

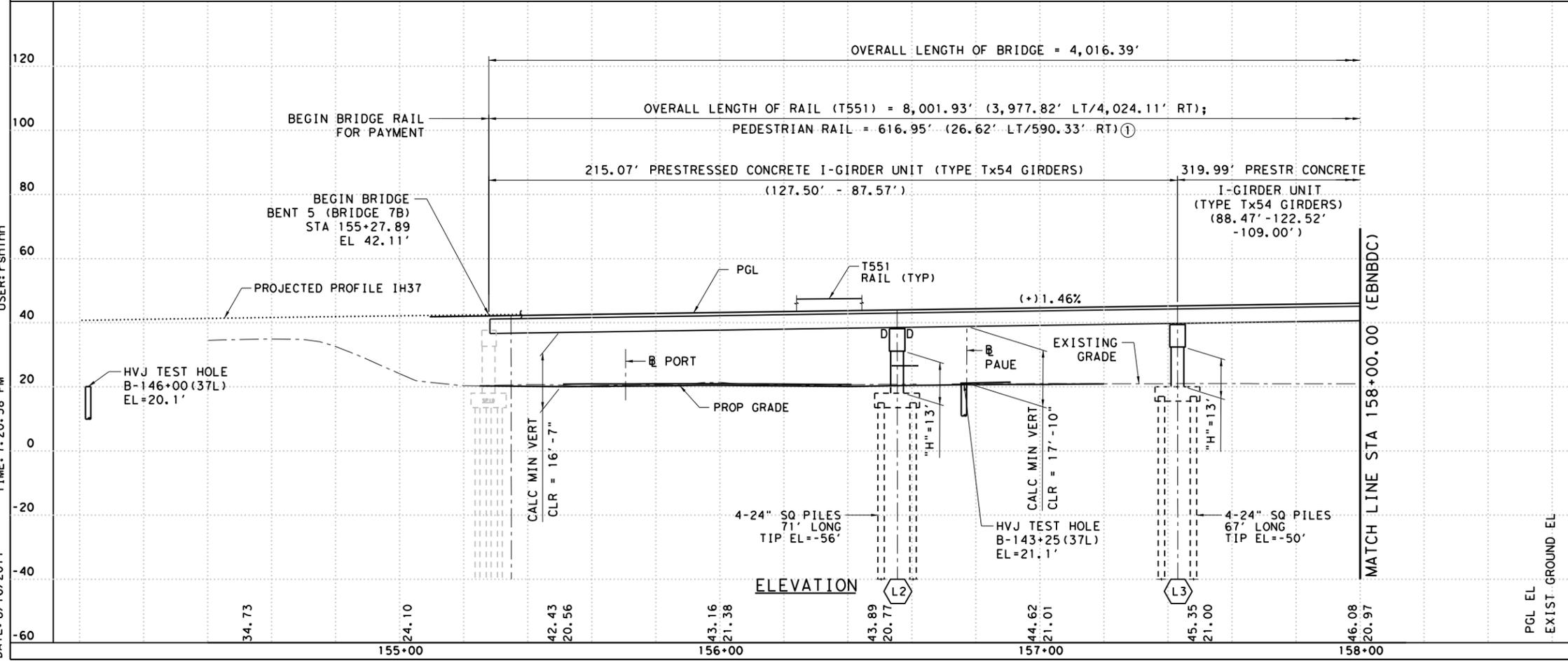
- NOTES:**
- SEE "GENERAL NOTES" SHEETS FOR GENERAL NOTES.
 - ROADWAY HORIZONTAL AND VERTICAL GEOMETRY, WIDTH, SUPERELEVATION, TRAFFIC DIRECTION, EXISTING GROUND LINE, PROPOSED GROUND LINE, RIGHT OF WAY AND DRAINAGE DATA PROVIDED BY STANTEC. TOPO DATA PROVIDED BY CIVIL CORP. UTILITY DATA PROVIDED BY KCI.
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 - CONTRACTOR TO FIELD VERIFY LOCATIONS OF EXISTING STRUCTURES AND UTILITIES PRIOR TO CONSTRUCTION.
 - SEE "TYPICAL SECTION" SHEET FOR TYPICAL SECTIONS.
 - SEE "BORING LOG DATA" SHEETS FOR BORING LOG INFORMATION.
 - SEE "FOUNDATION LAYOUT" SHEETS FOR DRAINAGE AND UTILITY INFORMATION.
 - SEE SIGNAGE SHEETS FOR SIGN LOCATIONS AND BRIDGE MOUNT DETAILS.
 - SOIL EXPLORATION DATA PROVIDED BY PSI.
 - SEE HVJ GEOTECHNICAL DATA REPORT DATED 9/29/2014 FOR HVJ BORING DATA.
 - BRIDGE NOT DESIGNED FOR OVERLAY LOAD.
- ① INCLUDES ADDITIONAL RAIL LENGTH AT GORE AREAS.
② MEASURED PERPENDICULAR TO EBSBDC.

CURVE EBNBDC-2
 P. I. STATION = 155+93.30
 DELTA = 05° 48' 09.85" (LT)
 DEGREE = 1° 00' 00.00"
 TANGENT = 290.39'
 LENGTH = 580.27'
 RADIUS = 5,729.58'
 P. C. STATION = 153+02.92
 P. T. STATION = 158+83.19

DESIGN DATA
 NBI NO XX-XXX-X-XXXX-XX-XXX
 FUNC CLASS: DIRECT CONNECTOR
 DESIGN SPEED: 45 MPH
 ADT: BRIDGE DC-L
 (2023) = 7,960
 (2035) = 9,380

ALL BENTS RADIAL TO ALIGNMENT UNLESS NOTED OTHERWISE

- LEGEND**
- PSI BORE HOLE
 - HVJ BORE HOLE
 - PROPOSED TRAFFIC FLOW
 - EXISTING TRAFFIC FLOW



FIGG BRIDGE ENGINEERS, INC.
 PRELIMINARY FOR INTERIM REVIEW ONLY

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CESAR FERNANDES 98112 08/16/2017
 TBPE FIRM #F-4883 P.E. NO. DATE

NO.	DATE	REVISION	APPROVED

HL-93 LOADING

FLATIRON/Dragados LLC

FIGG
 TBPE, FIRM # F-4883

Texas Department of Transportation
 US 181 HARBOR BRIDGE
BRIDGE LAYOUT
 DIRECT CONNECTOR
 IH 37 SB TO US 181 NB
 BRIDGE 16, CONN "L"

SCALE: 1" = 40'-0" SHEET 1 OF 11

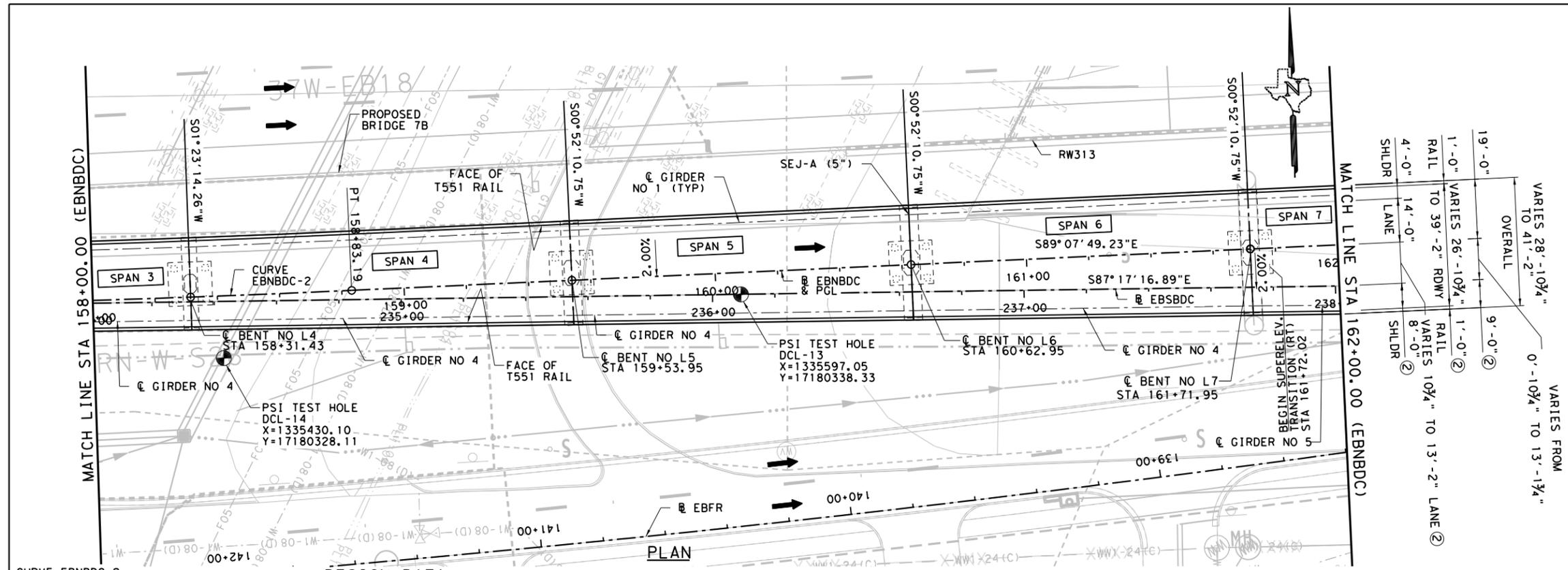
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
SNO	X	(See Title Sheet)	US 181
GRAPHICS	STATE	DISTRICT	COUNTY
JLS	TEXAS	CRP	NUECES
CHECK	CONTROL	SECTION	JOB
RLS	0101	06	095
CHECK			
CF			

RB16
 001

FILE: c:\pwworking\stontec\dms76190\16HBRBL01.dgn
 DATE: 8/16/2017 TIME: 7:20:58 PM
 USER: rshinn

PRELIMINARY NOT FOR CONSTRUCTION, AUGUST 2017

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CURVE EBNBDC-2
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P. C. STATION 153+02.92
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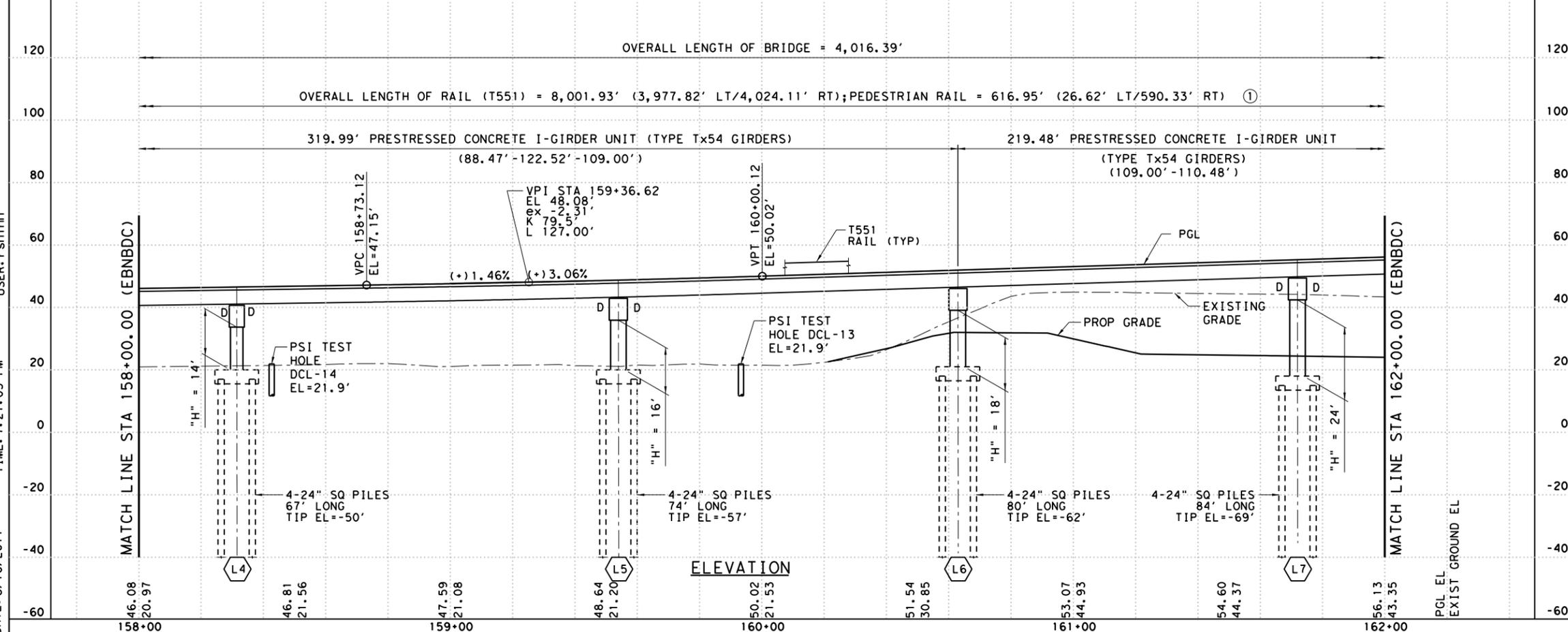
DESIGN DATA
NBI NO xx-xxx-x-xxxx-xx-xxx
FUNC CLASS: DIRECT CONNECTOR
DESIGN SPEED: 45 MPH
ADT: BRIDGE DC-L
(2023) = 7,960
(2035) = 9,380

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- PSI BORE HOLE
- HVJ BORE HOLE

- LEGEND**
- PROPOSED TRAFFIC FLOW
 - EXISTING TRAFFIC FLOW

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TBPE FIRM #F-4883 P.E. NO. DATE

HL-93 LOADING

NO.	DATE	REVISION	APPROVED

FLATIRON/DRAGADOS LLC

FIGG
TBPE, FIRM # F-4883

Texas Department of Transportation 2017

US 181 HARBOR BRIDGE
BRIDGE LAYOUT

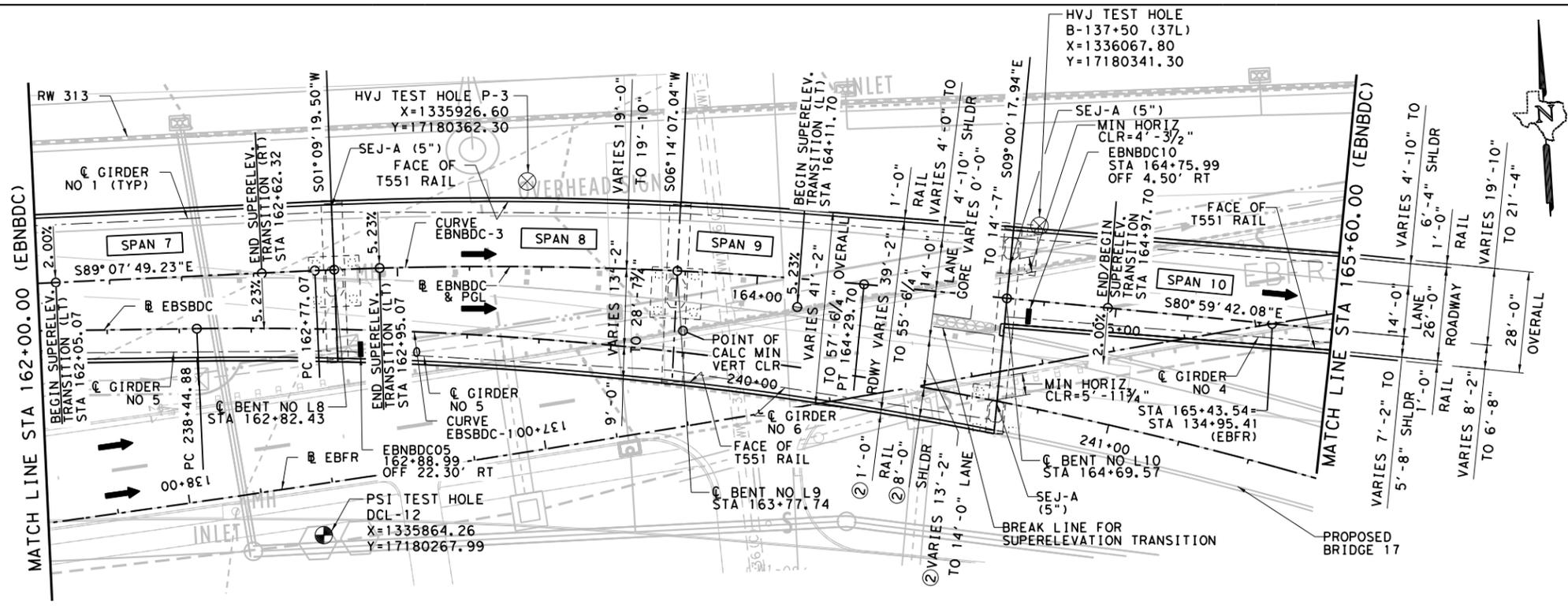
DIRECT CONNECTOR
IH 37 SB TO US 181 NB
BRIDGE 16, CONN "L"

SCALE: 1"=40'-0" SHEET 2 OF 11

DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
X	(See Title Sheet)	(See Title Sheet)	US 181
GRAPHICS	STATE	DISTRICT	COUNTY
JLS	TEXAS	CRP	NUECES
CHECK RLS	CONTROL	SECTION	JOB
CF	0101	06	095

RB16
002

FILE: c:\pww\online\stntec\dms76190\16HBRBL02.dgn
DATE: 8/16/2017 TIME: 7:21:03 PM USER: rshinn



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PLAN

CURVE EBNBDC-3	CURVE EBSBDC-1	
P. I. STATION = 163+53.51	P. I. STATION = 248+36.29	
DELTA = 08° 08' 07.15" (RT)	DELTA = 85° 22' 00.56" (RT)	
DEGREE = 05° 19' 47.42"	DEGREE = 05° 19' 47.42"	
TANGENT = 76.45'	TANGENT = 991.41'	
LENGTH = 152.64'	LENGTH = 1,601.68'	
RADIUS = 1,075.00'	RADIUS = 1,075.00'	
P. C. STATION = 162+77.07	P. C. STATION = 238+44.88	
P. T. STATION = 164+29.70	P. T. STATION = 254+46.56	

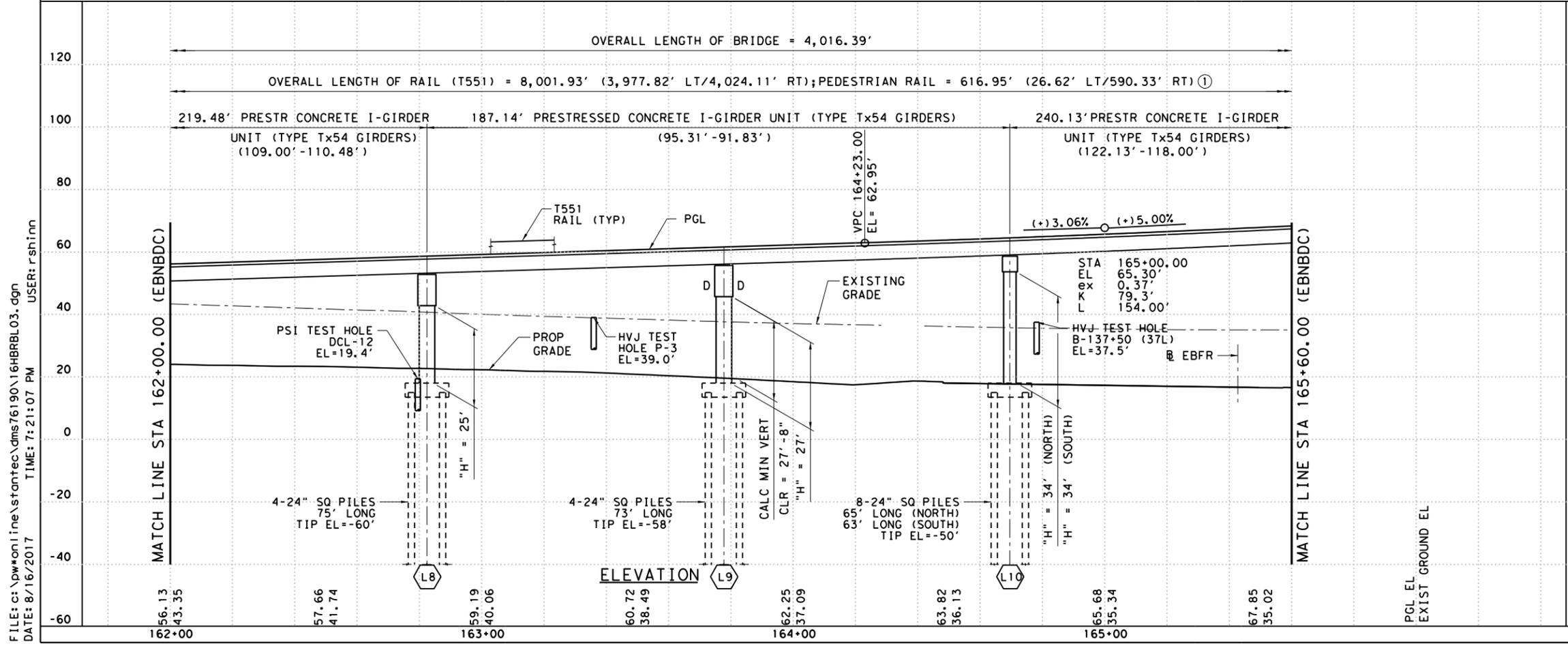
DESIGN DATA

NBI NO XX-XXX-X-XXXX-XX-XXX
 FUNC CLASS: DIRECT CONNECTOR
 DESIGN SPEED: 45 MPH
 ADT: BRIDGE DC-L
 (2023) = 7,960
 (2035) = 9,380

ALL BENTS RADIAL OR PERPENDICULAR TO ALIGNMENT UNLESS NOTED OTHERWISE

LEGEND

PSI BORE HOLE
 HVJ BORE HOLE
 PROPOSED TRAFFIC FLOW
 EXISTING TRAFFIC FLOW



OVERALL LENGTH OF BRIDGE = 4,016.39'

OVERALL LENGTH OF RAIL (T551) = 8,001.93' (3,977.82' LT/4,024.11' RT); PEDESTRIAN RAIL = 616.95' (26.62' LT/590.33' RT) ①

219.48' PRESTR CONCRETE I-GIRDER UNIT (TYPE Tx54 GIRDERS) (109.00'-110.48')

187.14' PRESTRESSED CONCRETE I-GIRDER UNIT (TYPE Tx54 GIRDERS) (95.31'-91.83')

240.13' PRESTR CONCRETE I-GIRDER UNIT (TYPE Tx54 GIRDERS) (122.13'-118.00')

BRIDGE LAYOUT

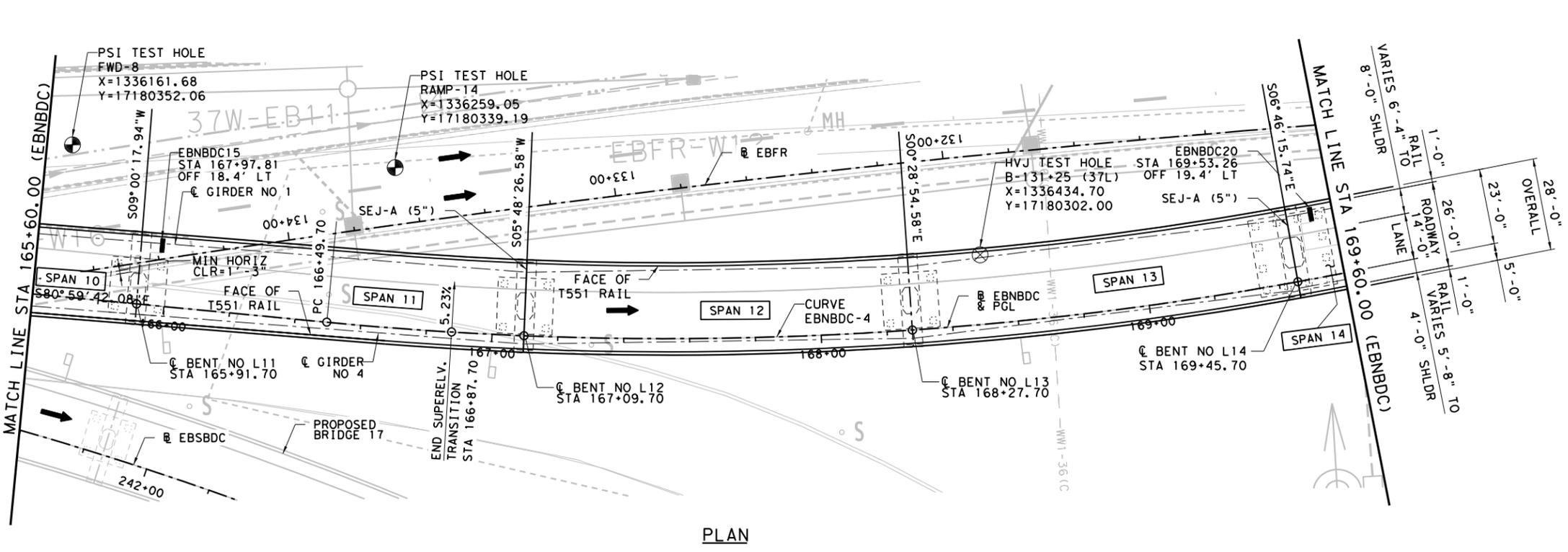
DIRECT CONNECTOR
IH 37 SB TO US 181 NB
BRIDGE 16, CONN "L"

SCALE: 1"=40'-0" SHEET 3 OF 11

DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
GRAPHICS JLS	X	(See Title Sheet)	US 181
CHECK RLS	STATE TEXAS	DISTRICT CRP	COUNTY NUECES
CHECK CF	CONTROL 0101	SECTION 06	JOB 095

RB16
003

FILE: c:\pwworking\stntec\dms76190\16HBRB03.dgn
 DATE: 8/16/2017 TIME: 7:21:07 PM USER: rshinn



PLAN

CURVE EBNBDC-4
 P.I. STATION 177+04.77
 DELTA 88°55'39.75" (LT)
 DEGREE 05°19'47.42"
 TANGENT 1,055.07'
 LENGTH 1,668.49'
 RADIUS 1,075.00'
 P.C. STATION 166+49.70
 P.T. STATION 183+18.19

DESIGN DATA
 NBI NO xx-xxx-x-xxxx-xx-xxx
 FUNC CLASS: DIRECT CONNECTOR
 DESIGN SPEED: 45 MPH
 ADT: BRIDGE DC-L
 (2023) = 7,960
 (2035) = 9,380

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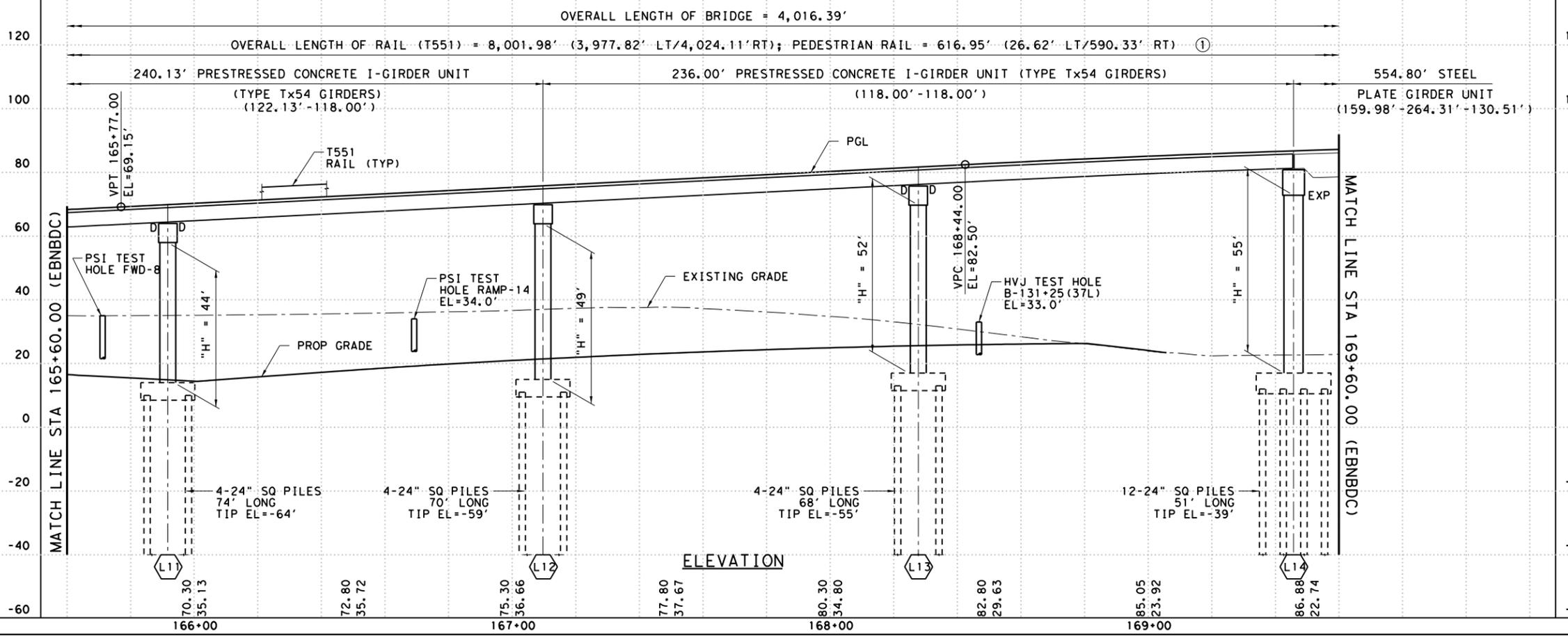
- ⊙ PSI BORE HOLE
- ⊗ HVJ BORE HOLE

LEGEND

- ➔ PROPOSED TRAFFIC FLOW
- ➡ EXISTING TRAFFIC FLOW

- NOTES:
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 - Ⓛ INCLUDES ADDITIONAL RAIL LENGTH AT GORE AREAS.

FILE: c:\pwworking\stntec\dms76190\16HBRBL04.dgn
 DATE: 8/16/2017 TIME: 7:21:11 PM USER: rshinn



ELEVATION

FIGG BRIDGE ENGINEERS, INC.
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CESAR FERNANDES 98112 08/16/2017
 TBPE FIRM #F-4883 P.E. NO. DATE

NO.	DATE	REVISION	APPROVED

HL-93 LOADING

Texas Department of Transportation

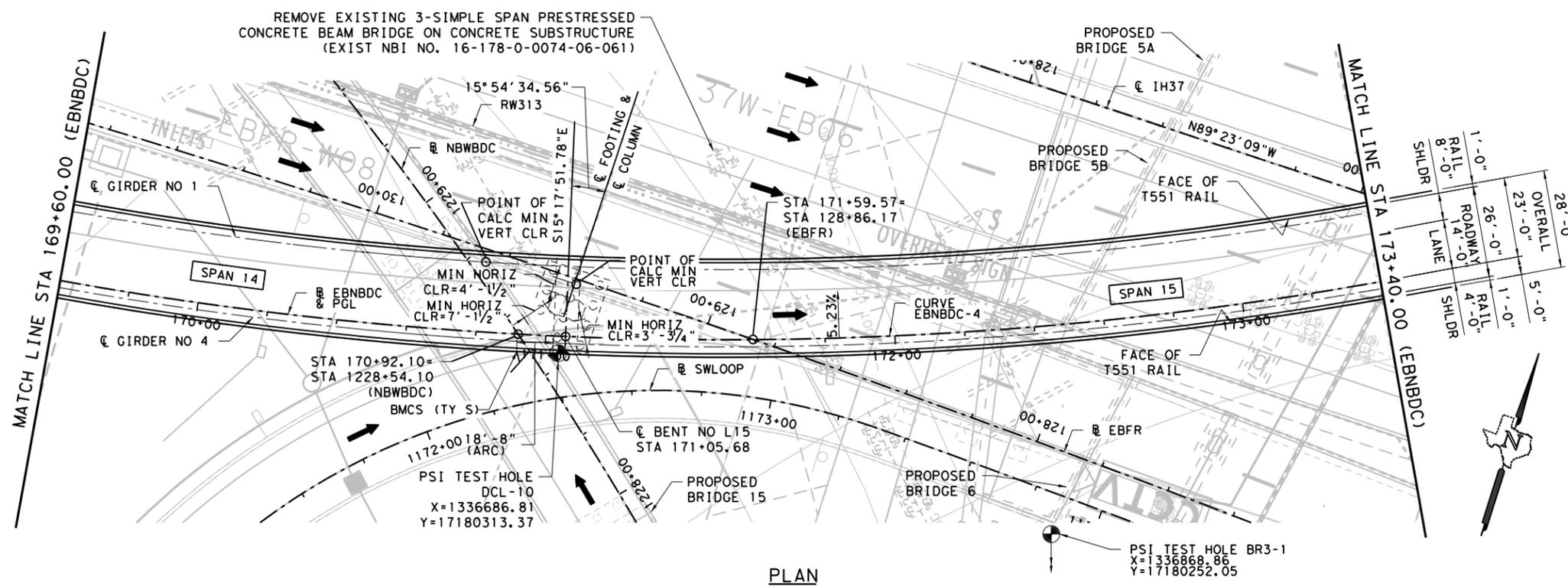
US 181 HARBOR BRIDGE
BRIDGE LAYOUT

DIRECT CONNECTOR
 IH 37 SB TO US 181 NB
 BRIDGE 16, CONN "L"

SCALE: 1"=40'-0" SHEET 4 OF 11

DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
X	(See Title Sheet)	(See Title Sheet)	US 181
GRAPHICS	JLS	STATE DISTRICT COUNTY	SHEET NO.
CHECK	RLS	TEXAS CRP NUECES	RB16
CHECK	CF	CONTROL SECTION JOB	004

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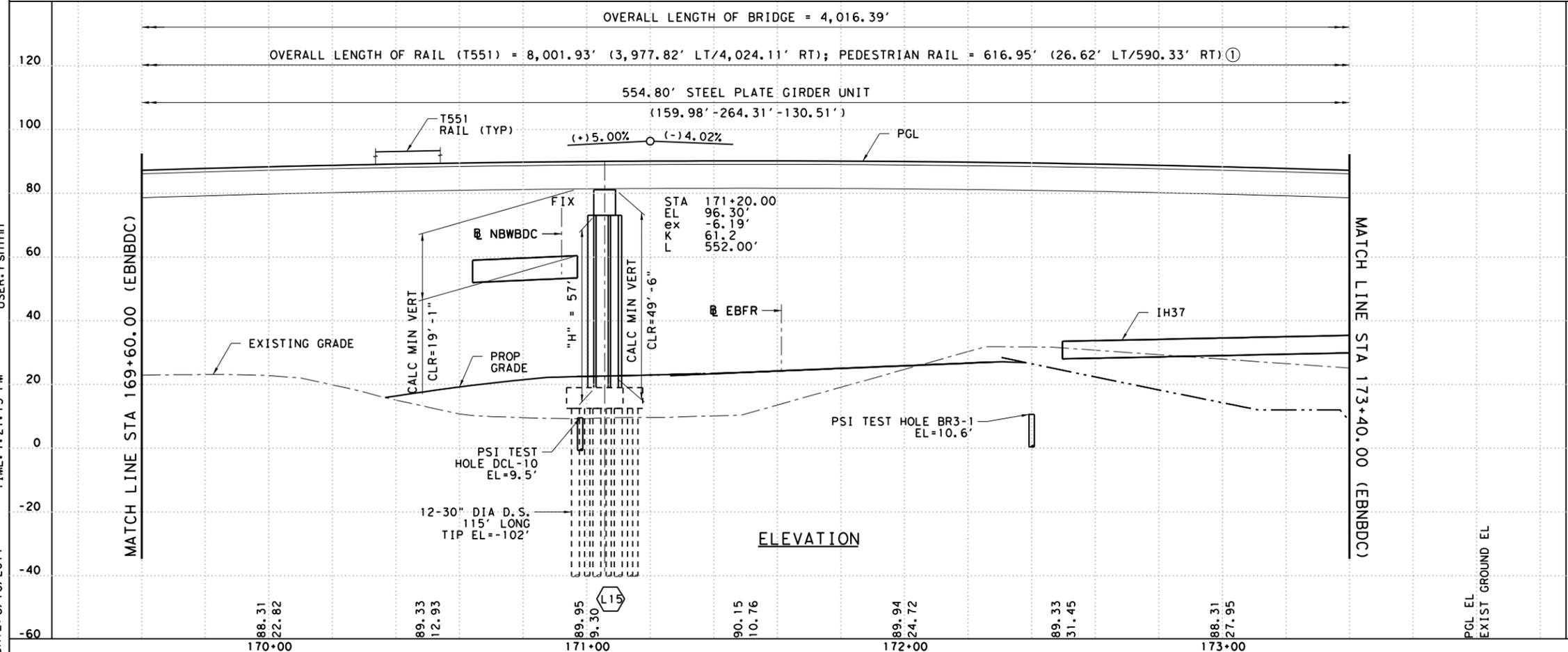
PLAN

CURVE EBNBDC-4
 P. I. STATION = 177+04.77
 DELTA = 88°55'39.75" (LT)
 DEGREE = 05°19'47.42"
 TANGENT = 1,055.07'
 LENGTH = 1,668.49'
 RADIUS = 1,075.00'
 P. C. STATION = 166+49.70
 P. T. STATION = 183+18.19

DESIGN DATA
 NBI NO XX-XXX-X-XXXX-XX-XXX
 FUNC CLASS: DIRECT CONNECTOR
 DESIGN SPEED: 45 MPH
 ADT: BRIDGE DC-L
 (2023) = 7,960
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- LEGEND**
- PSI BORE HOLE
 - HVJ BORE HOLE
 - PROPOSED TRAFFIC FLOW
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ELEVATION

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NO.	DATE	REVISION	APPROVED

HL-93 LOADING

FLATIRON/Dragados LLC

FIGG
 TBPE, FIRM # F-4883

Texas Department of Transportation
 US 181 HARBOR BRIDGE
BRIDGE LAYOUT

DIRECT CONNECTOR
 IH 37 SB TO US 181 NB
 BRIDGE 16, CONN "L"

SCALE: 1"=40'-0" SHEET 5 OF 11

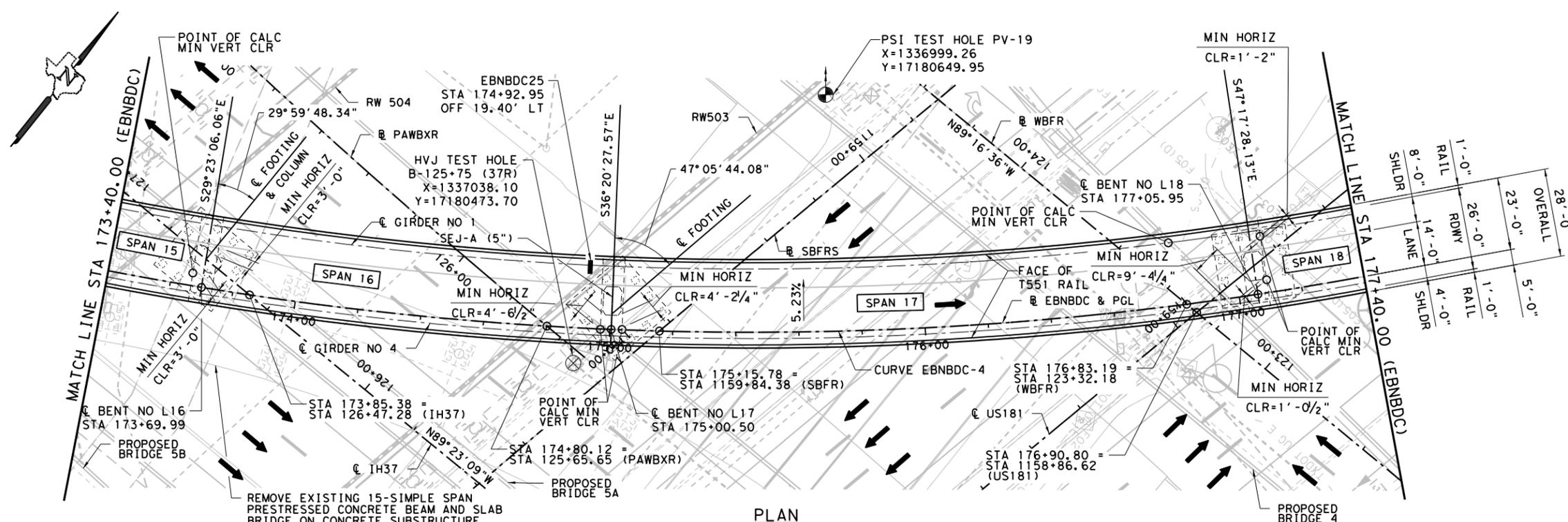
DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
X	(See Title Sheet)	(See Title Sheet)	US 181
GRAPHICS	STATE	DISTRICT	COUNTY
JLS	TEXAS	CRP	NUECES
CHECK	CONTROL	SECTION	JOB
RLS	0101	06	095
CF			

RB16
 005

FILE: c:\pwworking\stntec\dms76190\16HBRB05.dgn
 DATE: 8/16/2017 TIME: 7:21:15 PM USER: rshinn

PRELIMINARY NOT FOR CONSTRUCTION, AUGUST 2017

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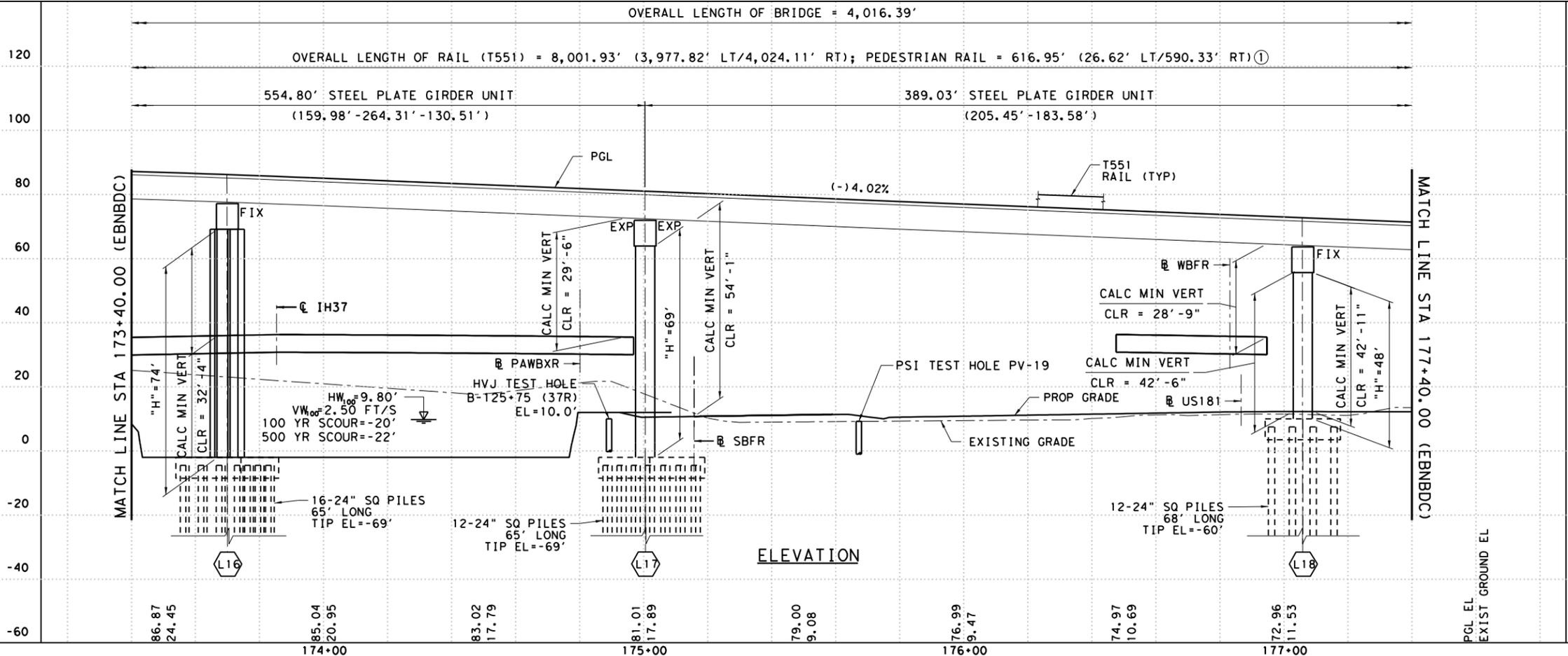
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LEGEND

- ⊙ PSI BORE HOLE
- ⊗ HVJ BORE HOLE
- ➔ PROPOSED TRAFFIC FLOW
- ➞ EXISTING TRAFFIC FLOW

FILE: c:\pwworking\stntec\dms76190\16HBRBL06.dgn DATE: 8/16/2017 TIME: 7:21:19 PM USER: rshinn



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NO.	DATE	REVISION	APPROVED

FLATIRON DRAGADOS LLC

FIGG
TBPE, FIRM # F-4883

Texas Department of Transportation 2017

US 181 HARBOR BRIDGE
BRIDGE LAYOUT

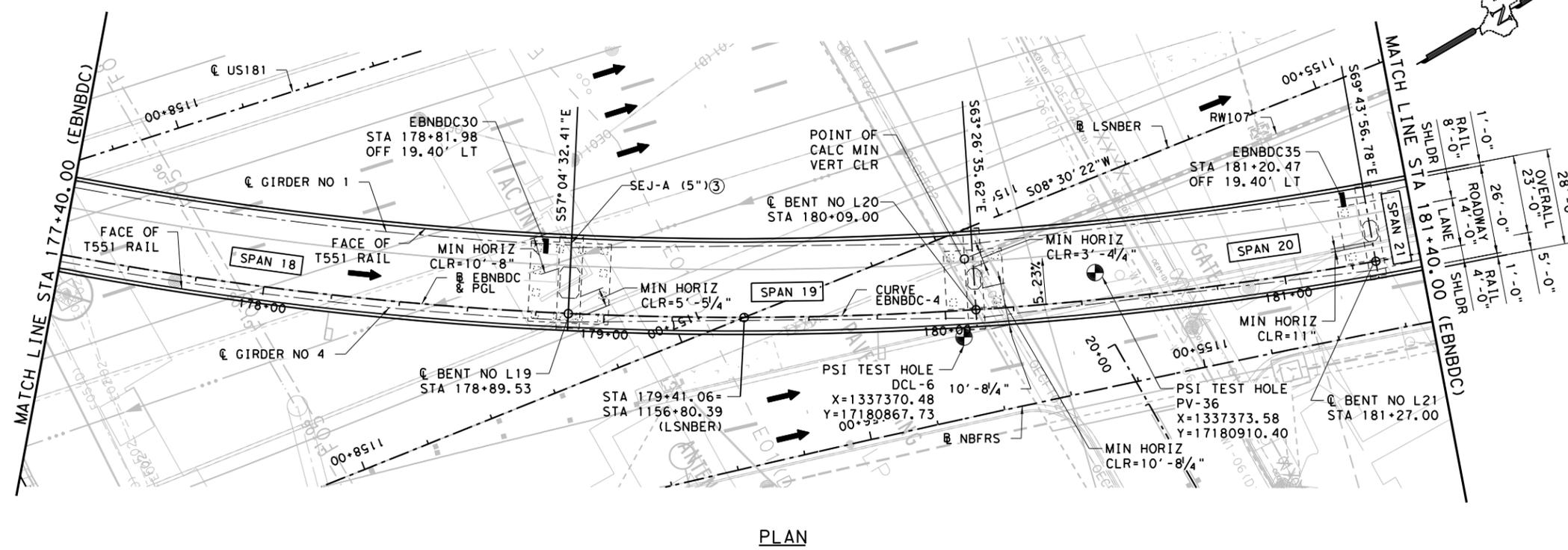
DIRECT CONNECTOR
IH 37 SB TO US 181 NB
BRIDGE 16, CONN "L"

SCALE: 1"=40'-0" SHEET 6 OF 11

DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
X	(See Title Sheet)	(See Title Sheet)	US 181
GRAPHICS JLS	STATE	DISTRICT	COUNTY
CHECK RLS	TEXAS	CRP	NUECES
CHECK	CONTROL	SECTION	JOB
CF	0101	06	095

RB16
006

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 - PILE TIP ELEVATIONS SHALL BE VERIFIED IN THE FIELD BY THE GEOTECHNICAL ENGINEER OF RECORD OR AN AUTHORIZED REPRESENTATIVE BASED UPON ACTUAL SOIL CONDITIONS ENCOUNTERED AT EACH PILE LOCATION.
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 - SEE "TYPICAL SECTIONS" SHEET FOR TYPICAL SECTIONS.
 - SEE "BORING LOG DATA" SHEETS FOR BORING LOG INFORMATION.
 - SEE "FOUNDATION LAYOUT" SHEETS FOR DRAINAGE AND UTILITY INFORMATION.
 - SEE SIGNAGE SHEETS FOR SIGN LOCATIONS AND BRIDGE MOUNT DETAILS.
 - SOIL EXPLORATION DATA PROVIDED BY PSI.
 - SEE HVJ GEOTECHNICAL DATA REPORT DATED 9/29/2014 FOR HVJ BORING DATA.
 - BRIDGE NOT DESIGNED FOR OVERLAY LOAD.
- ① INCLUDES ADDITIONAL RAIL LENGTH AT GORE AREAS.
③ D.S. BROWN SEAL TYPE A2R-XTRA, SHOWN ON SEJ-A STANDARD SHEET, MUST BE USED AT THIS LOCATION.



PLAN

CURVE EBNBDC-4

P.I. STATION	177+04.77
DELTA	88° 55' 39.75" (LT)
DEGREE	05° 19' 47.42"
TANGENT	1,055.07'
LENGTH	1,668.49'
RADIUS	1,075.00'
P.C. STATION	166+49.70
P.T. STATION	183+18.19

DESIGN DATA

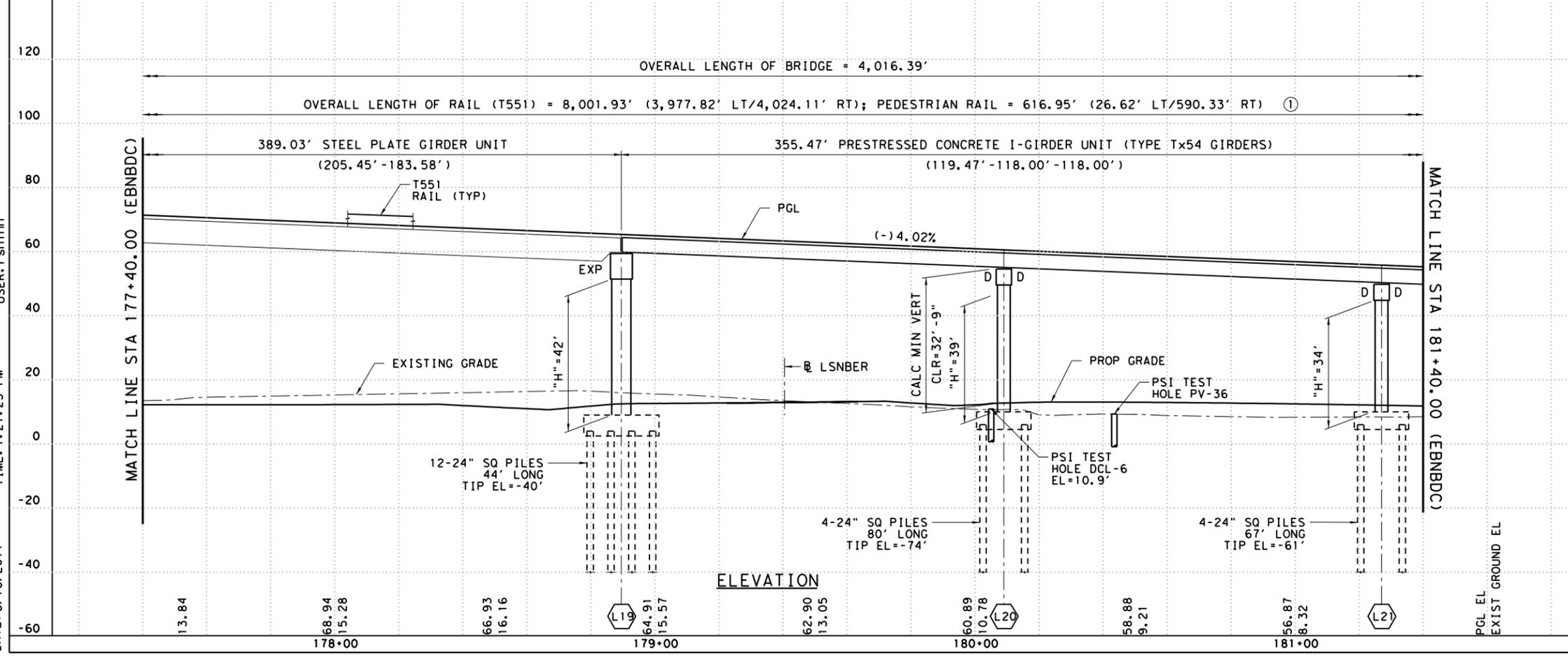
NBI NO	XX-XXX-X-XXXX-XX-XXX
FUNC CLASS	DIRECT CONNECTOR
DESIGN SPEED	45 MPH
ADT: BRIDGE DC-L	(2023) = 7,960
	(2035) = 9,380

ALL BENTS RADIAL TO ALIGNMENT UNLESS NOTED OTHERWISE

LEGEND

- ⊙ PSI BORE HOLE
- ⊗ HVJ BORE HOLE
- ➡ PROPOSED TRAFFIC FLOW
- ↔ EXISTING TRAFFIC FLOW

FILE: c:\pwworking\stntec\dms76190\16HBRBL07.dgn
DATE: 8/16/2017 TIME: 7:21:23 PM USER: rshinn



ELEVATION

FIGG BRIDGE ENGINEERS, INC.
PRELIMINARY - FOR INTERIM REVIEW ONLY

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CESAR FERNANDES 98112 08/16/2017
TBPE FIRM #F-4883 P.E. NO. DATE

HL-93 LOADING			
NO.	DATE	REVISION	APPROVED

FLATIRON/DRAGADOS LLC

FIGG
TBPE, FIRM # F-4883

US 181 HARBOR BRIDGE
BRIDGE LAYOUT

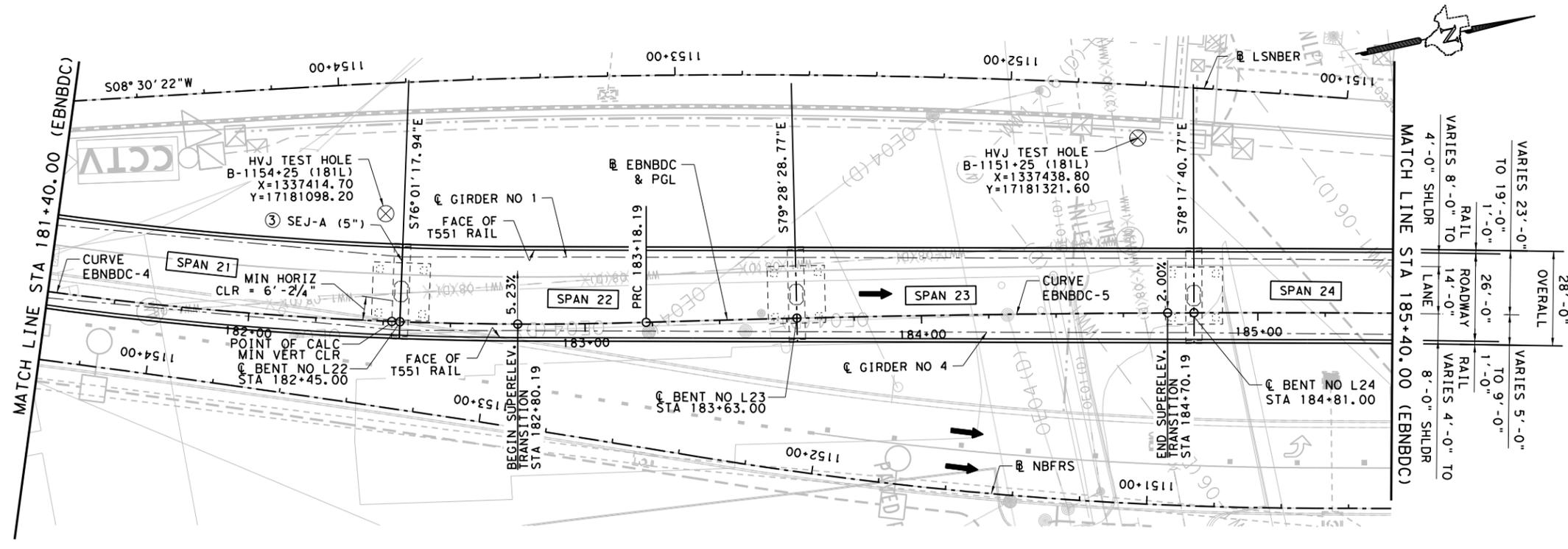
DIRECT CONNECTOR
IH 37 SB TO US 181 NB
BRIDGE 16, CONN "L"

SCALE: 1"=40'-0"	SHEET 7 OF 11		
DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
GRAPHICS JLS	X	(See Title Sheet)	US 181
CHECK RLS	STATE	DISTRICT	COUNTY
CHECK RLS	TEXAS	CRP	NUECES
CHECK CF	CONTROL	SECTION	JOB
	0101	06	095

RB16
007

PRELIMINARY NOT FOR CONSTRUCTION, AUGUST 2017

- NOTES:**
- SEE "GENERAL NOTES" SHEETS FOR GENERAL NOTES.
 - ROADWAY HORIZONTAL AND VERTICAL GEOMETRY, WIDTH, SUPERELEVATION, TRAFFIC DIRECTION, EXISTING GROUND LINE, PROPOSED GROUND LINE, RIGHT OF WAY AND DRAINAGE DATA PROVIDED BY STANTEC. TOPO DATA PROVIDED BY CIVIL CORP. UTILITY DATA PROVIDED BY KCI.
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 - SEE HVJ GEOTECHNICAL DATA REPORT DATED 9/29/2014 FOR HVJ BORING DATA.
 - BRIDGE NOT DESIGNED FOR OVERLAY LOAD.
- ① INCLUDES ADDITIONAL RAIL LENGTH AT GORE AREAS.
③ D.S. BROWN SEAL TYPE A2R-XTRA, SHOWN ON SEJ-A STANDARD SHEET, MUST BE USED AT THIS LOCATION.



CURVE EBNBDC-4

P.I. STATION	177+04.77
DELTA	88° 55' 39.75" (LT)
DEGREE	05° 19' 47.42"
TANGENT	1,055.07'
LENGTH	1,668.49'
RADIUS	1,075.00'
P.C. STATION	166+49.70
P.T. STATION	183+18.19

CURVE EBNBDC-5

P.I. STATION	187+94.64
DELTA	09° 30' 25.81" (RT)
DEGREE	01° 00' 00.00"
TANGENT	476.45'
LENGTH	950.72'
RADIUS	5,729.58'
P.C. STATION	183+18.19
P.T. STATION	192+68.91

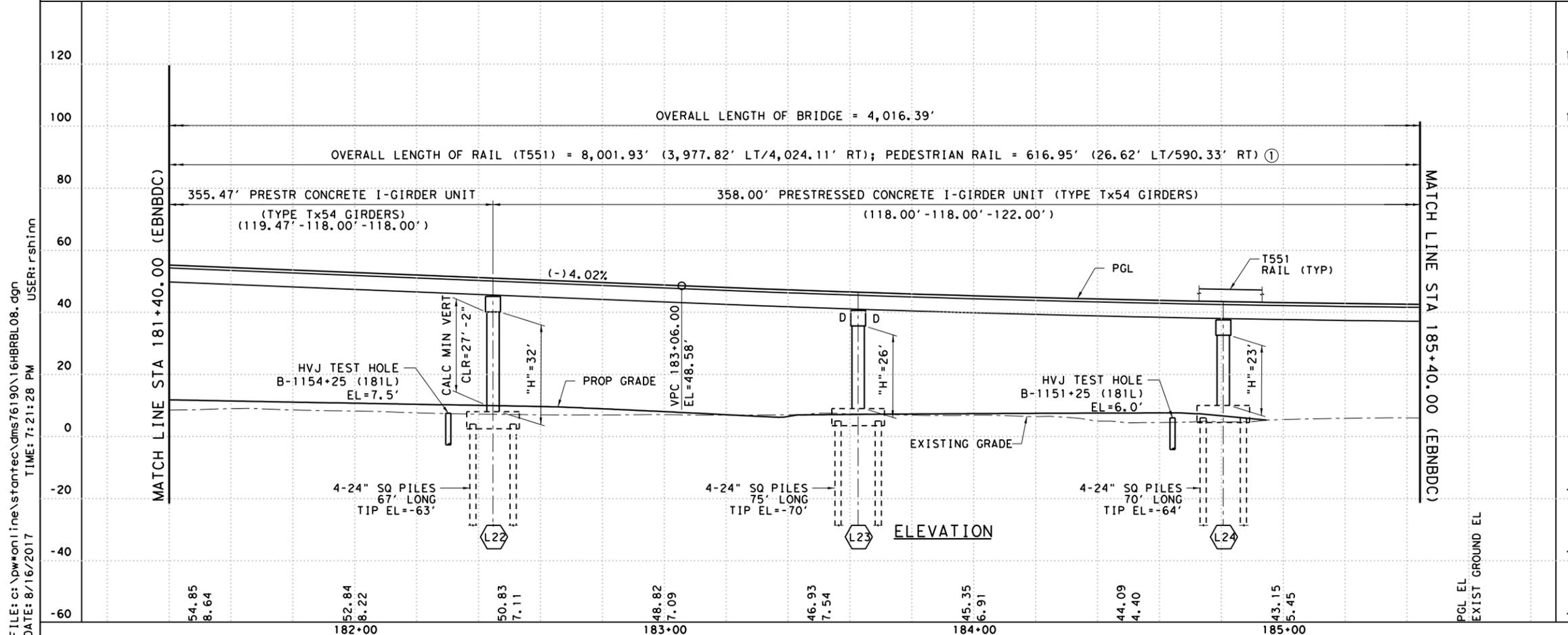
DESIGN DATA
 NBI NO XX-XXX-X-XXXX-XX-XXX
 FUNC CLASS: DIRECT CONNECTOR
 DESIGN SPEED: 45 MPH
 ADT: BRIDGE DC-L
 (2023) = 7,960
 (2035) = 9,380

PLAN

ALL BENTS RADIAL TO ALIGNMENT UNLESS NOTED OTHERWISE

LEGEND

- ⊙ PSI BORE HOLE
- ⊗ HVJ BORE HOLE
- ➔ PROPOSED TRAFFIC FLOW
- ➞ EXISTING TRAFFIC FLOW



FILE: c:\pwworking\stntec\dms76190\16HBRBL08.dgn
 DATE: 8/16/2017 TIME: 7:21:28 PM USER: rshinn

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 CESAR FERNANDES 98112 08/16/2017
 TBPE FIRM #F-4883 P.E. NO. DATE

HL-93 LOADING

NO.	DATE	REVISION	APPROVED

FLATIRON DRAGADOS LLC

Texas Department of Transportation

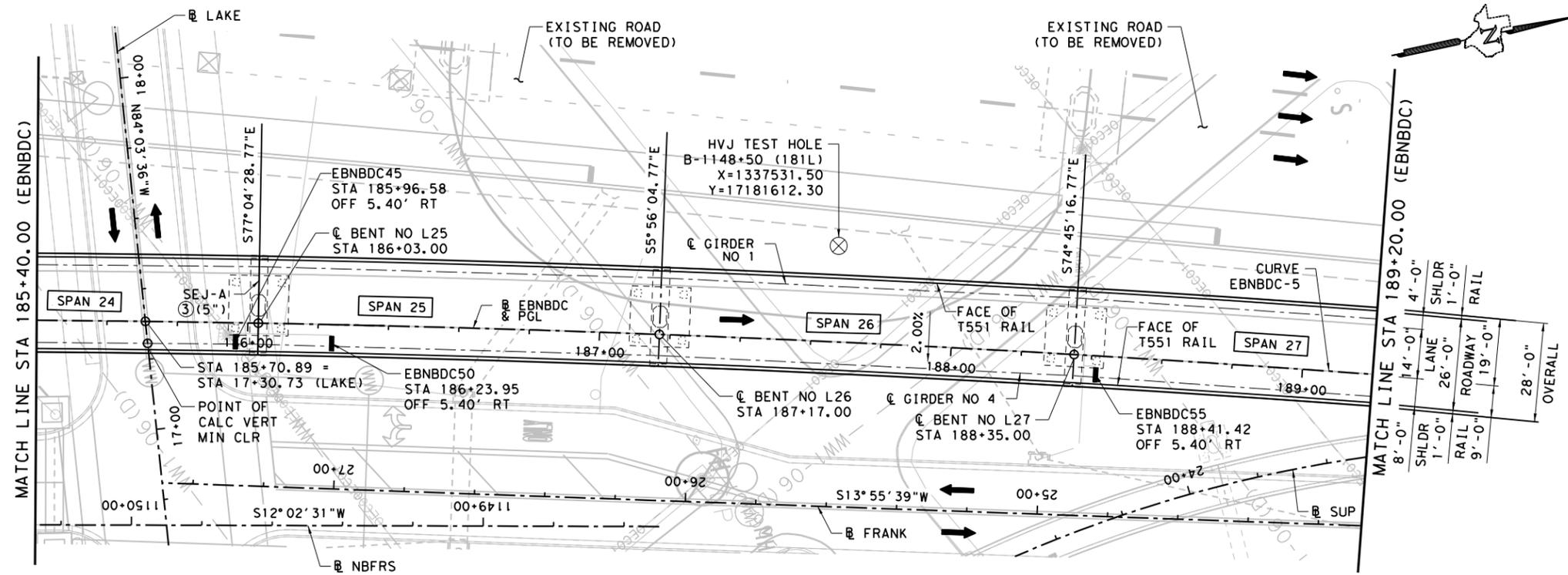
US 181 HARBOR BRIDGE
BRIDGE LAYOUT

DIRECT CONNECTOR
 IH 37 SB TO US 181 NB
 BRIDGE 16, CONN "L"

SCALE: 1"=40'-0" SHEET 8 OF 11

DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
GRAPHICS JLS	X	(See Title Sheet)	US 181
CHECK RLS	STATE	DISTRICT	COUNTY
CHECK CF	TEXAS	CRP	NUECES
	CONTROL	SECTION	JOB
	0101	06	095

RB16
008



PLAN

CURVE EBNBDC-5
 P. I. STATION = 187+94.64
 DELTA = 09°30'25.81" (RT)
 DEGREE = 1°00'00.00"
 TANGENT = 476.45'
 LENGTH = 950.72'
 RADIUS = 5,729.58'
 P. C. STATION = 183+18.19
 P. T. STATION = 192+68.91

DESIGN DATA
 NBI NO XX-XXX-X-XXXX-XX-XXX
 FUNC CLASS: DIRECT CONNECTOR
 DESIGN SPEED: 45 MPH
 ADT: BRIDGE DC-L
 (2023) = 7,960
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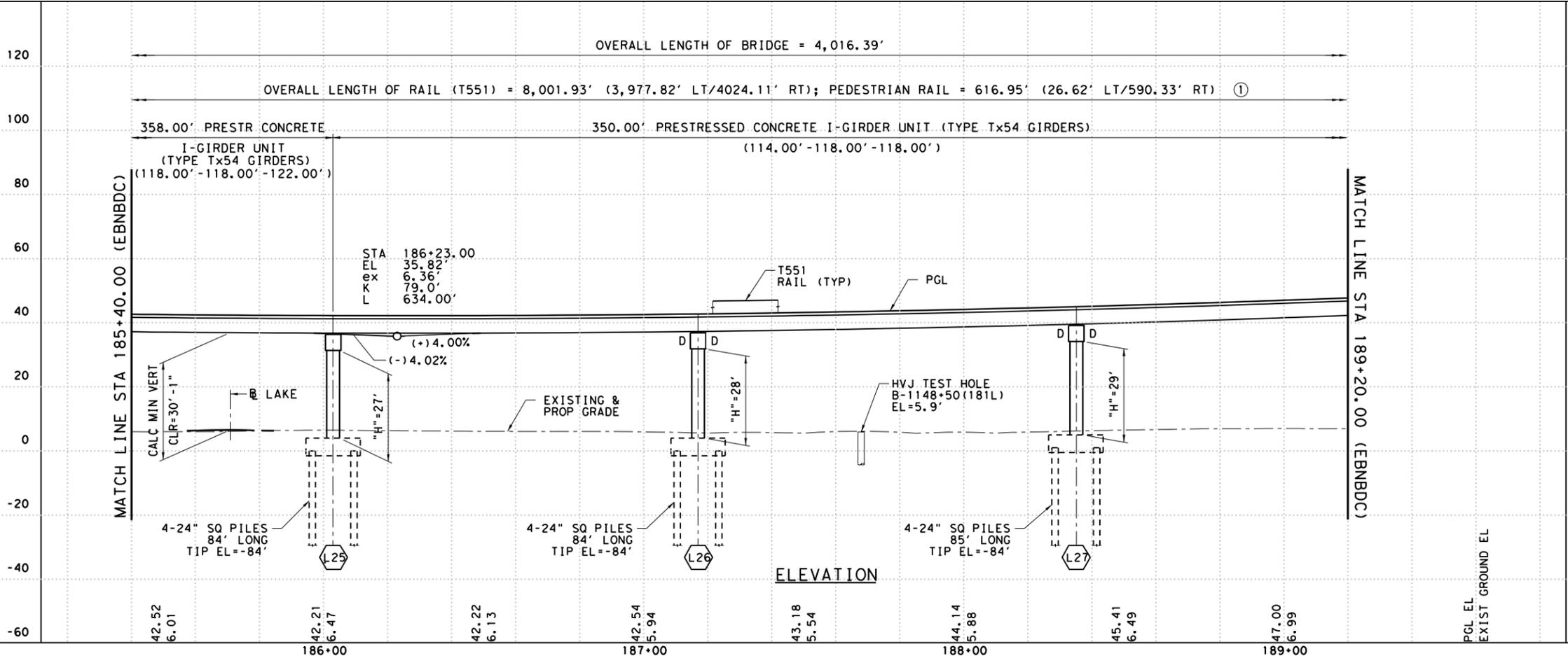
PSI BORE HOLE
 HVJ BORE HOLE

LEGEND

PROPOSED TRAFFIC FLOW
 EXISTING TRAFFIC FLOW

- NOTES:
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 ③ D.S. BROWN SEAL TYPE A2R-XTRA, SHOWN ON SEJ-A STANDARD SHEET, MUST BE USED AT THIS LOCATION.

FILE: c:\pwworking\stntec\dms76190\16HBRBL09.dgn
 DATE: 8/16/2017 TIME: 7:21:32 PM USER: rshinn



ELEVATION

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CESAR FERNANDES 98112 08/16/2017
 TBPE FIRM #F-4883 P.E. NO. DATE

HL-93 LOADING			
NO.	DATE	REVISION	APPROVED

Texas Department of Transportation

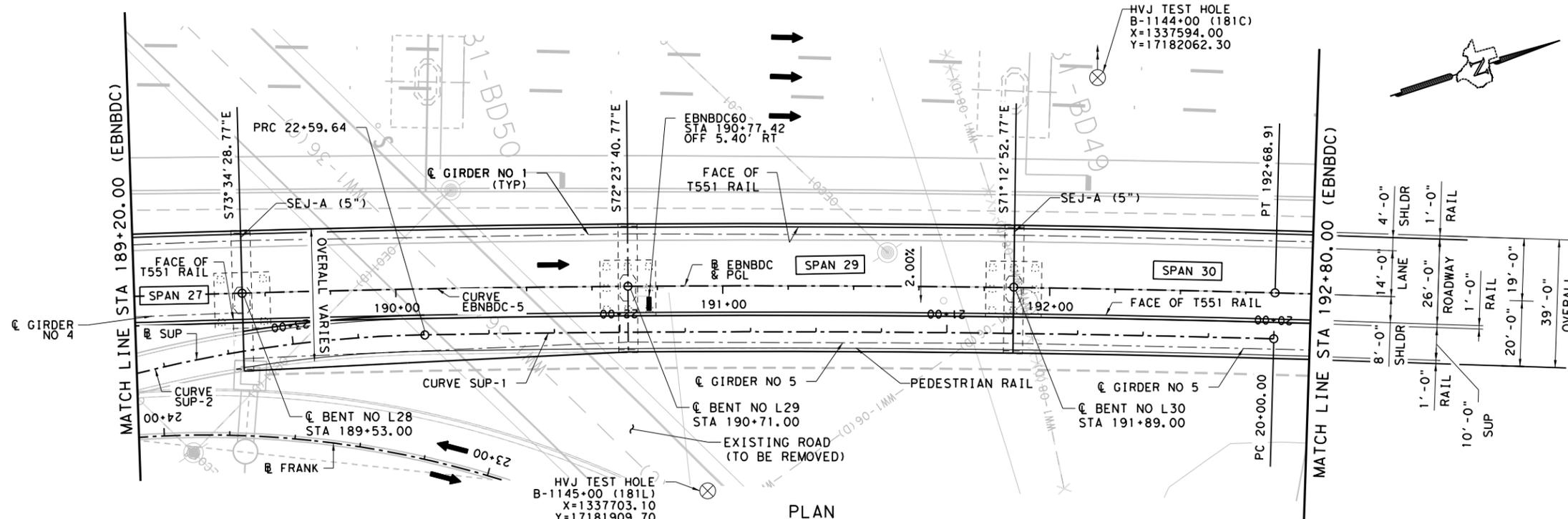
US 181 HARBOR BRIDGE
 BRIDGE LAYOUT

DIRECT CONNECTOR
 IH 37 SB TO US 181 NB
 BRIDGE 16, CONN "L"

SCALE: 1"=40'-0" SHEET 9 OF 11

DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS JLS	X	(See Title Sheet)		US 181
CHECK RLS	TEXAS	CRP	NUECES	RB16
CHECK CF	CONTROL	SECTION	JOB	009

- NOTES:**
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- ① INCLUDES ADDITIONAL RAIL LENGTH AT GORE AREAS.
④ 350.00' PRESTRESSED CONCRETE I-GIRDER UNIT (TYPE T_x54 GIRDERS) (114.00' - 118.00' - 118.00')



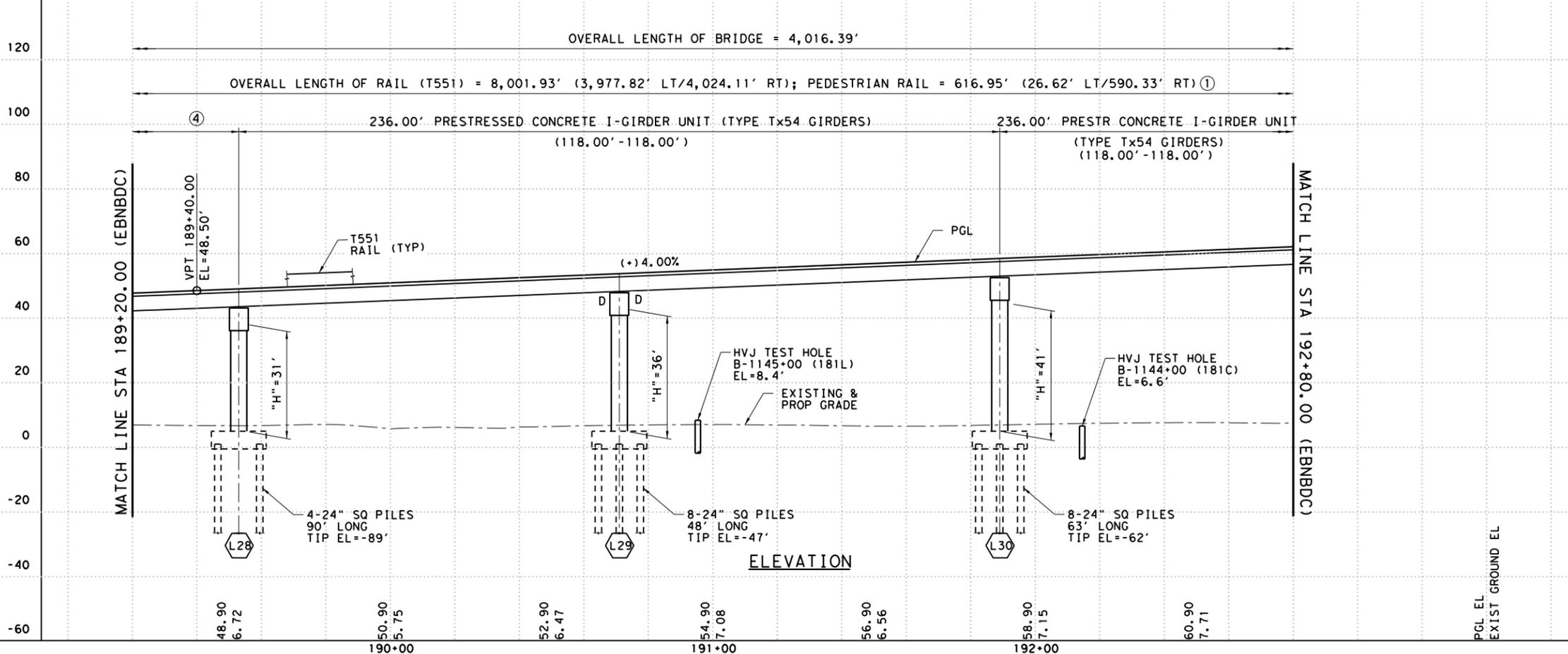
CURVE EBNBDC-5		CURVE SUP-1		CURVE SUP-2	
P. I. STATION	187+94.64	P. I. STATION	21+29.84	P. I. STATION	27+85.15
DELTA	09° 30' 25.81" (RT)	DELTA	02° 36' 09.83" (LT)	DELTA	107° 09' 06.01" (LT)
DEGREE	1° 00' 00.00"	DEGREE	1° 00' 08.82"	DEGREE	14° 46' 30.84"
TANGENT	476.45'	TANGENT	129.84'	TANGENT	525.51'
LENGTH	950.72'	LENGTH	259.64'	LENGTH	725.21'
RADIUS	5,729.58'	RADIUS	5,715.58'	RADIUS	387.78'
P. C. STATION	183+18.19	P. C. STATION	20+00.00	P. C. STATION	22+59.64
P. T. STATION	192+68.91	P. T. STATION	22+59.64	P. T. STATION	22+84.85

DESIGN DATA
 NBI NO XX-XXX-X-XXXX-XX-XXX
 FUNC CLASS: DIRECT CONNECTOR
 DESIGN SPEED: 45 MPH
 ADT: BRIDGE DC-L
 (2023) = 7,960
 (2035) = 9,380

ALL BENTS RADIAL TO ALIGNMENT UNLESS NOTED OTHERWISE

LEGEND

- ⊙ PSI BORE HOLE
- ⊗ HVJ BORE HOLE
- ➡ PROPOSED TRAFFIC FLOW
- ➠ EXISTING TRAFFIC FLOW



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CESAR FERNANDES 98112 08/16/2017
 TBPE FIRM #F-4883 P.E. NO. DATE

HL-93 LOADING			
NO.	DATE	REVISION	APPROVED

FLATIRON DRAGADOS LLC

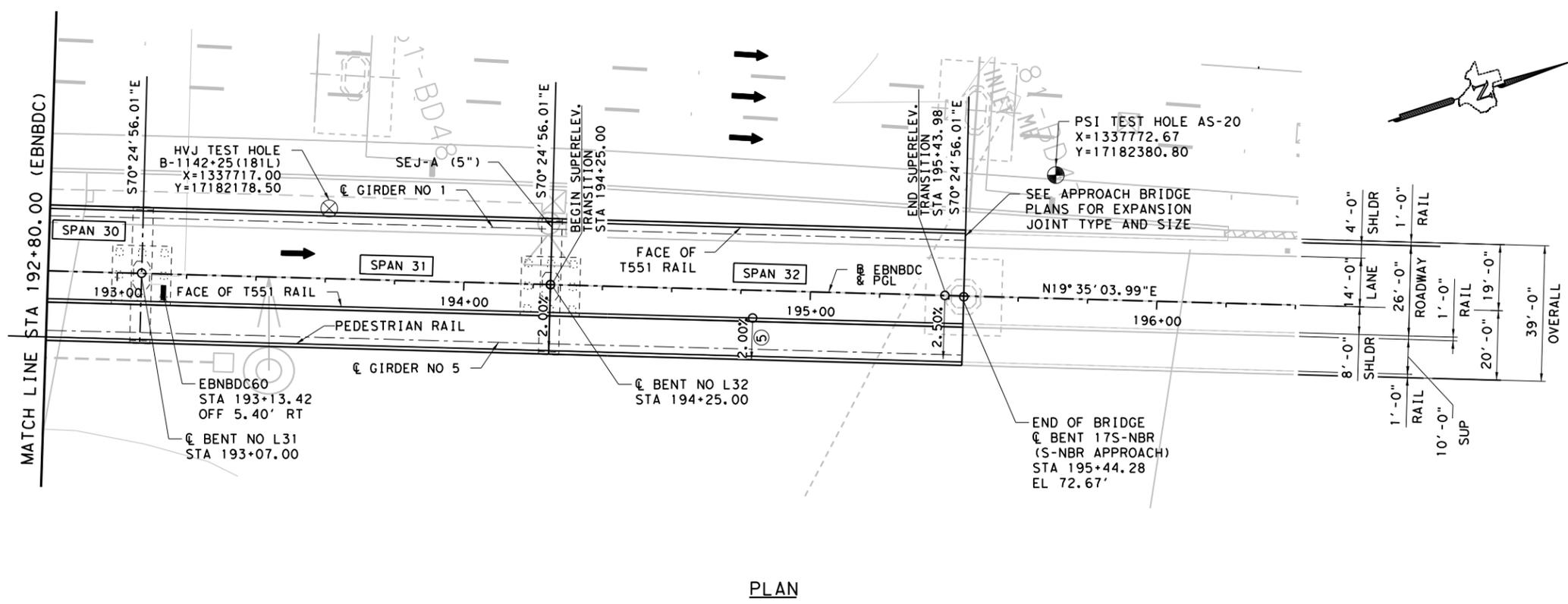
FIGG
TBPE, FIRM # F-4883

US 181 HARBOR BRIDGE
BRIDGE LAYOUT

DIRECT CONNECTOR
 IH 37 SB TO US 181 NB
 BRIDGE 16, CONN "L"

SCALE: 1" = 40' - 0"		SHEET 10 OF 11	
DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
GRAPHICS JLS	X	(See Title Sheet)	US 181
CHECK RLS	STATE TEXAS	DISTRICT CRP	COUNTY NUECES
CHECK CF	CONTROL 0101	SECTION 06	JOB 095
			SHEET NO. RB16 010

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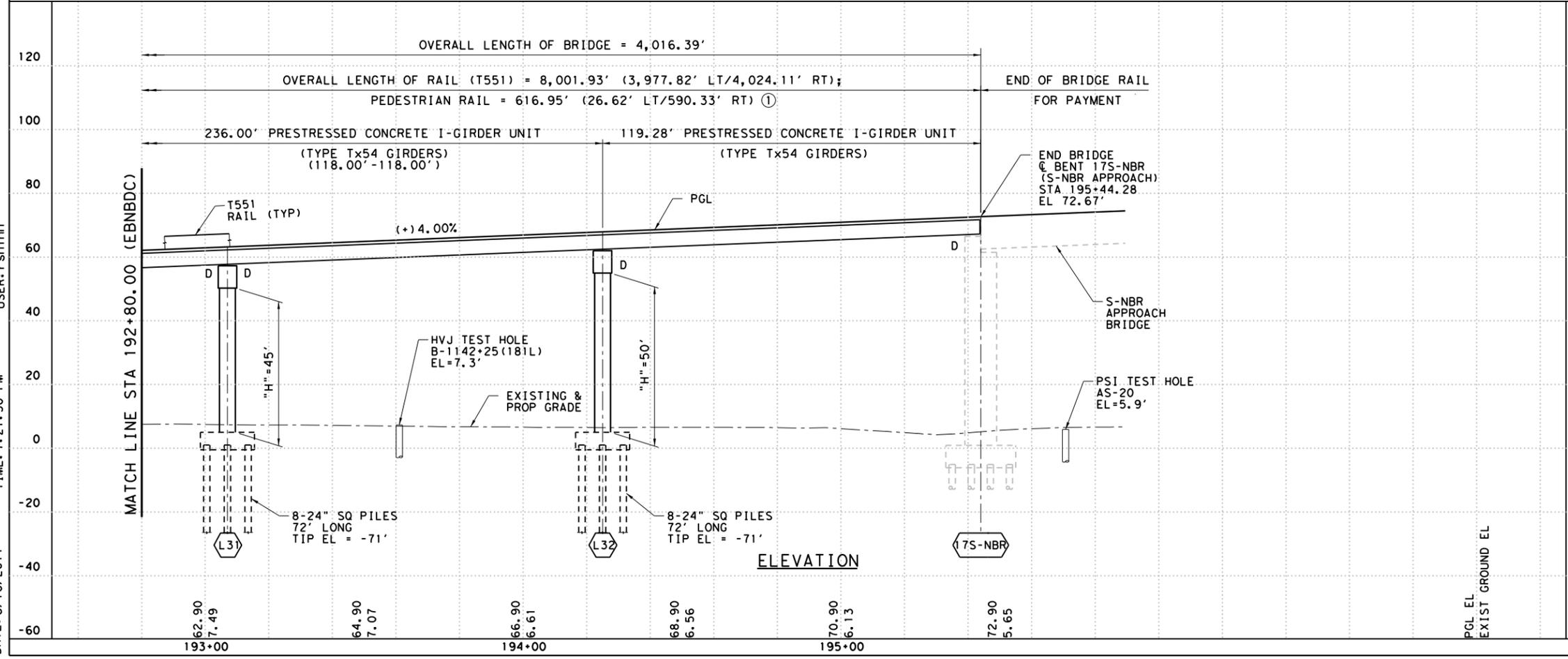
- NOTES:**
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- ① INCLUDES ADDITIONAL RAIL LENGTH AT GORE AREAS.
⑤ SUP CROSS SLOPE IS A CONSTANT 2.00% CROSS SLOPE WITH THE CROSS SLOPE BREAK OCCURRING AT THE FACE OF T551 RAIL.

DESIGN DATA
 NBI NO XX-XXX-X-XXXX-XX-XXX
 FUNC CLASS: DIRECT CONNECTOR
 DESIGN SPEED: 45 MPH
 ADT: BRIDGE DC-L
 (2023) = 7,960
 (2035) = 9,380

PLAN

ALL BENTS PERPENDICULAR TO ALIGNMENT UNLESS NOTED OTHERWISE

- LEGEND**
- ⊙ PSI BORE HOLE
 - ⊗ HVJ BORE HOLE
 - ➔ PROPOSED TRAFFIC FLOW
 - ➡ EXISTING TRAFFIC FLOW



ELEVATION

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HL-93 LOADING

NO.	DATE	REVISION	APPROVED

FLATIRON/DRAGADOS LLC

FIGG
 TBPE, FIRM # F-4883

Texas Department of Transportation 2017

US 181 HARBOR BRIDGE
BRIDGE LAYOUT

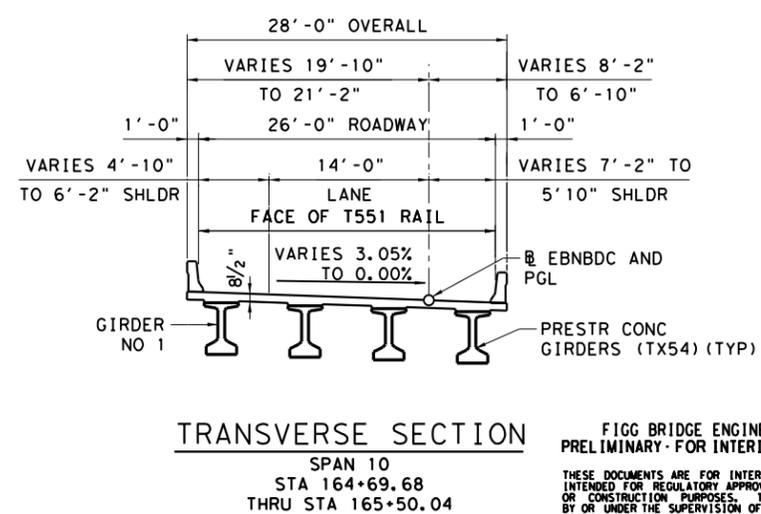
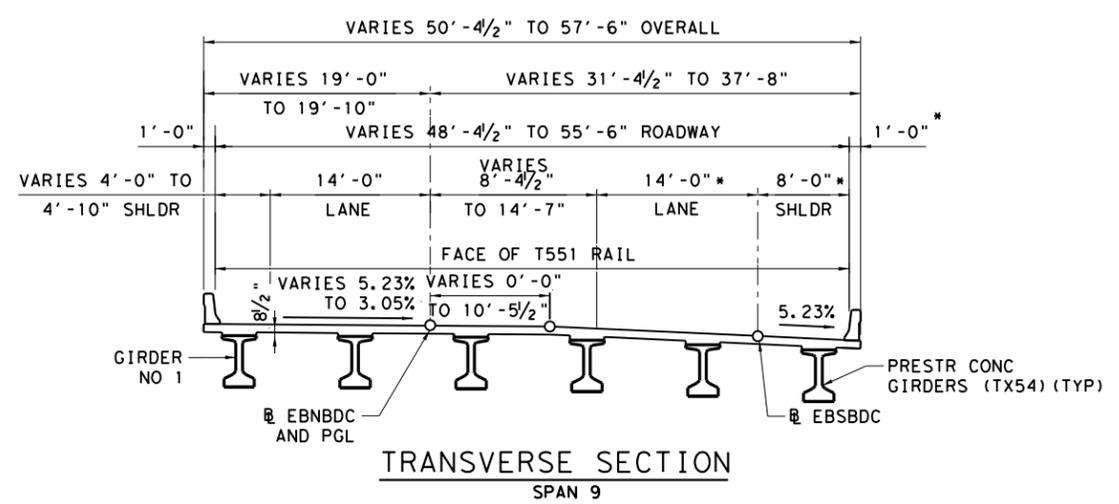
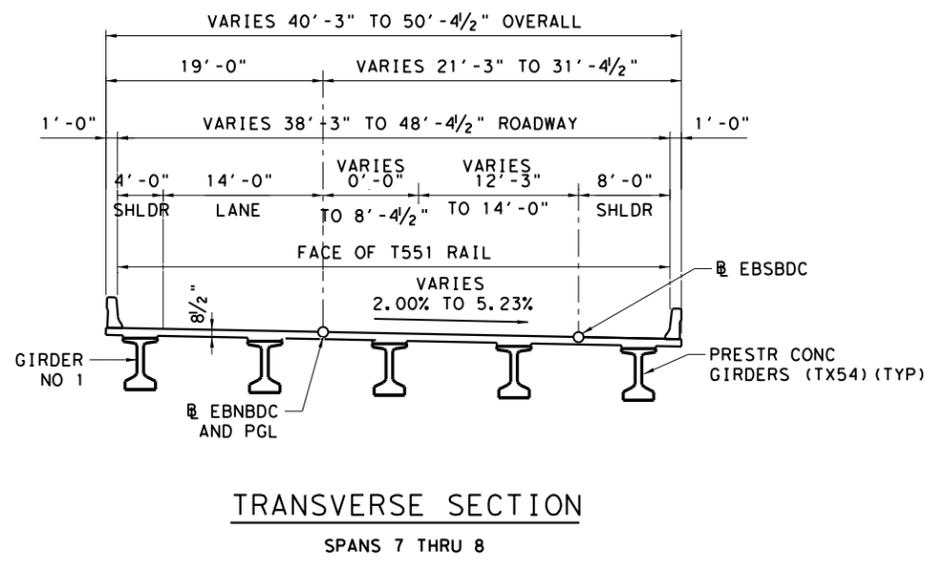
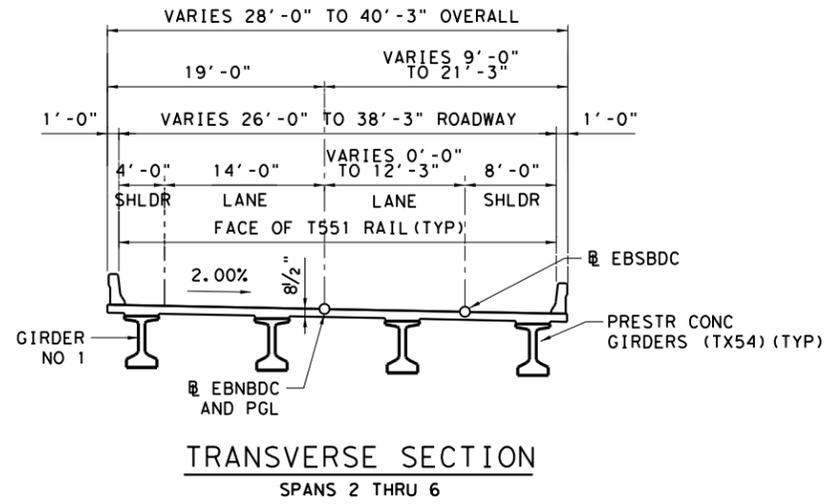
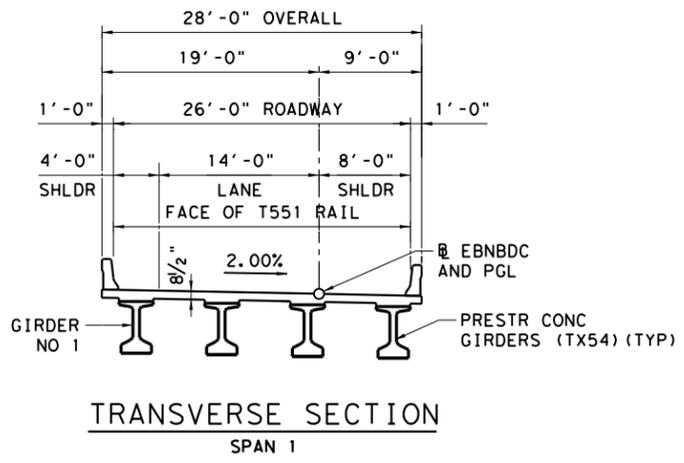
DIRECT CONNECTOR
 IH 37 SB TO US 181 NB
 BRIDGE 16, CONN "L"

SCALE: 1"=40'-0" SHEET 11 OF 11

DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS JLS	X	(See Title Sheet)		US 181
CHECK RLS	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CF	TEXAS	CRP	NUECES	RB16
	CONTROL	SECTION	JOB	011
	0101	06	095	

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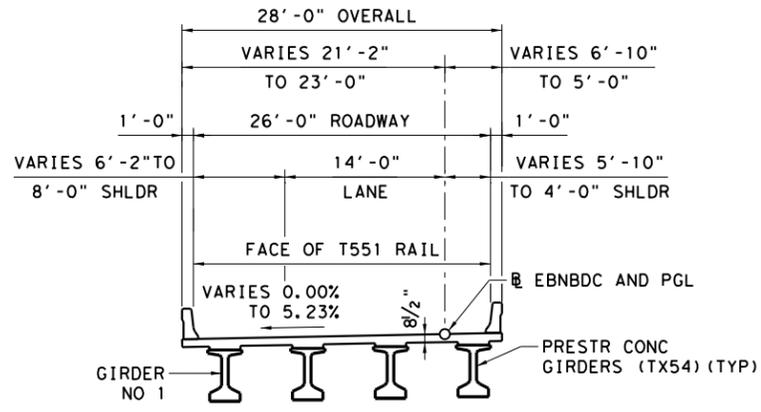
- NOTES:
1. SEE "GENERAL NOTES" SHEETS FOR GENERAL NOTES.
 - *2. ALL DIMENSIONS SHOWN ARE MEASURED PERPENDICULAR TO EBNBDC, EXCEPT AS NOTED BY "*" WHICH ARE MEASURED PERPENDICULAR TO EBSBDC.
 3. SEE T551 STANDARD FOR RAIL DETAILS.



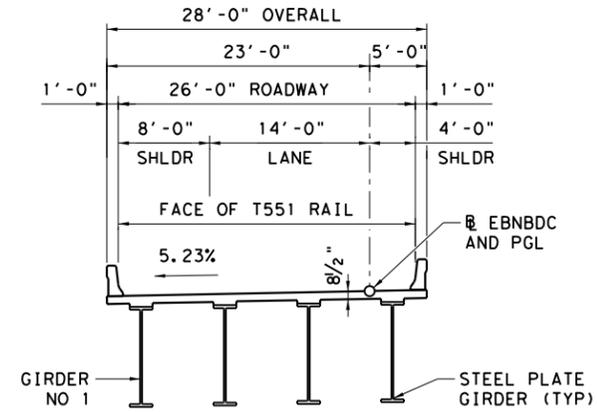
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TBPE FIRM #F-4883 P.E. NO. DATE

HL-93 LOADING

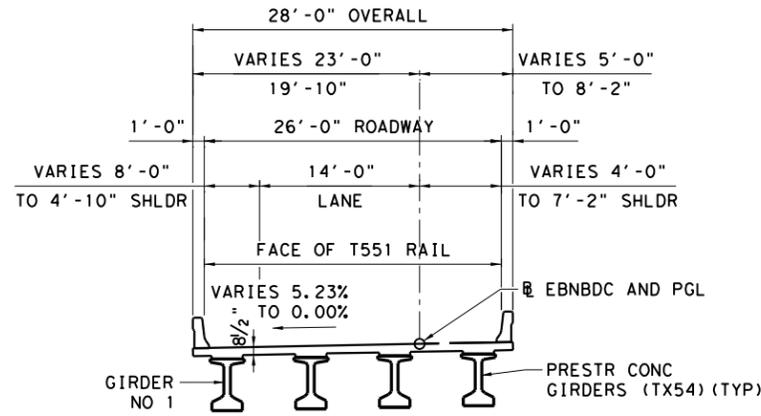
NO.	DATE	REVISION	APPROVED
US 181 HARBOR BRIDGE TYPICAL SECTIONS			
DIRECT CONNECTOR IH 37 SB TO US 181 NB BRIDGE 16, CONN "L"			
SCALE: 1/16" = 1'-0"		SHEET 1 OF 2	
DESIGN SNO	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	HIGHWAY NO.
GRAPHICS GAH	X	(See Title Sheet)	US 181
CHECK RLS	STATE TEXAS	DISTRICT CRP	COUNTY NUECES
CHECK	CONTROL	SECTION	JOB
CF	0101	06	095
			RB16 012



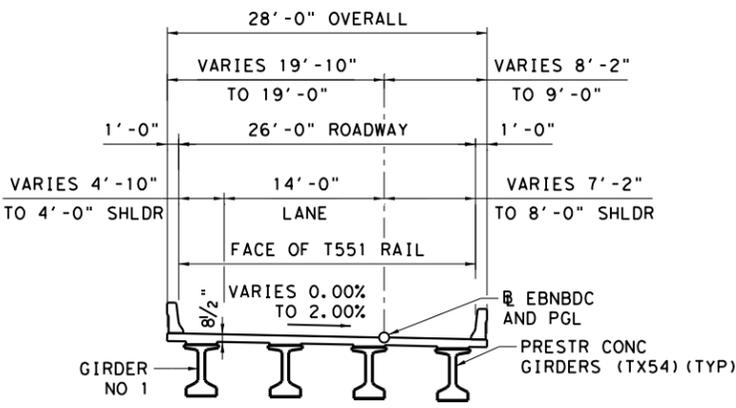
TRANSVERSE SECTION
 SPANS 10 THRU 13
 STA 165+50.04
 THRU STA 169+45.70



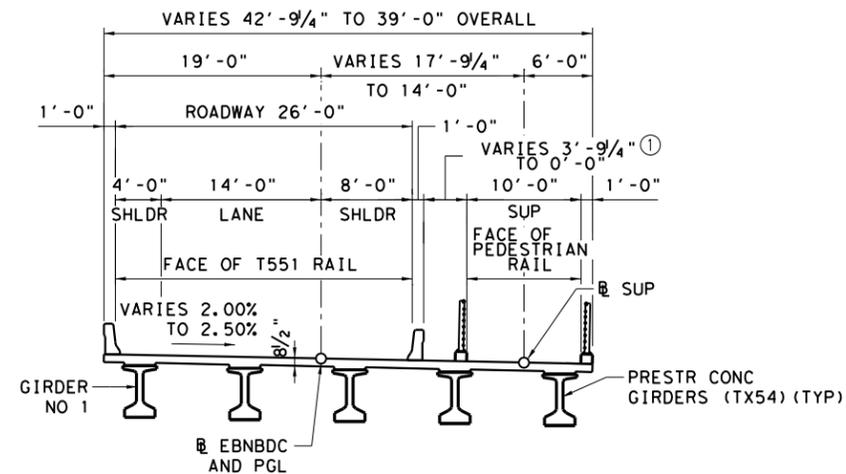
TRANSVERSE SECTION
 SPANS 14 THRU 18



TRANSVERSE SECTION
 SPANS 19 THRU 23
 STA 178+89.53
 THRU STA 184+17.63



TRANSVERSE SECTION
 SPAN 23 THRU 27
 SPA 184+17.63
 THRU STA 189+53.00



TRANSVERSE SECTION
 SPANS 28 THRU 32

① THE 1'-0" WIDE PEDESTRIAN RAIL SHOWN IN THE MIDDLE OF THE TRANSVERSE SECTION FOR SPANS 28 THRU 32 WILL MERGE WITH THE T551 BARRIER IN SPAN 28 AT STA 189+79.52.

HL-93 LOADING

NO.	DATE	REVISION	APPROVED

FLATIRON DRAGADOS LLC

FIGG
TBPE, FIRM # F-4883

Texas Department of Transportation

US 181 HARBOR BRIDGE
TYPICAL SECTIONS

DIRECT CONNECTOR
 IH 37 SB TO US 181 NB
 BRIDGE 16, CONN "L"

SCALE: 1/16" = 1'-0" SHEET 2 OF 2

DESIGN SNO	FED. RD. DIV. NO. X	FEDERAL AID PROJECT NO. (See Title Sheet)		HIGHWAY NO. US 181
GRAPHICS GAH	STATE TEXAS	DISTRICT CRP	COUNTY NUECES	SHEET NO. RB16
CHECK RLS	CONTROL	SECTION	JOB	013
CHECK CF	0101	06	095	

FIGG BRIDGE ENGINEERS, INC.
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 CESAR FERNANDES 98112 08/16/2017
 TBPE FIRM #F-4883 P.E. NO. DATE