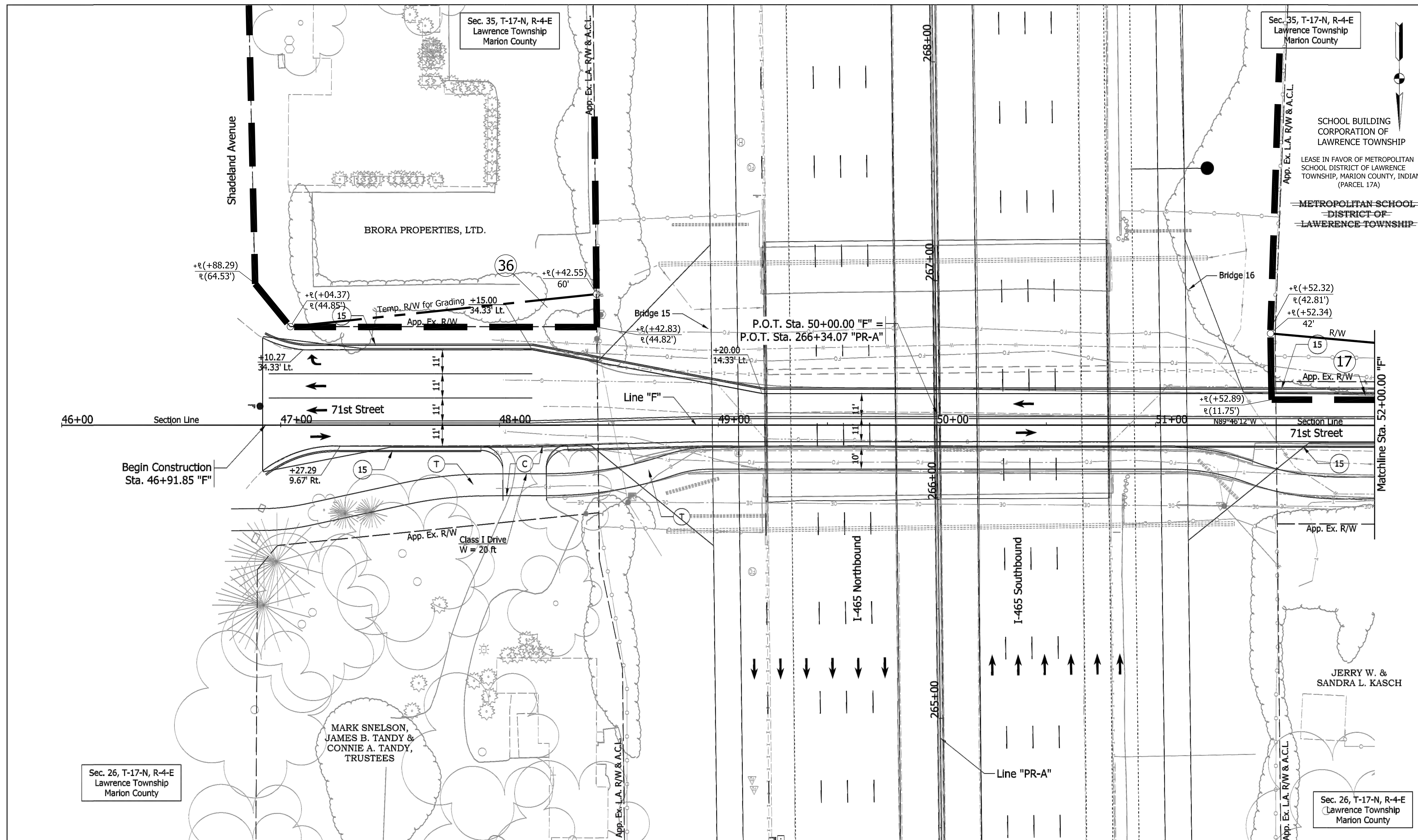


# Appendix B

## Graphics

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**PARSONS**  
 101 W. Ohio St., Suite 2121  
 Indianapolis, IN 46204  
 Bus (317) 616-1000  
 Fax (317) 616-1033

- C 6" PCCP or Drives
- T HMA for Sidewalk
- 15 Concrete Curb & Gutter

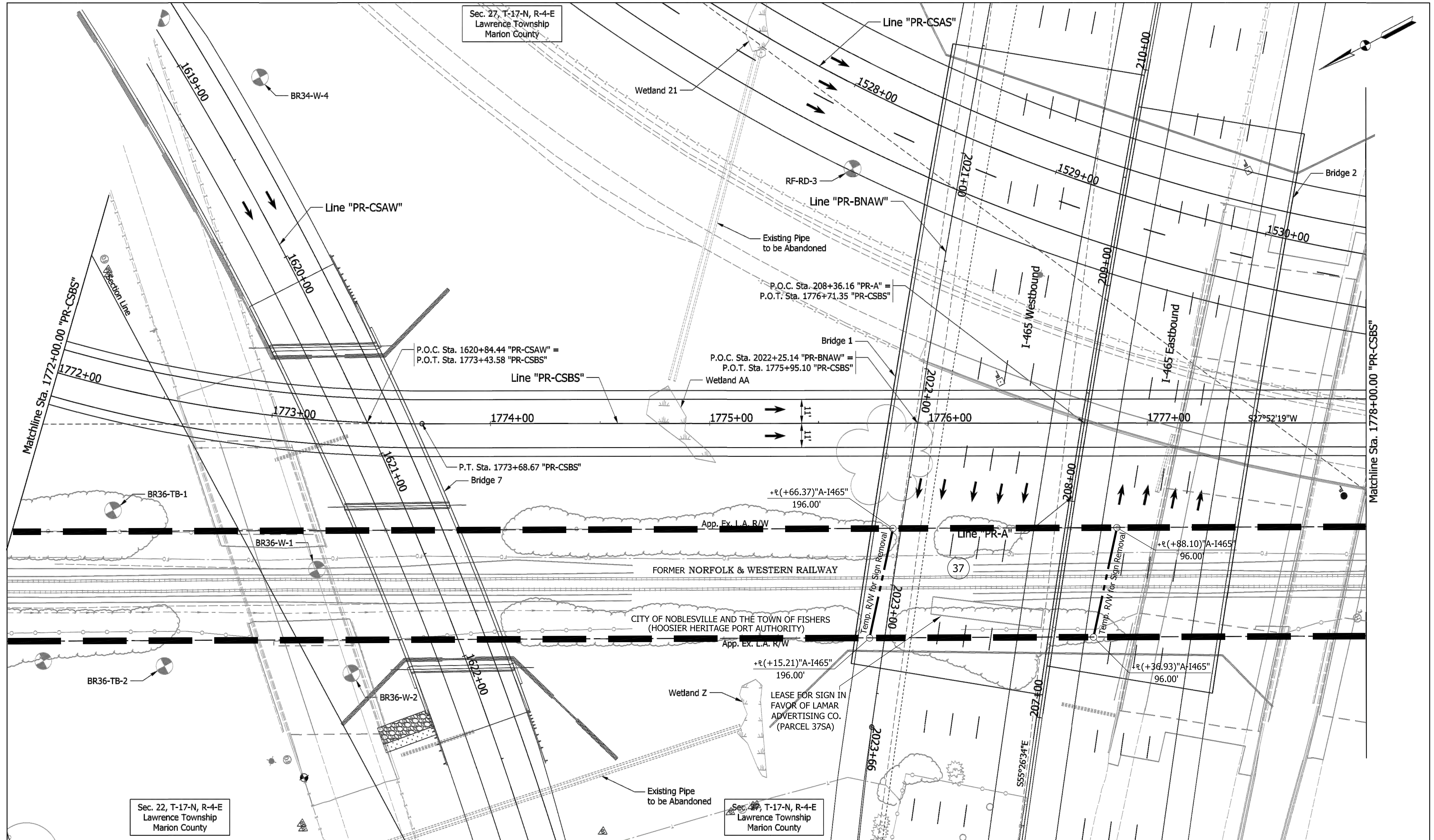


RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: KAP	DRAWN: SJC	
CHECKED: CAC	CHECKED: CAC	

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
**PLAN SHEET**  
**LINE "F"**  
 STA. 46+00.00 TO STA. 52+00.00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1400075
SURVEY BOOK	SHEETS
ELECTRONIC	of
CONTRACT	PROJECT
R-38526	1400075

IP\_PWP:dms22264\465-169 Sht\_Plan\_PR-F\_01.dgn



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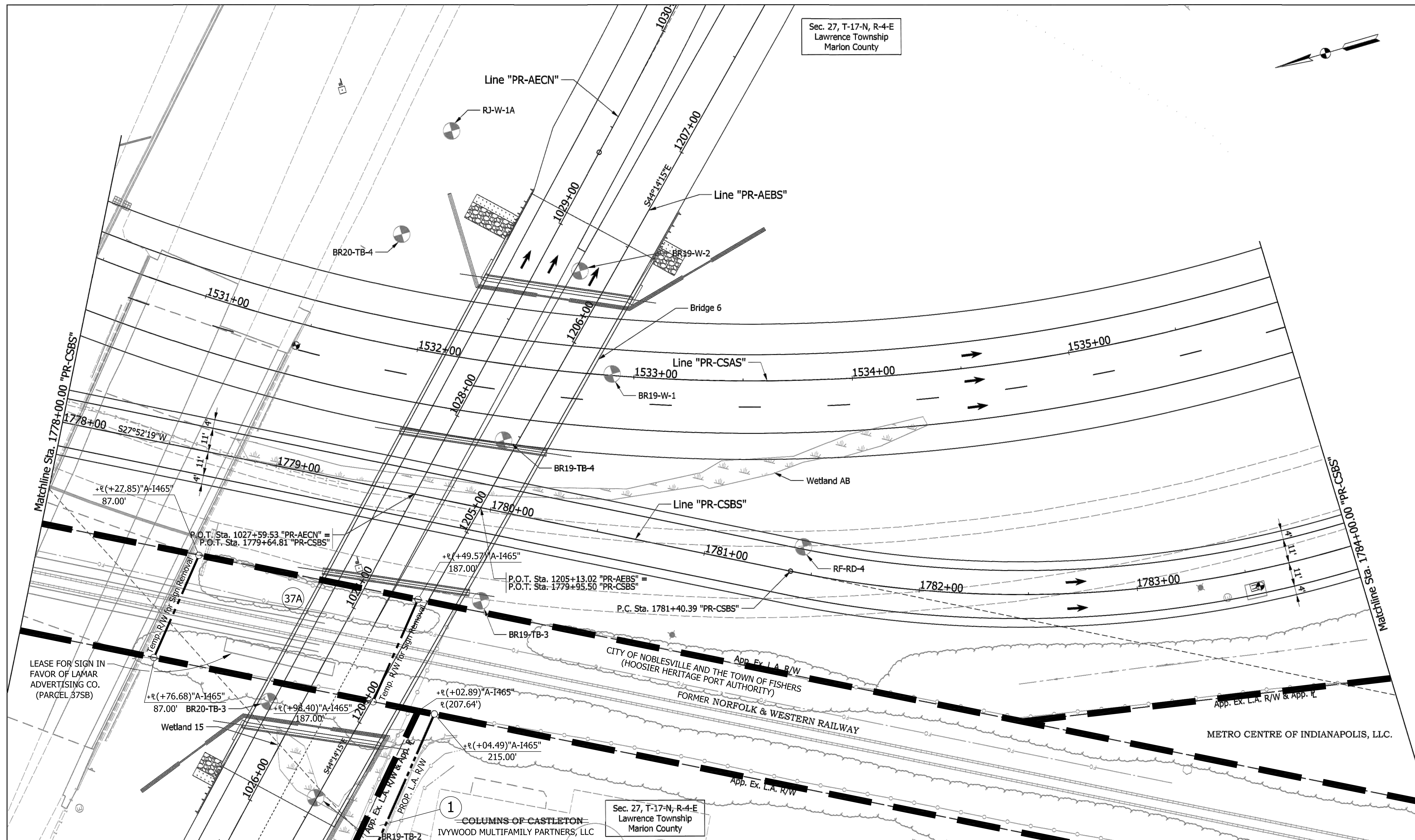
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DESIGNED: KAP	DRAWN: SJC	
CHECKED: CAC	CHECKED: CAC	

INDIANA  
DEPARTMENT OF TRANSPORTATION

PLAN SHEET  
LINE "PR-CSBS"  
STA. 1772+00.00 TO STA. 1778+00.00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1400075
SURVEY BOOK	SHEETS
ELECTRONIC	of
CONTRACT	PROJECT
R-38526	1400075

IP\_PWP:dms22264\465-169\_Sht\_Plan\_PR-CSBS\_13.dgn



Sec. 27, T-17-N, R-4-E  
Lawrence Township  
Marion County

Sec. 27, T-17-N, R-4-E  
Lawrence Township  
Marion County

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Fax (317) 616-1033



RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: KAP	DRAWN: SJC	
CHECKED: CAC	CHECKED: CAC	

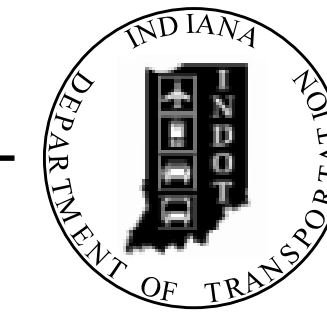
INDIANA  
DEPARTMENT OF TRANSPORTATION  
  
PLAN SHEET  
LINE "PR-CSBS"  
STA. 1778+00.00 TO STA. 1784+00.00

HORIZONTAL SCALE 1" = 20'	BRIDGE FILE
VERTICAL SCALE N/A	DESIGNATION 1400075
SURVEY BOOK ELECTRONIC	SHEETS of
CONTRACT R-38526	PROJECT 1400075

IP\_PWP:dms22264\1465-169\_Sht\_Plan\_PR-CSBS\_14.dgn

PROJECT	DESIGNATION
1400075	1801667 & 1801668
CONTRACT	BRIDGE FILE
R-38526	I465-125-10426 WBL & 10427 EBL

# INDIANA DEPARTMENT OF TRANSPORTATION



TRAFFIC DATA I-465 WB		TRAFFIC DATA I-465 EB	
A.A.D.T. (2020)	51,200 V.P.D.	A.A.D.T. (2020)	42,900 V.P.D.
A.A.D.T. (2040)	57,700 V.P.D.	A.A.D.T. (2040)	48,300 V.P.D.
D.H.V (2040)	5,770 V.P.H.	D.H.V (2040)	4,830 V.P.H.
DIRECTIONAL DISTRIBUTION	100 %	DIRECTIONAL DISTRIBUTION	100 %
TRUCKS	17% A.A.D.T. 15% D.H.V.	TRUCKS	20% A.A.D.T. 20% D.H.V.

DESIGN DATA		DESIGN DATA	
DESIGN SPEED	70 M.P.H.	DESIGN SPEED	70 M.P.H.
PROJECT DESIGN CRITERIA	RECONSTRUCTION (FREEWAY)	PROJECT DESIGN CRITERIA	RECONSTRUCTION (FREEWAY)
FUNCTIONAL CLASSIFICATION	FREEWAY	FUNCTIONAL CLASSIFICATION	FREEWAY
RURAL/URBAN	URBAN (INTERMEDIATE)	RURAL/URBAN	URBAN (INTERMEDIATE)
TERRAIN	LEVEL	TERRAIN	LEVEL
ACCESS CONTROL	FULL	ACCESS CONTROL	FULL

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
I465-125-10426 WBL	Continuous Composite Prestressed Concrete Bulb-Tee Beam Bridge	3 Spans: 82'-0", 104'-0", 99'-0" Skew: Square	I-69 SB to SB I-465 Ramp, I-69 SB to SB Binford Ramp, HHPA RR	208+53.95 "PR-A"
I465-125-10427 EBL	Continuous Composite Prestressed Concrete Bulb-Tee Beam Bridge	3 Spans: 82'-0", 82'-0", 93'-0" Skew: Square	I-69 SB to SB I-465 Ramp, I-69 SB to SB Binford Ramp, HHPA RR	208+53.33 "PR-A"

## BRIDGE PLANS

Excerpts

FOR SPANS OVER 20 FEET

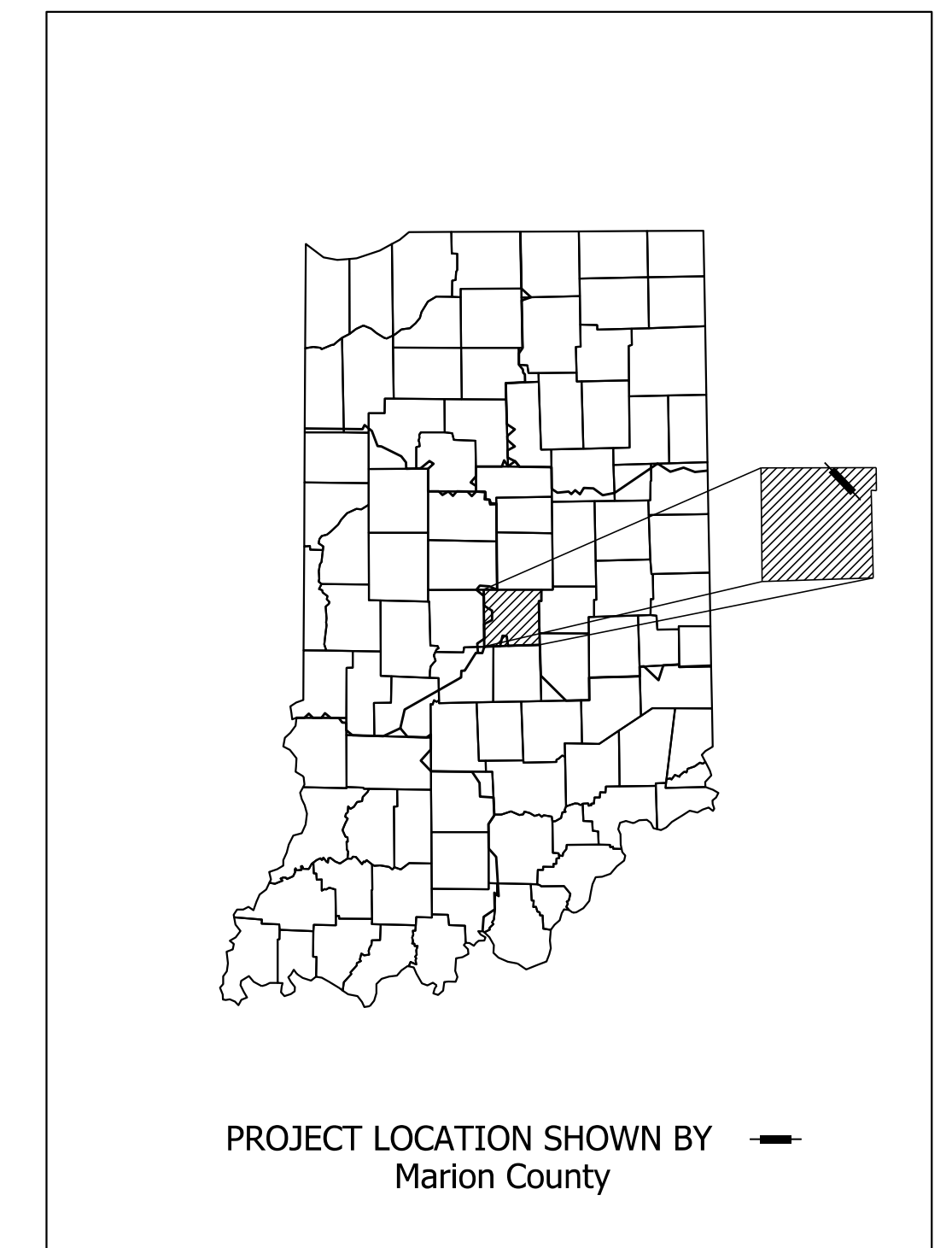
ROUTE: I-465 AT: RP 36+68

PROJECT NO. 1400075 P.E.  
1400075 R/W  
1400075 CONST.

Bridge Replacement on I-465 WB and I-465 EB over I-69 SB to SB I-465 Ramp, I-69 SB to SB Binford Ramp, HHPA RR  
Located 0.19 Miles North of Binford Blvd.  
Section 27, T-17-N, R-4-E, Lawrence Township, Marion County, Indiana

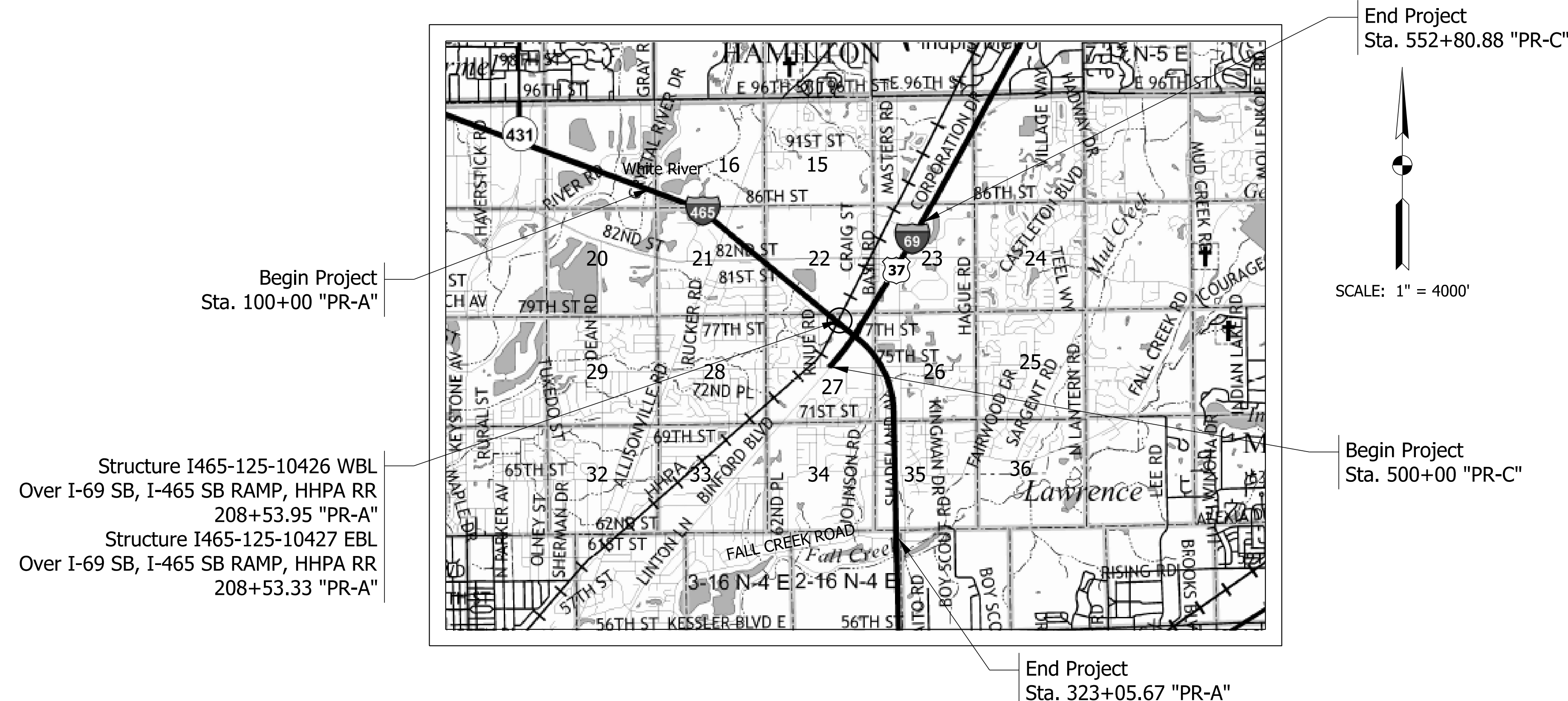
KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
* 1400075	I-465 / I-69 Interchange Modification and Added Travel Lanes
1801669	I-465 WB over I-69/Binford/I-465 EB to I-69 NB
1801670	I-465 EB over I-69/Binford/I-465 EB to I-69 NB
1801671	I-69 SB to I-465 SB ramp over NB Binford Blvd.
1801672	I-465 SB ramp over NB Binford/I-465 EB to SB Binford
1801673	I-69 SB to I-465 WB over RR/SB Binford
1801674	I-465 NB to I-69 NB over NB Binford
1801675	I-69 NB C-D Ramp to 82nd St over 82nd St
1801662	Str. I69-200-05307 BNBL
1801663	Str. I69-200-05307 JCSBL
1801676	82nd St SB ramp to SB Binford over 82nd
1801677	I-69 SB to SB Binford over 82nd St.
1801678	I-69 SB to SB Binford over 82nd St. on-ramp
1801664	Str. I465-124-05268 CNBL, I-465 NB over 71st St
1801665	Str. I465-124-05268 CSBL, I-465 SB over 71st St
1901992	General Des Number for all Traffic / ITS / Lighting elements
1901993	Signal Modification at 82nd Street / SB I-69 ramp terminals
1901994	Signal Modification at 82nd Street / NB I-69 ramp terminals
1901995	Signal Modification at Binford Boulevard / 75th Street
1901996	New Traffic Signal at the SB I-69 to Binford Boulevard ramp and EB I-465 to SB Binford Boulevard ramp intersection
1901997	Sanitary Sewer Replacement, Off-Line, Work done in-contract

\* Indicates Lead Des. No.



LATITUDE: 39° 53' 49" LONGITUDE: 86° 03' 24"

BRIDGE LENGTH:	0.057 EB/ 0.062 WB	MI.
ROADWAY LENGTH:	See Roadway Plans	MI.
TOTAL LENGTH:	See Roadway Plans	MI.
MAX. GRADE:	2.22	%



INDIANA DEPARTMENT OF TRANSPORTATION  
STANDARD SPECIFICATIONS DATED 2020  
TO BE USED WITH THESE PLANS.

**PARSONS**

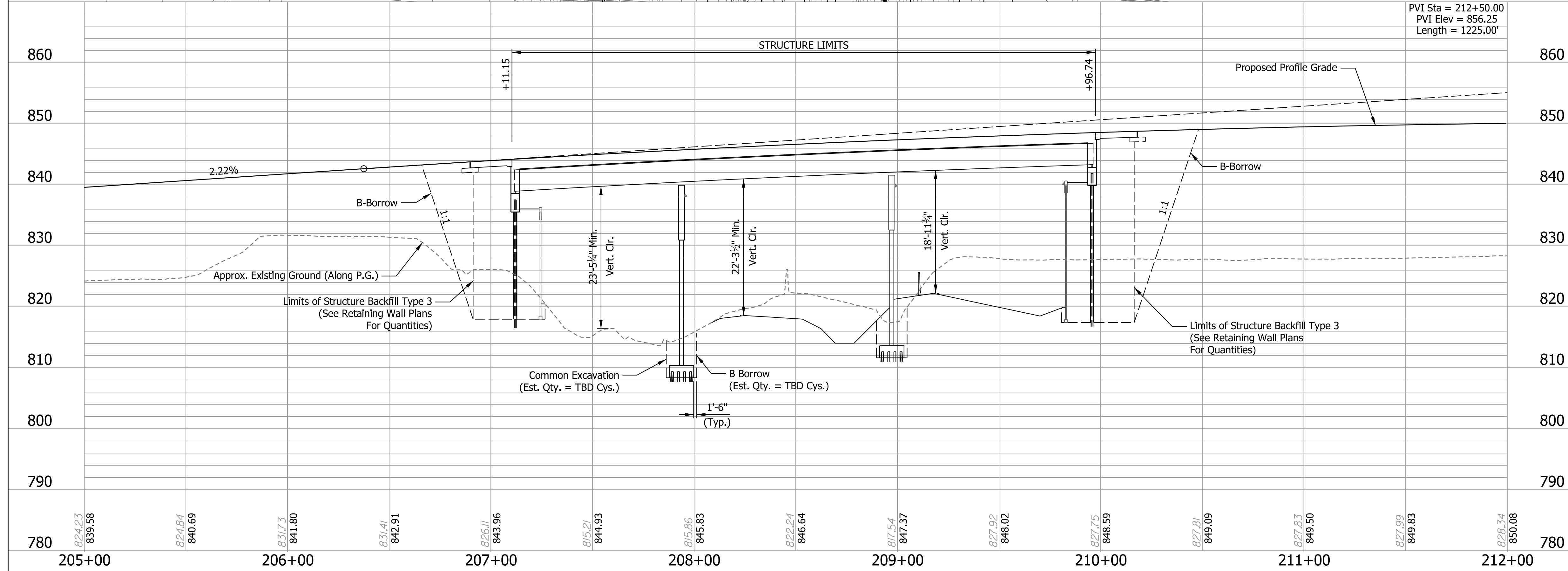
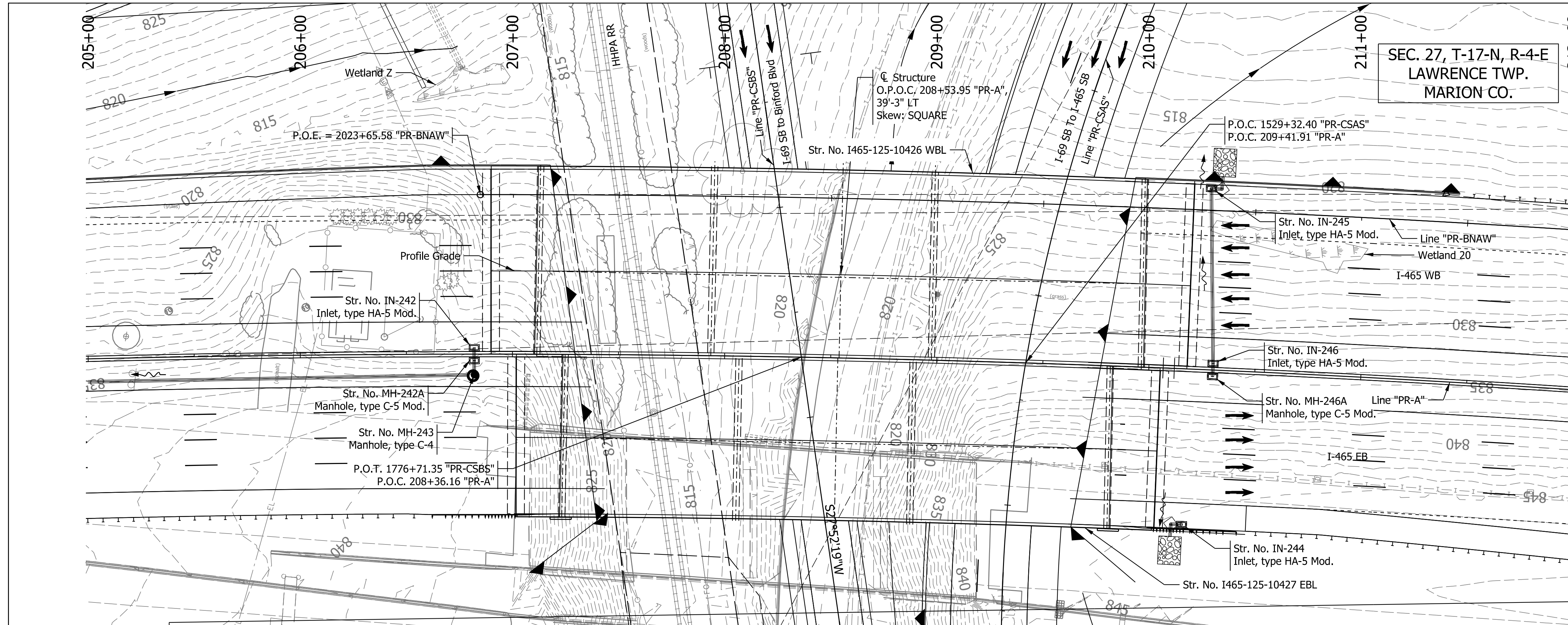
101 W. Ohio St., Suite 2121  
Indianapolis, IN 46204  
Bus (317) 616-1000  
Fax (317) 616-1033



PLANS PREPARED BY:	PARSONS	317-616-1000
		PHONE NUMBER
CERTIFIED BY:		DATE
APPROVED FOR LETTING:		DATE
	INDIANA DEPARTMENT OF TRANSPORTATION	

BRIDGE FILE	
I465-125-10426 WBL & 10427 EBL	
DESIGNATION	
1801667 & 1801668	
SURVEY BOOK	SHEETS
ELECTRONIC	1 of 18
CONTRACT	PROJECT
R-38526	1400075

pw://VANVA01PWINT01.parsons.com:Indiana State/Documents/I465-69 Interchange Design/30 - Design/01 - Parsons/CAD/Bridge/Bridge Num/Sheets/I465-69\_B001-8002\_BR\_SHT\_Title.dgn  
14-MAY-2020



DESIGNED: ZMR	DRAWN: EWM	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE 1465-125-10426 WBL
CHECKED: AAH	CHECKED: AAH		VERTICAL SCALE 1" = 10'	DESIGNATION 1801667
			LAYOUT WESTBOUND STRUCTURE	SURVEY BOOK ELECTRONIC

SFILES  
14-MAY-2020

SEC. 27, T-17-N, R-4-E  
LAWRENCE TWP.  
MARION CO.

CURVE 3 DATA  
PI = 219+82.65 "PR-A"  
Delta = 21°37'43" Rt.  
D = 0°43'48"  
R = 7850.00 ft  
T = 1499.49 ft  
L = 2963.29 ft  
E = 141.93 ft  
SE = 2.8%

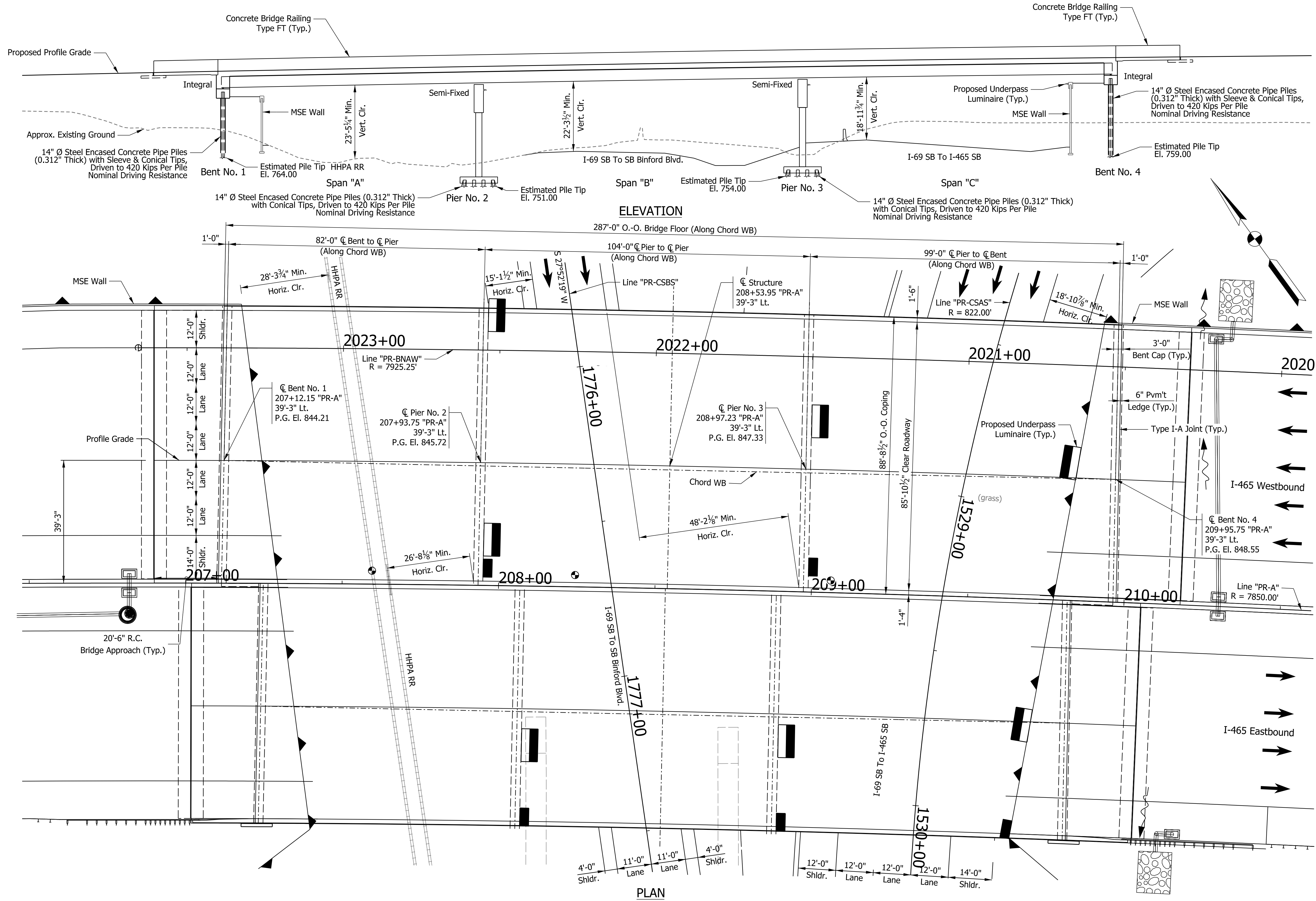
**EXISTING STRUCTURE**  
The existing continuous composite steel beam bridge was built in 1968 with 4 spans: 41'-0", 55'-6", 55'-6" and 41'-0" with a 64'-7" min. clear roadway reinforced concrete deck. Existing structure to be removed.

NOTES:  
For Utility Contacts see Index Sheet No.2.  
For R/W, MSE Wall, Earthwork, Cross-Sections and Additional information, See Roadway Plans Des. No. 1400075.

**Bridge 1**

CONTINUOUS COMPOSITE PRESTRESSED  
CONCRETE BULB-TEE BEAM BRIDGE  
3 SPANS: 82'-0", 104'-0", 99'-0"  
85'-10 1/2" CLEAR ROADWAY; SKEW: SQUARE  
I-465 WB OVER I-69 SB TO SB I-465 RAMP, I-69  
SB TO SB BINFORD RAMP, HHPA RR  
MARION COUNTY

STRUCTURE TO BE BUILT TO A 1225' VC



GENERAL NOTES

Reinforcing steel covering shall be 2 1/2" in Top and 1" min. In bottom of floor slabs, 3" in footing except bottom steel which shall be 4", and 2" in all other parts, unless noted.

DESIGN DATA

Superstructure & Substructure Designed for HL-93 Loading in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, and its subsequent interims.

DEAD LOAD

Actual weight plus 35 psf. of future wearing surface and 15 psf for SIP Metal deck forms.

FLOOR SLAB

Designed with a 7/8" structural depth, and a 1/2" integral wearing surface.

DESIGN STRESSES

CONCRETE	
Prestressed Concrete	f <sub>c</sub> = 8,000 p.s.i.
Class "A" Concrete	f <sub>c</sub> = 3,500 p.s.i.
Class "B" Concrete	f <sub>c</sub> = 3,000 p.s.i.
Class "C" Concrete	f <sub>c</sub> = 4,000 p.s.i.

REINFORCING STEEL	
Grade 60	f <sub>y</sub> = 60,000 p.s.i.

CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be located 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

DECK FALSEWORK LOADS

Designed for 15 lb/Sft for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

CONSTRUCTION LIVE LOAD

Designed for 20 lb/Sft extending 2-ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

FINISHING MACHINE LOAD

4500 lb distributed over 10-ft along the coping.

WIND LOAD

Structure Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

SEISMIC DESIGN DATA

Seismic Performance Zone	Zone 1
Acceleration Coefficient (S <sub>D1</sub> )	0.117 g
Seismic Soil Profile Type	Site Class D

⊙ - Point Of Minimum Vertical Clearance

CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BULB-TEE BEAM BRIDGE  
 3 SPANS: 82'-0", 104'-0", 99'-0"  
 85'-10 1/2" CLEAR ROADWAY; SKEW: SQUARE  
 I-465 WB OVER I-69 SB TO SB I-465 RAMP, I-69 SB TO SB BINFORD RAMP, HHPA RR  
 MARION COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE	
			1/16" = 1'-0"	1465-125-10426 WBL	
			VERTICAL SCALE	DESIGNATION	
			1/16" = 1'-0"	1801667	
DESIGNED: ZMR	DRAWN: EWM	GENERAL PLAN WESTBOUND STRUCTURE		SURVEY BOOK	SHEETS
CHECKED: AAH	CHECKED: AAH			ELECTRONIC	14 of 18
				CONTRACT	PROJECT
				R-38526	1400075

SFILES 14-MAY-2020





STRUCTURE TO BE BUILT TO 1225' VC

GENERAL NOTES

Reinforcing steel covering shall be 2 1/2" in Top and 1" min. In bottom of floor slabs, 3" in footing except bottom steel which shall be 4", and 2" in all other parts, unless noted.

DESIGN DATA

Superstructure & Substructure Designed for HL-93 Loading in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, and its subsequent interims.

DEAD LOAD

Actual weight plus 35 psf. of future wearing surface and 15 psf for SIP Metal deck forms.

FLOOR SLAB

Designed with a 7 1/2" structural depth, and a 1/2" integral wearing surface.

DESIGN STRESSES

CONCRETE

Prestressed Concrete f<sub>c</sub> = 8,000 p.s.i.  
 Class "A" Concrete f<sub>c</sub> = 3,500 p.s.i.  
 Class "B" Concrete f<sub>c</sub> = 3,000 p.s.i.  
 Class "C" Concrete f<sub>c</sub> = 4,000 p.s.i.

REINFORCING STEEL

Grade 60 f<sub>y</sub> = 60,000 p.s.i.

CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be located 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

DECK FALSEWORK LOADS

Designed for 15 lb/Sft for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

CONSTRUCTION LIVE LOAD

Designed for 20 lb/Sft extending 2-ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

FINISHING MACHINE LOAD

4500 lb distributed over 10-ft along the coping.

WIND LOAD

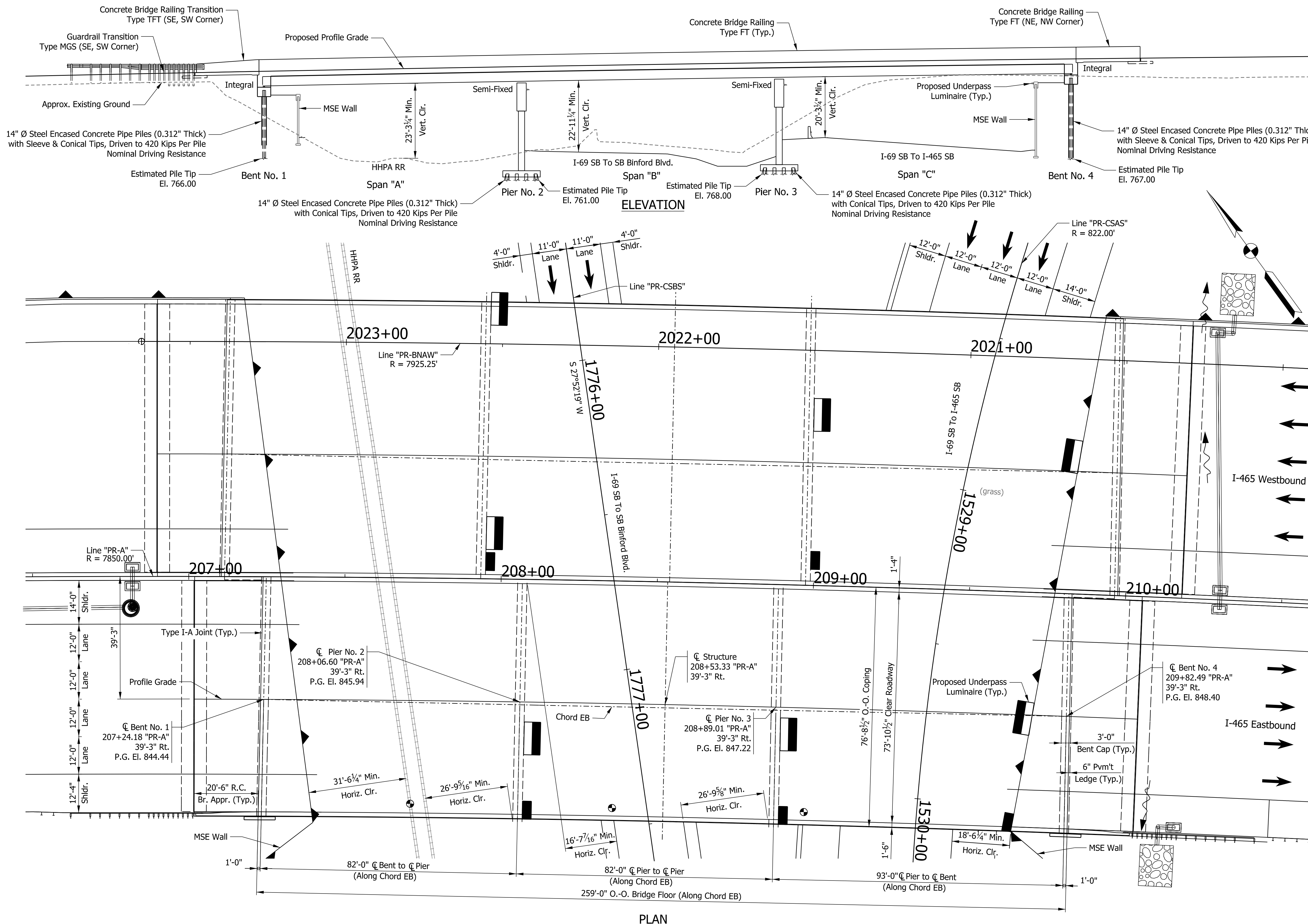
Structure Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

SEISMIC DESIGN DATA

Seismic Performance Zone Zone 1  
 Acceleration Coefficient (S<sub>D1</sub>) 0.117 g  
 Seismic Soil Profile Type Site Class D

● Point Of Minimum Vertical Clearance

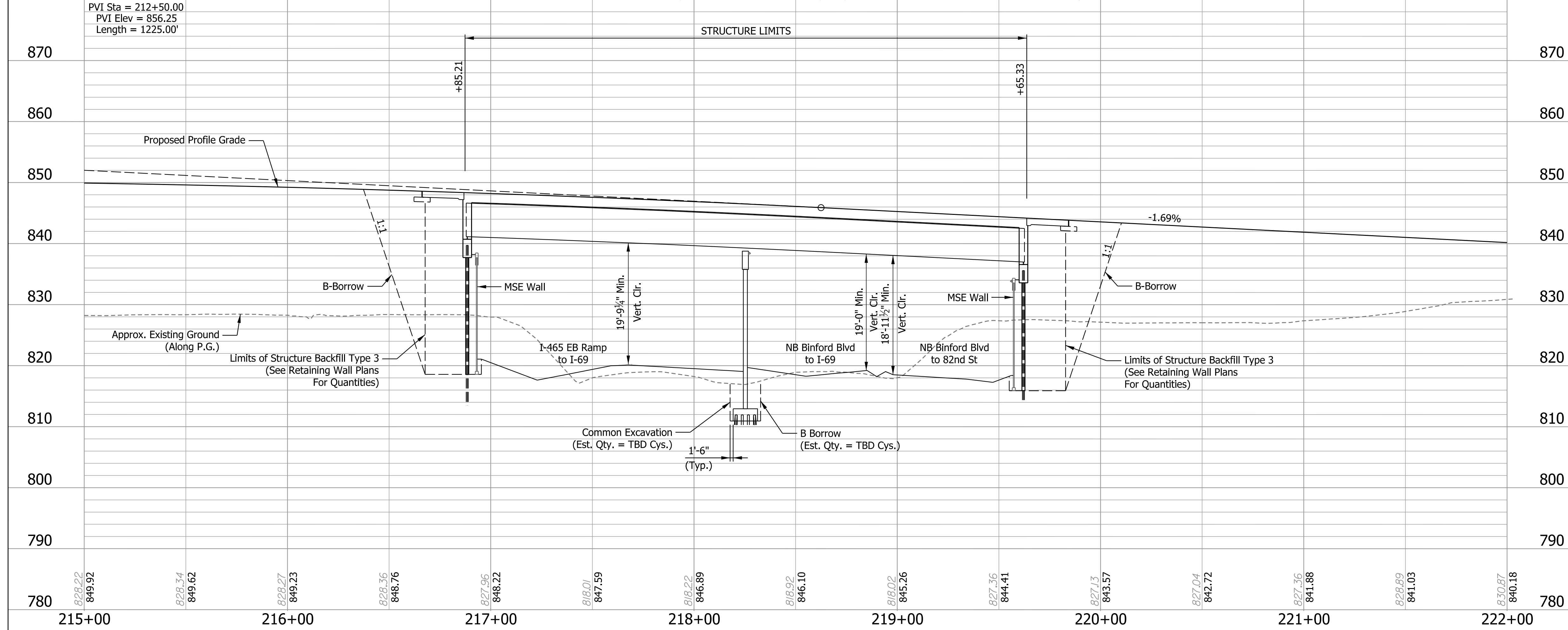
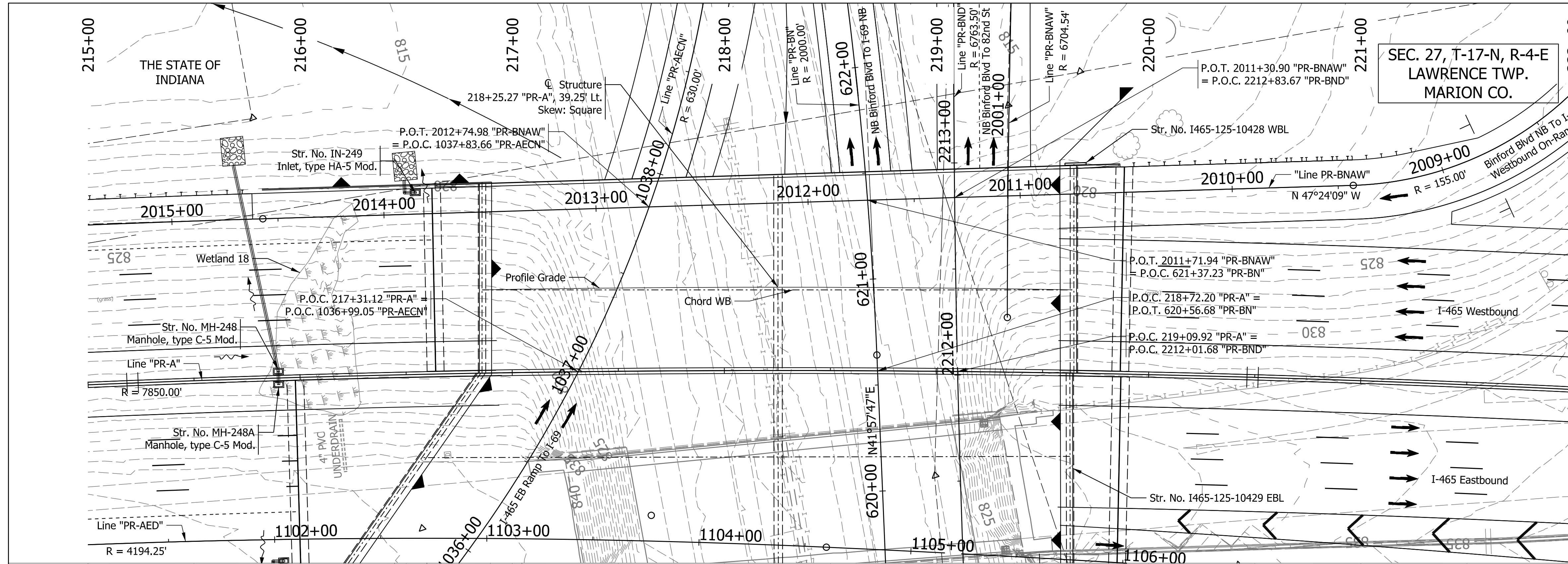
CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BULB-TEE BEAM BRIDGE  
 3 SPANS: 82'-0", 82'-0", 93'-0"  
 73'-10 1/2" CLEAR ROADWAY; SKEW: SQUARE  
 I-465 EB OVER I-69 SB TO SB I-465 RAMP,  
 I-69 SB TO SB BINFORD RAMP, HHPA RR  
 MARION COUNTY



PLAN

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER		DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: ZMR		DRAWN: JEW			1/16" = 1'-0"	1465-125-10427 EBL
CHECKED: AAH	DESIGNED: AAH		CHECKED: AAH		GENERAL PLAN EASTBOUND STRUCTURE	VERTICAL SCALE	DESIGNATION
	1/16" = 1'-0"		1801668			SURVEY BOOK	SHEETS
						ELECTRONIC	17 of 18
						CONTRACT	PROJECT
						R-38526	1400075

SFILES 15-MAY-2020



CURVE 1 DATA	CURVE 4 DATA
PI = 2000+99.64 "PR-BNAW"	PI = 1037+77.47 "PR-AECN"
Delta = 1°42'11" Rt.	Delta = 96°27'28" Lt.
D = 0°51'16"	D = 9°05'40"
R = 6704.54 ft	R = 630.00 ft
T = 99.64 ft	T = 705.33 ft
L = 199.27 ft	L = 1060.61 ft
E = 0.74 ft	E = 315.72 ft
SE = N.C.	SE = 8.0%

CURVE 3 DATA	CURVE 3 DATA	CURVE 3 DATA
PI = 623+46.68 "PR-BN"	PI = 219+82.65 "PR-A"	PI = 2211+53.12 "PR-BND"
Delta = 16°04'55" Lt.	Delta = 21°37'43" Rt.	Delta = 6°52'00" Rt.
D = 2°51'53"	D = 0°43'48"	D = 0°50'50"
R = 2000.00 ft	R = 7850.00 ft	R = 6763.50 ft
T = 282.54 ft	T = 1499.49 ft	T = 405.77 ft
L = 561.36 ft	L = 2963.29 ft	L = 810.57 ft
E = 19.86 ft	E = 141.93 ft	E = 12.16 ft
SE = 4.4%	SE = 2.8%	SE = N.C.

**EXISTING STRUCTURE**  
 The existing continuous composite steel beam bridge was built in 1968 with 2 spans: 102'-6", 102'-6" with a variable clear roadway reinforced concrete deck. Existing structure to be removed.

**NOTES:**  
 For Utility Contacts see Index Sheet No.2.  
 For R/W, MSE Wall, Earthwork, Cross-Sections and Additional Information, See Roadway Plans Des. No. 1400075.

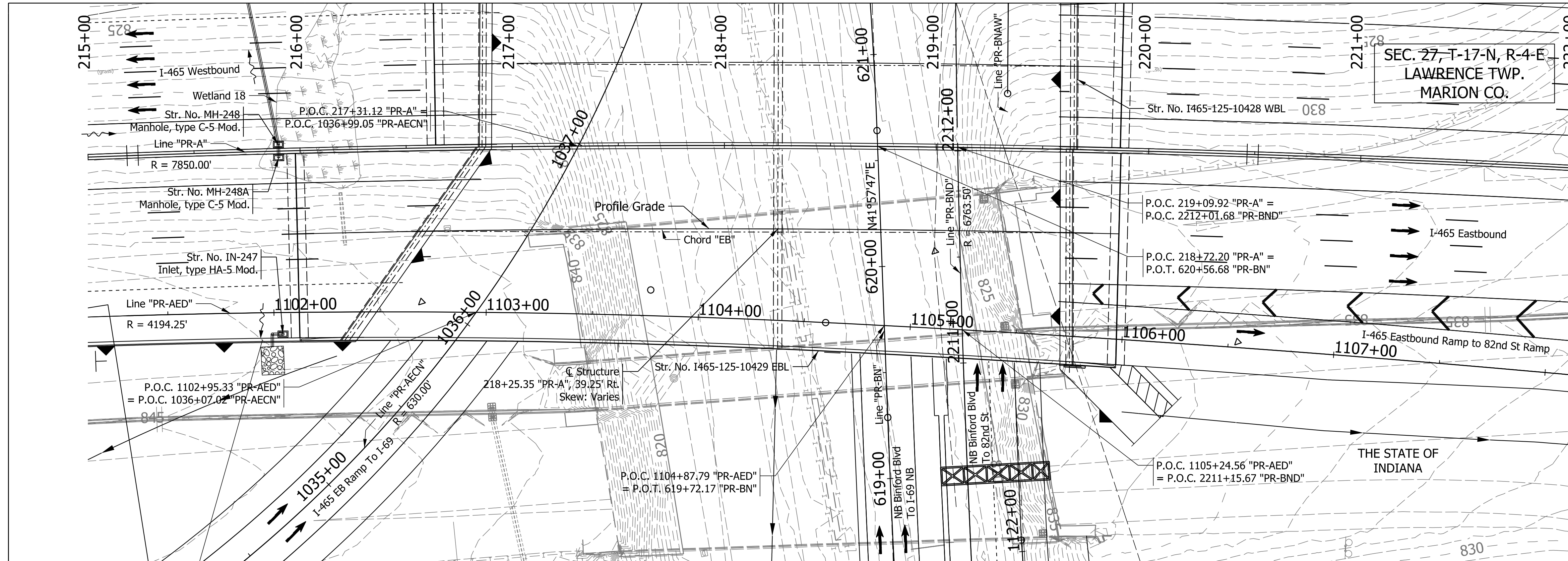
**Bridge 3**

**CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BULB-TEE BEAM BRIDGE**  
 2 SPANS: 139'-6", 139'-6"  
 CLEAR ROADWAY VARIES; SKEW: SQUARE  
 I-465 W.B. OVER I-465 E.B. RAMP TO I-69,  
 NB BINFORD BLVD.  
 MARION COUNTY

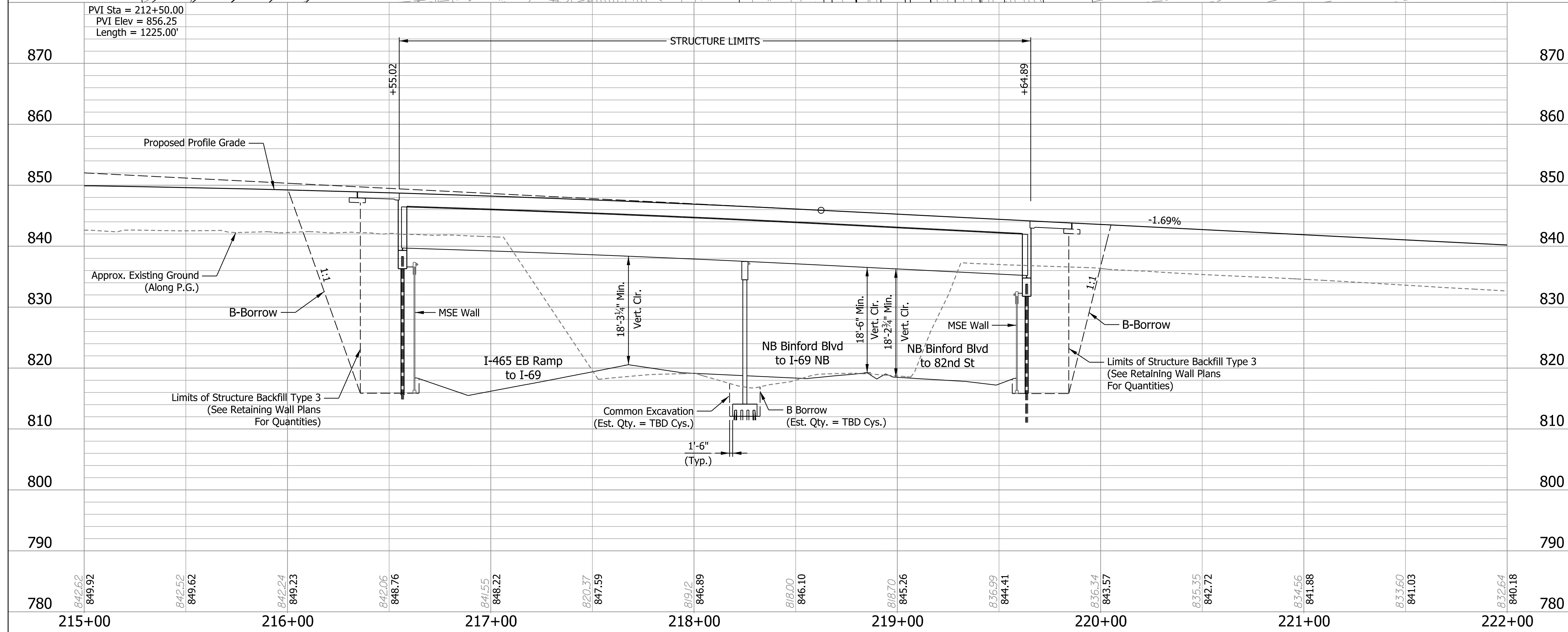
RECOMMENDED FOR APPROVAL		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 30'		BRIDGE FILE 1465-125-10428 WBL	
DESIGNED: WAR		DRAWN: EWM		VERTICAL SCALE 1" = 10'		DESIGNATION 1801669	
CHECKED: DWB		CHECKED: DWB		LAYOUT WESTBOUND STRUCTURE		SURVEY BOOK SHEETS ELECTRONIC 12 of 17	
						CONTRACT PROJECT R-38526 1400075	

FILES  
14-MAY-2020





<b>CURVE 3 DATA</b> PI = 219+82.65 "PR-A" Delta = 21°37'43" Rt. D = 0°43'48" R = 7850.00 ft T = 1499.49 ft L = 2963.29 ft E = 141.93 ft SE = 2.8%	<b>CURVE 4 DATA</b> PI = 1037+77.47 "PR-AECN" Delta = 96°27'28" Lt. D = 9°05'40" R = 630.00 ft T = 705.33 ft L = 1060.61 ft E = 315.72 ft SE = 8.0%
<b>CURVE 5 DATA</b> PI = 623+46.68 "PR-BN" Delta = 16°04'55" Lt. D = 2°51'53" R = 2000.00 ft T = 282.54 ft L = 561.36 ft E = 19.86 ft SE = 4.4%	<b>CURVE 3 DATA</b> PI = 2211+53.12 "PR-BND" Delta = 6°52'00" Rt. D = 0°50'50" R = 6763.50 ft T = 405.77 ft L = 810.57 ft E = 12.16 ft SE = N.C.
<b>CURVE 2 DATA</b> PI = 1102+69.35 "PR-AED" Delta = 5°12'54" Rt. D = 1°21'58" R = 4194.25 ft T = 191.01 ft L = 381.77 ft E = 4.35 ft SE = N.C.	<b>CURVE 3 DATA</b> PI = 1106+54.16 "PR-AED" Delta = 2°39'21" Rt. D = 0°41'04" R = 8371.20 ft T = 194.06 ft L = 388.05 ft E = 2.25 ft SE = N.C.



**EXISTING STRUCTURE**  
 The existing continuous composite steel beam bridge was built in 1968 with 2 spans: 102'-6" and 102'-6" with a variable clear roadway reinforced concrete deck. Existing structure to be removed.

**NOTES:**  
 For Utility Contacts see Index Sheet No.2.  
 For R/W, MSE Wall, Earthwork, Cross-Sections and Additional information, See Roadway Plans Des. No. 1400075.  
 Hatched areas indicate limits of revetment riprap on geotextile for riprap type 1A for drainage turnouts. (Est. Riprap Qty. = 45 Tons) (Est. Geotextiles Qty. = 60 Sys.)

**Bridge 4**

**CONTINUOUS COMPOSITE WELDED PLATE GIRDER BRIDGE**  
 2 SPANS: 167'-11", 137'-7"  
 CLEAR ROADWAY VARIES; SKEW: VARIES  
 I-465 E.B. OVER I-465 E.B. RAMP TO I-69, NB BINFORD BLVD.  
 MARION COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____ DESIGNED: WAR DRAWN: EWM CHECKED: DWB CHECKED: DWB	<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>  <b>LAYOUT EASTBOUND STRUCTURE</b>	HORIZONTAL SCALE 1" = 30' VERTICAL SCALE 1" = 10' SURVEY BOOK ELECTRONIC 15 of 17 CONTRACT R-38526	BRIDGE FILE 1465-125-10429 EBL DESIGNATION 1801670 SHEETS 15 of 17 PROJECT 1400075
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SFILES 14-MAY-2020

STRUCTURE TO BE BUILT TO A 1225' VC AND A 1.69% GRADE

GENERAL NOTES

Reinforcing steel covering shall be 2½" in Top and 1" min. In bottom of floor slabs, 3" in footing except bottom steel which shall be 4", and 2" in all other parts, unless noted.

DESIGN DATA

Designed for HL-93 Loading in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, and its subsequent interims.

DEAD LOAD

Actual weight plus 35 psf. of future wearing surface and 15 psf for SIP Metal deck forms.

FLOOR SLAB

Designed with a 7½" structural depth, and a ½" integral wearing surface.

DESIGN STRESSES

CONCRETE

Class "A" Concrete  $f_c = 3,500$  p.s.i.  
 Class "B" Concrete  $f_c = 3,000$  p.s.i.  
 Class "C" Concrete  $f_c = 4,000$  p.s.i.

REINFORCING STEEL

Grade 60  $f_y = 60,000$  p.s.i.

CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be located 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

DECK FALSEWORK LOADS

Designed for 15 lb/Sft for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

CONSTRUCTION LIVE LOAD

Designed for 20 lb/Sft extending 2-ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

FINISHING MACHINE LOAD

4500 lb distributed over 10-ft along the coping.

WIND LOAD

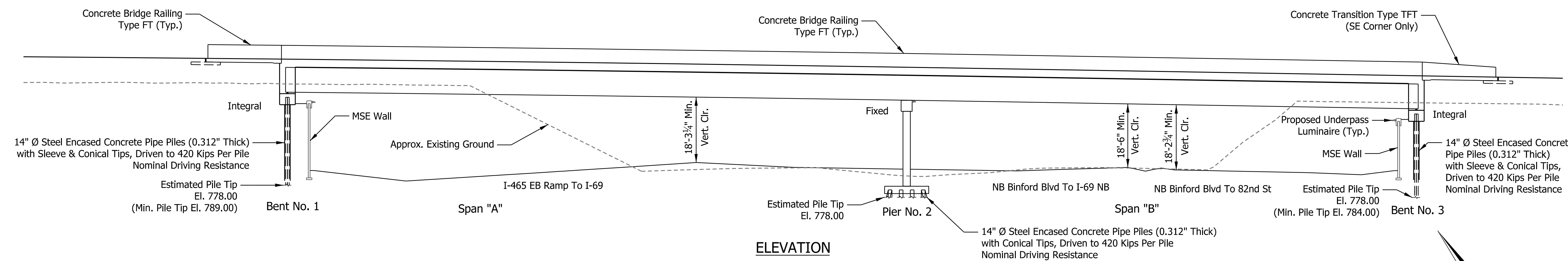
Structure Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

SEISMIC DESIGN DATA

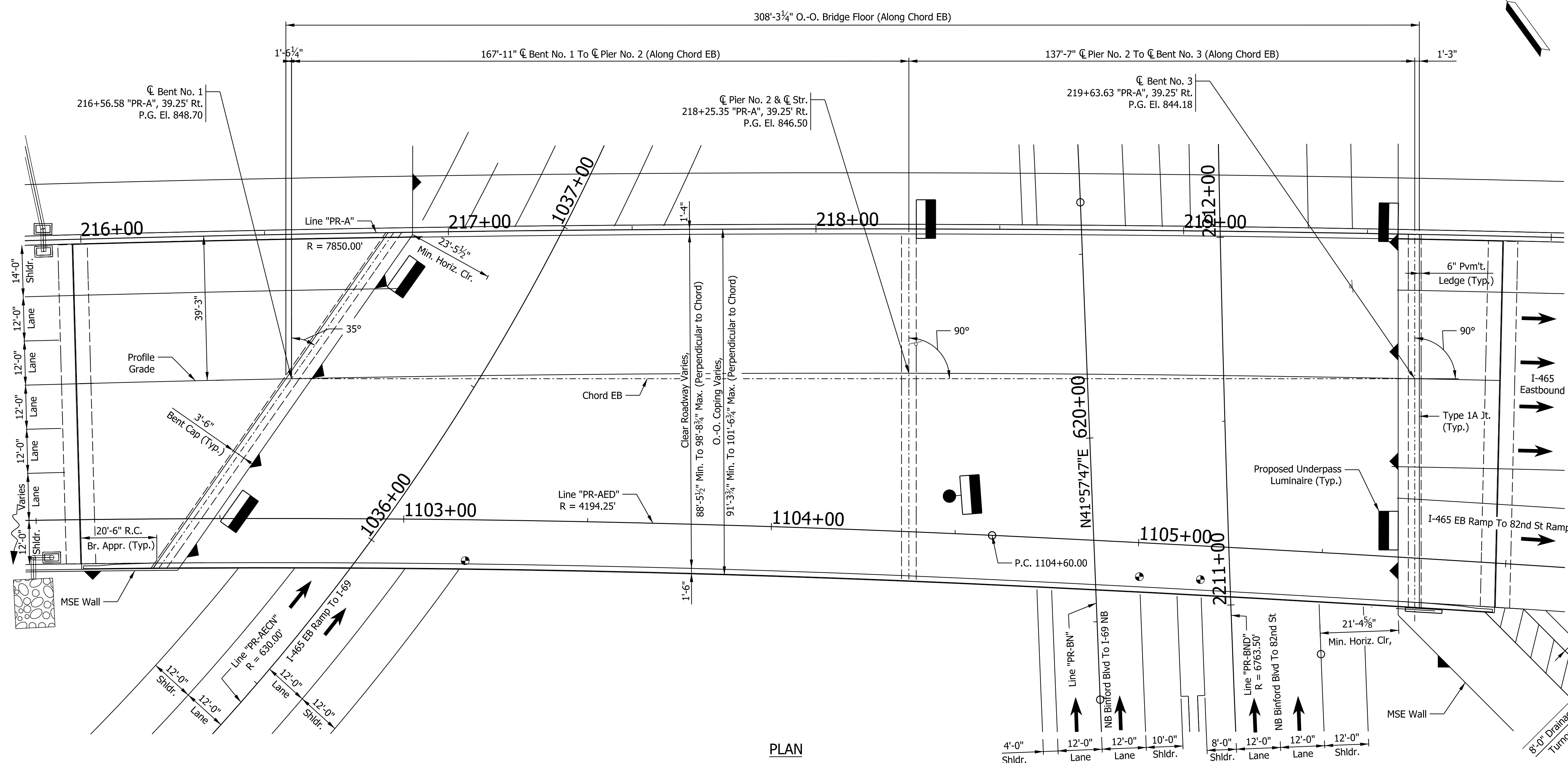
Seismic Performance Zone Zone 1  
 Acceleration Coefficient ( $S_{D1}$ ) 0.117 g  
 Seismic Soil Profile Type Site Class D

NOTE:

● Point of Minimum Vertical Clearance



ELEVATION

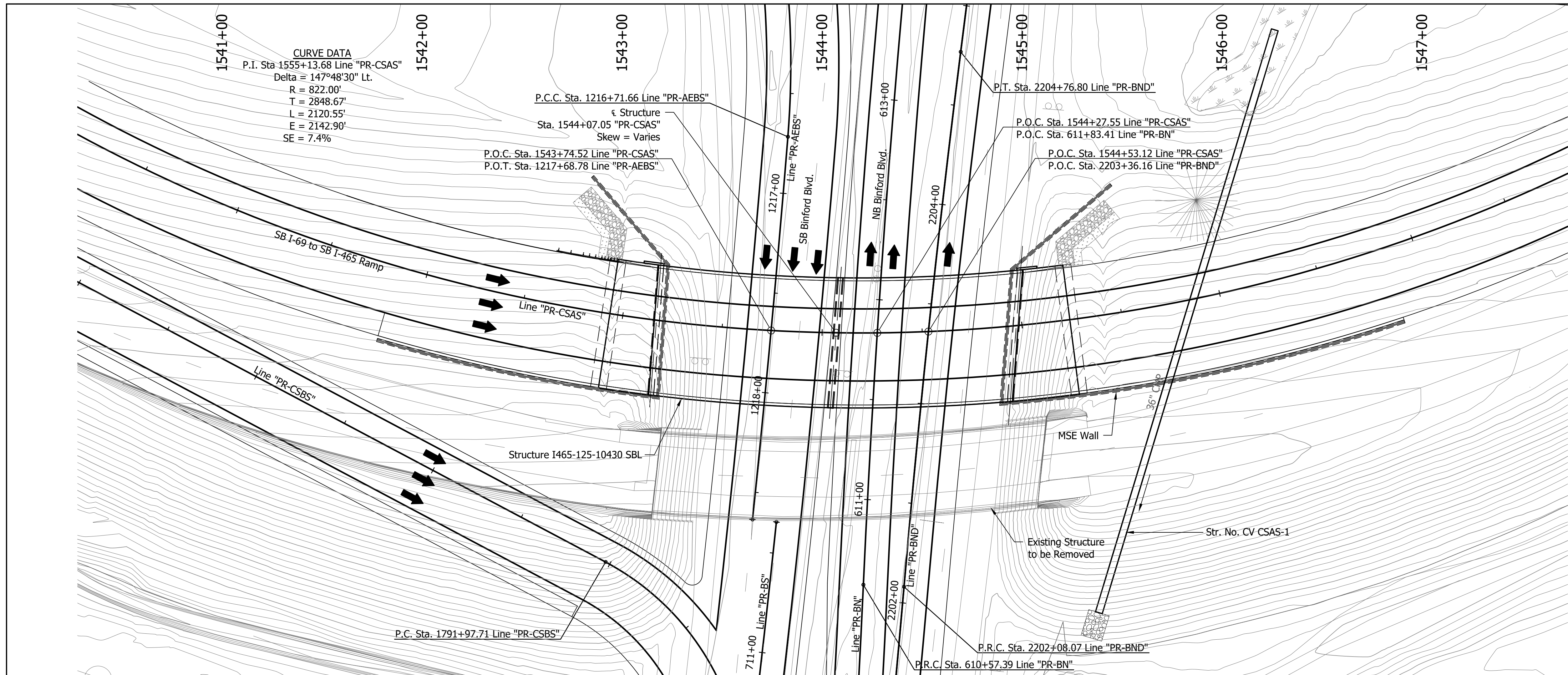


PLAN

CONTINUOUS COMPOSITE WELDED  
 PLATE GIRDER BRIDGE  
 2 SPANS: 167'-11", 137'-7"  
 CLEAR ROADWAY VARIES; SKEW: VARIES  
 I-465 E.B. OVER I-465 E.B. RAMP TO I-69,  
 NB BINFORD BLVD.  
 MARION COUNTY

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: WAR	DRAWN: EWM		VERTICAL SCALE	1465-125-10429 EBL
CHECKED: KRP	CHECKED: DWB		GENERAL PLAN EASTBOUND STRUCTURE	DESIGNATION	1801670
				SURVEY BOOK	SHEETS
				ELECTRONIC	16 of 17
				CONTRACT	PROJECT
				R-38526	1400075

SFILES 14-MAY-2020

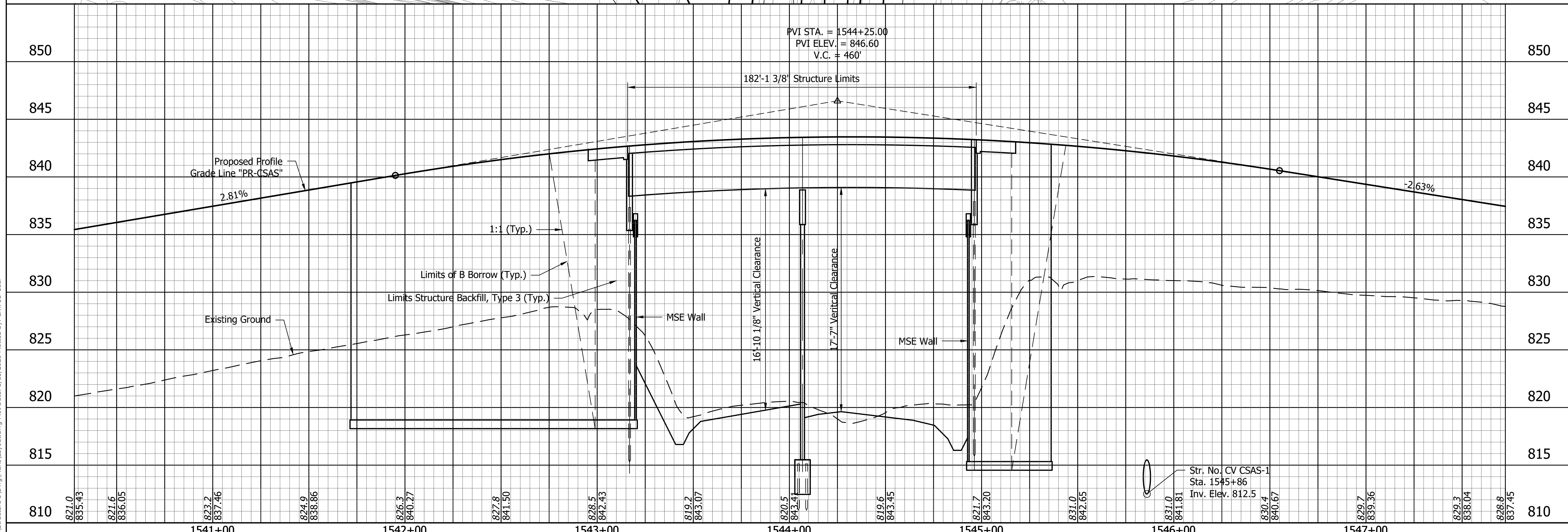


**EXISTING STRUCTURE**

The existing structure is a steel beam bridge. The bridge has two spans of 96'-0" and 96'-0" and has a variable skew. The structure has a clear roadway width of 39.5'. Structure is to be removed.

**LEGEND**

- Limits of Sodding
- Limits of Revetment Riprap



**Bridge 5**

Notes:  
 For R/W, MSE Wall, and Additional Information see Road Plan and Profile sheets.  
 For Utility Contacts see Index Sheet No. 2.  
 See Plans Des. No. 1400075 for Earthwork and Cross-Sections.

**CONTINUOUS COMPOSITE PRESTRESSED  
 BULB-TEE BEAM BRIDGE  
 TWO SPANS: 90'-0 1/2" & 90'-0 1/2"  
 CLEAR ROADWAY: 61'-8"  
 SKEW: VARIES  
 SB I-69 TO SB I-465 RAMP  
 OVER BINFORD BLVD.  
 MARION COUNTY**

File Name: P:\BR\CD\16-223\Bridges\Structure 5\Draw\Plans\Layout.dwg Plc Date: 5/15/2020 Plotted By: Civil 3D User



8440 Allison Pointe Boulevard, Suite 200  
 Indianapolis, IN 46250  
 Phone 317-895-2585  
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RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: CJA	DRAWN: AJM				
CHECKED: JNR	CHECKED: CJA				

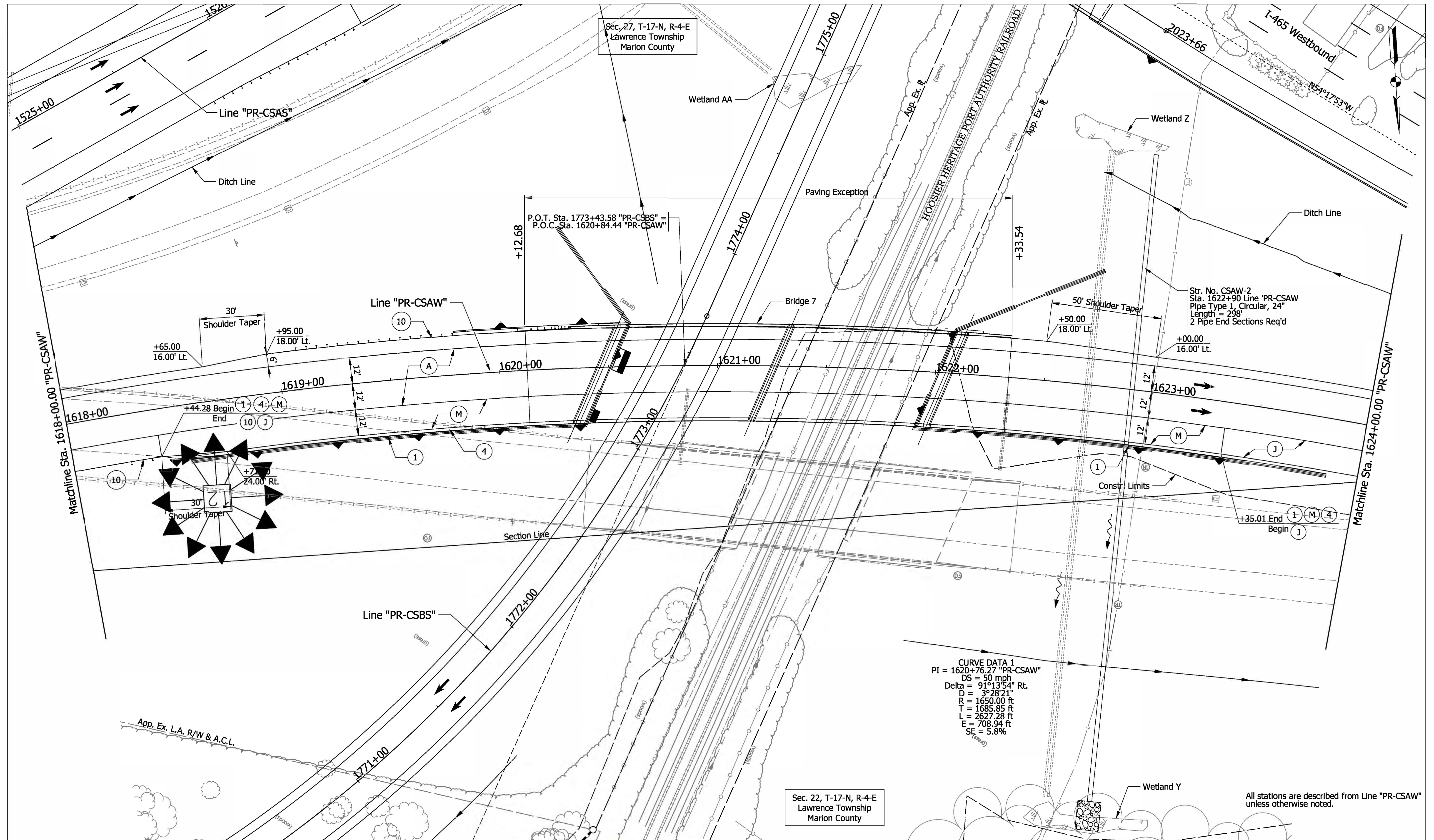
INDIANA  
 DEPARTMENT OF TRANSPORTATION  
 LAYOUT  
 SB I-69 TO SB I-465 RAMP OVER BINFORD BLVD.

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	1465-125-10430 SBL
VERTICAL SCALE	DESIGNATION
1" = 5'	1801671
SURVEY BOOK	SHEETS
-	14 of 16
CONTRACT	PROJECT
R-38526	1400075









**PARSONS**

101 W. Ohio St., Suite 2121  
 Indianapolis, IN 46204  
 Bus (317) 616-1000  
 Fax (317) 616-1033

**INFORMATION ONLY**



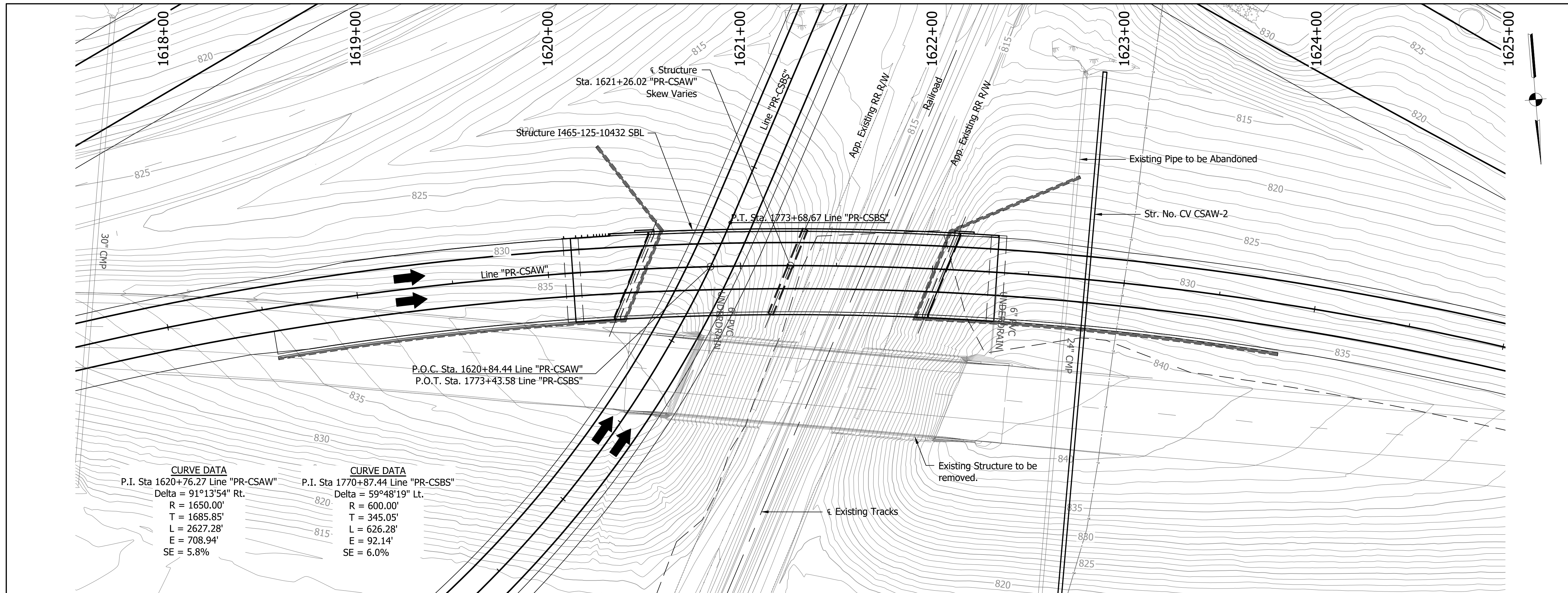
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: KAP	DRAWN: SJC	
CHECKED: CAC	CHECKED: CAC	

INDIANA  
 DEPARTMENT OF TRANSPORTATION

PLAN SHEET  
 LINE "PR-CSAW"  
 STA. 1618+00.00 TO STA. 1624+00.00

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1400075
SURVEY BOOK	SHEETS
ELECTRONIC	4 of 15
CONTRACT	PROJECT
R-38526	1400075

pww:\VANVA01PWINT01.parsons.com:Indiana State/Documents/1465-69 Interchange Design/30 - Design/01 - Parsons/CAD/Roadway/Sheets/1465-169 Sht\_Plan\_PR-CSAW\_04.dgn

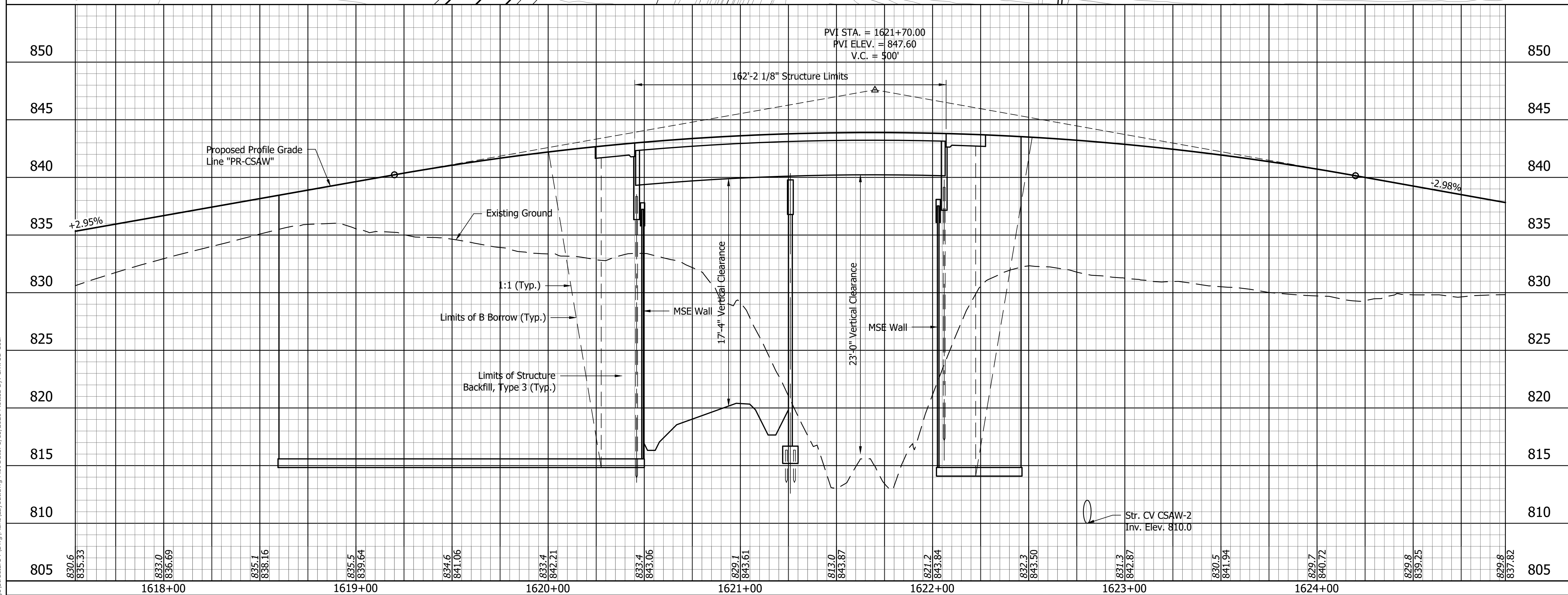


**EXISTING STRUCTURE**

The existing structure is a steel beam bridge. The bridge has three spans of 43'-0", 54'-0", and 43'-0" and has a 17°59'29" Right skew. The structure has a clear roadway width of 39.0'. Structure is to be removed.

**LEGEND**

- Limits of Sodding
- Limits of Revetment Riprap



**Bridge 7**

Notes:  
 For R/W, MSE Wall, and Additional Information see Roadway Plan and Profile sheets.  
 For Utility Contacts see Index Sheet No. 2.  
 See Plans Des. No. 1400075 for Earthwork and Cross-Sections.

**CONTINUOUS COMPOSITE PRESTRESSED BULB-TEE BEAM BRIDGE**  
 TWO SPANS: 80'-0 1/8" & 80'-0 1/8"  
 CLEAR ROADWAY: 41'-8"  
 SKEW: VARIES  
 SB I-69 TO WB I-465 RAMP OVER HHPA RR & SB BINFORD BLVD.  
 MARION COUNTY

**UNITED Consulting**

8440 Allison Pointe Boulevard, Suite 200  
 Indianapolis, IN 46250  
 Phone 317-895-2585  
 www.ucindy.com

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: CJA	DRAWN: AJM	
CHECKED: JNR	CHECKED: CJA	

INDIANA  
 DEPARTMENT OF TRANSPORTATION

LAYOUT

SB I-69 RAMP OVER HHPA RR & SB BINFORD BLVD.

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	1465-125-10432 SBL
VERTICAL SCALE	DESIGNATION
1" = 5'	1801673
SURVEY BOOK	SHEETS
-	13 of 15
CONTRACT	PROJECT
R-38526	1400075

**GENERAL NOTES**

Reinforcing steel covering to be 2 1/2" in the top and 1" minimum in the bottom of floor slabs, 3" in the footings except the bottom steel which shall be 4", and 2" in all other parts, unless noted.  
 Surface seal top of bridge deck, all surfaces of concrete railing, railing transitions, face of deck coping and underside of deck from outside edge to flange of exterior beams, approach slabs and all exposed surfaces of end bents.  
 (Estimated Quantity = xx,xxx sft.)

**DESIGN DATA**

**LIVE LOAD:** Superstructure and substructure designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, Eighth Edition, 2017.  
**DEAD LOAD:** Actual Weight plus 35 Lbs./Sft. for permanent metal deck forms.  
**FLOOR SLAB:** Designed with a 7.5" structural depth plus 1/2" sacrificial wearing surface.  
**UNIT STRESSES:** Reinforcing Steel Fy = 60,000 p.s.i.  
 Class "A" Concrete f'c = 3,500 p.s.i.  
 Class "B" Concrete f'c = 3,000 p.s.i.  
 Class "C" Concrete f'c = 4,000 p.s.i.

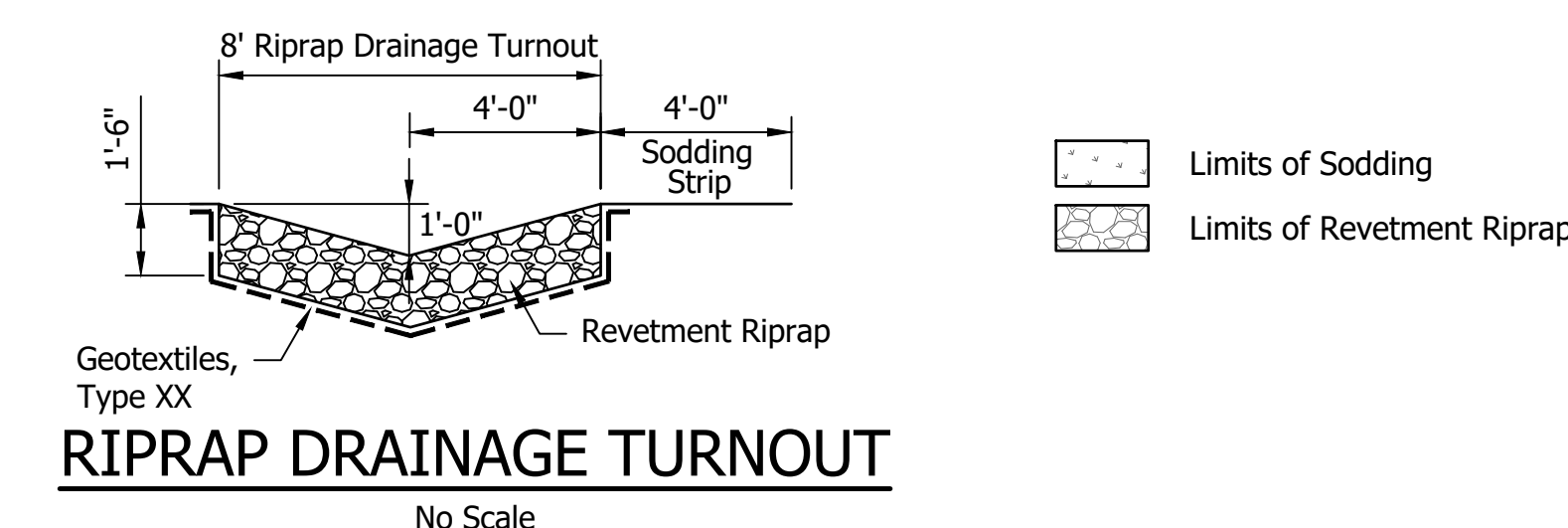
**CONSTRUCTION LOADING**

The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

**Deck Falsework Loads:** Designed for 15 Lbs./Sft. for permanent metal stay-in-place deck forms, removable deck forms, and 2' exterior walkway.  
**Construction Live Load:** Designed for 20 Lbs./Sft. extending 2' past the edge of coping and 75 Lbs./Ft. vertical force applied at a distance of 6" outside the face of coping over a 30' length of the deck centered with the finishing machine.  
**Finishing-Machine Load:** 4500 Lbs. distributed over 10' along the coping.  
**Wind Load:** Structure designed for 3-Second wind gust speeds in accordance with LRFD 3.8.1.

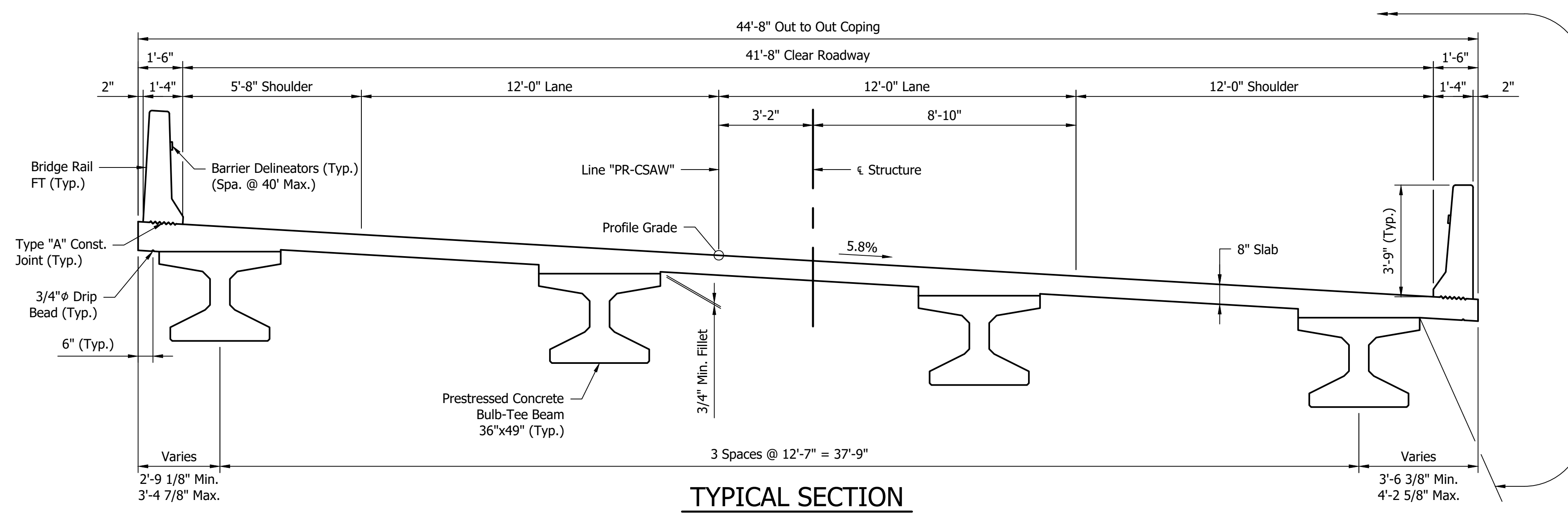
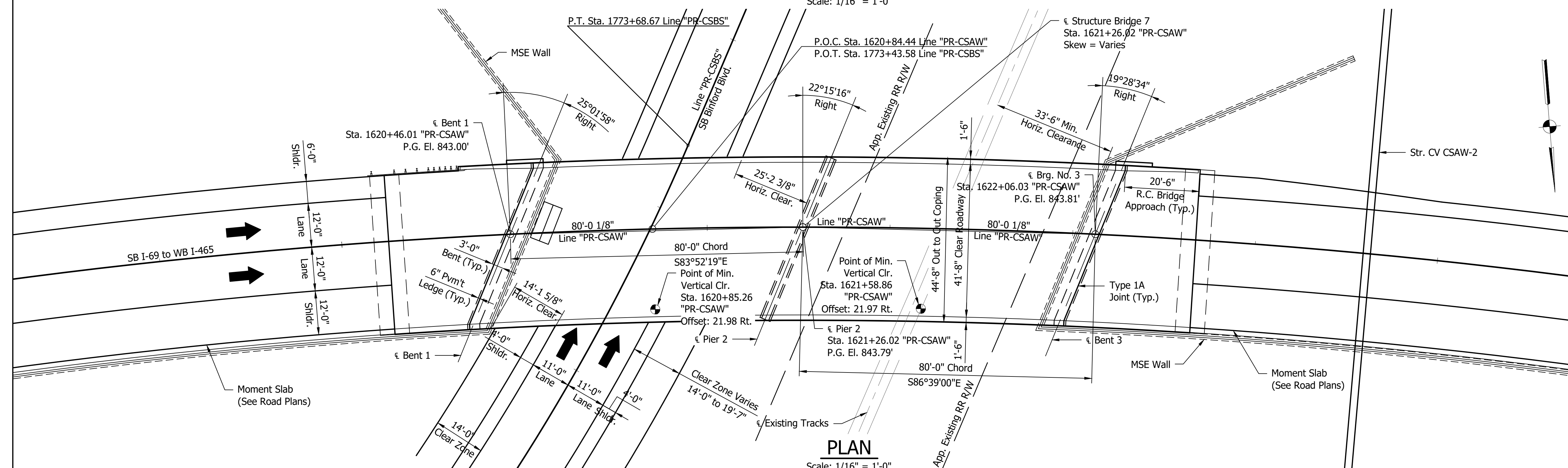
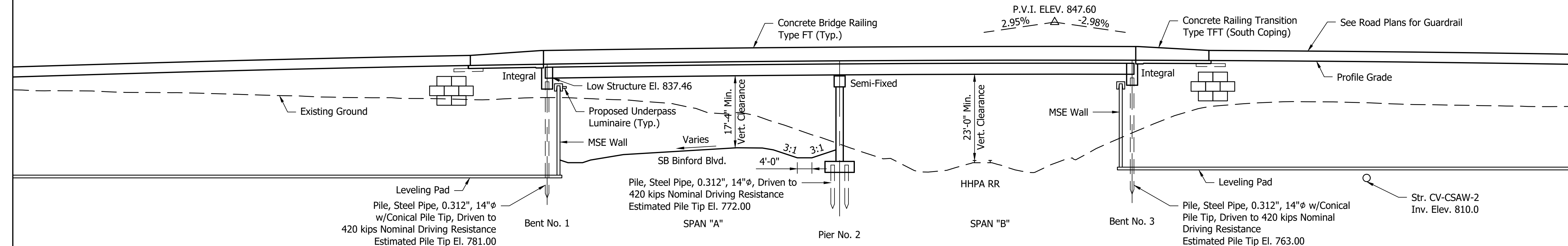
**SEISMIC DESIGN DATA**

Seismic Performance Zone = Zone 1  
 Seismic Response (SD1) = 0.117  
 Seismic Soil Profile Type = Site Class D



**CONTINUOUS COMPOSITE PRESTRESSED BULB-TEE BEAM BRIDGE**  
**TWO SPANS: 80'-0 1/8" & 80'-0 1/8"**  
**CLEAR ROADWAY: 41'-8"**  
**SKIEW: VARIES**  
**SB I-69 TO WB I-465 RAMP OVER HHPA RR & SB BINFORD BLVD.**  
**MARION COUNTY**

STRUCTURE TO BE BUILT TO A 500' VERTICAL CURVE

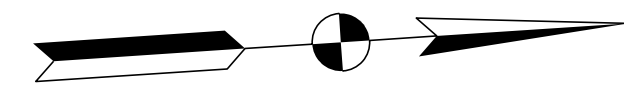
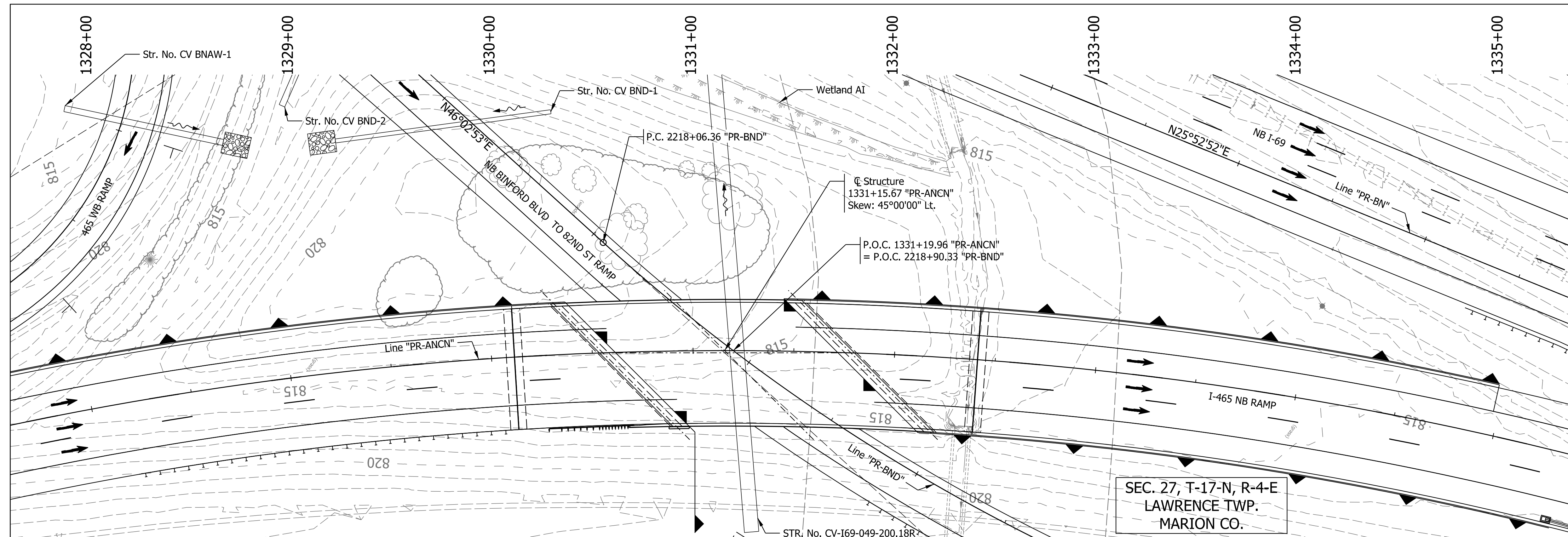


**UNITED Consulting**  
 8440 Allison Pointe Boulevard, Suite 200  
 Indianapolis, IN 46250  
 Phone 317-895-2585  
 www.ucindy.com

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: CJA	DRAWN: AJM	
CHECKED: JNR	CHECKED: CJA	

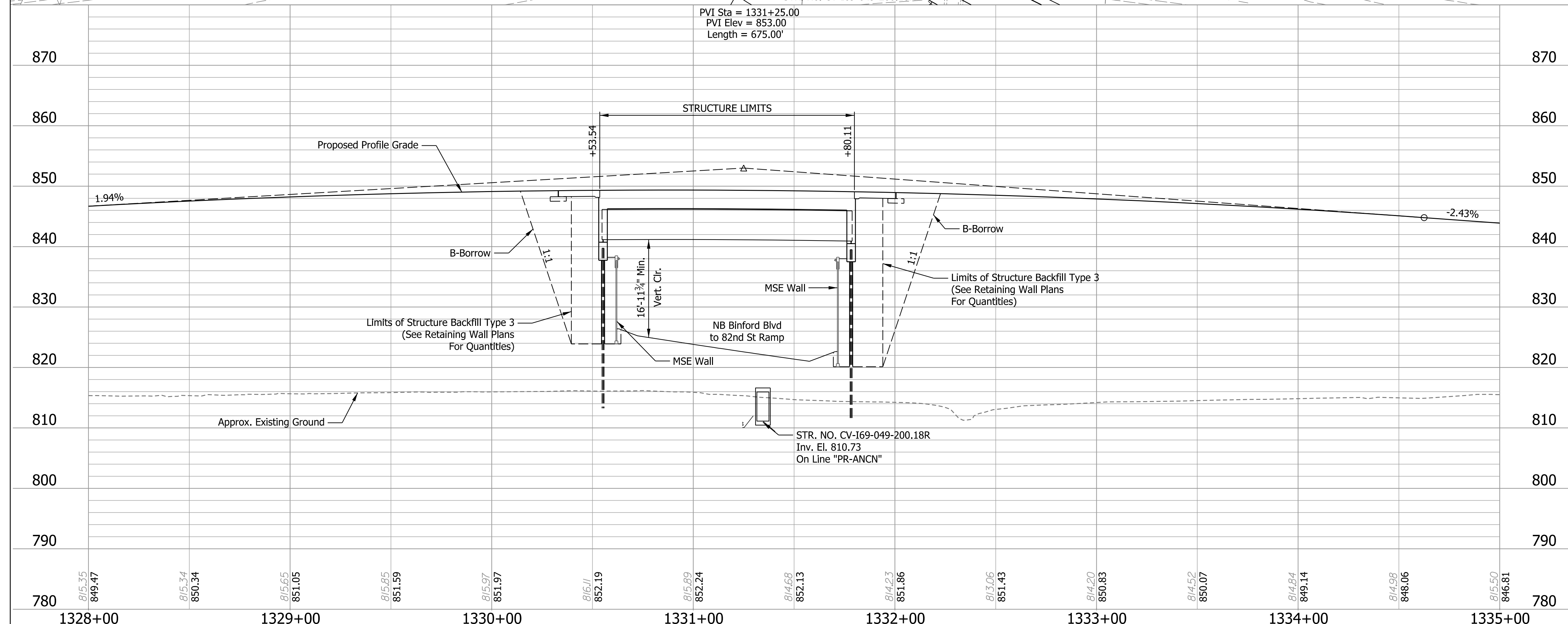
**INDIANA DEPARTMENT OF TRANSPORTATION**  
**GENERAL PLAN**  
**SB I-69 RAMP OVER HHPA RR & SB BINFORD BLVD.**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	1465-125-10432 SBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1801673
SURVEY BOOK	SHEETS
-	14 of 15
CONTRACT	PROJECT
R-38526	1400075



**CURVE 2 DATA**  
 PI = 1330+79.22 "PR-ANCN"  
 Delta = 56°20'16" Rt.  
 D = 3°19'17"  
 R = 1725.00 ft  
 T = 923.73 ft  
 L = 1696.16 ft  
 E = 231.76 ft

**EXISTING STRUCTURE**  
 No Existing Structure



**NOTES:**  
 For Utility Contacts see Index Sheet No.2.  
 For R/W, MSE Wall, Earthwork, Cross-Sections and Additional information, See Roadway Plans Des. No. 1400075.

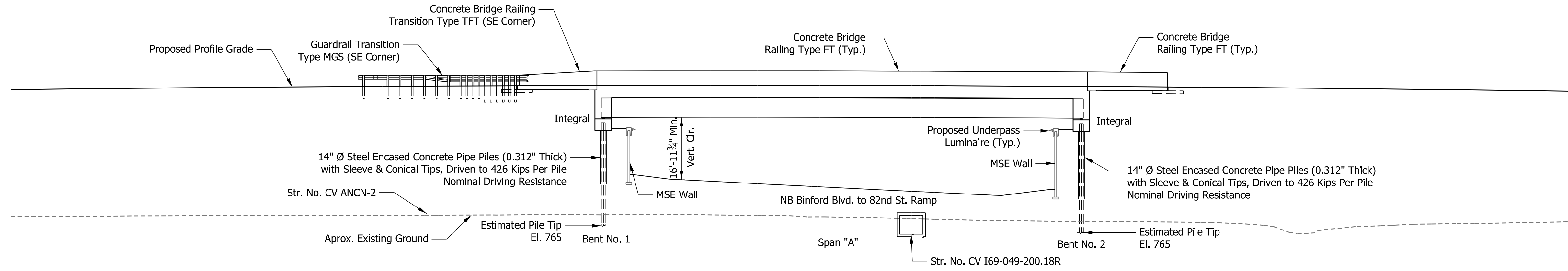
**Bridge 8**

**COMPOSITE PRESTRESSED CONCRETE BULB-TEE BEAM**  
 SPAN: 123'-0"  
 60'-0" CLEAR ROADWAY; SKEW: 45°00'00" Lt.  
 I-465 NB RAMP OVER NB BINFORD BLVD.  
 TO 82ND STREET RAMP  
 MARION COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____		<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>	HORIZONTAL SCALE 1" = 30'		BRIDGE FILE 1465-125-10433 NBL	
DESIGNED: <u>ZMR</u> DRAWN: <u>JEW</u>			VERTICAL SCALE 1" = 10'		DESIGNATION 1801674	
CHECKED: <u>AAH</u> CHECKED: <u>AAH</u>			<b>LAYOUT</b>		SURVEY BOOK SHEETS ELECTRONIC 9 of 11 CONTRACT PROJECT R-38526 1400075	

SFILES  
14-MAY-2020

STRUCTURE TO BE BUILT TO A 675' VC



ELEVATION

GENERAL NOTES

Reinforcing steel covering shall be 2 1/2" in Top and 1" min. In bottom of floor slabs, 3" in footing except bottom steel which shall be 4", and 2" in all other parts, unless noted.

DESIGN DATA

Superstructure & Substructure Designed for HL-93 Loading in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, and its subsequent interims.

DEAD LOAD

Actual weight plus 35 psf. of future wearing surface and 15 psf for SIP Metal deck forms.

FLOOR SLAB

Designed with a 7 1/2" structural depth, and a 1/2" integral wearing surface.

DESIGN STRESSES

CONCRETE

Prestressed Concrete  $f_c = 8,000$  p.s.i.  
 Class "A" Concrete  $f_c = 3,500$  p.s.i.  
 Class "B" Concrete  $f_c = 3,000$  p.s.i.  
 Class "C" Concrete  $f_c = 4,000$  p.s.i.

REINFORCING STEEL

Grade 60  $f_y = 60,000$  p.s.i.

CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be located 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

DECK FALSEWORK LOADS

Designed for 15 lb/Sft for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

CONSTRUCTION LIVE LOAD

Designed for 20 lb/Sft extending 2-ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

FINISHING MACHINE LOAD

4500 lb distributed over 10-ft along the coping.

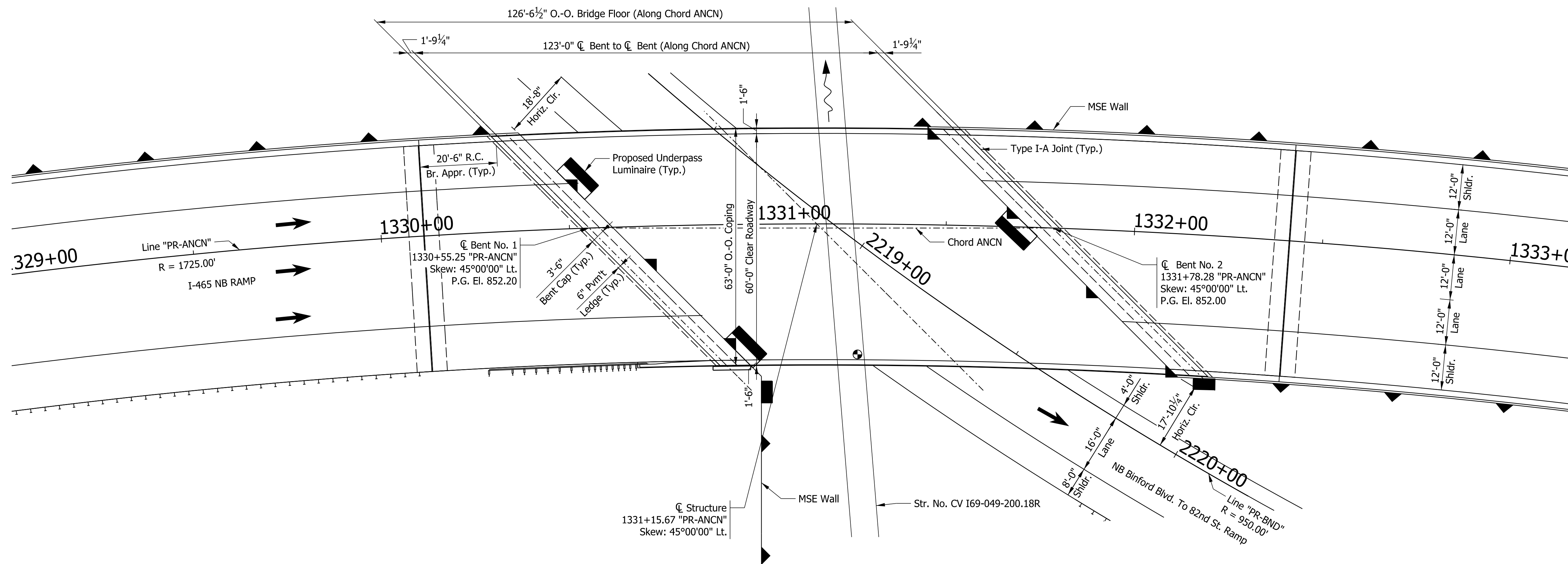
WIND LOAD

Structure Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

SEISMIC DESIGN DATA

Seismic Performance Zone Zone 1  
 Acceleration Coefficient ( $S_{D1}$ ) 0.117 g  
 Seismic Soil Profile Type Site Class C

● - Point of Minimum Vertical Clearance

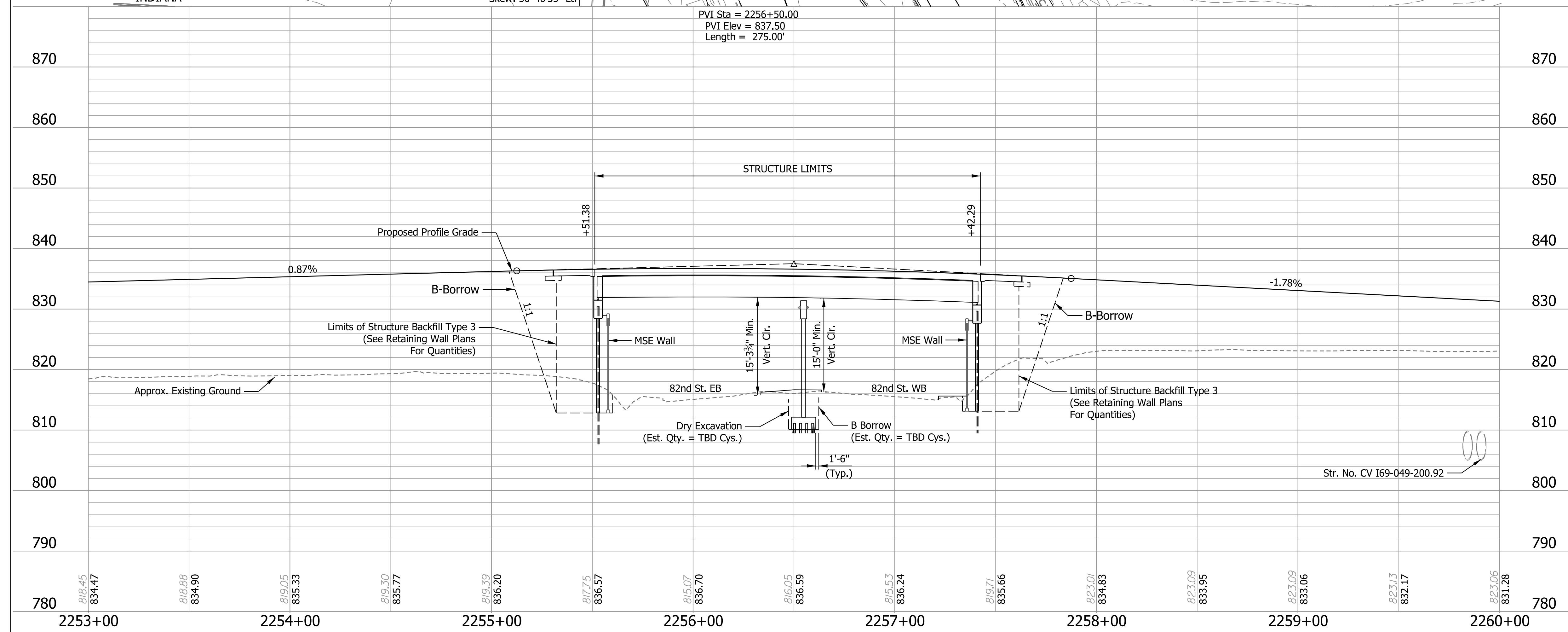
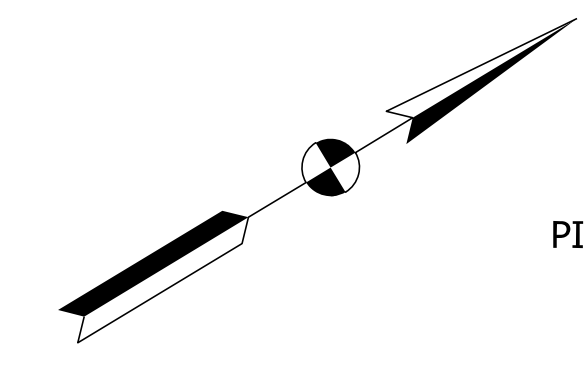
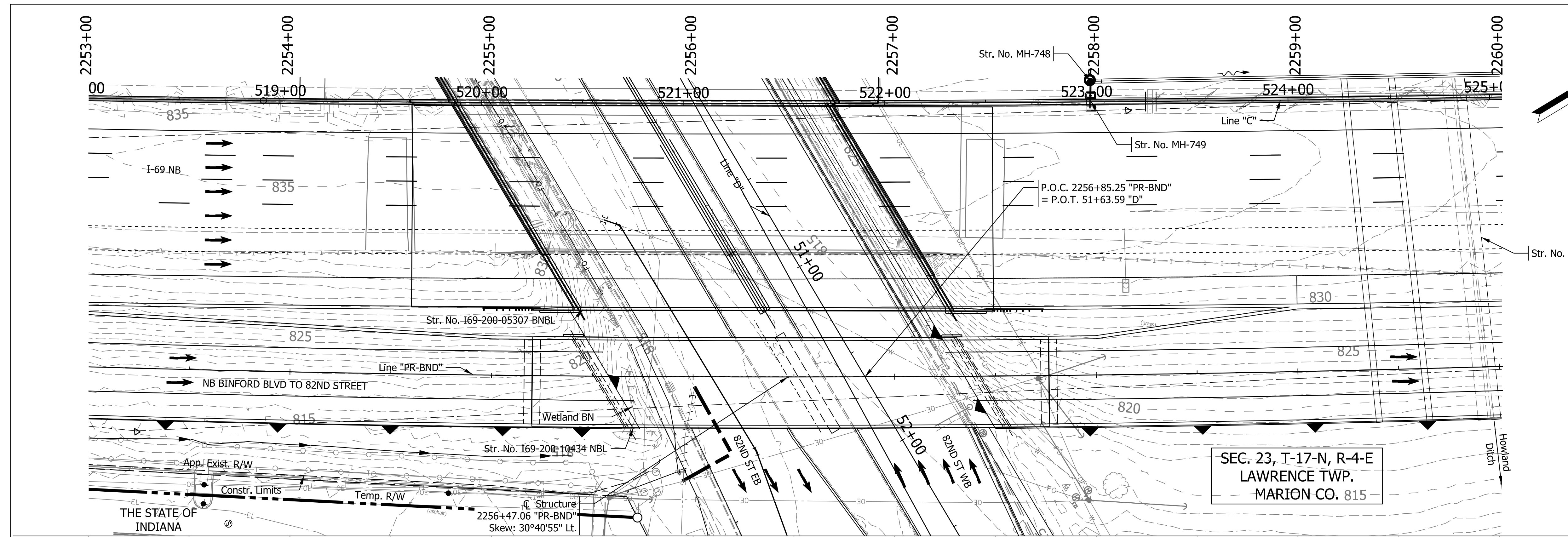


PLAN

COMPOSITE PRESTRESSED CONCRETE BULB-TEE BEAM  
 SPAN: 123'-0"  
 60'-0" CLEAR ROADWAY; SKEW: 45°00'00" Lt.  
 I-465 NB RAMP OVER NB BINFORD BLVD.  
 TO 82ND STREET RAMP  
 MARION COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGNED: ZMR CHECKED: AAH	DESIGN ENGINEER _____ DRAWN: JEW CHECKED: AAH	DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION	
			GENERAL PLAN	
			HORIZONTAL SCALE 1/16" = 1'-0"	BRIDGE FILE 1465-125-10433 NBL
			VERTICAL SCALE 1/16" = 1'-0"	DESIGNATION 1801674
			SURVEY BOOK ELECTRONIC	SHEETS 10 of 11
			CONTRACT R-38526	PROJECT 1400075

SFILES  
14-MAY-2020



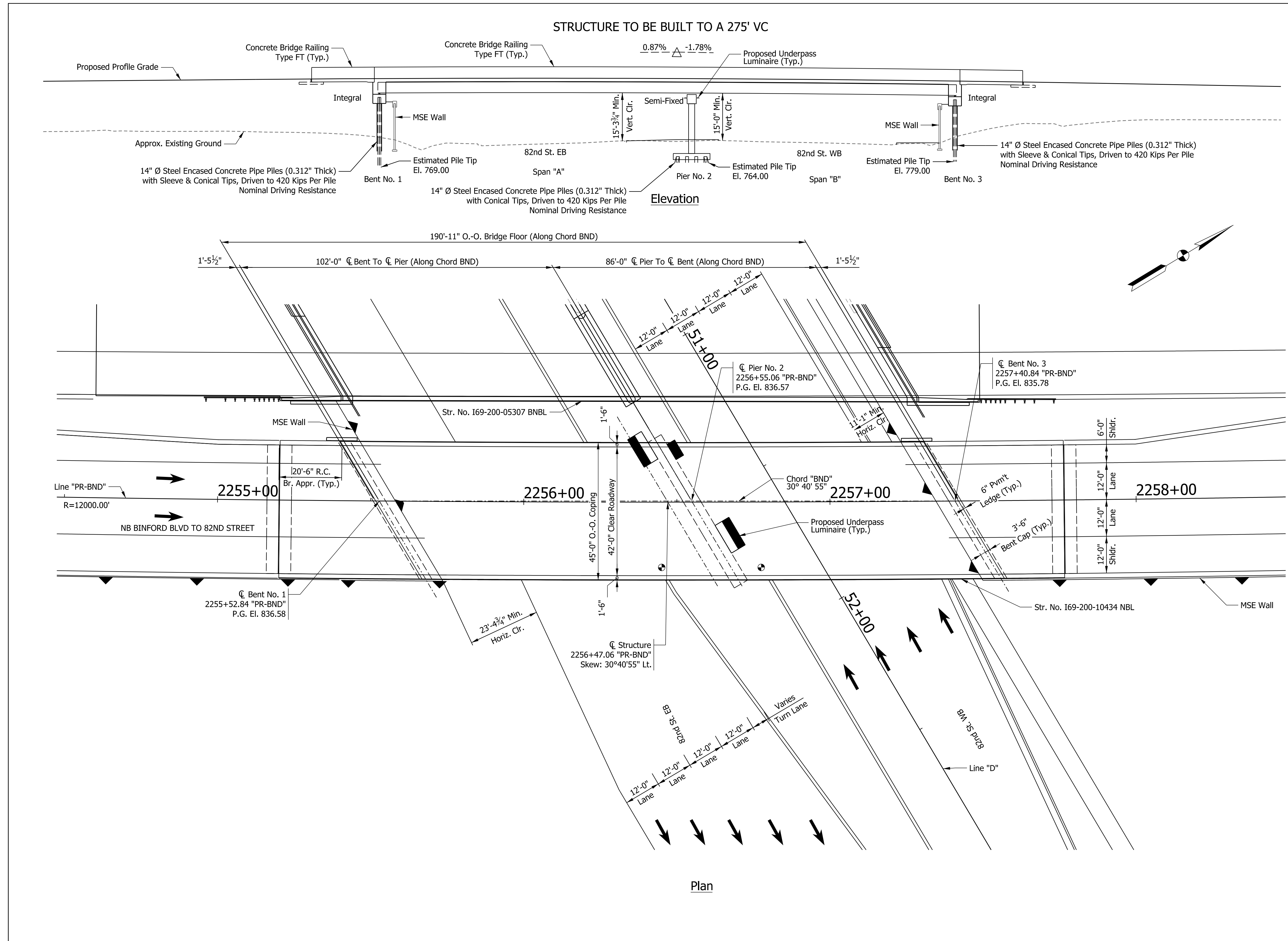
NOTES:  
 For Utility Contacts see Index Sheet No.2.  
 For R/W, MSE Wall, Earthwork, Cross-Sections and Additional Information, See Roadway Plans Des. No. 1400075.

**Bridge 9**

CONTINUOUS COMPOSITE PRESTRESSED  
 CONCRETE BULB-TEE BEAM  
 2 SPANS: 102'-0", 86'-0"  
 42'-0" CLEAR ROADWAY; SKEW: 30°40'55" Lt.  
 NB BINFORD BLVD OVER 82ND ST.  
 MARION COUNTY

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____ DATE _____		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 30'		BRIDGE FILE 169-200-10434 NBL	
DESIGNED: DWB		DRAWN: JEW		LAYOUT		VERTICAL SCALE 1" = 10'		DESIGNATION 1801675	
CHECKED: AAH		CHECKED: AAH				SURVEY BOOK ELECTRONIC		SHEETS 9 of 11	
						CONTRACT R-38526		PROJECT 1400075	

SFILES  
 14-MAY-2020



**GENERAL NOTES**

Reinforcing steel covering shall be 2½" in Top and 1" min. In bottom of floor slabs, 3" in footing except bottom steel which shall be 4", and 2" in all other parts, unless noted.

**DESIGN DATA**

Superstructure & Substructure Designed for HL-93 Loading in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, and its subsequent Interims.

**DEAD LOAD**

Actual weight plus 35 psf. of future wearing surface and 15 psf for SIP Metal deck forms.

**FLOOR SLAB**

Designed with a 7½" structural depth, and a ½" integral wearing surface.

**DESIGN STRESSES**

CONCRETE	
Prestressed Concrete	f <sub>c</sub> = 8,000 p.s.i.
Class "A" Concrete	f <sub>c</sub> = 3,500 p.s.i.
Class "B" Concrete	f <sub>c</sub> = 3,000 p.s.i.
Class "C" Concrete	f <sub>c</sub> = 4,000 p.s.i.

REINFORCING STEEL	
Grade 60	f <sub>y</sub> = 60,000 p.s.i.

**CONSTRUCTION LOADING**  
The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be located 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

**DECK FALSEWORK LOADS**  
Designed for 15 lb/Sft for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

**CONSTRUCTION LIVE LOAD**  
Designed for 20 lb/Sft extending 2-ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

**FINISHING MACHINE LOAD**  
4500 lb distributed over 10-ft along the coping.

**WIND LOAD**  
Structure Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

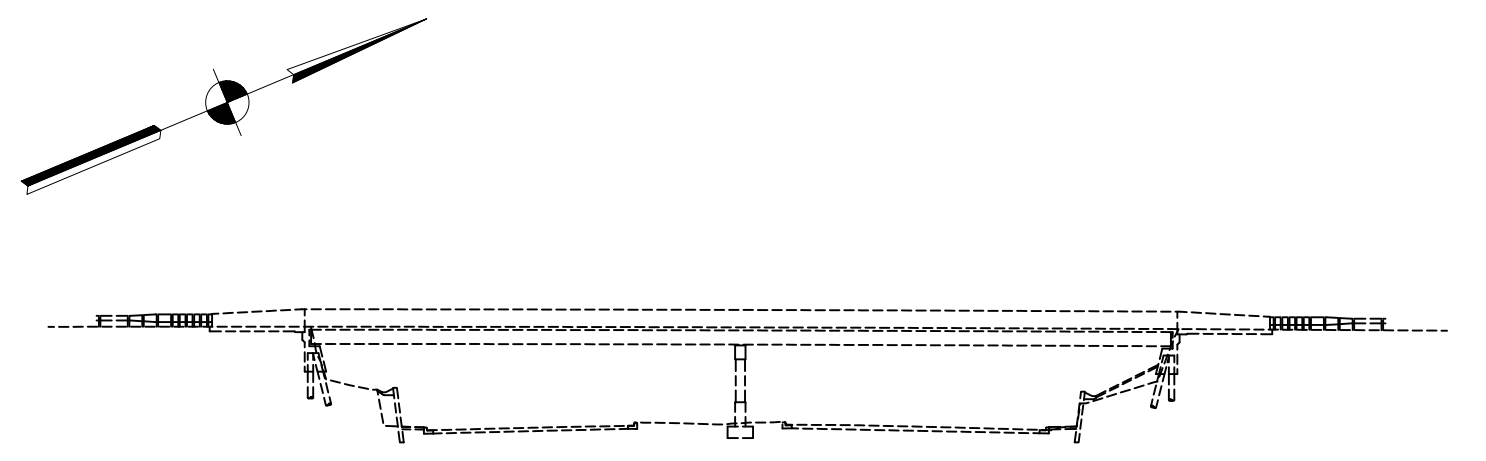
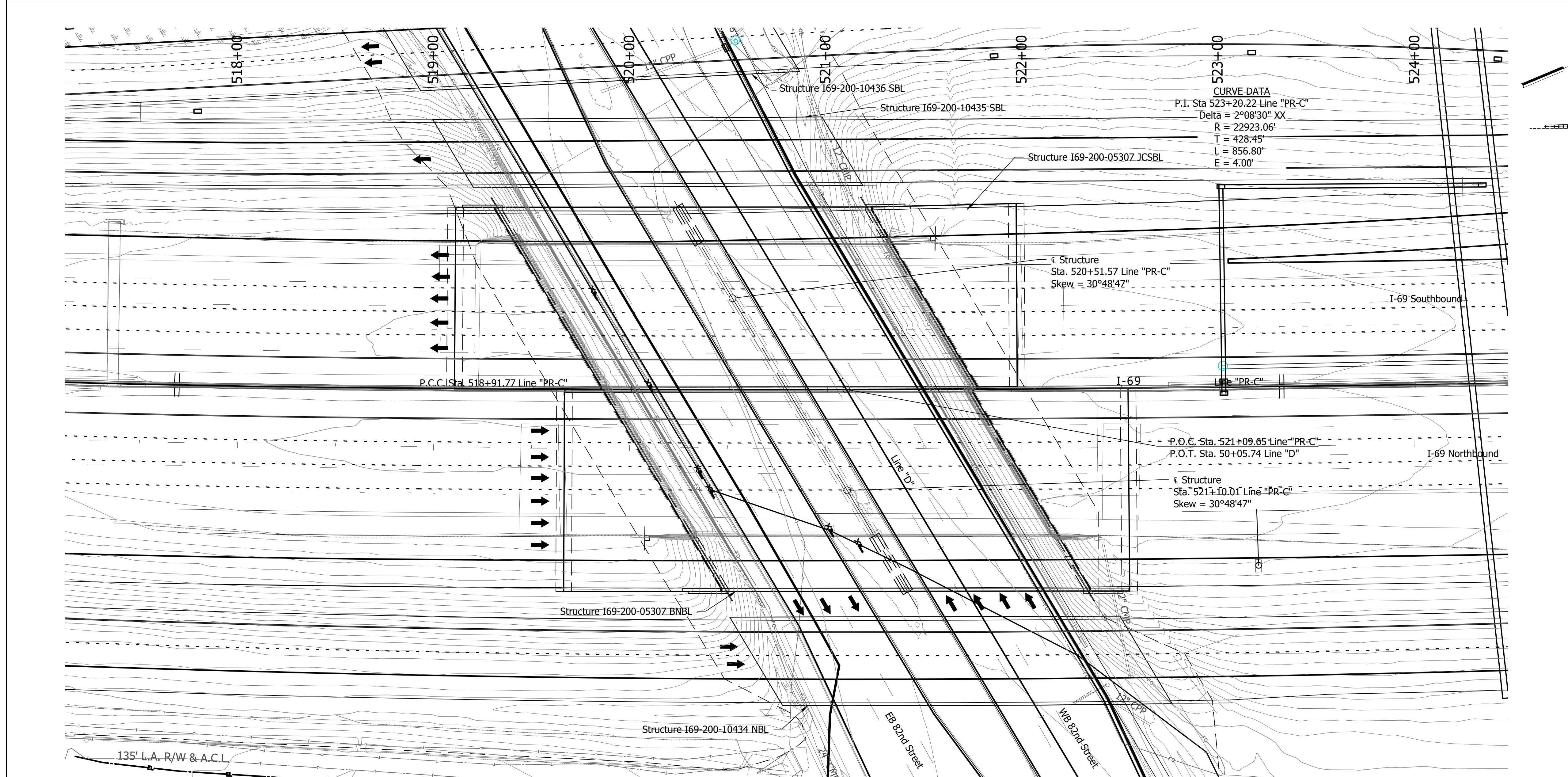
SEISMIC DESIGN DATA	
Seismic Performance Zone	Zone 1
Acceleration Coefficient (S <sub>D1</sub> )	0.117 G
Seismic Soil Profile Type	Site Class D

NOTE:  
● Point of Minimum Vertical Clearance

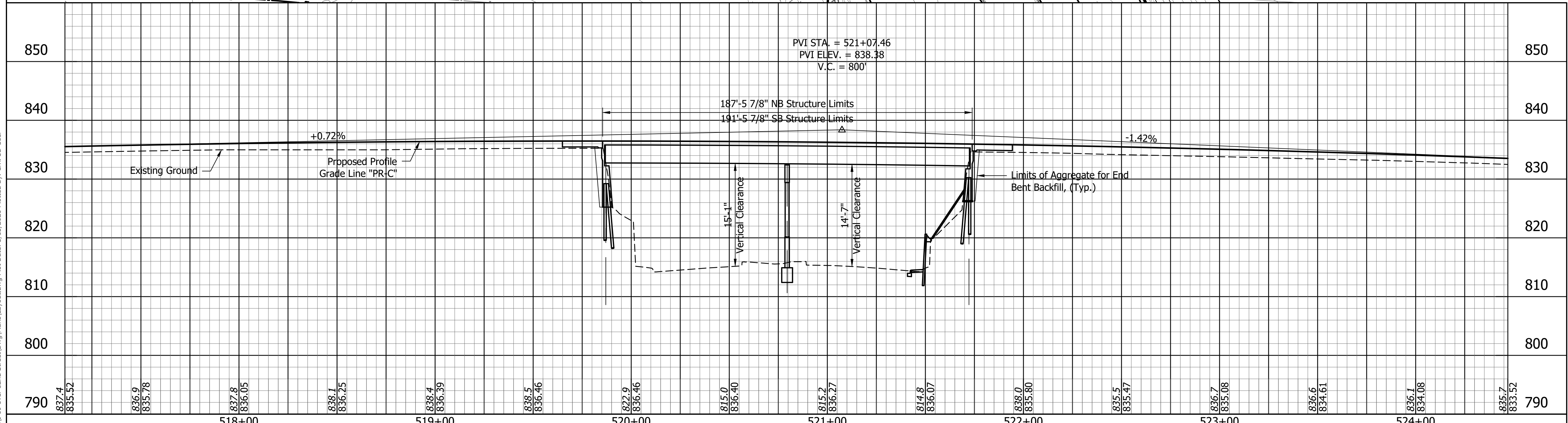
**CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BULB-TEE BEAM**  
2 SPANS: 102'-0", 86'-0"  
42'-0" CLEAR ROADWAY; SKEW: 30°40'55" Lt.  
NB BINFORD BLVD OVER 82ND ST.  
MARION COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGNED: DWB CHECKED: AAH	DESIGN ENGINEER _____ DATE _____ DRAWN: JEW CHECKED: AAH	INDIANA DEPARTMENT OF TRANSPORTATION  GENERAL PLAN	HORIZONTAL SCALE	BRIDGE FILE
			1/16" = 1'-0"	169-200-10434 NBL
			VERTICAL SCALE	DESIGNATION
1/16" = 1'-0"	1801675	SURVEY BOOK	SHEETS	
			ELECTRONIC	10 of 11
			CONTRACT	PROJECT
			R-38526	1400075

SFILES  
14-MAY-2020



**EXISTING STRUCTURE**  
 No Scale  
 Existing Bridge Deck and Portion of End Bents and Pier to be Removed. New Bridge Deck, Widened Piers and Bents, and Semi-Integral End Bents to be poured.



**Bridges 10 and 11**

Notes:  
 For R/W, MSE Wall, and Additional Information see Road Plan and Profile sheets.  
 For Utility Contacts see Index Sheet No. 2.  
 See Plans Des. No. 1400075 for Earthwork and Cross-Sections.

**CONTINUOUS COMPOSITE STEEL BEAM BRIDGES**  
 TWO SPANS NB: 92'-0" & 92'-0"  
 TWO SPANS SB: 92'-0" & 96'-0"  
 CLEAR ROADWAY: 100'-0" NB & 90'-2" SB  
 SKEW: 30°48'46.98" LEFT  
 I-69 OVER 82ND STREET  
 MARION COUNTY

File Name: P:\BR\CD\16-223\Bridges\I-69 over 82nd Street\Drawings\Plans\Layout.dwg Plot Date: 5/15/2021 Plotted By: Civil 3D User



8440 Allison Pointe Boulevard, Suite 200  
 Indianapolis, IN 46250  
 Phone 317-895-2585  
 www.ucindy.com

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: CJA	DRAWN: AJM	
CHECKED: JNR	CHECKED: CJA	

INDIANA  
 DEPARTMENT OF TRANSPORTATION

LAYOUT  
 I-69 OVER 82ND STREET

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	169-200-05307 CNBL/JDSB
VERTICAL SCALE	DESIGNATION
AS NOTED	1801662/1801663
SURVEY BOOK	SHEETS
-	12 of 16
CONTRACT	PROJECT
R-38526	1400075



### GENERAL NOTES

Reinforcing steel covering to be 2 1/2" in the top and 1" minimum in the bottom of floor slabs, 3" footings except bottom steel which shall be 4" and 2" in all other parts, unless noted.

Surface seal all exposed concrete surfaces of bents, wingwalls, piers, top of bridge deck, face of deck coping, top of approach slabs, all exposed surfaces of concrete railings and railing transitions, and the underside of deck to the face of exterior beam. (Estimated Quantity = xx,xxx sft.)

Plans for existing structure are on file in the INDOT Central Office under Bridge Files 169-200-05307 JCSB & 169-200-05307 BNBL.

### DESIGN DATA

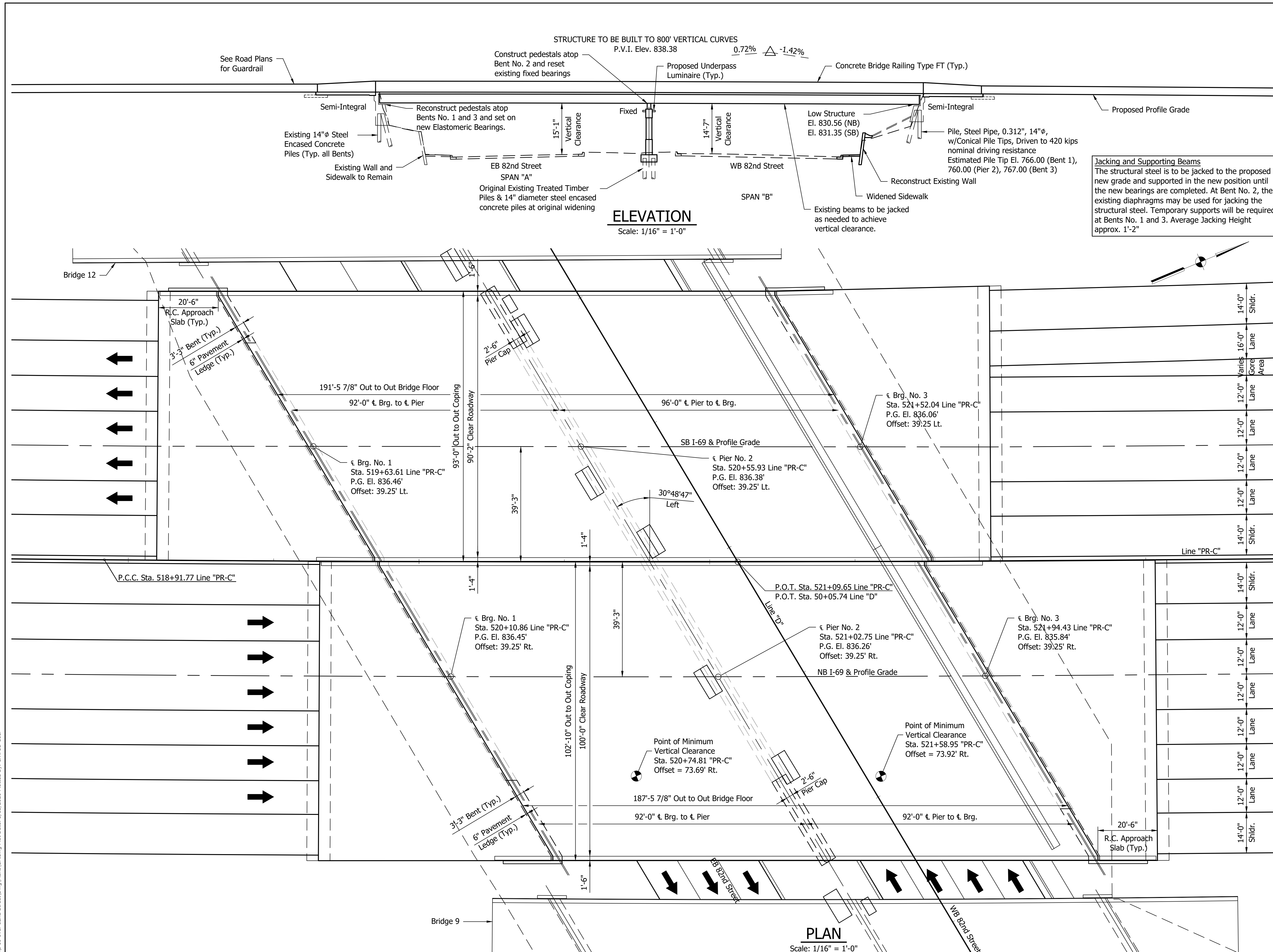
- LIVE LOAD:** HS20-44 and military loading with impact and distribution of loads in accordance with AASHTO Standard Specifications for Highway Bridges, Seventeenth Edition, 2002 and its subsequent interims.
- DEAD LOAD:** Actual weight plus 35 lbs./sft. for future wearing surface and 15 lbs./sft. for permanent metal deck forms.
- FLOOR SLAB:** Designed with a structural depth of 7 1/2" plus 1/2" sacrificial wearing surface.
- UNIT STRESSES:** Reinforcing Steel,  $F_y = 60,000$  psi  
Concrete Class B,  $f_c = 3,000$  psi  
Concrete Class A,  $f_c = 3,500$  psi  
Concrete Class C,  $f_c = 4,000$  psi

### CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be located 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

- Deck Falsework Loads:** Designed for 15 lb/sft for permanent metal stay-in-place deck forms, removable deck forms, 2' exterior walkway.
- Construction Live Load:** Designed for 20 lb/sft extending 2' past the edge of coping and 75 lb/ft vertical force applied at a distance of 6" outside the face of coping over a 30' length of the deck centered with the finishing machine.
- Finishing Machine Load:** 4,500 lb distributed over 10' along the coping.
- Wind Load:** Structure designed for 3 second wind gust speeds in accordance with LRFD 3.8.1.

**CONTINUOUS COMPOSITE STEEL BEAM BRIDGES**  
TWO SPANS NB: 92'-0" & 92'-0"  
TWO SPANS SB: 92'-0" & 96'-0"  
CLEAR ROADWAY: NB 100'-0" & 90'-2" SB  
SKEW: 30°48'46.98" LEFT  
I-69 OVER 82ND STREET  
MARION COUNTY



**ELEVATION**  
Scale: 1/16" = 1'-0"

**PLAN**  
Scale: 1/16" = 1'-0"

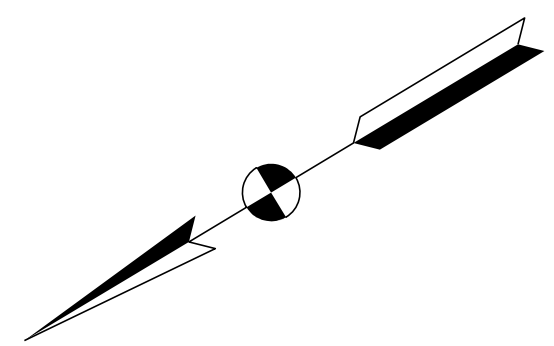
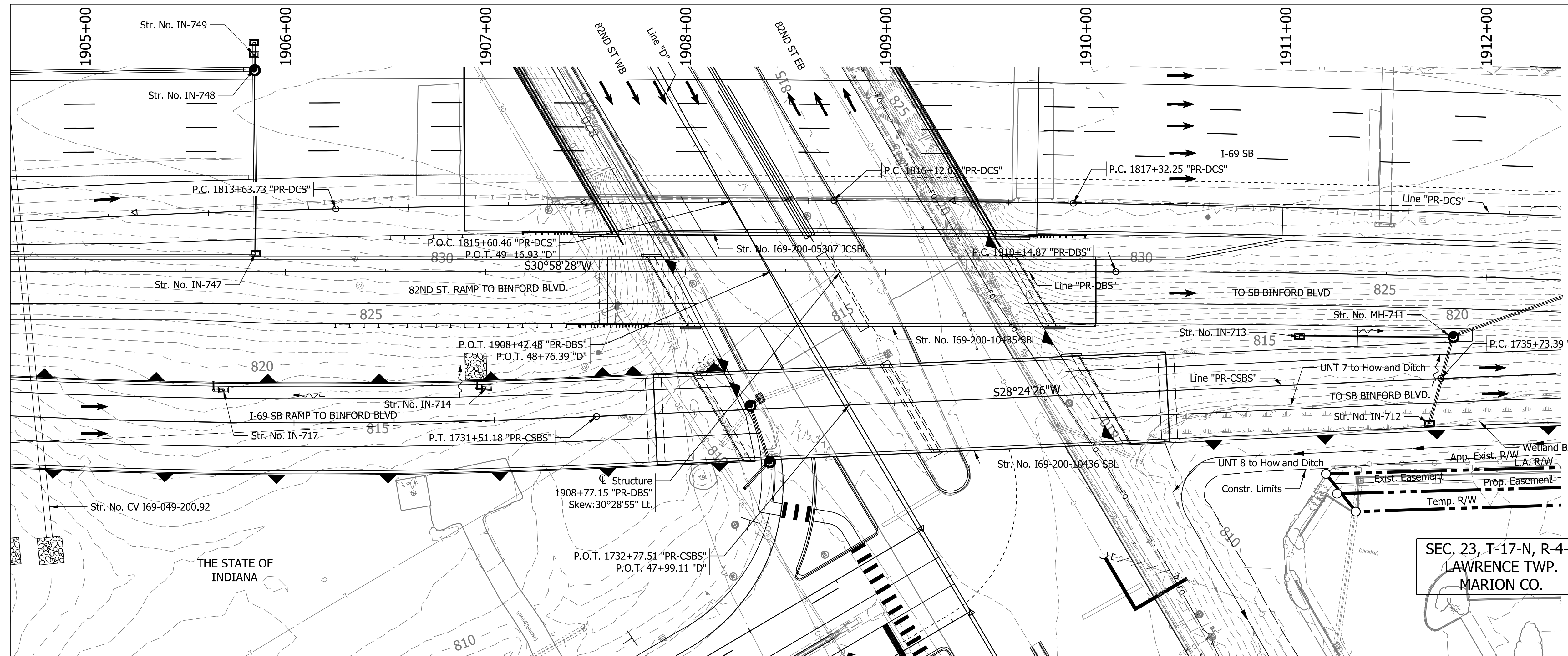


8440 Allison Pointe Boulevard, Suite 200  
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RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: CJA		DRAWN: AJM			
CHECKED: JNR		CHECKED: CJA			

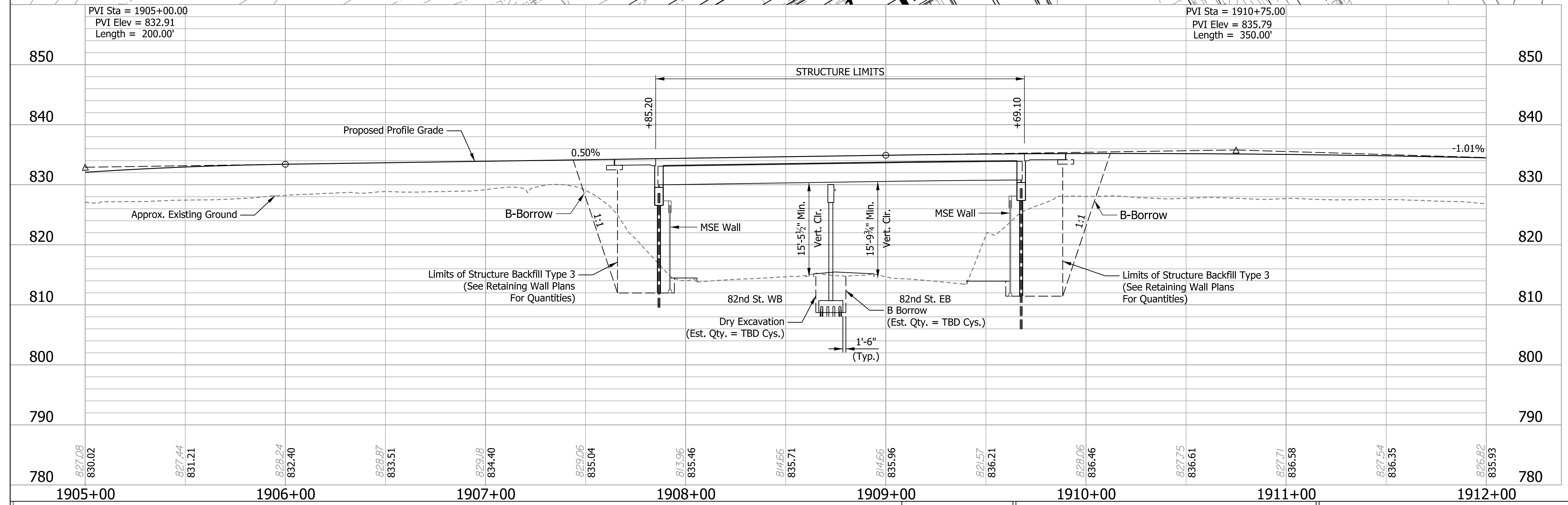
INDIANA  
DEPARTMENT OF TRANSPORTATION  
  
GENERAL PLAN  
I-69 OVER 82ND STREET

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	169-200-05307 CNBL/JDSB
VERTICAL SCALE	DESIGNATION
AS NOTED	1801662/1801663
SURVEY BOOK	SHEETS
-	13 of 16
CONTRACT	PROJECT
R-38526	1400075



**EXISTING STRUCTURE**  
No Existing Structure

SEC. 23, T-17-N, R-4-E  
LAWRENCE TWP.  
MARION CO.



NOTES:  
For Utility Contacts see Index Sheet No.2.  
For R/W, MSE Wall, Earthwork, Cross-Sections and Additional Information, See Roadway Plans Des. No. 1400075.

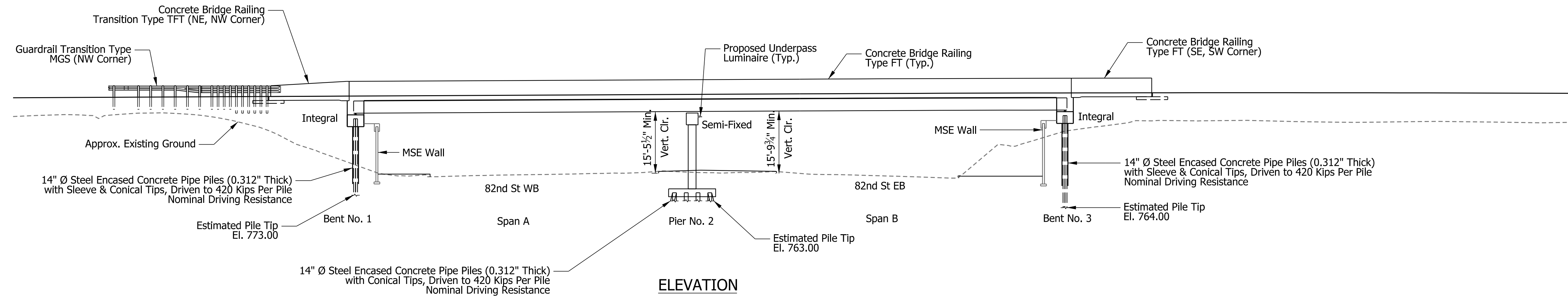
**Bridge 12**

CONTINUOUS COMPOSITE PRESTRESSED  
CONCRETE BULB-TEE BEAM  
2 SPANS: 86'-0", 95'-0"  
32'-0" CLEAR ROADWAY; SKEW: 30°28'55" Lt.  
82ND ST RAMP OVER 82ND ST  
MARION COUNTY

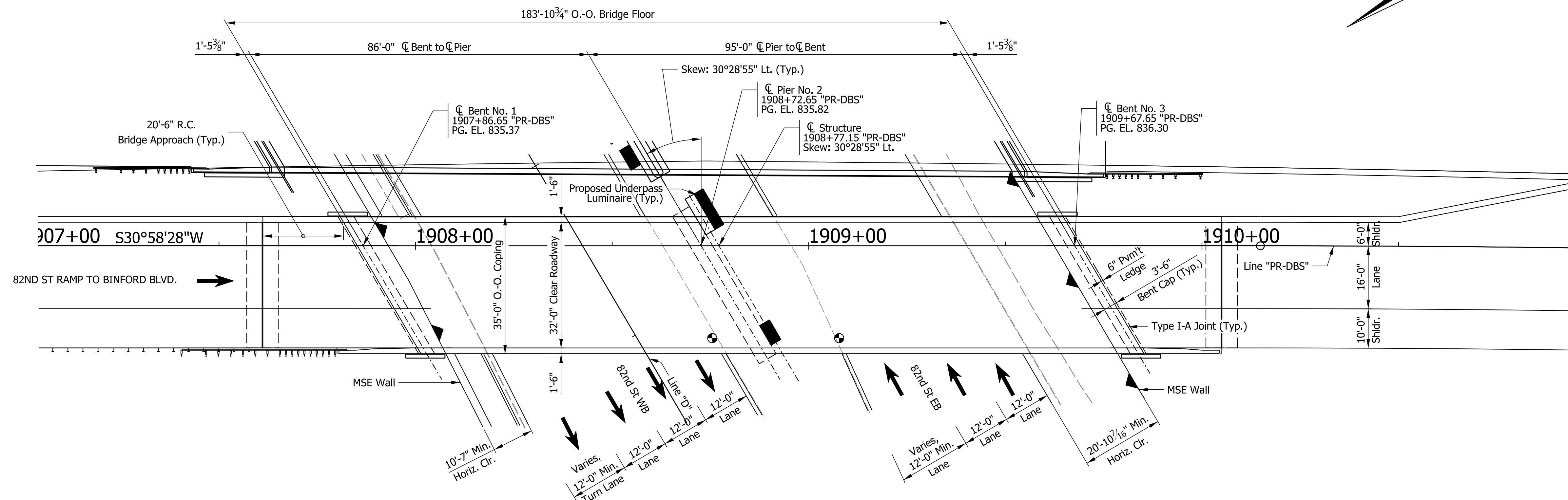
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DESIGNED: DWB DRAWN: JEW			DESIGNATION 1801676	
CHECKED: AAH CHECKED: AAH			SHEETS 9 of 11 PROJECT 1400075	

SFILES  
14-MAY-2020

STRUCTURE TO BE BUILT TO A 0.5% GRADE & A 350' VC



ELEVATION



PLAN

GENERAL NOTES

Reinforcing steel covering shall be 2 1/2" in Top and 1" min. In bottom of floor slabs, 3" in footing except bottom steel which shall be 4", and 2" in all other parts, unless noted.

DESIGN DATA

Superstructure & Substructure Designed for HL-93 Loading in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, and its subsequent interims.

DEAD LOAD

Actual weight plus 35 psf. of future wearing surface and 15 psf for SIP Metal deck forms.

FLOOR SLAB

Designed with a 7 1/2" structural depth, and a 1/2" integral wearing surface.

DESIGN STRESSES

CONCRETE

Prestressed Concrete  $f_c = 8,000$  p.s.i.  
 Class "A" Concrete  $f_c = 3,500$  p.s.i.  
 Class "B" Concrete  $f_c = 3,000$  p.s.i.  
 Class "C" Concrete  $f_c = 4,000$  p.s.i.

REINFORCING STEEL

Grade 60  $f_y = 60,000$  p.s.i.

CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be located 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

DECK FALSEWORK LOADS

Designed for 15 lb/Sft for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

CONSTRUCTION LIVE LOAD

Designed for 20 lb/Sft extending 2-ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

FINISHING MACHINE LOAD

4500 lb distributed over 10-ft along the coping.

WIND LOAD

Structure Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

SEISMIC DESIGN DATA

Seismic Performance Zone Zone 1  
 Acceleration Coefficient ( $S_{D1}$ ) 0.117 g  
 Seismic Soil Profile Type Site Class C

● - Point of Minimum Vertical Clearance

CONTINUOUS COMPOSITE PRESTRESSED  
 CONCRETE BULB-TEE BEAM  
 2 SPANS: 86'-0", 95'-0"  
 32'-0" CLEAR ROADWAY; SKEW: 30°28'55" Lt.  
 82ND ST RAMP OVER 82ND ST  
 MARION COUNTY

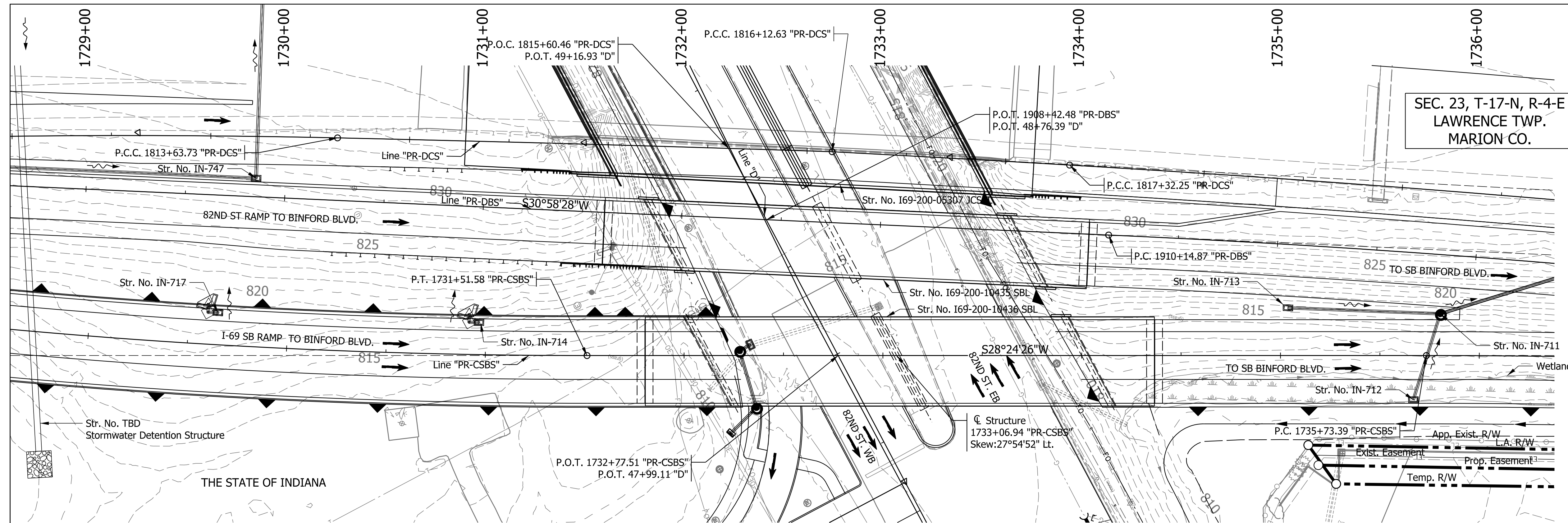
SFILES  
 14-MAY-2020

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: DWB	DRAWN: JEW	
CHECKED: AAH	CHECKED: AAH	

INDIANA  
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

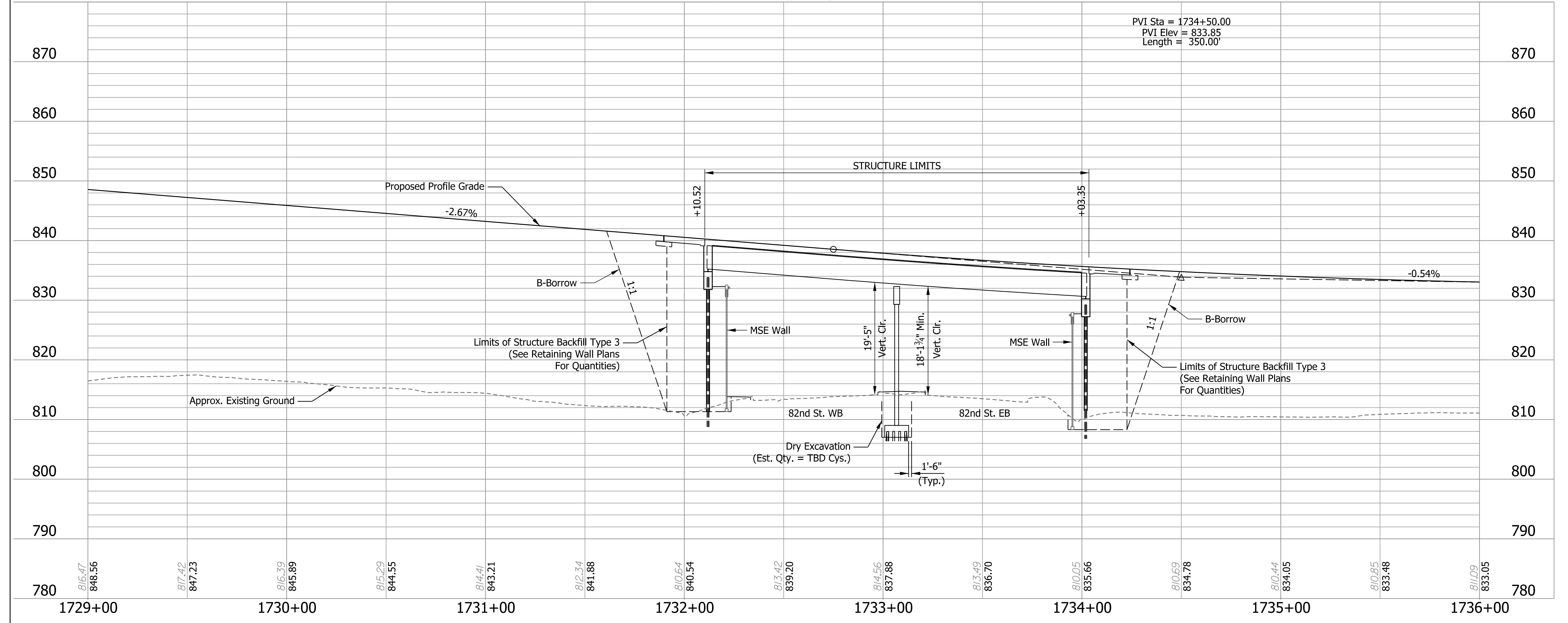
HORIZONTAL SCALE	BRIDGE FILE
1/16"=1'-0"	169-200-10435 SBL
VERTICAL SCALE	DESIGNATION
1/16"=1'-0"	1801676
SURVEY BOOK	SHEETS
ELECTRONIC	10 of 11
CONTRACT	PROJECT
R-38526	1400075



SEC. 23, T-17-N, R-4-E  
LAWRENCE TWP.  
MARION CO.

CURVE 1 DATA  
PI = 1728+57.63 "PR-CSBS"  
Delta = 10°32'31" Lt.  
D = 1°47'26"  
R = 3200.00 ft  
T = 295.22 ft  
L = 588.77 ft  
E = 13.59 ft

CURVE 2 DATA  
PI = 1738+58.14 "PR-CSBS"  
Delta = 7°14'29" Rt.  
D = 1°16'24"  
R = 4500.00 ft  
T = 284.75 ft  
L = 568.74 ft  
E = 9.00 ft



EXISTING STRUCTURE  
No Existing Structure

NOTES:  
For Utility Contacts see Index Sheet No.2.  
For R/W, MSE Wall, Earthwork, Cross-Sections and Additional Information, See Roadway Plans Des. No. 1400075.

Bridge 13

CONTINUOUS COMPOSITE PRESTRESSED  
CONCRETE BULB-TEE BEAM  
2 SPANS: 95'-0"  
42'-0" CLEAR ROADWAY; SKEW: 27°54'52" Lt.  
I-69 SB RAMP OVER 82ND ST  
MARION COUNTY

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
DESIGNED: ZMR	DRAWN: JEW			1"=30'-0"	169-200-10436 SBL
CHECKED: AAH	CHECKED: AAH			VERTICAL SCALE	DESIGNATION
			LAYOUT	1"=10'-0"	1801677
				SURVEY BOOK	SHEETS
				ELECTRONIC	9 of 11
				CONTRACT	PROJECT
				R-38526	1400075

SFILES  
14-MAY-2020

STRUCTURE TO BE BUILT TO A -2.67% GRADE AND A 350' VC

**GENERAL NOTES**

Reinforcing steel covering shall be 2½" in Top and 1" min. In bottom of floor slabs, 3" in footing except bottom steel which shall be 4", and 2" in all other parts, unless noted.

**DESIGN DATA**

Superstructure & Substructure Designed for HL-93 Loading in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, and its subsequent interims.

**DEAD LOAD**

Actual weight plus 35 psf. of future wearing surface and 15 psf for SIP Metal deck forms.

**FLOOR SLAB**

Designed with a 7½" structural depth, and a ½" integral wearing surface.

**DESIGN STRESSES**

**CONCRETE**

Prestressed Concrete  $f_c = 8,000$  p.s.i.  
 Class "A" Concrete  $f_c = 3,500$  p.s.i.  
 Class "B" Concrete  $f_c = 3,000$  p.s.i.  
 Class "C" Concrete  $f_c = 4,000$  p.s.i.

**REINFORCING STEEL**

Grade 60  $f_y = 60,000$  p.s.i.

**CONSTRUCTION LOADING**

The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be located 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

**DECK FALSEWORK LOADS**

Designed for 15 lb/Sft for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

**CONSTRUCTION LIVE LOAD**

Designed for 20 lb/Sft extending 2-ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

**FINISHING MACHINE LOAD**

4500 lb distributed over 10-ft along the coping.

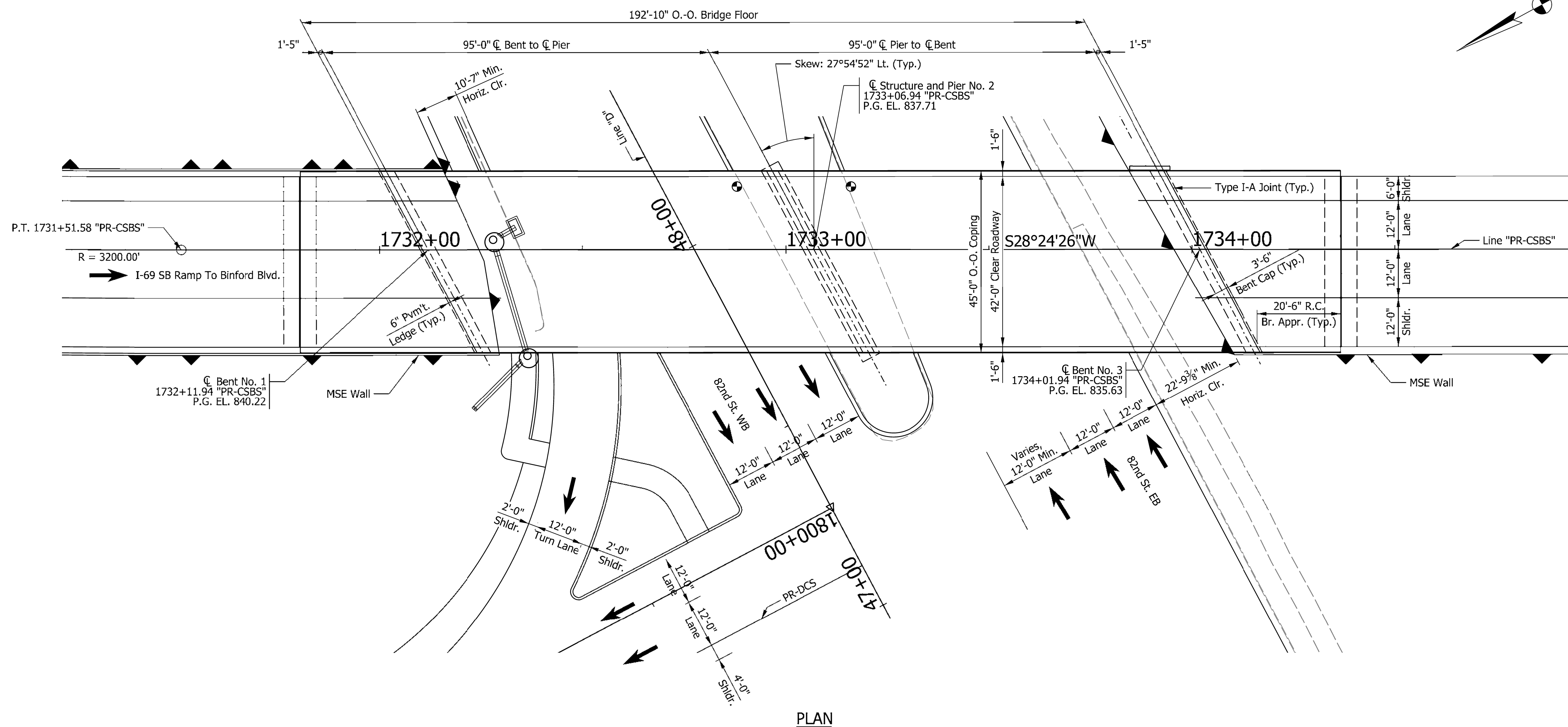
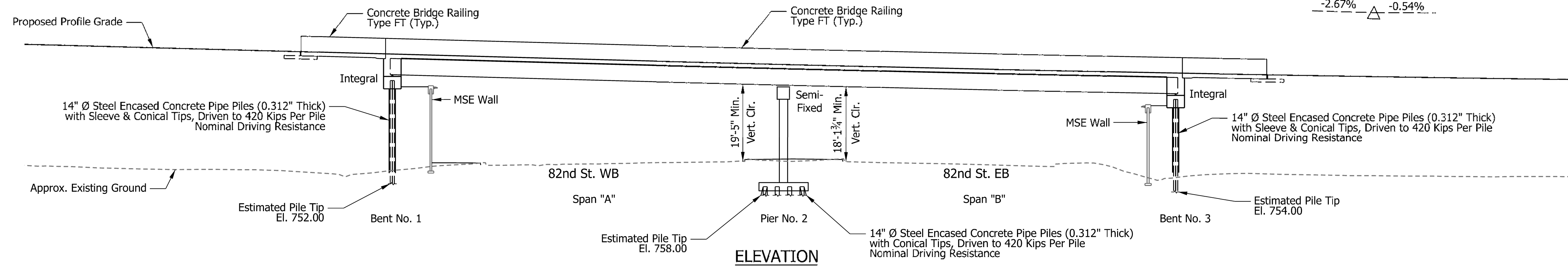
**WIND LOAD**

Structure Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

**SEISMIC DESIGN DATA**

Seismic Performance Zone Zone 1  
 Acceleration Coefficient ( $S_{D1}$ ) 0.117 g  
 Seismic Soil Profile Type Site Class D

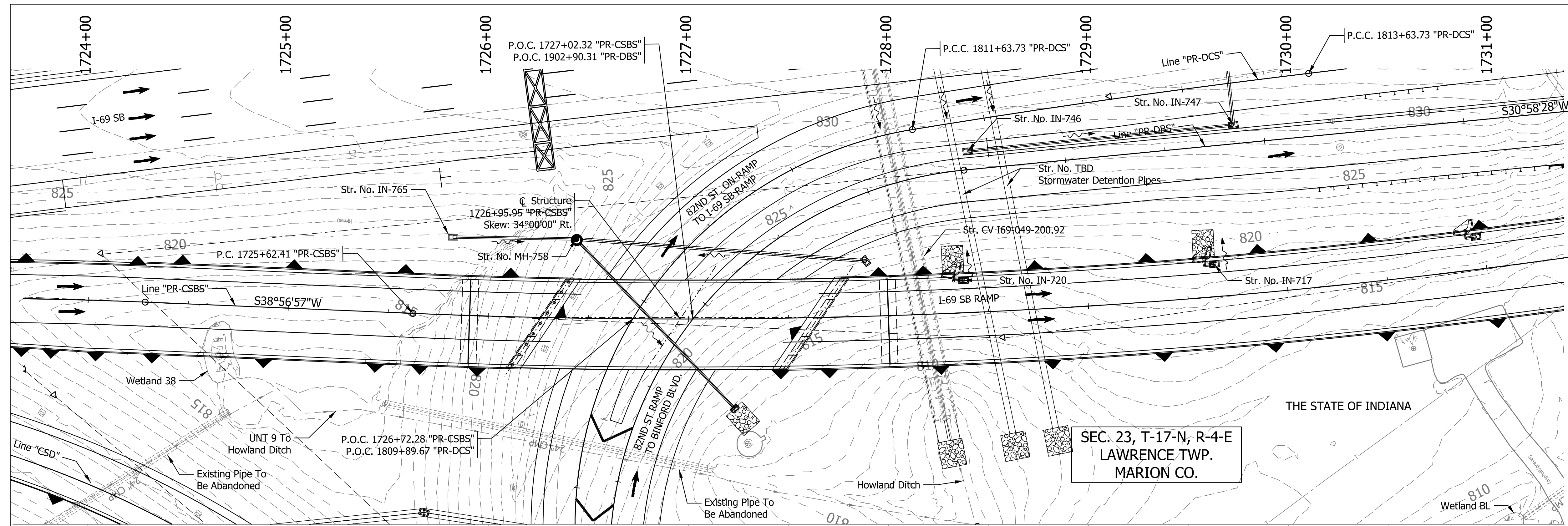
● - Point of Minimum Vertical Clearance



CONTINUOUS COMPOSITE PRESTRESSED  
 CONCRETE BULB-TEE BEAM  
 2 SPANS: 95'-0"  
 42'-0" CLEAR ROADWAY; SKEW: 27°54'52" Lt.  
 I-69 SB RAMP OVER 82ND ST  
 MARION COUNTY

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER		DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: ZMR		DRAWN: JEW			1/4" = 1'-0"	169-200-10436 SBL
CHECKED: AAH	CHECKED: AAH				GENERAL PLAN	VERTICAL SCALE	DESIGNATION
						1/4" = 1'-0"	1801677
					GENERAL PLAN	SURVEY BOOK	SHEETS
						ELECTRONIC	10 of 11
						CONTRACT	PROJECT
						R-38526	1400075

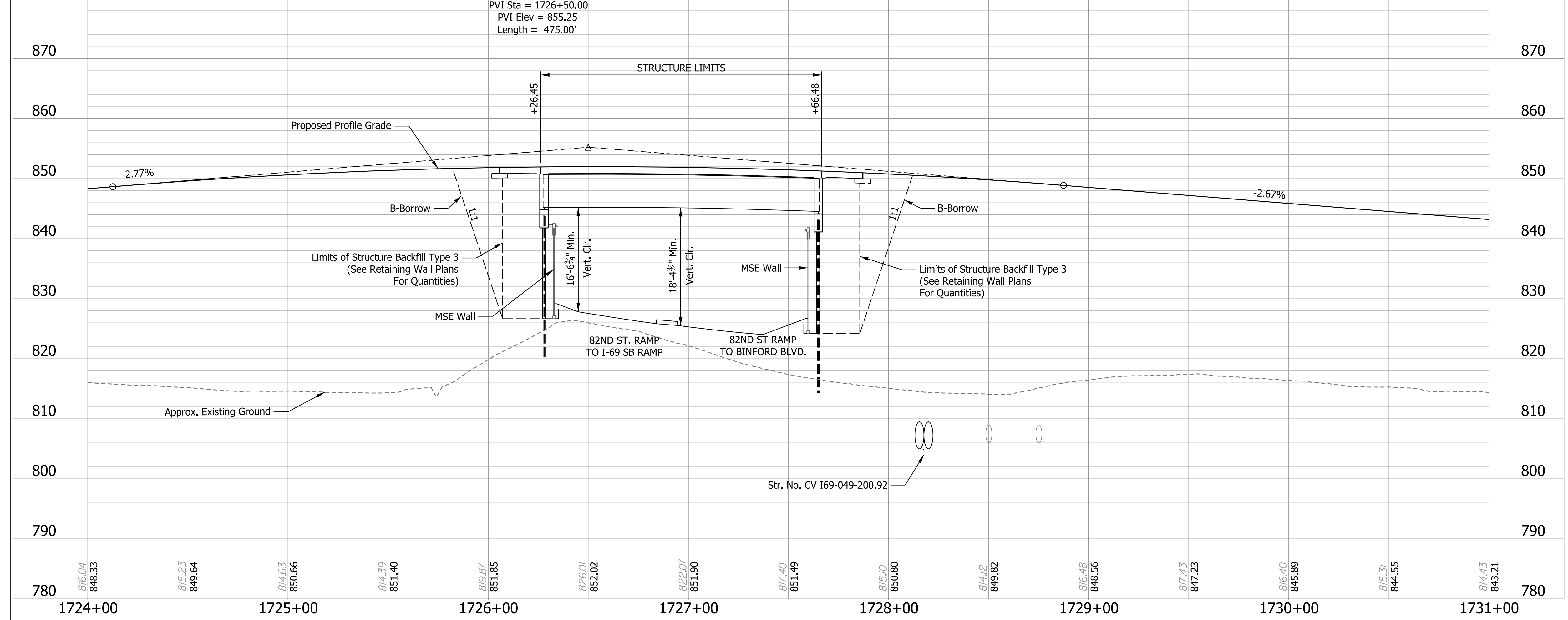
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14-MAY-2020



CURVE # 3  
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 Delta = 10°32'31" LT  
 D = 1°47'26"  
 R = 3200.00'  
 T = 295.22'  
 L = 588.77'  
 E = 13.59'

**EXISTING STRUCTURE**  
 No Existing Structure

SEC. 23, T-17-N, R-4-E  
 LAWRENCE TWP.  
 MARION CO.



NOTES:  
 For Utility Contacts see Index Sheet No.2.  
 For R/W, MSE Wall, Earthwork, Cross-Sections and Additional Information, See Roadway Plans Des. No. 1400075.

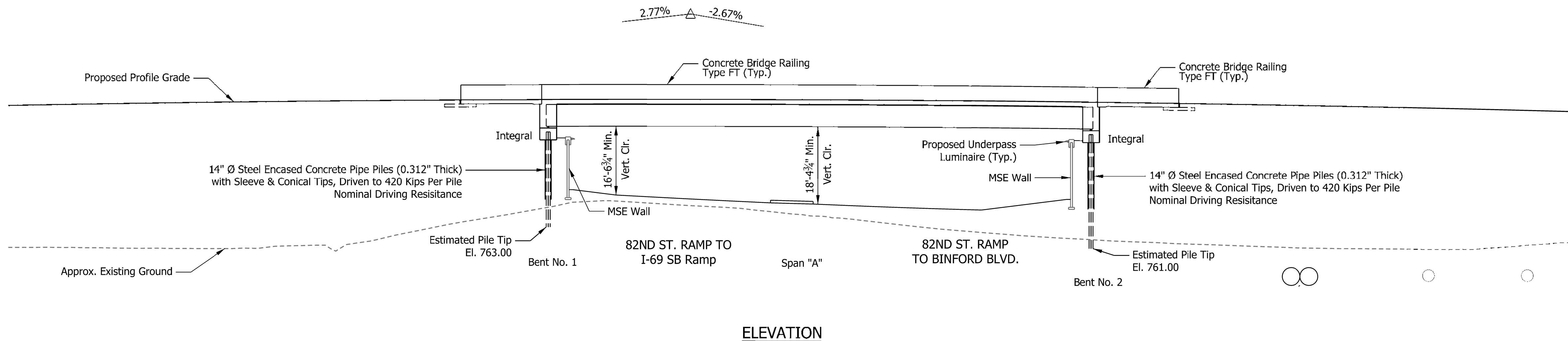
**Bridge 14**

COMPOSITE PRESTRESSED CONCRETE BULB-TEE BEAM  
 1 SPAN @ 137'-0"  
 42'-0" CLEAR ROADWAY; SKEW: 34°00'00" Rt.  
 I-69 SB RAMP OVER 82ND ST RAMP  
 MARION COUNTY

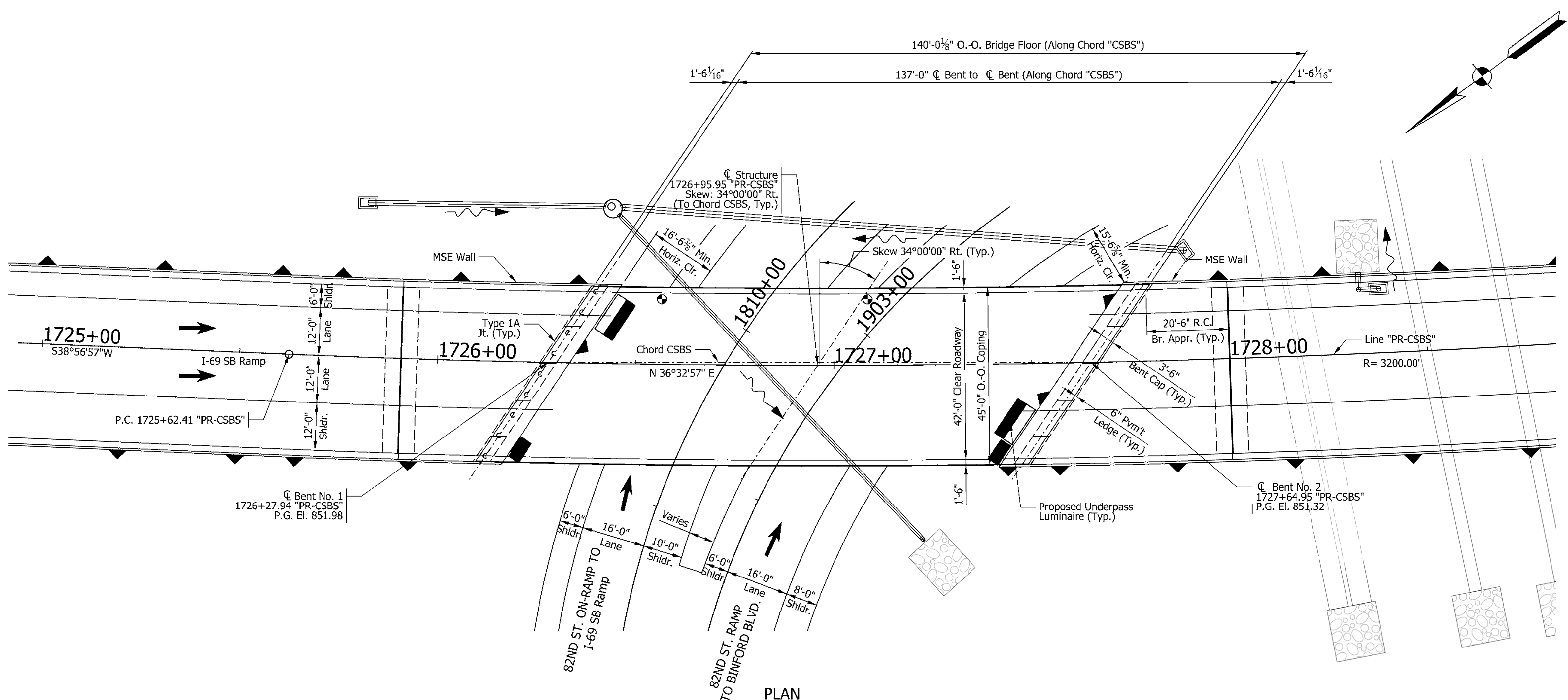
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER		DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
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	CHECKED: AAH		CHECKED: AAH		1"=10'-0"	DESIGNATION
LAYOUT				SURVEY BOOK	SHEETS	
				ELECTRONIC	9 of 11	
				CONTRACT	PROJECT	
				R-38526	1400075	

SFILES  
 14-MAY-2020

STRUCTURE TO BE BUILT TO A 475' VC



ELEVATION



PLAN

**GENERAL NOTES**

Reinforcing steel covering shall be 2 1/2" in Top and 1" min. In bottom of floor slabs, 3" in footing except bottom steel which shall be 4", and 2" in all other parts, unless noted.

**DESIGN DATA**

Superstructure & Substructure Designed for HL-93 Loading in accordance with AASHTO LRFD Bridge Design Specifications, Eighth Edition, and its subsequent interims.

**DEAD LOAD**

Actual weight plus 35 psf. of future wearing surface and 15 psf for SIP Metal deck forms.

**FLOOR SLAB**

Designed with a 7 1/2" structural depth, and a 1/2" integral wearing surface.

**DESIGN STRESSES**

**CONCRETE**

Prestressed Concrete  $f_c = 8,000$  p.s.i.  
 Class "A" Concrete  $f_c = 3,500$  p.s.i.  
 Class "B" Concrete  $f_c = 3,000$  p.s.i.  
 Class "C" Concrete  $f_c = 4,000$  p.s.i.

**REINFORCING STEEL**

Grade 60  $f_y = 60,000$  p.s.i.

**CONSTRUCTION LOADING**

The exterior girder has been checked for strength, deflection, and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6" outside the vertical coping form. The top overhang brackets were assumed to be located 6" past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

**DECK FALSEWORK LOADS**

Designed for 15 lb/Sft for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

**CONSTRUCTION LIVE LOAD**

Designed for 20 lb/Sft extending 2-ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6 in. outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

**FINISHING MACHINE LOAD**

4500 lb distributed over 10-ft along the coping.

**WIND LOAD**

Structure Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

**SEISMIC DESIGN DATA**

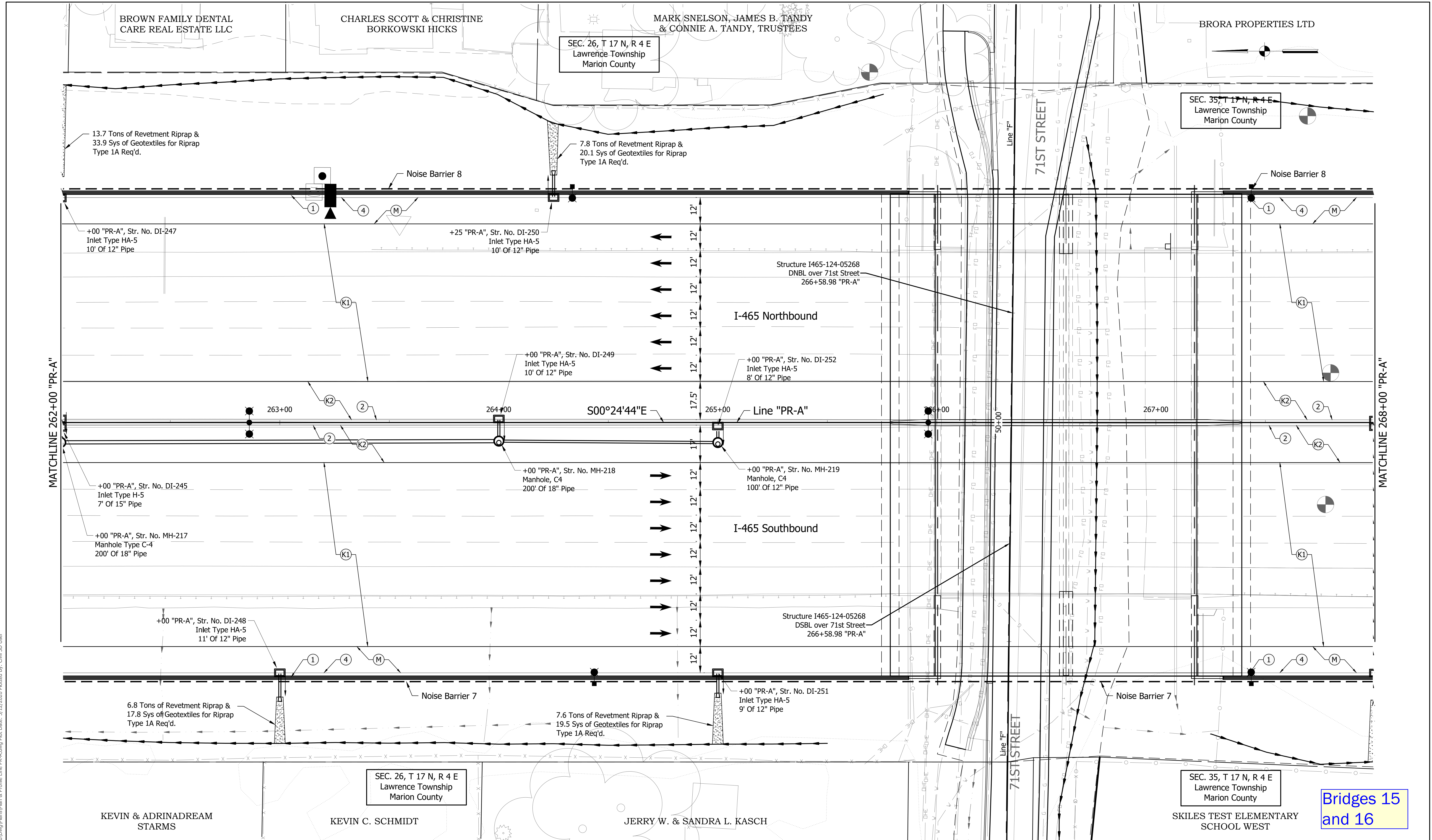
Seismic Performance Zone Zone 1  
 Acceleration Coefficient ( $S_{D1}$ ) 0.117 g  
 Seismic Soil Profile Type Site Class D

● - Point of Minimum Vertical Clearance

COMPOSITE PRESTRESSED CONCRETE BULB-TEE BEAM  
 1 SPAN @ 137'-0"  
 42'-0" CLEAR ROADWAY; SKEW: 34°00'00" Rt.  
 I-69 SB RAMP OVER 82ND ST RAMP  
 MARION COUNTY

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER		DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
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CHECKED: AAH	CHECKED: AAH				GENERAL PLAN	VERTICAL SCALE	DESIGNATION
						1/16" = 1'-0"	1801678
						SURVEY BOOK	SHEETS
						ELECTRONIC	10 of 11
						CONTRACT	PROJECT
						R-38526	1400075

\$FILES 14-MAY-2020



File Name: P:\BR\140075\Board\Draw\Plans\Plan & Profile Line PR-A.dwg Plot Date: 5/12/2020 Plotted By: Civil 3D User



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Indianapolis, IN 46250  
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Note To Reviewer:  
Stormwater Detention will be designed at STG3

**INFORMATION ONLY**

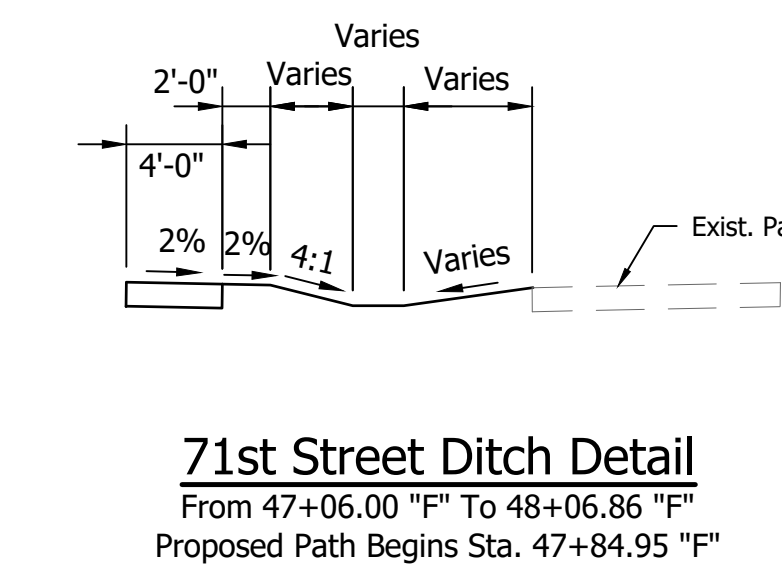
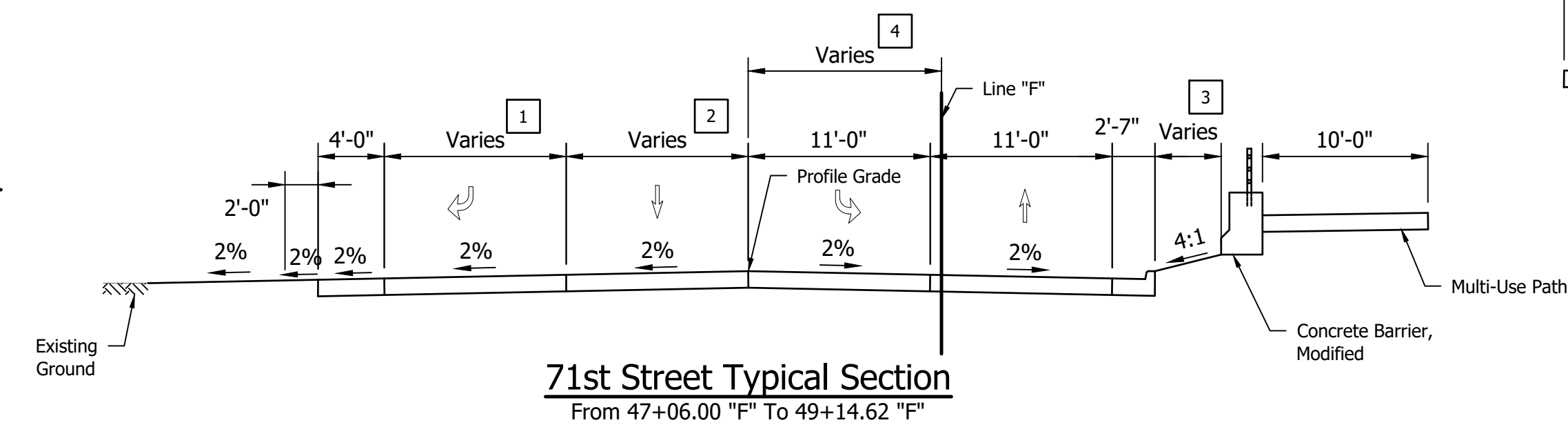
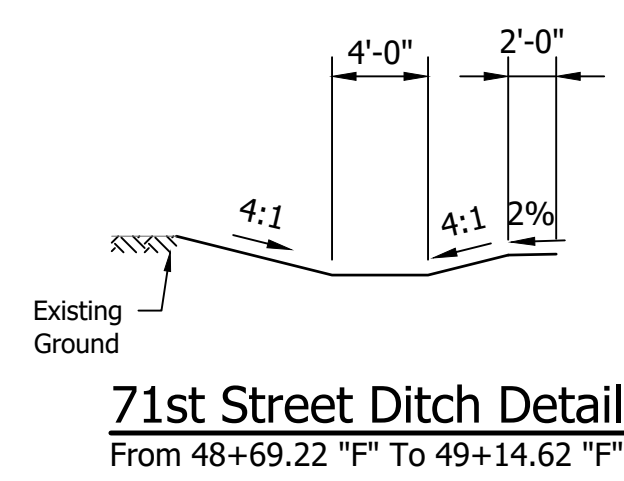
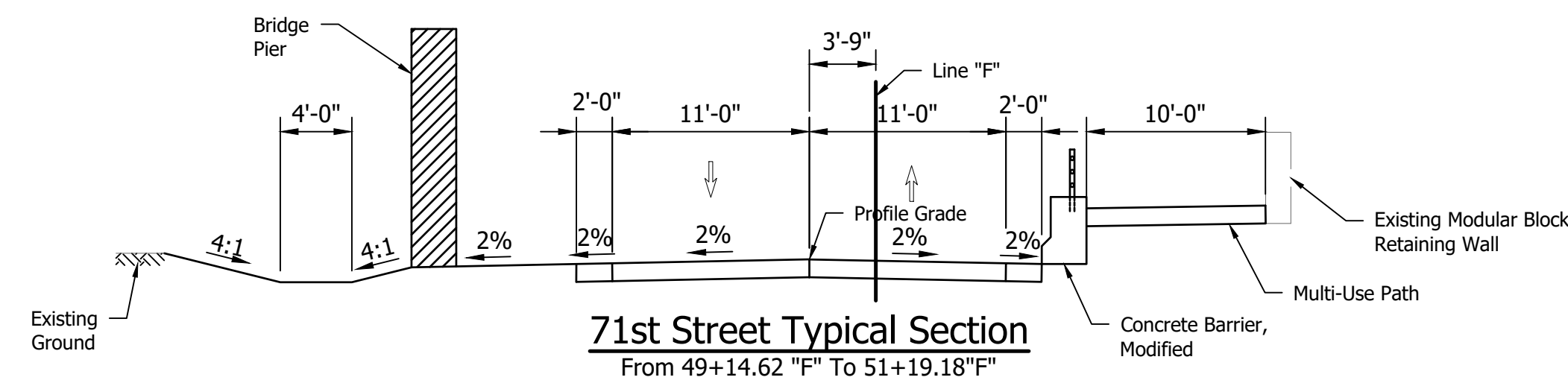
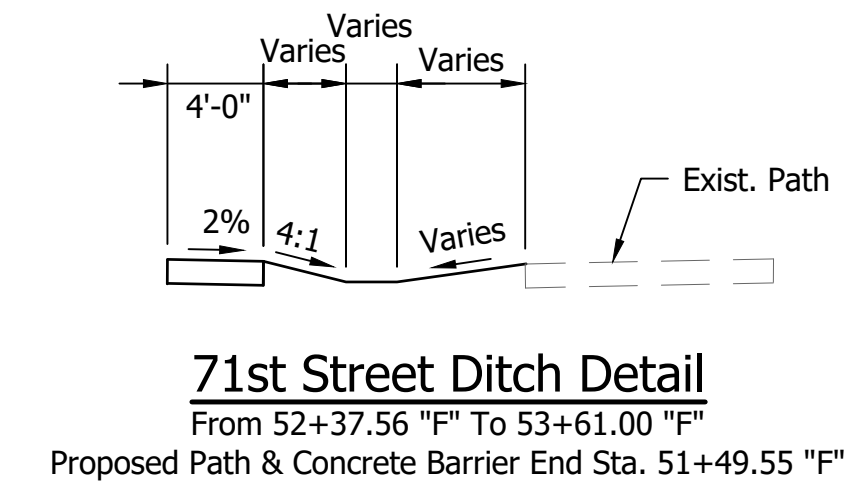
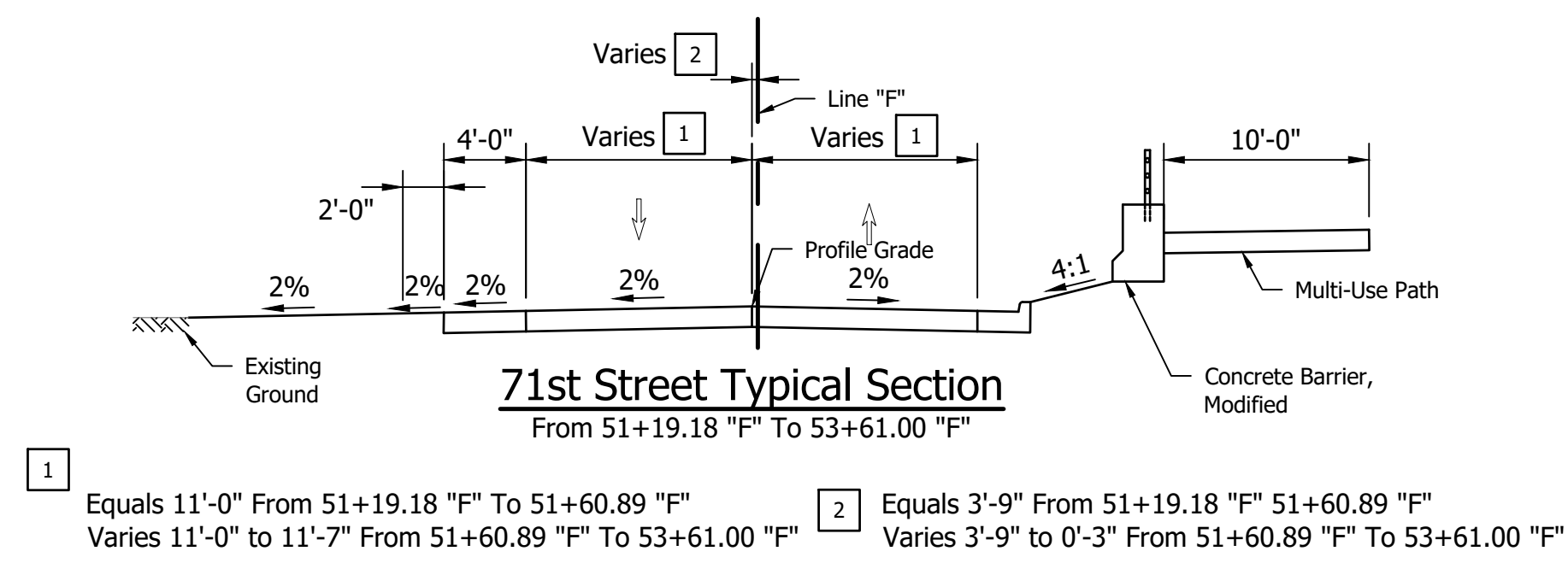
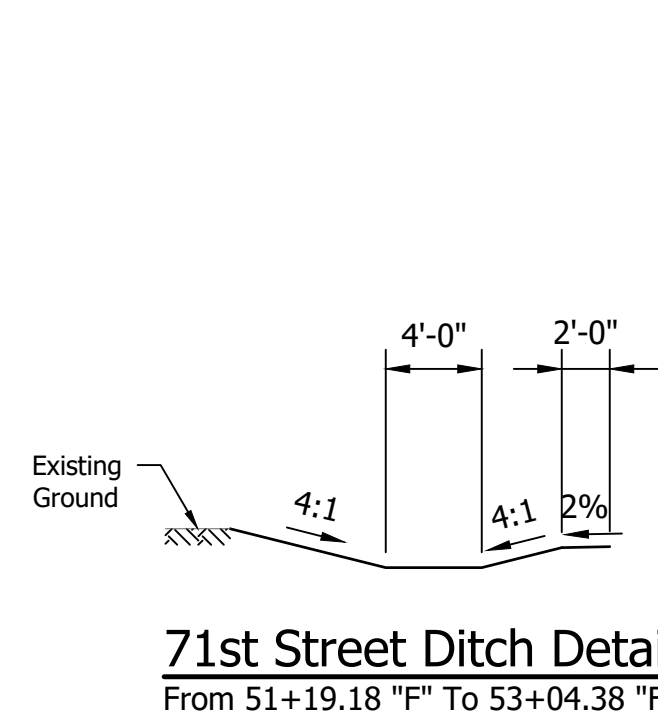


DESIGNED:	CCR	DRAWN:	JNII
CHECKED:	WRC	CHECKED:	WRC

INDIANA  
DEPARTMENT OF TRANSPORTATION  
  
PLAN  
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1400075
SURVEY BOOK	SHEETS
	4 of 24
CONTRACT	PROJECT
R-38526	1400075





East 71st Street and  
East 71st Street Multi-  
Use Trail typical sections

File Name: P:\BR\16223\Road\Draw\Plans\Typical Sections.dwg Plot Date: 5/11/2020 Plotted By: Andy Allison



8440 Allison Pointe Blvd.  
Suite 200  
Indianapolis, IN 46250  
Phone 317-895-2585  
www.ucindy.com

**INFORMATION ONLY**



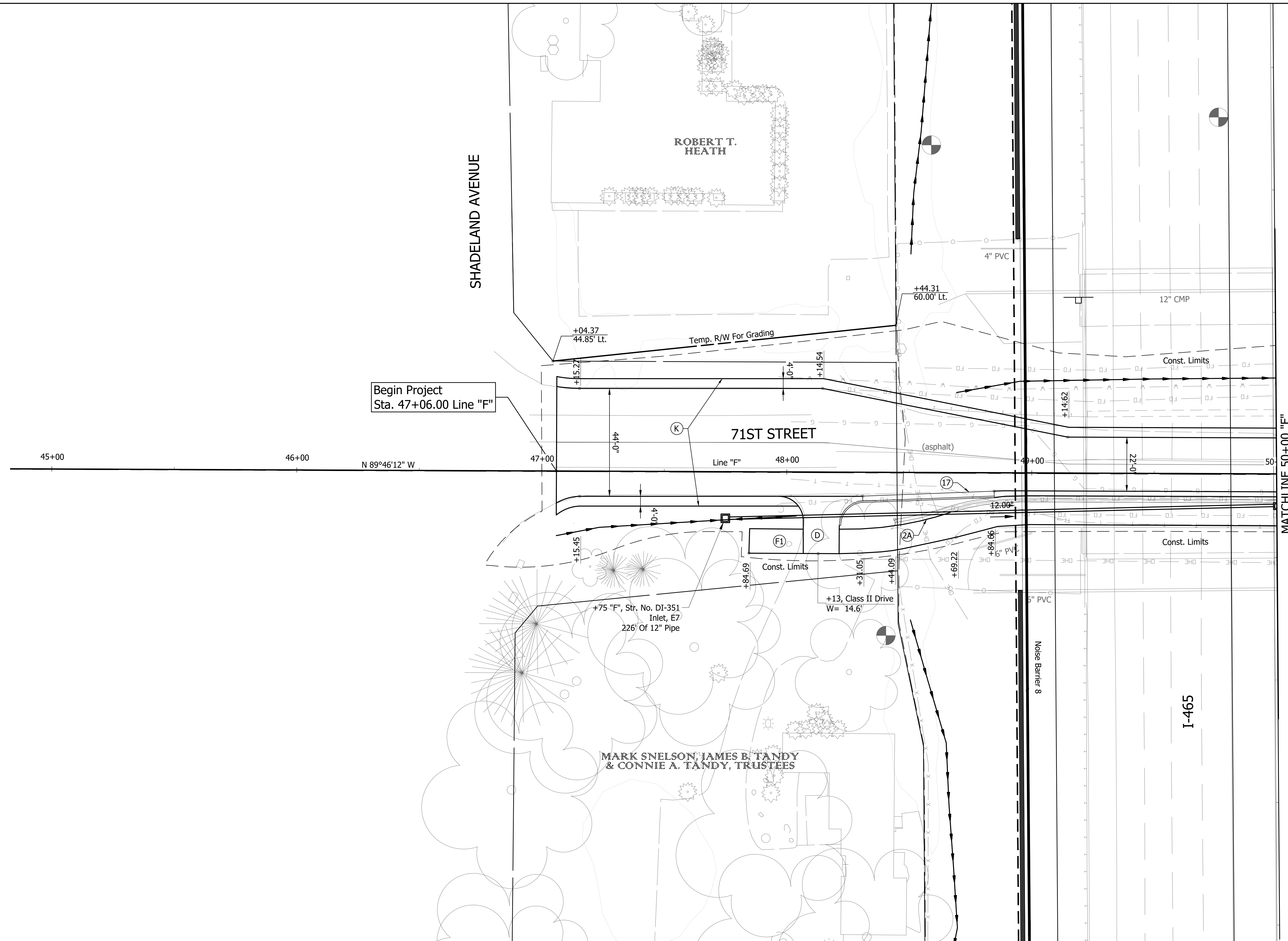
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: AJA	DRAWN: JNII	
CHECKED: WRC	CHECKED: WRC	

INDIANA DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS

HORIZONTAL SCALE AS SHOWN	BRIDGE FILE
VERTICAL SCALE AS SHOWN	DESIGNATION 1400075
SURVEY BOOK	SHEETS 6 of 24
CONTRACT R-38526	PROJECT 1400075

File Name: P:\BR\14623\Road\Draw\Plans\Plan & Profile Line PRF.dwg Plot Date: 5/11/2020 Plotted By: Civil 3D User

- (2A) Concrete Barrier, Modified
- (17) Curb and Gutter, Concrete
- (D) HMA For Drives
- (K) Full Depth HMA - 71st Street
- (F1) HMA For Sidewalk
- (M) Milling, Asphalt, 1.5"
- (R) Resurfacing
- (R1) Approach Resurfacing



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**INFORMATION ONLY**



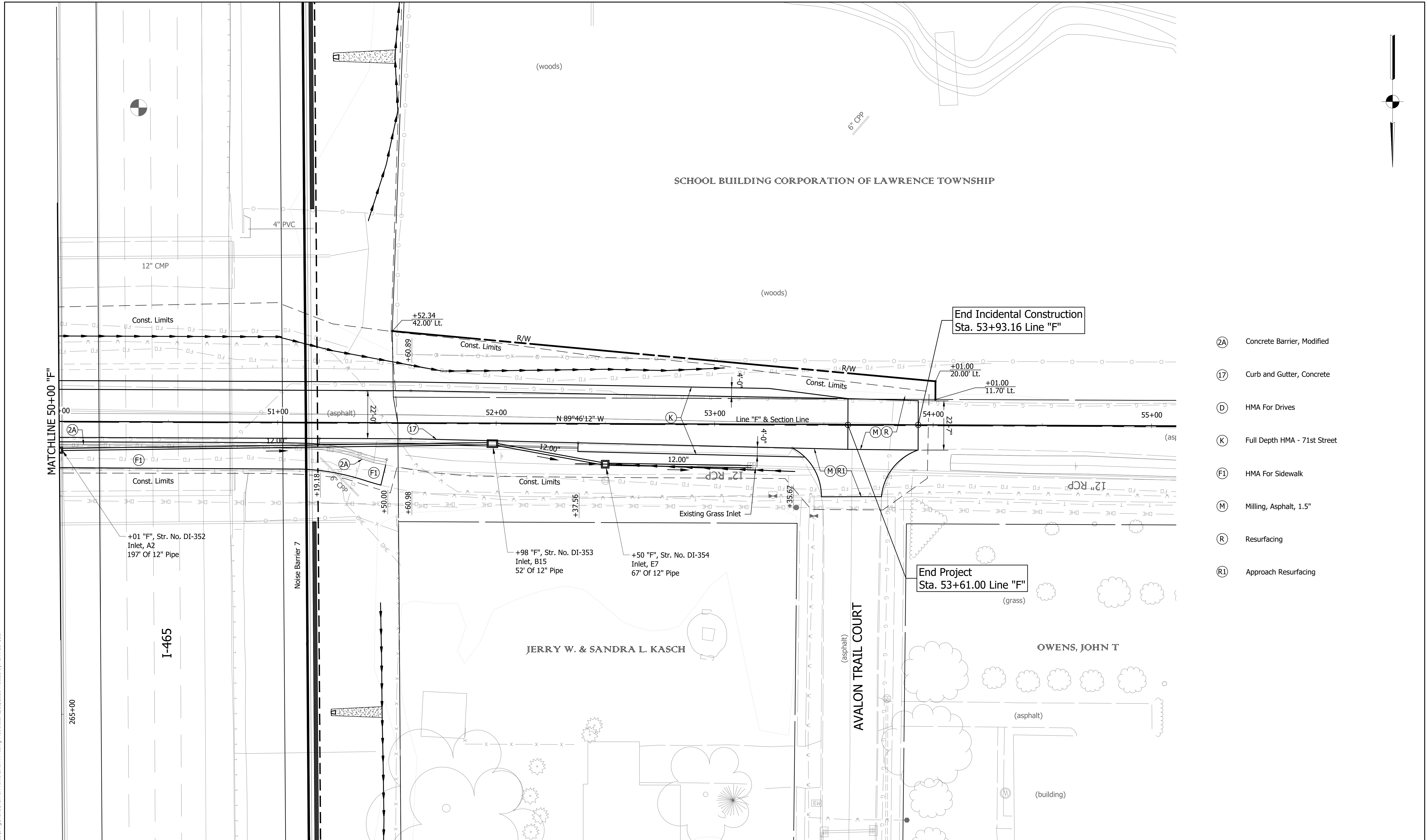
RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED: HEK	DRAWN: JNII		
CHECKED: WRC	CHECKED: WRC		

INDIANA  
DEPARTMENT OF TRANSPORTATION

PLAN  
LINE "F"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1400075
SURVEY BOOK	SHEETS
	7 of 24
CONTRACT	PROJECT
R-38526	1400075

File Name: P:\BR\1623\Road\Draw\Plans\Plan & Profile Line PRF.dwg Plot Date: 5/11/2020 Plotted By: Civil 3D User



- Ⓐ Concrete Barrier, Modified
- Ⓙ Curb and Gutter, Concrete
- Ⓓ HMA For Drives
- Ⓚ Full Depth HMA - 71st Street
- Ⓛ HMA For Sidewalk
- Ⓜ Milling, Asphalt, 1.5"
- Ⓡ Resurfacing
- Ⓡ1 Approach Resurfacing



8440 Allison Pointe Blvd.  
Suite 200  
Indianapolis, IN 46250  
Phone 317-895-2585  
www.ucindy.com

**INFORMATION ONLY**

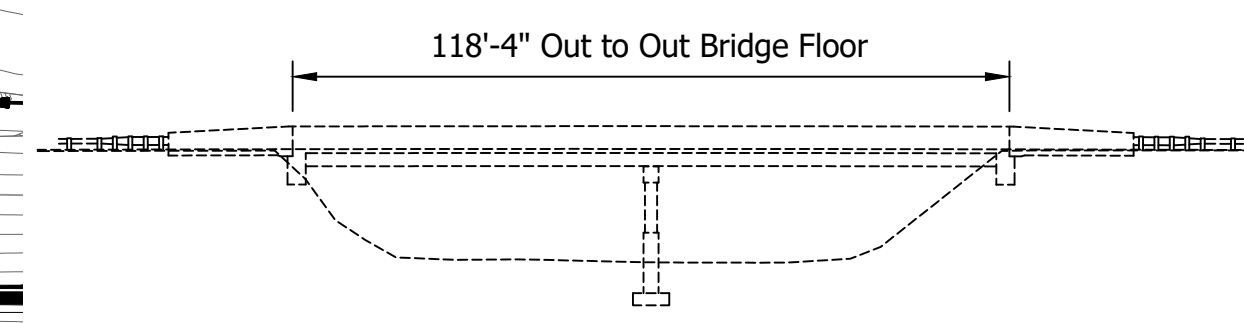
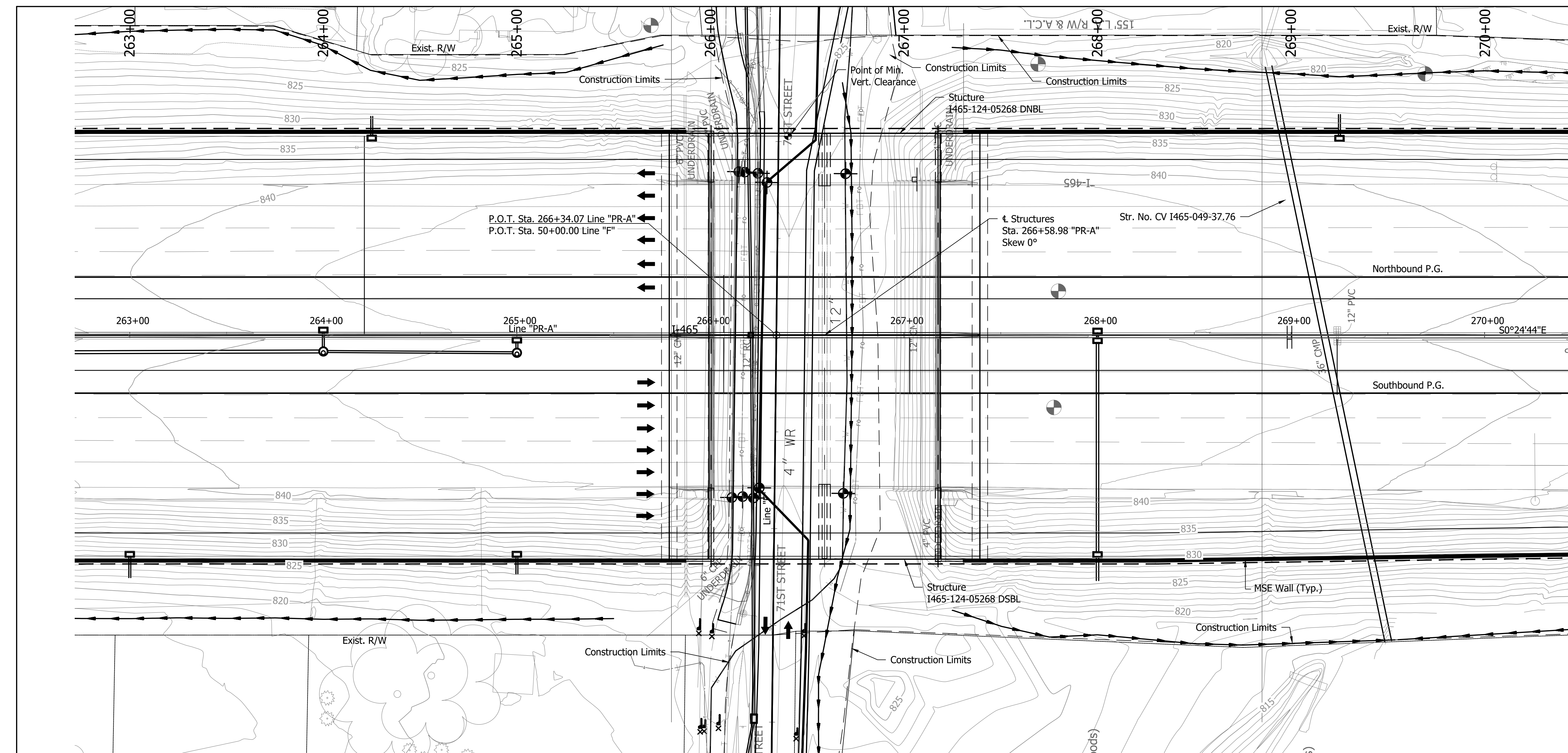


RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	DATE
DESIGNED: HEK	DRAWN: JNII		
CHECKED: WRC	CHECKED: WRC		

INDIANA  
DEPARTMENT OF TRANSPORTATION

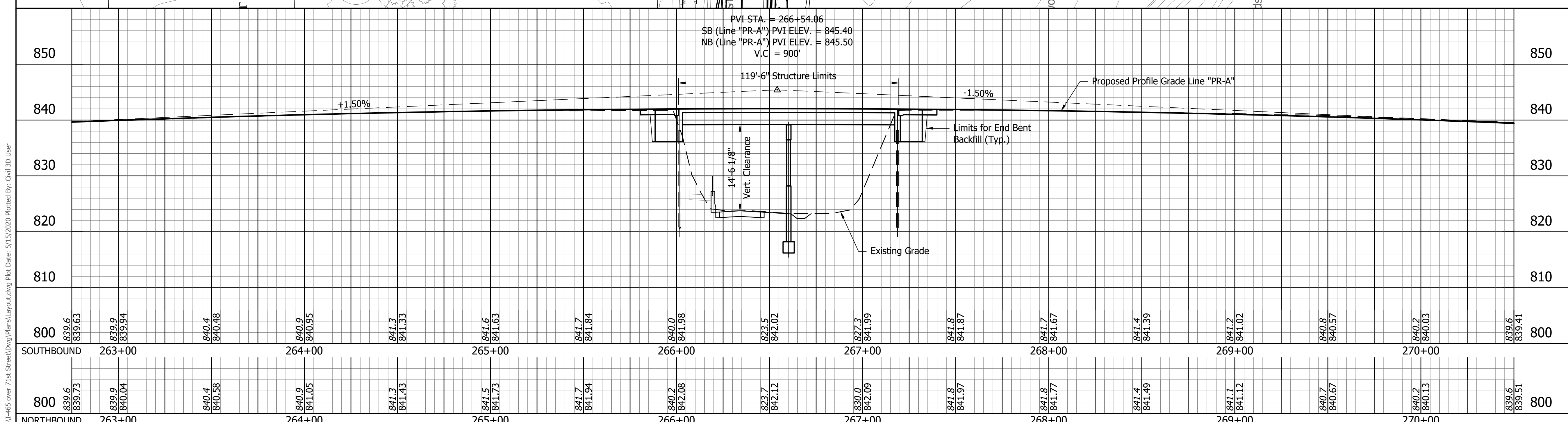
PLAN  
LINE "F"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1400075
SURVEY BOOK	SHEETS
	9 of 24
CONTRACT	PROJECT
R-38526	1400075



**EXISTING STRUCTURE**

No Scale  
 Existing Bridge Deck and Portion of End Bents to be Removed, Bents and Piers to be Widened, and New Semi-Integral End Bents and Deck to be poured.



Notes:  
 For R/W, MSE Wall, and Additional Information see Road Plan and Profile sheets.  
 For Utility Contacts see Index Sheet No. 2.  
 See Plans Des. No. 1400075 for Earthwork and Cross-Sections.

**CONTINUOUS COMPOSITE STEEL BEAM BRIDGES**  
**TWO SPANS: 58'-6\" & 58'-6\"**  
**CLEAR ROADWAY: 101'-4 1/2\" NB & 112'-10 1/2\" SB**  
**SKEW: NO SKEW**  
**I-465 OVER 71ST STREET**  
**MARION COUNTY**

File Name: P:\BR\CD\16-223\Bridges\165 over 71st Street\Drawings\Layout\Draw Plan Date: 5/15/2020 Plotted By: Civil 3D User



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RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: CJA		DRAWN: AJM			
CHECKED: JNR		CHECKED: CJA			

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
 LAYOUT  
 I-465 OVER 71ST STREET

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	1465-124-05268 DNBL/DSBL
VERTICAL SCALE	DESIGNATION
AS NOTED	1801664/1801665
SURVEY BOOK	SHEETS
-	20 of 24
CONTRACT	PROJECT
R-38526	1400075

