



ENGINEERING APPENDIX A

APPENDIX 4

PLATES – ALTERNATIVE  
ANALYSIS

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**BRAZOR RIVER FLOODGATES-COLORADO RIVER LOCKS FEASIBILITY  
STUDY – ALTERNATIVE PLATES APPENDIX**

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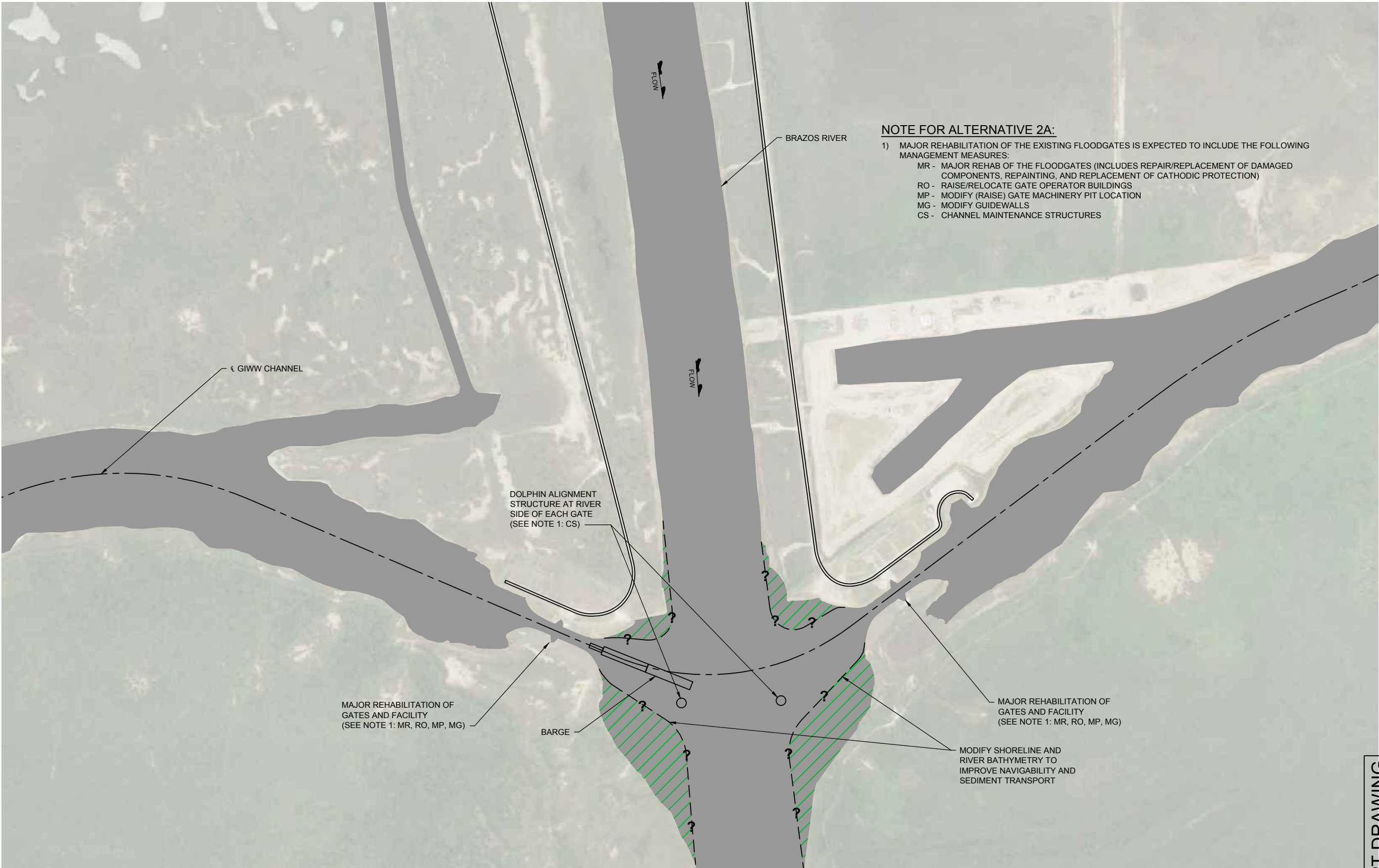
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**BRAZOR RIVER FLOODGATES-COLORADO RIVER LOCKS FEASIBILITY  
STUDY – ALTERNATIVE PLATES APPENDIX**

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**NOTE FOR ALTERNATIVE 2A:**

- 1) MAJOR REHABILITATION OF THE EXISTING FLOODGATES IS EXPECTED TO INCLUDE THE FOLLOWING MANAGEMENT MEASURES:
  - MR - MAJOR REHAB OF THE FLOODGATES (INCLUDES REPAIR/REPLACEMENT OF DAMAGED COMPONENTS, REPAINTING, AND REPLACEMENT OF CATHODIC PROTECTION)
  - RO - RAISE/RELOCATE GATE OPERATOR BUILDINGS
  - MP - MODIFY (RAISE) GATE MACHINERY PIT LOCATION
  - MG - MODIFY GUIDEWALLS
  - CS - CHANNEL MAINTENANCE STRUCTURES



US Army Corps of Engineers

MARK	DESCRIPTION	DATE

DESIGNED BY: J. BOYD	ISSUE DATE: 09/24/2014
DRAWN BY: V. ROUSE	SOLICITATION NO.:
CHECKED BY: E. LUNDBERG	CONTRACT NO.:
SUBMITTED BY: G. KATZENBERGER	
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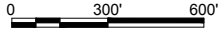
GALVESTON DISTRICT PO BOX 1229 GALVESTON, TX 77553-1229	TETRA TECH 400 112TH AVENUE NE SUITE 400 BELLEVUE, WA 98004
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BRAZOS RIVER FLOODGATES FEASIBILITY STUDY BRAZORIA COUNTY, TX	ALTERNATIVE 2A PLAN
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SHEET ID G-001
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**CONCEPT DRAWING**

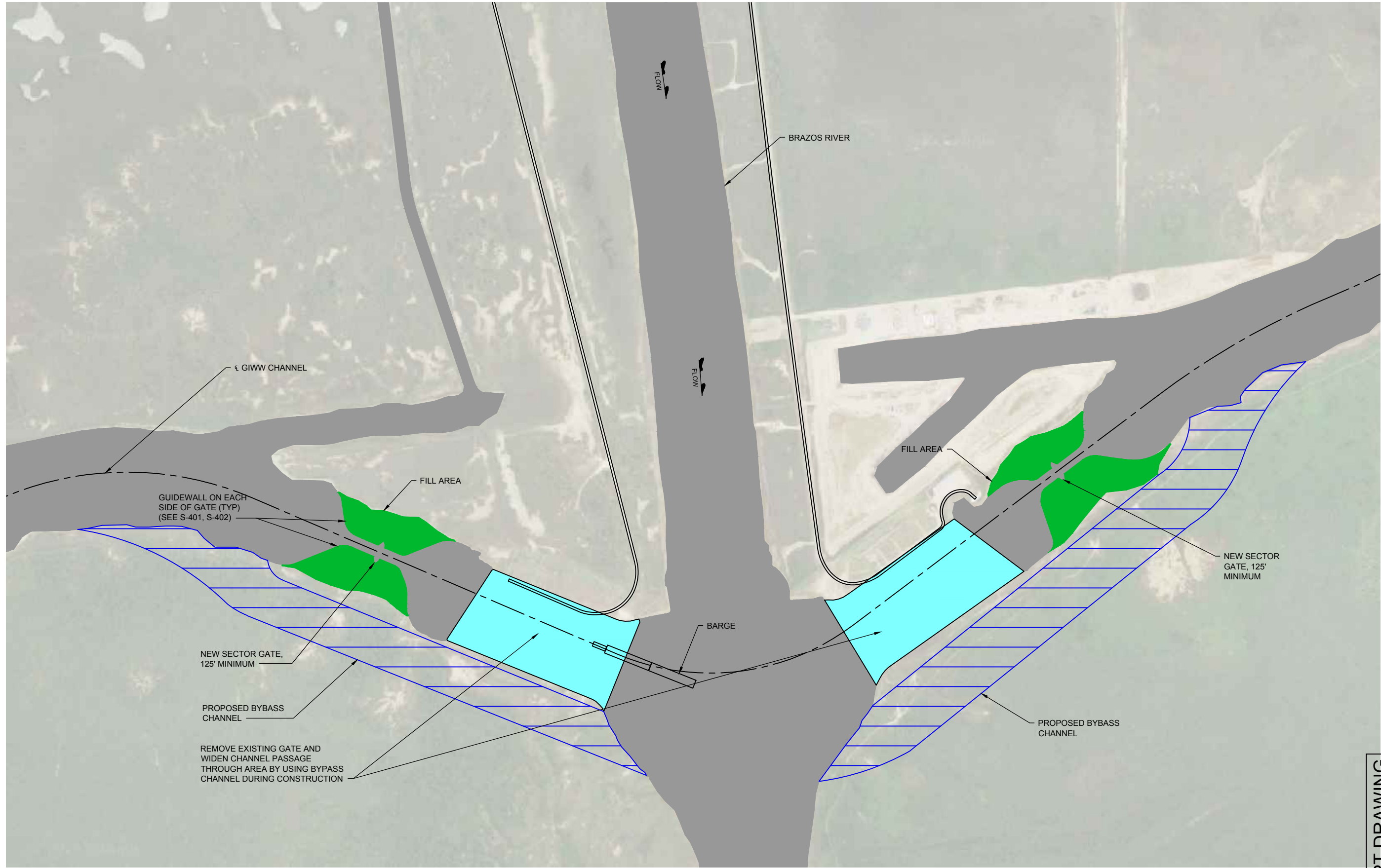
**PLAN - ALTERNATIVE 2A - MAJOR REHAB EXISTING STRUCTURE**  
SCALE: 1"=300'-0"





1 2 3 4 5 6 7 8 9 10

G  
F  
E  
D  
C  
B  
A



**PLAN - ALTERNATIVE 3A - MOVE GATES FARTHER BACK IN EXISTING CHANNEL**  
SCALE: 1"=300'-0"



**CONCEPT DRAWING**

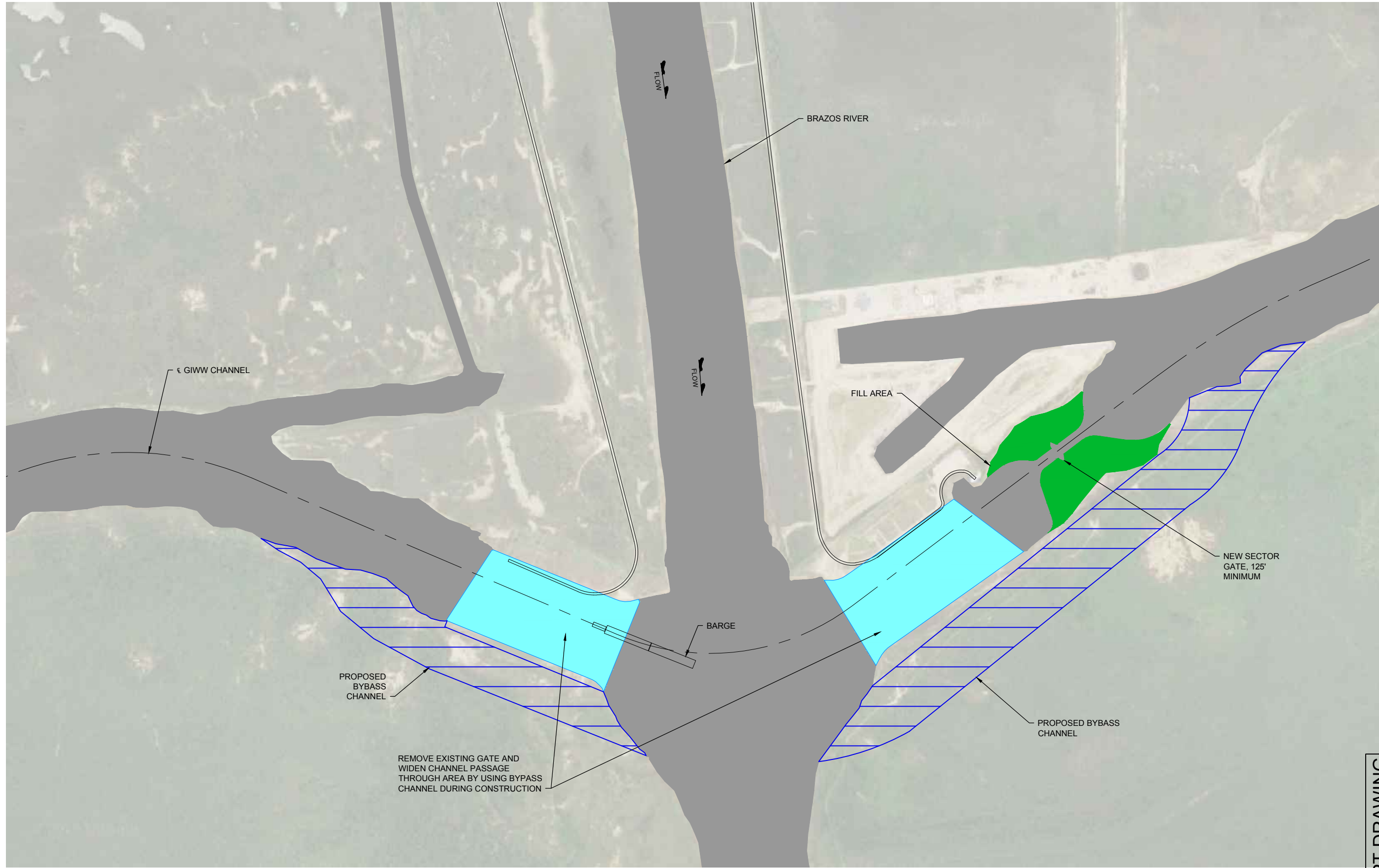


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<b>CHECKED BY:</b> E. LUNDBERG	<b>CONTRACT NO.:</b>
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GALVESTON DISTRICT PO BOX 1229 GALVESTON, TX 77553-1229  TETRA TECH 400 112TH AVENUE NE SUITE 400 BELLEVUE, WA 98004	

BRAZOS RIVER FLOODGATES FEASIBILITY STUDY BRAZORIA COUNTY, TX  ALTERNATIVE 3A  PLAN
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SHEET ID
<b>G-002</b>



**PLAN - ALTERNATIVE 3A.1 - EAST SIDE 3A, WEST SIDE OPEN**  
 SCALE: 1"=300'-0"



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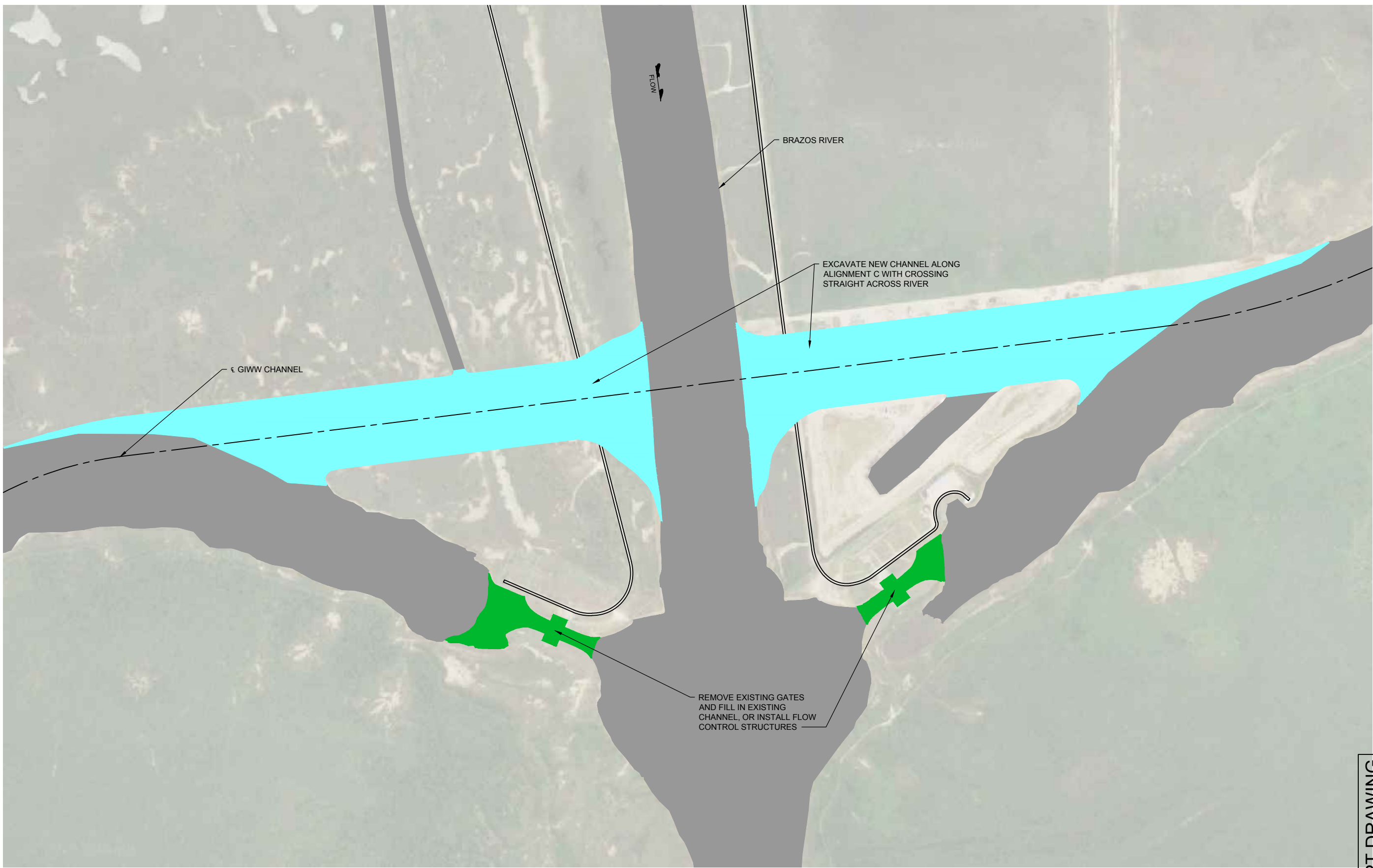
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CHECKED BY: E. LUNDBERG	DESIGNATION NO.:
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GALVESTON DISTRICT PO BOX 1229 GALVESTON, TX 77553-1229	TETRA TECH SUITE 400 400 112TH AVENUE NE BELLEVUE, WA 98004
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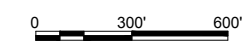
BRAZOS RIVER FLOODGATES  
 FEASIBILITY STUDY  
 BRAZORIA COUNTY, TX  
 ALTERNATIVE 3A.1  
 PLAN

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**G-005**

CONCEPT DRAWING



**PLAN - ALTERNATIVE 9A - NEW CROSSING ON ALIGNMENT C WITHOUT GATES**  
 SCALE: 1"=300'



MARK	DESCRIPTION	DATE

DESIGNED BY: J. V. BOUSE	ISSUE DATE: 02/06/2024
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SIZE: ANSI D	

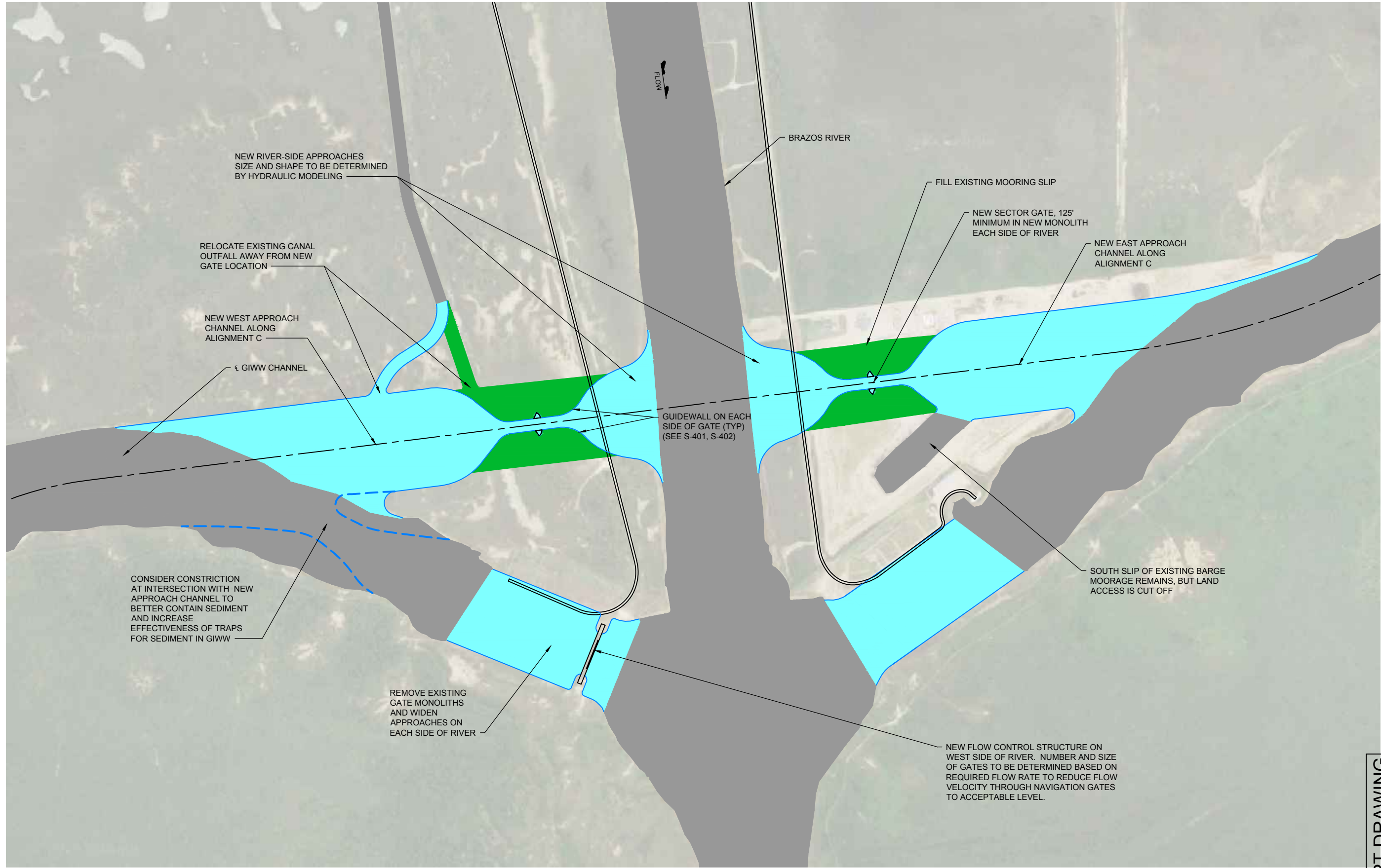
GALVESTON DISTRICT PO BOX 1229 GALVESTON, TX 77553-1229	TETRA TECH 400 112TH AVENUE NE SUITE 400 BELLEVUE, WA 98004
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BRAZOS RIVER FLOODGATES  
 FEASIBILITY STUDY  
 BRAZORIA COUNTY, TX  
 ALTERNATIVE 9A  
 PLAN

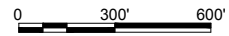
SHEET ID  
**G-003**

CONCEPT DRAWING





**PLAN - ALTERNATIVE 9C - NEW GATES ON ALIGNMENT C WITH SEDIMENT CONTROL**  
SCALE: 1"=300'-0"



MARK	DESCRIPTION	DATE

DESIGNED BY: J. BOYD	ISSUE DATE: 10/12/2017
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GALVESTON, TX 77553-1229

TETRA TECH  
SUITE 400  
400 112TH AVENUE NE  
BELLEVUE, WA 98004

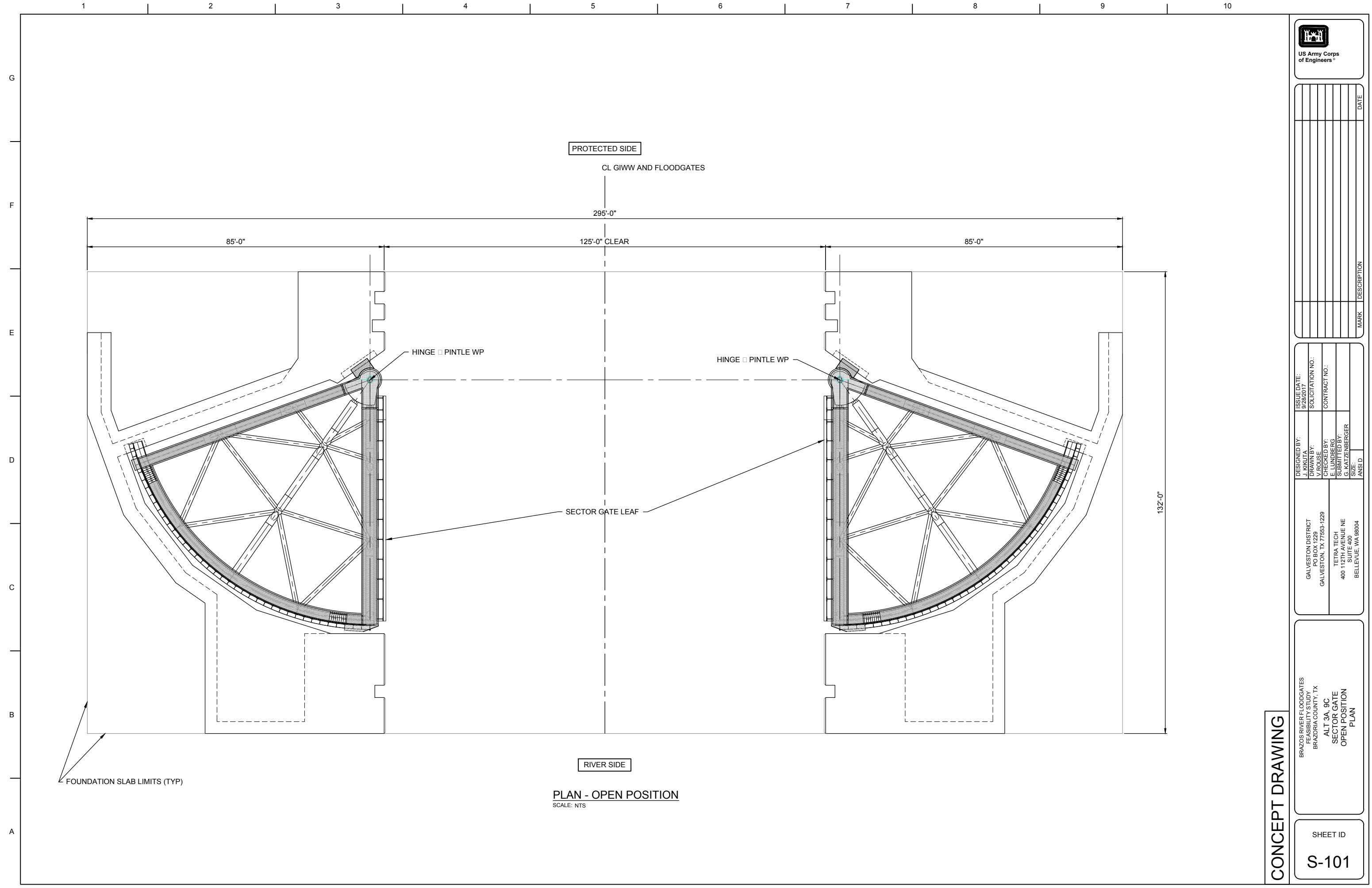
BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX

ALTERNATIVE 9C

PLAN

SHEET ID  
**G-004**

**CONCEPT DRAWING**



PROTECTED SIDE  
CL GIWW AND FLOODGATES

295'-0"  
125'-0" CLEAR

HINGE □ PINTLE WP

HINGE □ PINTLE WP

SECTOR GATE LEAF

RIVER SIDE

PLAN - OPEN POSITION  
SCALE: NTS

FOUNDATION SLAB LIMITS (TYP)

CONCEPT DRAWING

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
SECTOR GATE  
OPEN POSITION  
PLAN

GALVESTON DISTRICT  
PO BOX 1229  
GALVESTON, TX 77553-1229  
  
TETRA TECH  
400 112TH AVENUE NE  
SUITE 400  
BELLEVUE, WA 98004

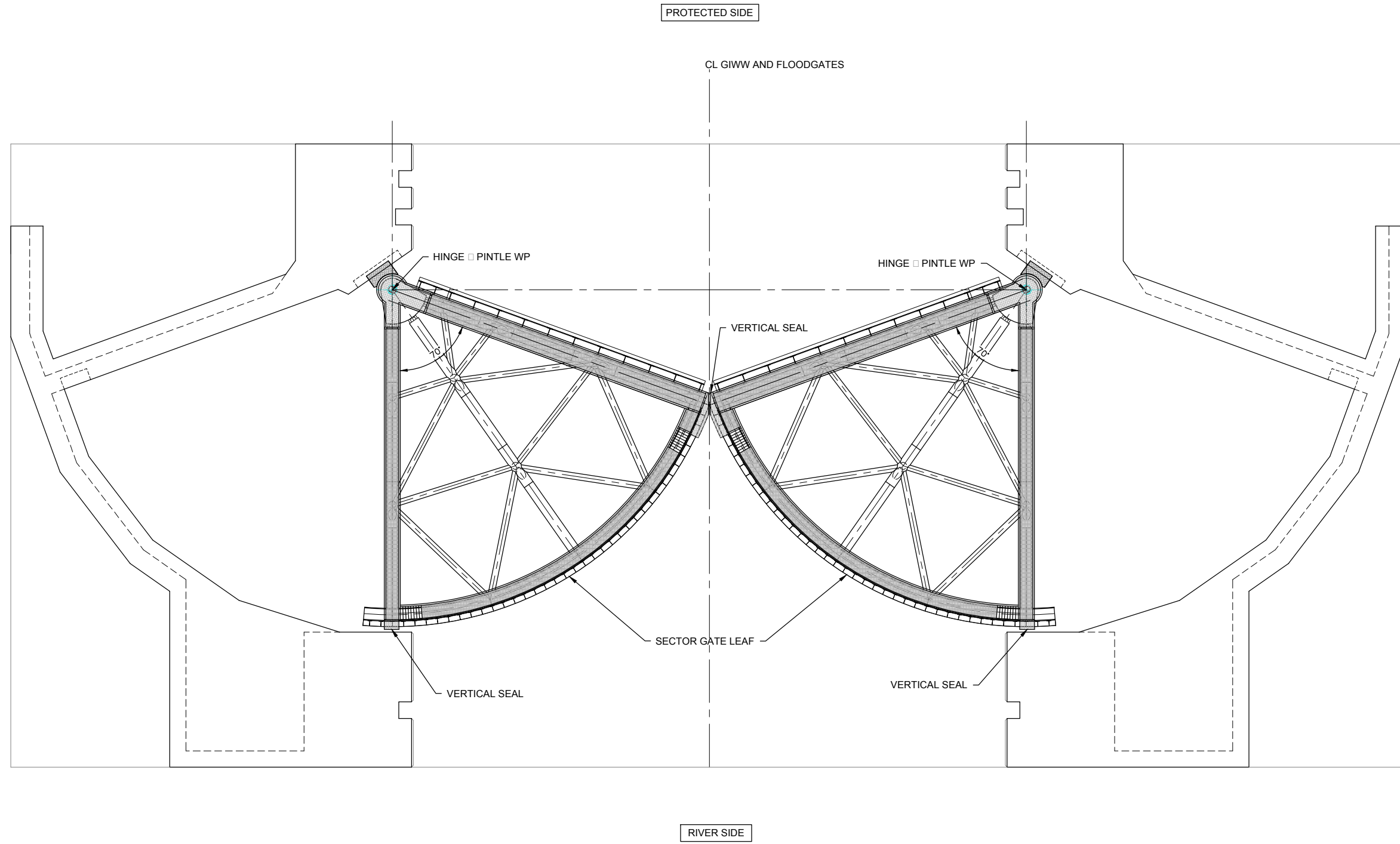
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CHECKED BY: E. LUNDBERG	SOLICITATION NO.:
SUBMITTED BY: G. KATZENBERGER	CONTRACT NO.:
SIZE: ANSI D	

MARK	DESCRIPTION	DATE



SHEET ID  
S-101

%STATUS%



PLAN - CLOSED POSITION  
SCALE: NTS

CONCEPT DRAWING

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
SECTOR GATE  
CLOSED POSITION  
PLAN

SHEET ID  
S-102

DESIGNED BY: E. LUNDBERG	ISSUE DATE: 02/24/04
DRAWN BY: V. ROUSE	SOLICITATION NO.:
CHECKED BY: E. LUNDBERG	CONTRACT NO.:
SUBMITTED BY: G. KATZENBERGER	
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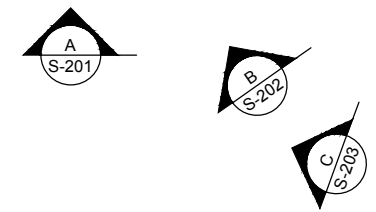
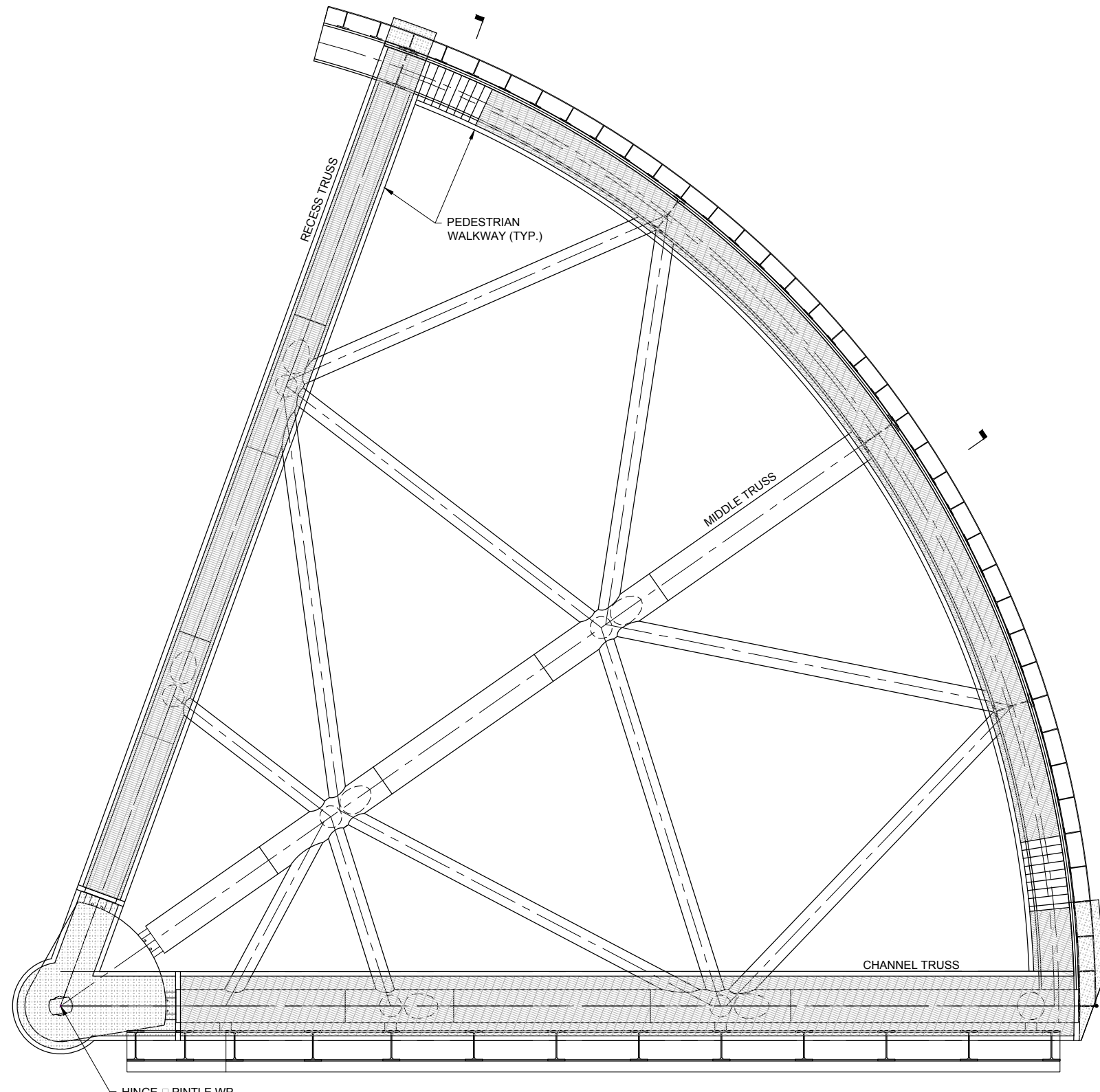
GALVESTON DISTRICT  
PO BOX 1229  
GALVESTON, TX 77553-1229

TETRA TECH  
400 112TH AVENUE NE  
SUITE 400  
BELLEVUE, WA 98004



US Army Corps  
of Engineers

MARK	DESCRIPTION	DATE



PLAN - LAYOUT  
SCALE: NTS



MARK	DESCRIPTION	DATE

DESIGNED BY: DRAWN BY: V. ROUSE	ISSUE DATE: 09/20/14
CHECKED BY: E. LUNDBERG	SOLICITATION NO.:
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GALVESTON DISTRICT  
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GALVESTON, TX 77553-1229

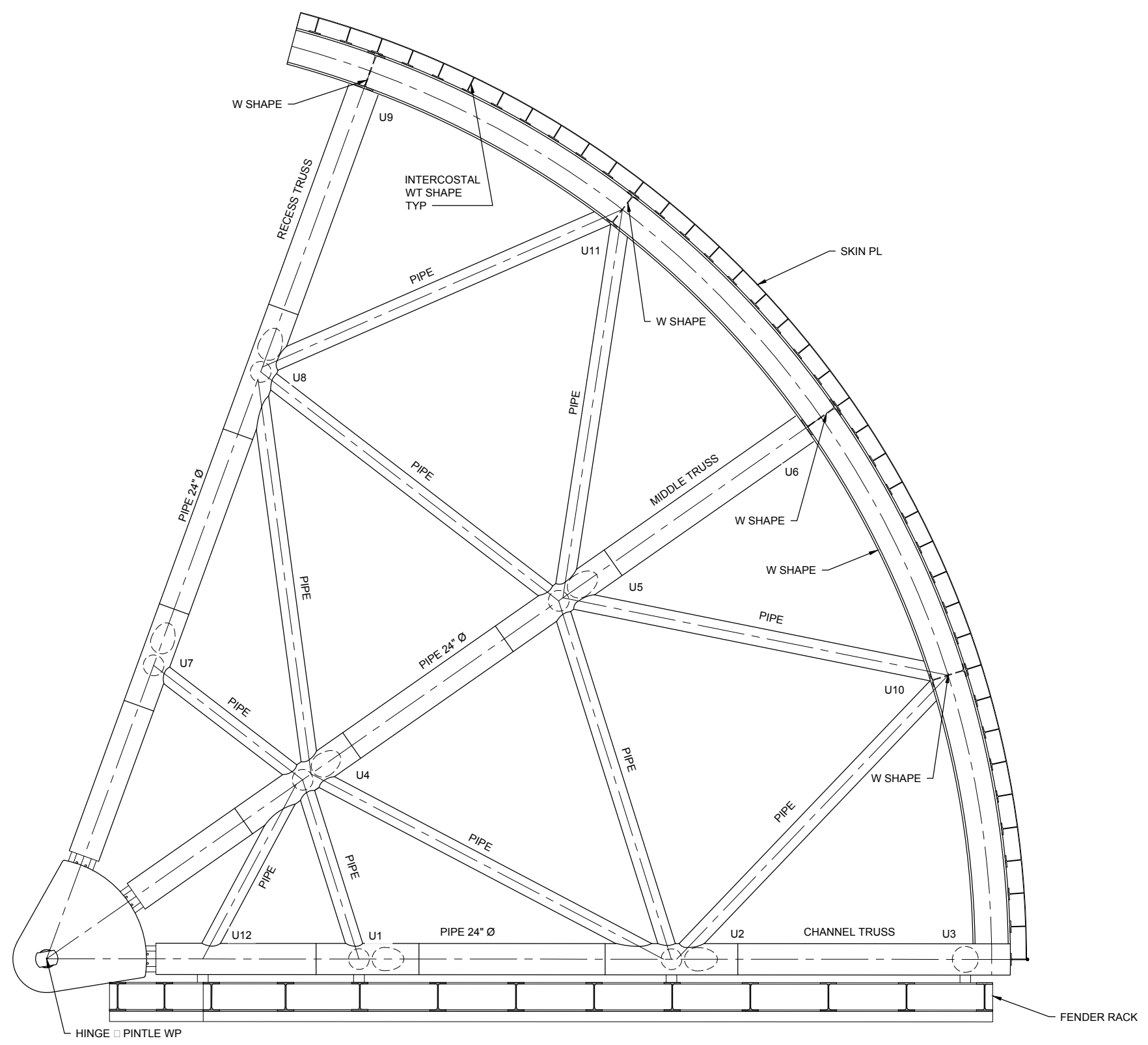
TETRA TECH  
400 112TH AVENUE NE  
SUITE 400  
BELLEVUE, WA 98004

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
SECTOR GATE  
LAYOUT  
PLAN

CONCEPT DRAWING

SHEET ID  
**S-103**





A
A
A
**PLAN - UPPER FRAME**  
 S-201 S-202 S-203 SCALE: NTS



MARK	DESCRIPTION	DATE

DESIGNED BY: V. ROUSE	ISSUE DATE: 02/01/04	DESIGNATION NO.:
CHECKED BY: E. LUNDBERG	SUBMITTED BY: G. KATZENBERGER	CONTRACT NO.:
SIZE: ANSI D		
GALVESTON DISTRICT PO BOX 1229 GALVESTON, TX 77553-1229		GALVESTON DISTRICT SOLICITATION NO.
TETRA TECH 400 112TH AVENUE NE SUITE 400 BELLEVUE, WA 98004		CONTRACT NO.

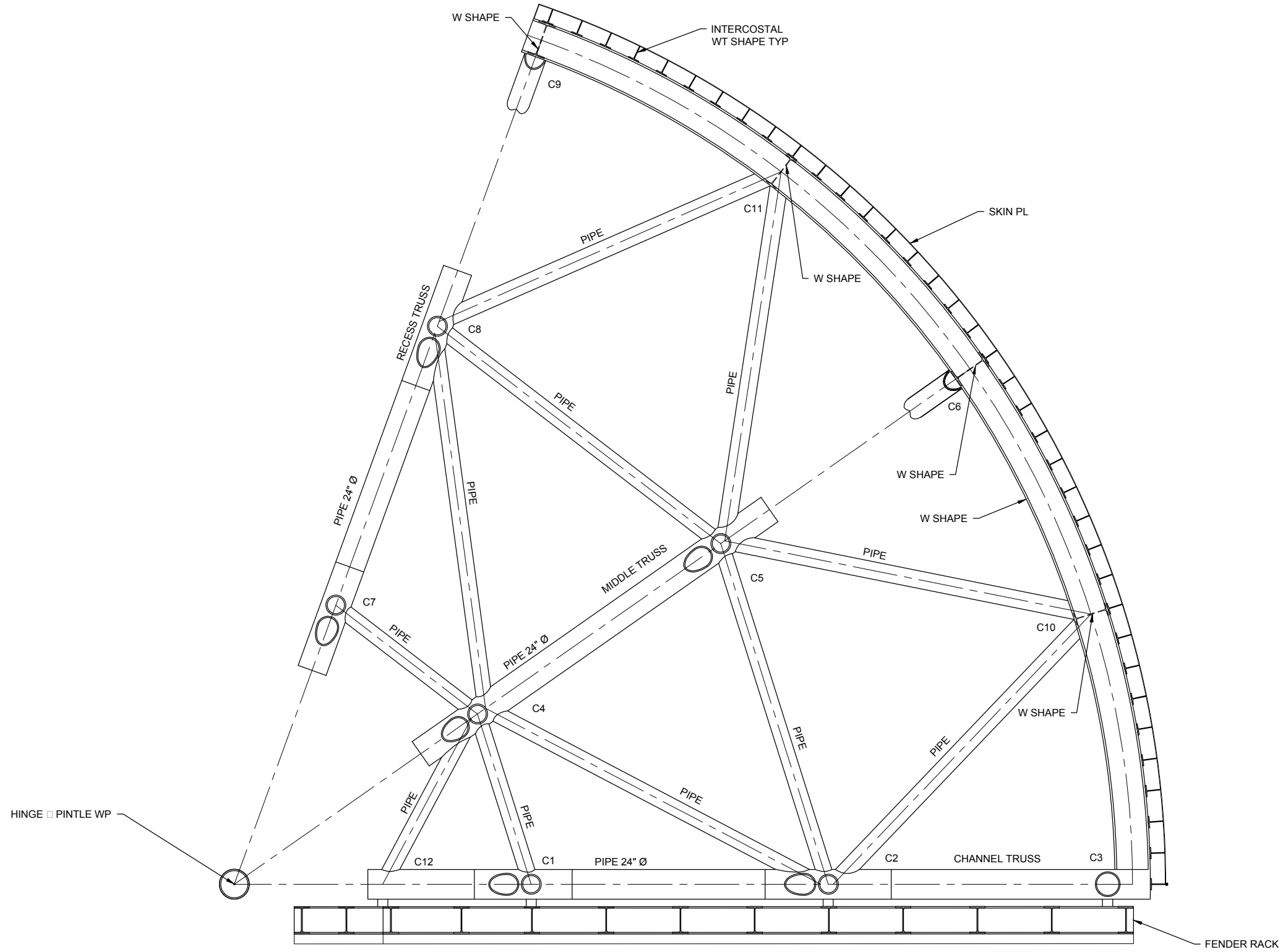
**CONCEPT DRAWING**

BRAZOS RIVER FLOODGATES  
 FEASIBILITY STUDY  
 BRAZORIA COUNTY, TX  
 ALT. 3A, 9C  
 SECTOR GATE  
 UPPER FRAME  
 PLAN

SHEET ID  
**S-104**

1 2 3 4 5 6 7 8 9 10

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**PLAN - CENTER FRAME**  
SCALE: NTS



MARK	DESCRIPTION	DATE

DESIGNED BY: D. V. ROUSE	ISSUE DATE: 02/20/14
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SUBMITTED BY: G. KATZENBERGER	
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GALVESTON DISTRICT  
PO BOX 1229  
GALVESTON, TX 77553-1229

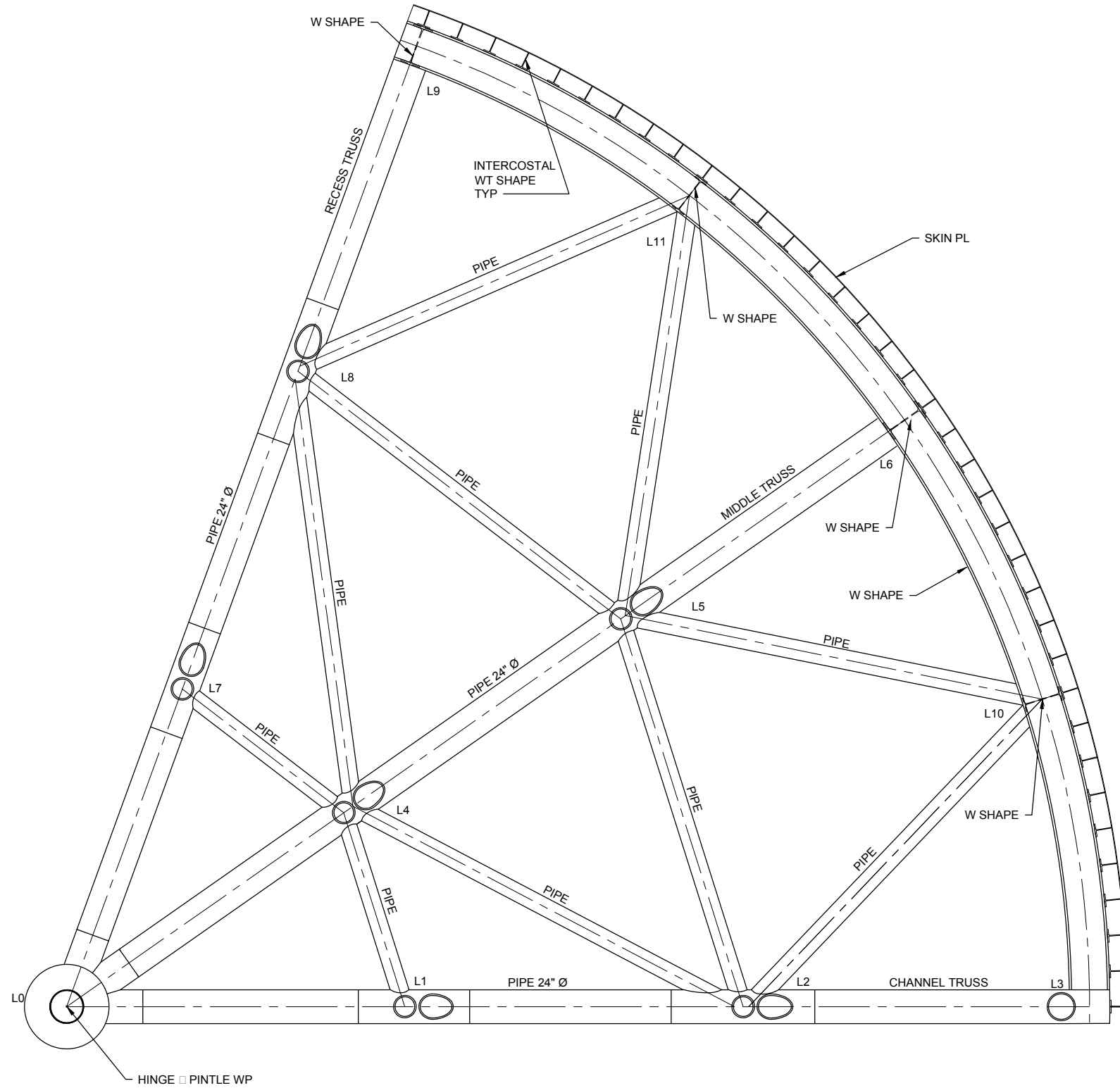
TETRA TECH  
400 112TH AVENUE NE  
SUITE 400  
BELLEVUE, WA 98004

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
SECTOR GATE  
CENTER FRAME  
PLAN

**CONCEPT DRAWING**

SHEET ID  
**S-105**

%STATUS%



C	C	C
S-201	S-202	S-203

**PLAN - LOWER FRAME**  
 SCALE: NTS



US Army Corps of Engineers

DATE	DESCRIPTION	MARK

DESIGNED BY: D.V. ROUSE	ISSUE DATE: 02/24/04	DESIGNATION NO.:
CHECKED BY: E. LUNDBERG	SUBMITTED BY: G. KATZENBERGER	CONTRACT NO.:
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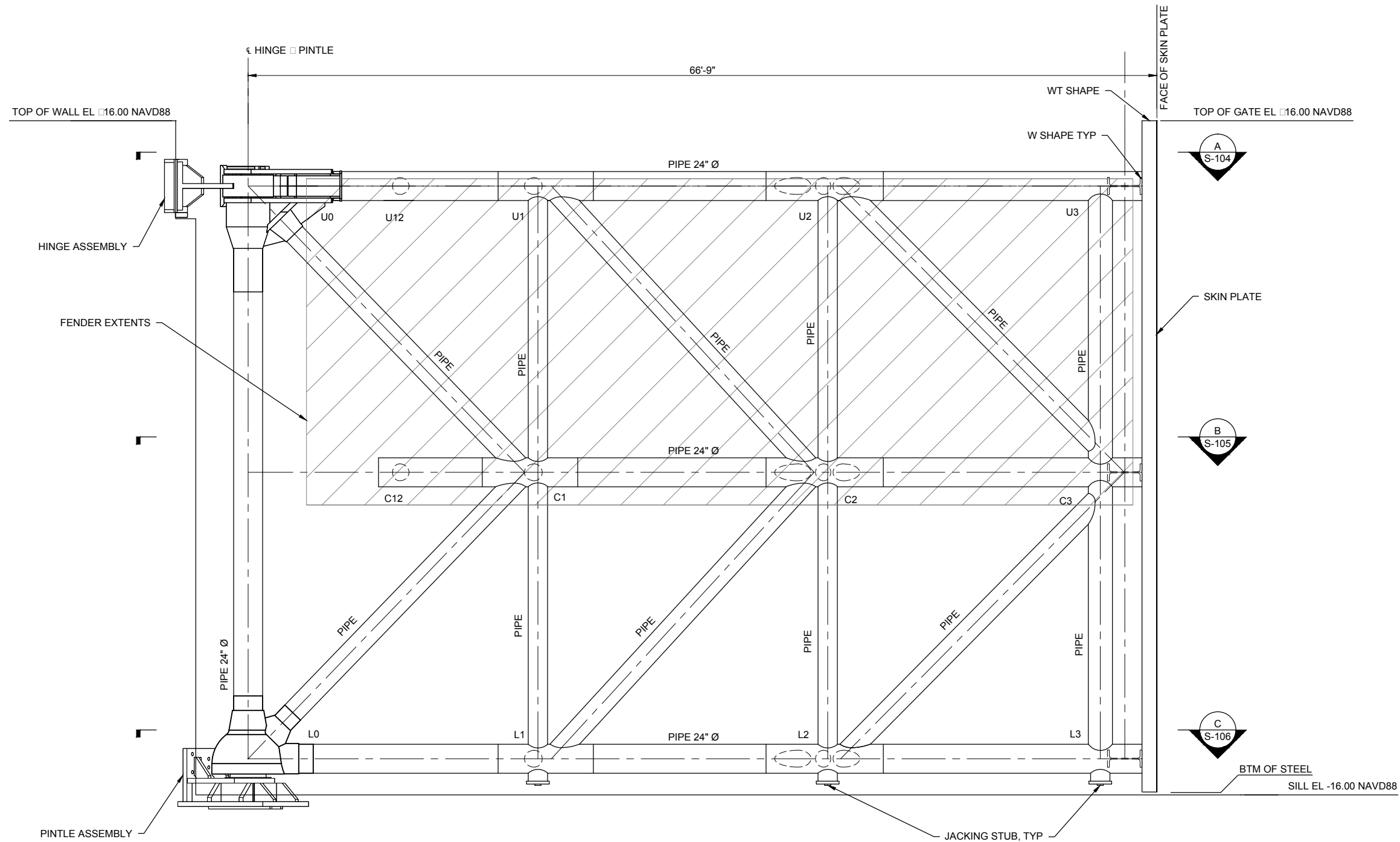
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BRAZOS RIVER FLOODGATES  
 FEASIBILITY STUDY  
 BRAZORIA COUNTY, TX  
 ALT. 3A, 9C  
 SECTOR GATE  
 LOWER FRAME  
 PLAN

SHEET ID  
**S-106**

1 2 3 4 5 6 7 8 9 10

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F  
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A



A  
S-103  
ELEVATION - CHANNEL TRUSS  
SCALE: NTS



US Army Corps  
of Engineers®

MARK	DESCRIPTION	DATE

DESIGNED BY: A. V. ROUSE	ISSUE DATE: 02/04/2010	DESIGNATION NO.:
CHECKED BY: E. LUNDBERG	SOLICITATION NO.:	CONTRACT NO.:
SUBMITTED BY: G. KATZENBERGER		
SIZE: ANSI D		
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TETRA TECH 400 112TH AVENUE NE SUITE 400 BELLEVUE, WA 98004		

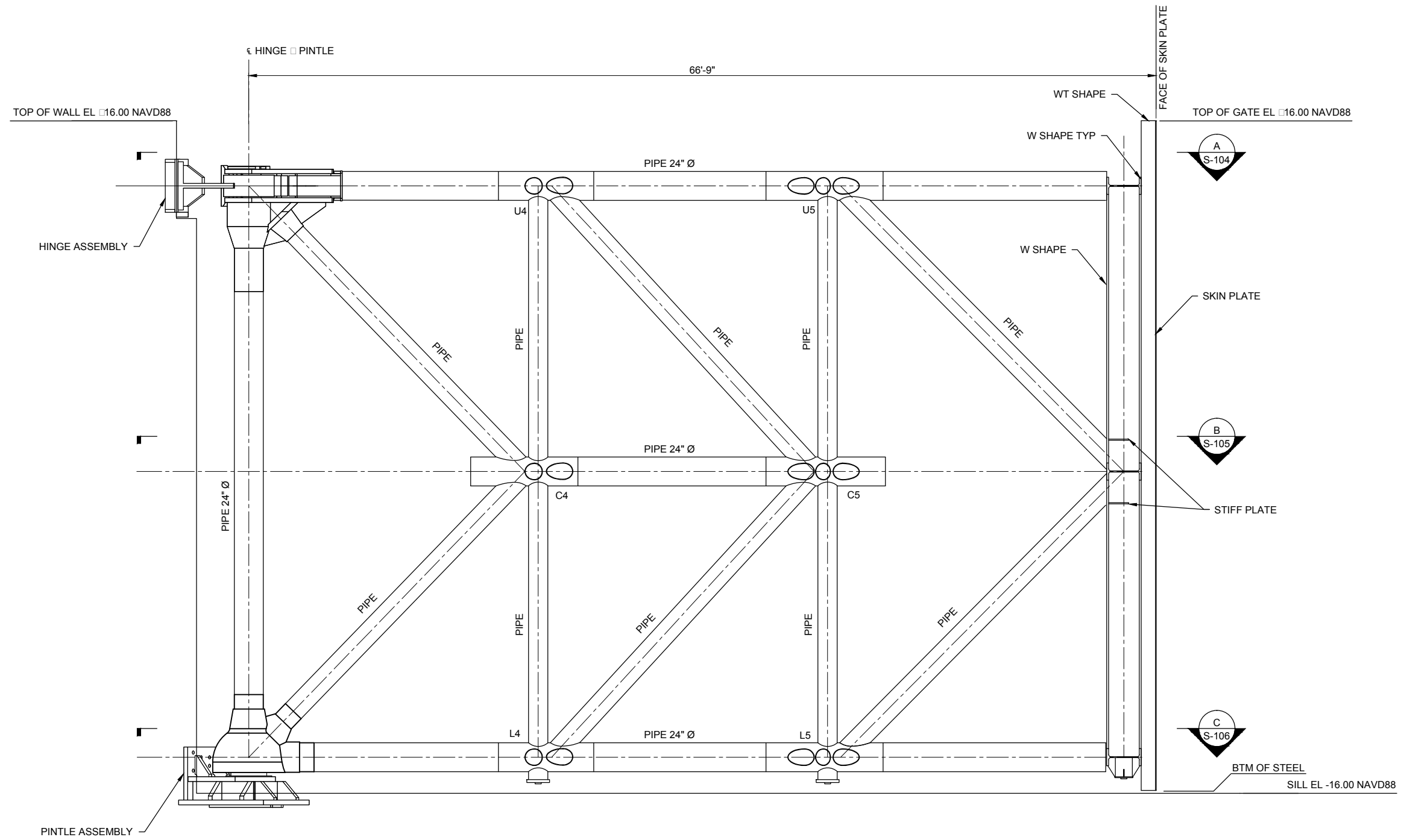
BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
SECTOR GATE  
CHANNEL TRUSS  
ELEVATION

CONCEPT DRAWING

SHEET ID  
**S-201**

1 2 3 4 5 6 7 8 9 10

G  
F  
E  
D  
C  
B  
A



**B**  
S-103  
ELEVATION - MIDDLE TRUSS  
SCALE: NTS



MARK	DESCRIPTION	DATE

DESIGNED BY: J. W. WOOD	ISSUE DATE: 02/26/04
DRAWN BY: V. ROUSE	SOLICITATION NO.:
CHECKED BY: E. LUNDBERG	CONTRACT NO.:
SUBMITTED BY: G. KATZENBERGER	
SIZE: ANSI D	

GALVESTON DISTRICT PO BOX 1229 GALVESTON, TX 77553-1229	TETRA TECH 400 112TH AVENUE NE SUITE 400 BELLEVUE, WA 98004
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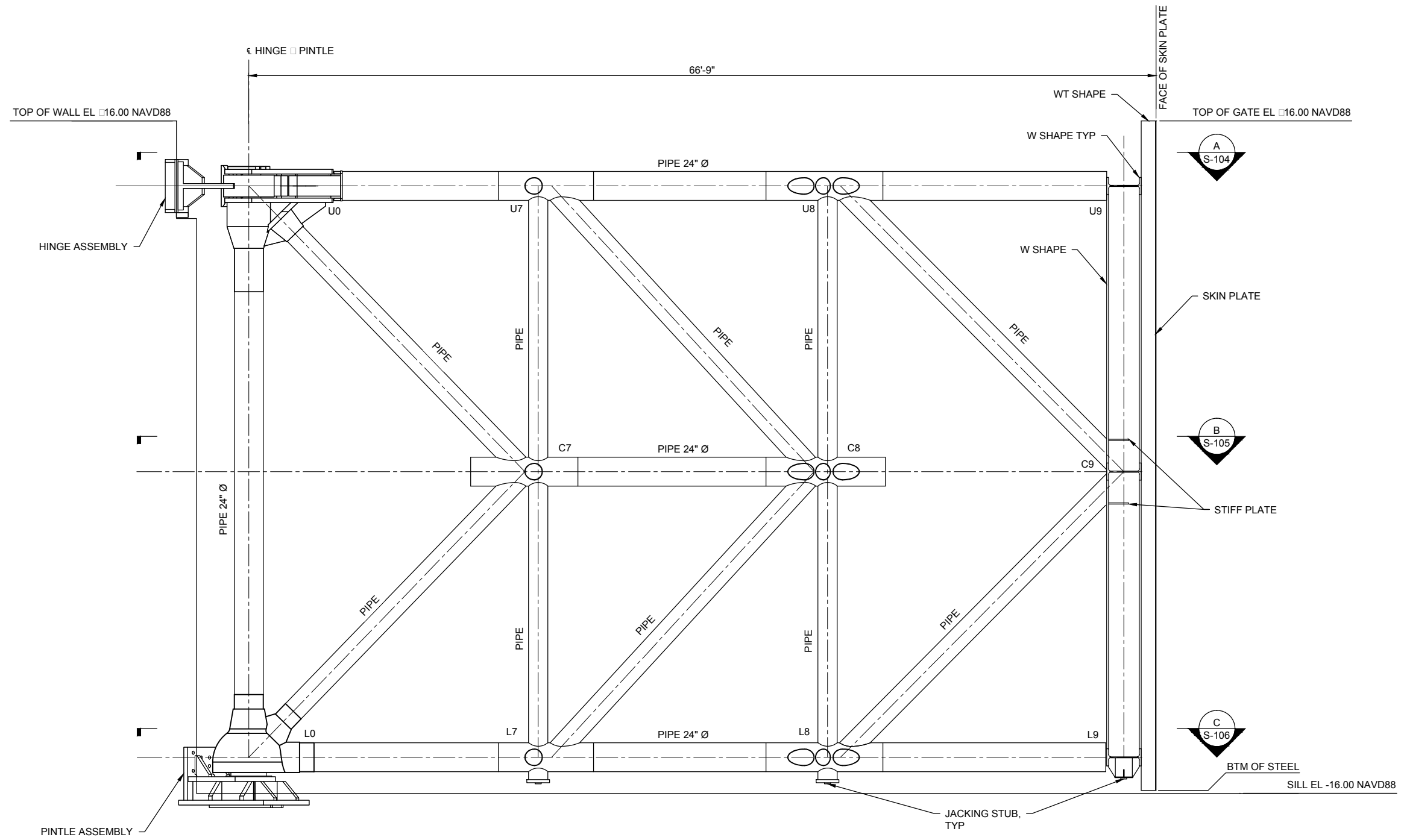
BRAZOS RIVER FLOODGATES FEASIBILITY STUDY BRAZORIA COUNTY, TX ALT. 3A, 9C SECTOR GATE MIDDLE TRUSS ELEVATION
--

SHEET ID  
**S-202**

**CONCEPT DRAWING**

1 2 3 4 5 6 7 8 9 10

G  
F  
E  
D  
C  
B  
A



**(C)**  
**S-103** ELEVATION - RECESS TRUSS  
SCALE: NTS



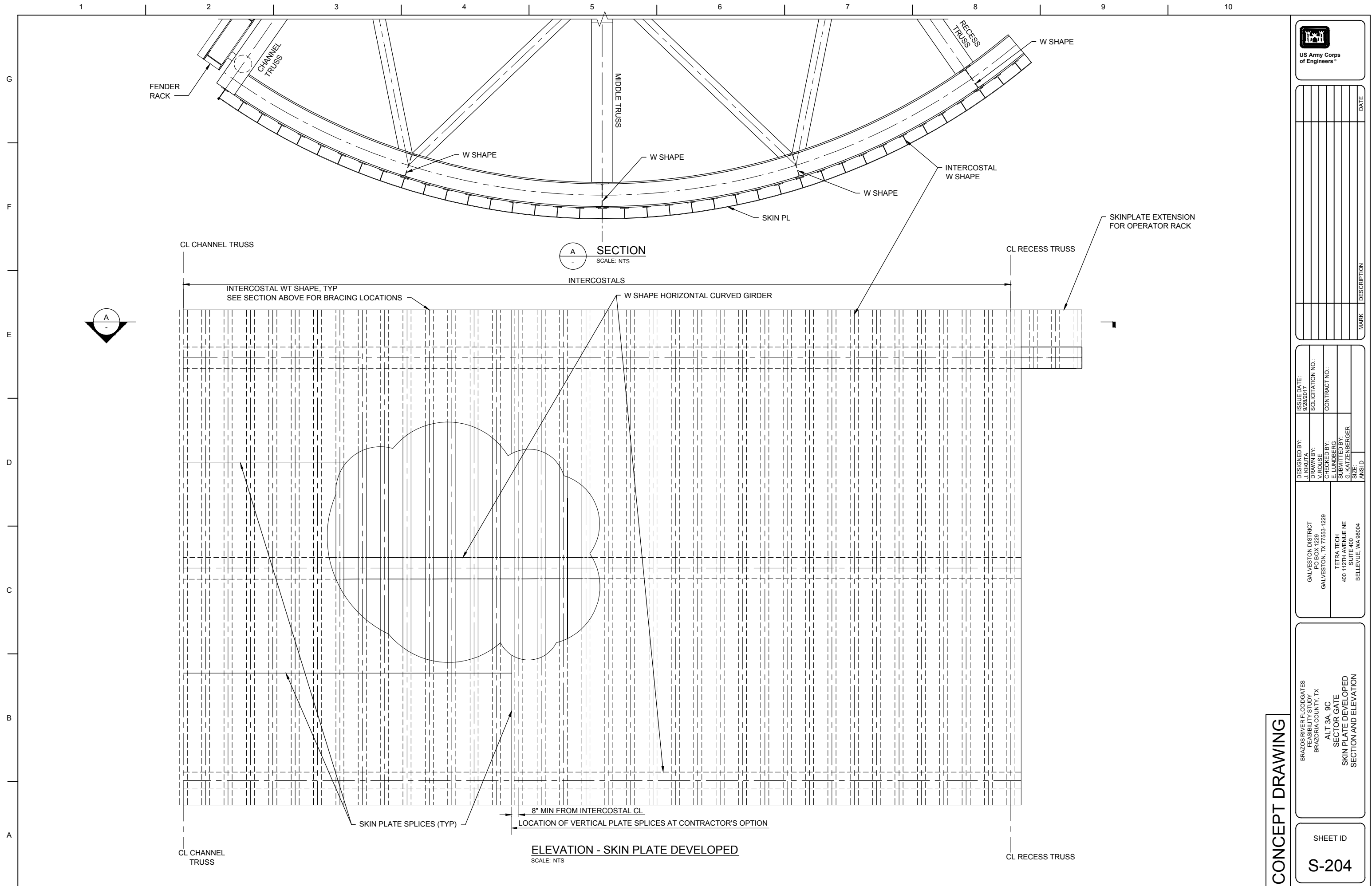
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CHECKED BY: E. LUNDBERG	CONTRACT NO.:	
SUBMITTED BY: G. KATZENBERGER		
SIZE: ANSI D		

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
SECTOR GATE  
RECESS TRUSS  
ELEVATION

SHEET ID  
**S-203**

CONCEPT DRAWING



**SECTION**  
SCALE: NTS

**ELEVATION - SKIN PLATE DEVELOPED**  
SCALE: NTS



MARK	DESCRIPTION	DATE

<b>DESIGNED BY:</b> M. J. ROUSE	<b>ISSUE DATE:</b> 02/20/24
<b>CHECKED BY:</b> E. LUNDBERG	<b>SOLICITATION NO.:</b>
<b>DATE:</b> V. ROUSE	<b>CONTRACT NO.:</b>
<b>SUBMITTED BY:</b> G. KATZENBERGER	<b>ANSI D:</b>
<b>SIZE:</b>	

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
SECTOR GATE  
SKIN PLATE DEVELOPED  
SECTION AND ELEVATION

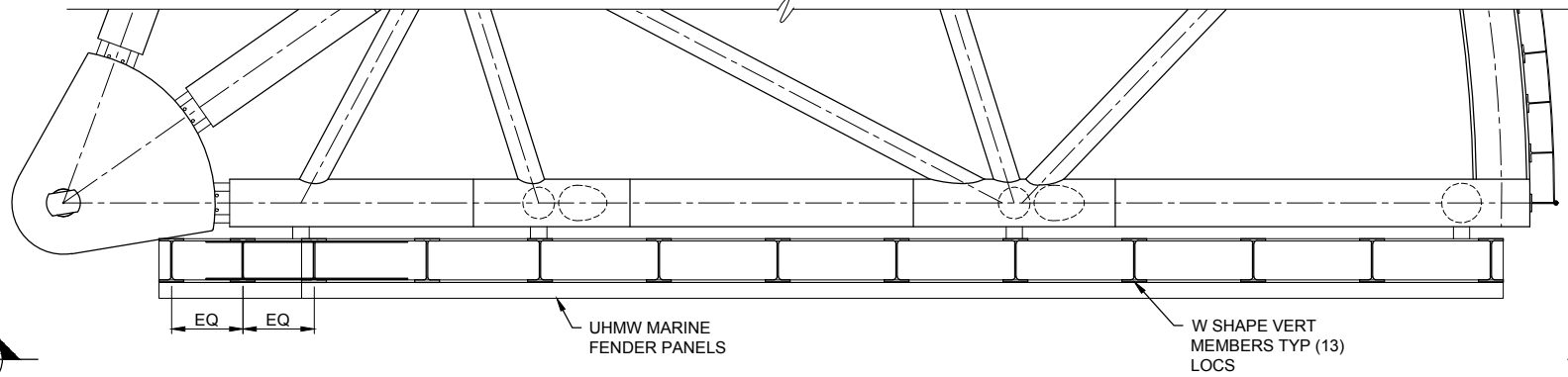
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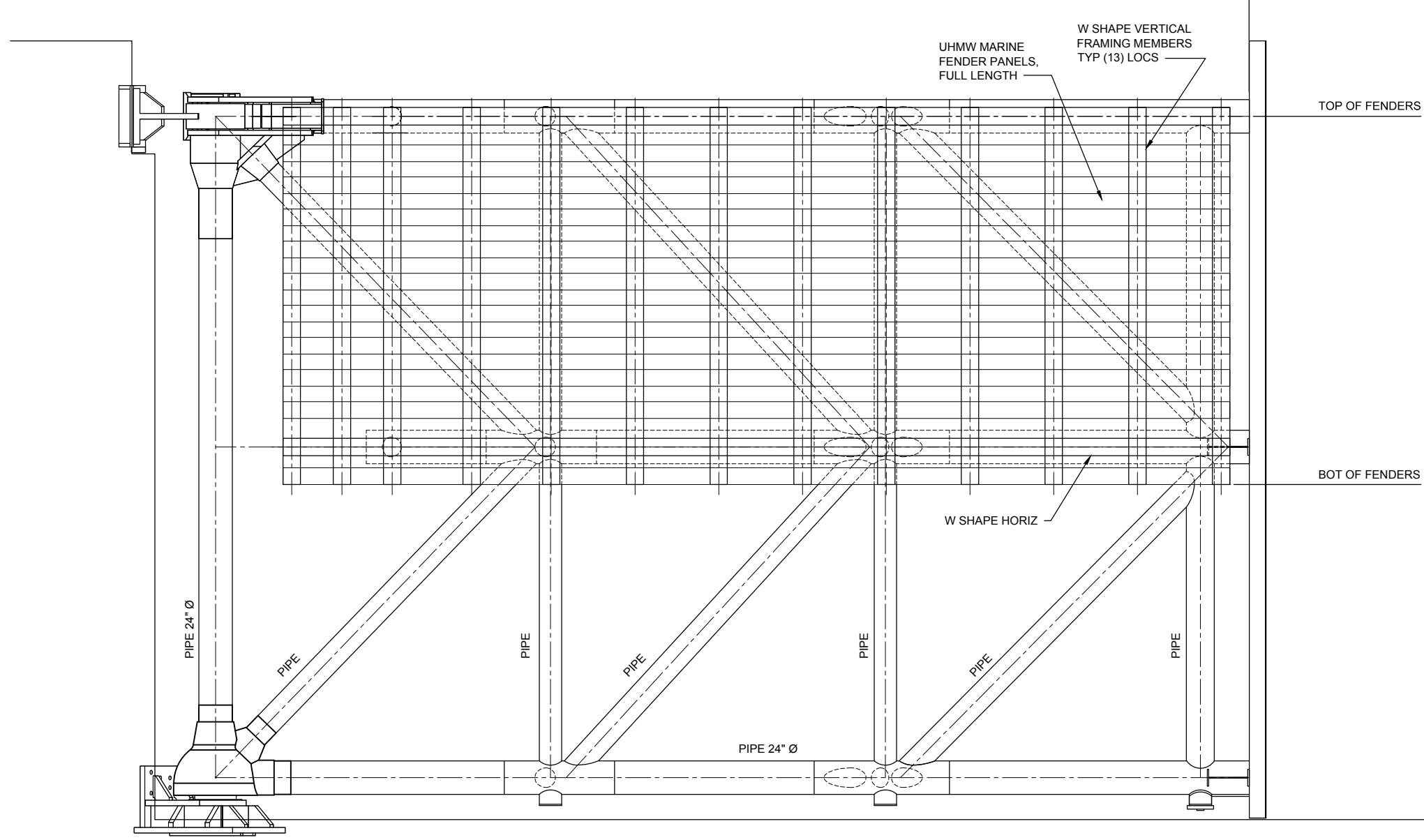


1 2 3 4 5 6 7 8 9 10

G  
F  
E  
D  
C  
B  
A



PLAN - FENDER RACK  
SCALE: NTS



ELEVATION - FENDER SYSTEM  
SCALE: NTS



US Army Corps of Engineers

MARK	DESCRIPTION	DATE

DESIGNED BY: V. ROUSE	ISSUE DATE: 02/28/2024
DRAWN BY: E. LUNDBERG	PROJECT NO.:
CHECKED BY: G. KATZENBERGER	SOLICITATION NO.:
DATE:	CONTRACT NO.:
SCALE:	
ANSID:	

GALVESTON DISTRICT PO BOX 1229 GALVESTON, TX 77553-1229	TETRA TECH 400 112TH AVENUE NE SUITE 400 BELLEVUE, WA 98004
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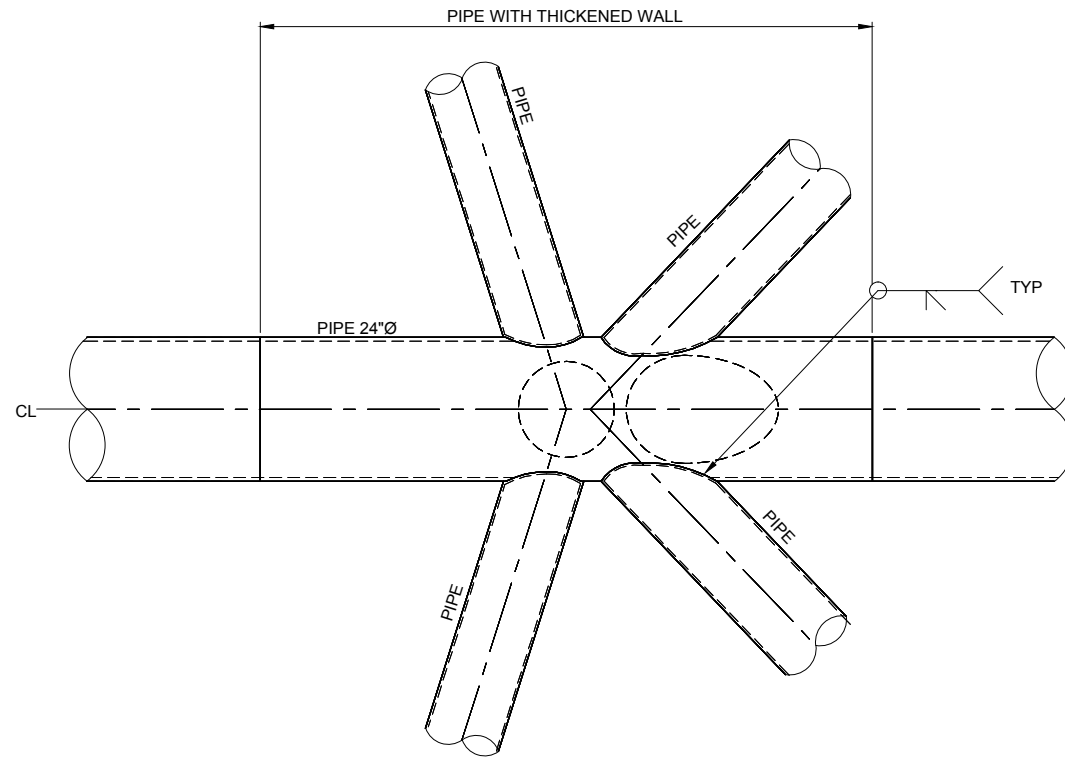
BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
SECTOR GATE  
FENDER SYSTEM  
PLAN AND ELEVATION

CONCEPT DRAWING

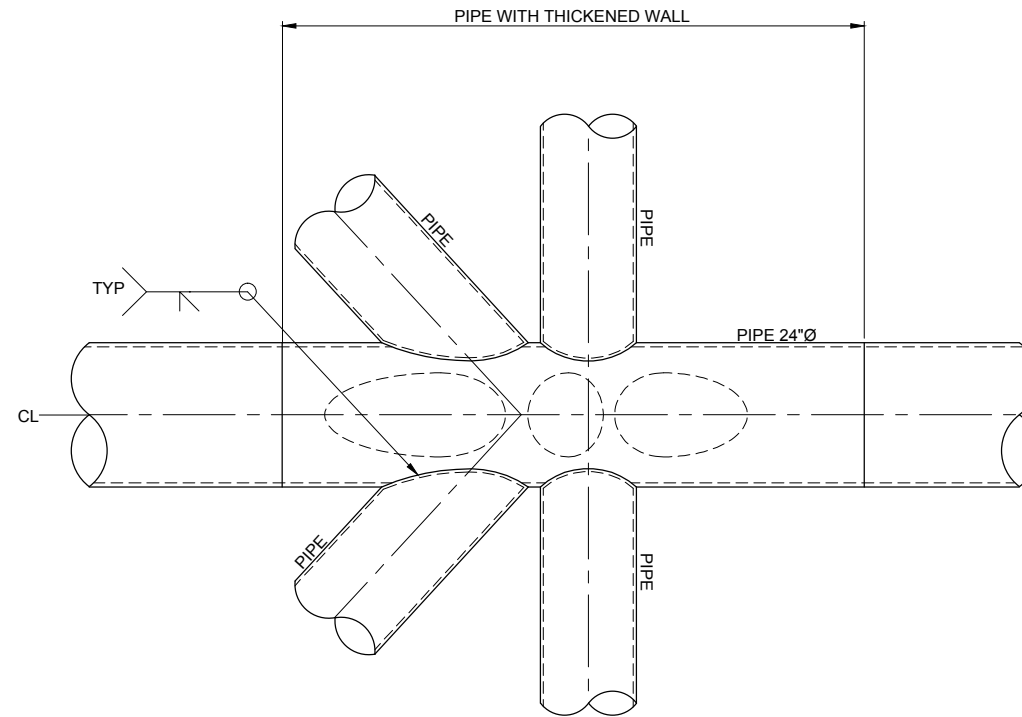
SHEET ID  
**S-205**

1 2 3 4 5 6 7 8 9 10

G  
F  
E  
D  
C  
B  
A



1 PLAN - TYPICAL HORIZONTAL JOINT  
SCALE: 3/4"=1'-0"



2 ELEVATION - TYPICAL VERTICAL JOINT  
SCALE: 3/4"=1'-0"



US Army Corps  
of Engineers

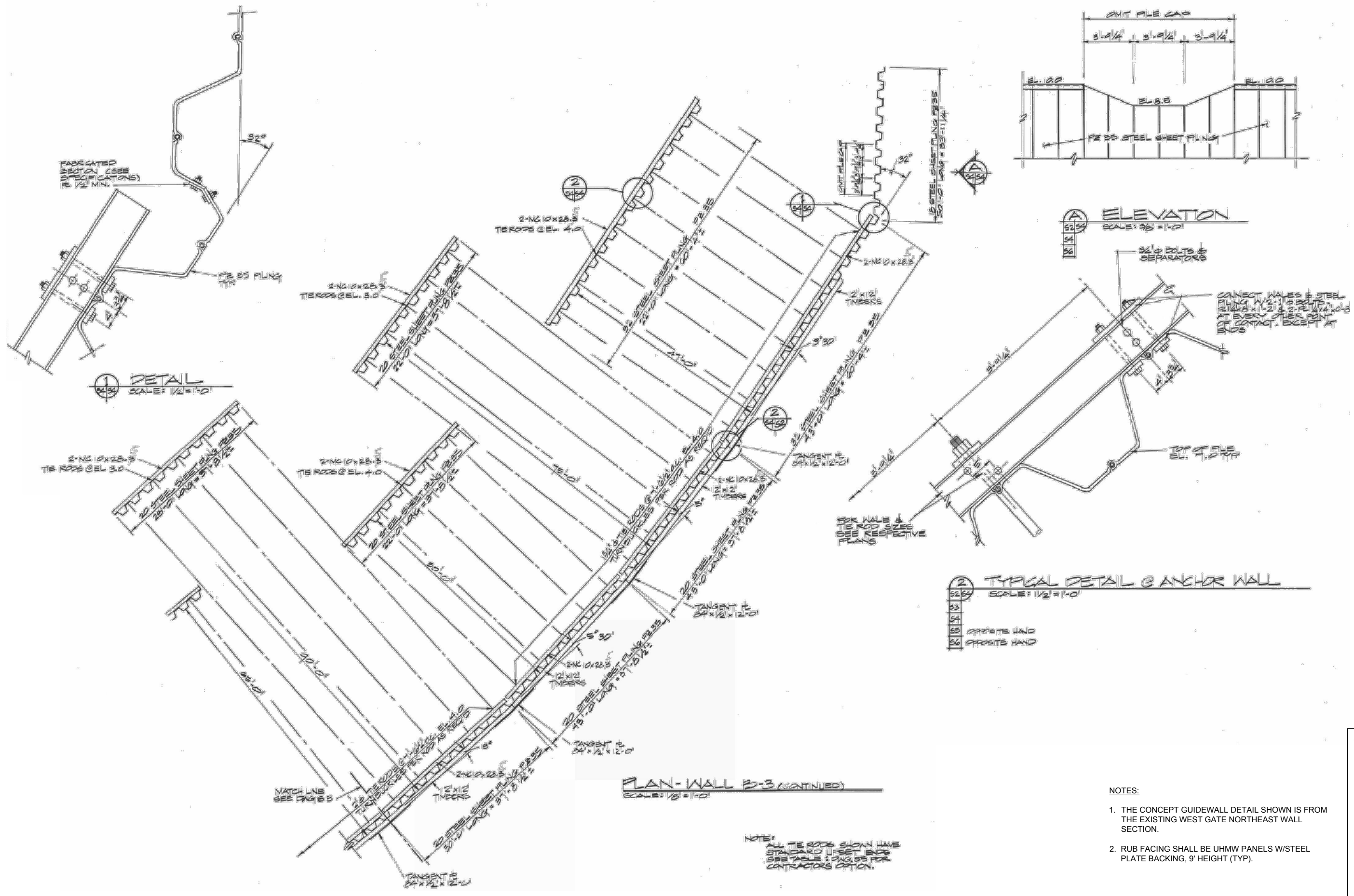
MARK	DESCRIPTION	DATE

DESIGNED BY: DRAWN BY: V. ROUSE	ISSUE DATE: 02/20/04	SOLICITATION NO.:	CONTRACT NO.:
CHECKED BY: E. LUNDBERG	SUBMITTED BY: G. KATZENBERGER	SIZE:	ANSI D
GALVESTON DISTRICT PO BOX 1229 GALVESTON, TX 77553-1229	TETRA TECH 400 112TH AVENUE NE SUITE 400 BELLEVUE, WA 98004		

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
SECTOR GATE  
CONNECTION DETAILS  
PLAN AND ELEVATION

CONCEPT DRAWING

SHEET ID  
S-301



MARK	DESCRIPTION

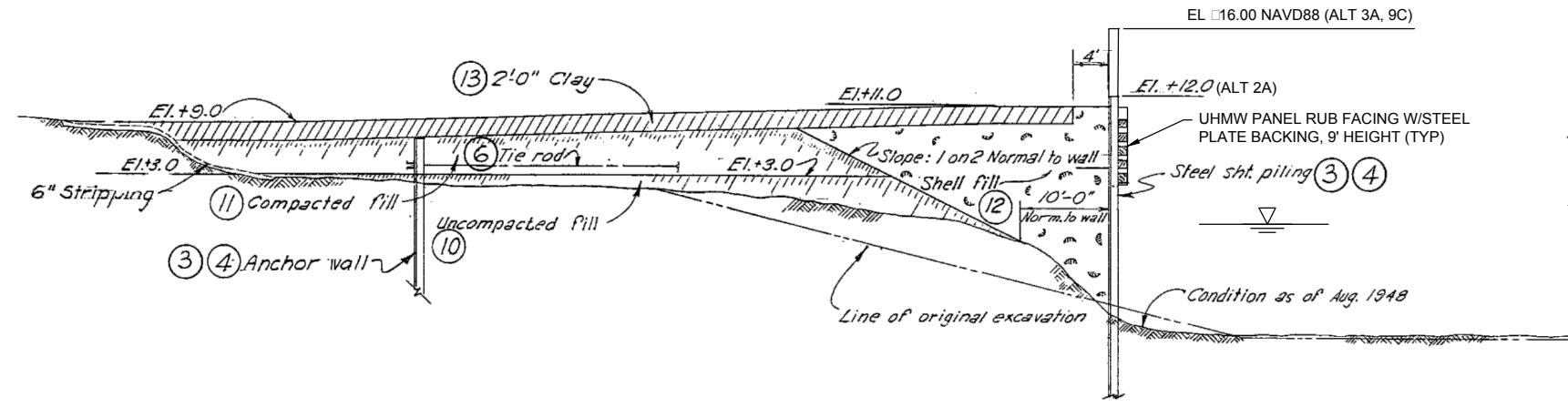
DESIGNED BY:	ISSUE DATE:
DRAWN BY:	DATE:
CHECKED BY:	SOLICITATION NO.:
SUBMITTED BY:	CONTRACT NO.:
SIZE:	ANSI D
G. KATZENBERGER	

GALVESTON DISTRICT  
PO BOX 1229  
GALVESTON, TX 77553-1229

TETRA TECH  
400 112TH AVENUE NE  
SUITE 400  
BELLEVUE, WA 98004

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 2A, 3A, 9C  
GUIDEWALL  
SHEET PILE  
PLAN, ELEVATION, DETAILS

SHEET ID  
**S-401**



**SECTION H-H**  
SCALE: NTS

**TYPICAL GUIDEWALL SECTION**  
SCALE: NTS

**NOTES:**

1. THE UHMW PANEL RUB FACING SHALL BE 2-3/4" THICK W/STEEL PLATE 5/8" THICK BACKING FASTENED TO THE SHEET PILE WALL. THE REQUIRED RUB FACING HEIGHT IS ESTIMATED TO BE 9 FEET TALL.
2. THE TYPICAL GUIDEWALL SECTION SHOWN OFFERS THE FOLLOWING ADVANTAGES OVER A CAST-IN-PLACE CONCRETE WALL SUPPORTED ON STEEL PIPE PILES:
  - A. IN-THE-WET CONSTRUCTION REDUCES TIME AND COST.
  - B. MUCH SMALLER COFFERDAM REQUIRED.
  - C. REDUCES DEWATERING NEEDS DURING CONSTRUCTION.



MARK	DESCRIPTION	DATE

DESIGNED BY: E. LUNDBERG	ISSUE DATE: 02/20/04
DRAWN BY: V. ROUSE	PROJECT NO.:
CHECKED BY: G. KATZENBERGER	CONTRACT NO.:
SUBMITTED BY: G. KATZENBERGER	
SIZE: ANSI D	

GALVESTON DISTRICT  
PO BOX 1229  
GALVESTON, TX 77553-1229

TETRA TECH  
400 112TH AVENUE NE  
SUITE 400  
BELLEVUE, WA 98004

**CONCEPT DRAWING**

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 2A, 3A, 9C  
GUIDEWALL  
TYPICAL  
SECTION

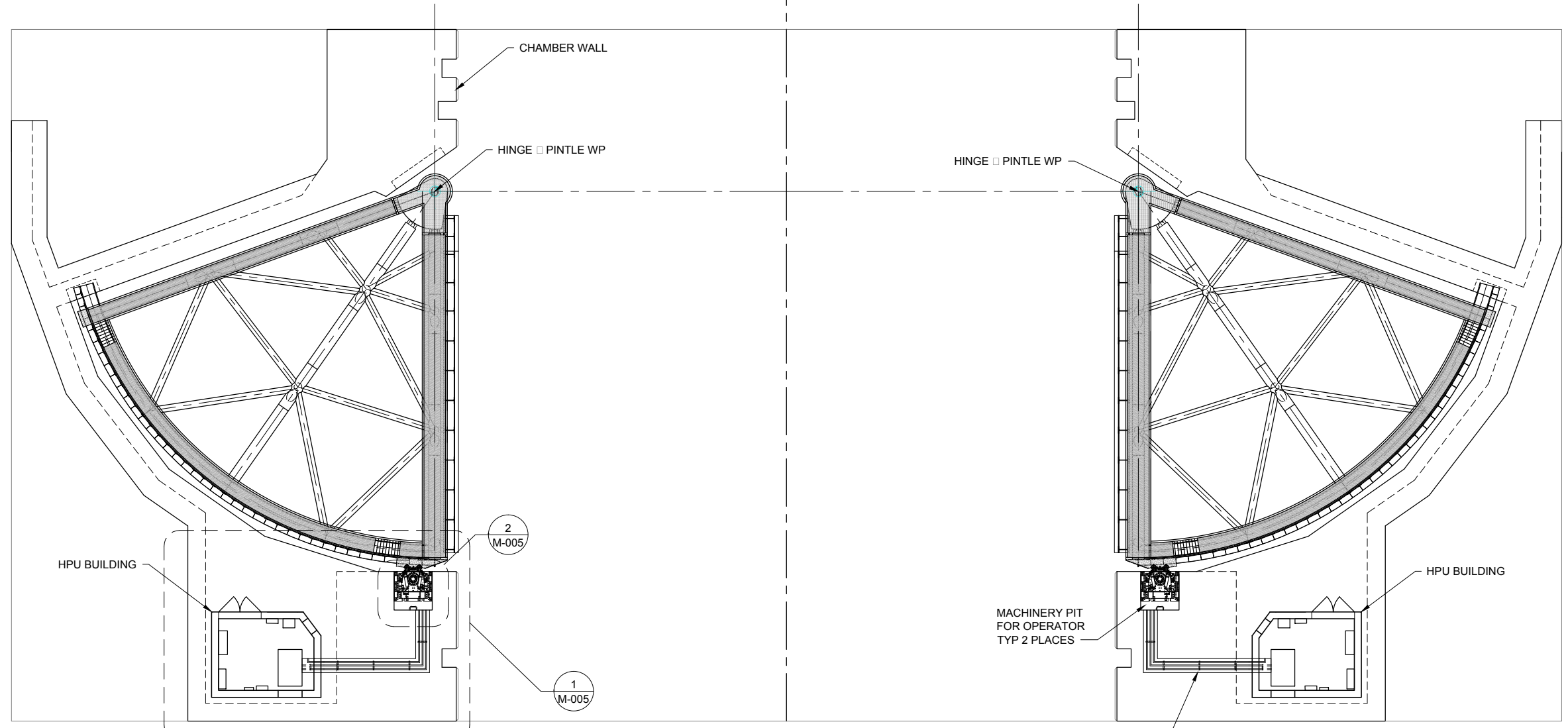
SHEET ID  
**S-402**

1 2 3 4 5 6 7 8 9 10

G  
F  
E  
D  
C  
B  
A

PROTECTED SIDE

CL CHANNEL GIWW AND FLOODGATES



RIVER SIDE

**PLAN OPEN - RACK AND PINION**  
SCALE: NTS  
SECTOR GATE SHOWN IN OPEN POSITION

HYDRAULIC AND ELECTRIC CONDUIT TRENCH. TRENCH COVERS NOT SHOWN



DATE	DESCRIPTION	MARK

DESIGNED BY: E. LUNDBERG	ISSUE DATE: 02/24/2010
DRAWN BY: V. ROUSE	SOLICITATION NO.:
CHECKED BY: E. LUNDBERG	CONTRACT NO.:
SUBMITTED BY: G. KATZENBERGER	
SIZE: ANSI D	

GALVESTON DISTRICT PO BOX 1229 GALVESTON, TX 77553-1229	TETRA TECH 400 112TH AVENUE NE SUITE 400 BELLEVUE, WA 98004
---	--

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
GATE MECHANICAL  
RACK AND PINION  
PLAN OPEN

CONCEPT DRAWING

SHEET ID  
**M-001**



US Army Corps  
of Engineers

MARK	DESCRIPTION	DATE

DESIGNED BY: E. LUNDBERG	ISSUE DATE: 02/20/94
DRAWN BY: V. ROUSE	SYMBOLS:
CHECKED BY: E. LUNDBERG	SOLICITATION NO.:
SUBMITTED BY: G. KATZENBERGER	CONTRACT NO.:
SIZE: ANSI D	

GALVESTON DISTRICT PO BOX 1229 GALVESTON, TX 77553-1229	TETRA TECH 400 112TH AVENUE NE SUITE 400 BELLEVUE, WA 98004
---	--

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
GATE MECHANICAL  
RACK AND PINION  
PLAN CLOSED

SHEET ID  
**M-002**

PROTECTED SIDE

CL CHANNEL GIWW FLOODGATES

CHAMBER WALL, TYP

1  
M-003

HINGE PINTLE WP, TYP

3  
M-005

HPU BUILDING

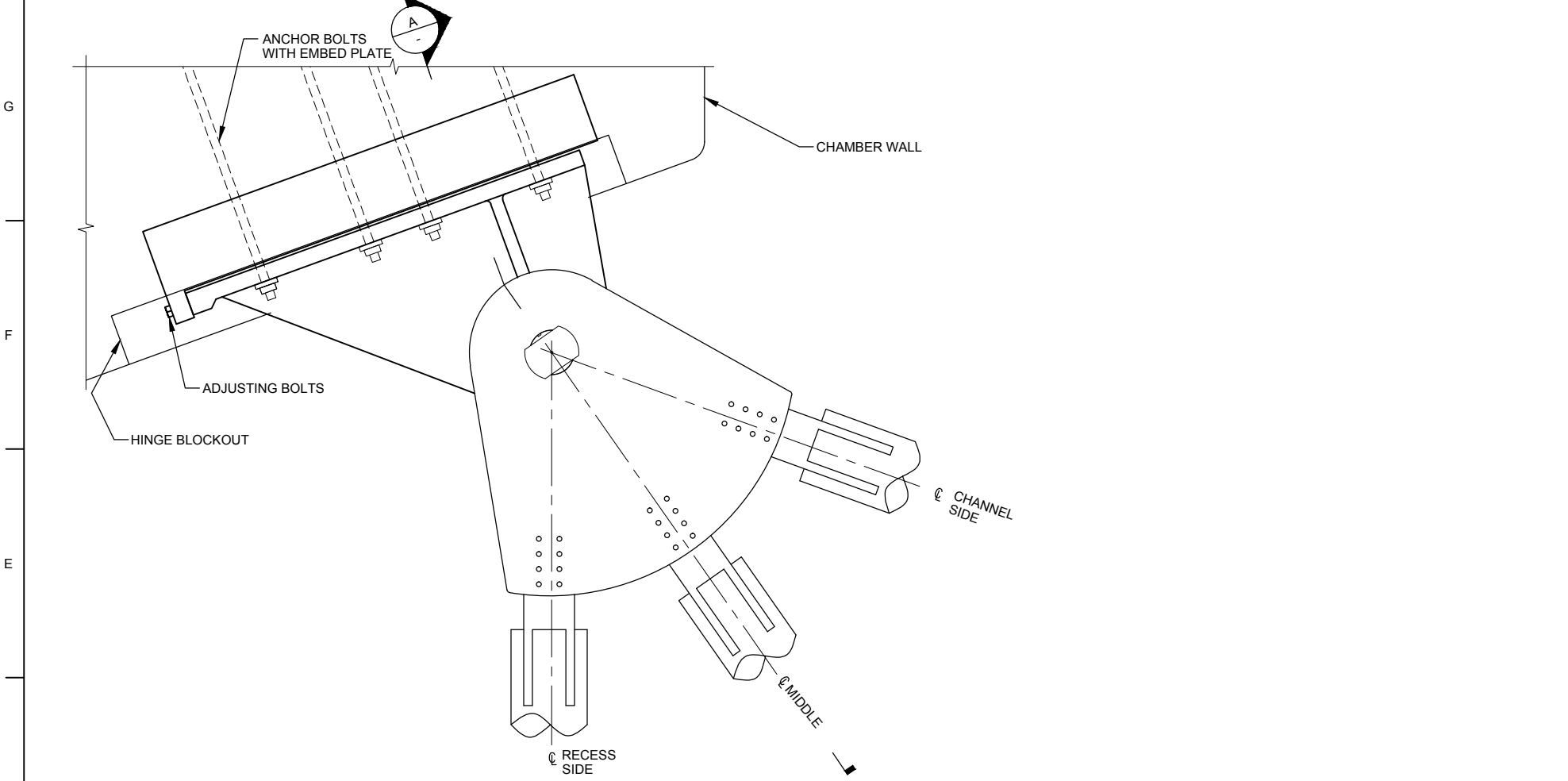
MACHINERY PIT  
FOR OPERATOR  
TYP 2 PLACES

HYDRAULIC AND ELECTRIC  
CONDUIT TRENCH. TRENCH  
COVERS NOT SHOWN

RIVER SIDE

**PLAN CLOSED - RACK AND PINION**  
SCALE: NTS  
SECTOR GATE SHOWN IN CLOSED POSITION

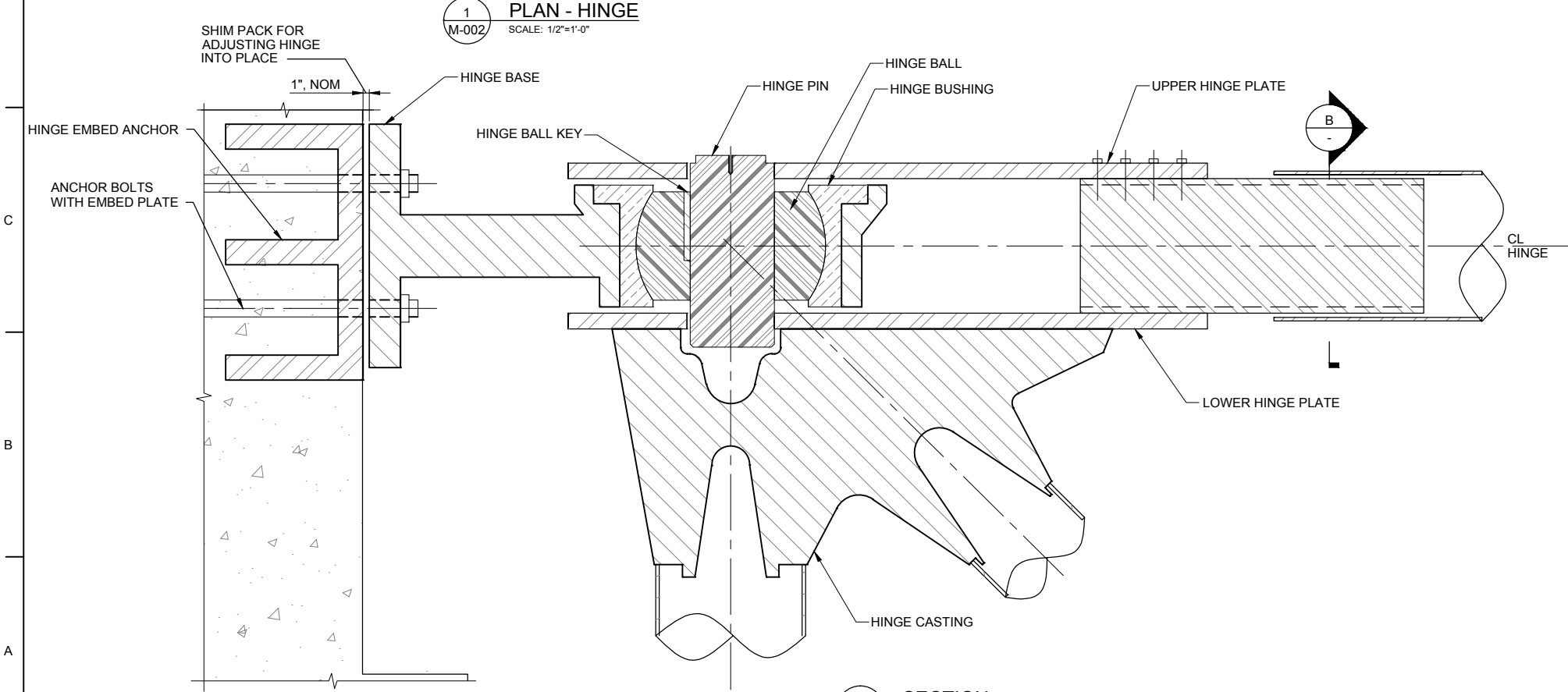
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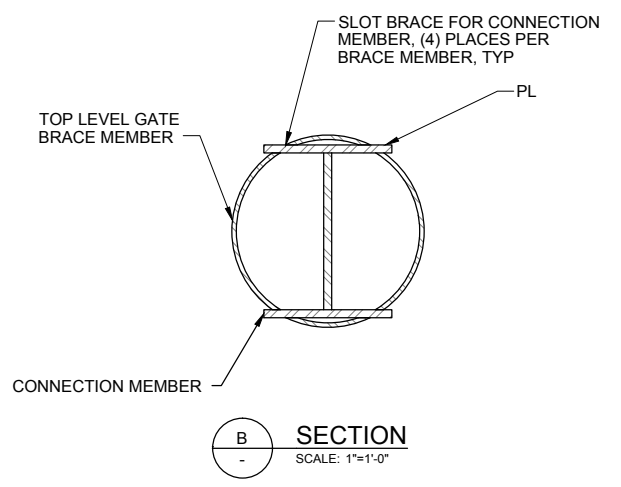
**1 PLAN - HINGE**  
SCALE: 1/2"=1'-0"

**HINGE BILL OF MATERIALS - QTY PER LEAF**

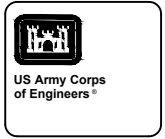
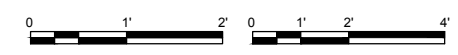
COMPONENT	QTY	MATERIAL
HINGE PIN	1	ASTM A276 TYPE XM-28
UPPER HINGE PLATE	1	ASTM A709-50
LOWER HINGE PLATE	1	ASTM A709-50
HINGE EMBED ANCHOR	1	ASTM A709-50
HINGE BASE	1	ASTM A148 GR 80-50
HINGE BUSHING	1	ASTM B148 C93200 LINED WITH KARON V OR TENMAT 814
HINGE BALL	1	ASTM A705 TYPE 630 H900
HINGE CASTING	1	ASTM A148 GR 80-50
HINGE BALL KEY	1	ASTM A276 TYPE 420 QUENCHED, TEMPER TO 400°F



**A SECTION**  
SCALE: 1"=1'-0"



**B SECTION**  
SCALE: 1"=1'-0"



DATE	DESCRIPTION	MARK

DESIGNED BY: V. ROUSE	ISSUE DATE: 02/20/14
DRAWN BY: V. ROUSE	SOLICITATION NO.:
CHECKED BY: E. LUNDBERG	CONTRACT NO.:
SUBMITTED BY: G. KATZENBERGER	
SIZE: ANSI D	

GALVESTON DISTRICT  
PO BOX 1229  
GALVESTON, TX 77553-1229

TETRA TECH  
400 112TH AVENUE NE  
SUITE 400  
BELLEVUE, WA 98004

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
GATE MECHANICAL  
HINGE  
PLAN AND SECTIONS

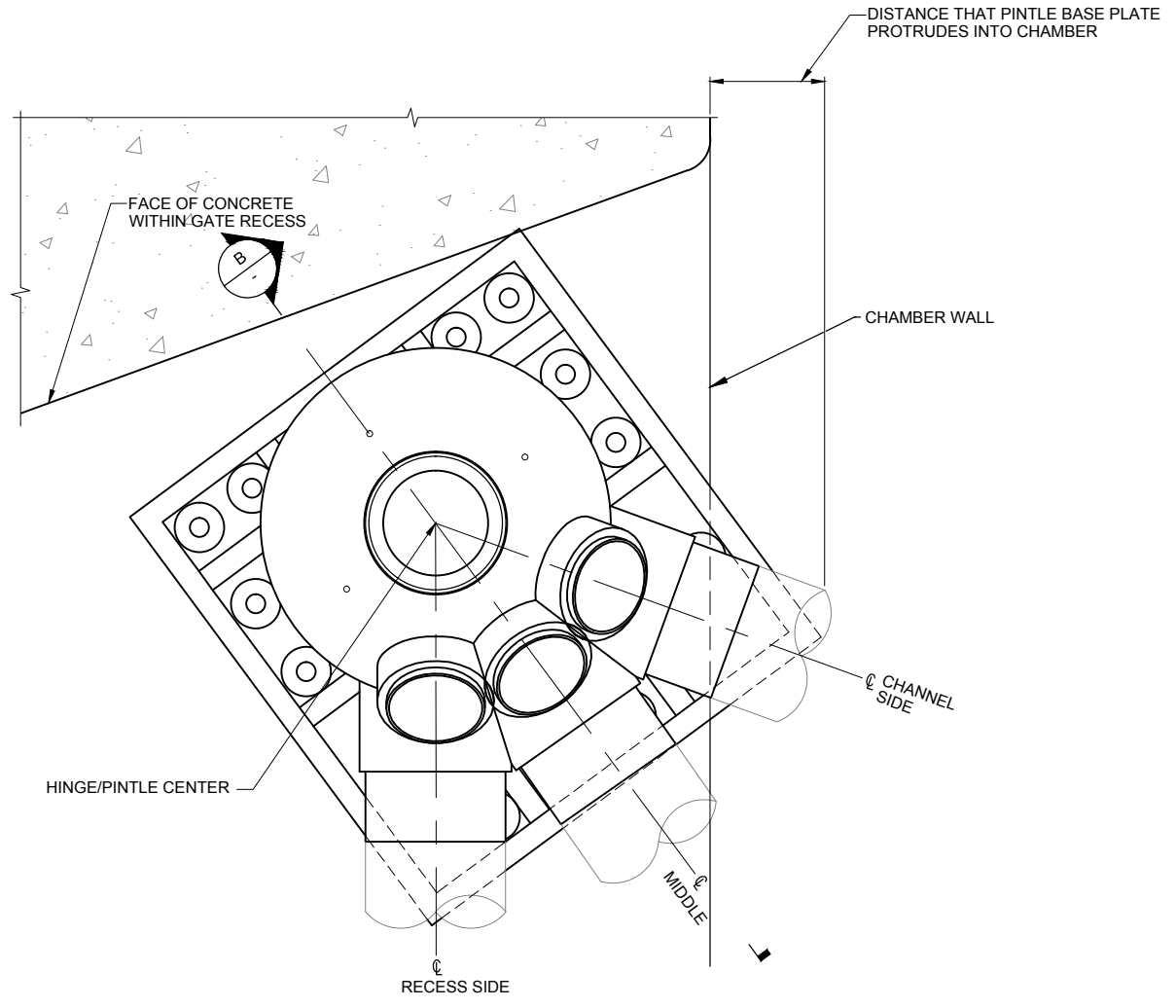
**CONCEPT DRAWING**

SHEET ID  
**M-003**



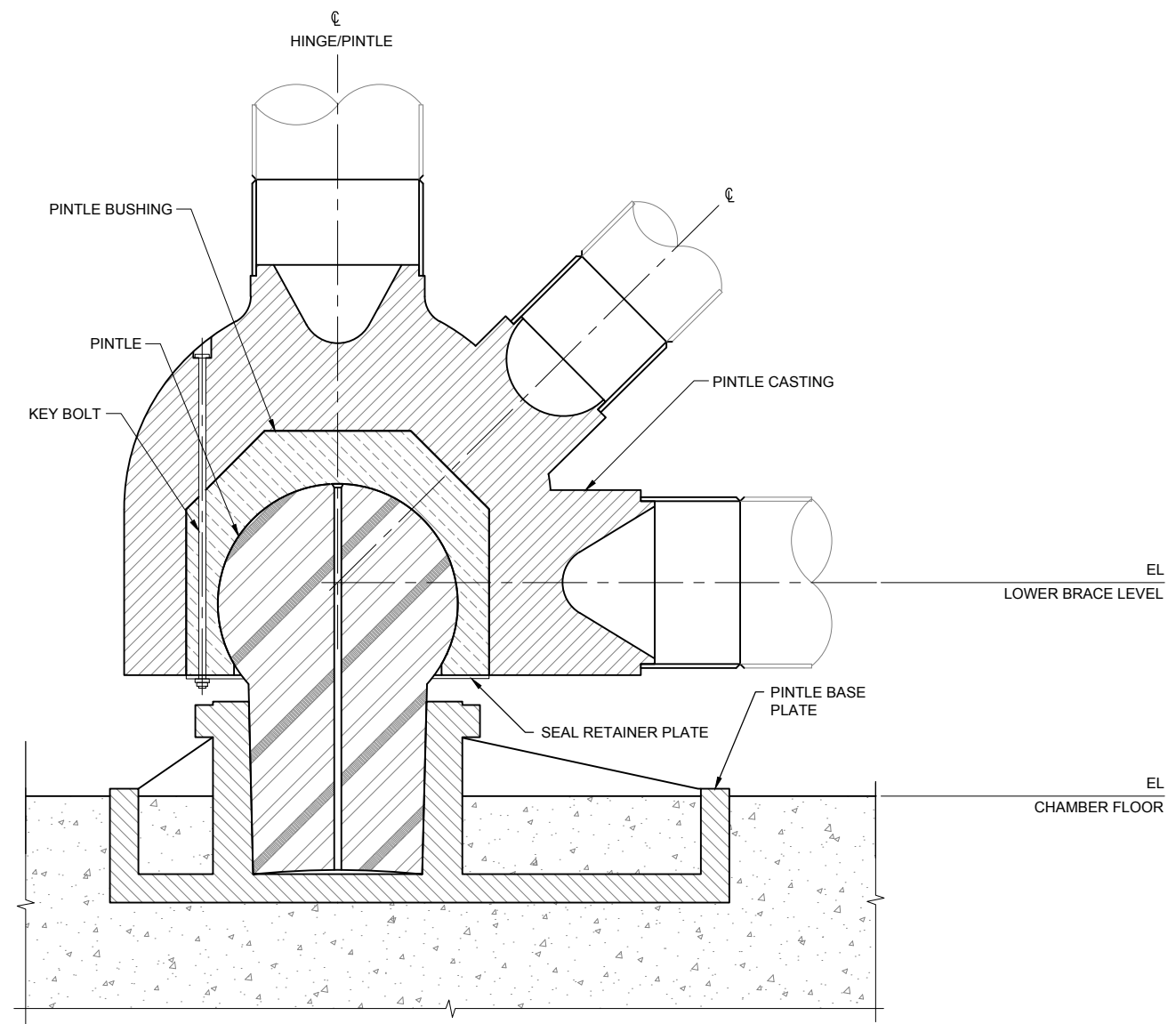
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G  
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A

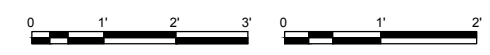


**A** SECTION  
SCALE: 3/4"=1'-0"  
GATE SHOWN IN CLOSED POSITION  
WEST SIDE SHOWN

PINTLE BILL OF MATERIALS-QNTY PER LEAF		
COMPONENT	QTY	MATERIAL
PINTLE CASTING	1	ASTM A148 GR 80-50
PINTLE BUSHING	1	ASTM B148, C93200 LINED WITH KARON V OR TENMAT 814
PINTLE	1	ASTM A705 TYPE 630 H900
PINTLE BASE PLATE	1	ASTM A148 GR 80-50
PINTLE SEAL RETAINER PLATE	1	UNS S31600



**B** SECTION  
SCALE: 1"=1'-0"



DATE	DESCRIPTION	MARK

DESIGNED BY: E. LUNDBERG	ISSUE DATE: 02/20/04
DRAWN BY: V. ROUSE	REVISION NO.:
CHECKED BY: E. LUNDBERG	SOLICITATION NO.:
SUBMITTED BY: G. KATZENBERGER	CONTRACT NO.:
SIZE: ANSI D	

GALVESTON DISTRICT  
PO BOX 1229  
GALVESTON, TX 77553-1229

TETRA TECH  
400 112TH AVENUE NE  
SUITE 400  
BELLEVUE, WA 98004

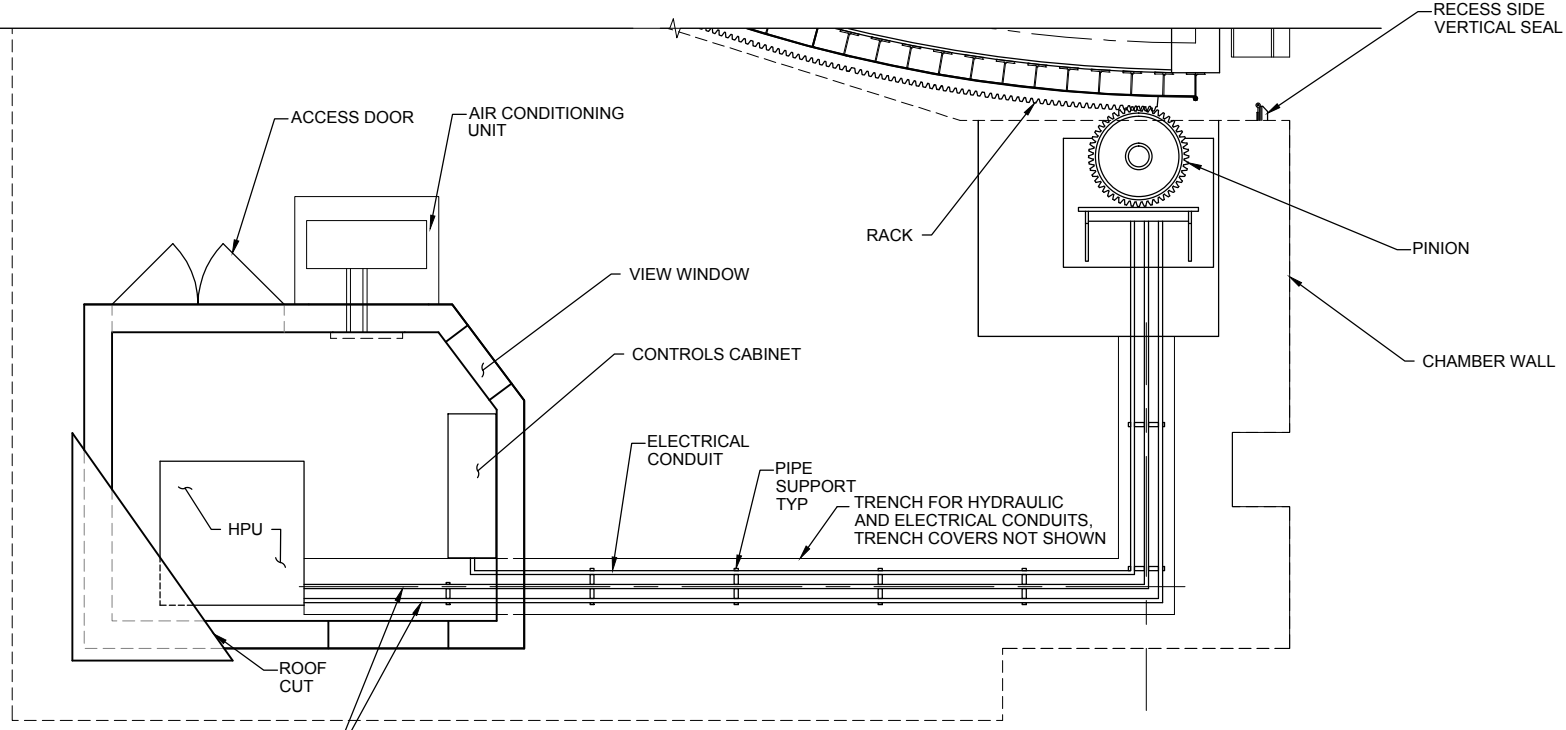
BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
GATE MECHANICAL  
PINTLE  
SECTIONS

CONCEPT DRAWING

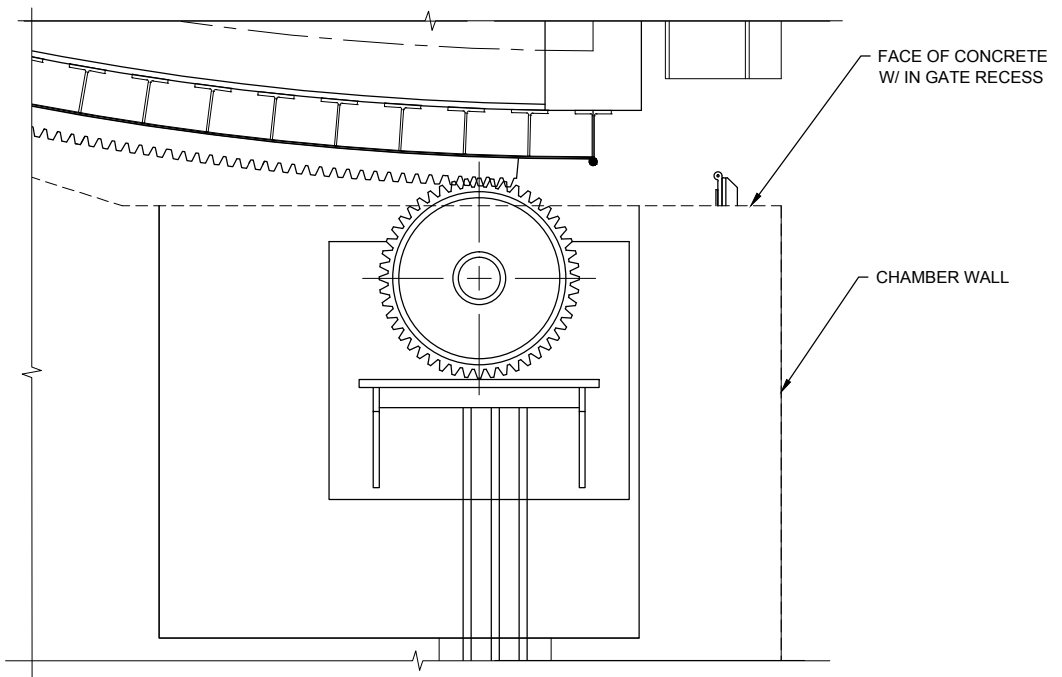
SHEET ID  
**M-004**

1 2 3 4 5 6 7 8 9 10

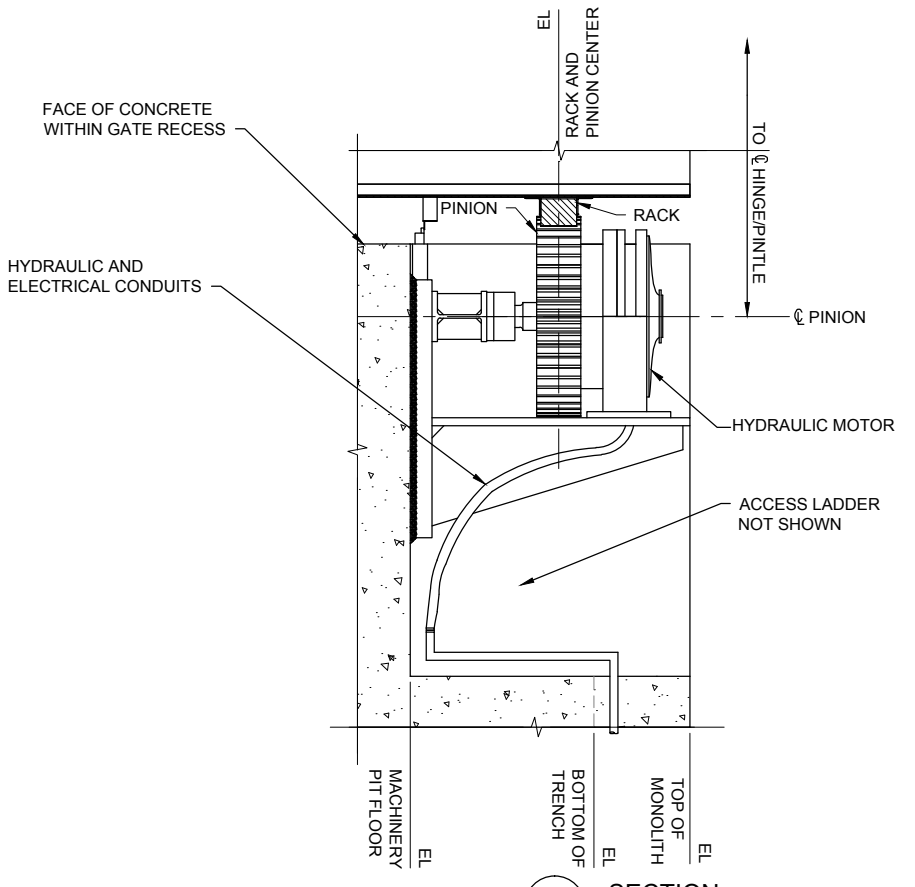
G  
F  
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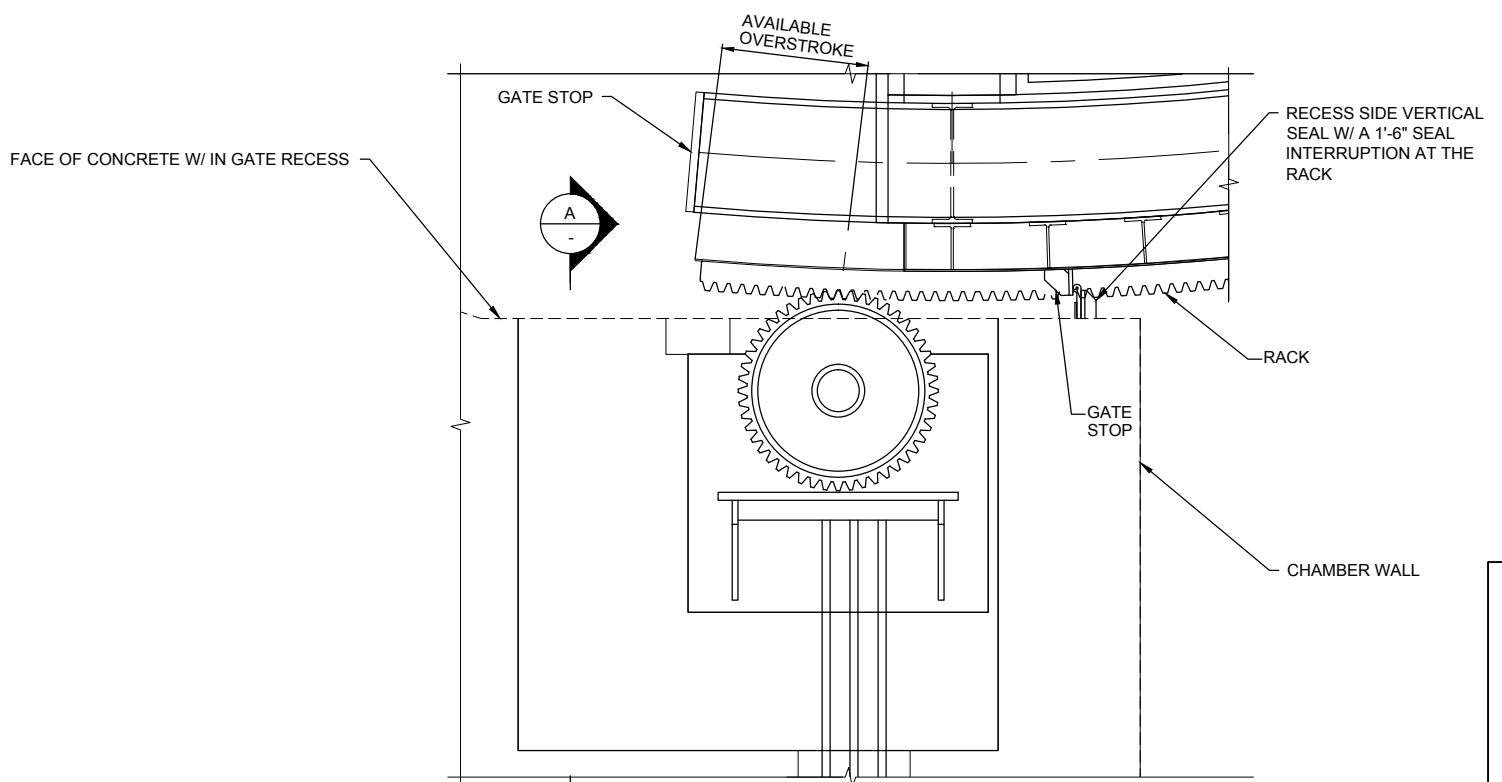
**1 OPERATOR AND HPU BUILDING**  
SCALE: 1/4"=1'-0"



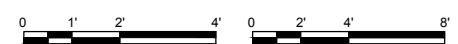
**2 RACK AND PINION OPERATOR DETAIL**  
SCALE: 1/2"=1'-0"  
GATE SHOWN IN OPEN POSITION



**A SECTION**  
SCALE: 1/2"=1'-0"



**3 RACK AND PINION OPERATOR DETAIL**  
SCALE: 1/2"=1'-0"  
GATE SHOWN IN CLOSED POSITION



MARK	DESCRIPTION	DATE

DESIGNED BY: V. ROUSE	ISSUE DATE: 02/04/2010
CHECKED BY: E. LUNDBERG	CONTRACT NO.:
SUBMITTED BY: G. KATZENBERGER	SOLICITATION NO.:
SIZE: ANSI D	

GALVESTON DISTRICT  
PO BOX 1229  
GALVESTON, TX 77553-1229

TETRA TECH  
400 112TH AVENUE NE  
SUITE 400  
BELLEVUE, WA 98004

BRAZOS RIVER FLOODGATES  
FEASIBILITY STUDY  
BRAZORIA COUNTY, TX  
ALT. 3A, 9C  
GATE MECHANICAL  
RACK AND PINION  
SECTIONS

SHEET ID  
**M-005**

**CONCEPT DRAWING**



1

2

3

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5

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C

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A



BAXTOR ISLAND

MATAGORDA

COLORADO RIVER

GIWW

EAST SIDE LOCKS

GIWW

GIWW


WEST SIDE LOCKS

COLORADO RIVER

GIWW

OVERALL PLAN OF COLORADO LOCKS

SCALE: 1" = 200'

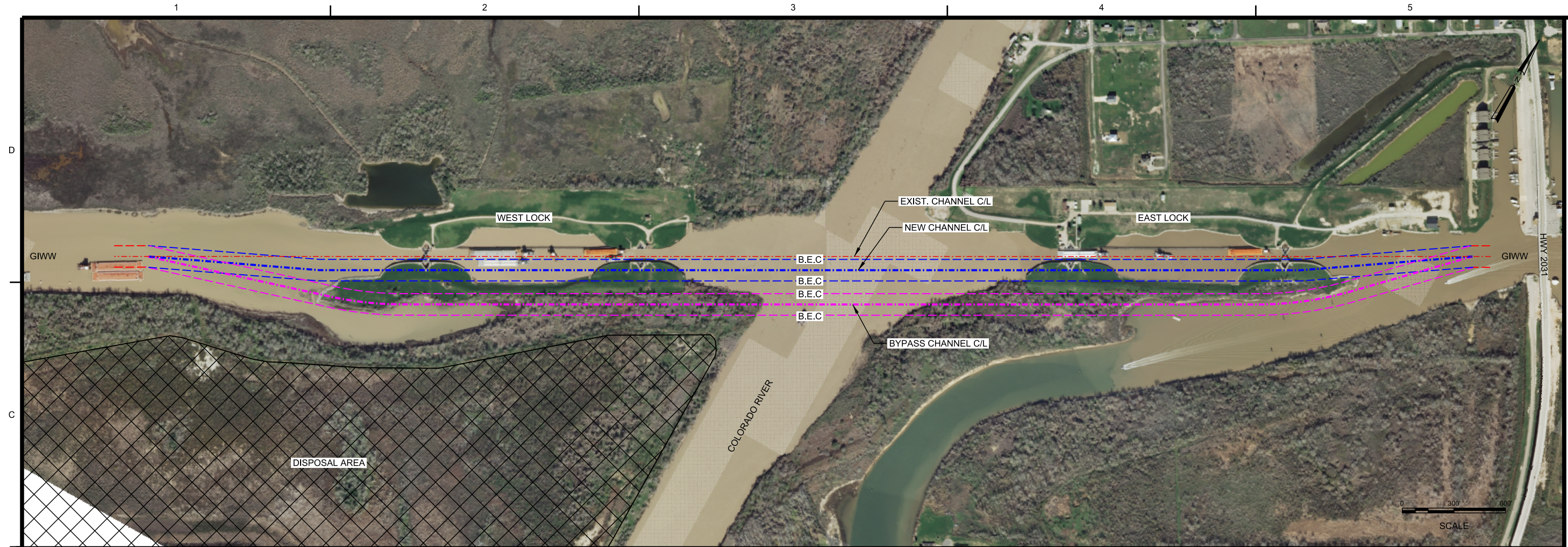
 <b>US Army Corps of Engineers</b> New Orleans District		
MARK	DESCRIPTION	DATE

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DESIGNED BY: DWN BY: SUBMITTED BY: PLOT SCALE: FILE NAME: ANSI D	DATE: SOLICITATION NO.: CONTRACT NO.: FILE NUMBER: ANSI D
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GULF INTRACOASTAL WATERWAY  
 COLORADO LOCKS  
 MATAGORDA, TEXAS  
 ALTERNATIVE ZB  
 OVERALL PLAN

SHEET  
 IDENTIFICATION  
**PL-01**





**NOTES:**

- 1.) DREDGE BYPASS CHANNEL IN ACCORDANCE WITH SHEET C-02, BYPASS CHANNEL PLAN.
- 2.) DREDGE NEW CHANNEL IN ACCORDANCE WITH SHEET C-12, NEW CHANNEL PLAN.



US Army Corps  
of Engineers®  
NEW ORLEANS DISTRICT

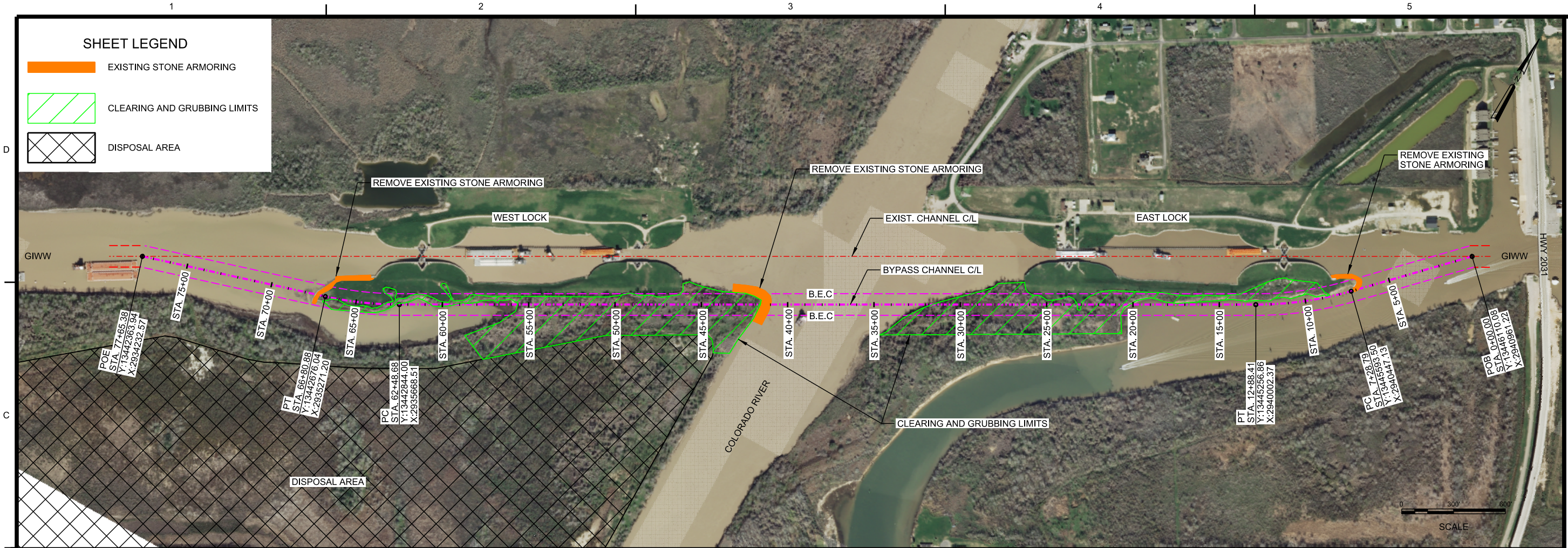
DATE	DESCRIPTION	APPR.	MARK

DESIGNED BY: BRUNSON, G. W.	DATE:	SOLICITATION NO.:
CHKD BY: PKG	05 APR 2017	CONTRACT NO.:
SUBMITTED BY: PKG		FILE NUMBER:
PLOT SCALE: AS SHOWN	PLOT DATE:	FILE NAME:
SIZE: ANSI D	05 APR 2017	

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.  
OVERALL PLAN

SHEET  
IDENTIFICATION  
**C-01**

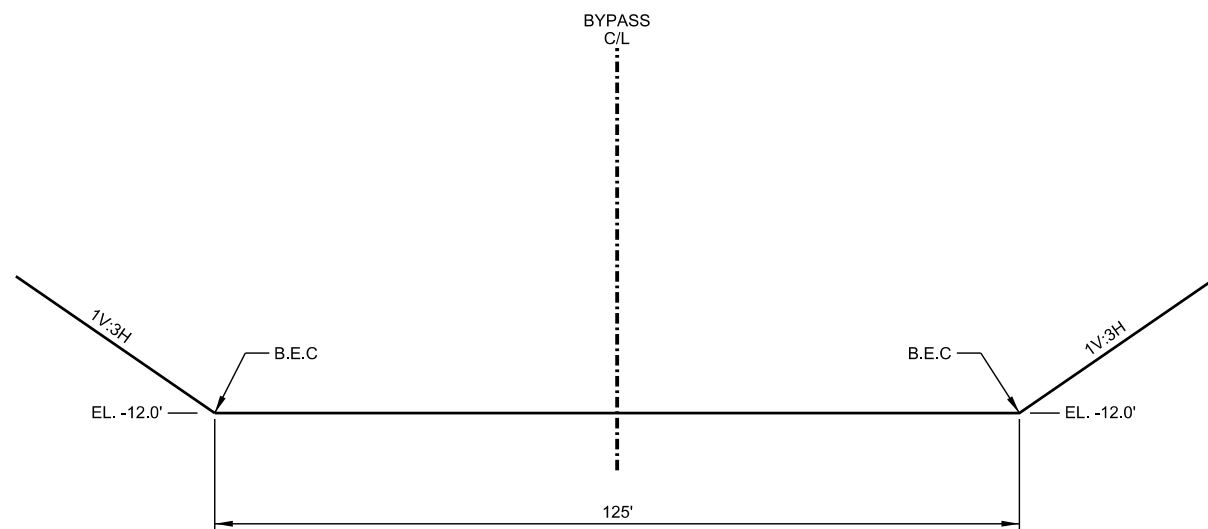




US Army Corps of Engineers NEW ORLEANS DISTRICT	
DATE	APPR
DESCRIPTION	MARK
DATE	APPR
DESCRIPTION	MARK
DATE	APPR
DESCRIPTION	MARK

**NOTES:**

- 1) STONE ARMORING AT THE SHOWN LOCATIONS SHALL BE REMOVED AND DISPOSED OF WITHIN THE DISPOSAL AREA PRIOR TO DREDGING.
- 2) CLEARING AND GRUBBING SHALL BE COMPLETED AT THE LIMITS SHOWN PRIOR TO DREDGING. ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF WITHIN THE DISPOSAL AREA. ALL TREES AND SHRUBS SHALL BE BURNED WITHIN THE DISPOSAL AREA.
- 3) THE BYPASS CHANNEL SHALL BE DREDGED IN ACCORDANCE WITH THE BYPASS CHANNEL CUT TEMPLATE AND AS SHOWN ON THE BYPASS CHANNEL CROSS SECTIONS.
- 4) DREDGED MATERIAL SHALL BE DISPOSED WITHIN THE DISPOSAL AREA SHOWN. IT IS ASSUMED THAT THE EXISTING RETENTION DIKES ARE SUITABLE FOR DISPOSAL.



**BYPASS CHANNEL CUT TEMPLATE**  
N.T.S.

DESIGNED BY: DANIEL R. GIBBY	CHKD BY: PKS	DATE:	SOLICITATION NO.:
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DATE: 05 APR 2017	CONTRACT NO.:	FILE NUMBER:
SUBMITTED BY:	FILE NAME:	SIZE:	ANSI D:

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.  
BYPASS CHANNEL PLAN

SHEET IDENTIFICATION  
**C-02**

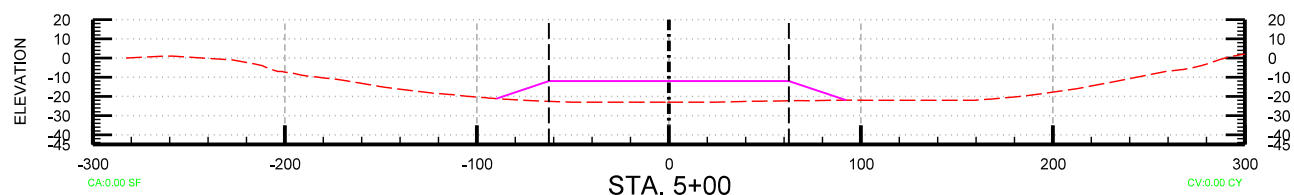
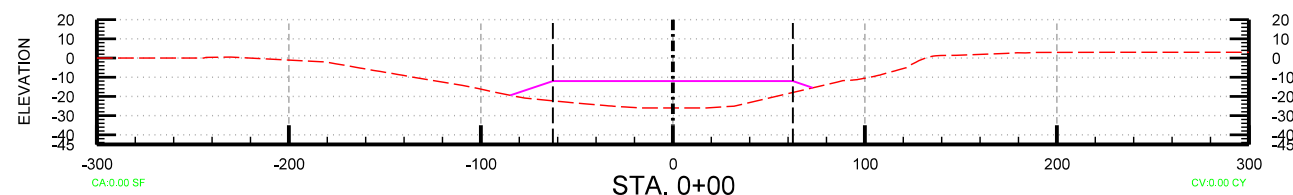
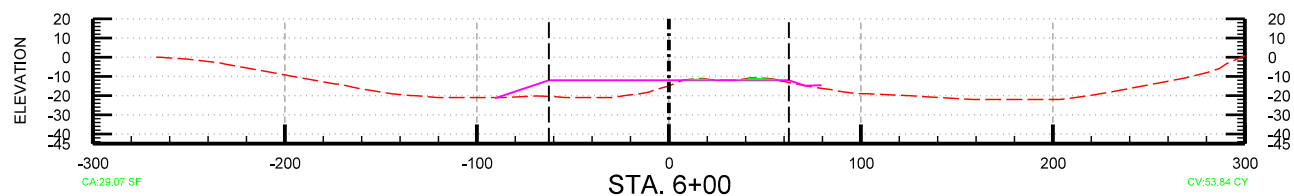
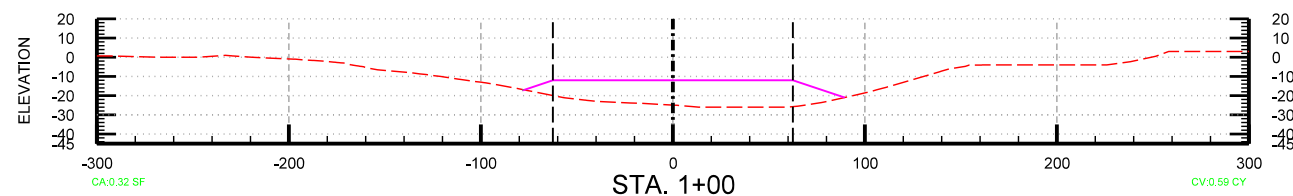
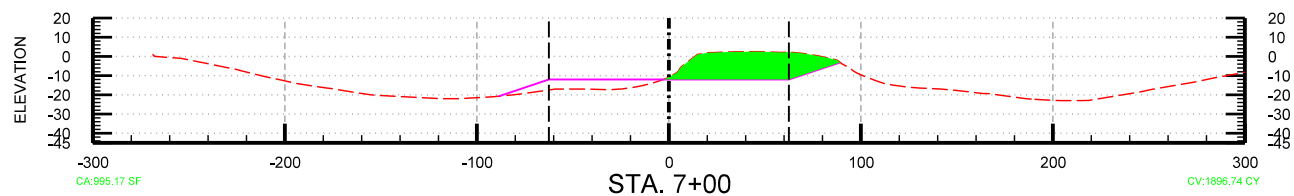
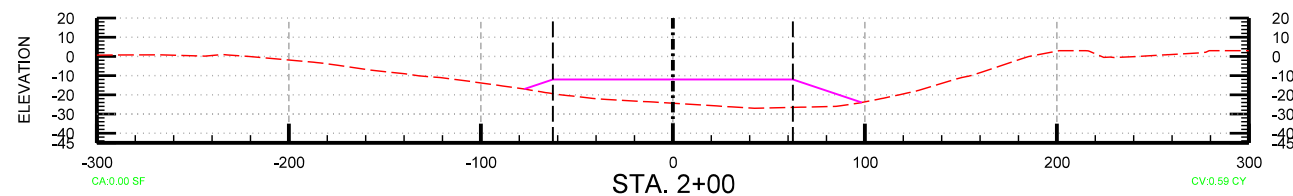
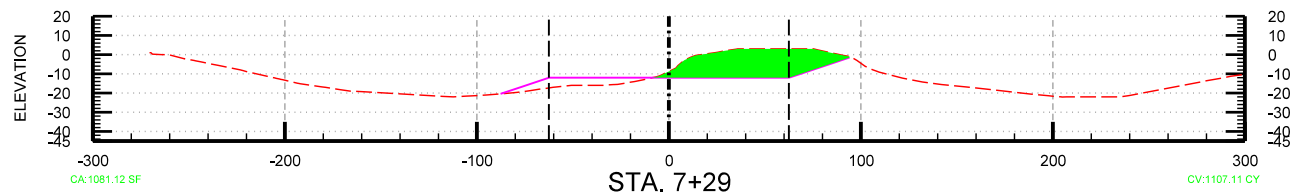
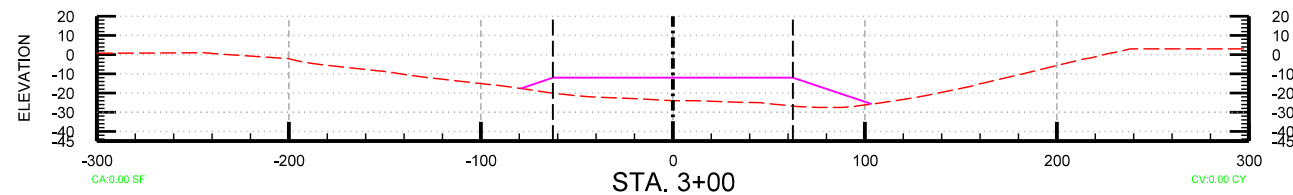
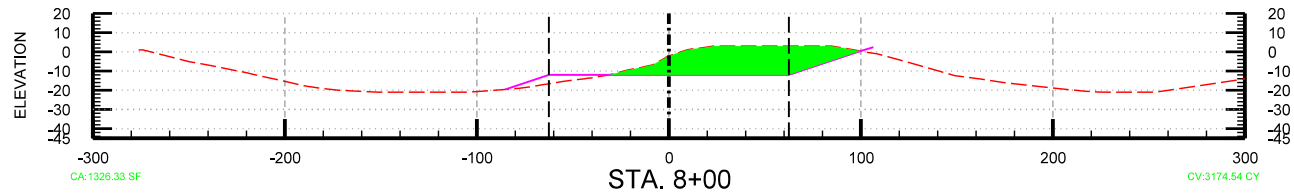
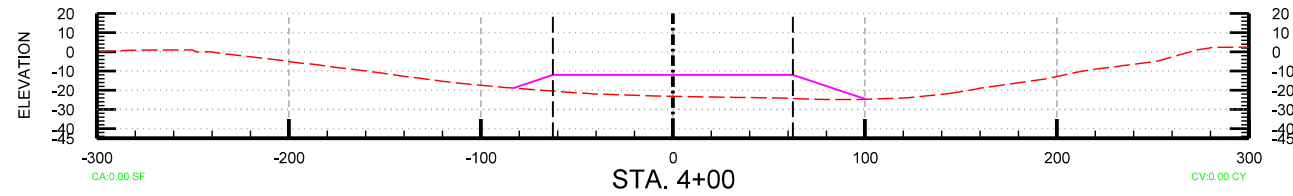


D

C

B

A



SHEET LEGEND

- EXISTING GROUND LINE
- BYPASS CHANNEL TEMPLATE
- BYPASS CHANNEL CENTERLINE
- B.E.C



DATE	DESCRIPTION	APPR	MARK

DESIGNED BY: KIMBERLY GORE	DATE: 	SOLICITATION NO.:
DRAWN BY: 	CHECKED BY:	CONTRACT NO.:
APPROVED BY:		FILE NUMBER:

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

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.

BYPASS CHANNEL  
CROSS SECTIONS  
STA. 00+00 TO STA. 8+00

SHEET IDENTIFICATION  
**C-03**



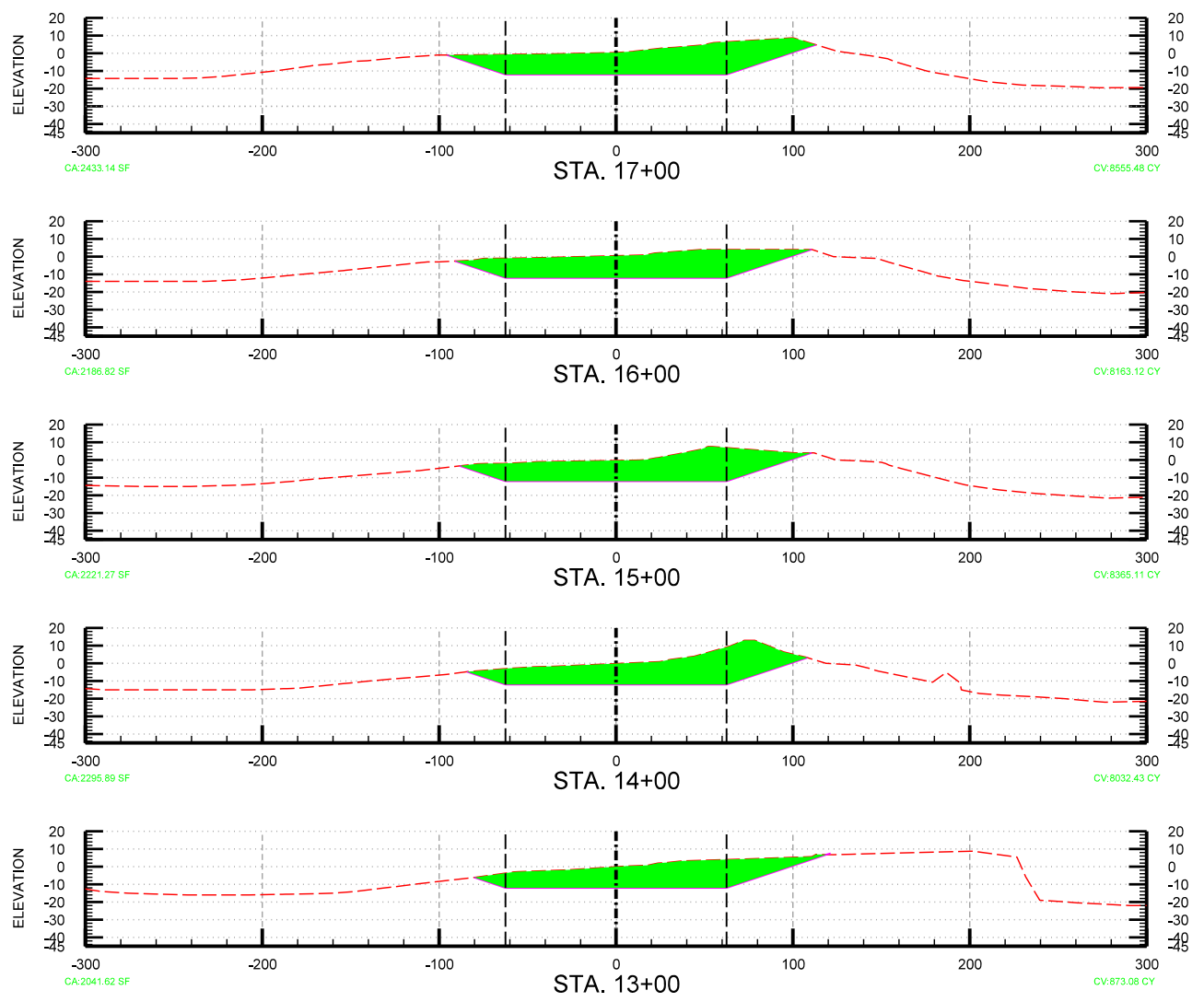
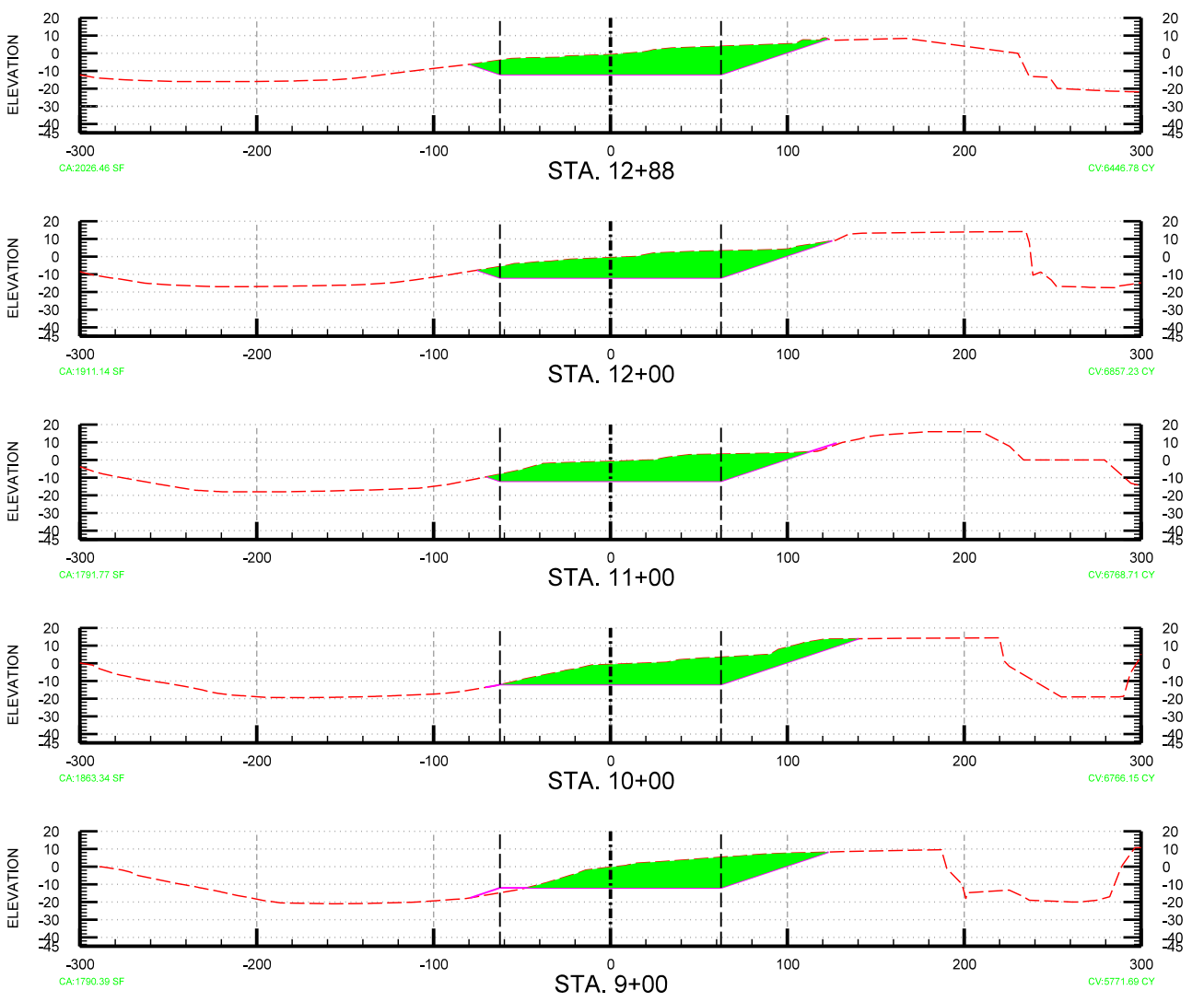
US Army Corps of Engineers  
NEW ORLEANS DISTRICT

D

C

B

A



- SHEET LEGEND**
- - - - EXISTING GROUND LINE
  - BYPASS CHANNEL TEMPLATE
  - - - - BYPASS CHANNEL CENTERLINE
  - - - - B.E.C

MARK	DESCRIPTION	DATE	APPR

DESIGNED BY: CIVIL/CL/0095	CHKD BY:	DATE:	SOLICITATION NO.:
DRAWN BY:	FILE NUMBER:	CONTRACT NO.:	
PLT SCALE:	FILE NAME:	FILE NUMBER:	
0001	05 APR 2017		
0001			

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.  
BYPASS CHANNEL  
CROSS SECTIONS  
STA. 9+00 TO STA. 17+00

SHEET IDENTIFICATION  
**C-04**

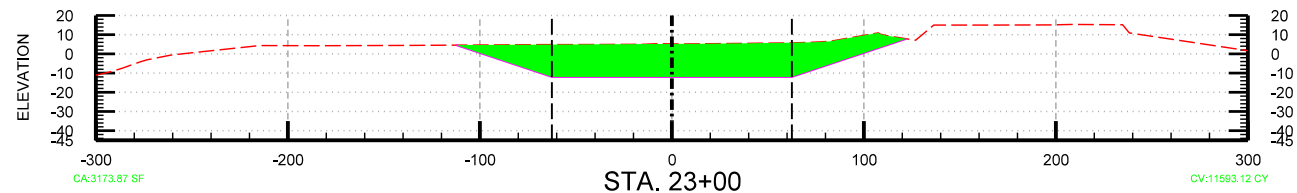
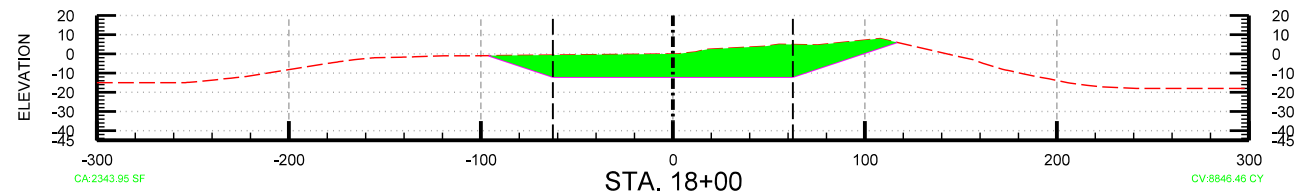
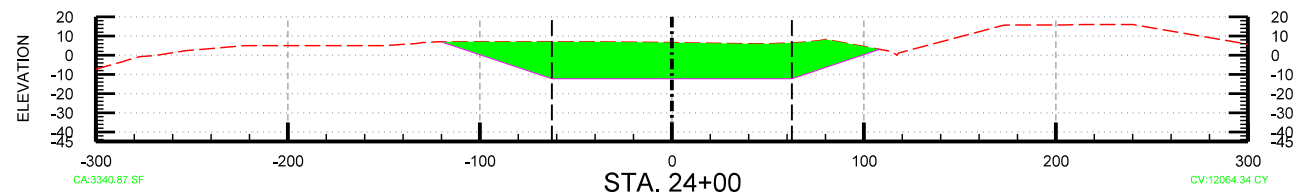
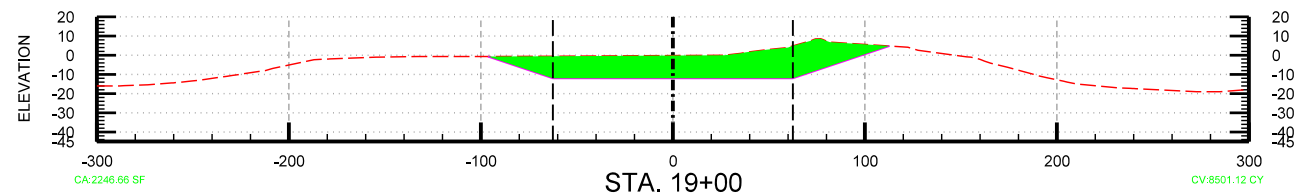
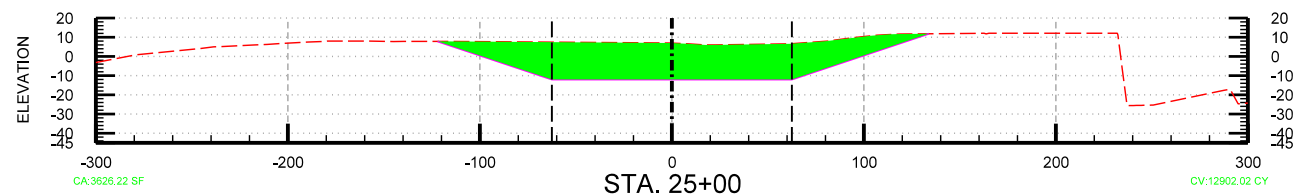
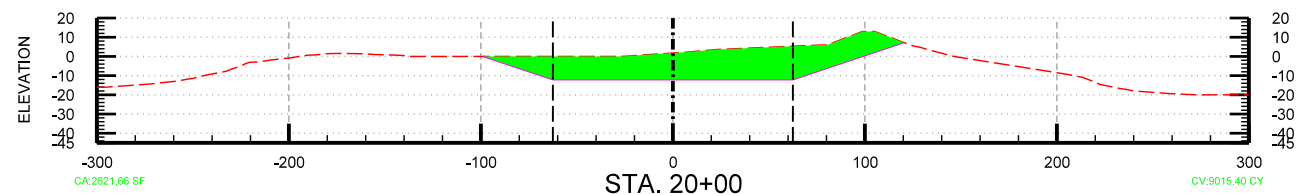
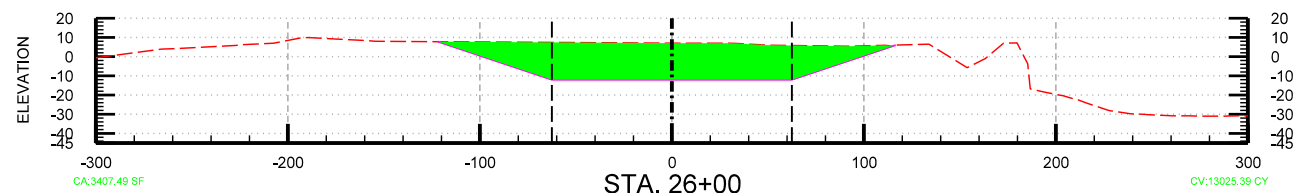
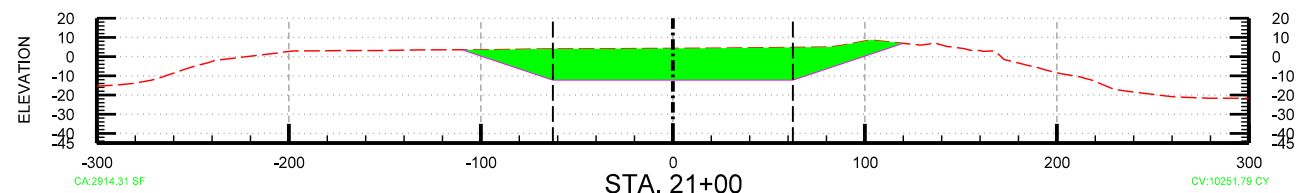
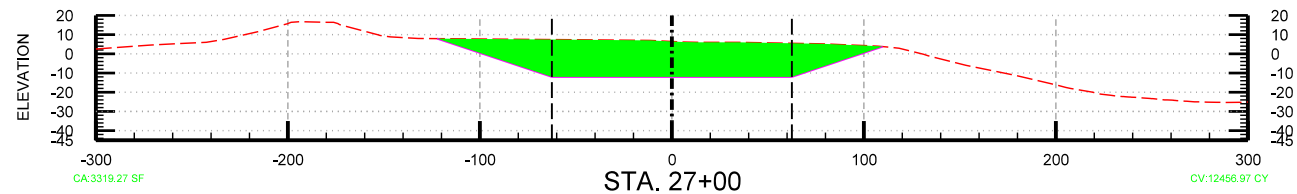
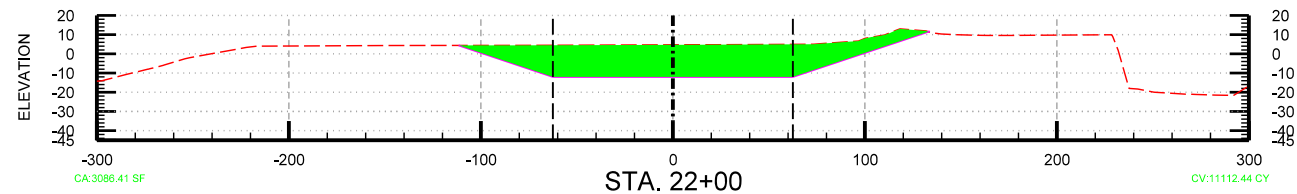


D

C

B

A



SHEET LEGEND

- EXISTING GROUND LINE
- BYPASS CHANNEL TEMPLATE
- BYPASS CHANNEL CENTERLINE
- B.E.C



US Army Corps of Engineers  
NEW ORLEANS DISTRICT

DATE	DESCRIPTION	MARK	DATE	APPR

DESIGNED BY: KIMBERLY GREY	DATE: 05 APR 2017	SOLICITATION NO.:
DRAWN BY: KIMBERLY GREY	FILE NUMBER: 6001	CONTRACT NO.:
CHIEF ENGINEER: KIMBERLY GREY	FILE NAME:	

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.

BYPASS CHANNEL  
CROSS SECTIONS  
STA. 18+00 TO STA. 27+00

SHEET IDENTIFICATION  
**C-05**

DATE	DESCRIPTION	DATE	APPR

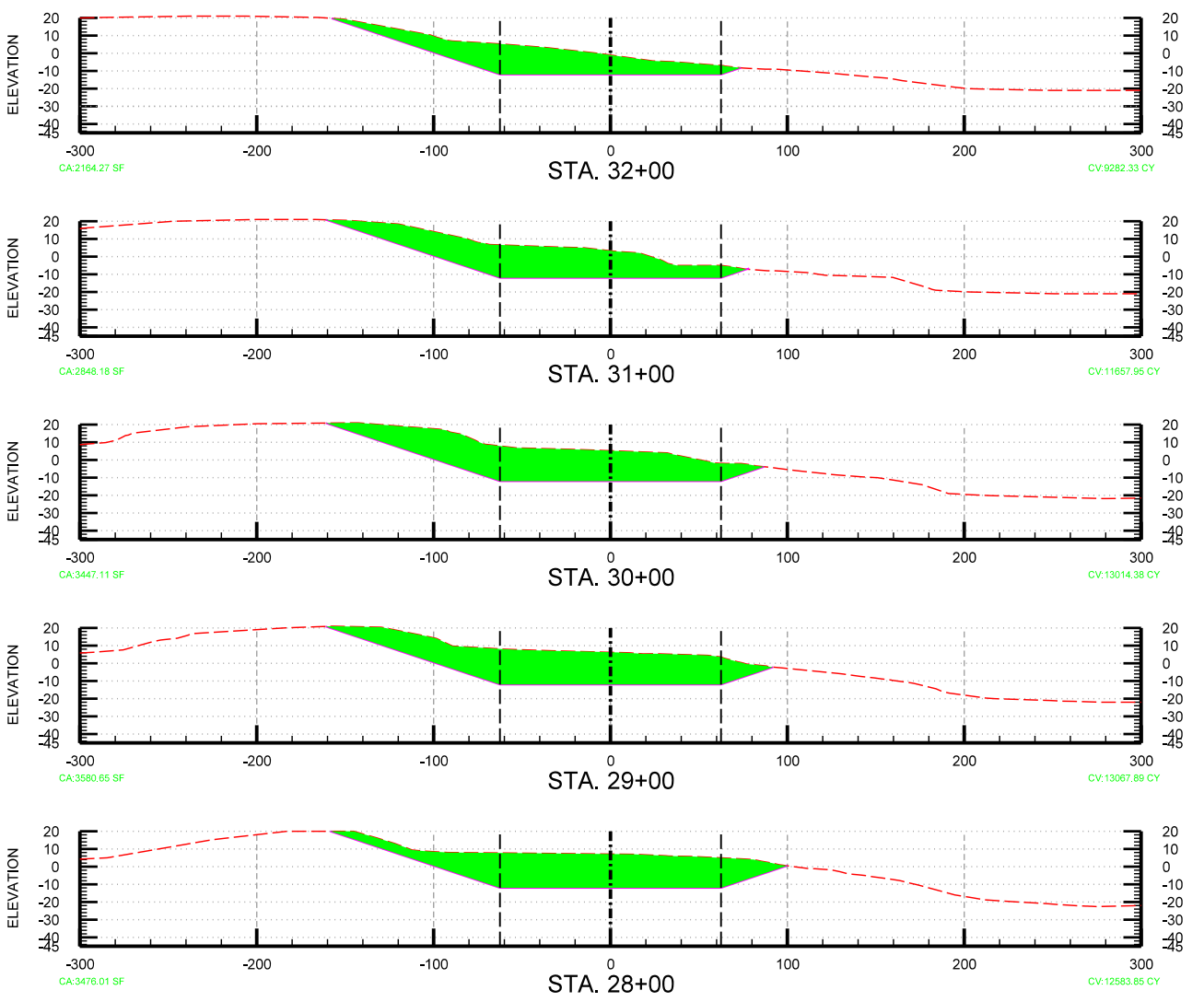
DESIGNED BY: KIMBERLY GOREY	DATE: 	SOLICITATION NO.:
DRAWN BY: 		CONTRACT NO.:
CHECKED BY: 		FILE NUMBER:
APPROVED BY: 		

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.

BYPASS CHANNEL  
CROSS SECTIONS  
STA. 28+00 TO STA. 37+00

SHEET  
IDENTIFICATION  
**C-06**

D  
C  
B  
A



**SHEET LEGEND**

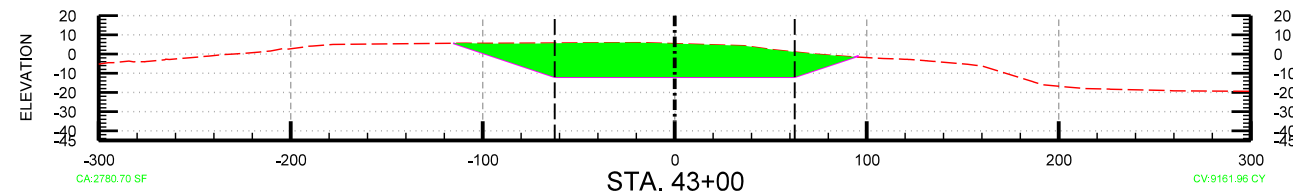
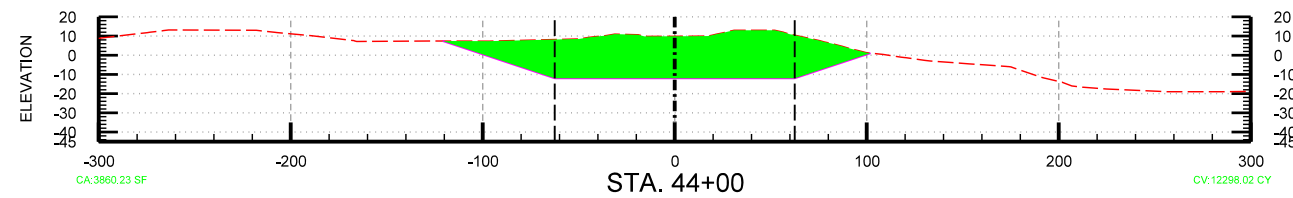
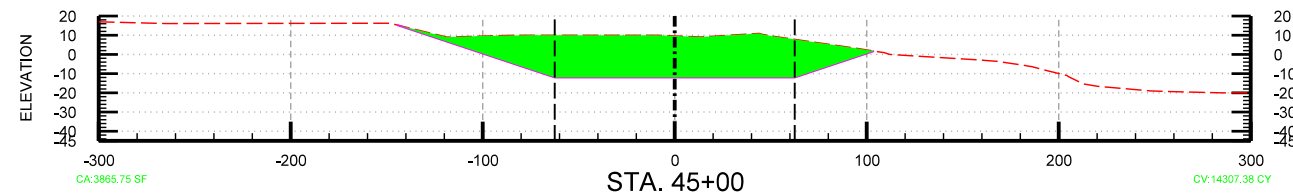
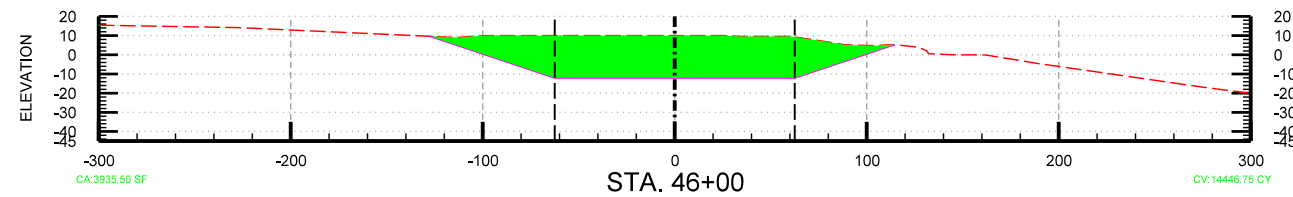
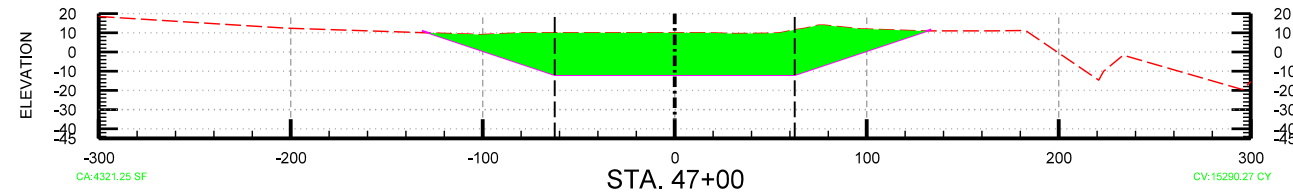
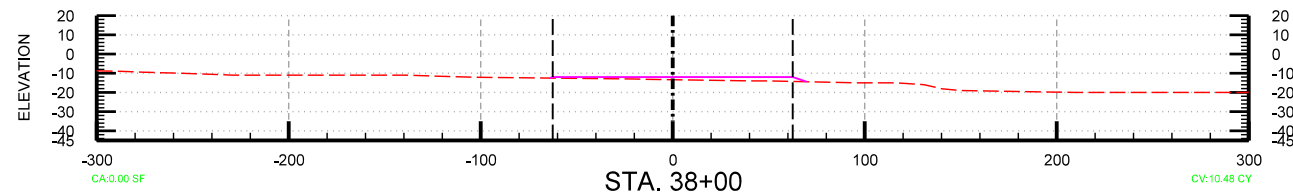
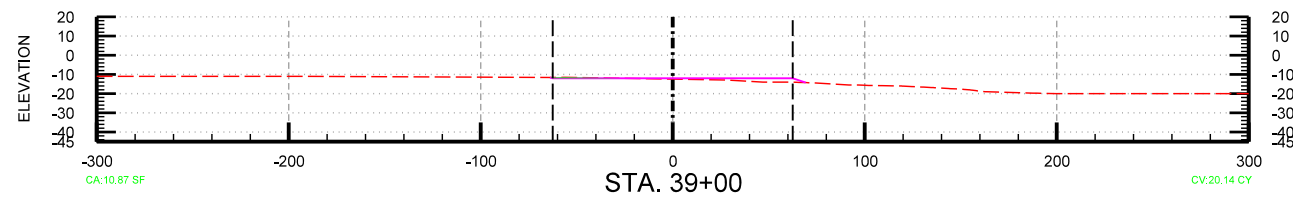
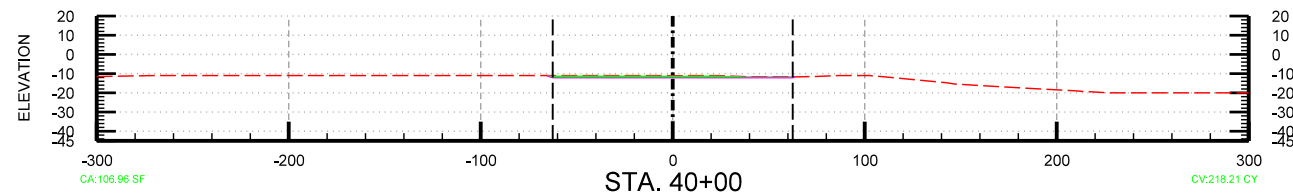
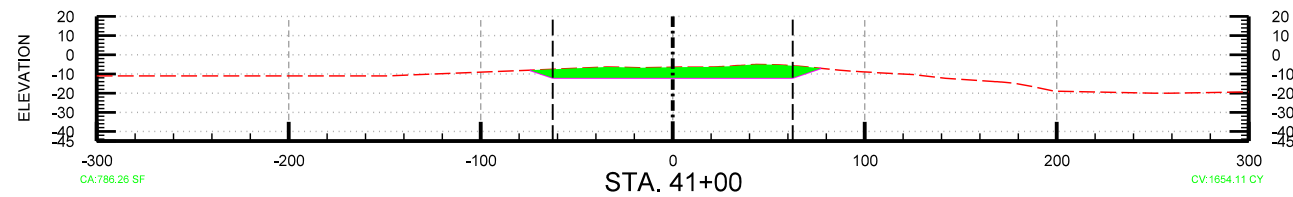
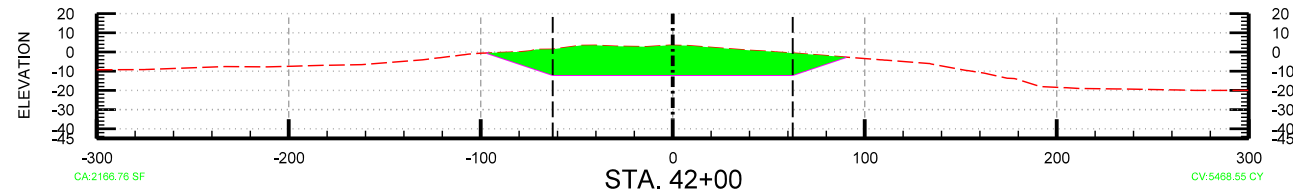
- EXISTING GROUND LINE
- BYPASS CHANNEL TEMPLATE
- - - BYPASS CHANNEL CENTERLINE
- - - B.E.C

D

C

B

A



SHEET LEGEND

- EXISTING GROUND LINE
- BYPASS CHANNEL TEMPLATE
- BYPASS CHANNEL CENTERLINE
- B.E.C



US Army Corps of Engineers  
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR

DESIGNED BY: KIMBERLY GRIFFIN	CHECKED BY: TERRY L. GIBSON	DATE: 05 APR 2017	SOLICITATION NO.:	CONTRACT NO.:
PREPARED BY: KIMBERLY GRIFFIN	APPROVED BY: TERRY L. GIBSON	FILE NUMBER: 6001		
PROJECT NO.:				

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.

BYPASS CHANNEL  
CROSS SECTIONS  
STA. 38+00 TO STA. 47+00

SHEET IDENTIFICATION  
**C-07**

DATE	DESCRIPTION	APPR.	MARK

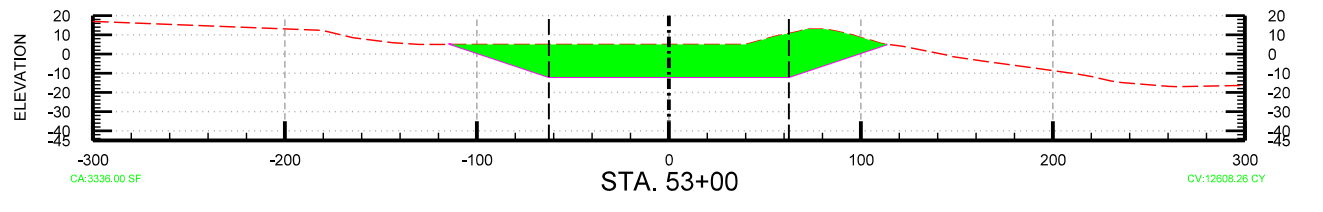
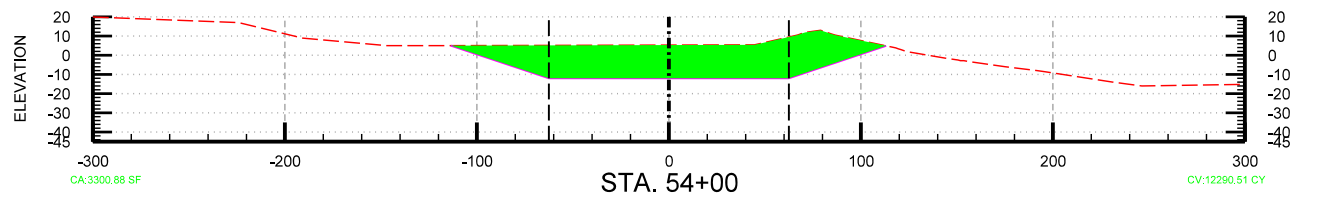
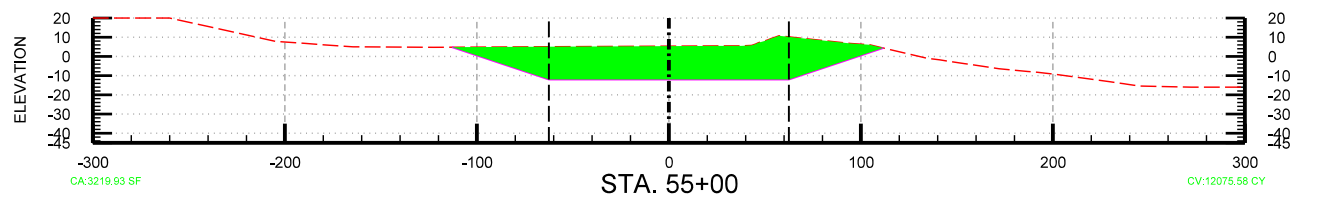
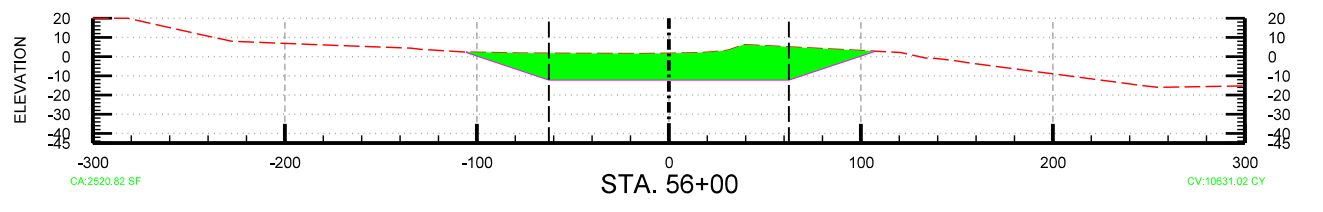
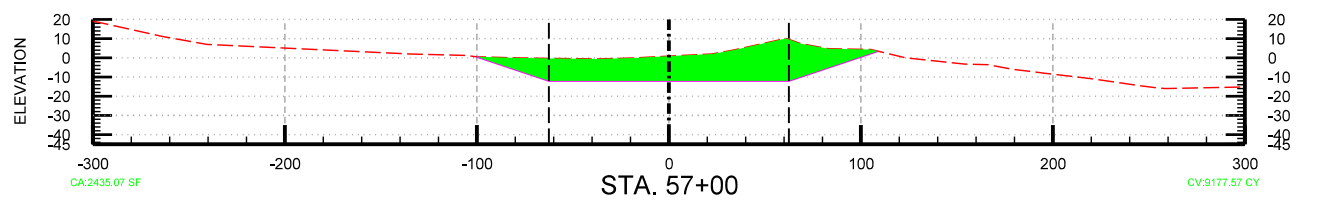
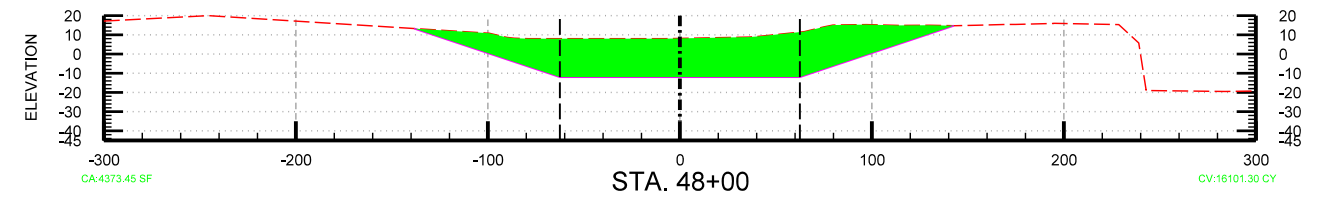
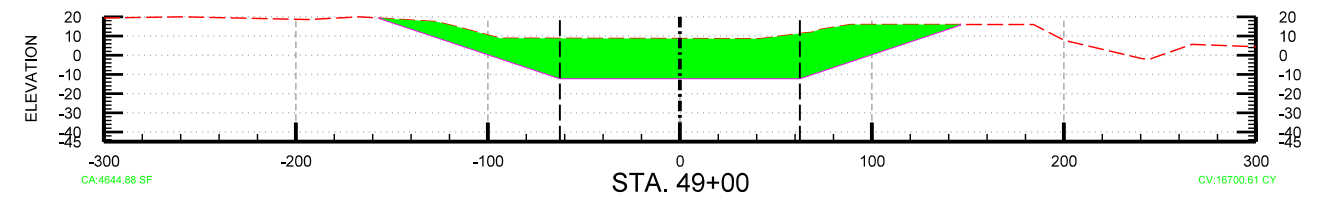
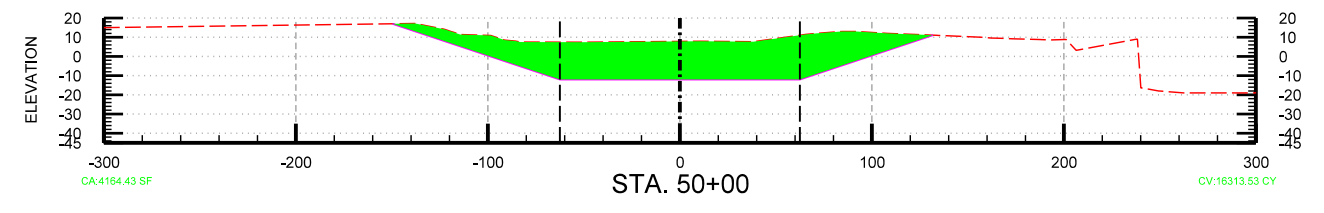
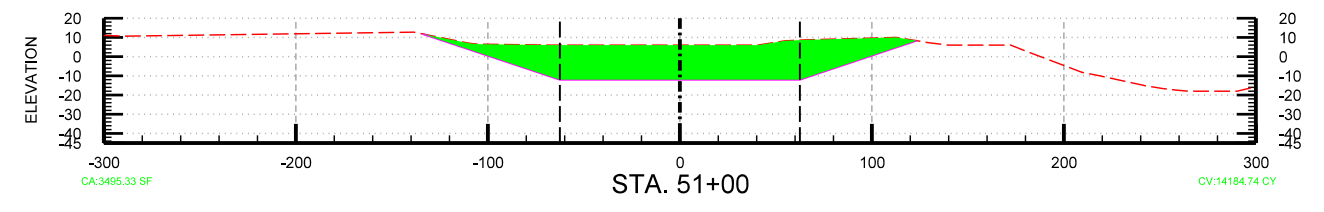
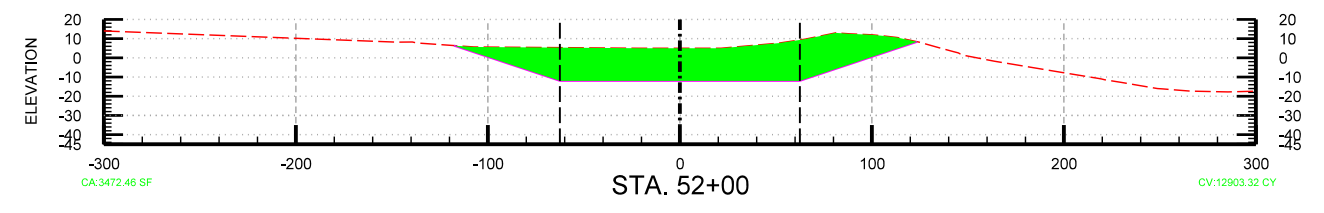
DESIGNED BY: KIMBERLY GOREY	DATE: 	SOLICITATION NO.:
DRAWN BY: 		CONTRACT NO.:
CHECKED BY: 		FILE NUMBER:
APPROVED BY: 		

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

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.

BYPASS CHANNEL  
CROSS SECTIONS  
STA. 48+00 TO STA. 57+00

SHEET IDENTIFICATION  
**C-08**



**SHEET LEGEND**

- EXISTING GROUND LINE
- BYPASS CHANNEL TEMPLATE
- BYPASS CHANNEL CENTERLINE
- B.E.C

D

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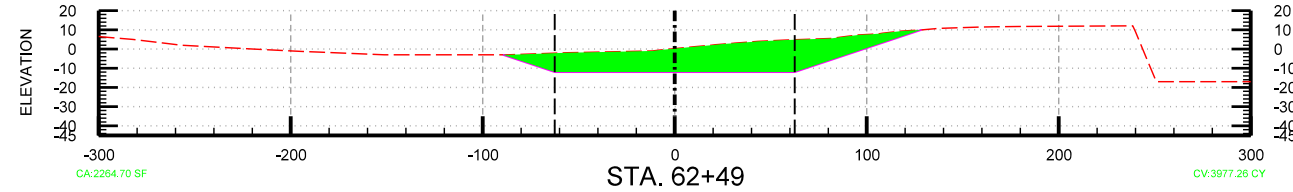
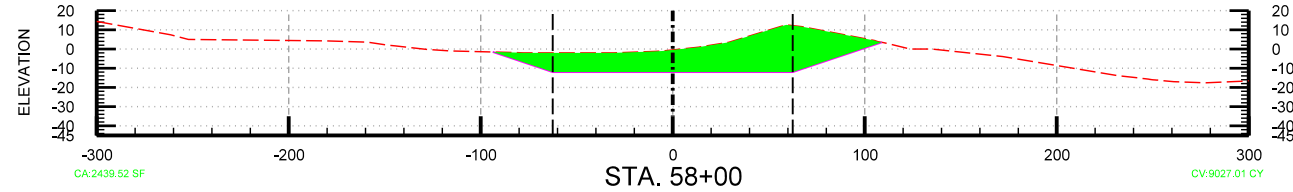
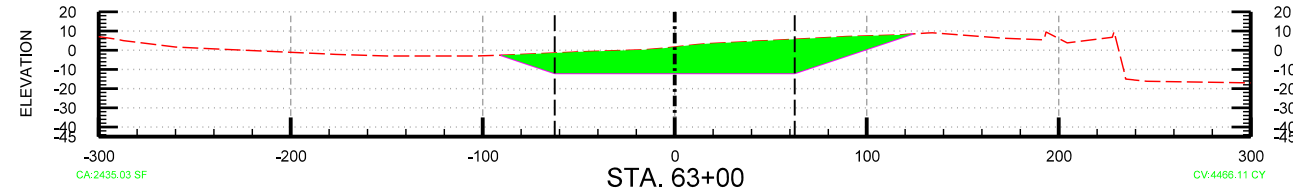
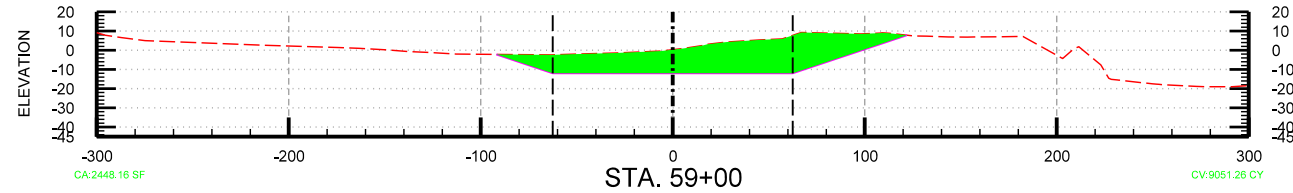
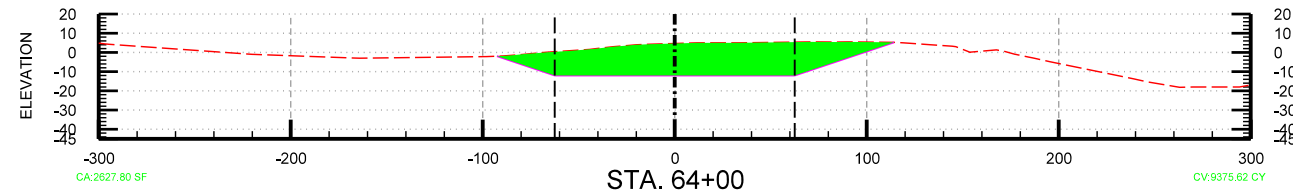
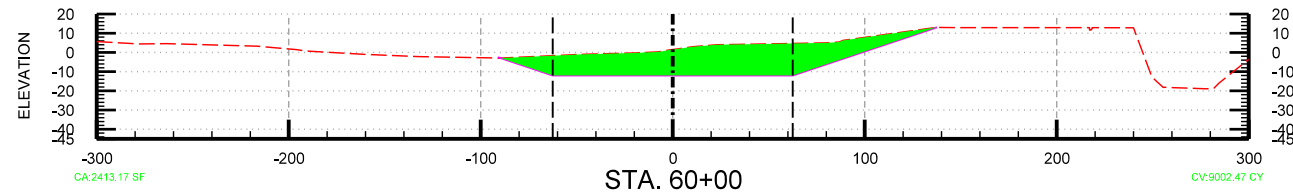
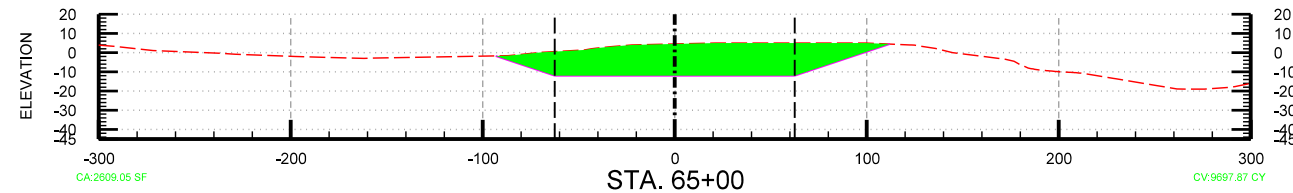
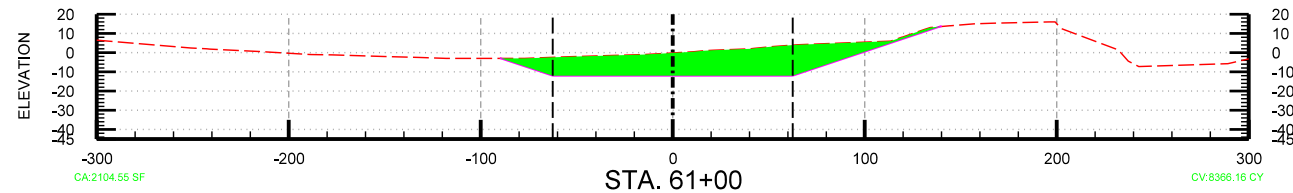
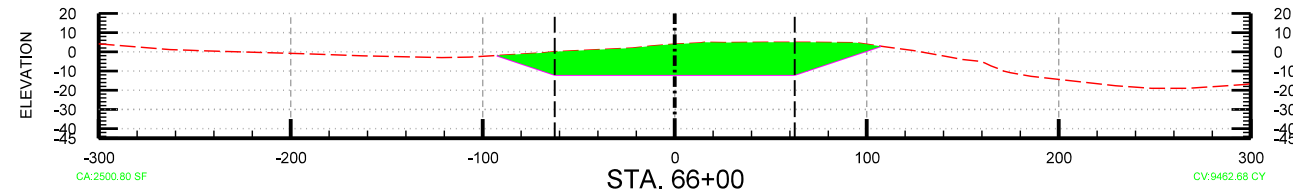
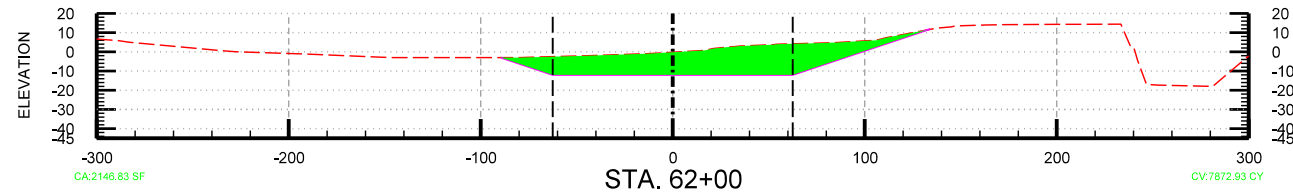
5

D

C

B

A



SHEET LEGEND

- EXISTING GROUND LINE
- BYPASS CHANNEL TEMPLATE
- BYPASS CHANNEL CENTERLINE
- B.E.C



US Army Corps of Engineers  
NEW ORLEANS DISTRICT

DATE	DESCRIPTION	MARK	APPR

DESIGNED BY: KIMBERLY GREY	DATE: 05 APR 2017	SOLICITATION NO.:
CHKD BY:	FILE NO.:	CONTRACT NO.:
SUBMITTED BY:	FILE NUMBER:	

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

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.

BYPASS CHANNEL  
CROSS SECTIONS  
STA. 58+00 TO STA. 66+00

SHEET IDENTIFICATION  
C-09

D  
C  
B  
A

DATE	DESCRIPTION	DATE	APPR

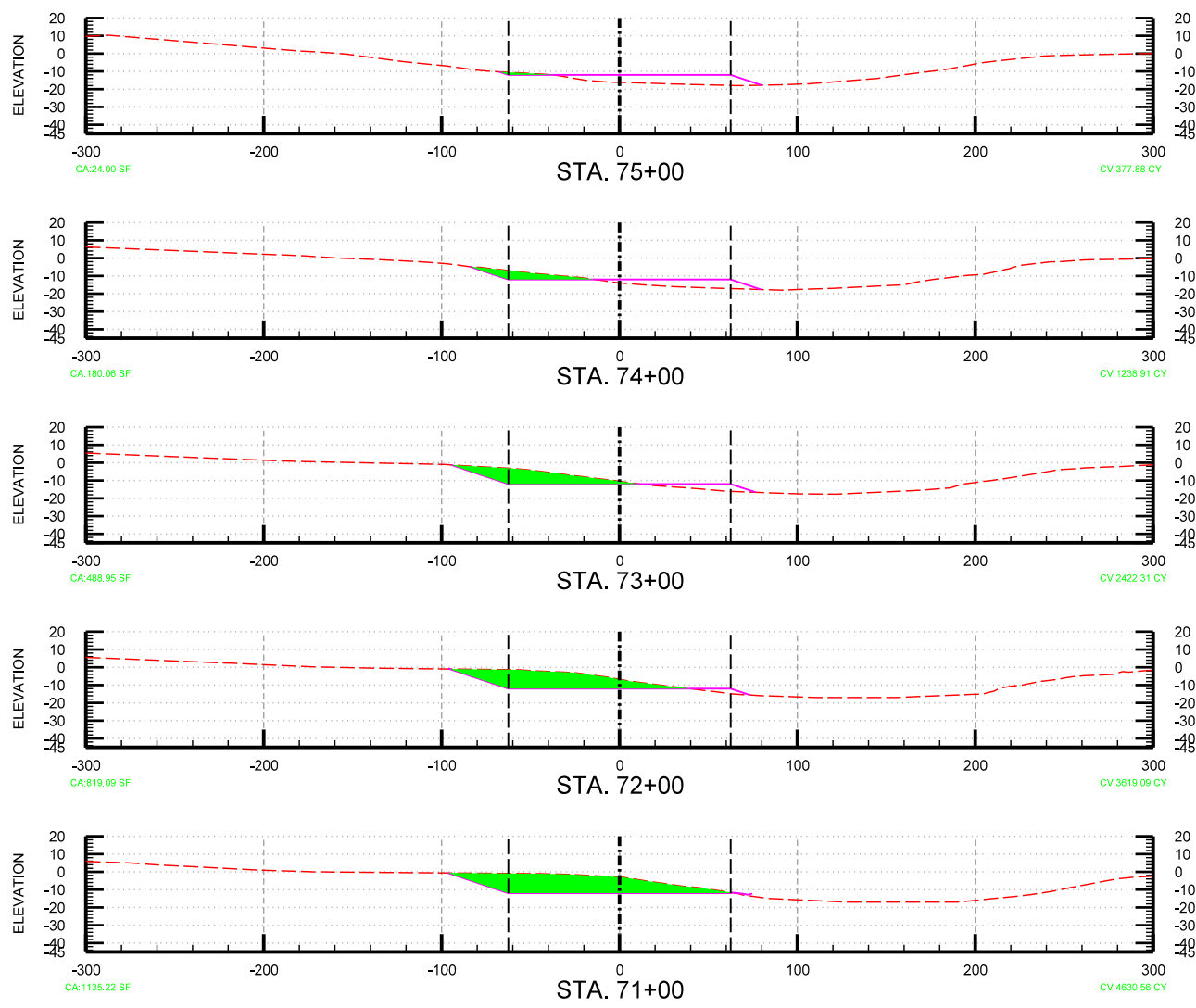
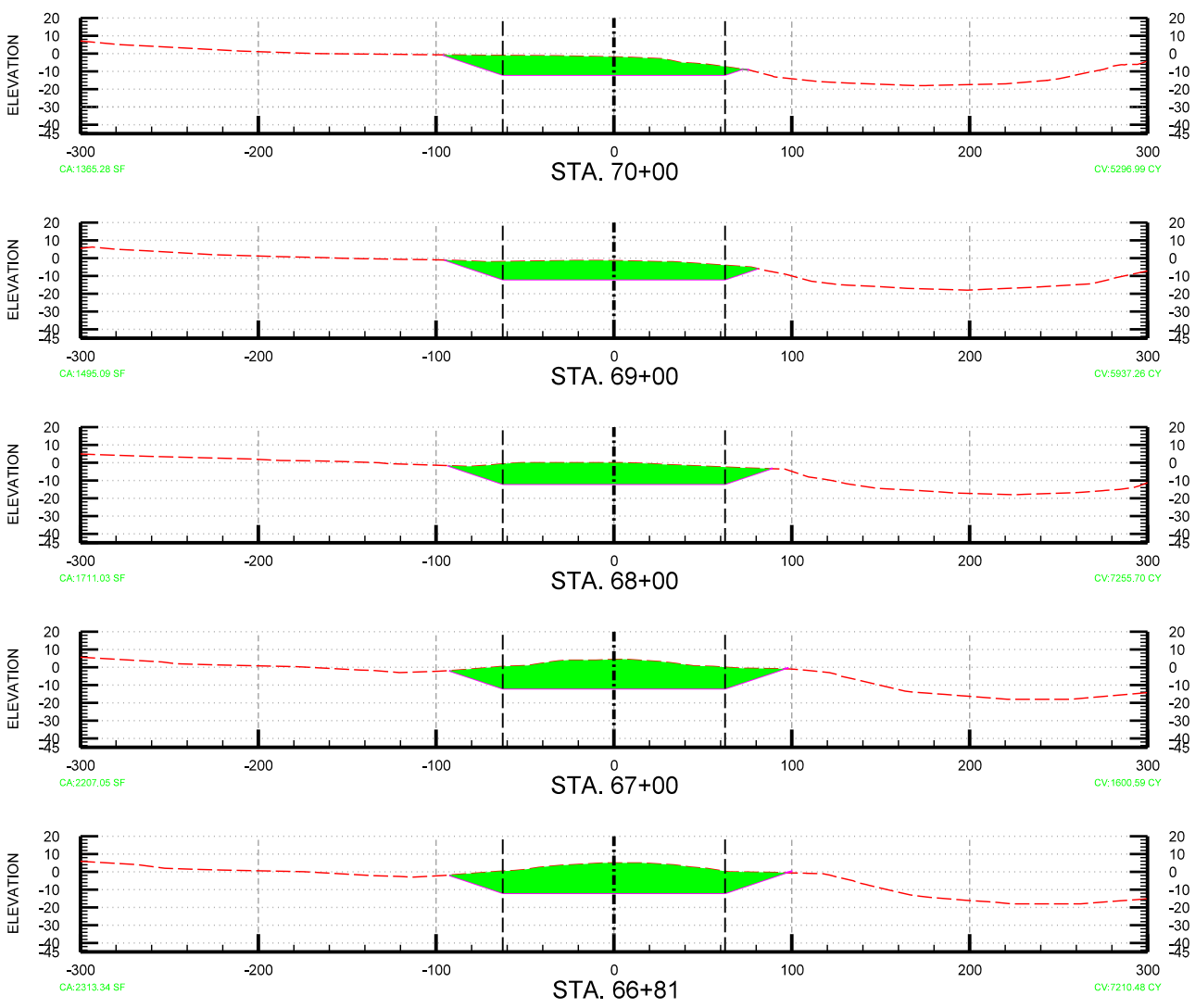
DESIGNED BY: KIMBERLY GOREY	DATE: 05 APR 2017	SOLICITATION NO.:
DRAWN BY: JAMES GOREY	FILE NAME:	CONTRACT NO.:
CHECKED BY: JAMES GOREY	FILE NUMBER:	

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

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.

BYPASS CHANNEL  
CROSS SECTIONS  
STA. 66+81 TO STA. 75+00

SHEET IDENTIFICATION  
**C-10**



- SHEET LEGEND**
- - - - - EXISTING GROUND LINE
  - BYPASS CHANNEL TEMPLATE
  - - - - - BYPASS CHANNEL CENTERLINE
  - - - - - B.E.C

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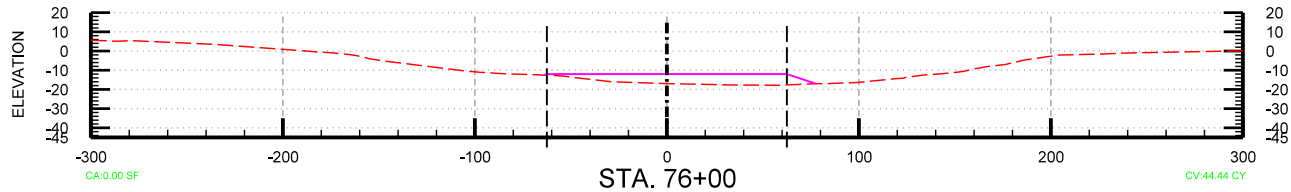
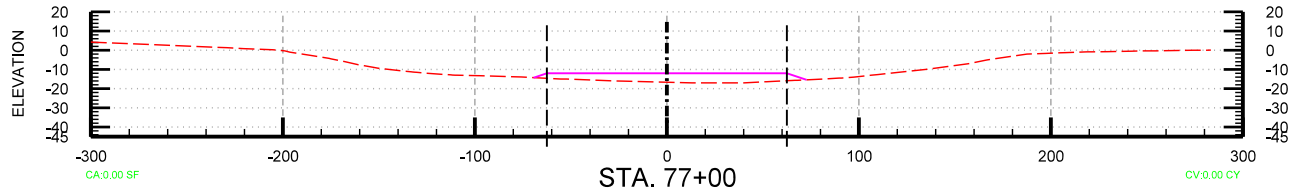
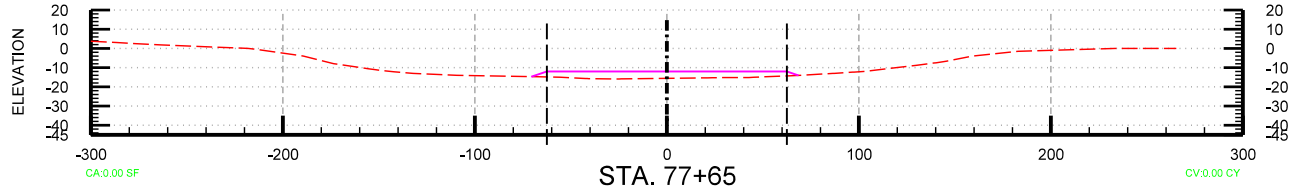
5

D

C

B

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### SHEET LEGEND

- EXISTING GROUND LINE
- BYPASS CHANNEL TEMPLATE
- BYPASS CHANNEL CENTERLINE
- B.E.C



US Army Corps of Engineers  
NEW ORLEANS DISTRICT

MARK	DESCRIPTION	DATE	APPR

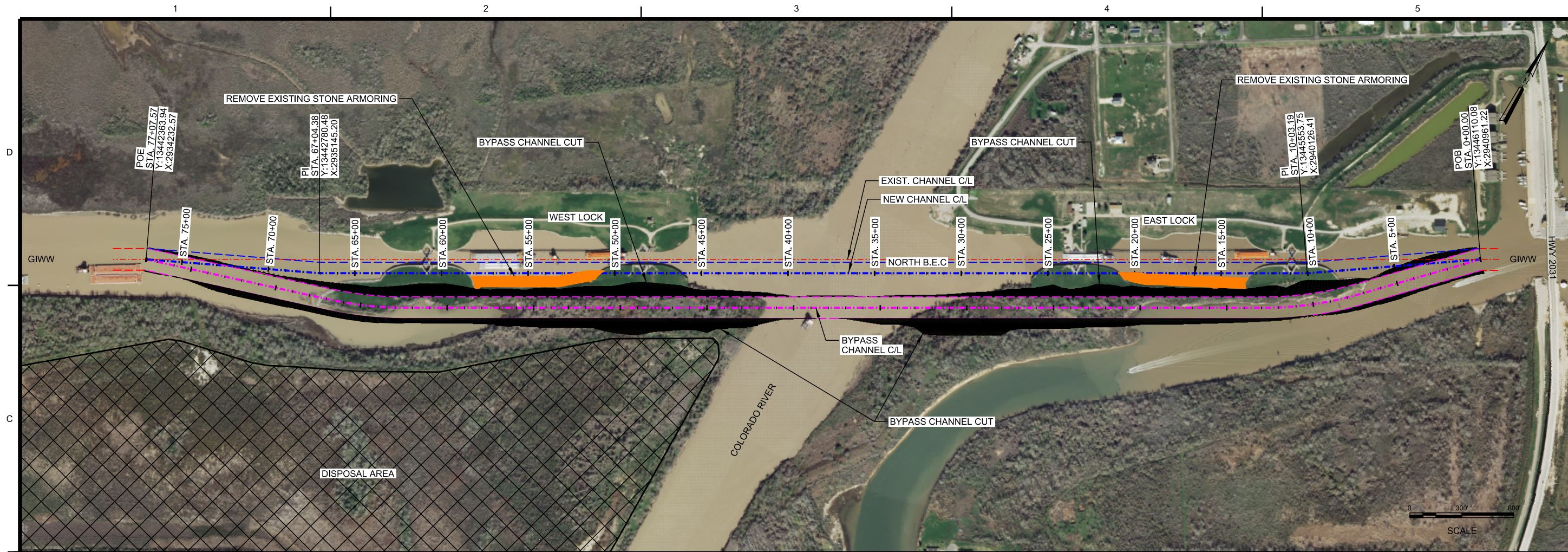
DESIGNED BY: WALTON C. GREY	DATE:	SOLICITATION NO.:
CHKD BY:		
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	CONTRACT NO.:	
FILE NO.:		
6001	05 APR 2017	
FILE NAME:		

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.

BYPASS CHANNEL  
CROSS SECTIONS  
STA. 76+00 TO STA. 77+65

SHEET IDENTIFICATION  
**C-11**



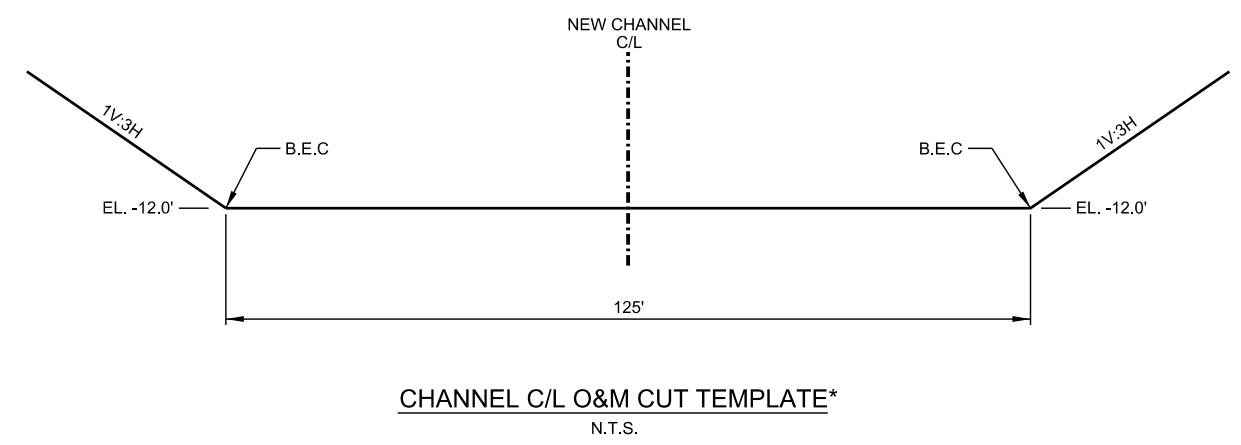
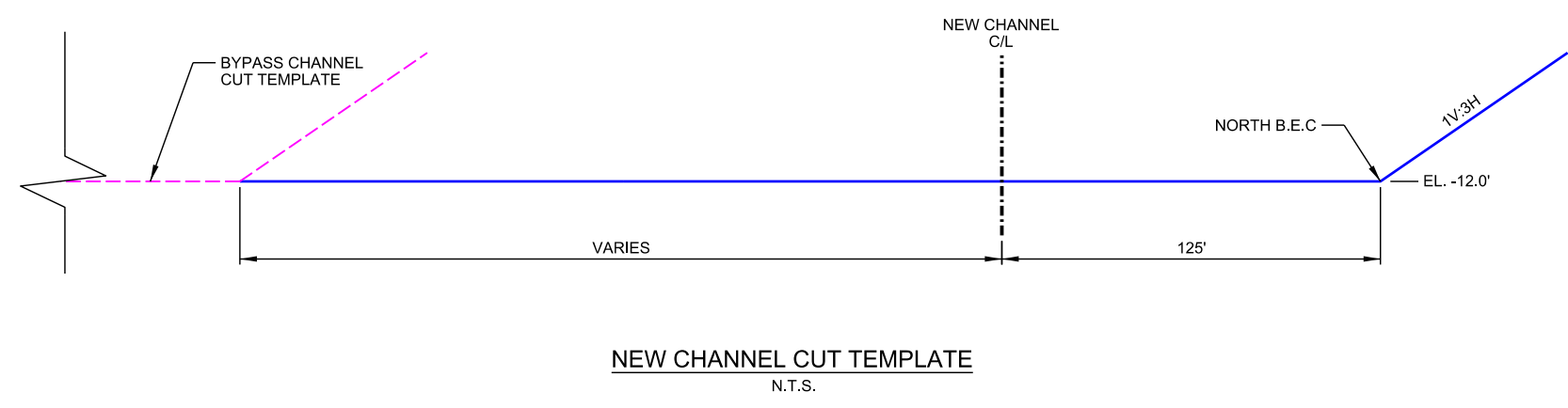


US Army Corps of Engineers NEW ORLEANS DISTRICT	
DATE	APPR
DESCRIPTION	MARK
DATE	APPR
DESCRIPTION	MARK
DATE	APPR
DESCRIPTION	MARK
DATE	APPR
DESCRIPTION	MARK

DESIGNED BY: DANIEL R. BERRY	DATE:
CHKD BY: PKS	SOLICITATION NO.:
SUBMITTED BY:	CONTRACT NO.:
FILE NAME:	FILE NUMBER:
ANSID:	DATE:
9800-1	05 APR 2017
3600-1	
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	

**NOTES:**

- 1) REMOVE EXISTING STONE ARMORING AND DISPOSE WITHIN DISPOSAL AREA.
- 2) ONCE THE STRUCTURES ARE REMOVED, THE NEW CHANNEL SHALL BE DREDGED IN ACCORDANCE WITH THE NEW CHANNEL CUT TEMPLATE AND AS SHOWN ON THE NEW CHANNEL CROSS SECTIONS.
- 3) DREDGED MATERIAL SHALL BE DISPOSED WITHIN THE DISPOSAL AREA SHOWN. IT IS ASSUMED THAT THE EXISTING RETENTION DIKES (APPROX. EL.14.0') ARE SUITABLE FOR DISPOSAL.



\* FOR O&M USE AFTER THE OPEN CHANNEL CONSTRUCTION IS COMPLETE.

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.  
NEW CHANNEL PLAN



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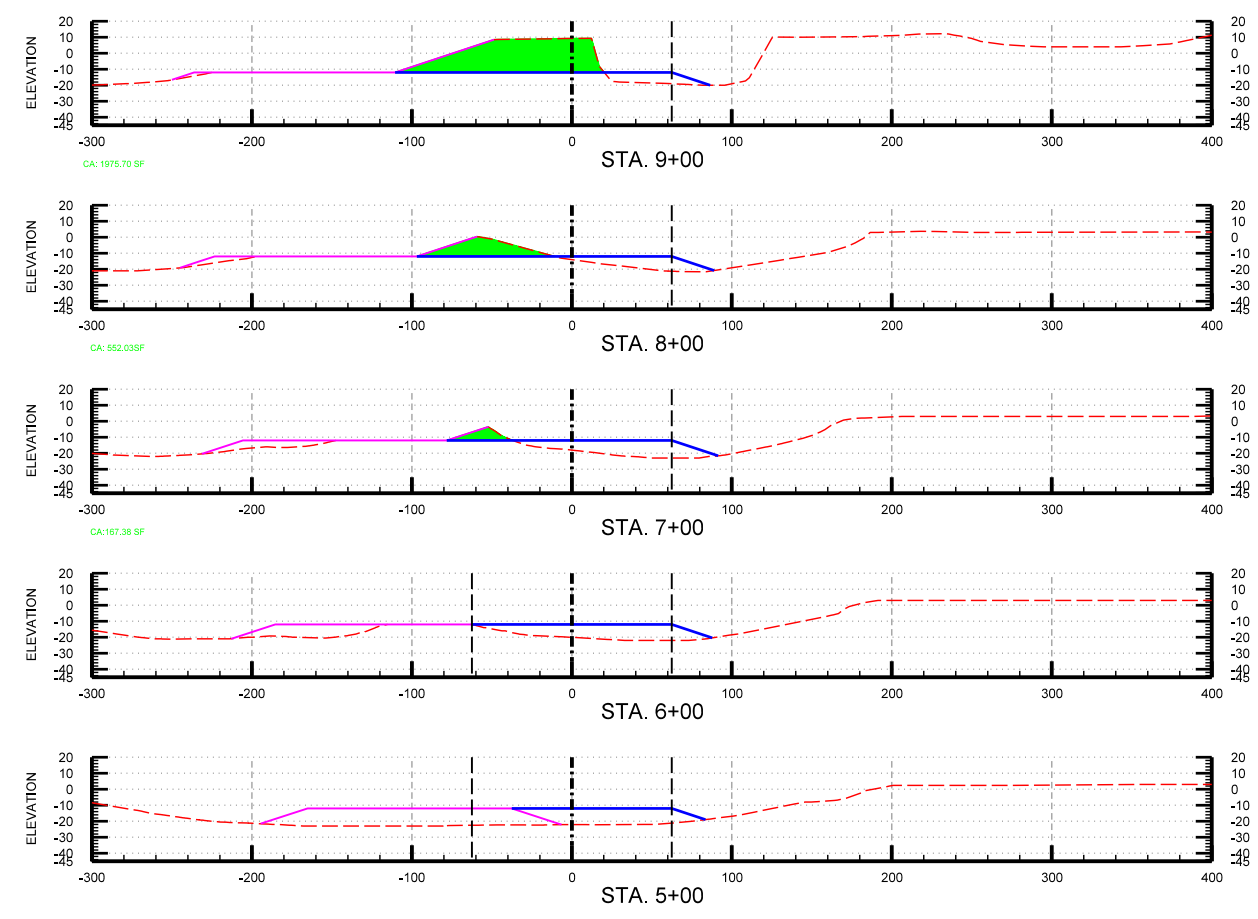
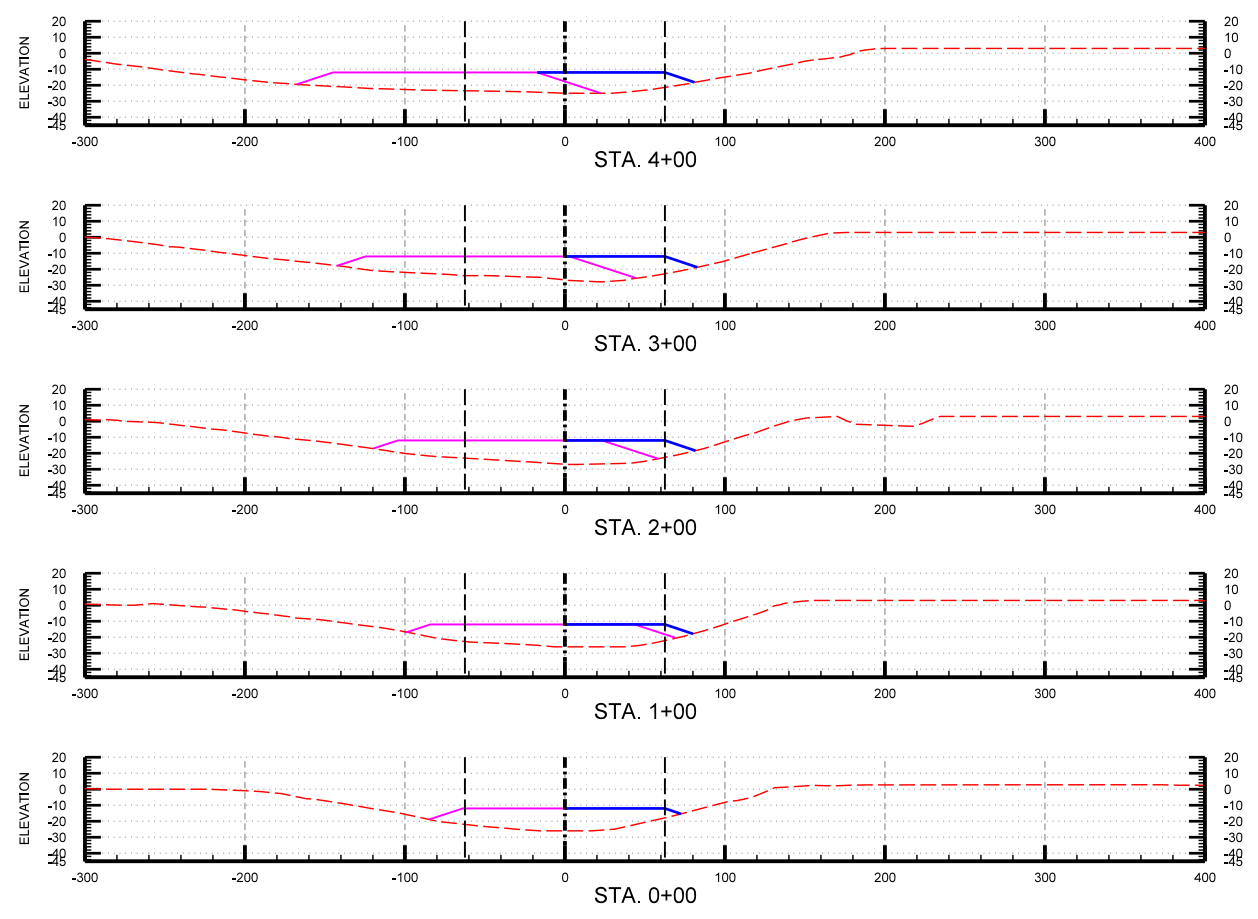
5

D

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### SHEET LEGEND

- EXISTING GROUND LINE
- NEW CHANNEL TEMPLATE
- BYPASS CHANNEL TEMPLATE (COMPETED CUT)
- NEW CHANNEL CENTERLINE
- B.E.C



DATE	DESCRIPTION	APPR.	MARK

DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
CHECKED BY: NEW ORLEANS DISTRICT	7/2/17	CONTRACT NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	7/2/17	FILE NUMBER:
DESIGNED BY: NEW ORLEANS DISTRICT	7/2/17	FILE NAME:

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.  
NEW CHANNEL  
CROSS SECTIONS  
STA. 00+00 TO STA. 9+00

SHEET  
IDENTIFICATION  
**C-13**

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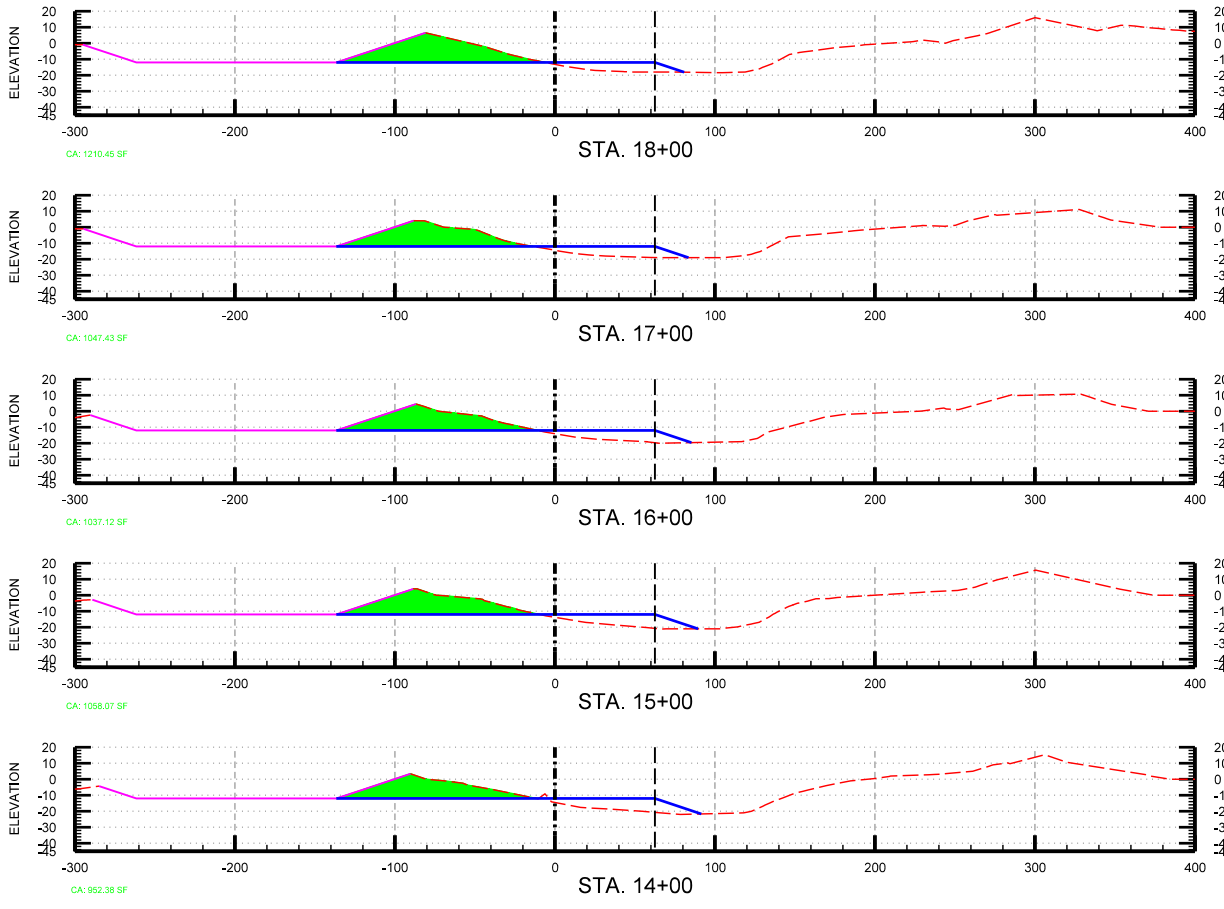
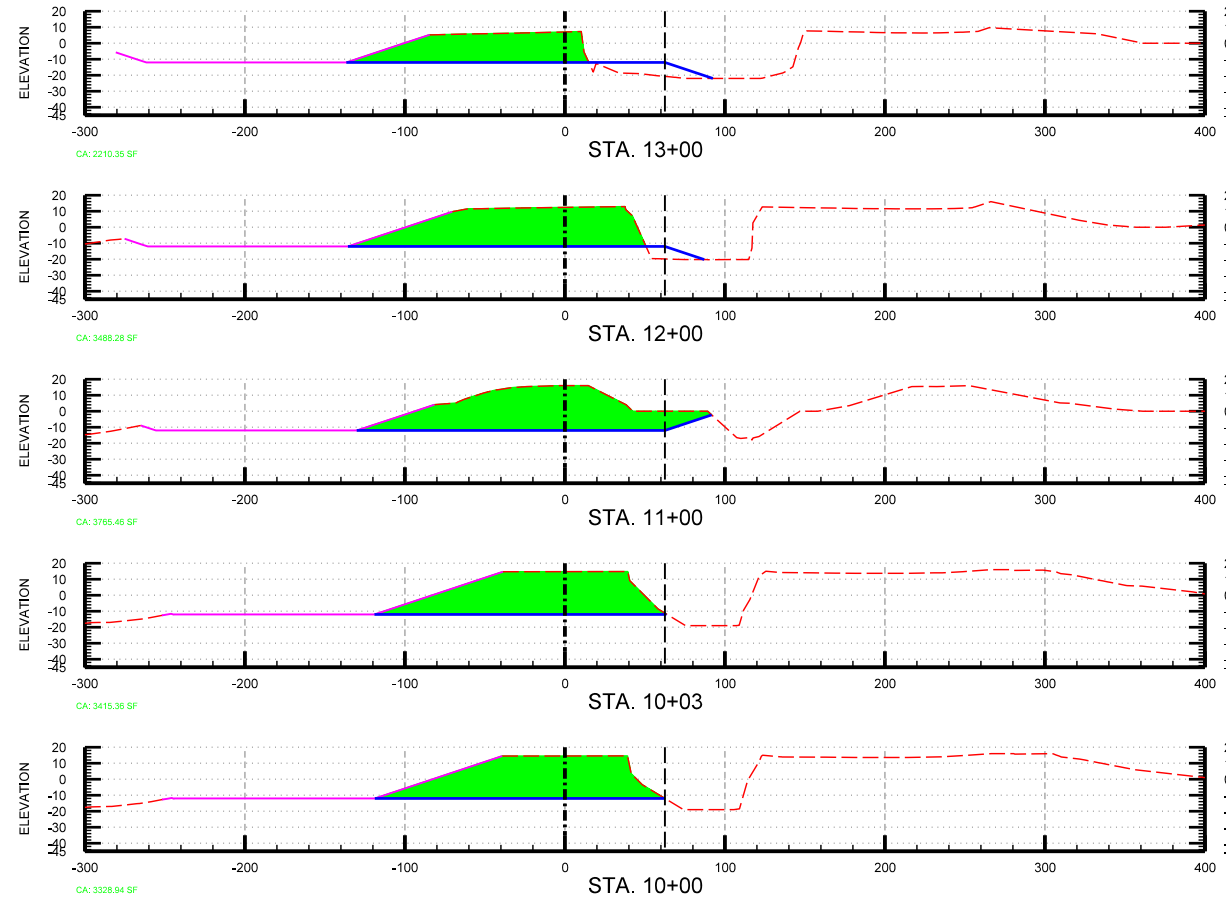
5

D

C

B

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**SHEET LEGEND**

	EXISTING GROUND LINE
	NEW CHANNEL TEMPLATE
	BYPASS CHANNEL TEMPLATE (COMPETED CUT)
	NEW CHANNEL CENTERLINE
	B.E.C.



DATE	DESCRIPTION	MARK

DESIGNED BY: MARGARET SWEENEY	DATE:	SOLICITATION NO.:
CHKD BY: PKS	05 APR 2017	CONTRACT NO.:
SUBMITTED BY:	7/2/1	FILE NUMBER:
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DESIGNED BY: MARGARET SWEENEY	DATE: 05 APR 2017

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.  
NEW CHANNEL  
CROSS SECTIONS  
STA. 10+00 TO STA. 18+00

SHEET  
IDENTIFICATION  
**C-14**

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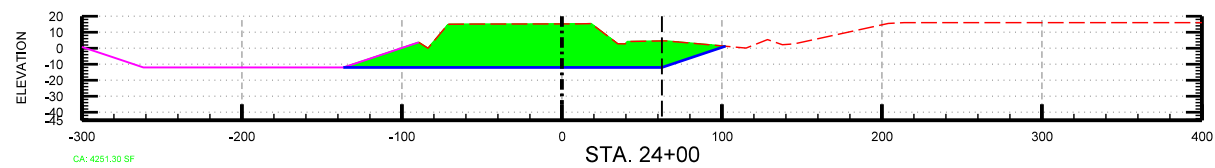
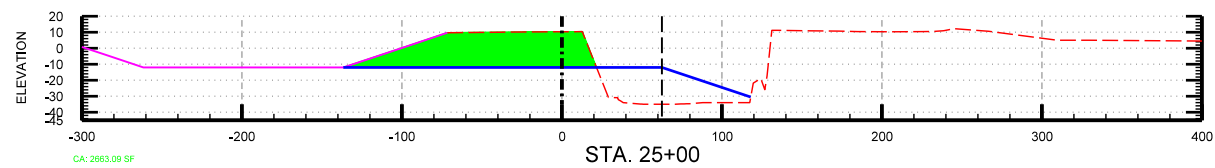
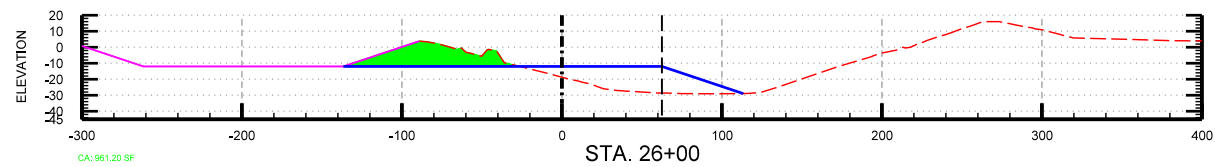
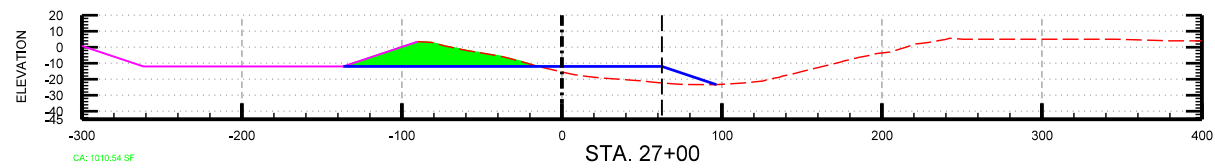
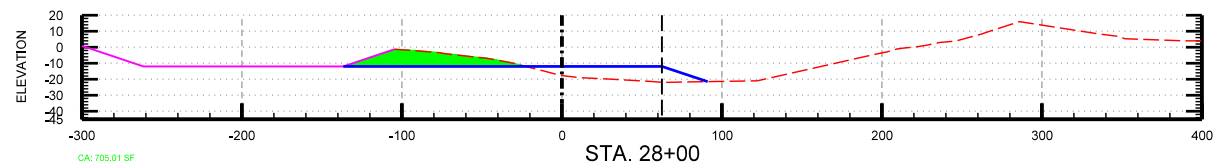
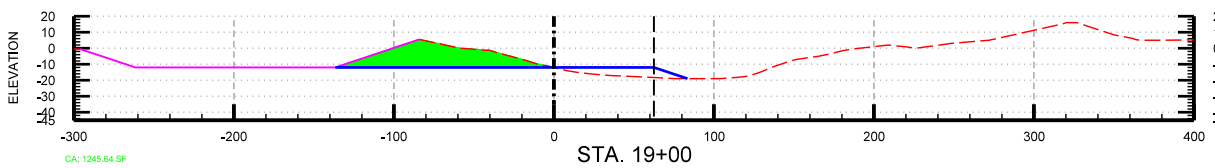
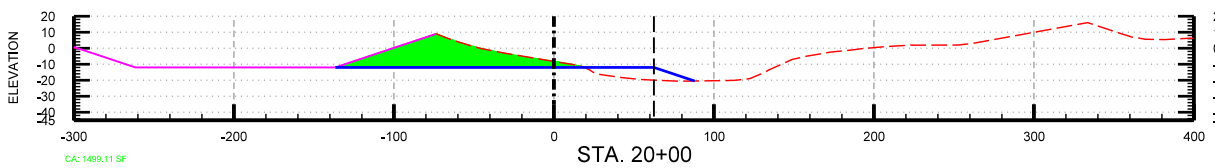
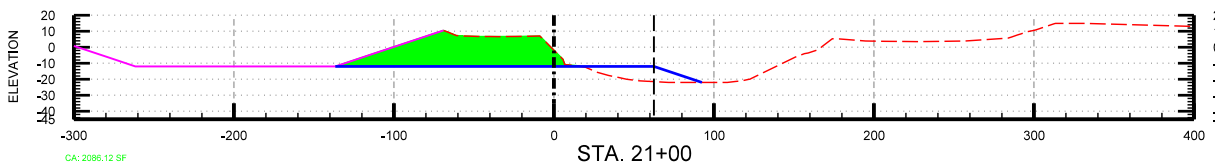
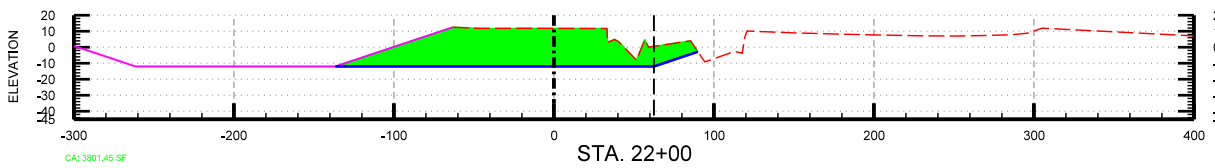
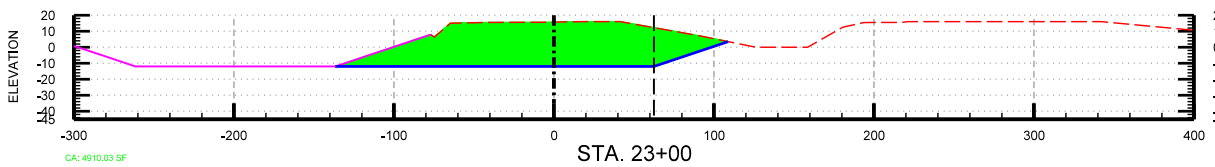
5

D

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B

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SHEET LEGEND

- EXISTING GROUND LINE
- NEW CHANNEL TEMPLATE
- BYPASS CHANNEL TEMPLATE (COMPETED CUT)
- NEW CHANNEL CENTERLINE
- B.E.C



DATE	DESCRIPTION	APPR.	MARK

DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.  
NEW CHANNEL  
CROSS SECTIONS  
STA. 19+00 TO STA. 28+00

SHEET  
IDENTIFICATION  
C-15

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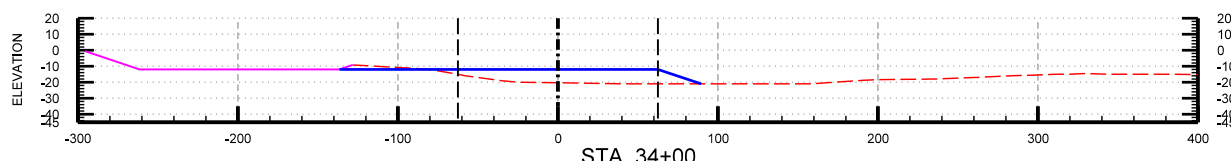
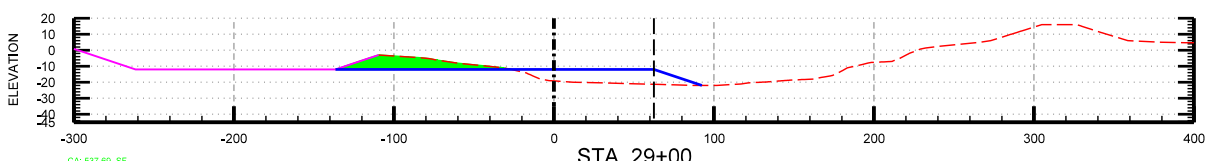
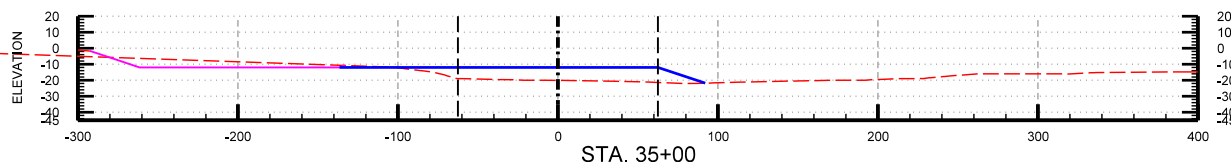
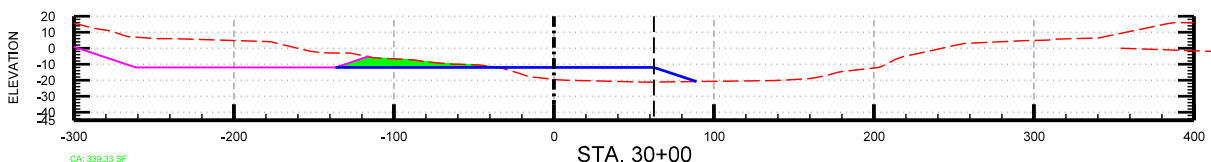
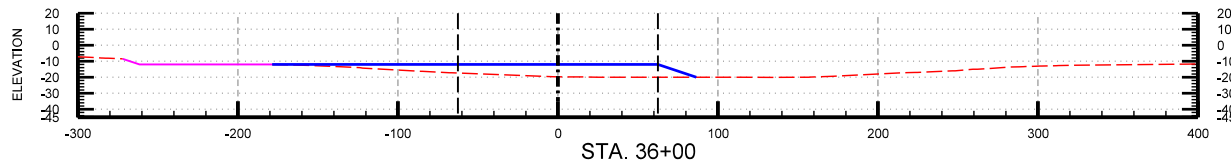
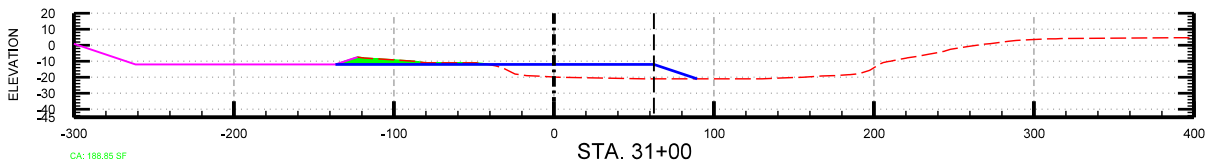
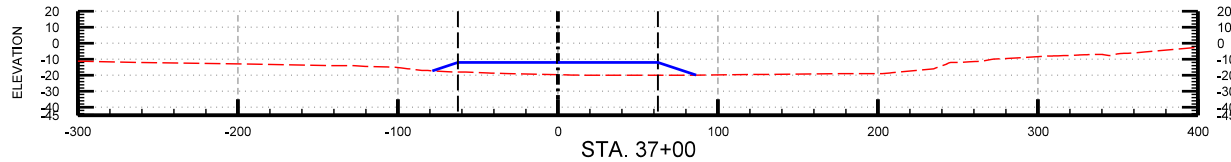
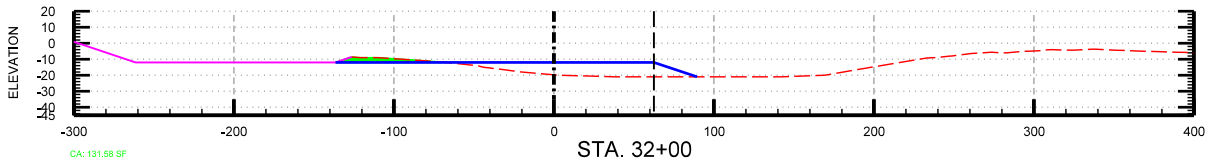
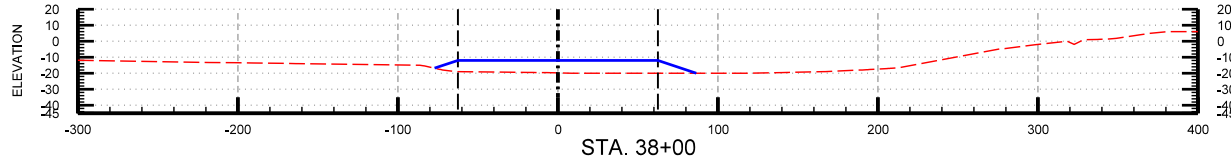
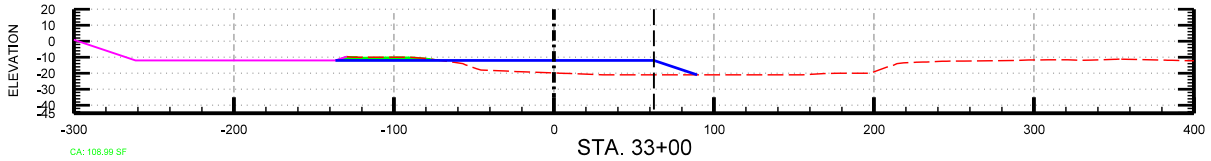
5

D

C

B

A



SHEET LEGEND

- EXISTING GROUND LINE
- NEW CHANNEL TEMPLATE
- BYPASS CHANNEL TEMPLATE (COMPETED CUT)
- NEW CHANNEL CENTERLINE
- B.E.C



DATE	DESCRIPTION	MARK

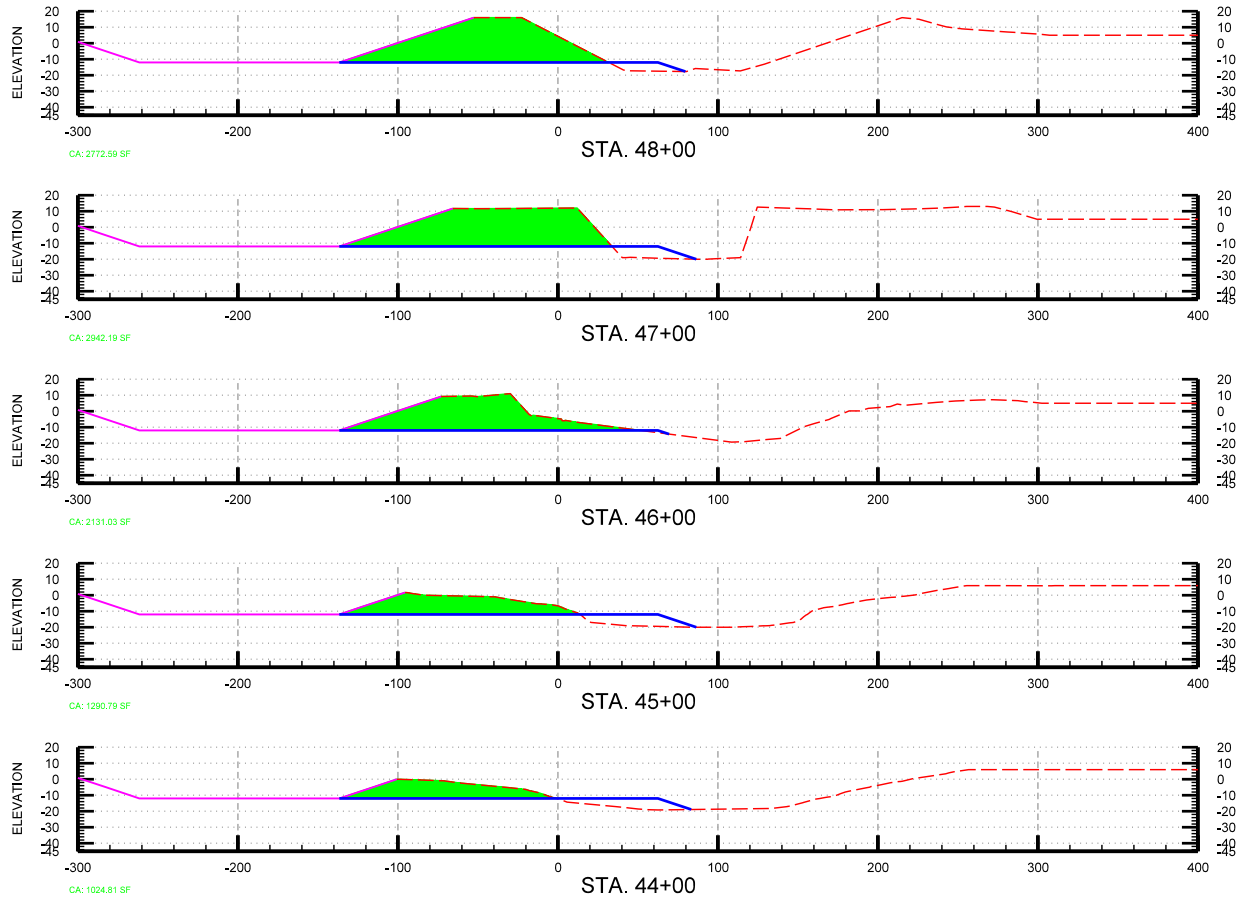
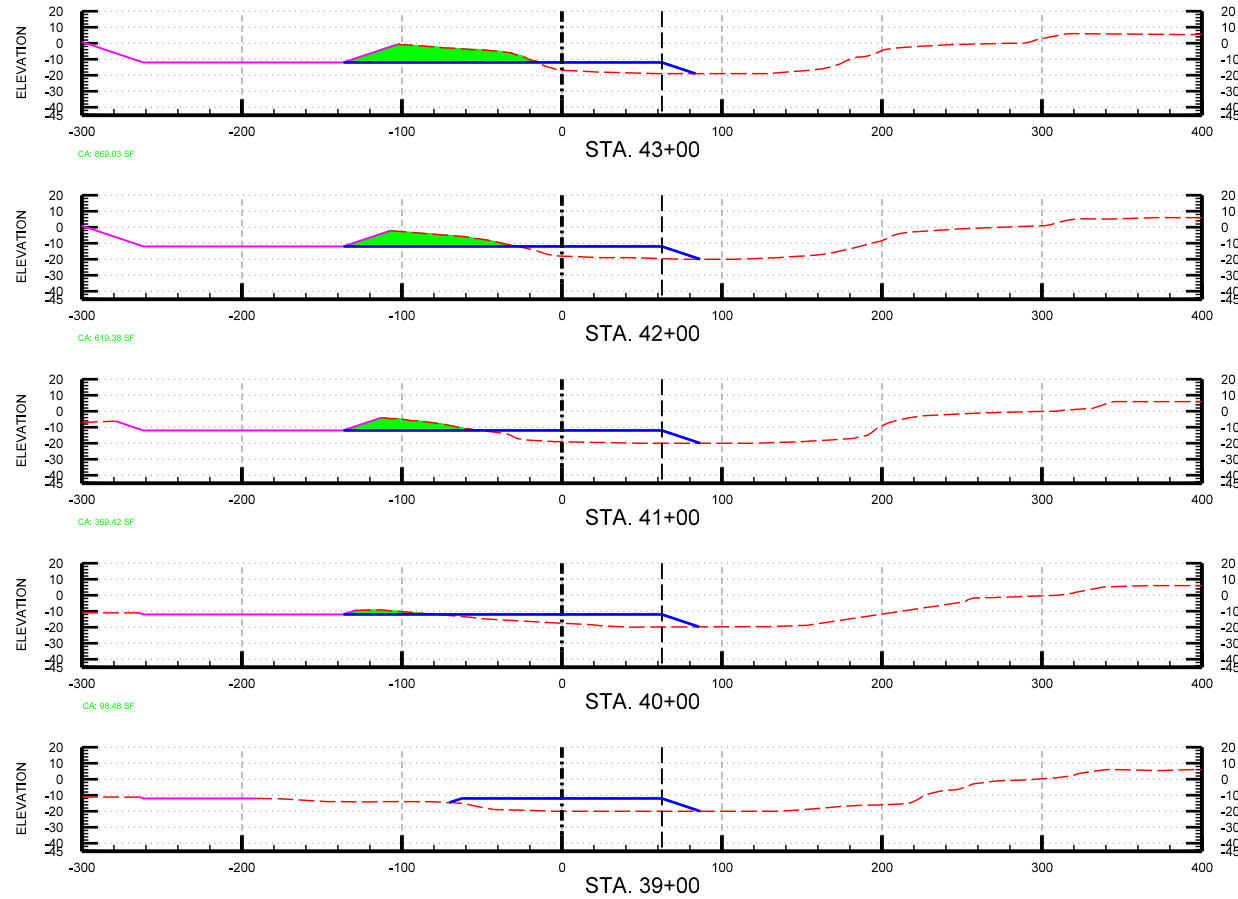
DESIGNED BY: DANIEL R. BERRY	DATE:	SOLICITATION NO.:
DESIGNED BY: PKS	DATE:	CONTRACT NO.:
DESIGNED BY: PKS	DATE:	FILE NUMBER:
DESIGNED BY: PKS	DATE:	FILE NAME:
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DESIGNED BY: PKS	DATE:	FILE NAME:
DESIGNED BY: PKS	DATE:	FILE NAME:

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

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.

NEW CHANNEL  
CROSS SECTIONS  
STA. 29+00 TO STA. 38+00

SHEET IDENTIFICATION  
**C-16**



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**SHEET LEGEND**

- EXISTING GROUND LINE
- NEW CHANNEL TEMPLATE
- BYPASS CHANNEL TEMPLATE (COMPETED CUT)
- NEW CHANNEL CENTERLINE
- B.E.C.



US Army Corps  
of Engineers®  
NEW ORLEANS DISTRICT

DATE	DESCRIPTION

DESIGNED BY: DESIG/REG-0745	DATE:
CHECKED BY: PKS	SOLICITATION NO.:
APPROVED BY: 	CONTRACT NO.:
DATE: 05 APR 2017	FILE NUMBER:
PLOT SCALE: 7/24	ANSI:
FILE NAME:	

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

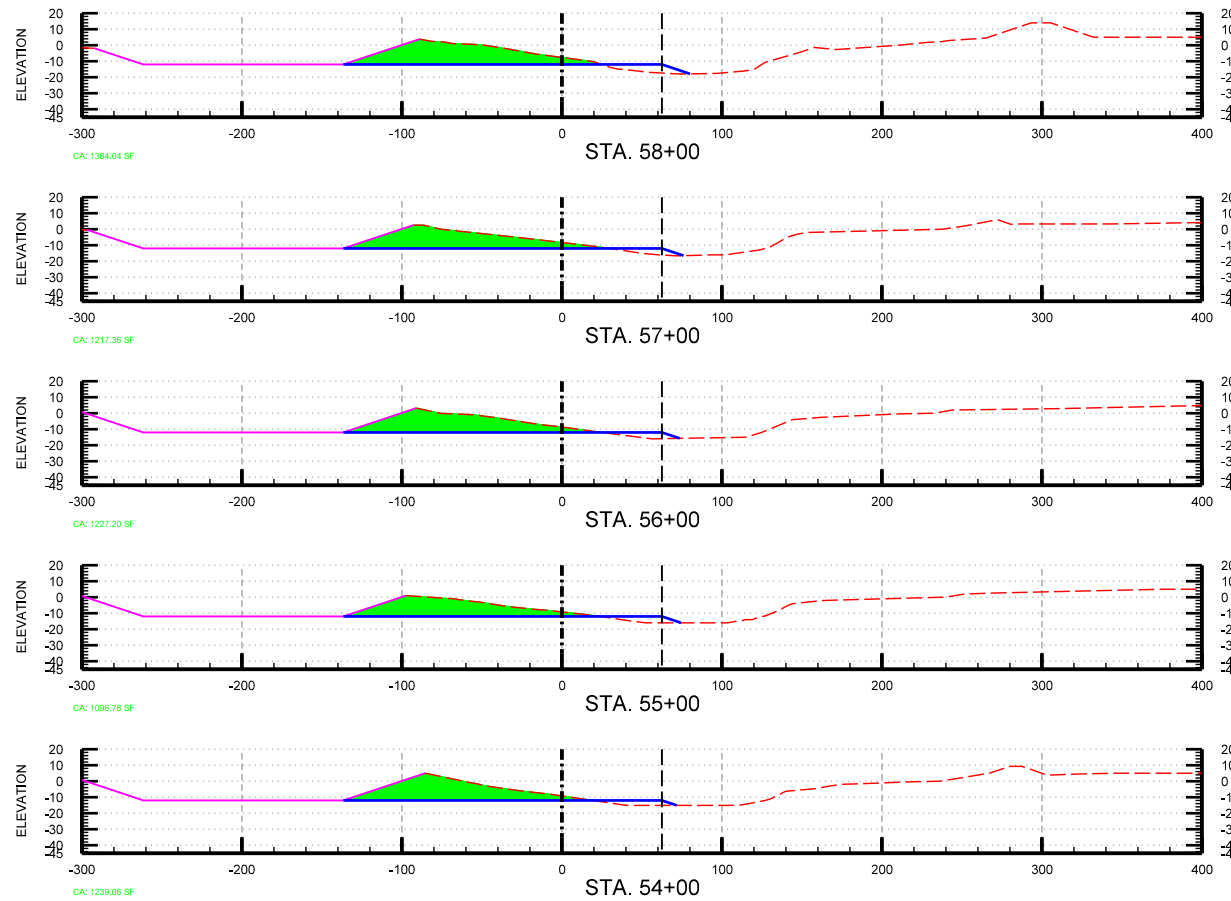
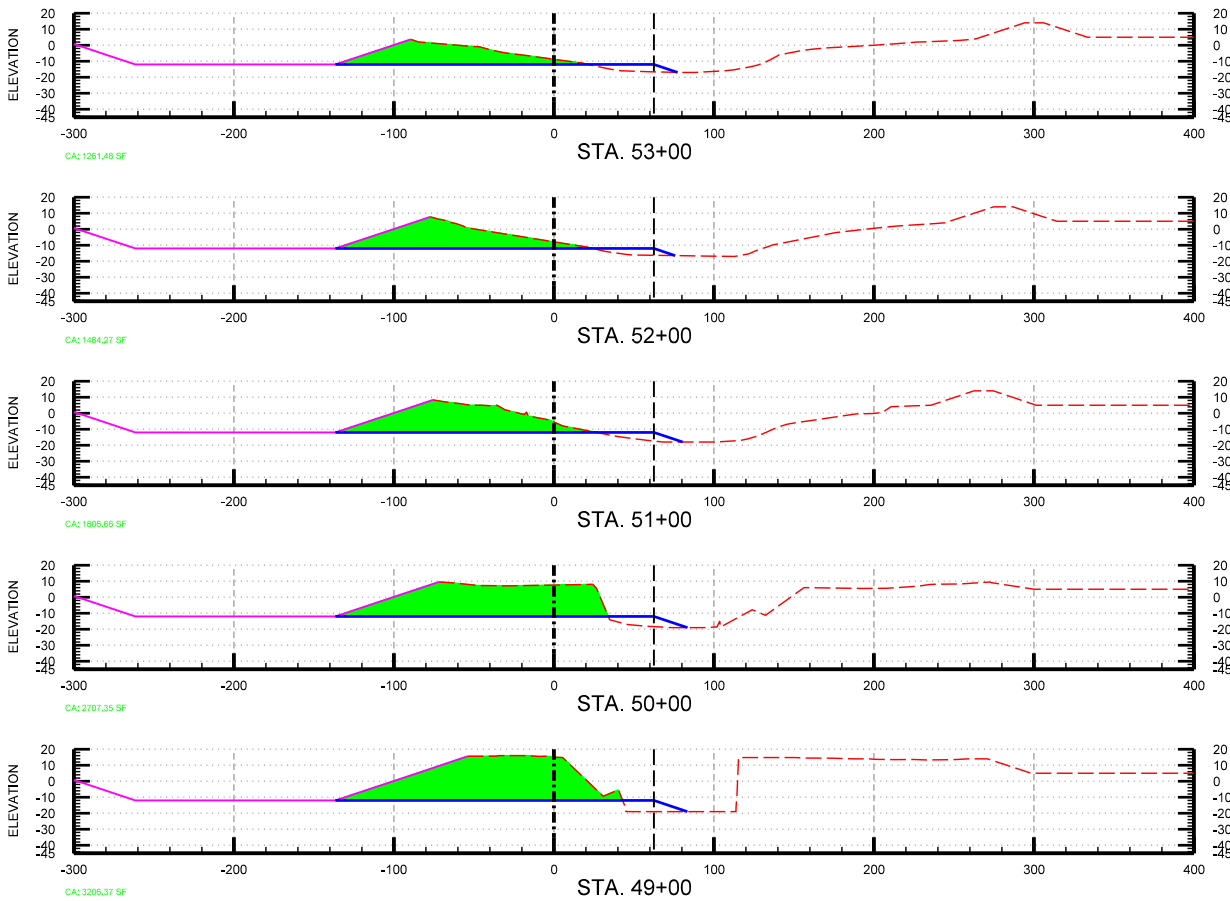
NEW CHANNEL  
CROSS SECTIONS  
STA. 39+00 TO STA. 48+00

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### SHEET LEGEND

- EXISTING GROUND LINE
- NEW CHANNEL TEMPLATE
- BYPASS CHANNEL TEMPLATE (COMPETED CUT)
- NEW CHANNEL CENTERLINE
- B.E.C.



US Army Corps  
of Engineers®  
NEW ORLEANS DISTRICT

DATE	DESCRIPTION

DESIGNED BY: NEW ORLEANS DISTRICT	DATE:	SOLICITATION NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	CHK BY:	CONTRACT NO.:
DESIGNED BY: NEW ORLEANS DISTRICT	SUBMITTED BY:	FILE NUMBER:
DESIGNED BY: NEW ORLEANS DISTRICT	PLOT SCALE:	ANSI D
DESIGNED BY: NEW ORLEANS DISTRICT	PLOT DATE:	
DESIGNED BY: NEW ORLEANS DISTRICT	FILE NAME:	

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.  
  
NEW CHANNEL  
CROSS SECTIONS  
STA. 49+00 TO STA. 58+00

SHEET  
IDENTIFICATION  
**C-18**

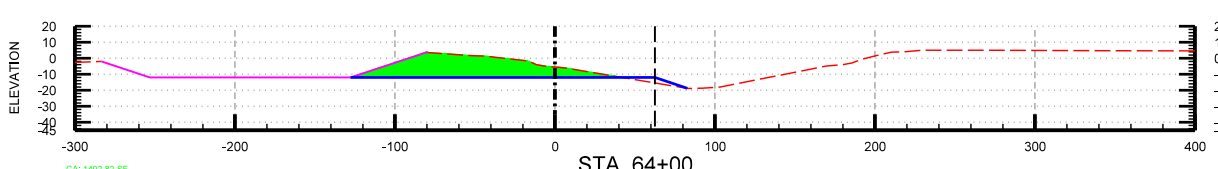
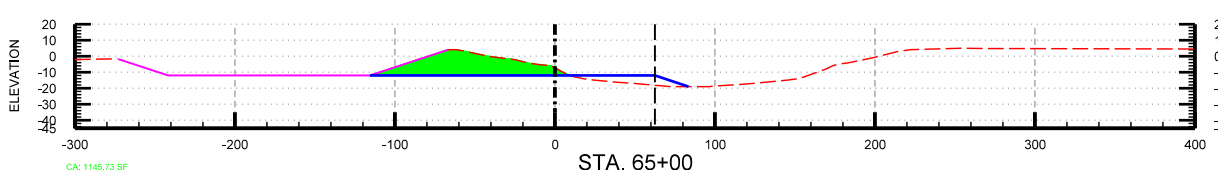
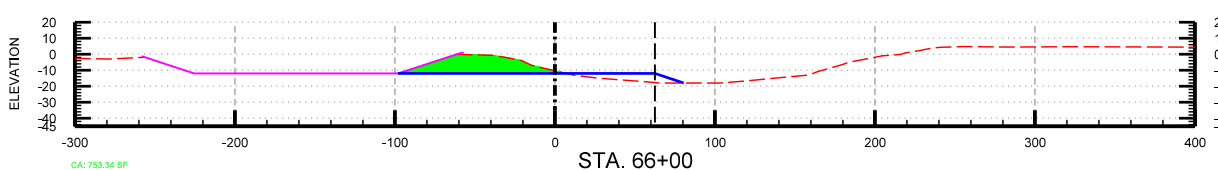
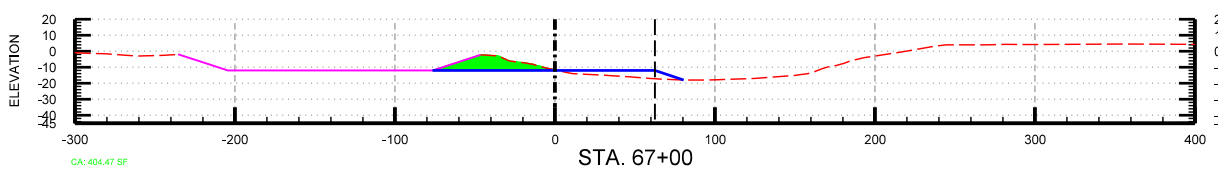
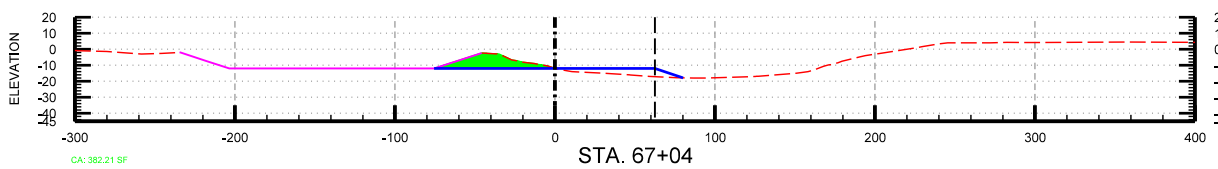
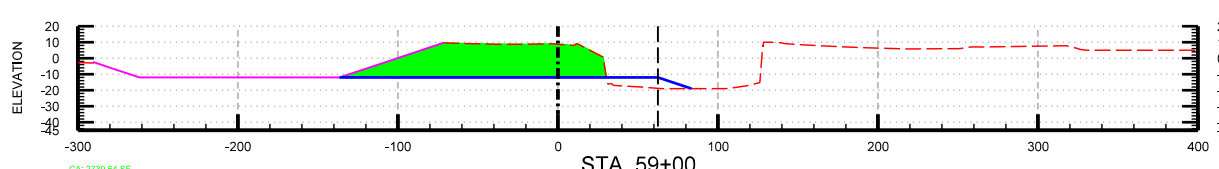
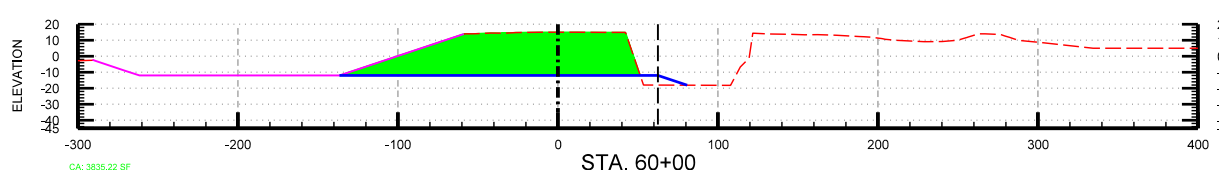
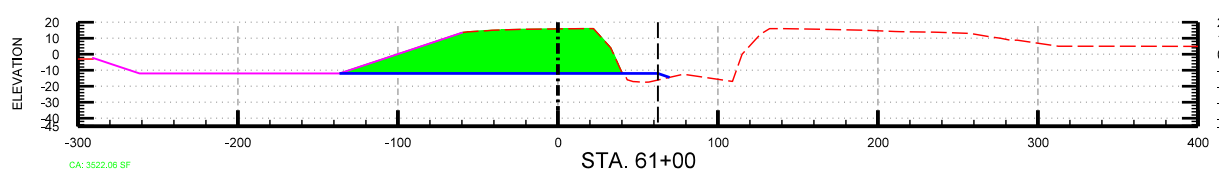
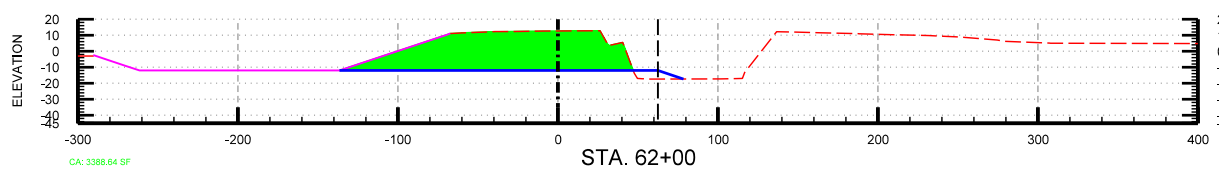
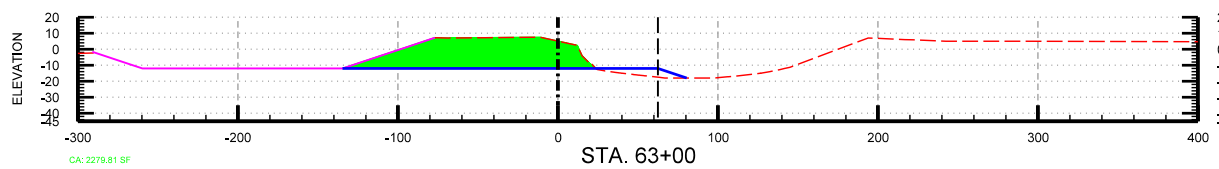
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### SHEET LEGEND

- EXISTING GROUND LINE
- NEW CHANNEL TEMPLATE
- BYPASS CHANNEL TEMPLATE (COMPETED CUT)
- NEW CHANNEL CENTERLINE
- B.E.C



US Army Corps of Engineers  
NEW ORLEANS DISTRICT

DATE	DESCRIPTION	APPR.	MARK

DESIGNED BY: PUNJAG R. SURESH	DATE:	SOLICITATION NO.:
CHECKED BY: PNS	05 APR 2017	CONTRACT NO.:
DESIGNED BY: PNS	PLOT DATE:	FILE NUMBER:
DATE:	05 APR 2017	FILE NAME:
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA		

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.  
NEW CHANNEL  
CROSS SECTIONS  
STA. 59+00 TO STA. 67+04

SHEET IDENTIFICATION  
C-19

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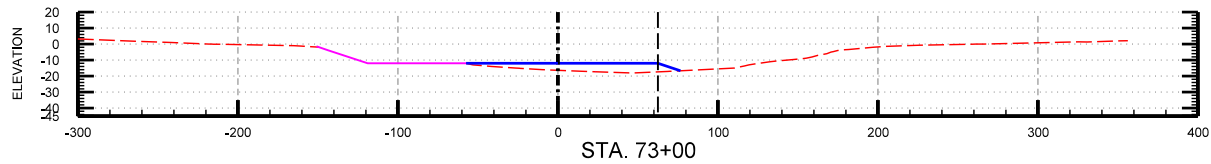
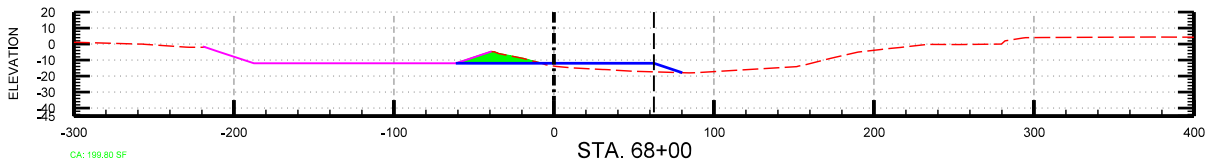
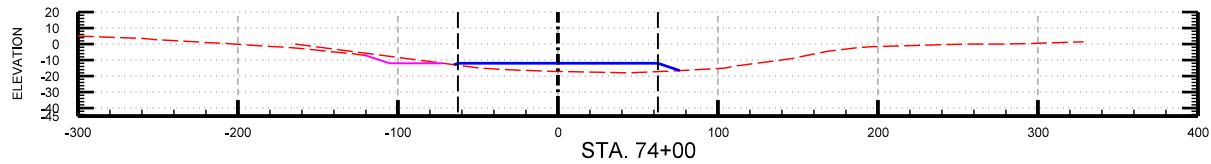
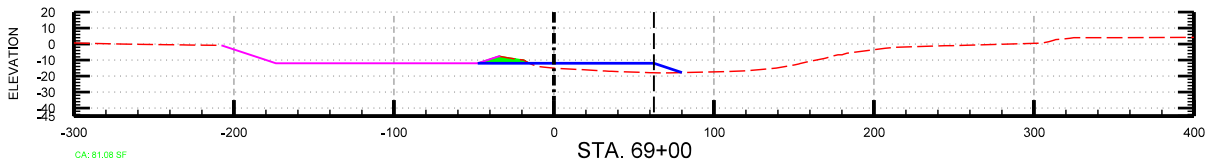
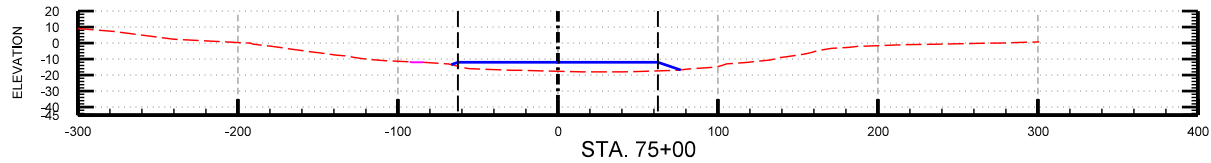
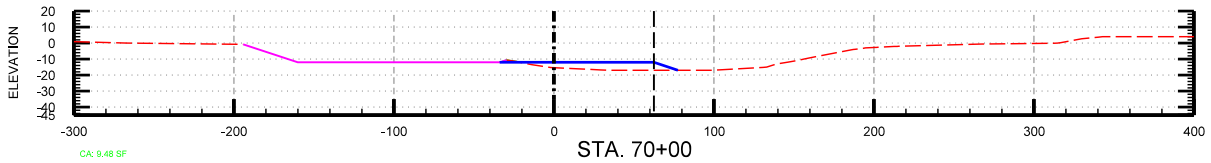
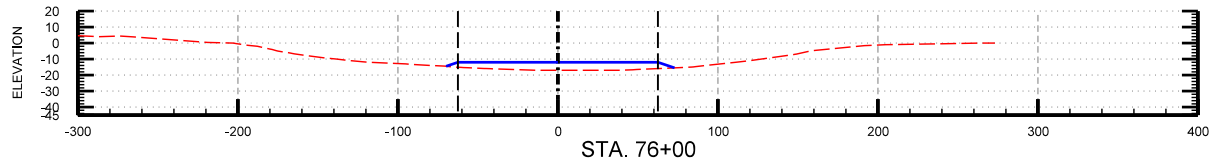
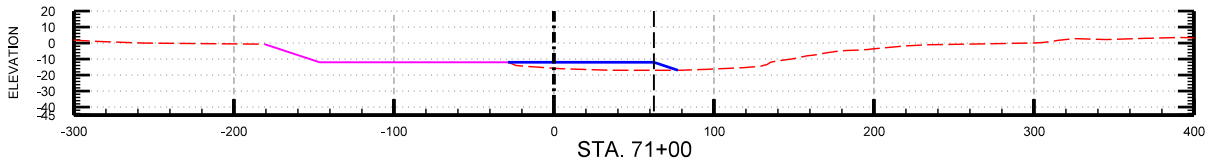
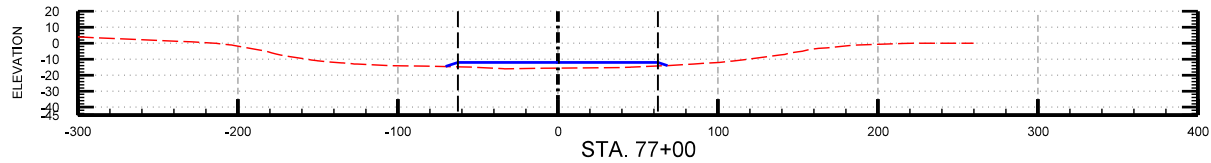
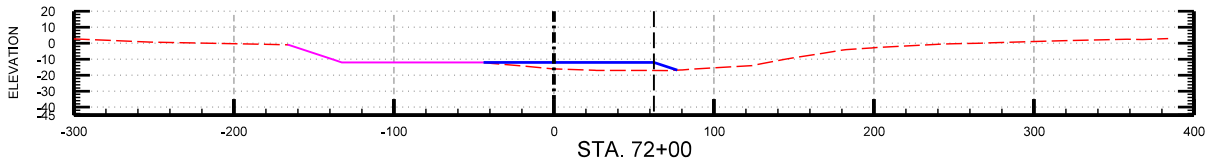
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- ### SHEET LEGEND
- EXISTING GROUND LINE
  - NEW CHANNEL TEMPLATE
  - BYPASS CHANNEL TEMPLATE (COMPETED CUT)
  - NEW CHANNEL CENTERLINE
  - B.E.C.



MARK	DESCRIPTION	DATE	APPR.	MARK	DATE	APPR.

DESIGNED BY: KATIA R. GIBBY	DATE:	SOLICITATION NO.:
DRAWN BY: PMS	05 APR 2017	NEW ORLEANS DISTRICT
CHECK BY:		NEW ORLEANS, LOUISIANA
SUBMITTED BY:		
DESIGNED BY:		
DRAWN BY:		
CHECK BY:		
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SUBMITTED BY:		

COLORADO RIVER LOCKS,  
FEASIBILITY STUDY,  
OPEN CHANNEL,  
MATAGORDA COUNTY, TX.  
  
NEW CHANNEL  
CROSS SECTIONS  
STA. 68+00 TO STA. 77+00

SHEET  
IDENTIFICATION  
**C-20**





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MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DESIGNED BY:	DATE:	SOLICITATION NO.:
	DWN BY:	CHK BY:	CONTRACT NO.:
	SUBMITTED BY:	PILOT SCALE:	PILOT DATE:
	FILE NAME:	ANSI D:	FILE NUMBER:

GULF INTRACOASTAL WATERWAY  
COLORADO LOCKS  
MATAGORDA, TEXAS  
ALTERNATIVE 2B  
**HALF PLAN OF LOCKS**

SHEET IDENTIFICATION  
**PL-02**

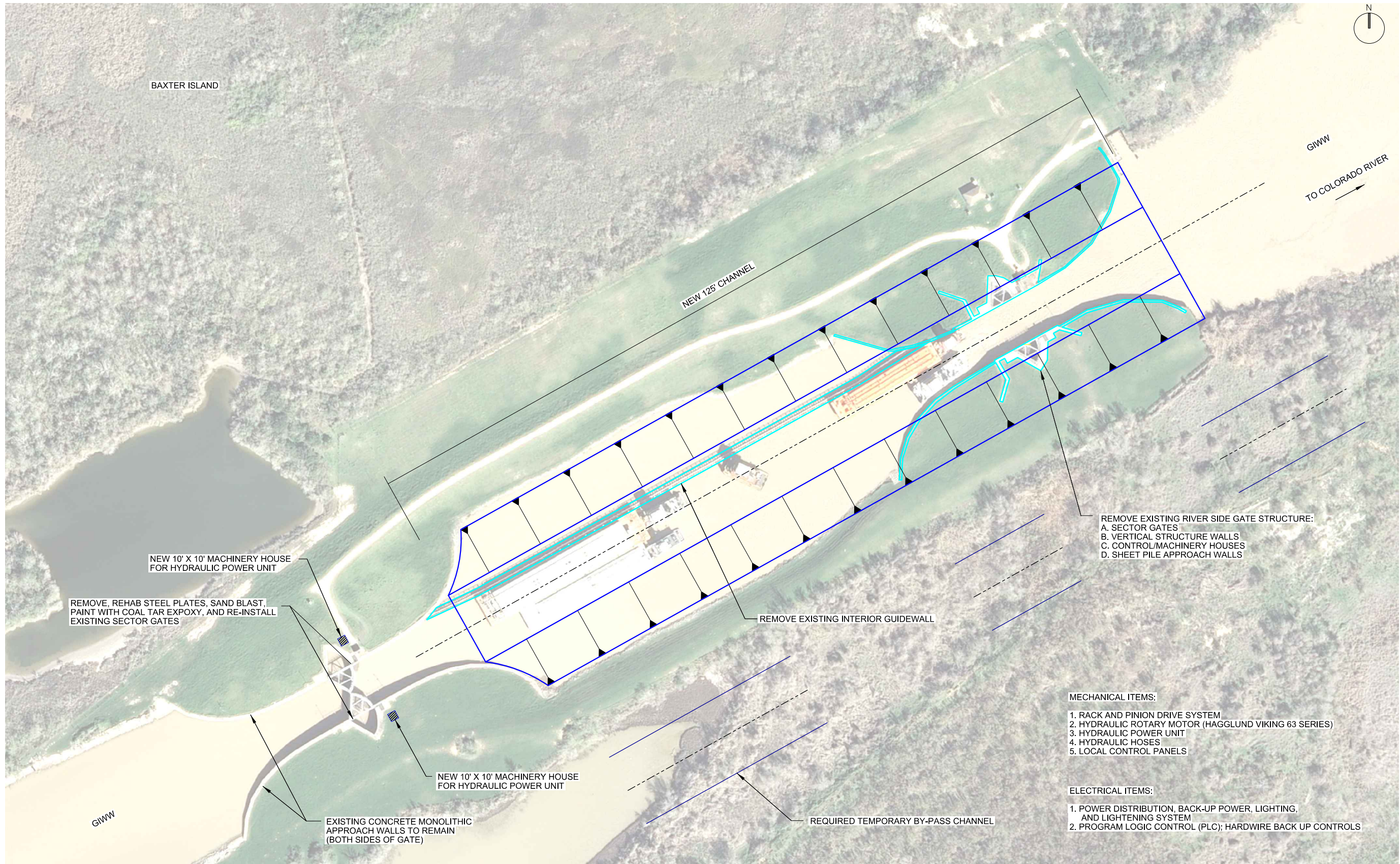
**HALF PLAN WEST SIDE - REHAB (2b)**

(WORK ON EAST LOCKS SIMILAR)

- MECHANICAL ITEMS:**
1. RACK AND PINION DRIVE SYSTEM
  2. HYDRAULIC ROTARY MOTOR (HAGGLUND VIKING 63 SERIES)
  3. HYDRAULIC POWER UNIT
  4. HYDRAULIC HOSES
  5. LOCAL CONTROL PANELS
- ELECTRICAL ITEMS:**
1. POWER DISTRIBUTION, BACK-UP POWER, LIGHTING, AND LIGHTENING SYSTEM
  2. PROGRAM LOGIC CONTROL (PLC); HARDWIRE BACK UP CONTROLS

SCALE: 1" = 80'





BAXTER ISLAND

GWW  
TO COLORADO RIVER

NEW 125' CHANNEL

NEW 10' X 10' MACHINERY HOUSE FOR HYDRAULIC POWER UNIT

REMOVE, REHAB STEEL PLATES, SAND BLAST, PAINT WITH COAL TAR EXPOXY, AND RE-INSTALL EXISTING SECTOR GATES

NEW 10' X 10' MACHINERY HOUSE FOR HYDRAULIC POWER UNIT

EXISTING CONCRETE MONOLITHIC APPROACH WALLS TO REMAIN (BOTH SIDES OF GATE)

REMOVE EXISTING INTERIOR GUIDEWALL

REMOVE EXISTING RIVER SIDE GATE STRUCTURE:  
A. SECTOR GATES  
B. VERTICAL STRUCTURE WALLS  
C. CONTROL/MACHINERY HOUSES  
D. SHEET PILE APPROACH WALLS

- MECHANICAL ITEMS:
1. RACK AND PINION DRIVE SYSTEM
  2. HYDRAULIC ROTARY MOTOR (HAGGLUND VIKING 63 SERIES)
  3. HYDRAULIC POWER UNIT
  4. HYDRAULIC HOSES
  5. LOCAL CONTROL PANELS

- ELECTRICAL ITEMS:
1. POWER DISTRIBUTION, BACK-UP POWER, LIGHTING, AND LIGHTENING SYSTEM
  2. PROGRAM LOGIC CONTROL (PLC); HARDWARE BACK UP CONTROLS

REQUIRED TEMPORARY BY-PASS CHANNEL

### HALF PLAN WEST SIDE - CONVERT LOCKS TO FLOODGATES HYBRID (REFINED) (4b-1)

(WORK ON EAST LOCKS SIMILIAR)

SCALE: 1" = 80'



MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY:	DATE:	SOLICITATION NO.:
DWN BY:	CHK BY:	CONTRACT NO.:
SUBMITTED BY:	FILE NAME:	FILE NUMBER:
PLLOT SCALE:	ANSI D	

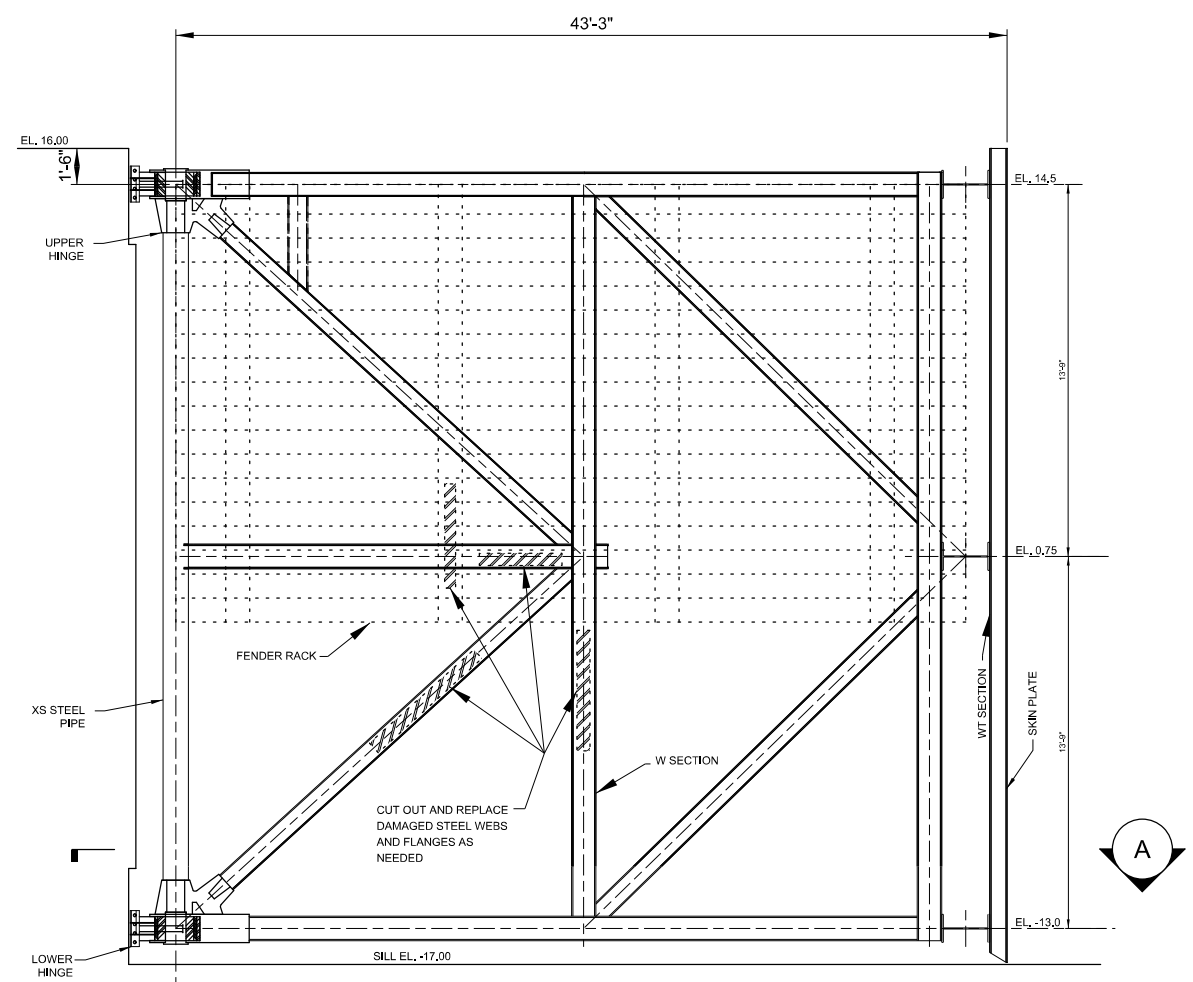
U.S. ARMY CORPS OF ENGINEERS  
NEW ORLEANS DISTRICT  
NEW ORLEANS, LOUISIANA

GULF INTRACOASTAL WATERWAY  
COLORADO LOCKS  
MATAORDA, TEXAS  
ALTERNATIVE 4b-1

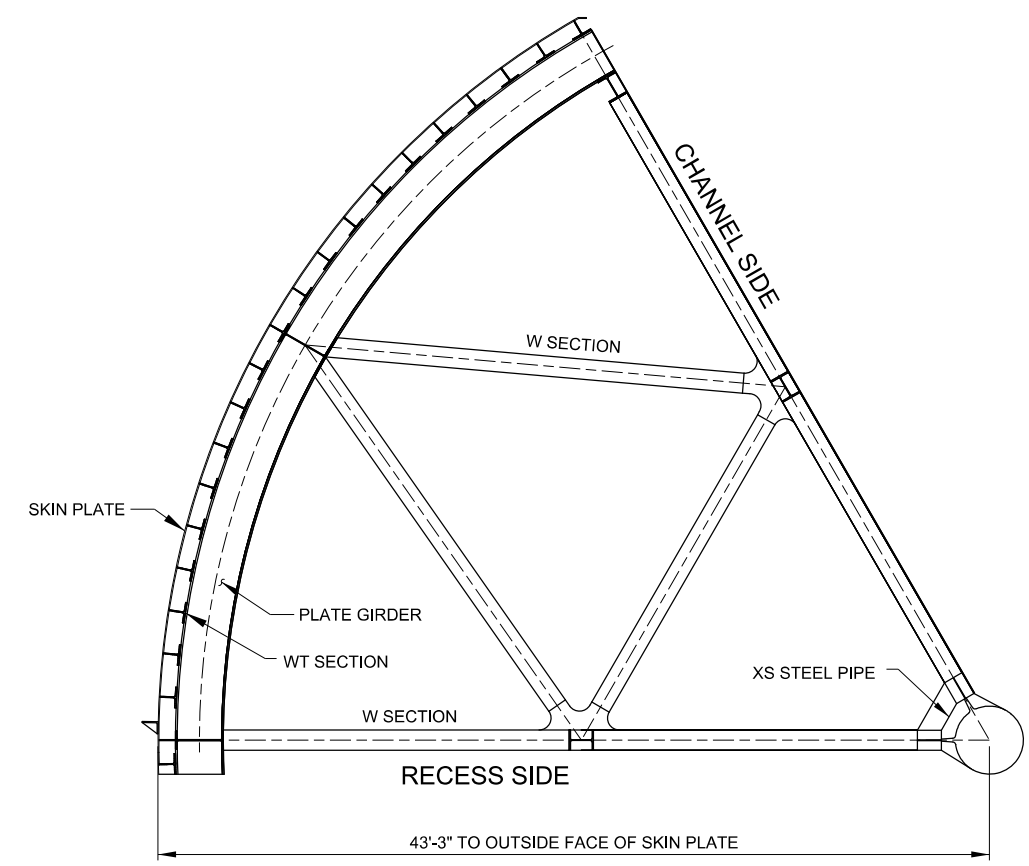
HALF PLAN OF LOCKS

SHEET IDENTIFICATION  
**PL-02A**





**ELEVATION - CHANNEL TRUSS**  
SCALE: 1/2" = 1'-0"



**PLAN - LOWER HORIZONTAL FRAME**  
SCALE: 1/2" = 1'-0"

- NOTES:
1. GATES SHALL BE REMOVED FROM SITE.
  2. DAMAGED STEEL MEMBERS SHALL BE REPAIRED.
  3. GEAR RACKS SHALL BE INSTALLED ON GATES.
  4. GATES SHALL BE SAND BLASTED AND PRIMED.
  5. GATES SHALL BE PAINTED WITH COAL TAR EXPOXY, SYSTEM NO. 6.
  6. GATES SHALL BE INSTALLED BACK IN PLACE.

DATE	DESCRIPTION	APPR.

DESIGNED BY:	DATE:	SOLICITATION NO.:
DWN BY:	CHK BY:	CONTRACT NO.:
SUBMITTED BY:	PLOT SCALE:	PLOT DATE:
FILE NAME:	FILE NUMBER:	
ANSI D		

GULF INTRACOASTAL WATERWAY  
COLORADO LOCKS  
MATAGORDA, TEXAS  
ALTERNATIVE ZB  
SECTOR GATE DETAILS

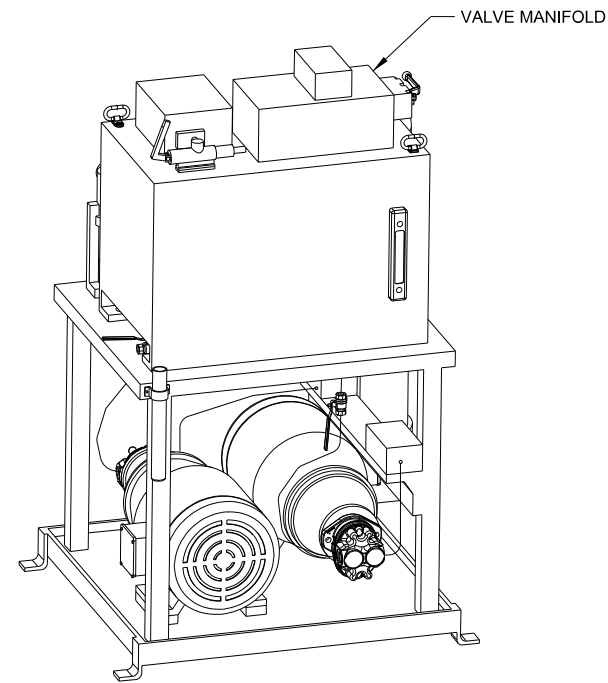
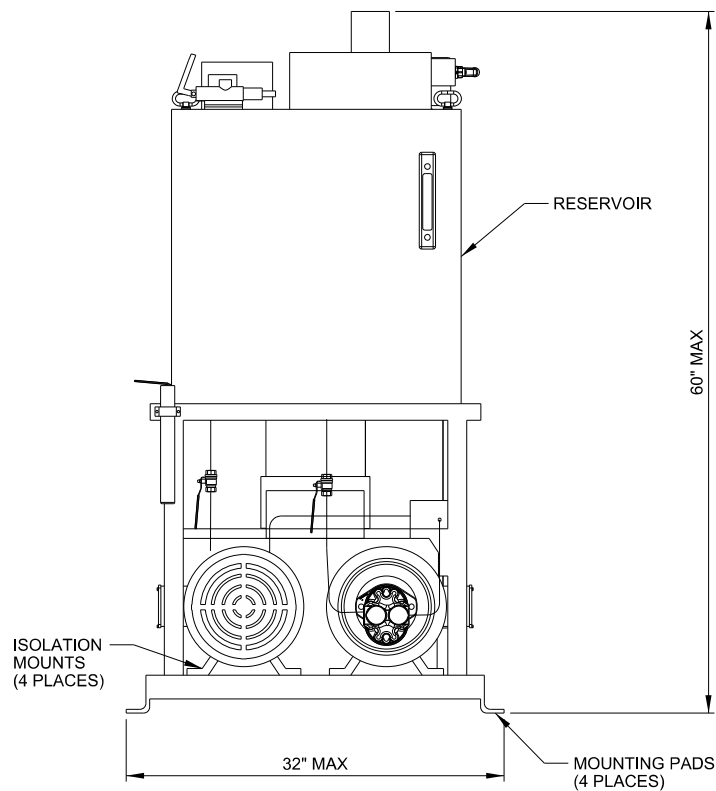
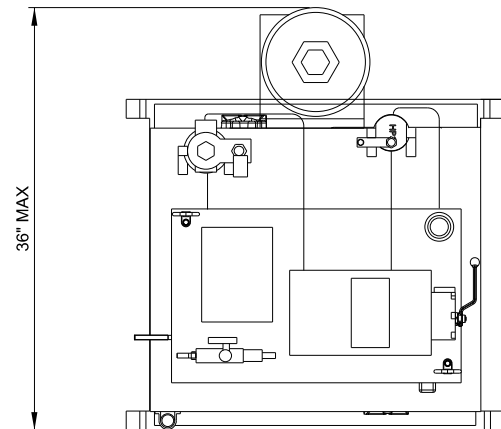
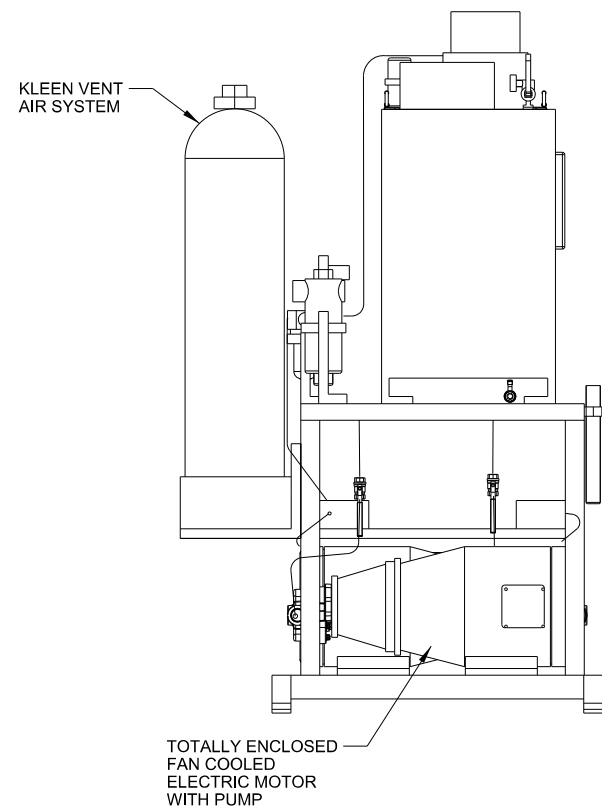
SHEET IDENTIFICATION  
**PL-03**

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NOTES:  
 1. HPU UNITS ARE TO BE PROVIDED FOR EACH GATE.  
 2. HPU SET UP IS TO INLCUDE HYDRAULIC HOSES AND FITTINGS.

**HYDRAULIC POWER UNIT (TYPICAL)**

SCALE: N.T.S.  
 QUANTITY: 2

MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY:	DATE:	SOLICITATION NO.:
DWN BY:	CHK BY:	CONTRACT NO.:
SUBMITTED BY:	PLOT SCALE:	PLOT DATE:
FILE NAME:	FILE NUMBER:	
ANSI D		

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

GULF INTRACOASTAL WATERWAY  
 COLORADO LOCKS  
 MATAGORDA, TEXAS  
 ALTERNATIVE 2B

NEW SECTOR GATE  
 HYDRAULIC POWER UNIT

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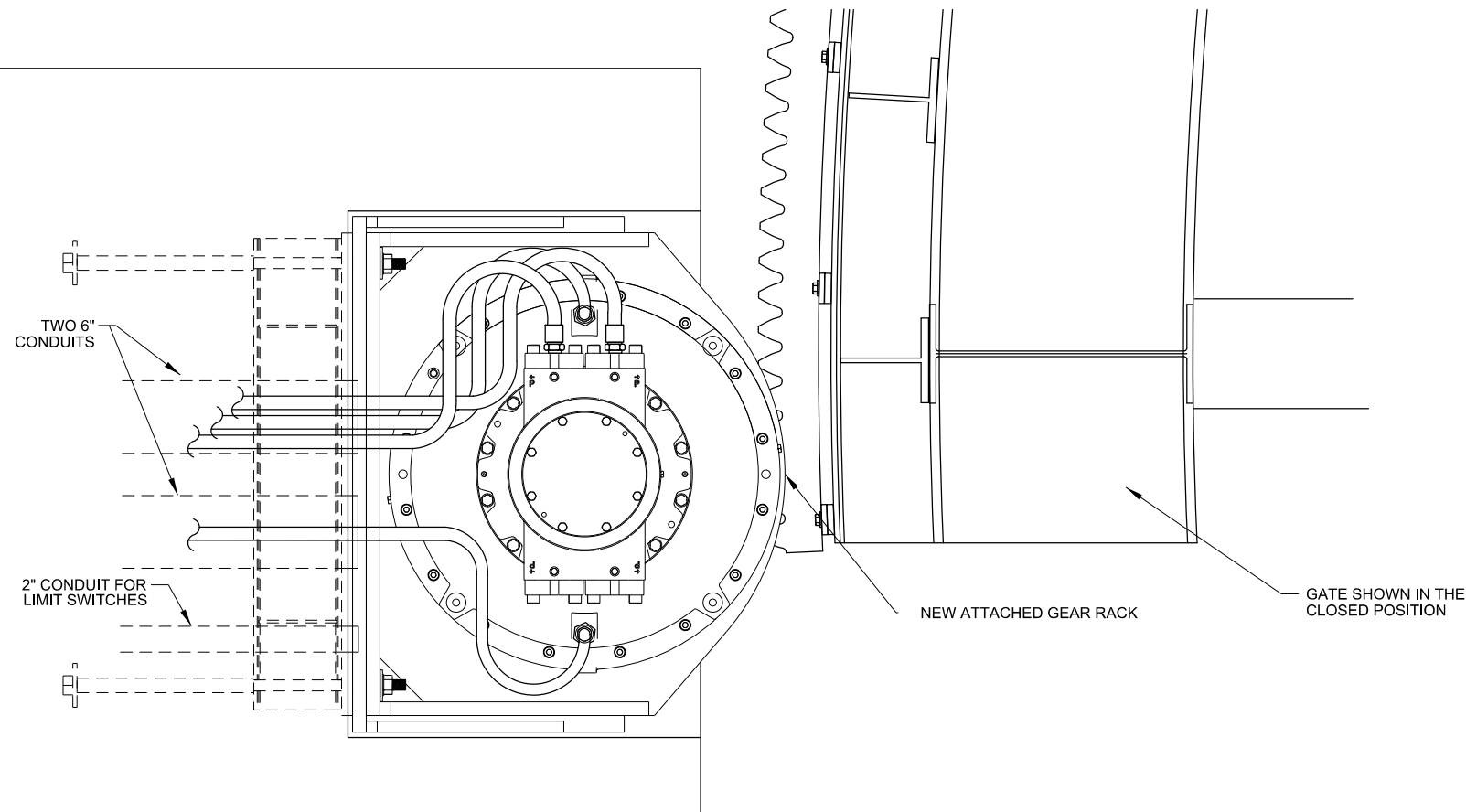
US Army Corps of Engineers  
New Orleans District

D

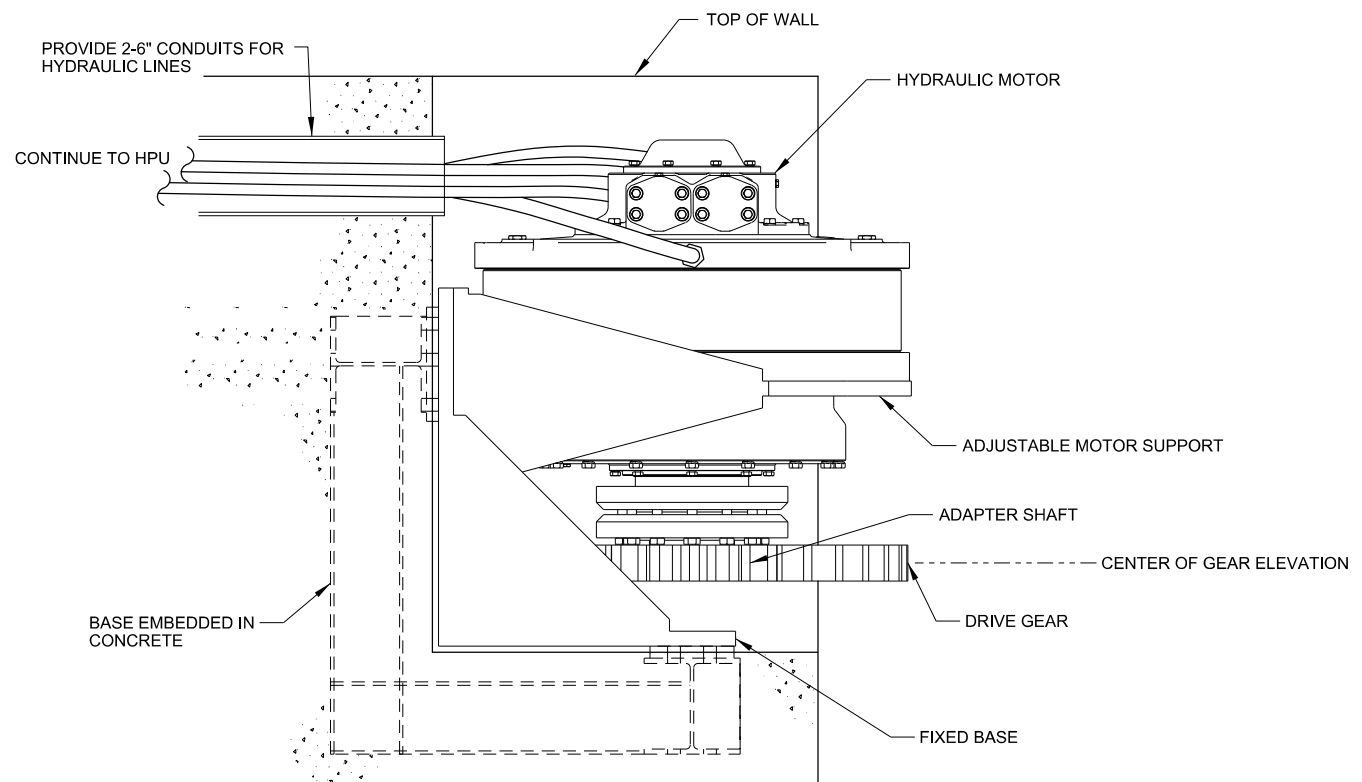
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**PLAN**  
SCALE: 1 1/2" = 1'-0"  
NO. REQ'D 2



**ELEVATION SECTION**  
SCALE: 1 1/2" = 1'-0"  
NO. REQ'D 2

MK NO.	DESCRIPTION	QTY
-	HIGH TORQUE HYDRAULIC RADIAL MOTOR W/ INTEGRATED BRAKE. EATON MODEL RCC1013 OR APPROVED EQUAL (HAGGLUND VIKING 63 SERIES)	8
-	GEAR RACK	8

MARK	DATE	DESCRIPTION	APPR.

DESIGNED BY: U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT NEW ORLEANS, LOUISIANA	DATE:	SOLICITATION NO.:
	DWN BY:	CONTRACT NO.:
	SUBMITTED BY:	FILE NUMBER:
	PLOT SCALE:	ANSI D

GULF INTRACOASTAL WATERWAY  
 COLORADO LOCKS  
 MATAORDA, TEXAS  
 ALTERNATIVE 2B  
 HYDRAULIC MOTOR

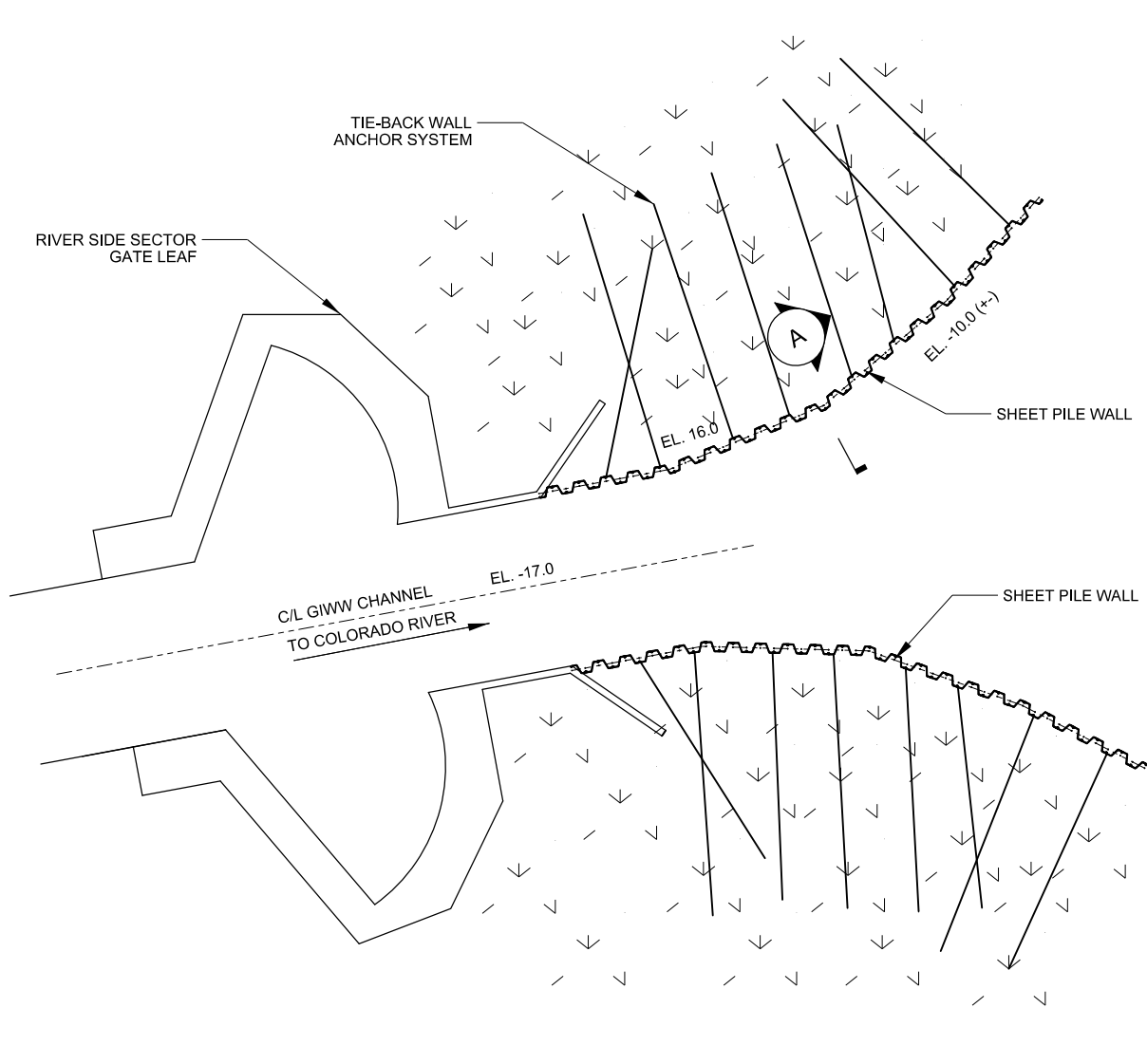
SHEET IDENTIFICATION  
**PL-05**

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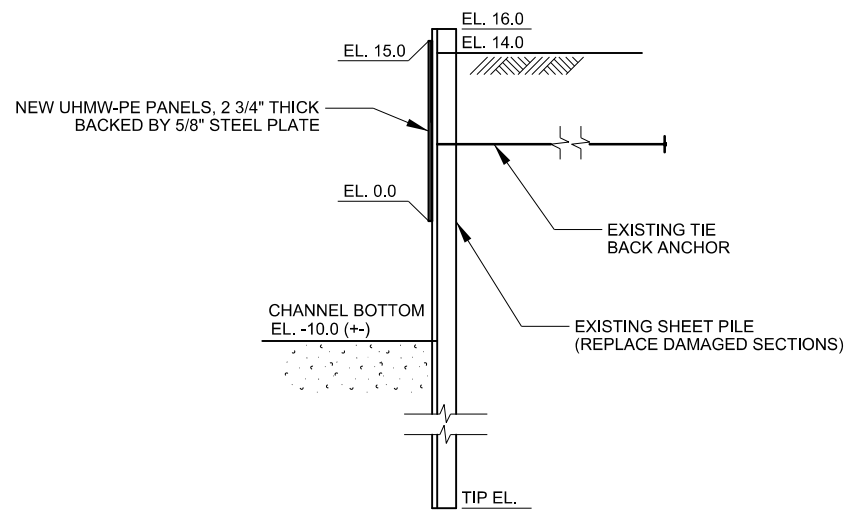
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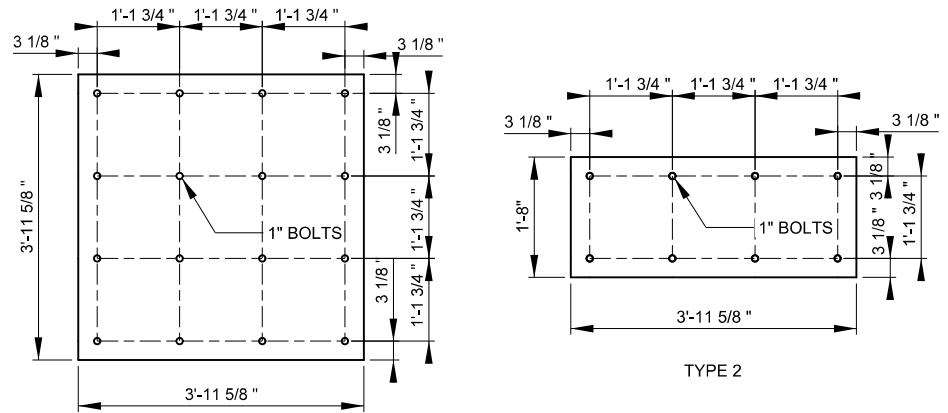
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**PLAN OF SHEET PILE APPROACH WALL**  
(RIVER SIDE)  
SCALE: 1" = 200'



**A SECTION**  
SCALE: 1/8" = 1'-0"



NOTE:  
A 3" GAP WILL BE MAINTAINED BETWEEN P/ ACCOMMODATE 1/2" WELD OF 5/8" PANEL BA/ PLATE.  
HEAVY DUTY GRADE

**COLORADO RIVER SIDE APPROACH WALLS**  
**UHMW-PE PANELS**

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

DATE	DESCRIPTION	APPR.

DESIGNED BY:	DATE:	SOLICITATION NO.:
DWN BY:	CHK BY:	CONTRACT NO.:
SUBMITTED BY:	PLotted DATE:	FILE NUMBER:
FILE NAME:	ANSI D	

GULF INTRACOASTAL WATERWAY  
COLORADO LOCKS  
MATAGORDA, TEXAS  
ALTERNATIVE ZB

RIVER SIDE APPROACH WALLS

SHEET IDENTIFICATION  
**PL-08**



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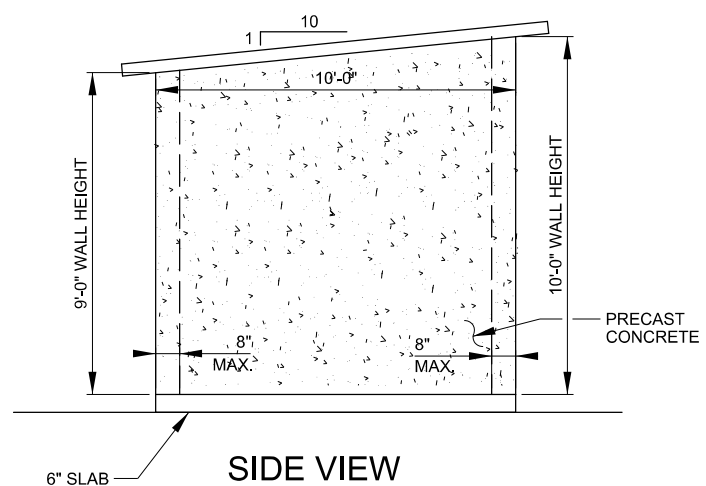
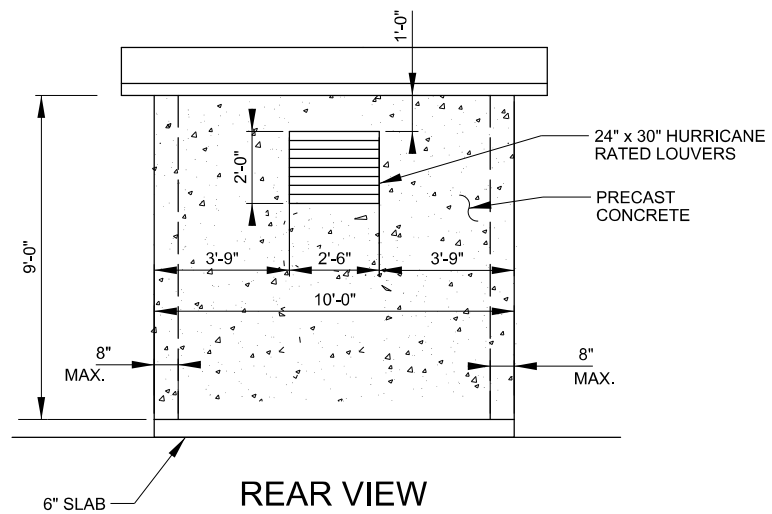
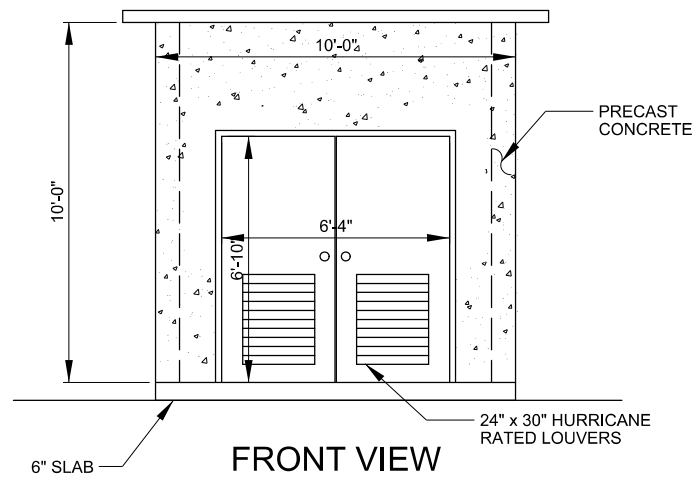
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### MACHINERY HOUSE

SCALE: 3/8" = 1'-0"  
 QUANTITY: 8  
 (PRE-ENGINEERED BUILDING)



MARK	DESCRIPTION	DATE	APPR.

DESIGNED BY:	DATE:	SOLICITATION NO.:
DWN BY:	CHK BY:	CONTRACT NO.:
SUBMITTED BY:	PLOT SCALE:	PLOT DATE:
FILE NAME:	FILE NUMBER:	
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GULF INTRACOASTAL WATERWAY  
 COLORADO LOCKS  
 MATAGORDA, TEXAS  
 ALTERNATIVE ZB  
 MACHINERY HOUSE

SHEET IDENTIFICATION  
 PL-09