OF NEARBY BOATERS.
2. THE TURBIDITY CURTAIN FABRIC SHALL MEET THE MINIMUM REQUIREMENTS NOTED IN TABLE 1 ON THIS DRAWING.
3. SEAMS IN THE TURBIDITY CURTAIN FABRIC SHALL BE EITHER VULCANIZED WELDED OR SEWN, AND SHALL DEVELOP THE FULL STRENGTH OF THE FABRIC.
4. FLOTATION DEVICES SHALL BE FLEXIBLE, BUOYANT UNITS CONTAINED IN AN INDIVIDUAL FLOTATION SLEEVE OR COLLAR ATTACHED TO THE CURTAIN. BUOYANCY PROVIDED BY THE FLOTATION UNITS SHALL BE SUFFICIENT TO SUPPORT THE WEIGHT OF THE CURRENT AND MAINTAIN A FREEBOARD OF AT LEAST 3 INCHES ABOVE THE WATER SURFACE LEVEL AS INDICATED IN THE TURBIDITY CURTAIN DETAIL ON THIS DRAWING.
5. LOAD LINES MUST BE FABRICATED INTO THE TOP AND BOTTOM OF ALL FLOATING TURBIDITY CURTAINS. THE TOP LOAD LINE SHALL CONSIST OF WOVEN WEBBING OR VINYL-SHEATHED STEEL CABLE AND SHALL HAVE A BREAK STRENGTH IN EXCESS OF 10,000 POUNDS. THE SUPPLEMENTAL (BOTTOM) LOAD LINE SHALL CONSIST OF A CHAIN INCORPORATED INTO THE BOTTOM HEM OF THE CURTAIN OF SUFFICIENT WEIGHT TO SERVE AS BALLAST TO HOLD THE CURTAIN IN A VERTICAL POSITION. ADDITIONAL ANCHORAGE SHALL BE PROVIDED AS NECESSARY. THE LOAD LINES SHALL HAVE SUITABLE CONNECTING DEVICES WHICH DEVELOP THE FULL BREAKING STRENGTH FOR CONNECTING TO LOAD LINES IN ADJACENT SECTIONS (SEE TURBIDITY CURTAIN DETAIL ON THIS DRAWING).
6. BOTTOM ANCHORS ARE REQUIRED. BOTTOM ANCHORS MUST BE SUFFICIENT TO HOLD THE CURTAIN IN THE SAME POSITION RELATIVE TO THE BOTTOM OF THE WATERCOURSE WITHOUT INTERFERING WITH THE ACTION OF THE CURTAIN. THE ANCHOR MAY DIG INTO THE BOTTOM (GRAPPLING HOOK, PLOW, OR FLUKE TYPE) OR MAY BE WEIGHTED (MUSHROOM TYPE), AND SHOULD BE ATTACHED TO A FLOATING ANCHOR BUOY VIA AN ANCHOR LINE. THE ANCHOR LINE WOULD THEN RUN FROM THE BUOY TO THE TOP LOAD LINE OF THE CURTAIN. THESE LINES MUST CONTAIN ENOUGH SLACK TO ALLOW THE BUOY AND CURTAIN TO FLOAT FREELY WITH A WATER SURFACE ELEVATION INCREASE FROM THE MEAN LOWER LOW WATER (MLLW) ELEVATION TO THE MEAN HIGHER HIGH WATER (MHHW) ELEVATION WITHOUT PULLING THE BUOY OR CURTAIN DOWN. THESE LINES MUST BE CHECKED REGULARLY TO MAKE SURE THEY DO NOT BECOME ENTANGLED WITH DEBRIS. ANCHOR SPACING WILL VARY WITH CURRENT VELOCITY AND POTENTIAL WIND AND WAVE ACTION. THEREFORE THE MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED. SEE ORIENTATION OF EXTERNAL ANCHORS AND ANCHOR BUOYS AS SHOWN IN FIGURE 1 ON THIS DRAWING FOR INSTALLATION.

INSTALLATION:

1. THE CURTAIN SHOULD NEVER TOUCH THE BOTTOM. A MINIMUM 1 FOOT "GAP" SHOULD EXIST BETWEEN THE WEIGHTED LOWER END OF THE SKIRT AND THE BOTTOM AT MLLW. MOVEMENT OF THE LOWER SKIRT OVER THE BOTTOM DUE TO CURRENT OR ELEVATION FLUCTUATION ON THE FLOTATION SYSTEM MAY FAN AND STRIP SEDIMENTS ALREADY SETTLED OUT.
2. TURBIDITY CURTAINS SHOULD BE LOCATED PARALLEL TO THE DIRECTION OF FLOW OF A MOVING BODY OF WATER. TURBIDITY CURTAIN SHOULD NOT BE PLACED ACROSS THE MAIN FLOW OF A SIGNIFICANT BODY OF MOVING WATER.
3. WHEN SIZING THE LENGTH OF A FLOATING CURTAIN, ALLOW AN ADDITIONAL 10 TO 20 PERCENT VARIANCE TO STRAIGHT LINE MEASUREMENTS. THIS WILL ALLOW FOR MEASURING ERRORS, MAKE INSTALLING EASIER AND REDUCE STRESS FROM POTENTIAL WAVE ACTION DURING HIGH WINDS.
4. AN ATTEMPT SHOULD BE MADE TO AVOID AN EXCESSIVE AMOUNT OF JOINTS IN THE CURTAIN. A MINIMUM CONTINUOUS SPAN OF 50 FEET BETWEEN JOINTS IS REQUIRED.
5. FOR STABILITY REASONS, A MAXIMUM SPAN OF 100 FEET BETWEEN JOINTS (ANCHOR OR STAKE LOCATIONS) IS REQUIRED. IF SPACINGS EXCEEDING THIS ARE ALLOWED BY THE MANUFACTURER, DATA SHALL BE SUBMITTED FOR REVIEW.
6. THE ENDS OF THE CURTAIN (BOTH FLOATING UPPER AND WEIGHTED LOWER) SHOULD EXTEND WELL UNDER THE EXISTING STRUCTURE TO BE REMOVED. THE ENDS SHOULD BE SECURED FIRMLY TO FULLY ENCLOSE THE AREA WHERE SEDIMENT MAY ENTER THE WATER.
7. TYPICAL ALIGNMENTS OF TURBIDITY CURTAINS CAN BE SEEN IN FIGURE 2 ON THIS DRAWING. THE NUMBER AND SPACING OF EXTERNAL ANCHORS MAY VARY DEPENDING ON CURRENT VELOCITIES AND POTENTIAL WIND AND WAKE ACTION. THE MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED.
8. IN RIVERS OR IN OTHER MOVING WATER, IT IS IMPORTANT TO SET ALL THE CURTAIN ANCHOR POINTS. CARE MUST BE TAKEN TO ENSURE THAT ANCHOR POINTS ARE OF SUFFICIENT HOLDING POWER TO RETAIN THE CURTAIN UNDER THE EXISTING CURRENT CONDITIONS. PRIOR TO PUTTING THE FURLED CURTAIN INTO THE WATER, AGAIN, ANCHOR BUOYS SHOULD BE EMPLOYED ON ALL ANCHORS TO PREVENT THE CURRENT FROM SUBMERGING THE FLOTATION AT THE ANCHOR POINTS.
9. WHEN THE ANCHORS ARE SECURE, THE FURLED CURTAIN SHOULD BE SECURED TO THE UPSTREAM ANCHOR POINT AND THEN SEQUENTIALLY ATTACHED TO EACH NEXT DOWNSTREAM ANCHOR POINT UNTIL THE ENTIRE CURTAIN IS IN POSITION. AT THIS POINT, AND BEFORE UNFURLING, THE "LAY" OF THE CURTAIN SHOULD BE ASSESSED AND ANY NECESSARY ADJUSTMENTS MADE TO THE ANCHORS. FINALLY, WHEN THE LOCATION IS ASCERTAINED TO BE AS DESIRED, THE FURLING LINES SHOULD BE CUT TO ALLOW THE SKIRT TO DROP.
10. ALWAYS ATTACH ANCHOR LINES TO THE FLOTATION DEVICE, NOT TO THE BOTTOM OF THE CURTAIN. THE ANCHORING LINE ATTACHED TO THE FLOTATION DEVICE ON THE DOWNSTREAM SIDE WILL PROVIDE SUPPORT FOR THE CURTAIN. ATTACHING THE ANCHORS TO THE BOTTOM OF THE CURTAIN COULD CAUSE PREMATURE FAILURE OF THE CURTAIN DUE TO THE STRESSES IMPARTED ON THE MIDDLE SECTION OF THE CURTAIN.

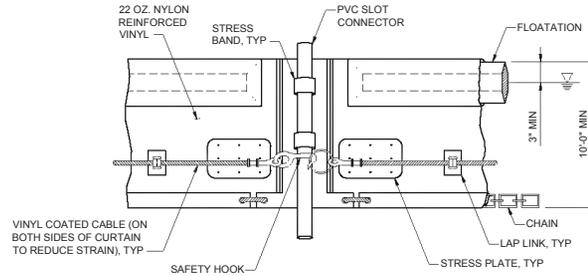
REMOVAL:

1. CARE SHOULD BE TAKEN TO PROTECT THE SKIRT FROM DAMAGE AS THE TURBIDITY CURTAIN IS DRAGGED FROM THE WATER.
2. IF THE CURTAIN IS TO BE REUSED AT THE SITE, THE AREA SELECTED TO BRING THE CURTAIN ASHORE SHOULD BE FREE OF SHARP ROCKS, BROKEN CEMENT, DEBRIS, ETC SO AS TO MINIMIZE DAMAGE WHEN HAULING THE CURTAIN. ANY DAMAGE TO THE CURTAIN SHALL BE REPAIRED AS SPECIFIED.
3. IF THE CURTAIN HAS A DEEP SKIRT, IT CAN BE FURTHER PROTECTED BY RUNNING A SMALL BOAT ALONG ITS LENGTH WITH A CREW INSTALLING FURLING LINES BEFORE ATTEMPTING TO REMOVE THE CURTAIN FROM THE WATER.

MAINTENANCE:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE TURBIDITY CURTAIN FOR THE DURATION OF THE PROJECT IN ORDER TO ENSURE THE CONTINUOUS PROTECTION OF THE WATERWAY.
2. SHOULD REPAIRS TO THE GEOTEXTILE FABRIC BECOME NECESSARY, REPAIR KITS AVAILABLE FROM THE ORIGINAL MANUFACTURER SHALL BE USED. MANUFACTURER'S INSTRUCTIONS MUST BE FOLLOWED TO ENSURE THE ADEQUACY OF THE REPAIR.
3. WHEN THE CURTAIN IS NO LONGER REQUIRED, THE CURTAIN AND RELATED COMPONENTS SHALL BE REMOVED IN SUCH A MANNER AS TO MINIMIZE TURBIDITY. REMAINING SEDIMENT SHALL BE SUFFICIENTLY SETTLED BEFORE REMOVING THE CURTAIN.

TABLE 1 - FABRIC PROPERTIES	
PHYSICAL PROPERTY	REQUIREMENT
THICKNESS (MLS)	45
WEIGHT (OZ./SY)	22
TENSILE STRENGTH (LB)	300
UV INHIBITOR	REQUIRED



TURBIDITY CURTAIN DETAIL

NOTE:
ANCHORING WITH BUOYS, AS SHOWN, REMOVES ALL VERTICAL FORCES FROM THE CURTAIN. HENCE, THE CURTAIN WILL NOT SINK FROM WIND OR CURRENT LOADS. FINAL CONFIGURATION AND DETAILS AS RECOMMENDED BY MANUFACTURER.

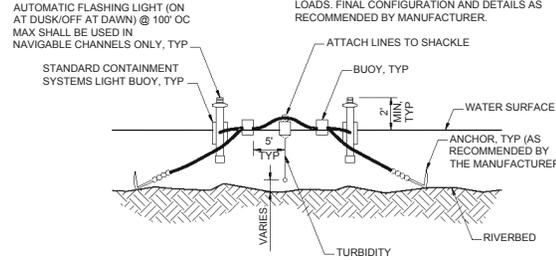


FIGURE 1 - SECTION

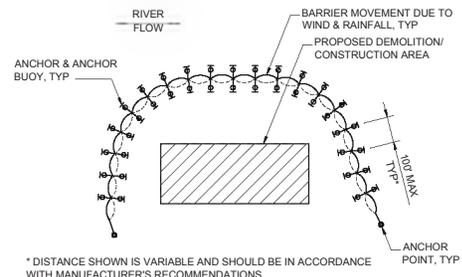


FIGURE 2 - PLAN



CITY DOCKS IMPROVEMENTS
BAYOU LA BATRE
TURBIDITY CURTAIN
NOTES & DETAILS

1111 WATER STREET
MOBILE, AL 36688

mettler & nichel

Drawn by: DK	Checked by: MREG	Reviewed by: PGP/ER	Scale: AS NOTED
Date: 2022-09-15	MAN Project No: 107402	Drawing No: 107402	Part No: 1, 2 (8 SHEETS)



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