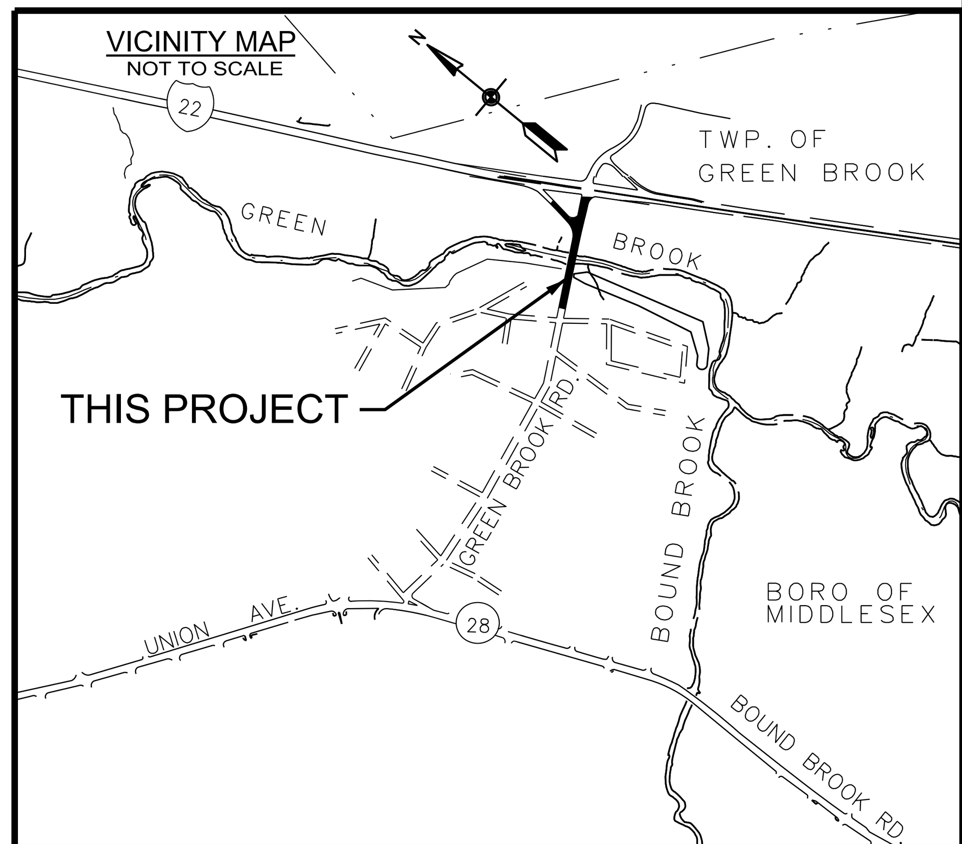

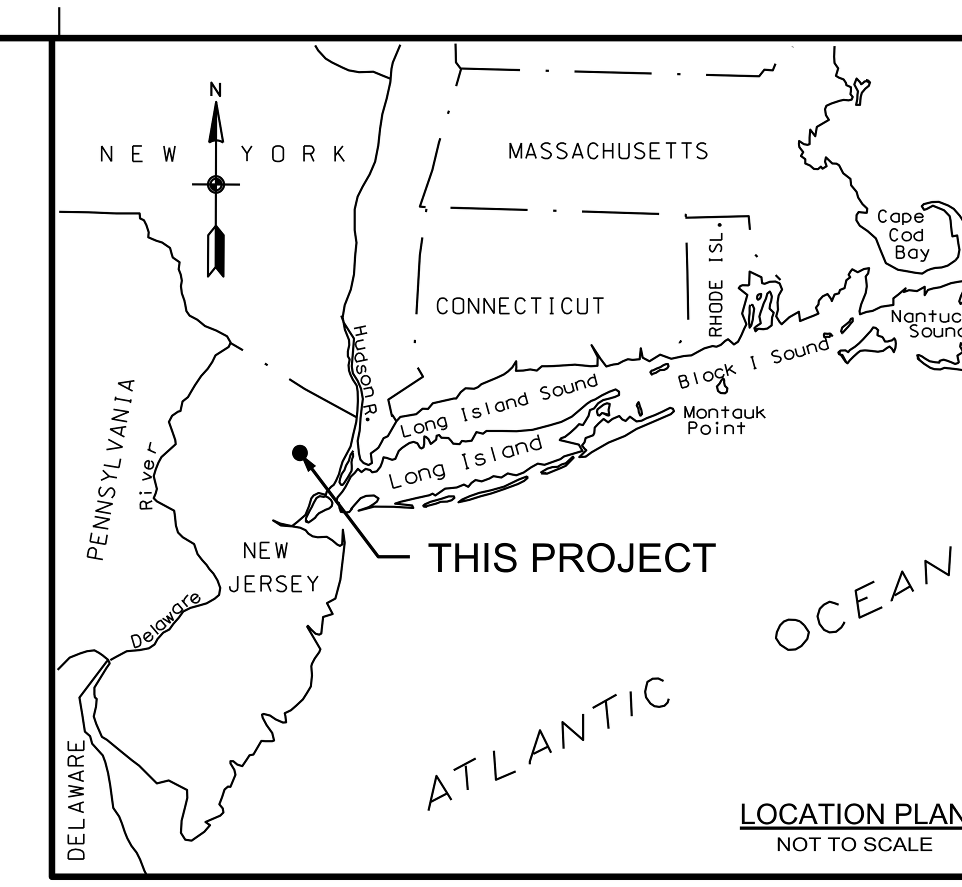

PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ

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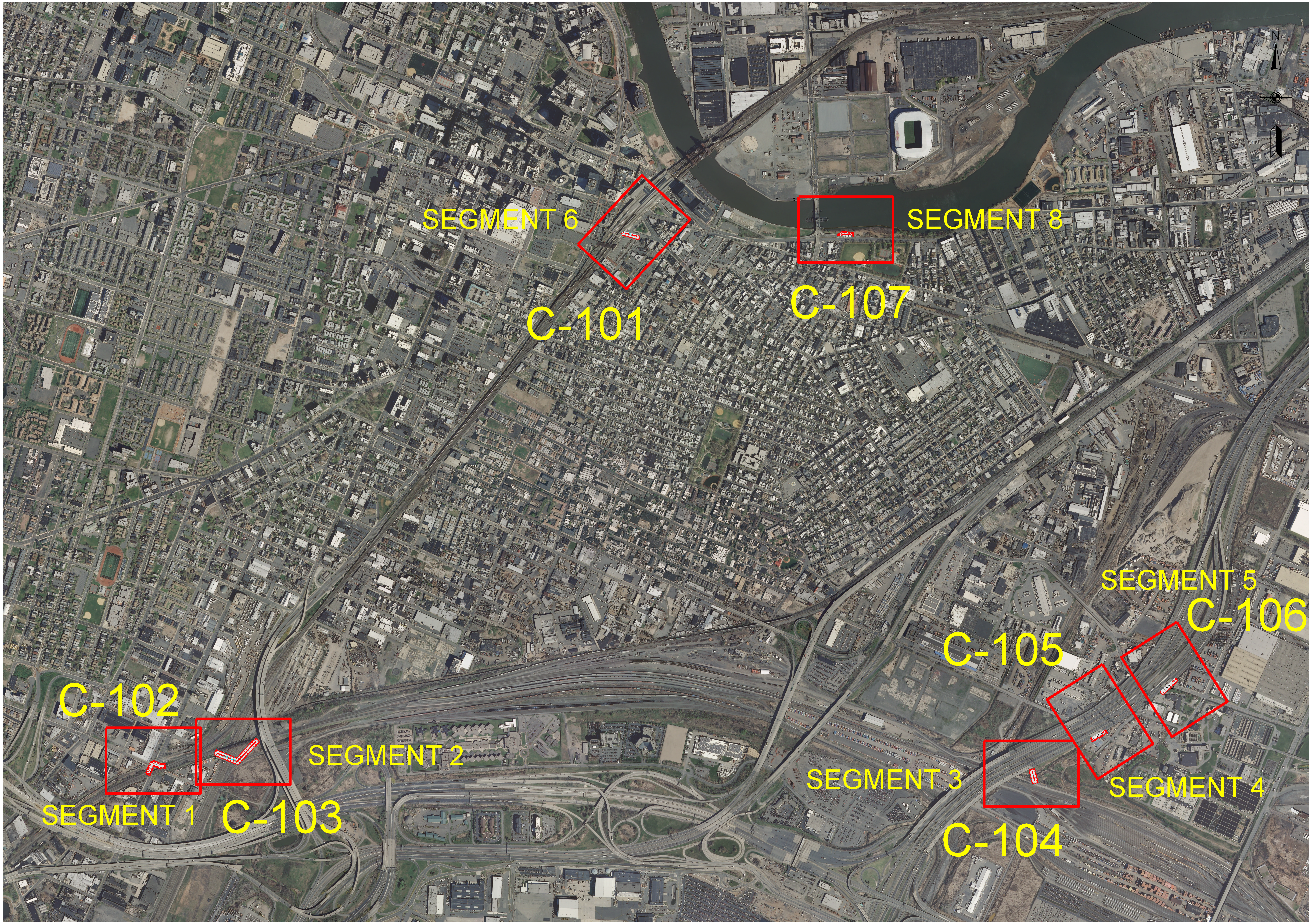
PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ

COVER SHEET

SHEET REFERENCE NUMBER
G-001
SHEET 1 OF 36



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PASSAIC RIVER TIDAL
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LOWER PASSAIC RIVER, NJ

KEY PLAN

SHEET REFERENCE NUMBER
KP001
SHEET 2 OF 11

MAY 2009 NYD BORDER

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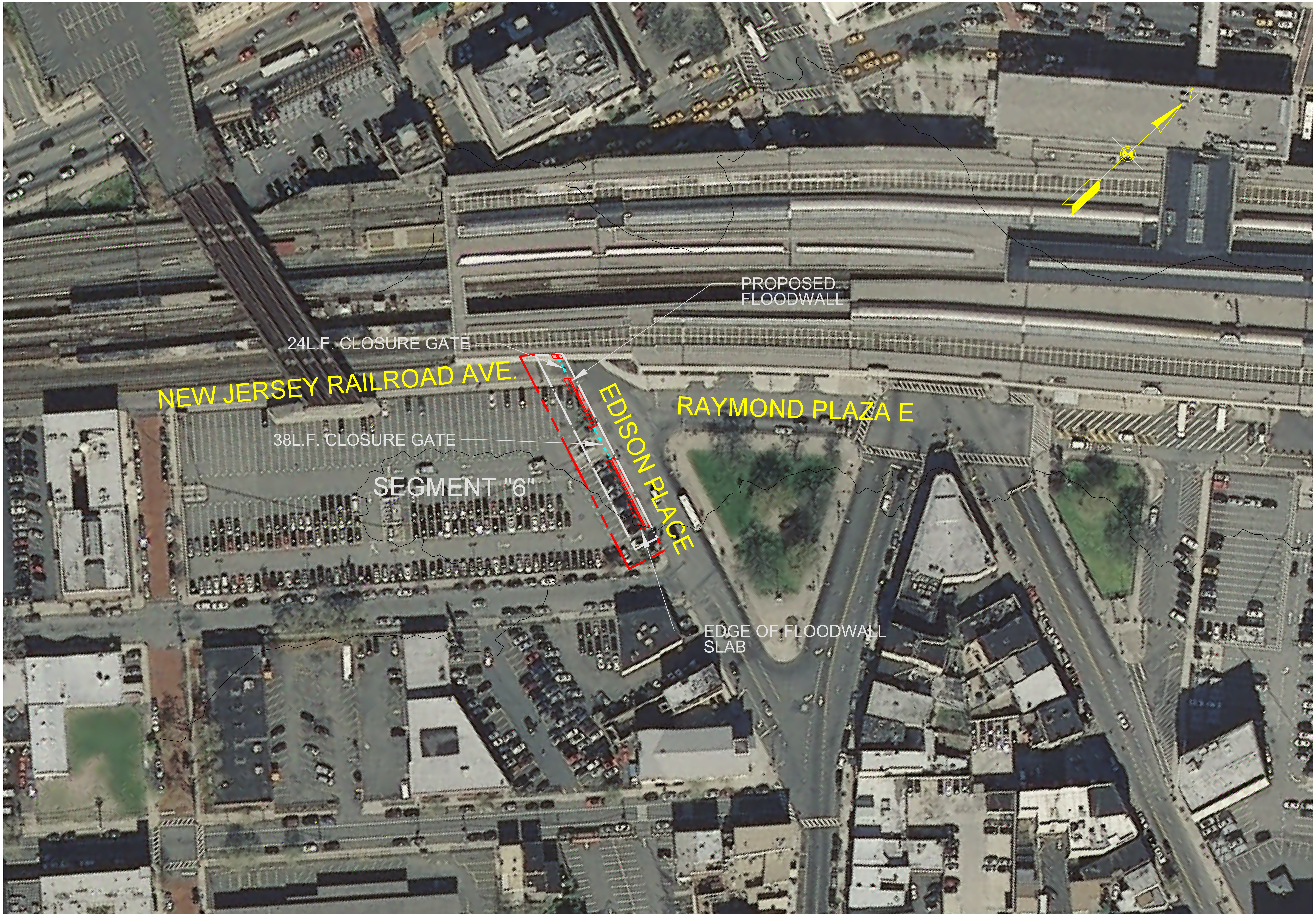
MAY 2009 NYD BORDER



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SCALE:1"=50'

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PASSAIC RIVER TIDAL
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SEGMENT "6" PLAN

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SHEET
REFERENCE
NUMBER
C-101

SHEET 3 OF 11

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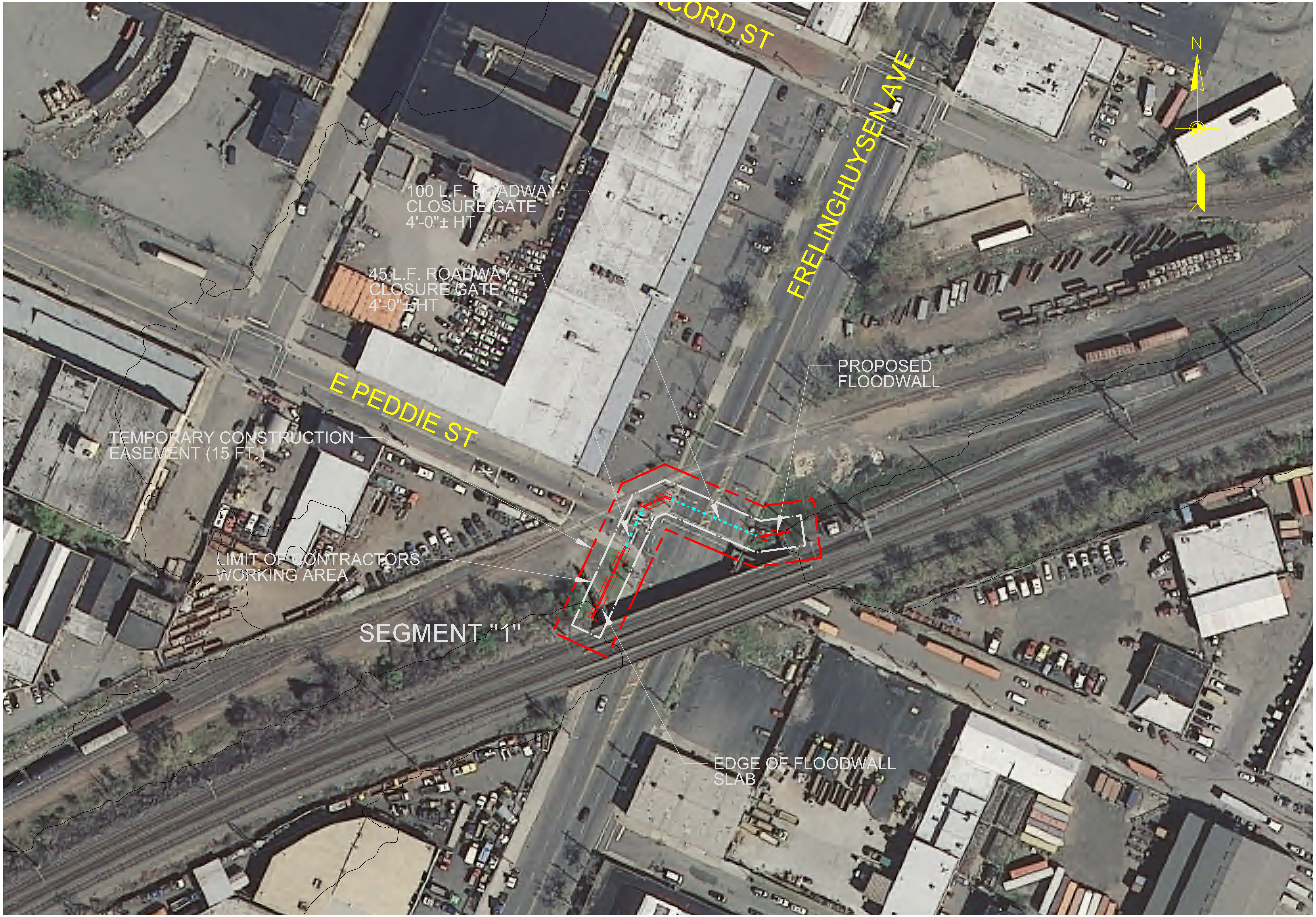

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SCALE:1"=50'

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PASSAIC RIVER TIDAL
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SEGMENT "1" PLAN

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-

SHEET
REFERENCE
NUMBER
C-102

SHEET 4 OF 11

MAY 2009 NYD BORDER

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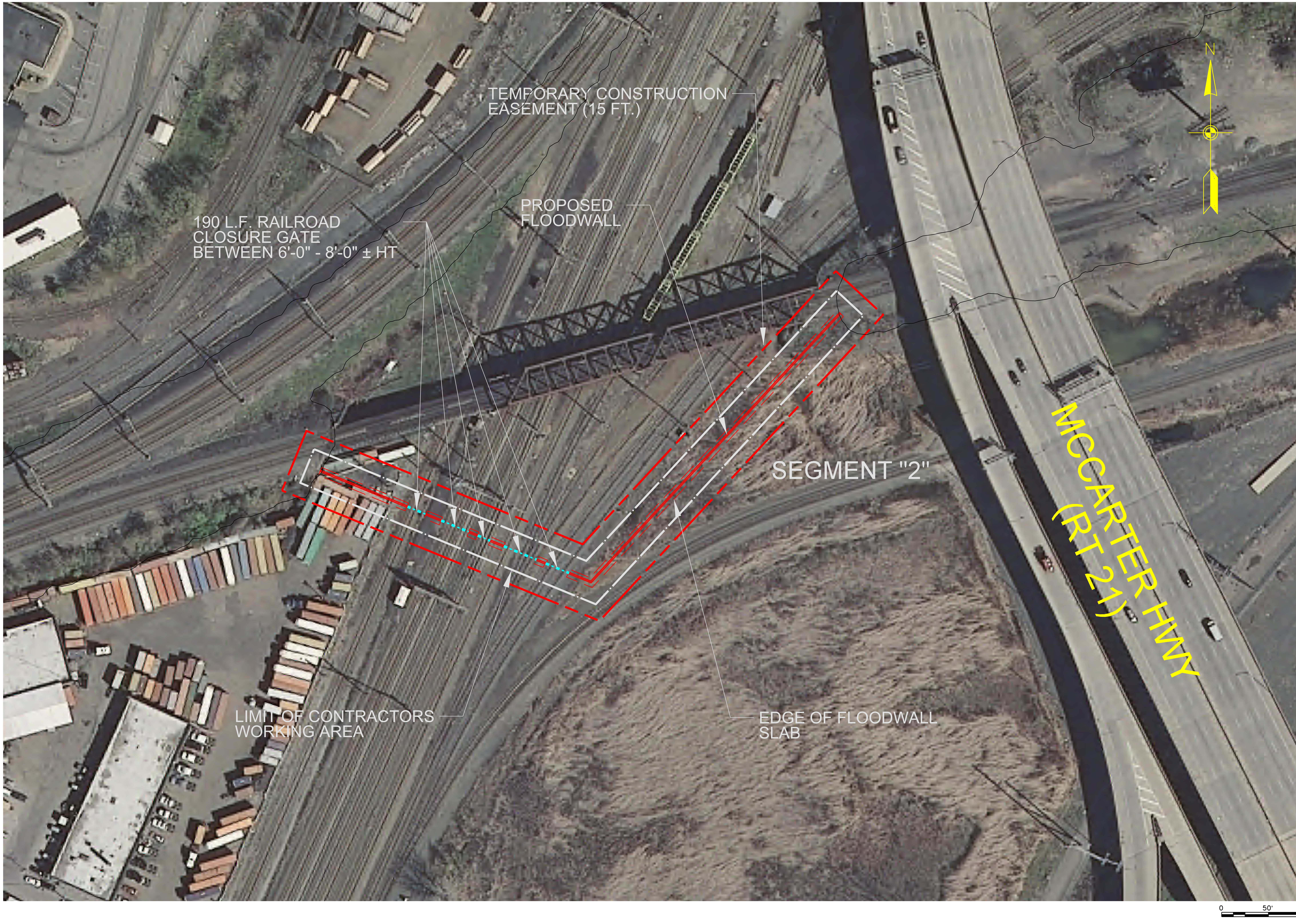

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PASSAIC RIVER TIDAL
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SEGMENT "2" PLAN

SHEET
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NUMBER
C-103
SHEET 5 OF 11

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MAY 2009 NYD BORDER

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SCALE:1"=50'

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PASSAIC RIVER TIDAL
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LOWER PASSAIC RIVER, NJ

SEGMENT "3" PLAN
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SHEET REFERENCE NUMBER
C-104
SHEET 6 OF 11

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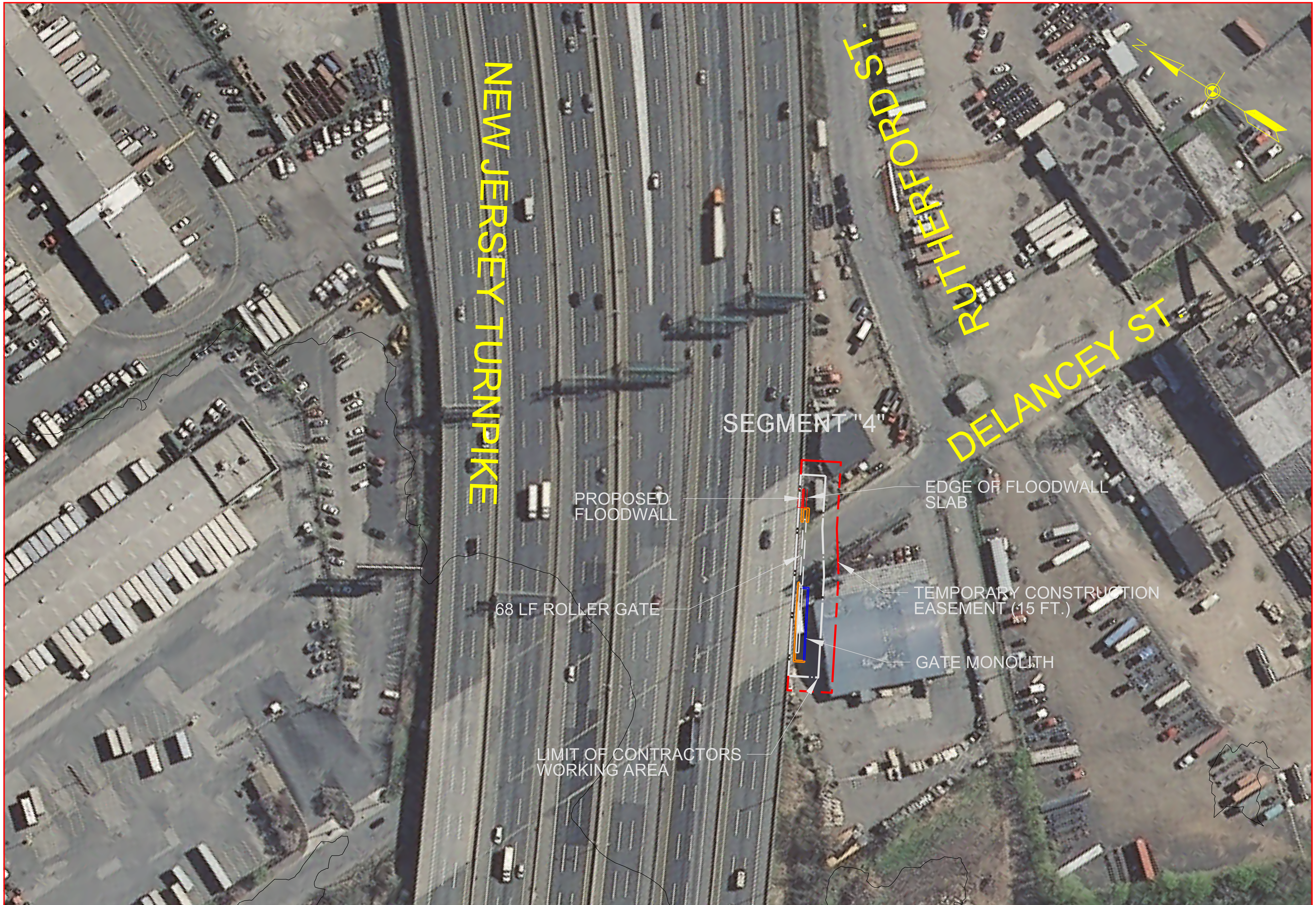

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SEGMENT "4" PLAN

SHEET REFERENCE NUMBER
C-105
SHEET 7 OF 11

MAY 2009 NYD BORDER

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PLOT DATE: 9:59:20 AM

PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ

SEGMENT "5" PLAN
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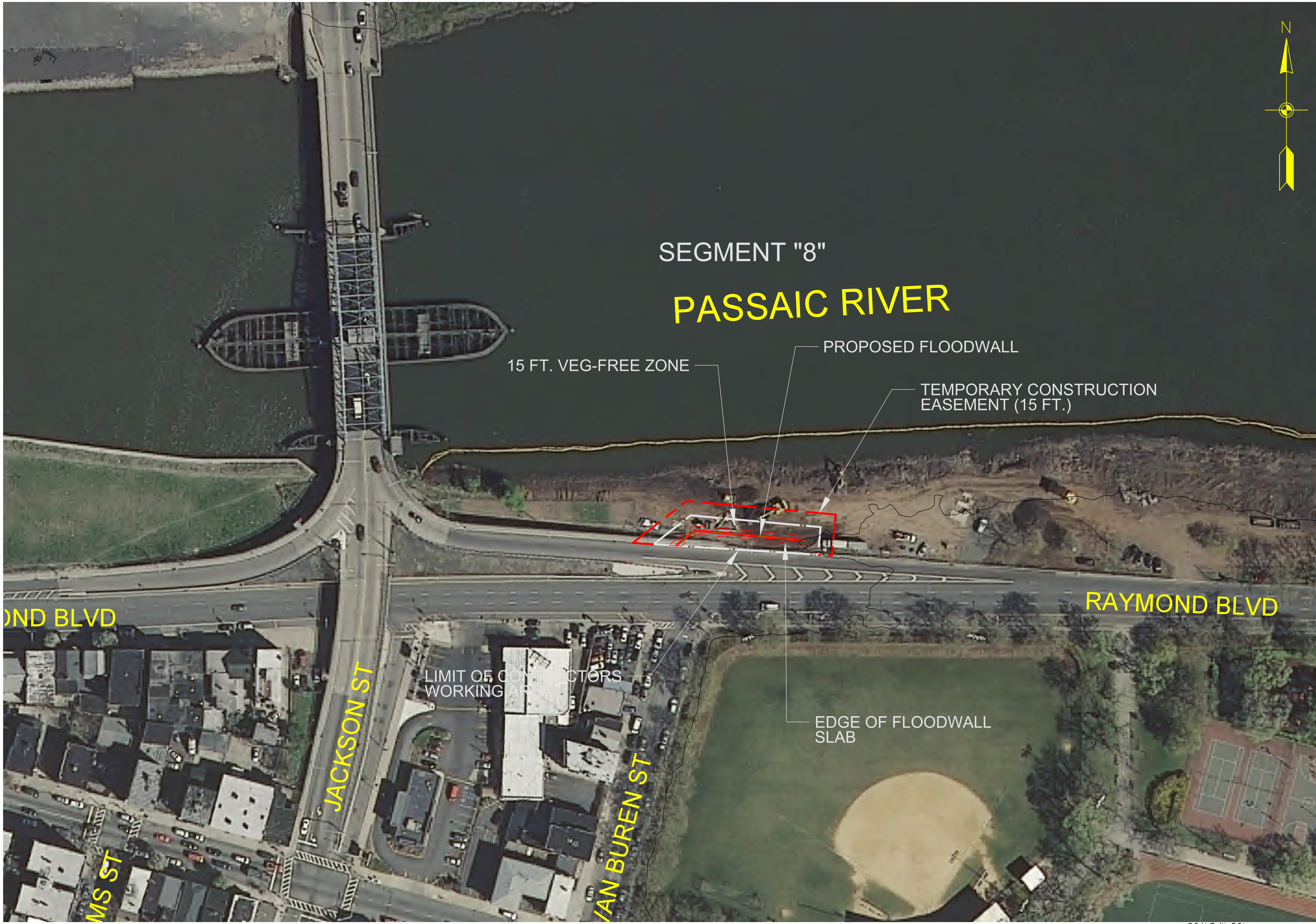
SHEET REFERENCE NUMBER
C-106
SHEET 8 OF 11



SCALE:1"=50'

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PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ

SEGMENT "8" PLAN

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SHEET REFERENCE NUMBER
C-107
SHEET 9 OF 11

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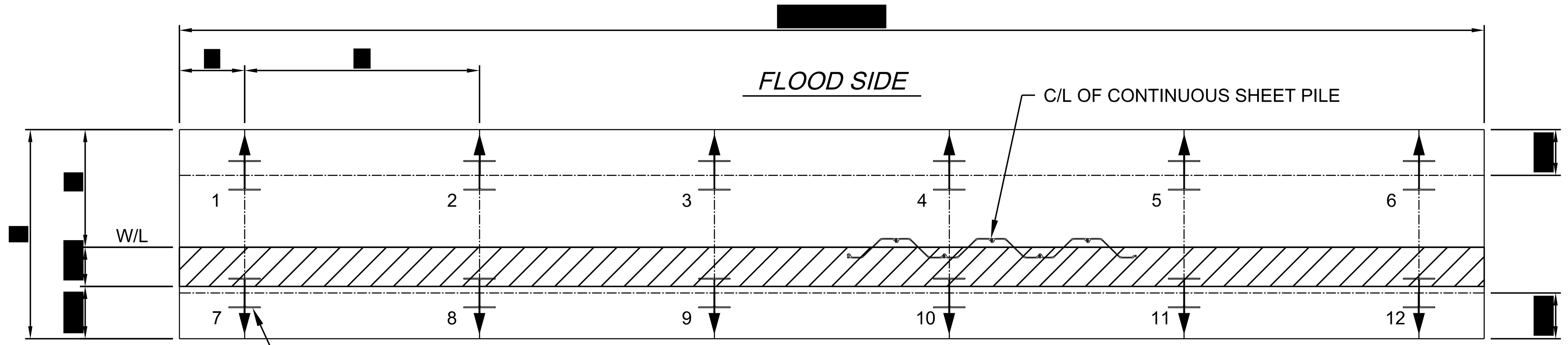


TYPICAL T-WALL PLAN

SCALE: 1/4"=1'-0"

1/4"= 1'-0"

1/2"= 1'-0"

NOTE:

1. MICRO PILE TIP INCLUDES 10' SOCKET, ASSUMED BED ROCK @ EL. -50.0 SOCKET TIP @ EL. -60.0

LEGEND:

- INDICATES PILE LOCATION
- INDICATES DIRECTION OF BATTER
- WALL STEM
- SHEET PILE

WEST OF KEARNY TOW EL. 14.0

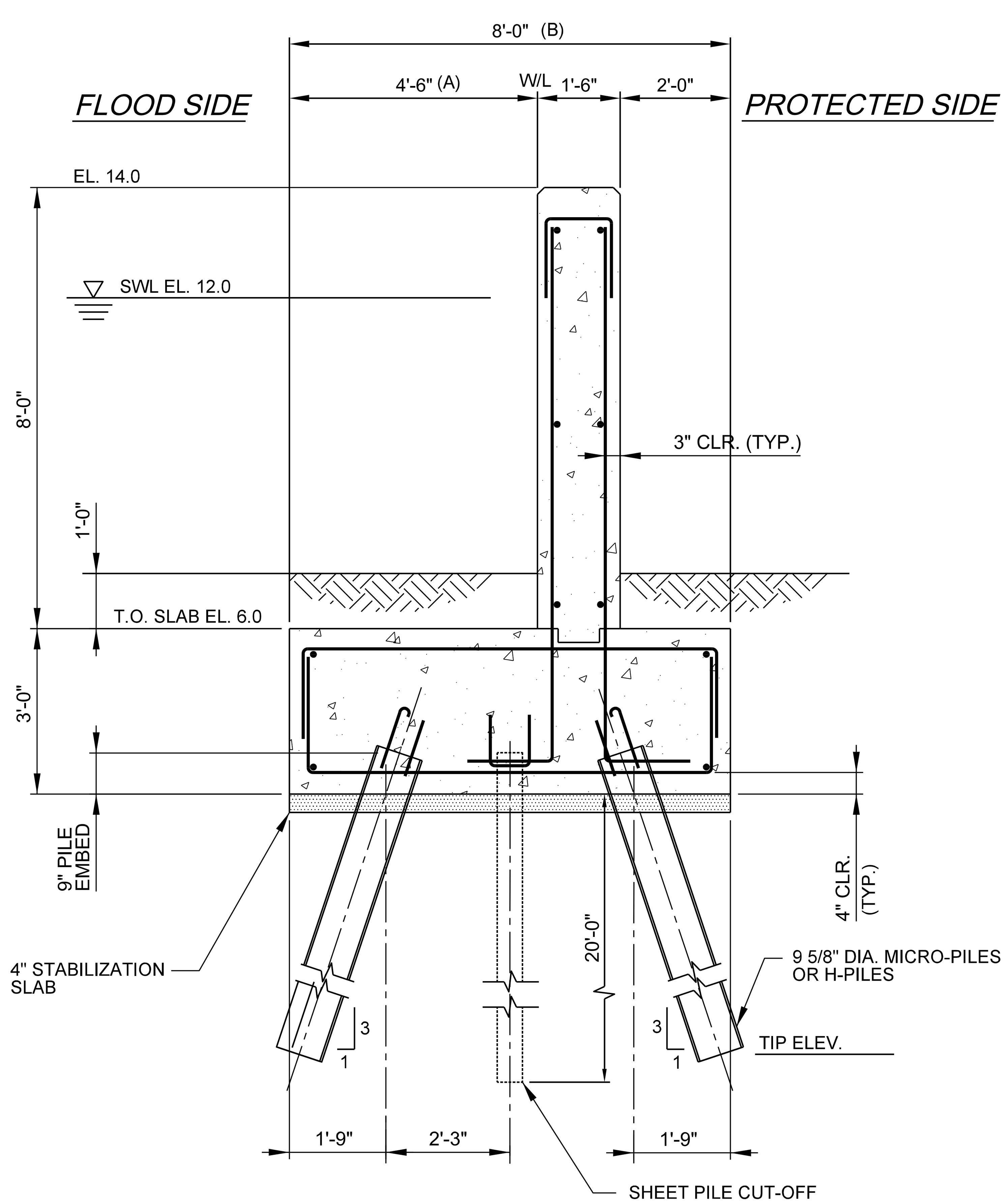
PILE TYPE	SOIL CAPACITY	TIP ELEV.	PILE LENGTH / # PILES	TOTAL PILE LENGTH	E	S
				LF	FT	FT
9" MICRO	END BEARING	-60[1]	66/8	528	6'-0"	12'-8"
HP-14	FRICTION	-63	68/10	680	5'-0"	10'-0"
HP-14	FRICTION	-73	77/8	616	6'-0"	12'-8"

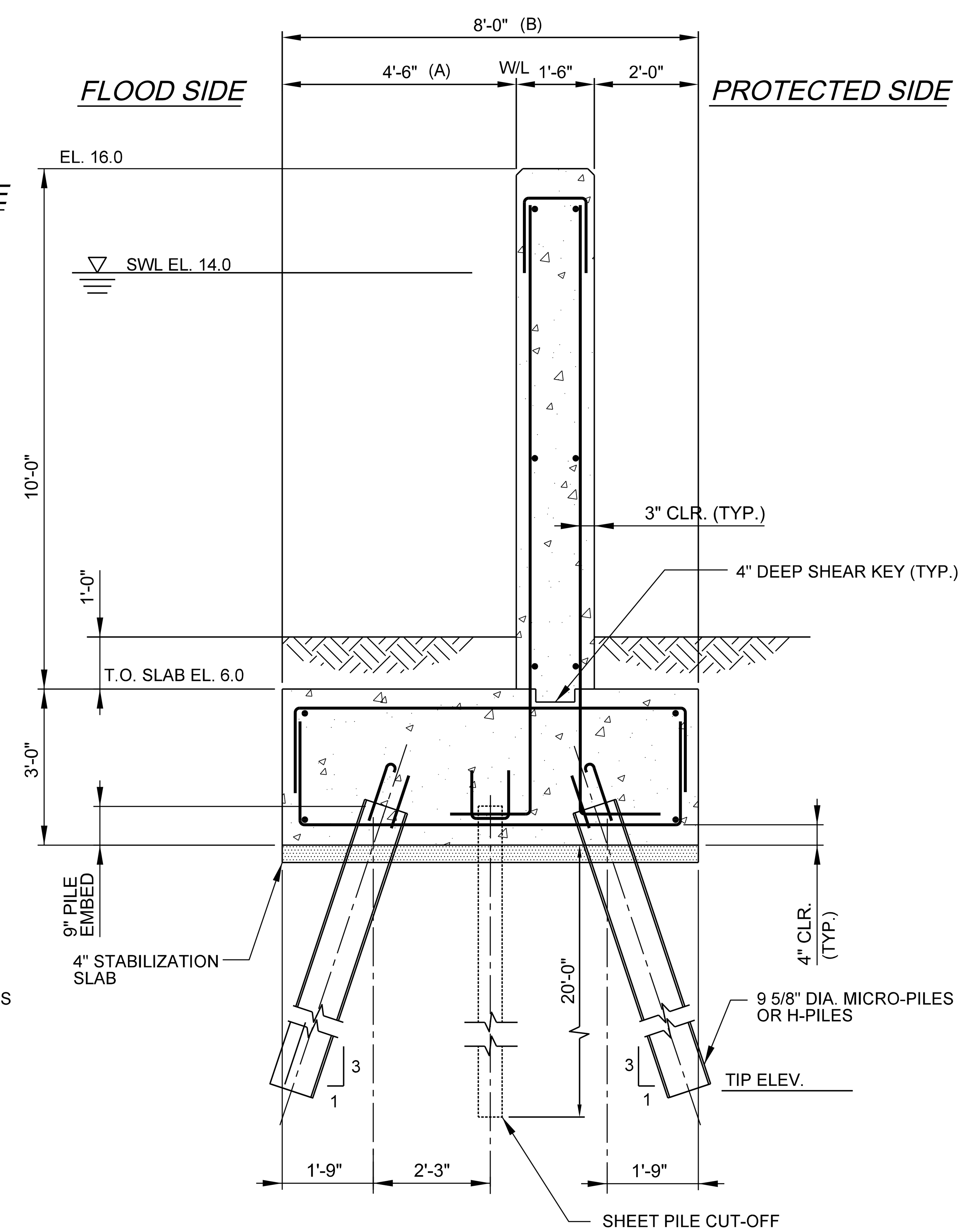
WEST OF KEARNY TOW EL. 16.0

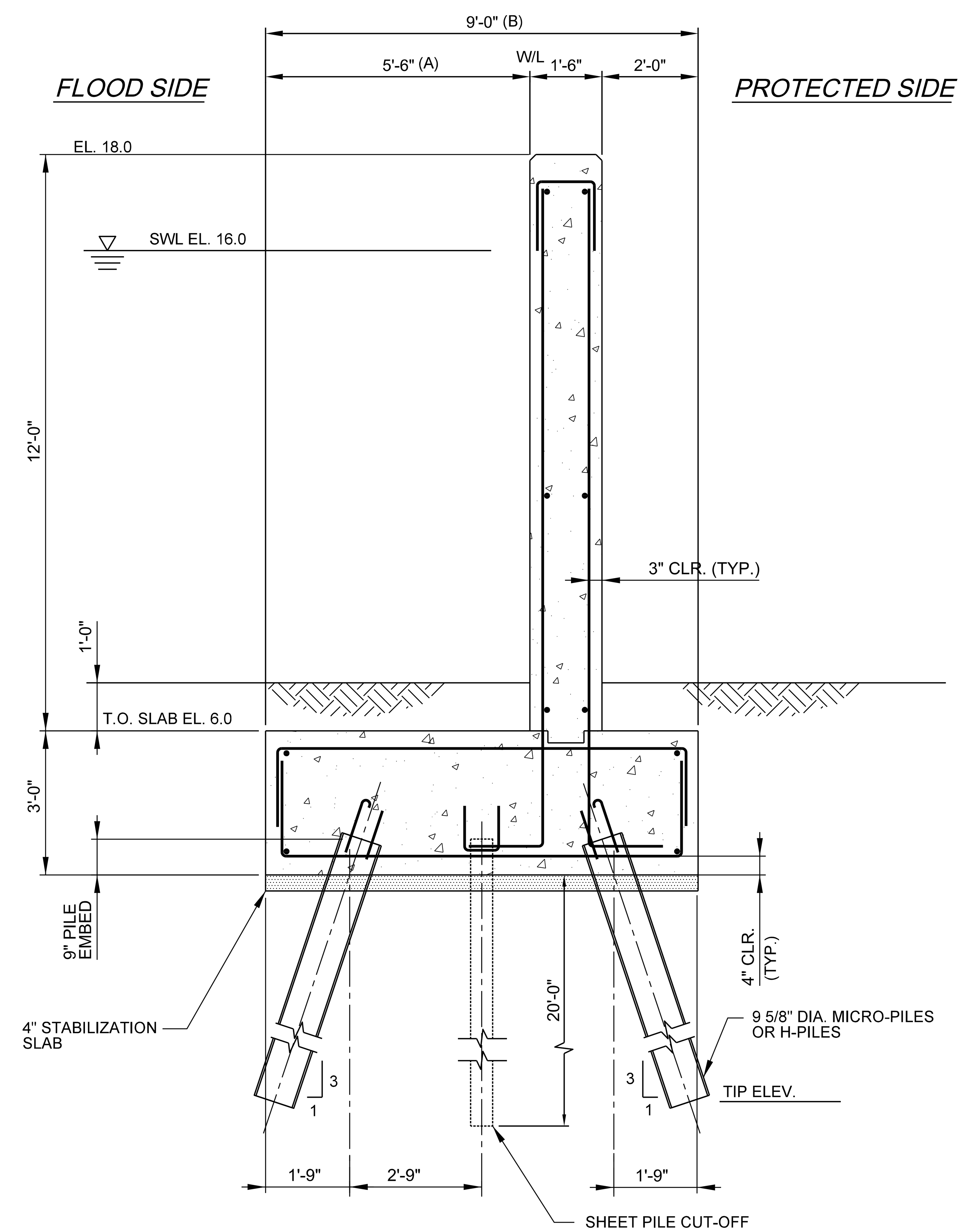
PILE TYPE	SOIL CAPACITY	TIP ELEV.	PILE LENGTH / # PILES	TOTAL PILE LENGTH	E	S
				LF	FT	FT
9" MICRO	END BEARING	-60[1]	66/8	528	6'-0"	12'-8"
HP-14	FRICTION	-67	74/12	888	5'-0"	8'-0"
HP-14	FRICTION	-87	95/8	760	6'-0"	12'-8"

WEST OF KEARNY TOW EL. 18.0

PILE TYPE	SOIL CAPACITY	TIP ELEV.	PILE LENGTH / # PILES	TOTAL PILE LENGTH	E	S
				LF	FT	FT
9" MICRO	END BEARING	-60[1]	66/8	528	6'-0"	12'-8"
HP-14	FRICTION	-78	85/12	1020	5'-0"	8'-0"
HP-14	FRICTION	-105	114/8	912	6'-0"	12'-8"







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PASSAIC RIVER TIDAL
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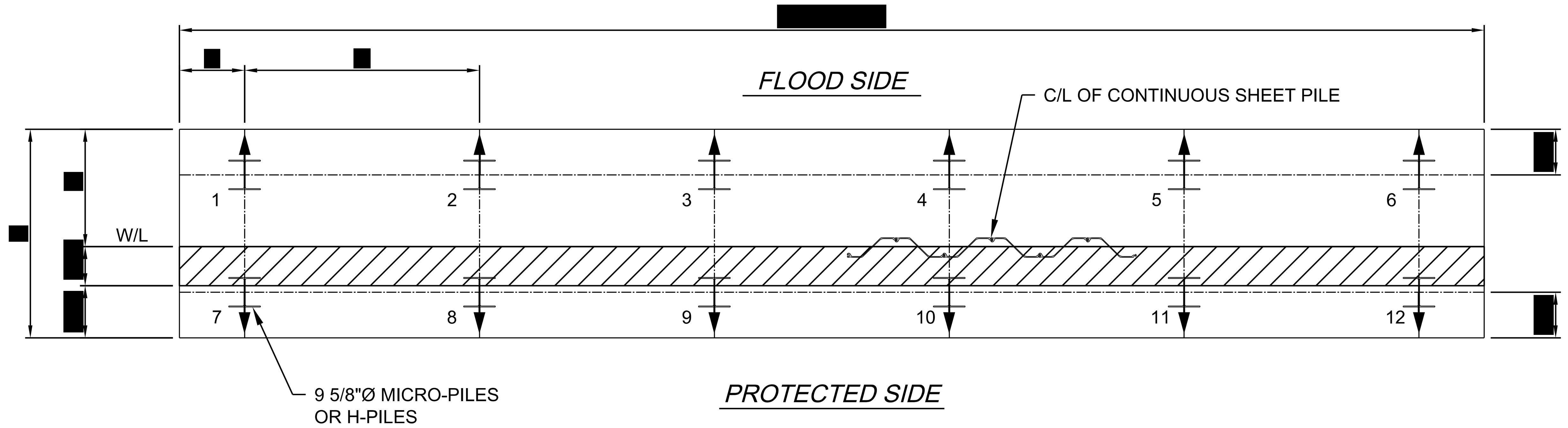
LOWER PASSAIC RIVER, NJ

TYPICAL PROPOSED WEST OF KEARNY T-WALL SECTIONS

SHEET REFERENCE NUMBER
C-501

SHEET 25 OF 36



TYPICAL T-WALL PLAN

SCALE: 1/4"=1'-0"

1/4"= 1'-0"

1/2"= 1'-0"

LEGEND:

- INDICATES PILE LOCATION
- INDICATES DIRECTION OF BATTER
- WALL STEM
- SHEET PILE

NOTE:

1. MICRO PILE TIP INCLUDES 10' SOCKET, ASSUMED BED ROCK @ EL. -50.0 SOCKET TIP @ EL. -60.0

EAST OF KEARNY TOW EL. 14.0

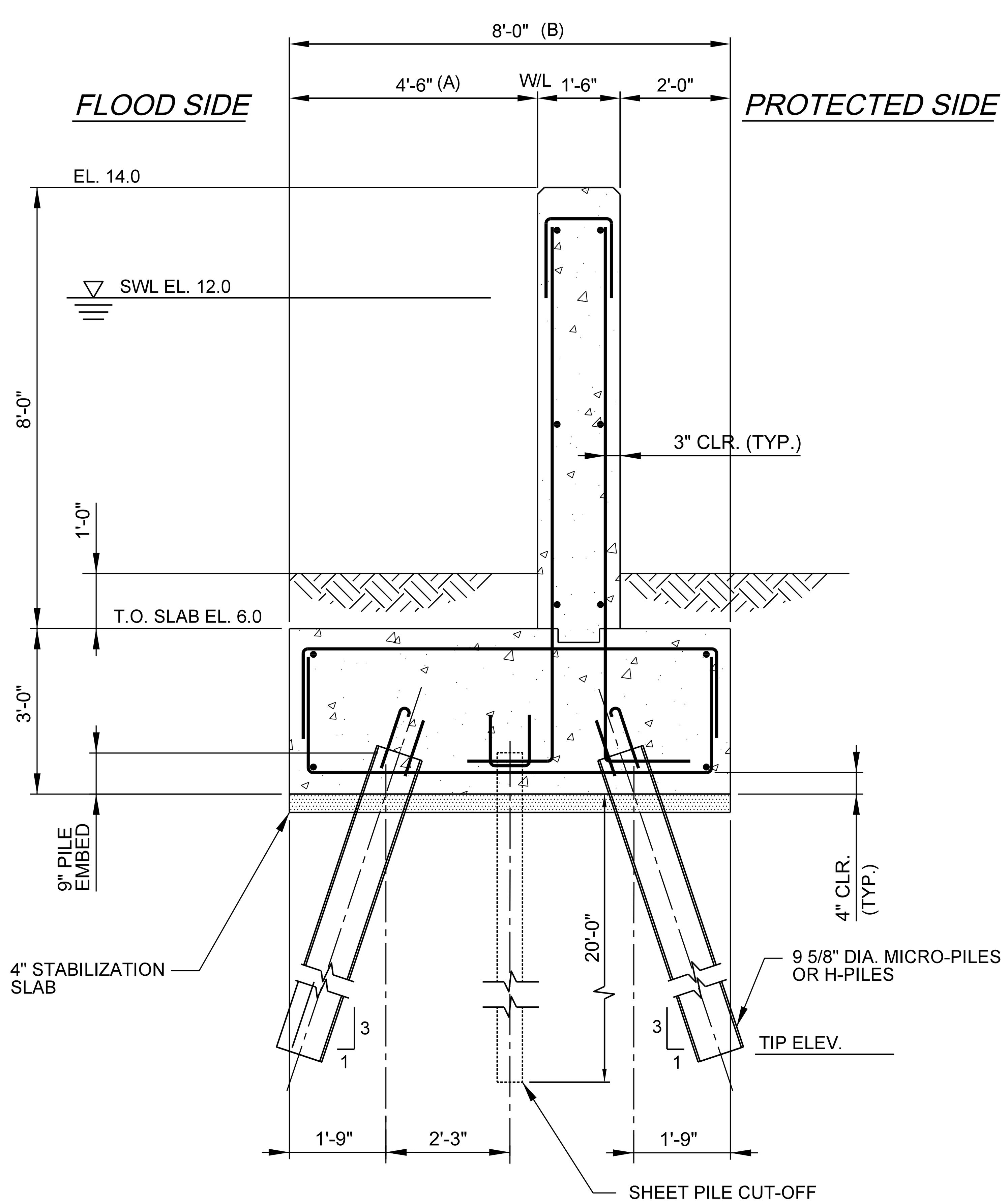
PILE TYPE	SOIL CAPACITY	TIP ELEV.	PILE LENGTH / # PILES	TOTAL PILE LENGTH	E	S
				LF	FT	FT
9"Ø MICRO	END BEARING	-60[1]	66/8	528	6'-0"	12'-8"
HP-14	FRICTION	-83	90/12	1080	5'-0"	8'-0"
HP-14	FRICTION	-108	117/8	936	6'-0"	12'-6"

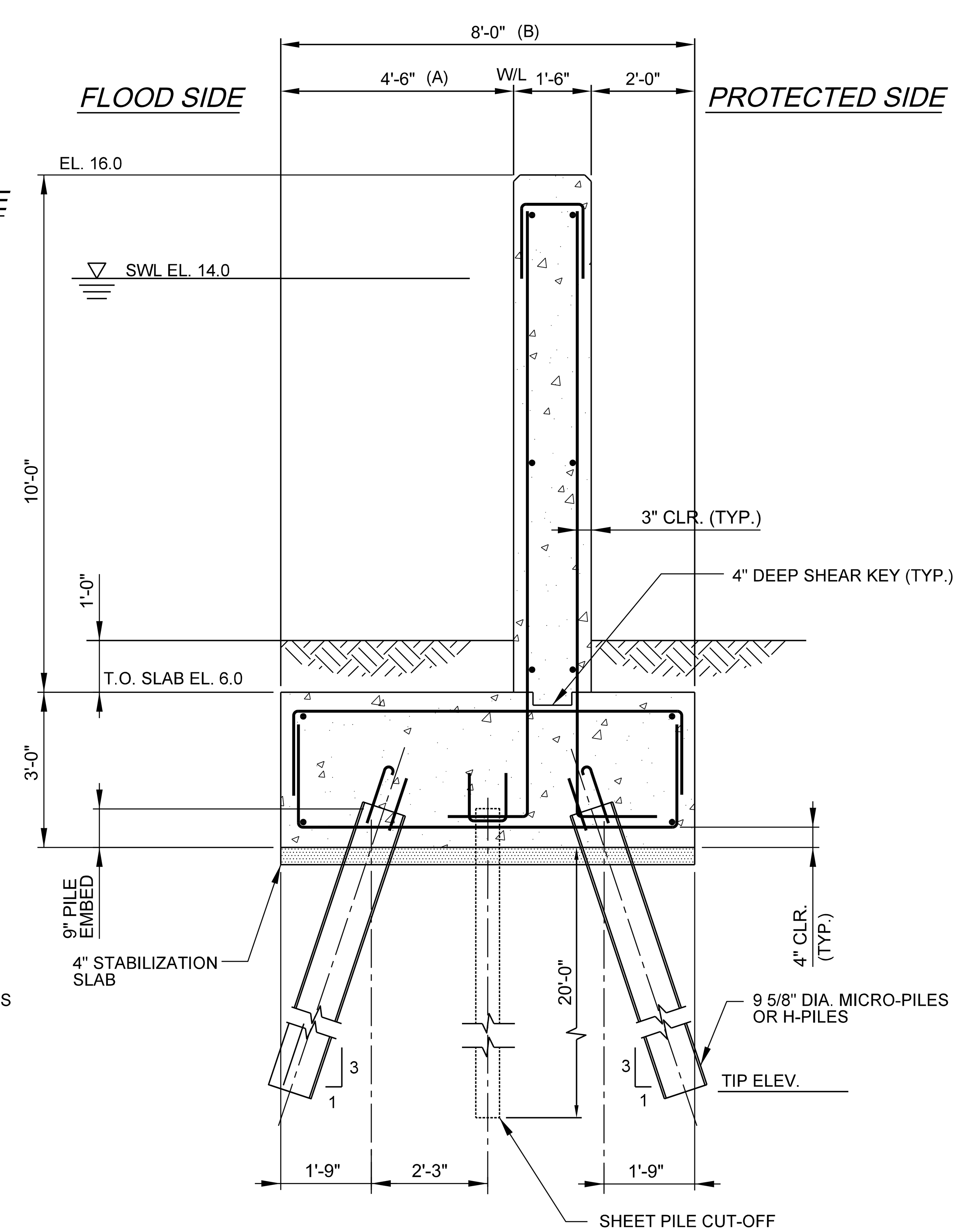
EAST OF KEARNY TOW EL. 16.0

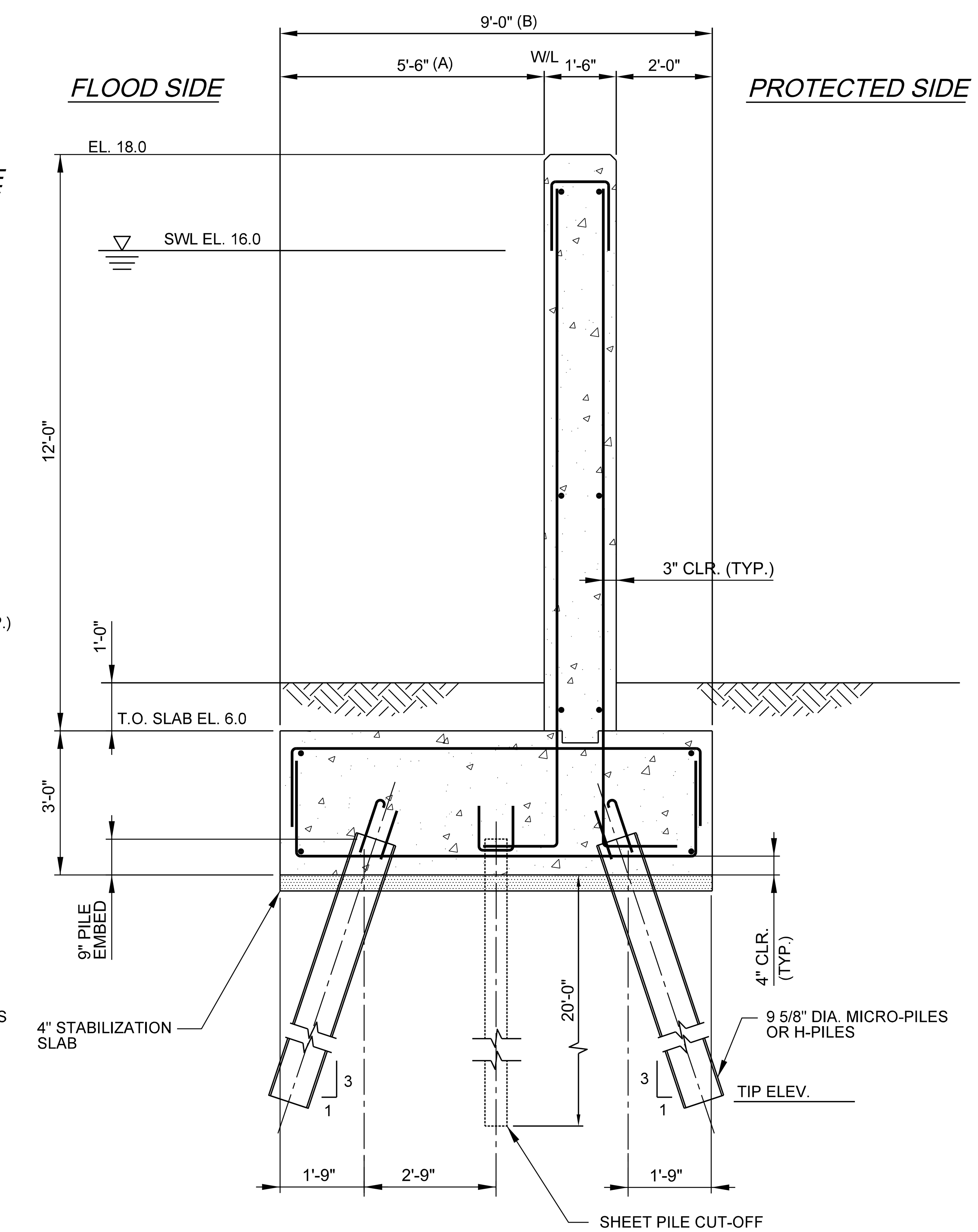
PILE TYPE	SOIL CAPACITY	TIP ELEV.	PILE LENGTH / # PILES	TOTAL PILE LENGTH	E	S
				LF	FT	FT
9"Ø MICRO	END BEARING	-60[1]	66/8	528	6'-0"	12'-8"
HP-14	FRICTION	-82	90/16	1440	4'-0"	6'-0"
HP-14	FRICTION	-135	145/8	1160	6'-0"	12'-8"

EAST OF KEARNY TOW EL. 18.0

PILE TYPE	SOIL CAPACITY	TIP ELEV.	PILE LENGTH / # PILES	TOTAL PILE LENGTH	E	S
				LF	FT	FT
9"Ø MICRO	END BEARING	-60[1]	66/82	528	6'-0"	12'-8"
HP-14	FRICTION	-99	107/16	1728	4'-0"	6'-0"
HP-14	FRICTION	-138	148/10	1480	5'-0"	10'-0"







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PASSAIC RIVER TIDAL GENERAL REEVALUATION REPORT LOWER PASSAIC RIVER, NJ

TYPICAL PROPOSED EAST OF KEARNY T-WALL SECTIONS

SHEET REFERENCE NUMBER C-502

SHEET 26 OF 36

MAY 2009 NYD BORDER

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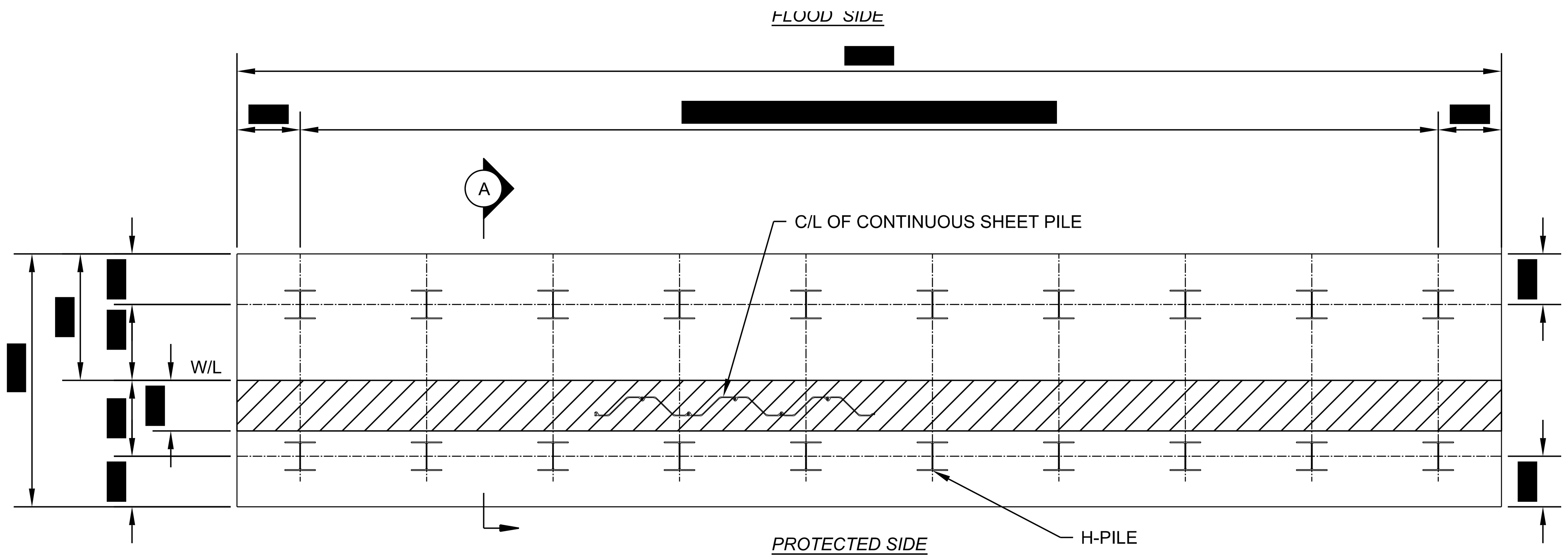
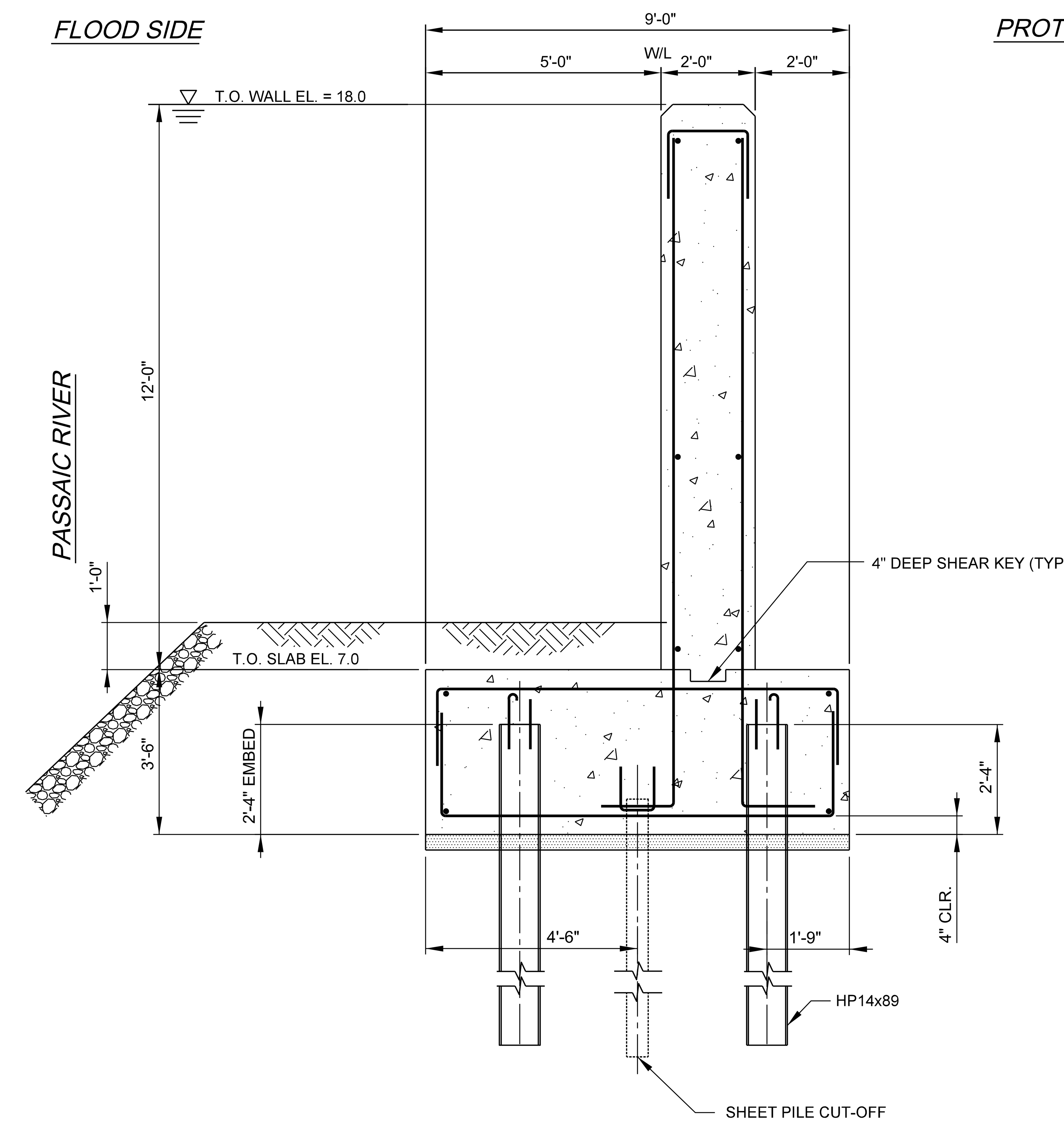


TYPICAL T-WALL PLAN @ WATER FRONT

SCALE: 1/4"=1'-0"



TYPICAL TYPE W1 SECTION

SCALE: 1/2"=1'-0"

LEGEND:

- INDICATES PILE LOCATION
- INDICATES DIRECTION OF BATTER
- WALL STEM
- SHEET PILE

4' 2' 0 4' 8'
1/4"= 1'-0"

2' 1' 0 2' 4'
1/2"= 1'-0"

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PASSAIC RIVER TIDAL
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LOWER PASSAIC RIVER, NJ

FLOODWALL AT WATER FRONT

SHEET REFERENCE NUMBER
C-503

SHEET 27 OF 36

MAY 2009 NYD BORDER

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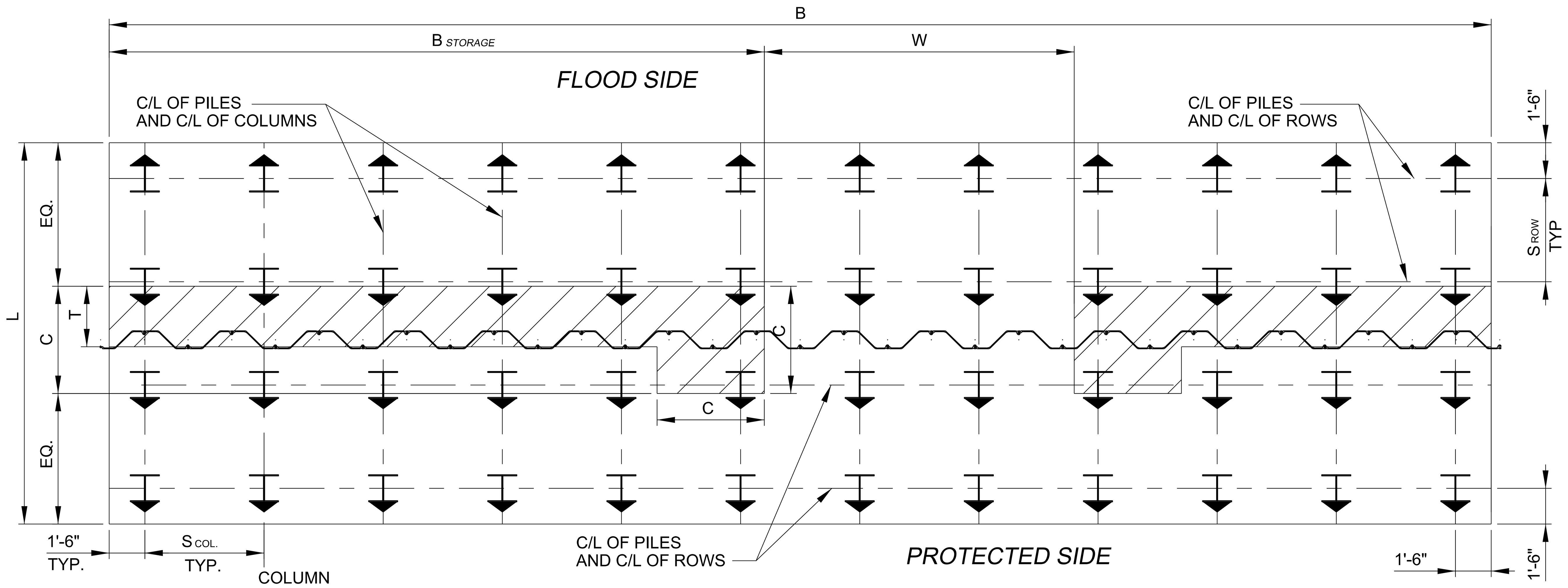
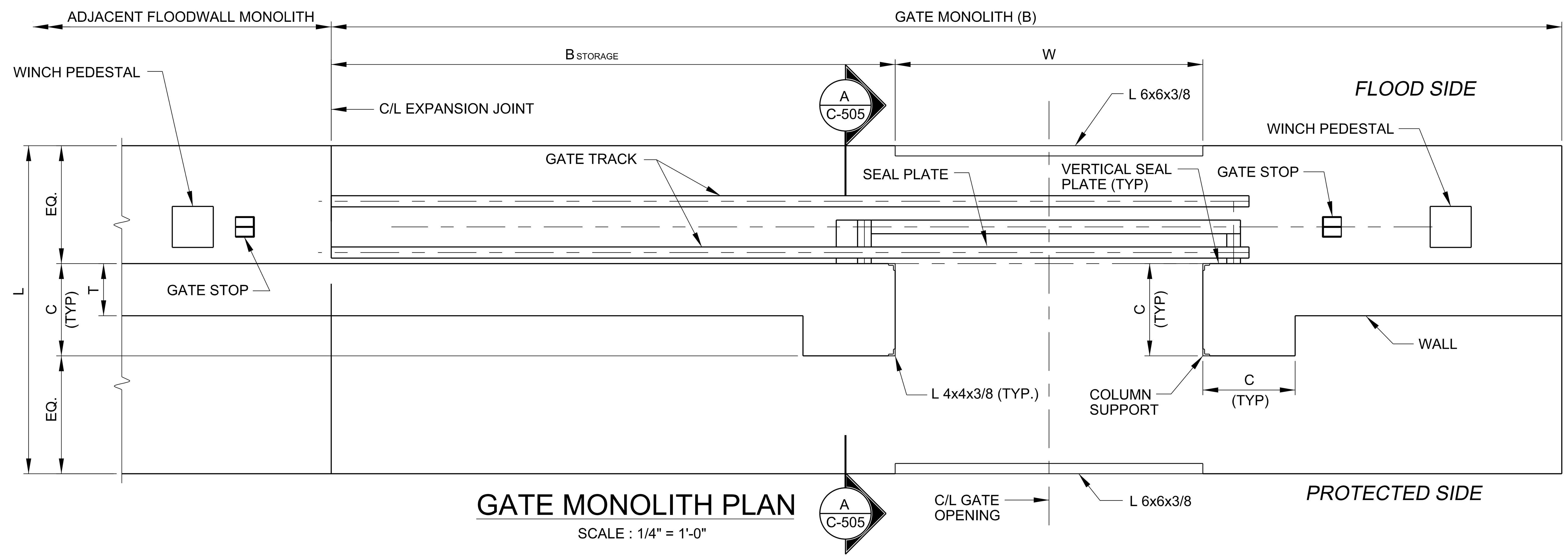


PILE AND FOUNDATION PLAN - GATE MONOLITH

SCALE: 1/4" = 1'-0"

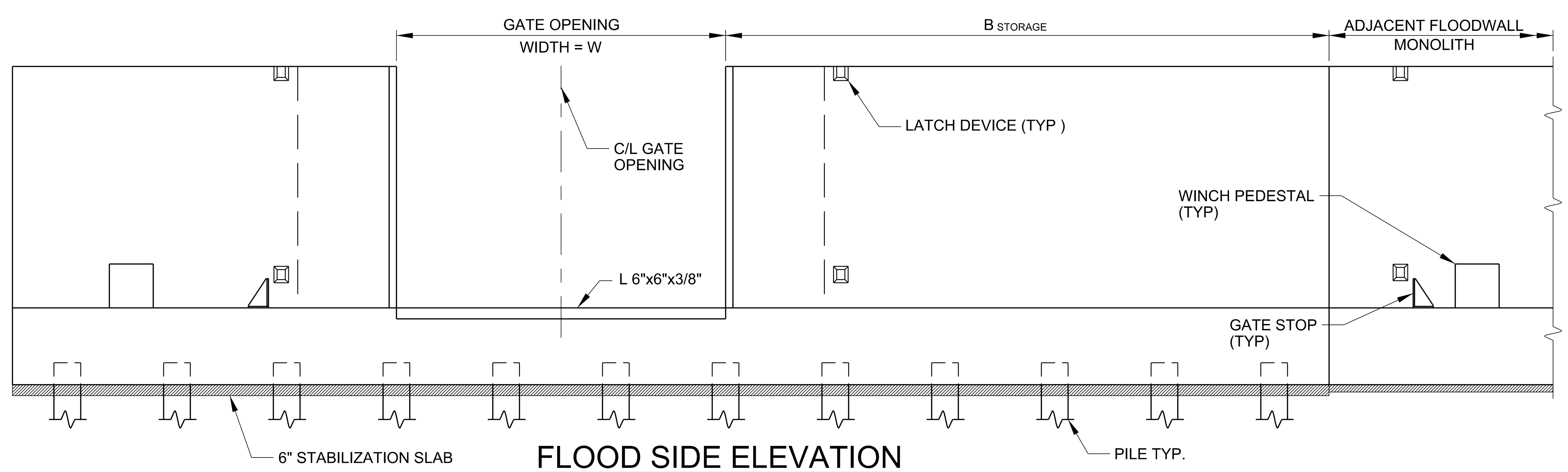
LEGEND

- BATTERED STEEL PILE (3V ON 1H)
- SHEET PILE



GATE MONOLITH PLAN

SCALE : 1/4" = 1'-0"



FLOOD SIDE ELEVATION

SCALE : 1/4" = 1'-0"

1) WEST KEARNY AREA (H-PILE)

ROLLER GATE STEEL MEMBER SIZES

GATE DESIGNATIONS	GATE HEIGHTS "H" (ft)			
	10	12	14	16
Top Girder	W24x62	W30x90	W33x118	W33x118
Bottom Girder	W24x146	W30x148	W33x201	W33x241
Intercostal	WT7x11	WT7x11	WT7x11	WT7x11
X-Bracing	C10x20	C10x20	C10x20	C10x20
Skin Plate	3/8	3/8	3/8	3/8
Horiz. Brace	L4x4x0.25	L4x4x0.5	L4x4x0.5	L4x4x0.5
GATE OPENING WIDTH "W"=	**50 ft**			

CONCRETE MONOLITH DIMENSION

DIMENSION DESIGNATIONS (ft)	GATE HEIGHTS "H" (ft)			
	10	12	14	16
L	15	15	15	17
B	120	120	120	120
$B_{storage.}$	60	60	60	60
A	4	4	4	4
C	3.5	3.5	4.5	4.5
T	2	2	2.5	2.5
GATE OPENING WIDTH "W"=	**50 ft**			

PILE DIMENSIONS AND INFORMATION

PILE TYPE 14 H-PILE	GATE HEIGHTS "H" (ft)			
	10	12	14	16
# Piles	96	96	96	120
Tip Elevation (ft)	-50	-55	-60	-60
Pile Length(ft)	53	58	64	64
# Rows	4	4	4	5
# Columns	24	24	24	24
$S_{ROW.}$ (ft)	4	4	4	3.5
$S_{COL.}$ (ft)	5'-1"	5'-1"	5'-1"	5'-1"
GATE OPENING WIDTH "W"=	**50 ft**			

US Army Corps of Engineers
New York District

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CKD BY: JDR
SUBMITTED BY:
DATE: MAY, 2016
SOLICITATION NO.:
CONTRACT NO.:
FILE NAME: 028-PR_C-504GATE.DGN
SIZE: ANSI D
PLOTTED BY: onsy_moawad
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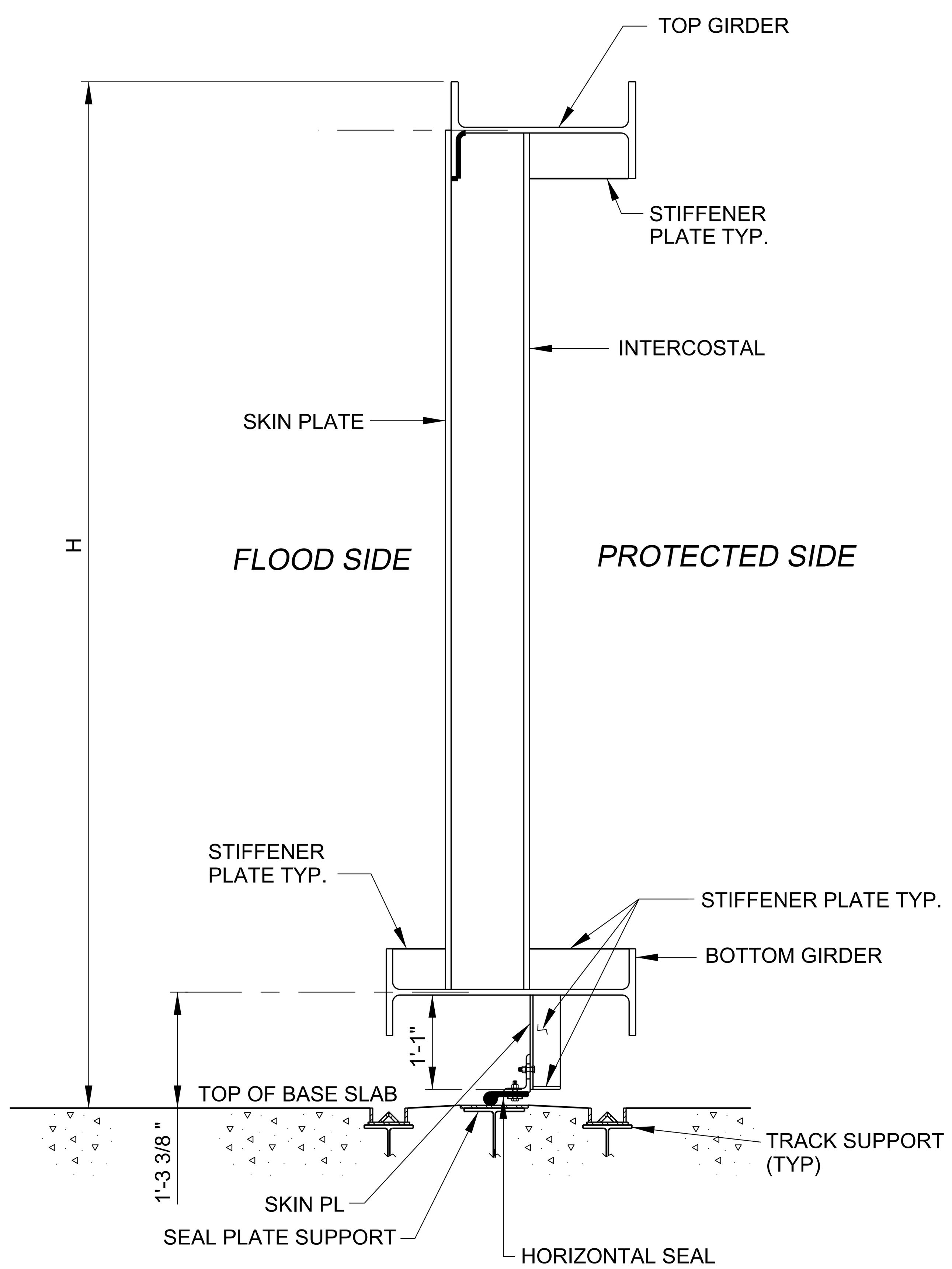
PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ

ROLLER GATES
MONOLITH PLAN AND ELEVATIONS

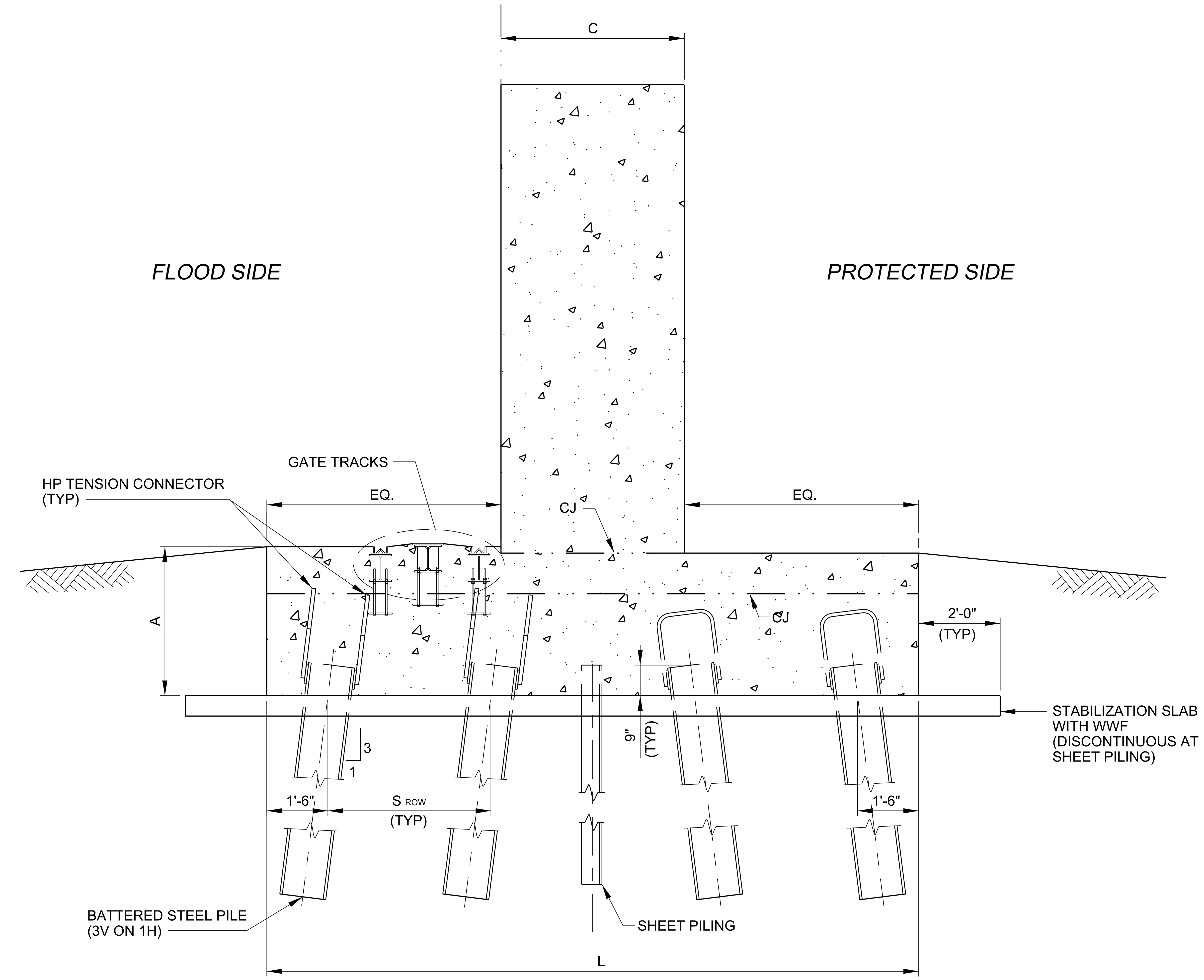
SHEET REFERENCE NUMBER
C-504

SHEET 28 OF 36



ROLLER GATE SECTION (B / C-506)

SCALE: 3/4" = 1'-0"



MONOLITH SECTION (A / C-504)

SCALE: 1/2" = 1'-0"

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PASSAIC RIVER TIDAL
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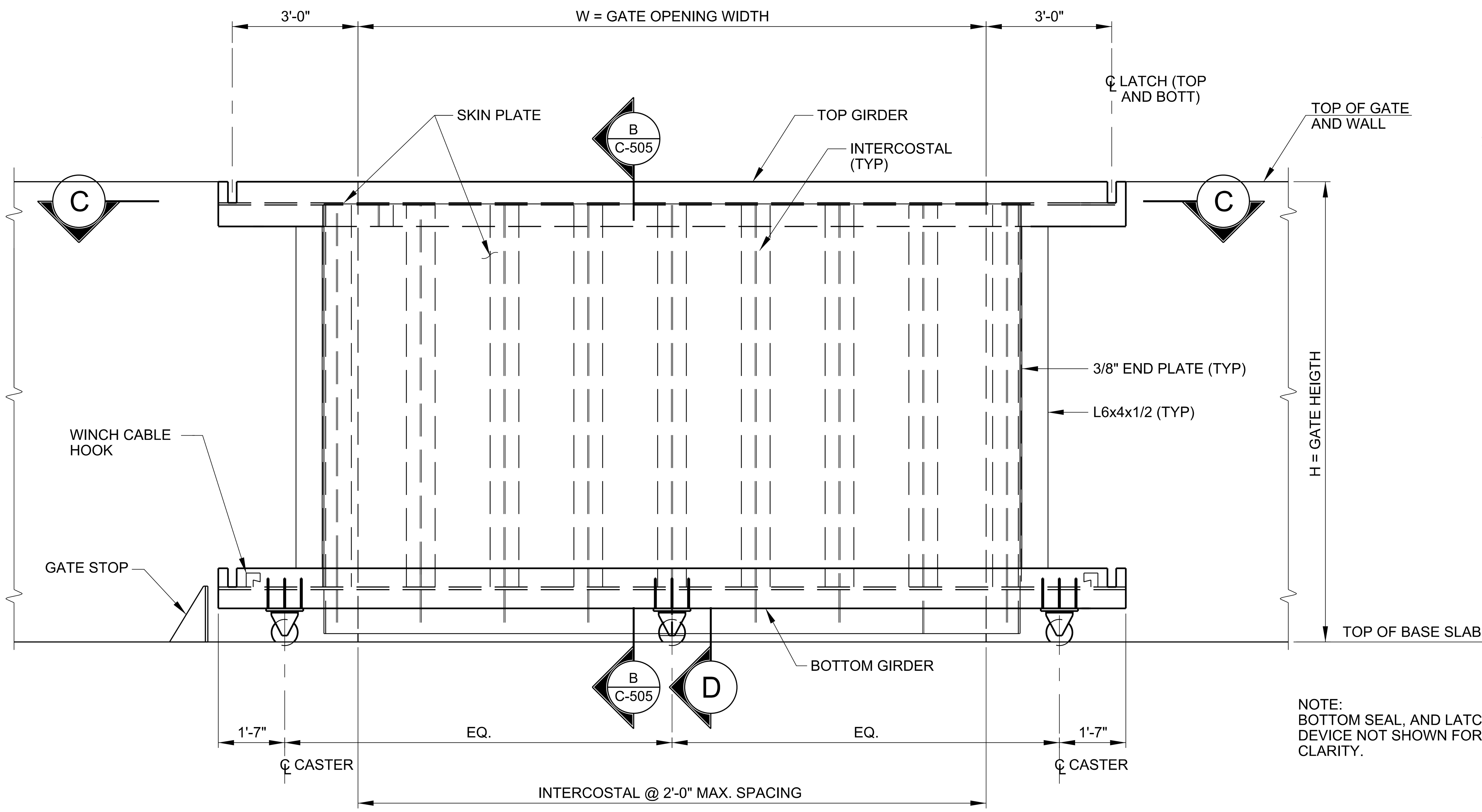
LOWER PASSAIC RIVER, NJ

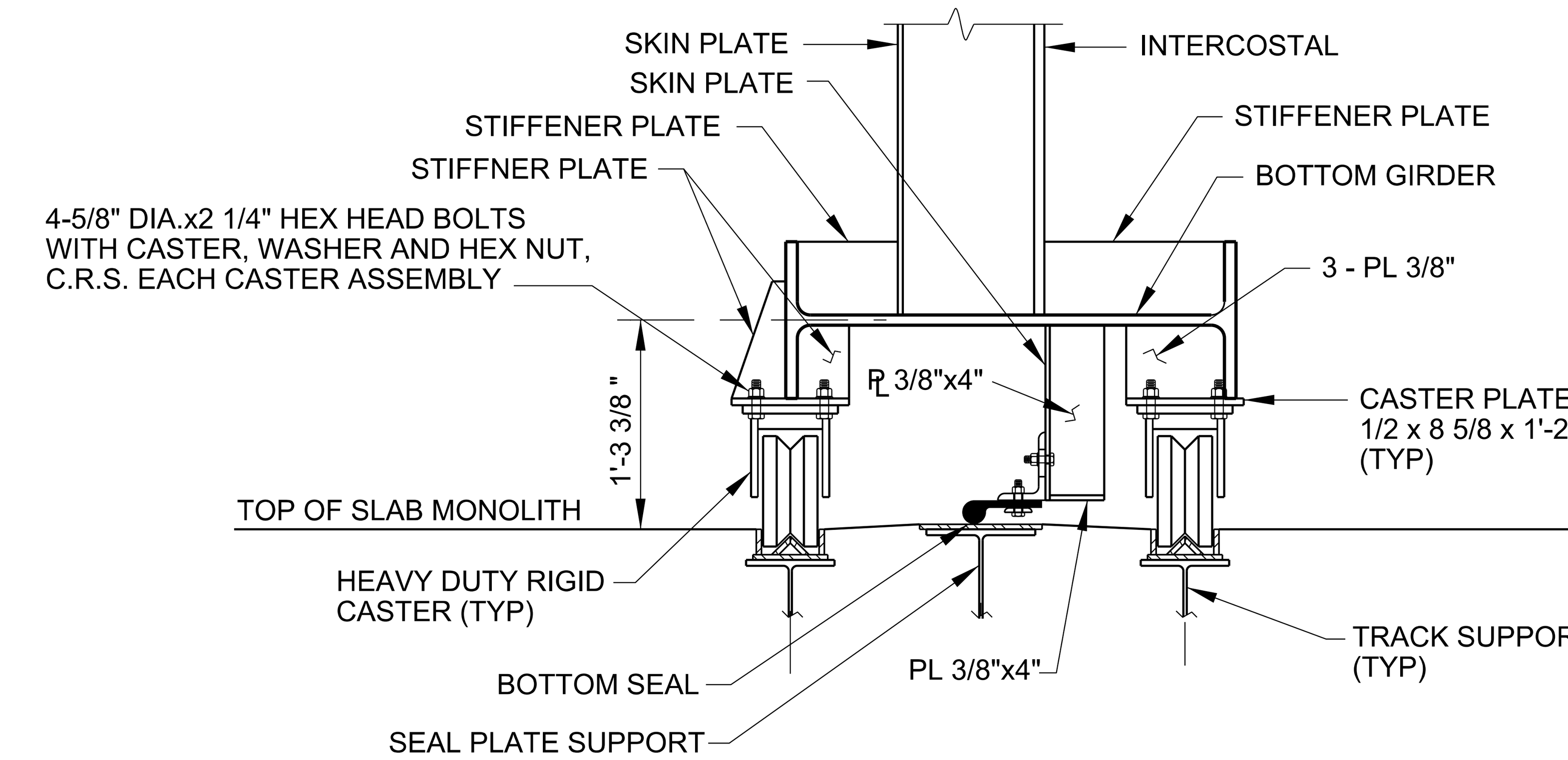
MONOLITH AND ROLLER GATE
TYPICAL SECTIONS

SHEET REFERENCE NUMBER
C-505
SHEET 29 OF 36



ROLLER GATE FLOOD SIDE ELEVATION

CLOSED POSITION

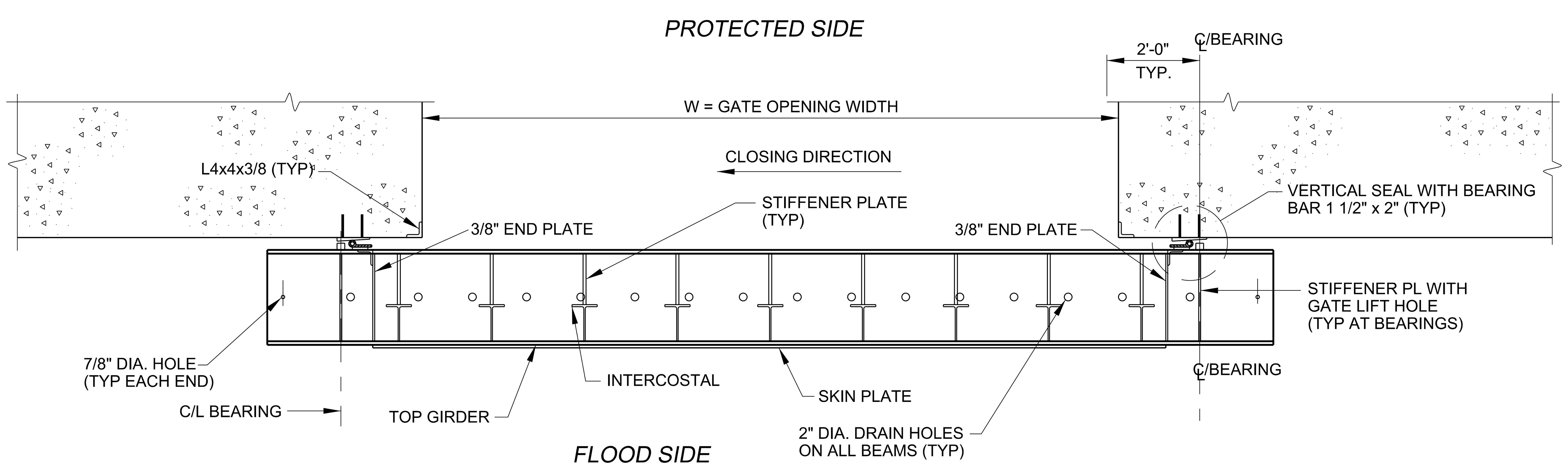


GATE DETAIL

VIEW D

SCALE: 1" = 1'-0"

NOTE:
BOTTOM SEAL, AND LATCHING DEVICE NOT SHOWN FOR CLARITY.



NOTE: LATCHING DEVICES NOT SHOWN FOR CLARITY.

SECTION C

SCALE: 1/2" = 1'-0"

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PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ

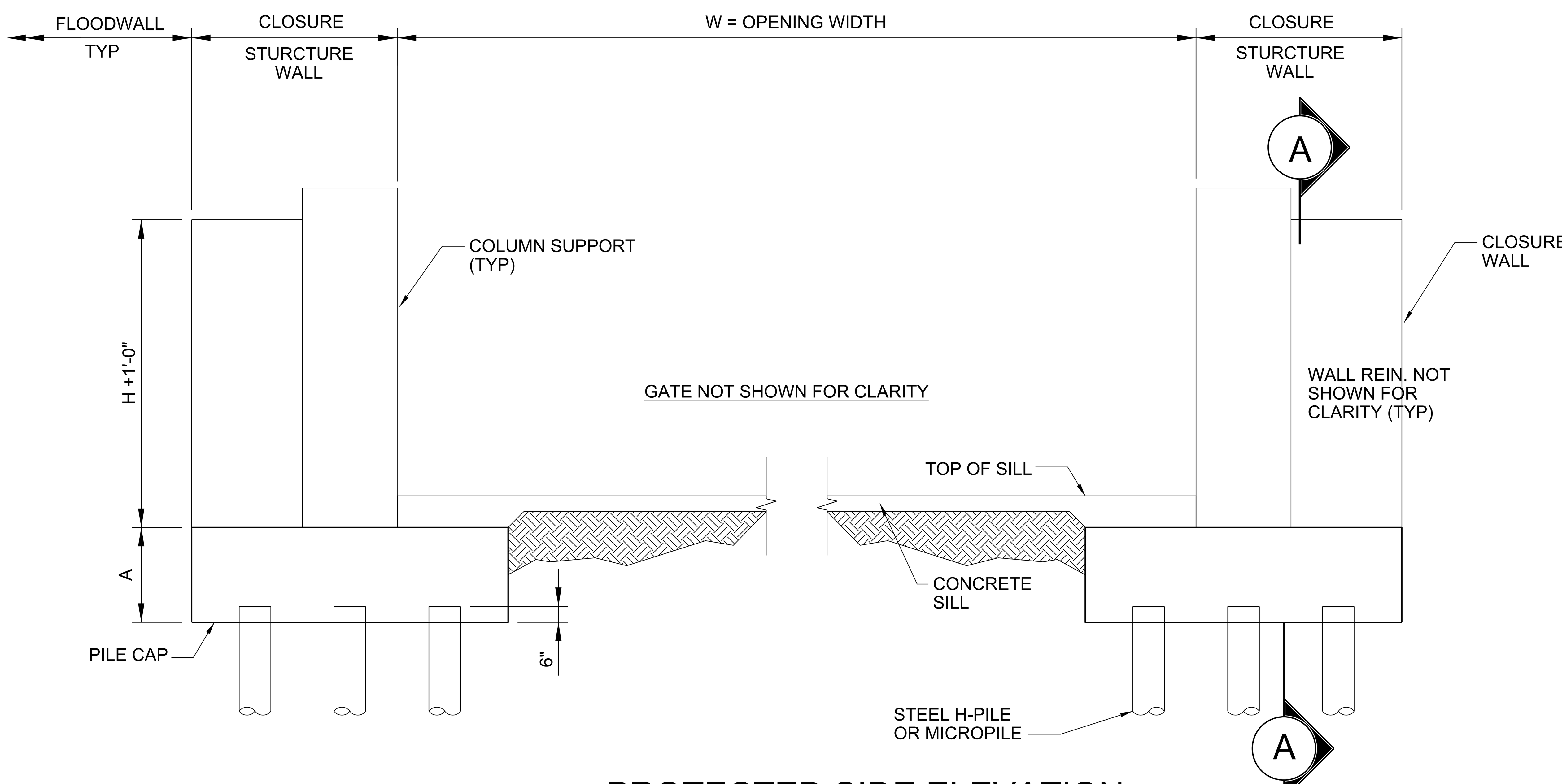
ROLLER GATE
TYPICAL SECTIONS AND ELEVATIONS

SHEET REFERENCE NUMBER
C-506
SHEET 30 OF 36

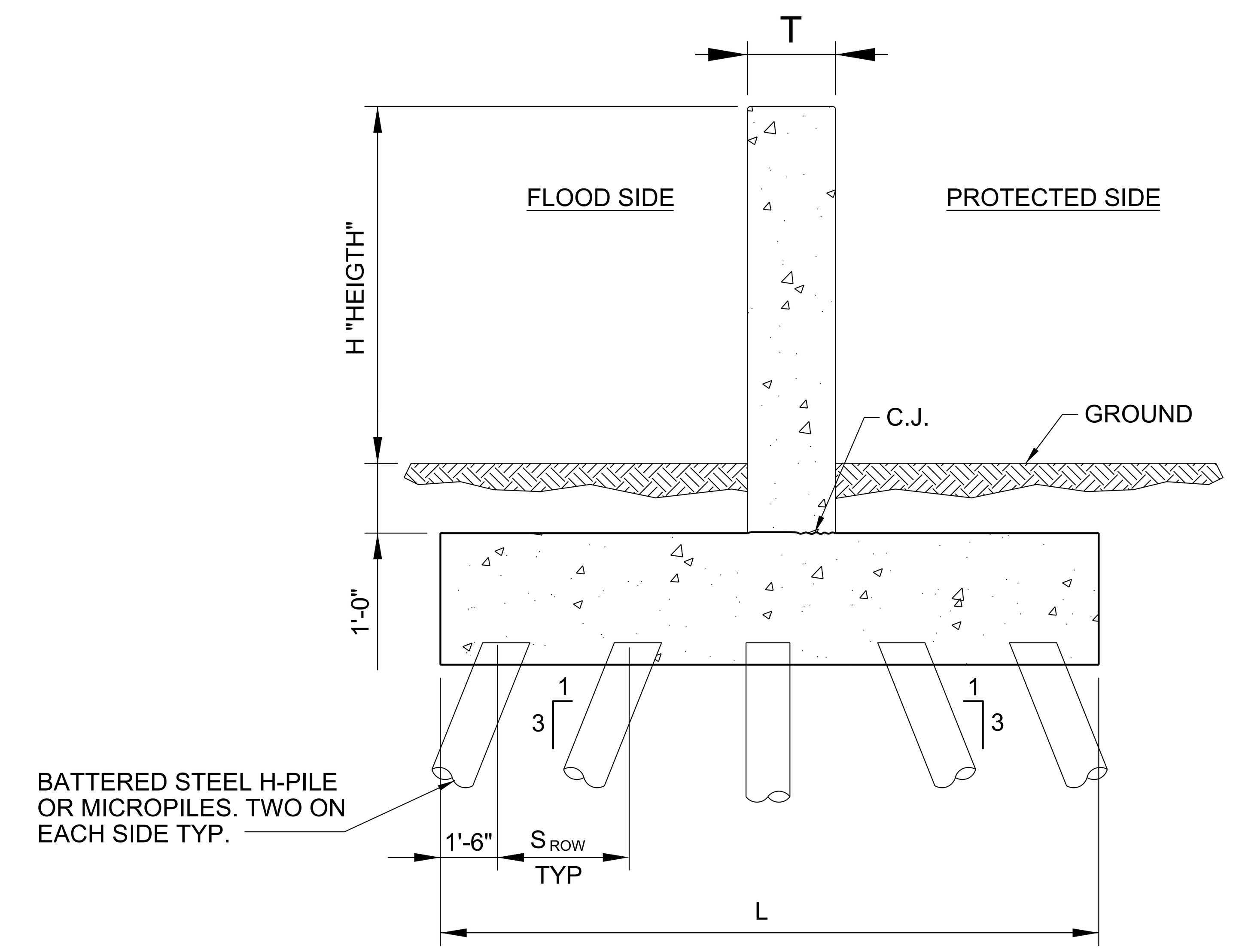
MAY 2009 NYD BORDER

Submitted by: onsy_moawad   Plot Date: 5/20/2016 8:24:08 AM
FILE NAME : K:\CADD\60442748-PR\PLANS\030-PR_C-506GATE.DGN

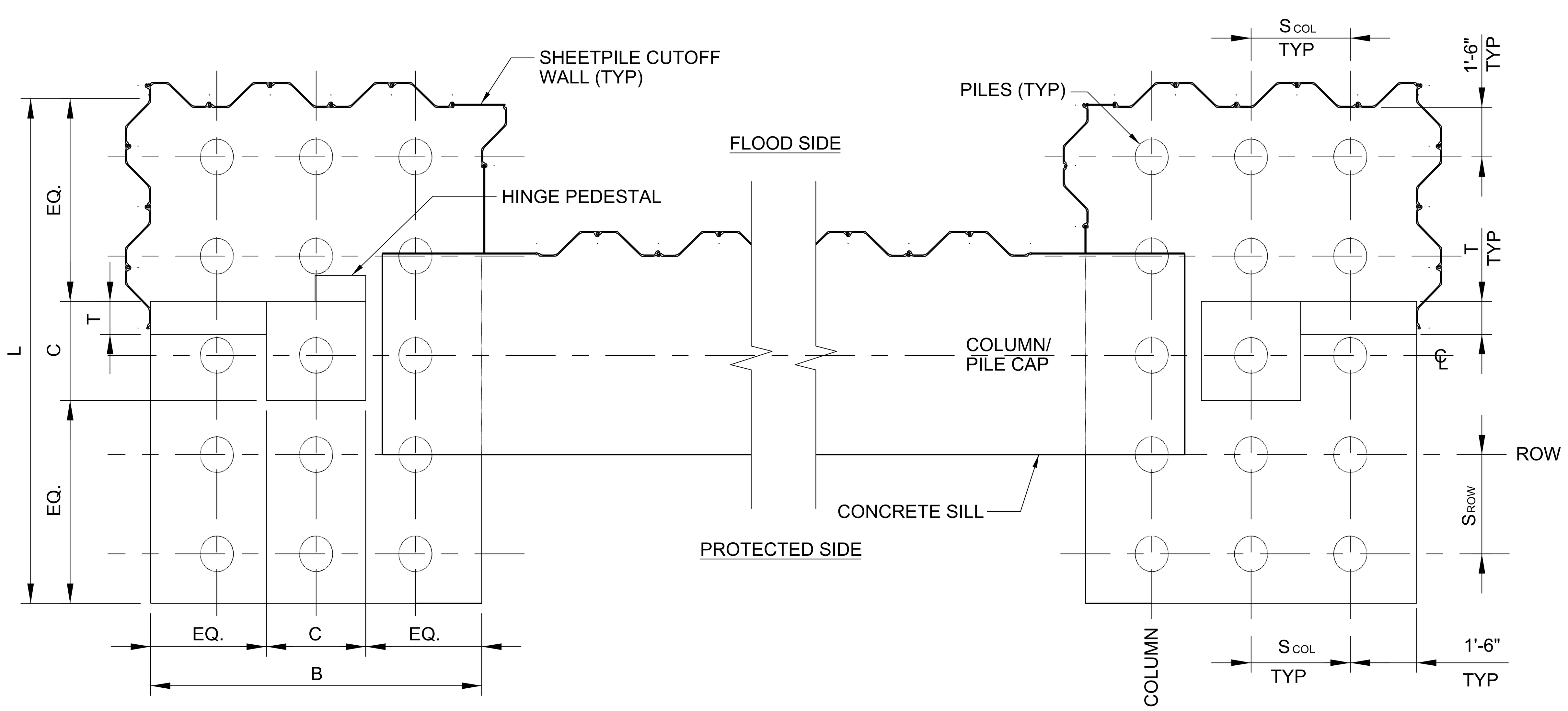
MAY 2009 NYD BORDER



PROTECTED SIDE ELEVATION



SECTION A-A



GATE MONOLITH AND PILE PLAN

SCALE: 3/4" = 1'-0"

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PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ

SWING GATE
TYPICAL PROPOSED MONOLITH
SUPPORT STRUCTURE

SHEET
REFERENCE
NUMBER
C-507

SHEET 31 OF 36

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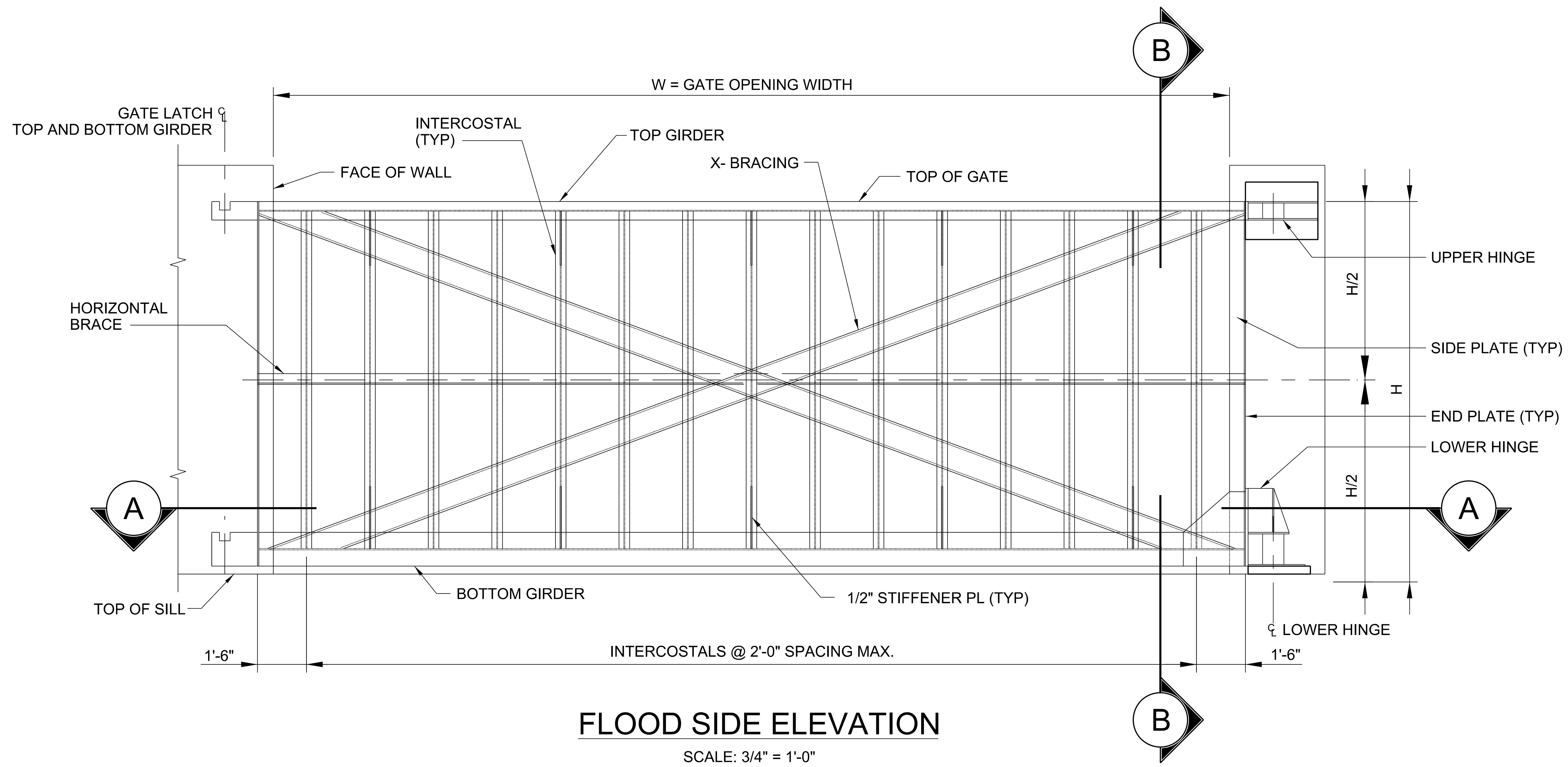
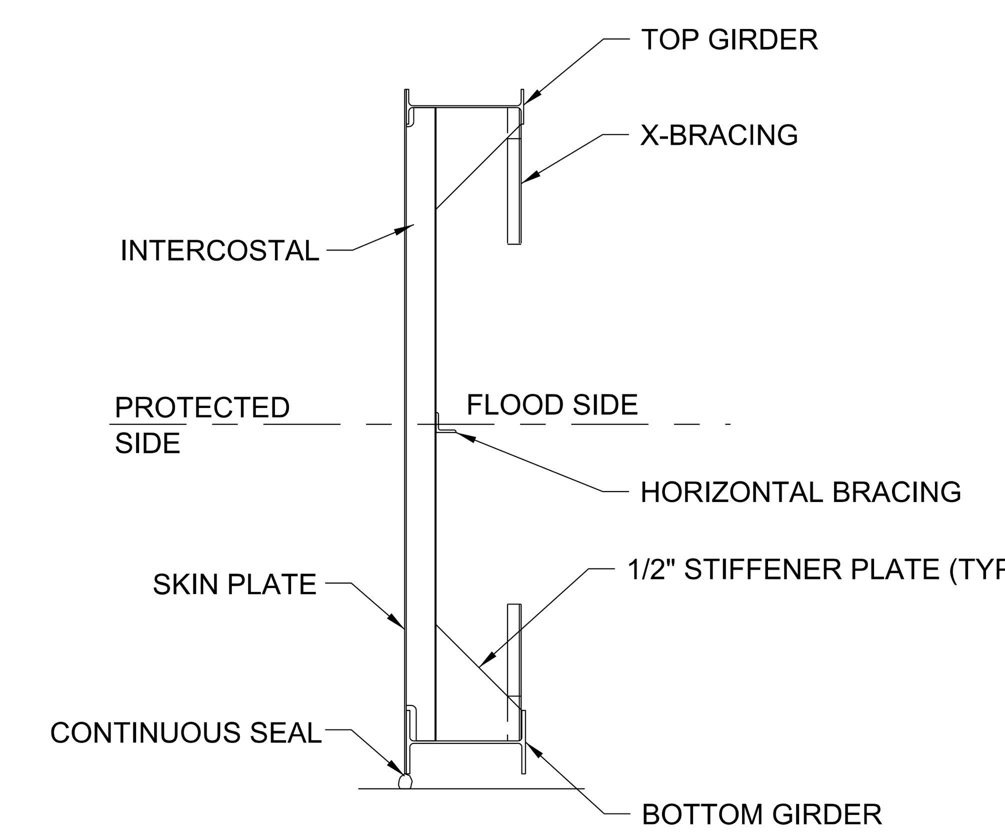


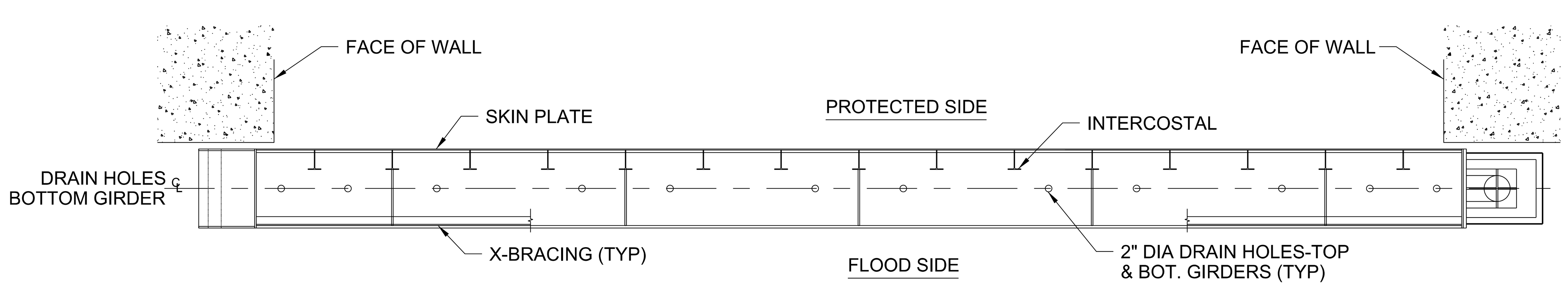
FLOOD SIDE ELEVATION

SCALE: 3/4" = 1'-0"



SECTION B-B

SCALE: 1/4" = 1'-0"



SECTION A-A

SCALE: 3/4" = 1'-0"

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PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ

SWING GATE
TYPICAL PROPOSED GATE
PLAN AND ELEVATION

SHEET
REFERENCE
NUMBER
C-508

SHEET 32 OF 36

EAST/WEST OF KEARNY, NEWARK AND HARRISON AREA (H-PILE)

1)

SWING GATE STEEL MEMBER SIZES

GATE DESIGNATIONS	GATE HEIGHTS "H" (ft) 6	8	10	12	14	16
Top Girder	Wx8x13	W8x13	W10x12	W12x16	W14x22	W14x22
Bottom Girder	W8x18	W8x18	W10x22	W12x26	W14x30	W14x34
Intercostal	WT3x6	WT3x6	WT4x6.5	WT5x7.5	WT6x8	WT7x11
X-Bracing	C10x20	C10x20	C10x20	C10x20	C10x20	C10x20
Skin Plate	5/16	5/16	5/16	5/16	6/16	6/16
Horiz. Brace	L4x4x0.25	L4x4x0.5	L4x4x0.5	L4x4x0.5	L4x4x0.5	L4x4x0.5

GATE OPENING WIDTH "W"= 10 ft

CONCRETE MONOLITH DIMENSION

DIMENSION DESIGNATIONS	GATE HEIGHTS "H" (ft) 6	8	10	12	14	16
L	7	9	9	12	12	15
B	6	6	6	9	9	10
A	2.5	2.5	2.5	3	3	4
C	2	2	2.5	3	3	3.5
T	1	1	1	1.5	1.5	1.75

GATE OPENING WIDTH "W"= 10 ft

PILE DIMENSIONS AND INFORMATION

PILE TYPE 14 H-PILE	GATE HEIGHTS "H" (ft) 6	8	10	12	14	16
# Piles	4	6	6	9	9	15
Tip Elevation (ft)	-35	-40	-45	-50	-55	-55
Pile Length(ft)	37	43	48	53	58	58
# Rows	2	3	3	3	3	5
# Columns	2	2	2	3	3	3
$S_{ROW.}$ (ft)	4	3	3	4.5	4.5	3
$S_{COL.}$ (ft)	3	3	3	3	3	3.5

GATE OPENING WIDTH "W"= 10 ft

2)

CONCRETE MONOLITH DIMENSION

DIMENSION DESIGNATIONS (ft)	GATE HEIGHTS "H" (ft) 5	7	9	11	13
L	7	9	9	9	10
B	6	6	6	6	9
A	2.5	2.5	2.5	2.5	3
C	2	2	2	2.5	2.5
T	1	1	1	1.5	1.5

GATE OPENING WIDTH "W"= 20 ft

PILE DIMENSIONS AND INFORMATION

PILE TYPE 14 H-PILE	GATE HEIGHTS "H" (ft) 5	7	9	11	13
# Piles	4	6	6	6	9
Tip Elevation (ft)	-35	-40	-50	-55	-55
Pile Length(ft)	37	43	53	58	58
# Rows	2	3	3	3	3
# Columns	2	2	2	2	3
$S_{ROW.}$ (ft)	4	3	3	3	3.5
$S_{COL.}$ (ft)	3	3	3	3	3

GATE OPENING WIDTH "W"= 20 ft

3)

SWING GATE STEEL MEMBER SIZES

GATE DESIGNATIONS	GATE HEIGHTS "H" (ft) 2*	4	6	8	10	12	13	14	16	18
Top Girder	W12x16	W12x16	W12x22	W16x26	W18x35	W24x55	W24x55	W24x55	W24x62	W24x68
Bottom Girder	W12x26	W12x26	W12x35	W16x50	W18x65	W24x84	W24x84	W24x94	W24x117	W24x146
Intercostal	WT3x6	WT3x6	WT3x6	WT3x6	WT4x6.5	WT5x7.5	WT5x7.5	WT6x8	WT7x11	WT7x11
X-Bracing	C10x20	C10x20	C10x20	C10x20	C10x20	C10x20	C10x20	C10x20	C10x20	C10x20
Skin Plate	5/16	5/16	5/16	5/16	5/16	5/16	5/16	3/8	3/8	3/8
Horiz. Brace	L4x4x0.25	L4x4x0.25	L4x4x0.25	L4x4x0.5	L4x4x0.5	L4x4x0.5	L4x4x0.5	L4x4x0.5	L4x4x0.5	L4x4x0.5

GATE OPENING WIDTH "W"= 30 ft
*** Gate Height was rounded up to 2ft**

CONCRETE MONOLITH DIMENSION

DIMENSION DESIGNATIONS (ft)	GATE HEIGHTS "H" (ft) 2*	4	6	8	10	12	13	14	16	18
L	6	6	9	9	10	12	12	12	15	17
B	6	6	6	6	9	9	9	9	10	10
A	2.5	2.5	2.5	2.5	3	3	3	3	4	4
C	1.5	1.5	2	2	2.5	3	3	3	3.5	4
T	1	1	1	1	1	1.5	1.5	1.5	1.75	2

GATE OPENING WIDTH "W"= 30 ft
*** Gate Height was rounded up to 2ft**

PILE DIMENSIONS AND INFORMATION

PILE TYPE 14 H-PILE	GATE HEIGHTS "H" (ft) 2*	4	6	8	10	12	13	14	16	18
# Piles	4	4	6	6	9	9	9	9	15	15
Tip Elevation (ft)	-40	-40	-40	-50	-50	-55	-60	-60	-60	-60
Pile Length(ft)	43	43	43	53	53	58	64	64	64	64
# Rows	2	2	3	3	3	3	3	3	5	5
# Columns	2	2	2	2	3	3	3	3	3	3
$S_{ROW.}$ (ft)	3	3	3	3	3.5	4.5	4.5	4.5	3	3.5
$S_{COL.}$ (ft)	3	3	3	3	3	3	3	3	3.5	3.5

GATE OPENING WIDTH "W"= 30 ft
*** Gate Height was rounded up to 2ft**

4)

SWING GATE STEEL MEMBER SIZES

GATE DESIGNATIONS	GATE HEIGHTS "H" (ft) 9	11	13	15	17
Top Girder	W18x35	W24x55	W24x55	W24x68	W27x84
Bottom Girder	W18x65	W24x76	W24x103	W24x131	W27x146
Intercostal	WT4x6.5	WT5x7.5	WT6x8.0	WT7x11	WT7x17
X-Bracing	C10x20	C10x20	C10x20	C10x20	C10x20
Skin Plate	5/16	5/16	5/16	3/8	3/8
Horiz. Brace	L4x4x0.25	L4x4x0.5	L4x4x0.5	L4x4x0.5	L4x4x0.5

GATE OPENING WIDTH "W"= 35 ft

CONCRETE MONOLITH DIMENSION

DIMENSION DESIGNATIONS (ft)	GATE HEIGHTS "H" (ft) 9	11	13	15	17
L	10	12	12	15	17
B	9	9	9	10	10
A	3	3	3	4	4
C	2.5	3	3	3.5	4
T	1	1.5	1.5	1.75	2

GATE OPENING WIDTH "W"= 35 ft

PILE DIMENSIONS AND INFORMATION

PILE TYPE 14 H-PILE	GATE HEIGHTS "H" (ft) 9	11	13	15	17
# Piles	9	9	9	15	15
Tip Elevation (ft)	-50	-55	-60	-60	-60
Pile Length(ft)	53	58	64	64	64
# Rows	3	3	3	5	5
# Columns	3	3	3	3	3
$S_{ROW.}$ (ft)	3.5	4.5	4.5	3	3.5
$S_{COL.}$ (ft)	3	3	3	3.5	3.5

GATE OPENING WIDTH "W"= 35 ft

5)

SWING GATE STEEL MEMBER SIZES

GATE DESIGNATIONS	GATE HEIGHTS "H" (ft) 10	12	14
Top Girder	W24x55	W24x62	W24x76
Bottom Girder	W24x84	W24x117	W24x162
Intercostal	WT5x7.5	WT6x8.0	WT7x11
X-Bracing	C10x20	C10x20	C10x20
Skin Plate	5/16	5/16	3/8
Horiz. Brace	L4x4x0.25	L4x4x0.5	L4x4x0.5

GATE OPENING WIDTH "W"= 40 ft

CONCRETE MONOLITH DIMENSION

DIMENSION DESIGNATIONS (ft)	GATE HEIGHTS "H" (ft) 10	12	14
L	12	12	15
B	9	9	10
A	3	3	4
C	3	3	3.5
T	1.5	1.5	1.75

GATE OPENING WIDTH "W"= 40 ft

PILE DIMENSIONS AND INFORMATION

PILE TYPE 14 H-PILE	GATE HEIGHTS "H" (ft) 10	12	14
# Piles	9	12	15
Tip Elevation (ft)	-55	-60	-60
Pile Length(ft)	58	64	64
# Rows	3	4	5
# Columns	3	3	3
$S_{ROW.}$ (ft)	4.5	3	3
$S_{COL.}$ (ft)	3	3	3.5

GATE OPENING WIDTH "W"= 40 ft

6)

SWING GATE STEEL MEMBER SIZES

GATE DESIGNATIONS	GATE HEIGHTS "H" (ft) 5	7	9
Top Girder	W16x26	W21x44	W21x48
Bottom Girder	W16x45	W21x62	W21x93
Intercostal	WT3x6	WT3x6	WT3x6
X-Bracing	C10x20	C10x20	C10x20
Skin Plate	5/16	5/16	5/16
Horiz. Brace	L4x4x0.25	L4x4x0.5	L4x4x0.5

GATE OPENING WIDTH "W"= 45 ft

CONCRETE MONOLITH DIMENSION

DIMENSION DESIGNATIONS (ft)	GATE HEIGHTS "H" (ft) 5	7	9
L	9	10	12
B	6	9	9
A	3	3	3
C	2.5	3	3
T	1.5	1.5	1.5

GATE OPENING WIDTH "W"= 45 ft

PILE DIMENSIONS AND INFORMATION

PILE TYPE 14 H-PILE	GATE HEIGHTS "H" (ft) 5	7	9
# Piles	6	9	9
Tip Elevation (ft)	-45	-45	-50
Pile Length(ft)	48	48	53
# Rows	3	3	3
# Columns	2	3	3
$S_{ROW.}$ (ft)	3	3.5	4.5
$S_{COL.}$ (ft)	3	3	3

GATE OPENING WIDTH "W"= 45 ft

7)

SWING GATE STEEL MEMBER SIZES

GATE DESIGNATIONS	GATE HEIGHTS "H" (ft) 6	8	10
Top Girder	W18x40	W24x55	W24x62
Bottom Girder	W18x65	W24x84	W24x131
Intercostal	WT3x6	WT3x6	WT3x6
X-Bracing	C10x20	C10x20	C10x20
Skin Plate	5/16	5/16	5/16
Horiz. Brace	L4x4x0.25	L4x4x0.5	L4x4x0.5

GATE OPENING WIDTH "W"= 50 ft

CONCRETE MONOLITH DIMENSION

DIMENSION DESIGNATIONS (ft)	GATE HEIGHTS "H" (ft) 6	8	10
L	9	10	12
B	6	9	9
A	3	3	3
C	2.5	3	3
T	1.5	1.5	1.5

GATE OPENING WIDTH "W"= 50 ft

PILE DIMENSIONS AND INFORMATION

PILE TYPE 14 H-PILE	GATE HEIGHTS "H" (ft) 6	8	10
# Piles	6	9	12
Tip Elevation (ft)	-50	-50	-55
Pile Length(ft)	53	53	58
# Rows	3	3	4
# Columns	2	3	3
$S_{ROW.}$ (ft)	3	3.5	3
$S_{COL.}$ (ft)	3	3	3

GATE OPENING WIDTH "W"= 50 ft

HARRISON AREA (MICROPILES)

1)

SWING GATE STEEL MEMBER SIZES

GATE DESIGNATIONS	GATE HEIGHTS "H" (ft) 11	13	15	17
Top Girder	W21x44	W21x44	W24x55	W24x68
Bottom Girder	W21x68	W21x93	W24x104	W24x146
Intercostal	WT5x7.5	WT6x8.0	WT7x17	WT7x17
X-Bracing	C10x20	C10x20	C10x20	C10x20
Skin Plate	5/16	5/16	3/8	3/8
Horiz. Brace	L4x4x0.25	L4x4x0.5	L4x4x0.5	L4x4x0.5

GATE OPENING WIDTH "W"= 30 ft

CONCRETE MONOLITH DIMENSION

DIMENSION DESIGNATIONS (ft)	GATE HEIGHTS "H" (ft) 11	13	15	17
L	12	12	15	17
B	9	9	10	10
A	3	3	4	4
C	3	3	3.5	4
T	1.5	1.5	1.75	2

GATE OPENING WIDTH "W"= 30 ft

PILE DIMENSIONS AND INFORMATION

PILE TYPE 9" MICROPILES	GATE HEIGHTS "H" (ft) 11	13	15	17
# Piles	9	9	12	15
Tip Elevation (ft)®	-60	-60	-60	-60
Pile Length(ft)	64	64	64	64
# Rows	3	3	4	5
# Columns	3	3	3	3
$S_{ROW.}$ (ft)	4.5	4.5	4	3.5
$S_{COL.}$ (ft)	3	3	3.5	3.5

GATE OPENING WIDTH "W"= 30 ft

®MICRO PILE TIP INCLUDES 10' SOCKET, ASSUMED BED ROCK @ EL. -50.0 SOCKET TIP @ EL. -60.0

2)

SWING GATE STEEL MEMBER SIZES

GATE DESIGNATIONS	GATE HEIGHTS "H" (ft) 2	4	6	8	10	12
Top Girder	W12x19	W12x26	W12x30	W18x40	W24x62	W24x76
Bottom Girder	W12x35	W12x35	W12x53	W18x76	W24x94	W24x117
Intercostal	WT3x6	WT3x6	WT3x6	WT5x7.5	WT5x7.5	WT6x8.0
X-Bracing	C10x20	C10x20	C10x20	C10x20	C10x20	C10x20
Skin Plate	5/16	5/16	5/16	5/16	5/16	5/16
Horiz. Brace	L4x4x0.25	L4x4x0.25	L4x4x0.25	L4x4x0.25	L4x4x0.25	L4x4x0.25

GATE OPENING WIDTH "W"= 40 ft

CONCRETE MONOLITH DIMENSION

DIMENSION DESIGNATIONS (ft)	GATE HEIGHTS "H" (ft) 2	4	6	8	10	12
L	6	6	9	9	12	12
B	6	6	6	6	6	6
A	2.5	2.5	2.5	3	3	3
C	1.5	2	2	2.5	3	3
T	1	1.5	1.5	1.5	1.5	1.5

GATE OPENING WIDTH "W"= 40 ft

PILE DIMENSIONS AND INFORMATION

PILE TYPE 9" MICROPILES	GATE HEIGHTS "H" (ft) 2	4	6	8	10	12
# Piles	4	4	6	6	8	8
Tip Elevation (ft)®	-60	-60	-60	-60	-60	-60
Pile Length(ft)	64	64	64	64	64	64
# Rows	2	2	3	3	4	4
# Columns	2	2	2	2	2	2
$S_{ROW.}$ (ft)	3	3	3	3	3	3
$S_{COL.}$ (ft)	3	3	3	3	3	3

GATE OPENING WIDTH "W"= 40 ft

®MICRO PILE TIP INCLUDES 10' SOCKET, ASSUMED BED ROCK @ EL. -50.0 SOCKET TIP @ EL. -60.0

US Army Corps of Engineers
New York District

MARK	DESCRIPTION	DATE	APPR.

U. S. ARMY ENGINEER DISTRICT
NEW YORK
http://www.nan.usace.army.mil

DESIGNED BY: JDR
DWN BY: OGM
CKD BY: JDR
SUBMITTED BY:
DATE: MAY, 2016
SOLICITATION NO.:
CONTRACT NO.:
FILE NAME: 033-PR_C-509GATE.DGN
PLOTTED BY: onsy_moawad
SIZE: ANSI D
PLOT DATE: 8:24:10 AM

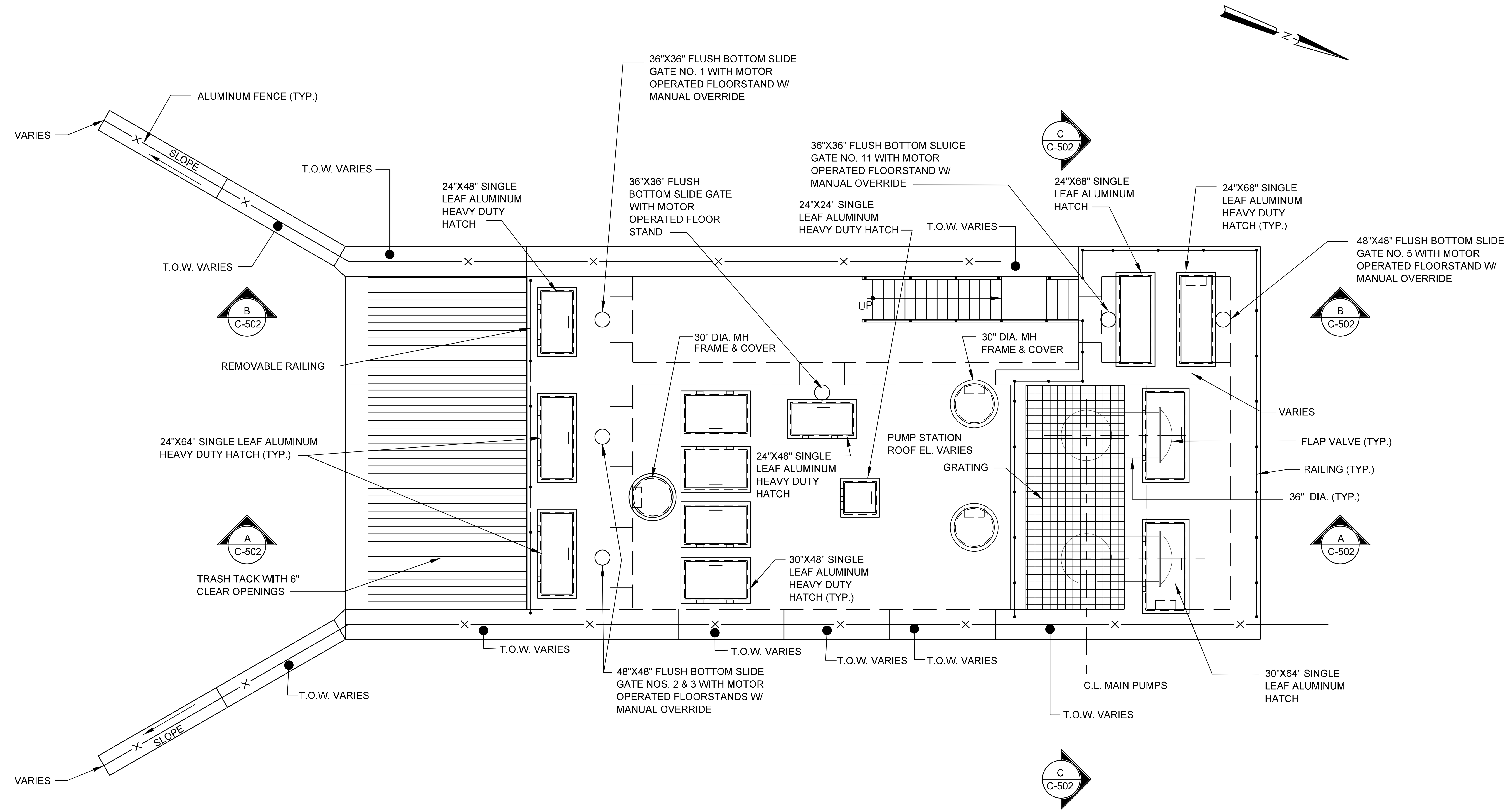
PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ

SWING GATE
GATE / MONOLITH SIZE, DIMENSIONS
AND INFORMATION TABLES

SHEET REFERENCE NUMBER
C-509
SHEET 33 OF 36

MAY 2009 NYD BORDER
Plot Date: 5/20/2016 8:24:10 AM
Submitted by: onsy_moawad
FILE NAME : K:\CADD\60442748-PR\PLANS\033-PR_C-509GATE.DGN

MAY 2009 NYD BORDER



UPPER PLAN

SCALE : 1/4" = 1'-0"

0 4' 8'

SCALE:1"= 4'

US Army Corps of Engineers New York District

MARK	DESCRIPTION	DATE	APPR

MARK	DESCRIPTION	DATE	APPR

U. S. ARMY ENGINEER DISTRICT NEW YORK http://www.nan.usace.army.mil

DESIGNED BY: JDR	DATE: MAY, 2016	
DWN BY: OGM	CKD BY: JDR	SOLICITATION NO.:
SUBMITTED BY:		CONTRACT NO.:
FILE NAME: 034-PR_C-511PPS.DGN		
SIZE: ANSI D	PLOTTED BY: onsy_moawad	PLOT DATE: 8:24:17 AM

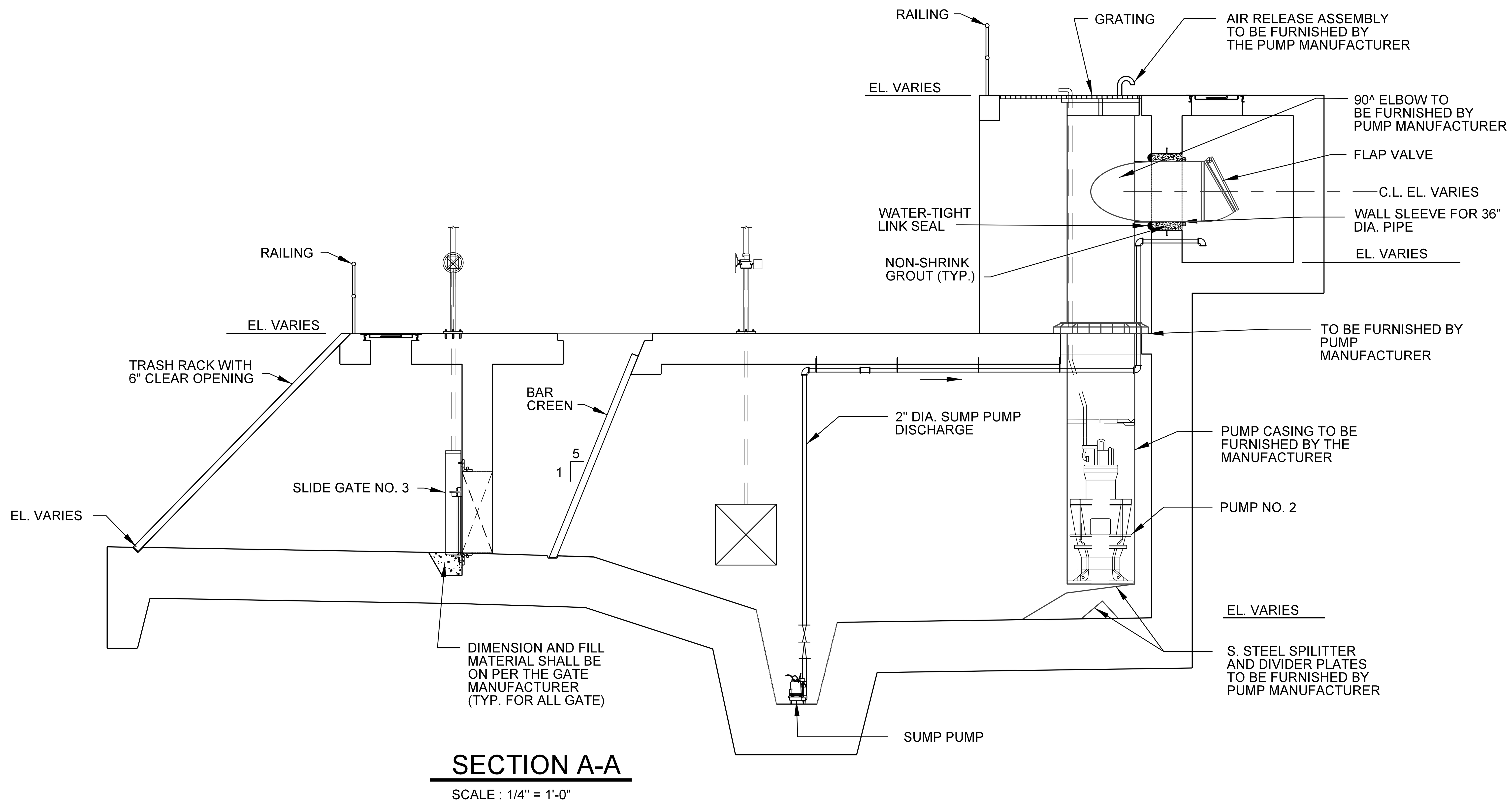
PASSAIC RIVER TIDAL GENERAL REEVALUATION REPORT LOWER PASSAIC RIVER, NJ

PUMP STATION UPPER PLAN

SHEET REFERENCE NUMBER C-511

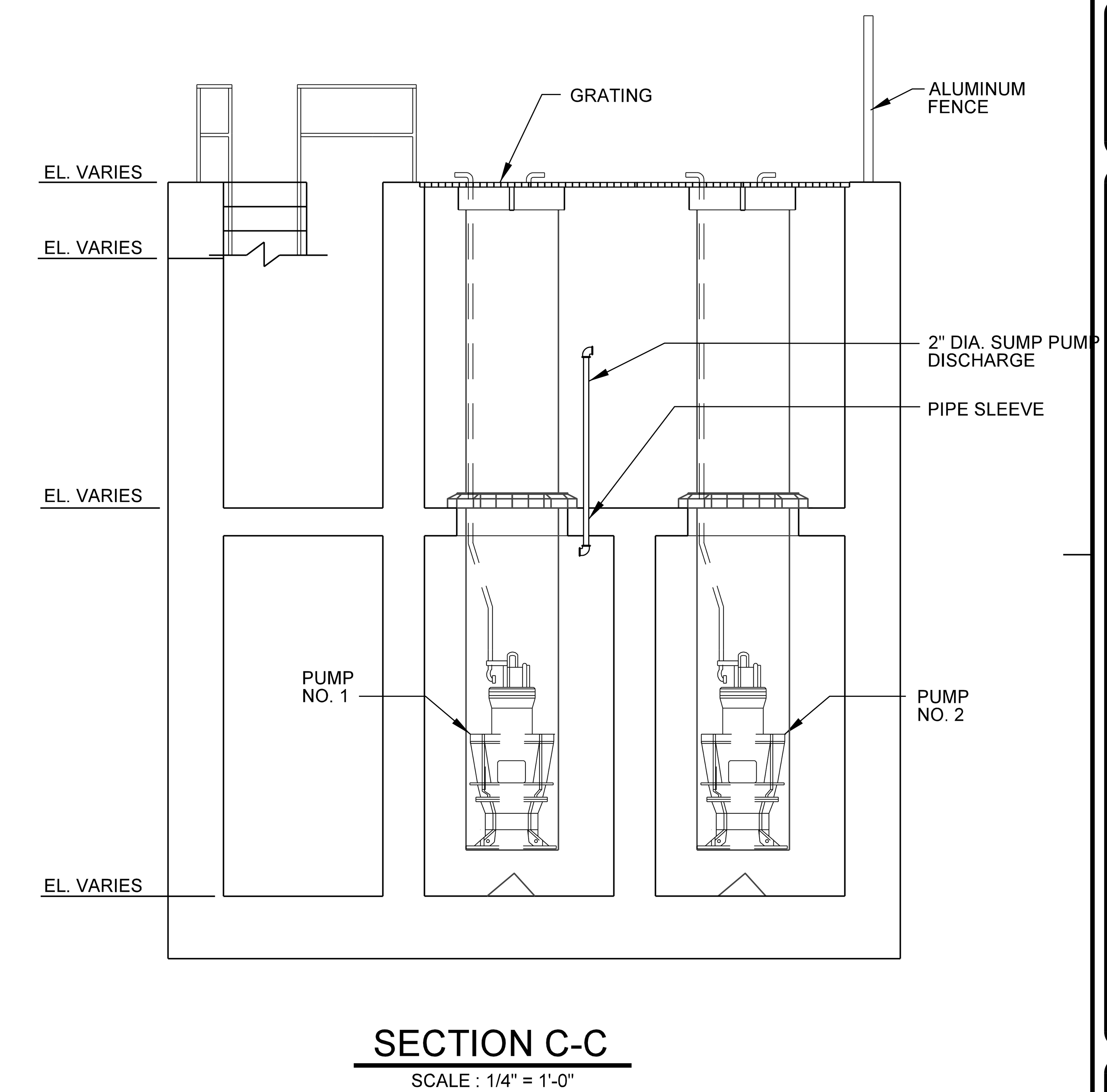
SHEET 34 OF 36

Submitted by: onsy_moawad Plot Date: 5/20/2016 8:24:17 AM
FILE NAME : K:\CADD\60442748-PR\PLANS\034-PR_C-511PPS.DGN



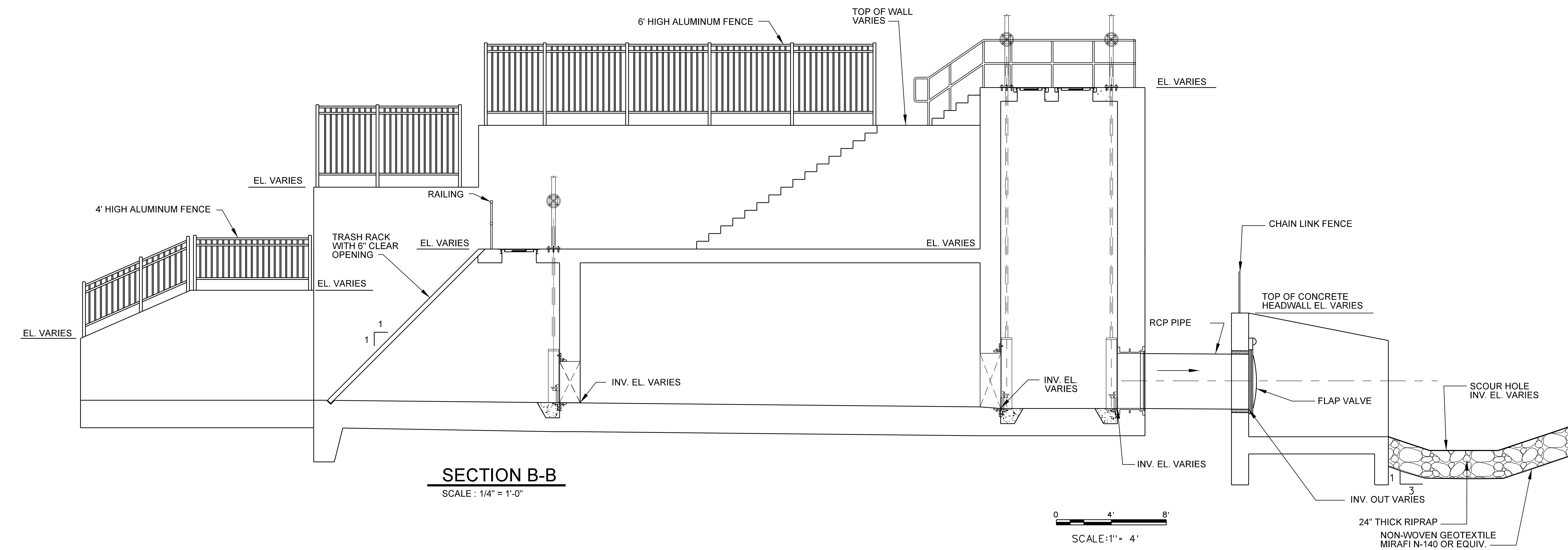
SECTION A-A

SCALE : 1/4" = 1'-0"



SECTION C-C

SCALE : 1/4" = 1'-0"



SECTION B-B

SCALE : 1/4" = 1'-0"

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New York District

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DATE: MAY, 2016	SOLICITATION NO.:	CONTRACT NO.:	
FILE NAME: 035-PR_C-512SPS.DGN	SIZE: ANSI D	PLOTTED BY: onsy_moawad	PLOT DATE: 8:24:17 AM

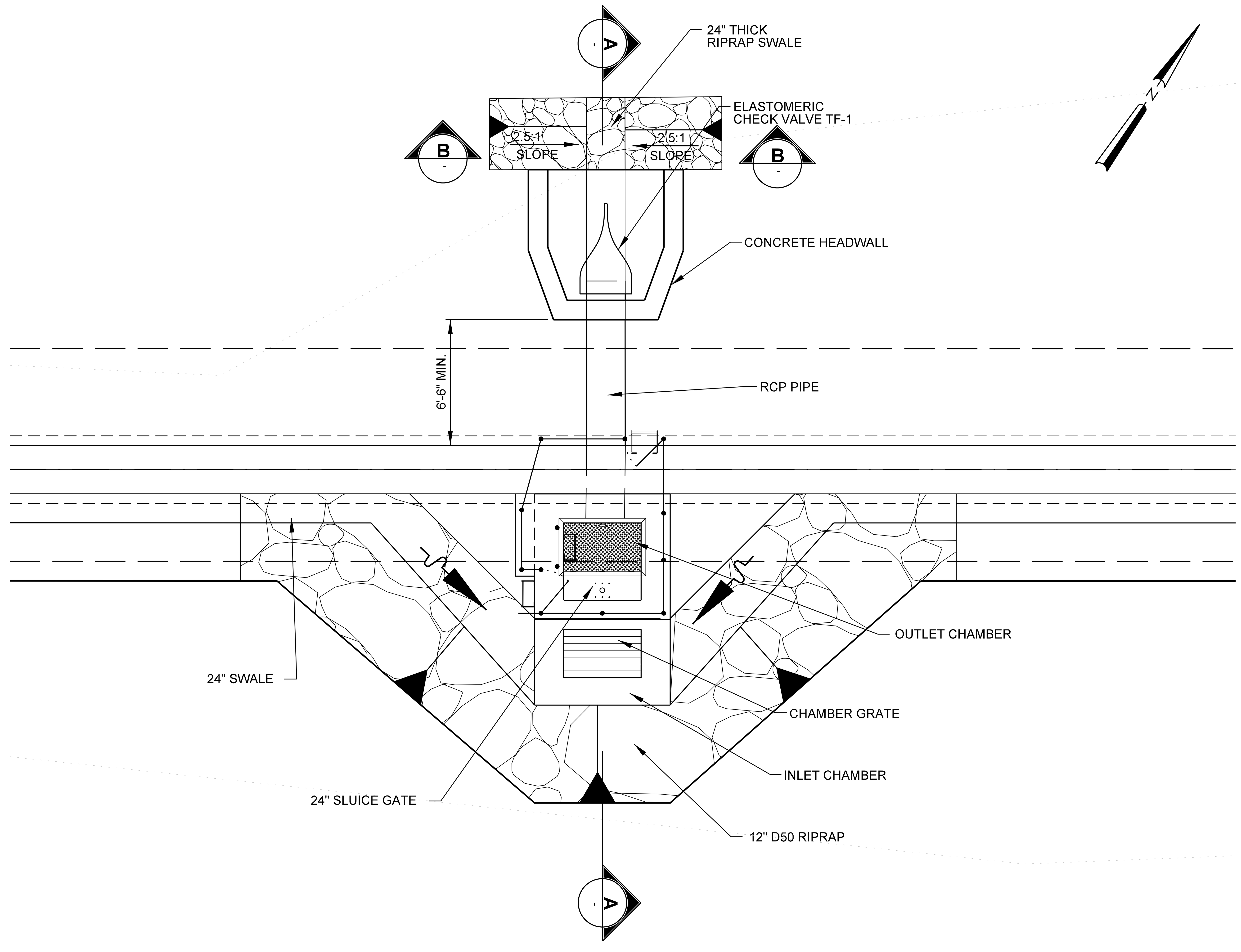
PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ

PUMP STATION
SECTIONS

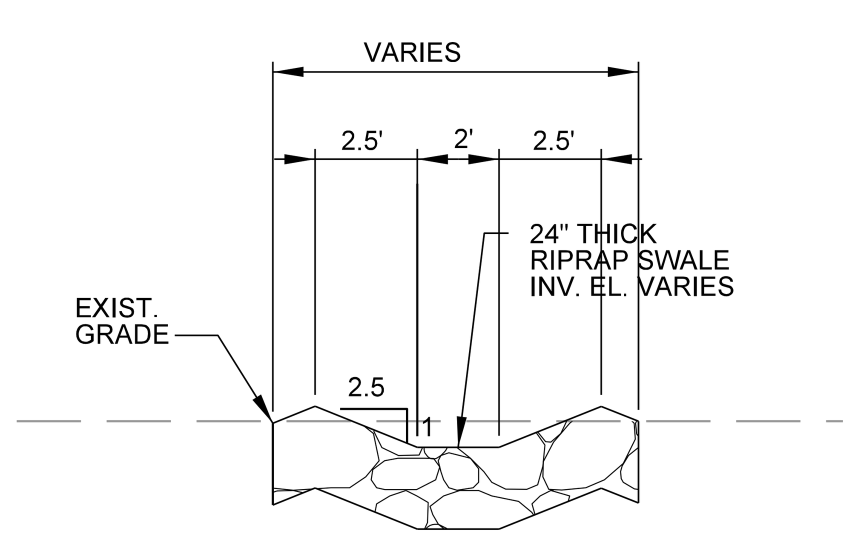
SHEET REFERENCE NUMBER
C-512

Submitted by: onsy_moawad Plot Date: 5/20/2016 8:24:17 AM
FILE NAME : K:\CADD\60442748-PRVPLANS\035-PR_C-512SPS.DGN

NOTES:
1. SAFETY RAILING, GATES LADDERS & HATCH NOT SHOWN FOR DRAWING CLARITY, SEE STRUCTURAL DRAWINGS FOR DETAILS.
2. CONFIGURATION OF RECESS FOR SLUICE GATE BOTTOM AND FILLER MATERIAL TO BE PER RECOMMENDATION OF SLUICE GATE MANUFACTURER.

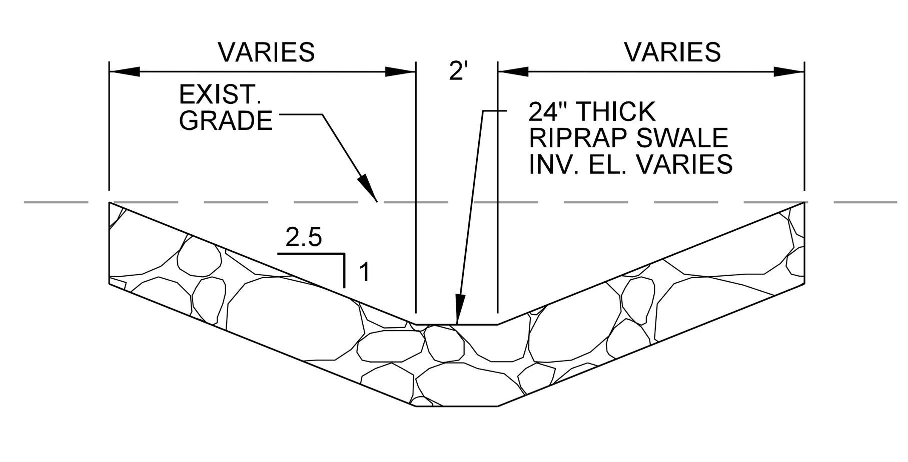


PLAN

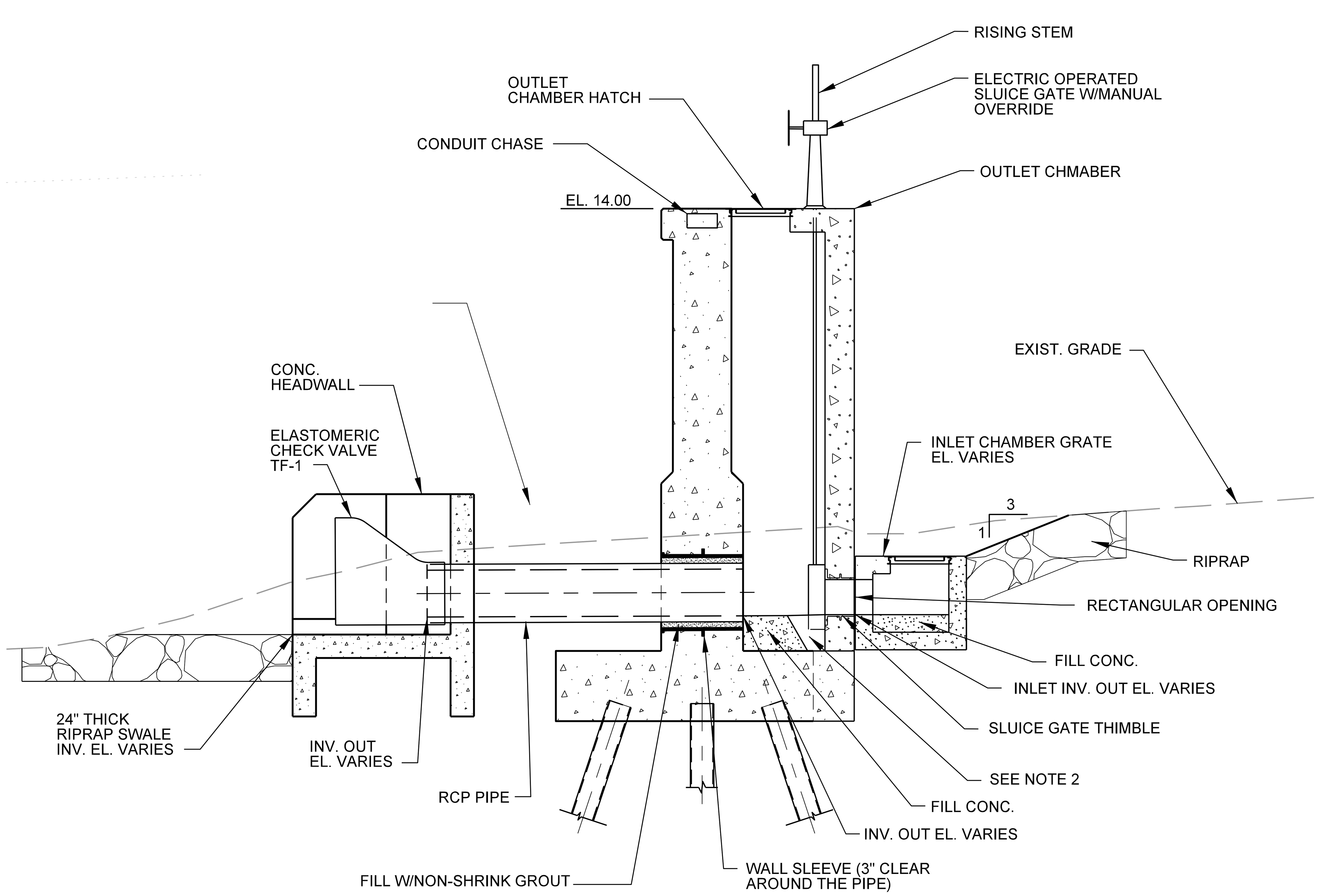


SECTION B-B

TYPICAL SWALE SECTION FOR SHALLOW ADJACENT GRADE



SECTION B-B



SECTION A-A

DRAINAGE STRUCTURE SINGLE PIPE

0 4' 8'
SCALE:1"= 4'

US Army Corps of Engineers New York District

MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

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SOLICITATION NO.:
CONTRACT NO.:
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PASSAIC RIVER TIDAL
GENERAL REEVALUATION REPORT
LOWER PASSAIC RIVER, NJ
DRAINAGE STRUCTURE
SINGLE PIPE DETAILS AT WALL

SHEET REFERENCE NUMBER
513
SHEET 36 OF 36

MAY 2009 NYD BORDER

Submitted by: onsy.moawad Plot Date: 5/20/2016 8:24:18 AM
FILE NAME : K:\CADD\60442748-PRYPLANS\036-PR_C-513SDN.DGN