

FILE: G:\HarborBridge\CADD\29.9% Design Submittal\Approach\Spans\000*Cover Sheet.dgn
DATE: 2/1/2016
USER: lcavanaugh

New Harbor Bridge
Preliminary Approach Spans
Segmental Span By Span
February 1, 2016

PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016

HL-93 LOADING

FLATIRON


A JOINT VENTURE

in association with FIGG & ACS

DRAGADOS USA

FIGG

TBPE, FIRM # F-4883



Texas Department of Transportation

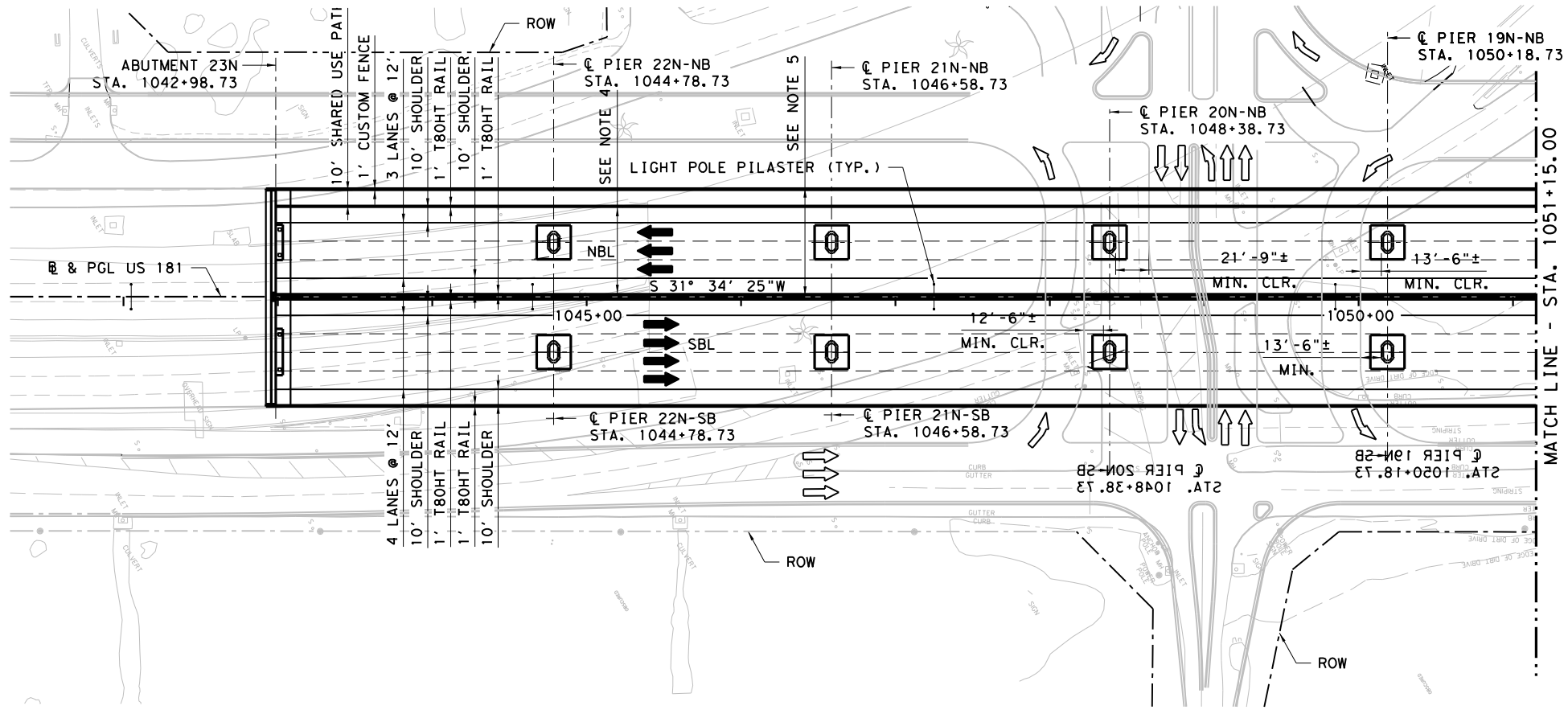
2015

US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
CONCRETE BOX OPTION

SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	X	(See Title Sheet)		X
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	CRP	NUECES	A0
CHECK	CONTROL	SECTION	JOB	
	0101	06	095	

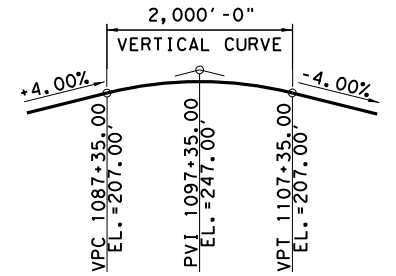
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TIME: 4:59:22 PM
USER: lcaavanaugh



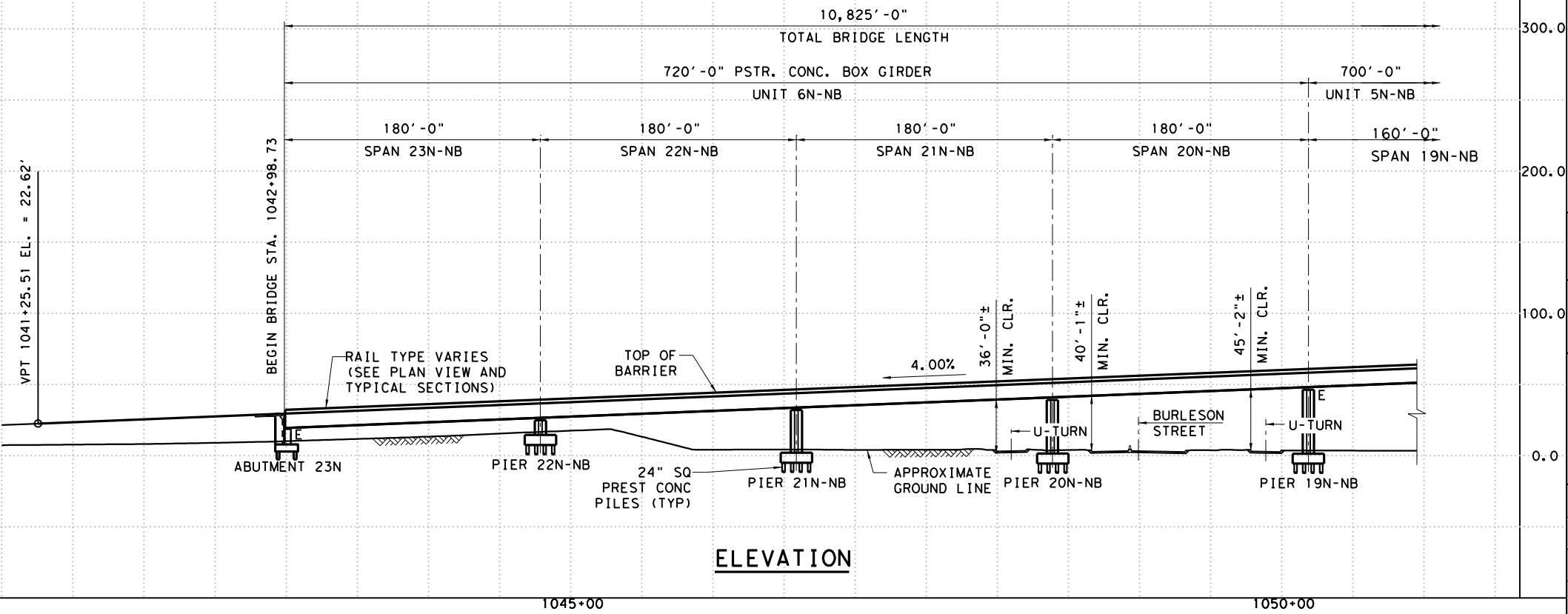
PLAN

- NOTES:
1. ALL PIERS ARE PERPENDICULAR OR RADIAL TO US 181.
 2. FOR CROSS STREET PROFILES, SEE ROADWAY PLANS.
 3. SEE FOUNDATION LAYOUT SHEETS FOR BORING LOCATIONS.
 4. NB ROADWAY WIDTH VARIES FROM 56' TO 80'.
 5. NB OVERALL WIDTH VARIES FROM 58' TO 93'-8".

DESIGN DATA (NB APPROACH)
NB1. NO. XX-XXX-XXXXXX-XXX
FUNC CLASS: URBAN FREEWAY
DESIGN SPEED: 70 MPH
ADT: NB APPROACH
(2015) = XX,XXX
(2035) = XX,XXX



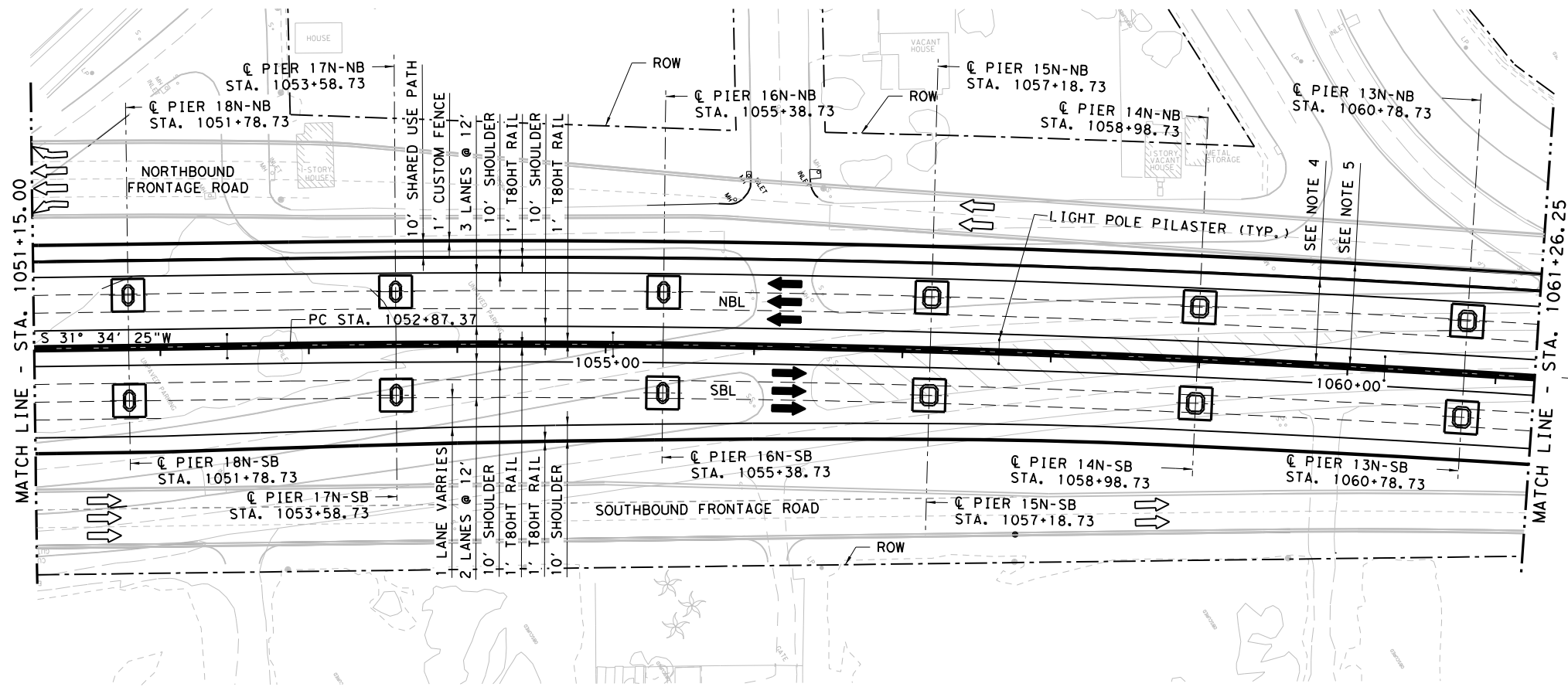
STA = 1097+35.00
EL = 247.00'
ex = -20.00'
K = 250
L = 2,000.00'



ELEVATION

HL-93 LOADING					
FLATIRON DRAGADOS USA A JOINT VENTURE in association with FIGG & ACS		FIGG TBPE, FIRM # F-4883			
Texas Department of Transportation® 2015					
US 181/IH 37 - HARBOR BRIDGE APPROACH SPANS NORTHBOUND APPROACH BRIDGE LAYOUT					
SHEET 1 OF 8					
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
GRAPHICS	X	(See Title Sheet)	X		
CHECK	STATE	DISTRICT	COUNTY		
CHECK	CONTROL	SECTION	JOB		
	0101	06	095		
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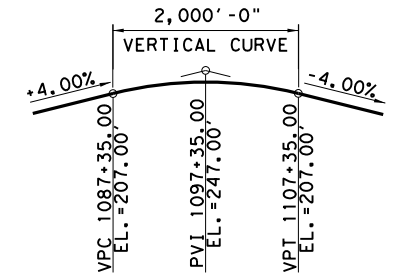


PLAN

- NOTES:
1. ALL PIERS ARE PERPENDICULAR OR RADIAL TO R US 181.
 2. FOR CROSS STREET PROFILES, SEE ROADWAY PLANS.
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 4. NB ROADWAY WIDTH VARIES FROM 56' TO 80'.
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CURVE US181-4
PI STATION = 1057+29.63
DELTA = 4° 42' 50" RT
DEGREE = 0° 31' 59"
TANGENT = 442.4669'
LENGTH = 884.4345'
RADIUS = 10,750.0000'

DESIGN DATA (NB APPROACH)
NBI. NO. XX-XXX-XXXXXX-XXX
FUNC CLASS = URBAN FREEWAY
DESIGN SPEED: 70 MPH
ADT: NB APPROACH
(2015) = XX,XXX
(2035) = XX,XXX



STA = 1097+35.00
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K = 250
L = 2,000.00'

HL-93 LOADING

FLATIRON DRAGADOS USA
A JOINT VENTURE
in association with FIGG & ACS

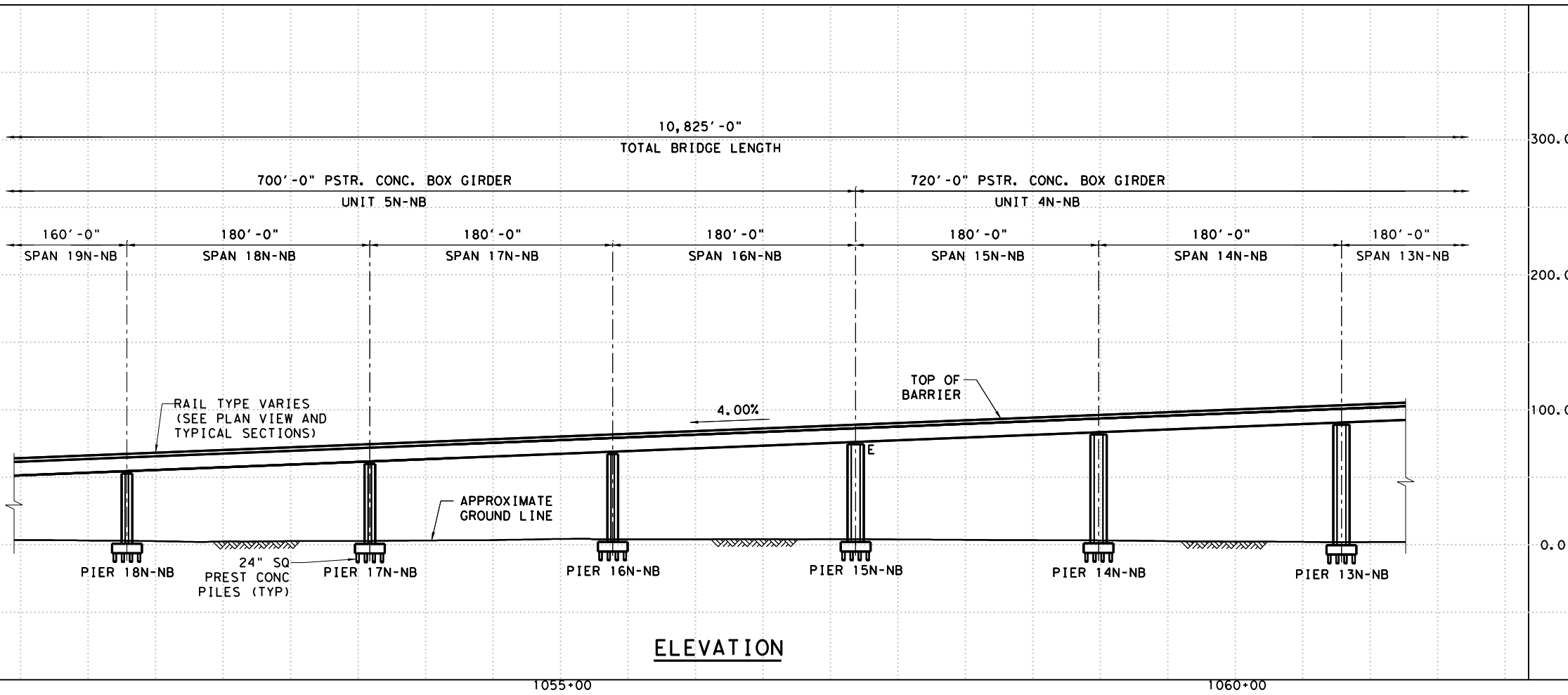
FIGG
TBPE, FIRM # F-4883

Texas Department of Transportation® 2015

US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
NORTHBOUND APPROACH
BRIDGE LAYOUT

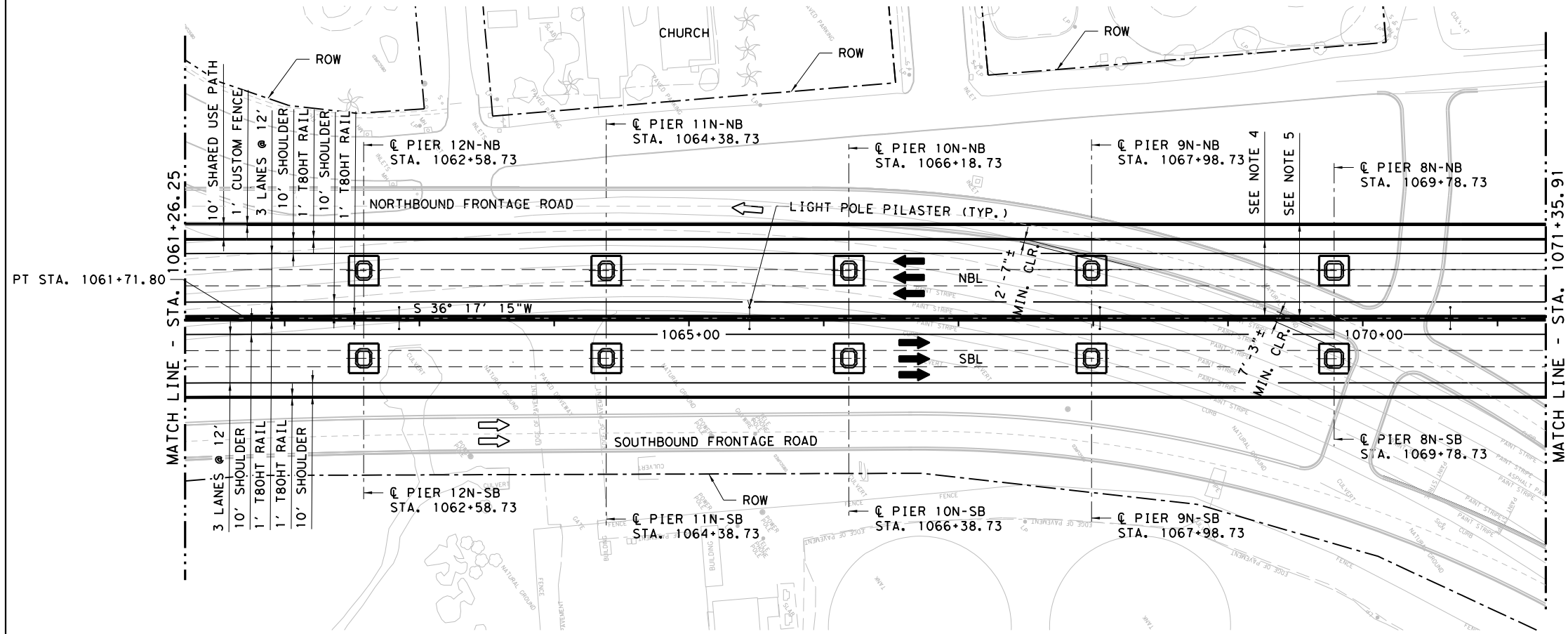
SHEET 2 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
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CHECK	TEXAS	CRP	NUECES
CHECK	CONTROL	SECTION	JOB
CHECK	0101	06	095
A3			



ELEVATION

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USER: lcaivano

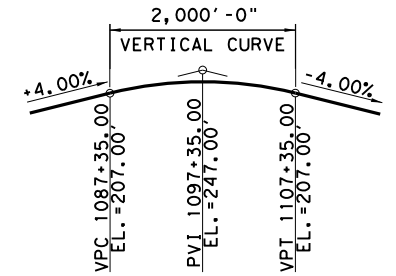


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A JOINT VENTURE
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FIGG
TBPE, FIRM # F-4883

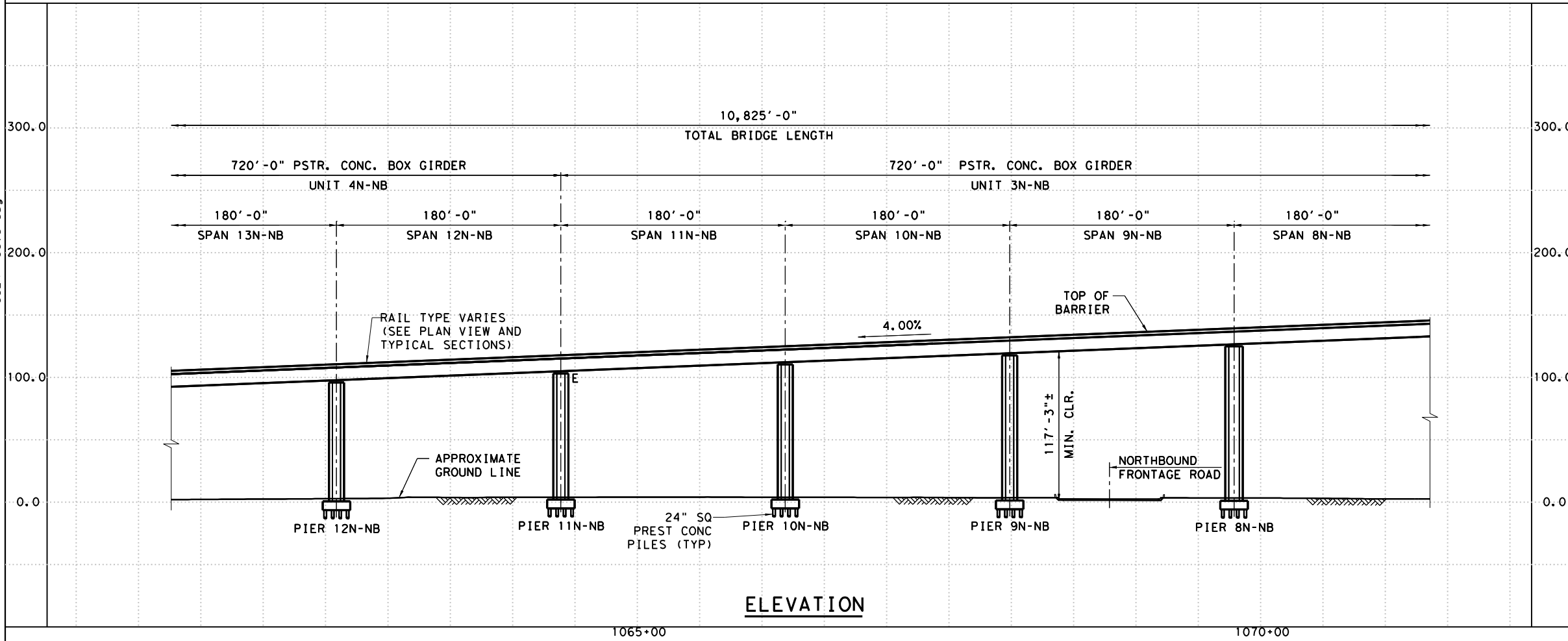
Texas Department of Transportation 2015

US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
NORTHBOUND APPROACH
BRIDGE LAYOUT

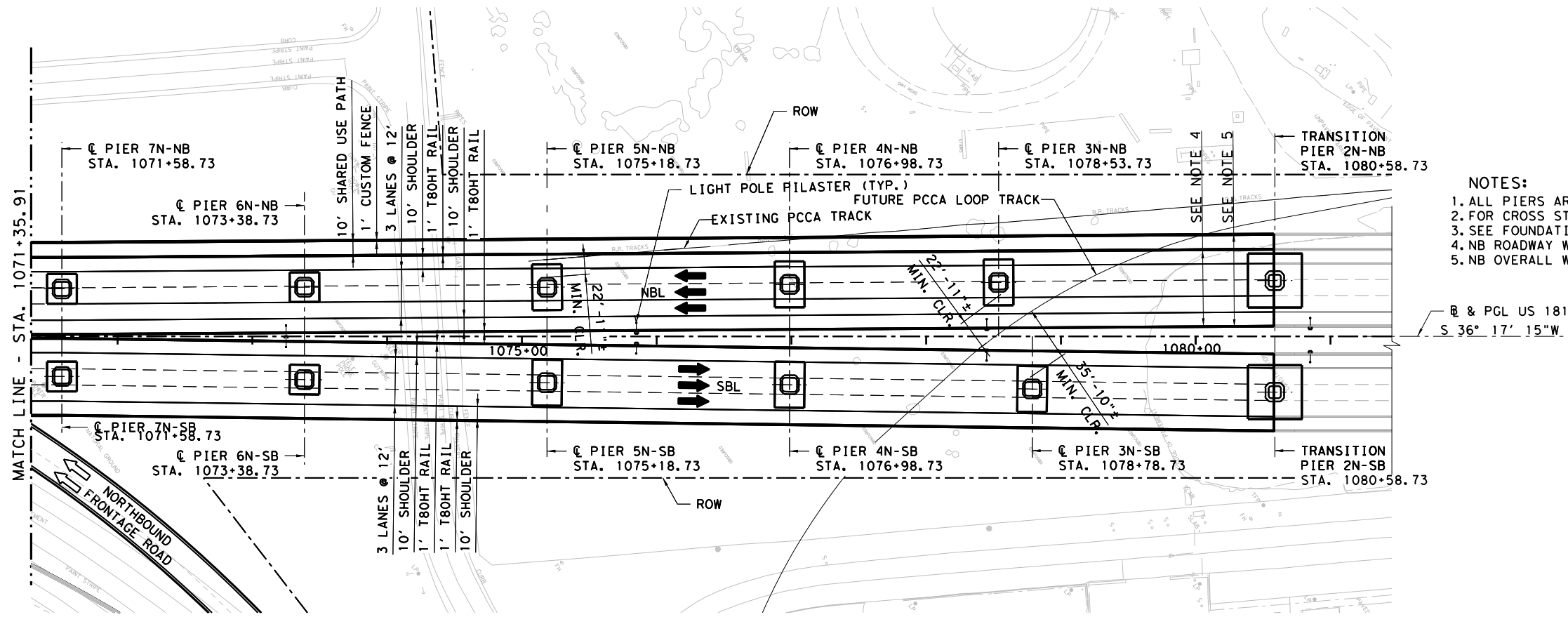
SHEET 3 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
GRAPHICS	X	(See Title Sheet)	X
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CHECK	TEXAS	CRP	NUECES
CHECK	CONTROL	SECTION	JOB
CHECK	0101	06	095

PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016

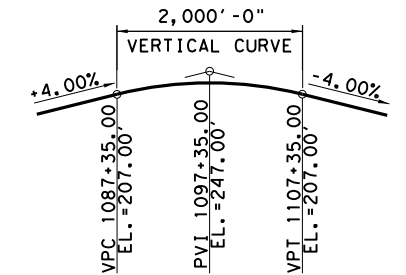


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- NOTES:
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FUNC CLASS: URBAN FREEWAY
DESIGN SPEED: 70 MPH
ADT: NB APPROACH
(2015) = XX,XXX
(2035) = XX,XXX



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L = 2,000.00'

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A JOINT VENTURE
in association with FIGG & ACS

FIGG
TBPE, FIRM # F-4883

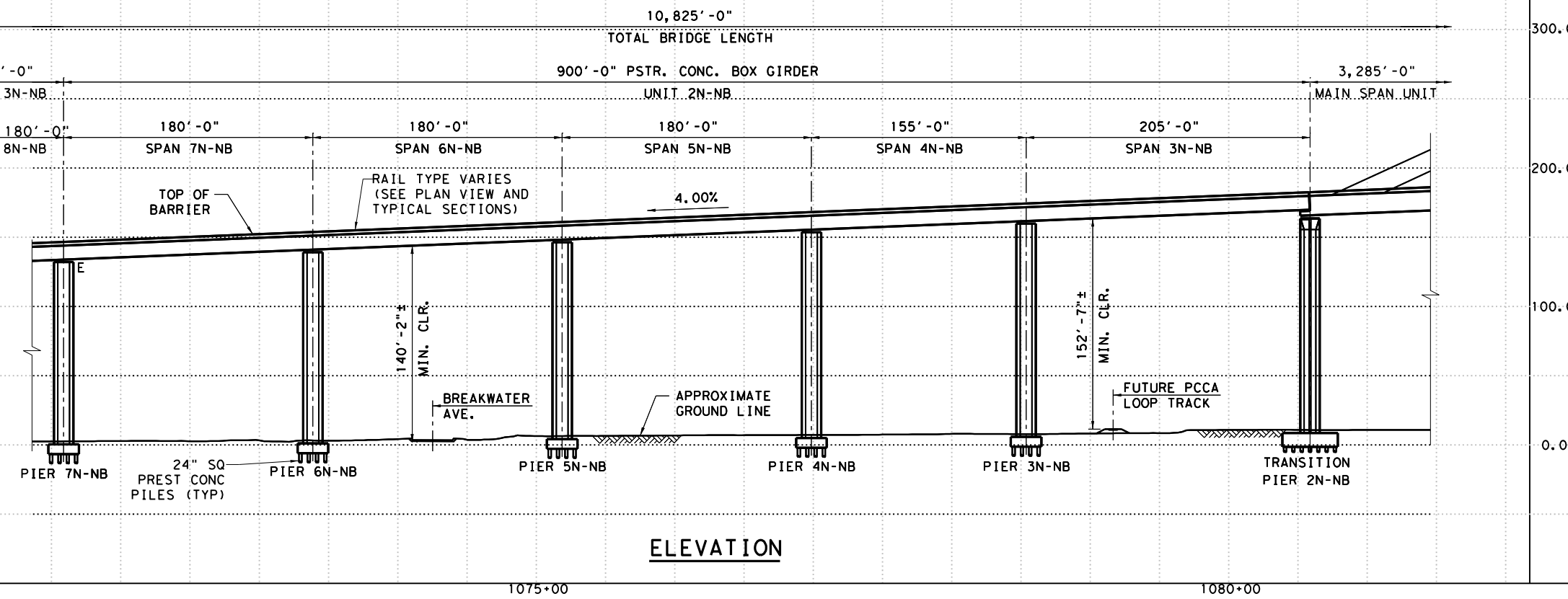
Texas Department of Transportation
2015

US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
NORTHBOUND APPROACH
BRIDGE LAYOUT

SHEET 4 OF 8

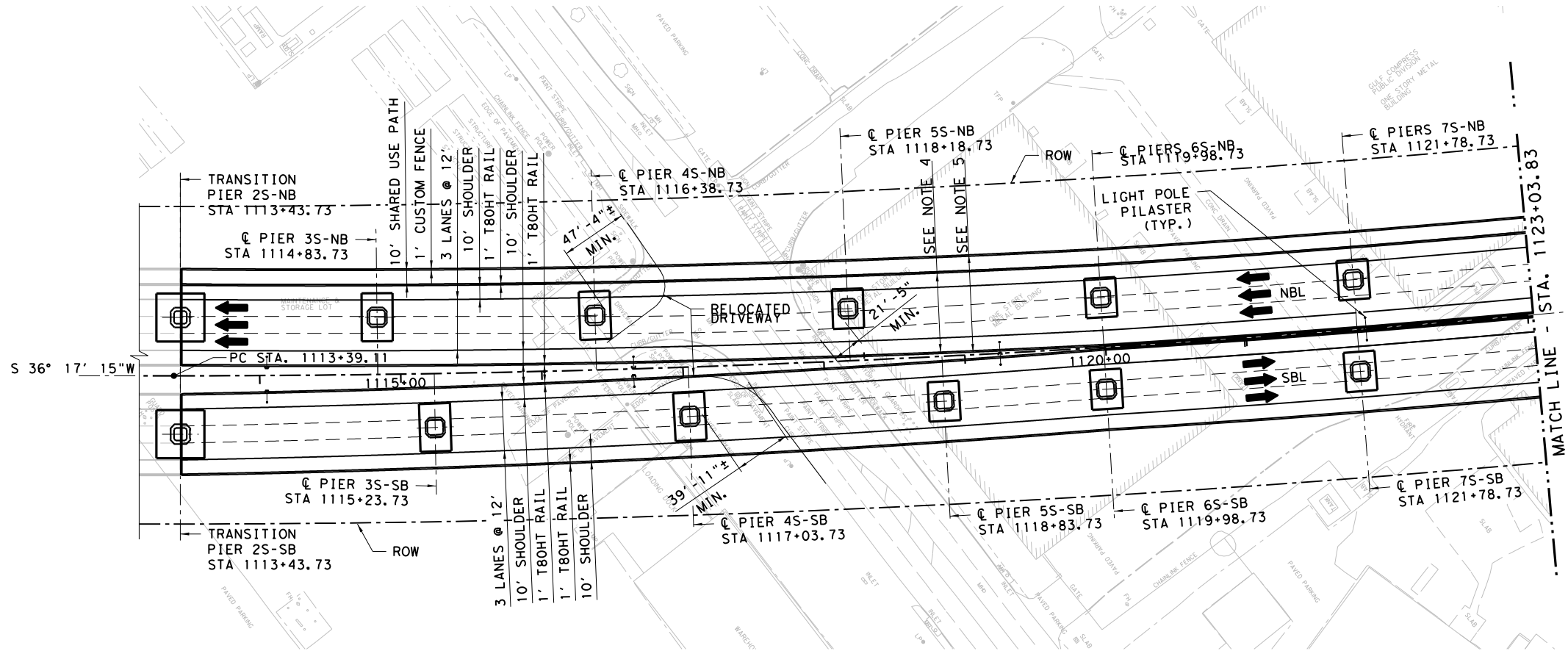
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GRAPHICS	X	(See Title Sheet)	X
CHECK	STATE	DISTRICT	COUNTY
CHECK	CONTROL	SECTION	JOB
	0101	06	095
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ELEVATION



PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016

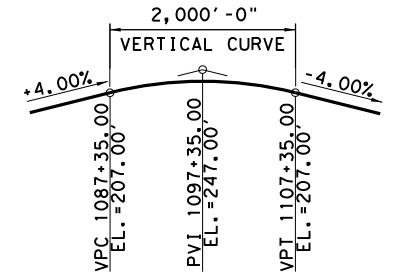
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CURVE US181-5
PI STATION = 1150+01.38
DELTA = 37° 37' 32" LT
DEGREE = 0° 31' 59"
TANGENT = 3,662.2666'
LENGTH = 7,059.4024'
RADIUS = 10,750.0000'

DESIGN DATA (NB APPROACH)
NBI. NO. XX-XXX-XXXXXX-XXX
FUNC CLASS: URBAN FREEWAY
DESIGN SPEED: 70 MPH
ADT: NB APPROACH
(2015) = XX,XXX
(2035) = XX,XXX



STA = 1097+35.00
EL = 247.00'
Ex = -20.00'
K = 250
L = 2,000.00'

HL-93 LOADING



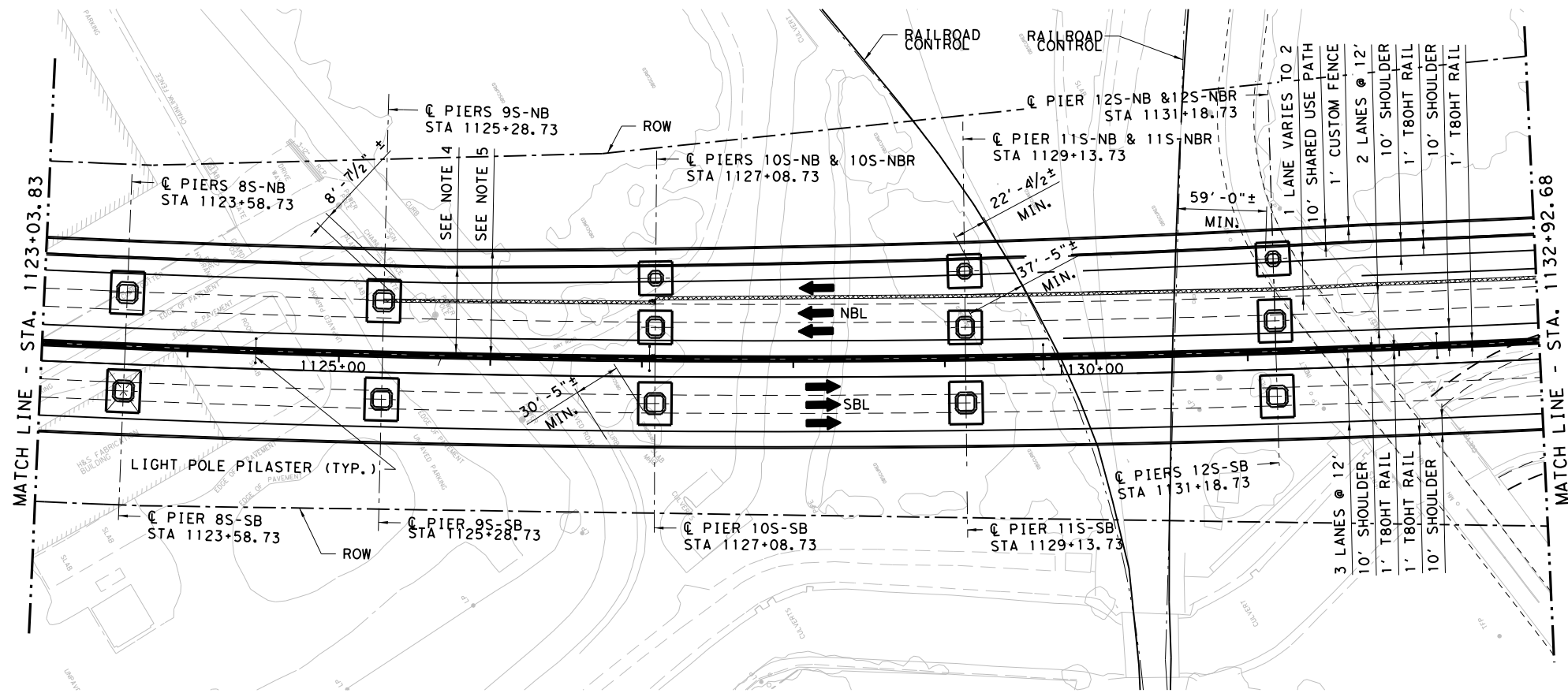
US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
NORTHBOUND APPROACH
BRIDGE LAYOUT

SHEET 5 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
GRAPHICS	X	(See Title Sheet)	X
CHECK	STATE	DISTRICT	COUNTY
CHECK	TEXAS	CRP	NUECES
	CONTROL	SECTION	JOB
	0101	06	095
			A6

PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016

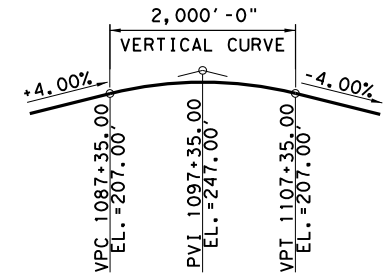
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DESIGN DATA (NB APPROACH)
NBI. NO. XX-XXX-XXXXXX-XXX
FUNC CLASS: URBAN FREEWAY
DESIGN SPEED: 70 MPH
ADT: NB APPROACH
(2015) = XX,XXX
(2035) = XX,XXX



STA = 1097+35.00
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ex = 20.00'
K = 250
L = 2,000.00'

HL-93 LOADING

FLATIRON DRAGADOS USA
A JOINT VENTURE
in association with FIGG & ACS

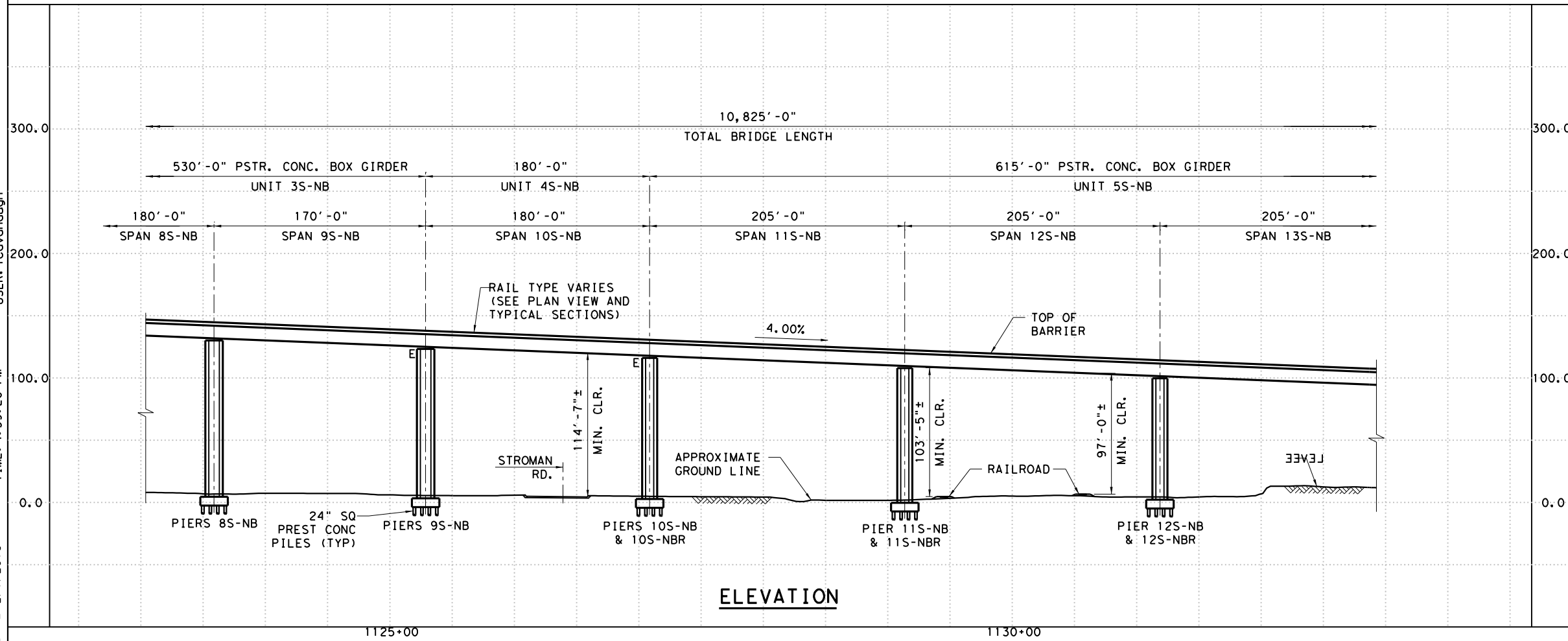
FIGG
TBPE, FIRM # F-4883

Texas Department of Transportation
US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
NORTHBOUND APPROACH
BRIDGE LAYOUT

SHEET 6 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
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CHECK	STATE	DISTRICT	COUNTY
CHECK	CONTROL	SECTION	JOB
	0101	06	095
			A7

ELEVATION



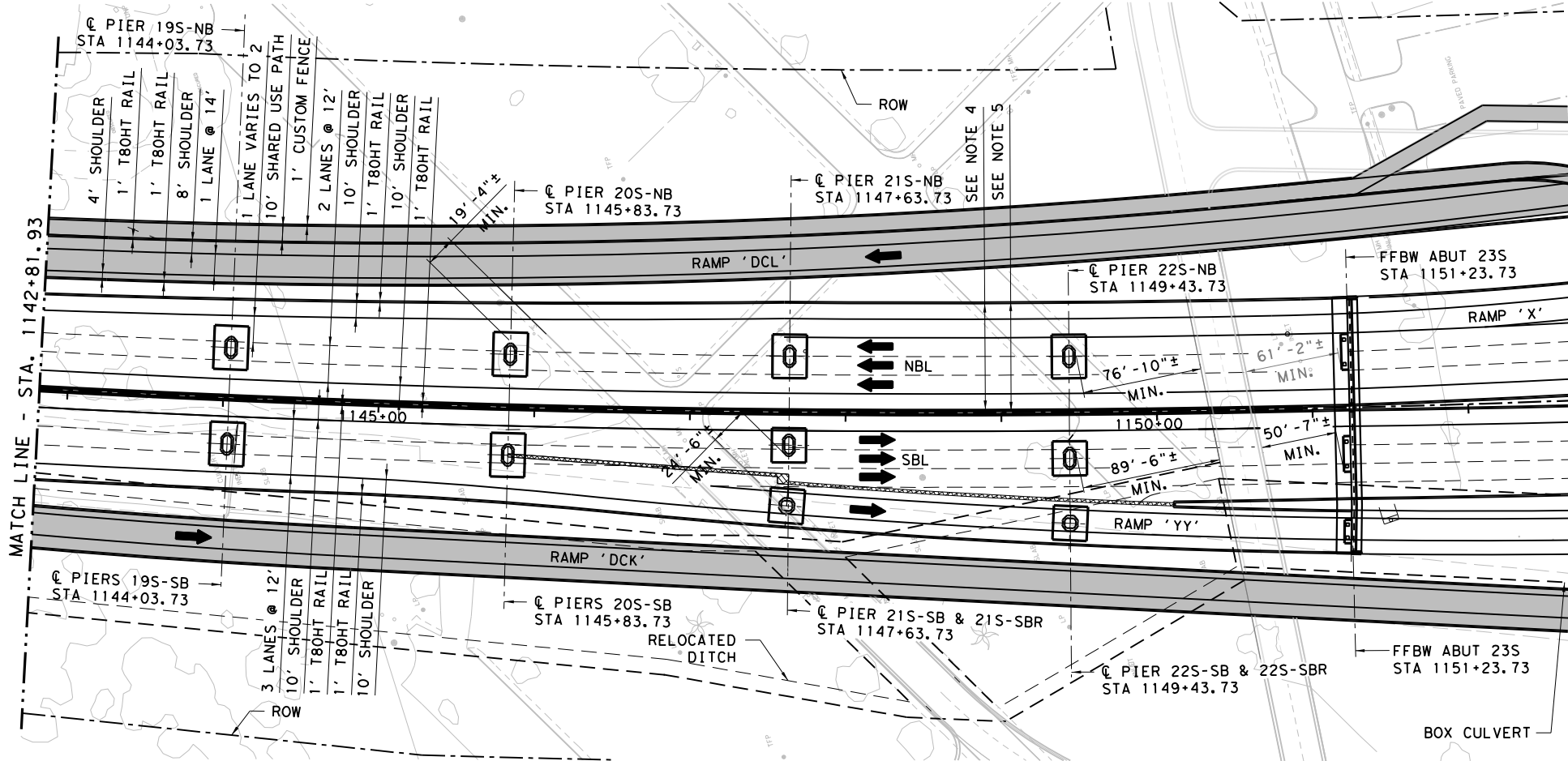
PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016



A8

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PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016



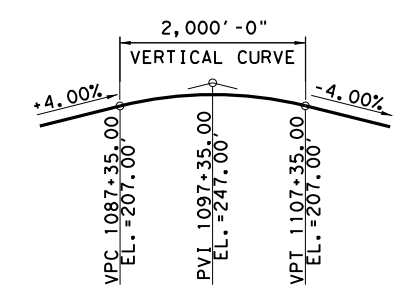
LEGEND

■ DENOTES ROADWAY BRIDGES.
SEE DIRECT CONNECT "K" BRIDGE 14 FOR RAMP DCK BRIDGE. SEE DIRECT CONNECT "L" BRIDGE 16 FOR RAMP DCL BRIDGE.

- NOTES:**
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DESIGN DATA (NB APPROACH)
NBI. NO. XX-XXX-XXXXXX-XXX
FUNC CLASS: URBAN FREEWAY
DESIGN SPEED: 70 MPH
ADT: NB APPROACH
(2015) = XX,XXX
(2035) = XX,XXX



STA = 1097+35.00
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L = 2,000.00'

PIER SIZES SHOWN ARE APPROXIMATE AND SUBJECT TO CHANGE

HL-93 LOADING

FLATIRON DRAGADOS USA
A JOINT VENTURE
in association with **FIGG & ACS**

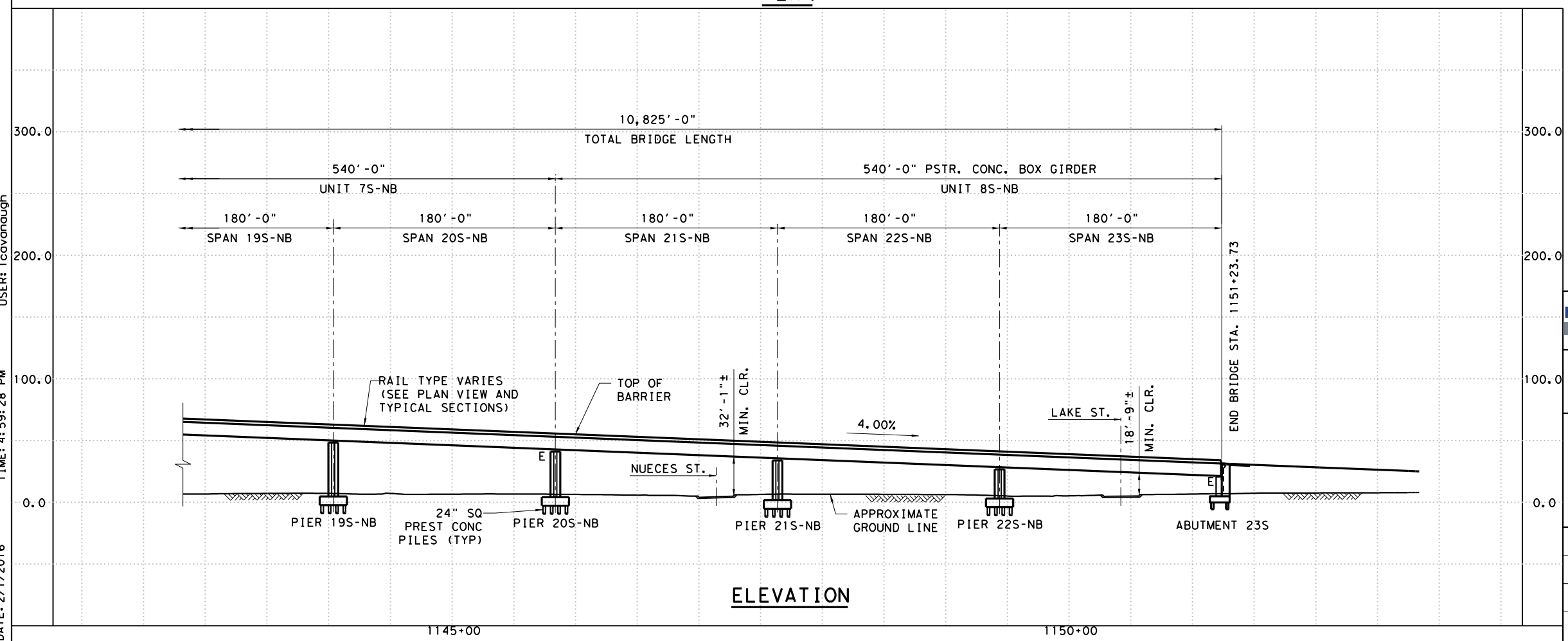
FIGG
TBPE, FIRM # F-4883

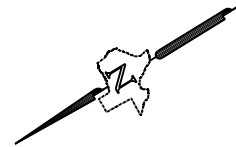


**US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
NORTHBOUND APPROACH
BRIDGE LAYOUT**

SHEET 8 OF 8

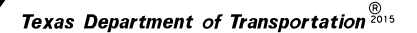
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GRAPHICS	X	(See Title Sheet)		X
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	CRP	NUECES	A9
CHECK	CONTROL	SECTION	JOB	
	0101	06	095	





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4. SB ROADWAY WIDTH VARIES FROM 56' TO 82'-7 $\frac{7}{8}$ ".
5. SB OVERALL WIDTH VARIES FROM 58' TO 84'-7 $\frac{7}{8}$ ".

HL-93 LOADING

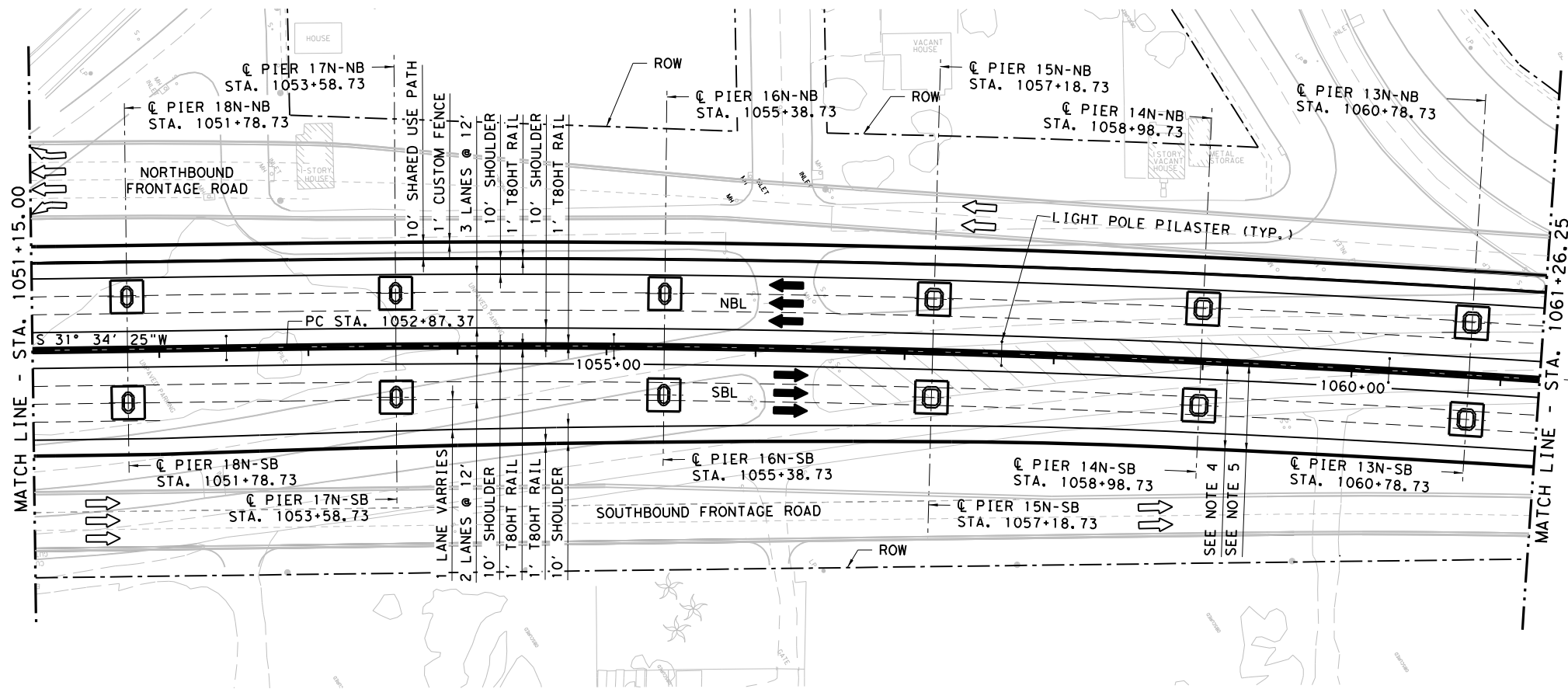


SHEET 1 OF 8

PLAN



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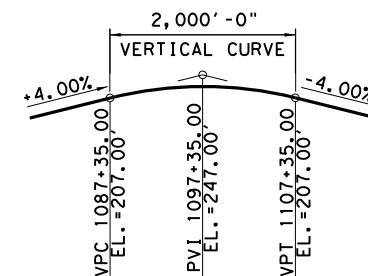
PLAN

NOTES:

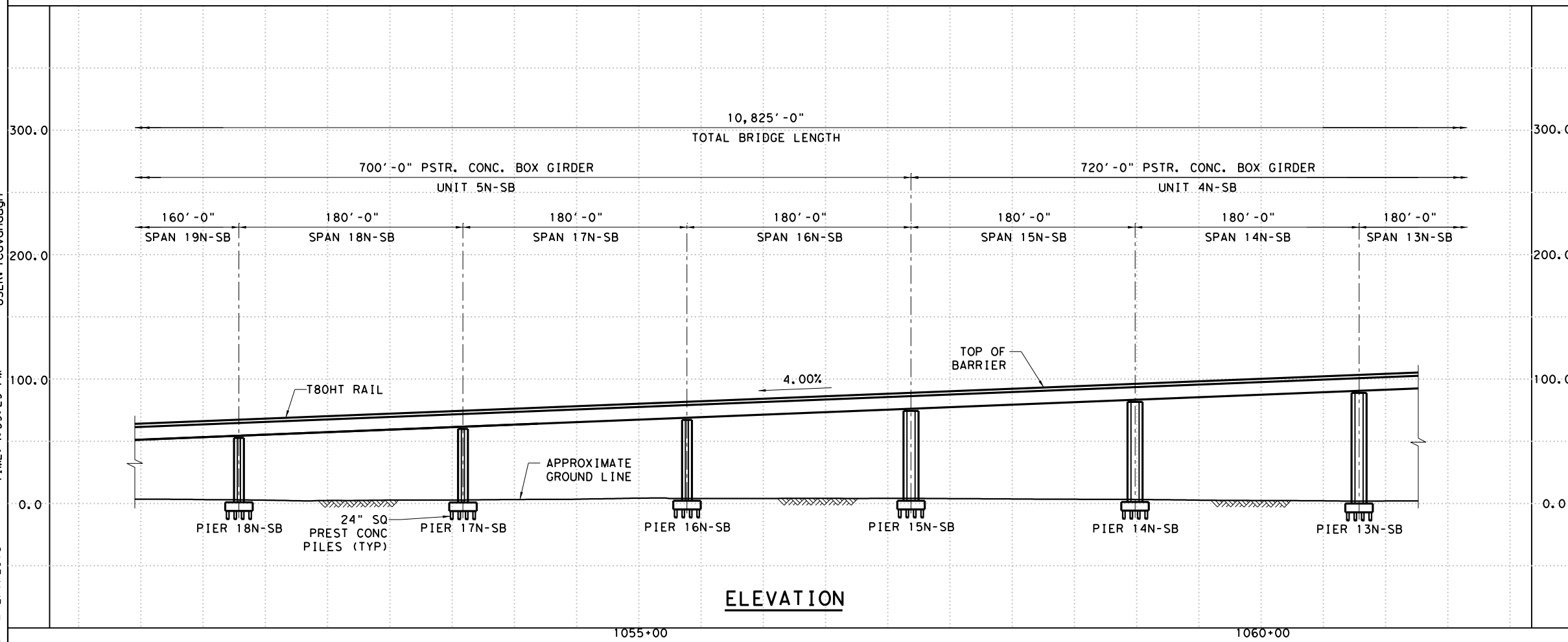
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DESIGN DATA (SB APPROACH)
NBI. NO. XX-XX-XXXXXX-XXX
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ELEVATION

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FIGG
TBPE, FIRM # F-4883

Texas Department of Transportation[®] 2015

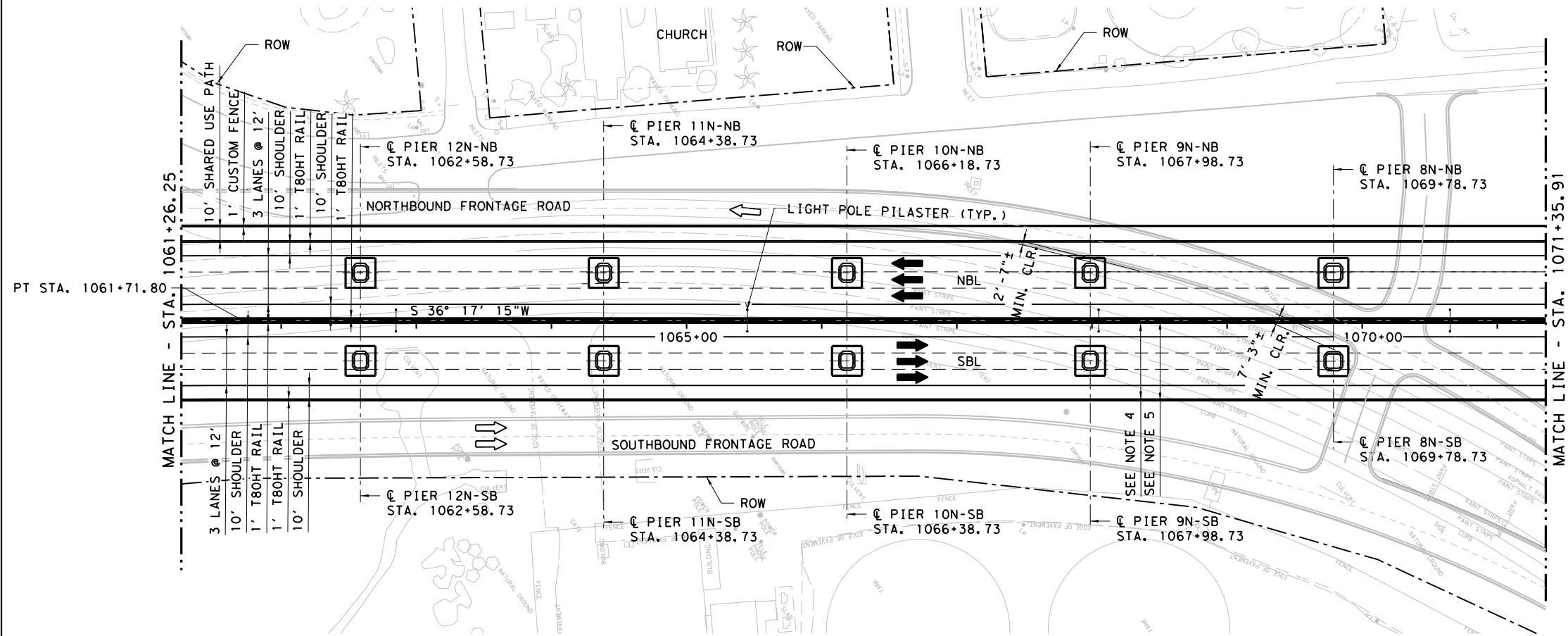
US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
SOUTHBOUND APPROACH
BRIDGE LAYOUT

SHEET 2 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
GRAPHICS	X	(See Title Sheet)	X
CHECK	STATE	DISTRICT	COUNTY
CHECK	CONTROL	SECTION	JOB
	0101	06	095

A11

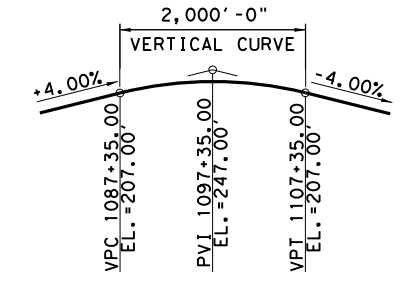
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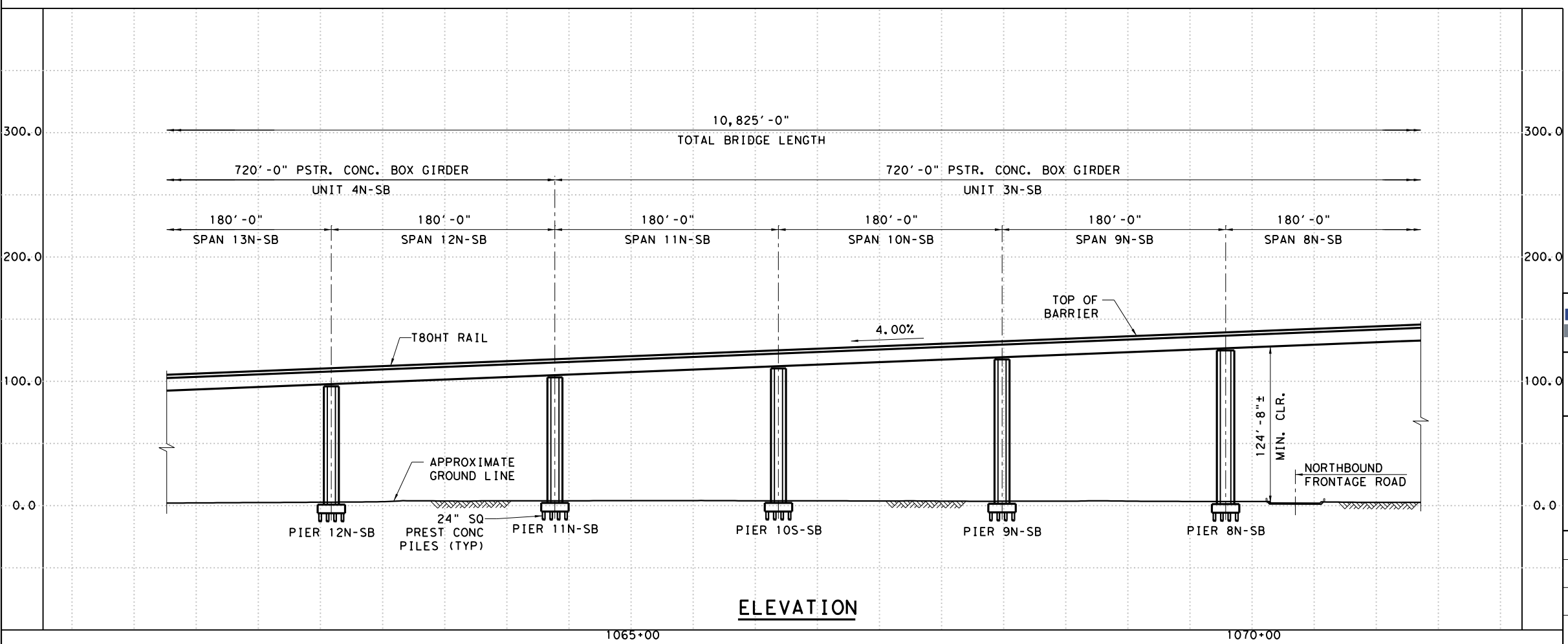
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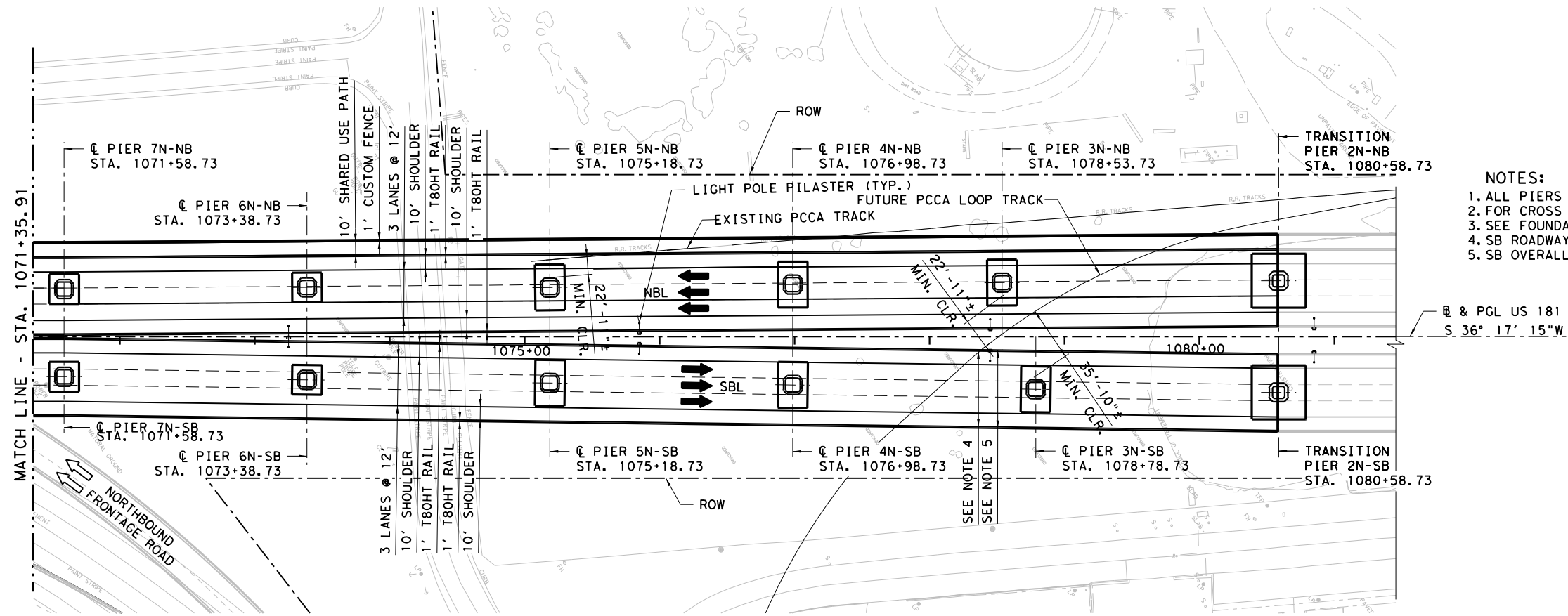


STA = 1097+35.00
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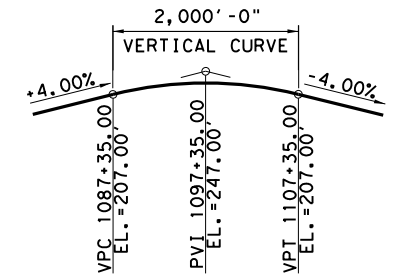
HL-93 LOADING				
<div>FLATIRON DRAGADOS USA</div> <div>A JOINT VENTURE</div> <div>in association with FIGG & ACS</div>		<div></div> <div>FIGG</div> <div>TBPE, FIRM # F-4883</div>		
<div></div> <div>Texas Department of Transportation[®] 2015</div>				
US 181/IH 37 - HARBOR BRIDGE APPROACH SPANS SOUTHBOUND APPROACH BRIDGE LAYOUT				
SHEET 3 OF 8				
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	X	(See Title Sheet)		X
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	CRP	NUECES	A12
CHECK	CONTROL	SECTION	JOB	
	0101	06	095	

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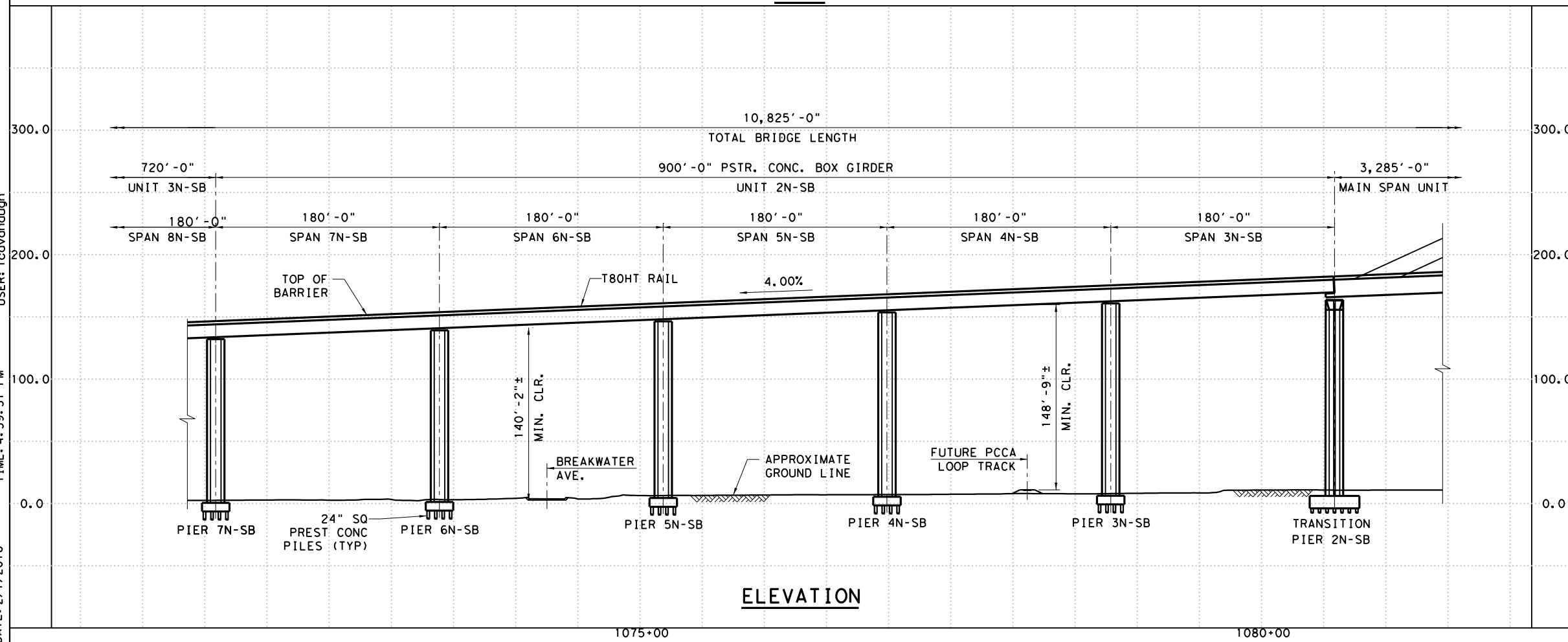


- NOTES:
1. ALL PIERS ARE PERPENDICULAR OR RADIAL TO US 181.
 2. FOR CROSS STREET PROFILES, SEE ROADWAY PLANS.
 3. SEE FOUNDATION LAYOUT SHEETS FOR BORING LOCATIONS.
 4. SB ROADWAY WIDTH VARIES FROM 56' TO 82'-7 $\frac{1}{8}$ ".
 5. SB OVERALL WIDTH VARIES FROM 58' TO 84'-7 $\frac{1}{8}$ ".

DESIGN DATA (SB APPROACH)
NBI. NO. XX-XXX-XXXXXX-XXX
FUNC CLASS: URBAN FREEWAY
DESIGN SPEED: 70 MPH
ADT: SB APPROACH
(2015) = XX,XXX
(2035) = XX,XXX



STA = 1097+35.00
EL = 247.00'
ex = -20.00'
K = 250
L = 2,000.00'



HL-93 LOADING

FLATIRON DRAGADOS USA
A JOINT VENTURE
in association with FIGG & ACS

FIGG
TBPE, FIRM # F-4883

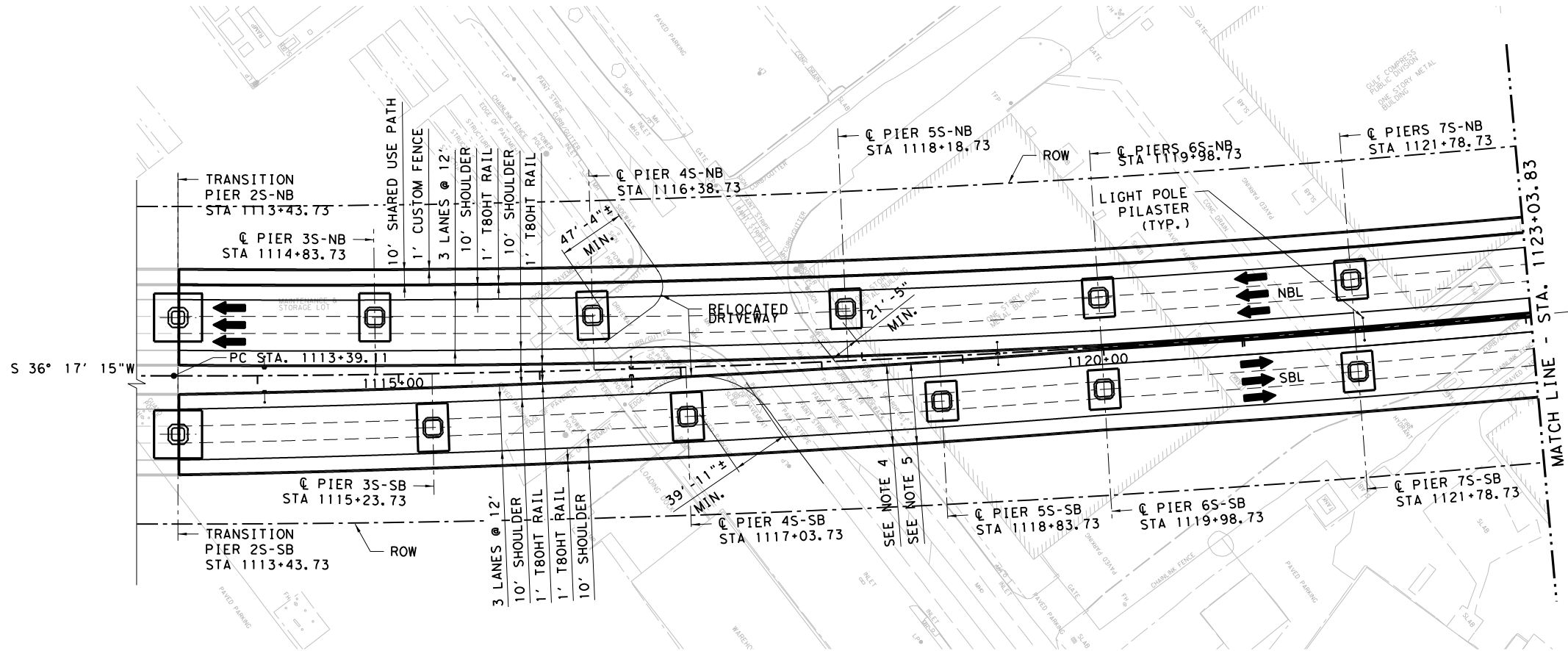
Texas Department of Transportation 2015

US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
SOUTHBOUND APPROACH
BRIDGE LAYOUT

SHEET 4 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
GRAPHICS	X	(See Title Sheet)	X
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CHECK	CONTROL	SECTION	JOB
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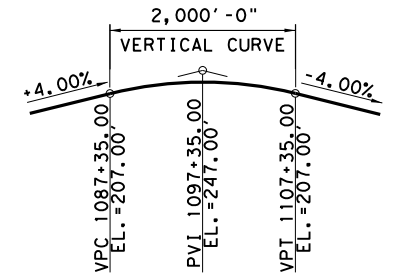


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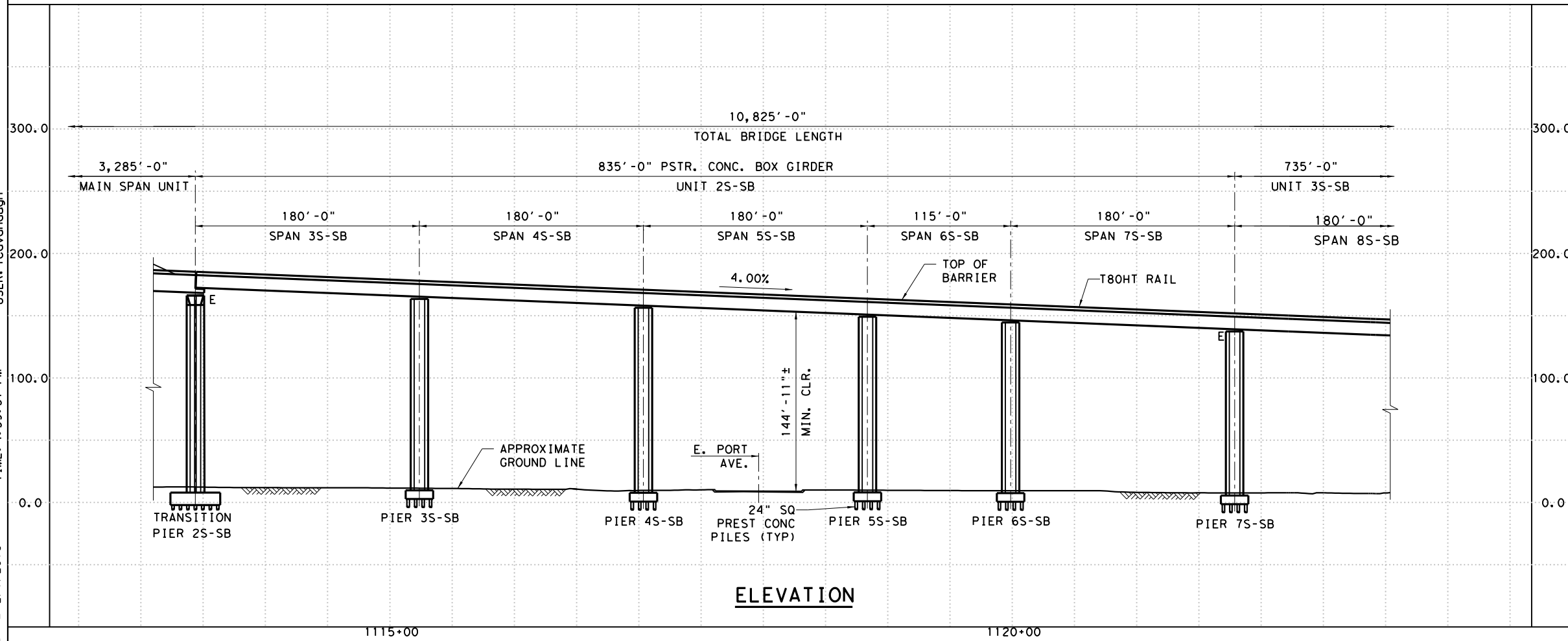
1. ALL PIERS ARE PERPENDICULAR OR RADIAL TO R US 181.
2. FOR CROSS STREET PROFILES, SEE ROADWAY PLANS.
3. SEE FOUNDATION LAYOUT SHEETS FOR BORING LOCATIONS.
4. SB ROADWAY WIDTH VARIES FROM 56' TO 82'-7/8".
5. SB OVERALL WIDTH VARIES FROM 58' TO 84'-7/8".

CURVE US181-5
PI STATION = 1150+01.38
DELTA = 37° 37' 32" LT
DEGREE = 0° 31' 59"
TANGENT = 3,662.2666'
LENGTH = 7,059.4024'
RADIUS = 10,750.0000'

DESIGN DATA (SB APPROACH)
NBI. NO. XX-XXX-XXXXXX-XXX
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DESIGN SPEED: 70 MPH
ADT: SB APPROACH
(2015) = XX,XXX
(2035) = XX,XXX

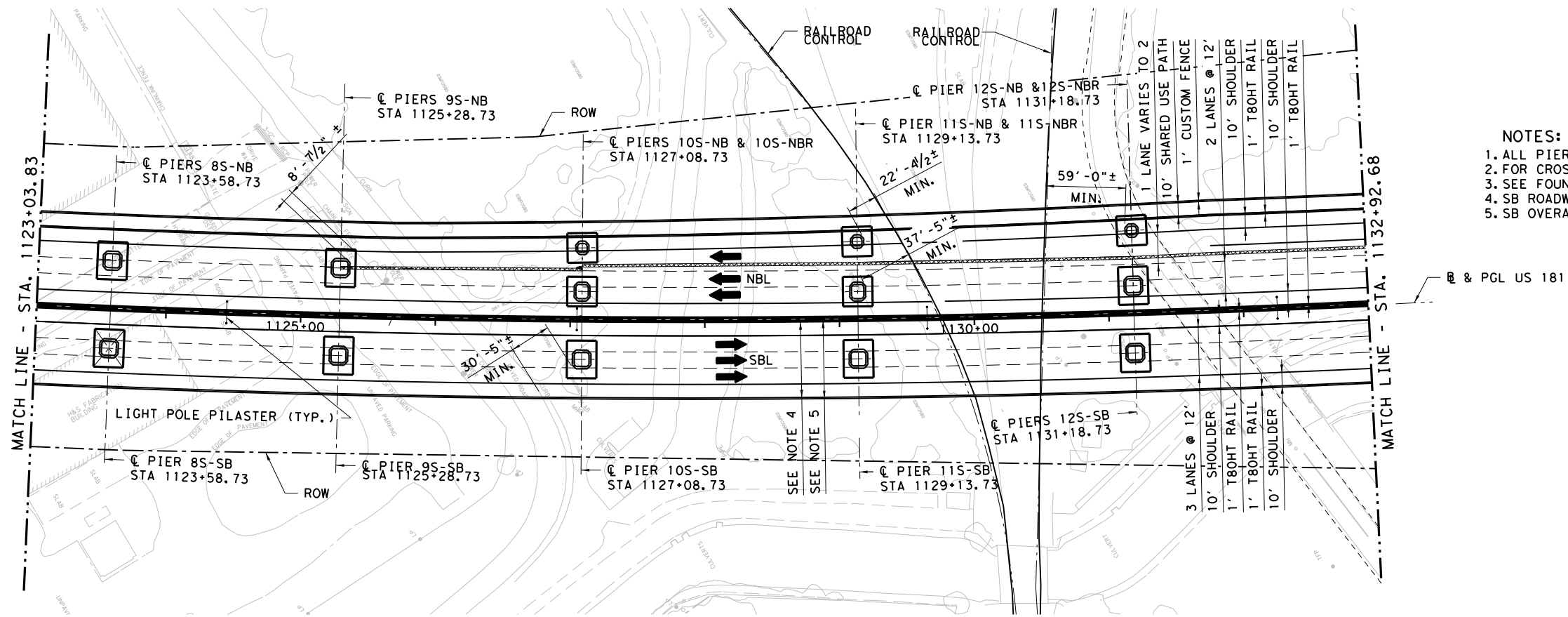


STA = 1097+35.00
EL = 247.00'
ex = -20.00'
K = 250
L = 2,000.00'



HL-93 LOADING					
FLATIRON DRAGADOS USA A JOINT VENTURE in association with FIGG & ACS		FIGG TBPE, FIRM # F-4883			
Texas Department of Transportation 2015					
US 181/IH 37 - HARBOR BRIDGE APPROACH SPANS SOUTHBOUND APPROACH BRIDGE LAYOUT					
SHEET 5 OF 8					
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
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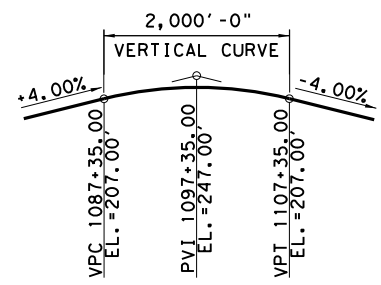
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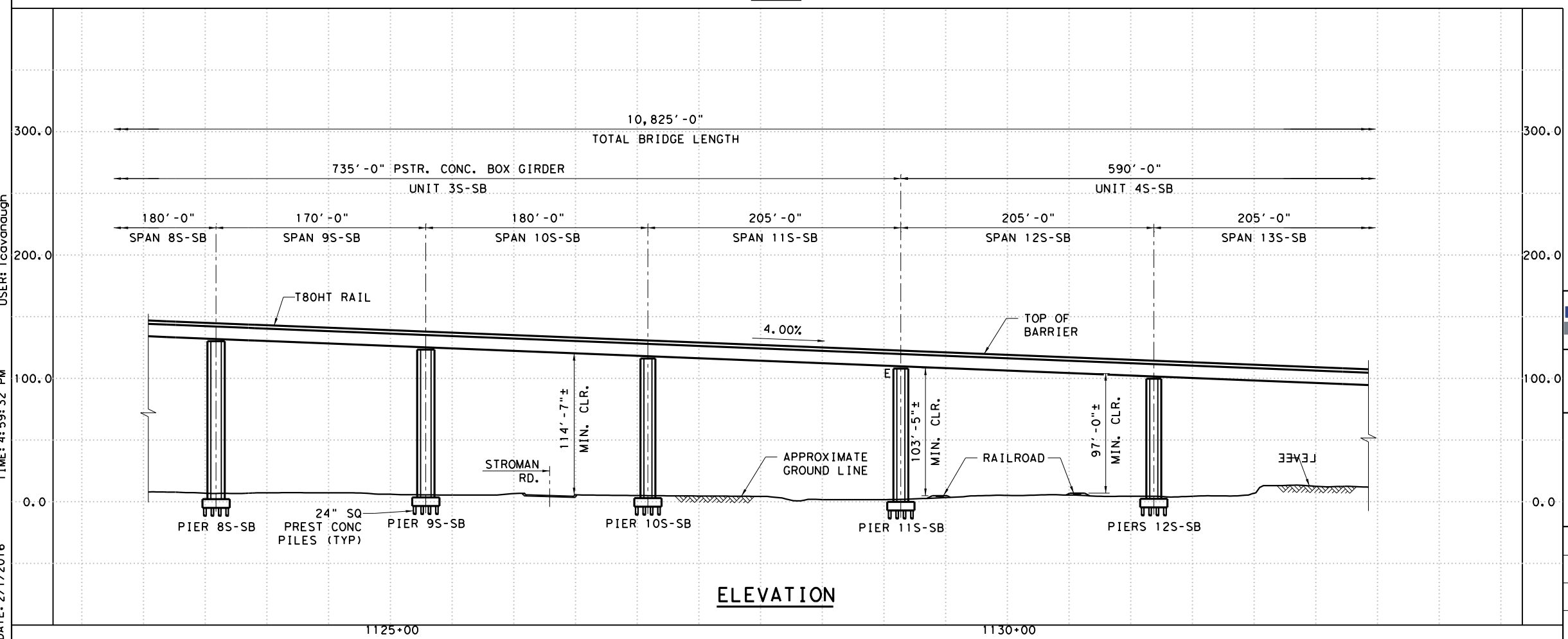
PLAN

- NOTES:
1. ALL PIERS ARE PERPENDICULAR OR RADIAL TO R US 181.
 2. FOR CROSS STREET PROFILES, SEE ROADWAY PLANS.
 3. SEE FOUNDATION LAYOUT SHEETS FOR BORING LOCATIONS.
 4. SB ROADWAY WIDTH VARIES FROM 56' TO 82'-7/8".
 5. SB OVERALL WIDTH VARIES FROM 58' TO 84'-7/8".

DESIGN DATA (SB APPROACH)
NBI. NO. XX-XX-XXXXXX-XX
FUNC CLASS: URBAN FREEWAY
DESIGN SPEED: 70 MPH
ADT: SB APPROACH
(2015) = XX,XXX
(2035) = XX,XXX



STA = 1097+35.00
EL = 247.00'
ex = -20.00'
K = 250
L = 2,000.00'



ELEVATION

HL-93 LOADING

FLATIRON DRAGADOS USA
A JOINT VENTURE
in association with FIGG & ACS

FIGG
TBPE, FIRM # F-4883

Texas Department of Transportation® 2015

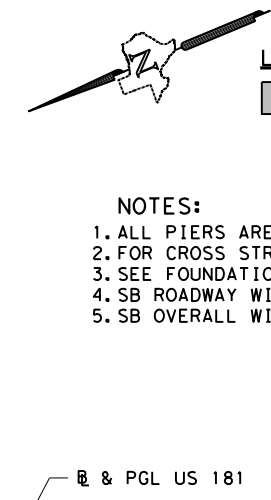
US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
SOUTHBOUND APPROACH
BRIDGE LAYOUT


SHEET 6 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
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CHECK	CONTROL	SECTION	JOB
	0101	06	095

A15

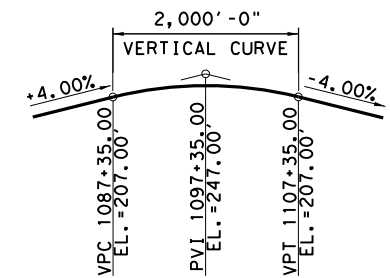
PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016



 DENOTES ROADWAY BRIDGES.
 SEE DIRECT CONNECT "K" BRIDGE 14
 FOR RAMP DCK BRIDGE. SEE DIRECT
 CONNECT "L" BRIDGE 16 FOR
 RAMP DCL BRIDGE.

1. ALL PIERS ARE PERPENDICULAR OR RADIAL TO US 181.
2. FOR CROSS STREET PROFILES, SEE ROADWAY PLANS.
3. SEE FOUNDATION LAYOUT SHEETS FOR BORING LOCATIONS.
4. SB ROADWAY WIDTH VARIES FROM 56' TO 82' - 7 $\frac{1}{8}$ ".
5. SB OVERALL WIDTH VARIES FROM 58' TO 84' - 7 $\frac{1}{8}$ ".

DESIGN DATA (SB APPROACH)
 NBI. NO. XX-XXX-XXXXXX-XXX
 FUNC CLASS: URBAN FREEWAY
 DESIGN SPEED: 70 MPH
 ADT: SB APPROACH
 (2015) = XX,XXX
 (2035) = XX,XXX



```
STA = 1097+35.00
EL = 247.00'
ex = -20.00'
K = 250
L = 2,000.00'
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PIER SIZES SHOWN ARE
APPROXIMATE AND
SUBJECT TO CHANGE



ELEVATION

HL-93 LOADING

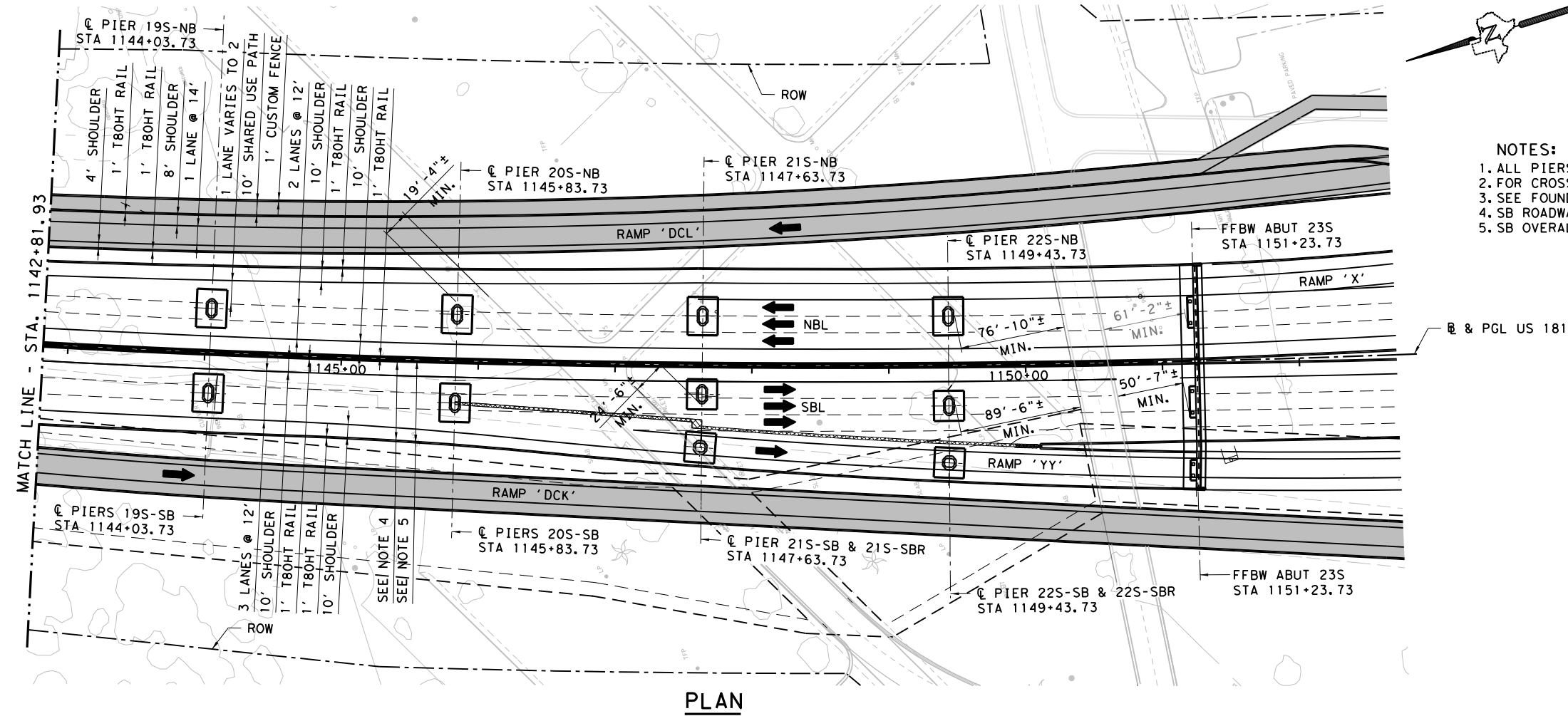


US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
SOUTHBOUND APPROACH
BRIDGE LAYOUT

SHEET 7 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
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	STATE	DISTRICT	COUNTY	SHEET NO.
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CHECK	CONTROL	SECTION	JOB	
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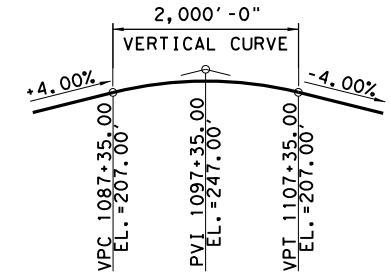
LEGEND

■ DENOTES ROADWAY BRIDGES.
SEE DIRECT CONNECT "K" BRIDGE 14 FOR RAMP DCK BRIDGE. SEE DIRECT CONNECT "L" BRIDGE 16 FOR RAMP DCL BRIDGE.

NOTES:

1. ALL PIERS ARE PERPENDICULAR OR RADIAL TO US 181.
2. FOR CROSS STREET PROFILES, SEE ROADWAY PLANS.
3. SEE FOUNDATION LAYOUT SHEETS FOR BORING LOCATIONS.
4. SB ROADWAY WIDTH VARIES FROM 56' TO 82'-7⁷/₈".
5. SB OVERALL WIDTH VARIES FROM 58' TO 84'-7⁷/₈".

DESIGN DATA (SB APPROACH)
NBI. NO. XX-XXX-XXXXXX-XXX
FUNC CLASS: URBAN FREEWAY
DESIGN SPEED: 70 MPH
ADT: SB APPROACH
(2015) = XX,XXX
(2035) = XX,XXX



STA = 1097+35.00
EL = 247.00'
Gx = -20.00'
K = 250
L = 2,000.00'

PIER SIZES SHOWN ARE APPROXIMATE AND SUBJECT TO CHANGE

HL-93 LOADING

FLATIRON DRAGADOS USA
A JOINT VENTURE
in association with **FIGG & ACS**

FIGG
TBPE, FIRM # F-4883

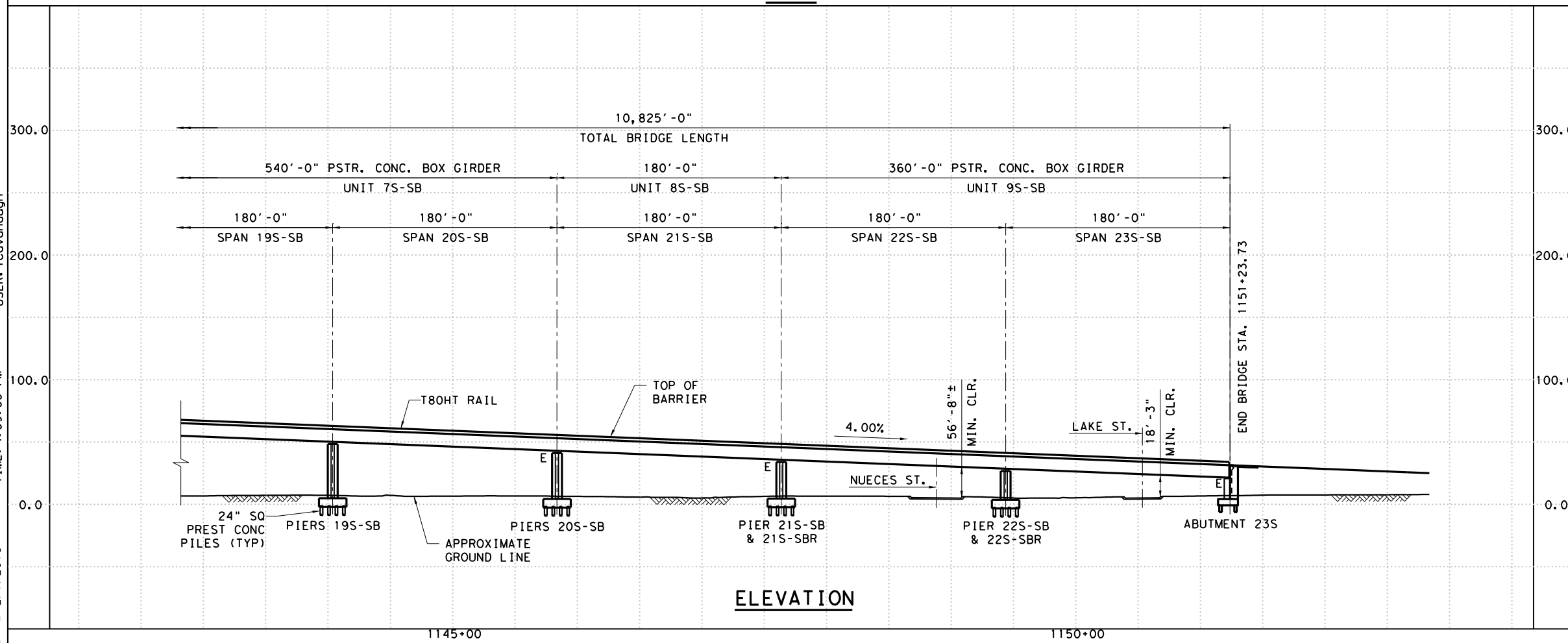
Texas Department of Transportation 2015

**US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
SOUTHBOUND APPROACH
BRIDGE LAYOUT**

SHEET 8 OF 8

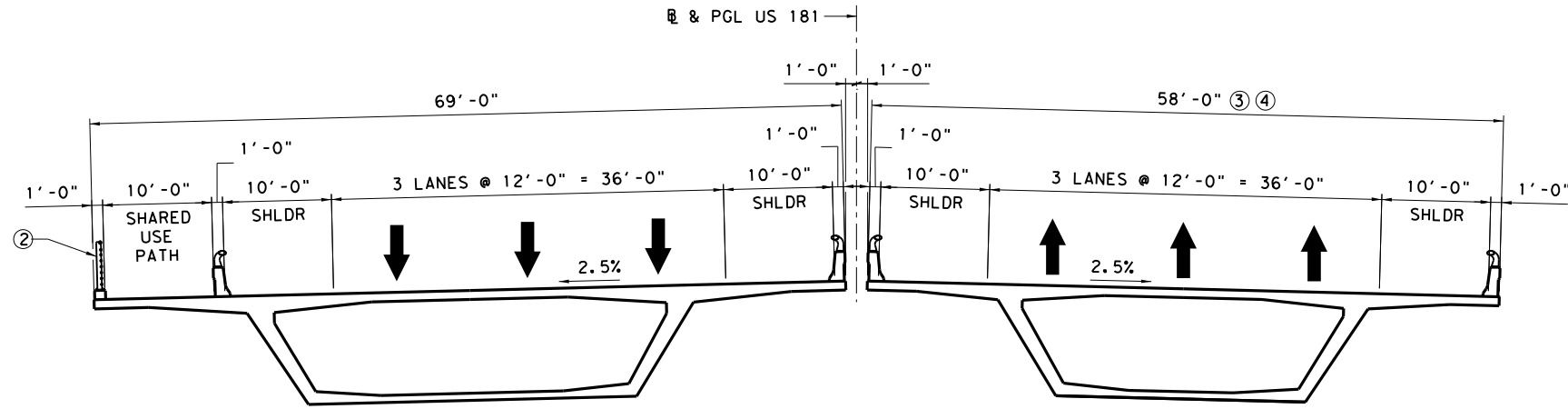
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ELEVATION



PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016

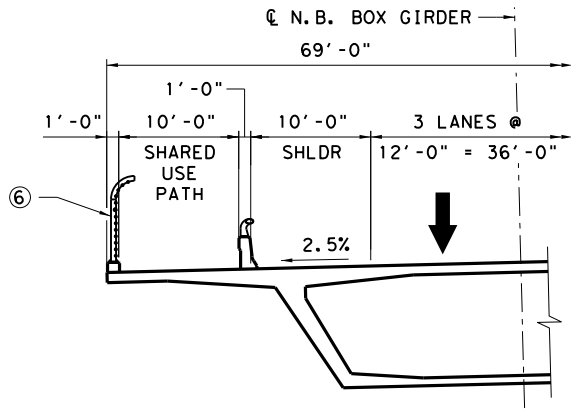
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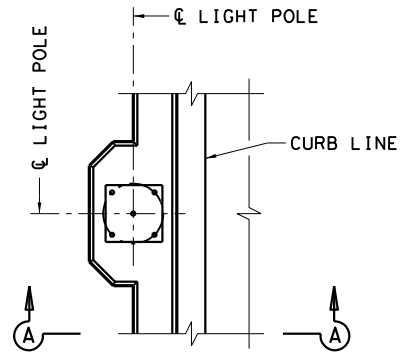
NORTHBOUND

SOUTHBOUND

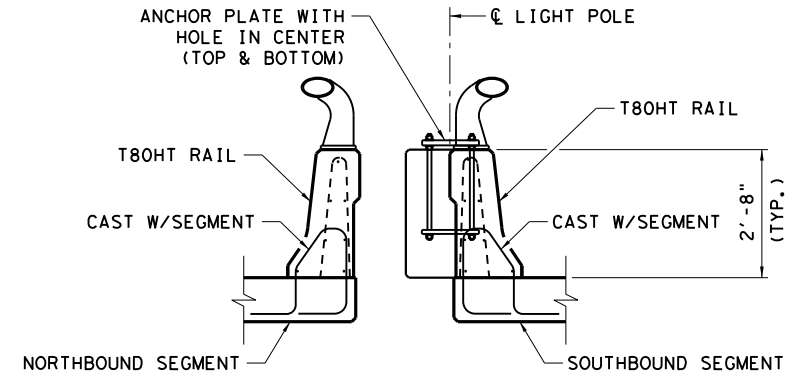
TYPICAL APPROACH SPAN CROSS SECTION
(LOOKING UPSTATION)



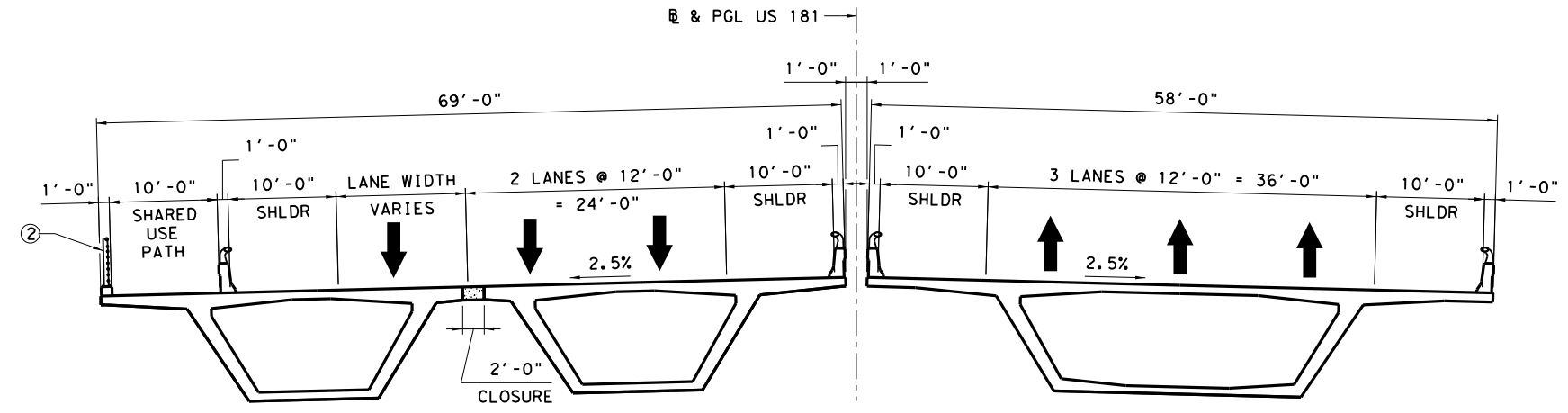
PARTIAL CROSS SECTION



PARTIAL PLAN
(LIGHT POLE PILASTER)



SECTION A-A
(LOOKING UPSTATION)



NORTHBOUND

SOUTHBOUND

SOUTH APPROACH SPAN CROSS SECTION
(PIER 9S (US)) (LOOKING UPSTATION)

- GENERAL NOTES:**
1. FOR TRAFFIC BARRIER DETAILS, SEE TXDOT STANDARD DRAWING TYPE T80HT.
 2. FOR SHARED USE PATH RAIL, A 54" CUSTOM FENCE SHALL BE PROVIDED.
 3. VARIES FROM 70'-0" AT ABUTMENT 23N-SB TO 58'-0" AT PIER 14N-SB.
 4. THICKENED CANTILEVER WING REQUIRED FOR WIDENED 58' BOX.
 5. (US) - UPSTATION SIDE
(DS) - DOWNSTATION SIDE
 6. FOR SHARED USE PATH RAIL, A CUSTOM FENCE SHALL BE PROVIDED ON THE NORTHBOUND STRUCTURE BETWEEN STA. 1074+50.00 & STA. 1080+58.73 AND STA. 1113+43.73 & STA. 1131+18.73.
 7. SECTIONS ARE TAKEN RADIALY FROM PGL. NO CORRECTION IS SHOWN OR IMPLIED FOR RAMP THAT ARE OBLIQUE TO PGL. IN THESE CASES THE DIMENSION SHOWN ON THESE RAMP IS PERPENDICULAR TO THE RAMP ALIGNMENT.

HL-93 LOADING

FLATIRON DRAGADOS USA
A JOINT VENTURE
in association with **FIGG & ACS**

FIGG
TBPE, FIRM # F-4883

Texas Department of Transportation 2015

US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
DECK SECTION 1

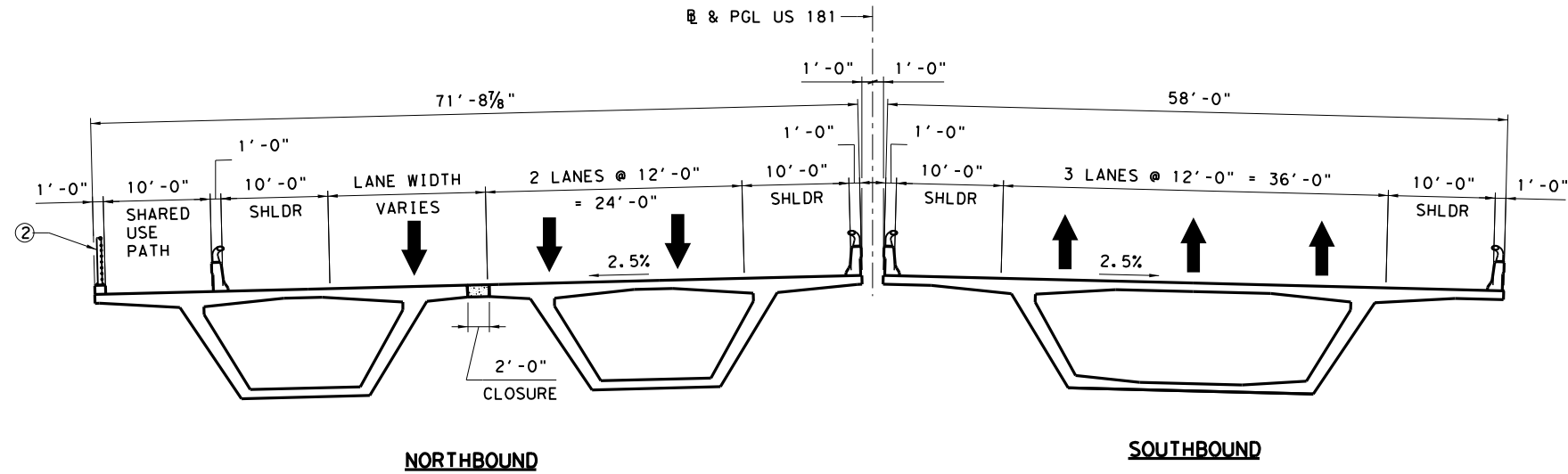
SHEET 1 OF 8

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CHECK	TEXAS	CRP	NUECES
CHECK	CONTROL	SECTION	JOB
	0101	06	095

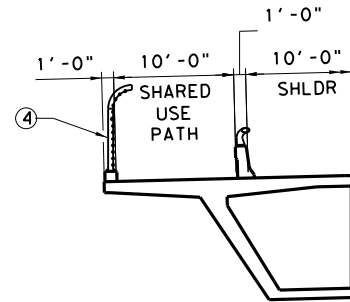
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PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016

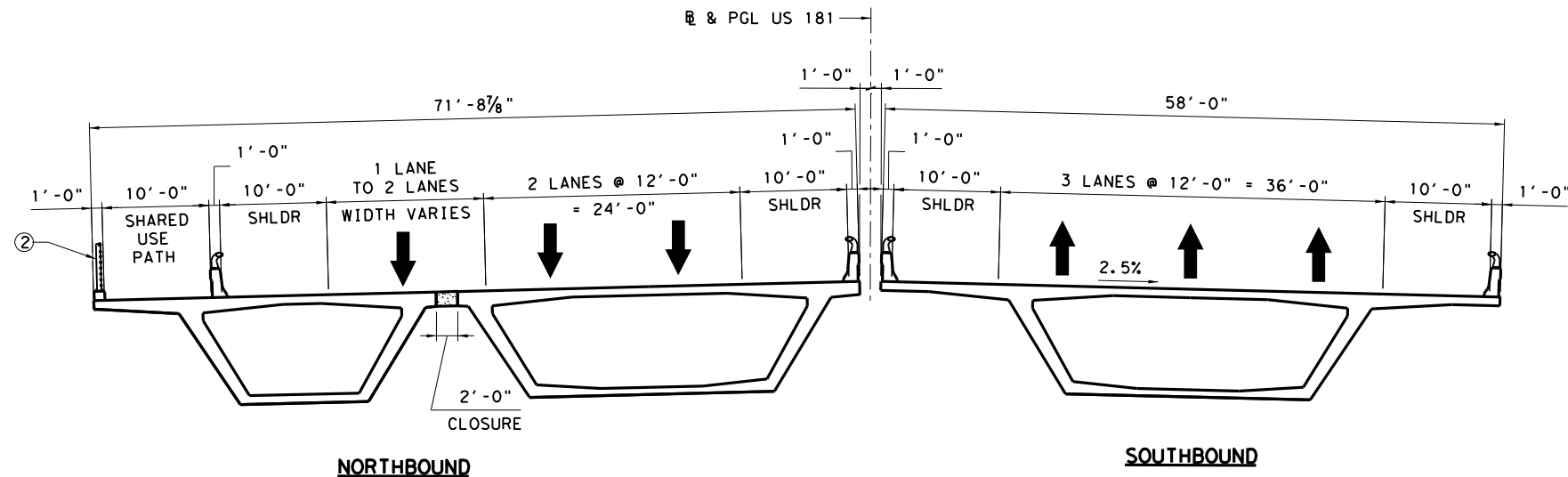
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SOUTH APPROACH SPAN CROSS SECTION
(PIER 10S (DS))(LOOKING UPSTATION)



PARTIAL CROSS SECTION



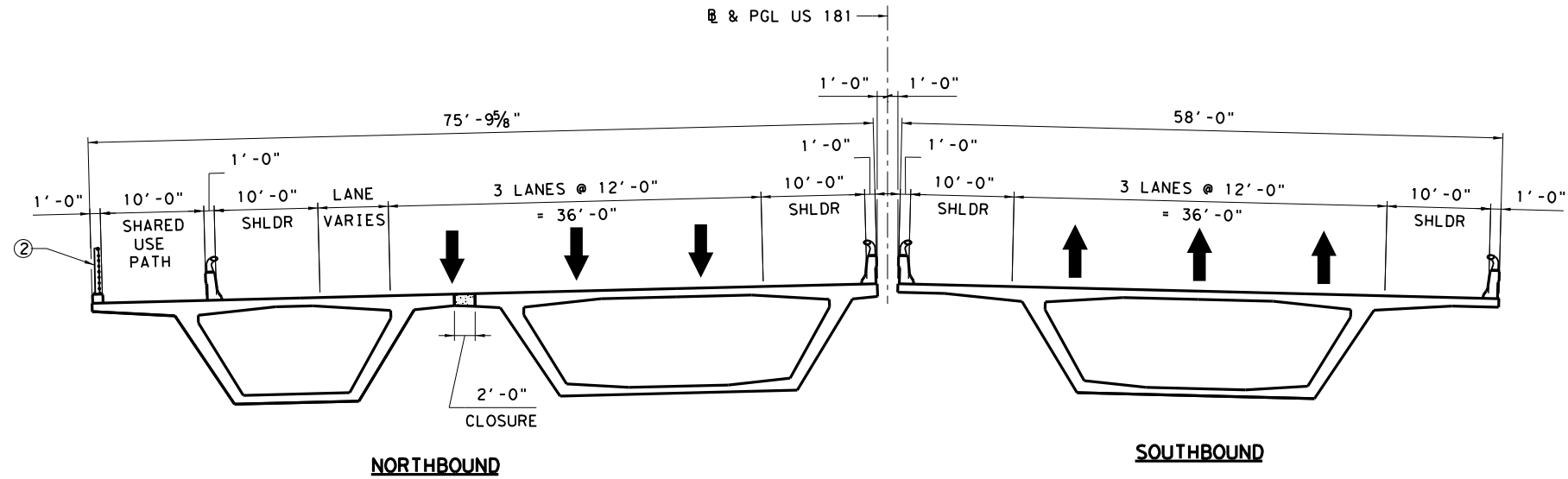
SOUTH APPROACH SPAN CROSS SECTION
(PIER 10S (US))(LOOKING UPSTATION)

- GENERAL NOTES:**
1. FOR TRAFFIC BARRIER DETAILS, SEE TXDOT STANDARD DRAWING TYPE T80HT.
 2. FOR SHARED USE PATH RAIL, A 54" CUSTOM FENCE SHALL BE PROVIDED.
 3. (US) - UPSTATION SIDE
(DS) - DOWNSTATION SIDE
 4. FOR SHARED USE PATH RAIL, A CUSTOM FENCE SHALL BE PROVIDED ON THE NORTHBOUND STRUCTURE BETWEEN STA. 1074+50.00 & STA. 1080+58.73 AND STA. 1113+43.73 & STA. 1131+18.73.
 5. SECTIONS ARE TAKEN RADIALY FROM PGL. NO CORRECTION IS SHOWN OR IMPLIED FOR RAMPS THAT ARE OBLIQUE TO PGL. IN THESE CASES THE DIMENSION SHOWN ON THESE RAMPS IS PERPENDICULAR TO THE RAMP ALIGNMENT.

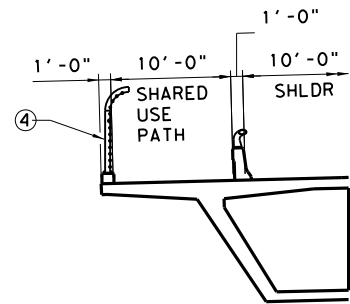
HL-93 LOADING					
FLATIRON DRAGADOS USA A JOINT VENTURE in association with FIGG & ACS		FIGG TBPE, FIRM # F-4883			
Texas Department of Transportation® US 181/IH 37 - HARBOR BRIDGE APPROACH SPANS DECK SECTION 2					
SHEET 2 OF 8					
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
GRAPHICS	X	(See Title Sheet)			
	STATE	DISTRICT	COUNTY		
CHECK	TEXAS	CRP	NUECES		
CHECK	CONTROL	SECTION	JOB		
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			A19		

PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016

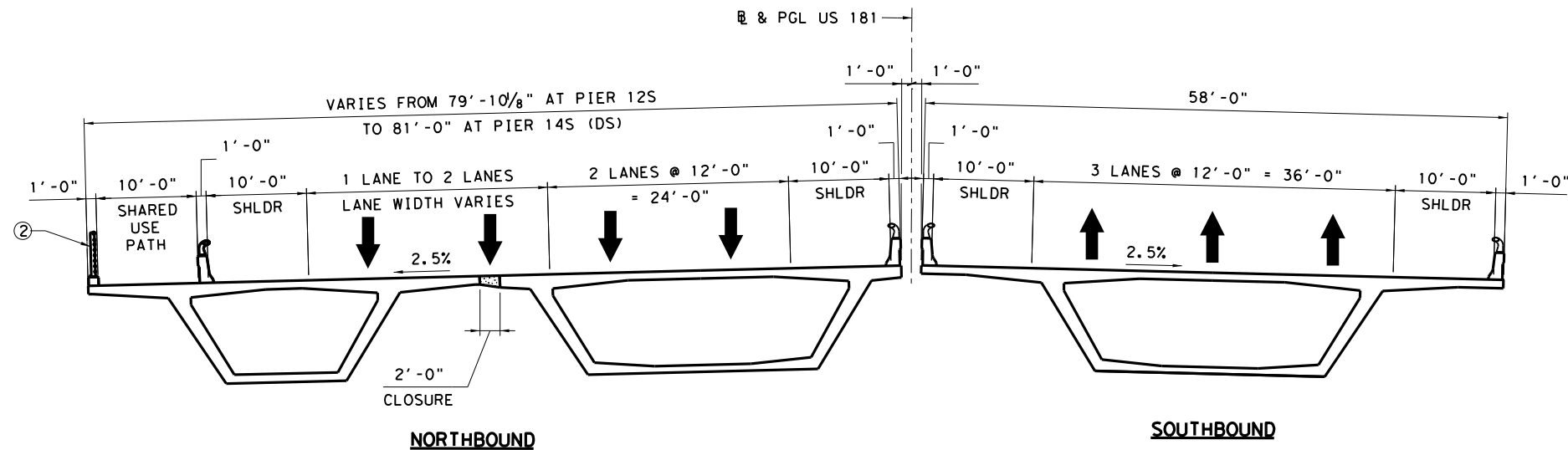
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SOUTH APPROACH SPAN CROSS SECTION
(PIER 115) (LOOKING UPSTATION)





PARTIAL CROSS SECTION

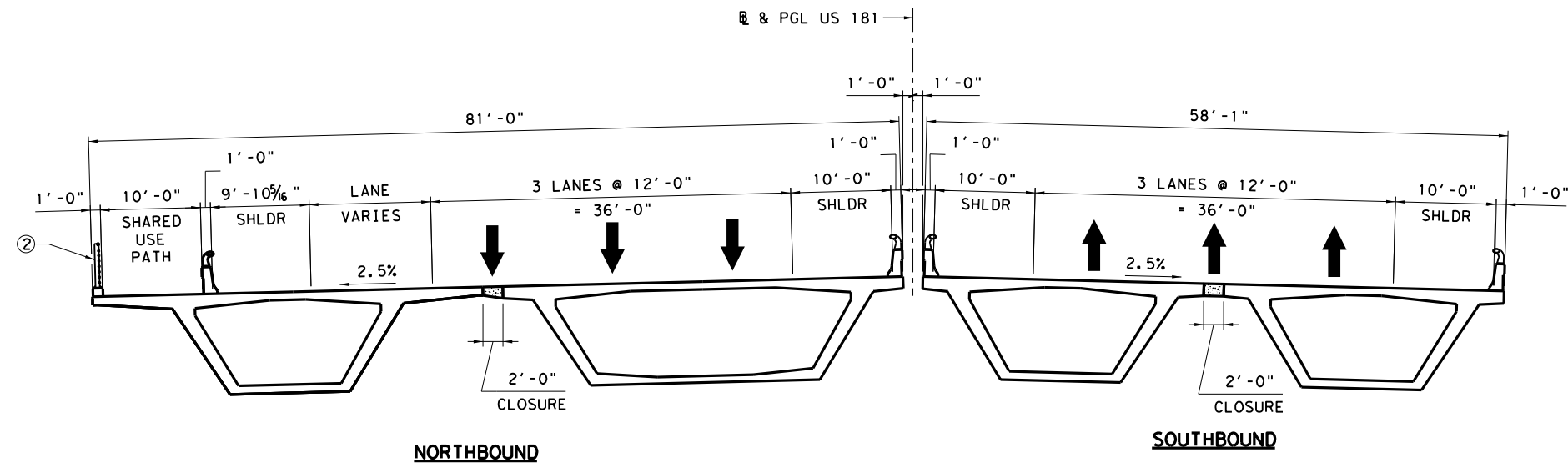


SOUTH APPROACH SPAN CROSS SECTION
(PIER 125 TO PIER 14S (DS)) (LOOKING UPSTATION)

- GENERAL NOTES:**
1. FOR TRAFFIC BARRIER DETAILS, SEE TXDOT STANDARD DRAWING TYPE T80HT.
 2. FOR SHARED USE PATH RAIL, A 54" CUSTOM FENCE SHALL BE PROVIDED.
 3. (US) - UPSTATION SIDE
(DS) - DOWNSTATION SIDE
 4. FOR SHARED USE PATH RAIL, A CUSTOM FENCE SHALL BE PROVIDED ON THE NORTHBOUND STRUCTURE BETWEEN STA. 1074+50.00 & STA. 1080+58.73 AND STA. 1113+43.73 & STA. 1131+18.73.
 5. SECTIONS ARE TAKEN RADIALY FROM PGL. NO CORRECTION IS SHOWN OR IMPLIED FOR RAMP THAT ARE OBLIQUE TO PGL. IN THESE CASES THE DIMENSION SHOWN ON THESE RAMP IS PERPENDICULAR TO THE RAMP ALIGNMENT.

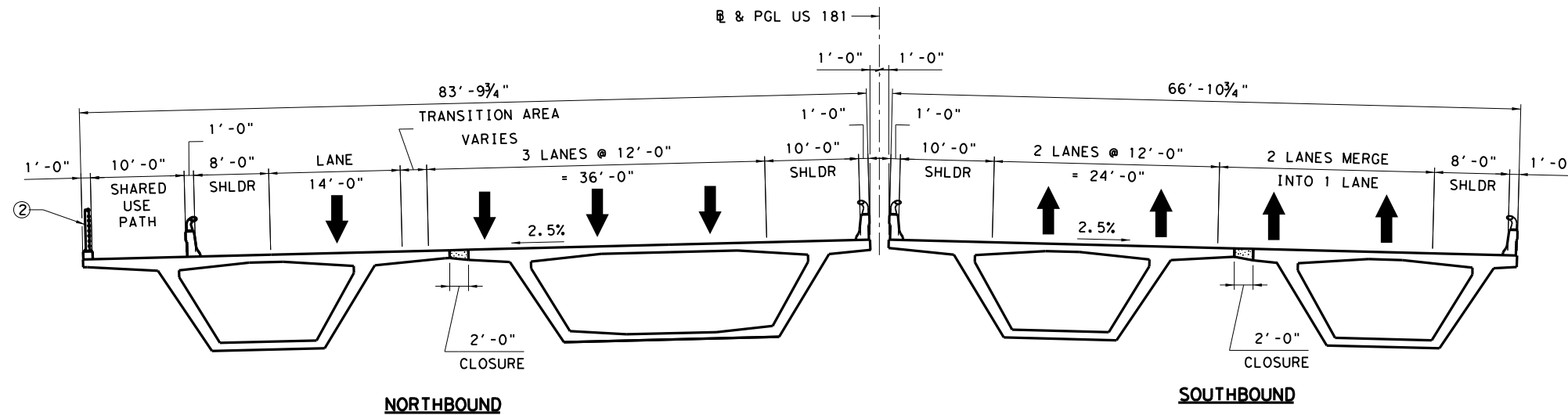
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<div>FLATIRON DRAGADOS USA</div> <div>A JOINT VENTURE</div> <div>in association with FIGG & ACS</div>		<div></div> <div>TBPE, FIRM # F-4883</div>	
<div><div>Texas Department of Transportation[®] 2015</div></div>			
US 181/IH 37 - HARBOR BRIDGE APPROACH SPANS DECK SECTION 3			
SHEET 3 OF 8			
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
GRAPHICS	X	(See Title Sheet)	X
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CHECK	TEXAS	CRP	NUECES
CHECK	CONTROL	SECTION	JOB
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			A20

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TIME: 4:59:36 PM
USER: lcvanough



SOUTH APPROACH SPAN CROSS SECTION
(PIER 145 (US))(LOOKING UPSTATION)

- GENERAL NOTES:**
1. FOR TRAFFIC BARRIER DETAILS, SEE TXDOT STANDARD DRAWING TYPE T80HT.
 2. FOR SHARED USE PATH RAIL, A 54" CUSTOM FENCE SHALL BE PROVIDED.
 3. (US) - UPSTATION SIDE
(DS) - DOWNSTATION SIDE
 4. SECTIONS ARE TAKEN RADIALY FROM PGL. NO CORRECTION IS SHOWN OR IMPLIED FOR RAMPS THAT ARE OBLIQUE TO PGL. IN THESE CASES THE DIMENSION SHOWN ON THESE RAMPS IS PERPENDICULAR TO THE RAMP ALIGNMENT.

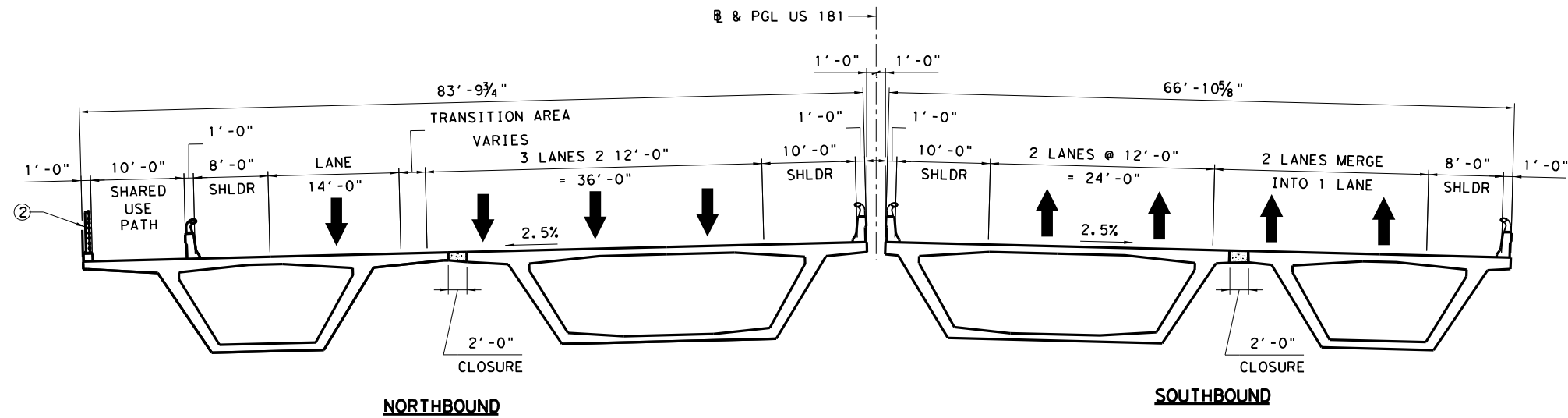


SOUTH APPROACH SPAN CROSS SECTION
(PIER 155 (DS))(LOOKING UPSTATION)

HL-93 LOADING					
FLATIRON DRAGADOS USA A JOINT VENTURE in association with FIGG & ACS		FIGG TBPE, FIRM # F-4883			
Texas Department of Transportation [®] 2015					
US 181/IH 37 - HARBOR BRIDGE APPROACH SPANS DECK SECTION 4					
SHEET 4 OF 8					
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.		
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CHECK	TEXAS	CRP	NUECES		
CHECK	CONTROL	SECTION	JOB		
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			A21		

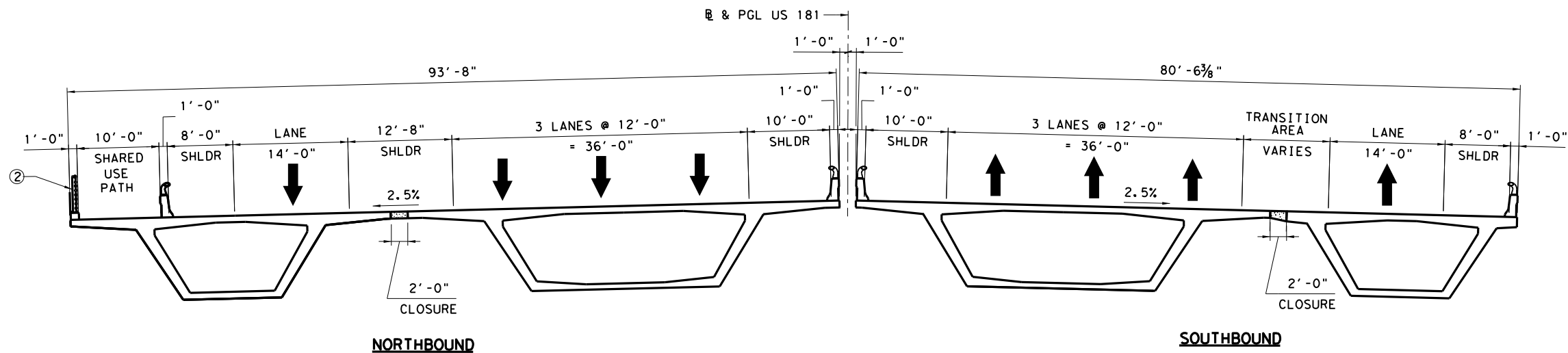
PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016

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SOUTH APPROACH SPAN CROSS SECTION
(PIER 15S (US)) (LOOKING UPSTATION)

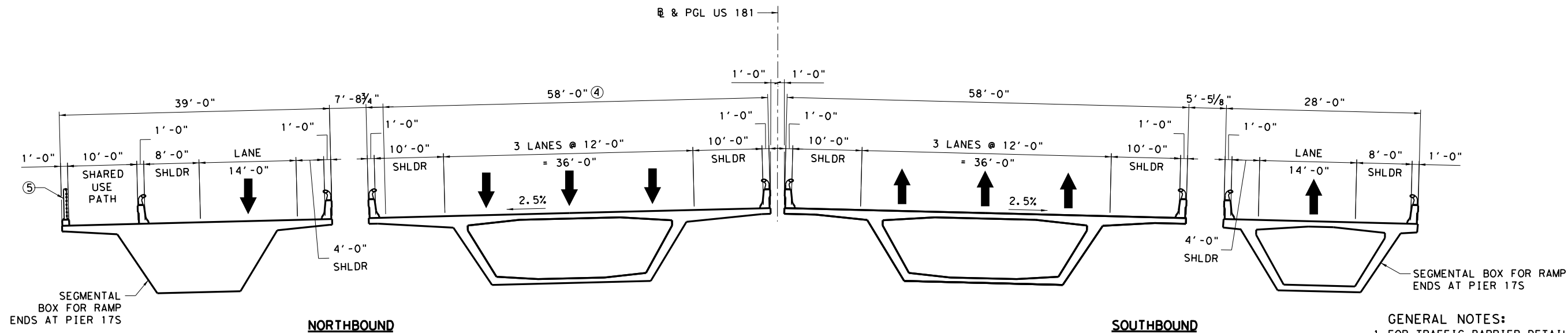
- GENERAL NOTES:**
1. FOR TRAFFIC BARRIER DETAILS, SEE TXDOT STANDARD DRAWING TYPE T80HT.
 2. FOR SHARED USE PATH RAIL, A 54" CUSTOM FENCE SHALL BE PROVIDED.
 3. (US) - UPSTATION SIDE
(DS) - DOWNSTATION SIDE
 4. SECTIONS ARE TAKEN RADIALY FROM PGL. NO CORRECTION IS SHOWN OR IMPLIED FOR RAMPS THAT ARE OBLIQUE TO PGL. IN THESE CASES THE DIMENSION SHOWN ON THESE RAMPS IS PERPENDICULAR TO THE RAMP ALIGNMENT.



SOUTH APPROACH SPAN CROSS SECTION
(PIER 16S (DS)) (LOOKING UPSTATION)

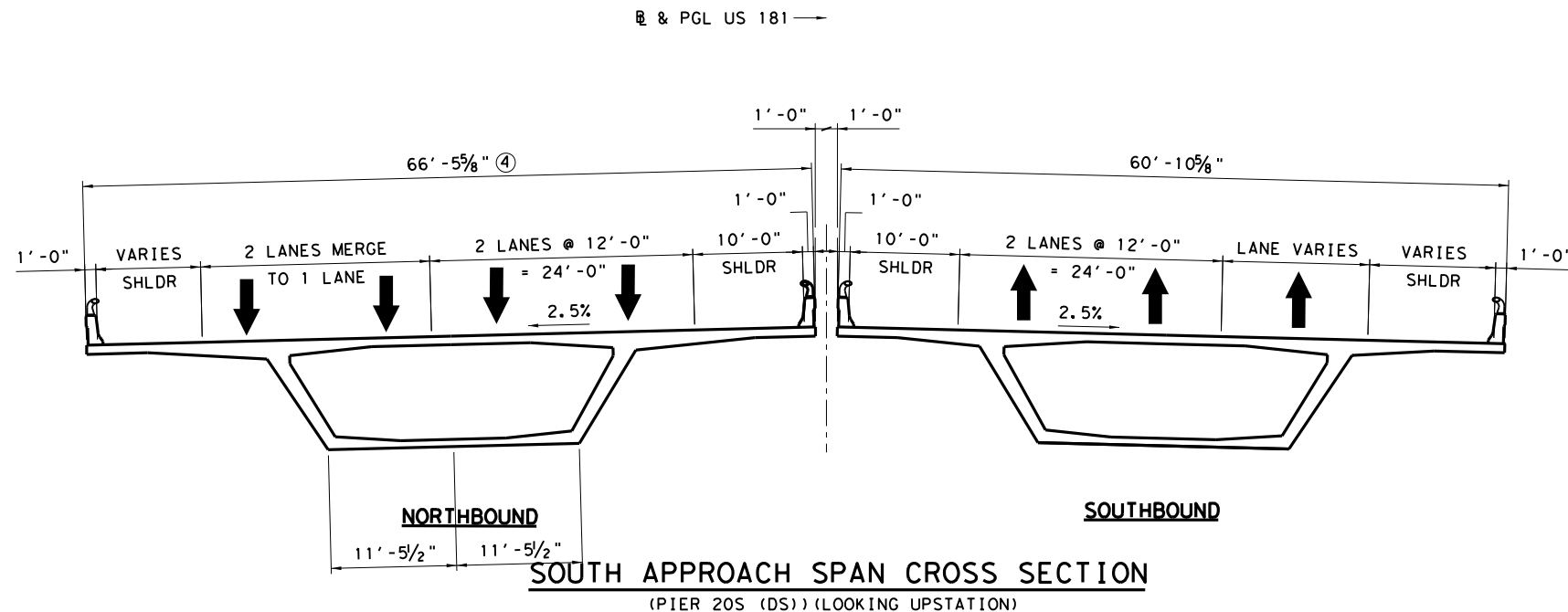
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<div>FLATIRON DRAGADOS USA</div> <div>A JOINT VENTURE</div> <div>in association with FIGG & ACS</div>		<div></div> <div>FIGG</div> <div>TBPE, FIRM # F-4883</div>		
<div></div> <div>Texas Department of Transportation^{® 2015}</div>				
US 181/IH 37 - HARBOR BRIDGE APPROACH SPANS DECK SECTION 5				
SHEET 5 OF 8				
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
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CHECK	CONTROL	SECTION	JOB	
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TIME: 4:59:37 PM
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SOUTH APPROACH SPAN CROSS SECTION
(PIER 17S) (LOOKING UPSTATION)

- GENERAL NOTES:**
1. FOR TRAFFIC BARRIER DETAILS, SEE TXDOT STANDARD DRAWING TYPE T80HT.
 2. (US) - UPSTATION SIDE
(DS) - DOWNSTATION SIDE
 3. SECTIONS ARE TAKEN RADIALY FROM PGL. NO CORRECTION IS SHOWN OR IMPLIED FOR RAMP THAT ARE OBLIQUE TO PGL. IN THESE CASES THE DIMENSION SHOWN ON THESE RAMP IS PERPENDICULAR TO THE RAMP ALIGNMENT.
 - ④ THICKENED WING AND WEB REQUIRED FOR WIDENED 58' NORTHBOUND BOX BETWEEN PIER 17S-NB(US) AND ABUTMENT 23S-NB.
 - ⑤ FOR SHARED USE PATH RAIL, A CUSTOM FENCE SHALL BE PROVIDED.



SOUTH APPROACH SPAN CROSS SECTION
(PIER 20S (DS)) (LOOKING UPSTATION)

HL-93 LOADING


FLATIRON

A JOINT VENTURE

in association with


DRAGADOS USA

FIGG & ACS



FIGG

TBPE, FIRM # F-4883



Texas Department of Transportation® 2015

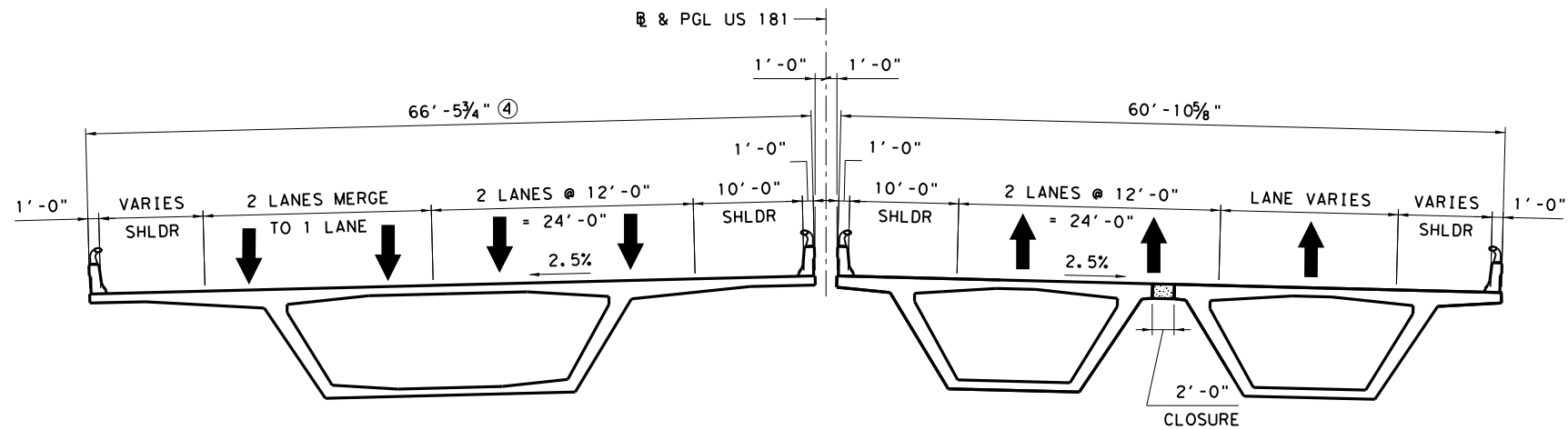
US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
DECK SECTION 6

SHEET 6 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	X	(See Title Sheet)		X
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	CRP	NUECES	A23A
CHECK	CONTROL	SECTION	JOB	
	0101	06	095	

PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016

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DATE: 2/1/2016 TIME: 4:59:37 PM USER: lcavanough



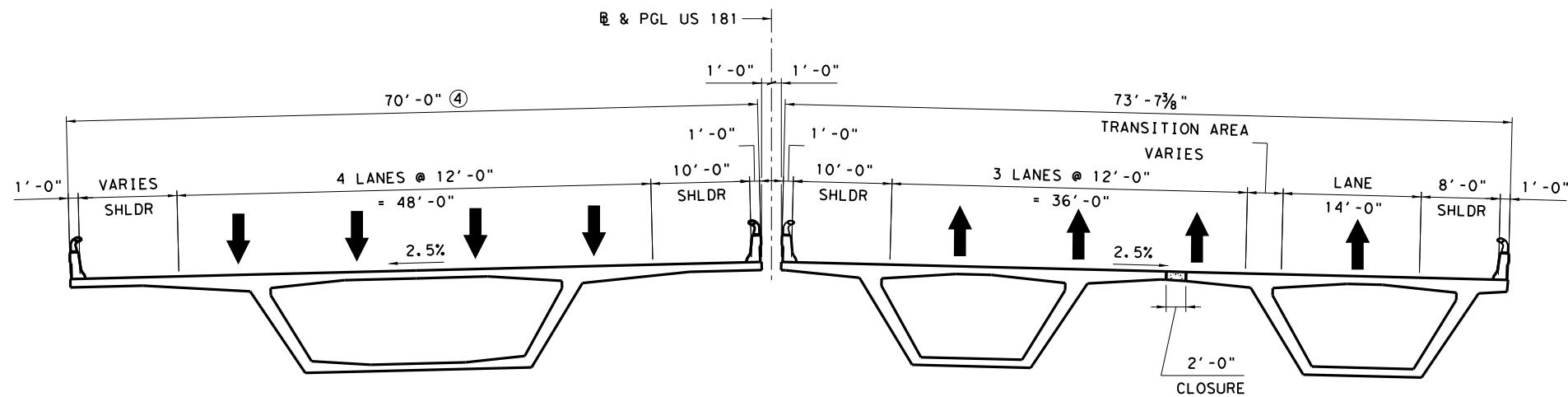
NORTHBOUND

SOUTHBOUND

SOUTH APPROACH SPAN CROSS SECTION

(PIER 20S (US))(LOOKING UPSTATION)

- GENERAL NOTES:**
1. FOR TRAFFIC BARRIER DETAILS, SEE TXDOT STANDARD DRAWING TYPE T80HT.
 2. (US) - UPSTATION SIDE
(DS) - DOWNSTATION SIDE
 3. SECTIONS ARE TAKEN RADIALY FROM PGL. NO CORRECTION IS SHOWN OR IMPLIED FOR RAMPs THAT ARE OBLIQUE TO PGL. IN THESE CASES THE DIMENSION SHOWN ON THESE RAMPs IS PERPENDICULAR TO THE RAMP ALIGNMENT.
 - ④ THICKENED WING AND WEB REQUIRED FOR WIDENED 58' NORTHBOUND BOX BETWEEN PIER 17S-NB(US) AND ABUTMENT 23S-NB





NORTHBOUND

SOUTHBOUND

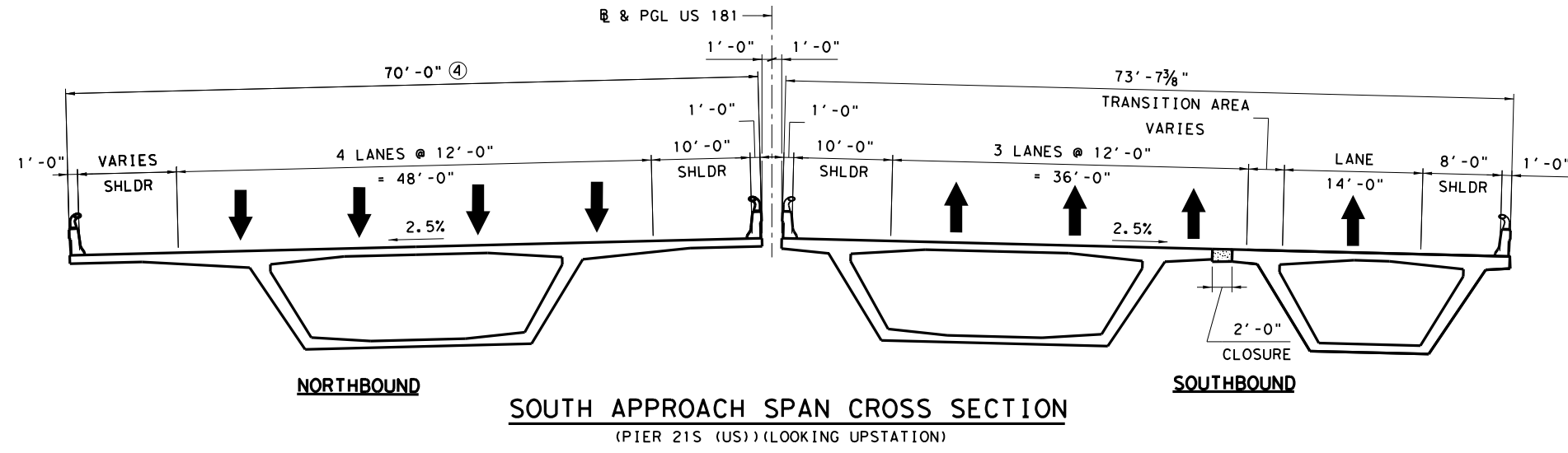
SOUTH APPROACH SPAN CROSS SECTION

(PIER 21S (DS))(LOOKING UPSTATION)

<div>FLATIRON DRAGADOS USA</div> <div>A JOINT VENTURE</div> <div>in association with FIGG & ACS</div>		<div> FIGG TBPE, FIRM # F-4883</div>		
<div><div>Texas Department of Transportation® 2015</div></div>				
US 181/IH 37 - HARBOR BRIDGE APPROACH SPANS DECK SECTION 7				
SHEET 7 OF 8				
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	X	(See Title Sheet)		X
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	CRP	NUECES	A23B
CHECK	CONTROL	SECTION	JOB	
	0101	06	095	

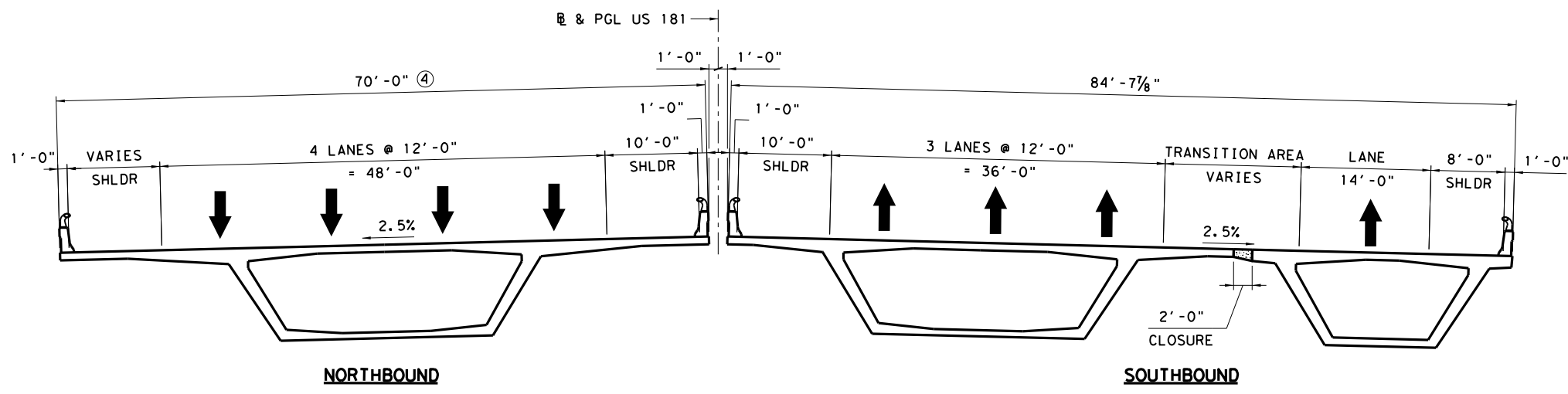
PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016

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USER: lcavanough



SOUTH APPROACH SPAN CROSS SECTION
(PIER 21S (US)) (LOOKING UPSTATION)

- GENERAL NOTES:**
1. FOR TRAFFIC BARRIER DETAILS, SEE TXDOT STANDARD DRAWING TYPE T80HT.
 2. (US) - UPSTATION SIDE
(DS) - DOWNSTATION SIDE
 3. THICKENED CANTILEVER WING REQUIRED FOR WIDENED 58' NORTHBOUND BOX.
 - ④ THICKENED WING AND WEB REQUIRED FOR WIDENED 58' NORTHBOUND BOX BETWEEN PIER 17S-NB(US) AND ABUTMENT 23S-NB
 5. SECTIONS ARE TAKEN RADIALY FROM PGL. NO CORRECTION IS SHOWN OR IMPLIED FOR RAMP THAT ARE OBLIQUE TO PGL. IN THESE CASES THE DIMENSION SHOWN ON THESE RAMP IS PERPENDICULAR TO THE RAMP ALIGNMENT.



SOUTH APPROACH SPAN CROSS SECTION
(PIER 22S (US)) (LOOKING UPSTATION)

HL-93 LOADING

FLATIRON **DRAGADOS USA**
A JOINT VENTURE
in association with **FIGG & ACS**

FIGG
TBPE, FIRM # F-4883

Texas Department of Transportation 2015

**US 181/IH 37 - HARBOR BRIDGE
APPROACH SPANS
DECK SECTION 8**

SHEET 8 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	X	(See Title Sheet)		X
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	CRP	NUECES	A23C
CHECK	CONTROL	SECTION	JOB	
	0101	06	095	

PRELIMINARY NOT FOR CONSTRUCTION, FEBRUARY 2016