2018 REHABILITATION
MARINE LIQUID BULK TERMINAL
THEODORE, ALABAMA

ALABAMA STATE PORT AUTHORITY
MOBILE, ALABAMA

ASPA PROJECT No. 10461

KAY IVEY, GOVERNOR
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OVERALL PLAN

1. **STRUCTURAL NOTES**
   - All structural members must be supported and secured at both ends.
   - Connections must comply with the latest edition of the American Institute of Steel Construction (AISC) specifications.
   - All welds shall be performed in accordance with AWS specifications.

2. **CONTRACTOR NOTES**
   - Contractor shall be responsible for installing a new pipe bollard (type 2) (ref. DWG. S-2.2). Install new pedestrian walkway for having no more than (2) two adjacent bent structures without fenders in place during installation.
   - Contractor shall coordinate phase II walers rehabilitation with crew in a progressive manner.

3. **PROJECT SPECIFICATIONS**
   - All exposed areas of HP 14x89 piling from ELEV. -8.0' to +5.5' with Alcotic and +5.5' to top of breasting cell with coal tar epoxy. Install new rope guards. Provide and install (3) additional horizontal fenders.
   - Resurface and paint (2) 40'Ø breasting cells. Remove existing horizontal fenders and replace galvanized chain and shackles. Remove (2) existing pipe bollards (type I and II) and place new in same location.

4. **WELDS**
   - All welds shall be inspected by AWS certified welding inspectors.
   - Contractor shall coordinate phase II walers rehabilitation with crew in a progressive manner.

5. **HAZARDous MATERIALS**
   - All hazardous materials shall be properly contained and disposed of according to local and federal regulations.

6. **QUALITY CONTROL**
   - Quality assurance and quality control procedures shall be in accordance with the latest edition of the AASHTO specifications.
   - Contractor shall be responsible for installing a new pipe bollard (type 2) (ref. DWG. S-2.2). Install new pedestrian walkway for having no more than (2) two adjacent bent structures without fenders in place during installation.

7. **CONTRACTOR NOTES**
   - Contractor shall be responsible for installing a new pipe bollard (type 2) (ref. DWG. S-2.2). Install new pedestrian walkway for having no more than (2) two adjacent bent structures without fenders in place during installation.
   - Contractor shall coordinate phase II walers rehabilitation with crew in a progressive manner.

8. **PROJECT SPECIFICATIONS**
   - All exposed areas of HP 14x89 piling from ELEV. -8.0' to +5.5' with Alcotic and +5.5' to top of breasting cell with coal tar epoxy. Install new rope guards. Provide and install (3) additional horizontal fenders.
   - Resurface and paint (2) 40'Ø breasting cells. Remove existing horizontal fenders and replace galvanized chain and shackles. Remove (2) existing pipe bollards (type I and II) and place new in same location.
EXISTING W14x74 WALER (x3)  
EXISTING 30"Ø BATTER PILE  
EXISTING W14x74 WALER (x3)  
EXISTING W14x74 WALER (x3)  
EXISTING W36x182 BEAM  
EXISTING W36x182 BEAM  
EXISTING W36x182 BEAM  
EXISTING W14x74 WALER (x3)  
NORTH BREASTING CELL No.2 - 40' Ø  
EXISTING W14x74 WALER (x3)  
EXISTING 24"Ø PILE  
EXISTING 24"Ø PILE  
EXISTING 24"Ø PILE  
EXISTING 30"Ø BATTER PILE  
EXISTING 48"Ø PILE  
EXISTING W14x74 WALER (x3)  
EXISTING 4'W. WALKWAY  
EXISTING 4'W. WALKWAY  
EXISTING 4'W. WALKWAY  
BENT 14 AND PEDESTRIAN WALKWAY  
DISPLACED 24"Ø VERTICAL PIPE PILE ON WEST SIDE OF PIER  
DISPLACED CONNECTION BETWEEN 48"Ø VERTICAL PIPE PILE AND 30"Ø BATTERED PIPE PILE ON EAST SIDE OF PIER  
DISPLACED 48"Ø VERTICAL PIPE PILE ON EAST SIDE OF PIER  
DISPLACED BENT 14 AND PEDESTRIAN WALKWAY ON EAST SIDE OF PIER  
DISPLACED 48" W. PEDESTRIAN WALKWAY AT MID-SPAN OF BENT  

ENLARGED PLAN: PHASE I WORK  
SCALE: 1" = 10'
**NOTE 9**

EXISTING W36x182 BEAM

**NOTE 10**

BREASTING BENT 14A.

**NOTE 11**

SCALE: 1"=10'

**NOTE 12**

"FALSEWORK."

**NOTE 13**

BENT 14 (EXISTING). REMOVE REMAINING PORTION OF EXISTING W36x182 SUPPORT BEAM. REMOVE EXISTING PEDESTRIAN WALKWAY SPANNING FROM BREASTING BENT 13 (EXISTING) TO BREASTING WALKWAY "B".

**NOTE 14**

PIPE PILING BREASTING BENT 13 PILING (EXISTING) TO NEW BREASTING BENT 14A PILING. INSTALL NEW PEDESTRIAN WALL OF STEEL 5/16 @ 5/8" THK. PILE 9".

**NOTE 15**

NEW PIPE BOLLARD TYPE 2 AS SHOWN ON PLAN. INSTALL EXISTING RESERVED TIRES (FENDERS) ON NEW BREASTING BENT 14A PILING.

**NOTE 8**

NEW 4'W. WALKWAY "A".

**NOTE 6**

EXISTING 4'W. WALKWAY.

**NOTE 3**

EXISTING W36x182 BEAM

**NOTE 14A**

CUT EXISTING W36x182 AT POINT ± 10.0' EAST OF WESTERN FACE OF PIER AND REMOVE CUT-OFF PORTION.

**NOTE 14**

CUT EXISTING W36x182 AT INBOARD FACE OF EXISTING 48"Ø PIPE PILE AND AT INBOARD FACE OF 24"Ø PIPE PILING (EXISTING) AND FROM BREASTING BENT 14 (EXISTING) TO BREASTING BENT 15 (EXISTING) ON BOTH EAST AND WEST SIDES.

**NOTE 7**

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**NOTE 13**

EXISTING 24"Ø PIPE PILE

**NOTE 4**

EXISTING 30"Ø PIPE PILE

**NOTE 5**

EXISTING 48"Ø PILE

**NOTE 3**

EXISTING W36x182 BEAM

**NOTE 9**

NEW W36x182 BEAM

**NOTE 10**

BATTER PILE

**NOTE 8**

NEW W18x76 WALER (x3)

**NOTE 10**

NEW W14x74 WALER (x3)

**NOTE 10**

EXISTING W14x74 WALER (x3)

**NOTE 10**

ALL WELDS SHALL BE INSPECTED BY AWS CERTIFIED WELDING INSpectors.

**NOTE 10**

BY AWS CERTIFIED WELDERS USING E70XX RODS.

**NOTE 10**

MEMBERS AND CONNECTIONS PRIOR TO CONTRACTOR MAKING ANY NEW STRUCTURAL MODIFICATIONS.

**NOTE 10**

CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN PLANS AND FIELD CONDITIONS.

**NOTE 10**

ENGINEER SHALL RE-INSPECT ALL EXISTING STRUCTURAL CONDITIONS IF NECESSARY.

**NOTE 10**

ENGINEER SHALL RE-INSPECT ALL EXISTING STRUCTURAL MEMBERS AND CONNECTIONS PRIOR TO CONTRACTOR MAKING ANY NEW STRUCTURAL MODIFICATIONS.

**NOTE 10**

ENGINEER SHALL RE-INSPECT ALL EXISTING STRUCTURAL CONDITIONS IF NECESSARY.
NEW W36x182 BEAM
MLW
ELEV. 0.0
T.O.S.
ELEV. -11.0
T.O.S.
BENT
ELEV. 12.0

20'-0"
NEW W14x74
OR W18x76
WALER ELEV. +8.0
NEW W14x74
OR W18x76
WALER ELEV. +5.0
NEW W14x74
OR W18x76
WALER ELEV. +2.0

NEW 48"Ø PIPE PILE - 5/8" WALL
ESTIMATED LENGTH = 90'
DESIGN CAPACITY = 100 TONS
CONTRACTOR TO PROVIDE
TIRE STOP TO BE WELDED TO
INWARD SIDE OF PIPE PILE,
CUT FROM W14x74

NEW 30"Ø PIPE PILE - 1/2" WALL
ESTIMATED LENGTH = 100'
DESIGN CAPACITY = 120 TONS

12"
6"

NOTCH BOTTOM
FLANGE OF W36
CUT SLOT IN PILE
FOR W36 WEB

5
12
7/16
TYP.

USED TIRES
SIZE 20.5-25

NEW 24"Ø PIPE PILE - 1/2" WALL
ESTIMATED LENGTH = 70'
DESIGN CAPACITY = 30 TONS

12"
20'-0"
40'-0"

NOTE:
FILL ALL PIPE PILING w/SAND TO
ELEV. +5-0".  FILL REMAINING PART
OF PILING w/4000 PSI CONC.

WALKWAY
1
T/BENT
ELEV. +12.0'
END OF W36x182
FACE OF PILE
WELD PILE TO
W36x182 FLANGE

48"Ø PIPE PILE
OR
24"Ø PIPE PILE
OR
30"Ø PIPE PILE

TYP.
TYP.
TYP.

COPE WALER TO FIT
PILE DIAMETER

SECTION "A-A"
SCALE:  3/4" = 1'-0"
WALER-TO-PIPE PILE CONNECTION

NEW WALER
ELEV. +2.0
NEW WALER
ELEV. +5.0
NEW WALER
ELEV. +8.0

T/TNEW BENT
ELEV. +12.0
EXIST. W36x182

7/16
TYP.

8"Ø SCH. 80 PIPE - 1'-4"L.
FILL w/3,000 PSI CONCRETE (GALV.)

10"
6"
1'-0" 1'-0"
1'-4"
PIPE CAP
TOP FLANGE W36

4"Ø SCH. 80 PIPE - 2'-0"L.
w/PIPE CAPS AT ENDS (GALV.)

DETAIL - PIPE BOLLARD TYPE I
SCALE:  1" = 1'-0"
(2 REQ'D)

NOTE 1,3
NOTE 4
NOTE 2