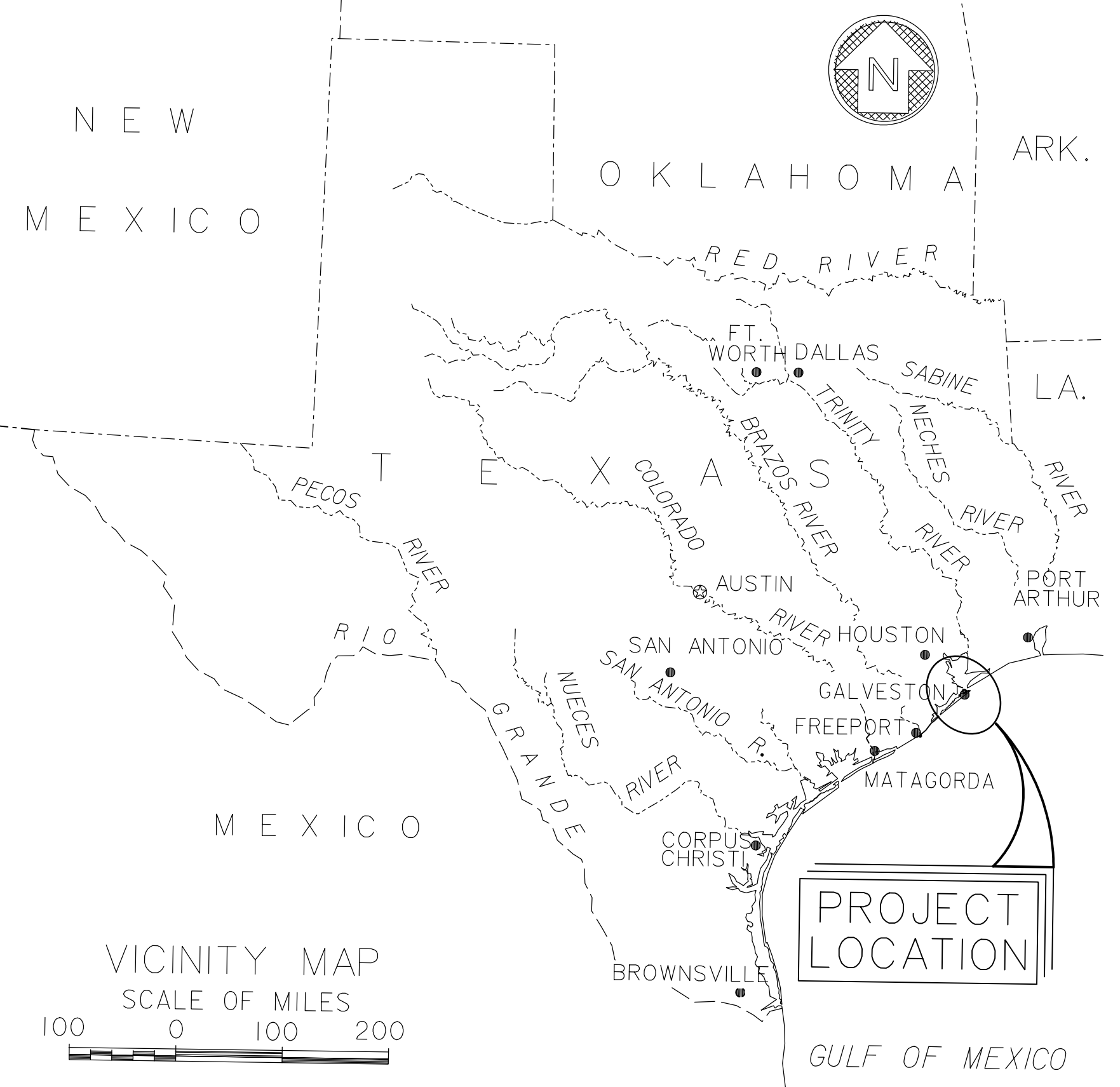


**CLEAR CREEK
COMPLEX CSR**

**DICKERSON BAYOU
COMPLEX CSR**

**GALVESTON ISLAND
PERIMETER CSR**

**BOLIVAR ROAD
COMPLEX CSR**



MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

DESIGNED BY: DATE: 2020
DRAWN BY: CWS BY: CFB
SUBMITTED BY: CHARLES P. BRONSTEINER IV, P.E. W91298-004-XXXX

CONTRACT NO.: W91298-004-XXXX
PLOT SCALE: 1"=200'
PLOT DATE: MAR. 2020
FILE NUMBER: XXXX-1
FILE NAME: S01_Final_Report_Drawing S-01_Site and Vicinity.dgn

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY DRAFT ENGINEERING APPENDIX (NOT FOR CONSTRUCTION)

SITE & VICINITY PLAN

Sheet ID
S-01

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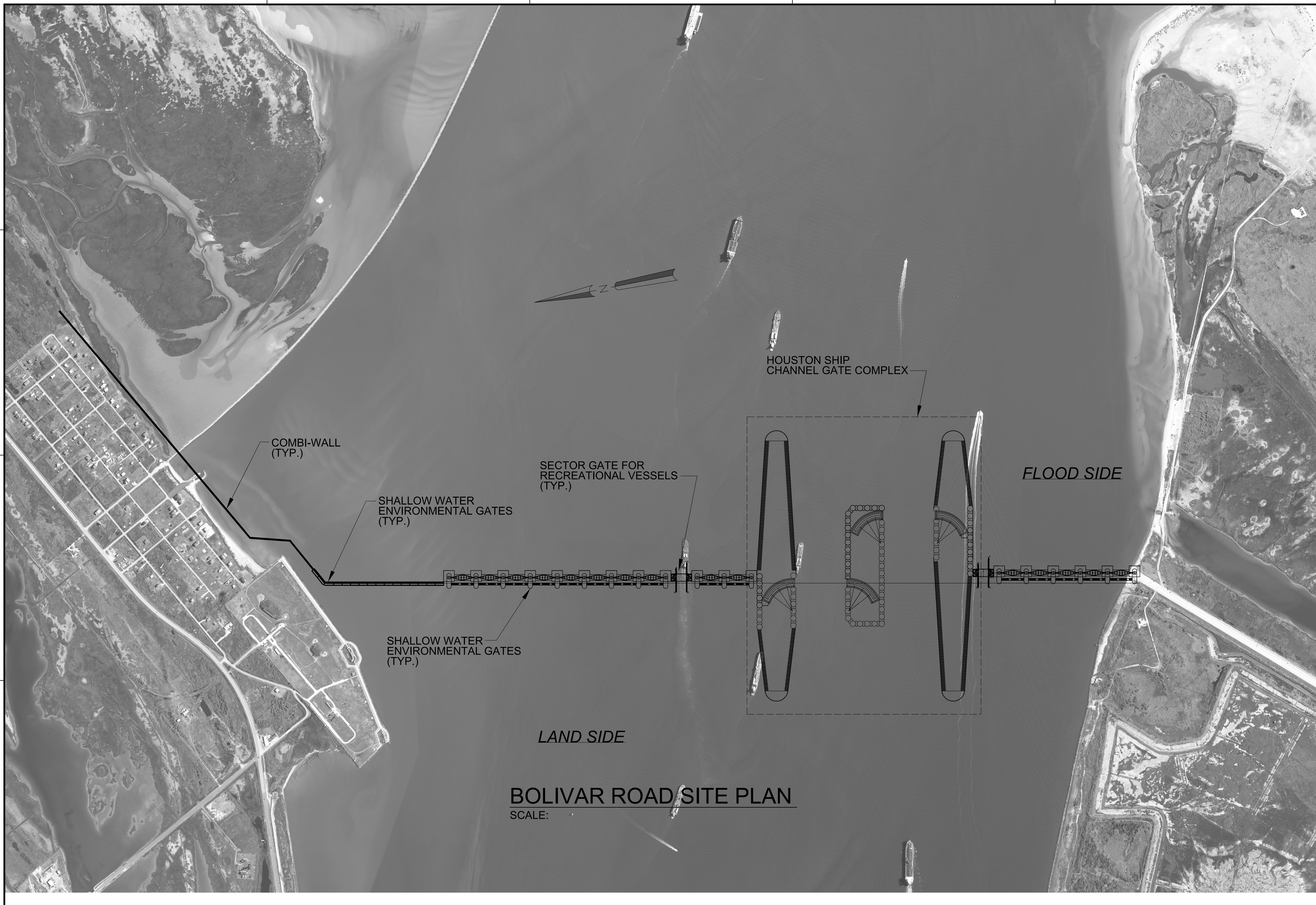
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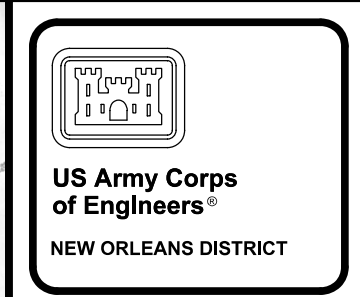
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BOLIVAR ROAD SITE PLAN
SCALE:



MARK	DESCRIPTION	DATE	APPR.	MARK	DATE	APPR.

DESIGNED BY:	DATE:	SOLICITATION NO.:
DWN BY:	MAR. 2020	W812P9-##-X-####
CHKD BY:	CPE	CONTRACT NO.:
SUBMITTED BY:	Charles P. Brantstetter IV, P.E.	W812P9-##-X-####
FILE NUMBER:	XXXX-1	FILE NAME:
FILE NAME:	MAR. 2020	FILE NAME:
FILE NAME:	FILE NAME:	FILE NAME:
FILE NAME:	FILE NAME:	FILE NAME:

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY
DRAFT ENGINEERING APPENDIX
(NOT FOR CONSTRUCTION)

BOLIVAR ROAD SITE PLAN

Sheet ID
S-02

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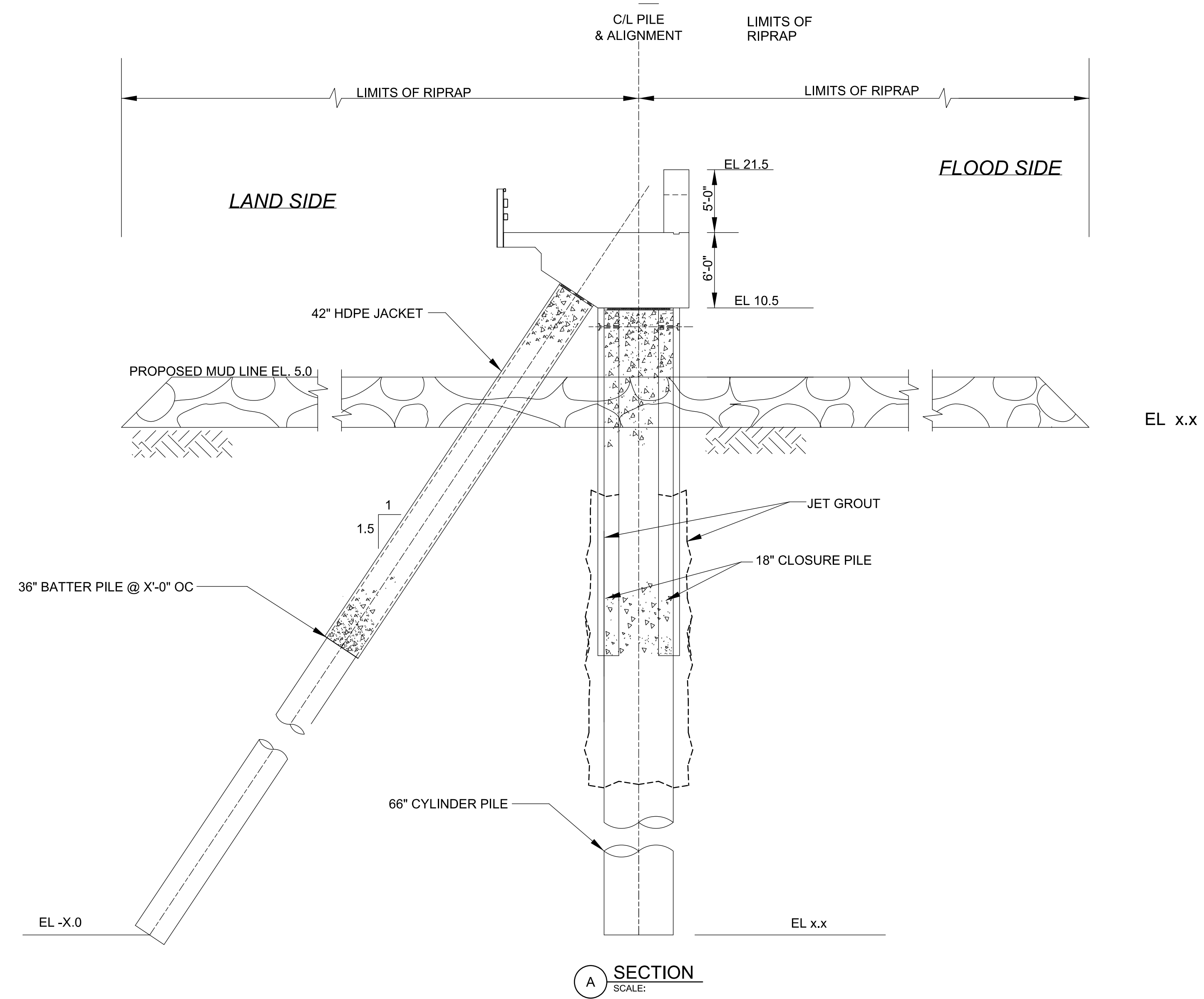
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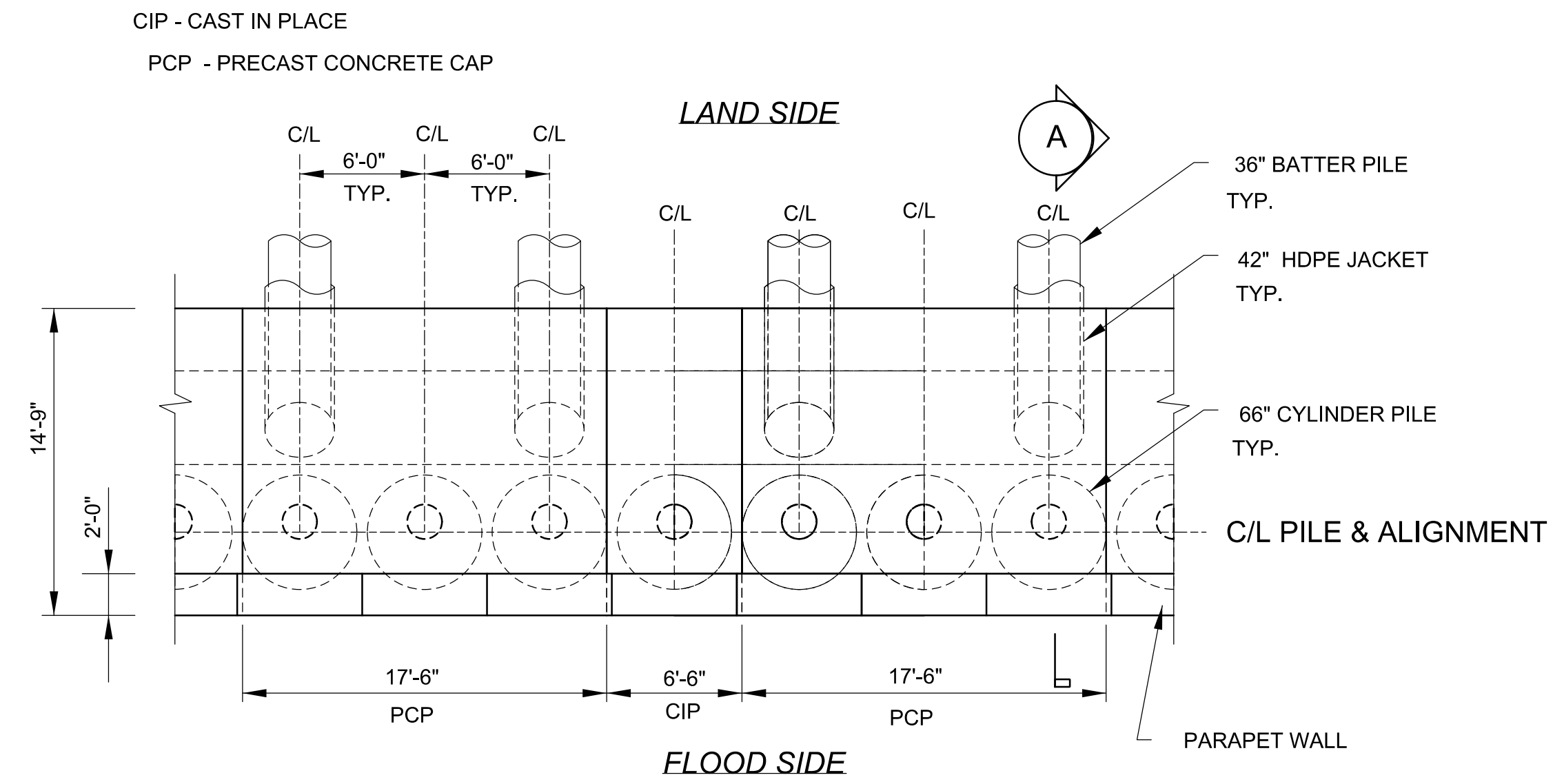
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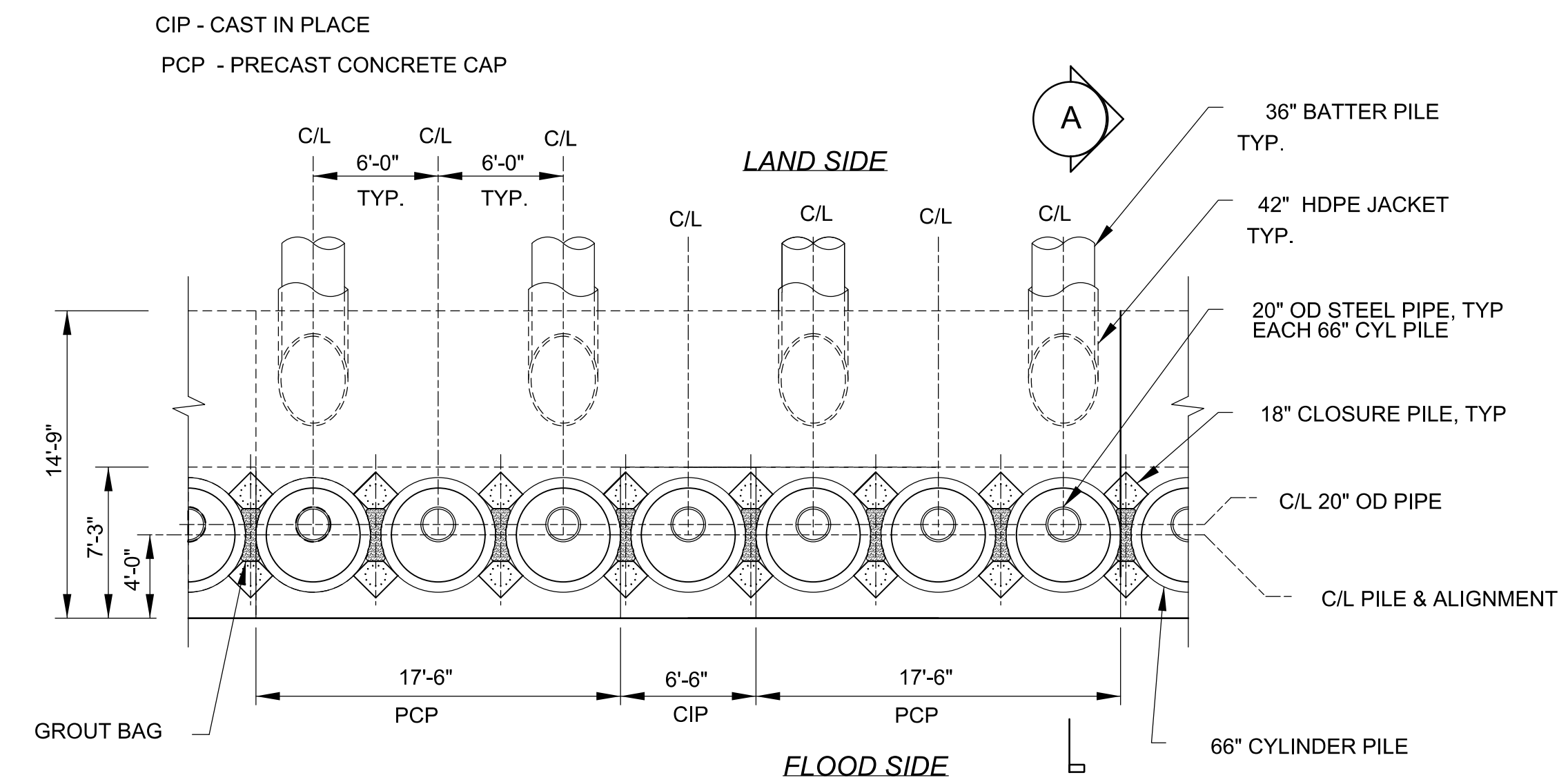
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(A) SECTION
SCALE:



COMBI-WALL PLAN EL. 21.5



COMBI-WALL PLAN EL. 10.5



DATE	DESCRIPTION	MARK

DESIGNED BY: CPS	DATE: 2020
DWN BY: CPS	STATION NO.:
SUBMITTED BY: Charles P. Brantley IV, P.E.	CONTRACT NO.:
PLOT SCALE: 1/8"=1'	FILE NUMBER:
SIZE: 11x17	ANSI D:

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY
DRAFT ENGINEERING APPENDIX
(NOT FOR CONSTRUCTION)

SITE PLAN

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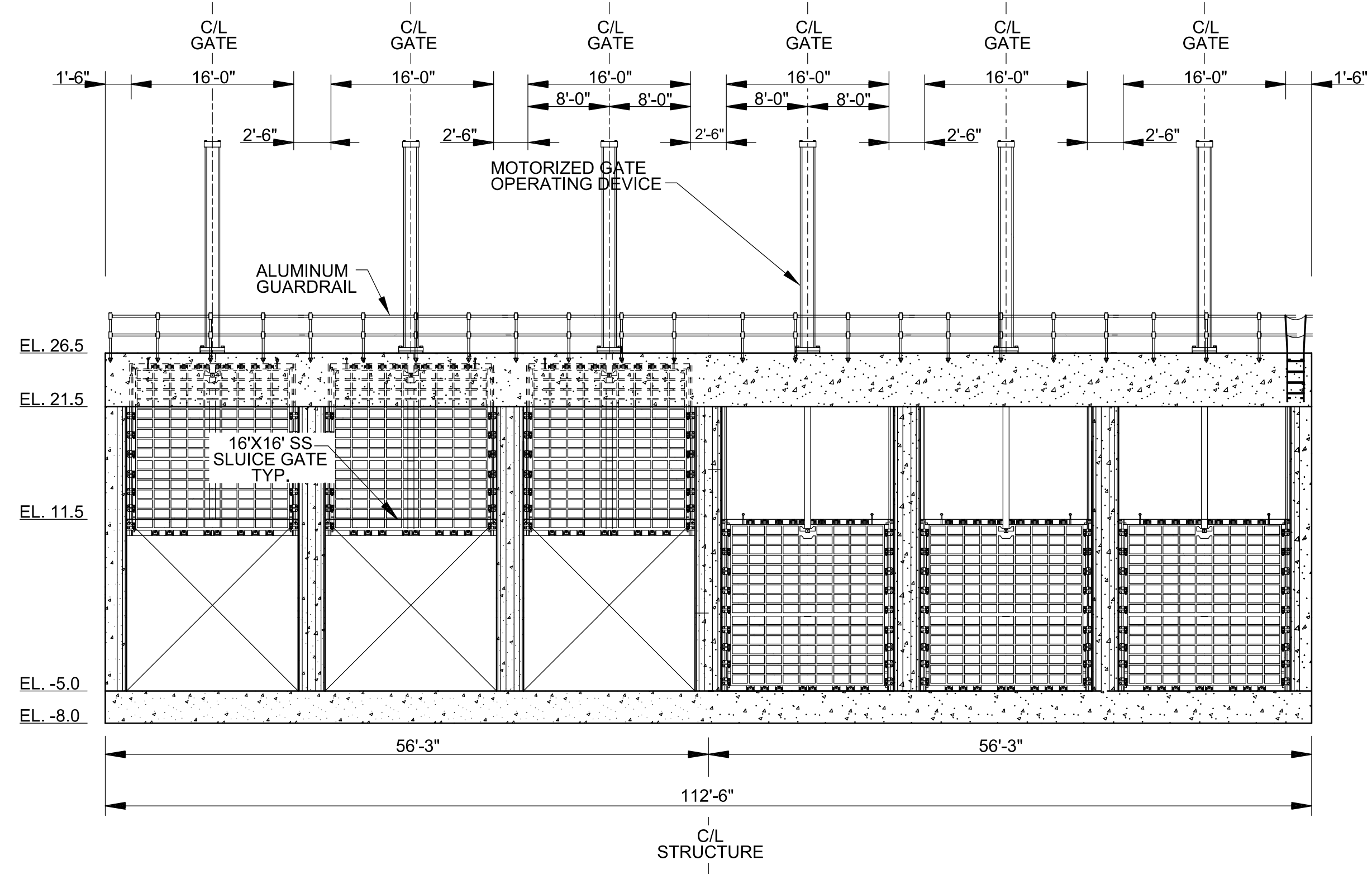
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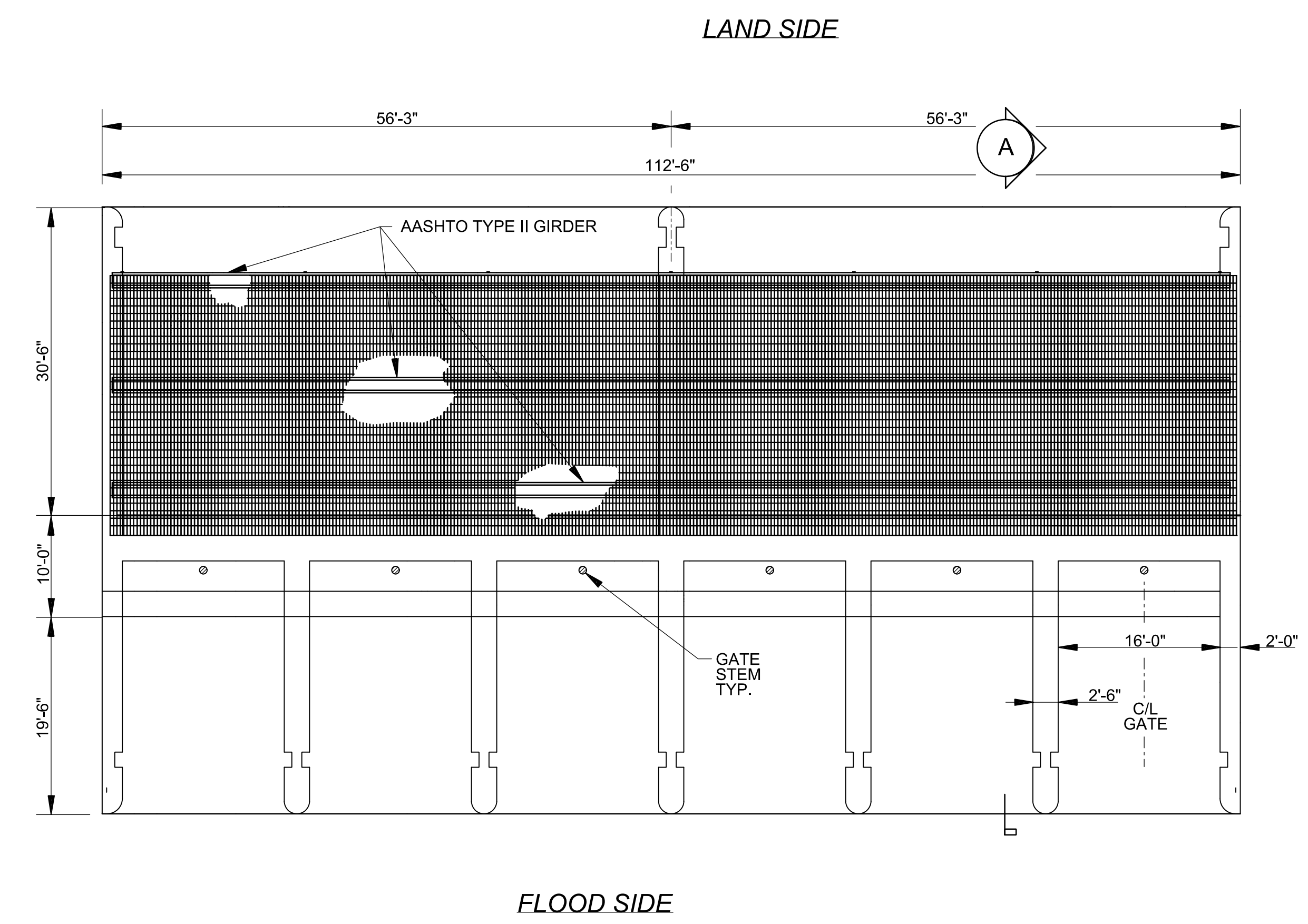
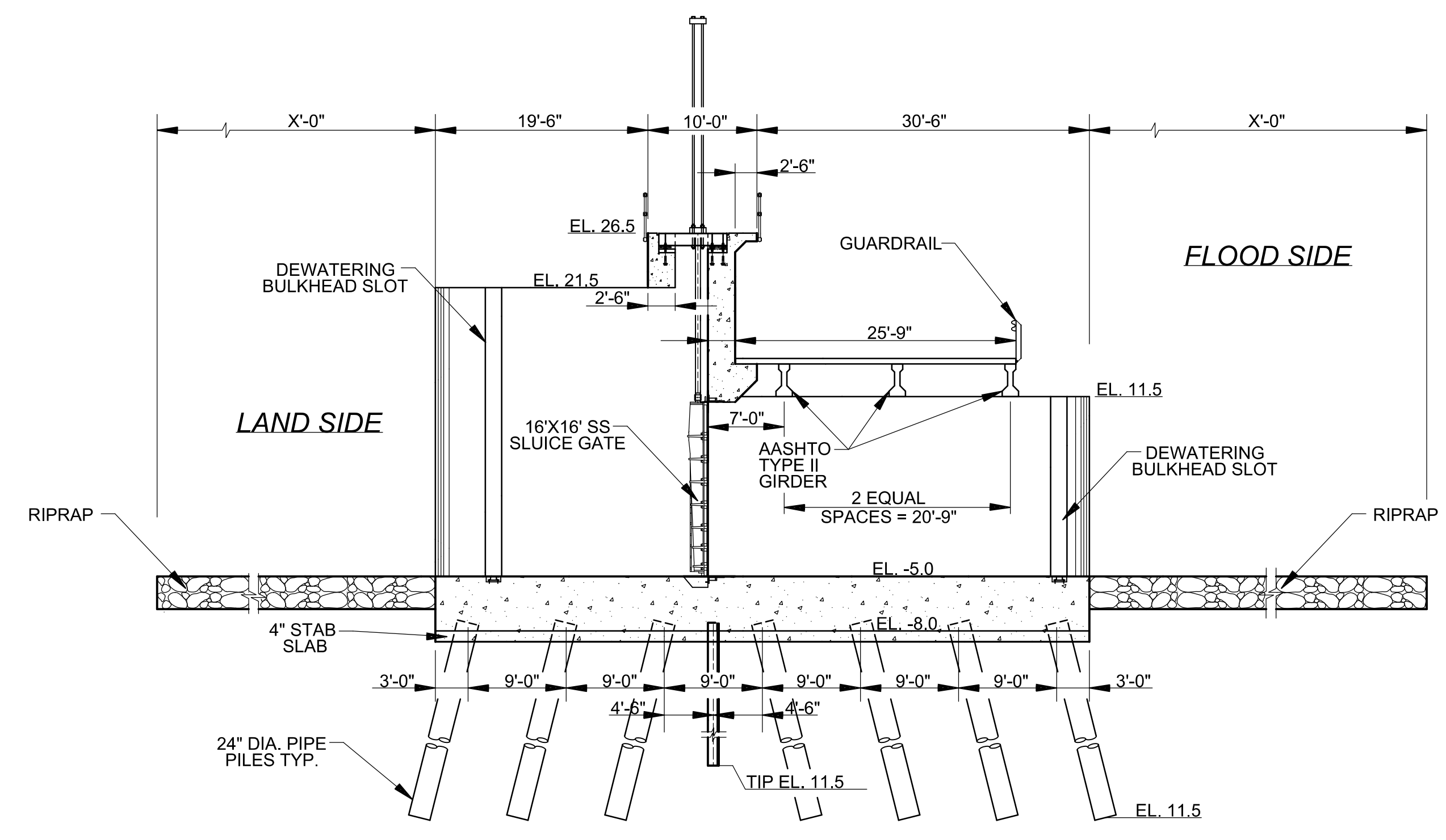
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A



FLOODSIDE - GATES OPEN

FLOODSIDE - GATES CLOSED



US Army Corps
of Engineers®
NEW ORLEANS DISTRICT

APPR.	DATE	DESCRIPTION

DATE: 2020	SUBSTITUTION:
DESIGNED BY:	CONTRACT NO.:
DWN BY:	CHARLES P. BRADSHAW IV, P.E.
SUBMITTED BY:	FILE NUMBER:
U.S. ARMY CORPS OF ENGINEERS	PLAUSIBLE PLOT DATE: MAR. 2020
NEW ORLEANS DISTRICT	FILE NAME:
NEW ORLEANS, LOUISIANA	ANSI D

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY DRAFT ENGINEERING APPENDIX (NOT FOR CONSTRUCTION)

SITE PLAN

Sheet ID
S-04

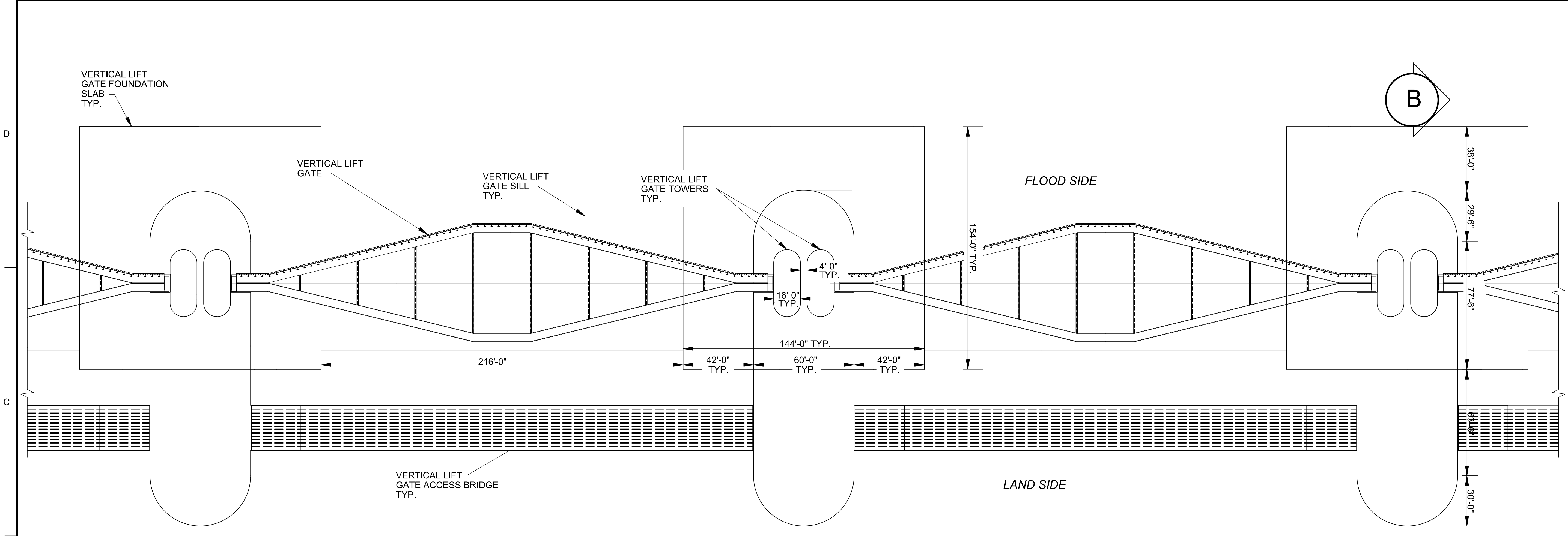
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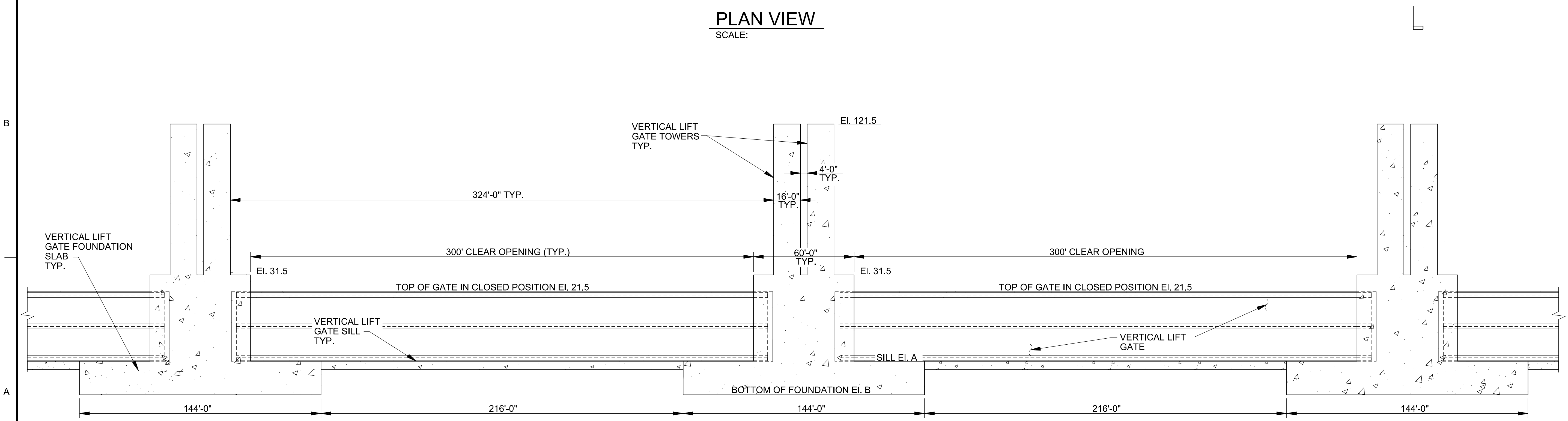
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PLAN VIEW

SCALE:



FLOODSIDE ELEVATION

SCALE:

NOTES: 1. PILES NOT SHOWN FOR CLARITY



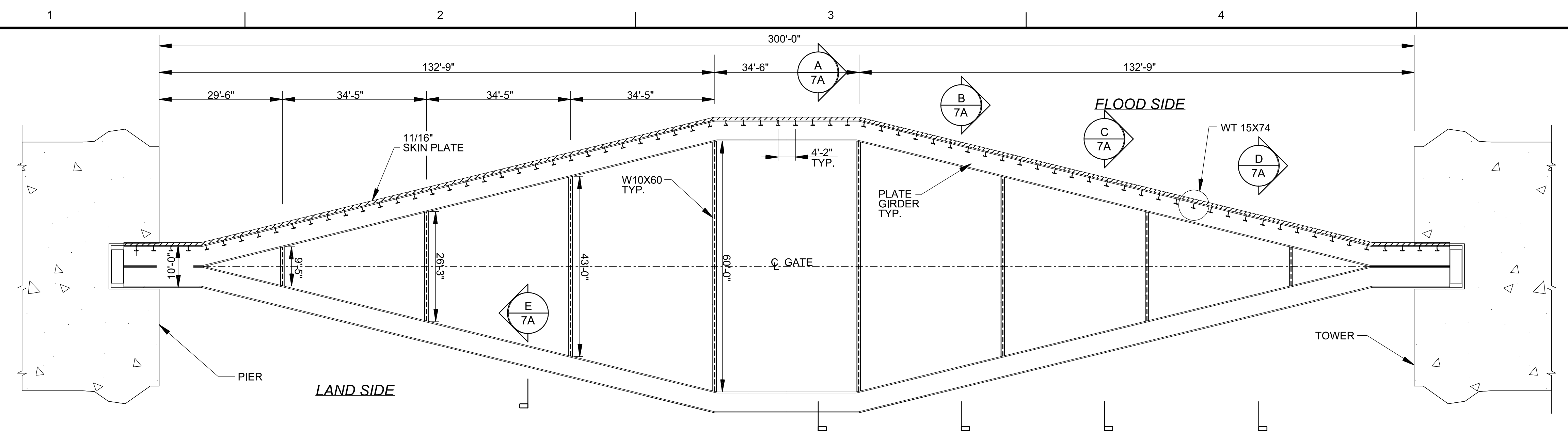
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DESIGNED BY:	DATE: 03/2020	STATIONING:	CONTRACT NO.:
DWN BY:			
SUBMITTED BY:			

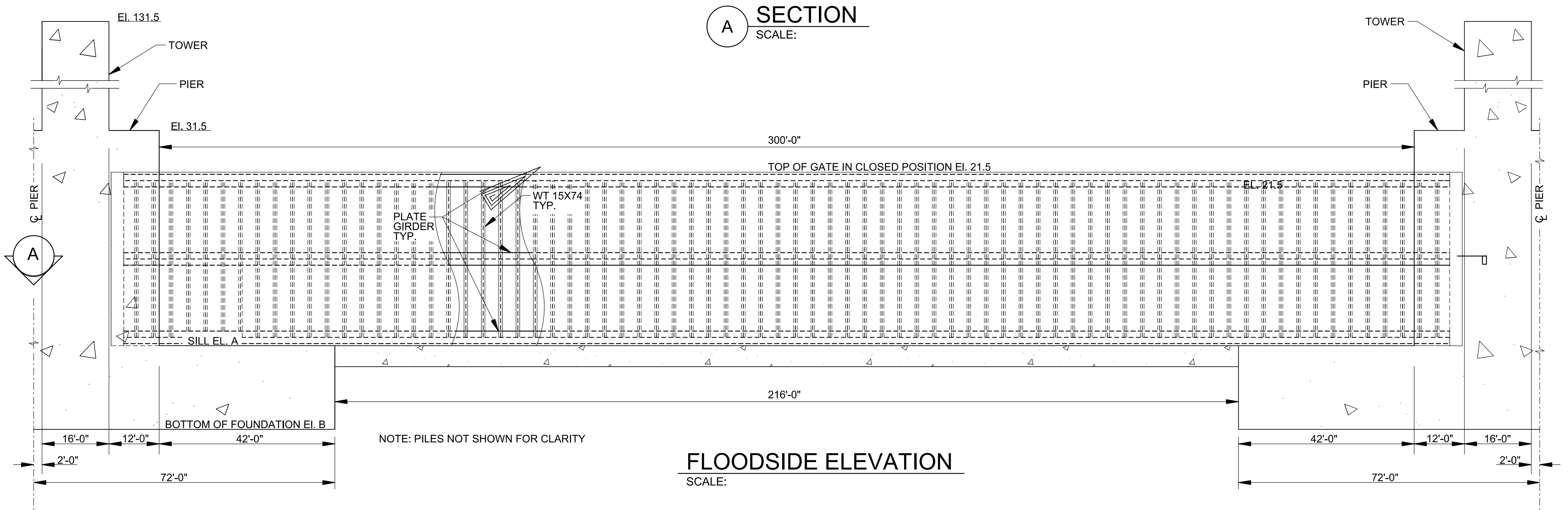
U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY
DRAFT ENGINEERING APPENDIX
(NOT FOR CONSTRUCTION)

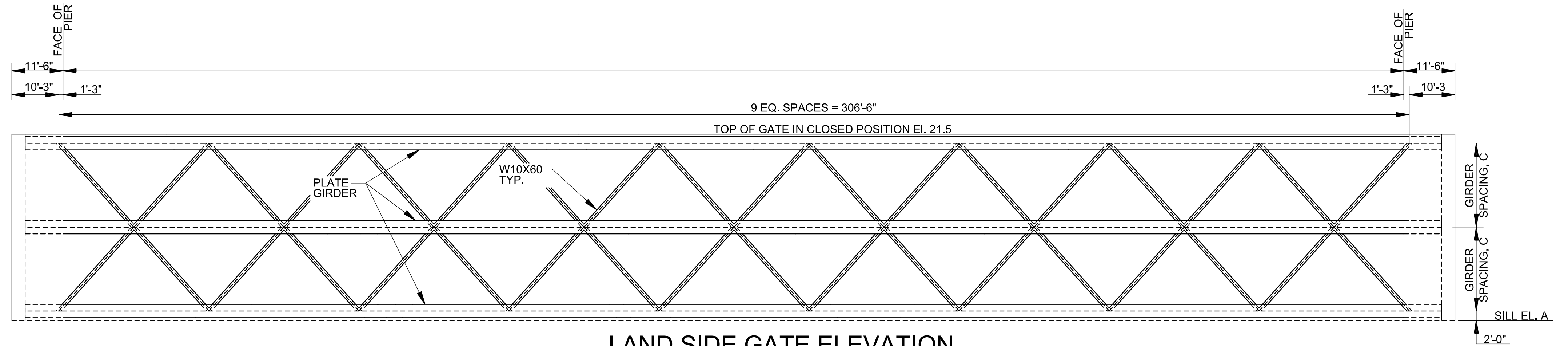
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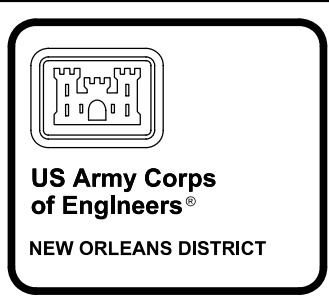
A SECTION
SCALE:



FLOODSIDE ELEVATION
SCALE:



LAND SIDE GATE ELEVATION
SCALE:



APPR.	DATE	DESCRIPTION

DESIGNED BY:	DATE:	SCALE:
DWN BY:	SUBMITTED BY:	FILE NAME:
U.S. ARMY CORPS OF ENGINEERS	NEW ORLEANS DISTRICT	NEW ORLEANS, LOUISIANA

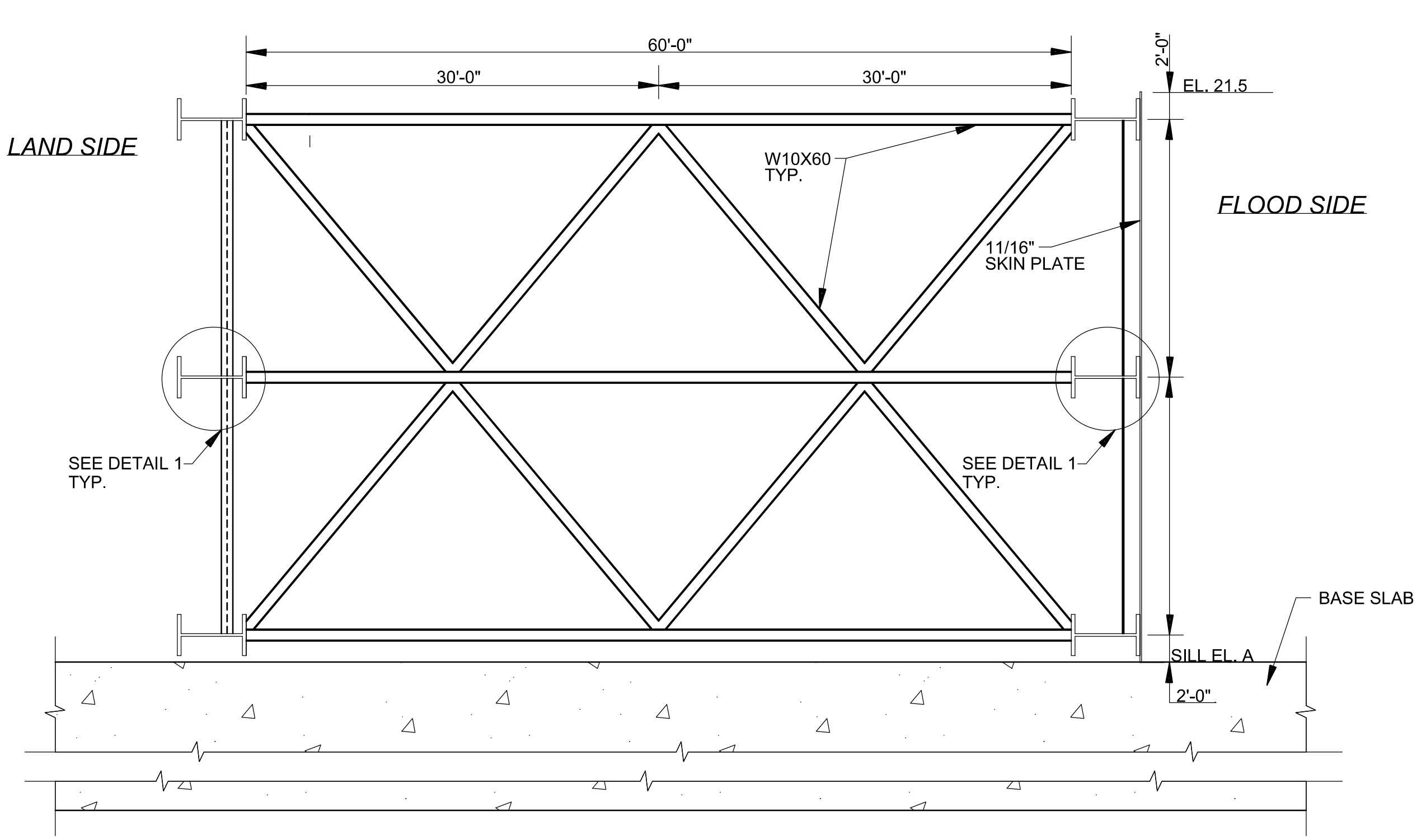
COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY
DRAFT ENGINEERING APPENDIX
(NOT FOR CONSTRUCTION)

Sheet ID
S-06

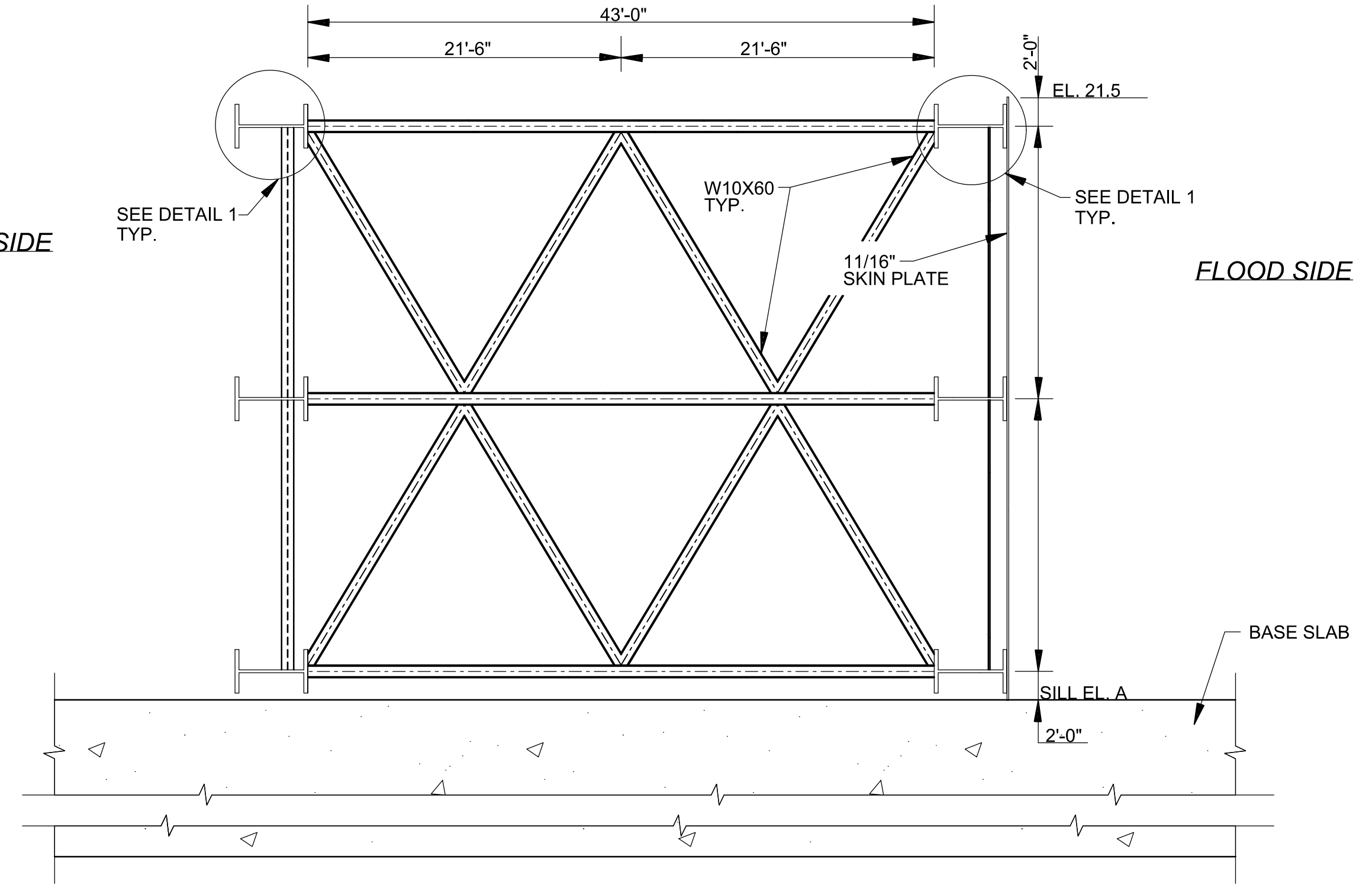
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DESIGNED BY: U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DWN BY: CWS BY: SUBMITTED BY: Charles P. Brantley IV, P.E.	DATE: 2020	CONTRACT NO.: W91298-09-X-0001	FILE NUMBER: H-X-XXXX
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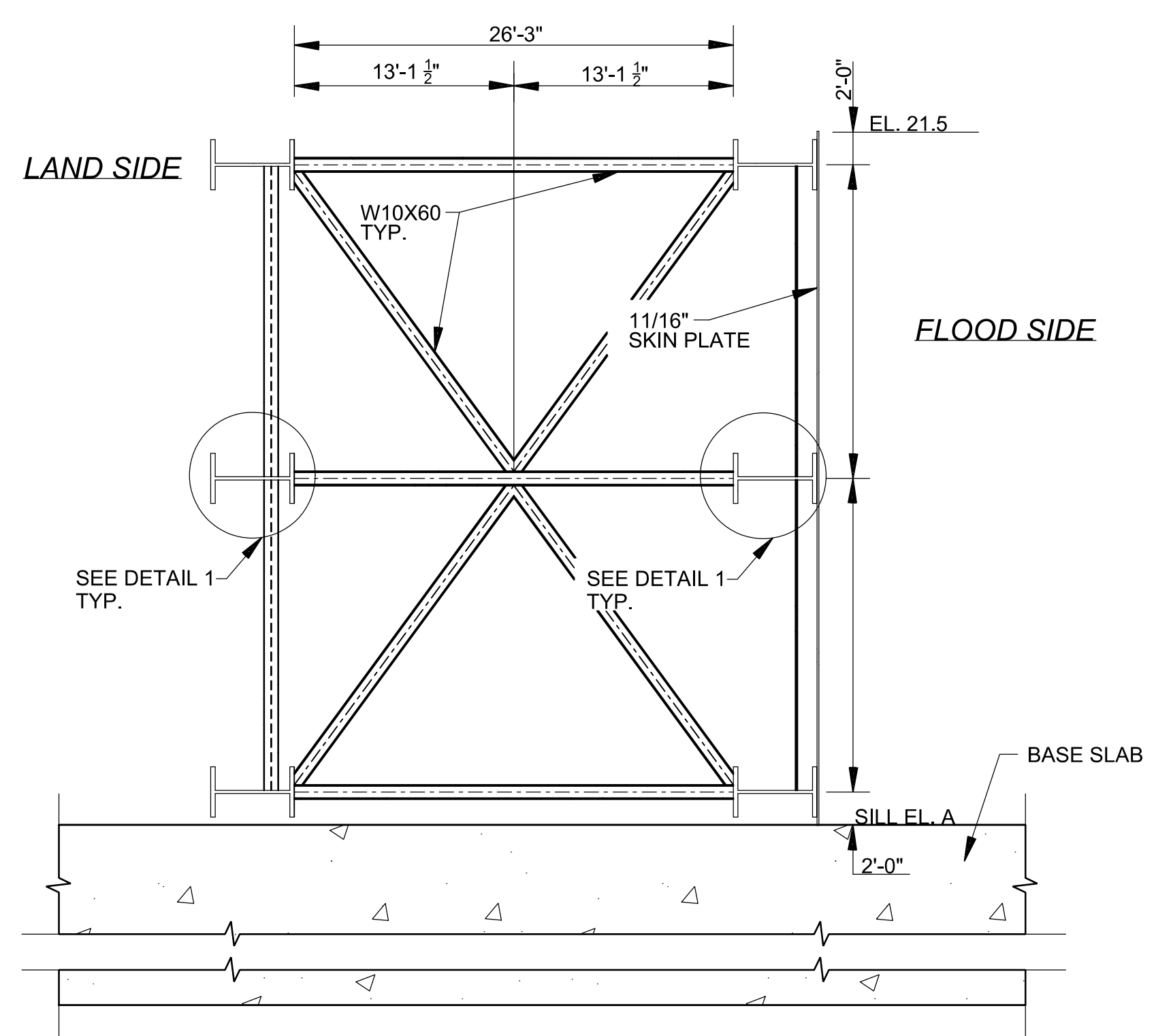
COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY
DRAFT ENGINEERING APPENDIX
(NOT FOR CONSTRUCTION)



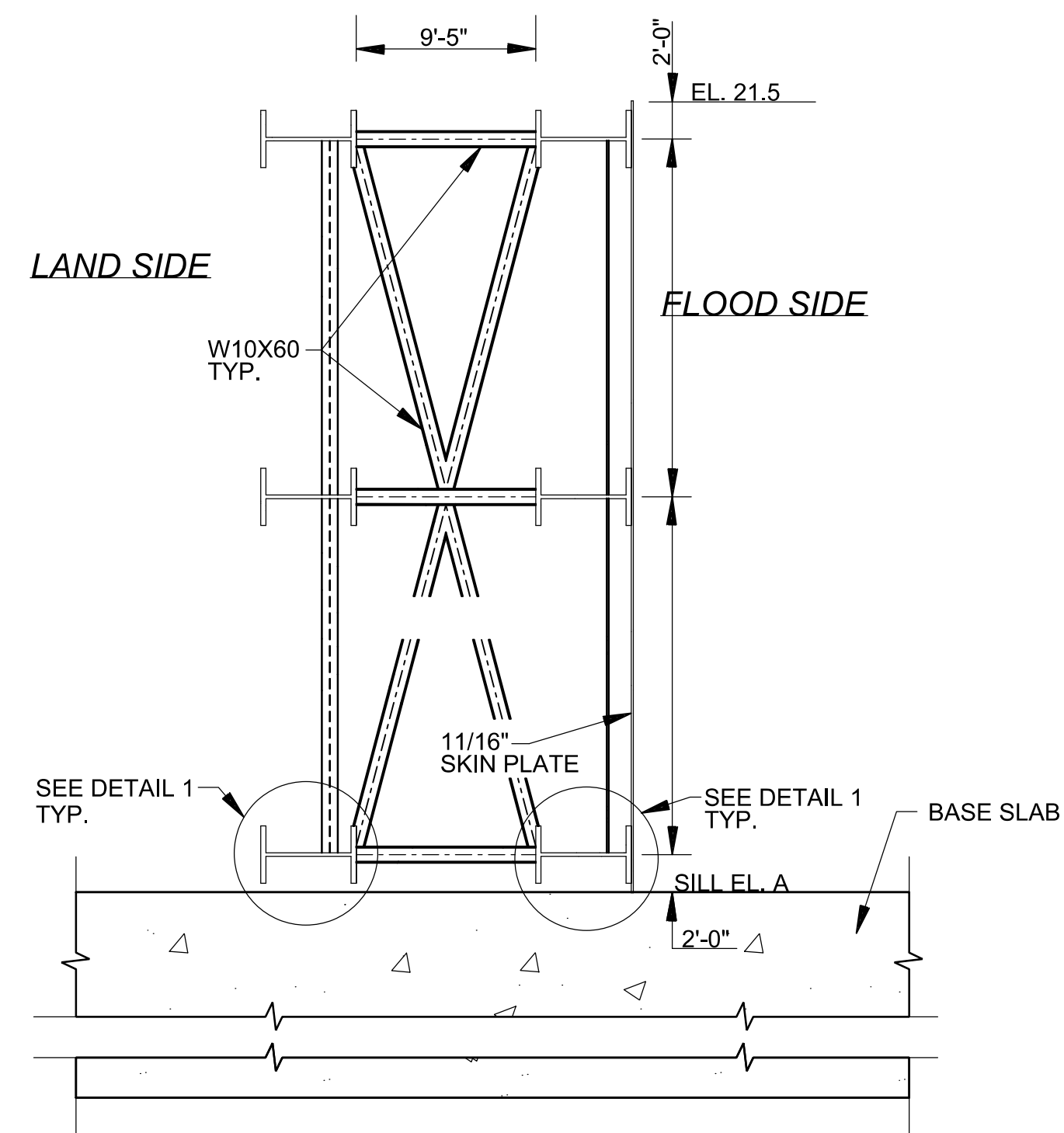
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SHT 7 SCALE:
NOTE: PILES NOT SHOWN FOR CLARITY



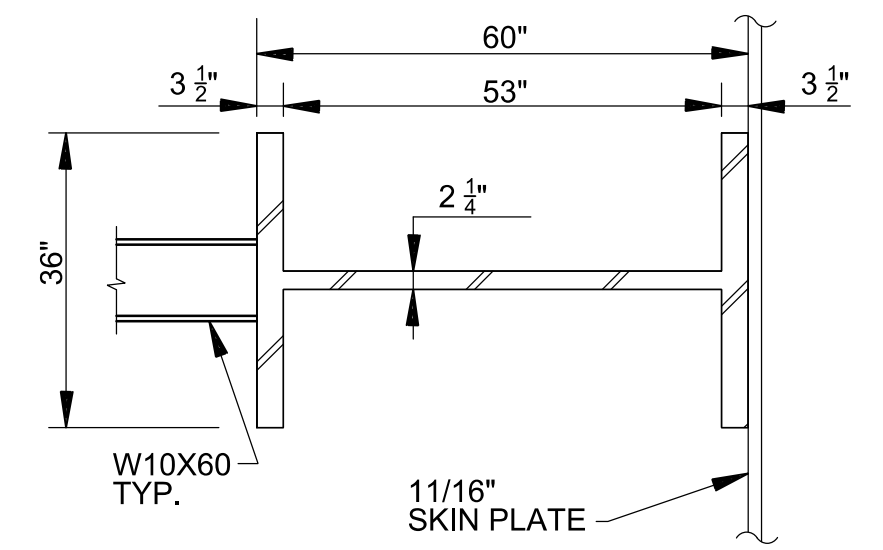
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SHT 7 SCALE:



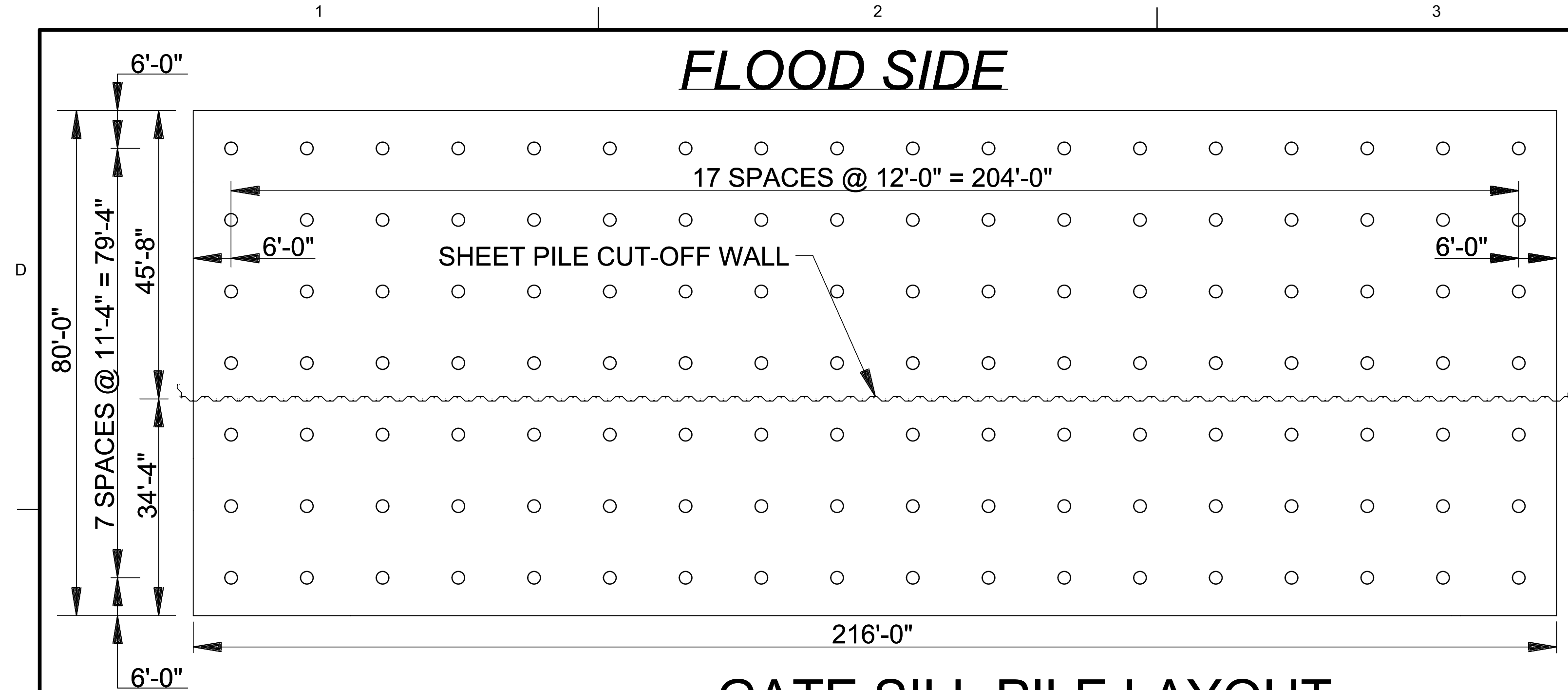
C GATE SECTION
SHT 7 SCALE:



D GATE SECTION
SHT 7 SCALE:

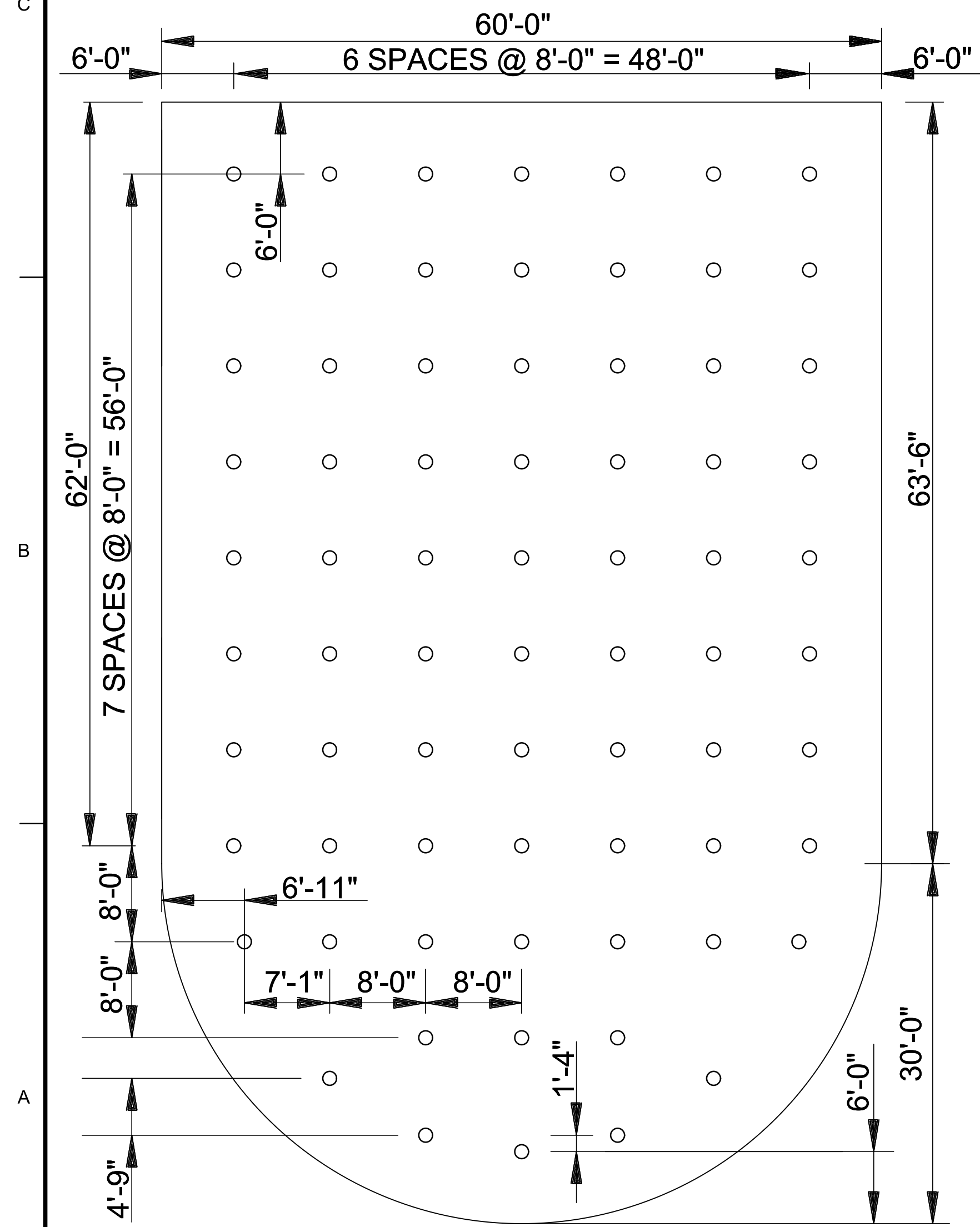


1 DETAIL
SCALE:



GATE SILL PILE LAYOUT

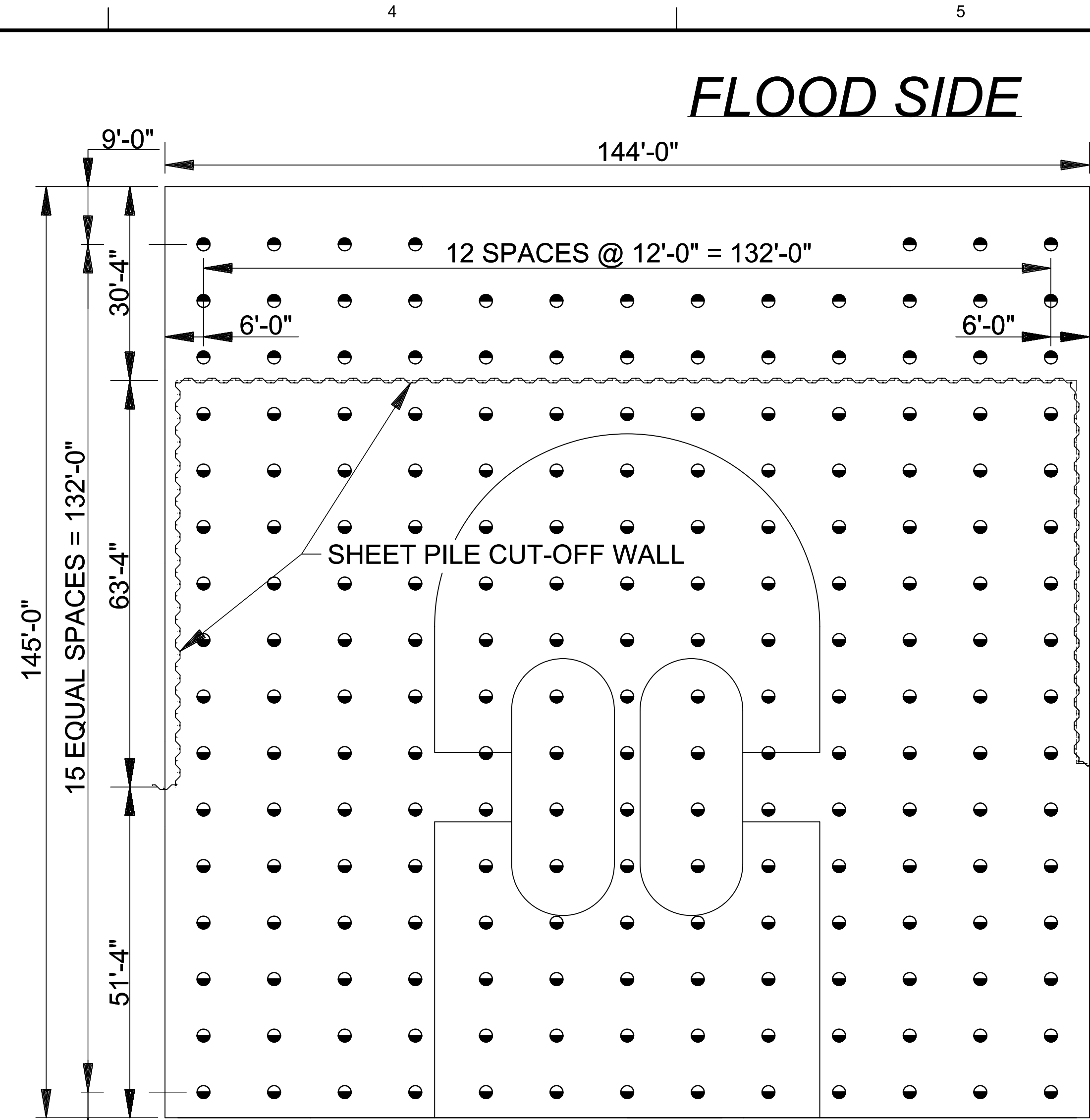
SCALE:



ACCESS BRIDGE PILE LAYOUT

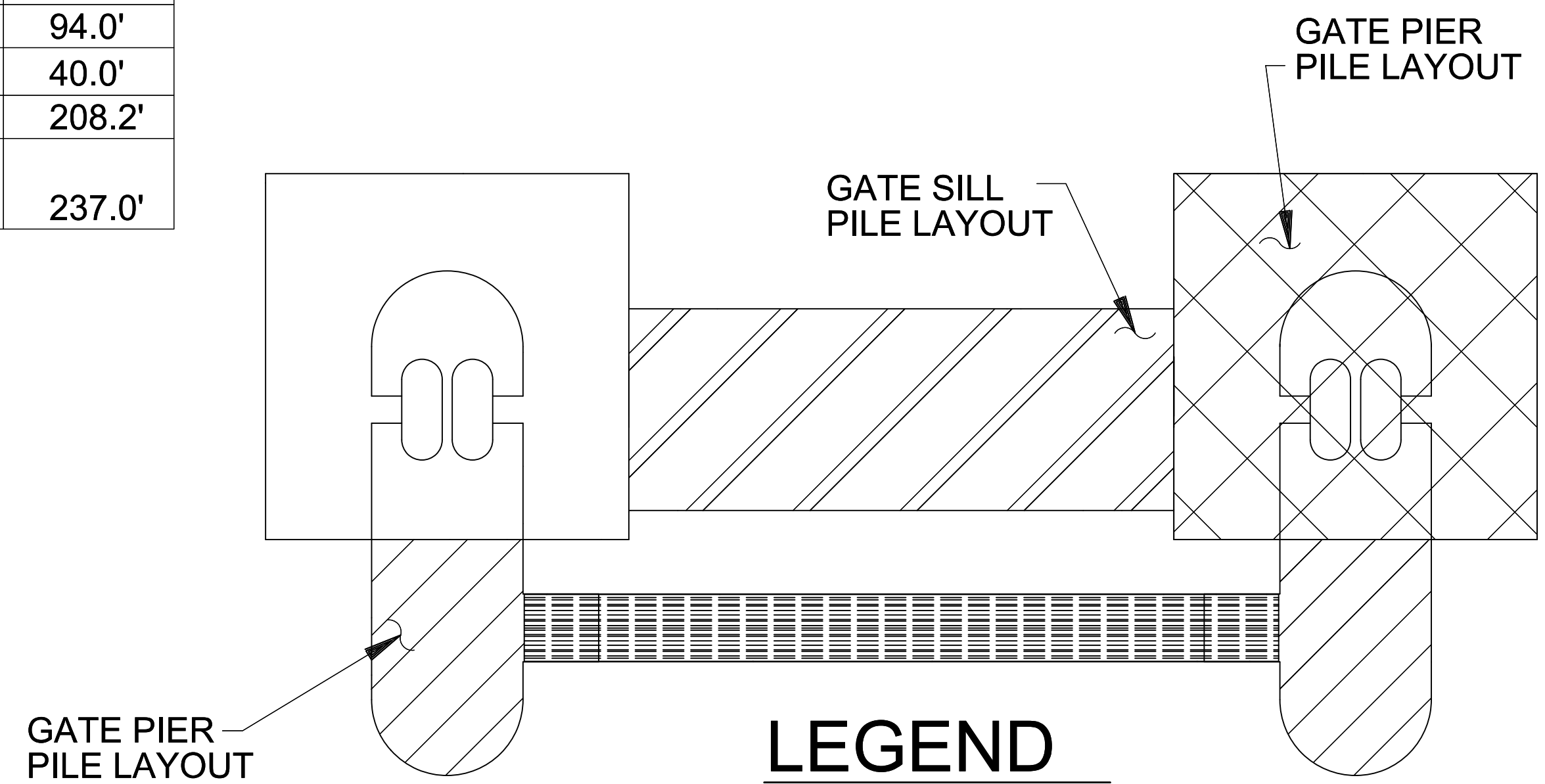
SCALE:

VERTICAL LIFT GATE, SILL EL. -20.0					
STRUCTURE	PILE TYPE.	PILE TOP	PILE TIP	PILE BATTER	PILE LENGTH
GATE SILL PILE LAYOUT	PZ-22	EL. -24.0	EL. -79.0	VERTICAL	55.0'
	24" Ø PIPE	EL. -24.0	EL. -118.0	VERTICAL	94.0'
GATE PIER PILE LAYOUT	PZ-22	EL. -39.0	EL. -79.0	VERTICAL	40.0'
	24" Ø PIPE	EL. -38.0	EL. -240.0	1H:4V	208.2'
GATE PIER PILE LAYOUT	24" Ø PIPE	EL. -39.0	EL. -276.0	VERTICAL	237.0'



GATE PIER PILE LAYOUT

SCALE:



LEGEND

SCALE:



US Army Corps of Engineers
NEW ORLEANS DISTRICT

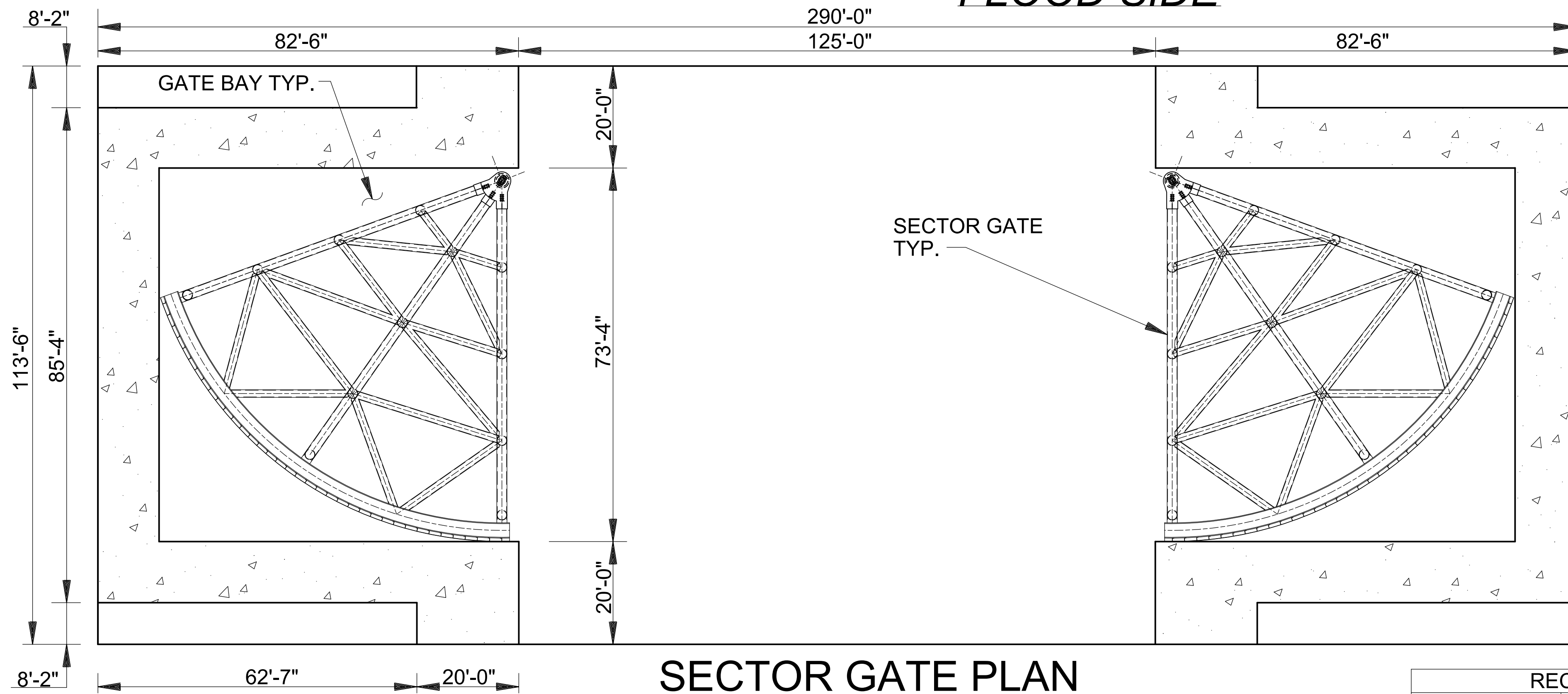
MARK	DESCRIPTION	DATE	APPR. MARK

DESIGNED BY:	DATE: 2020
DWN BY:	SUBMITTED BY:
U.S. ARMY CORPS OF ENGINEERS	NEW ORLEANS DISTRICT
NEW ORLEANS DISTRICT	NEW ORLEANS, LOUISIANA
CONTRACT NO.:	FILE NUMBER:
W91298-04-X-####	H-X-XXXX
CHARLES P. BRUNS, P.E.	FILE NAME:
PLANT SCALE: PLOT DATE:	ANSI D
XXXX-1	
MAR. 2020	

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY
DRAFT ENGINEERING APPENDIX
(NOT FOR CONSTRUCTION)

Sheet ID

FLOOD SIDE

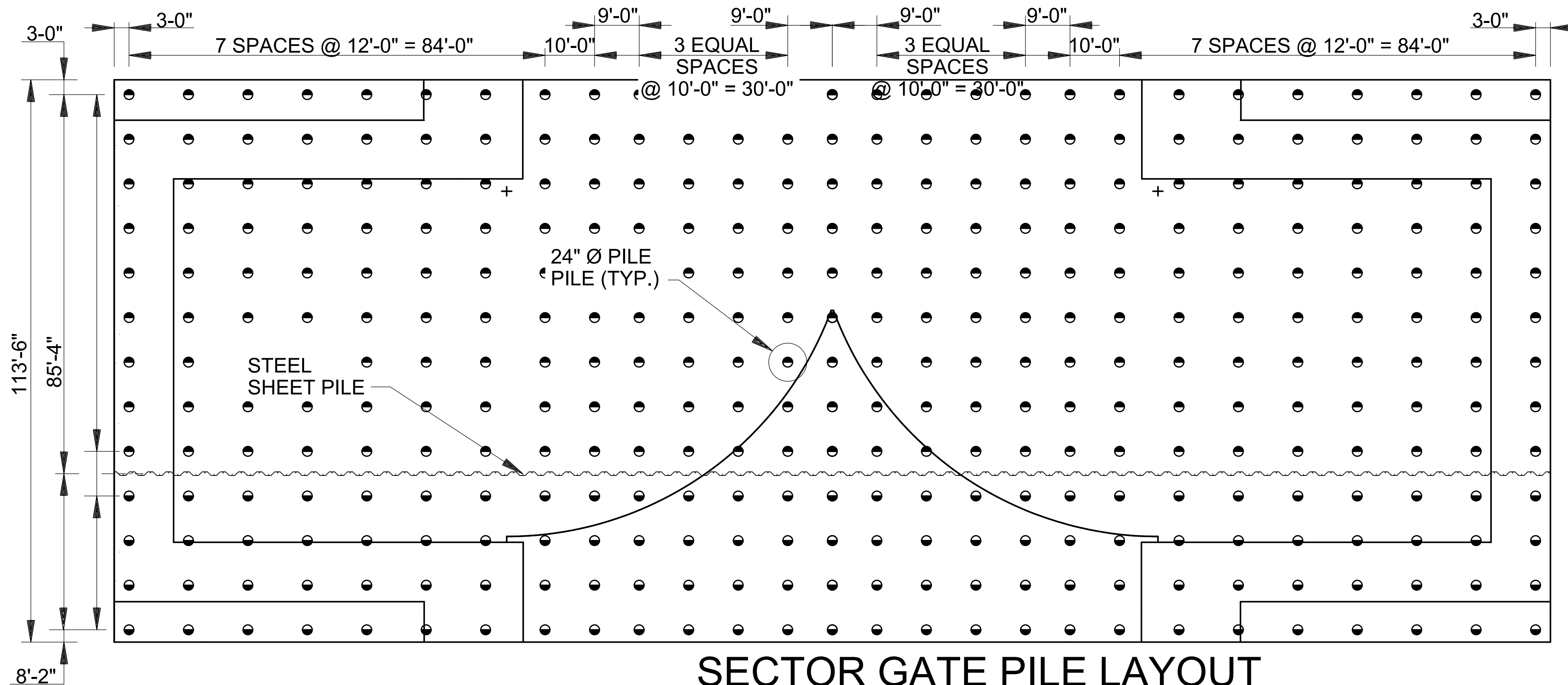


SECTOR GATE PLAN

SCALE:

RECREATIONAL SECTOR GATE, SILL EL. -40.0					
STRUCTURE	PILE TYPE.	PILE TOP	PILE TIP	PILE BATTER	PILE LENGTH
SILL EL. -40.0	PZ-22	EL. -47.0	EL. -79.0	VERTICAL	55.0'
	24" Ø PIPE	EL. -47.0	EL. -118.0	1H:3V	94.0'

SCALE:



SECTOR GATE PILE LAYOUT

SCALE:

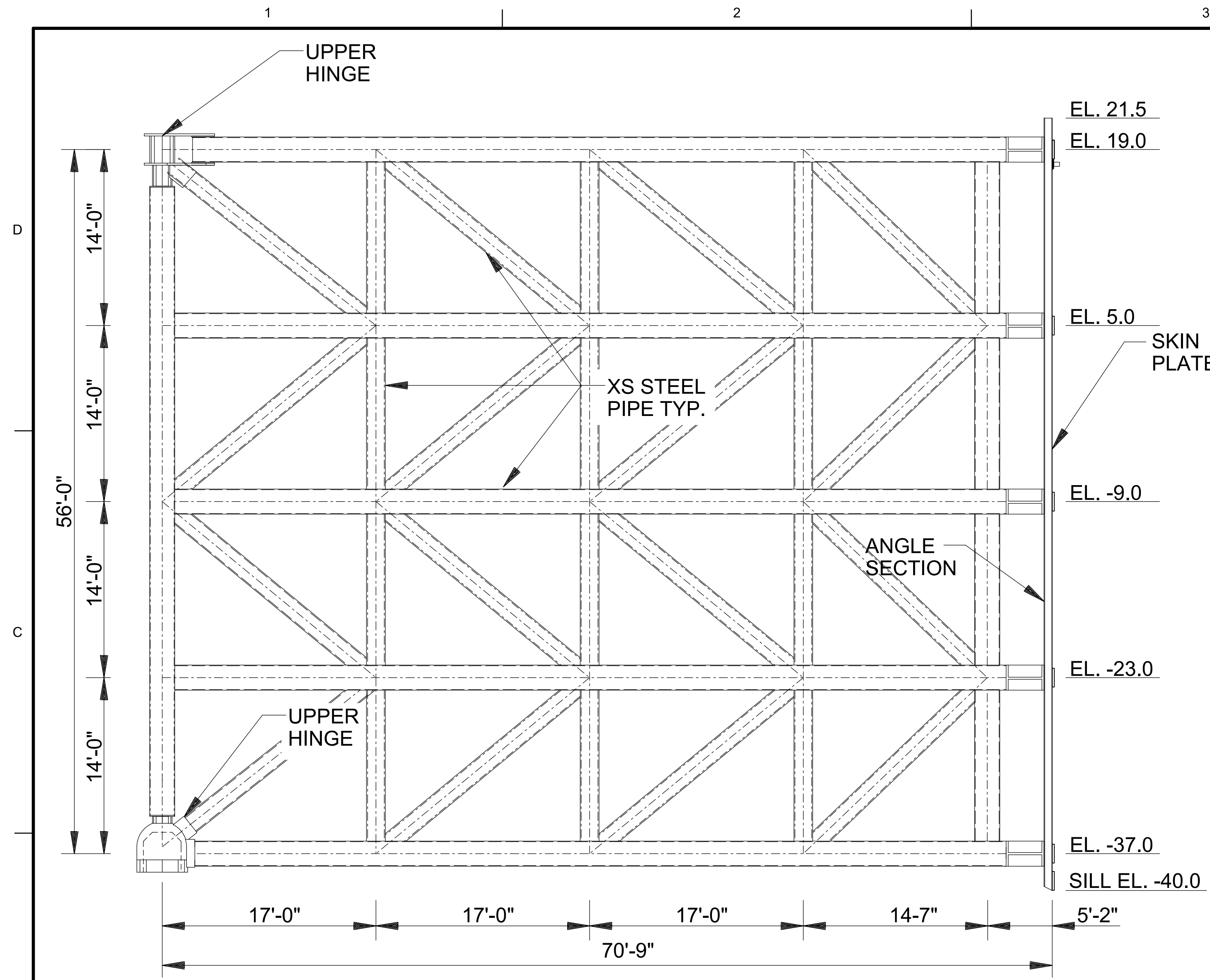
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MARK	DESCRIPTION	DATE	APPR. MARK	DESCRIPTION	DATE	APPR. MARK

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U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA



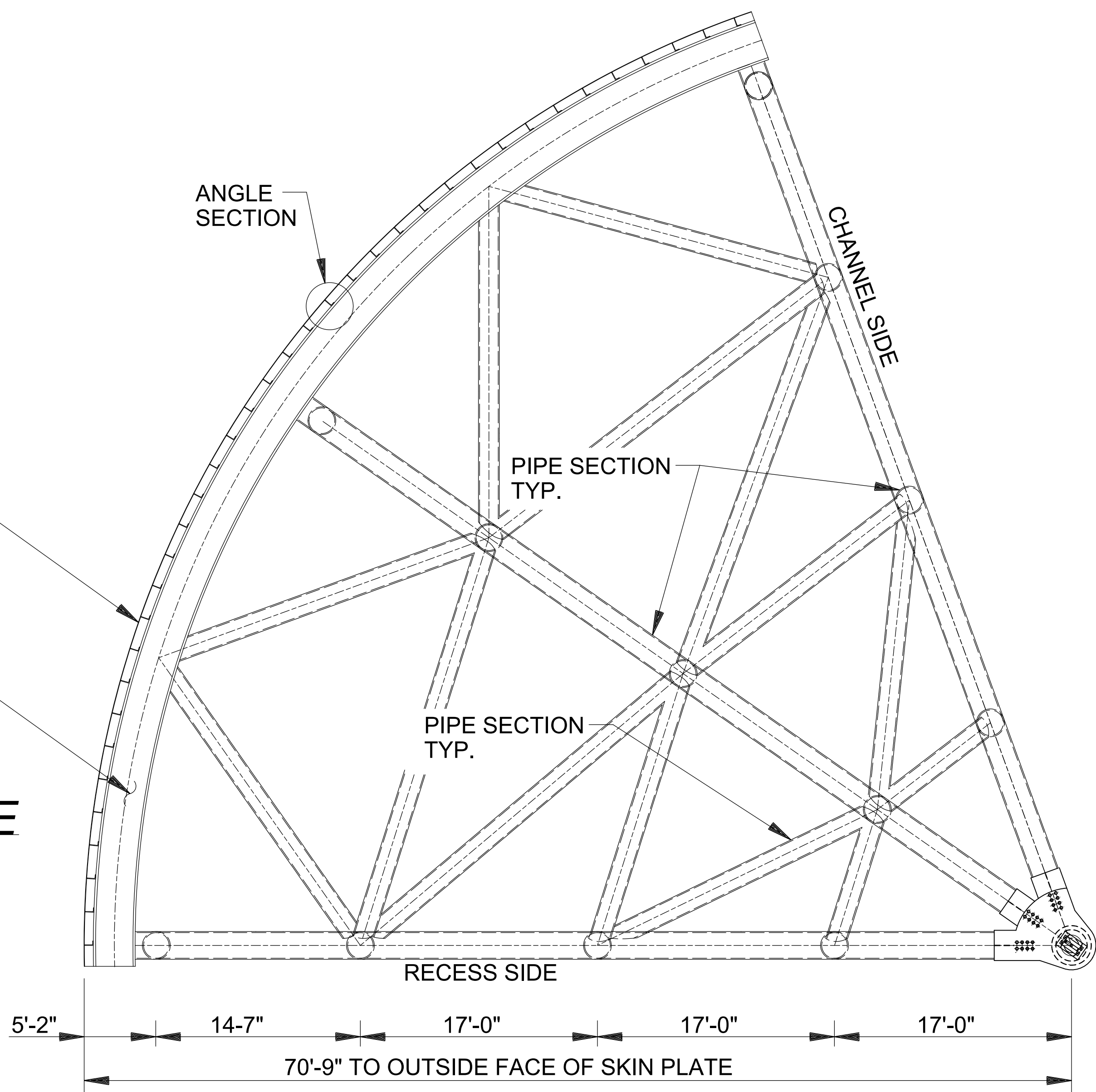
ELEVATION - CHANNEL TRUSS

SCALE:

NOTE: FENDER RACK NOT SHOWN FOR CLARITY

FLOOD SIDE

FLOOD SIDE



PLAN - LOWER HORIZONTAL FRAME

SCALE:

SCALE:



US Army Corps of Engineers
NEW ORLEANS DISTRICT

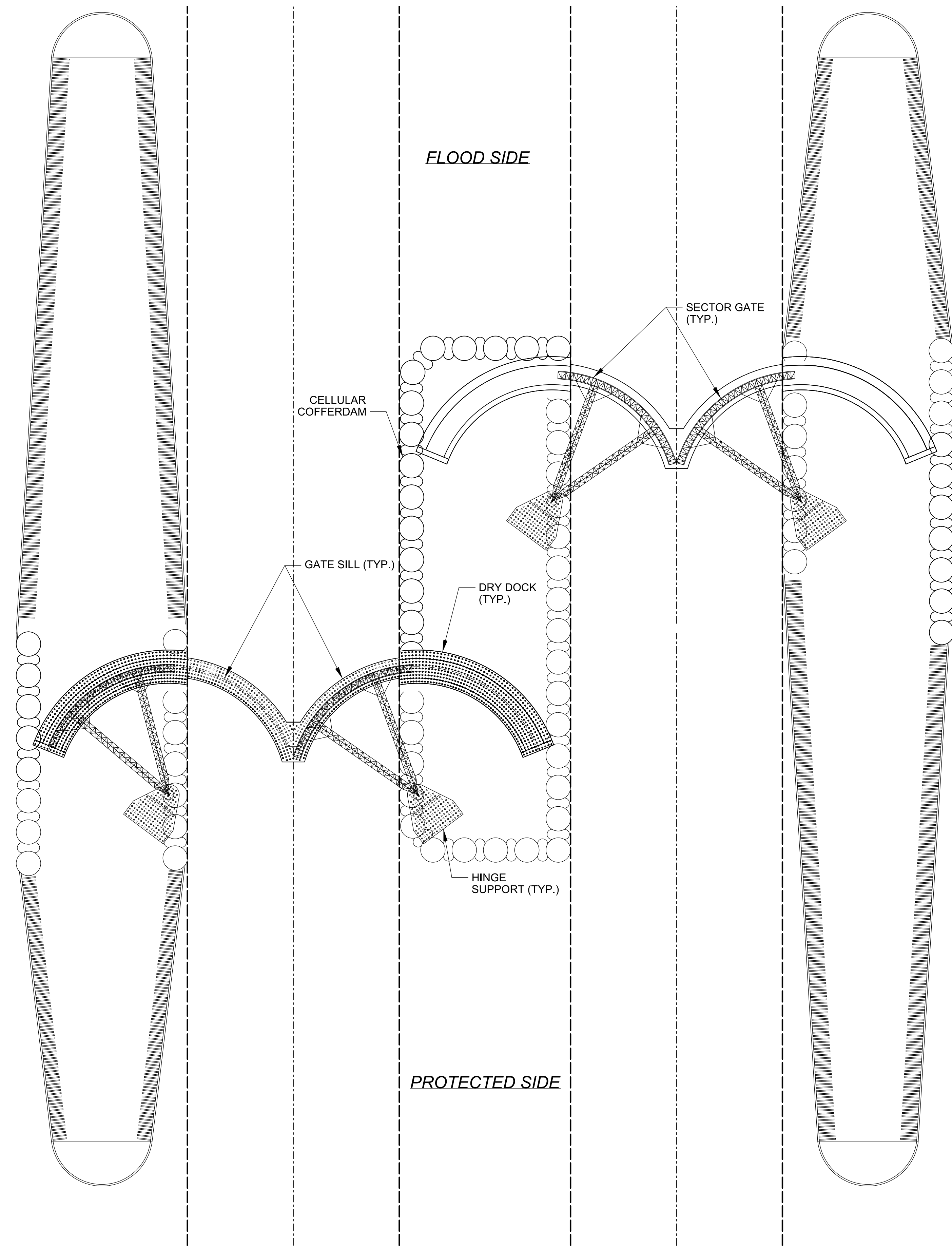
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DATE: 2020	DESIGNED BY: CPB	STATION: US: W91298-004-X-0000
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U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DESIGNED BY: CPB	FILE NUMBER: H-X-XXXX
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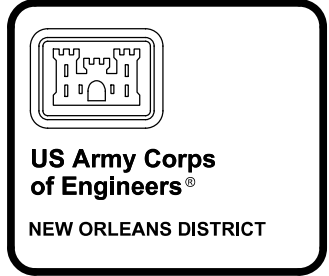
COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY DRAFT ENGINEERING APPENDIX (NOT FOR CONSTRUCTION)

Sheet ID
S-10

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D



SITE PLAN
SCALE: 1" = 200'



MARK	DESCRIPTION	DATE	APPR. MARK	DATE	APPR.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DESIGNED BY:	DATE:	DESIGNATION NO.:
	DWN BY:	MAR 2020	W1278-A-X-###
	SUBMITTED BY:	CONTRACT NO.:	FILE NUMBER:
	Charles P. Brandstetter IV, P.E.	W1278-A-X-###	H-X-XXXX
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COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY
DRAFT ENGINEERING APPENDIX
(NOT FOR CONSTRUCTION)

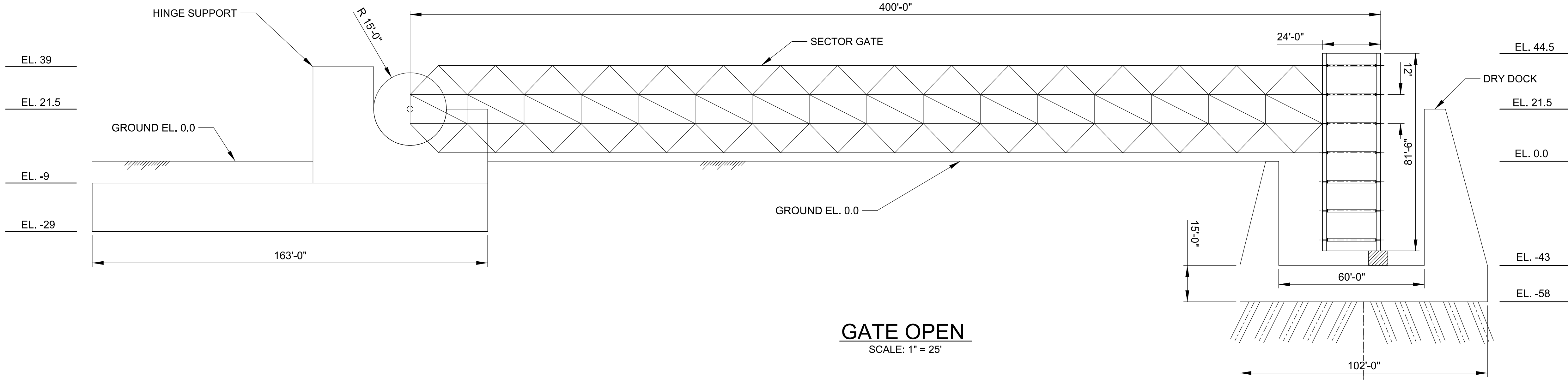
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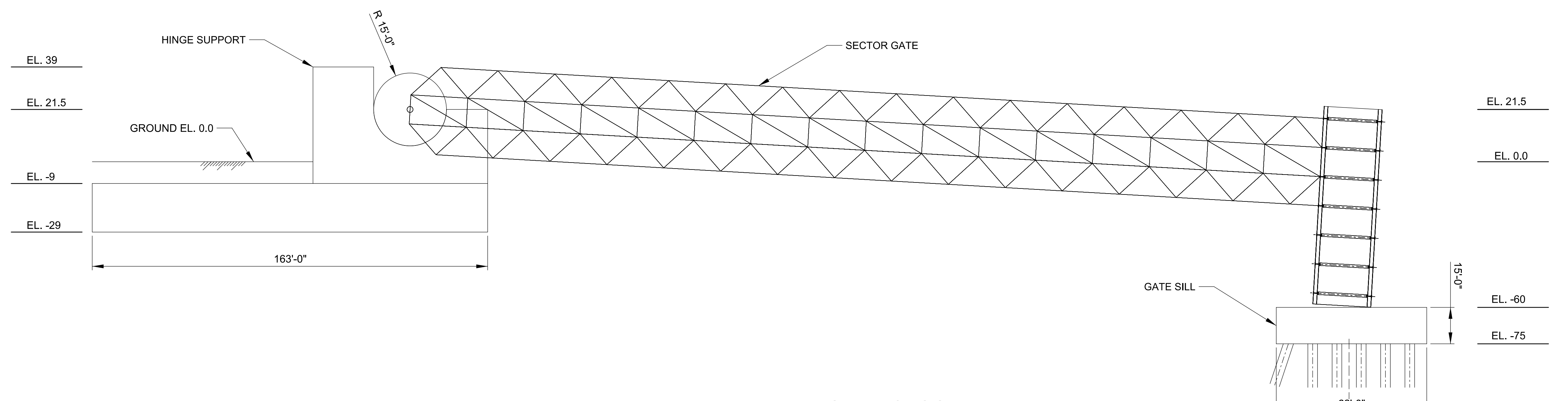
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GATE OPEN
SCALE: 1" = 25'



GATE CLOSED
SCALE: 1" = 25'



US Army Corps
of Engineers®
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DWN BY: CWB	DATE: 2020	SUBMITTED BY: Charles P. Brantley IV, P.E.	CONTRACT NO.: W912P9-08-X-0001
			PLotted BY: MAR 2020	FILE NUMBER: H-X-XXXX
			PLOT SCALE: XXX-1	FILE NAME: ANSI D

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY DRAFT ENGINEERING APPENDIX (NOT FOR CONSTRUCTION)
SECTOR GATE OPEN AND CLOSED

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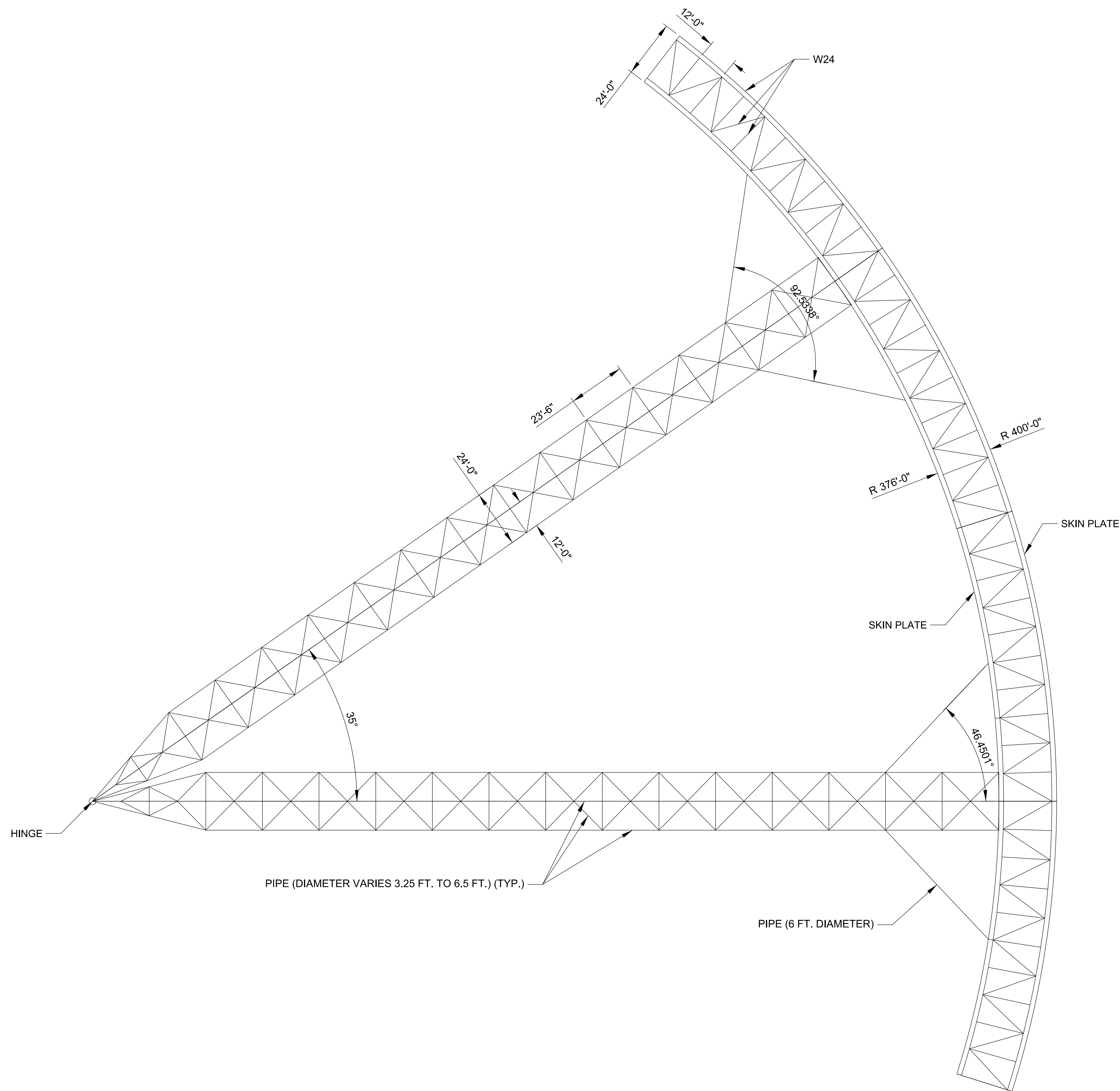
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SECTOR GATE PLAN VIEW
 SCALE: 1" = 25'



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

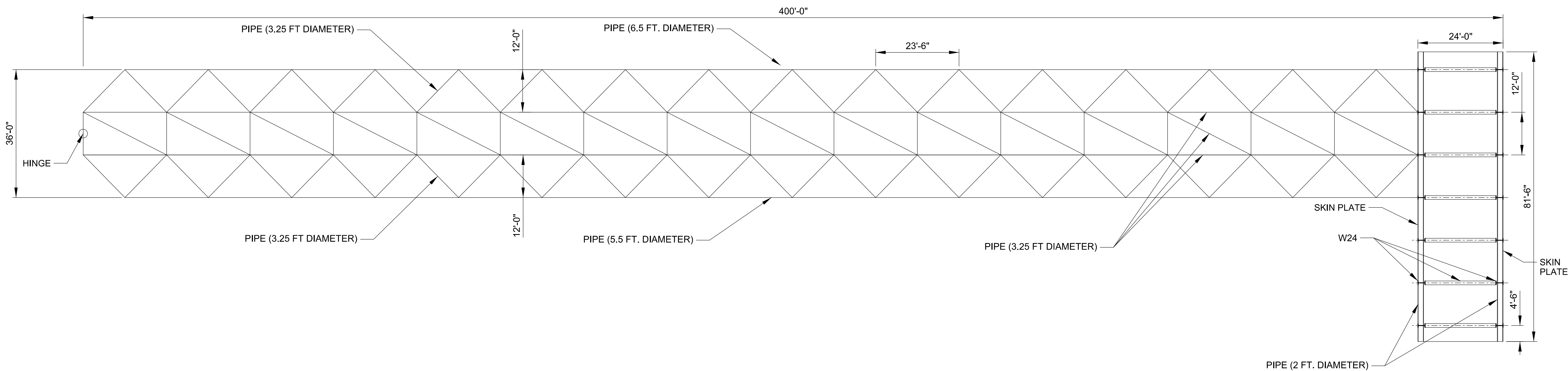
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U.S. ARMY CORPS OF ENGINEERS
 NEW ORLEANS DISTRICT
 NEW ORLEANS, LOUISIANA

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY
 DRAFT ENGINEERING APPENDIX (NOT FOR CONSTRUCTION)
 SECTOR GATE PLAN VIEW

Sheet ID
S-13

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SECTOR GATE ELEVATION VIEW
 SCALE: 1" = 15'



MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: DWN BY: SUBMITTED BY: PLOT SCALE:	DATE: 2020	REVISIONS: W91298-000-2-###	CONTRACT NO.:	FILE NUMBER:
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	CRB	Charles P. Brantstetter IV, P.E.	W91298-000-2-###	H-N-XXXX
	MAR. 2020			
	XXXX-1			
	ANSI D			
	FILE NAME:			

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY
 DRAFT ENGINEERING APPENDIX
 (NOT FOR CONSTRUCTION)
 SECTOR GATE ELEVATION VIEW

Sheet ID
S-14

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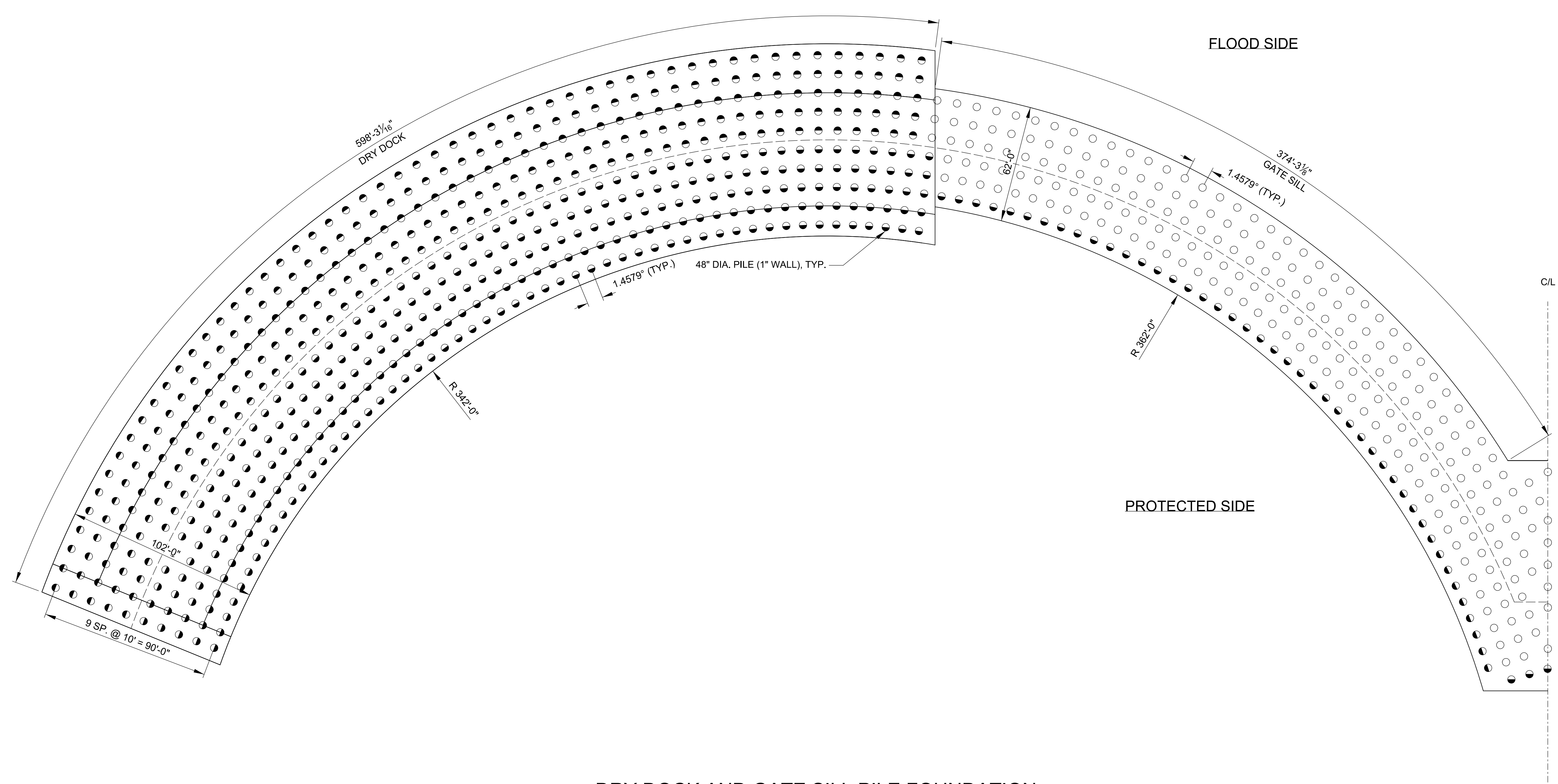
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DRY DOCK AND GATE SILL PILE FOUNDATION
SCALE: 1" = 30'



MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DWN BY: CWS BY: CPB	DATE: 2020	DATE: 2020
SUBMITTED BY: Charles P. Brantley IV, P.E.	CONTRACT NO.: W91298-99-A-0001	DESIGNED BY: W91298-99-A-0001	DATE: 2020
PLOT SCALE: XXXX:1	FILE NUMBER: H-X-XXXX	CONTRACT NO.: W91298-99-A-0001	DATE: 2020
FILE NAME: ANSI D	FILE NAME:	PLOT DATE: MAR. 2020	DATE: 2020

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY DRAFT ENGINEERING APPENDIX (NOT FOR CONSTRUCTION)

DRY DOCK AND GATE SILL PILE FOUNDATION

Sheet ID

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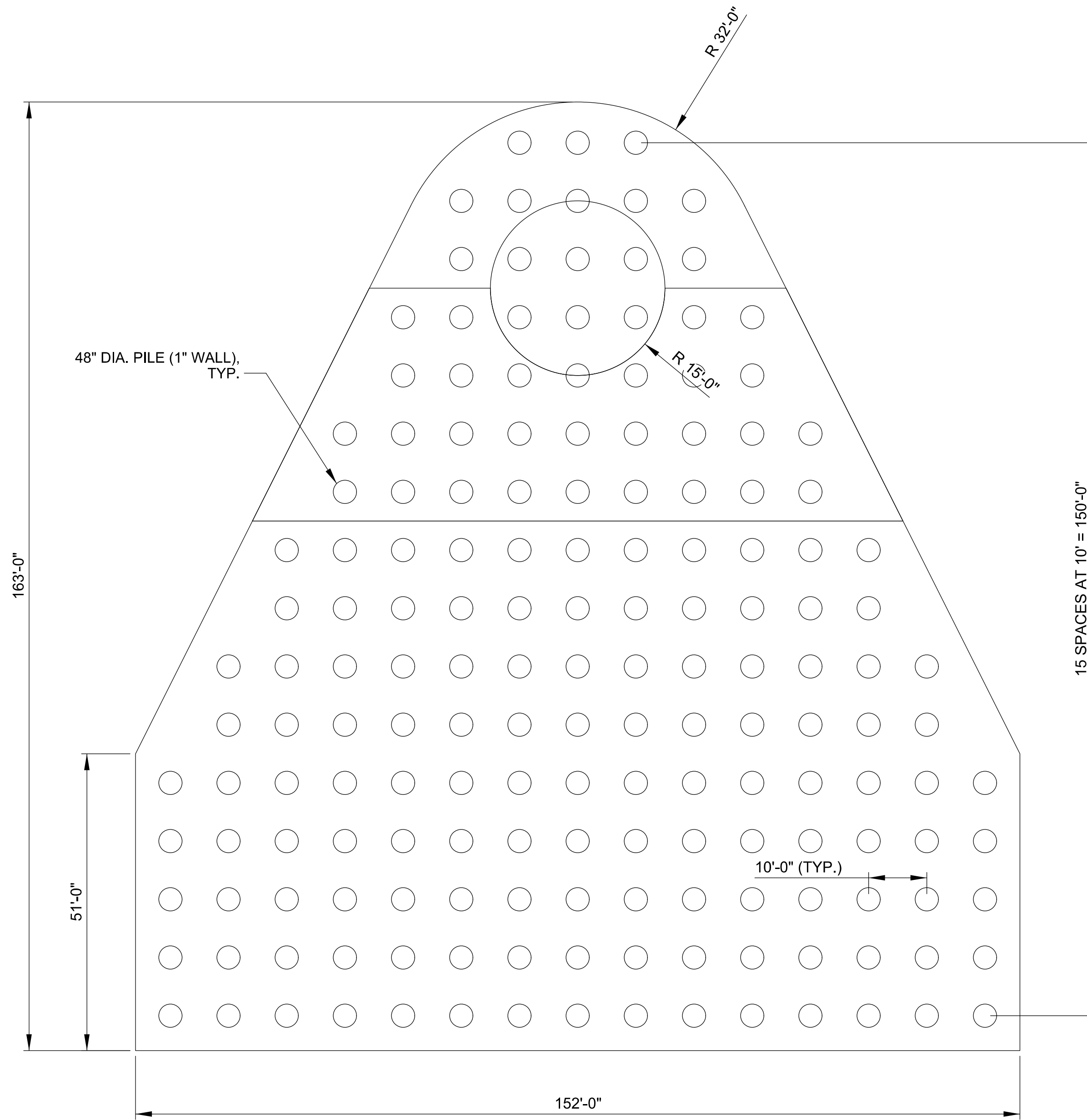
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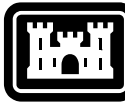
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HINGE SUPPORT PILE FOUNDATION

SCALE: 1" = 15'



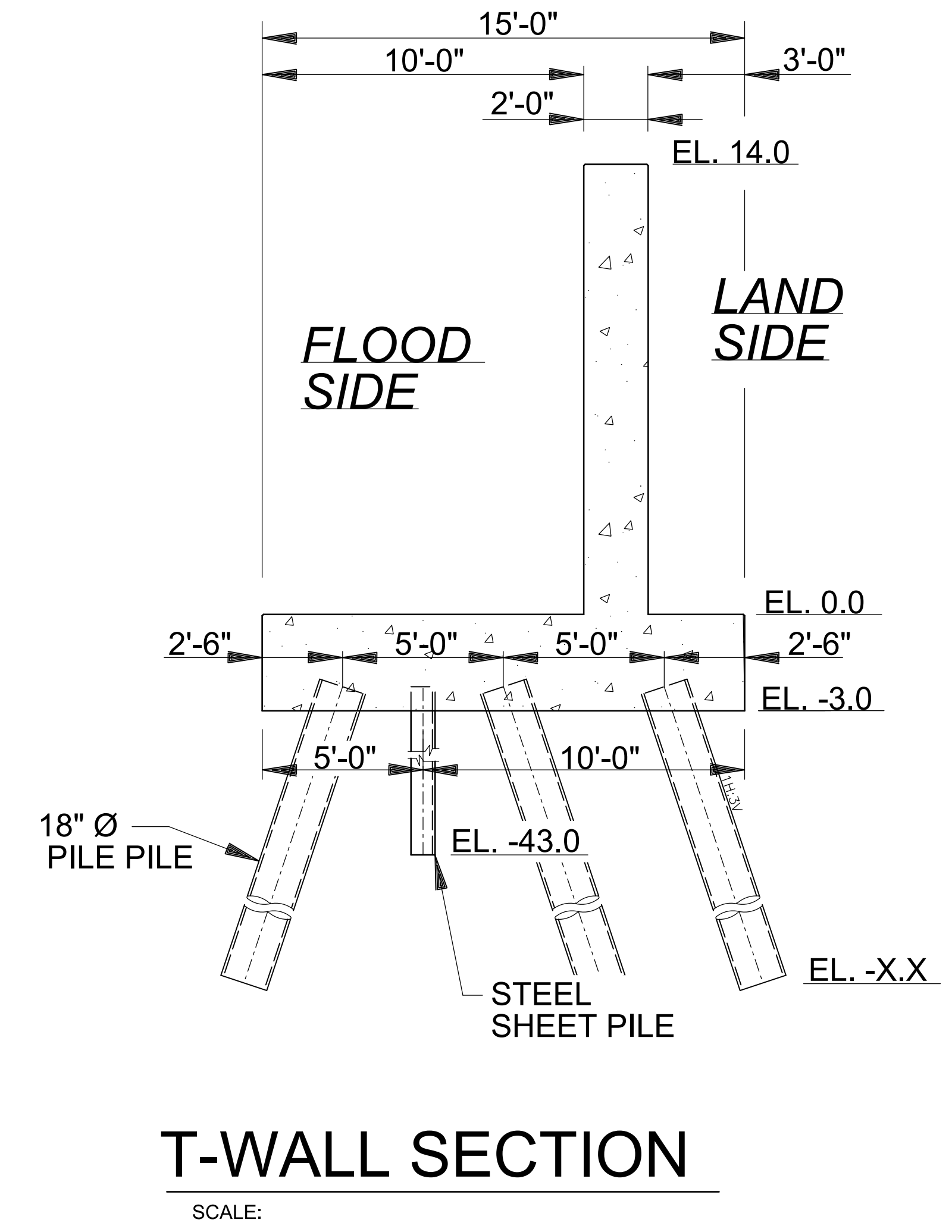
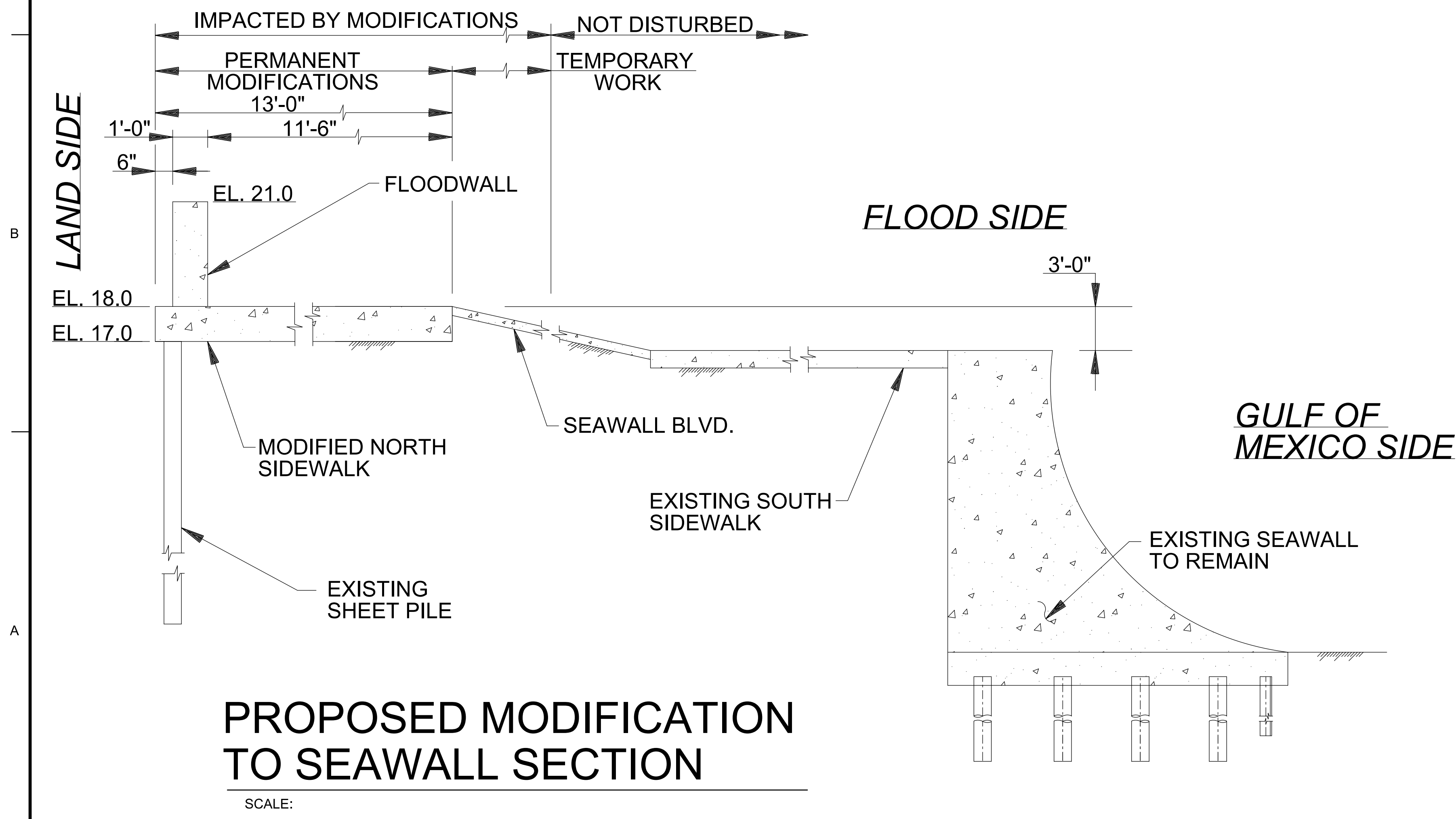
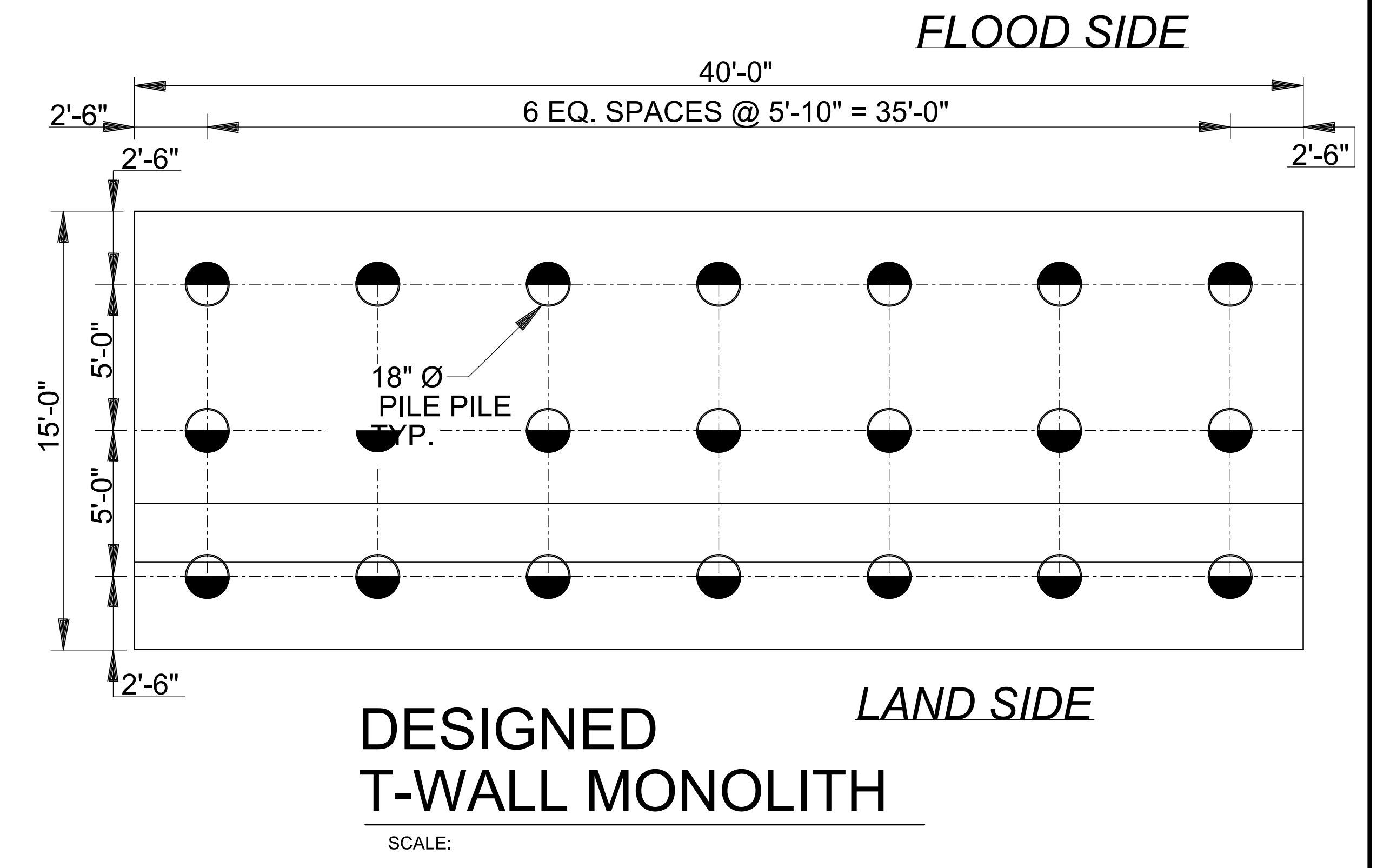
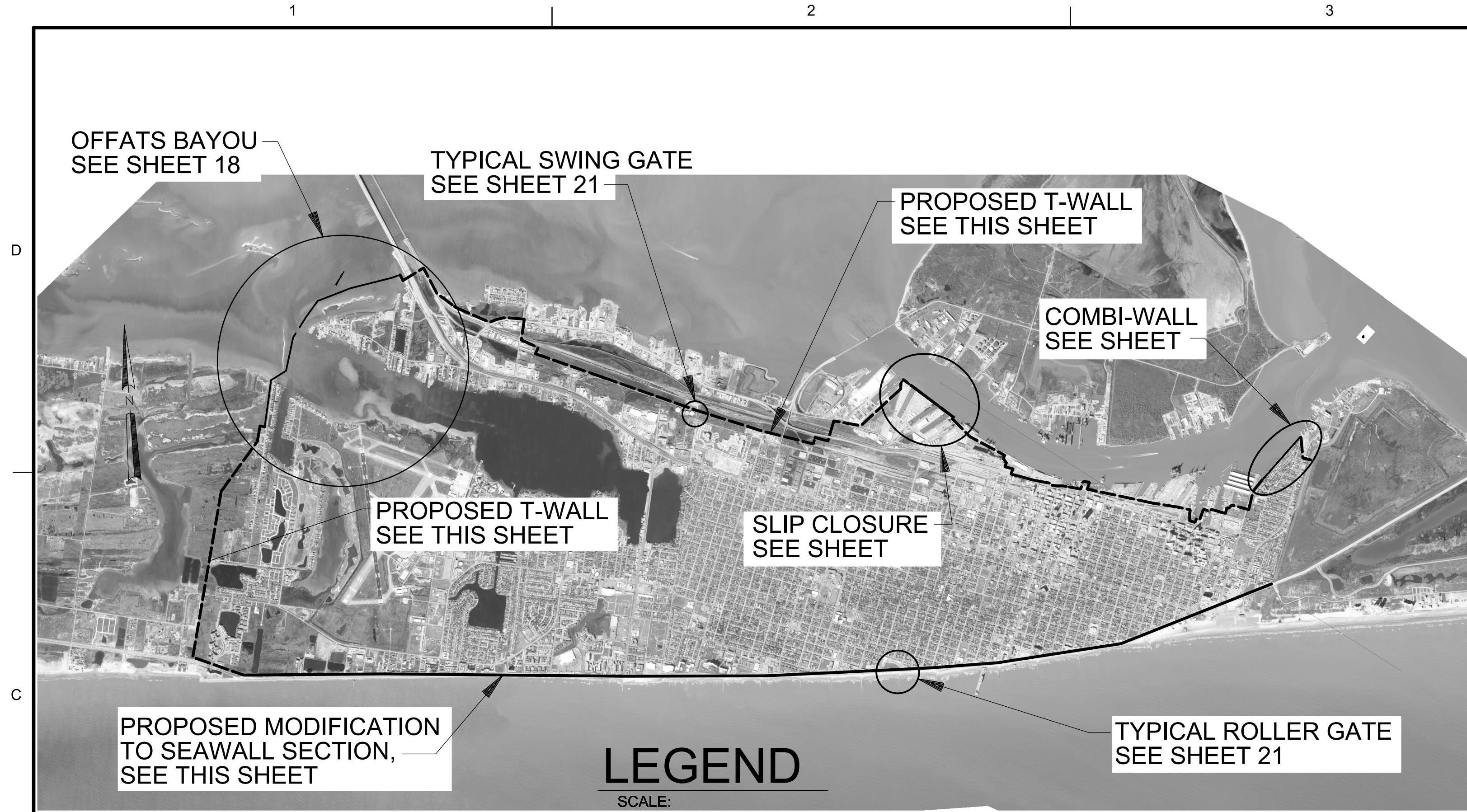
US Army Corps of Engineers
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY: CPB	DATE: 2020
DWN BY: CPB	SUBSTITUTION NO.:
SUBMITTED BY: Charles P. Brimbleton IV, P.E.	CONTRACT NO.:
PLOT SCALE: 1" = 15'	FILE NUMBER:
SIZE: A	ANSI D

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY DRAFT ENGINEERING APPENDIX (NOT FOR CONSTRUCTION)
HINGE SUPPORT PILE FOUNDATION

Sheet ID
s-16

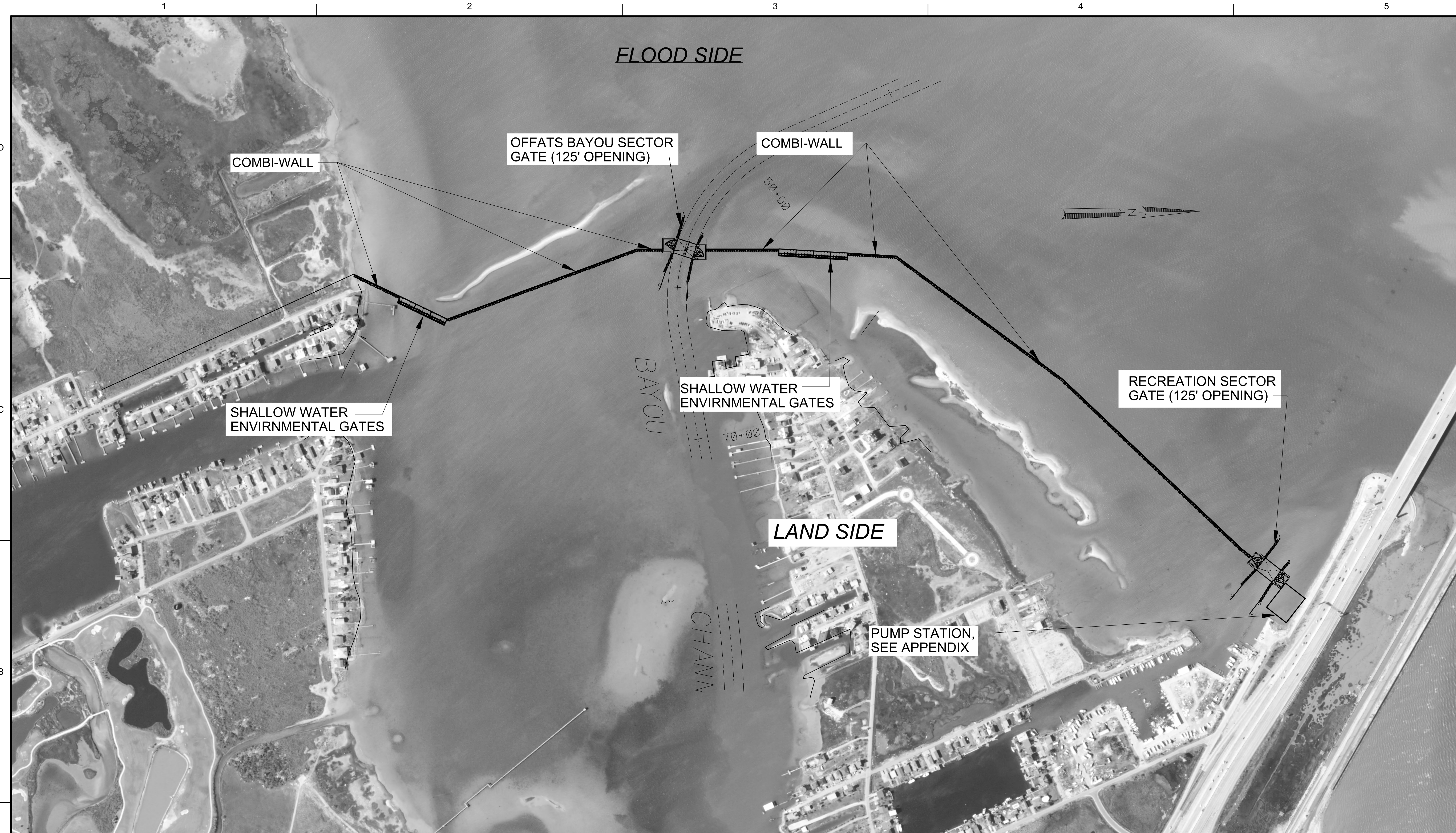


 US Army Corps of Engineers NEW ORLEANS DISTRICT	
APPR.	DATE
DESCRIPTION	
MARK	
DESCRIPTION	
MARK	

DESIGNED BY:	DATE:	DESIGNED BY:	DATE:
DWN BY:	DATE:	DWN BY:	DATE:
SUBMITTED BY:	DATE:	SUBMITTED BY:	DATE:
FILE NUMBER:	FILE NAME:	FILE NUMBER:	FILE NAME:
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COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY DRAFT ENGINEERING APPENDIX (NOT FOR CONSTRUCTION)

Sheet ID



OFFATS BAYOU SITE PLAN
 SCALE: 1" = 200'



MARK	DESCRIPTION	DATE	APPR. MARK	DESCRIPTION	DATE	APPR. MARK

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DESIGNED BY: DWN BY: SUBMITTED BY: PLOT SCALE: SIZE: ANSI D	DATE: 2020 SUBMITTED BY: MAR. 2020 FILE NAME:	CONTRACT NO.: FILE NUMBER: CONTRACT NO.: FILE NUMBER:
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COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY DRAFT ENGINEERING APPENDIX (NOT FOR CONSTRUCTION)
 SITE PLAN

Sheet ID
S-18

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3

4

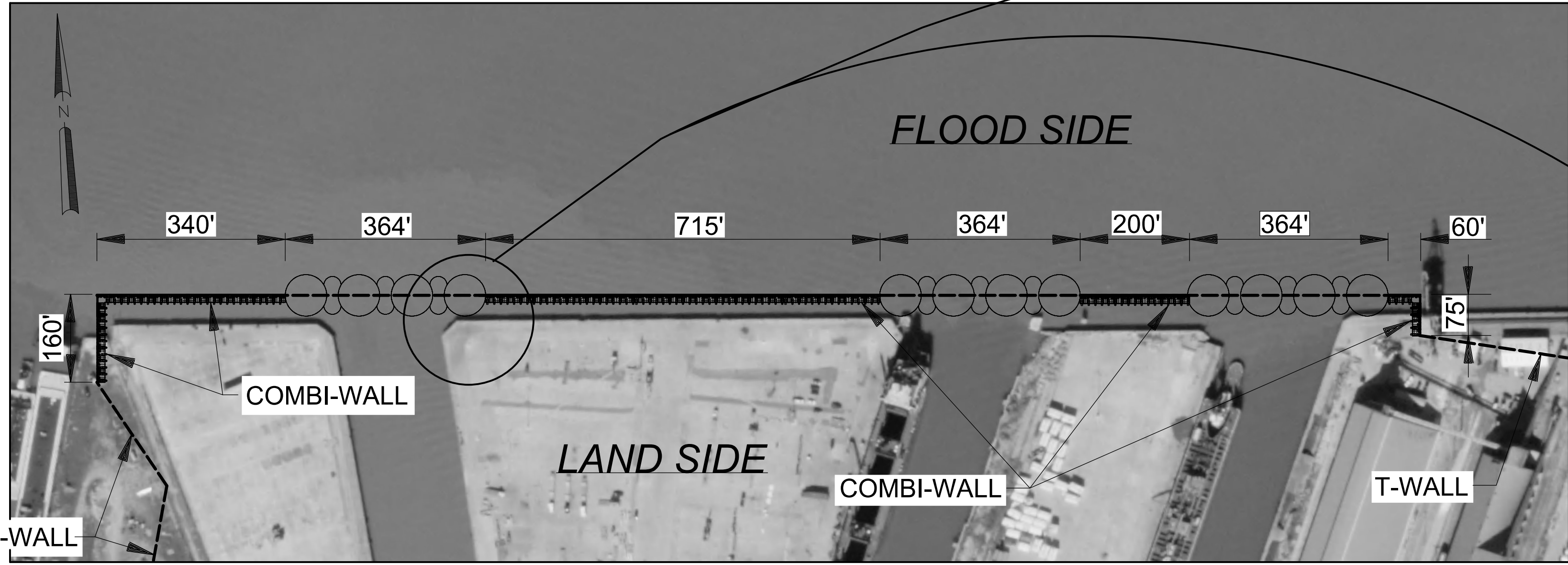
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D

C

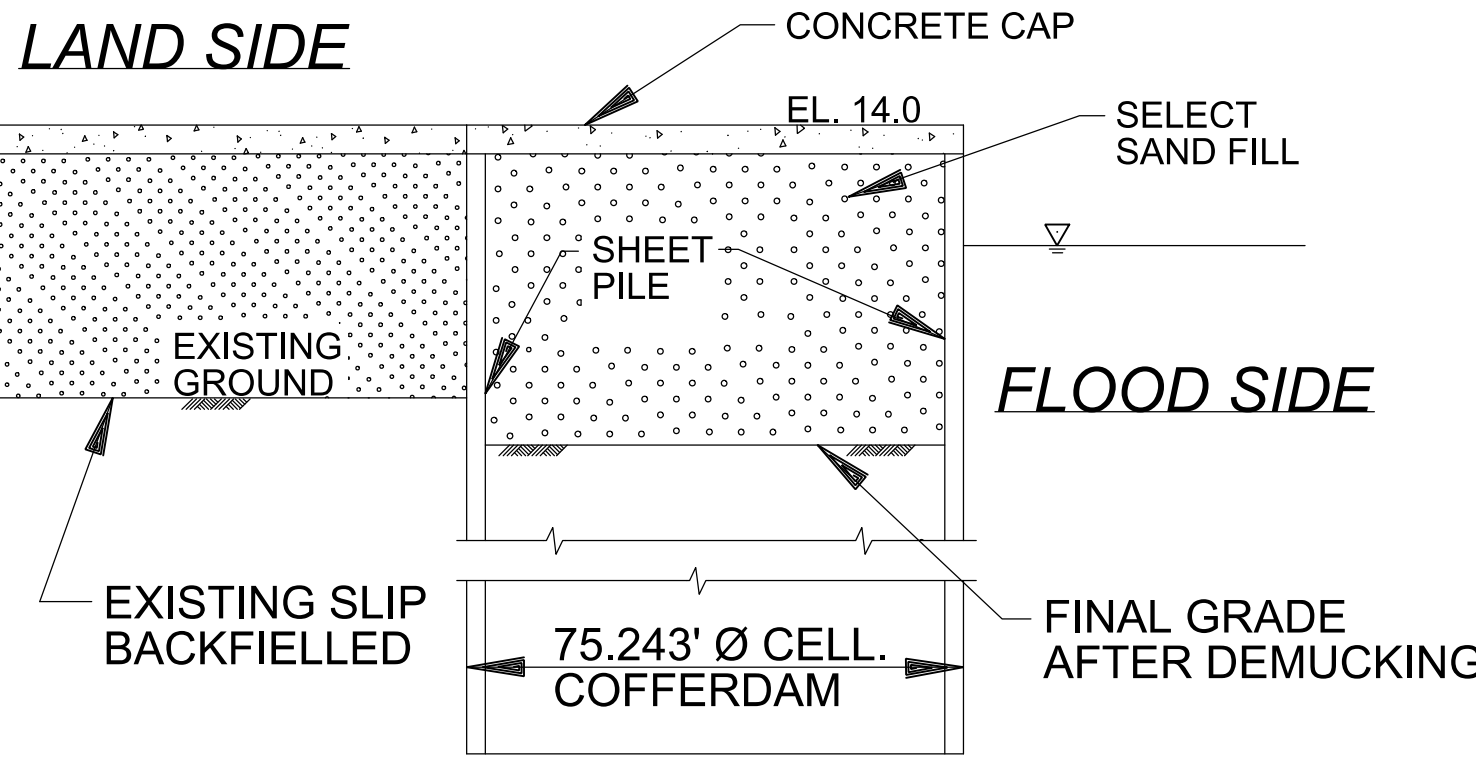
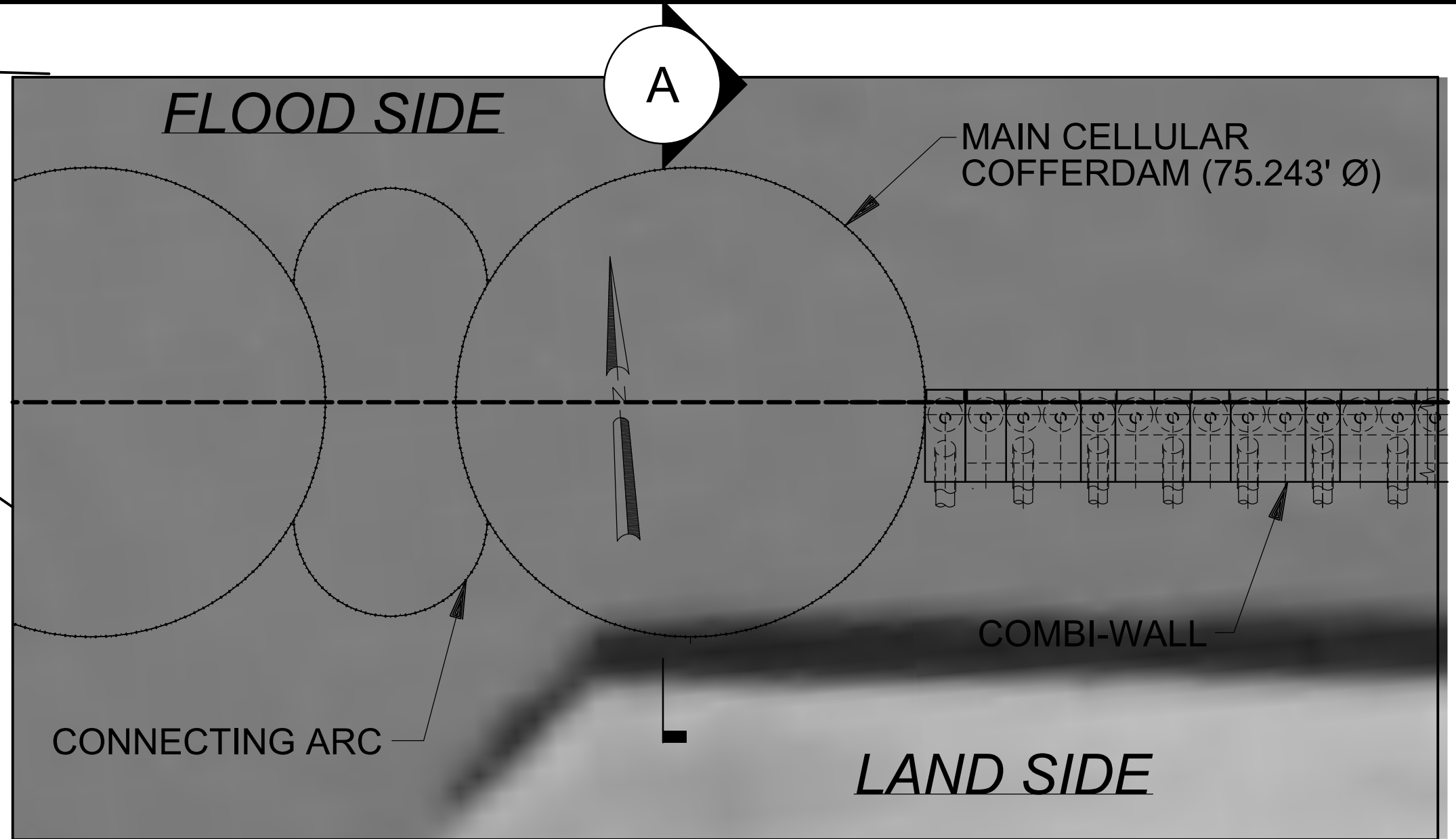
B

A



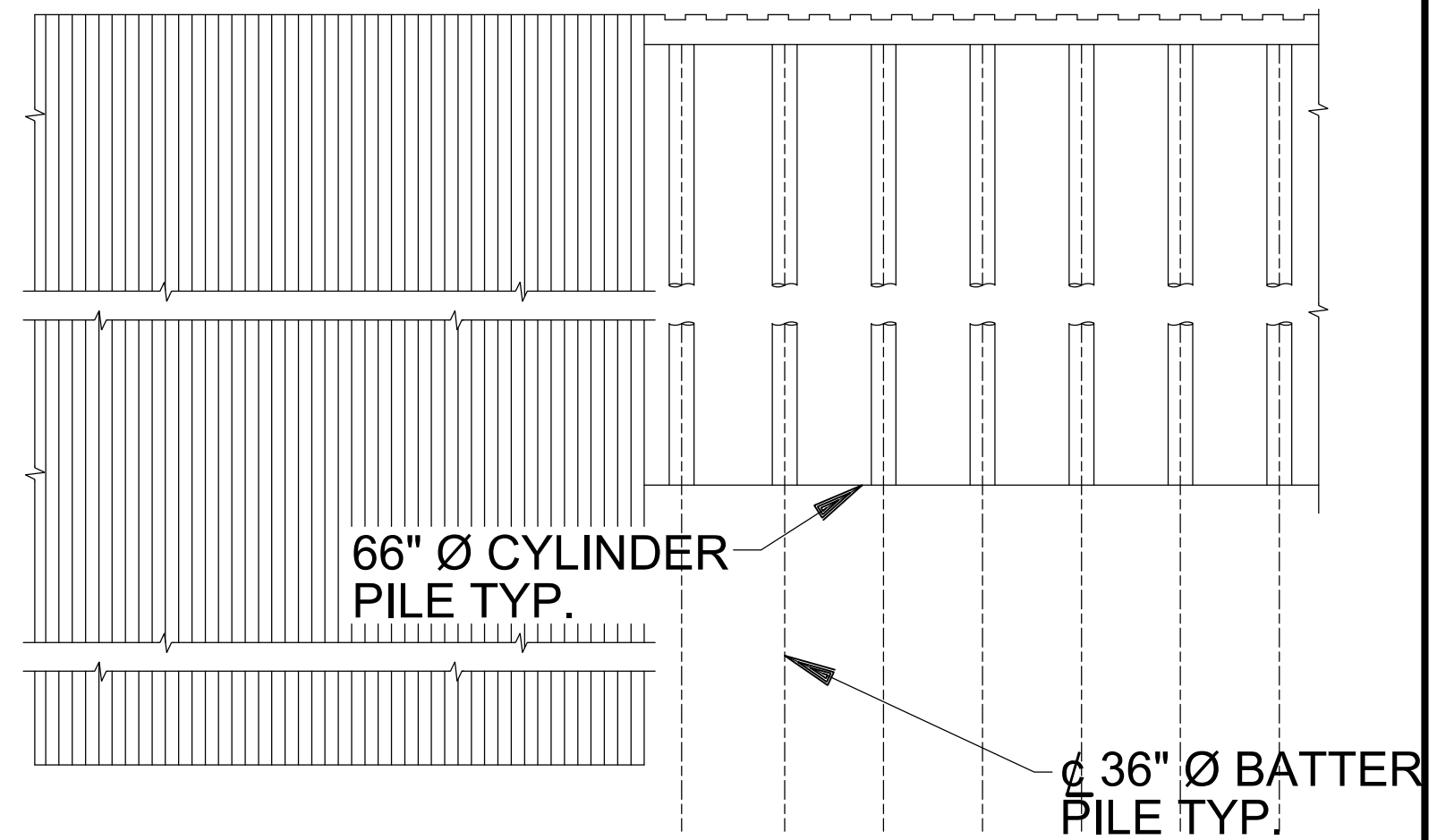
SLIP CLOSURES

SCALE:



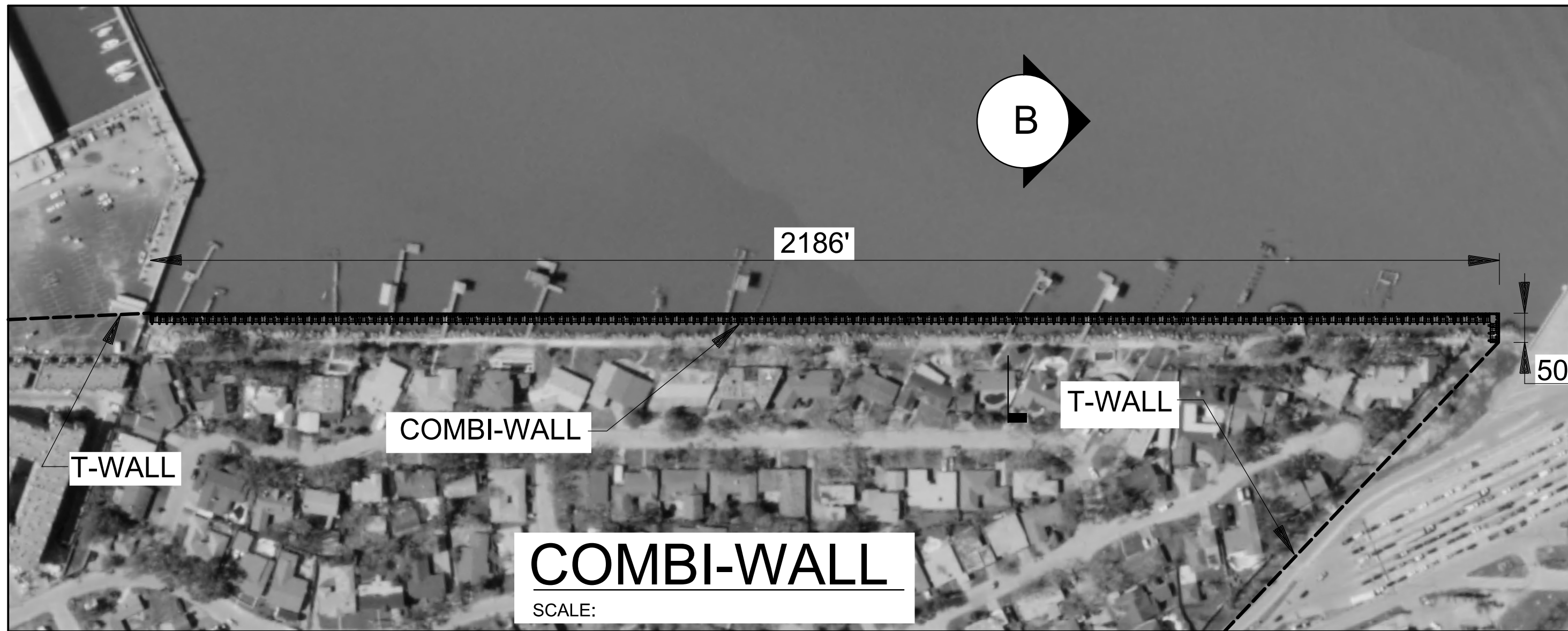
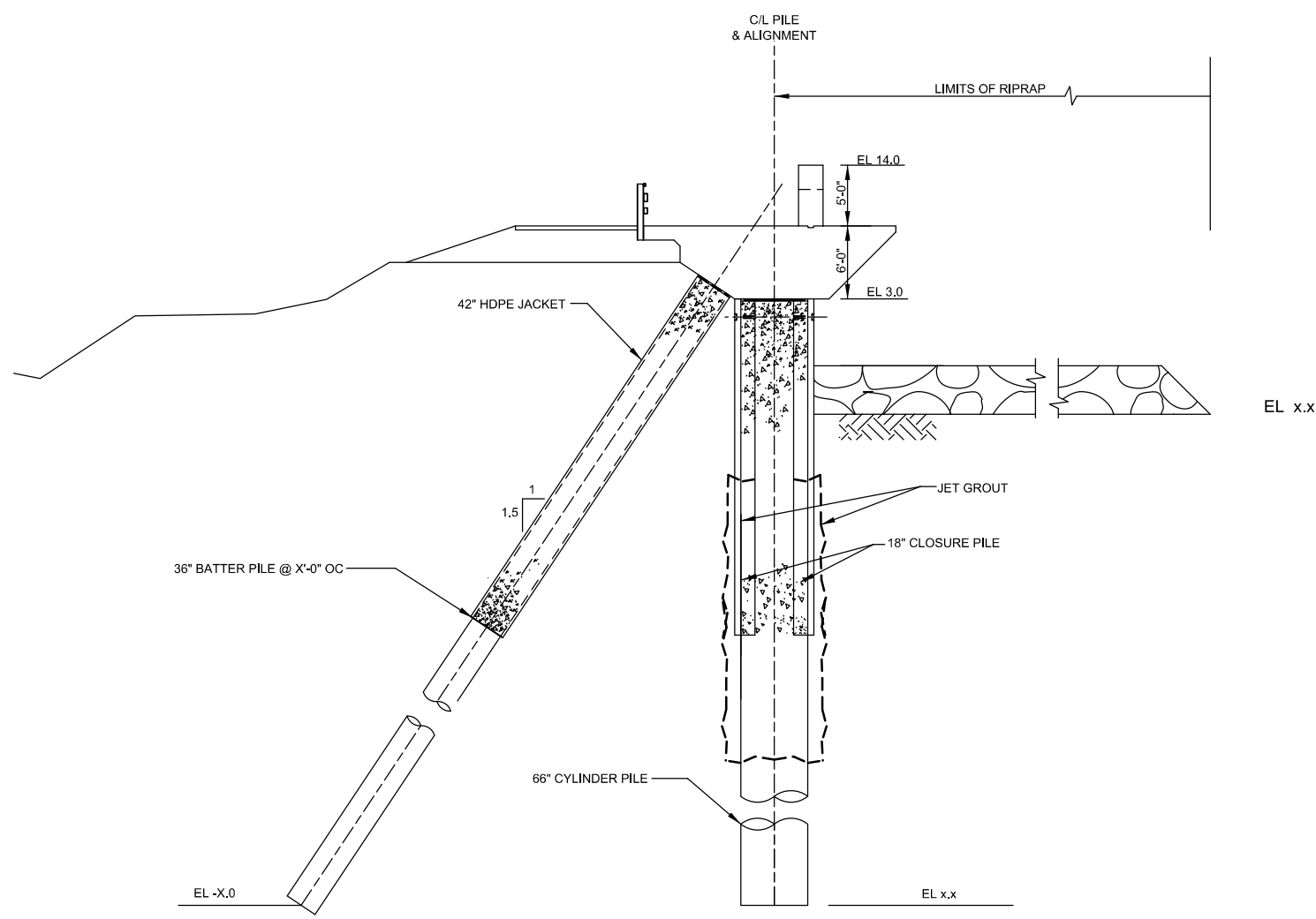
A SECTION

SCALE:



ELEVATION

SCALE:



COMBI-WALL

SCALE:



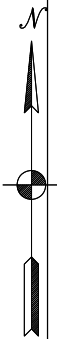
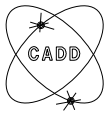
APPR.	DATE	DESCRIPTION

DESIGNED BY:	DATE: 2020	CONTRACT NO.:	FILE NUMBER:
DWN BY:	CUS BY:	CONTRACT NO.:	FILE NUMBER:
SUBMITTED BY:	CHARLES P. BRENNEISEN IV, P.E.	CONTRACT NO.:	FILE NUMBER:
PLOT SCALE:	PLOT DATE:	CONTRACT NO.:	FILE NUMBER:
XXXX-1	MAR. 2020	CONTRACT NO.:	FILE NUMBER:
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FILE NAME:		CONTRACT NO.:	FILE NUMBER:

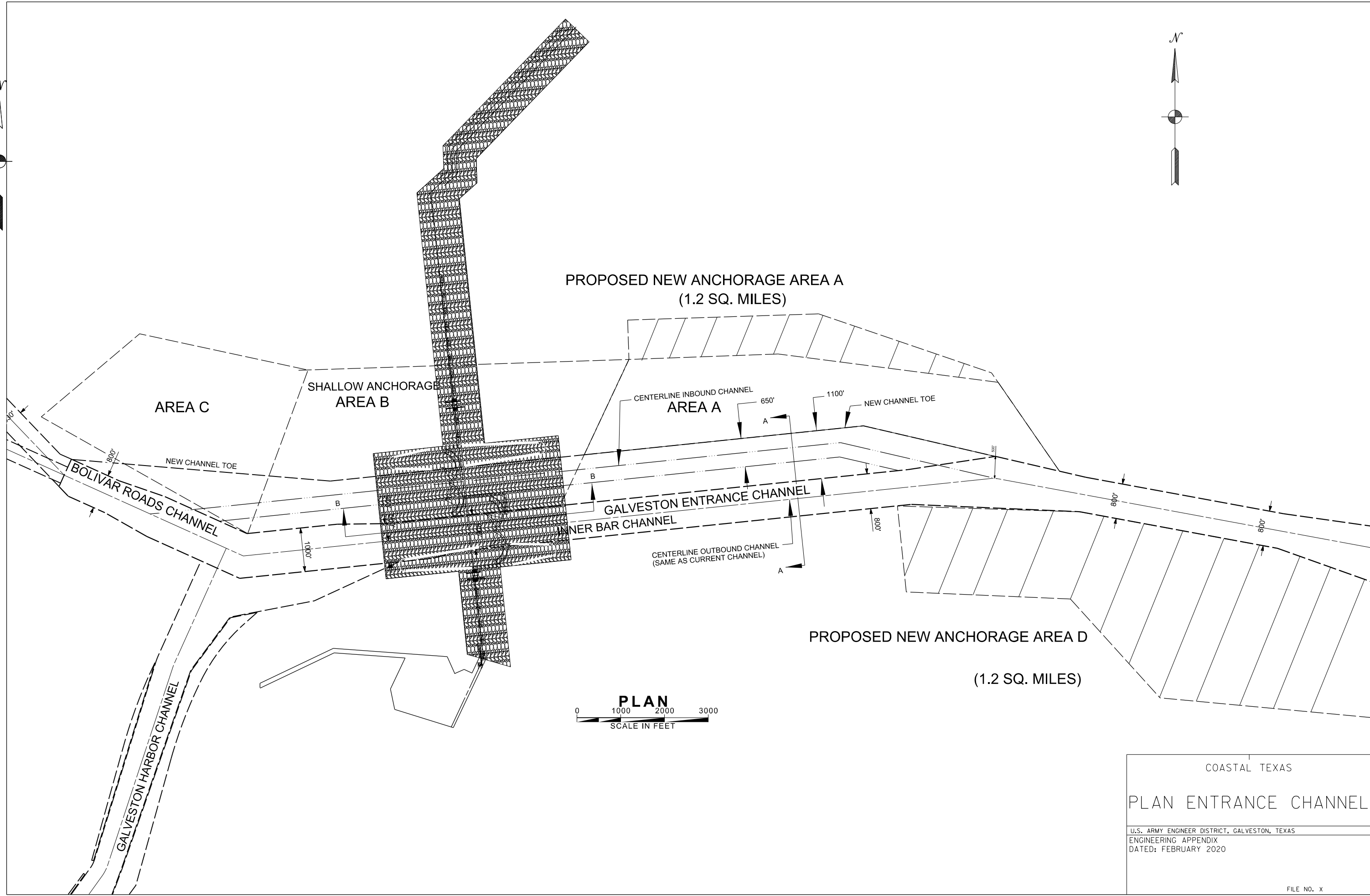
U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT
NEW ORLEANS, LOUISIANA

COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY
DRAFT ENGINEERING APPENDIX
(NOT FOR CONSTRUCTION)

Sheet ID
S-19

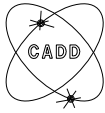


PROPOSED NEW ANCHORAGE AREA A
(1.2 SQ. MILES)



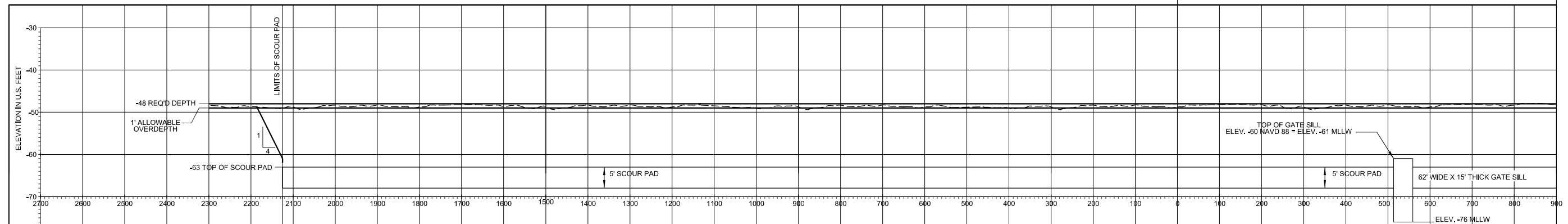
PLAN
SCALE IN FEET

COASTAL TEXAS
PLAN ENTRANCE CHANNEL
U.S. ARMY ENGINEER DISTRICT, GALVESTON, TEXAS
ENGINEERING APPENDIX
DATED: FEBRUARY 2020
FILE NO. X



GATE CROSSING
CENTERLINE

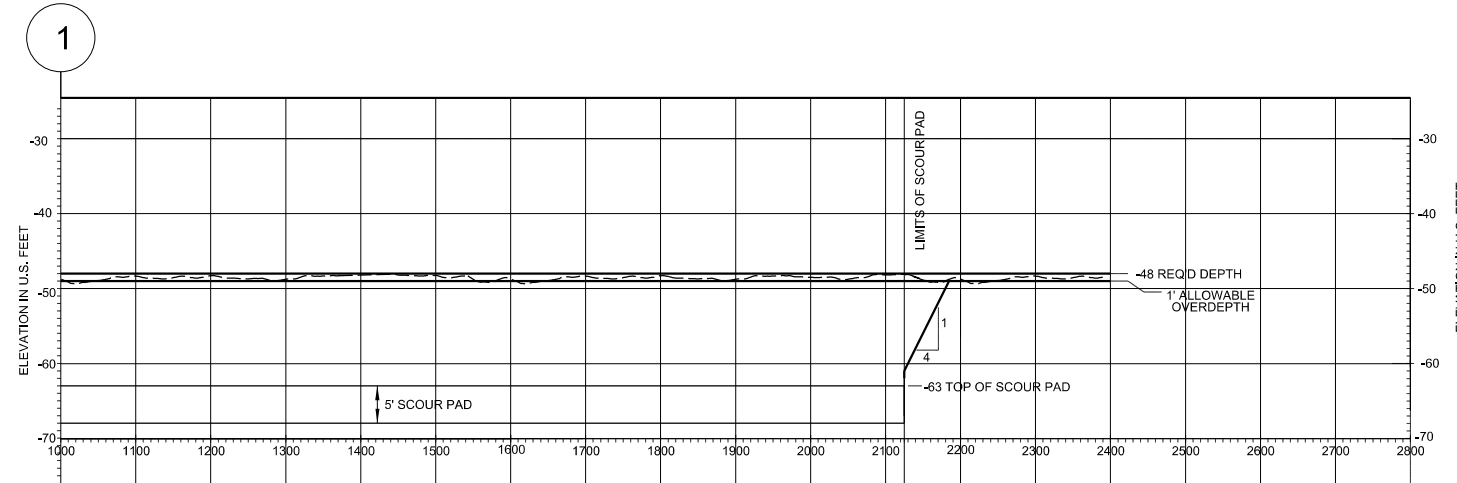
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SECTION B-B

NOTES: 1. TOP ELEV. OF SCOUR PAD AT 1' BELOW A 1' OF ALLOWABLE OVERDEPTH ELEV. OF -62

1

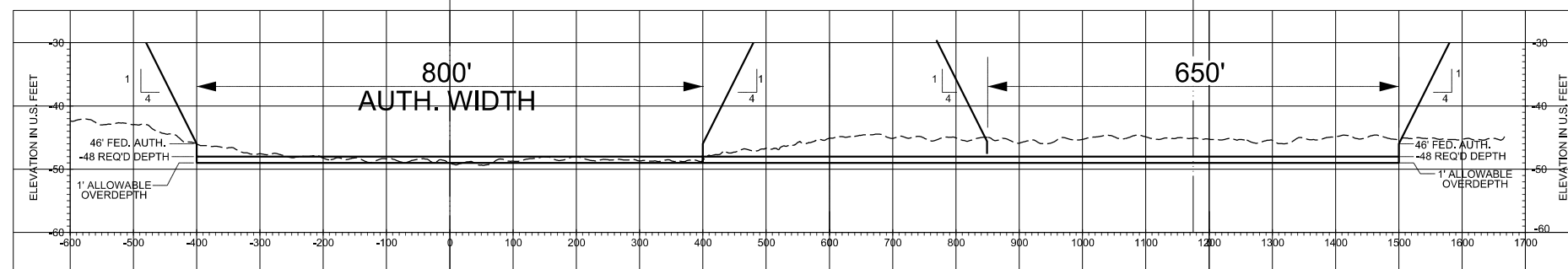


SECTION B-B

NOTES: 1. TOP ELEV. OF SCOUR PAD AT 1' BELOW A 1' OF ALLOWABLE OVERDEPTH ELEV. OF -62

EXISTING CENTERLINE
NEW OUTBOUND CHANNEL

CENTERLINE
NEW INBOUND CHANNEL



SECTION A-A = AUTH. CHANNEL STA. 15+000

NOTES:

1. EXISTING ENTRANCE CHANNEL WILL BECOME A ONE-WAY OUTBOUND CHANNEL WITH A SECTOR GATE OPENING OF 650'.
2. DREDGING DEPTHS ARE MLLW.

COASTAL TEXAS PROTECTION AND
RESTORATION STUDY

ENTRANCE CHANNEL
SECTIONS

U.S. ARMY ENGINEER DISTRICT, GALVESTON, TEXAS

ENGINEERING APPENDIX
DATED: FEBRUARY 2020