

PROJECT	DESIGNATION
N881008	0014210
CONTRACT	BRIDGE FILE
B-33357	152-45-02730

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
152-45-02730	CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BULB TEE BEAM BRIDGE	8 SPANS: 138'-6", 138'-6", 163'-6", 167'-6", 128'-0", 150'-0", 167'-6", 151'-6" SKEW: 15° RT.	INDIANA HARBOR BELT RAILROAD	136+48.50 "PR-A"

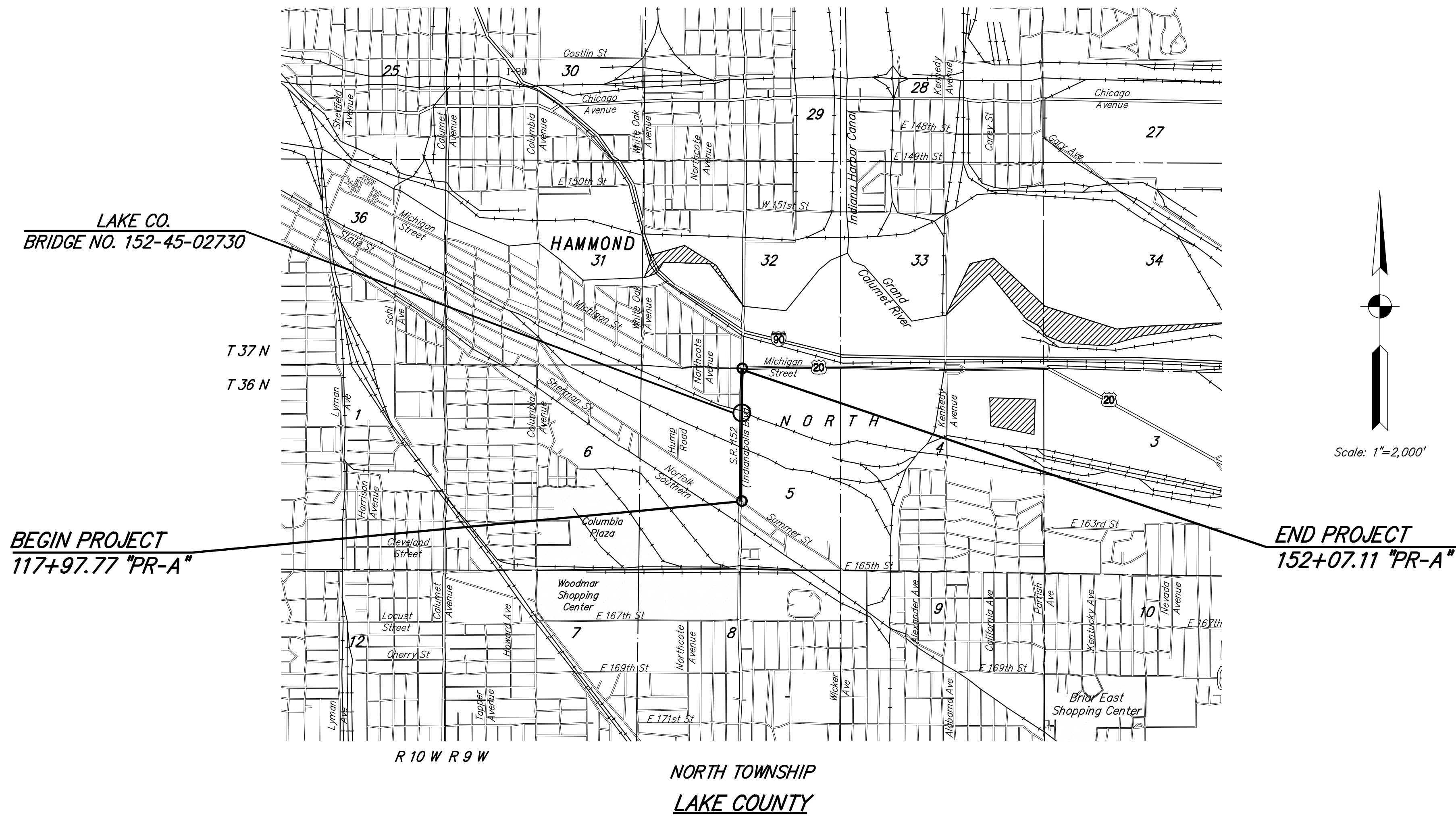
KIN DESIGNATION NUMBERS	
DESIGNATION	DESCRIPTION
0200384	S.R.152 LIGHTING PLANS

# INDIANA DEPARTMENT OF TRANSPORTATION

## BRIDGE PLANS FOR SPANS OVER 20 FEET STATE ROAD 152 OVER INDIANA HARBOR BELT RAILROAD

**PROJECT NO. N881008 P.E.**  
**8810084 R/W**  
**N881008 CONST.**

*Project Description: This bridge replacement is on State Road 152 over Indiana Harbor Belt Railroad located approximately 0.4 miles north of Summer Street in Section 5, T-36-N, R-9-W, North Township, Lake County, Indiana.  
RP 2+24*



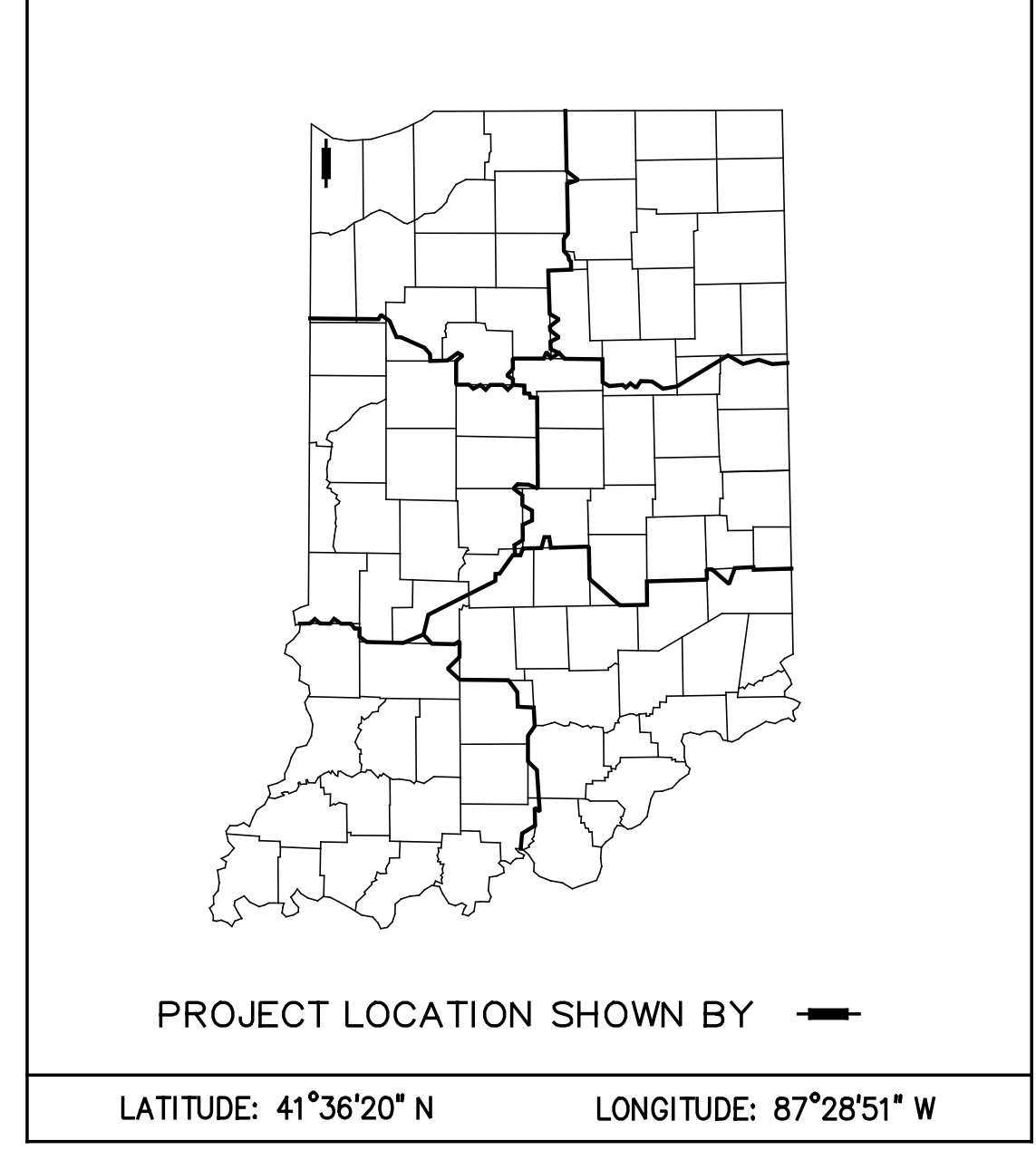
Scale: 1"=2,000'

BRIDGE LENGTH :		0.229	Mile
ROADWAY LENGTH :		0.417	Mile
TOTAL LENGTH :		0.646	Mile
MAX. GRADE :		+5.00	%

TRAFFIC DATA		STATE ROAD 152	
A.A.D.T.	2012	26,677	V.P.D.
A.A.D.T.	2032	31,713	V.P.D.
D.H.V.	2032	4,480	V.P.H.
DIRECTIONAL DISTRIBUTION		50	%
TRUCKS		5	% D.H.V.

DESIGN DATA	
DESIGN SPEED	35 M.P.H.
PROJECT DESIGN CRITERIA	RECONSTRUCTION (Non-Freeway)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL
RURAL/URBAN	URBAN (BUILT-UP)
TERRAIN	LEVEL
ACCESS CONTROL	PARTIAL



INDIANA DEPARTMENT OF TRANSPORTATION  
STANDARD SPECIFICATIONS DATED 2012  
TO BE USED WITH THESE PLANS

**AMERICAN STRUCTUREPOINT INC.**  
7260 SHADELAND STATION  
INDIANAPOLIS, IN 46256-3957  
TEL 317.547.5580 FAX 317.543.0270  
www.structurepoint.com

PLANS PREPARED BY: American Structurepoint, Inc. (317) 547-5580  
PHONE NUMBER  
CERTIFIED BY: *David A. Day* June 1, 2012 DATE  
APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

REGISTERED PROFESSIONAL ENGINEER  
No. 880305  
STATE OF INDIANA

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
N/A	0014210
SURVEY BOOK	SHEETS
CONTRACT	1 of 147
B-33357	PROJECT NO.
	N881008

### UTILITIES

**TELEPHONE**

SBC  
308 E. Main Street  
Crawfordsville, IN 47933  
Attn: Denny Esslinger  
(765)364-5010

**TELEPHONE**

Level 3 Communications  
1025 El Dorado Blvd, Bld. 3000  
Broomfield, CO 80021  
Attn: Network Relocations Dept.  
(720)888-2999

**PIPELINE**

BP Pipeline  
28100 Torch Parkway  
Warrenville, IL 60555  
Attn: Stephanie Schofield  
(630)836-5000

**WATER**

Hammond Water Works  
6505 Columbia Avenue  
Hammond, IN 46320  
Attn: Dick Mercer  
(219)853-6429

**SEWER**

Hammond Sanitary District  
5143 Columbia Avenue  
Hammond, IN 46320  
Attn: Dr. Michael Unger  
(219)853-6412

**ELECTRIC**

Northern Indiana Public  
Service Company  
801 E. 86th Avenue  
Merrillville, IN 46410  
Attn: Mark Pasyk  
(219)647-4299

**GAS**

Northern Indiana Public  
Service Company  
801 E. 86th Avenue  
Merrillville, IN 46410  
Attn: Mark Pasyk  
(219)647-4299

### GENERAL NOTES

**	All earth shoulders, median areas, and cut and fill slopes shall be plain or mulch seeded except where sodding is specified.
	The final cross sections of the grading contract will be the original cross sections of the paving contract. However, partial or complete cross sections shall be taken if necessary to determine the actual excavation quantities.
	The paper relocation will be cross sectioned by the Engineer before construction.
	Existing asphalt pavement located outside the construction limits, between Sta. _____ and Sta. _____, shall be removed as directed.
	The quantity of peat excavation shown on the plans has been estimated on the basis of theoretical cross sections by using treatment of existing fills, treatment by removal, or treatment by displacement, where each treatment applies.
	All limited access right-of-way (L.A. R/W) is to be fenced with chain link type fence (CLTF) or farm field type fence (FFTF) where specified in the plans.

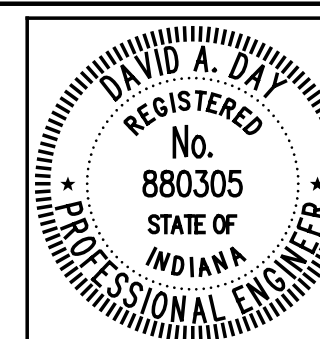
\*\* REPRESENTS GENERAL NOTES REQUIRED

### INDEX TO SHEETS

SHEET NO.	DRAWING INDEX
1	TITLE SHEET
2	INDEX AND GENERAL NOTES
3	TYPICAL SECTIONS LINE "PR-A"
4	TYPICAL SECTIONS LINE "AC-1" AND MISCELLANEOUS DETAILS
5-6	PLAT NO. 1
7	DETOUR PLAN
8-9	MAINTENANCE OF TRAFFIC DETAILS
10-12	PLAN AND PROFILE LINE "PR-A"
13	PLAN AND PROFILE LINE "AC-1"
14-18	CONSTRUCTION DETAILS LINE "PR-A"
19-22	SPOT ELEVATION DETAIL AND PCCP JOINT LAYOUT
23-24	EROSION CONTROL
25-26	RETAINING WALL NO. 1 DETAILS
27-30	RETAINING WALL NO. 2 DETAILS
31-34	MOMENT SLAB AND RAILING DETAILS
35	CONCRETE BARRIER DETAILS
36	TRAFFIC SIGNAL DETAIL (S.R. 152 & SUMMER ST.)
37	TRAFFIC SIGNAL DETAIL (S.R. 152 & U.S. 20)
38-39	LIGHTING PLANS S.R. 152 (INDIANAPOLIS BLVD.)
40	LUMINAIRE TABLE
41-46	PAVEMENT MARKING AND SIGNING DETAILS
47-50	SOIL BORINGS
51-52	LAYOUT
53-55	GENERAL PLAN
56-58	EXISTING STRUCTURE REMOVAL DETAILS
59-60	BENT NO. 1 DETAILS
61-74	PIERS NO. 2-8 DETAILS
75-76	BENT NO. 9 DETAILS
77-79	FRAMING PLAN
80-86	BEAM DETAILS
87	ELASTOMERIC AND PTFE BEARING ASSEMBLY DETAILS
88-104	SUPERSTRUCTURE DETAILS
105-106	MODULAR EXPANSION JOINT DETAILS
107-108	R.C. BRIDGE APPROACH DETAILS
109	BRIDGE SUMMARY
110	MISCELLANEOUS TABLES
111	SUMMARY OF QUANTITIES AND APPROACH TABLE
112-113	STRUCTURE DATA TABLE
114	PIPE MATERIAL SHEET
115-147	CROSS SECTIONS LINE "PR-A"

### REVISIONS

SHEET NO.	DATE	REVISED



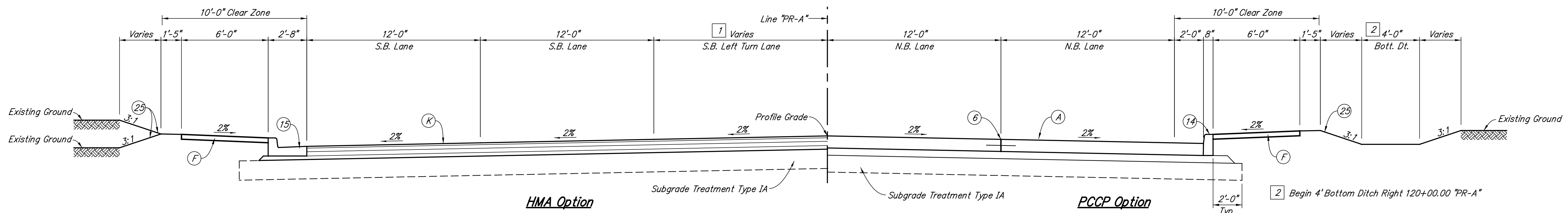
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: RMC DRAWN: EWM  
CHECKED: DAD CHECKED: DAD

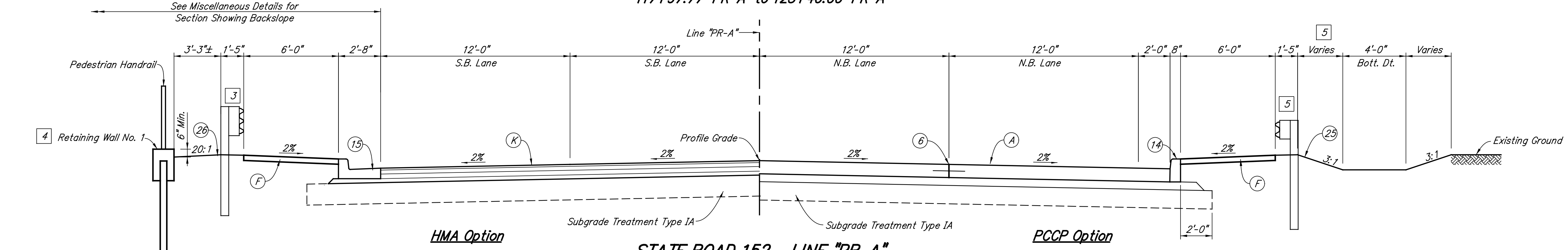
INDIANA  
DEPARTMENT OF TRANSPORTATION

### INDEX AND GENERAL NOTES

HORIZONTAL SCALE N/A	BRIDGE FILE 152-45-02730
VERTICAL SCALE N/A	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 2 of 147
CONTRACT B-33357	PROJECT NO. N881008

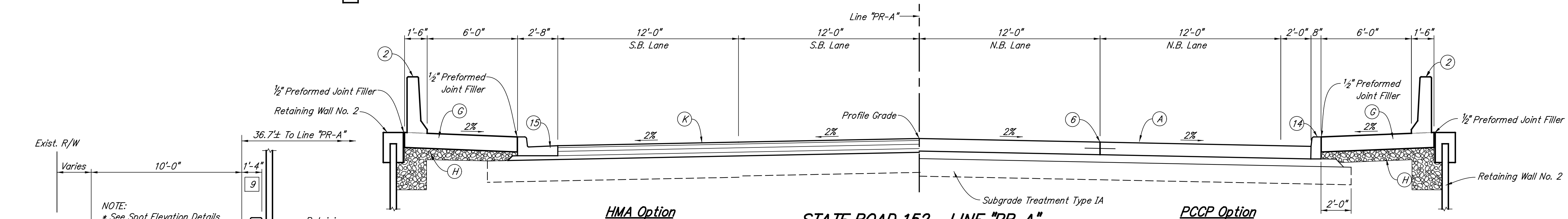


**STATE ROAD 152 - LINE "PR-A"**  
117+97.77 "PR-A" to 125+40.00 "PR-A"

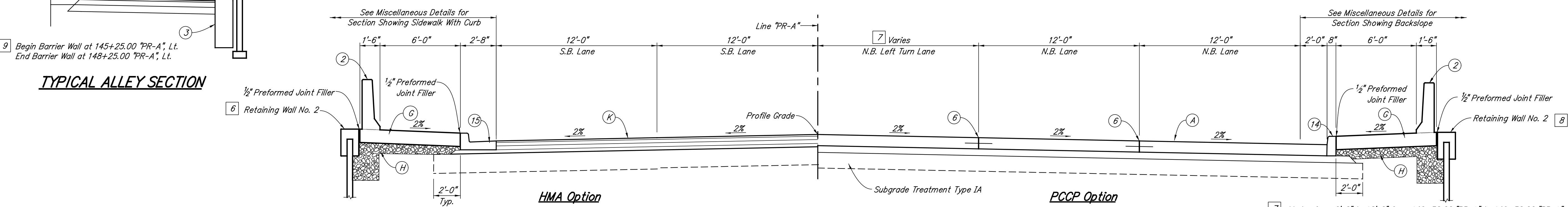


**STATE ROAD 152 - LINE "PR-A"**  
125+40.00 "PR-A" to 130+13.77 "PR-A"

**PAVING EXCEPTION:**  
130+13.77 "PR-A" to 142+83.23 "PR-A"



**STATE ROAD 152 - LINE "PR-A"**  
142+83.23 "PR-A" to 146+30.00 "PR-A"



**STATE ROAD 152 - LINE "PR-A"**  
146+30.00 "PR-A" to 152+07.11 "PR-A"

**NOTE:**  
For Additional Details, See Typical Sections Line "AC-1" And Miscellaneous Details.

LEGEND			
(A) QC/QA-PCCP, 10 In. With D-1 Contraction Joints Spaced at 16'-0" Max. On 6 In. Dense Graded Subbase	(G) Reinforced Concrete Moment Slab, 12 In., Modified	(N) 6" Compacted Aggregate, No. 53, Base	(13) Curb, Concrete
(D) 165 #/SYD. HMA Surface, Type A on 495 #/SYD. HMA Intermediate, Type A on 6 In. Compacted Aggregate Base, No. 53	(H) Underdrain for MSE Wall	(2) Railing, Concrete, FT	(14) Curb, Integral, C, Concrete
(F) Sidewalk, Concrete, 4"	(K) 165 #/Syd. QC/QA HMA, 3, 70, Surface 9.5 mm, on 330 #/Syd. QC/QA HMA, 3, 70, Intermediate 19.0 mm, on 715 #/Syd. QC/QA HMA, 3, 64, Base 19.0 mm (Min. 2 Lifts)	(3) Concrete Barrier, 33 In., Modified	(15) Curb and Gutter, C, Concrete
		(6) Longitudinal Joint	(25) Seed Mixture, "U"
		(10) Paved Side Ditch, Type A	(26) Sodding

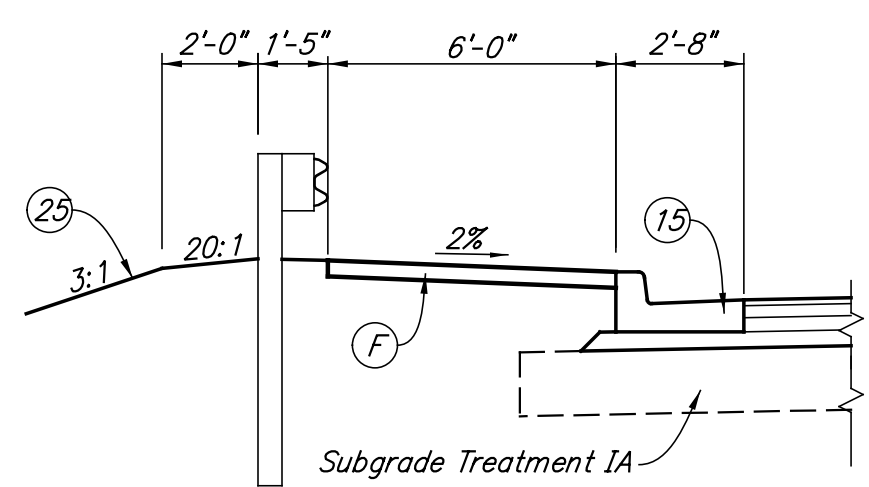
RECOMMENDED FOR APPROVAL *William S. Lyon* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: NRM DRAWN: BNM  
CHECKED: DAD/WSL CHECKED: DAD/WSL

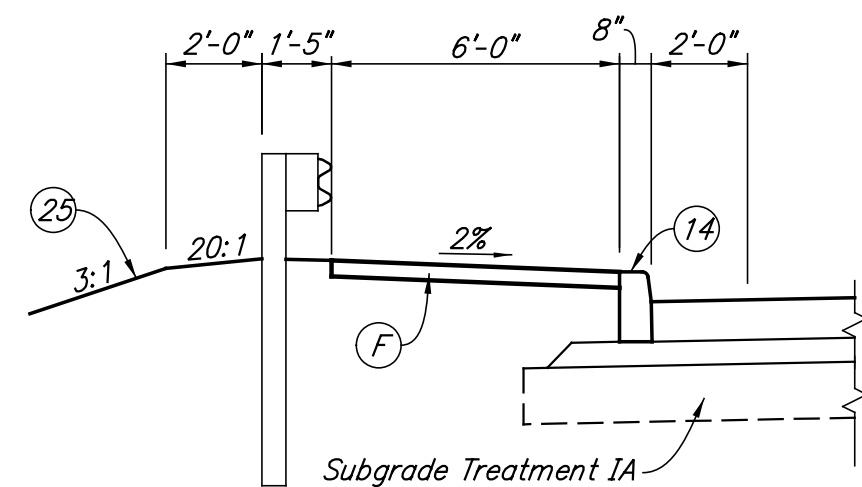
INDIANA DEPARTMENT OF TRANSPORTATION

**TYPICAL SECTIONS**  
**LINE "PR-A"**

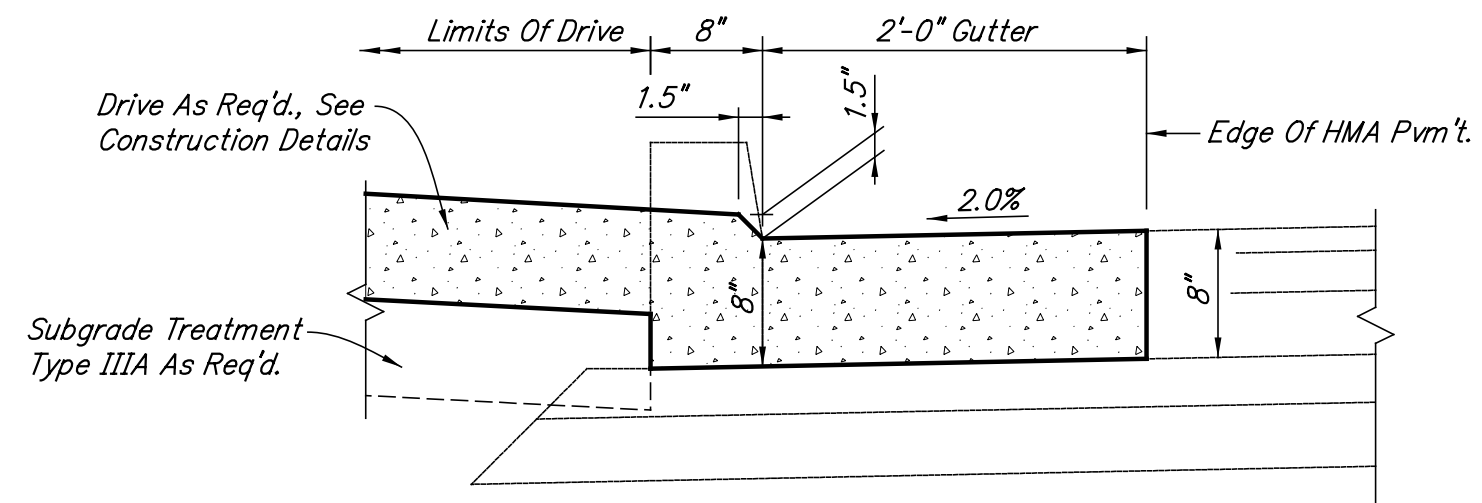
HORIZONTAL SCALE 1/4" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE 1/4" = 1'-0"	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 3 of 147
CONTRACT B-33357	PROJECT NO. N881008



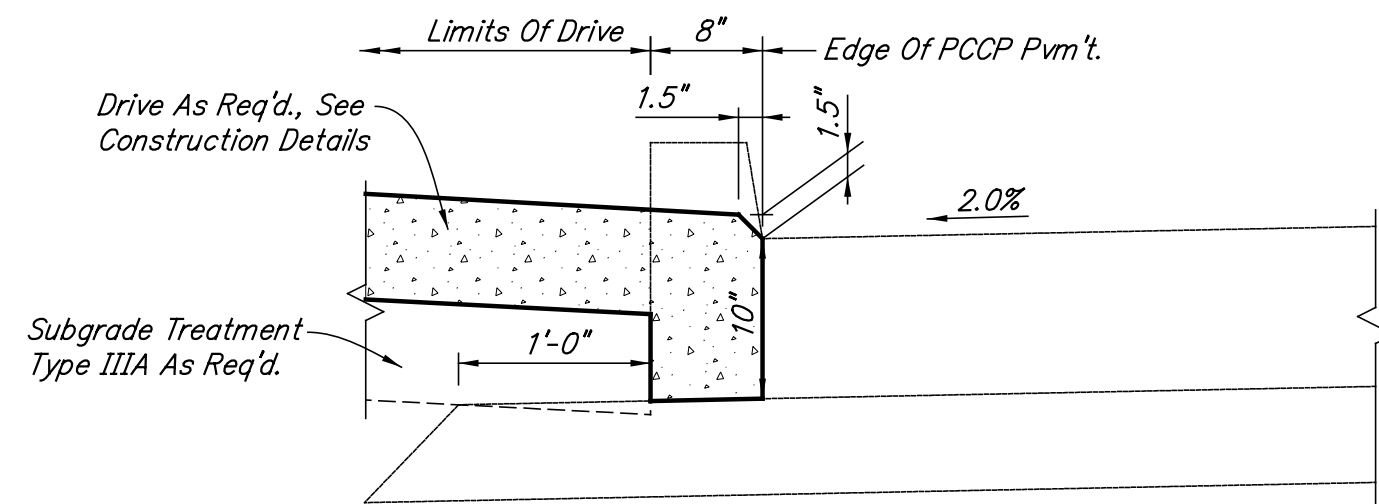
**HMA SECTION SHOWING GUARDRAIL ADJACENT TO SIDEWALK**  
 126+44.88 "PR-A" to 126+50.35 "PR-A" LT.  
 129+77.37 "PR-A" to 130+13.77 "PR-A" RT.



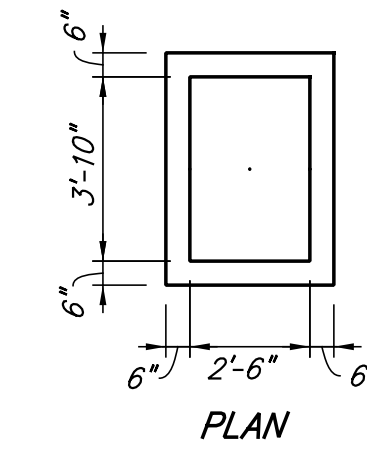
**PCCP SECTION SHOWING GUARDRAIL ADJACENT TO SIDEWALK**  
 126+44.88 "PR-A" to 126+50.35 "PR-A" LT.  
 129+77.37 "PR-A" to 130+13.77 "PR-A" RT.



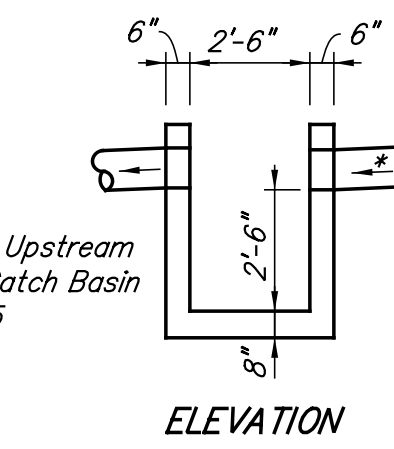
**DEPRESSED CONCRETE CURB & GUTTER DETAIL AT DRIVE**  
 Scale: 1" = 1'-0"



**DEPRESSED INTEGRAL CONCRETE CURB DETAIL AT DRIVE**  
 Scale: 1" = 1'-0"



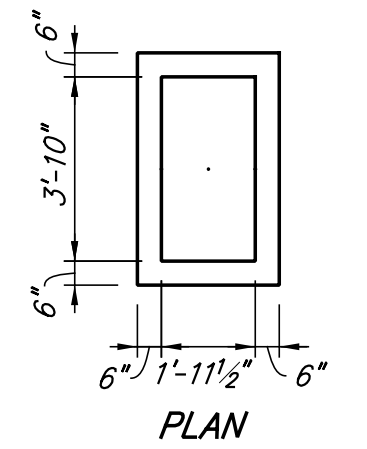
PLAN



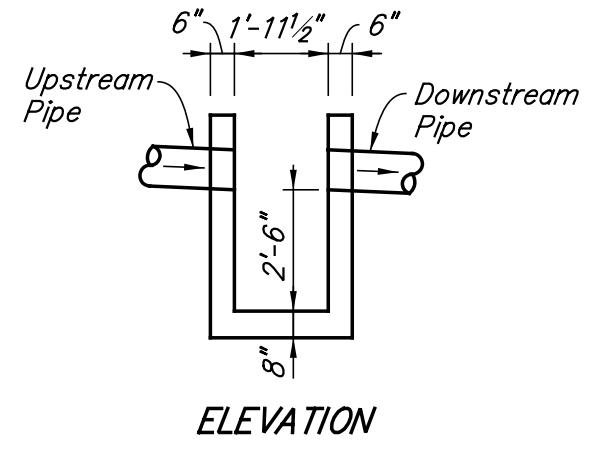
ELEVATION

\* Remove Upstream Pipe for Catch Basin Type B-15

**CATCH BASIN TYPE C-15**

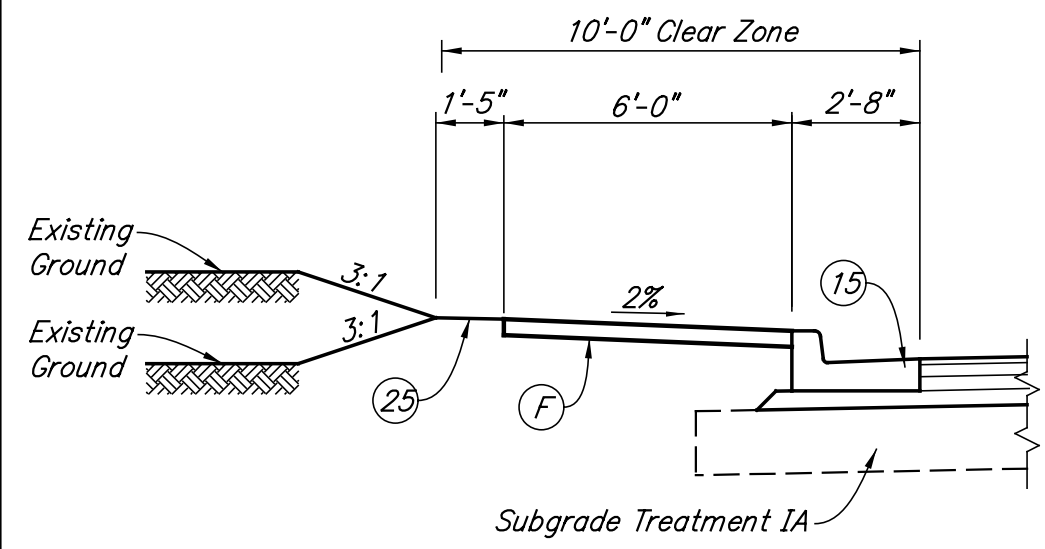


PLAN

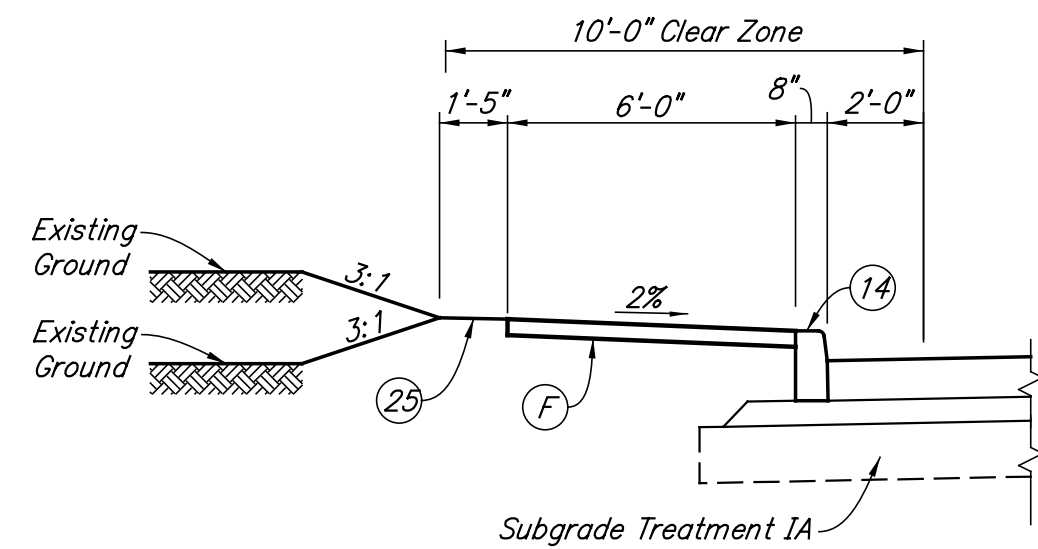


ELEVATION

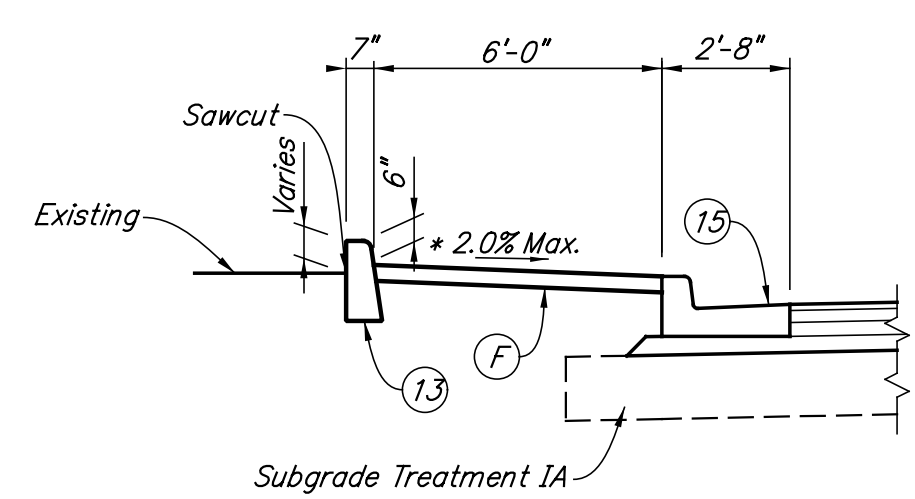
**CATCH BASIN TYPE HA**



**HMA SECTION SHOWING BACKSLOPE**  
 117+97.77 "PR-A" to 120+00.00 "PR-A" RT.  
 119+75.00 "PR-A" to 125+94.88 "PR-A" LT.  
 149+75.00 "PR-A" to 152+07.11 "PR-A" RT.

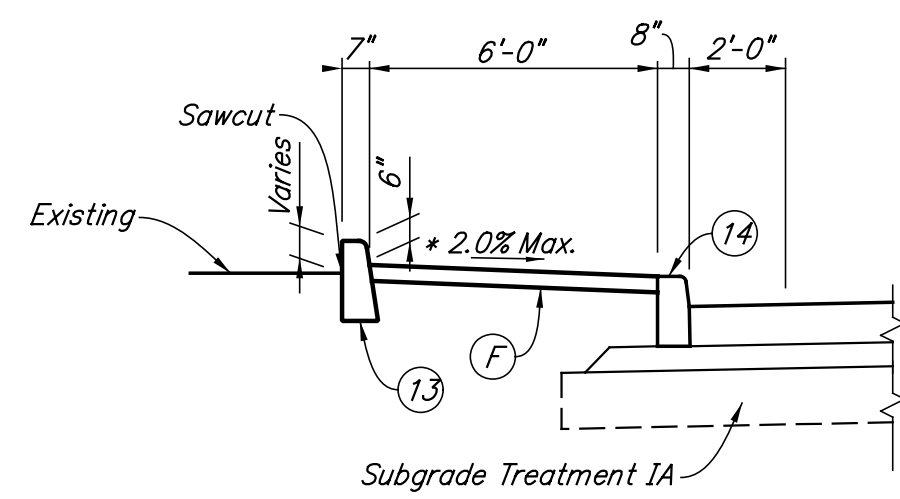


**PCCP SECTION SHOWING BACKSLOPE**  
 117+97.77 "PR-A" to 120+00.00 "PR-A" RT.  
 119+75.00 "PR-A" to 125+94.88 "PR-A" LT.  
 149+75.00 "PR-A" to 152+07.11 "PR-A" RT.



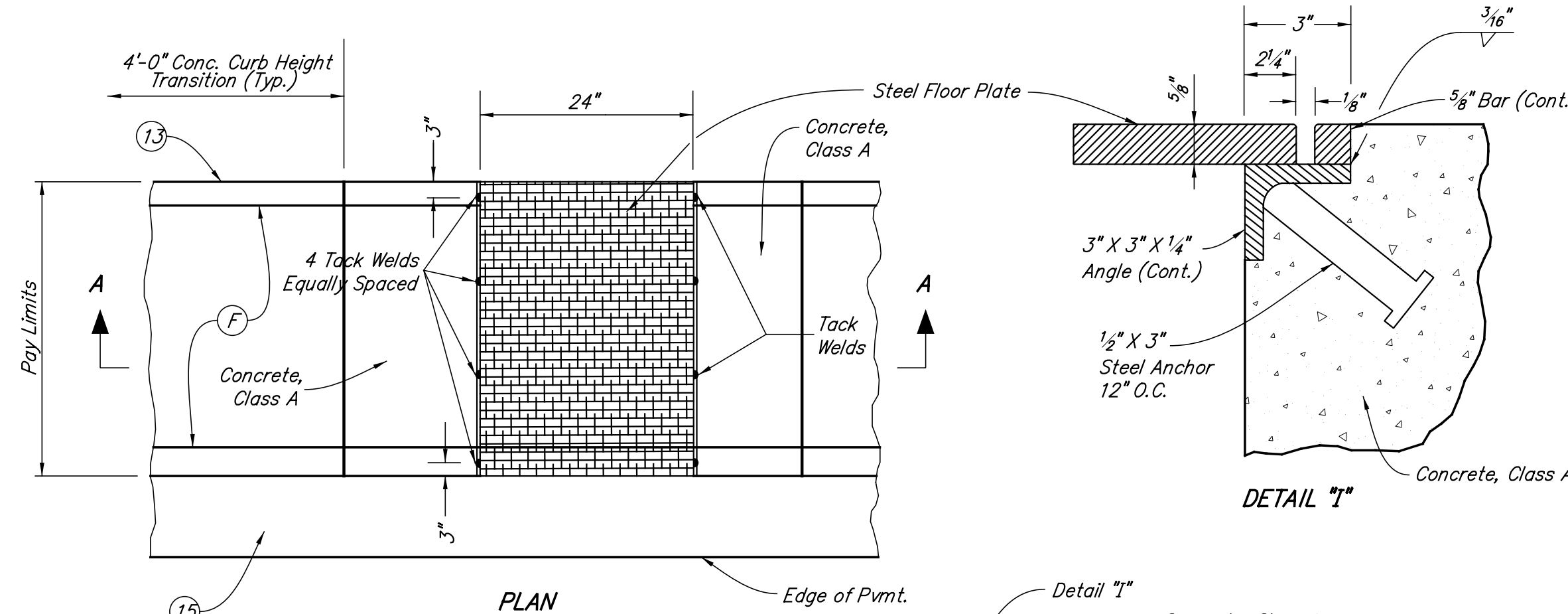
NOTE:  
 \* See Spot Elevation Details

**HMA SECTION SHOWING SIDEWALK WITH CURB**  
 118+74.27 "PR-A" to 119+44.40 "PR-A" LT.  
 149+88.20 "PR-A" to 150+13.39 "PR-A" LT.  
 151+13.41 "PR-A" to 151+92.46 "PR-A" LT.

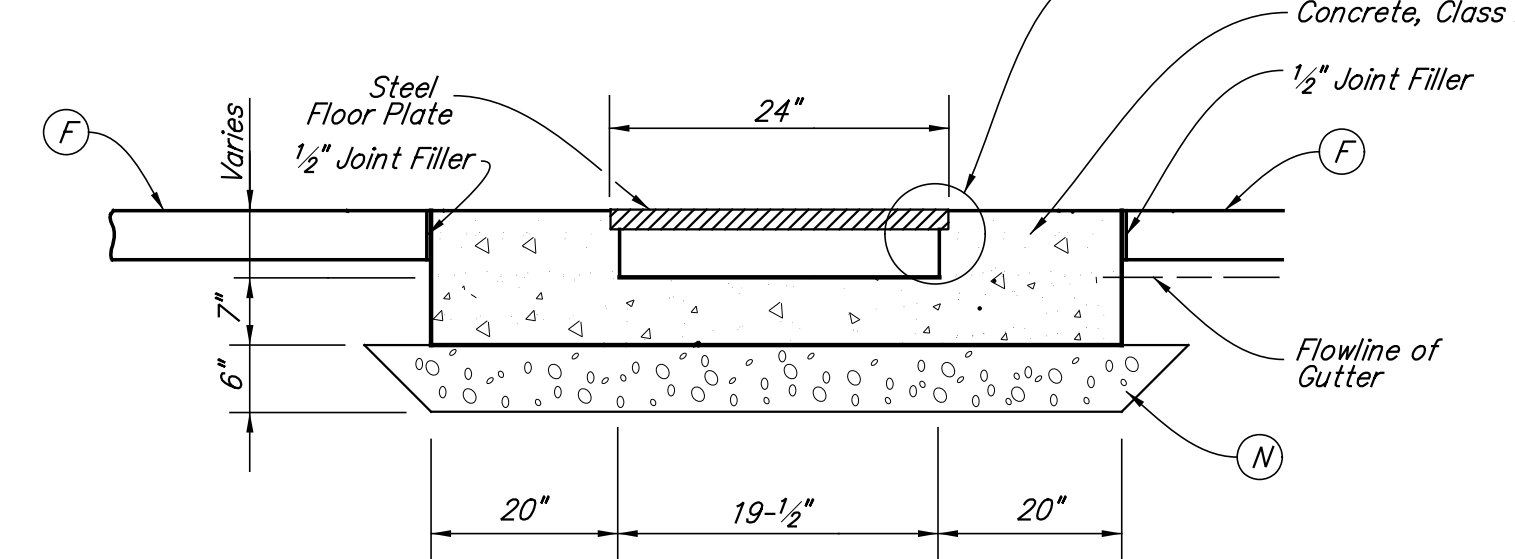


NOTE:  
 \* See Spot Elevation Details

**PCCP SECTION SHOWING SIDEWALK WITH CURB**  
 118+74.27 "PR-A" to 119+44.40 "PR-A" LT.  
 149+88.20 "PR-A" to 150+13.39 "PR-A" LT.  
 151+13.41 "PR-A" to 151+92.46 "PR-A" LT.



PLAN

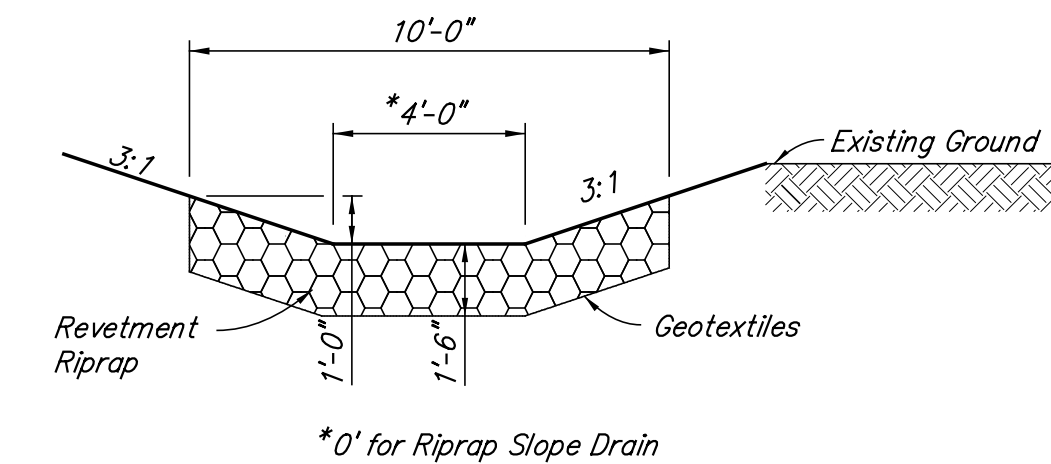


SECTION A-A

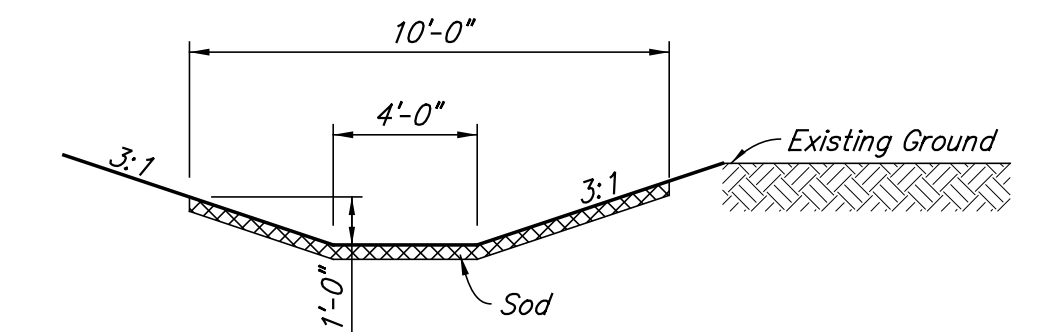
NOTES:

- All exposed metal parts shall be galvanized and all galvanizing damaged by fabrication or installation shall receive two coats of aluminum paint
- See Spot Elevation Details

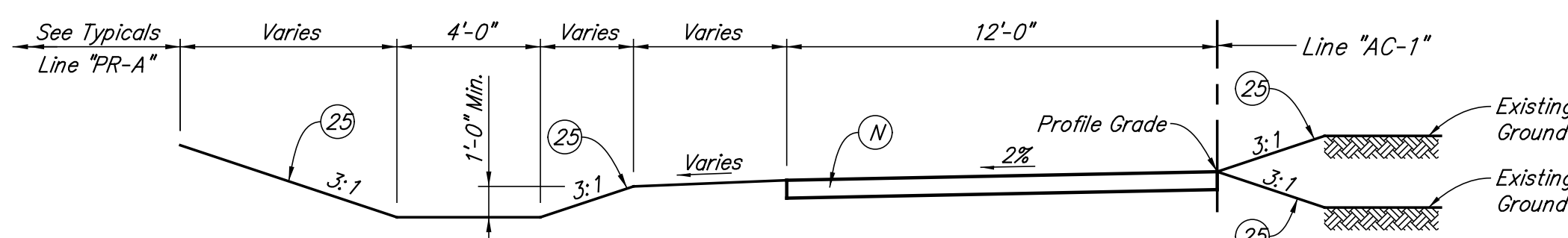
**CURB AND GUTTER TURNOUT, CONCRETE, MODIFIED**  
 Not to Scale



**TYPICAL RIPRAP DITCH DETAIL**

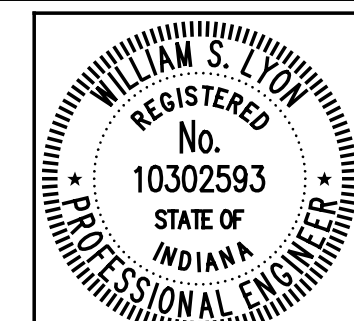


**TYPICAL SODDED DITCH DETAIL**



**R.R. ACCESS ROAD - LINE "AC-1"**  
 10+00.00 "AC-1" to 16+44.58 "AC-1"

LEGEND		
(A) QC/QA-PCCP, 10 In. With D-1 Contraction Joints Spaced at 16'-0" Max. on 6 In. Dense Graded Subbase	(G) Reinforced Concrete Moment Slab, 12 In., Modified	(N) 6" Compacted Aggregate, No. 53, Base
(D) 165 #/SYD. HMA Surface, Type A on 495 #/SYD. HMA Intermediate, Type A on 6 In. Compacted Aggregate Base, No. 53	(H) Underdrain for MSE Wall	(13) Curb, Concrete
(F) Sidewalk, Concrete, 4"	(K) 165 #/Syd. QC/QA HMA, 3, 70, Surface 9.5 mm, on 330 #/Syd. QC/QA HMA, 3, 70, Intermediate 19.0 mm, on 715 #/Syd. QC/QA HMA, 3, 64, Base 19.0 mm (Min. 2 Lifts)	(14) Curb, Integral, C, Concrete
		(15) Curb and Gutter, C, Concrete
		(25) Seed Mixture, "U"
		(26) Sodding
		(2) Railing, Concrete, FT
		(3) Concrete Barrier, 33 In., Modified
		(6) Longitudinal Joint
		(10) Paved Side Ditch, Type A



RECOMMENDED FOR APPROVAL	<i>William S. Taylor</i>	6/1/2012
	DESIGN ENGINEER	DATE
DESIGNED:	NRM	DRAWN:
		BNM
CHECKED:	DAD/WSL	CHECKED:
		DAD/WSL

INDIANA DEPARTMENT OF TRANSPORTATION	
TYPICAL SECTIONS LINE "AC-1" AND MISCELLANEOUS DETAILS	

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	4 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

105

110

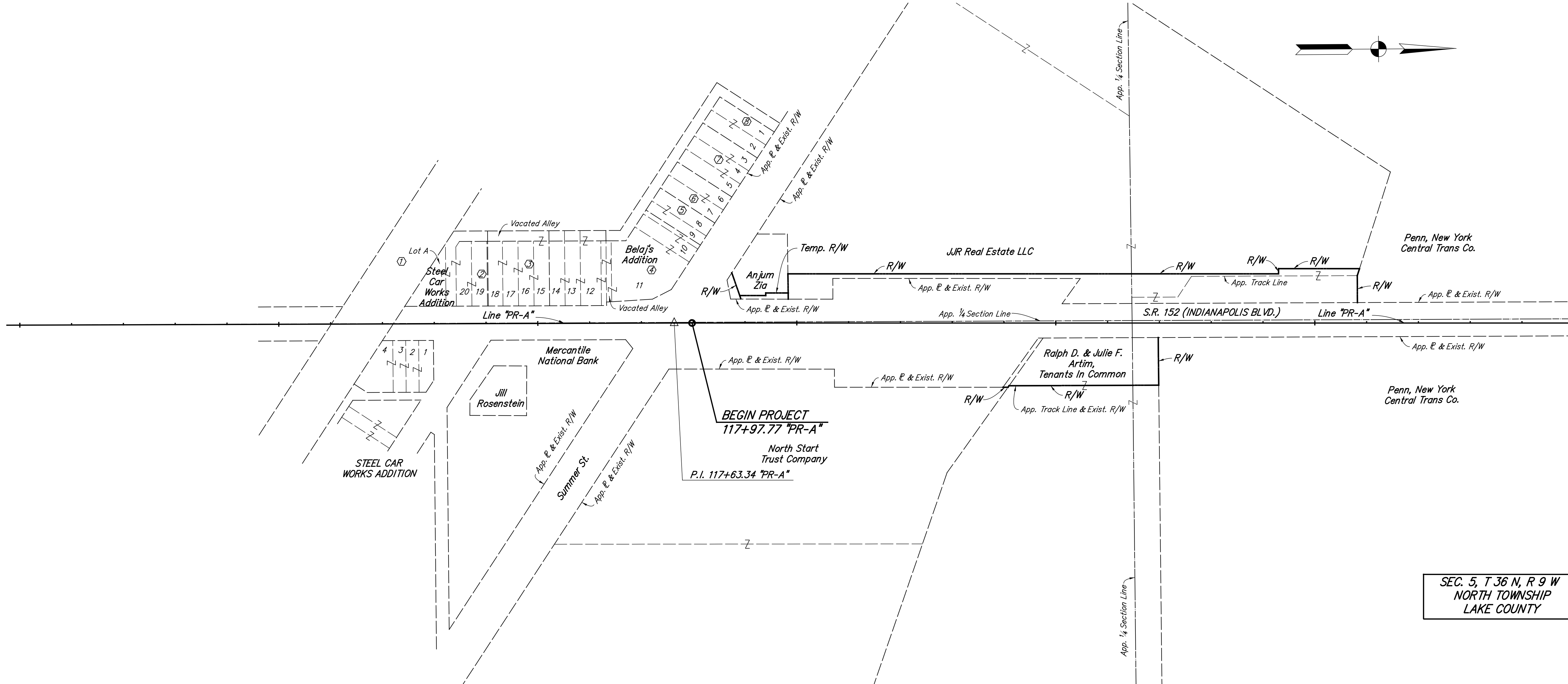
115

120

125

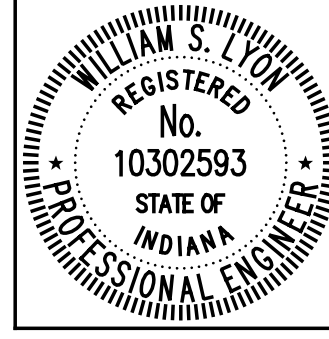
130

135



SEC. 5, T 36 N, R 9 W  
 NORTH TOWNSHIP  
 LAKE COUNTY

SECTION	INDEX NO.	OWNER
5	①	The New York, Chicago & St. Louis Railway Co.
5	②	Calumet National Bank
5	③	Stanley R. Long Et Al
5	④	Stanley R. & Anne L. Long
5	⑤	Joseph R. Piech & Kenneth M. Pannell
5	⑥	Joseph R. Piech
5	⑦	Joseph R. Piech & Kenneth M. Pannell
5	⑧	AMOCO Pipeline Co.

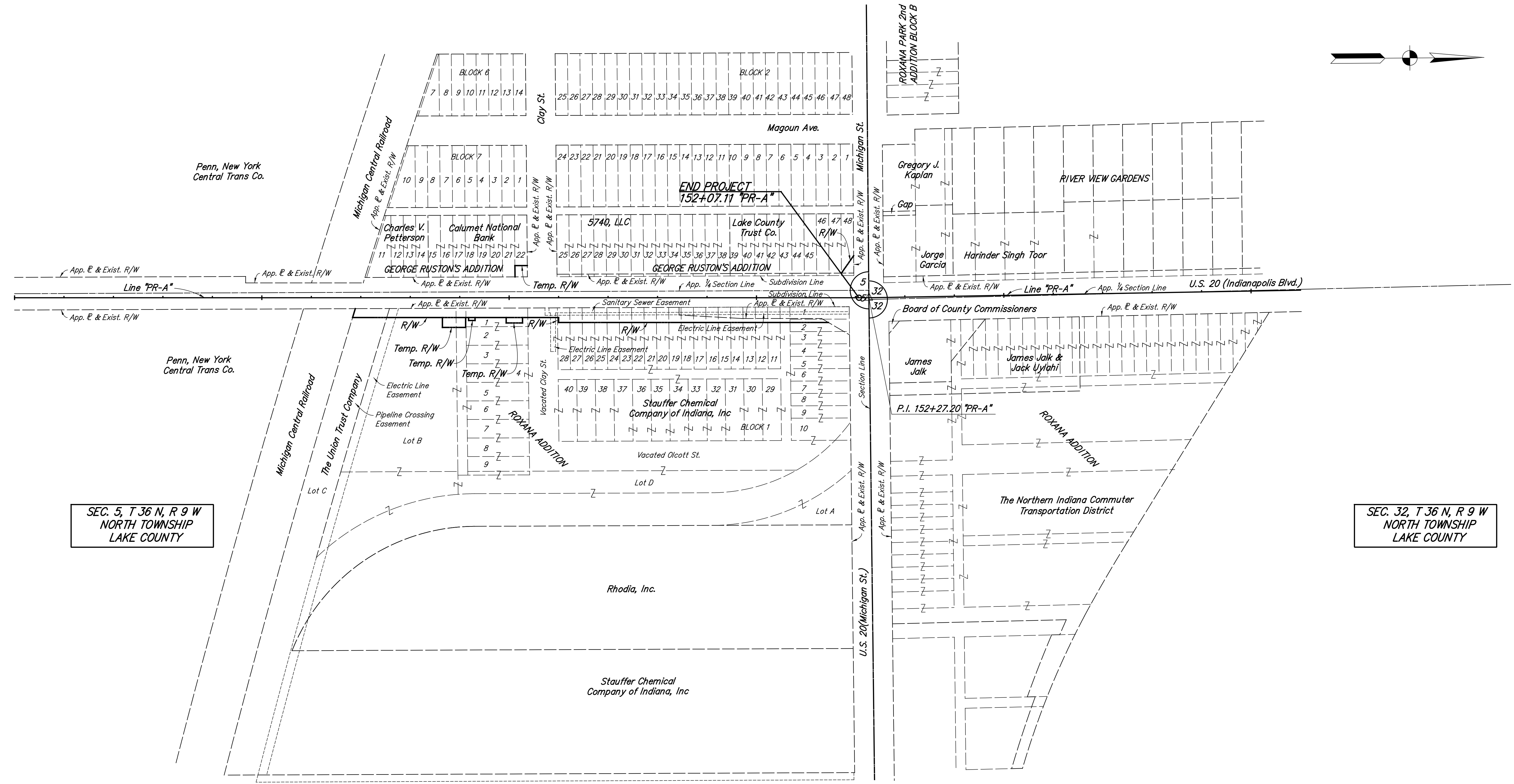
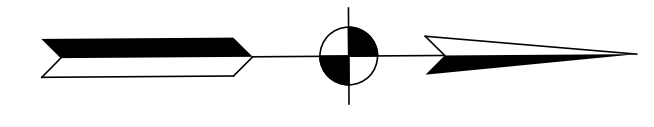


RECOMMENDED FOR APPROVAL	<i>William S. Lyon</i>	6/1/2012
	DESIGN ENGINEER	DATE
DESIGNED:	BNM	DRAWN: BNM
CHECKED:	DAD	CHECKED: DAD

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
  
 PLAT NO. 1

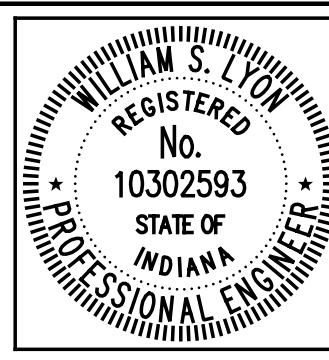
HORIZONTAL SCALE	BRIDGE FILE
1" = 100'-0"	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	5 of 147
CONTRACT	PROJECT NO.
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135 140 145 150 155 160



SEC. 5, T 36 N, R 9 W  
NORTH TOWNSHIP  
LAKE COUNTY

SEC. 32, T 36 N, R 9 W  
NORTH TOWNSHIP  
LAKE COUNTY



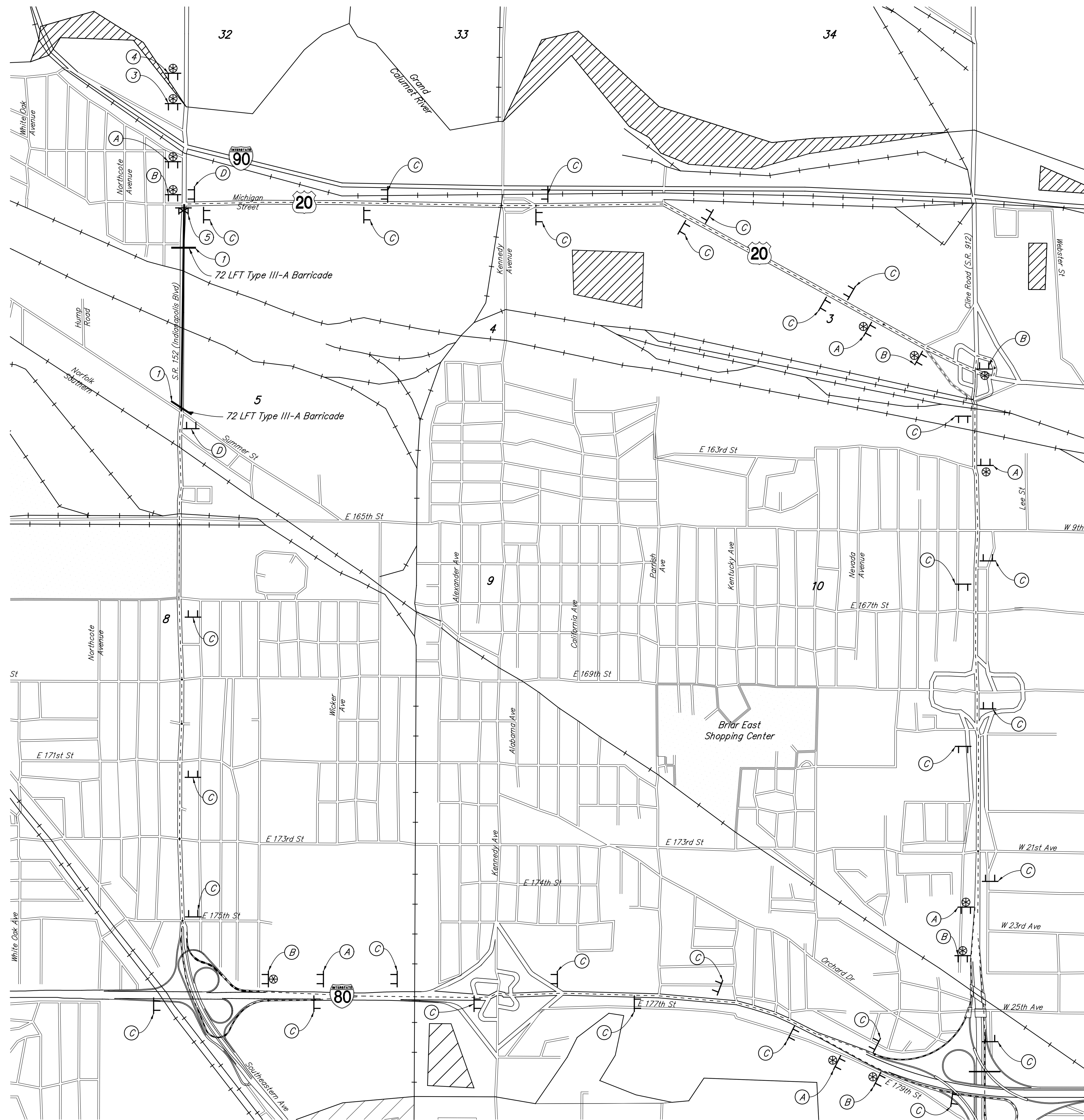
RECOMMENDED FOR APPROVAL *William S. Lyon* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: BNM DRAWN: BNM  
CHECKED: DAD CHECKED: DAD

INDIANA  
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

HORIZONTAL SCALE 1" = 100'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 6 of 147
CONTRACT B-33357	PROJECT NO. N881008



DETOUR QUANTITIES		
PAY ITEMS	TOTAL QUANTITY	PAY QUANTITY
Road Closure Sign Assembly (R11-2)	(1) 2	EACH
Road Closure Sign Assembly (R11-3a)	(2) 0	EACH
Construction Sign, A	(3) 1	EACH
Construction Sign, A (x3)	(4) 3	EACH
Road Closure Sign Assembly (R11-3a, XM4-10(R))	(5) 1	EACH
Detour Route Marker Assembly	(A) 6	EACH
Detour Route Marker Assembly	(B) 6	EACH
Detour Route Marker Assembly	(C) 29	EACH
Detour Route Marker Assembly	(D) 2	EACH
Type III-A Barricade	144	LFT

**ROAD CLOSED**

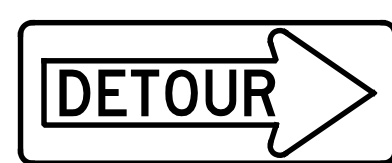
(1)  
Road Closure Sign Assembly (R11-2)  
48" x 30"

**ROAD CLOSED  
0.5 MILES AHEAD  
LOCAL TRAFFIC ONLY**

(2)  
Road Closure Sign Assembly (R11-3a)  
60" x 30"

**ROAD CLOSED  
0.5 MILES AHEAD  
LOCAL TRAFFIC ONLY**

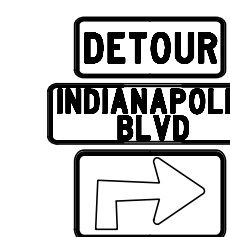
(5)  
Road Closure Sign Assembly (R11-3a)  
60" x 30"  
(XM4-10(R))  
48" x 18"



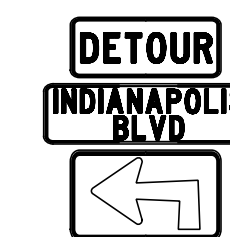
(3)  
Detour Ahead (XW20-2)  
48" x 48"



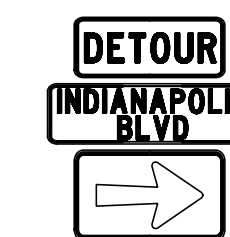
(4)  
Road Closed Ahead (XW20-3)  
48" x 48"



(A)  
XM4-B SPECIAL M5-1(R/S)



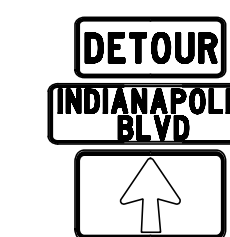
(A)  
XM4-B SPECIAL M5-1(L/S)



(B)  
XM4-B SPECIAL M6-1(R/S)



(B)  
XM4-B SPECIAL M6-1(L/S)

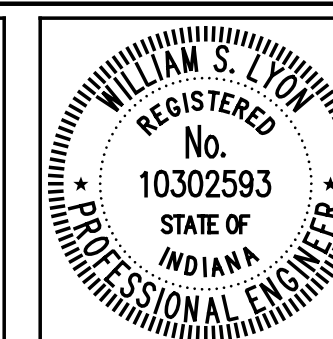


(C)  
XM4-B SPECIAL M6-3S



(D)  
M4-6S XM4-B SPECIAL

**LEGEND**



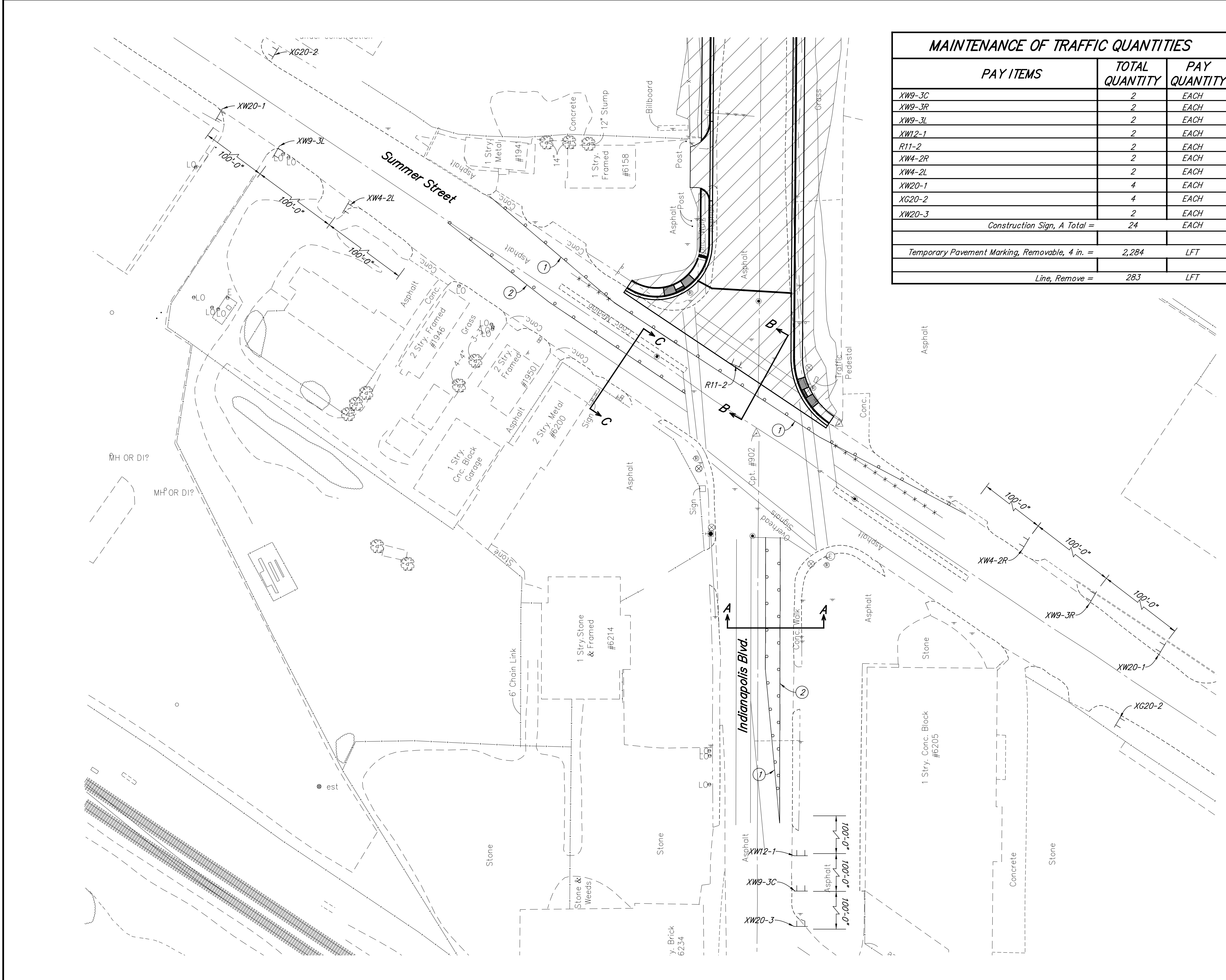
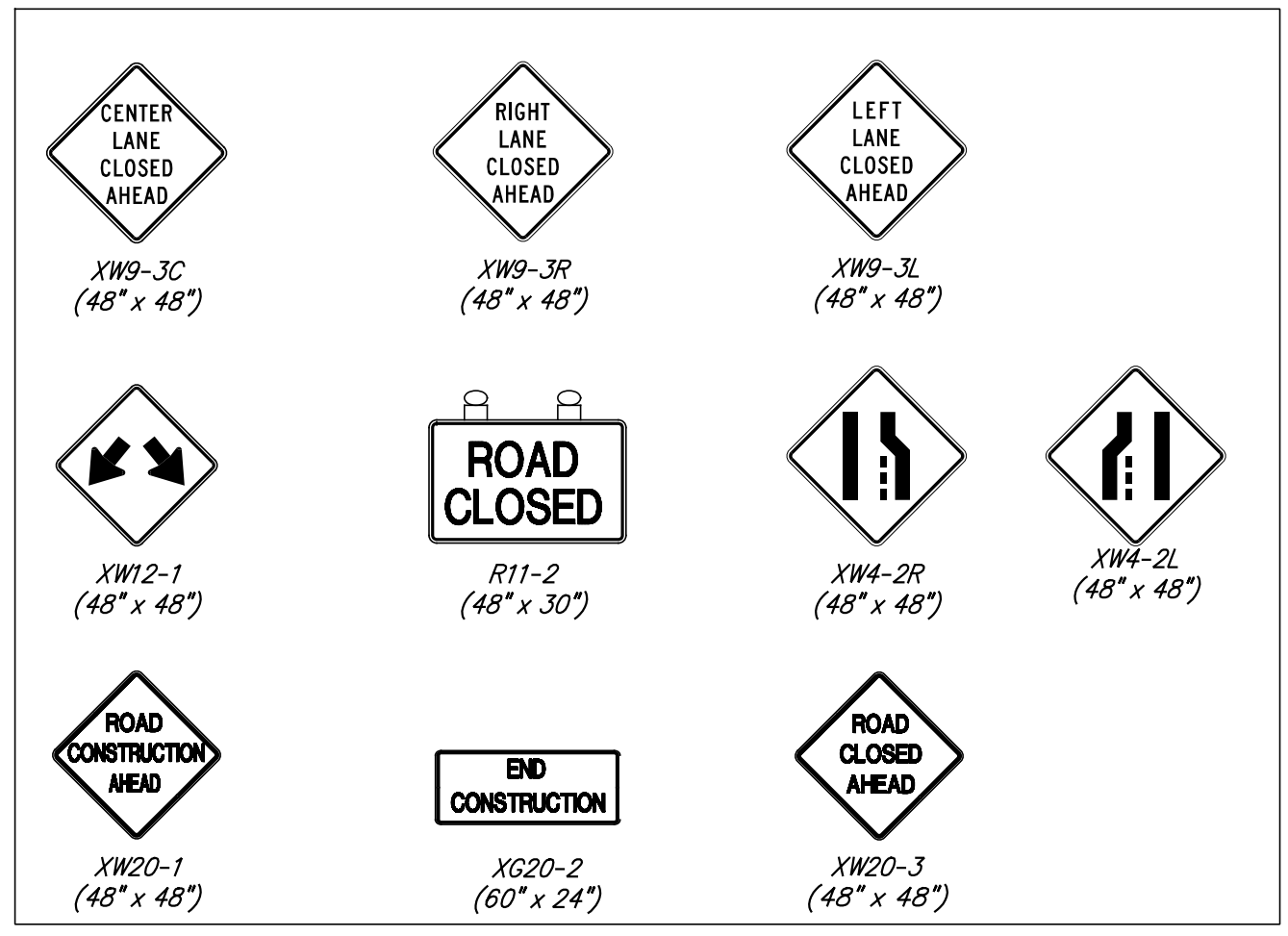
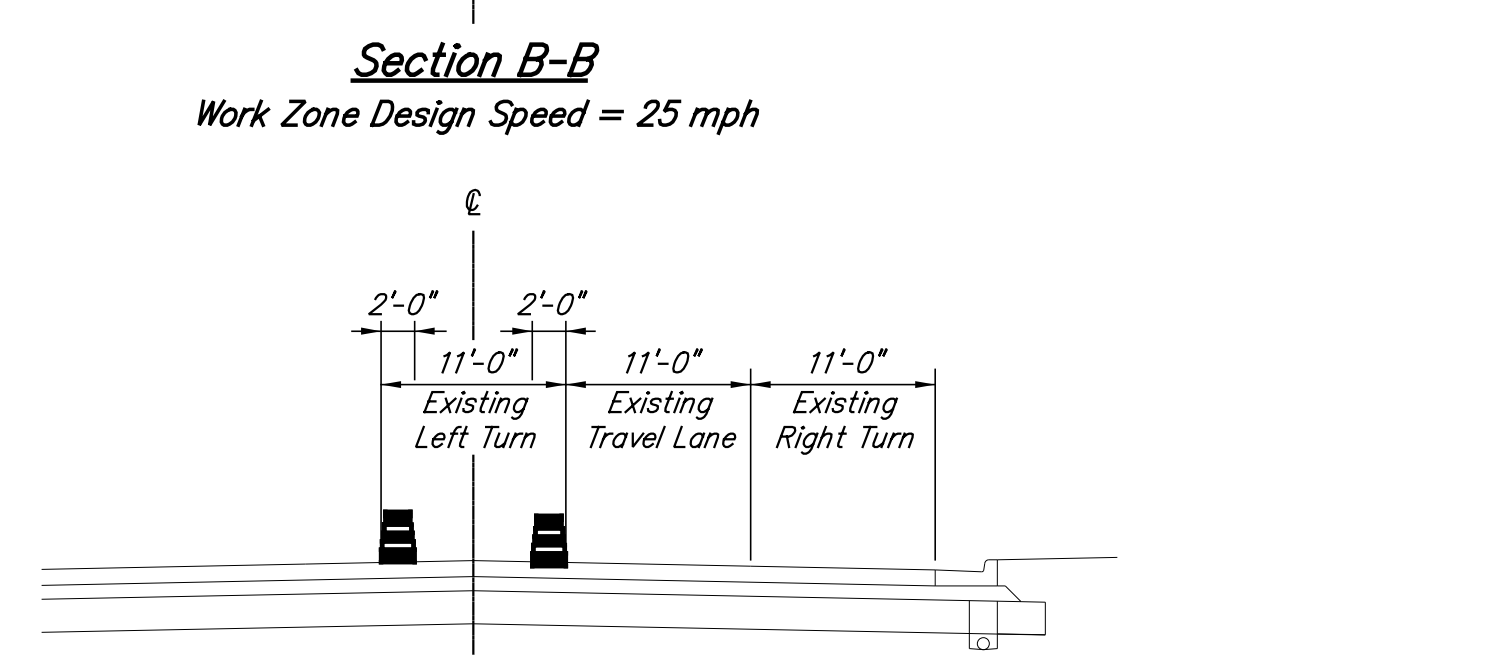
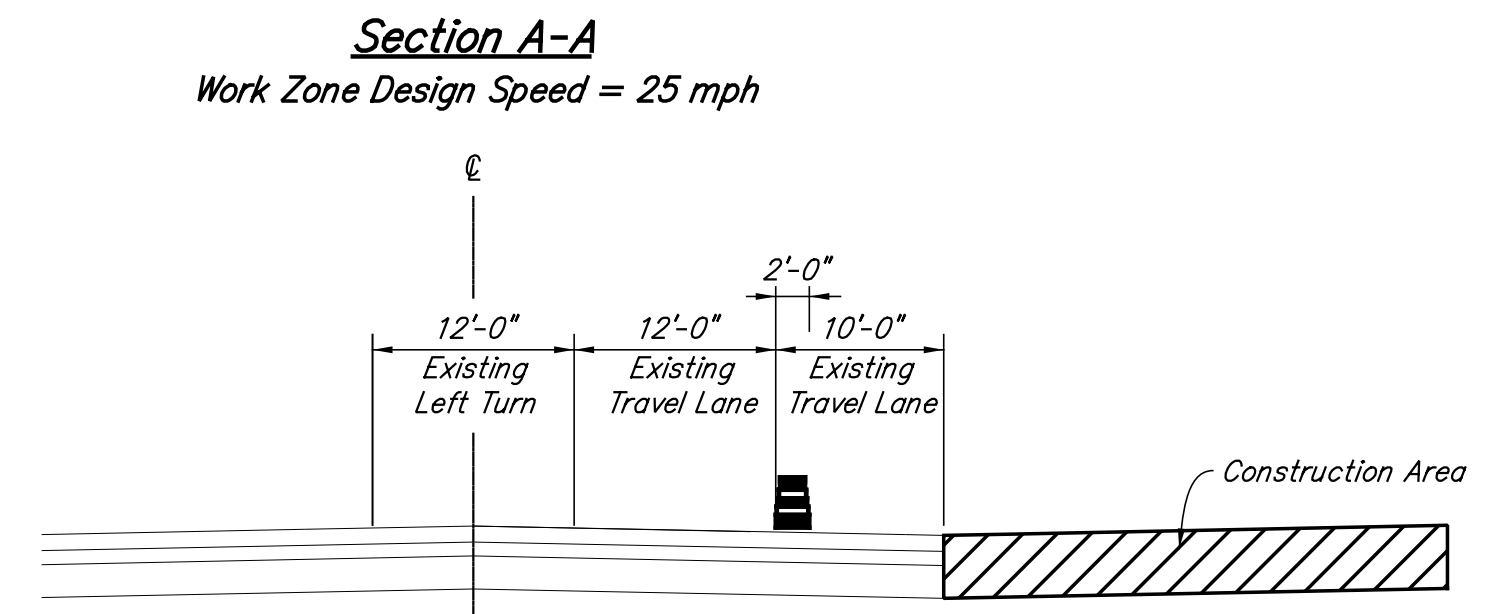
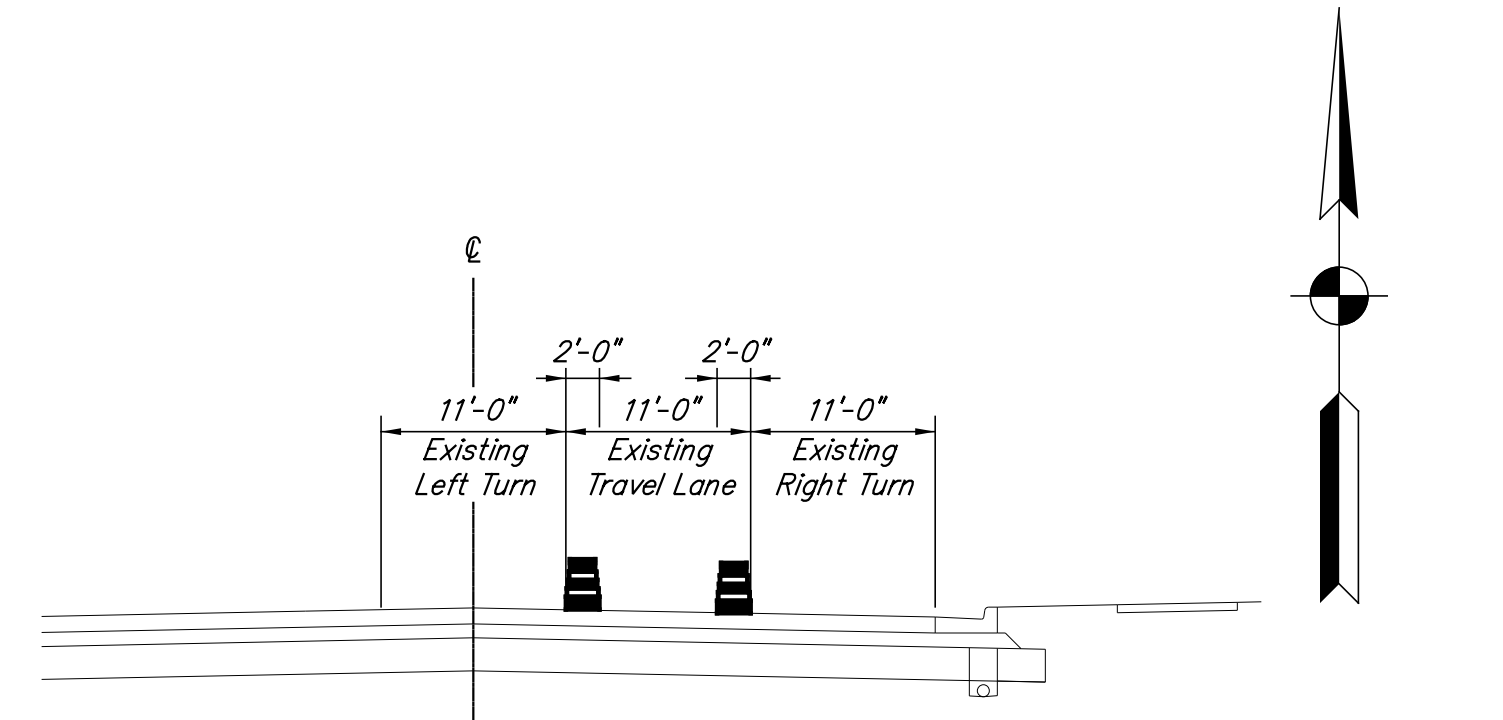
RECOMMENDED FOR APPROVAL: *William S. Lyon*, DESIGN ENGINEER, DATE: 6/1/2012  
 DESIGNED: NRM, DRAWN: NRM  
 CHECKED: DAD/WSL, CHECKED: DAD/WSL

INDIANA DEPARTMENT OF TRANSPORTATION

**DETOUR PLAN**

HORIZONTAL SCALE 1" = 1000'	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 7 of 147
CONTRACT B-33357	PROJECT NO. N881008

MAINTENANCE OF TRAFFIC QUANTITIES		
PAY ITEMS	TOTAL QUANTITY	PAY QUANTITY
XW9-3C	2	EACH
XW9-3R	2	EACH
XW9-3L	2	EACH
XW12-1	2	EACH
R11-2	2	EACH
XW4-2R	2	EACH
XW4-2L	2	EACH
XW20-1	4	EACH
XG20-2	4	EACH
XW20-3	2	EACH
Construction Sign, A Total =		24 EACH
Temporary Pavement Marking, Removable, 4 in. =		2,284 LFT
Line, Remove =		283 LFT



**LEGEND**

①	Temporary Pavement Marking, Removable, 4 in., White
②	Temporary Pavement Marking, Removable, 4 in., Yellow
—X—X	Line, Remove

RECOMMENDED FOR APPROVAL: *William S. Lyon*, DESIGN ENGINEER, 6/1/2012 DATE

DESIGNED: JMT DRAWN: JMT

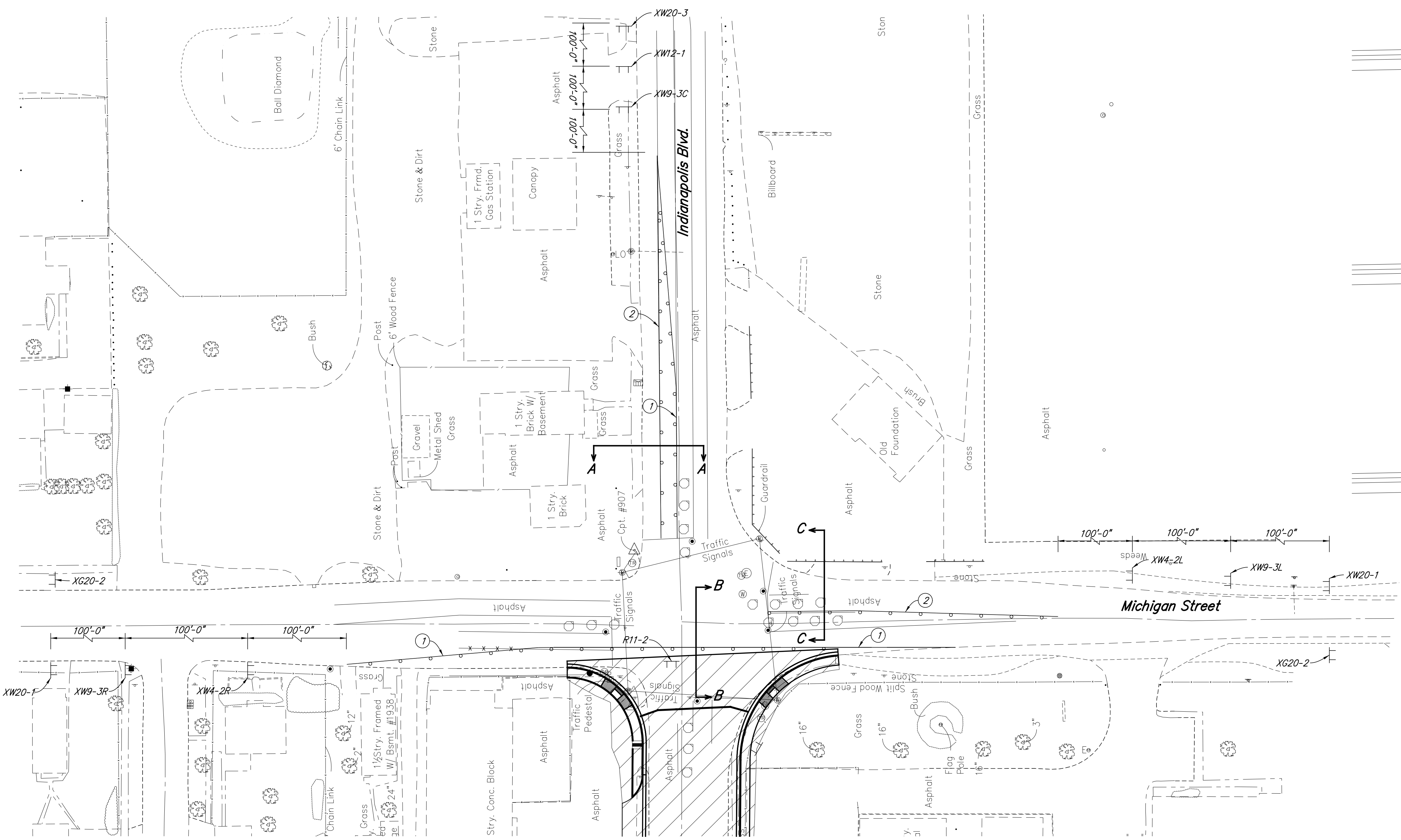
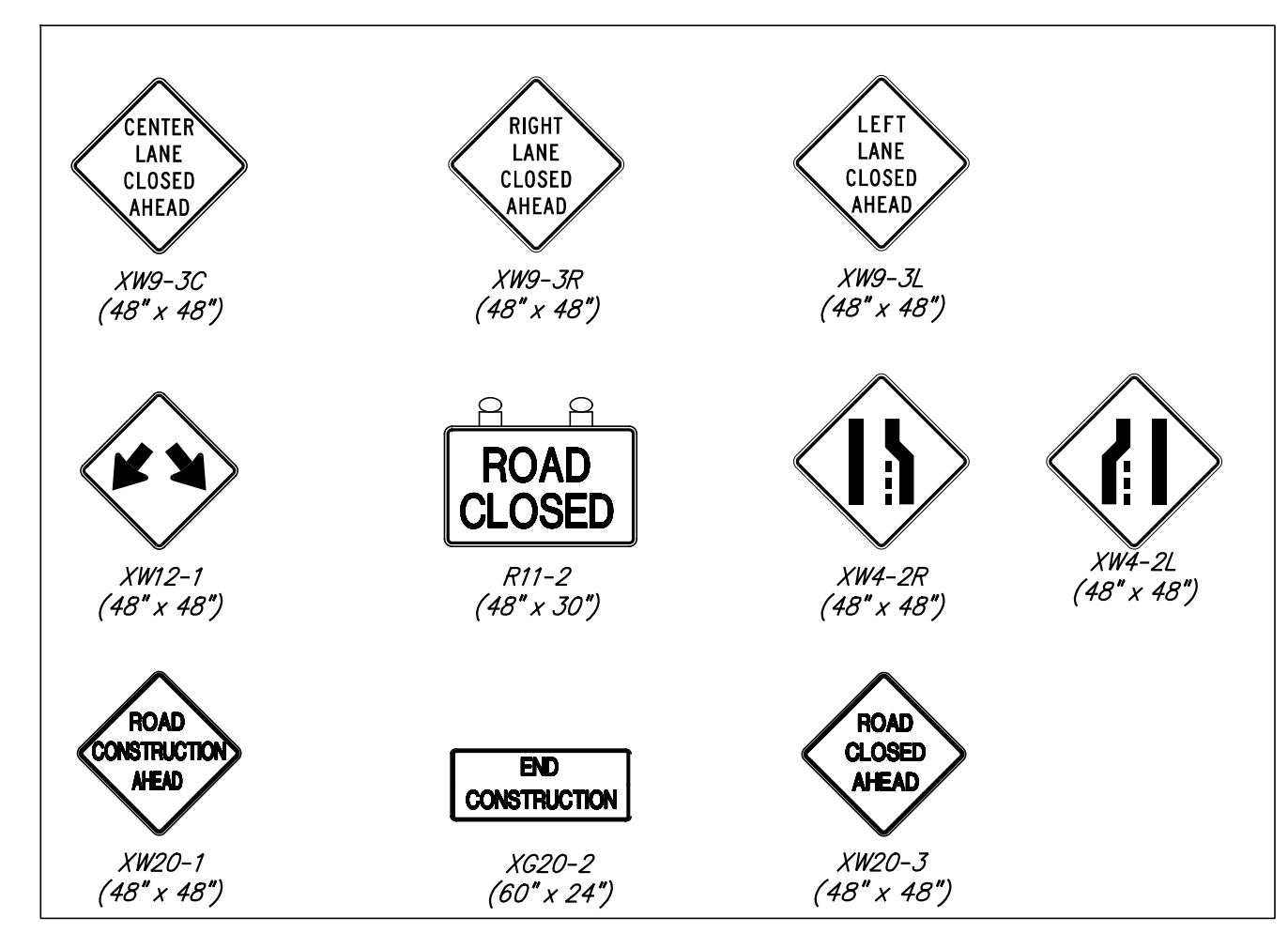
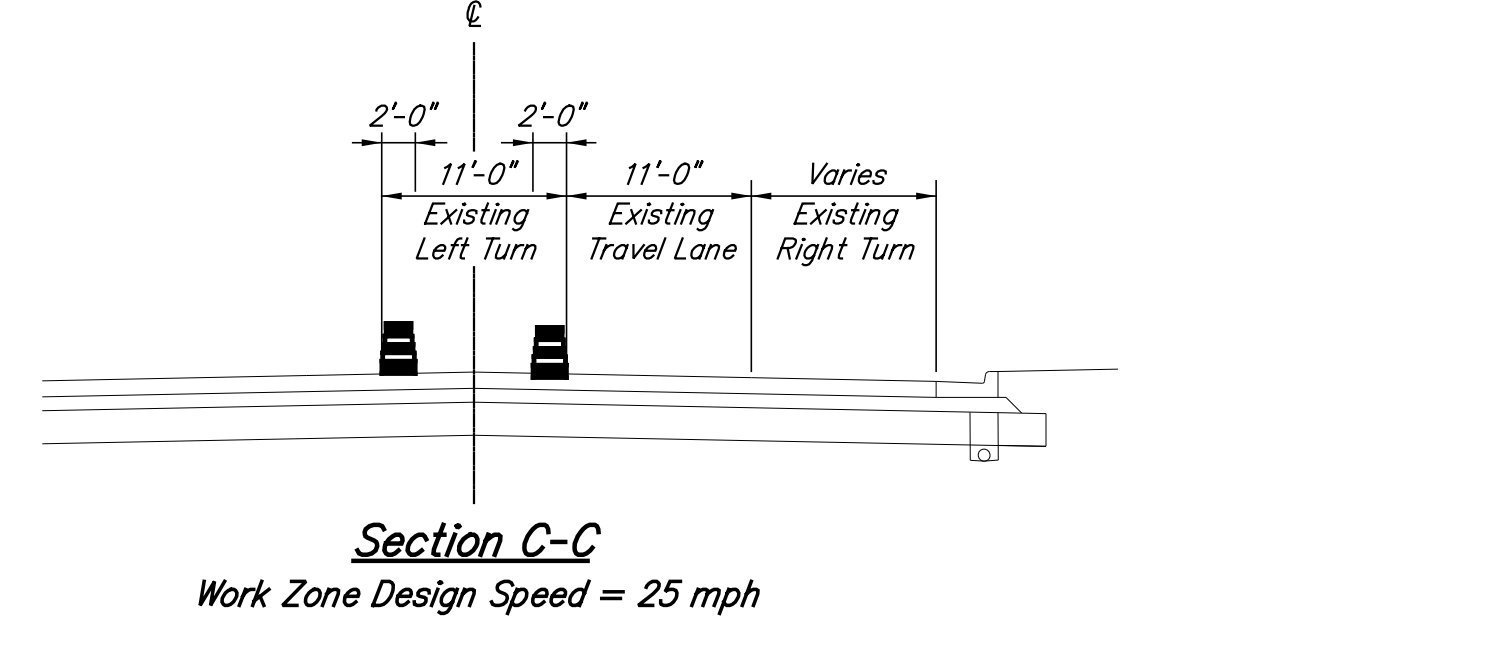
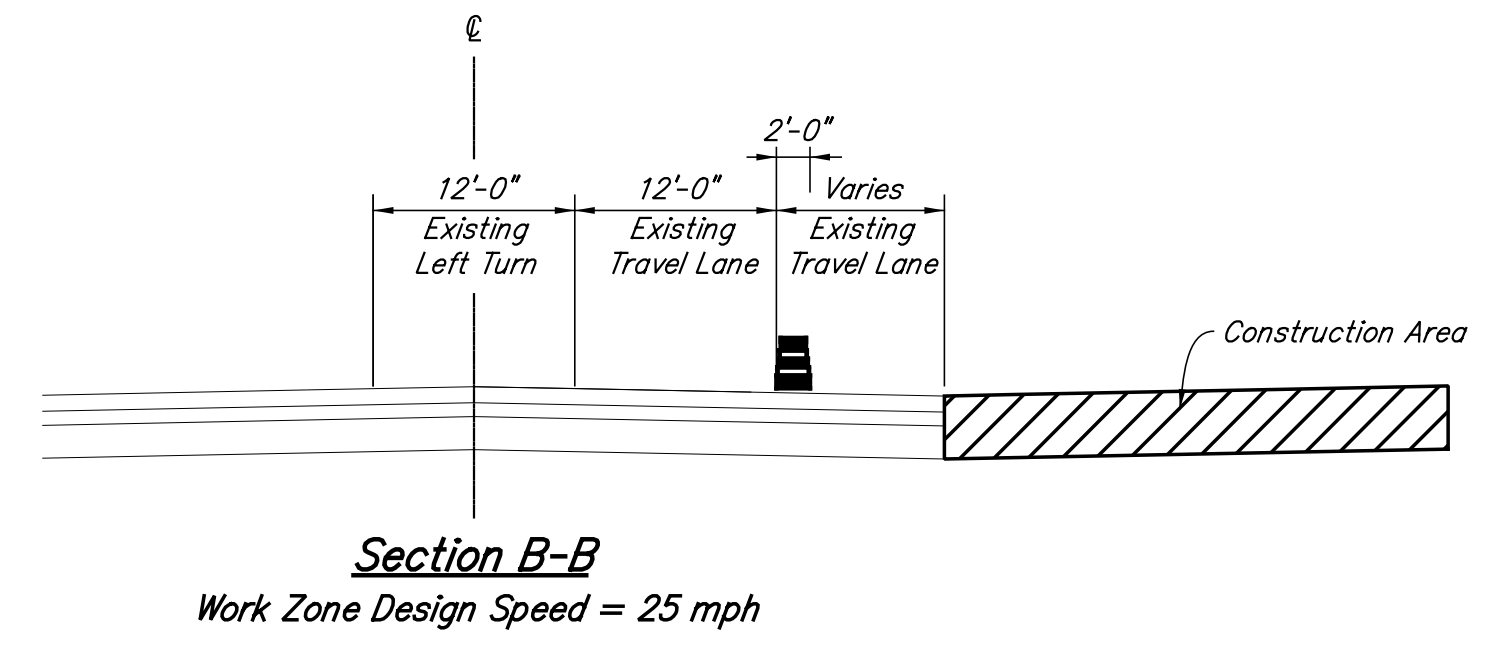
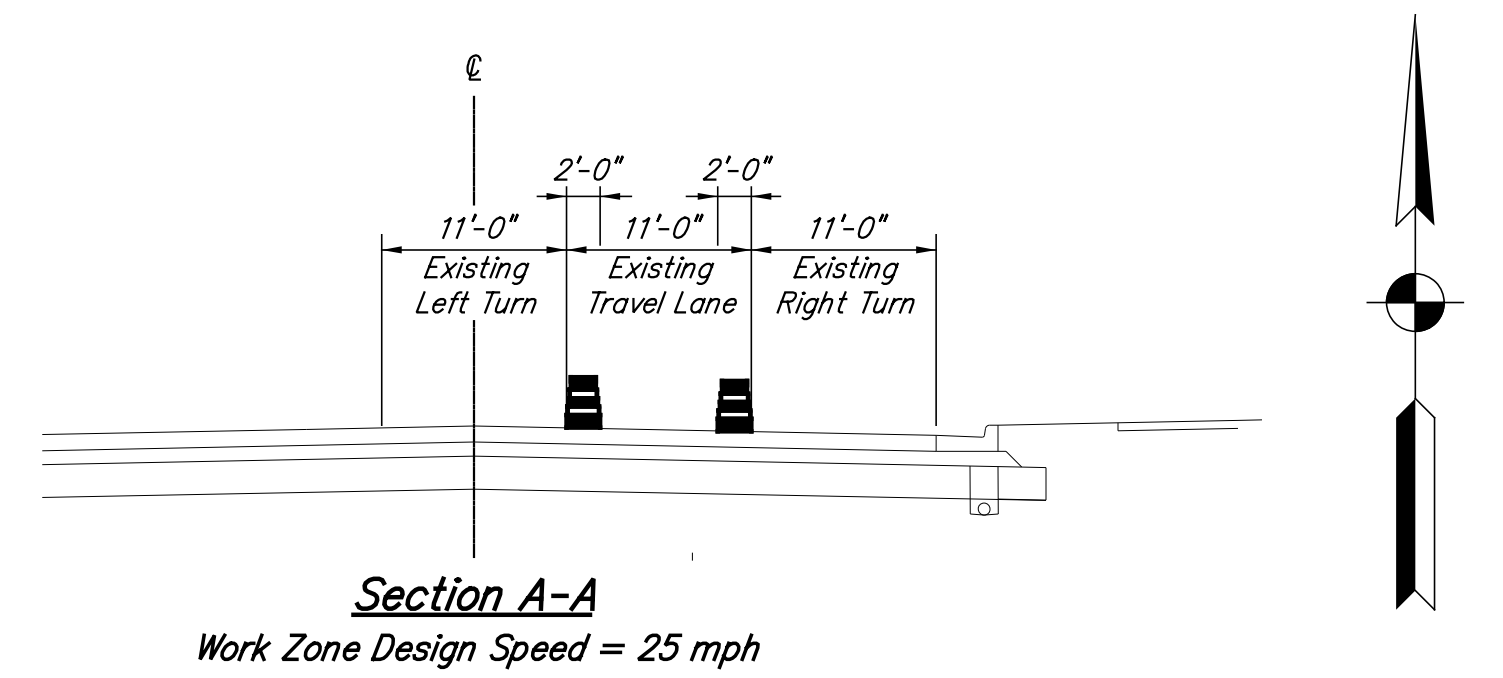
CHECKED: WSL CHECKED: WSL

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE I

HORIZONTAL SCALE 1" = 40'	BRIDGE FILE 152-45-02730
VERTICAL SCALE N/A	DESIGNATION NO. 0014210
SURVEY BOOK B-33357	SHEETS 8 of 147
CONTRACT B-33357	PROJECT NO. N881008





**LEGEND**

① Temporary Pavement Marking, Removable, 4 in., White

② Temporary Pavement Marking, Removable, 4 in., Yellow

—X—X— Line, Remove

RECOMMENDED FOR APPROVAL: *William S. Lyon*, DESIGN ENGINEER, 6/1/2012 DATE

DESIGNED: JMT DRAWN: JMT

CHECKED: WSL CHECKED: WSL

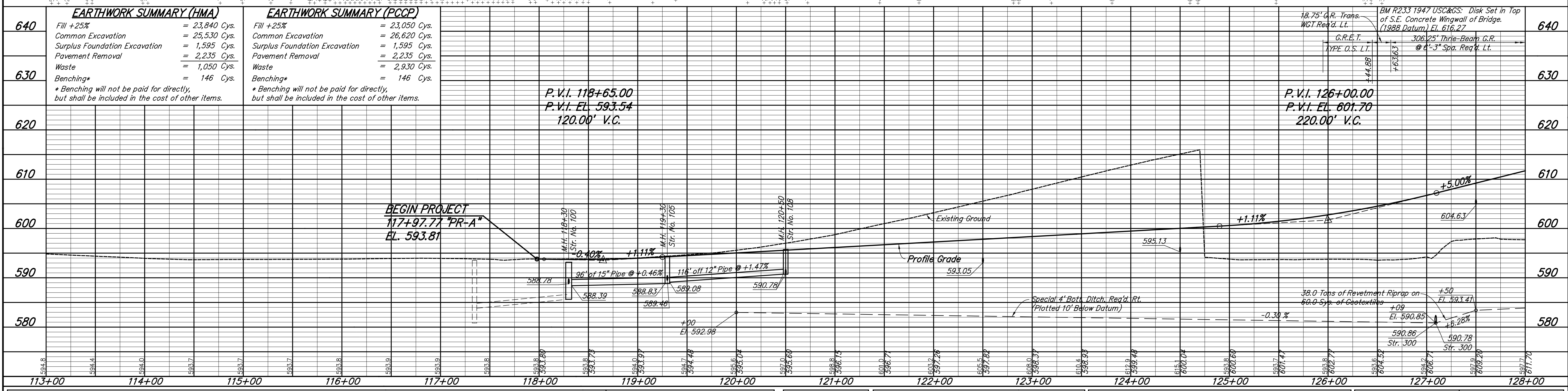
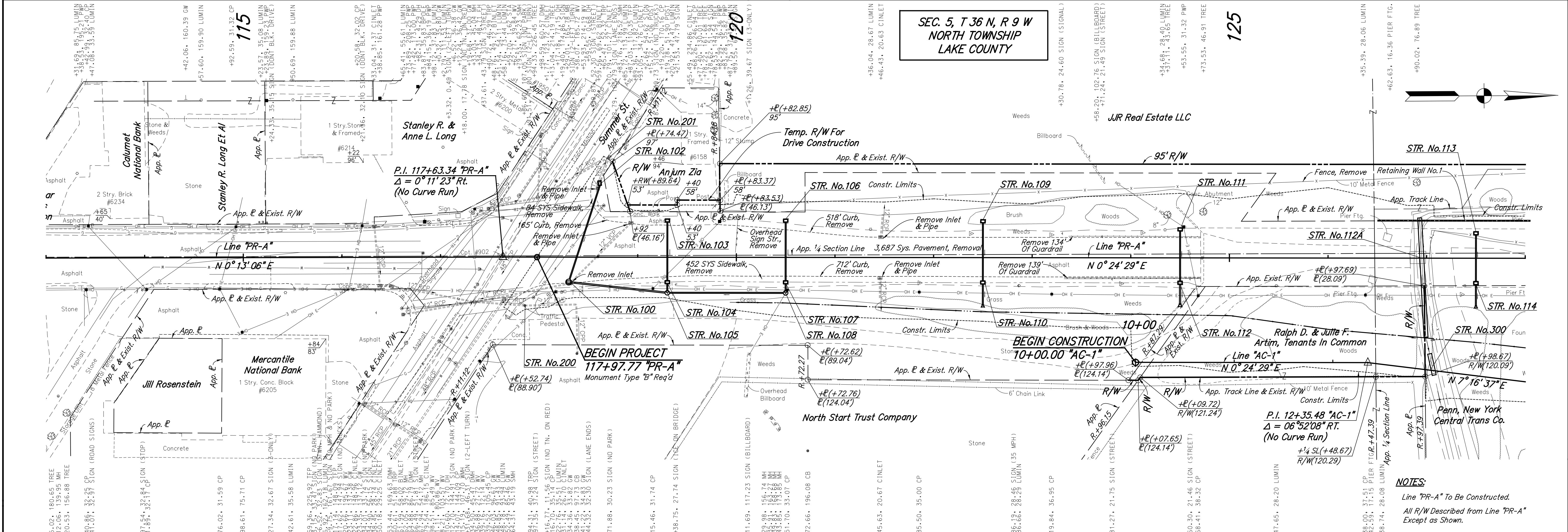
INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE I

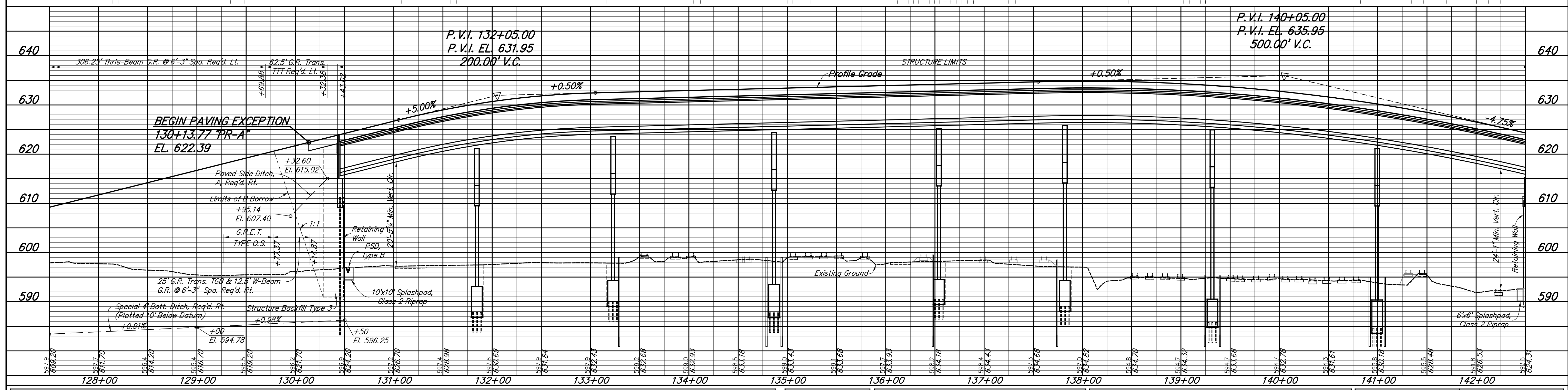
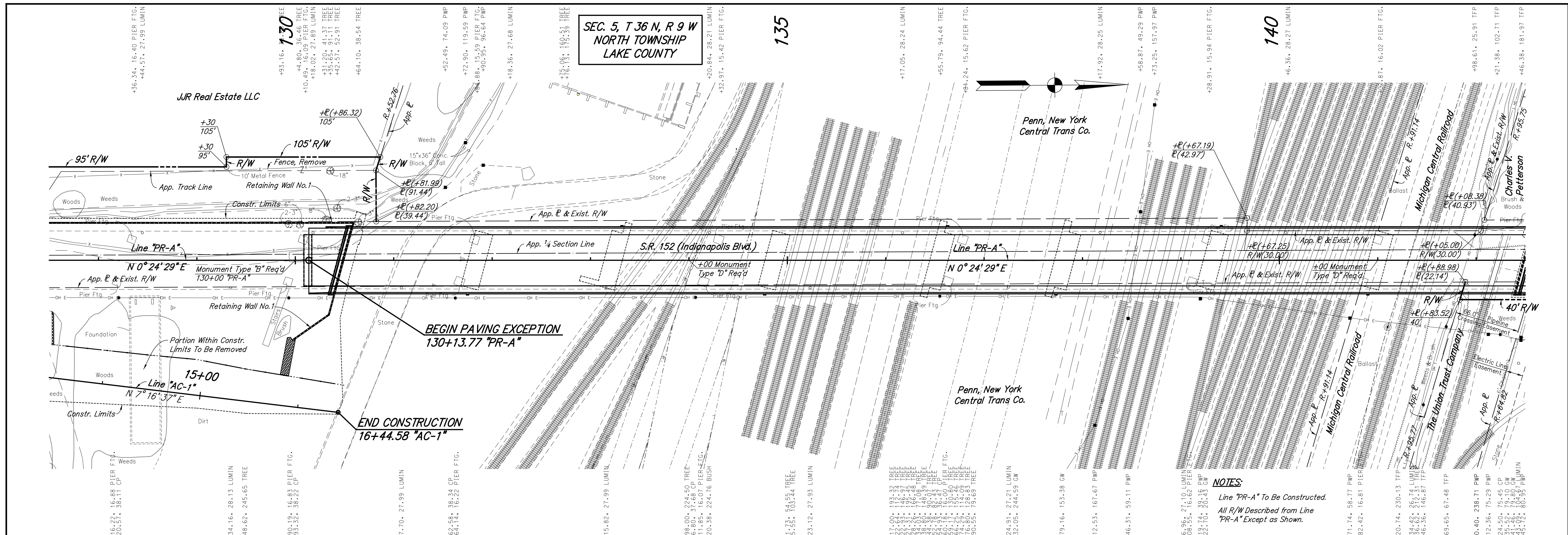
HORIZONTAL SCALE 1" = 40'	BRIDGE FILE 152-45-02730
VERTICAL SCALE N/A	DESIGNATION NO. 0014210
SURVEY BOOK B-33357	SHEETS 9 of 147
CONTRACT B-33357	PROJECT NO. N881008

SEC. 5, T 36 N, R 9 W  
NORTH TOWNSHIP  
LAKE COUNTY

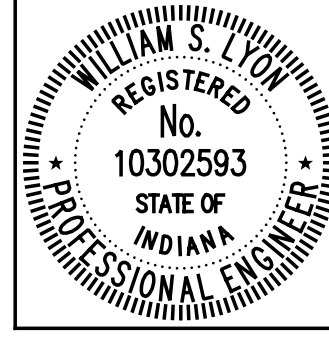
125



Station	Earthwork Summary (HMA)	Earthwork Summary (PCCP)	Notes
640	Fill +25% = 23,840 Cys. Common Excavation = 25,530 Cys. Surplus Foundation Excavation = 1,595 Cys. Pavement Removal = 2,235 Cys. Waste = 1,050 Cys.	Fill +25% = 23,050 Cys. Common Excavation = 26,620 Cys. Surplus Foundation Excavation = 1,595 Cys. Pavement Removal = 2,235 Cys. Waste = 2,930 Cys.	
630	Benching* = 146 Cys. *Benching will not be paid for directly, but shall be included in the cost of other items.	Benching* = 146 Cys. *Benching will not be paid for directly, but shall be included in the cost of other items.	
620			P.V.I. 118+65.00 P.V.I. EL. 593.54 120.00' V.C.
610			
600			
590			
580			



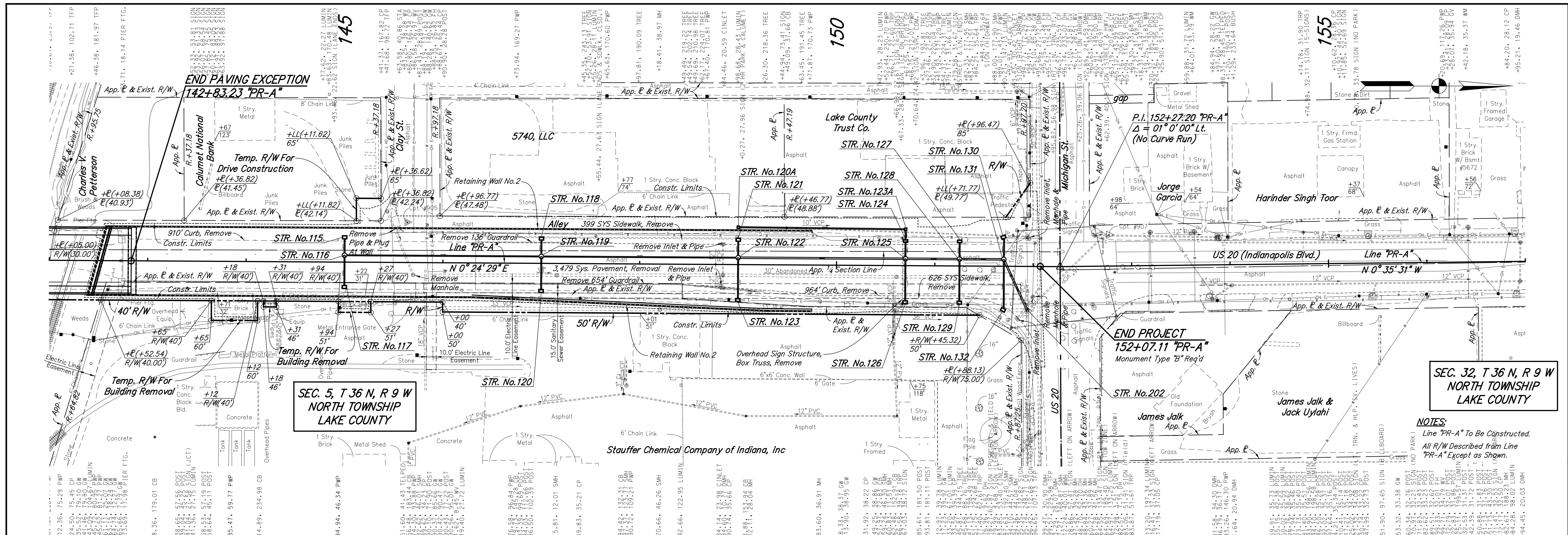
**NOTES:**  
 Line "PR-A" To Be Constructed.  
 All R/W Described from Line "PR-A" Except as Shown.



RECOMMENDED FOR APPROVAL: *William S. Lyon*, DESIGN ENGINEER, DATE: 6/1/2012  
 DESIGNED: NRM, DRAWN: RSC  
 CHECKED: DAD / WSL, CHECKED: DAD / WSL

INDIANA DEPARTMENT OF TRANSPORTATION  
**PLAN AND PROFILE**  
**LINE "PR-A"**

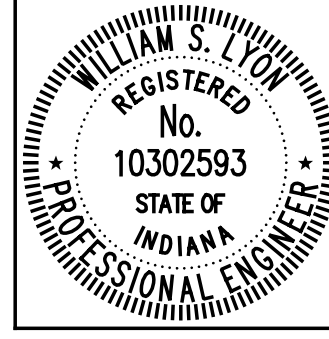
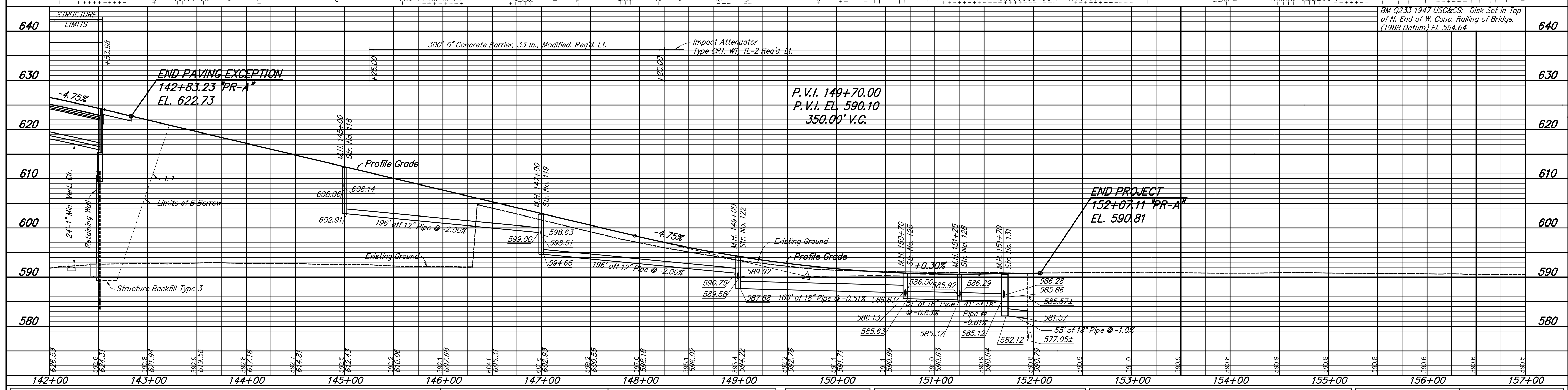
HORIZONTAL SCALE 1" = 50'	BRIDGE FILE 152-45-02730
VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS
CONTRACT B-33357	11 of 147
	PROJECT NO. N881008



SEC. 5, T 36 N, R 9 W  
NORTH TOWNSHIP  
LAKE COUNTY

SEC. 32, T 36 N, R 9 W  
NORTH TOWNSHIP  
LAKE COUNTY

NOTES:  
Line "PR-A" To Be Constructed.  
All R/W Described from Line  
"PR-A" Except as Shown.

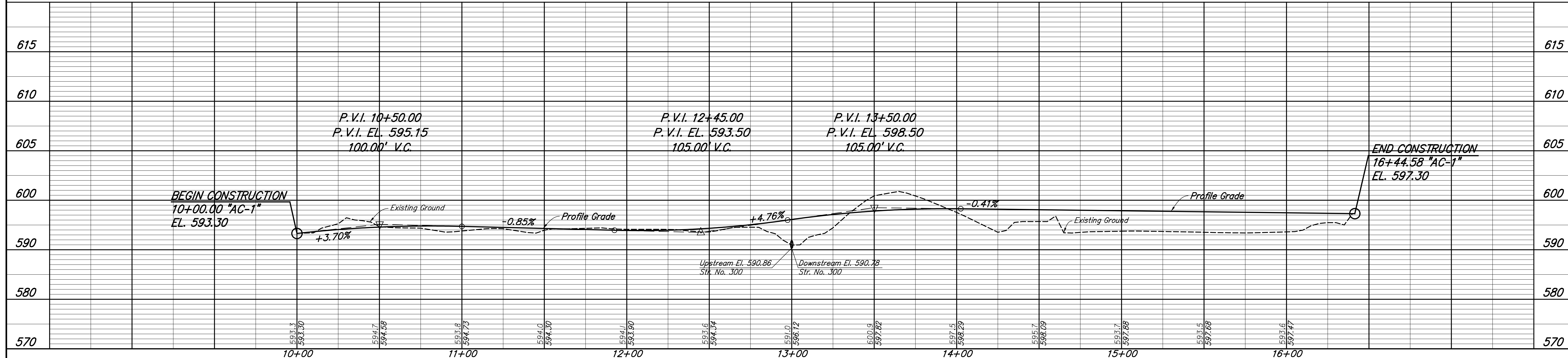
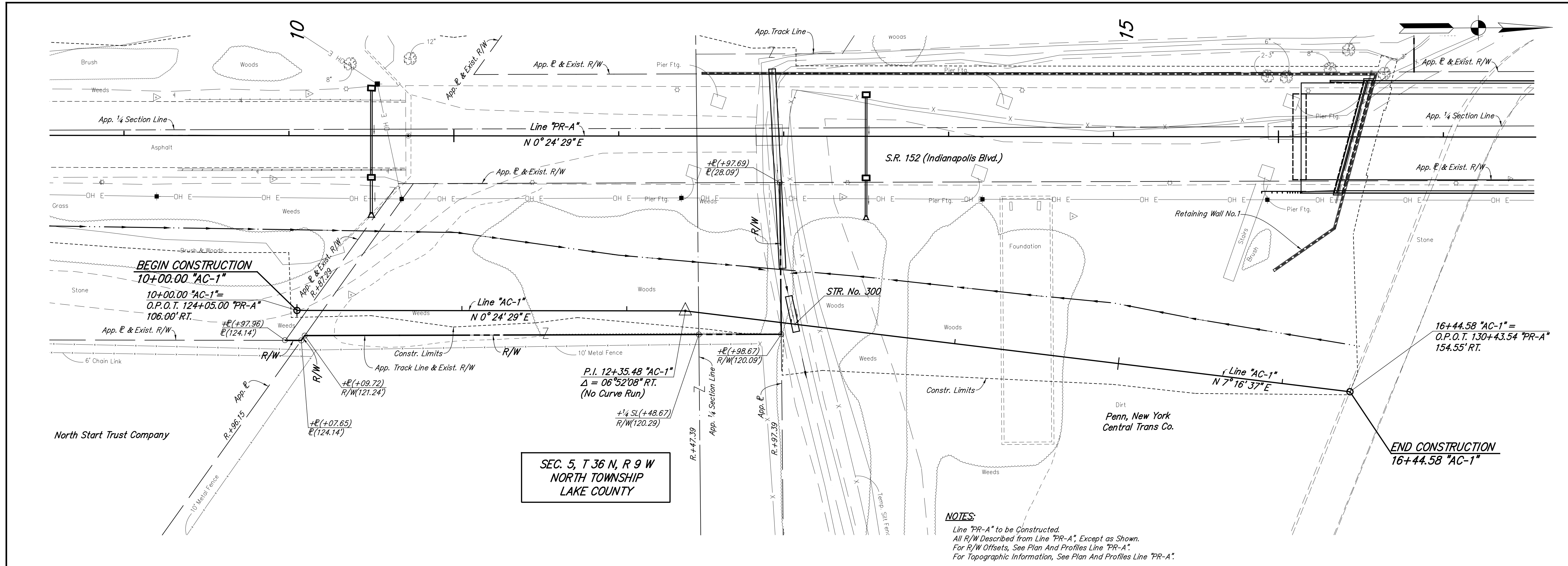


RECOMMENDED FOR APPROVAL	William S. Top	6/1/2012
DESIGNED:	NRM	DRAWN: RSC
CHECKED: DAD / WSL		CHECKED: DAD / WSL

INDIANA  
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE  
LINE "PR-A"

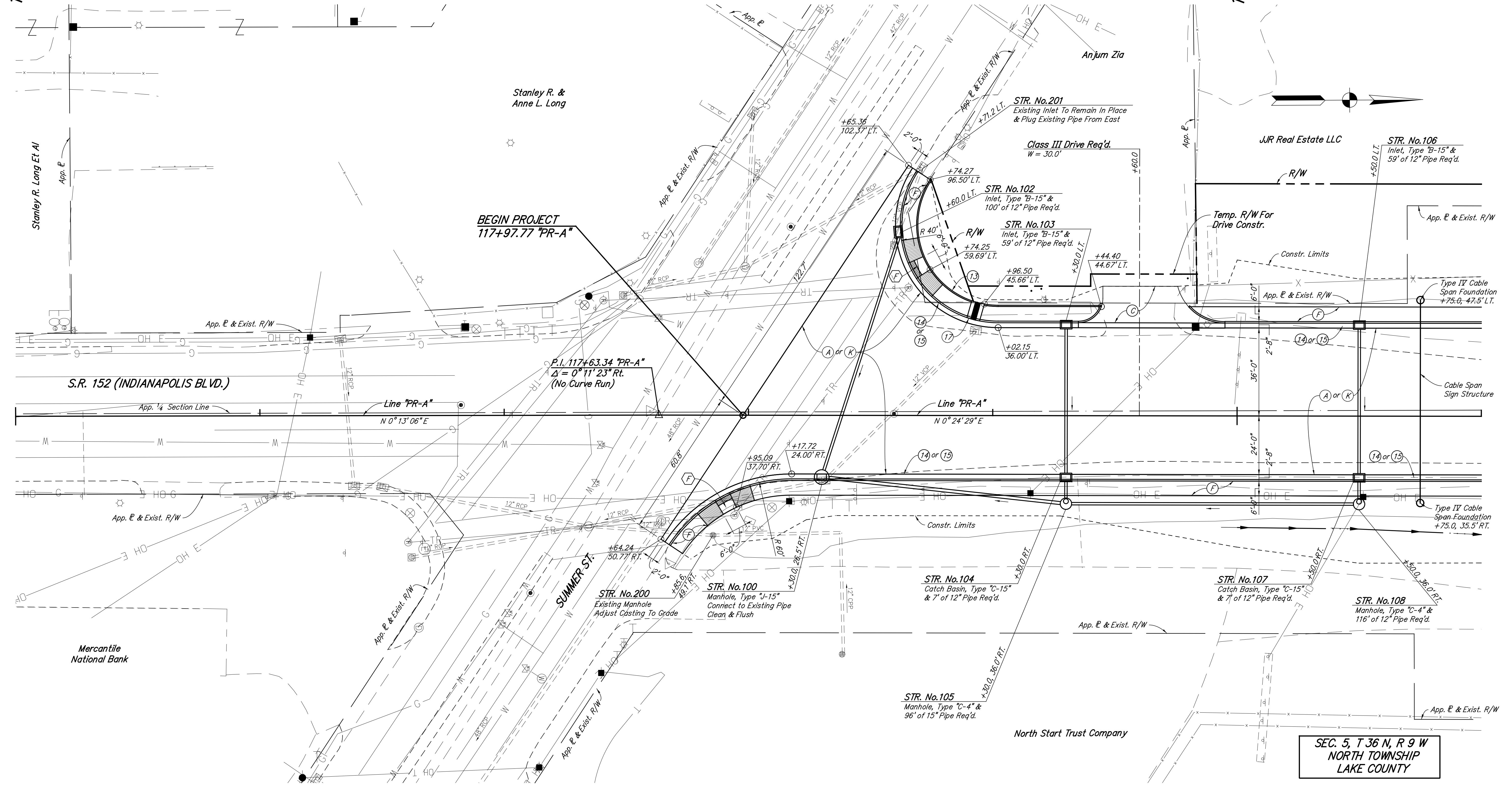
HORIZONTAL SCALE 1" = 50'	BRIDGE FILE 152-45-02730
VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 12 of 147
CONTRACT B-33357	PROJECT NO. N881008



	RECOMMENDED FOR APPROVAL <i>William S. Lyon</i> DESIGN ENGINEER	6/1/2012 DATE	HORIZONTAL SCALE 1" = 30'		BRIDGE FILE 152-45-02730		
	DESIGNED: NRM CHECKED: DAD / WSL	DRAWN: RJC CHECKED: DAD / WSL	VERTICAL SCALE 1" = 10'		DESIGNATION NO. 0014210		
	INDIANA DEPARTMENT OF TRANSPORTATION			SURVEY BOOK B-33357		SHEETS 13 of 147	
	PLAN AND PROFILE LINE "AC-1"			PROJECT NO. N881008			

115

120



NOTES:  
 All Radii Are Along Front Face Of Curb, Except As Shown.  
 For Storm Sewer Profile, See Plan And Profiles Line "PR-A".

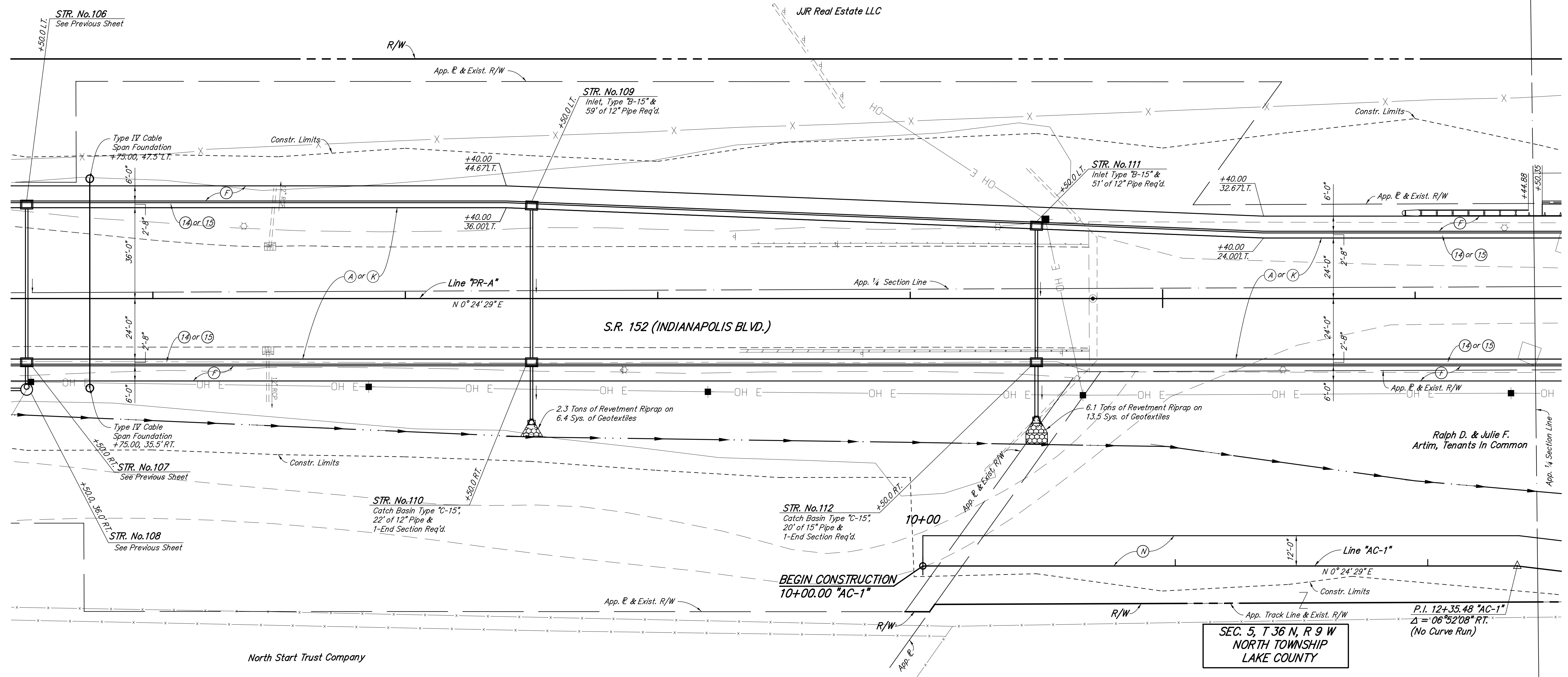
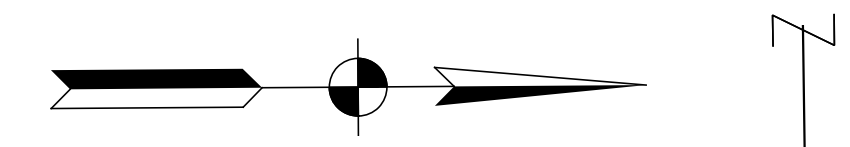
LEGEND	
(2) Railing, Concrete, FT	(13) Curb, Concrete
(3) Concrete Barrier, 33 In., Modified	(14) Curb, Integral, C, Concrete
(4) Terminal Joint	(15) Curb and Gutter, C, Concrete
(10) Paved Side Ditch, Type A	(17) Curb and Gutter Turnout, Concrete, Modified
(11) Paved Side Ditch, Type B	(A) QC/QA-PCCP, 10 In. (See Typical Sections)
(C) 9 in. PCCP for Approaches on Subgrade Treatment, Type IIIA	(G) Reinforced Concrete Moment Slab, 12 In., Modified (See Typical Sections)
(D) 165 #/SYD. HMA Surface, Type A on 495 #/SYD. HMA Intermediate, Type A on 6 In. Compacted Aggregate Base, No. 53	(K) Full Depth HMA Pavement (See Typical Sections)
(F) Sidewalk, Concrete, 4 in.	(N) 6" Compacted Aggregate, No. 53, Base
	(X) Curb Ramp, Concrete (Type As Indicated)

RECOMMENDED FOR APPROVAL *William S. Lyon* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: NRM DRAWN: RJC  
 CHECKED: DAD/WSL CHECKED: DAD/WSL

INDIANA DEPARTMENT OF TRANSPORTATION  
**CONSTRUCTION DETAILS**  
**LINE "PR-A"**

HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 14 of 147
CONTRACT B-33357	PROJECT NO. N881008



NOTES:  
 All Radii Are Along Front Face Of Curb, Except As Shown.  
 For Storm Sewer Profile, See Plan And Profiles Line "PR-A".

LEGEND	
② Railing, Concrete, FT	⑬ Curb, Concrete
③ Concrete Barrier, 33 In., Modified	⑭ Curb, Integral, C, Concrete
④ Terminal Joint	⑮ Curb and Gutter, C, Concrete
⑩ Paved Side Ditch, Type A	⑯ Curb and Gutter Turnout, Concrete, Modified
⑪ Paved Side Ditch, Type B	⑰ QC/QA-PCCP, 10 In. (See Typical Sections)
⑧ 9 in. PCCP for Approaches on Subgrade Treatment, Type IIIA	⑱ Sidewalk, Concrete, 4 in.
⑨ 165 #/SYD. HMA Surface, Type A on 495 #/SYD. HMA Intermediate, Type A on 6 in. Compacted Aggregate Base, No. 53	
⑥ Reinforced Concrete Moment Slab, 12 In., Modified (See Typical Sections)	
⑦ Full Depth HMA Pavement (See Typical Sections)	
⑤ 6" Compacted Aggregate, No. 53, Base	
④ Curb Ramp, Concrete (Type As Indicated)	

RECOMMENDED FOR APPROVAL

*William S. Ligon*  
 DESIGN ENGINEER

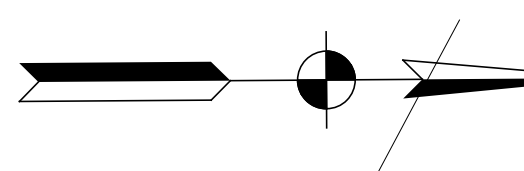
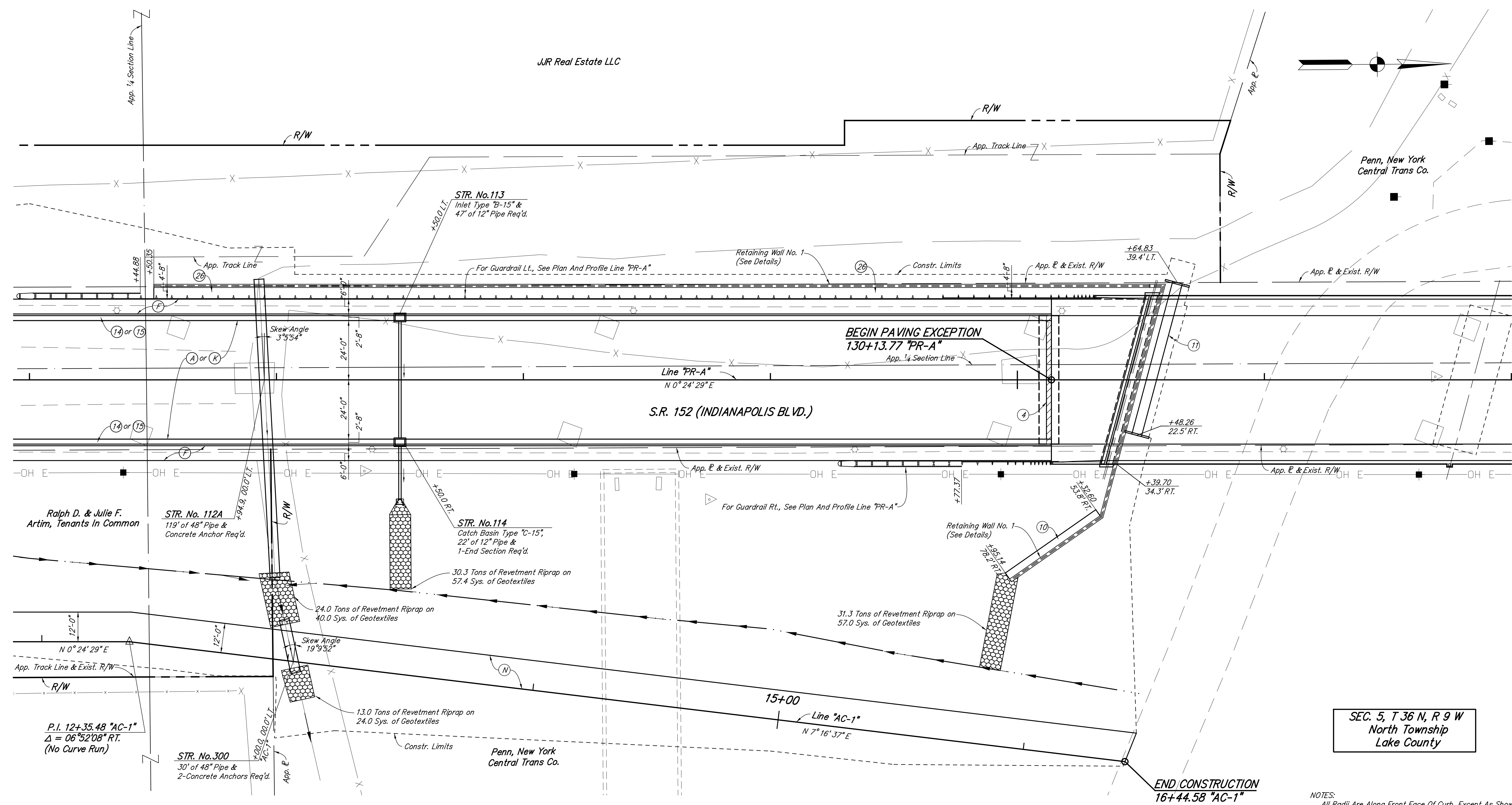
6/1/2012  
 DATE

DESIGNED: NRM DRAWN: RJC  
 CHECKED: DAD/WSL CHECKED: DAD/WSL

INDIANA  
 DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS  
 LINE "PR-A"

HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 15 of 147
CONTRACT B-33357	PROJECT NO. N881008



Penn, New York  
Central Trans Co.

S.R. 152 (INDIANAPOLIS BLVD.)

SEC. 5, T 36 N, R 9 W  
North Township  
Lake County

NOTES:  
All Radii Are Along Front Face Of Curb, Except As Shown.  
For Storm Sewer Profile, See Plan And Profiles Line "PR-A".

LEGEND	
(2) Railing, Concrete, FT	(13) Curb, Concrete
(3) Concrete Barrier, 33 In., Modified	(14) Curb, Integral, C, Concrete
(4) Terminal Joint	(15) Curb and Gutter, C, Concrete
(10) Paved Side Ditch, Type A	(17) Curb and Gutter Turnout, Concrete, Modified
(11) Paved Side Ditch, Type B	(A) QC/QA-PCCP, 10 In. (See Typical Sections)
(9) 9 in. PCPP for Approaches on Subgrade Treatment, Type IIIA	(C) Reinforced Concrete Moment Slab, 12 In., Modified (See Typical Sections)
(D) 165 #/SYD. HMA Surface, Type A on 495 #/SYD. HMA Intermediate, Type A on 6 In. Compacted Aggregate Base, No. 53	(K) Full Depth HMA Pavement (See Typical Sections)
(F) Sidewalk, Concrete, 4 in.	(N) 6" Compacted Aggregate, No. 53, Base
	(X) Curb Ramp, Concrete (Type As Indicated)

**WILLIAM S. LYON**  
REGISTERED  
No. 10302593  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: *William S. Lyon* 6/1/2012  
DESIGN ENGINEER DATE

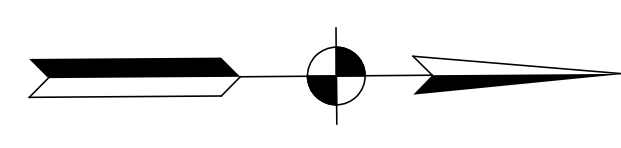
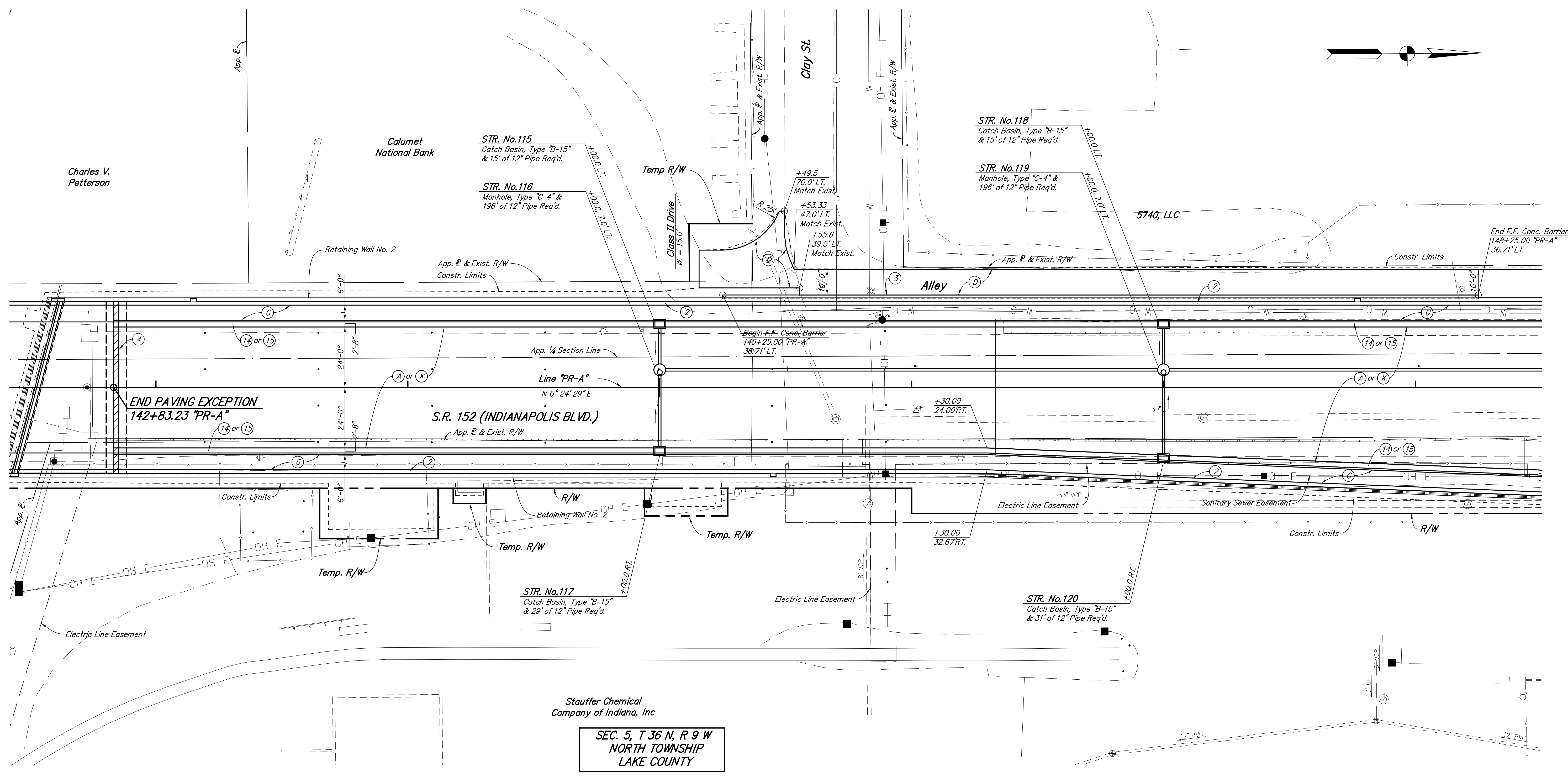
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CHECKED: DAD/WSL CHECKED: DAD/WSL

INDIANA  
DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION DETAILS**  
**LINE "PR-A"**

HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 16 of 147
CONTRACT B-33357	PROJECT NO. N881008





SEC. 5, T 36 N, R 9 W  
NORTH TOWNSHIP  
LAKE COUNTY

NOTES:  
All Radii Are Along Front Face Of Curb, Except As Shown.  
For Storm Sewer Profile, See Plan And Profiles Line "PR-A".

LEGEND	
(2) Railing, Concrete, FT	(13) Curb, Concrete
(3) Concrete Barrier, 33 In., Modified	(14) Curb, Integral, C, Concrete
(4) Terminal Joint	(15) Curb and Gutter, C, Concrete
(10) Paved Side Ditch, Type A	(17) Curb and Gutter Turnout, Concrete, Modified
(11) Paved Side Ditch, Type B	(A) QC/QA-PCCP, 10 In. (See Typical Sections)
(9) 9 in. PCCP for Approaches on Subgrade Treatment, Type IIIA	(C) Reinforced Concrete Moment Slab, 12 In., Modified (See Typical Sections)
(D) 165 #/SYD. HMA Surface, Type A on 495 #/SYD. HMA Intermediate, Type A on 6 In. Compacted Aggregate Base, No. 53	(K) Full Depth HMA Pavement (See Typical Sections)
(F) Sidewalk, Concrete, 4 in.	(N) 6" Compacted Aggregate, No. 53, Base
	(X) Curb Ramp, Concrete (Type As Indicated)

RECOMMENDED FOR APPROVAL

*William S. Lyon*  
DESIGN ENGINEER

6/1/2012  
DATE

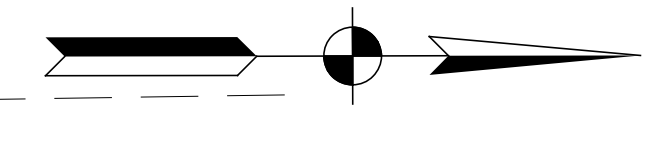
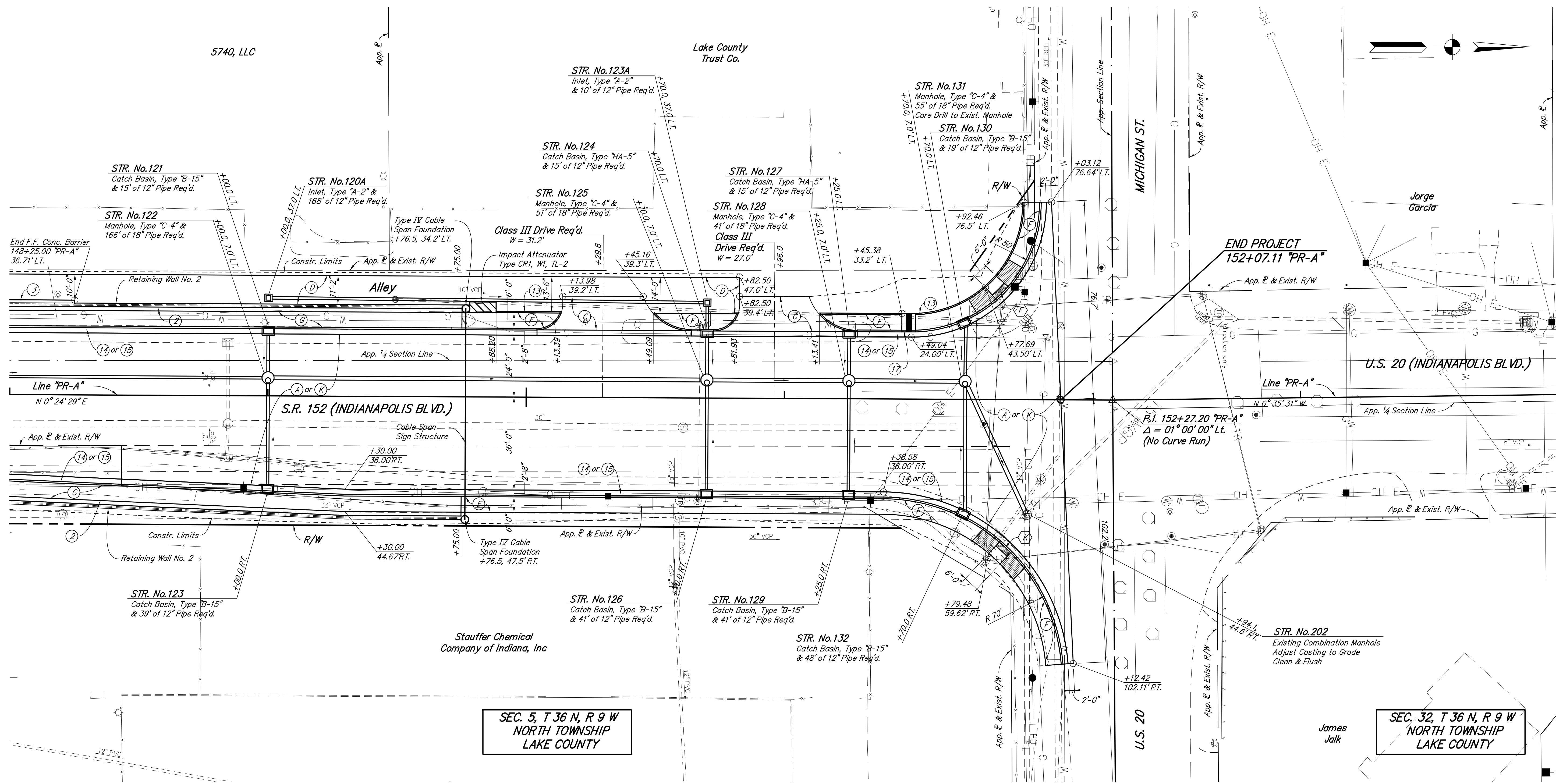
DESIGNED: NRM DRAWN: RJC

CHECKED: DAD/WSL CHECKED: DAD/WSL

INDIANA  
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS  
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'-0"	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	17 of 147
CONTRACT	PROJECT NO.
B-33357	N881008



U.S. 20 (INDIANAPOLIS BLVD.)

MICHIGAN ST.

U.S. 20

SEC. 5, T 36 N, R 9 W  
NORTH TOWNSHIP  
LAKE COUNTY

SEC. 32, T 36 N, R 9 W  
NORTH TOWNSHIP  
LAKE COUNTY

NOTES:  
All Radii Are Along Front Face Of Curb, Except As Shown.  
For Storm Sewer Profile, See Plan And Profiles Line "PR-A".

LEGEND	
(2) Railing, Concrete, FT	(13) Curb, Concrete
(3) Concrete Barrier, 33 In., Modified	(14) Curb, Integral, C, Concrete
(4) Terminal Joint	(15) Curb and Gutter, C, Concrete
(10) Paved Side Ditch, Type A	(17) Curb and Gutter Turnout, Concrete, Modified
(11) Paved Side Ditch, Type B	(A) QC/QA-PCCP, 10 In. (See Typical Sections)
(9) 9 in. PCPP for Approaches on Subgrade Treatment, Type IIIA	(C) Reinforced Concrete Moment Slab, 12 In., Modified (See Typical Sections)
(D) 165 #/SYD. HMA Surface, Type A on 495 #/SYD. HMA Intermediate, Type A on 6 In. Compacted Aggregate Base, No. 53	(K) Full Depth HMA Pavement (See Typical Sections)
(F) Sidewalk, Concrete, 4 in.	(N) 6" Compacted Aggregate, No. 53, Base
	(X) Curb Ramp, Concrete (Type As Indicated)

RECOMMENDED FOR APPROVAL

*William S. Ligon*  
DESIGN ENGINEER

6/1/2012  
DATE

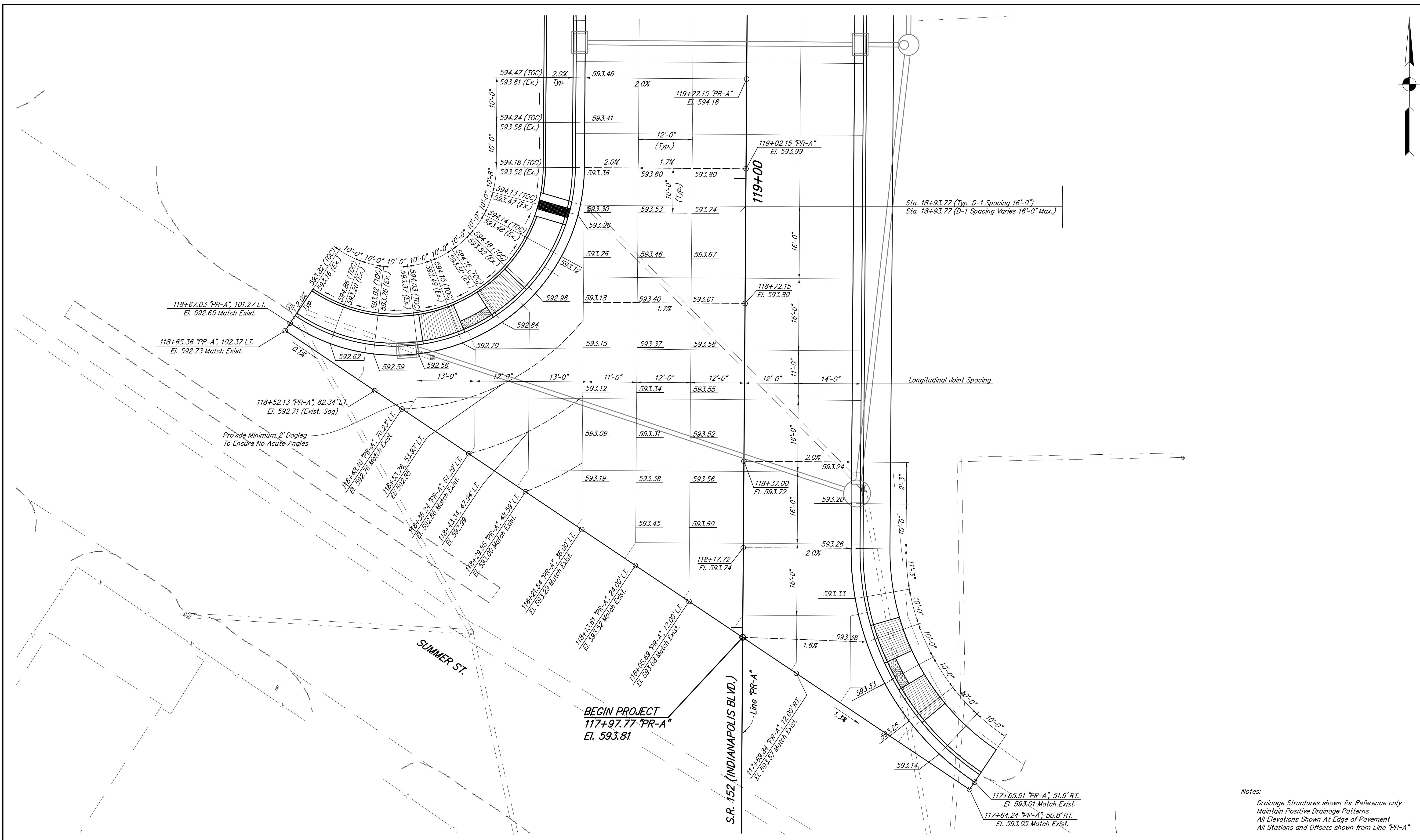
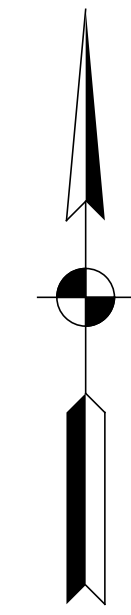
DESIGNED: NRM DRAWN: RJC

CHECKED: DAD/WSL CHECKED: DAD/WSL

INDIANA  
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS  
LINE "PR-A"

HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 18 of 147
CONTRACT B-33357	PROJECT NO. N881008



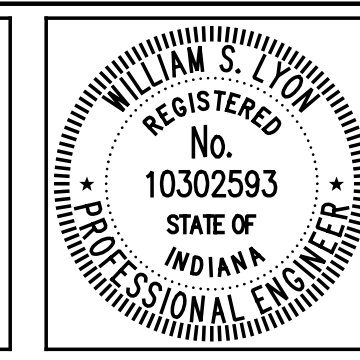
Provide Minimum 2' Dogleg  
To Ensure No Acute Angles

Longitudinal Joint Spacing

Notes:  
Drainage Structures shown for Reference only  
Maintain Positive Drainage Patterns  
All Elevations Shown At Edge of Pavement  
All Stations and Offsets shown from Line "PR-A"

**LEGEND**

- Grading Lines
- PCCP Joint Layout



RECOMMENDED FOR APPROVAL	<i>William S. Lyon</i>	6/1/2012
DESIGNED:	NRM	DATE
CHECKED:	WSL	DATE

INDIANA  
DEPARTMENT OF TRANSPORTATION

**SPOT ELEVATION DETAIL  
AND PCCP JOINT LAYOUT**

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
N/A	0014210
SURVEY BOOK	SHEETS
	19 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

MICHIGAN ST.

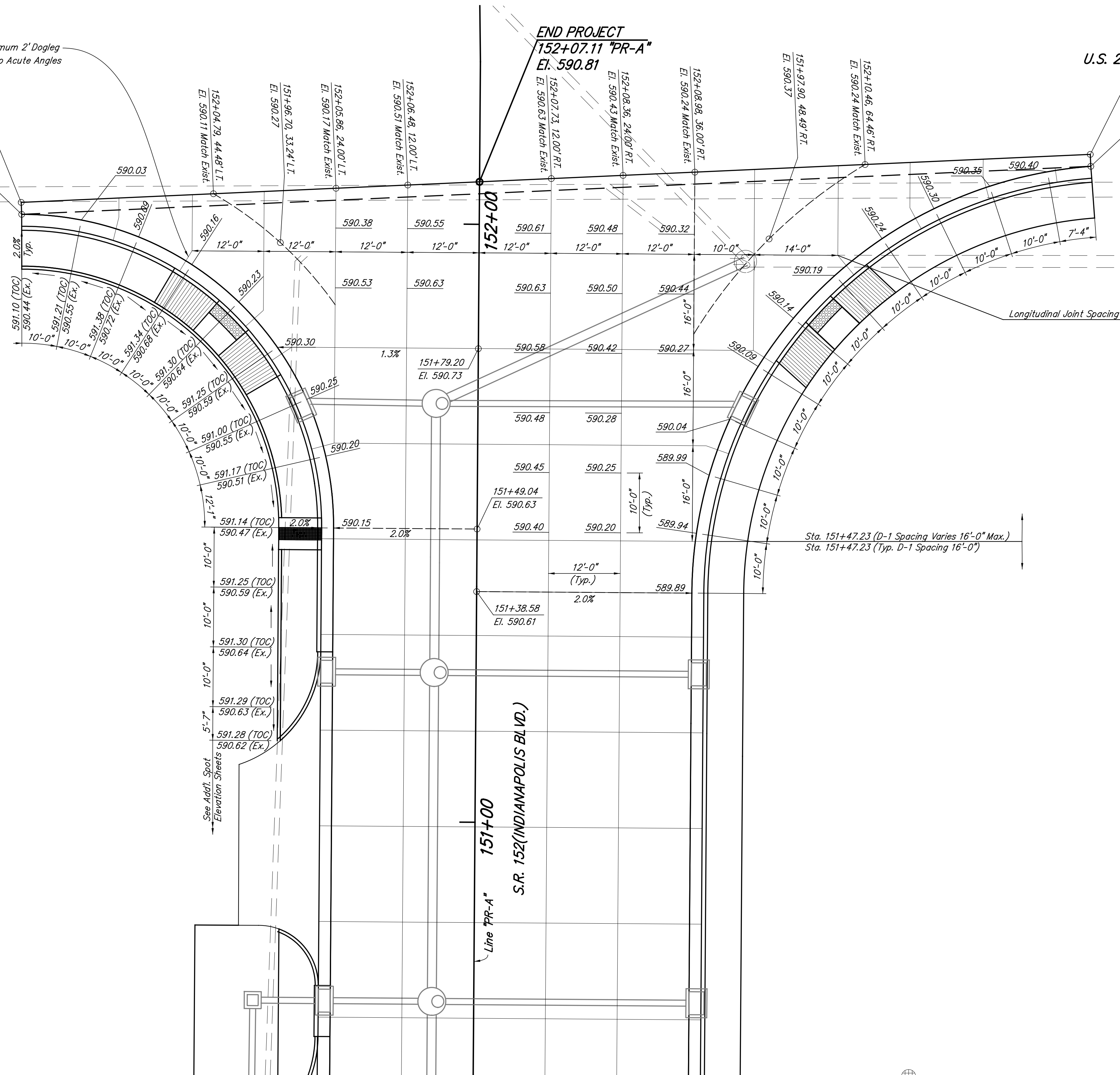
U.S. 20(MICHIGAN ST.)

END PROJECT  
152+07.11 "PR-A"  
El. 590.81

Provide Minimum 2' Dogleg  
To Ensure No Acute Angles

152+03.12, 76.6' L.T.  
El. 590.00 Match Exist.  
152+01.12, 76.5' L.T.  
El. 589.97 Match Exist.

152+12.42, 102.1' RT.  
El. 590.43 Match Exist.  
152+10.42, 102.2' RT.  
El. 590.36 Match Exist.

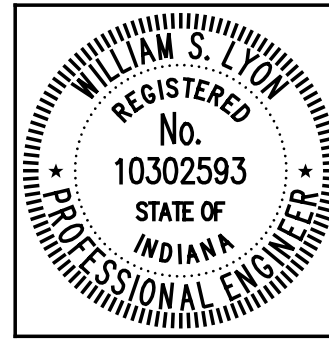


Sta. 151+47.23 (D-1 Spacing Varies 16'-0" Max.)  
Sta. 151+47.23 (Typ. D-1 Spacing 16'-0")

Notes:  
Drainage Structures shown for Reference only.  
All Elevations Shown At Edge of Pavement  
All Stations and Offsets shown from Line "PR-A"

LEGEND

- Grading Lines
- PCCP Joint Layout



RECOMMENDED FOR APPROVAL *William S. Lyon* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: NRM DRAWN: NRM  
CHECKED: WSL CHECKED: WSL

INDIANA DEPARTMENT OF TRANSPORTATION

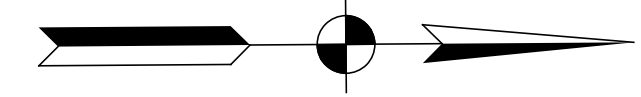
SPOT ELEVATION DETAIL AND PCCP JOINT LAYOUT

HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
VERTICAL SCALE N/A	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS
CONTRACT B-33357	20 of 147
	PROJECT NO. N881008

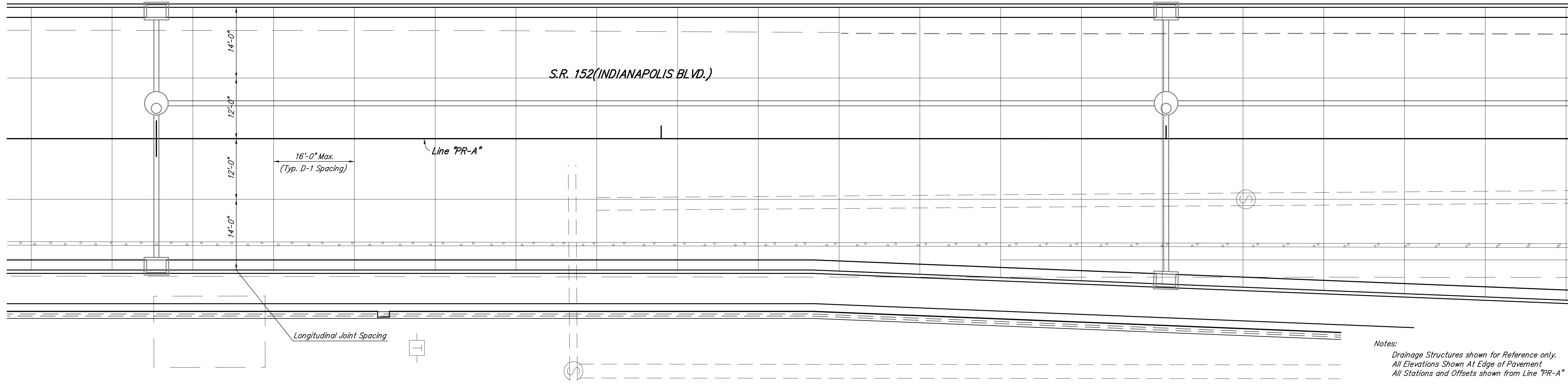
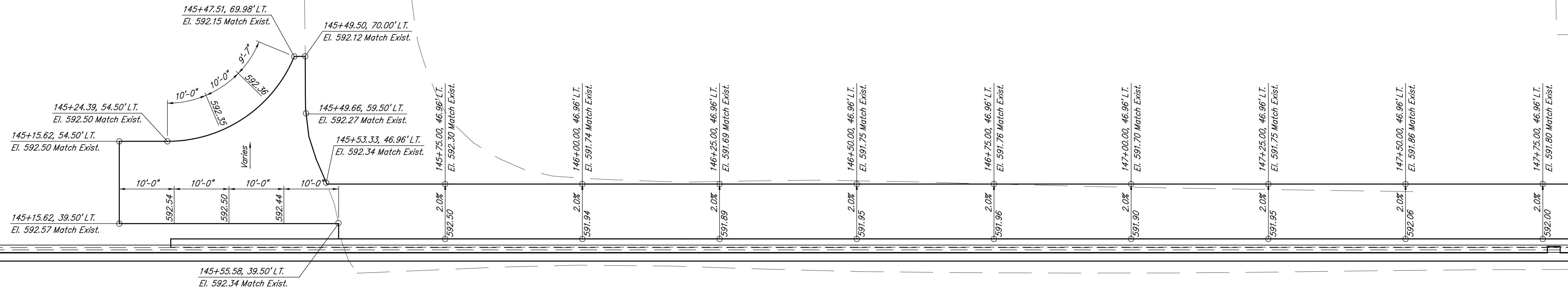
145

146

147



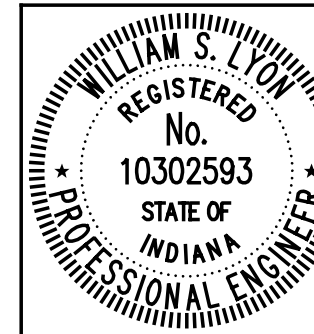
CLAY ST.



Notes:  
 Drainage Structures shown for Reference only.  
 All Elevations Shown At Edge of Pavement  
 All Stations and Offsets shown from Line "PR-A"

LEGEND

- Grading Lines
- PCCP Joint Layout



RECOMMENDED FOR APPROVAL: *William S. Ligon*, DESIGN ENGINEER, DATE: 6/1/2012  
 DESIGNED: NRM, DRAWN: NRM  
 CHECKED: WSL, CHECKED: WSL

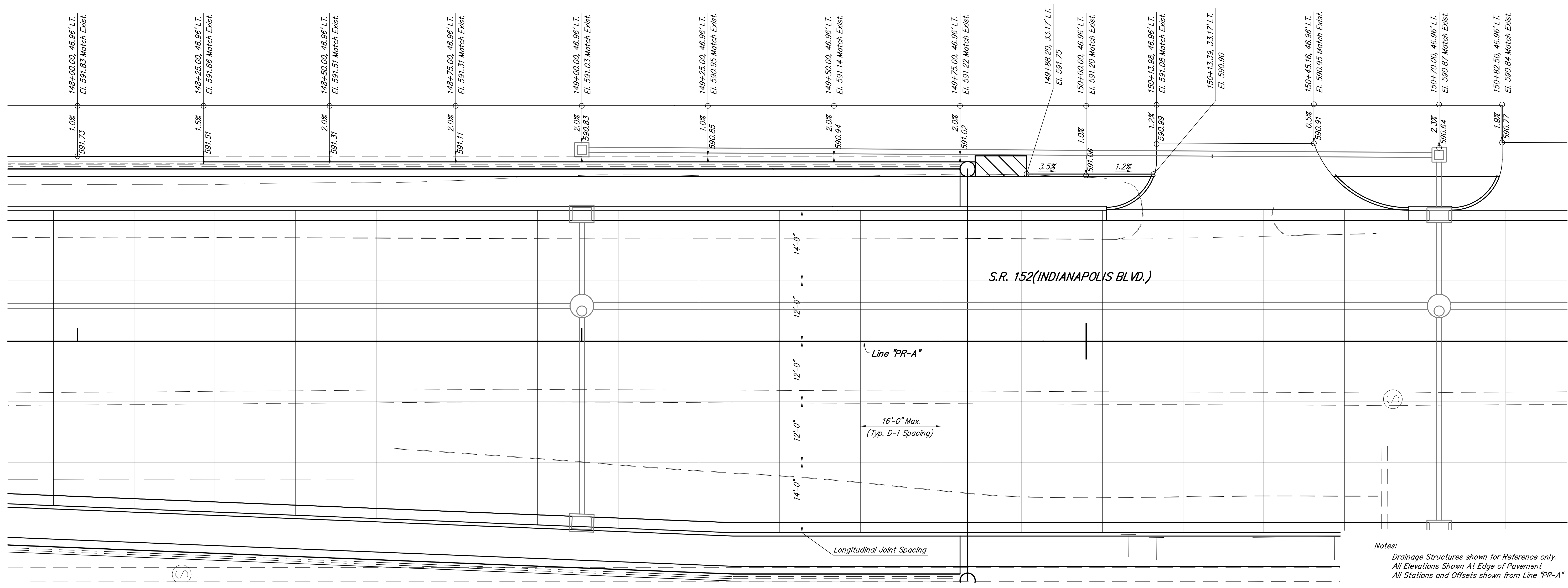
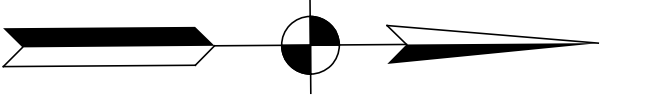
INDIANA DEPARTMENT OF TRANSPORTATION  
 SPOT ELEVATION DETAIL AND PCCP JOINT LAYOUT

HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
VERTICAL SCALE N/A	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS
CONTRACT B-33357	21 of 147
	PROJECT NO. N881008

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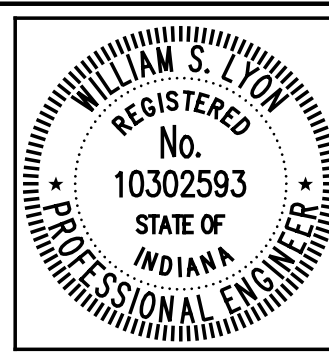
149

150



Notes:  
 Drainage Structures shown for Reference only.  
 All Elevations Shown At Edge of Pavement  
 All Stations and Offsets shown from Line "PR-A"

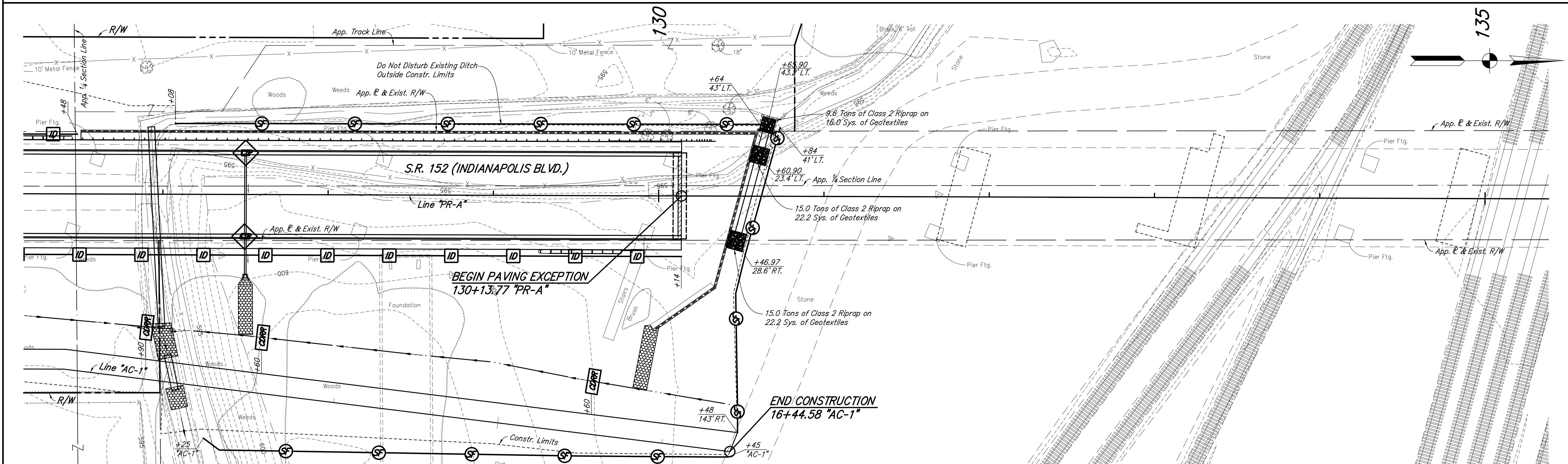
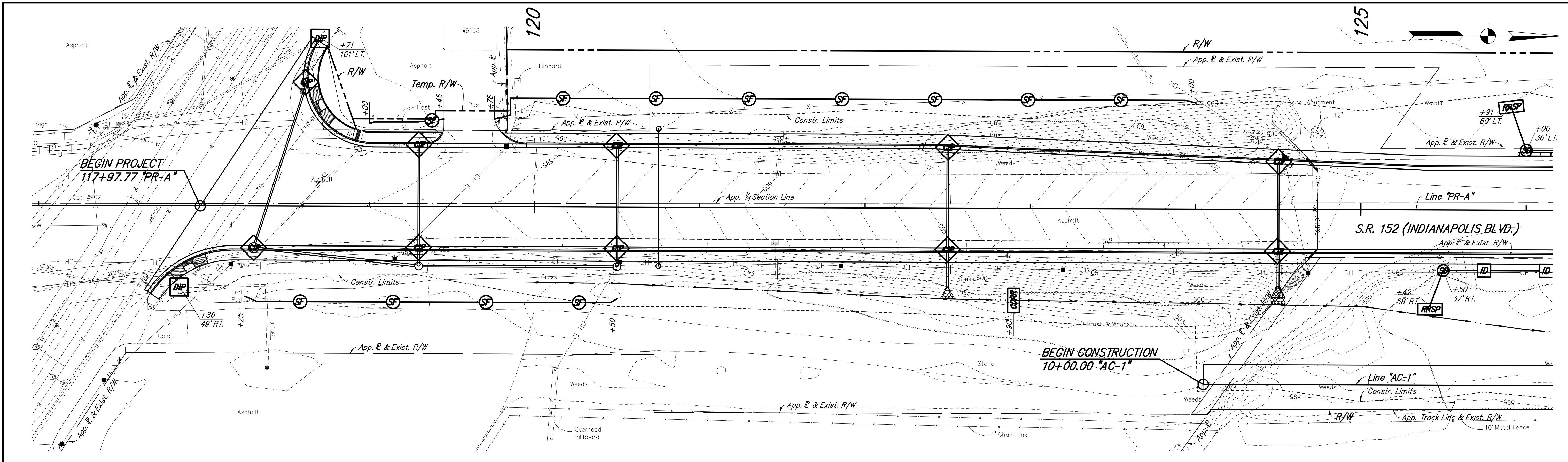
**LEGEND**  
 - - - - - Grading Lines  
 ——— PCCP Joint Layout



RECOMMENDED FOR APPROVAL: *William S. Lyon* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: NRM DRAWN: NRM  
 CHECKED: WSL CHECKED: WSL

INDIANA DEPARTMENT OF TRANSPORTATION  
**SPOT ELEVATION DETAIL AND PCCP JOINT LAYOUT**

HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
VERTICAL SCALE N/A	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS
	22 of 147
CONTRACT B-33357	PROJECT NO. N881008



LEGEND	
	Temporary Check Dam, Revetment Riprap
	Interceptor Ditch - Earth
	Temporary Ditch Inlet Protection
	Temporary Curb Inlet Protection
	Splash Pad, Riprap
	Temporary Silt Fence
	Temporary Slope Drain
	Seed Mixture, T
	Proposed Ditch

**NOTES:**  
 All areas left undisturbed for more than 7 days shall be Temporary Seeded, unless shown otherwise, or as directed by the Engineer. See the Special Provisions.  
 All existing and proposed inlets along the construction area shall be protected by a method approved by 2012 INDOT Standards and Specifications.

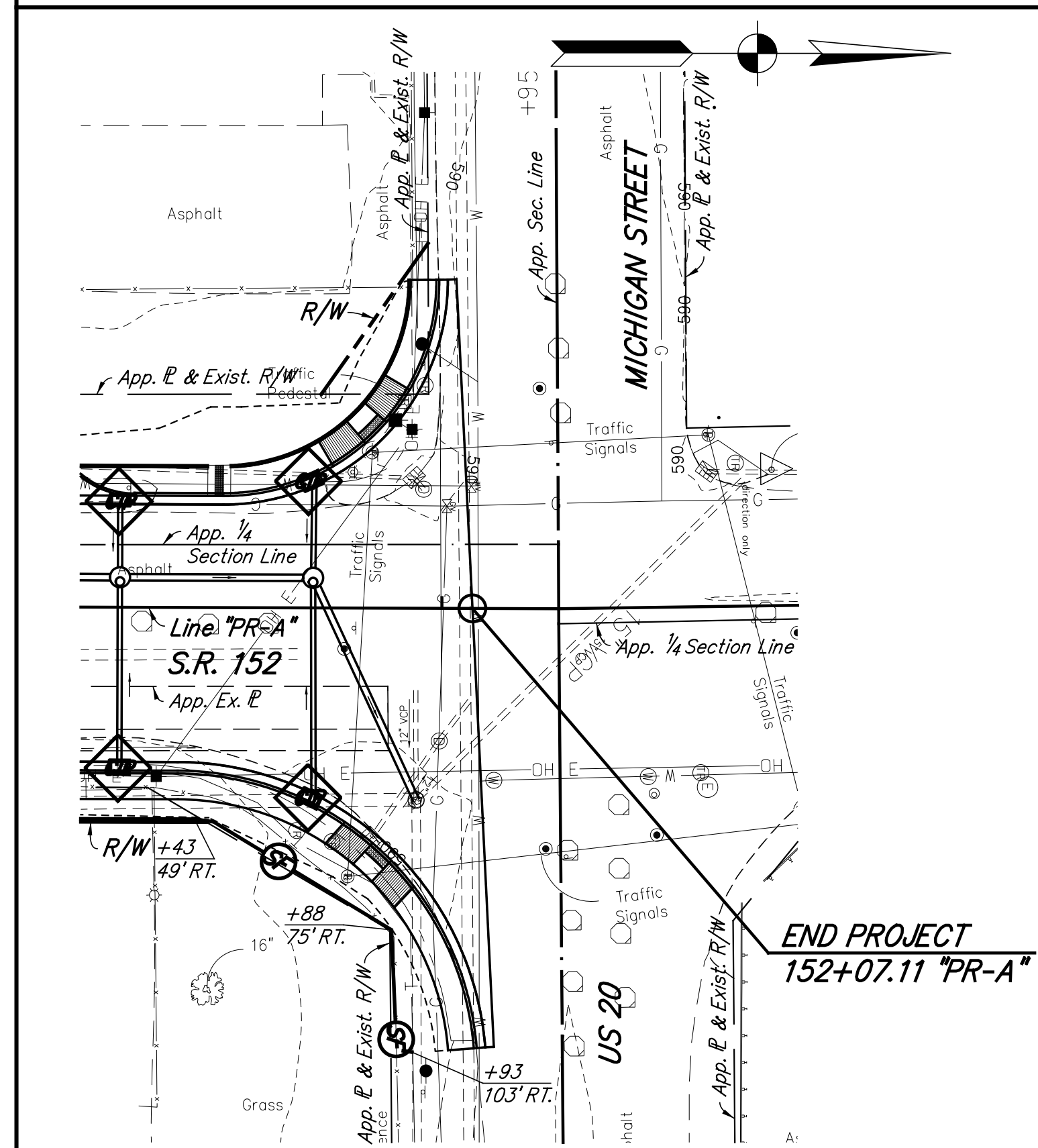
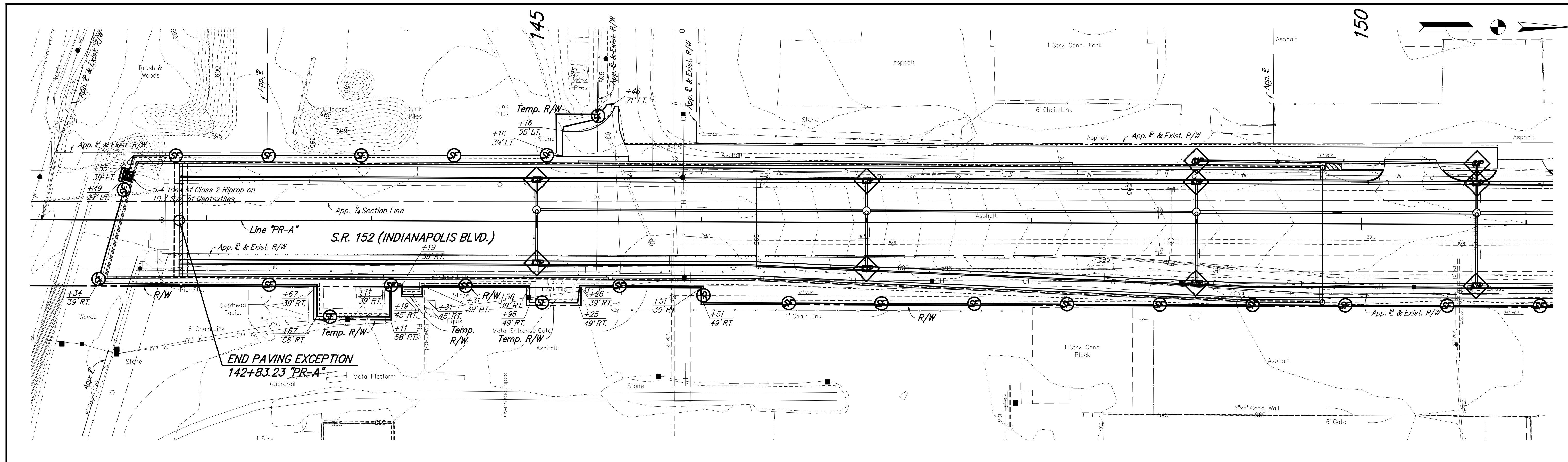
RECOMMENDED FOR APPROVAL  
 William S. Lyon  
 DESIGN ENGINEER  
 6/1/2012  
 DATE

DESIGNED: NRM  
 DRAWN: NRM  
 CHECKED: WSL  
 CHECKED: WSL

INDIANA  
 DEPARTMENT OF TRANSPORTATION

**EROSION CONTROL  
 LINE "PR-A" & "AC-1"**

HORIZONTAL SCALE 1" = 30'	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 23 of 147
CONTRACT B-33357	PROJECT NO. N881008

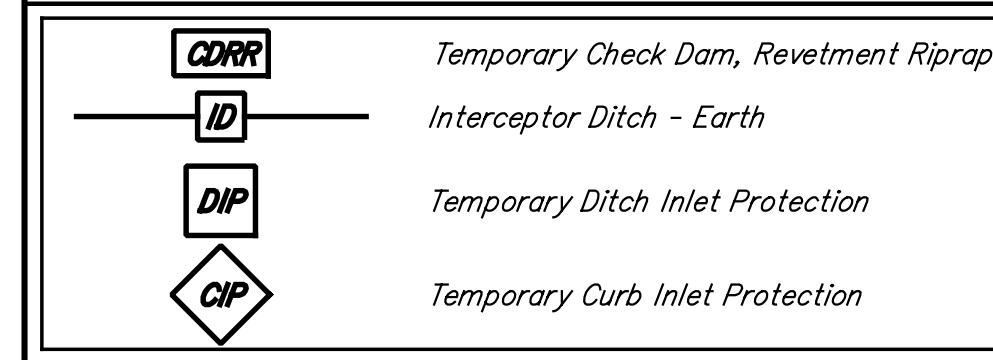


EROSION CONTROL TABLE

LOCATION	TEMPORARY SILT FENCE	TEMPORARY CHECK DAMS STRAW BALES	TEMPORARY CHECK DAM REVETMENT RIPRAP	TEMPORARY SEDIMENT TRAP	TEMPORARY SLOPE DRAIN	SPLASHPAD RIPRAP	SEED MIXTURE, T	MULCHING MATERIAL	FERTILIZER	TEMPORARY DITCH INLET PROTECTION	INTERCEPTOR DITCH (NOT A PAY ITEM)
STATION TO STATION	(ft)	(ft)	(TON)	(TON)	(ft)	(TON)	(lb)	(TON)	(TON)	EACH	(ft)
Line "PR-A"							93	3	1		
117+86 Rt.										1	
118+71 Lt.										1	
119+00 Lt.	119+45 Lt.	45									
118+25 Rt.	120+50 Rt.	225									
119+76 Lt.	124+00 Lt.	424									
122+90 Rt.			6.5								
125+42 Rt.						1.4					
125+50 Rt.	130+14 Rt.				23						464
125+91 Lt.						1.4					
126+00 Lt.					26						
126+00 Lt.	126+48 Lt.										48
126+90 Rt.			6.5								
127+60 Rt.			6.5								
128+08 Lt.	130+64 Lt.	256									
129+60 Rt.											
130+47 Rt.						15.0					
130+48 Rt.	130+64 Lt.	211									
130+61 Lt.						15.0					
130+66 Lt.						9.6					
Subtotals =		1,161		26.0	49	42.4	93	3	1	2	512

EROSION CONTROL TABLE

LOCATION	TEMPORARY SILT FENCE	TEMPORARY CHECK DAMS STRAW BALES	TEMPORARY CHECK DAM REVETMENT RIPRAP	TEMPORARY SEDIMENT TRAP	TEMPORARY SLOPE DRAIN	SPLASHPAD RIPRAP	SEED MIXTURE, T	MULCHING MATERIAL	FERTILIZER	TEMPORARY DITCH INLET PROTECTION	INTERCEPTOR DITCH (NOT A PAY ITEM)
STATION TO STATION	(ft)	(ft)	(TON)	(TON)	(ft)	(TON)	(lb)	(TON)	(TON)	EACH	(ft)
Line "PR-A"											
142+34 Rt.	142+55 Lt.	81									
142+34 Rt.	151+93 Rt.	1,069									
142+49 Lt.					5.4						
142+55 Lt.	145+16 Lt.	261									
145+16 Lt.	145+46 Lt.	38									
Line "AC-1"											
13+25 Rt.	16+45 Rt.	320									
Subtotals =		1,769				5.4					
Totals =		2,930		26.0	49	47.8	93	3	1	2	512



**LEGEND**

NOTES:  
 All areas left undisturbed for more than 7 days shall be Temporary Seeded, unless shown otherwise, or as directed by the Engineer. See the Special Provisions.  
 All existing and proposed inlets along the construction area shall be protected by a method approved by 2012 INDOT Standards and Specifications.

RECOMMENDED FOR APPROVAL: *William S. Topp*, DESIGN ENGINEER, 6/1/2012 DATE

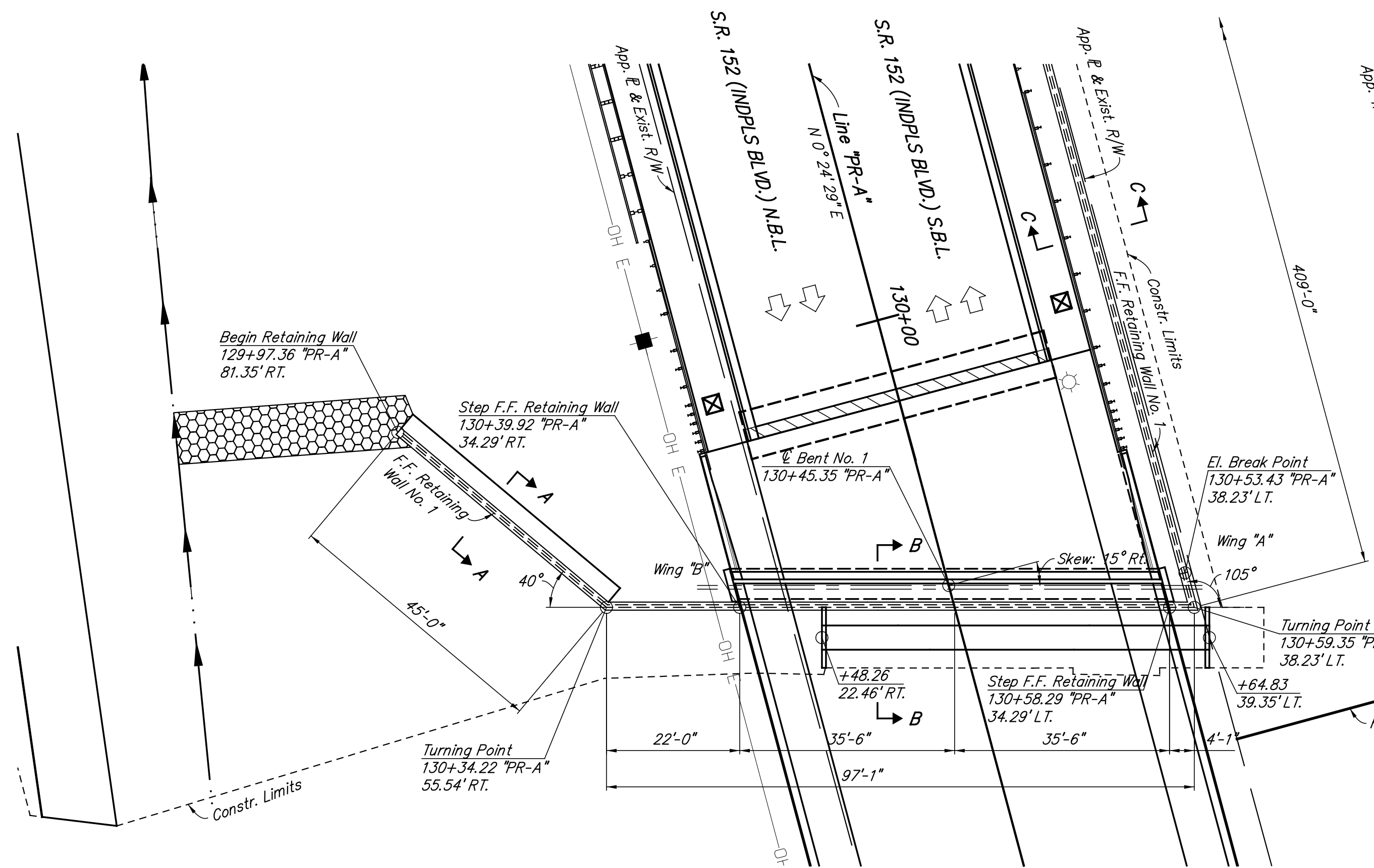
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 CHECKED: WSL CHECKED: WSL

INDIANA DEPARTMENT OF TRANSPORTATION

**EROSION CONTROL LINE "PR-A"**

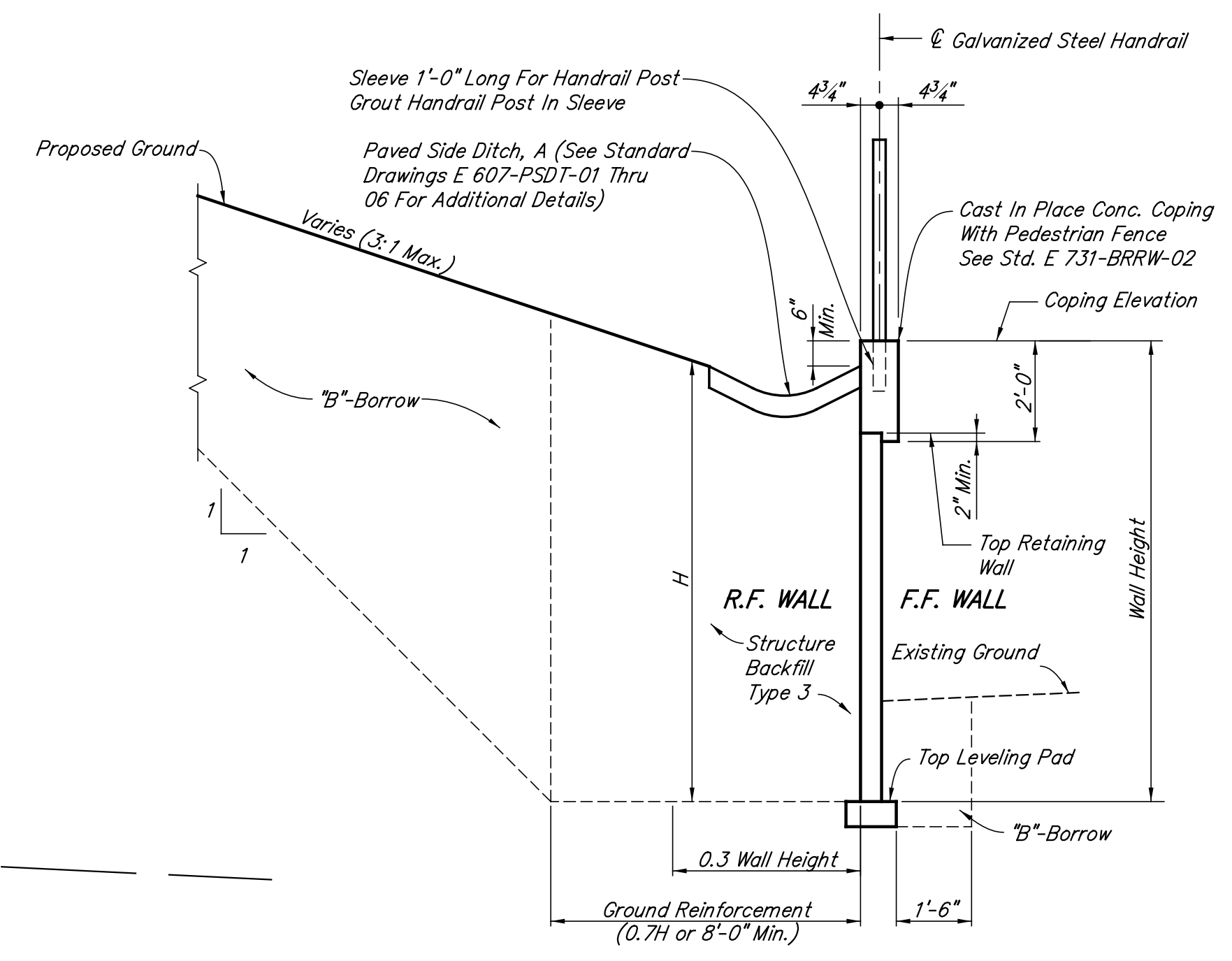
HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	24 of 147
CONTRACT	PROJECT NO.
B-33357	N881008



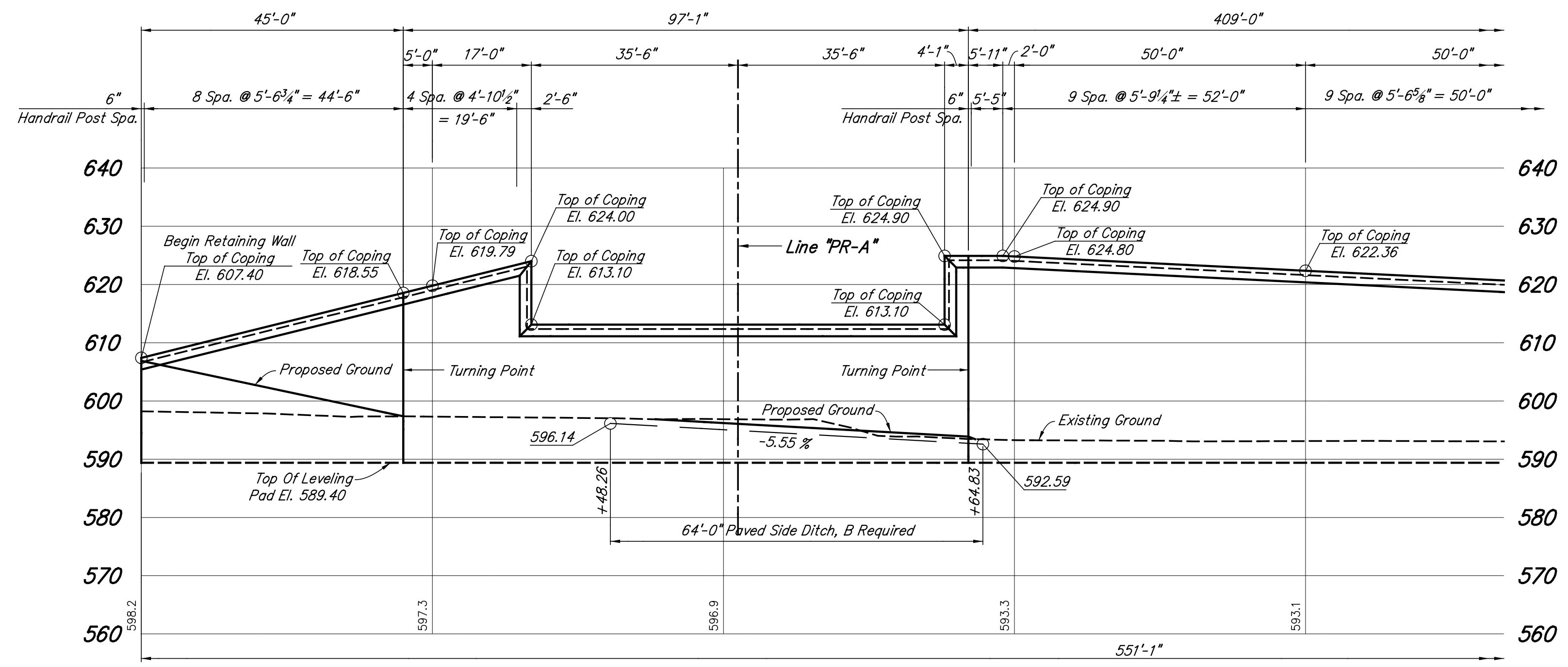


**PLAN**

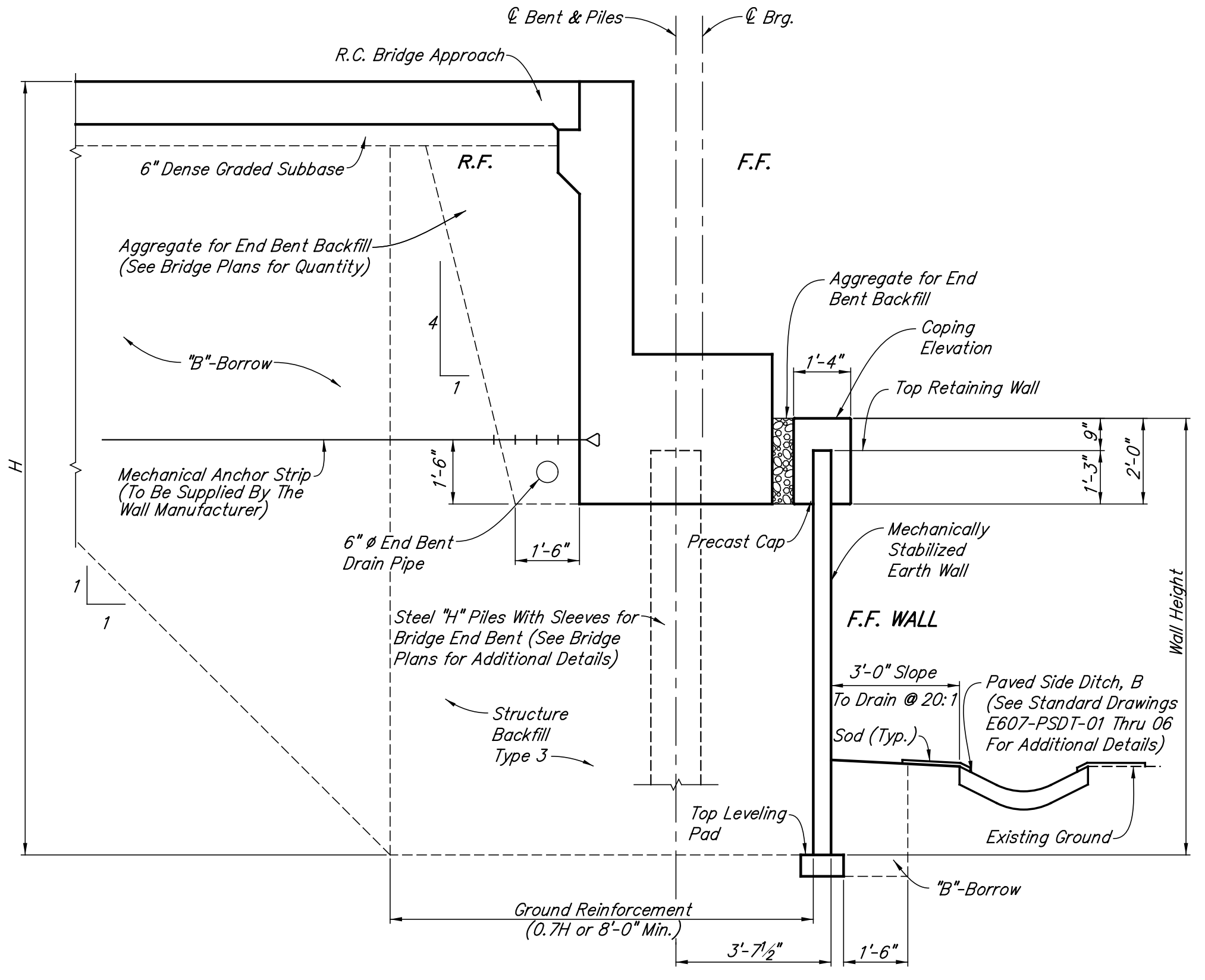
**NOTES:**  
 For R/W Callouts and Drainage Details, see Road Plan & Profile Sheets.  
 Elevation Shown Along Front Face of Wall.  
 All Dimensions are Given Along Front Face of Wall.  
 Maximum Factored Bearing Resistance = 5,000 PSF  
 For Section C-C and Pipe Handrail Detail, see Sheet No. 26.



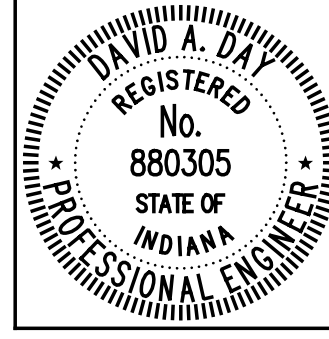
**SECTION A-A**  
 Scale: 3/8" = 1'-0"



**ELEVATION**



**SECTION B-B**  
 Scale: 3/8" = 1'-0"



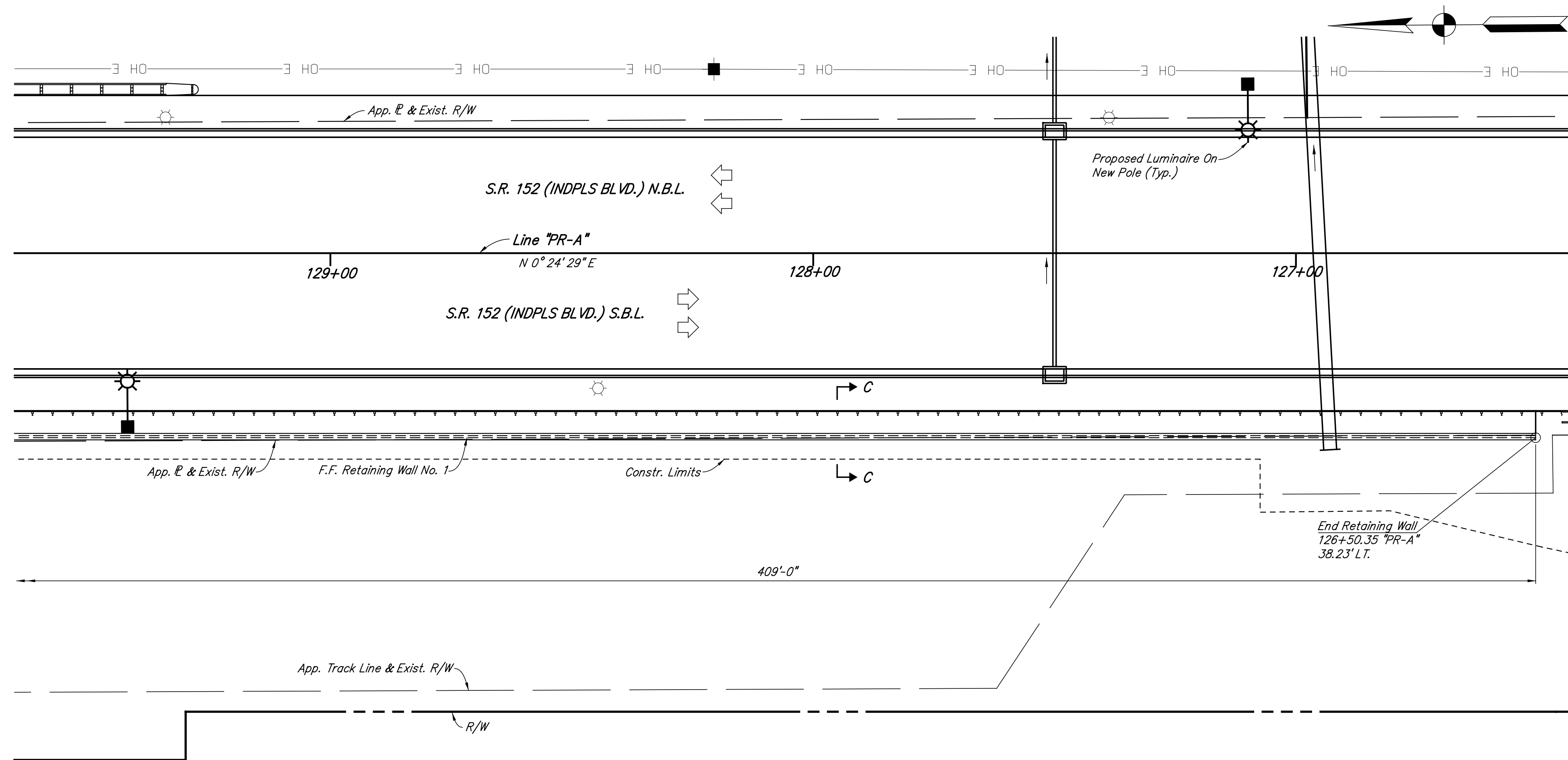
RECOMMENDED FOR APPROVAL: *David B. Day*, 6/1/2012, DESIGN ENGINEER  
 DESIGNED: BMA, DRAWN: EWM  
 CHECKED: DAD, CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**RETAINING WALL NO. 1 DETAILS**

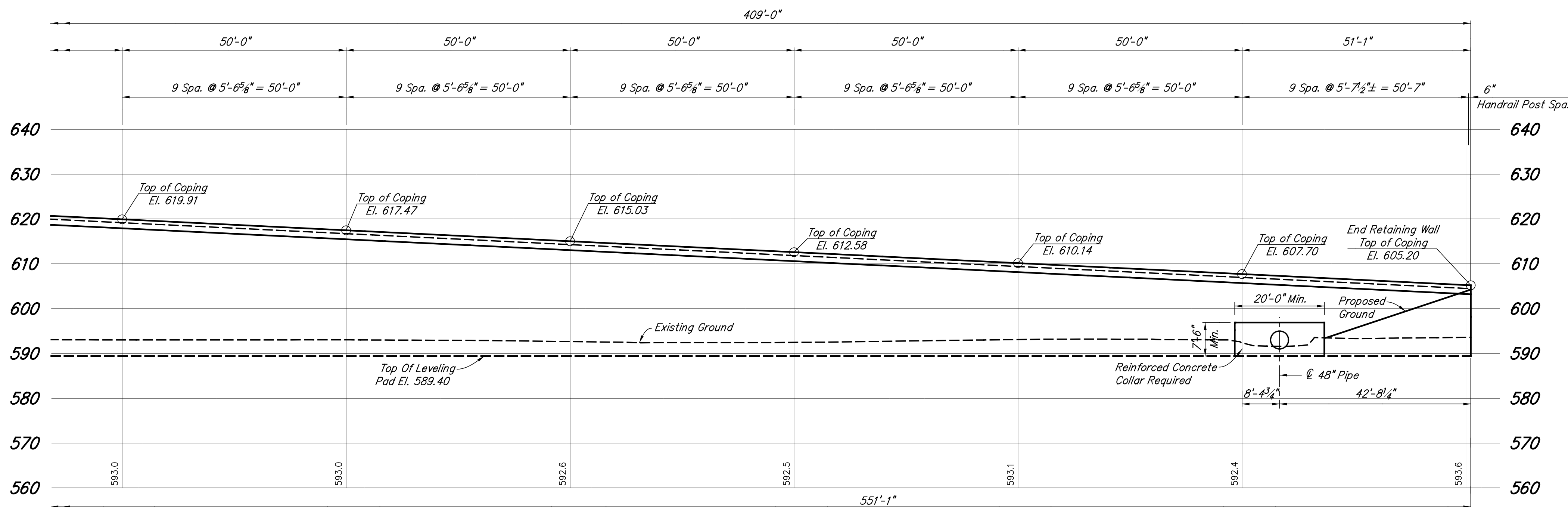
HORIZONTAL SCALE	BRIDGE FILE
1/16" = 1'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	25 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

**RETAINING WALL NO. 1  
BILL OF MATERIALS**

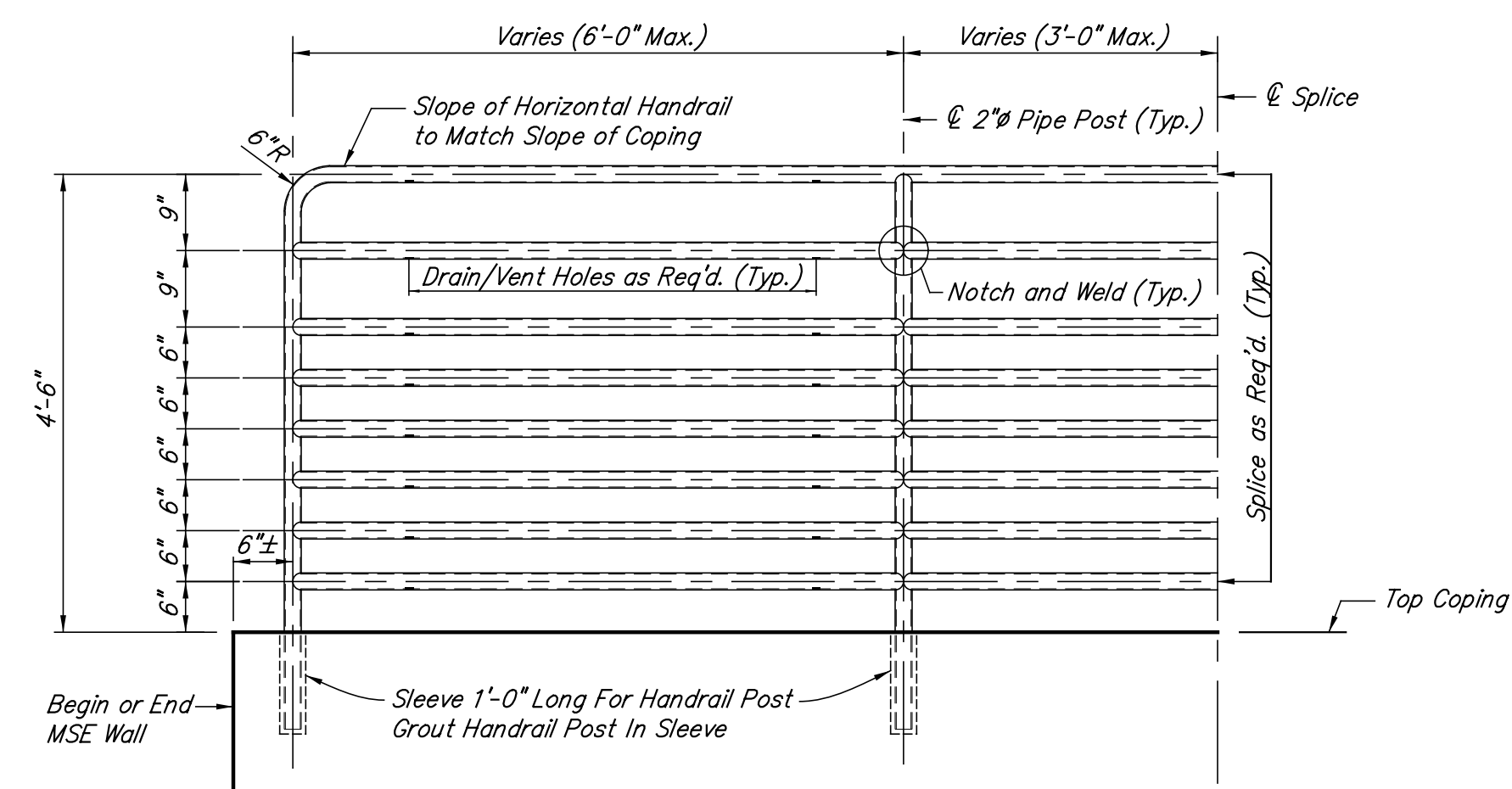
Retaining Wall	
Face Panels, Concrete	14,139 Sft.
Wall Erection	14,139 Sft.
Leveling Pad, Concrete	551 Lft.
Seal Coat, Graffiti Resistant	12,486 Sft.
Earthwork	
Structure Backfill, Type 3	9243 Cys.
"B" Borrow	7120 Cys.



**PLAN**

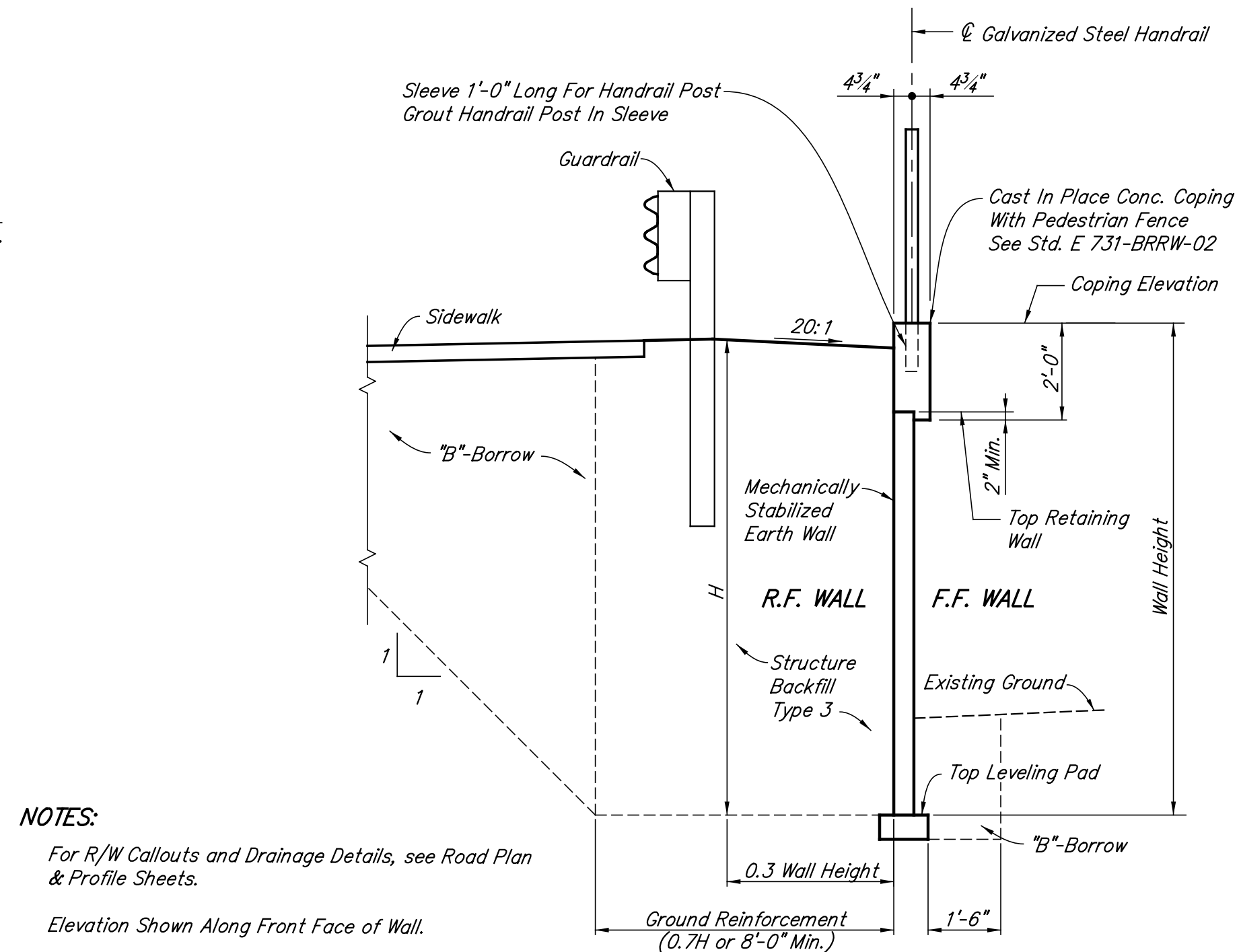


**ELEVATION**



**TYPICAL PIPE HANDRAIL DETAIL**

No Scale



**NOTES:**

For R/W Callouts and Drainage Details, see Road Plan & Profile Sheets.

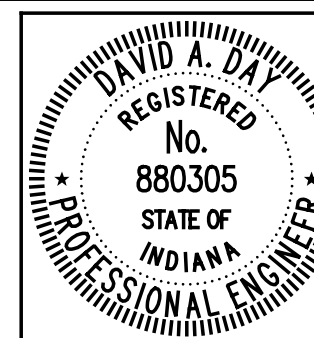
Elevation Shown Along Front Face of Wall.

All Dimensions are Given Along Front Face of Wall.

Maximum Factored Bearing Resistance = 5,000 PSF

**SECTION C-C**

Scale: 3/8" = 1'-0"



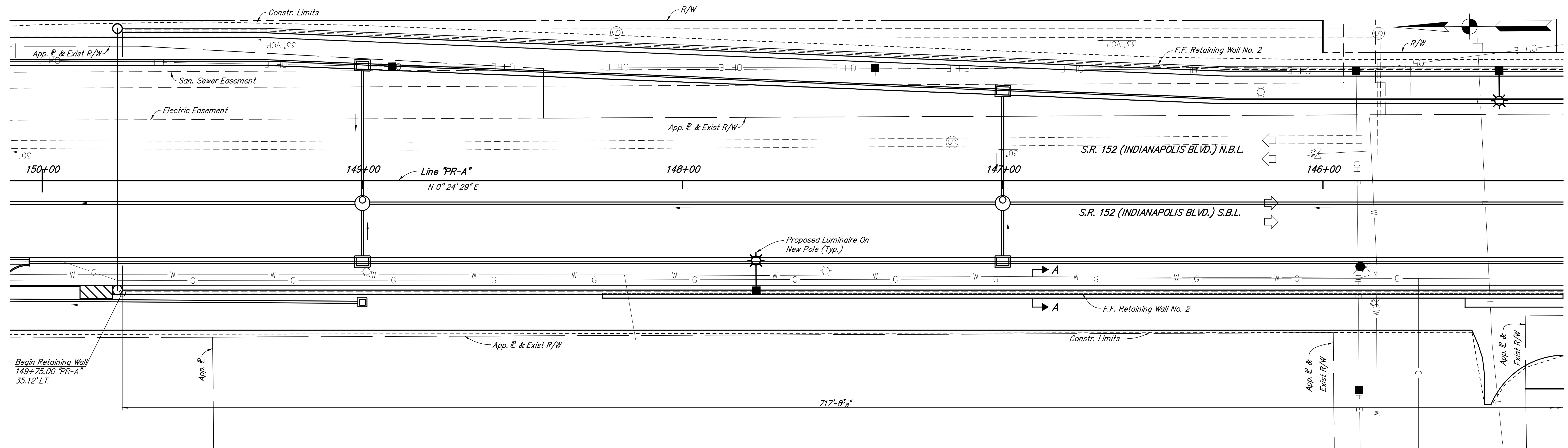
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: BMA DRAWN: EWM  
CHECKED: DAD CHECKED: DAD

INDIANA  
DEPARTMENT OF TRANSPORTATION

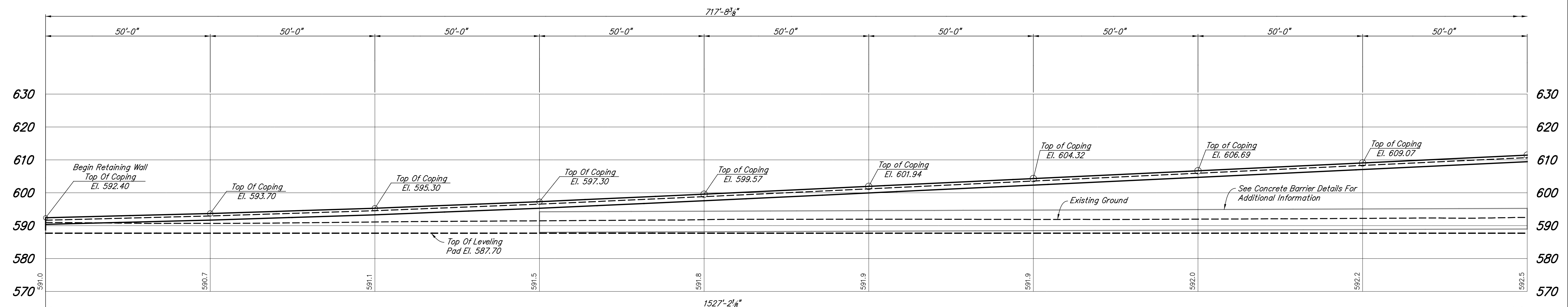
RETAINING WALL NO. 1 DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1/16" = 1'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	26 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

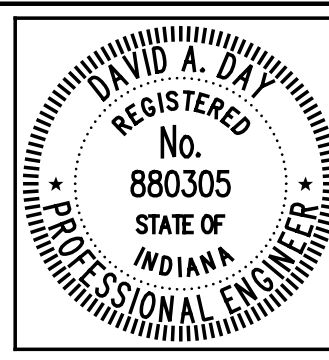


**PLAN**

- NOTES:**
- For R/W Callouts and Drainage Details, see Road Plan & Profile Sheets.
  - For Section A-A, see Sheet No. 30.
  - Elevation Shown Along Front Face of Wall.
  - All Dimensions are Given Along Front Face of Wall.
  - Maximum Factored Bearing Resistance = 5,000 PSF



**ELEVATION**



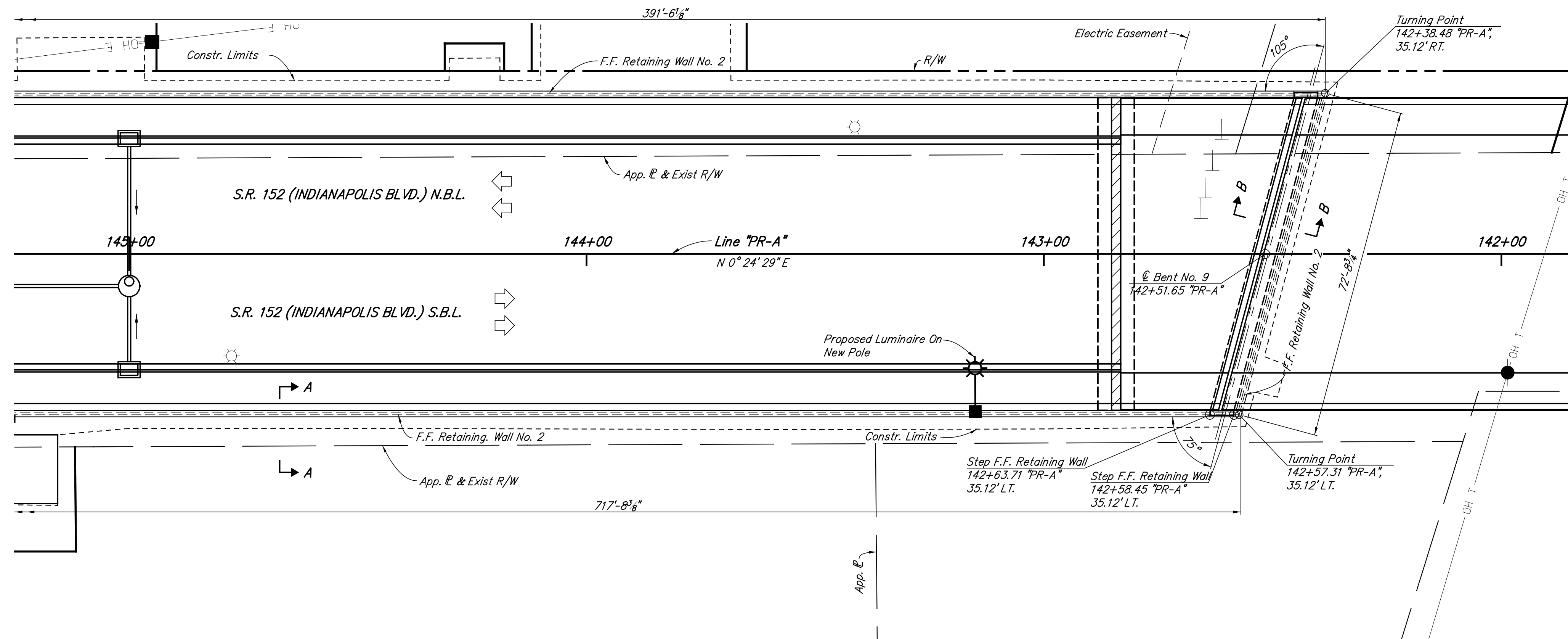
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: BNM DRAWN: BNM  
 CHECKED: DAD CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

**RETAINING WALL NO. 2 DETAILS**

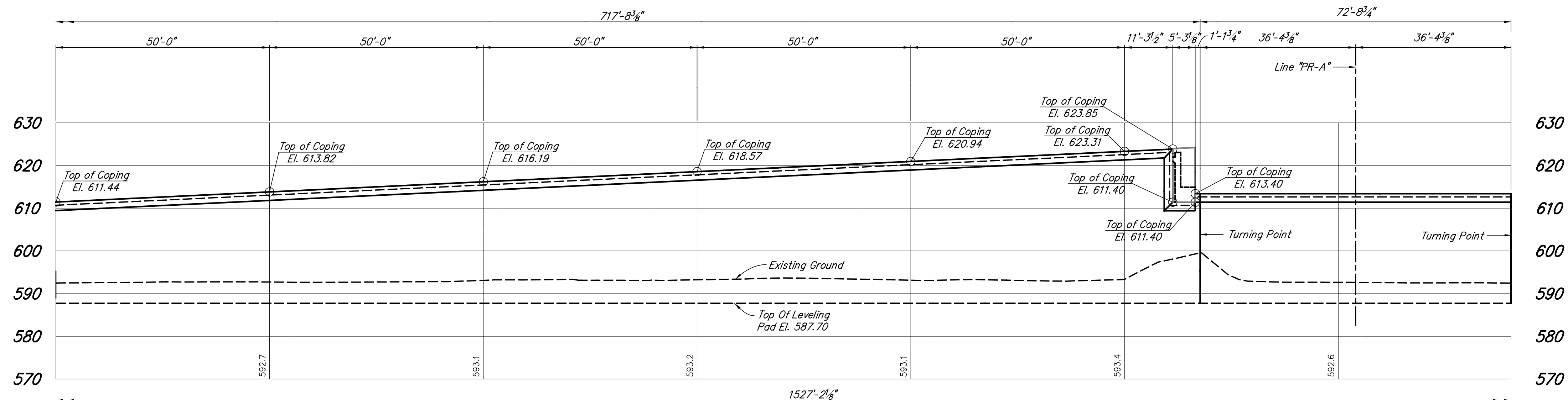
HORIZONTAL SCALE 1/16" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 27 of 147
CONTRACT B-33357	PROJECT NO. N881008



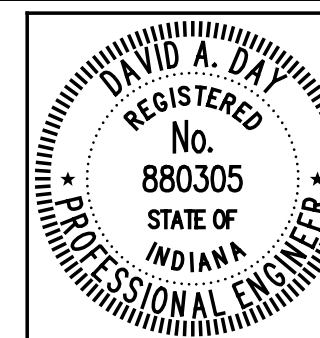
**PLAN**

**NOTES:**

- For R/W Callouts and Drainage Details, see Road Plan & Profile Sheets.
- For Section A-A and Section B-B, see Sheet No. 30.
- Elevation Shown Along Front Face of Wall.
- All Dimensions are Given Along Front Face of Wall.
- Maximum Factored Bearing Resistance = 5,000 PSF



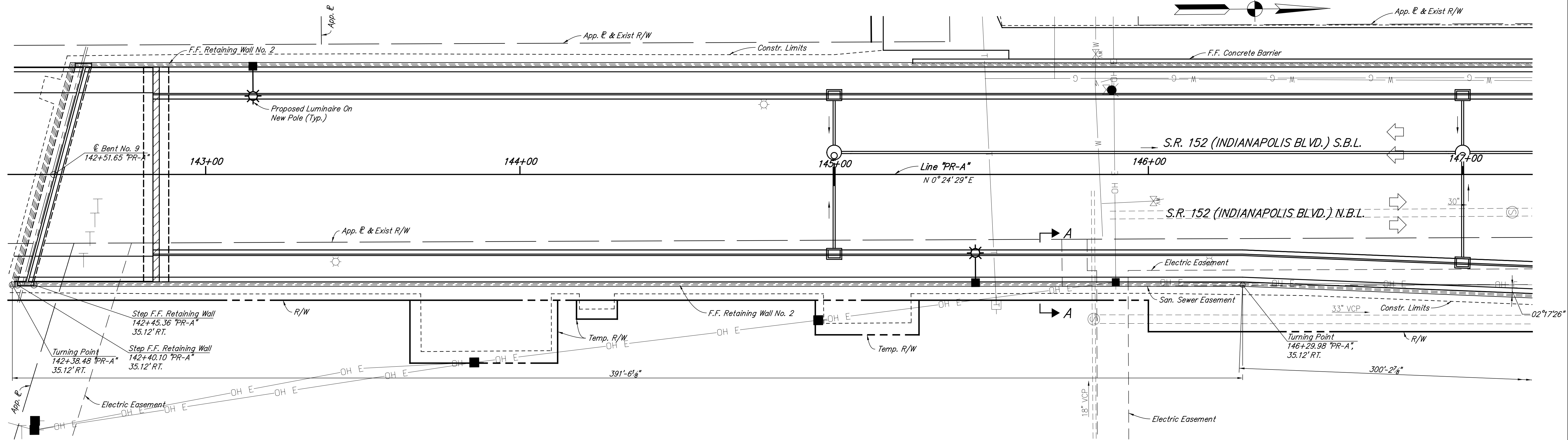
**ELEVATION**



RECOMMENDED FOR APPROVAL	<i>David B. Day</i>	6/1/2012
DESIGNED:	BNM	DRAWN:
CHECKED:	DAD	CHECKED:

INDIANA DEPARTMENT OF TRANSPORTATION	
<b>RETAINING WALL NO. 2 DETAILS</b>	

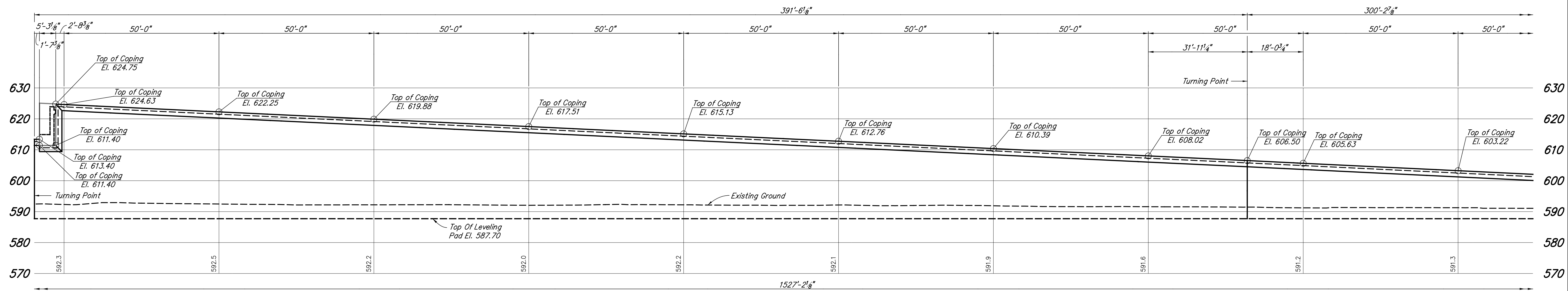
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VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 28 of 147
CONTRACT B-33357	PROJECT NO. N881008



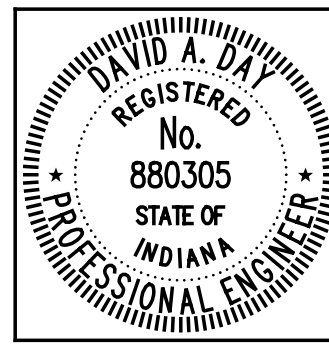
PLAN

NOTES:

- For R/W Callouts and Drainage Details, see Road Plan & Profile Sheets.
- For Section A-A, see Sheet No. 30.
- Elevation Shown Along Front Face of Wall.
- All Dimensions are Given Along Front Face of Wall.
- Maximum Factored Bearing Resistance = 5,000 PSF



ELEVATION



RECOMMENDED FOR APPROVAL	<i>David B. Day</i>	6/1/2012
DESIGNED:	BNM	DRAWN:
CHECKED:	DAD	CHECKED:

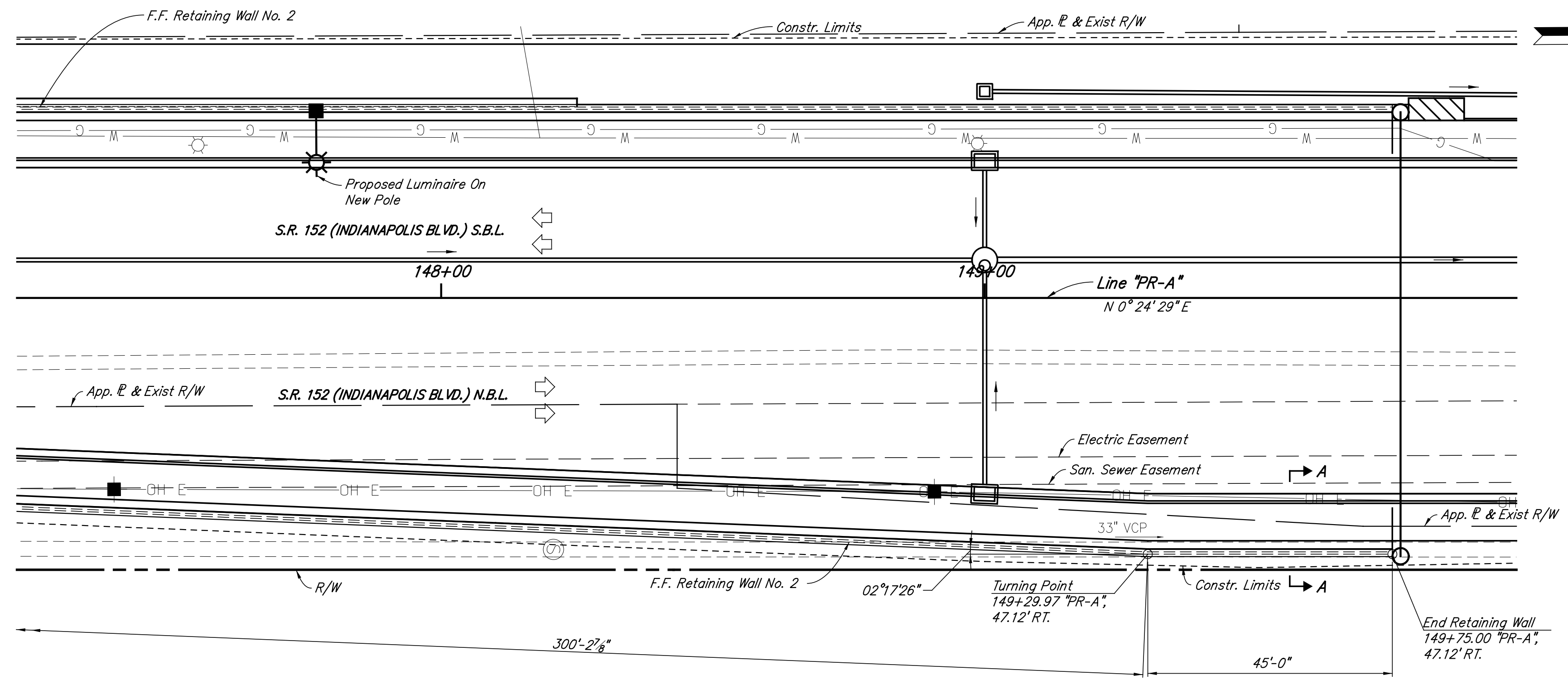
INDIANA  
DEPARTMENT OF TRANSPORTATION

RETAINING WALL NO. 2 DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'-0"	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	29 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

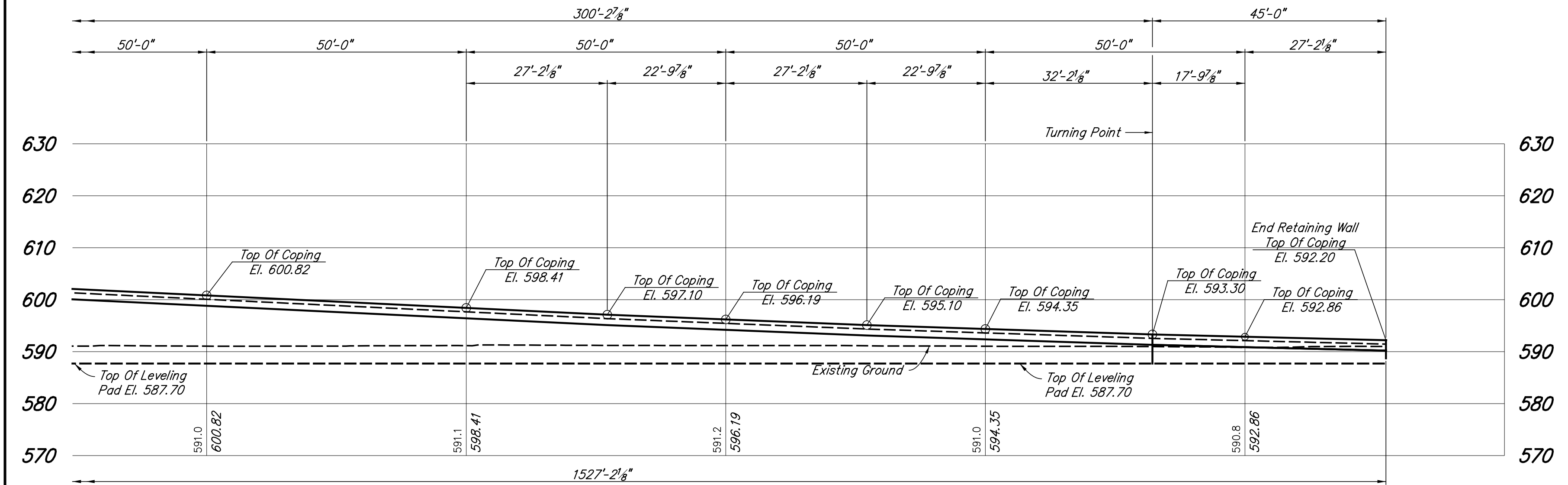
**RETAINING WALL NO. 2  
BILL OF MATERIALS**

Retaining Wall	
Face Panels, Concrete	31,881 Sft.
Wall Erection	31,881 Sft.
Leveling Pad, Concrete	1527 Lft.
Seal Coat, Graffiti Resistant	27,300 Sft.
Earthwork	
Structure Backfill, Type 3	16,831 Cys.
"B" Borrow	9450 Cys.

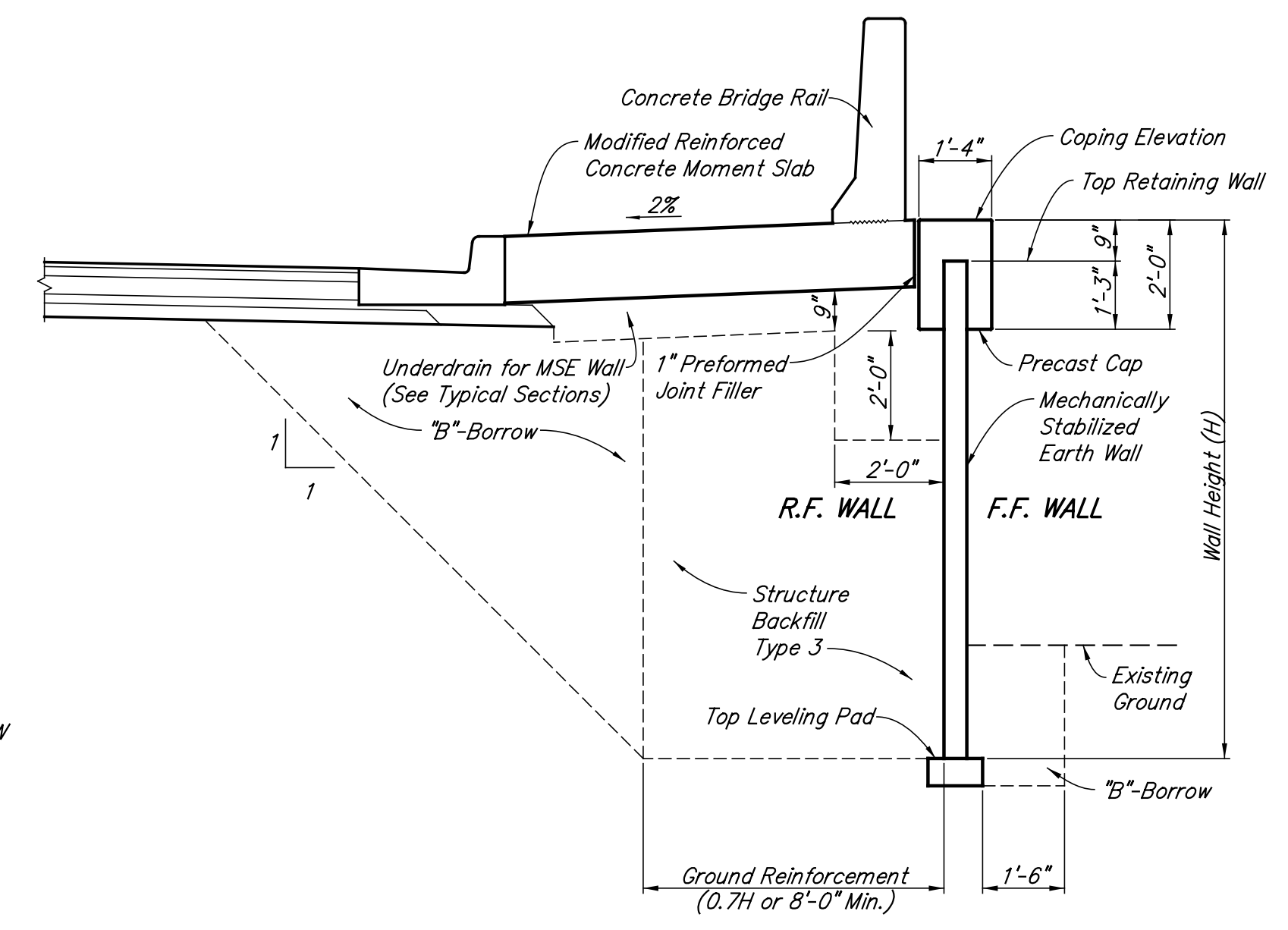
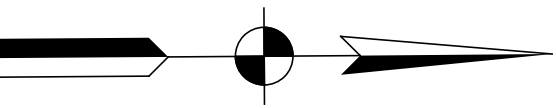


**PLAN**

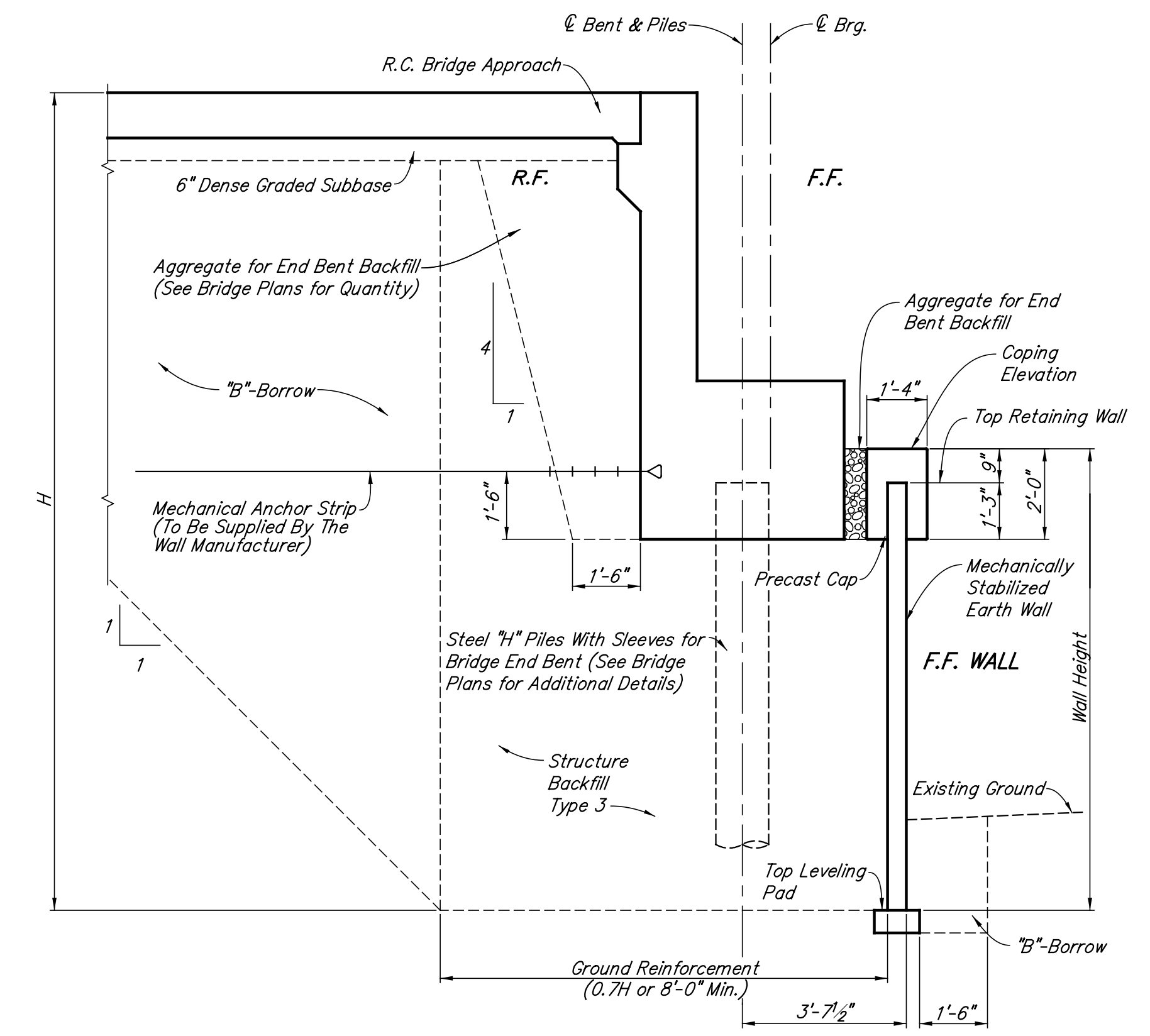
- NOTES:**
- For R/W Callouts and Drainage Details, see Road Plan & Profile Sheets.
  - Elevation Shown Along Front Face of Wall.
  - All Dimensions are Given Along Front Face of Wall.
  - Mechanically Stabilized Earth Wall and Precast Cap dimensions vary depending on type of precast wall used. Engineer shall verify any changes.
  - Maximum Factored Bearing Resistance = 5,000 PSF



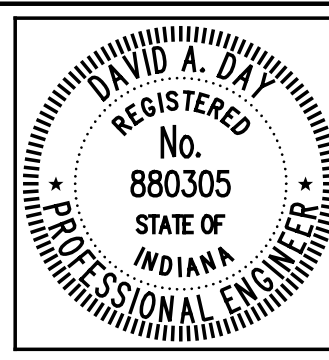
**ELEVATION**



**SECTION A-A**



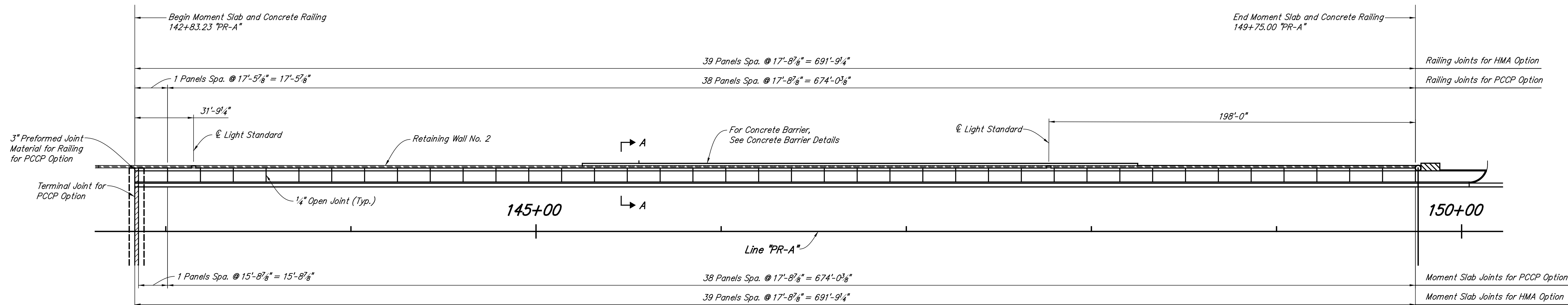
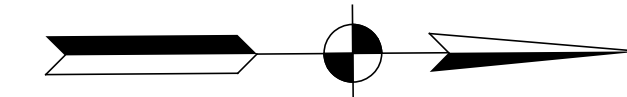
**SECTION B-B**



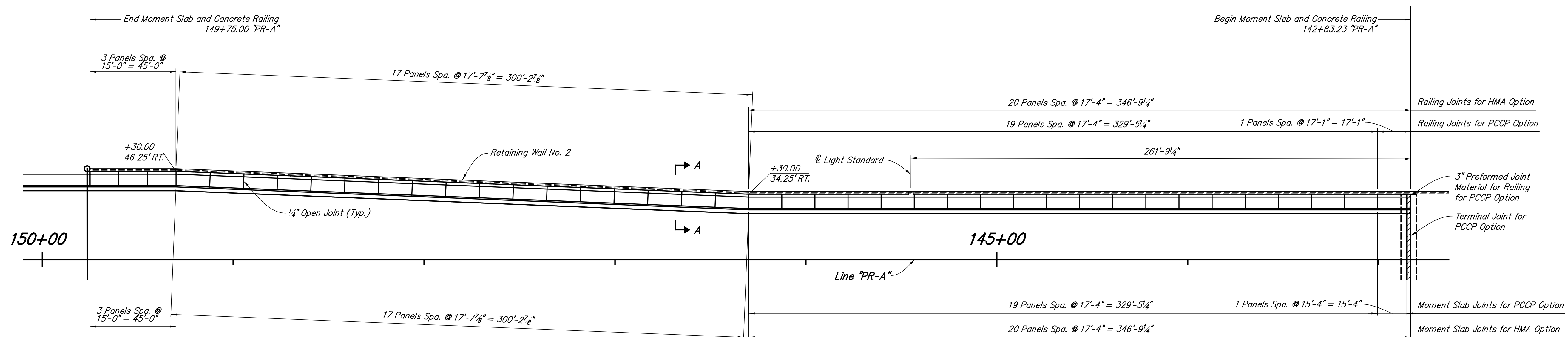
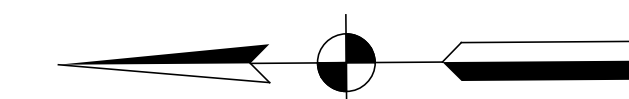
RECOMMENDED FOR APPROVAL: *David B. Day*, 6/1/2012, DESIGN ENGINEER  
 DESIGNED: BNM, DRAWN: BNM  
 CHECKED: DAD, CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**RETAINING WALL NO. 2 DETAILS**

HORIZONTAL SCALE 1/16" = 1'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 30 of 147
CONTRACT B-33357	PROJECT NO. N881008

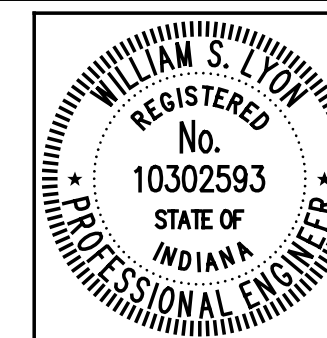


**WEST PLAN**



**EAST PLAN**

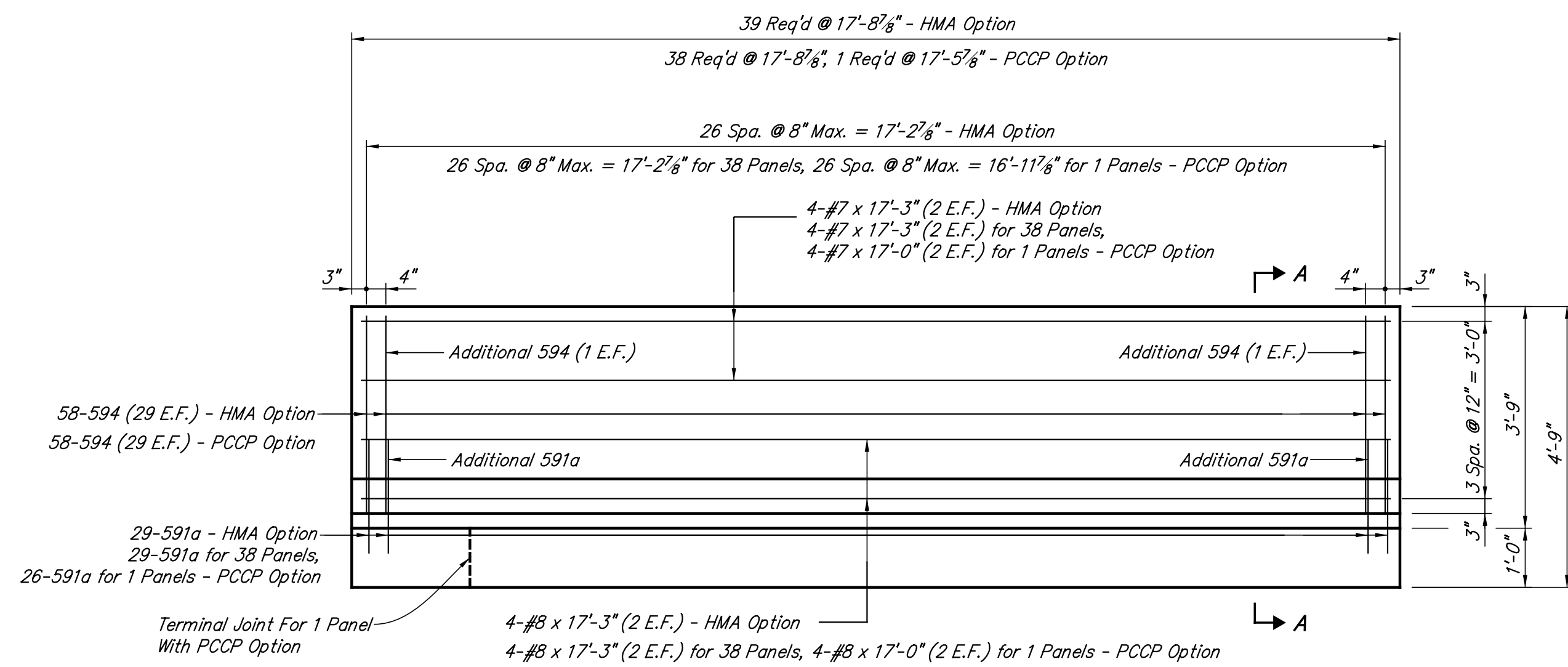
**NOTE:**  
Concrete railing and moment slab joints shall coincide.  
For moment slab joint details, see Std. Dwg. No. E 706-MSRW-09.



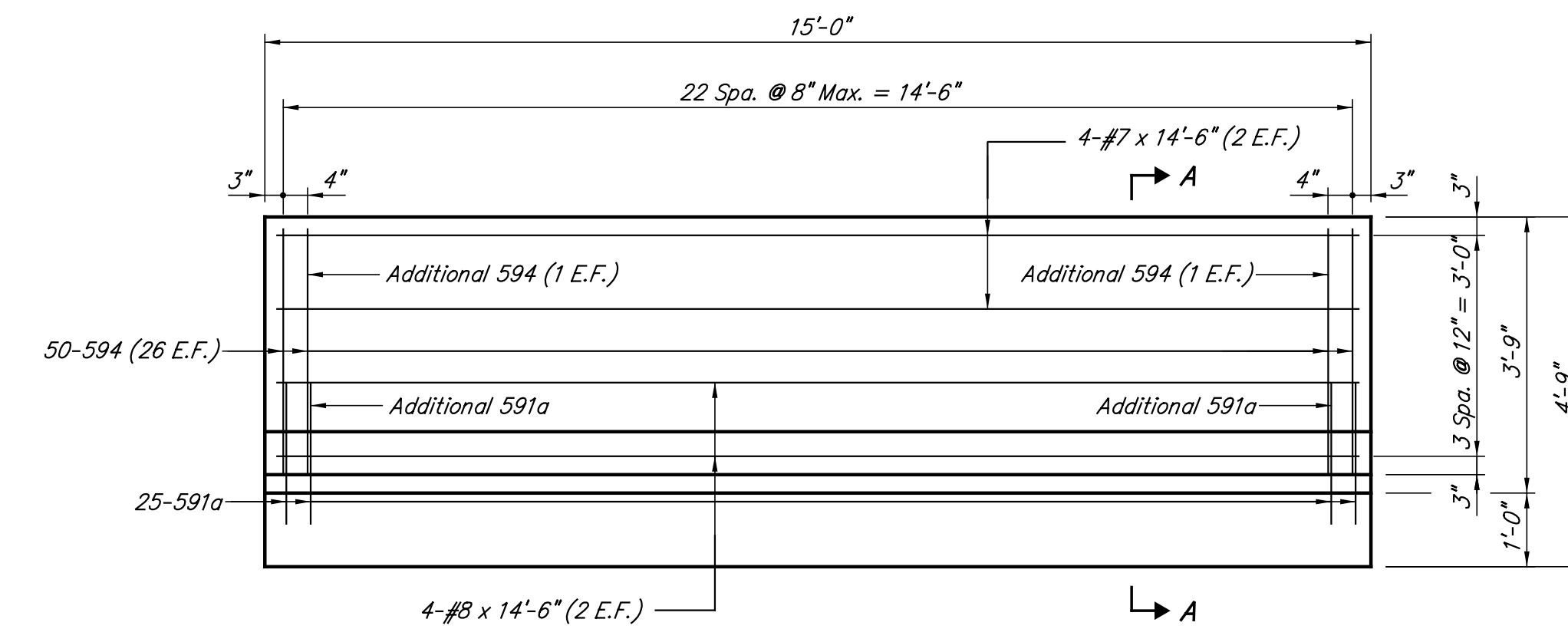
RECOMMENDED FOR APPROVAL	<i>William S. Lyon</i>	6/1/2012
DESIGNED:	BMA	DRAWN: PAS
CHECKED:	DAD	CHECKED: WSL

INDIANA DEPARTMENT OF TRANSPORTATION	
<b>MOMENT SLAB AND RAILING DETAILS</b>	

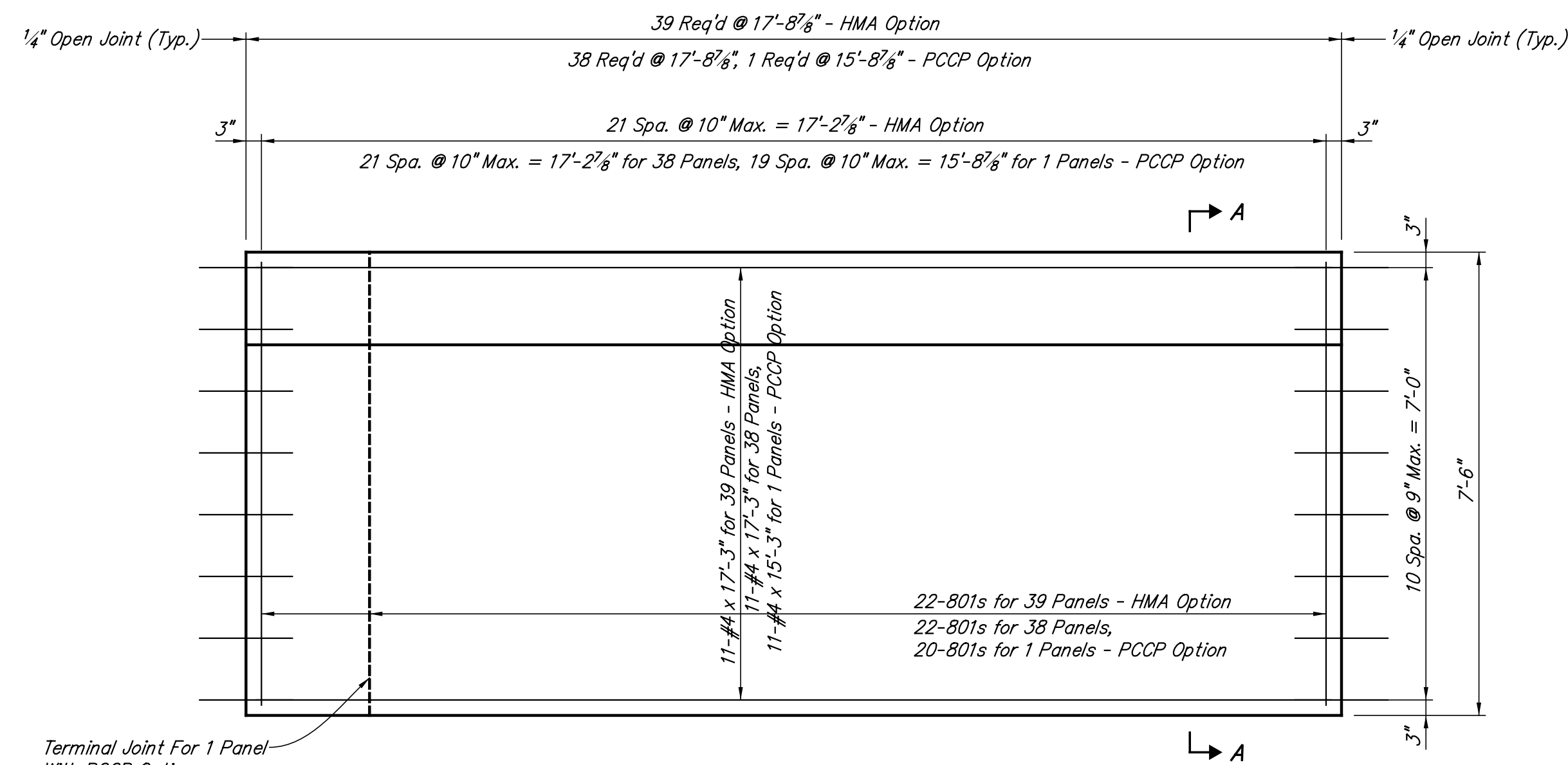
HORIZONTAL SCALE 1" = 30'	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 31 of 149
CONTRACT B-33357	PROJECT NO. N881008



ELEVATION

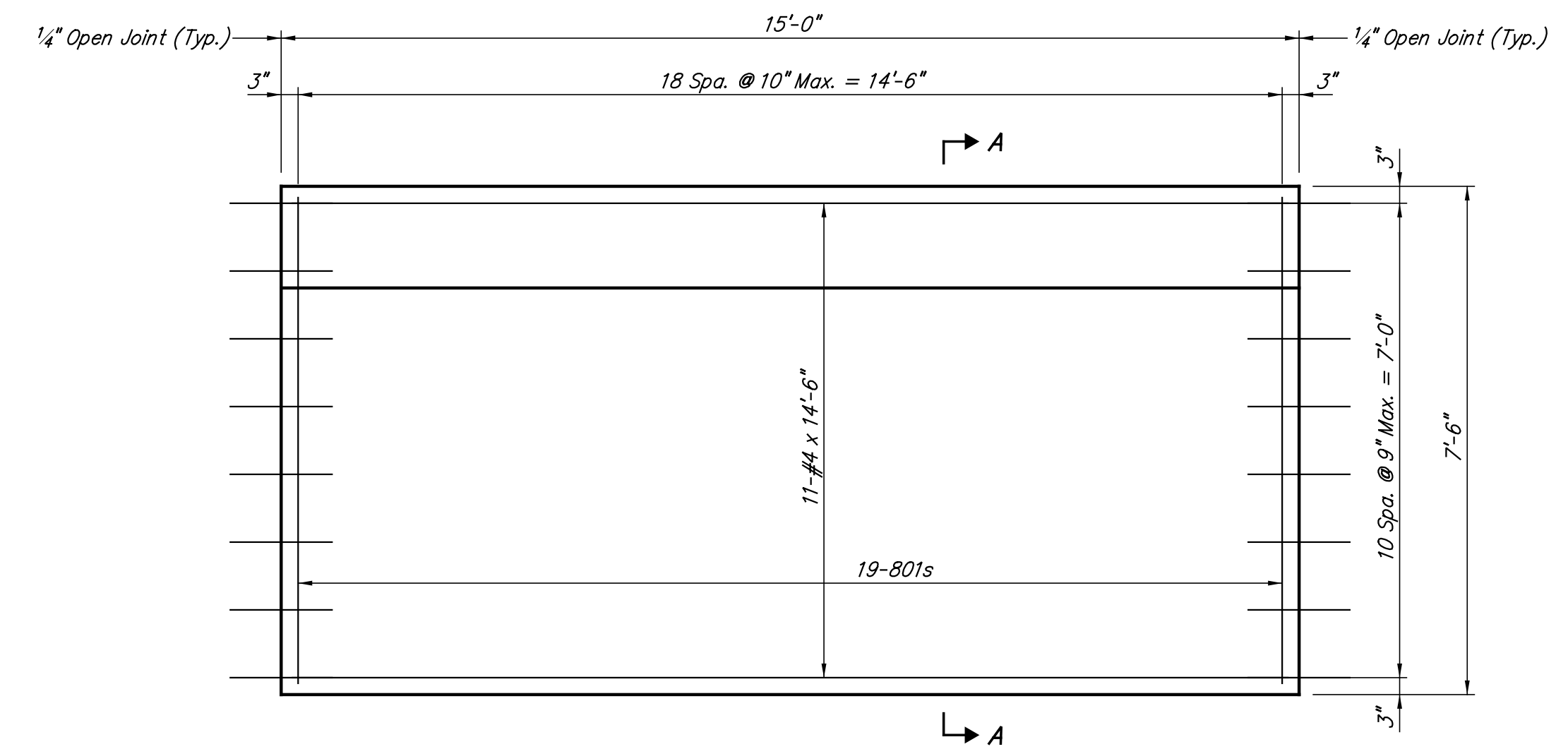


ELEVATION



PLAN

**WEST PANEL DETAILS**



PLAN

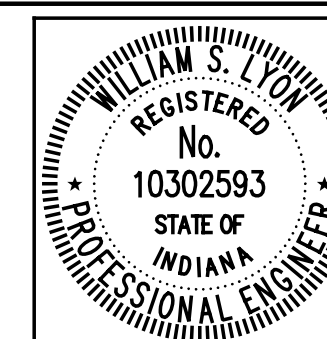
**EAST PANEL DETAILS**

(3 Req'd)

**NOTES:**

See Std. Dwg. No. E 706-MSRW-09 for moment slab joint details

See Std. Dwg. No. E 503-CCPJ-01 for D-1 contraction joint details

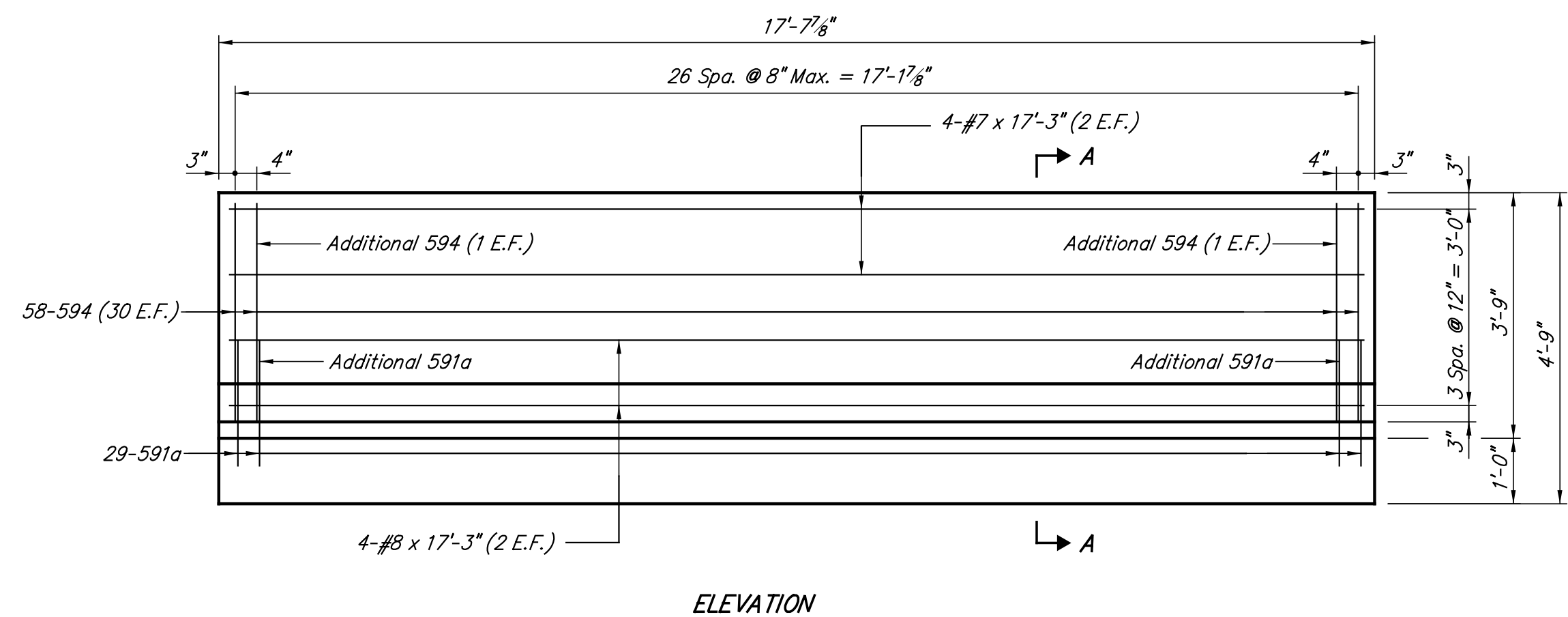


RECOMMENDED FOR APPROVAL	<i>William S. Lyon</i>	6/1/2012
	DESIGN ENGINEER	DATE
DESIGNED:	BMA	DRAWN: PAS
CHECKED:	DAD	CHECKED: DAD

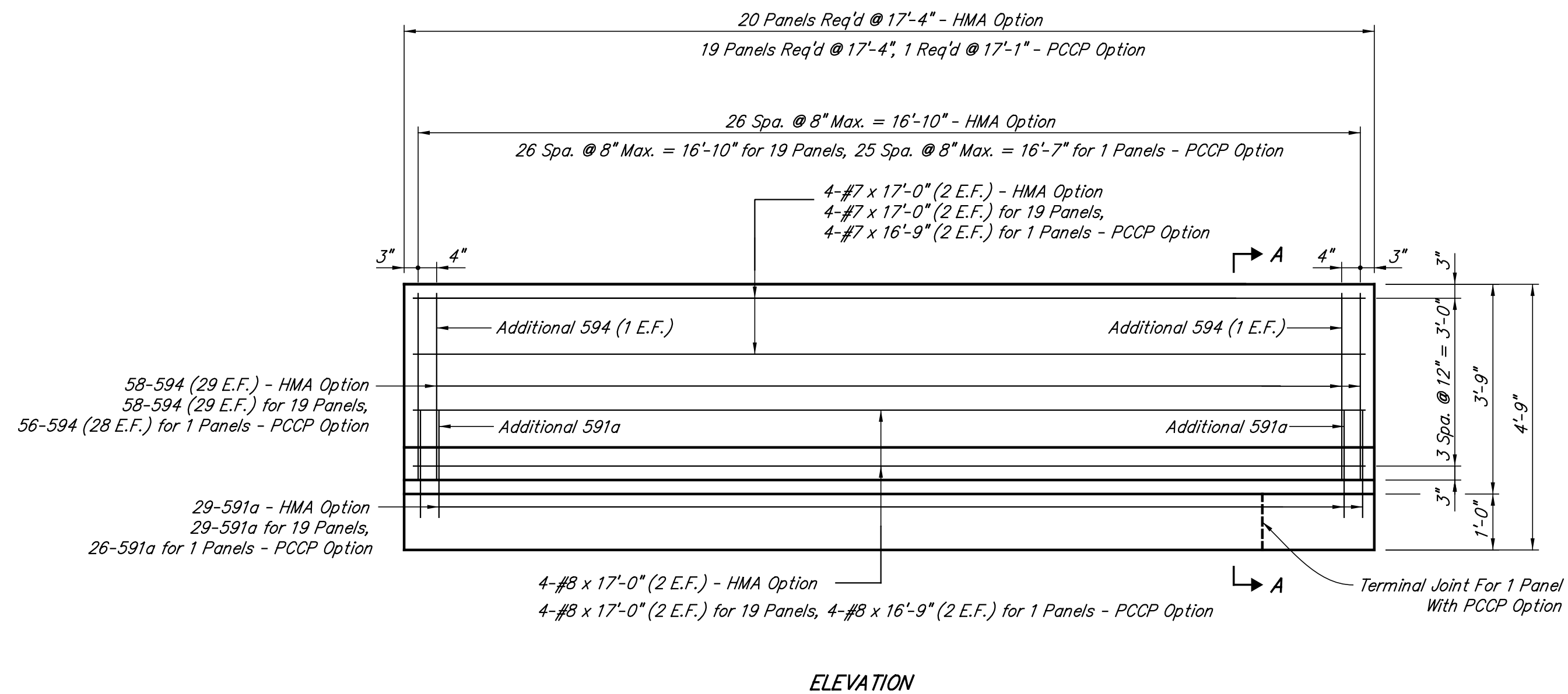
INDIANA DEPARTMENT OF TRANSPORTATION	
<b>MOMENT SLAB AND RAILING DETAILS</b>	

HORIZONTAL SCALE	BRIDGE FILE
1/2" = 1'-0"	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	32 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

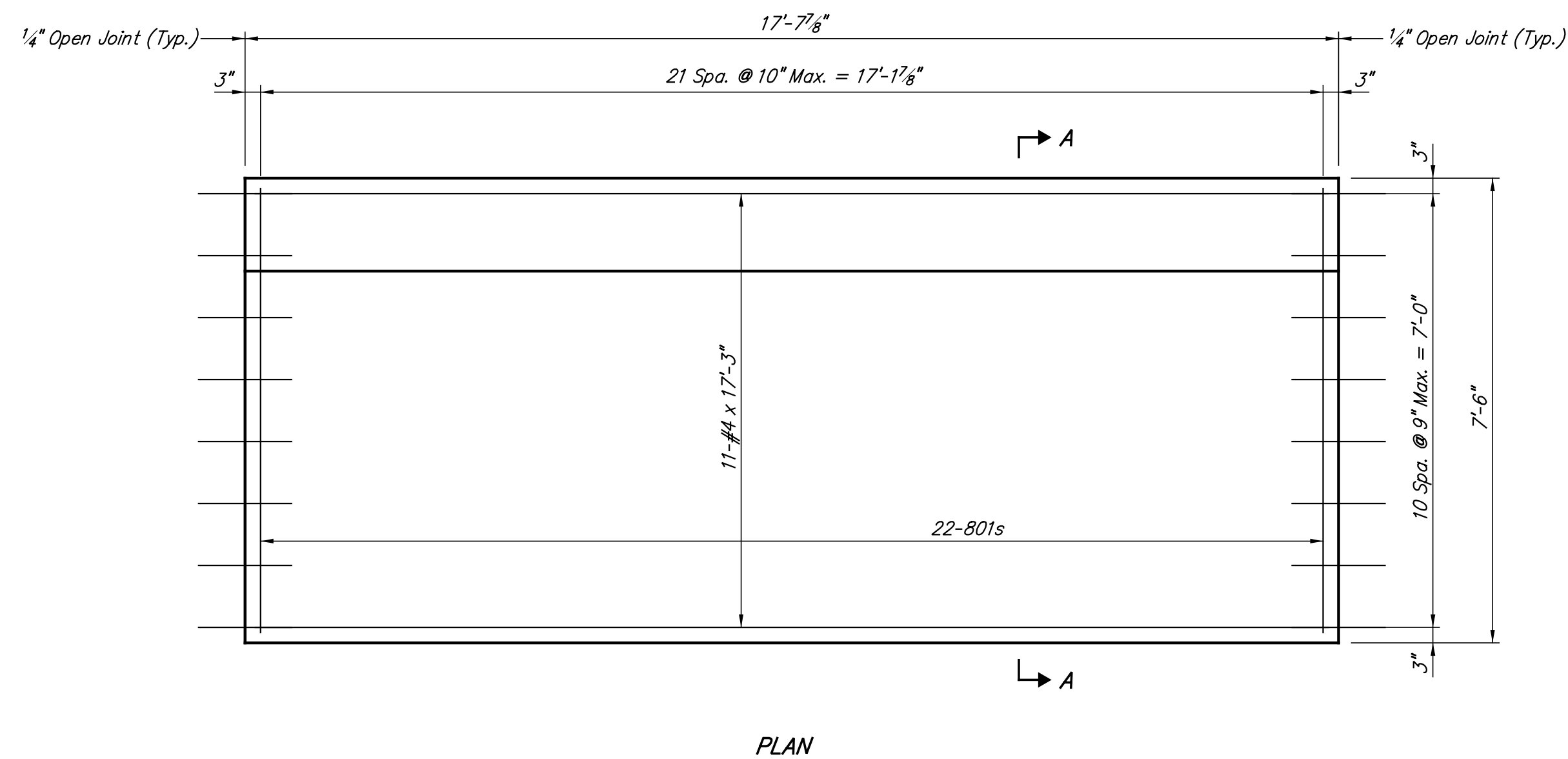




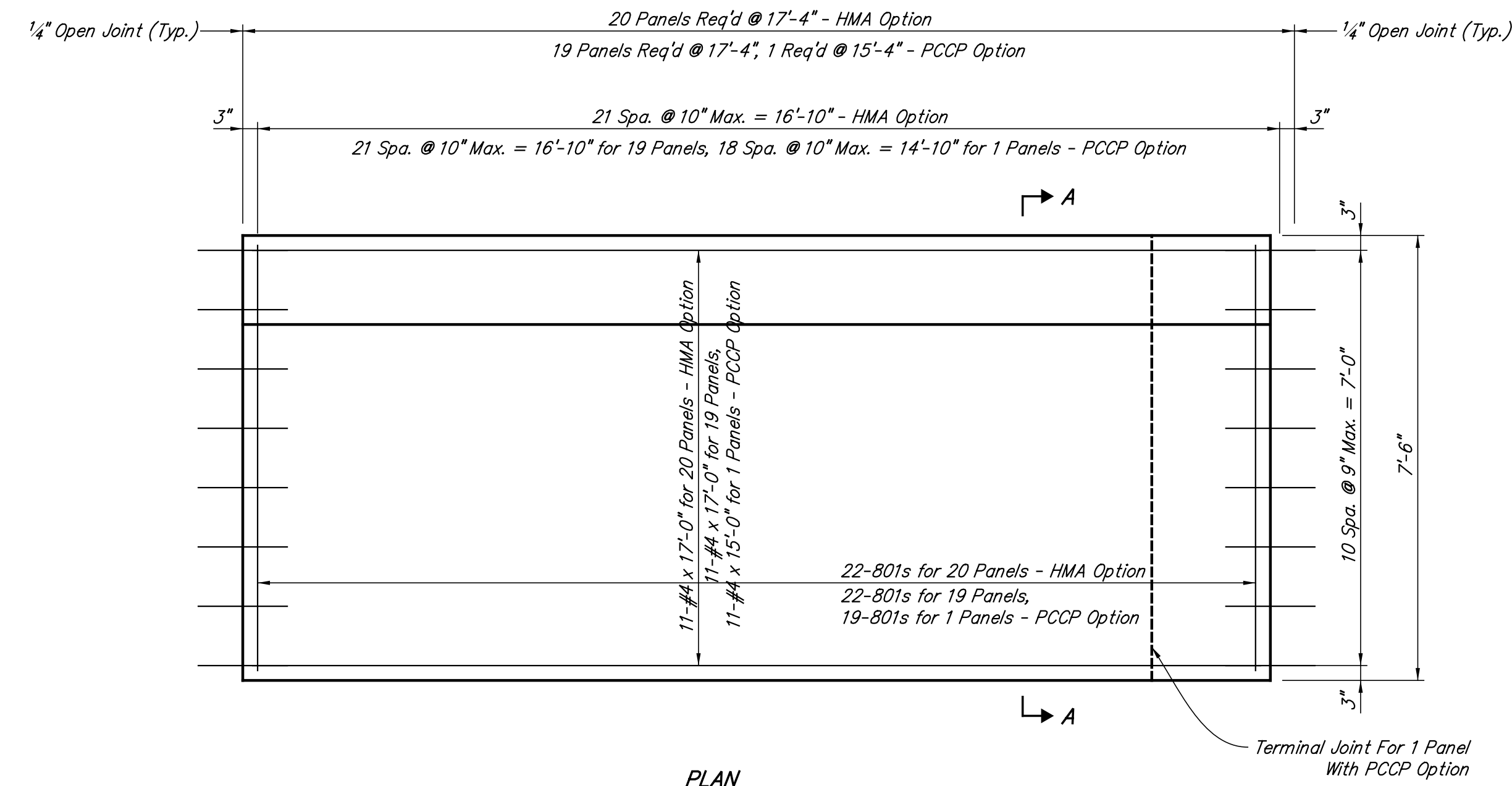
ELEVATION



ELEVATION



PLAN

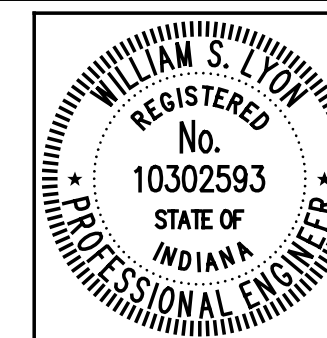


PLAN

**EAST PANEL DETAILS**  
(17 Req'd)

**EAST PANEL DETAILS**

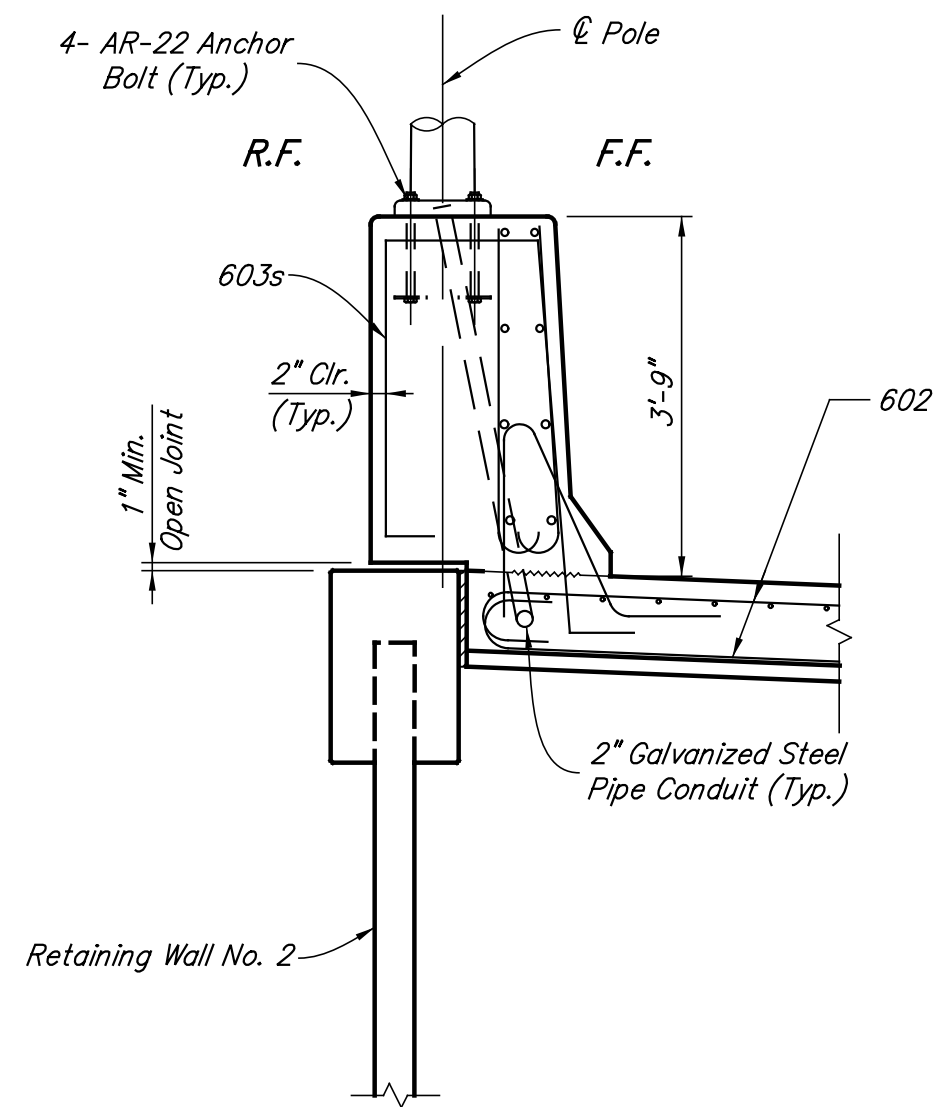
**NOTES:**  
See Std. Dwg. No. E 706-MSRW-09 for moment slab joint details  
See Std. Dwg. No. E 503-CCPJ-01 for D-1 contraction joint details



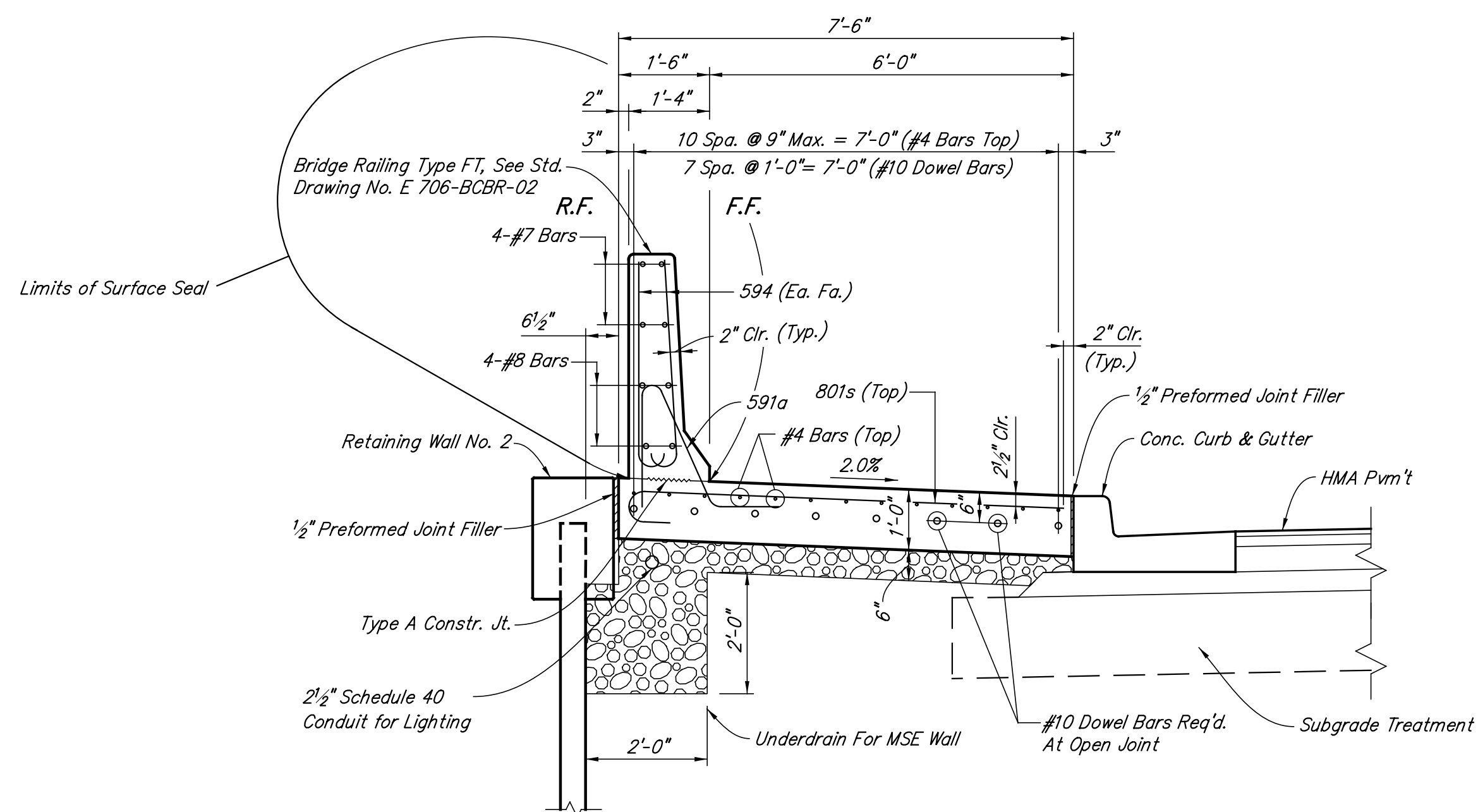
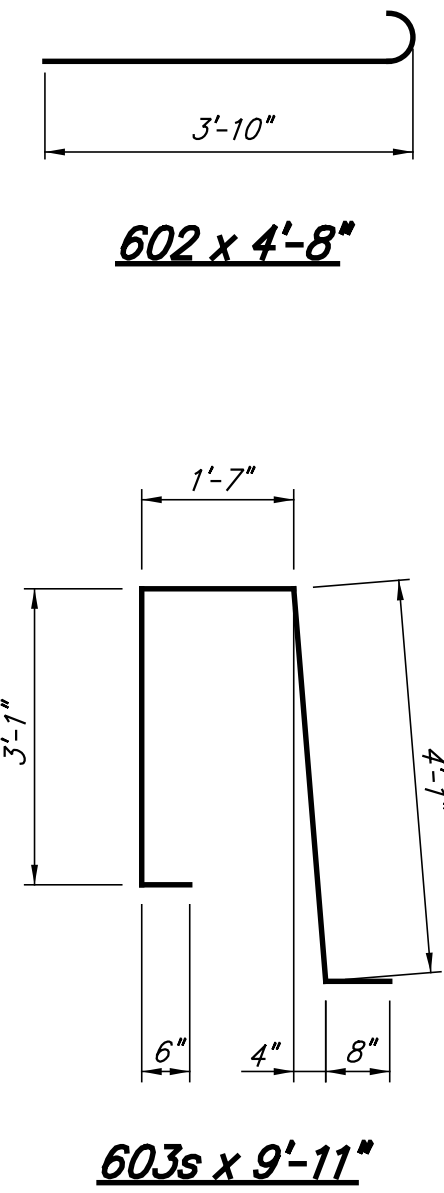
RECOMMENDED FOR APPROVAL: *William S. Lyon*, 6/1/2012, DESIGN ENGINEER  
DESIGNED: BMA, DRAWN: PAS  
CHECKED: DAD, CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
MOMENT SLAB AND RAILING DETAILS

HORIZONTAL SCALE 1/2" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 33 of 147
CONTRACT B-33357	PROJECT NO. N881008



**SECTION B-B**  
Scale: 1/2" = 1'-0"



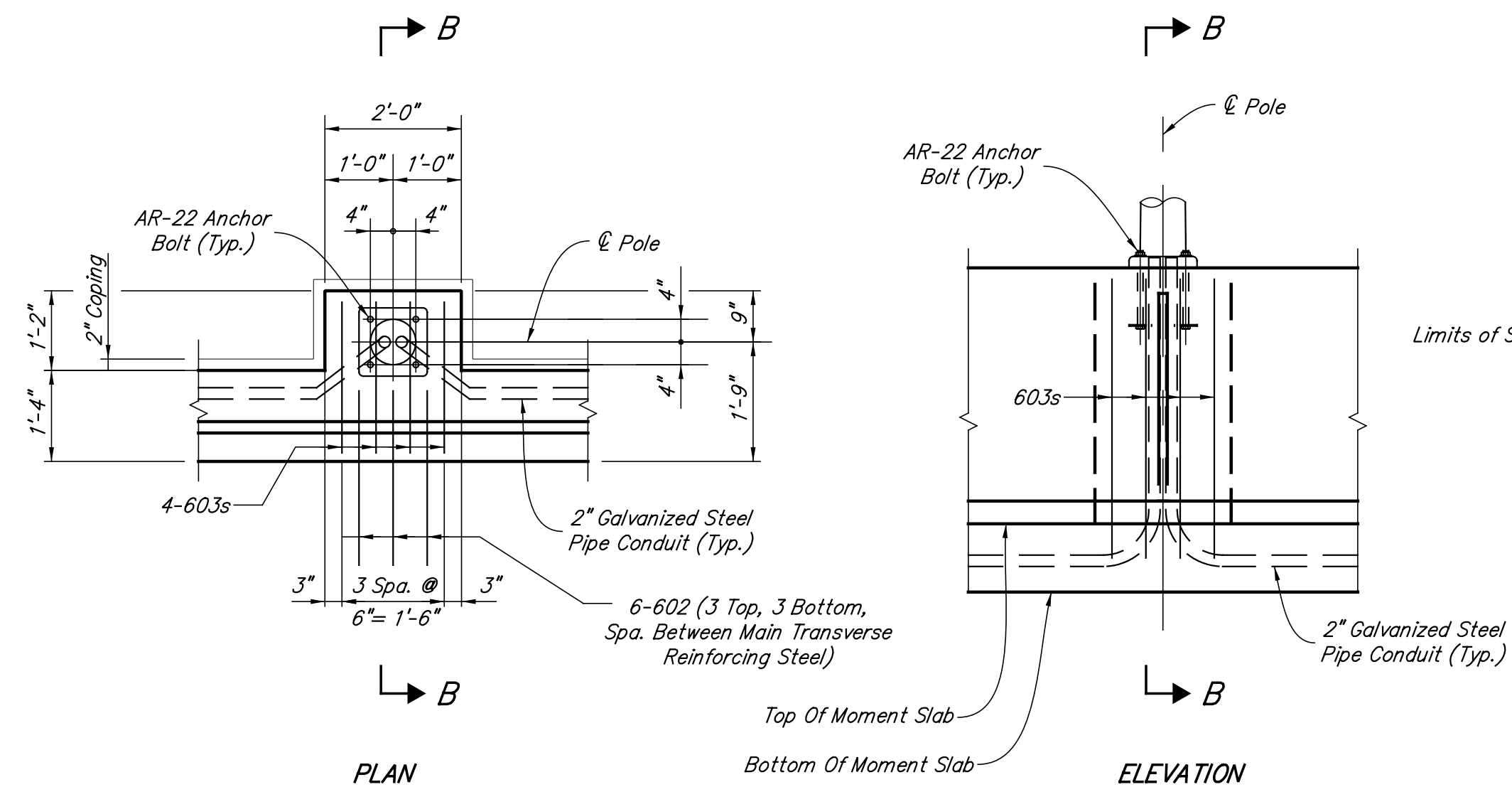
**SECTION A-A (HMA OPTION)**  
Scale: 1/2" = 1'-0"

**MOMENT SLAB AND RAILING  
BILL OF MATERIALS - HMA**

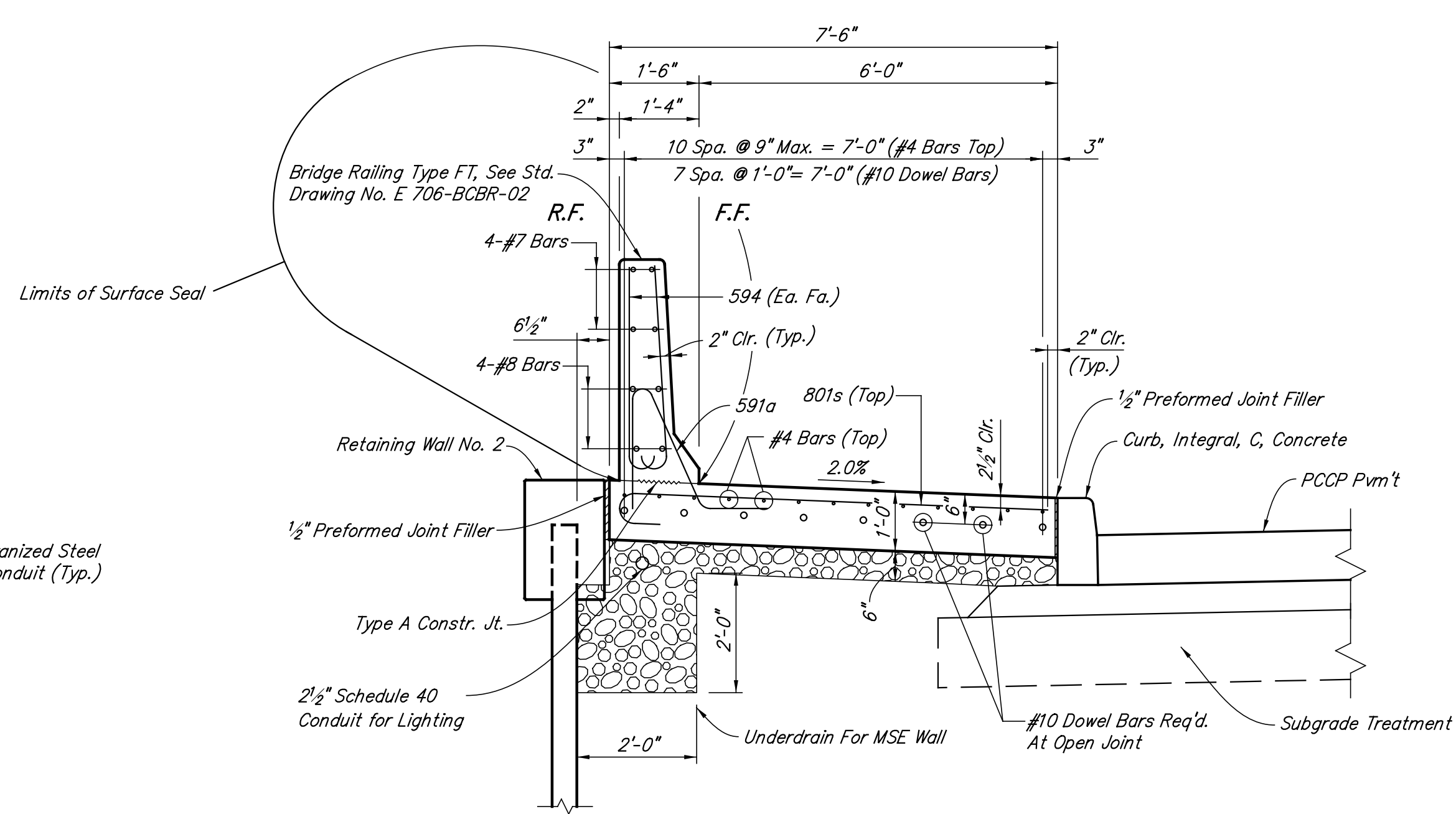
Epoxy Coated Reinforcing Steel				Epoxy Coated Reinforcing Steel			
Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)	Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)
#8	224	17'-3"		#8	220	17'-3"	
#8	80	17'-0"		#8	80	17'-0"	
#8	12	14'-6"		#8	4	16'-9"	
				#8	12	14'-6"	
Total No.8			14,414	Total No.8			14,408
#7	224	17'-3"		#7	220	17'-3"	
#7	80	17'-0"		#7	80	17'-0"	
#7	12	14'-6"		#7	4	16'-9"	
				#7	12	14'-6"	
Total No.7			11,034	Total No.7			11,030
602	18	4'-8"		602	18	4'-8"	
603s	12	9'-11"		603s	12	9'-11"	
Total No.6			306	Total No.6			306
591a	2,279	5'-6"		591a	2,273	5'-6"	
594	4,558	4'-0"		594	4,556	4'-0"	
Total No.5			32,090	Total No.5			32,047
Total Epoxy Coated Reinforcing Steel			57,844	Total Epoxy Coated Reinforcing Steel			57,791
Concrete				Concrete			
Concrete Railing Class C			1,384 Lft.	Concrete Railing Class C			1,384 Lft.
Miscellaneous				Miscellaneous			
Reinforced Concrete Moment Slab, 12 In.			1,153 Sys.	Reinforced Concrete Moment Slab, 12 In.			1,150 Sys.
Surface Seal			11,610 Sft.	Surface Seal			11,610 Sft.
D-I Contraction Joints			578 Lft.	D-I Contraction Joints			578 Lft.
Anchor Bolt AR-22			12 Ea.	Anchor Bolt AR-22			12 Ea.

**MOMENT SLAB AND RAILING  
BILL OF MATERIALS - PCCP**

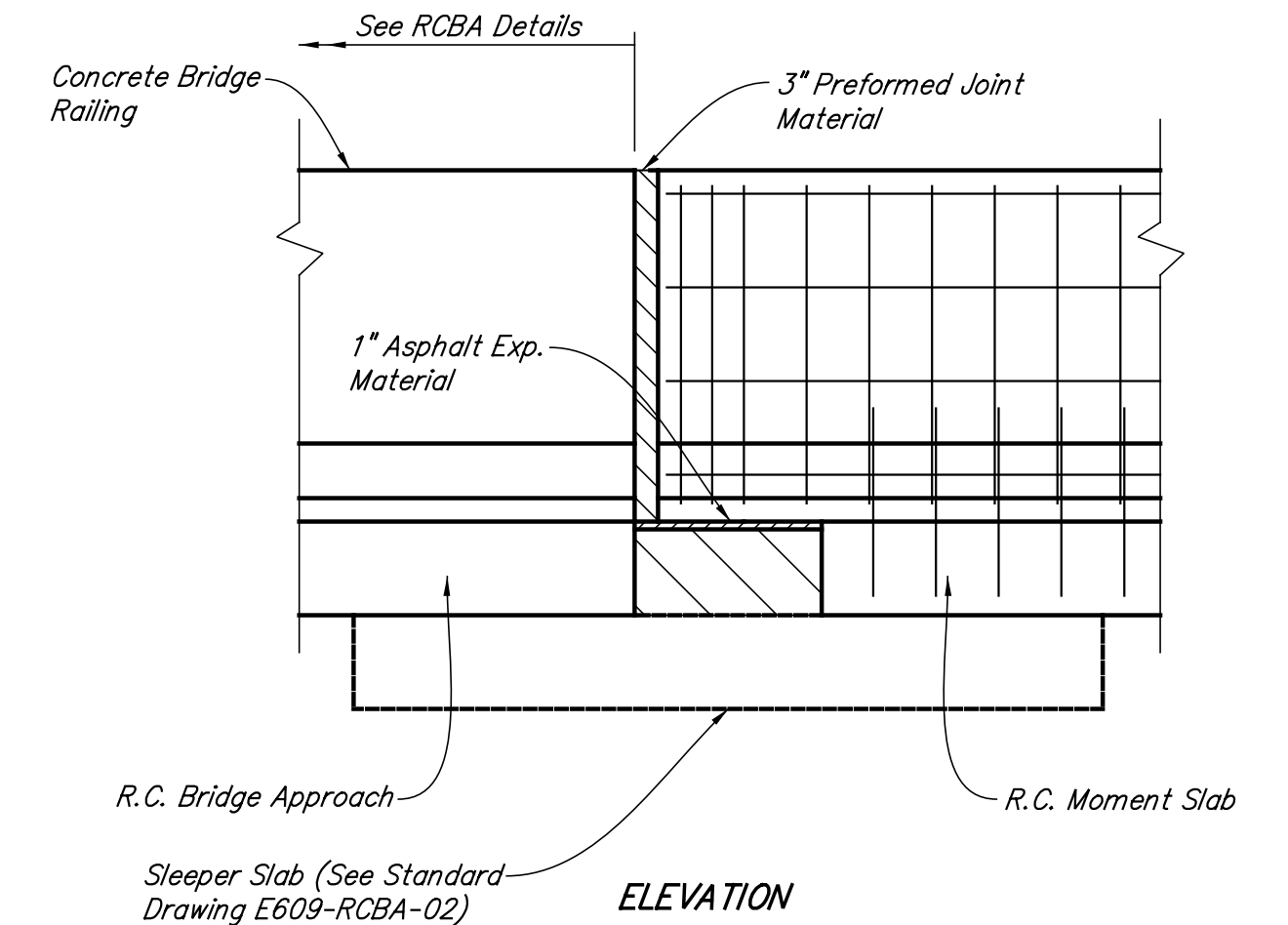
Epoxy Coated Reinforcing Steel				Epoxy Coated Reinforcing Steel			
Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)	Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)
#8	224	17'-3"		#8	220	17'-3"	
#8	80	17'-0"		#8	80	17'-0"	
#8	12	14'-6"		#8	4	16'-9"	
				#8	12	14'-6"	
Total No.8			14,414	Total No.8			14,408
#7	224	17'-3"		#7	220	17'-3"	
#7	80	17'-0"		#7	80	17'-0"	
#7	12	14'-6"		#7	4	16'-9"	
				#7	12	14'-6"	
Total No.7			11,034	Total No.7			11,030
602	18	4'-8"		602	18	4'-8"	
603s	12	9'-11"		603s	12	9'-11"	
Total No.6			306	Total No.6			306
591a	2,279	5'-6"		591a	2,273	5'-6"	
594	4,558	4'-0"		594	4,556	4'-0"	
Total No.5			32,090	Total No.5			32,047
Total Epoxy Coated Reinforcing Steel			57,844	Total Epoxy Coated Reinforcing Steel			57,791
Concrete				Concrete			
Concrete Railing Class C			1,384 Lft.	Concrete Railing Class C			1,384 Lft.
Miscellaneous				Miscellaneous			
Reinforced Concrete Moment Slab, 12 In.			1,153 Sys.	Reinforced Concrete Moment Slab, 12 In.			1,150 Sys.
Surface Seal			11,610 Sft.	Surface Seal			11,610 Sft.
D-I Contraction Joints			578 Lft.	D-I Contraction Joints			578 Lft.
Anchor Bolt AR-22			12 Ea.	Anchor Bolt AR-22			12 Ea.



**TYPICAL LIGHT FOUNDATION DETAILS**  
Scale: 1/2" = 1'-0"

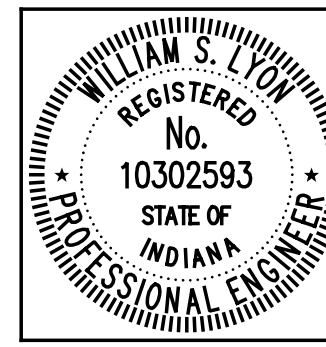


**SECTION A-A (PCCP OPTION)**  
Scale: 1/2" = 1'-0"



**TERMINAL JOINT DETAIL (PCCP OPTION)**  
Scale: 1/2" = 1'-0"

**NOTES:**  
See Std. Dwg. No. E 706-MSRW-10 for moment slab bar details



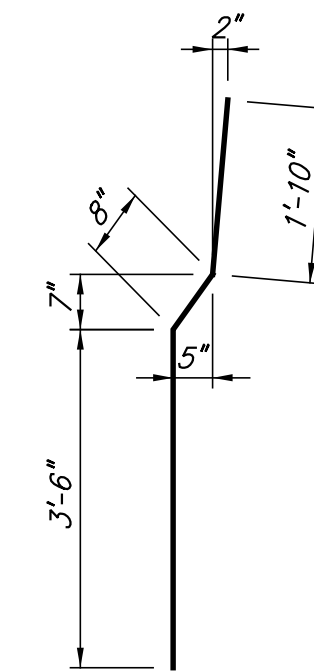
RECOMMENDED FOR APPROVAL: *William S. Lyon*, 6/1/2012  
DESIGN ENGINEER DATE  
DESIGNED: BMA DRAWN: PAS  
CHECKED: DAD CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**MOMENT SLAB AND RAILING DETAILS**

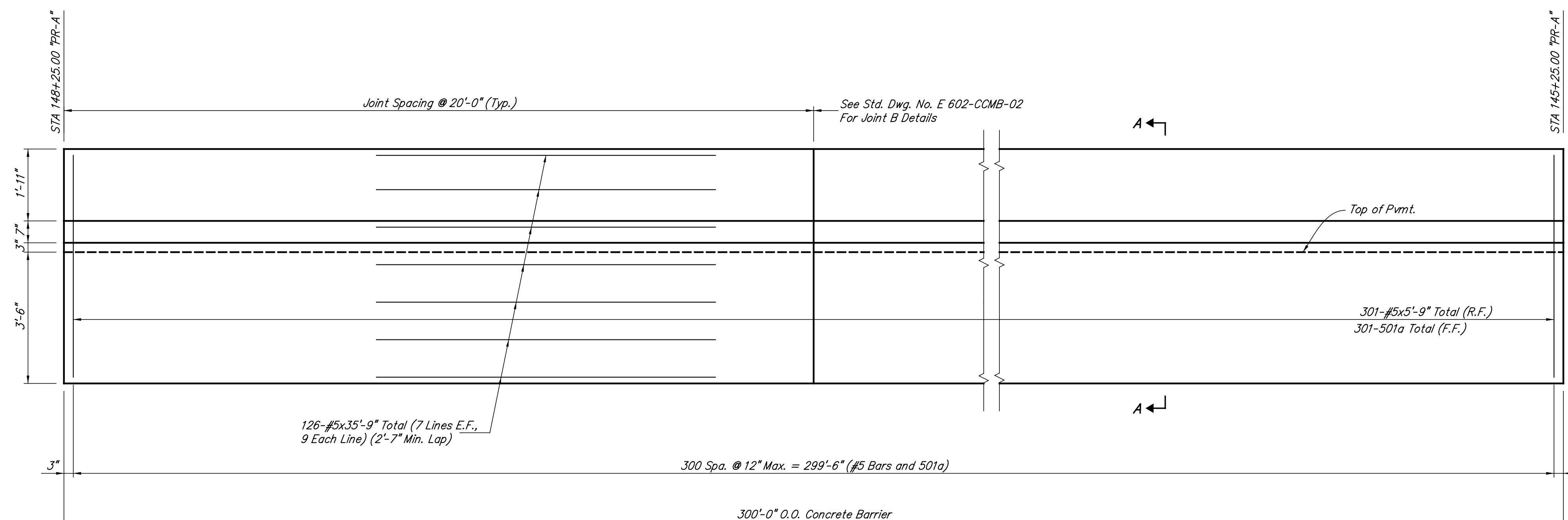
HORIZONTAL SCALE AS NOTED	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 34 of 147
CONTRACT B-33357	PROJECT NO. N881008

**CONCRETE BARRIER  
BILL OF MATERIALS**

Plain Reinforcing Steel			
Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)
501a	301	6'-0"	
#5	301	5'-9"	
#5	126	35'-9"	
Total No.5			8,388
Total Plain Reinforcing Steel			8,388
Concrete			
Concrete Barrier Class A			81 Cys.
Miscellaneous			
Surface Seal			1100 Sft.

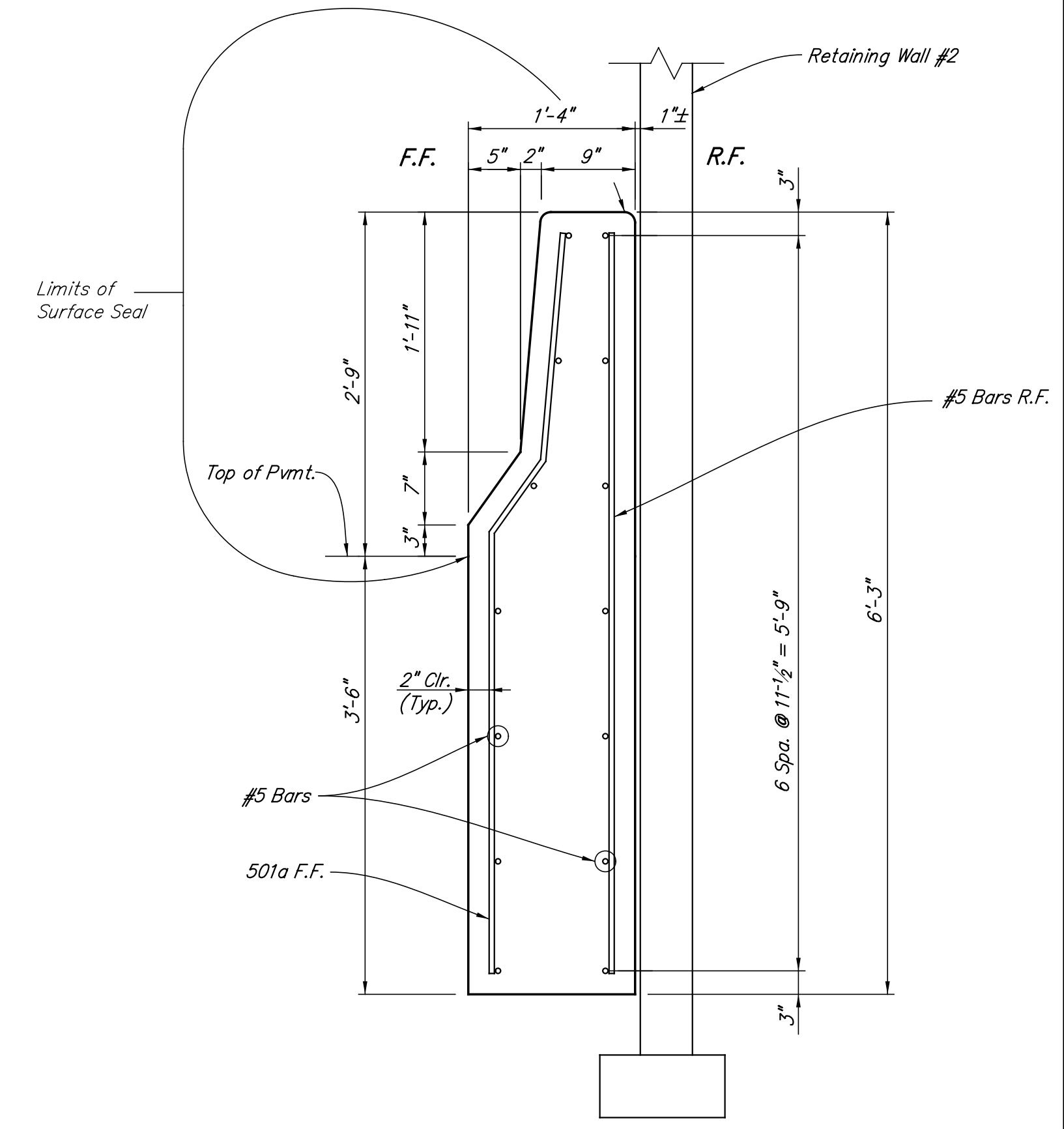


**501a x 6'-0"**



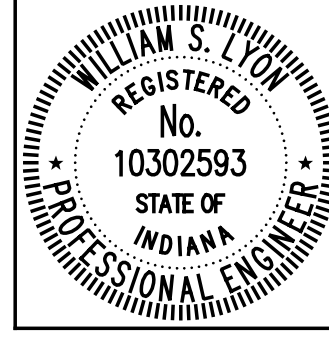
**PARTIAL ELEVATION - F.F. CONCRETE BARRIER**

No Scale



**SECTION A-A  
(CONCRETE BARRIER, 33 IN., MODIFIED)**

Scale: 1"=1'-0"



RECOMMENDED FOR APPROVAL	<i>William S. Lyon</i>	6/1/2012
DESIGNED:	DAD	DRAWN:
CHECKED:	DAD	CHECKED:

INDIANA  
DEPARTMENT OF TRANSPORTATION  
**CONCRETE BARRIER  
DETAILS**

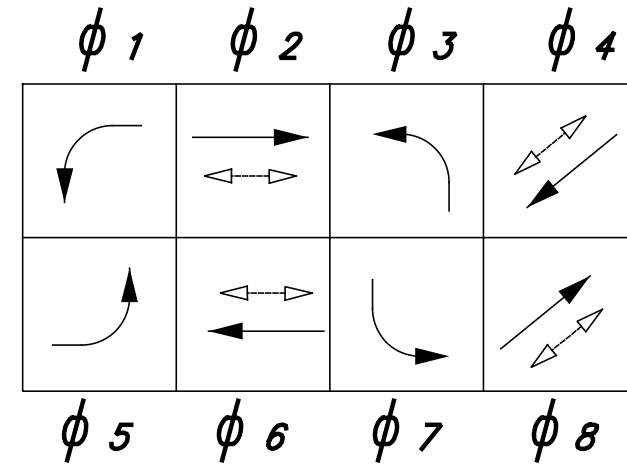
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	35 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

FOUNDATION	CORNER	STATION OFFSET
SP #1 - Existing Foundation	NE	117+94.32 "PR-A" 40.98 RT
SP #2	NW	118+74.11 "PR-A" 63.19 LT
SP #3 - Existing Foundation	SW	117+40.72 "PR-A" 46.99 ; T
SP #4 - Existing Foundation	SE	116+60.61 "PR-A" 51.88 RT
Existing Controller Cabinet	NE	118+00.00 "PR-A" 42.93 RT

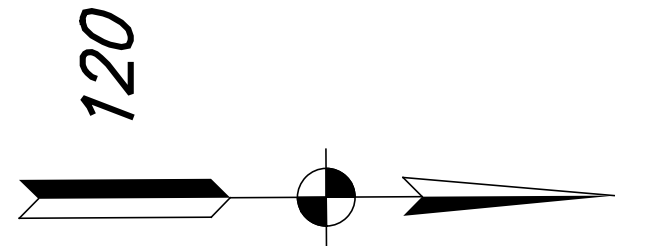
LOOP TAGGING TABLE

LANE	TAG NUMBER
NL	NL5-1,2
SL	SL1-1,2,3,4
SA	SA6-1
SB	SB6-1
EL	EL7-1,2
EA	EA4-1,2
EB	EB4-1,2
WL	WL3-1,2
WA	WA8-1,2
WB	WB8-1,2

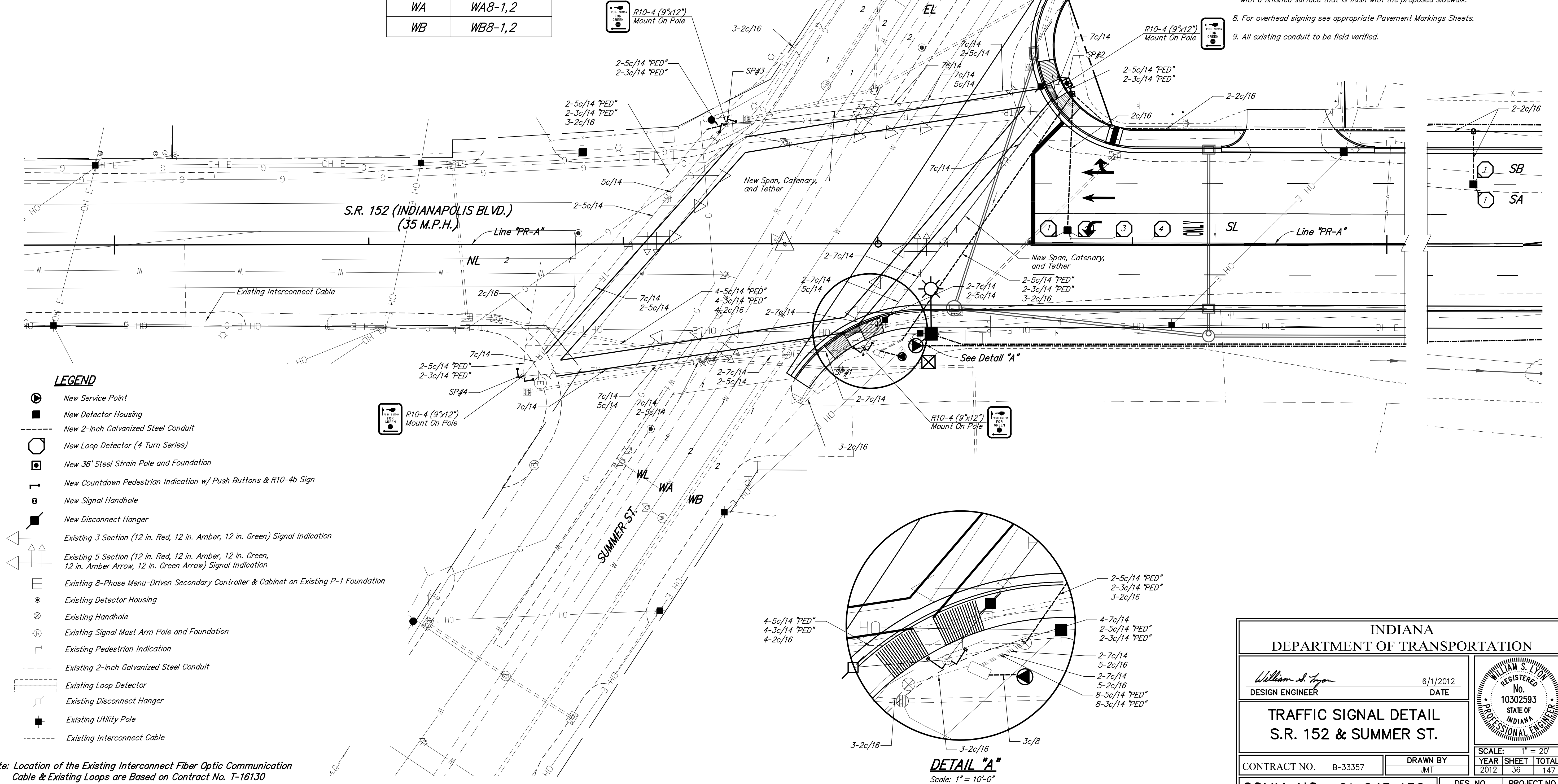
PHASE DIAGRAM



ALL APPROACHES FLASH RED



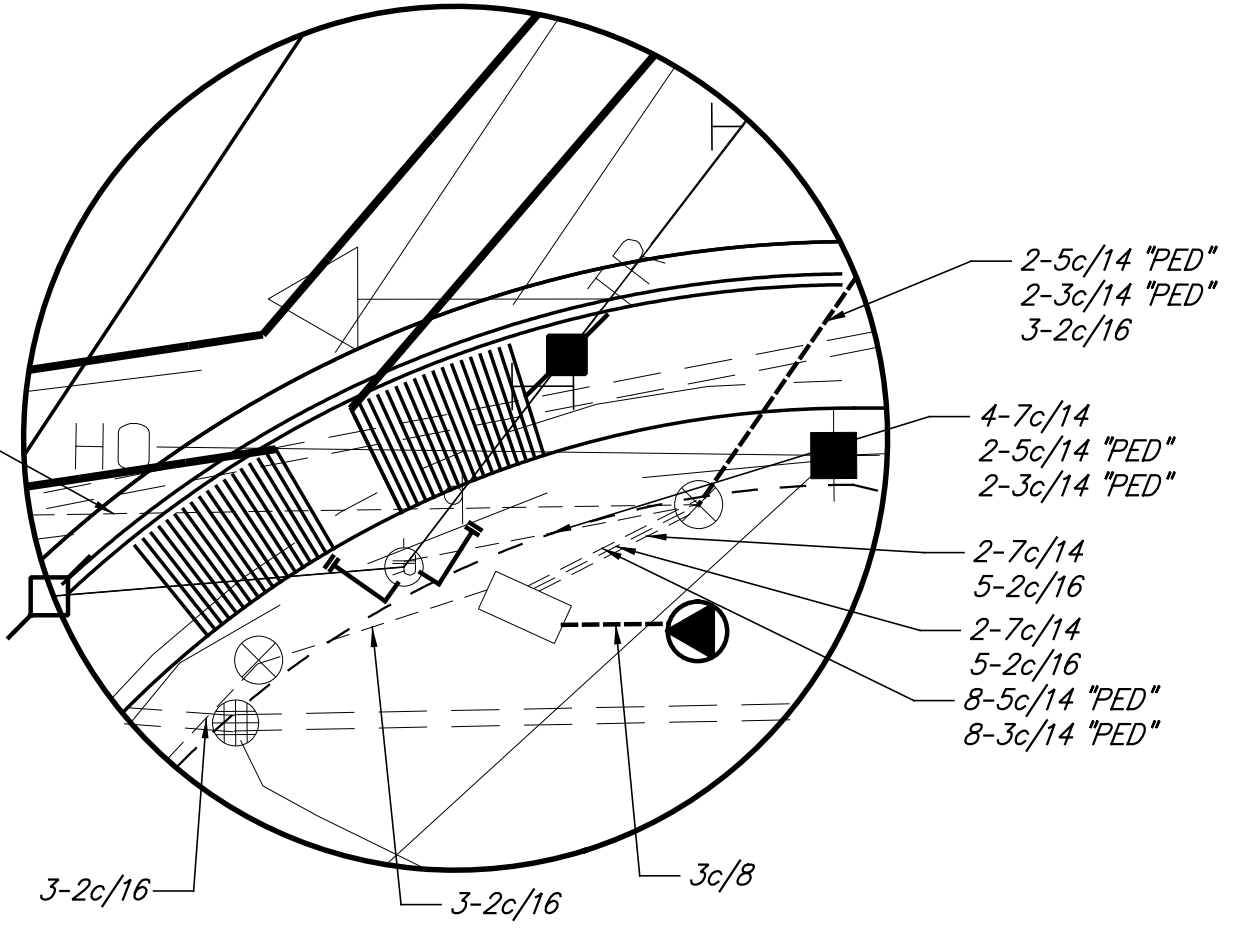
- Notes:
1. Pavement markings and intersection dimensions are shown here for informational purposes only. See applicable sheets for construction details.
  2. "F/O" denotes fiber optic interconnect cable
  3. "PED" denotes both a new 5c/14 signal cable and a new 3c/14 signal cable for the pedestrian indication and pedestrian push button, respectively.
  4. "CoAx" denotes a new coaxial cable for the yagi radio antenna.
  5. All stationing and offsets are from Line "PR-A", unless otherwise noted.
  6. Signal pole foundations, pedestal foundations, and cabinet footpad shall be constructed with a finished surface that is flush with the proposed sidewalk.
  7. For overhead signing see appropriate Pavement Markings Sheets.
  8. All existing conduit to be field verified.



LEGEND

- New Service Point
- New Detector Housing
- New 2-inch Galvanized Steel Conduit
- New Loop Detector (4 Turn Series)
- New 36 inch Steel Strain Pole and Foundation
- New Countdown Pedestrian Indication w/ Push Buttons & R10-4b Sign
- New Signal Handhole
- New Disconnect Hanger
- Existing 3 Section (12 in. Red, 12 in. Amber, 12 in. Green) Signal Indication
- Existing 5 Section (12 in. Red, 12 in. Amber, 12 in. Green, 12 in. Amber Arrow, 12 in. Green Arrow) Signal Indication
- Existing 8-Phase Menu-Driven Secondary Controller & Cabinet on Existing P-1 Foundation
- Existing Detector Housing
- Existing Handhole
- Existing Signal Mast Arm Pole and Foundation
- Existing Pedestrian Indication
- Existing 2-inch Galvanized Steel Conduit
- Existing Loop Detector
- Existing Disconnect Hanger
- Existing Utility Pole
- Existing Interconnect Cable

Note: Location of the Existing Interconnect Fiber Optic Communication Cable & Existing Loops are Based on Contract No. T-16130



DETAIL "A"  
Scale: 1" = 10'-0"

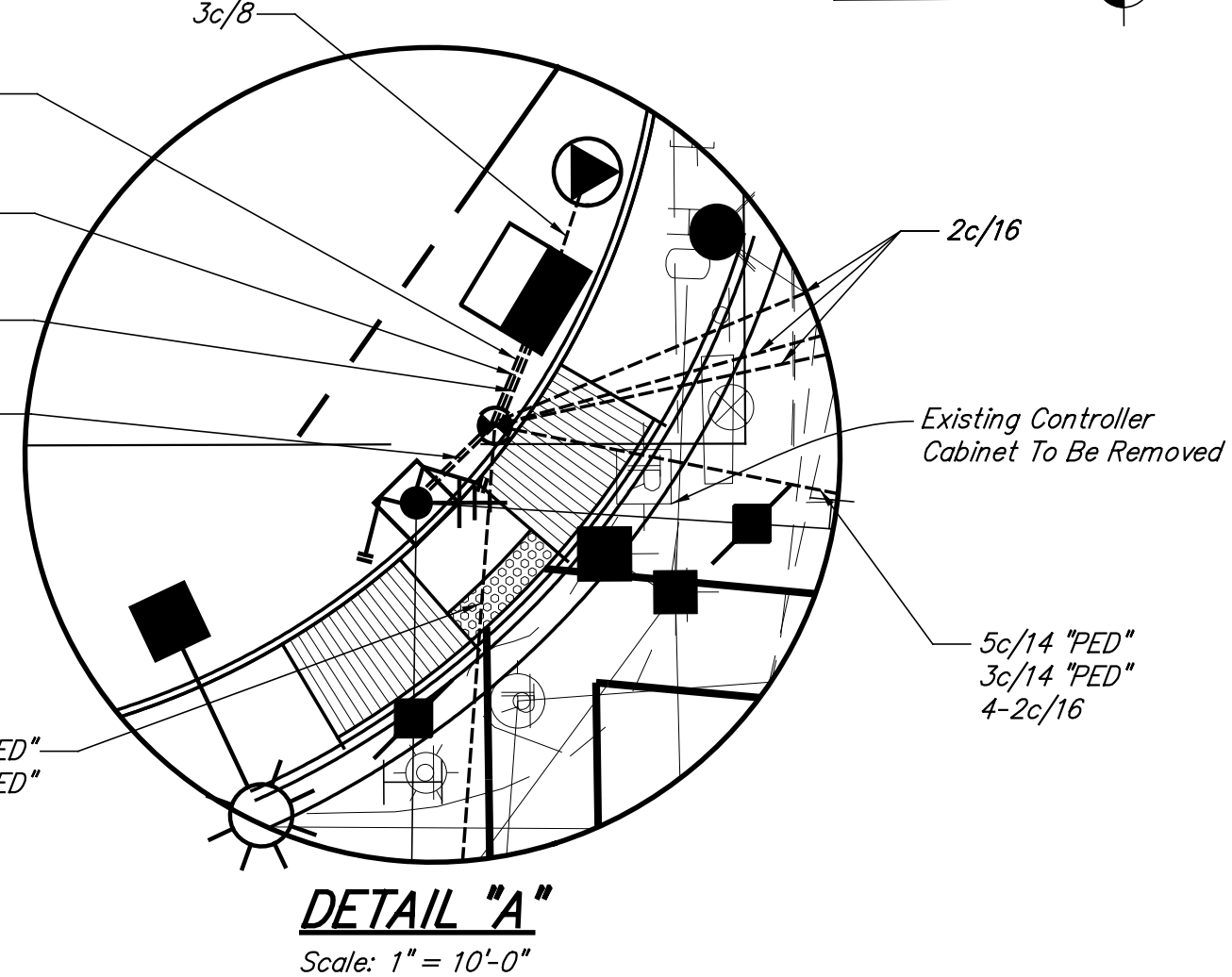
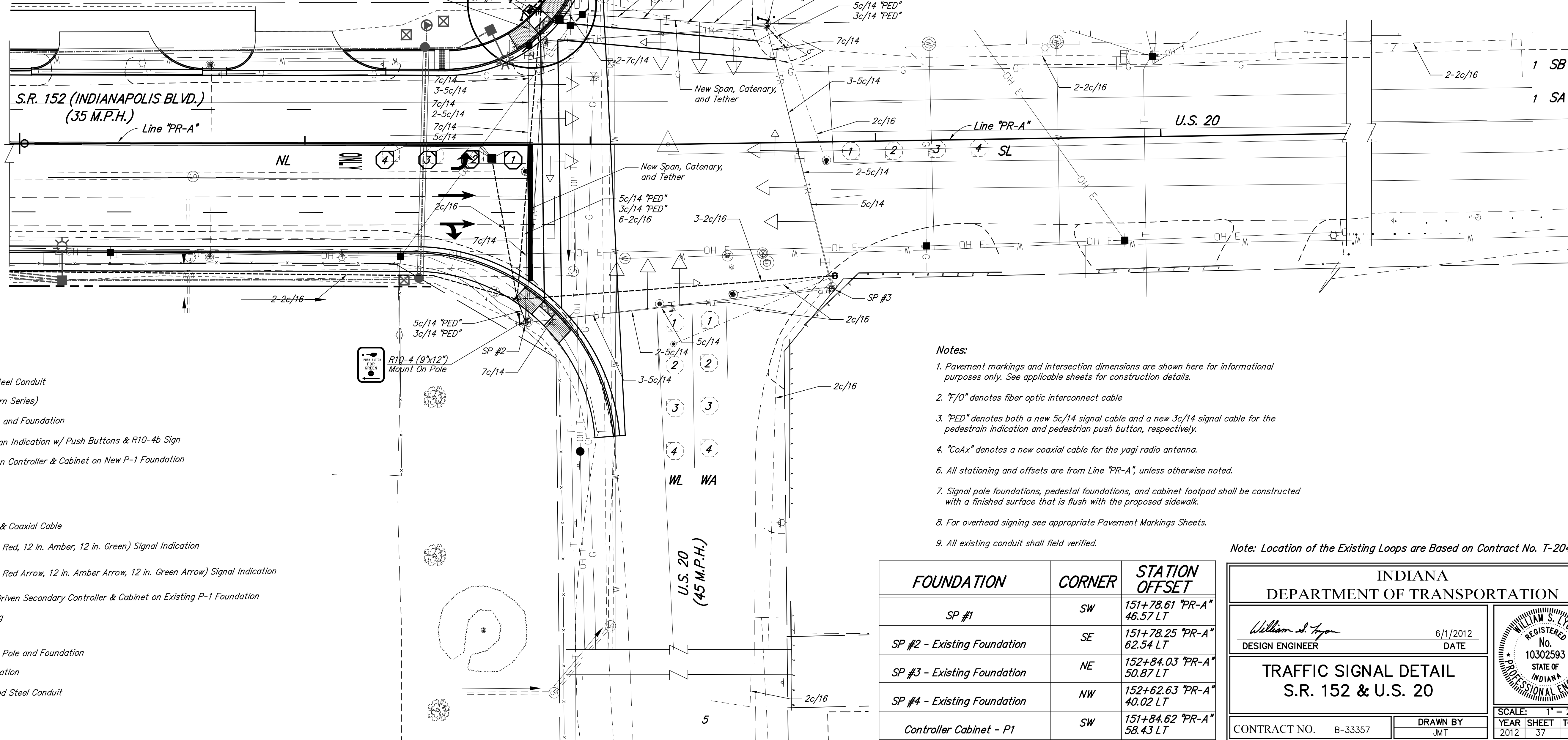
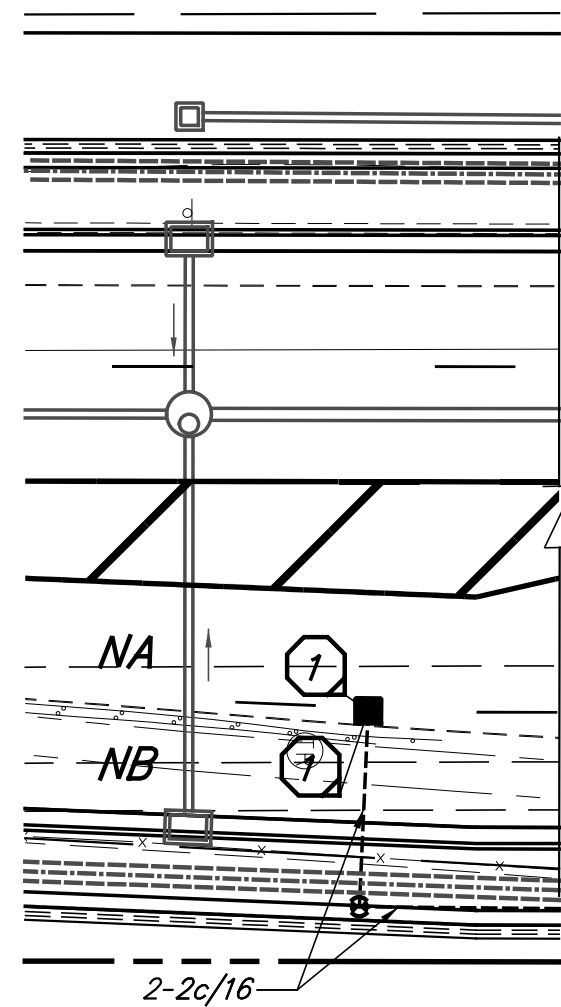
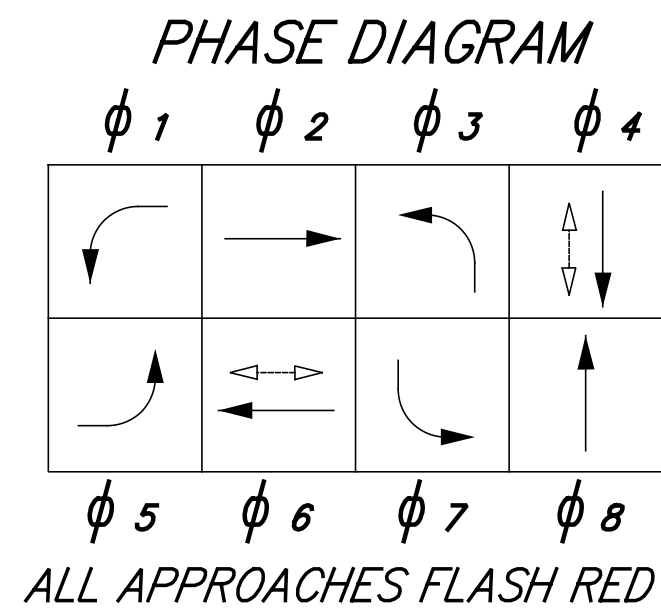
INDIANA DEPARTMENT OF TRANSPORTATION		
 DESIGN ENGINEER	6/1/2012 DATE	
<b>TRAFFIC SIGNAL DETAIL</b>		
<b>S.R. 152 &amp; SUMMER ST.</b>		
CONTRACT NO. B-33357	DRAWN BY JMT	SCALE: 1" = 20'
DES. NO. 0014210	PROJECT NO. N881008	YEAR SHEET TOTAL 2012 36 147
COMM. NO. 01-045-156		

150

LOOP TAGGING TABLE

LANE	TAG NUMBER	
NL	NL5-1,2,3,4	*
NA	NA2-1	*
NB	NB2-1	*
SL	SL1-1,2,3,4	*
SA	SA6-1	*
SB	SB6-1	*
EL	EL7-1,2,3,4	*
EA	EA4-1,2,3,4	*
EA	EA4-5	*
EB	EB4-1,2,3,4	*
WL	WL3-1,2,3,4	*
WA	WA8-1,2,3,4	*
WA	WA8-5	*

\* Count Capable Loops  
Amplifier Required



LEGEND

- New Service Point
- New Detector Housing
- New 2-inch Galvanized Steel Conduit
- New Loop Detector (4 Turn Series)
- New 36' Steel Strain Pole and Foundation
- New Countdown Pedestrian Indication w/ Push Buttons & R10-4b Sign
- New 8-Phase Menu-Driven Controller & Cabinet on New P-1 Foundation
- New Signal Handhole
- New Disconnect Hanger
- New Yagi Radio Antenna & Coaxial Cable
- Existing 3 Section (12 in. Red, 12 in. Amber, 12 in. Green) Signal Indication
- Existing 3 Section (12 in. Red Arrow, 12 in. Amber Arrow, 12 in. Green Arrow) Signal Indication
- Existing 8-Phase Menu-Driven Secondary Controller & Cabinet on Existing P-1 Foundation
- Existing Detector Housing
- Existing Handhole
- Existing Signal Mast Arm Pole and Foundation
- Existing Pedestrian Indication
- Existing 2-inch Galvanized Steel Conduit
- Existing Loop Detector
- Existing Utility Pole
- Existing Disconnect Hanger

Notes:

1. Pavement markings and intersection dimensions are shown here for informational purposes only. See applicable sheets for construction details.
2. "F/O" denotes fiber optic interconnect cable
3. "PED" denotes both a new 5c/14 signal cable and a new 3c/14 signal cable for the pedestrian indication and pedestrian push button, respectively.
4. "CoAx" denotes a new coaxial cable for the yagi radio antenna.
6. All stationing and offsets are from Line "PR-A", unless otherwise noted.
7. Signal pole foundations, pedestal foundations, and cabinet footpad shall be constructed with a finished surface that is flush with the proposed sidewalk.
8. For overhead signing see appropriate Pavement Markings Sheets.
9. All existing conduit shall field verified.

Note: Location of the Existing Loops are Based on Contract No. T-20427

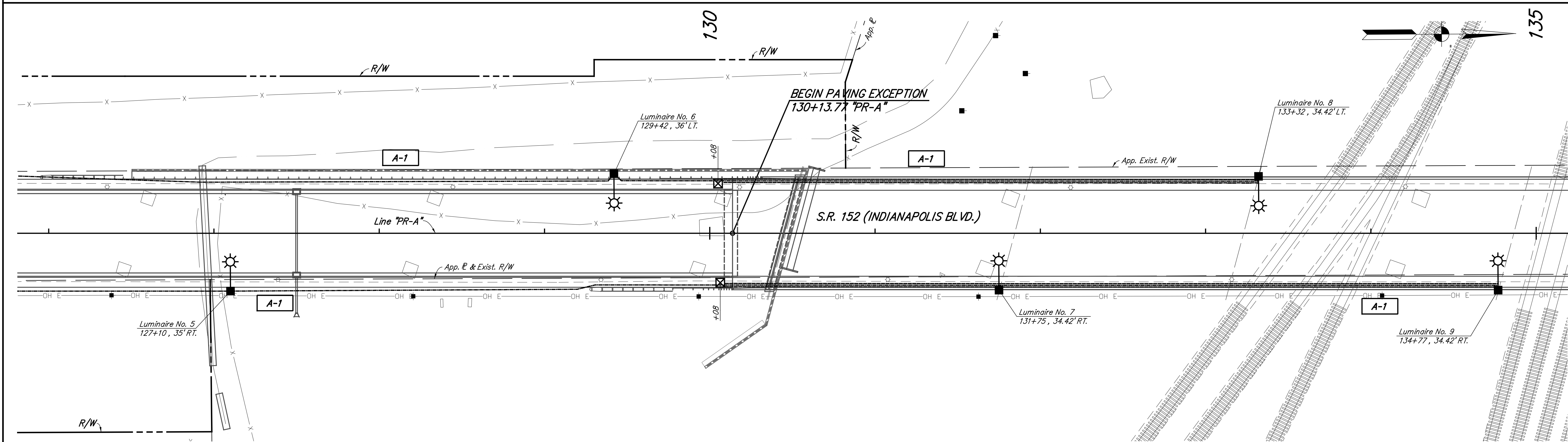
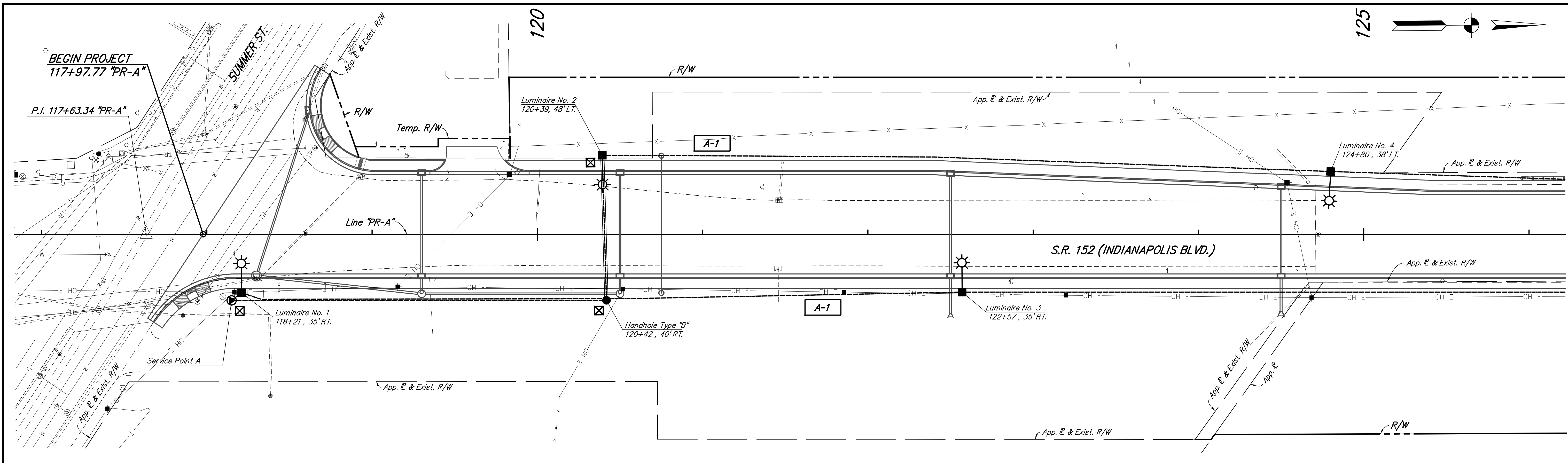
FOUNDATION	CORNER	STATION OFFSET
SP #1	SW	151+78.61 "PR-A" 46.57 LT
SP #2 - Existing Foundation	SE	151+78.25 "PR-A" 62.54 LT
SP #3 - Existing Foundation	NE	152+84.03 "PR-A" 50.87 LT
SP #4 - Existing Foundation	NW	152+62.63 "PR-A" 40.02 LT
Controller Cabinet - P1	SW	151+84.62 "PR-A" 58.43 LT

INDIANA  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL DETAIL  
S.R. 152 & U.S. 20

SCALE: 1" = 20'

DESIGN ENGINEER <i>William S. Lyon</i>	DATE 6/1/2012	
DRAWN BY JMT		
CONTRACT NO. B-33357	DES. NO. 0014210	PROJECT NO. N881008
COMM. NO. 01-045-076		YEAR SHEET TOTAL 2012 37 147



**LEGEND**

	Proposed 400 W. H.P.S. Luminaire on New Pole, IES File Type M-III-S		Proposed Service Point Type I, (240/480 Volts)
	Proposed 4 - 1/C No. 4 Cu. Conductors in Plastic Duct in Trench		Proposed Lighting Handhole
	Proposed 4 - 1/C No. 4 Cu. Conductors in Plastic Duct in 2.5 inch Schedule 40 PVC Conduit		Proposed Cable Duct Marker
	Proposed 4 - 1/C No. 4 Cu. Conductors in Plastic Duct in 2.5 inch Schedule 80 PVC Conduit		

**RECOMMENDED FOR APPROVAL**

*William S. Lyon*  
DESIGN ENGINEER

6/1/2012  
DATE

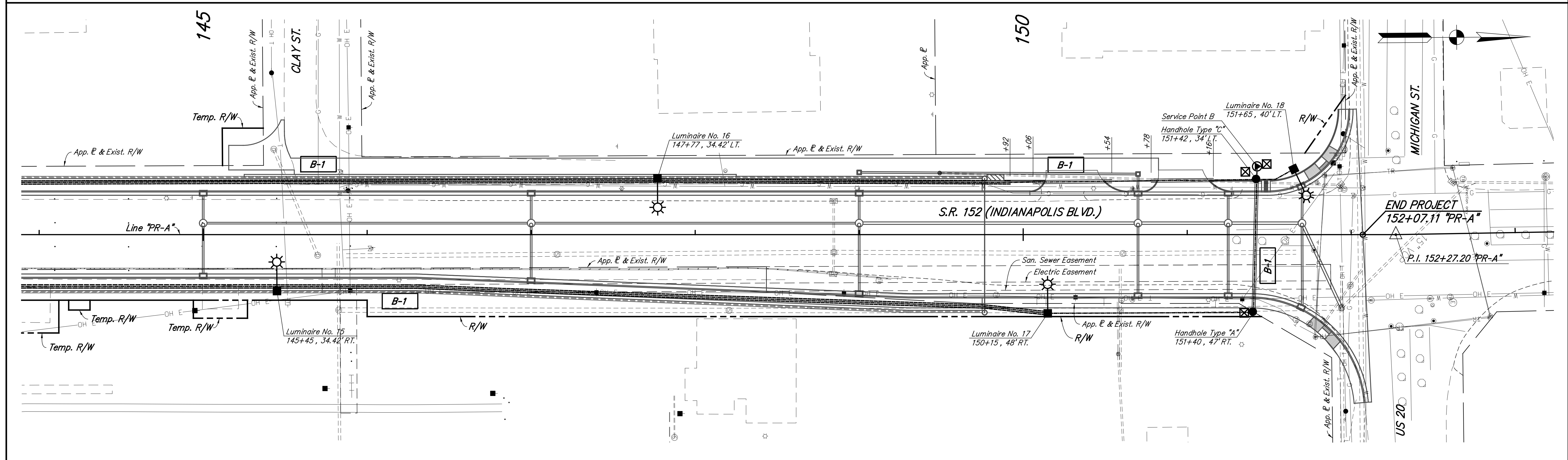
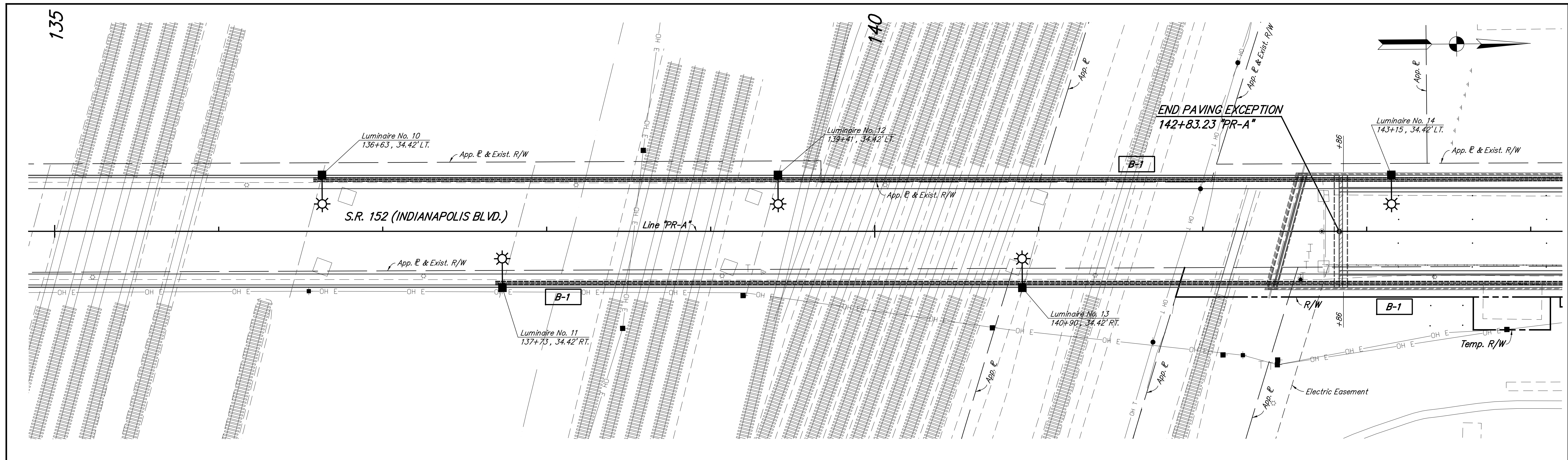
DESIGNED: ALT      DRAWN: ALT  
CHECKED: NSP      CHECKED: WSL

**INDIANA DEPARTMENT OF TRANSPORTATION**

**LIGHTING PLANS**

**S.R. 152 (INDIANAPOLIS BLVD.)**

HORIZONTAL SCALE 1" = 30'	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 38 of 147
CONTRACT B-33357	PROJECT NO. N881008



**LEGEND**

	Proposed 400 W.H.P.S. Luminaire on New Pole, IES File Type M-III-S
	Proposed 4 - 1/C No. 4 Cu. Conductors in Plastic Duct in Trench
	Proposed 4 - 1/C No. 4 Cu. Conductors in Plastic Duct in 2.5 inch Schedule 40 PVC Conduit
	Proposed 4 - 1/C No. 4 Cu. Conductors in Plastic Duct in 2.5 inch Schedule 80 PVC Conduit

	Proposed Service Point Type I, (240/480 Volts)
	Proposed Lighting Handhole
	Proposed Cable Duct Marker

RECOMMENDED FOR APPROVAL

*William S. Lyon*  
DESIGN ENGINEER

6/1/2012  
DATE

DESIGNED: ALT      DRAWN: ALT

CHECKED: NSP      CHECKED: WSL

INDIANA  
DEPARTMENT OF TRANSPORTATION

**LIGHTING PLANS**  
S.R. 152 (INDIANAPOLIS BLVD.)

HORIZONTAL SCALE 1" = 30'	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 39 of 147
CONTRACT B-33357	PROJECT NO. N881008

**LUMINAIRE TABLE**

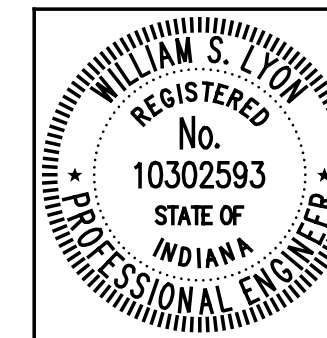
LUMINAIRE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18																										
FOUNDATION TYPE	Standard	Standard	Standard	Standard	Standard	Standard	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Bridge	Standard	Standard																										
CIRCUIT CONNECTION	A-1	A-1	A-1	A-1	A-1	A-1	A-1	A-1	A-1	B-1	B-1	B-1	B-1	B-1	B-1	B-1	B-1	B-1																										
CONNECTION TYPE	2	2	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2	1																										
MAST ARM LENGTH (FT)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8																										
ELEVATION	0.23	0	0.23	0.16	0.23	0.26	4.03	4.03	4.03	4.03	4.03	4.03	4.03	4.03	4.03	4.03	4.03	0	-0.4																									
POLE SET BACK (FT)	33	45	35	35	33	33	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	32.67	34	44	37																									
SHOULDER WIDTH (FT)																																												
LUMINAIRE E.M.H. (FT)	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40																										
SET BACK FROM	FACE OF CURB LINE	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A	PR-A																										
	RAMP																																											
SEE NOTES																																												

**DESIGN DATA TABLE**

INITIAL LAMP LUMEN (LL) 400 WATT HPS	33,100
AVERAGE MAINTAINED ILLUMINATION (fc)	0.8
LAMP LUMEN DEPRECIATION FACTOR (LLD)	0.90
LUMINAIRE DIRT DEPRECIATION FACTOR (LDD)	0.87
MAINTENANCE FACTOR (LLD * LDD)	0.78
UNIFORMITY RATIO	4.0 : 1
EFFECTIVE MOUNTING HEIGHT, CONVENTIONAL	40 LFT.

**SERVICE POINT AMP TABLE**

SERVICE POINT	MAIN BREAKER	BRANCH CIRCUIT	COMPUTED AMPS	BRANCH CIRCUIT BREAKER
A	100	A-1	18.0	30 AMP
B	100	B-1	18.0	30 AMP

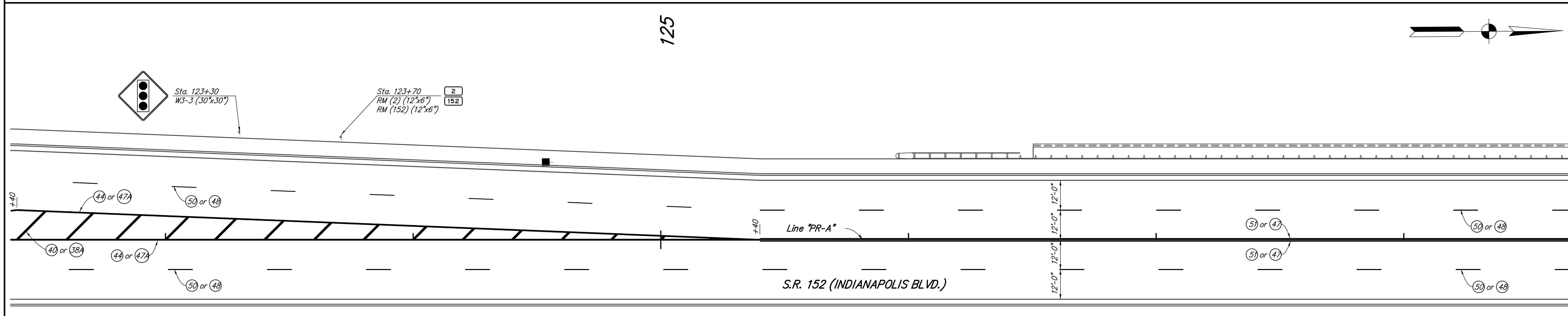
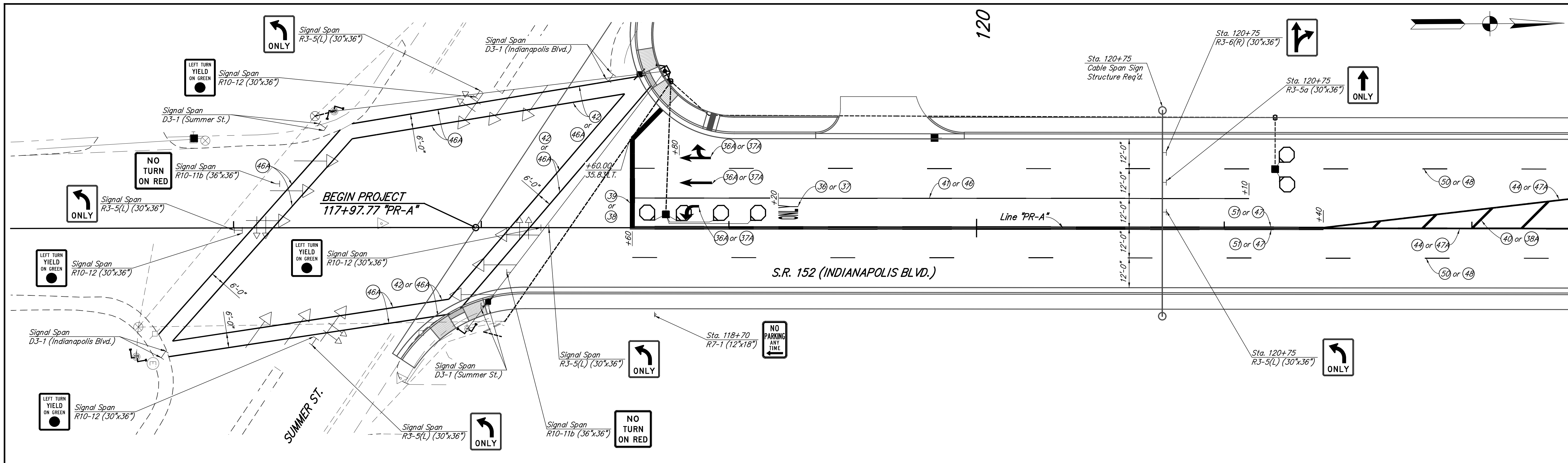


RECOMMENDED FOR APPROVAL	<i>William S. Lyon</i>	6/1/2012
	DESIGN ENGINEER	DATE
DESIGNED:	ALT	DRAWN:
		ALT
CHECKED:	NSP	CHECKED:
		WSL

INDIANA DEPARTMENT OF TRANSPORTATION	
<b>LUMINAIRE TABLE</b>	

HORIZONTAL SCALE	BRIDGE FILE
NONE	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
N/A	0014210
SURVEY BOOK	SHEETS
	40 of 147
CONTRACT	PROJECT NO.
B-33357	N881008





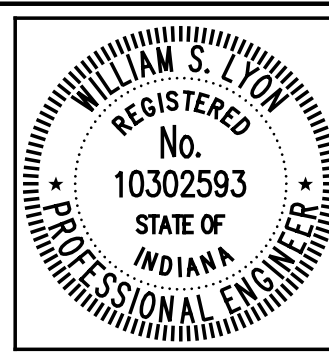
**SPEED LIMIT 35**  
Sta. 122+90  
R2-1 (35) (30"x36")

Sta. 123+80  
RM (2) (12"x6")  
RM (152) (12"x6")

Sta. 126+00  
WB-13 (36"x36")  
**BRIDGE ICES BEFORE ROAD**

**LEGEND**

- (36) Pavement Message Marking, Multi-Component, Only
- (36A) Pavement Message Marking, Multi-Component, Lane Indication Arrow
- (39) Transverse Marking, Multi-Component, Stop Line, 24 In.
- (37) Pavement Message Marking, Thermoplastic, Only
- (37A) Pavement Message Marking, Thermoplastic, Lane Indication Arrow
- (38) Transverse Marking, Thermoplastic, Stop Line, 24 In.
- (38A) Transverse Marking, Thermoplastic, Solid, Yellow, Crosshatch, 12 In.
- (40) Transverse Marking, Multi-Component, Solid, Yellow, Crosshatch, 12 In.
- (41) Line, Multi-Component, Solid, White, 4 In.
- (42) Transverse Marking, Multi-Component, Crosswalk Line, 6 In.
- (44) Line, Multi-Component, Solid, Yellow, 8 In.
- (46) Line, Thermoplastic, Solid, White, 4 In.
- (46A) Transverse Marking, Thermoplastic, Crosswalk Line, 6 In.
- (47) Line, Thermoplastic, Solid, Yellow, 4 In.
- (48) Transverse Marking, Multi-Component, Crosswalk Line, 6 In.
- (49) Line, Multi-Component, Broken, White, 4 In.
- (50) Line, Multi-Component, Broken, White, 4 In.
- (51) Line, Multi-Component, Solid, Yellow, 4 In.
- (47A) Line, Thermoplastic, Solid, Yellow, 8 In.
- (48) Line, Thermoplastic, Broken, White, 4 In.
- (51) Line, Multi-Component, Solid, Yellow, 4 In.



RECOMMENDED FOR APPROVAL: *William S. Lyon*, DESIGN ENGINEER, 6/1/2012, DATE

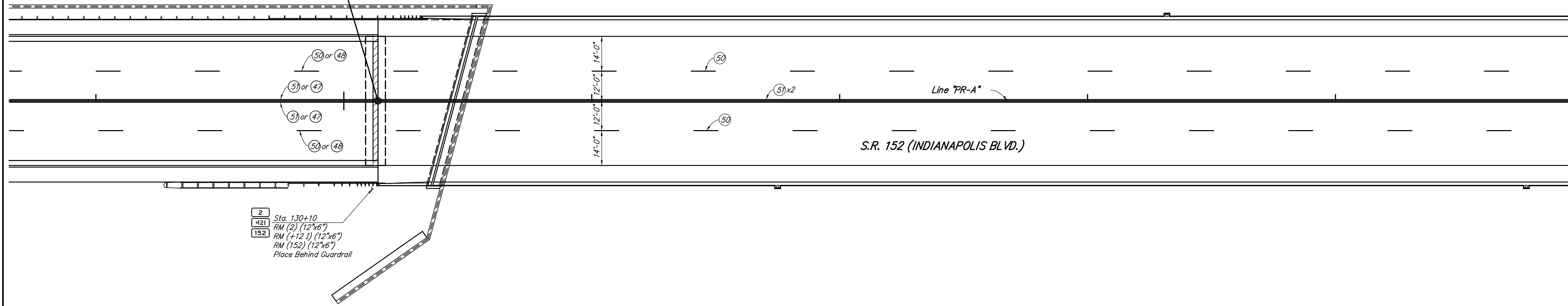
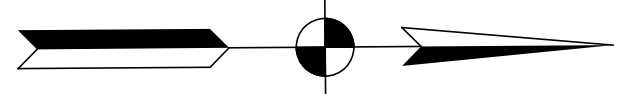
DESIGNED: NRM, DRAWN: NRM, CHECKED: DAD/WSL, CHECKED: DAD/WSL

INDIANA DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING AND SIGNING DETAILS**

HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 41 of 147
CONTRACT B-33357	PROJECT NO. N881008

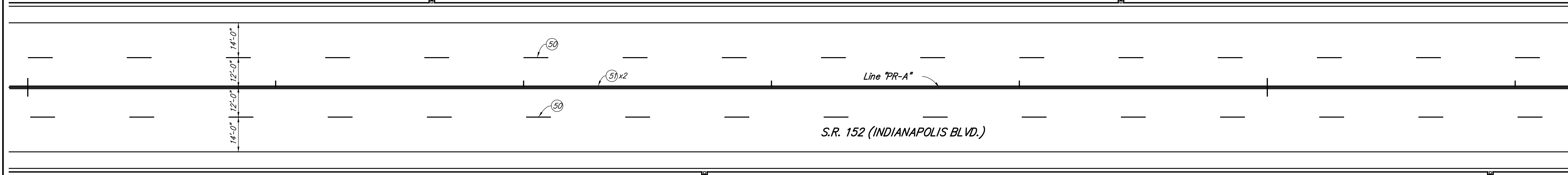
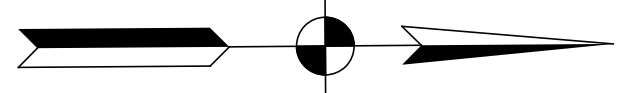
130

BEGIN PAVING EXCEPTION  
130+13.77 "PR-A"



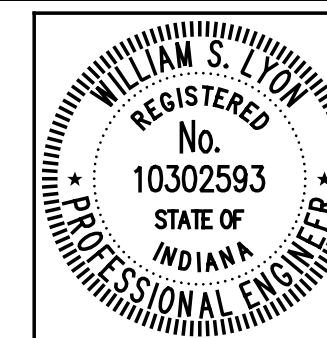
135

140



LEGEND

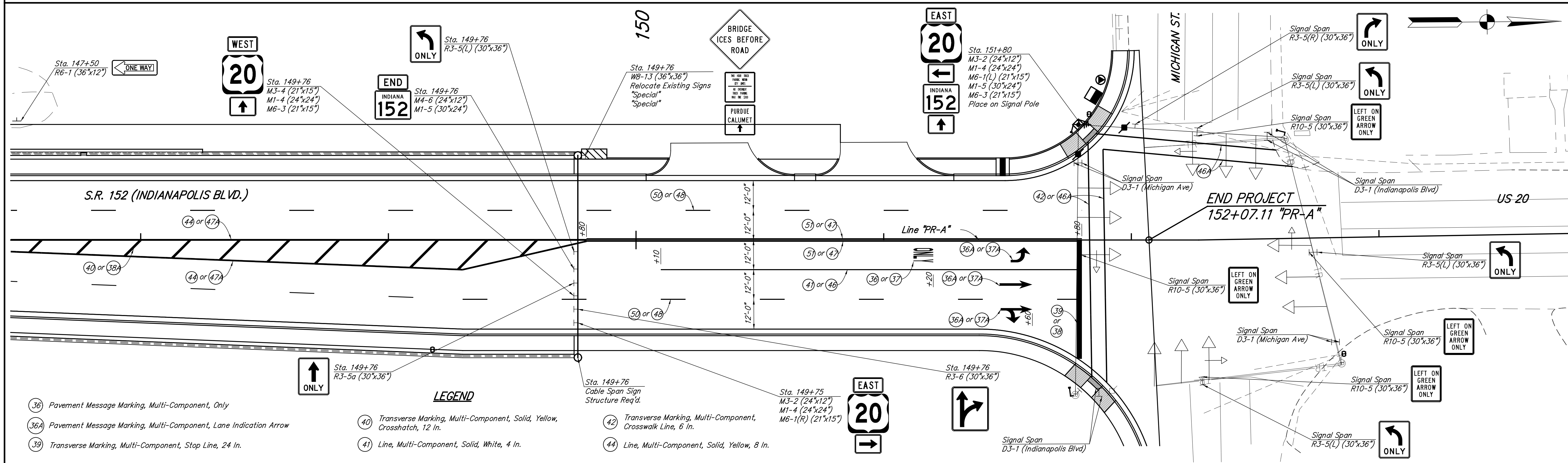
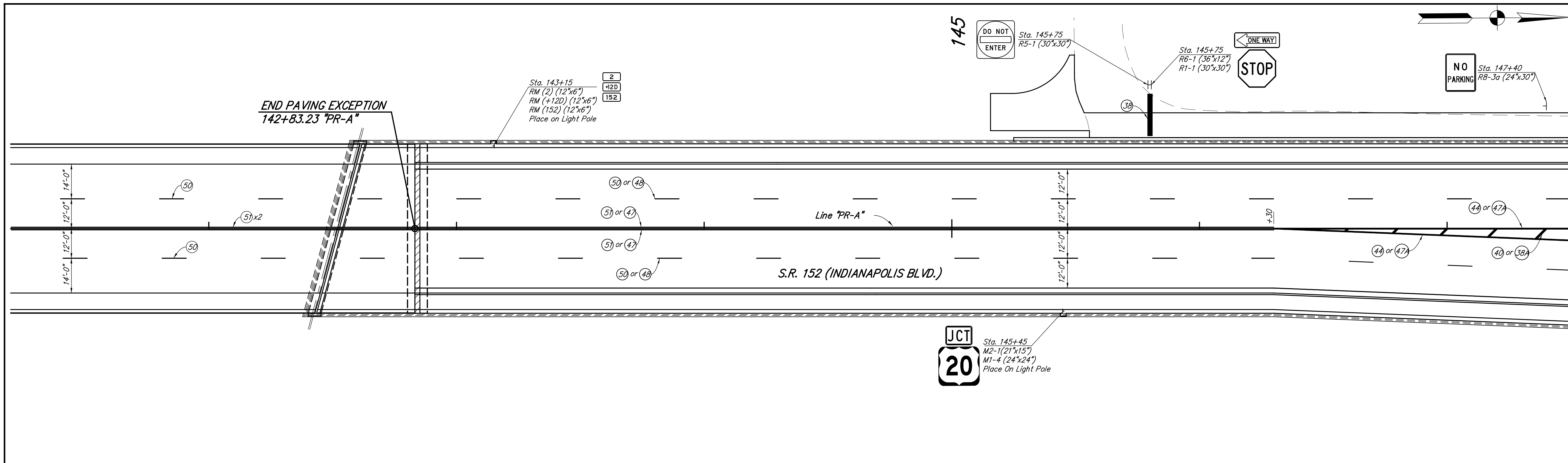
- (36) Pavement Message Marking, Multi-Component, Only
- (36A) Pavement Message Marking, Multi-Component, Lane Indication Arrow
- (39) Transverse Marking, Multi-Component, Stop Line, 24 In.
- (40) Transverse Marking, Multi-Component, Solid, Yellow, Crosshatch, 12 In.
- (41) Line, Multi-Component, Solid, White, 4 In.
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- (47) Line, Thermoplastic, Solid, Yellow, 4 In.
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- (48) Line, Thermoplastic, Broken, White, 4 In.
- (50) Line, Multi-Component, Broken, White, 4 In.
- (51) Line, Multi-Component, Solid, Yellow, 4 In.



RECOMMENDED FOR APPROVAL	<i>William S. Lyon</i>	6/1/2012
	DESIGN ENGINEER	DATE
DESIGNED:	NRM	DRAWN: NRM
CHECKED:	DAD/WSL	CHECKED: DAD/WSL

INDIANA DEPARTMENT OF TRANSPORTATION	
<b>PAVEMENT MARKING AND SIGNING DETAILS</b>	

HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 42 of 147
CONTRACT B-33357	PROJECT NO. N881008



- LEGEND**
- (36) Pavement Message Marking, Multi-Component, Only
  - (36A) Pavement Message Marking, Multi-Component, Lane Indication Arrow
  - (39) Transverse Marking, Multi-Component, Stop Line, 24 In.
  - (40) Transverse Marking, Multi-Component, Solid, Yellow, Crosshatch, 12 In.
  - (41) Line, Multi-Component, Solid, White, 4 In.
  - (42) Transverse Marking, Multi-Component, Crosswalk Line, 6 In.
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  - (37) Pavement Message Marking, Thermoplastic, Only
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  - (46) Line, Thermoplastic, Solid, White, 4 In.
  - (46A) Transverse Marking, Thermoplastic, Crosswalk Line, 6 In.
  - (47) Line, Thermoplastic, Solid, Yellow, 4 In.
  - (47A) Line, Thermoplastic, Solid, Yellow, 8 In.
  - (48) Line, Thermoplastic, Broken, White, 4 In.
  - (50) Line, Multi-Component, Broken, White, 4 In.
  - (51) Line, Multi-Component, Solid, Yellow, 4 In.

RECOMMENDED FOR APPROVAL *William S. Lyon* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: NRM DRAWN: NRM  
 CHECKED: DAD/WSL CHECKED: DAD/WSL

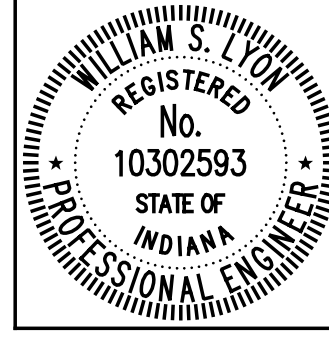
REGISTERED PROFESSIONAL ENGINEER  
 No. 10302593  
 STATE OF INDIANA

INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING DETAILS

HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 43 of 147
CONTRACT B-33357	PROJECT NO. N881008

SHEET SIGN & POST SUMMARY																			
SIGN								POST								COMMENTS			
PLAN SHEET NO. / LINE	SIGN LOCATION	SIGN CODE	SIGN SIZE (IN x IN)	GROUND - MOUNTED SIGN AREA (SFT)			MOUNTED ON PANEL SIGN AREA (SFT)	U CHANNEL				SQUARE							
				0.080"	0.100"	0.125"		0.080"	POST LENGTH		POST LENGTH		2" x 2" - 12 GA. (TYPE 2)				2 1/4" x 2 1/4" - 12 GA. (TYPE 1)		
									1	2	TYPE "A"	TYPE "B"	REINFORCED ANCHOR POST LENGTH (FT.)				REINFORCED ANCHOR POST LENGTH (FT.)		
									FT.	FT.	FT.	FT.	1	2	TOTAL	1	2	TOTAL	
Line "PR-A"	118+70Rt.	R7-1	12 x 18	1.50															
	122+90Rt.	R2-1(35)	30 x 36	7.50											9.00	9.00			
	123+30Lt.	W3-3	30 x 30	6.25											10.50	10.50			
	123+70Lt.	RM(2)	12 x 6	0.50											10.00	10.00			
		RM(152)	12 x 6	0.50															
	123+80Rt.	RM(2)	12 x 6	0.50															
		RM(152)	12 x 6	0.50															
	126+00Rt.	W8-13	36 x 36		9.00										11.00	11.00			
	130+10Rt.	RM(2)	12 x 6	0.50													Place Behind Guardrail		
		RM(+12I)	12 x 6	0.50															
		RM(152)	12 x 6	0.50															
	143+15Lt.	RM(2)	12 x 6	0.50													Place On Light Pole		
		RM(+12D)	12 x 6	0.50															
		RM(152)	12 x 6	0.50															
	145+45Rt.	M2-1	21 x 15	2.19													Place On Light Pole		
		M1-4	24 x 24	4.00															
	145+75Lt.	R5-1	30 x 30	6.25											11.00	11.00			
	(Reverse Side)	R6-1	36 x 12		3.00														
	(Reverse Side)	R1-1	30 x 30	6.25															
	147+40Lt.	R8-3a	24 x 30	5.00											10.00	10.00			
	147+50Lt.	R6-1	36 x 12		3.00										8.50	8.50			
	149+76Lt.	W8-13	36 x 36		9.00												Place on Cable Span Pole		
		"Special"															Relocate Existing Sign On Cable Span Pole		
		"Special"															Relocate Existing Sign On Cable Span Pole		
	151+80Lt.	M3-2	24 x 12	2.00													Place On Signal Pole		
		M1-4	24 x 24	4.00													Place On Signal Pole		
		M6-1(L)	21 x 15	2.19													Place On Signal Pole		
		M1-5	30 x 24	5.00													Place On Signal Pole		
		M6-3	21 x 15	2.19													Place On Signal Pole		
Signal Span	Summer St & S.R.152	D3-1(Ind. Blvd)	78 x 18			9.75													
	Summer St & S.R.152	D3-1(Ind. Blvd)	78 x 18			9.75													
	Summer St & S.R.152	R10-12	30 x 36	7.50															
	Summer St & S.R.152	R3-5(L)	30 x 36	7.50															
	Summer St & S.R.152	R10-11b	36 x 36		9.00														
	Summer St & S.R.152	D3-1(Summer St)	54 x 18		6.75														
	Summer St & S.R.152	D3-1(Summer St)	54 x 18		6.75														
	Summer St & S.R.152	R3-5(L)	30 x 36	7.50															
	Summer St & S.R.152	D3-1(Ind. Blvd)	78 x 18		9.75														
	Summer St & S.R.152	D3-1(Ind. Blvd)	78 x 18		9.75														
	Summer St & S.R.152	R10-12	30 x 36	7.50															
	Summer St & S.R.152	R3-5(L)	30 x 36	7.50															
	Summer St & S.R.152	D3-1(Summer St)	54 x 18		6.75														
	Summer St & S.R.152	D3-1(Summer St)	54 x 18		6.75														
	Summer St & S.R.152	R3-5(L)	30 x 36	7.50															
	Summer St & S.R.152	R10-11b	36 x 36		9.00														
	Summer St & S.R.152	R10-12	30 x 36	7.50															
	Summer St & S.R.152	R10-12	30 x 36	7.50															
Line "PR-A"	Summer St & S.R.152	R10-4	9 x 12	0.75													Place On Signal Pole		
	Summer St & S.R.152	R10-4	9 x 12	0.75													Place On Signal Pole		
	Summer St & S.R.152	R10-4	9 x 12	0.75													Place On Signal Pole		
	Summer St & S.R.152	R10-4	9 x 12	0.75													Place On Signal Pole		
	Michigan St & S.R.152	R10-4	9 x 12	0.75													Place On Signal Pole		
	Michigan St & S.R.152	R10-4	9 x 12	0.75													Place On Signal Pole		
	Michigan St & S.R.152	R10-4	9 x 12	0.75													Place On Signal Pole		
Signal Span	Michigan St & S.R.152	R10-5	30 x 36	7.50															
	Michigan St & S.R.152	D3-1(Mich. Ave)	57 x 18		7.13														
	Michigan St & S.R.152	D3-1(Mich. Ave)	57 x 18		7.13														
	Michigan St & S.R.152	R3-5(R)	30 x 36	7.50															
	Michigan St & S.R.152	R3-5(L)	30 x 36	7.50															
	TOTALS			148.00	84.00	39.00				26.00					70.00				



RECOMMENDED FOR APPROVAL *William S. Lyon* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: NRM DRAWN: NRM  
 CHECKED: DAD/WSL CHECKED: DAD/WSL

INDIANA DEPARTMENT OF TRANSPORTATION

SHEET SIGN & POST SUMMARY

HORIZONTAL SCALE	BRIDGE FILE
N/A	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	44 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

**SHEET SIGN & POST SUMMARY**

SHEET SIGN & POST SUMMARY																COMMENTS		
SIGN								POST										
PLAN SHEET NO. / LINE	SIGN LOCATION	SIGN CODE	SIGN SIZE (IN x IN)	GROUND - MOUNTED SIGN AREA (SFT)			MOUNTED ON PANEL SIGN, AREA (SFT)	U CHANNEL				SQUARE						
				0.080"	0.100"	0.125"		0.080"	POST LENGTH		POST LENGTH		2" x 2" - 12 GA. (TYPE 2)		2 1/4" x 2 1/4" - 12 GA. (TYPE 1)			
									1	2	TYPE "A"	TYPE "B"	REINFORCED ANCHOR POST LENGTH (FT.)		REINFORCED ANCHOR POST LENGTH (FT.)			
									FT.	FT.	FT.	FT.	1	2	TOTAL	1	TOTAL	
<i>Signal Span</i>																		
	Michigan St & S.R. 152	R10-5	30 x 36	7.50														
	Michigan St & S.R. 152	D3-1(Ind. Blvd)	78 x 18			9.75												
	Michigan St & S.R. 152	D3-1(Ind. Blvd)	78 x 18			9.75												
	Michigan St & S.R. 152	R3-5(L)	30 x 36	7.50														
	Michigan St & S.R. 152	R10-5	30 x 36	7.50														
	Michigan St & S.R. 152	D3-1(Mich. Ave)	57 x 18		7.13													
	Michigan St & S.R. 152	D3-1(Mich. Ave)	57 x 18		7.13													
	Michigan St & S.R. 152	R10-5	30 x 36	7.50														
	Michigan St & S.R. 152	R3-5(L)	30 x 36	7.50														
	Michigan St & S.R. 152	D3-1(Ind. Blvd)	78 x 18			9.75												
	Michigan St & S.R. 152	D3-1(Ind. Blvd)	78 x 18			9.75												
<i>Cable Span</i>																		
	120+75	R3-6(R)	30 x 36	7.50														See Overhead Sign Summary Table
		R3-5a	30 x 36	7.50														See Overhead Sign Summary Table
		R3-5(L)	30 x 36	7.50														See Overhead Sign Summary Table
	149+76	R3-5(L)	30 x 36	7.50														See Overhead Sign Summary Table
		M4-6	24 x 12	2.00														See Overhead Sign Summary Table
		M1-5	30 x 24	5.00														See Overhead Sign Summary Table
		R3-5a	30 x 36	7.50														See Overhead Sign Summary Table
		M3-4	21 x 15	2.19														See Overhead Sign Summary Table
		M1-4(20)	24 x 24	4.00														See Overhead Sign Summary Table
		M6-3	21 x 15	2.19														See Overhead Sign Summary Table
		R3-6(R)	30 x 36	7.50														See Overhead Sign Summary Table
		M3-2	24 x 12	2.00														See Overhead Sign Summary Table
		M1-4(20)	24 x 24	4.00														See Overhead Sign Summary Table
		M6-1(R)	21 x 15	2.19														See Overhead Sign Summary Table
<b>TOTALS</b>				255.00	99.00	78.00			26.00									



RECOMMENDED FOR APPROVAL: *William S. Lyon*, 6/1/2012, DESIGN ENGINEER, DATE

DESIGNED: NRM, DRAWN: NRM, CHECKED: DAD/WSL

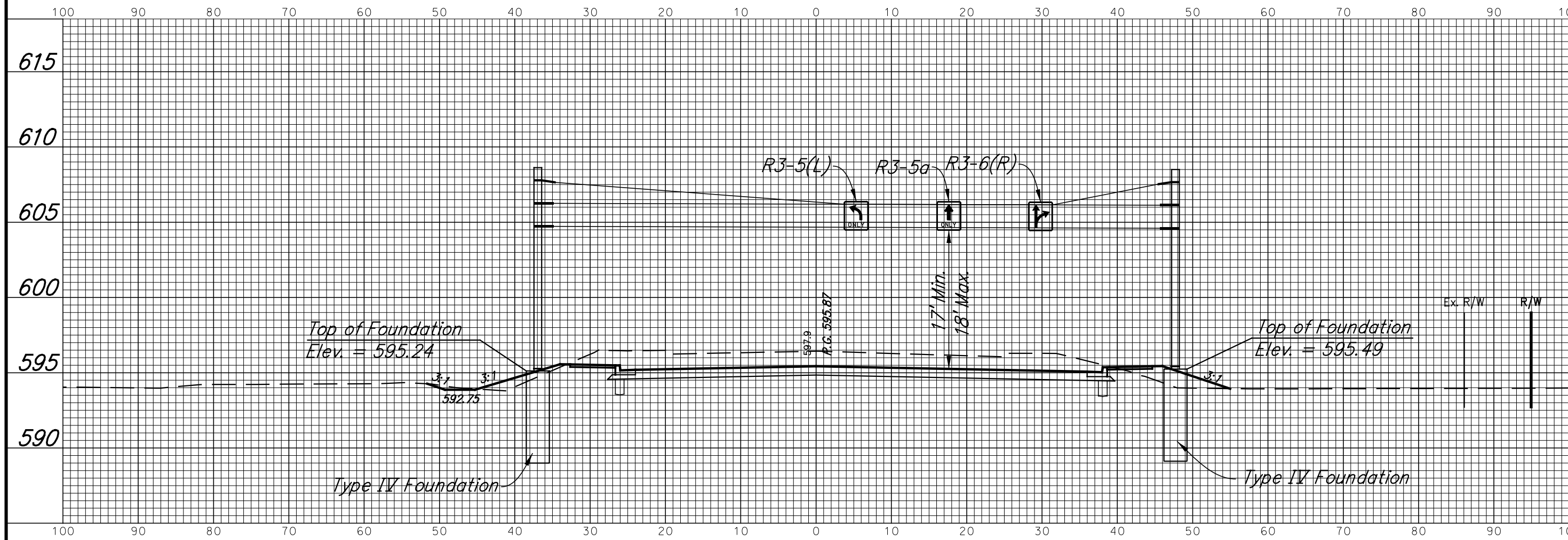
INDIANA DEPARTMENT OF TRANSPORTATION

**SHEET SIGN & POST SUMMARY**

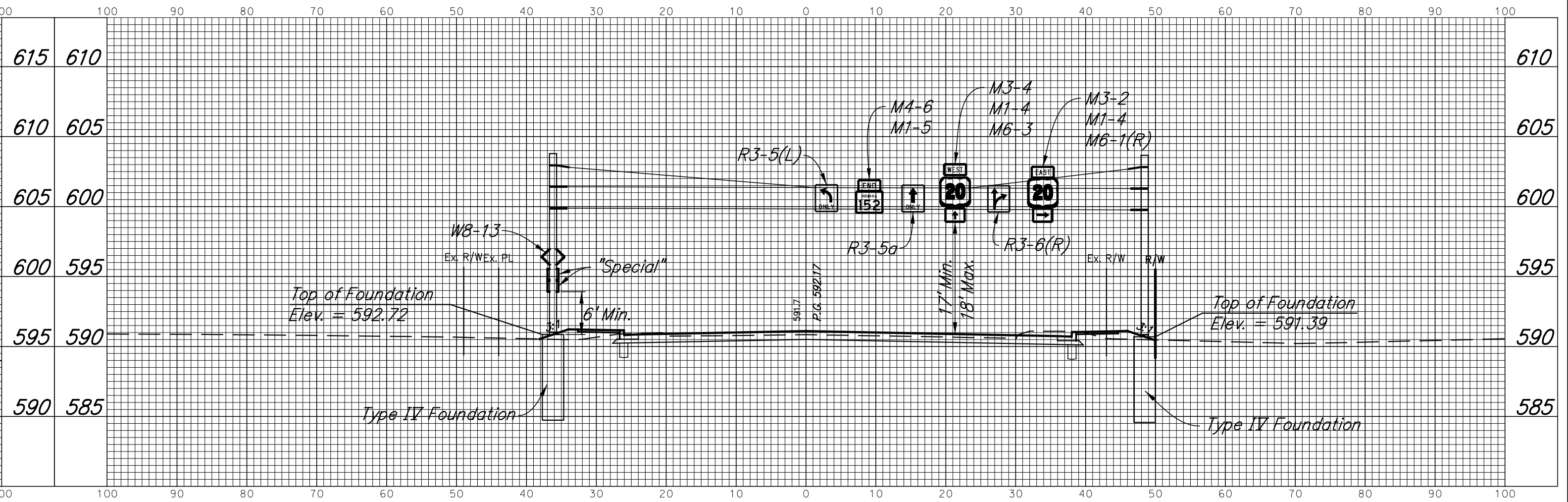
HORIZONTAL SCALE	BRIDGE FILE
N/A	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	45 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

OVERHEAD SIGN SUMMARY TABLE

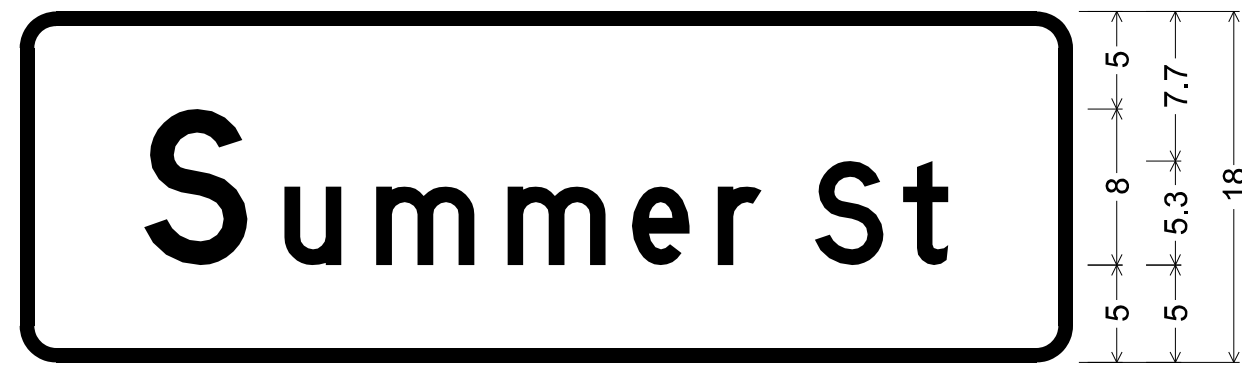
PLAN SHEET NO. / LINE	LOCATION (STA.)	SIGN CODE	SIGN SIZE (in x in)	STRUCTURE TYPE	FOUNDATION TYPE			WALKWAY & HANDRAIL (ft)	LUMINAIRES (EA)	COMMENTS
					LEFT	MEDIAN	RIGHT			
Line "PR-A"	120+75	R3-6(R)	30 x 36	Cable Span Sign Structure	IV		IV			For Sign Quantities, See Sign & Post Summary
		R3-5a	30 x 36						For Sign Quantities, See Sign & Post Summary	
		R3-5(L)	30 x 36						For Sign Quantities, See Sign & Post Summary	
	149+76	R3-5(L)	30 x 36	Cable Span Sign Structure	IV		IV			For Sign Quantities, See Sign & Post Summary
		M4-6	24 x 12						For Sign Quantities, See Sign & Post Summary	
		M1-5	30 x 24						For Sign Quantities, See Sign & Post Summary	
		R3-5a	30 x 36						For Sign Quantities, See Sign & Post Summary	
		M3-4	21 x 15						For Sign Quantities, See Sign & Post Summary	
		M1-4(20)	24 x 24						For Sign Quantities, See Sign & Post Summary	
		M6-3	21 x 15						For Sign Quantities, See Sign & Post Summary	
		R3-6	30 x 36						For Sign Quantities, See Sign & Post Summary	
		M3-2	24 x 12						For Sign Quantities, See Sign & Post Summary	
		M1-4(20)	24 x 24						For Sign Quantities, See Sign & Post Summary	
		M6-1(R)	21 x 15						For Sign Quantities, See Sign & Post Summary	



Cable Span Sign Structure  
120+75.00 "PR-A"  
(Looking South)

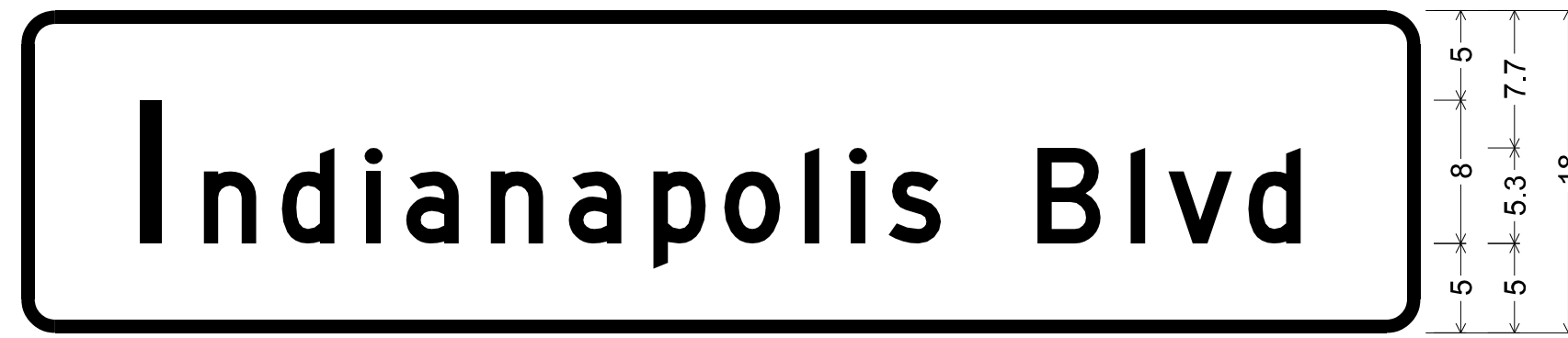


Cable Span Sign Structure  
149+76.00 "PR-A"  
(Looking North)



D3-1; 1.9" Radius, 0.8" Border, White on Green;  
[Summer St] D;  
Table of widths and spaces.

S	u	m	m	e	r	S	t									
6.4	5.4	1.8	2.9	1.8	5.0	1.7	5.0	1.4	3.0	1.4	2.2	2.8	3.5	1.0	2.3	6.4



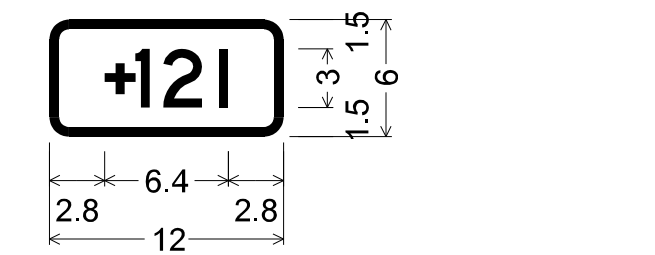
D3-1; 1.9" Radius, 0.8" Border, White on Green;  
[Indianapolis Blvd] D;  
Table of widths and spaces.

I	n	d	i	a	n	a	p	o	l	i	s												
6.6	1.3	2.3	2.9	1.4	3.0	1.7	0.9	1.4	2.9	1.8	2.9	1.4	3.0	1.7	3.0	1.0	3.1	1.4	0.8	1.7	0.9	1.2	3.0
B	I	v	d																				
5.3	3.6	1.6	0.9	1.3	3.5	0.9	3.0	6.6															



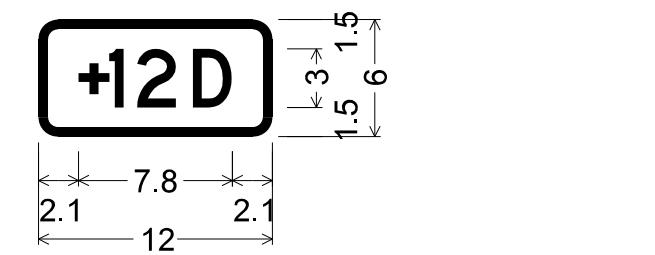
D3-1; 1.9" Radius, 0.8" Border, White on Green;  
[Michigan St] D;  
Table of widths and spaces.

M	i	c	h	i	g	a	n								
5.4	6.2	2.3	0.8	1.4	3.0	1.4	2.9	1.8	0.8	1.4	3.0	1.4	2.9	1.8	2.9
S	t														
5.4	3.6	0.9	2.3	5.4											



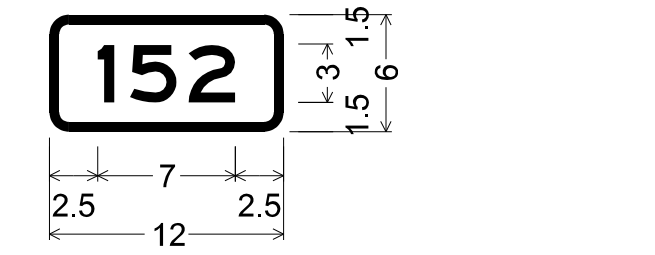
RM;  
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[+12I] D;  
Table of widths and spaces.

+	1	2	I					
2.8	1.6	0.0	0.7	0.7	2.1	0.8	0.5	2.8



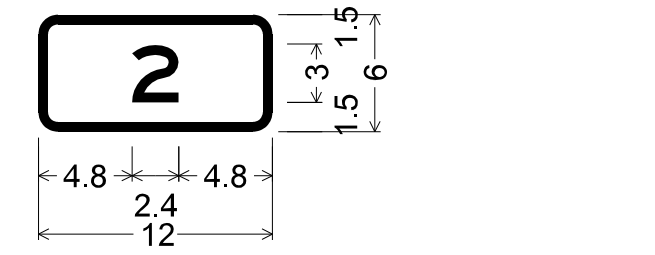
RM;  
1.0" Radius, 0.5" Border, White on Blue;  
[+12D] D;  
Table of widths and spaces.

+	1	2	D					
2.1	1.5	0.0	0.8	0.7	2.0	0.8	2.0	2.1



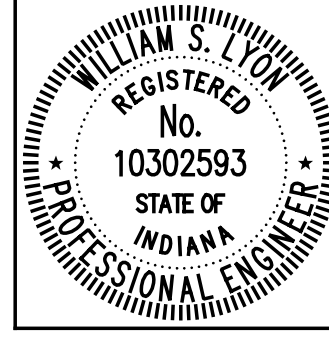
RM;  
1.0" Radius, 0.5" Border, White on Blue;  
[152] E;  
Table of widths and spaces.

1	5	2				
2.5	0.9	0.7	2.4	0.6	2.4	2.5



RM;  
1.0" Radius, 0.5" Border, White on Blue;  
[2] E;  
Table of widths and spaces.

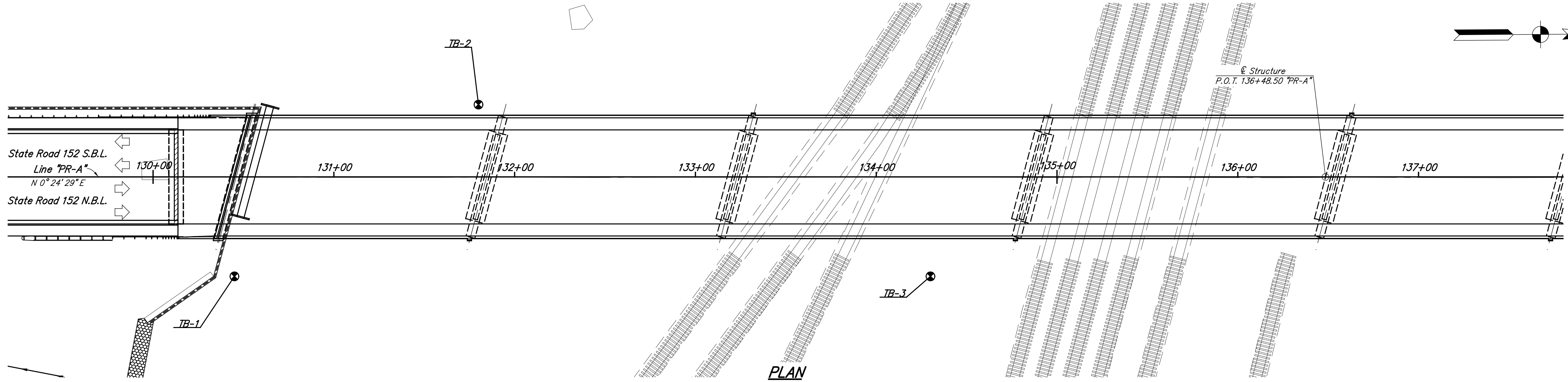
2		
4.8	2.4	4.8



RECOMMENDED FOR APPROVAL: *William S. Lyon*, 6/1/2012, DESIGN ENGINEER  
DESIGNED: NRM, DRAWN: NRM  
CHECKED: DAD/WSL, CHECKED: DAD/WSL

INDIANA DEPARTMENT OF TRANSPORTATION  
PAVEMENT MARKING AND SIGNING DETAILS

HORIZONTAL SCALE: N/A	BRIDGE FILE: 152-45-02730
VERTICAL SCALE: N/A	DESIGNATION NO.: 0014210
SURVEY BOOK: B-33357	SHEETS: 46 of 147
CONTRACT: B-33357	PROJECT NO.: N881008

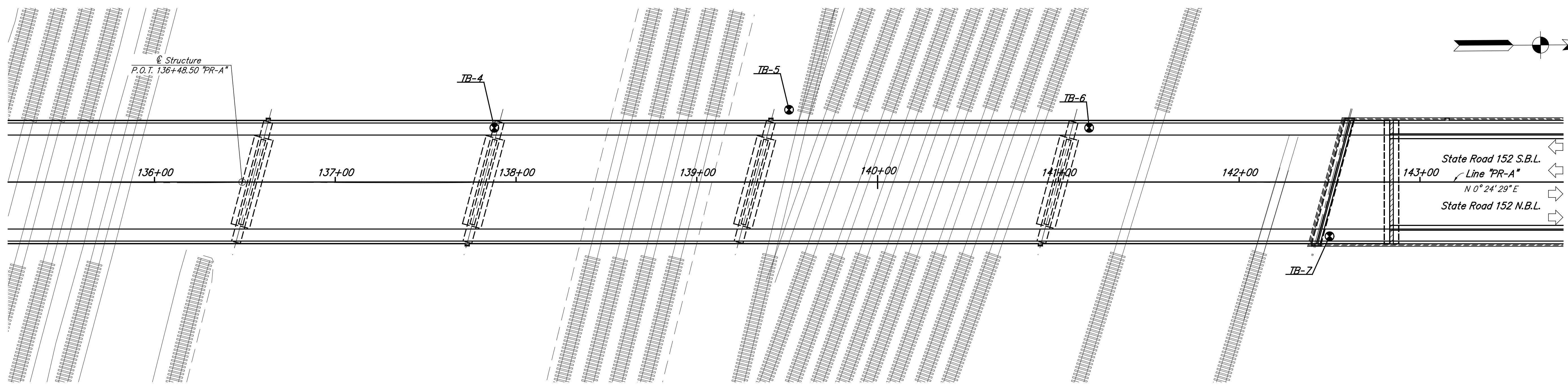


PLAN

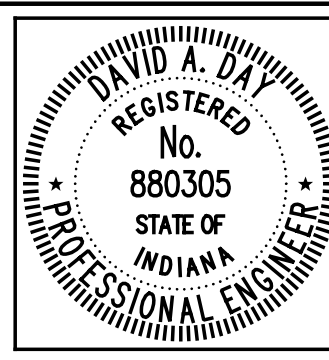
PILE LOADING FOR GEOTECHNICAL TESTING									
Bent	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9
Pile Size, Type & Grade	HP 12x74, GR 50	HP 12x74, GR 50	HP 12x74, GR 50	HP 12x74, GR 50	HP 12x74, GR 50	HP 12x74, GR 50	HP 12x74, GR 50	HP 12x74, GR 50	HP 12x74, GR 50
Factored Design Load $Q_u$ (Kips) *	347	354	360	365	378	354	364	370	305
Factored Design Soil Resistance $R_u$ (Kips) *	347	354	360	365	378	354	364	370	305
Resistance Factor $\phi$	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Downdrag Load $DD$ (Kips)	-	-	-	-	-	-	-	-	-
Nominal Soil Resistance $R_s$ (Kips)	496	506	515	522	540	506	520	529	436
Downdrag Friction $R_{df}$ (Kips)	-	-	-	-	-	-	-	-	-
Scour Zone Friction $R_{sf}$ (Kips)	-	-	-	-	-	-	-	-	-
Nominal Driving Resistance $R_{nd}$ (Kips)	496	506	515	522	540	506	520	529	436

Testing By Dynamic Pile Load Test, Standard Specifications 701.05 (b).

NOTES: \* Including Geotechnical Losses.  
 PDA Test Is Required At A Minimum Of 1 End Bent And Each Alternating Pier (5 Total).  
 The Restrike Test Shall Be Performed No Sooner Than 7 Days After Initial Driving.



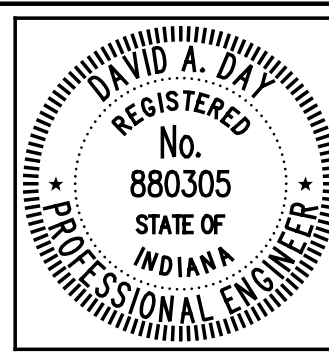
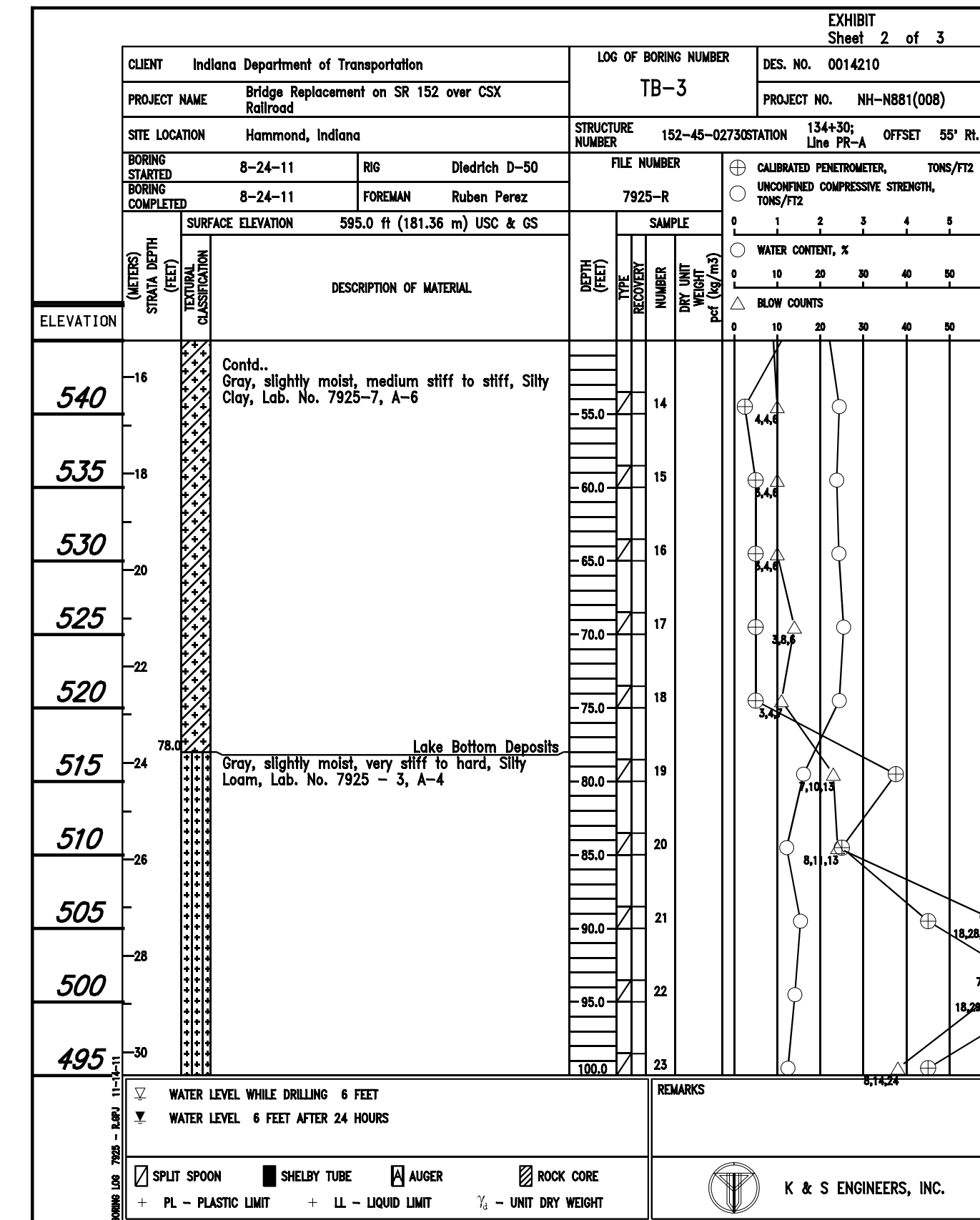
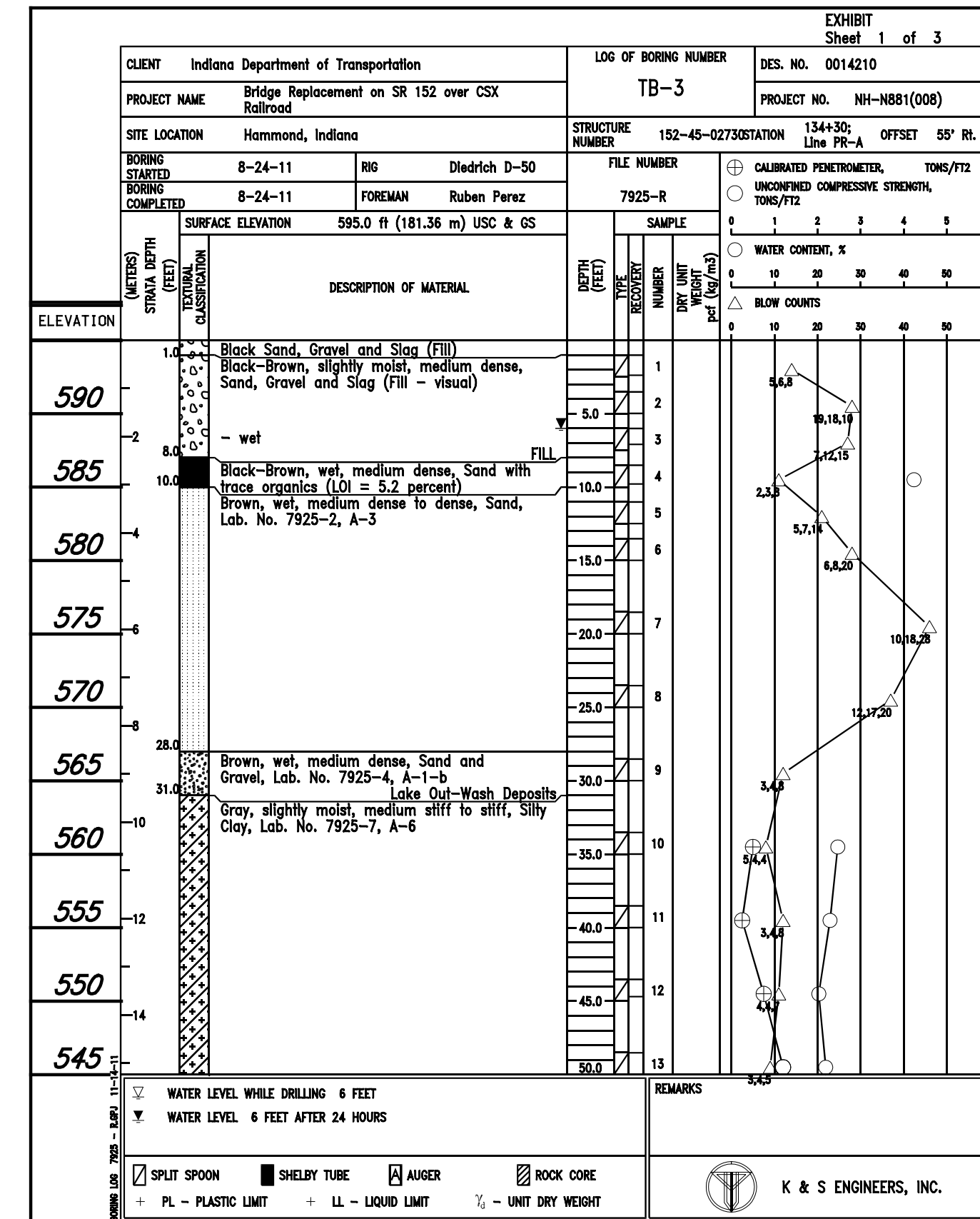
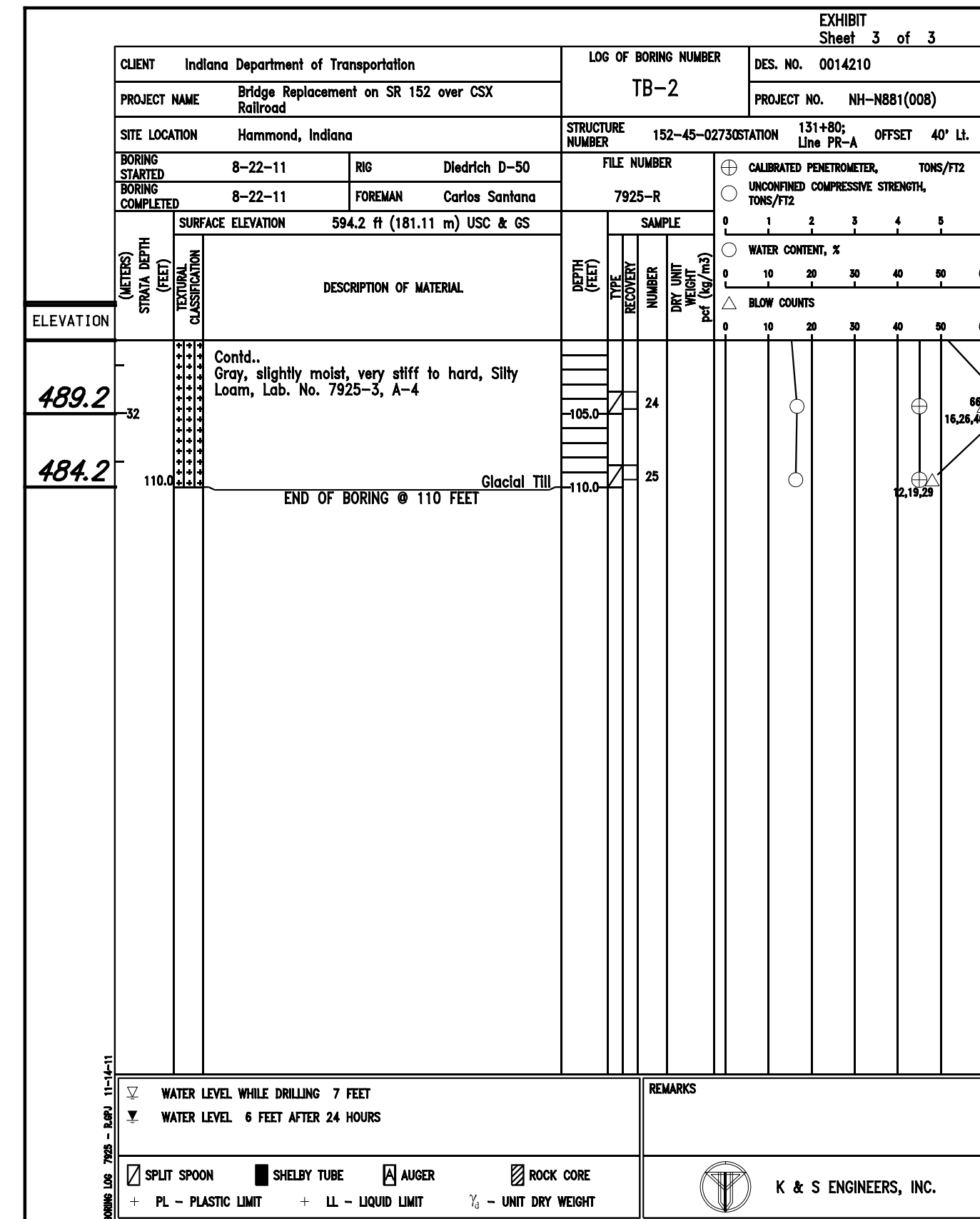
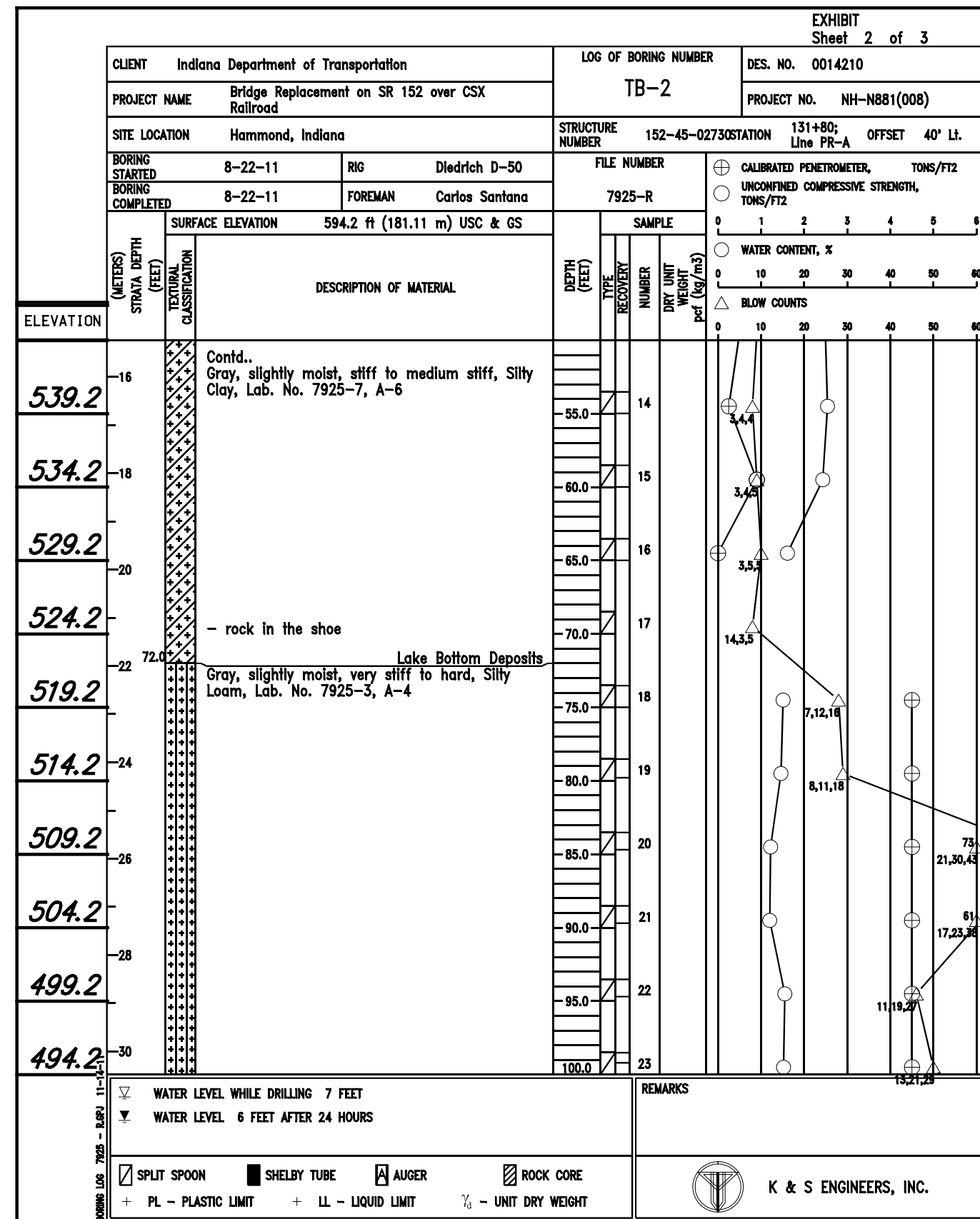
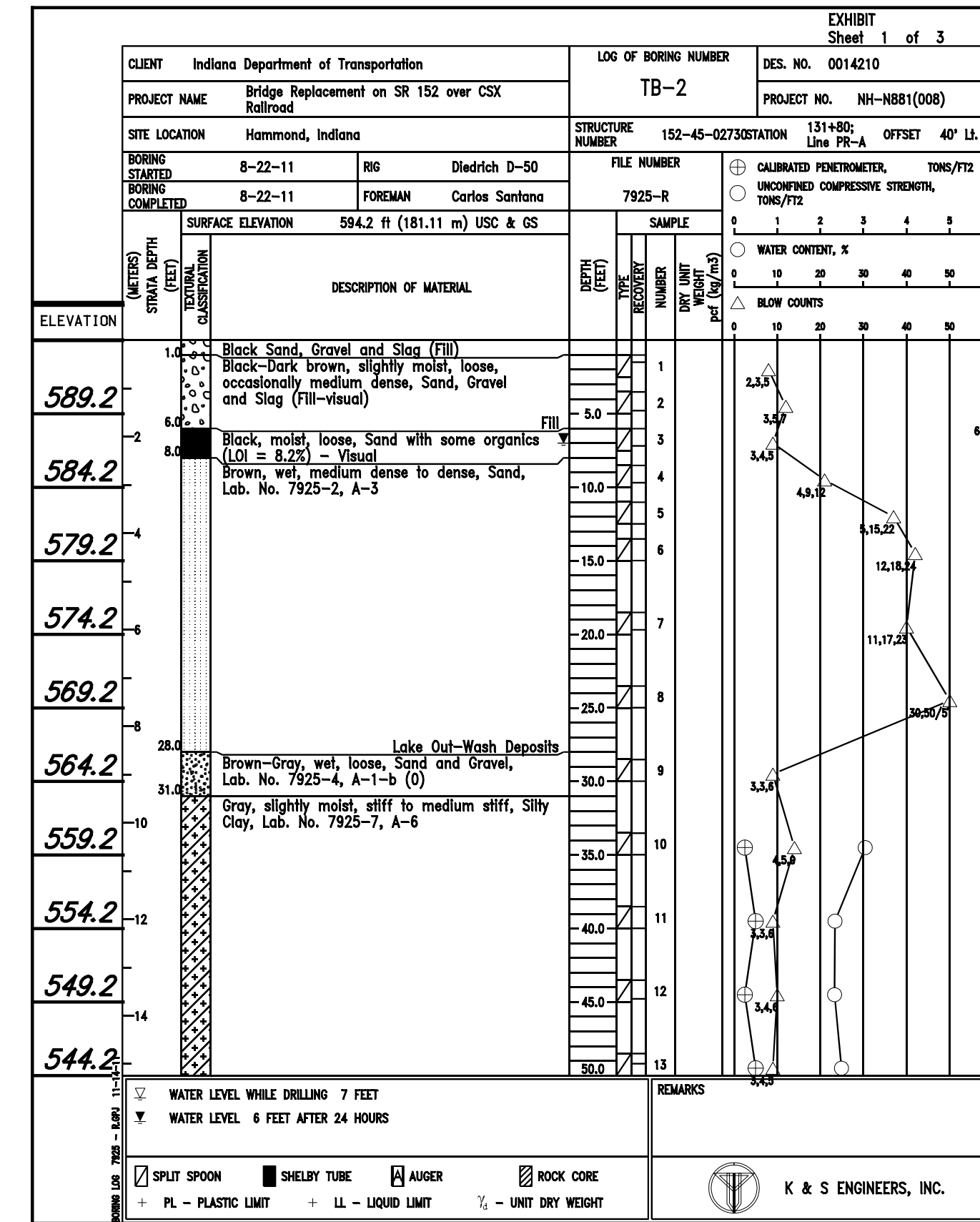
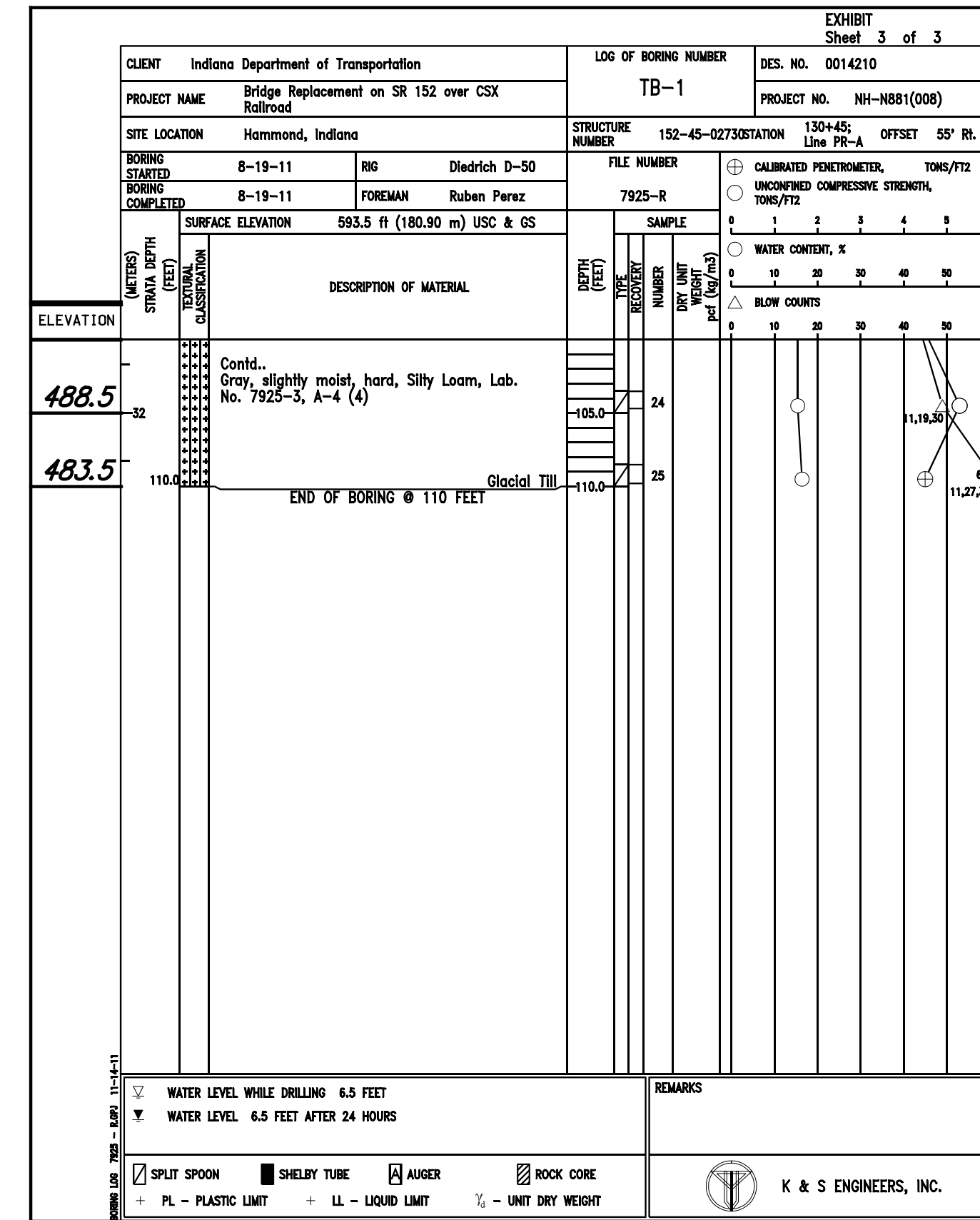
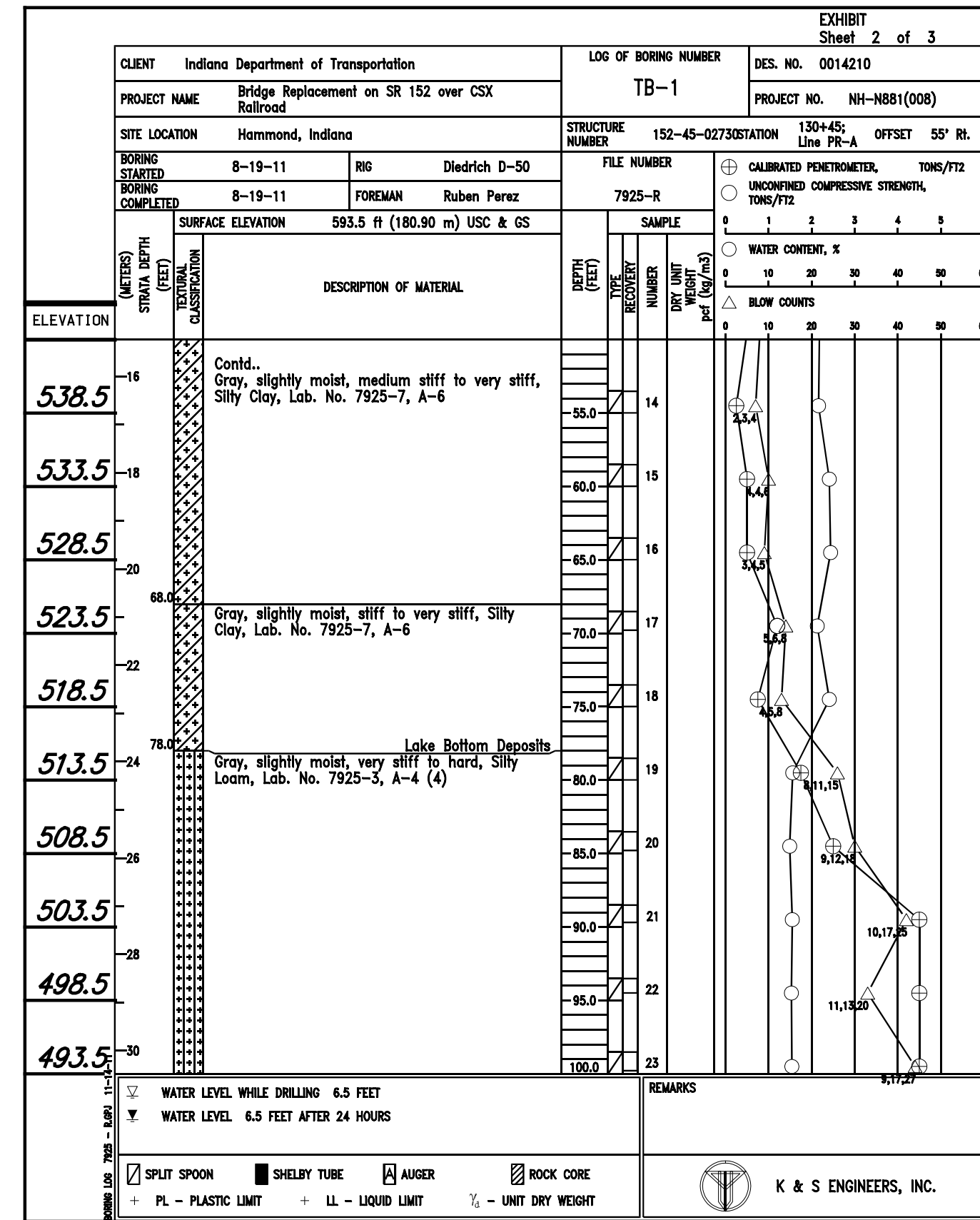
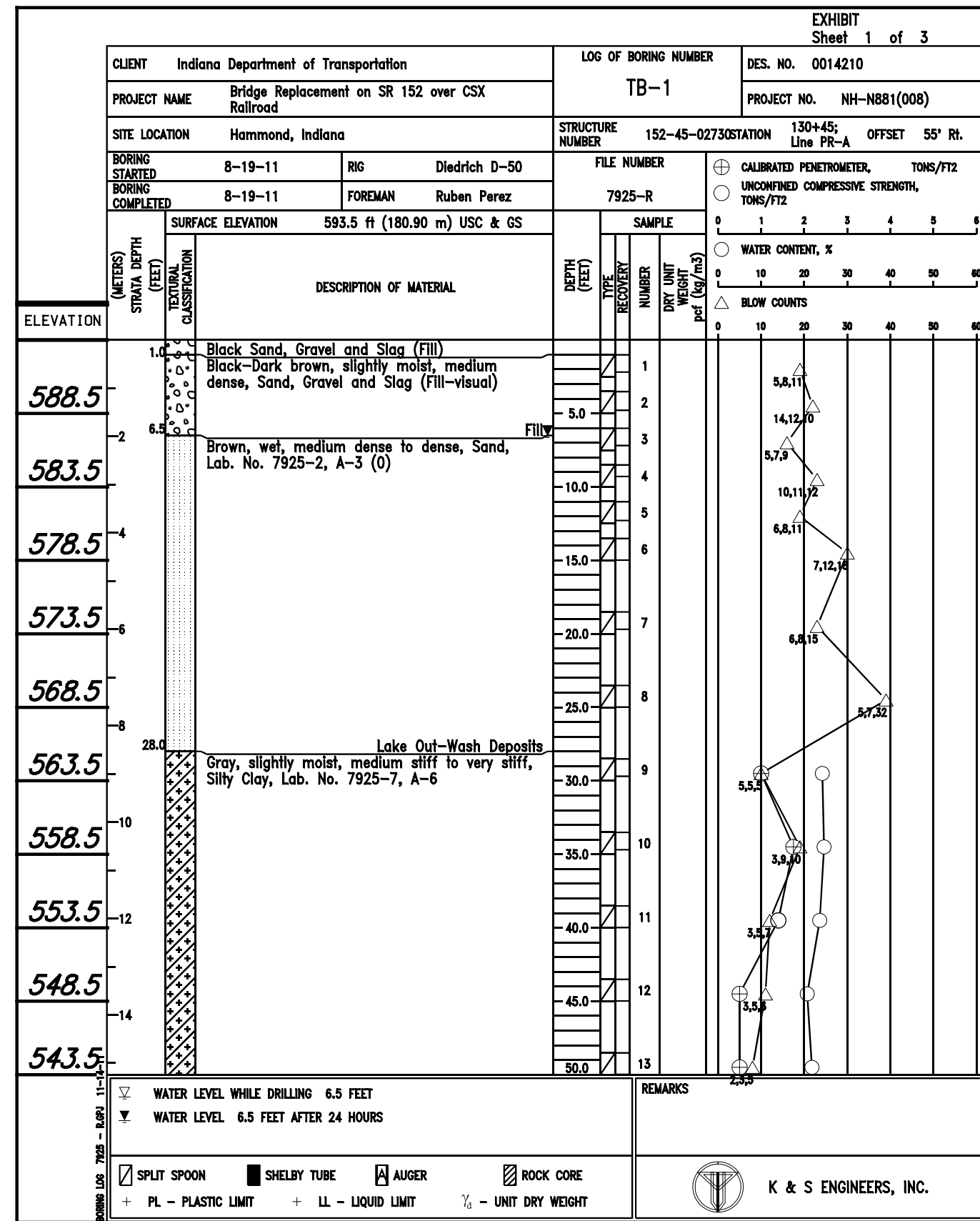
PLAN



RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: RP/CS/MR DRAWN: EWM  
 CHECKED: RP/CS/MR CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**SOIL BORINGS**

HORIZONTAL SCALE	BRIDGE FILE
NONE	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
NONE	0014210
SURVEY BOOK	SHEETS
	47 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

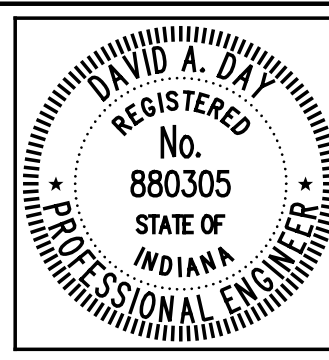
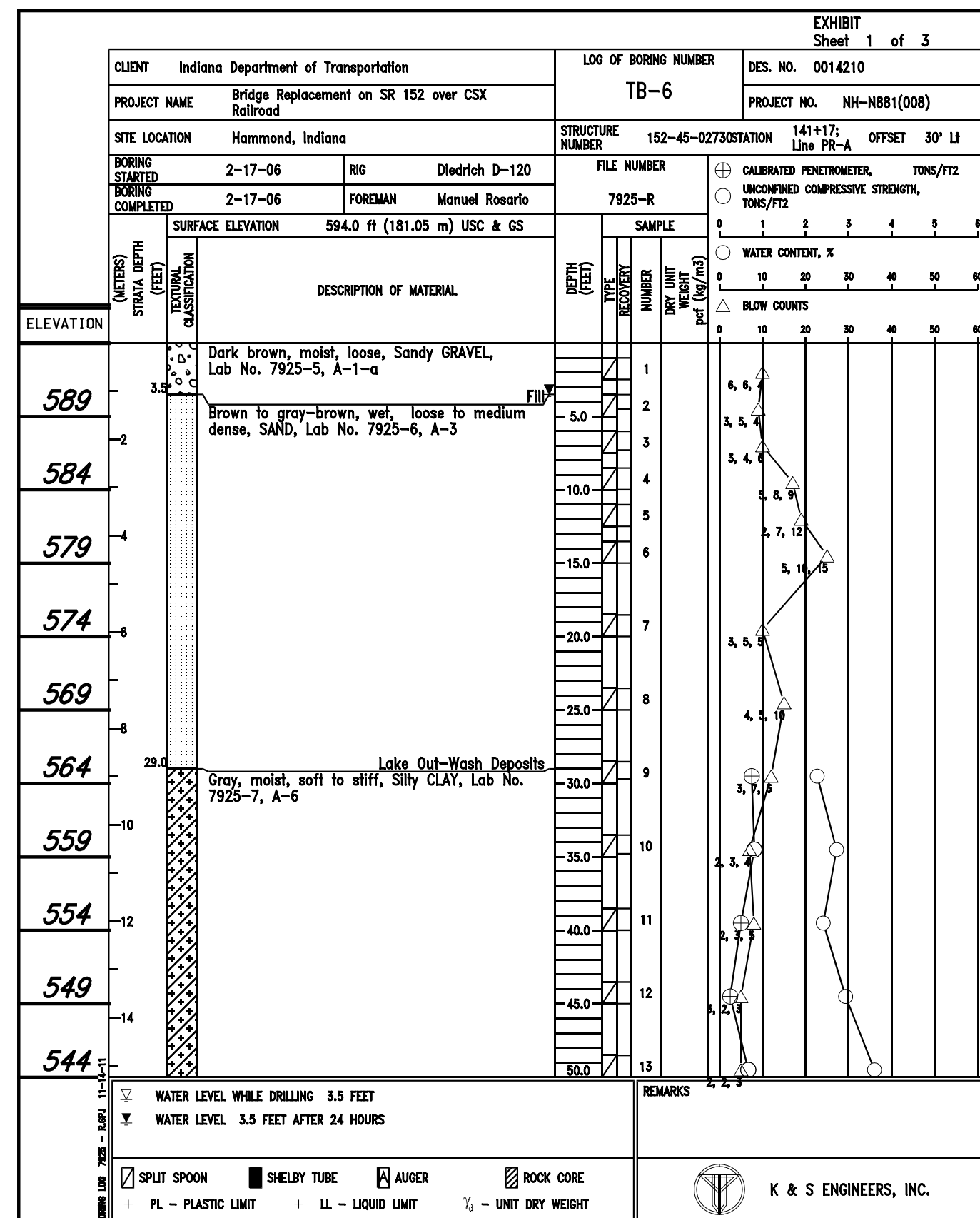
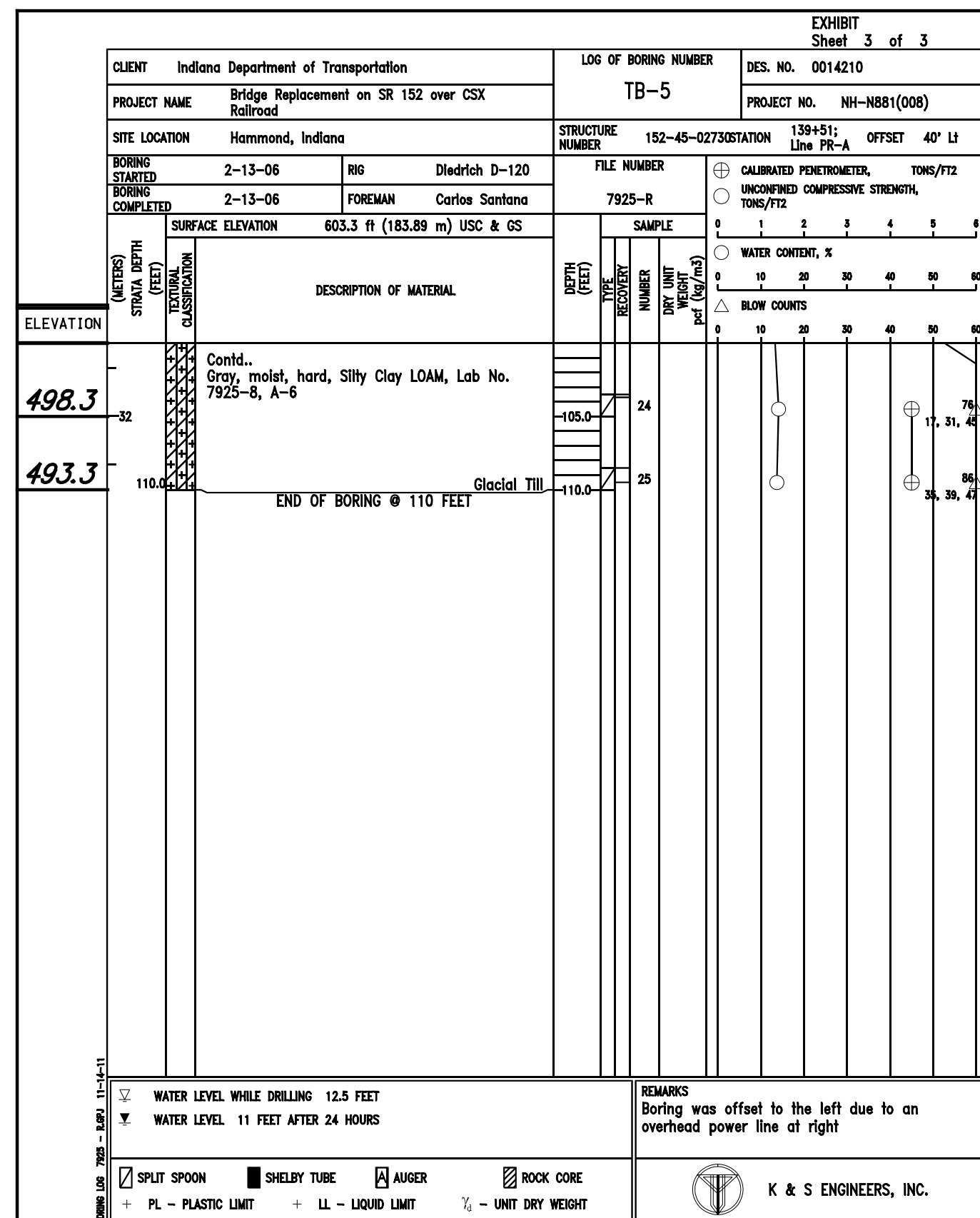
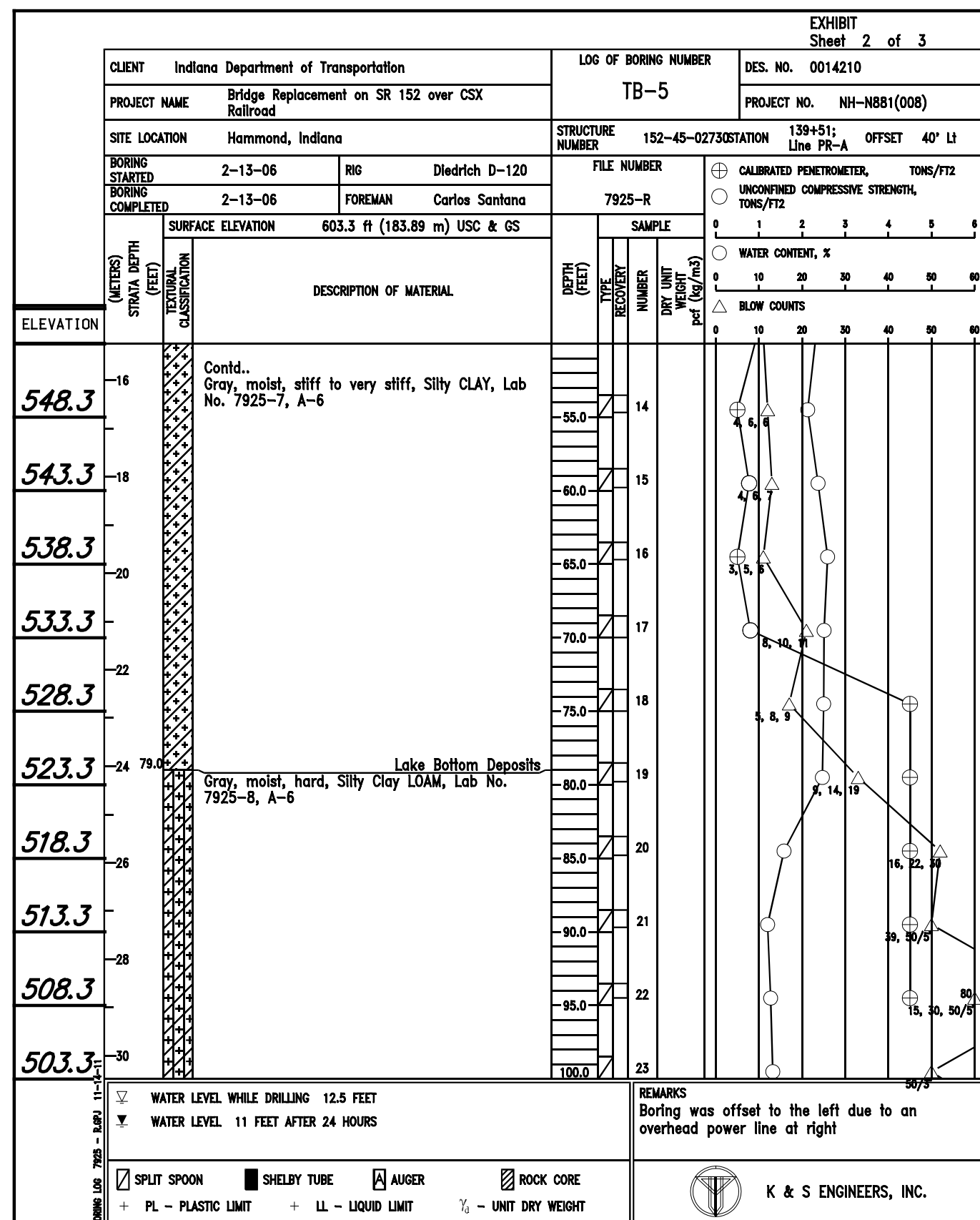
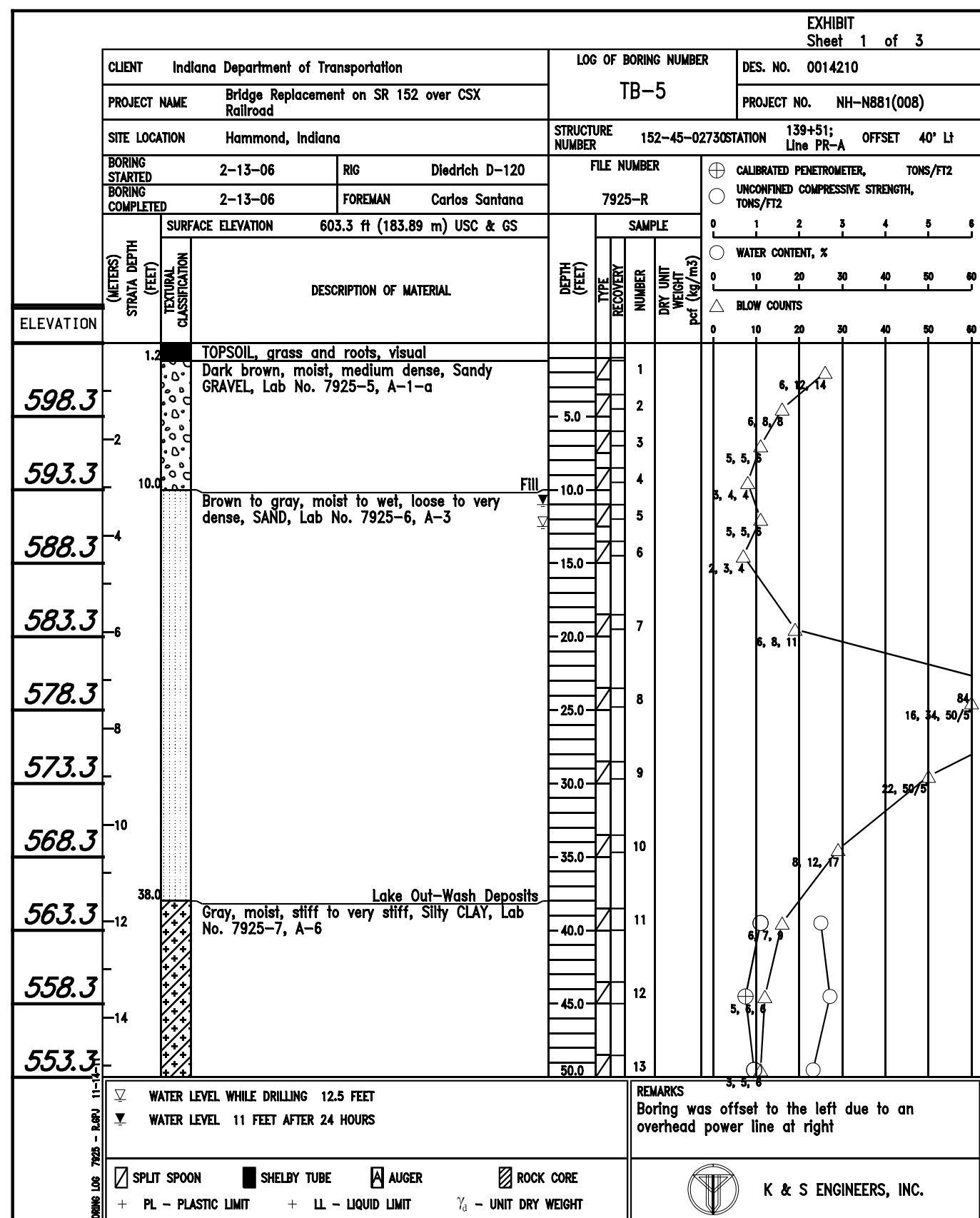
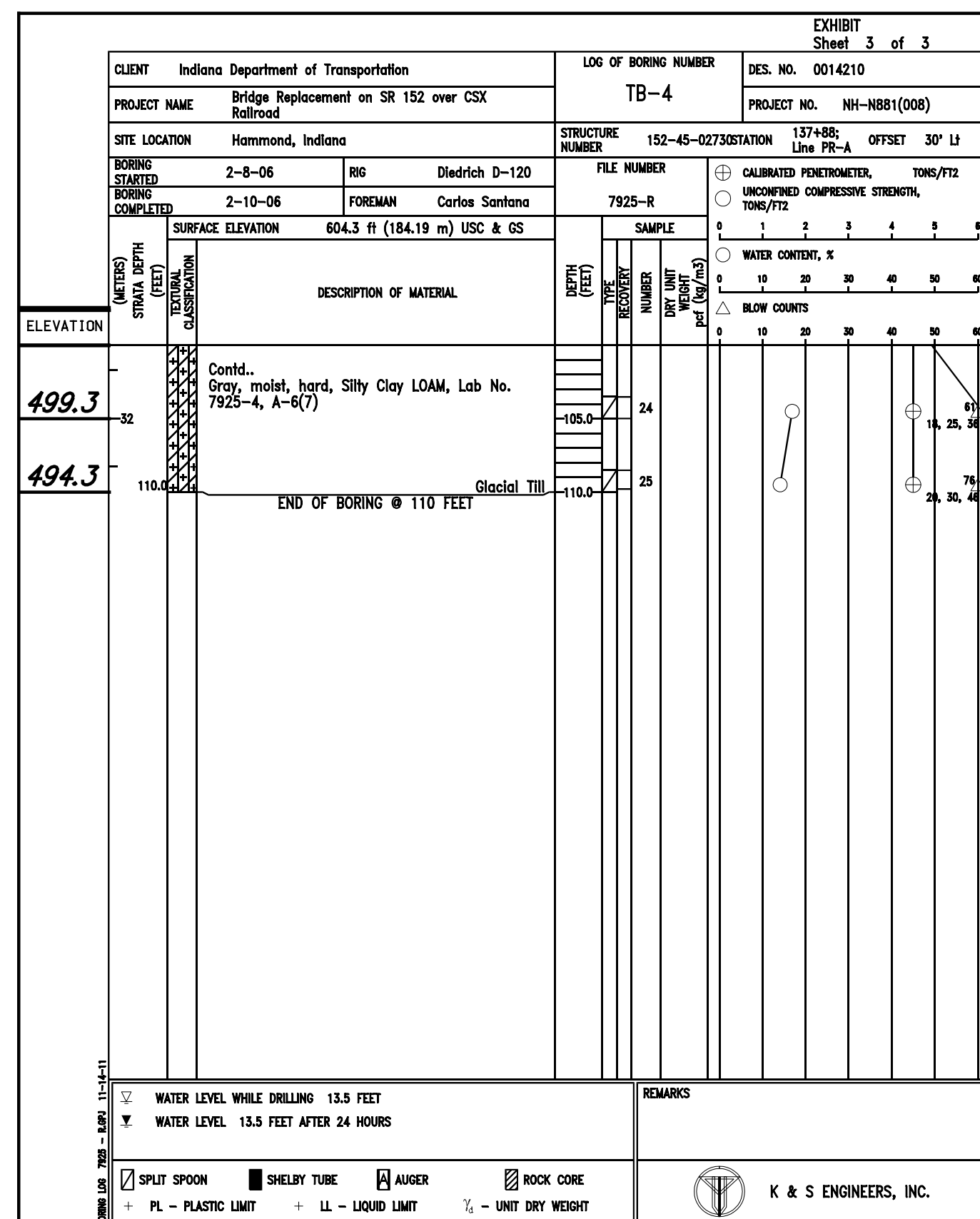
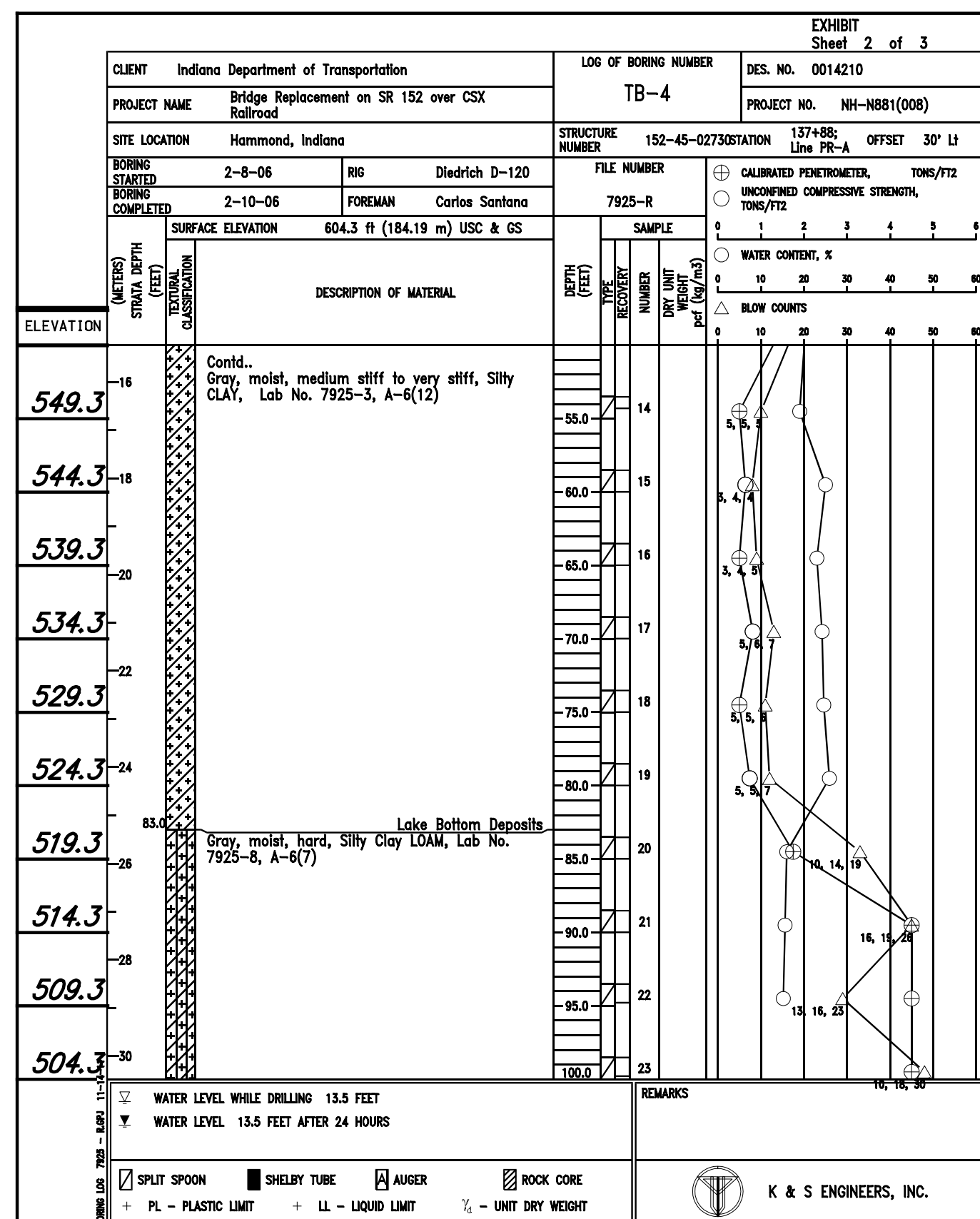
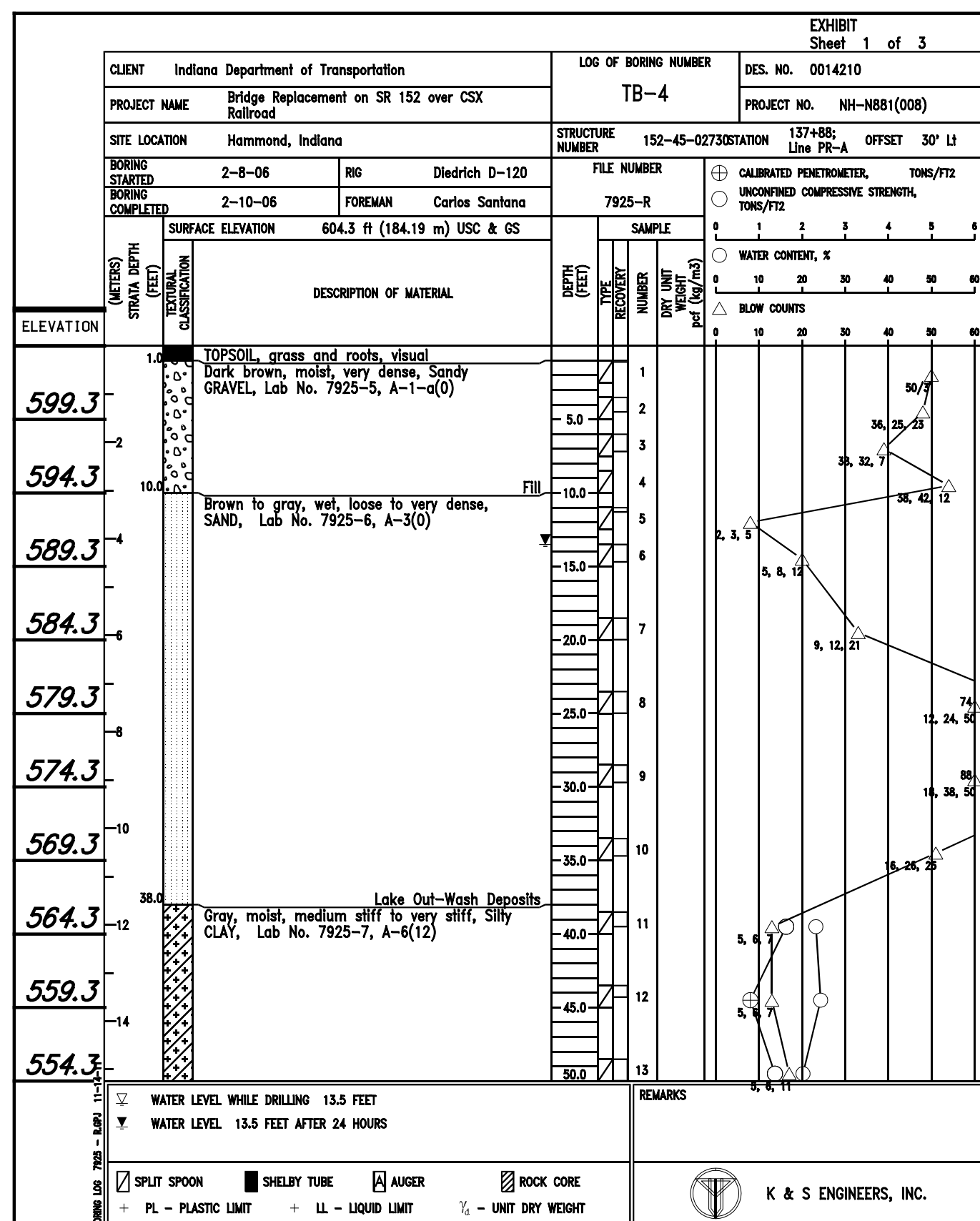
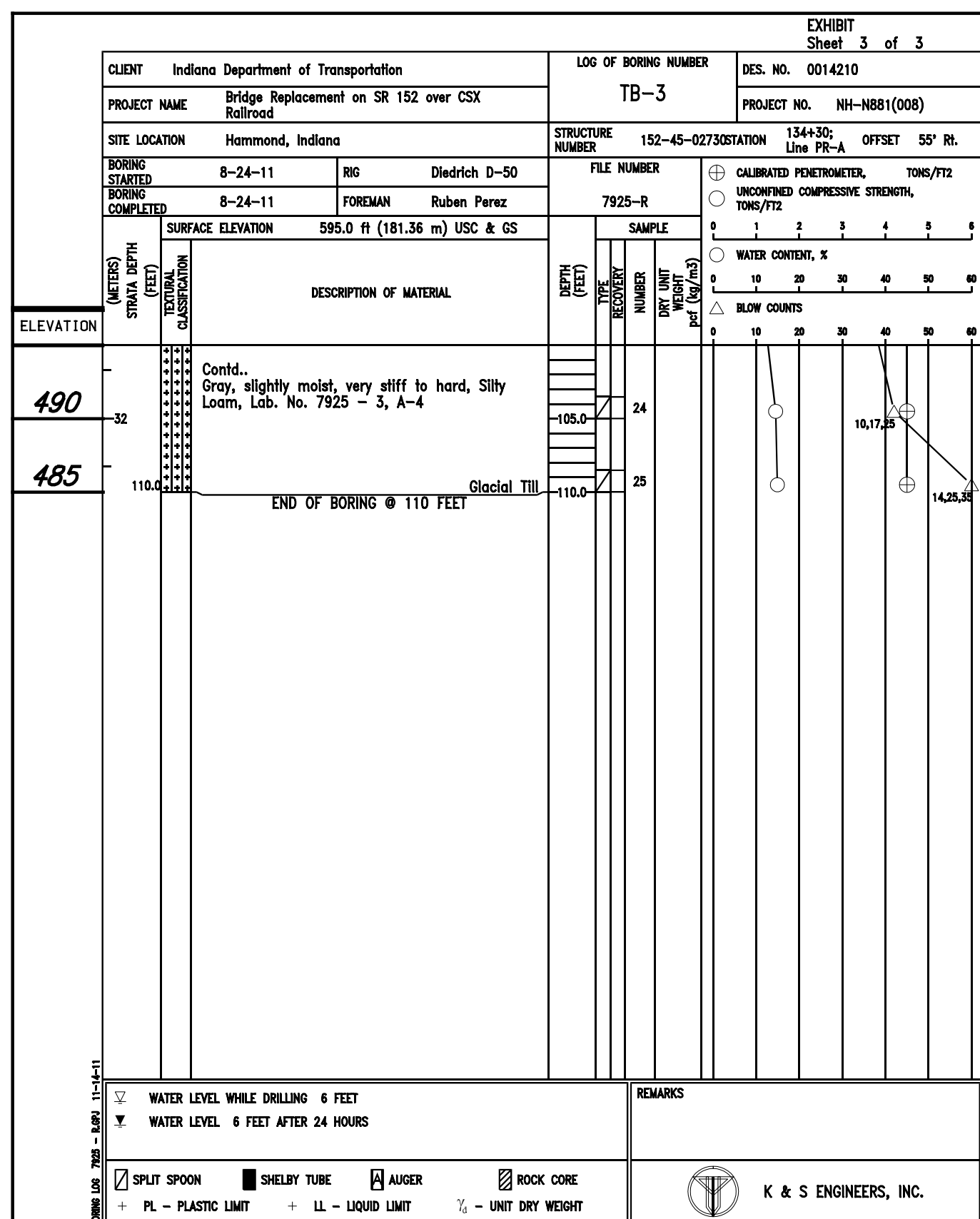


RECOMMENDED FOR APPROVAL: *David B. Day* 6/1/2012 DATE  
 DESIGNER: RP/CS/MR DRAWN: EWM  
 CHECKED: RP/CS/MR CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
 SOIL BORINGS

HORIZONTAL SCALE	BRIDGE FILE
NONE	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
NONE	0014210
SURVEY BOOK	SHEETS
	48 of 147
CONTRACT	PROJECT NO.
B-33357	N881008





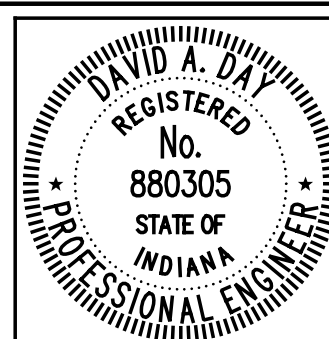
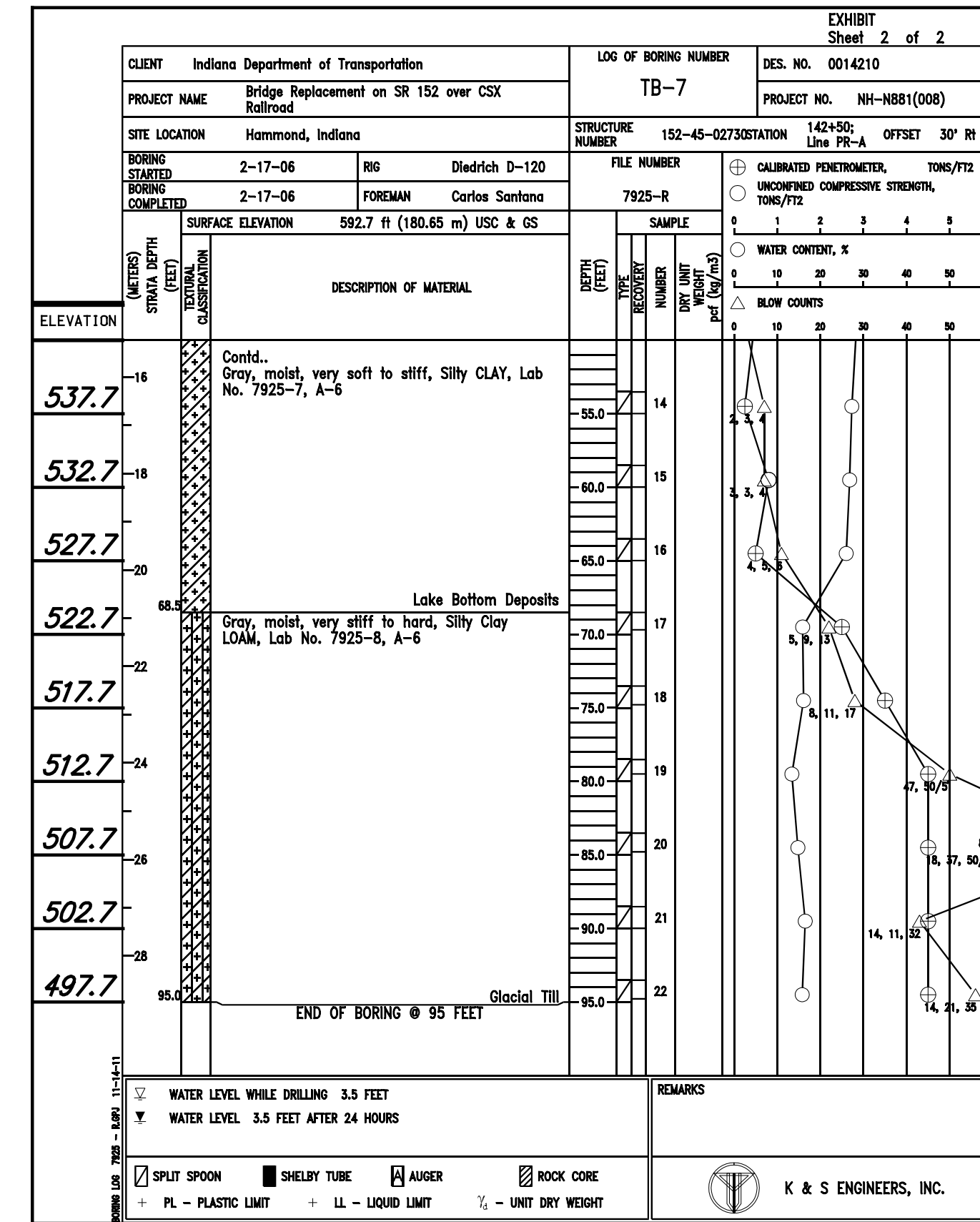
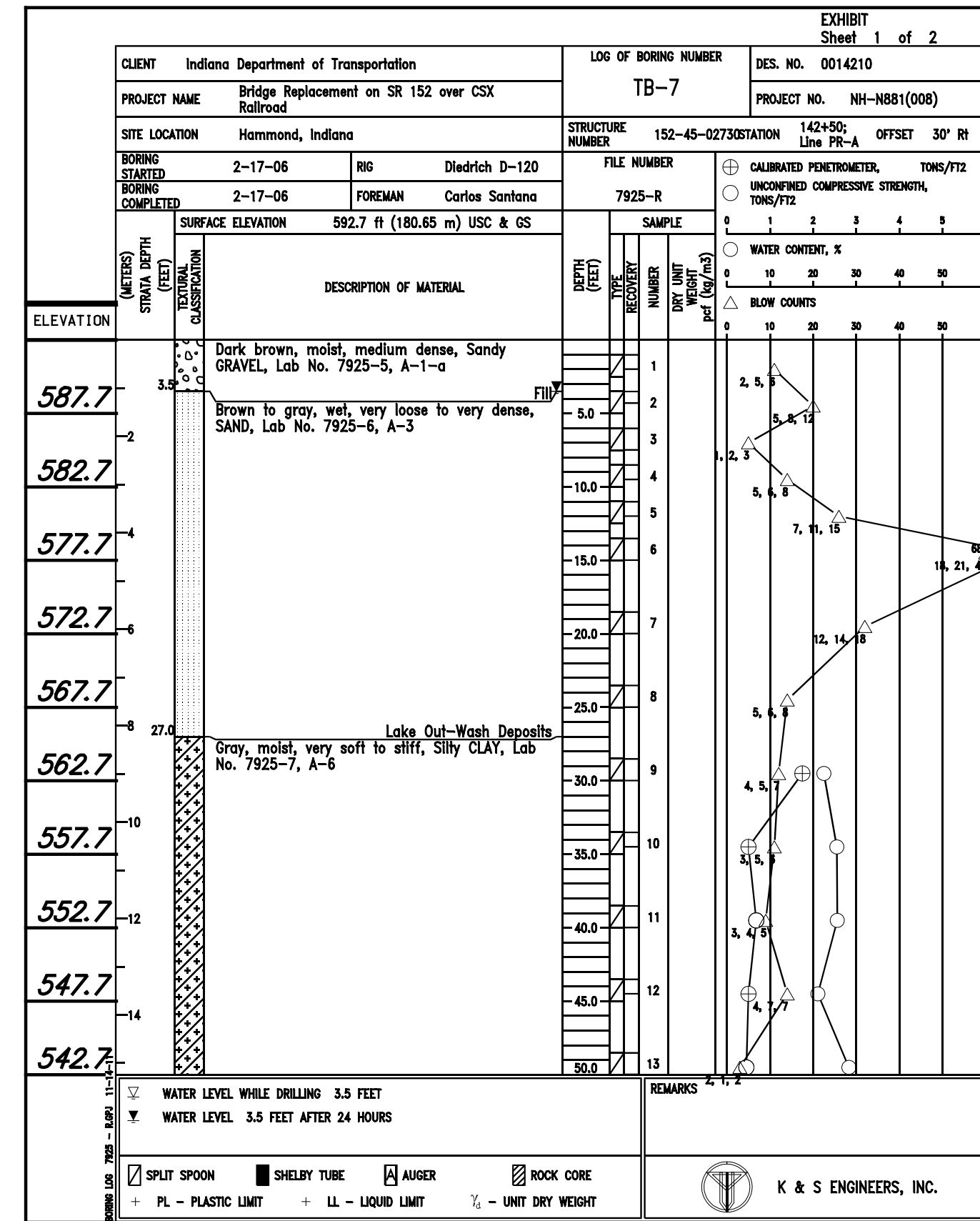
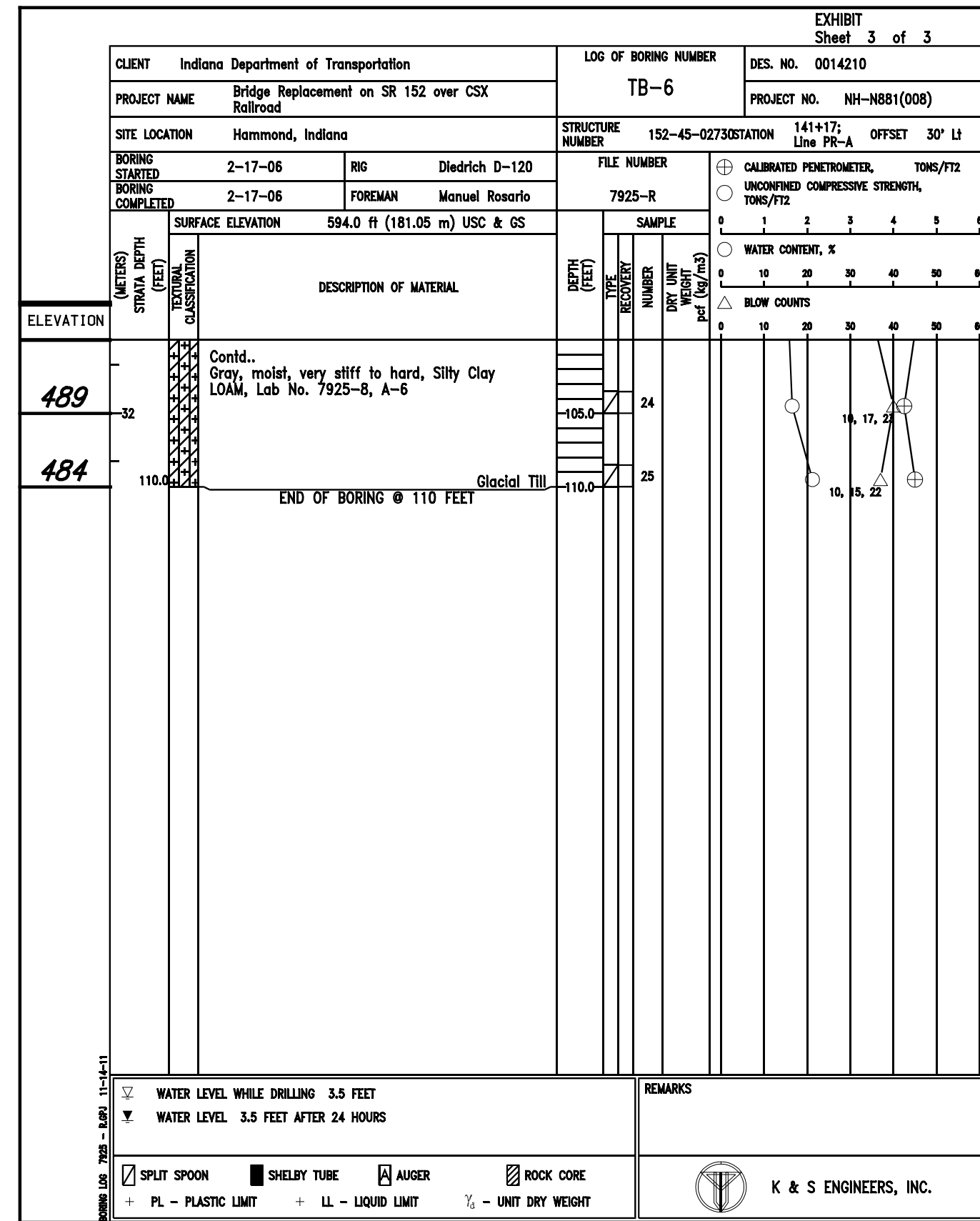
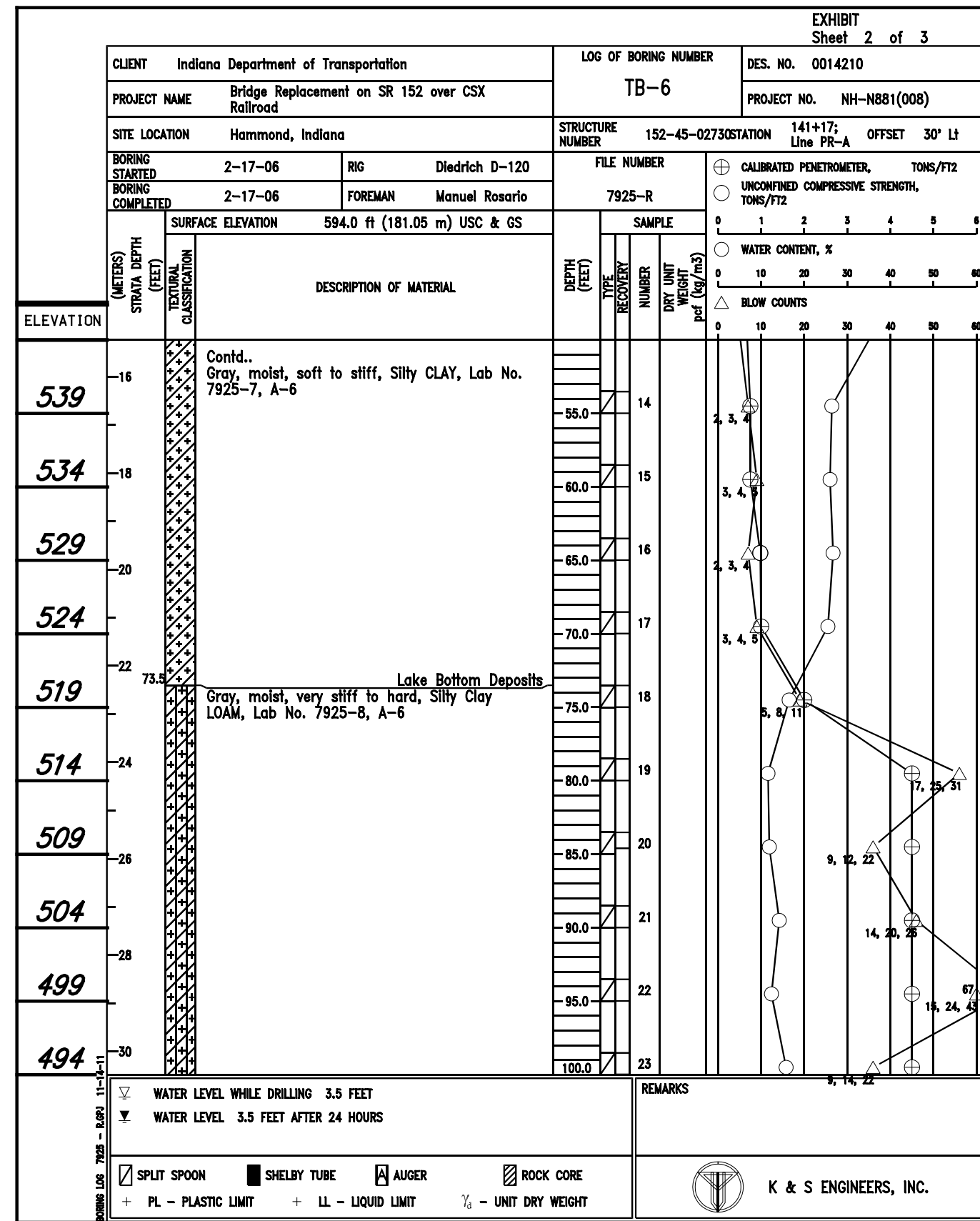
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: RP/CS/MR DRAWN: EWM  
 CHECKED: RP/CS/MR CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

SOIL BORINGS

HORIZONTAL SCALE	BRIDGE FILE
NONE	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
NONE	0014210
SURVEY BOOK	SHEETS
	49 of 147
CONTRACT	PROJECT NO.
B-33357	N881008



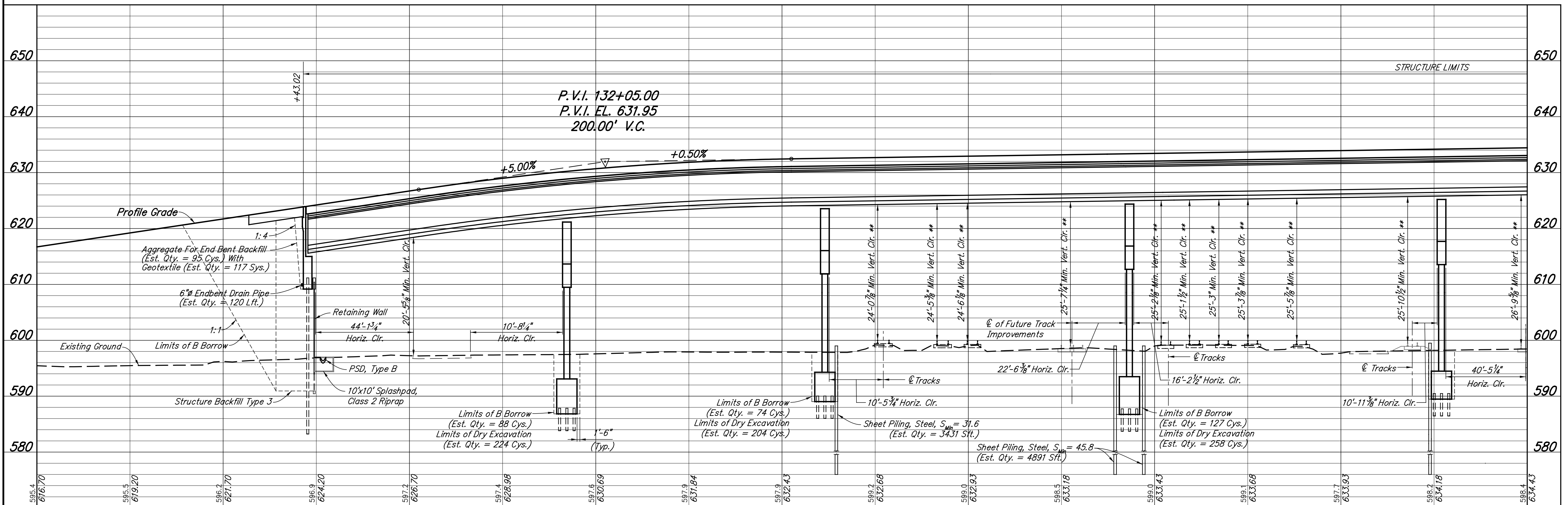
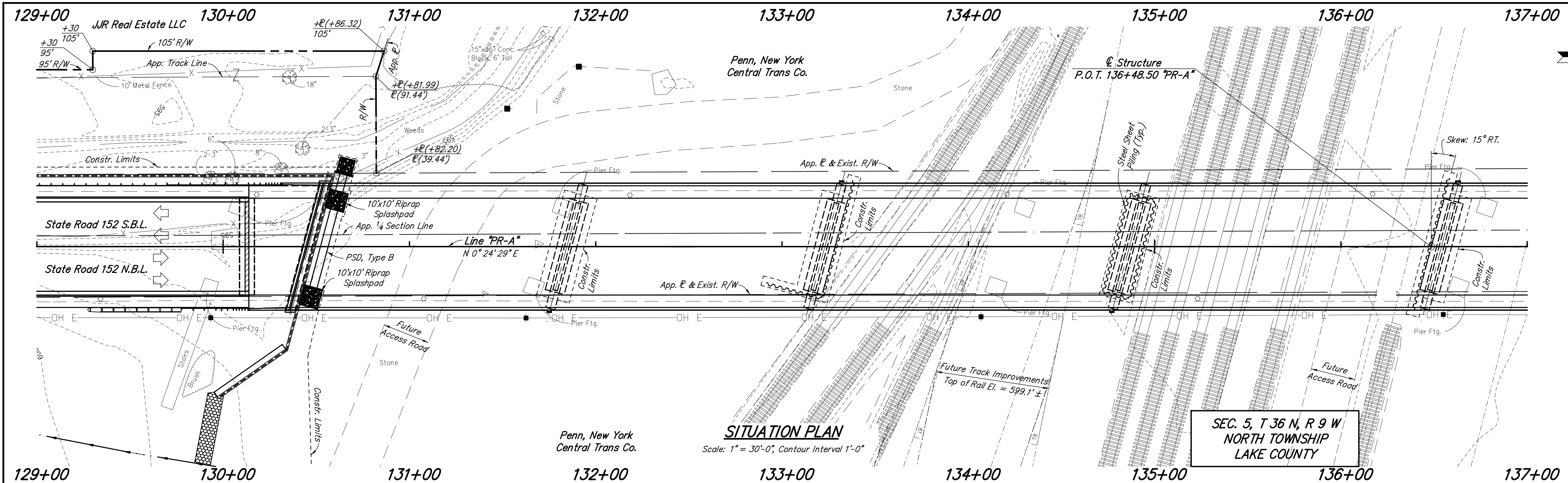
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012 DATE  
DESIGN ENGINEER

DESIGNED: RP/CS/MR DRAWN: EWM  
CHECKED: RP/CS/MR CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

SOIL BORINGS

HORIZONTAL SCALE	BRIDGE FILE
NONE	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
NONE	0014210
SURVEY BOOK	SHEETS
	50 of 147
CONTRACT	PROJECT NO.
B-33357	N881008



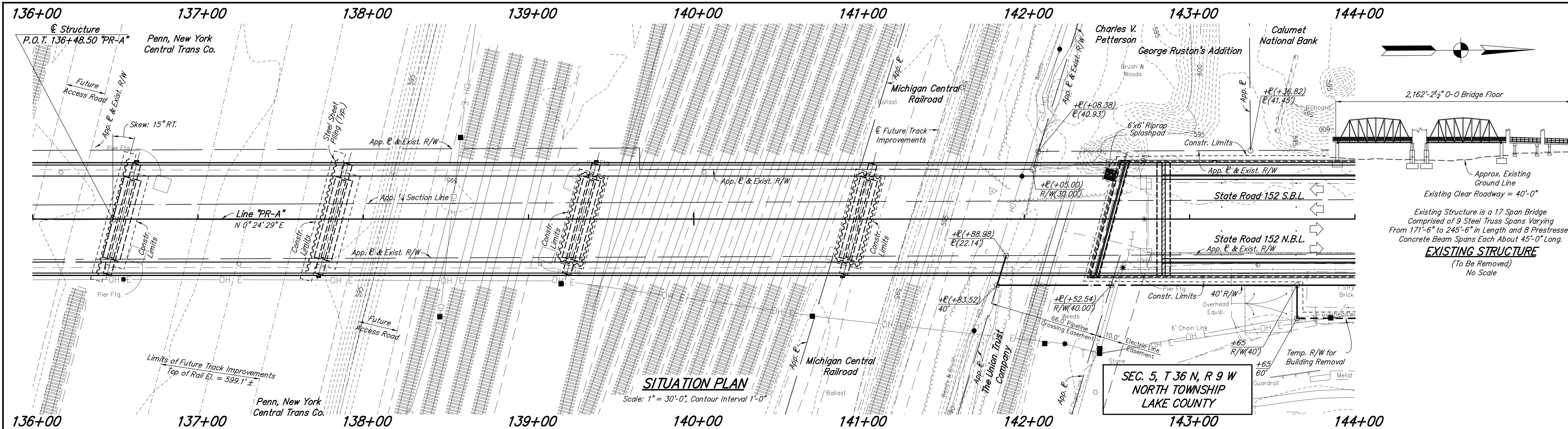
**PROFILE ON PROPOSED ROADWAY**  
 Scales: 1" = 30'-0" Horizontal, 1" = 10'-0" Vertical

**NOTES:**

- \*\* All vertical clearance points are actually 6" left of @ tracks. Shown on track for clarity.
- All R/W on this sheet is described from Line "PR-A".
- For guardrail limits and side ditch grades, see Road Plan and Profile Sheets.
- For alignment references, benchmarks and topo references, see Road Plan and Profile Sheets.

**CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BULB TEE BEAM BRIDGE**  
 STATE ROAD 152 OVER INDIANA HARBOR BELT RAILROAD  
 8 SPANS: 138'-6", 138'-6", 163'-6", 167'-6", 128'-0", 150'-0", 167'-6", 151'-6"  
 SKEW: 15° RT. 52'-0" CLEAR ROADWAY

	RECOMMENDED FOR APPROVAL <i>David B. Day</i> DESIGN ENGINEER 6/1/2012 DATE	INDIANA DEPARTMENT OF TRANSPORTATION  LAYOUT	HORIZONTAL SCALE AS NOTED	BRIDGE FILE 152-45-02730
	DESIGNED: RMC CHECKED: DAD		DRAWN: EWM CHECKED: DAD	VERTICAL SCALE AS NOTED
			SURVEY BOOK B-33357	SHEETS 51 of 147 PROJECT NO. N881008



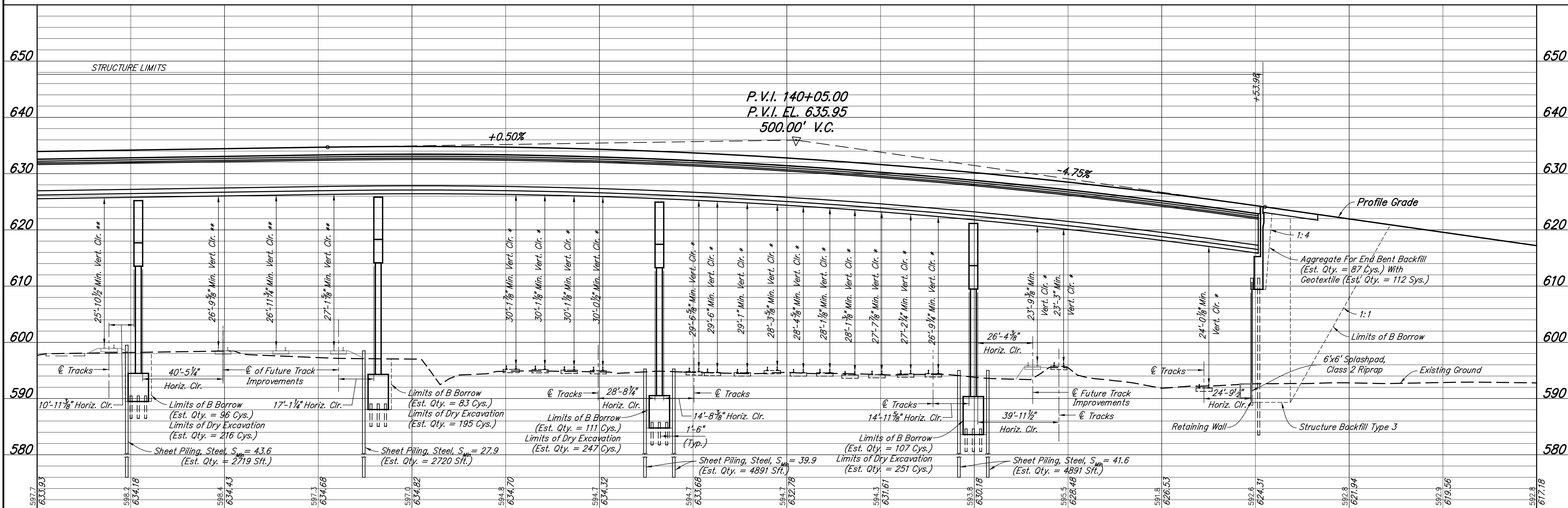
2,162'-2 1/2" 0-0 Bridge Floor

Approx. Existing Ground Line

Existing Clear Roadway = 40'-0"

Existing Structure is a 17 Span Bridge  
Comprised of 9 Steel Truss Spans Varying  
From 171'-6" to 245'-6" in Length and 8 Prestressed  
Concrete Beam Spans Each About 45'-0" Long.

**EXISTING STRUCTURE**  
(To Be Removed)  
No Scale



**NOTES:**

\* All vertical clearance points are actually 6" right of  $\ell$  tracks. Shown on track for clarity.

\*\* All vertical clearance points are actually 6" left of  $\ell$  tracks. Shown on track for clarity.

All R/W on this sheet is described from Line "PR-A".

For guardrail limits and side ditch grades, see Road Plan and Profile Sheets.

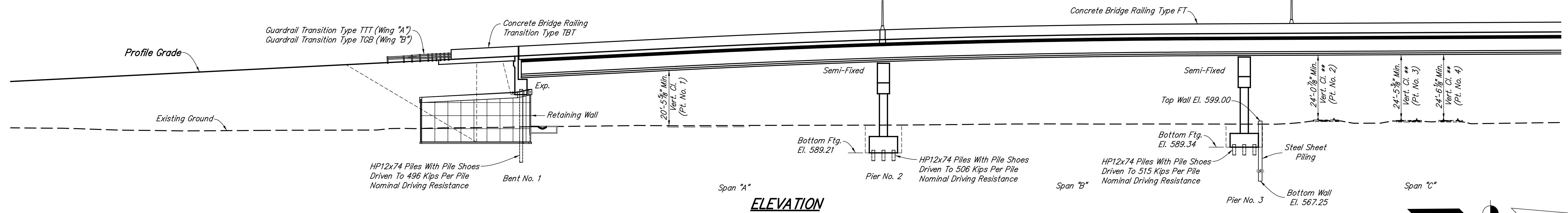
For alignment references, benchmarks and topo references, see Road Plan and Profile Sheets.

**CONTINUOUS COMPOSITE  
PRESTRESSED CONCRETE  
BULB TEE BEAM BRIDGE**  
STATE ROAD 152 OVER  
INDIANA HARBOR BELT RAILROAD

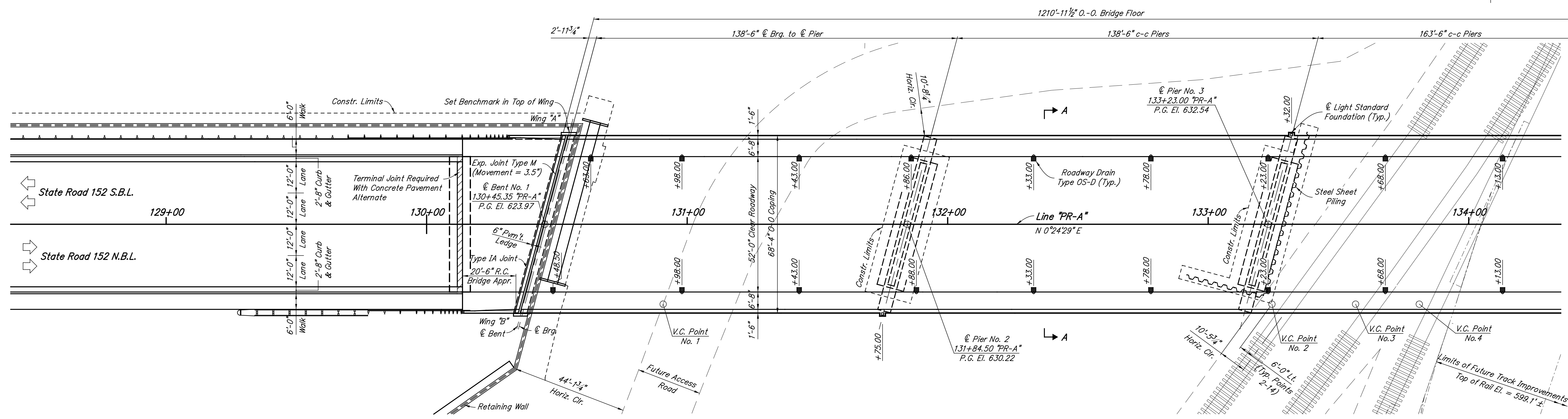
8 SPANS: 138'-6", 138'-6", 163'-6", 167'-6",  
128'-0", 150'-0", 167'-6", 151'-6"  
SKEW: 15° RT. 52'-0" CLEAR ROADWAY

	RECOMMENDED FOR APPROVAL <i>David B. Day</i> DESIGN ENGINEER 6/1/2012 DATE	INDIANA DEPARTMENT OF TRANSPORTATION  LAYOUT	HORIZONTAL SCALE AS NOTED	BRIDGE FILE 152-45-02730
	DESIGNED: RMC CHECKED: DAD		DRAWN: EWM CHECKED: DAD	VERTICAL SCALE AS NOTED
			SURVEY BOOK B-33357	SHEETS 52 of 147 PROJECT NO. N881008

STRUCTURE TO BE BUILT TO A +5.00% GRADE, 200' VERTICAL CURVE, +0.50% GRADE & A 500' VERTICAL CURVE



ELEVATION



PLAN

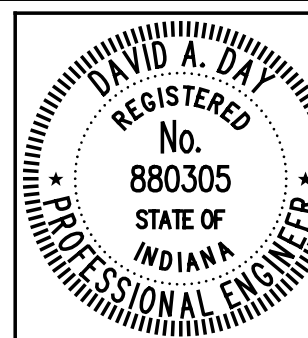
NOTES:

\*\* Vertical clearance points are actually 6' left of  $\odot$  tracks. Shown on track for clarity.

For Section A-A, see Sheet No. 55.

CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BULB TEE BEAM BRIDGE

STATE ROAD 152 OVER INDIANA HARBOR BELT RAILROAD  
 8 SPANS: 138'-6", 138'-6", 163'-6", 167'-6", 128'-0", 150'-0", 167'-6", 151'-6"  
 SKEW: 15° RT. 52'-0" CLEAR ROADWAY



RECOMMENDED FOR APPROVAL *David A. Day* 6/1/2012  
 DESIGN ENGINEER DATE

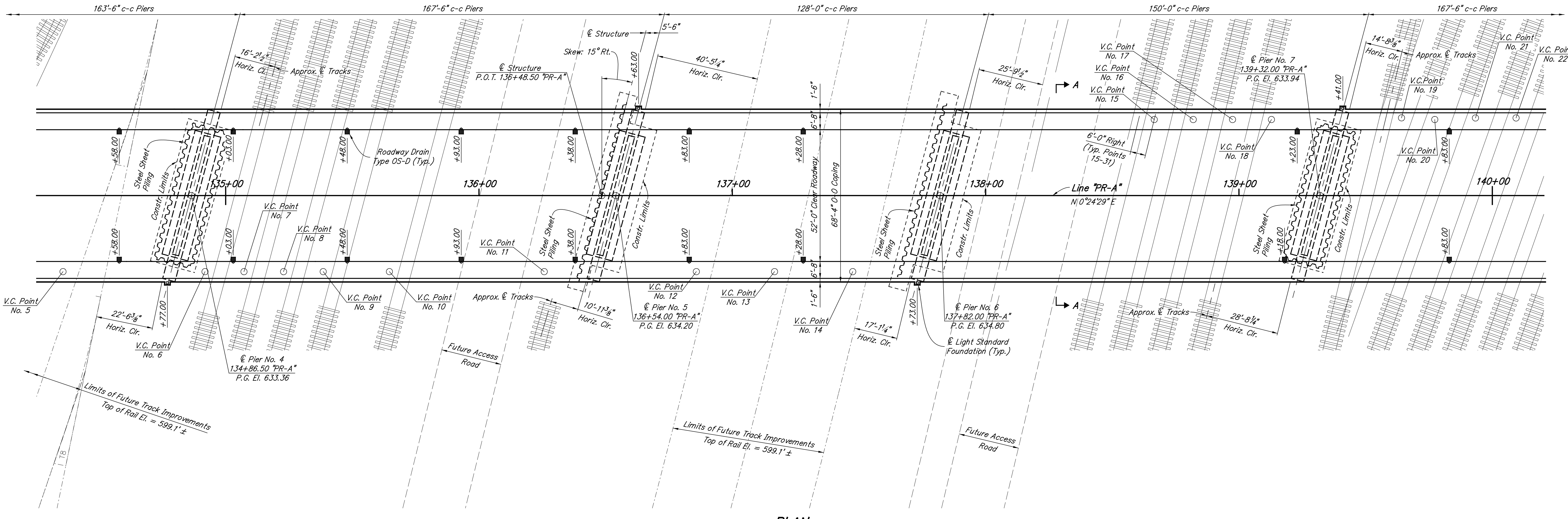
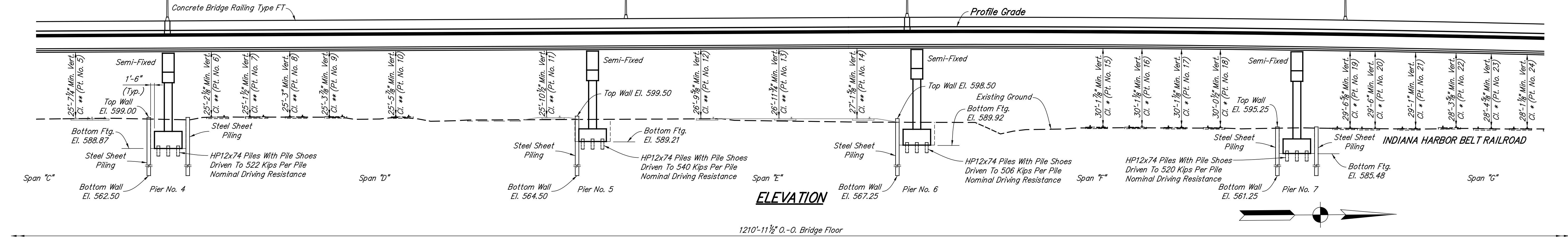
DESIGNED: RMC DRAWN: EWM  
 CHECKED: DZ/DAD CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

HORIZONTAL SCALE 1" = 20'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
VERTICAL SCALE 1" = 20'-0", UNLESS NOTED	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS
	53 of 147
CONTRACT B-33357	PROJECT NO. N881008

STRUCTURE TO BE BUILT TO A +5.00% GRADE, 200' VERTICAL CURVE, +0.50% GRADE & A 500' VERTICAL CURVE

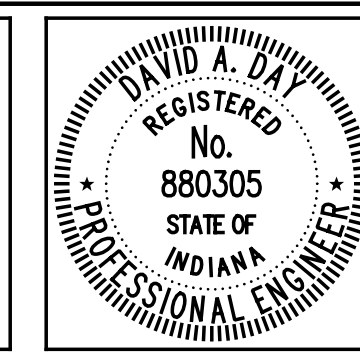


**NOTES:**

- \* Vertical clearance points are actually 6' right of centerline of tracks. Shown on track for clarity.
- \*\* Vertical clearance points are actually 6' left of centerline of tracks. Shown on track for clarity.

For Section A-A, see Sheet No. 55.

**CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BULB TEE BEAM BRIDGE**  
 STATE ROAD 152 OVER INDIANA HARBOR BELT RAILROAD  
 8 SPANS: 138'-6", 138'-6", 163'-6", 167'-6", 128'-0", 150'-0", 167'-6", 151'-6"  
 SKEW: 15° RT. 52'-0" CLEAR ROADWAY



RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

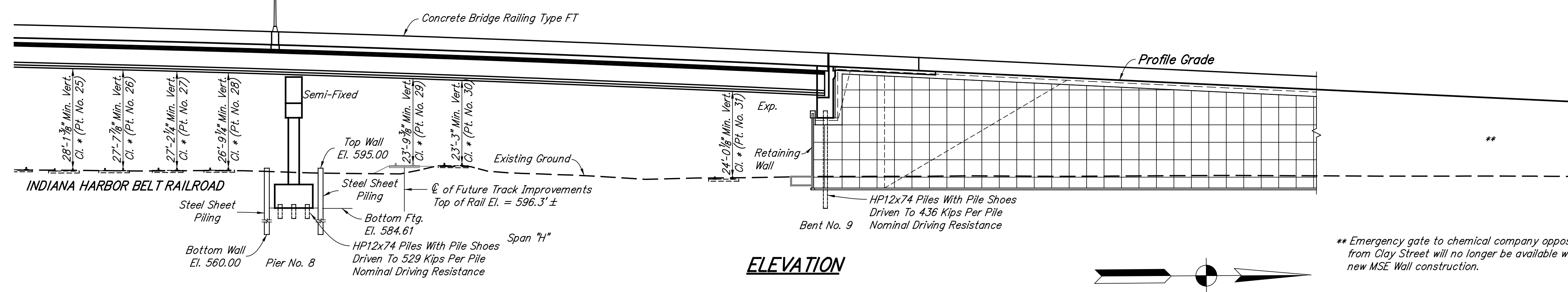
DESIGNED: RMC DRAWN: EWM  
 CHECKED: DZ/DAD CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

**GENERAL PLAN**

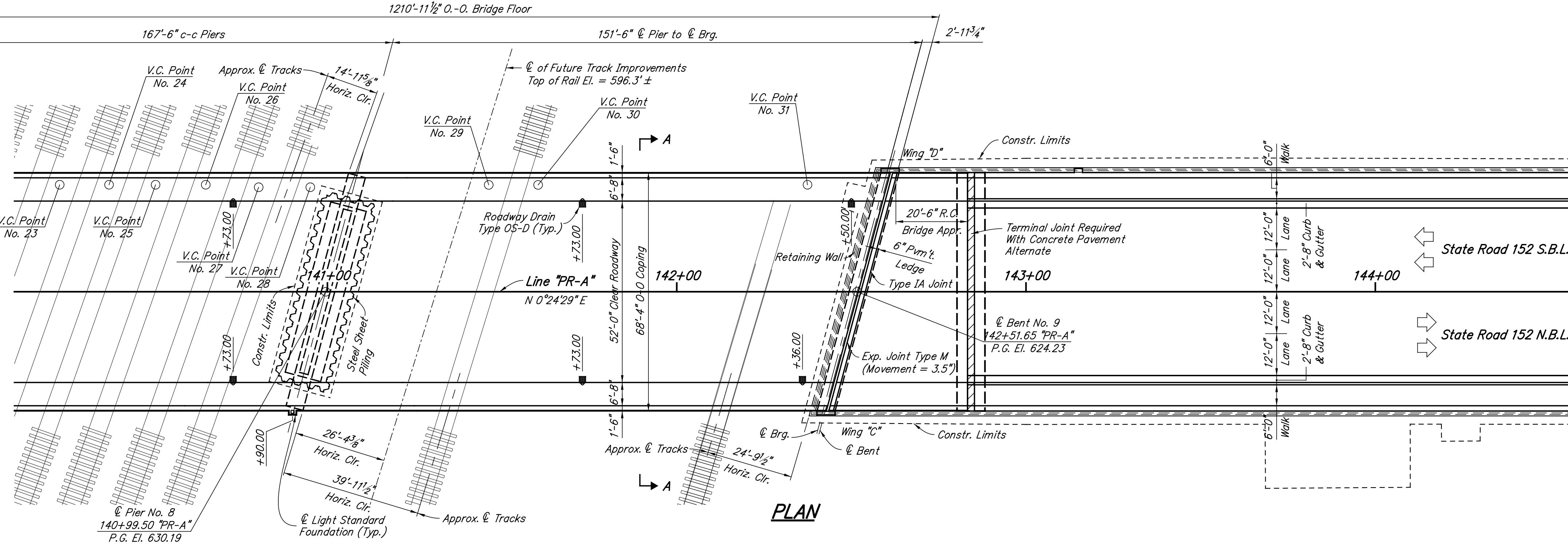
HORIZONTAL SCALE 1" = 20'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
VERTICAL SCALE 1" = 20'-0", UNLESS NOTED	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS
CONTRACT B-33357	54 of 147
	PROJECT NO. N881008

STRUCTURE TO BE BUILT TO A +5.00% GRADE, 200' VERTICAL CURVE, +0.50% GRADE & A 500' VERTICAL CURVE

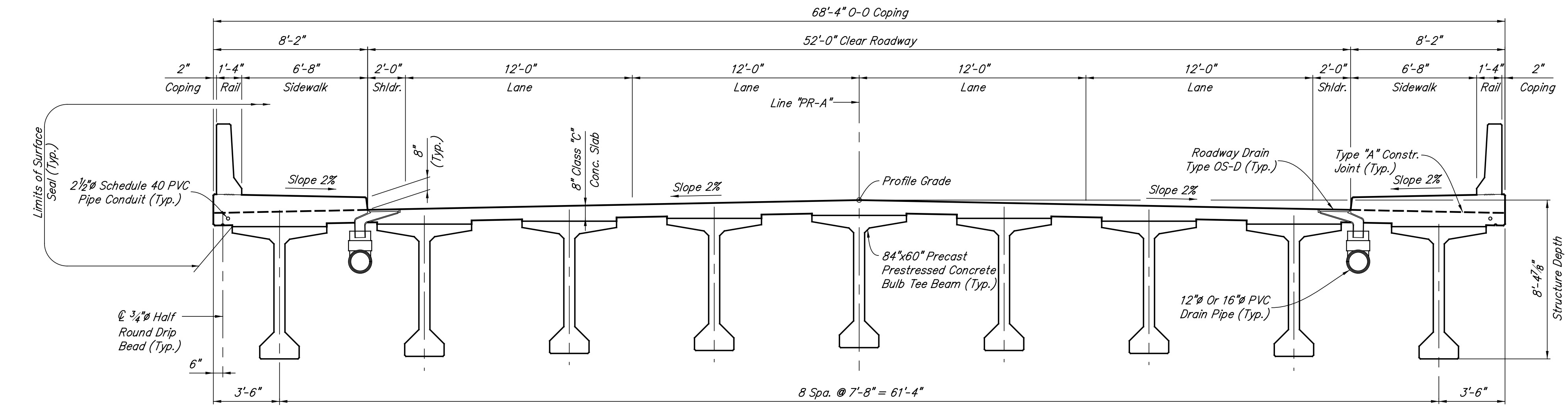


ELEVATION

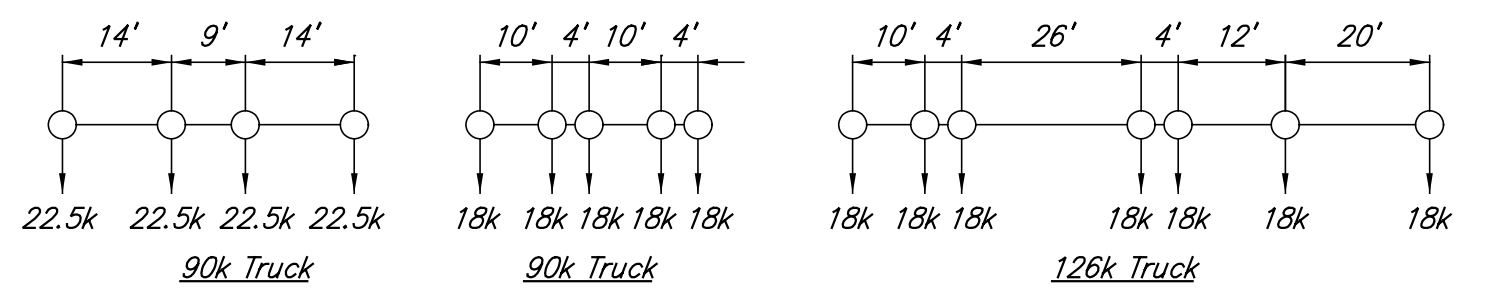
\*\* Emergency gate to chemical company opposite from Clay Street will no longer be available with new MSE Wall construction.



PLAN



SECTION A-A



TOLL ROAD LOADING

No Scale

NOTES:  
\* Vertical clearance points are actually 6' right of  $\text{\textcircled{C}}$  tracks. Shown on track for clarity.

**CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BULB TEE BEAM BRIDGE**  
STATE ROAD 152 OVER INDIANA HARBOR BELT RAILROAD  
8 SPANS: 138'-6", 138'-6", 163'-6", 167'-6", 128'-0", 150'-0", 167'-6", 151'-6"  
SKEW: 15° RT. 52'-0" CLEAR ROADWAY

**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.

**DESIGN DATA**

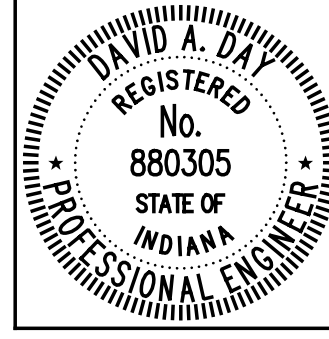
- LIVE LOAD:** Superstructure and substructure designed for HL-93 loading, and sidewalk live load in accordance with the AASHTO LRFD Bridge Design Specifications, Fifth Edition, 2010, and Interim Revisions. Checked for Toll Road Loadings Shown on this sheet.
- DEAD LOAD:** Actual Weight plus 35 Lbs./Sft. for future wearing surface and 15 Lbs./Sft. for permanent metal deck forms.
- FLOOR SLAB:** Designed for 32,000 Lbs. axle load impact with a structural depth of 7 1/2".
- 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.

**DESIGN DATA**

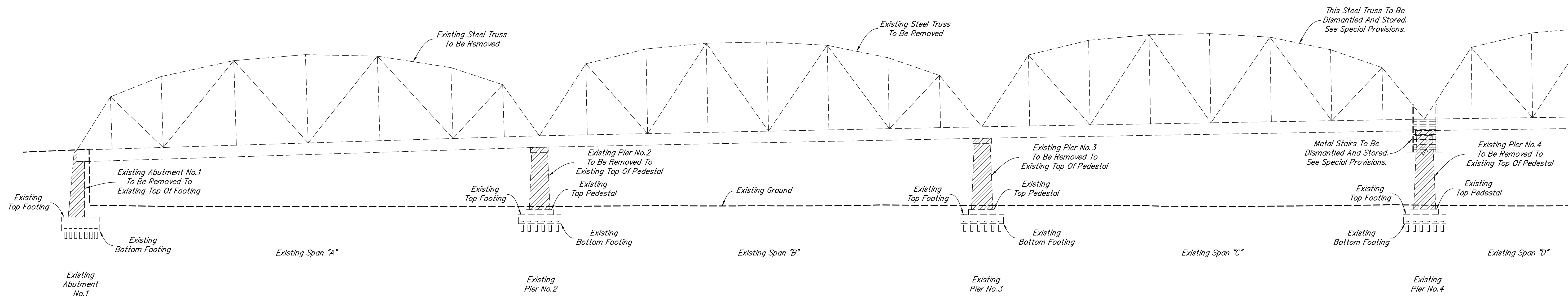
- DECK FALSEWORK LOADS:** Designed for 15 Lbs./Sft. for permanent metal stay-in-place deck forms, removable deck forms, and 2' exterior walkway.
- CONSTRUCTION LIVE LOAD:** Designed for 20 Lbs./Sft. extending 2' past the edge of coping and 75 Lbs./Ft. vertical force applied at a distance of 6" outside 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:** Designed for 70 mph horizontal wind loading of 50 Lbs./Sft. in accordance with AASHTO Guide Design Specifications for Bridge Temporary Works (1995), Figure 2.1.



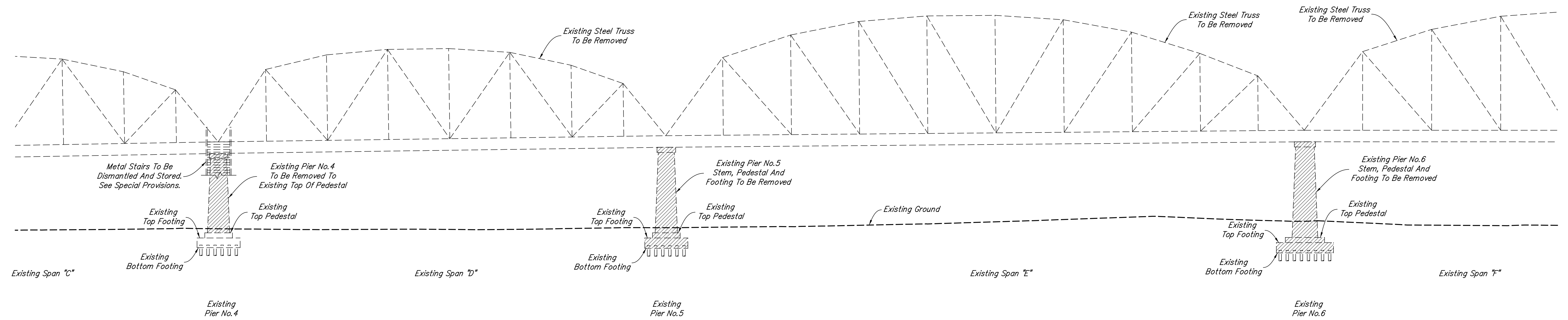
RECOMMENDED FOR APPROVAL: *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE  
DESIGNED: RMC DRAWN: EWM  
CHECKED: DZ/DAD CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
1" = 20'-0", UNLESS NOTED	0014210
SURVEY BOOK	SHEETS
	55 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

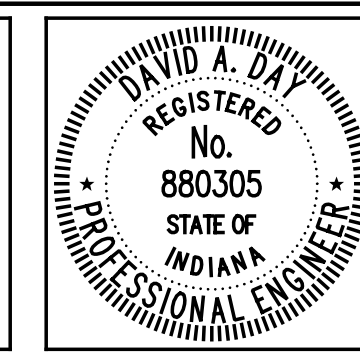


**PARTIAL SUBSTRUCTURE REMOVAL ELEVATION**



**PARTIAL SUBSTRUCTURE REMOVAL ELEVATION**

 Indicates Limits Of Structure Removal

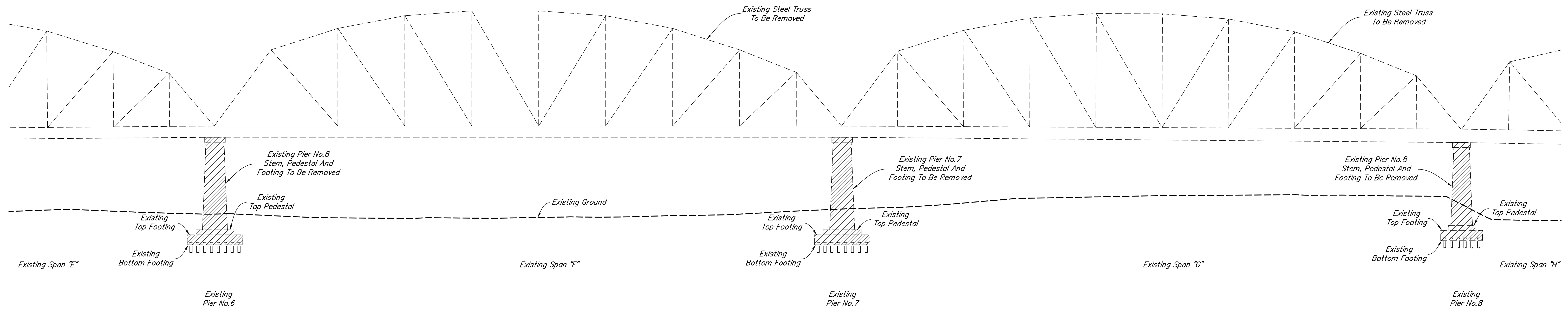


RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: DSH DRAWN: DSH  
 CHECKED: DAD CHECKED: DAD

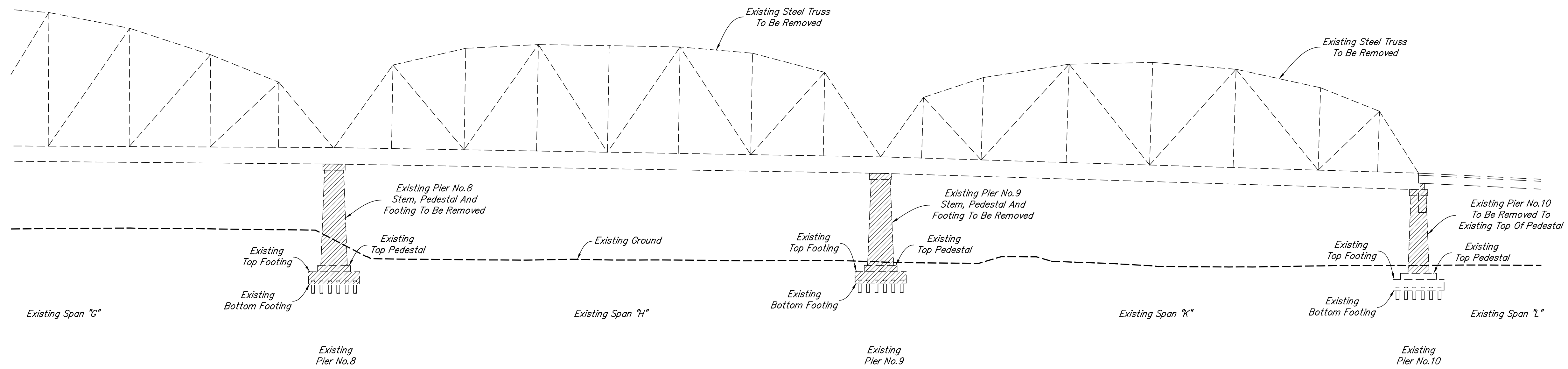
INDIANA  
 DEPARTMENT OF TRANSPORTATION  
**EXISTING STRUCTURE  
 REMOVAL DETAILS**

HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 56 of 147
CONTRACT B-33357	PROJECT NO. N881008



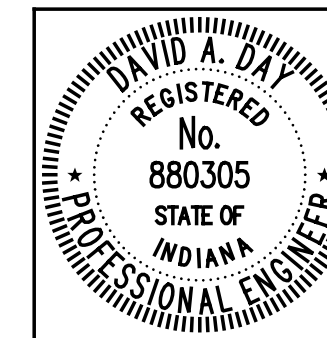


**PARTIAL SUBSTRUCTURE REMOVAL ELEVATION**



**PARTIAL SUBSTRUCTURE REMOVAL ELEVATION**

Indicates Limits Of Structure Removal



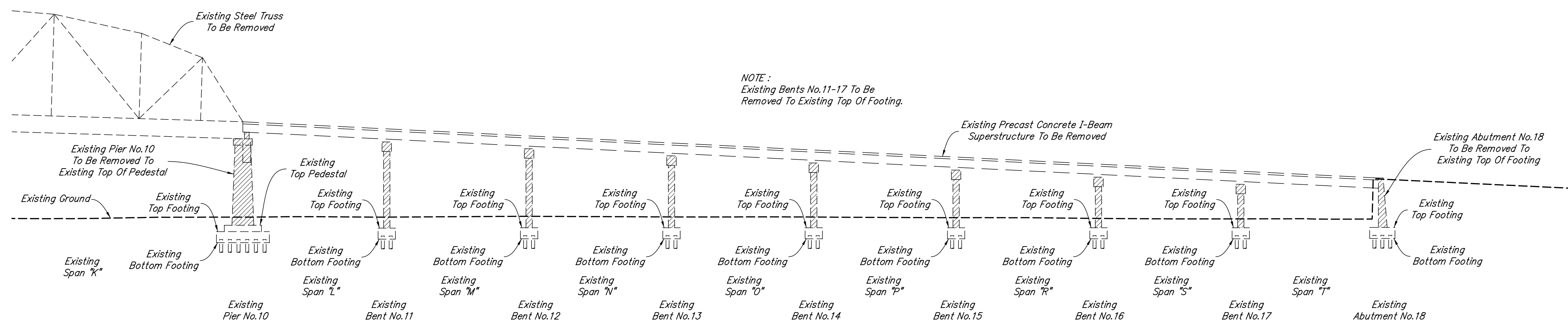
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: DSH DRAWN: DSH  
CHECKED: DAD CHECKED: DAD

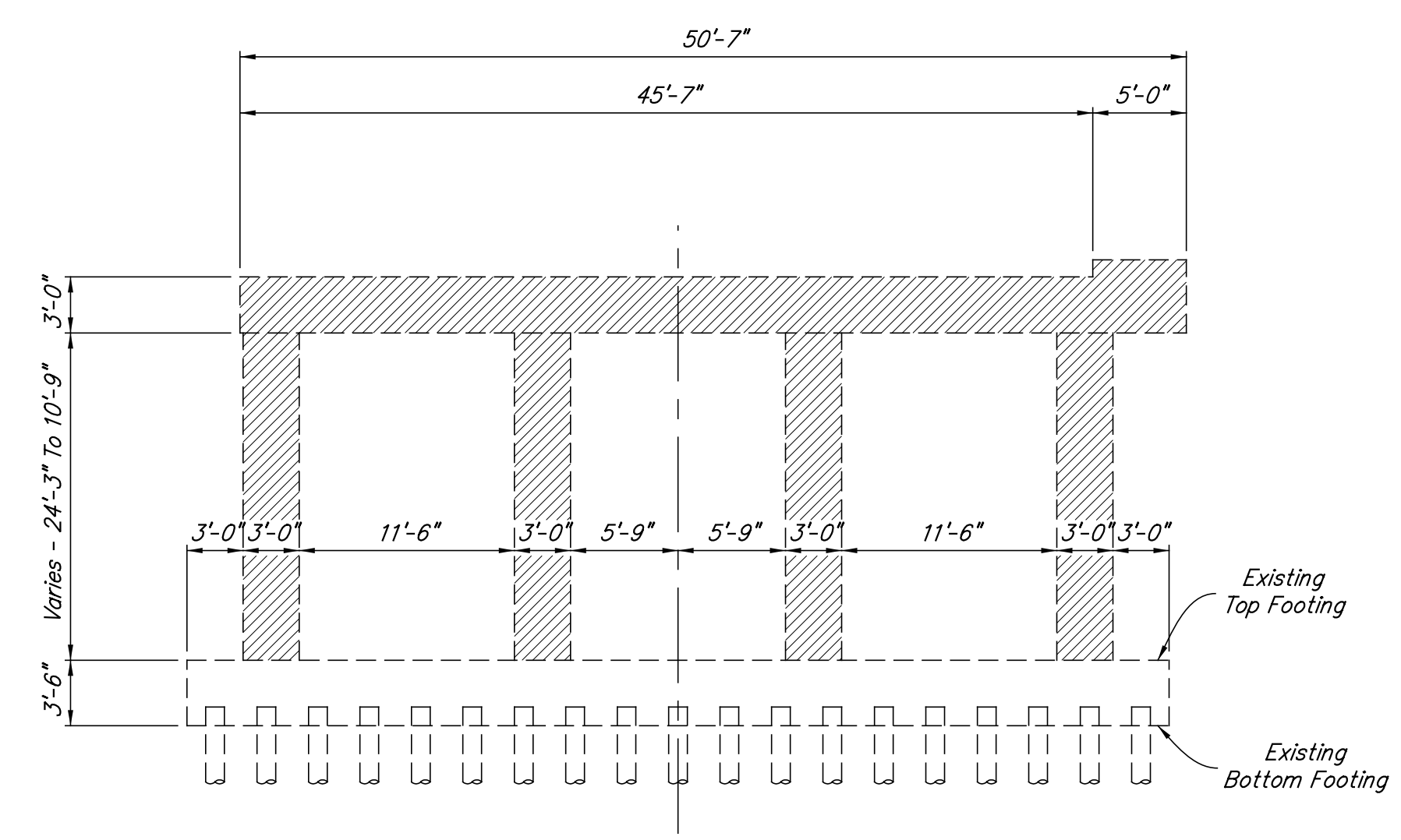
INDIANA  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE  
REMOVAL DETAILS

HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS
CONTRACT B-33357	57 of 147 PROJECT NO. N881008

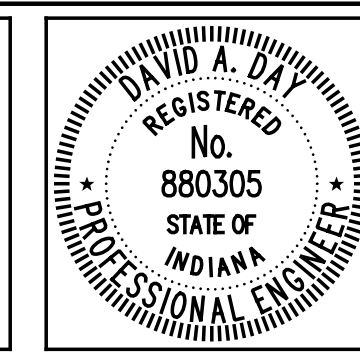


**PARTIAL SUBSTRUCTURE REMOVAL ELEVATION**



**TYPICAL PARTIAL BENT REMOVAL ELEVATION**

Indicates Limits Of Structure Removal



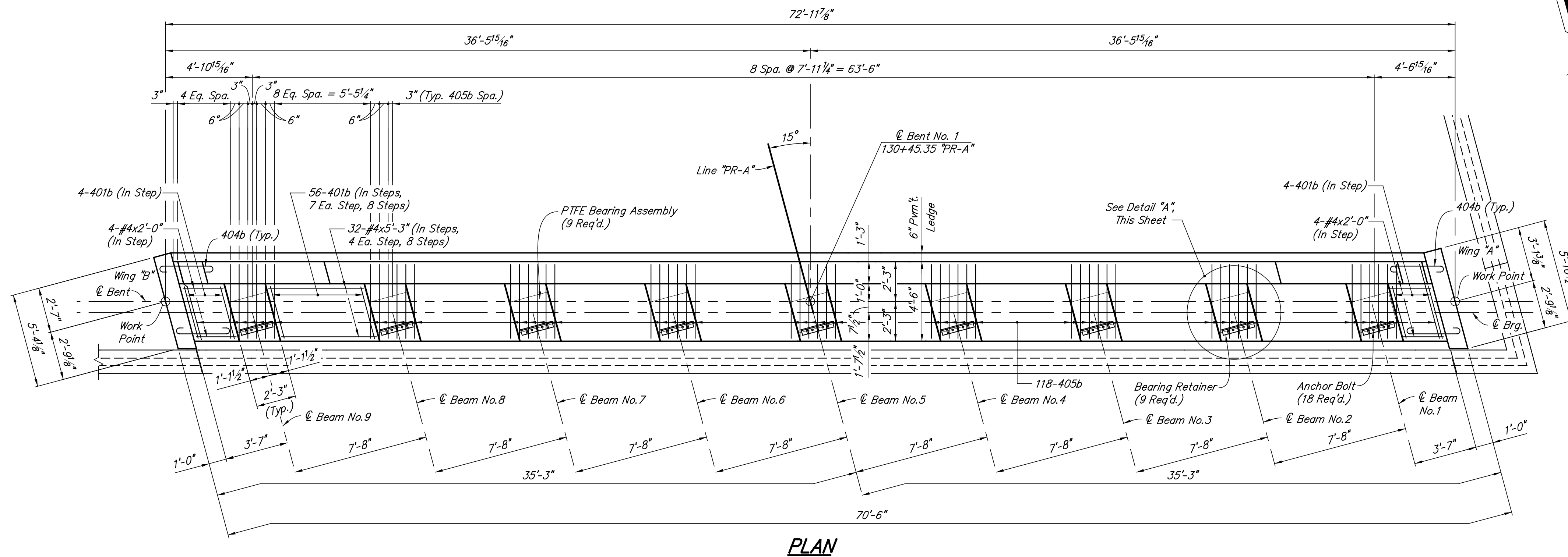
RECOMMENDED FOR APPROVAL *David A. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: DSH DRAWN: DSH  
CHECKED: DAD CHECKED: DAD

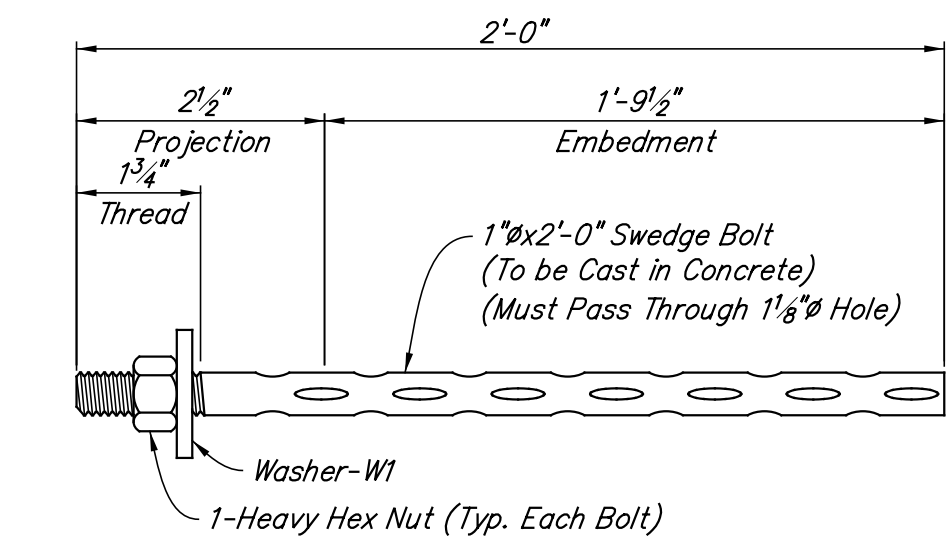
INDIANA  
DEPARTMENT OF TRANSPORTATION

**EXISTING STRUCTURE  
REMOVAL DETAILS**

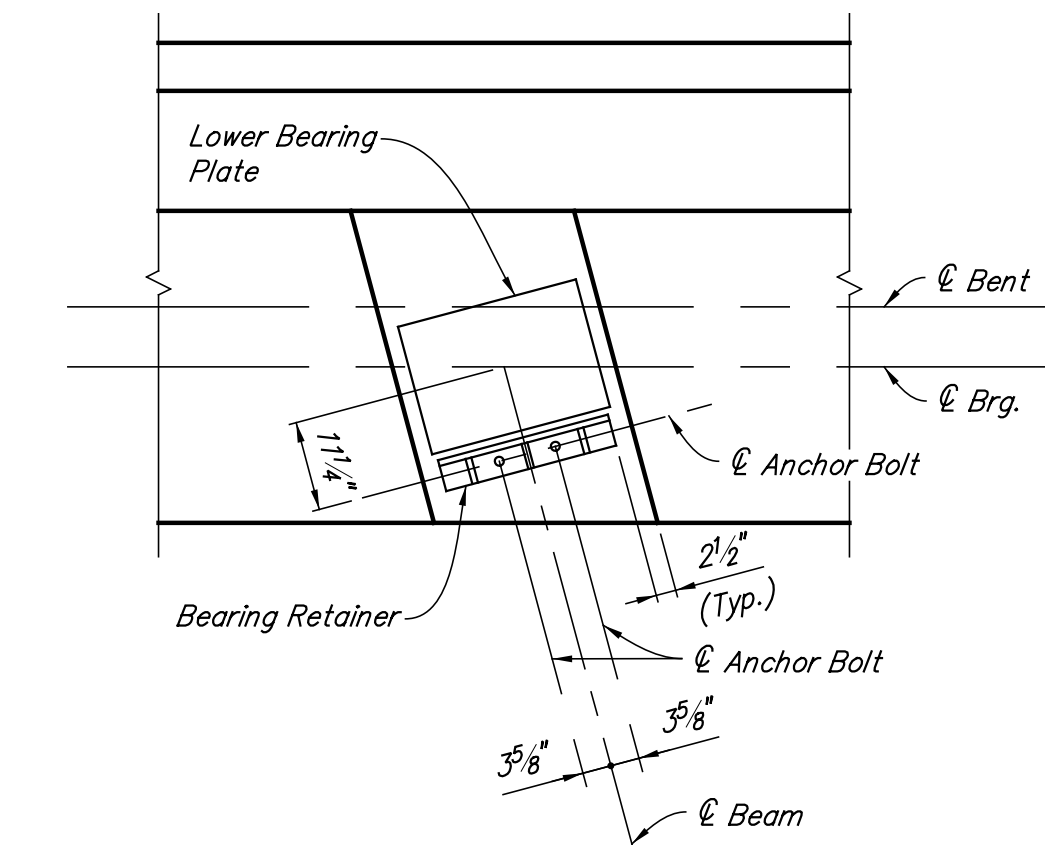
HORIZONTAL SCALE 1" = 20'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 58 of 147
CONTRACT B-33357	PROJECT NO. N881008



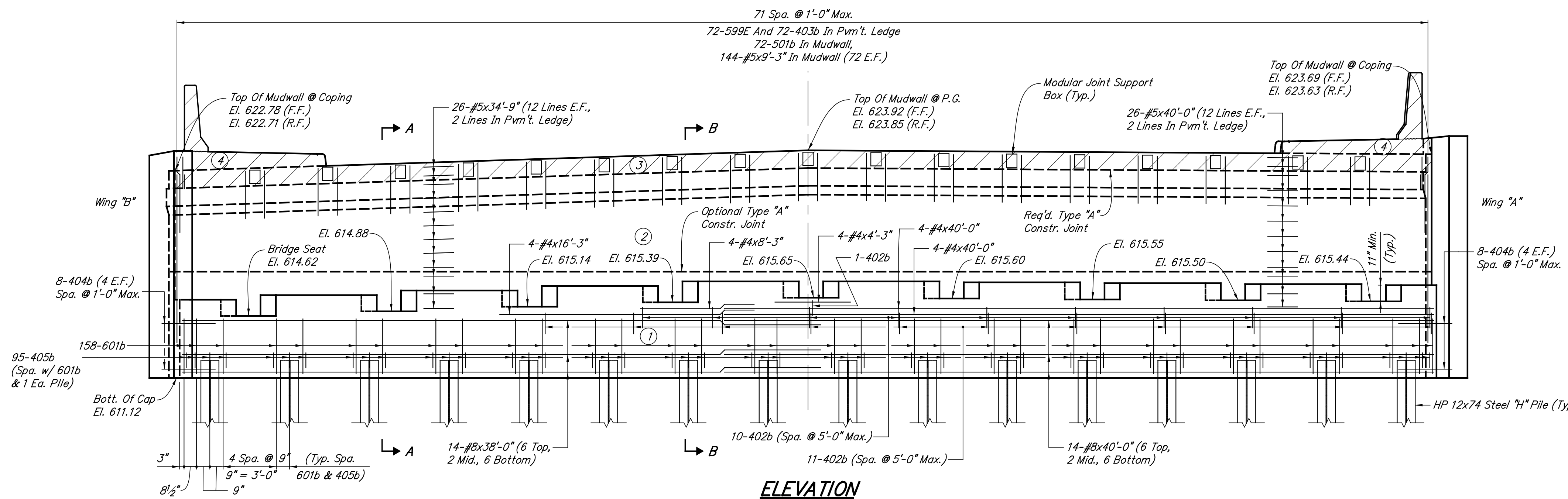
**PLAN**



**ANCHOR BOLT DETAIL**  
No Scale



**DETAIL "A"**  
Scale: 1/2" = 1'-0"

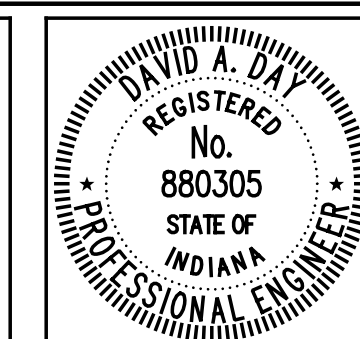


**ELEVATION**

Min. Lap	
#4	1'-8"
#5	2'-0"
#8	5'-5"

**NOTES:**

- For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.
- All reinforcing steel to be epoxy coated.
- Hatched area to be poured with superstructure.
- For PTFE Bearing Assembly Details and Bearing Retainer Details, see Sheet No. 87.
- Surface Seal all exposed surfaces of wings, top and front face of mudwall, and exposed surfaces of bent cap.
- For additional details and Bill Of Materials, see Sheet No. 60.
- For end bent backfill limits, see Standard Drawing E211-BFIL-04.
- (X) Indicates concrete pour number and sequence of pours.



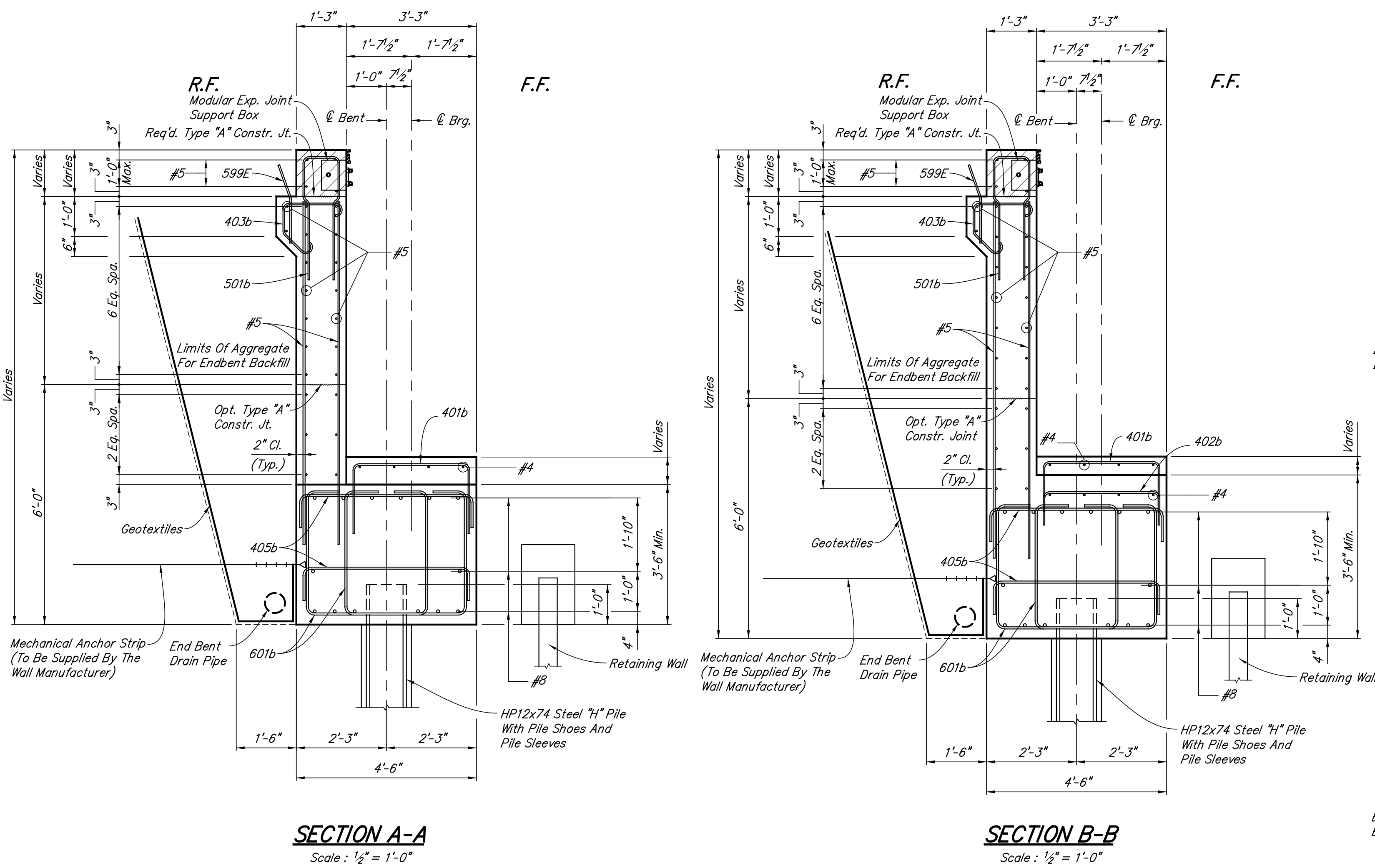
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: EWM  
CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

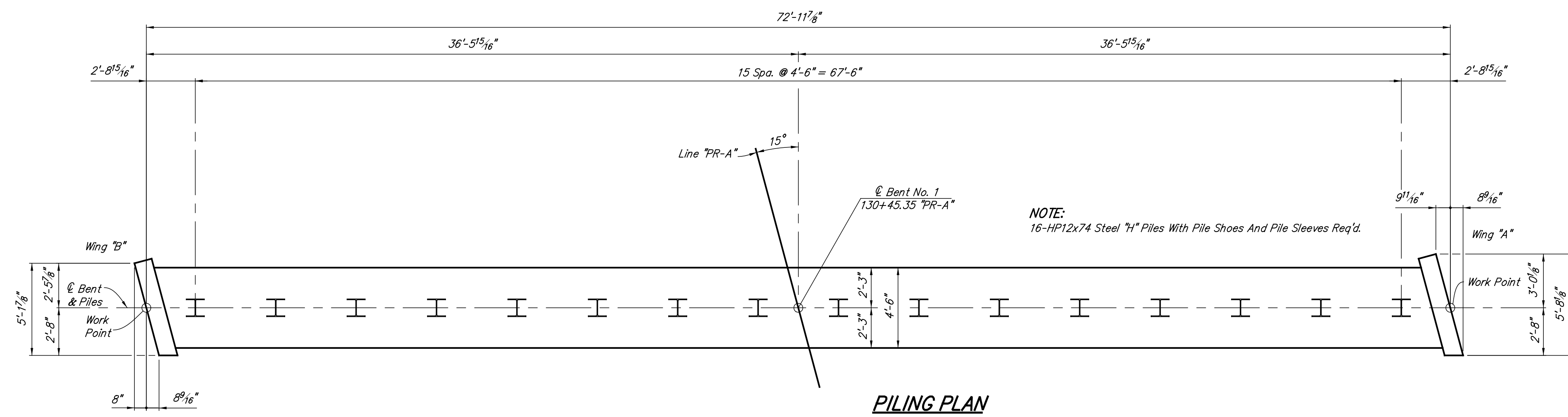
**BENT NO. 1 DETAILS**

HORIZONTAL SCALE 1/4" = 1'-0"; Unless Noted	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 59 of 147
CONTRACT B-33357	PROJECT NO. N881008

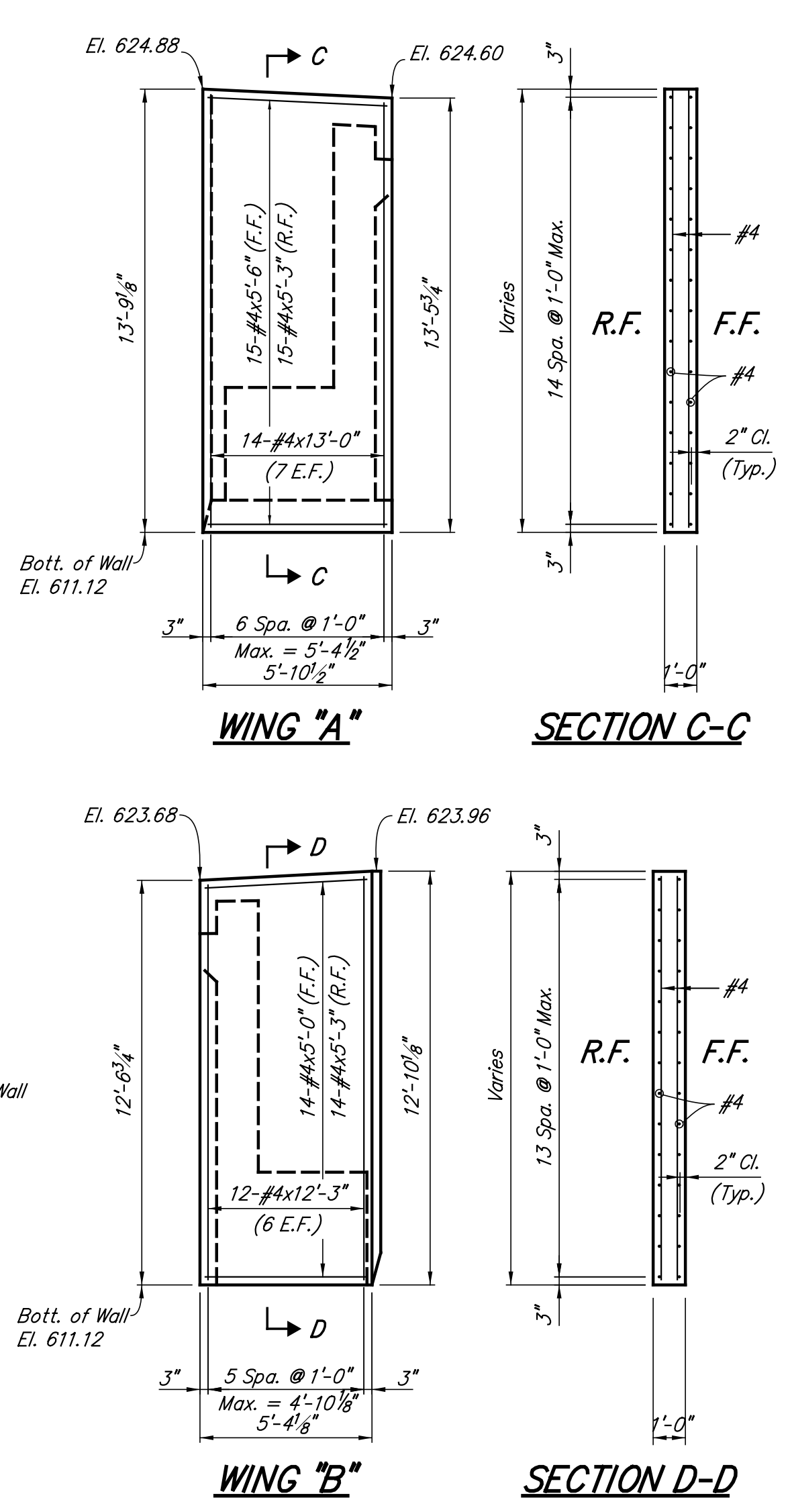


**SECTION A-A**  
Scale: 1/2" = 1'-0"

**SECTION B-B**  
Scale: 1/2" = 1'-0"



**PILING PLAN**

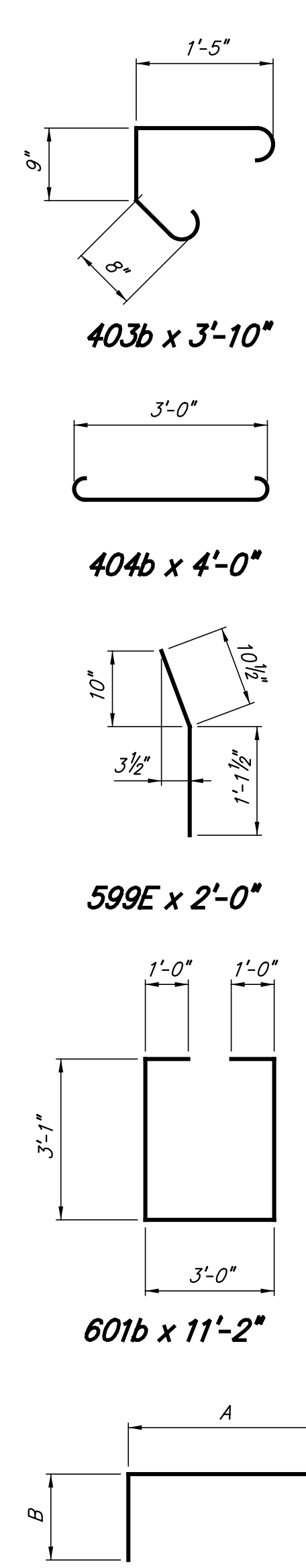


**WING "A"**

**SECTION C-C**

**WING "B"**

**SECTION D-D**

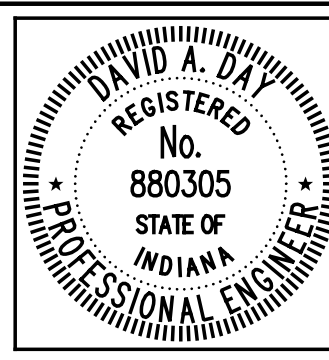


MARK	A	B	Length
401b	2'-11"	1'-9"	6'-5"
402b	2'-11"	1'-4"	5'-7"
405b	4'-2"	8"	5'-6"
501b	11"	4'-3"	9'-5"

**BENT NO. 1  
BILL OF MATERIALS**

Size And Mark	Epoxy Coated Reinforcing Steel	No. of Bars	Length (Feet)	Weight (Lbs.)
#8	14	40'-0"		
#8	14	38'-0"		
	<b>Total No. 8</b>			<b>2916</b>
601b	158	11'-2"		
	<b>Total No. 6</b>			<b>2651</b>
599E	72	2'-0"		
501b	72	9'-5"		
#5	26	40'-0"		
#5	26	34'-9"		
#5	144	9'-3"		
	<b>Total No. 5</b>			<b>4274</b>
401b	64	6'-5"		
402b	22	5'-7"		
403b	72	3'-10"		
404b	16	4'-0"		
405b	213	5'-6"		
#4	8	40'-0"		
#4	4	16'-3"		
#4	14	13'-0"		
#4	12	12'-3"		
#4	4	8'-3"		
#4	15	5'-6"		
#4	61	5'-0"		
#4	14	5'-0"		
#4	4	4'-3"		
#4	8	2'-0"		
	<b>Total No. 4</b>			<b>2203</b>
	<b>Total Epoxy Coated Reinforcing Steel</b>			<b>12044</b>
<b>Concrete</b>				
Class "A" in Substructure				
Pour No. 1				
				67.2 Cys
Pour No. 2				
				18.9 Cys
<b>Total Class "A" in Substructure</b>				
				<b>86.1 Cys</b>
Class "C" in Superstructure				
Pour No. 3				
				3.8 Cys
Pour No. 4 (2 @ 0.3 Cys.)				
				0.6 Cys
<b>Total Class "C" in Superstructure</b>				
				<b>4.4 Cys</b>
<b>Miscellaneous</b>				
Surface Seal				
16-Piles, Steel #4, HP12x74				
				1320 Sft.
x 120'-0" Approximate				
				1920 Lft.
Pile Shoe, HP12x74				
				16 Each
Pile Sleeve				
				16 Each

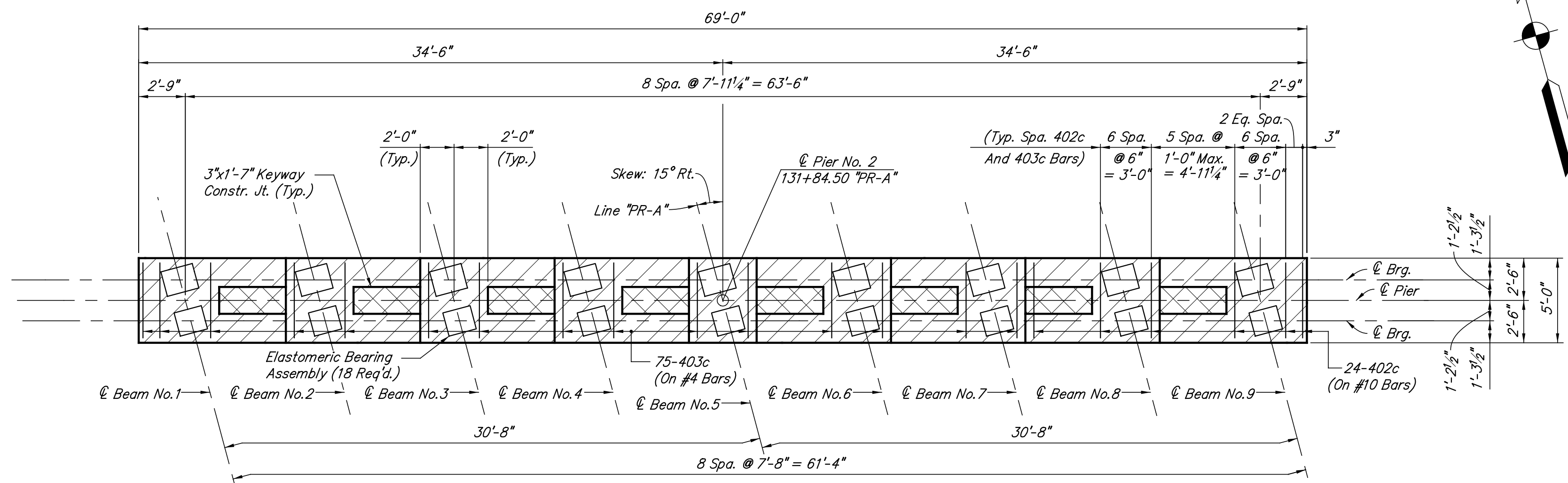
**NOTES:**  
 For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.  
 All reinforcing steel to be epoxy coated.  
 Hatched area to be poured with superstructure.  
 Surface Seal all exposed surfaces of wings, top and front face of mudwall, and exposed surfaces of bent cap.  
 For end bent backfill limits and drain pipe details, see Standard Drawing E211-BFIL-04.



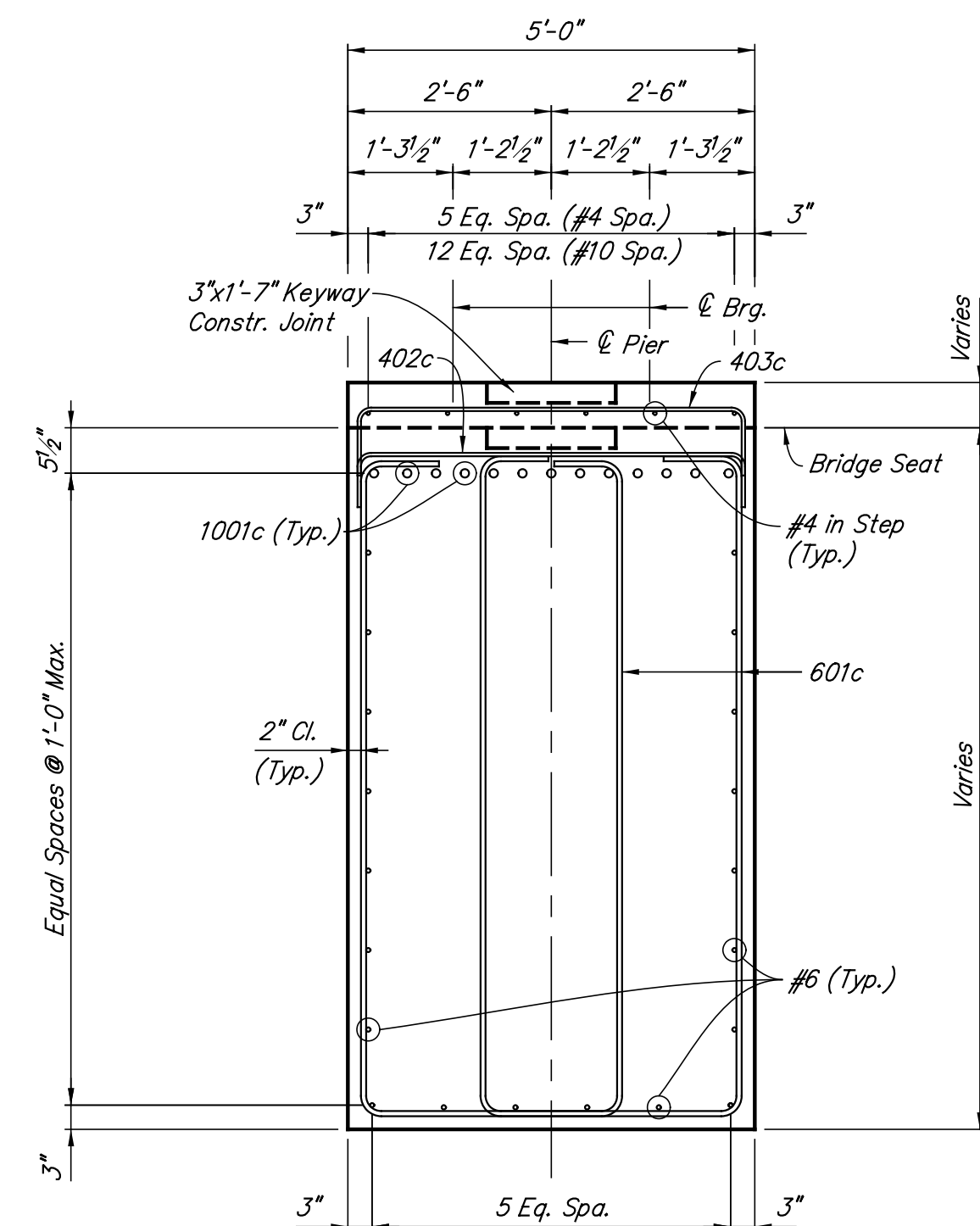
RECOMMENDED FOR APPROVAL: *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: DZ DRAWN: EWM  
 CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**BENT NO. 1 DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
1/2" = 1'-0"	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	60 of 147
CONTRACT	PROJECT NO.
B-33357	N881008



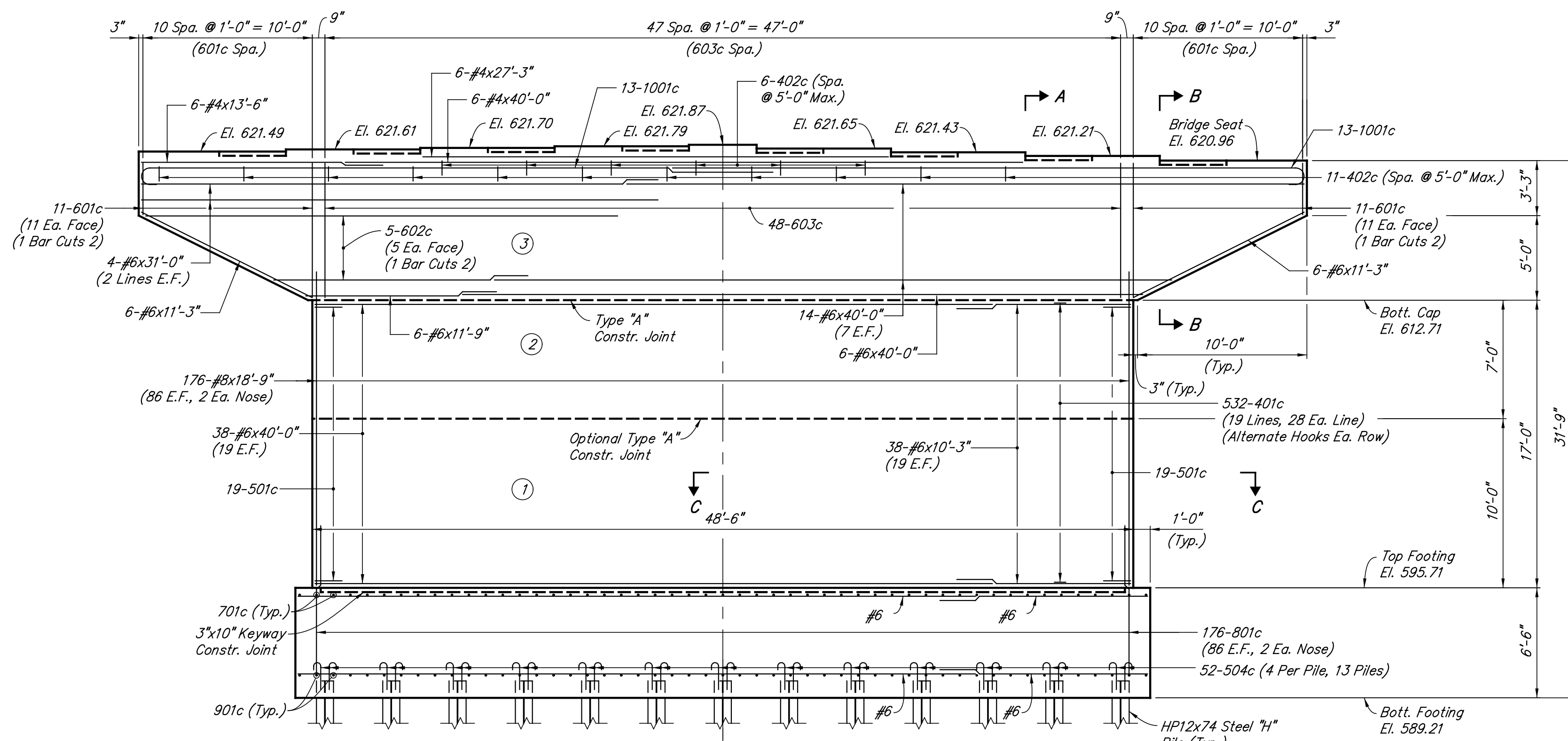
**CAP PLAN**



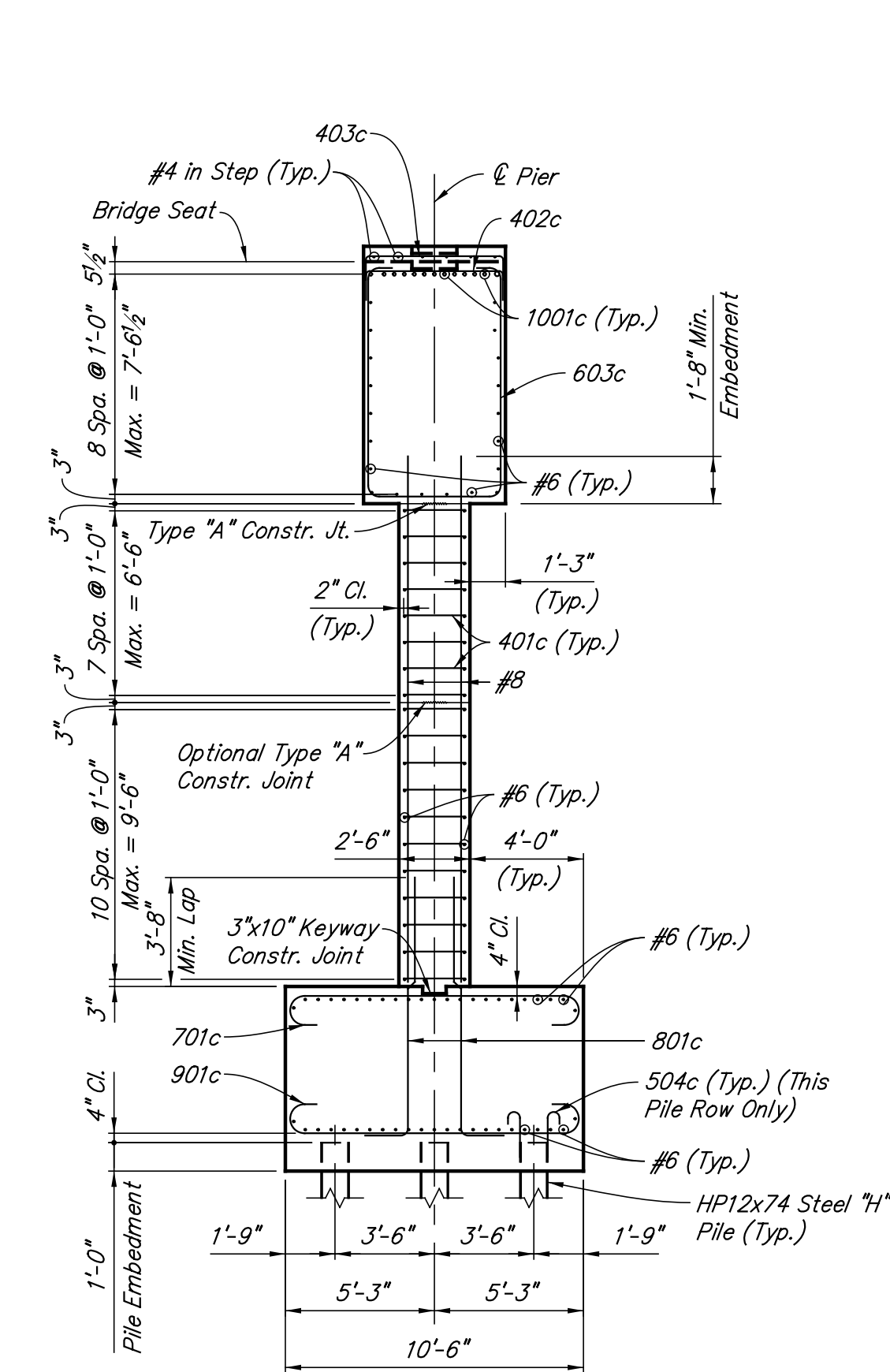
**SECTION B-B**

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

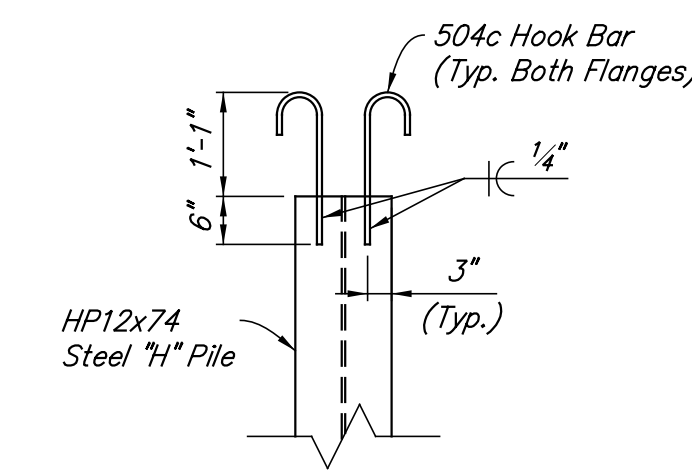
Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	7'-4"



**ELEVATION**



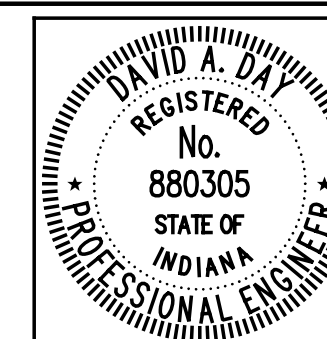
**SECTION A-A**



**PILE HOOK DETAIL**

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

- NOTES:**
- For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.
  - All reinforcing steel to be plain.
  - Cross-hatched areas indicate limits of Expanded Polystyrene cut out to clear elastomeric bearing pads by 1/2" on all sides. For additional detail and treatment of keyway construction joint, see Sheet No. 97.
  - For Elastomeric Bearing Assembly Details, see Sheet No. 87.
  - Surface Seal the top and vertical surfaces of pier cap.
  - For additional details and Bill Of Materials, see Sheet No. 62.
  - For pier backfill limits, see Standard Drawing E211-BFIL-03.
  - (X) Indicates concrete pour number and sequence of pours.



RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: DZ DRAWN: EWM  
 CHECKED: RMC CHECKED: DAD

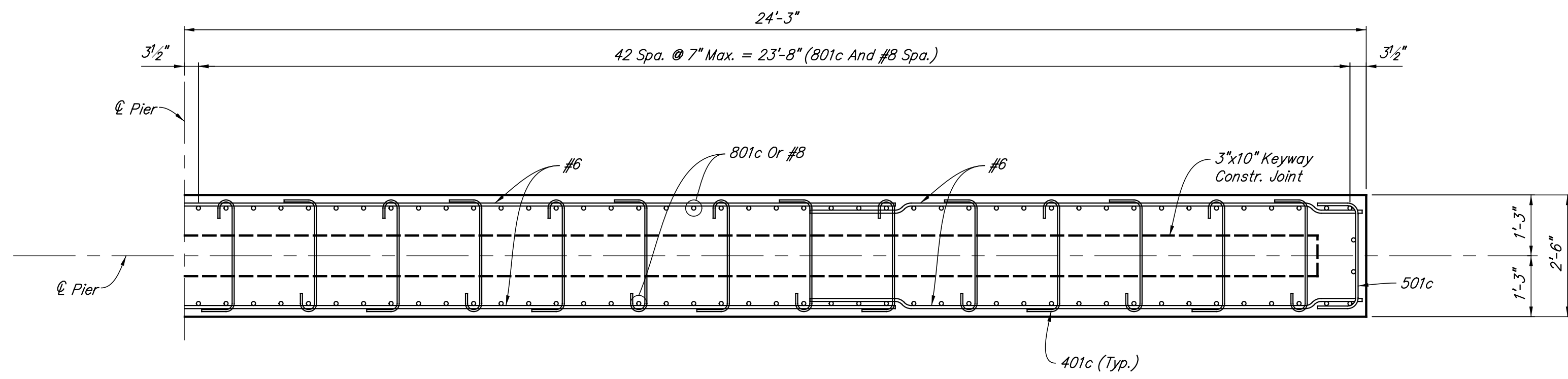
INDIANA  
 DEPARTMENT OF TRANSPORTATION

PIER NO. 2 DETAILS

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	61 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

**PIER NO. 2  
BILL OF MATERIALS**

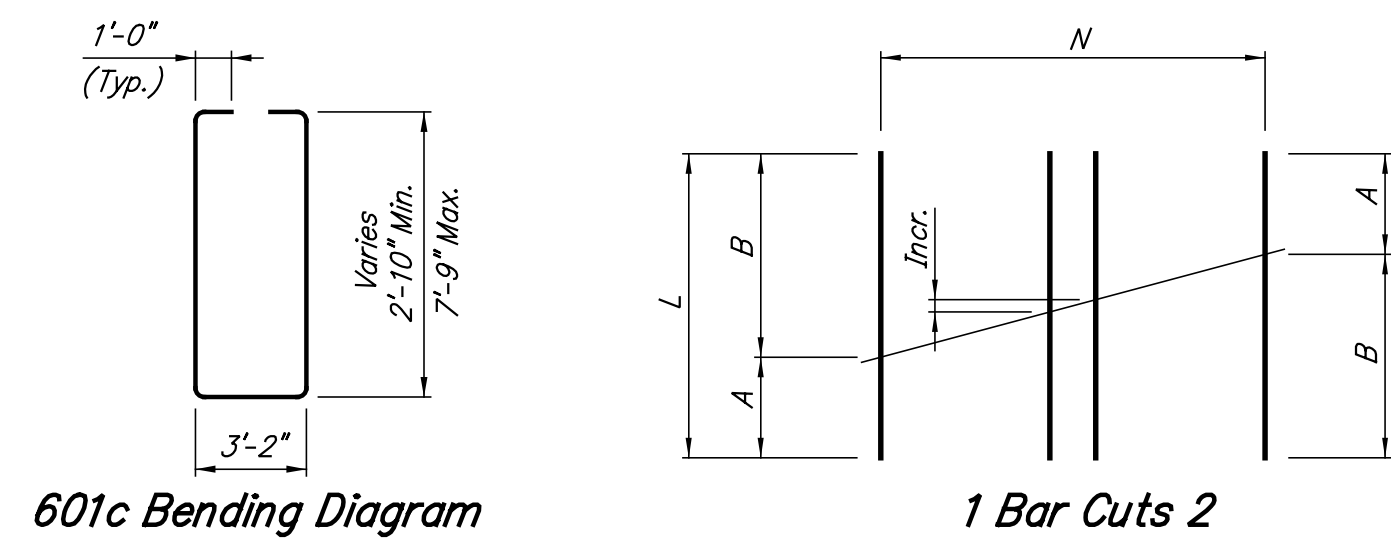
Plain Reinforcing Steel			
Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)
1001c	26	39'-5"	
Total No. 10			4410
901c	51	12'-8"	
Total No. 9			2197
801c	176	10'-2"	
#8	176	18'-9"	
Total No. 8			13589
701c	51	11'-10"	
Total No. 7			1234
601c	22	31'-6"	
602c	5	45'-5"	
603c	48	22'-2"	
#6	104	40'-0"	
#6	4	31'-0"	
#6	46	12'-3"	
#6	6	11'-9"	
#6	12	11'-3"	
#6	38	10'-3"	
Total No. 6			11155
501c	38	3'-10"	
504c	52	2'-2"	
Total No. 5			270
401c	532	3'-4"	
402c	41	6'-0"	
403c	75	6'-8"	
#4	6	40'-0"	
#4	6	27'-3"	
#4	6	13'-6"	
Total No. 4			2007
Total Plain Reinforcing Steel			34862
Concrete			
Class "A" in Substructure			
Pour No. 1			44.9 Cys
Pour No. 2			31.4 Cys
Pour No. 3			103.0 Cys
Total Class "A" in Substructure			179.3 Cys
Class "B" in Footing			127.7 Cys
Miscellaneous			
Surface Seal			1500 Sft.
38-Piles, Steel "H", HP12x74 x 95'-0" Approximate			3610 Lft.
1-Test Pile, Dynamic, Production x 105'-0" Approximate			105 Lft.
Pile Shoe, HP12x74			39 Each



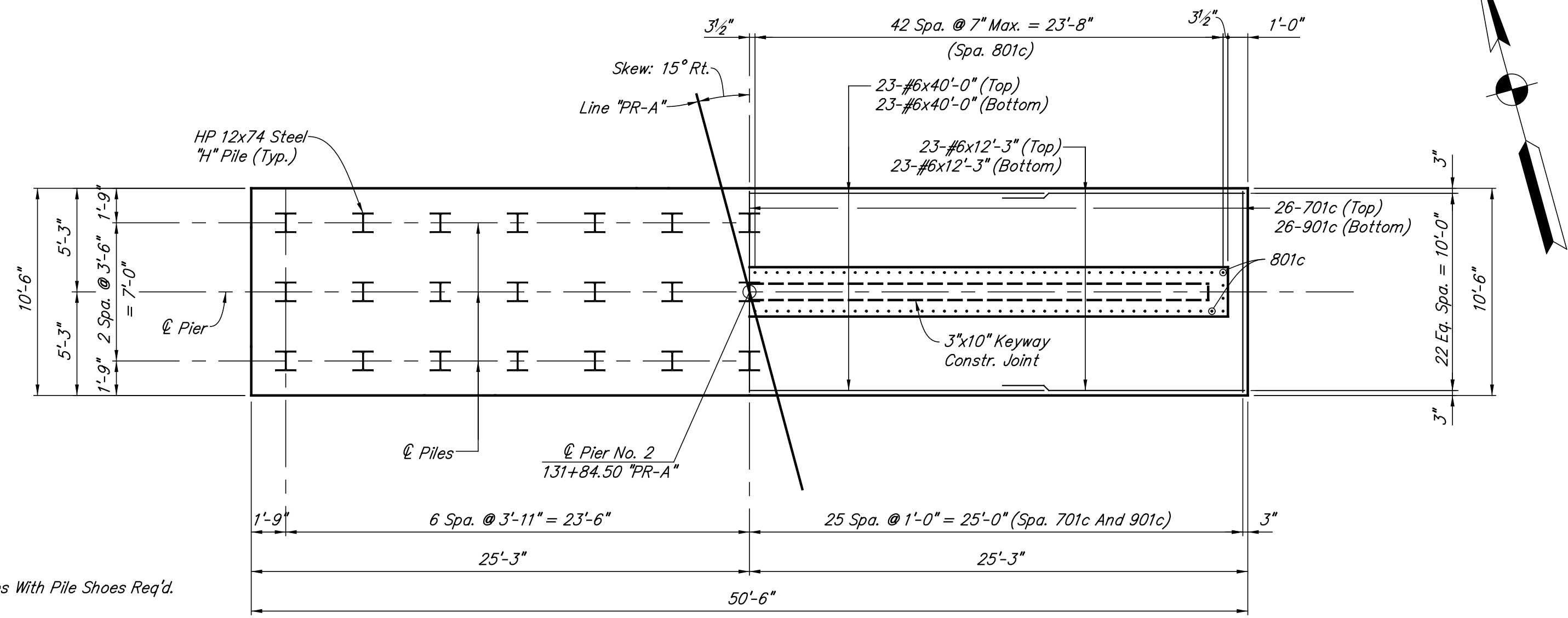
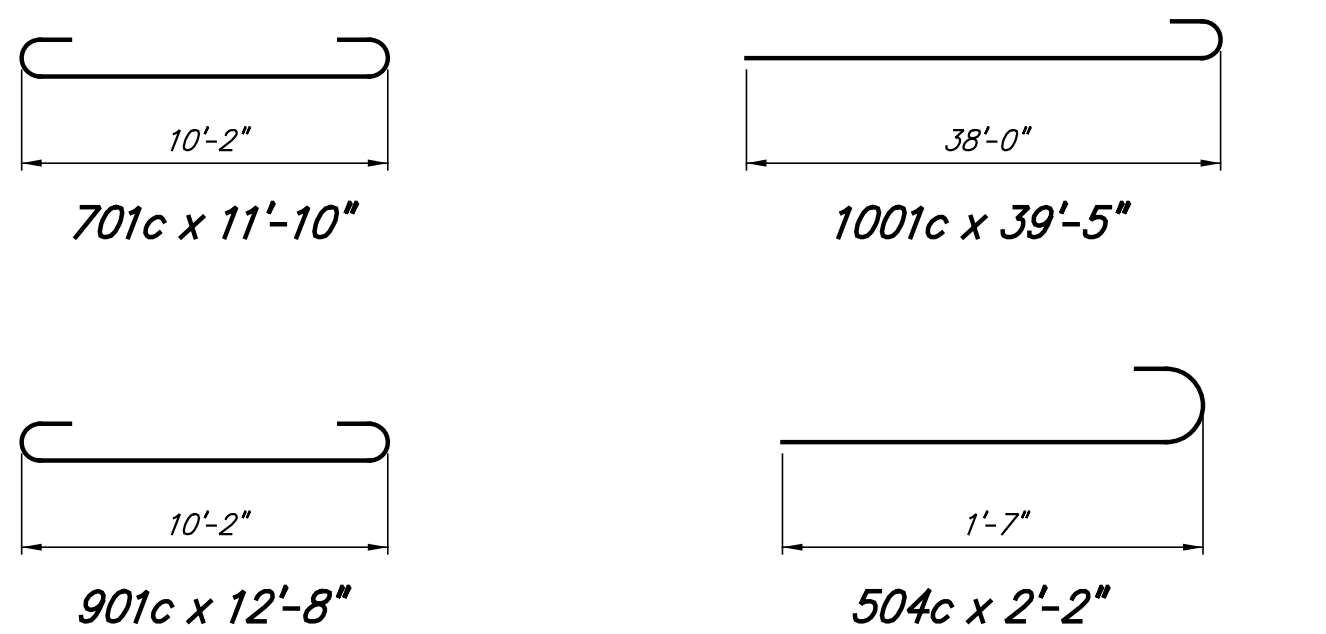
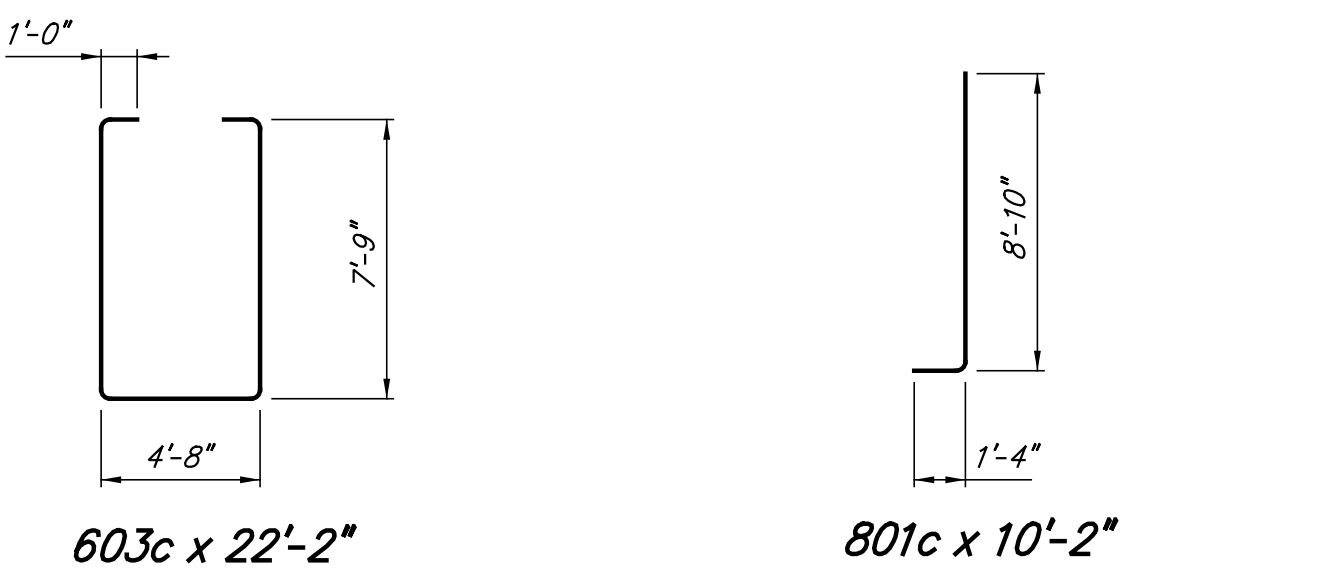
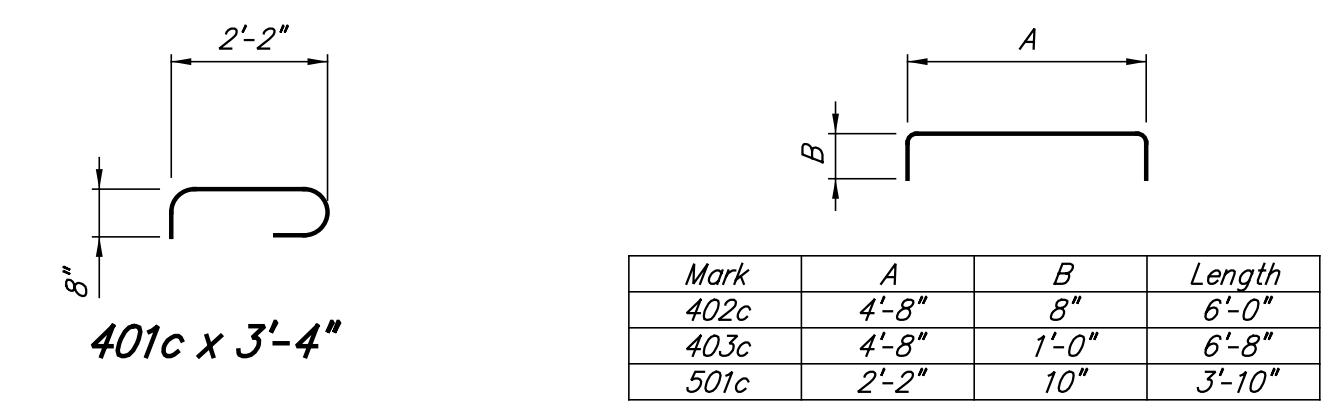
**SECTION C-C**

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

Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	7'-4"



Mark	L	A	B	Incr.	N
601c	31'-6"	10'-10"	20'-8"	11 3/4" ±	11
602c	45'-5"	15'-1"	30'-4"	3'-9 3/4"	5

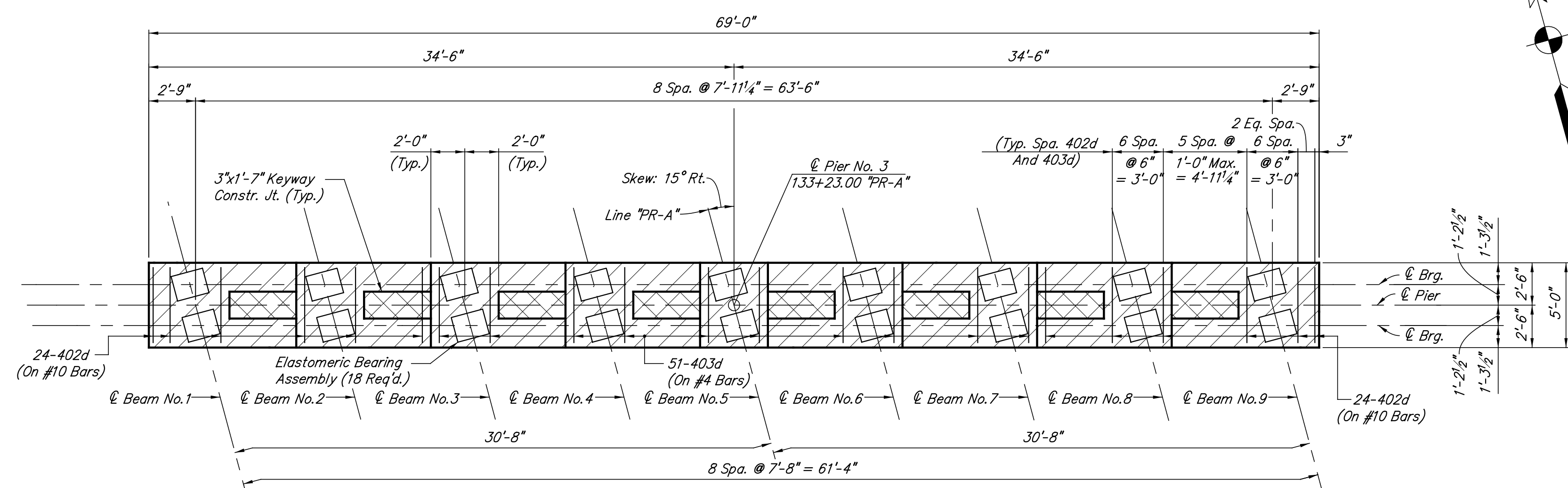


NOTE: 39-HP 12x74 Steel "H" Piles With Pile Shoes Req'd.

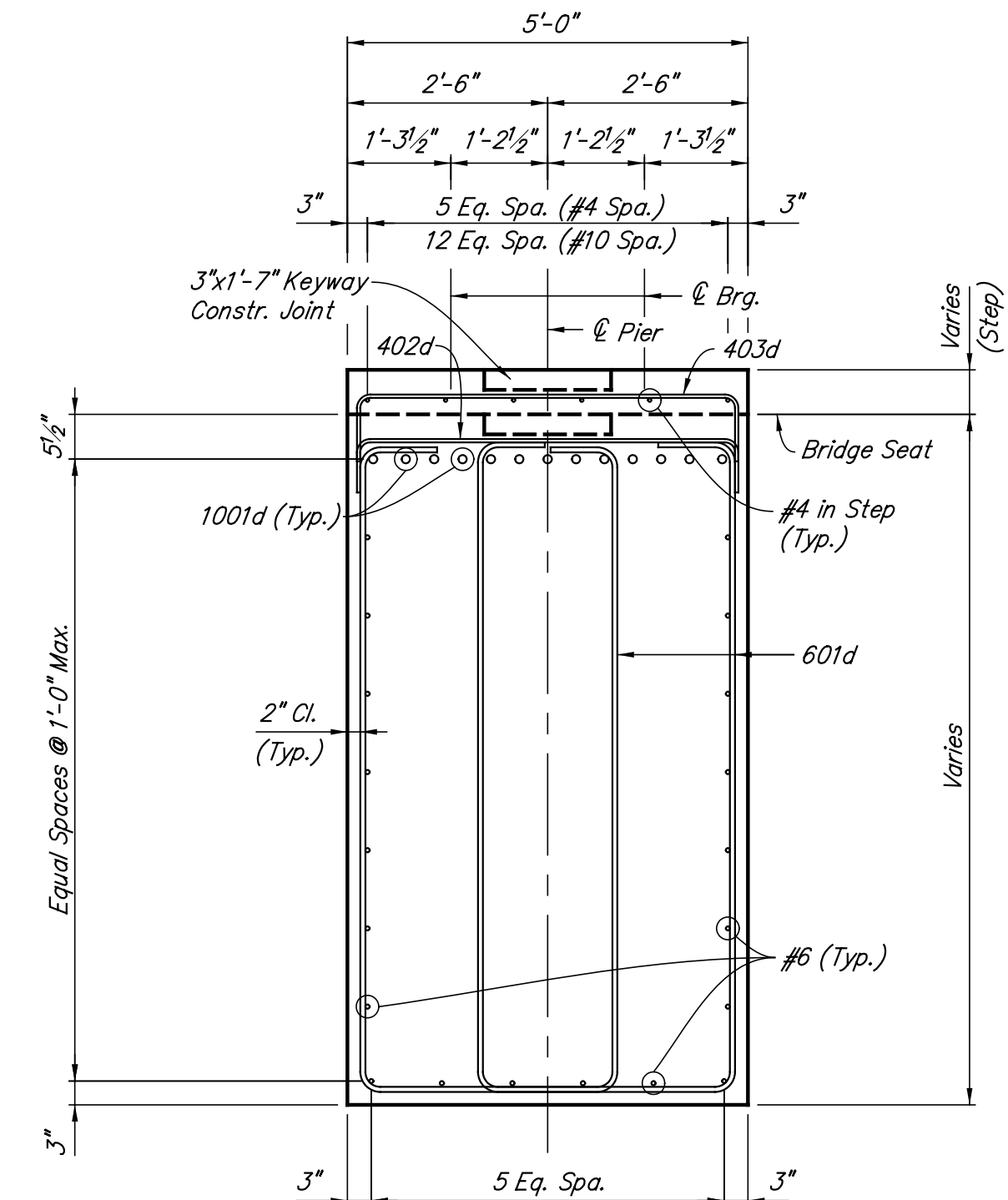
LEFT HALF SHOWS PILE SPACING  
RIGHT HALF SHOWS REINFORCING STEEL  
**FOOTING PLAN**

**NOTES:**  
For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.  
All reinforcing steel to be plain.  
For pier backfill limits, see Standard Drawing E211-BFIL-03.

	RECOMMENDED FOR APPROVAL <i>David B. Day</i> DESIGN ENGINEER DATE: 6/1/2012	INDIANA DEPARTMENT OF TRANSPORTATION  <b>PIER NO. 2 DETAILS</b>	HORIZONTAL SCALE 3/16" = 1'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
	DESIGNED: DZ DRAWN: EWM CHECKED: RMC CHECKED: DAD		VERTICAL SCALE DESIGNATION NO. 0014210	SURVEY BOOK CONTRACT B-33357

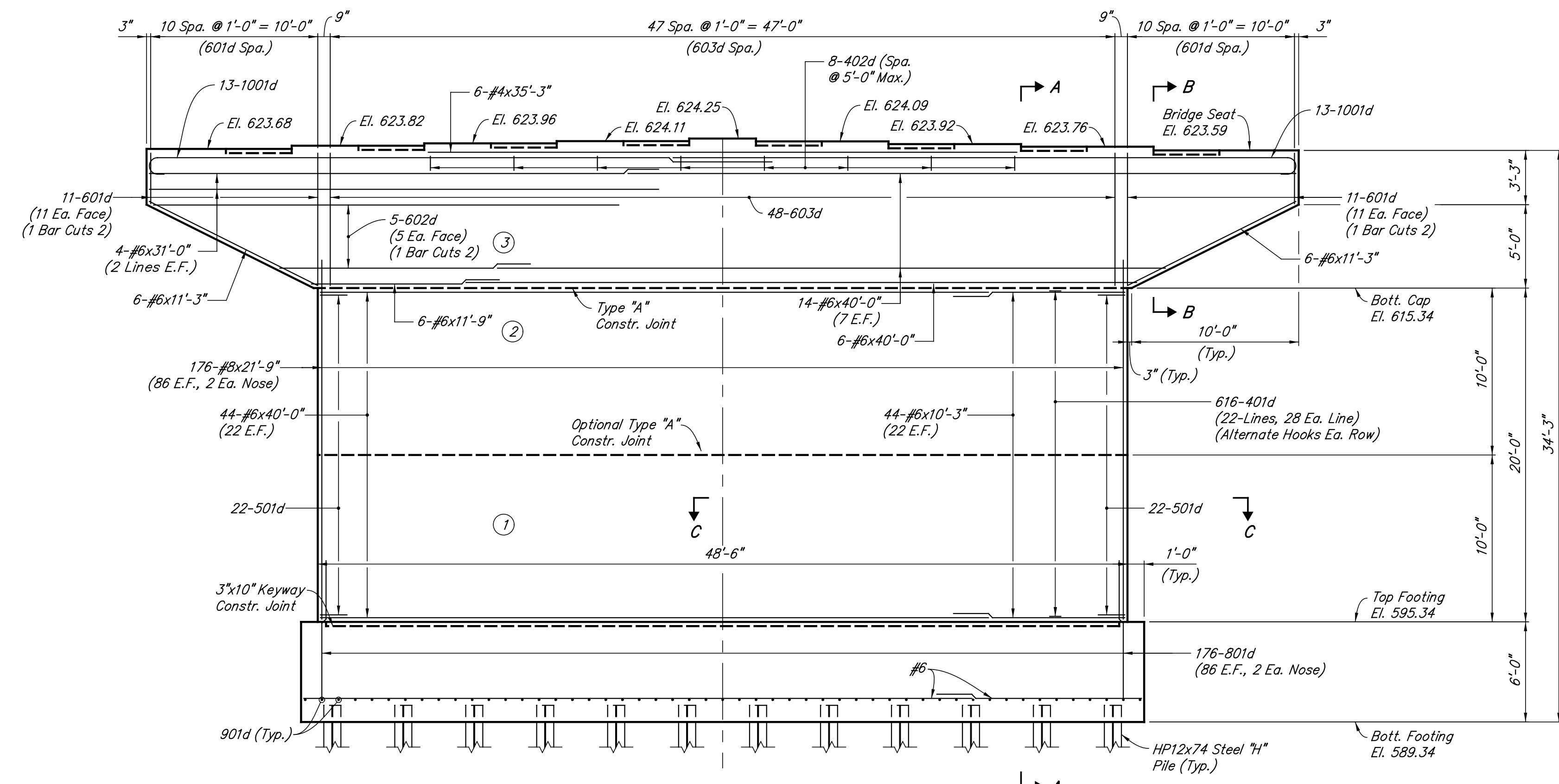


**CAP PLAN**

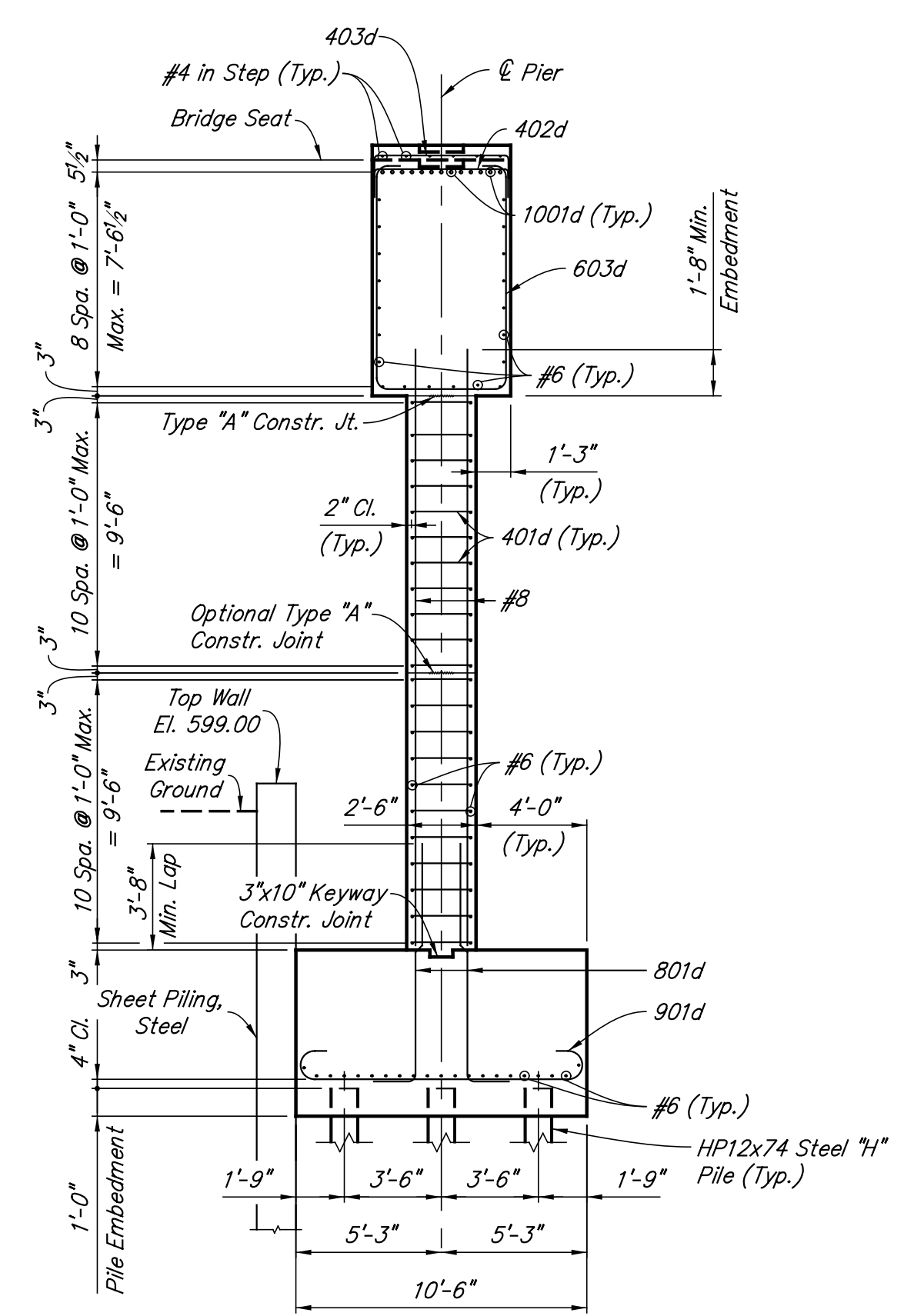


**SECTION B-B**

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



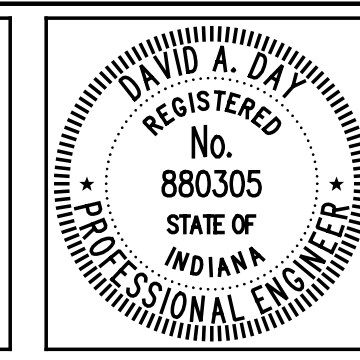
**ELEVATION**



**SECTION A-A**

Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	7'-4"

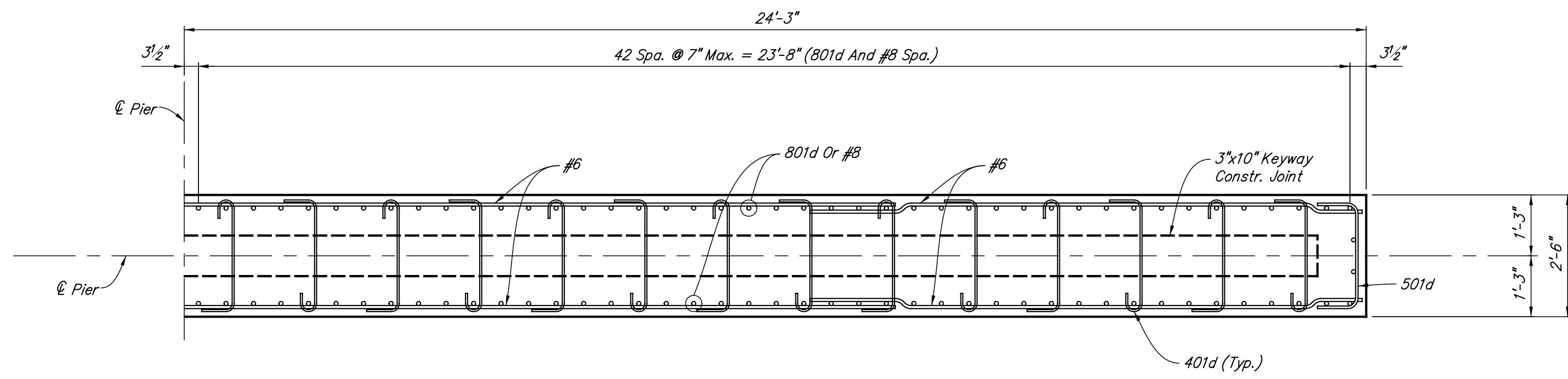
**NOTES:**  
 For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.  
 All reinforcing steel to be plain.  
 Cross-hatched areas indicate limits of Expanded Polystyrene cut out to clear elastomeric bearing pads by 1/2" on all sides. For additional detail and treatment of keyway construction joint, see Sheet No. 97.  
 For Elastomeric Bearing Assembly Details, see Sheet No. 87.  
 Surface Seal the top and vertical surfaces of pier cap.  
 For additional details and Bill Of Materials, see Sheet No. 64.  
 For pier backfill limits, see Standard Drawing E211-BFIL-03.  
 (X) Indicates concrete pour number and sequence of pours.



RECOMMENDED FOR APPROVAL: *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: DZ DRAWN: EWM  
 CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**PIER NO. 3 DETAILS**

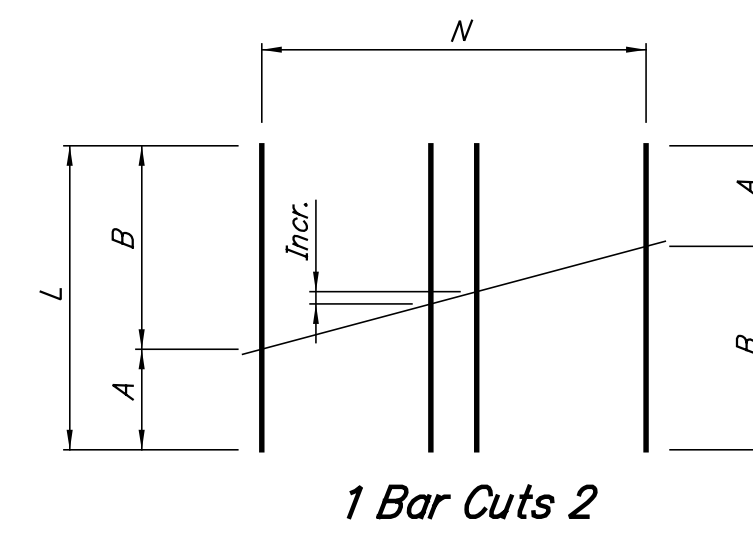
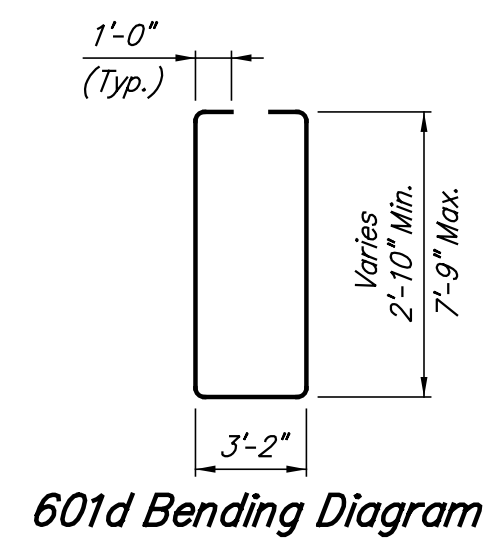
HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	63 of 147
CONTRACT	PROJECT NO.
B-33357	N881008



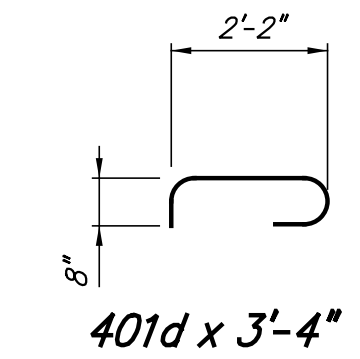
**SECTION C-C**

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

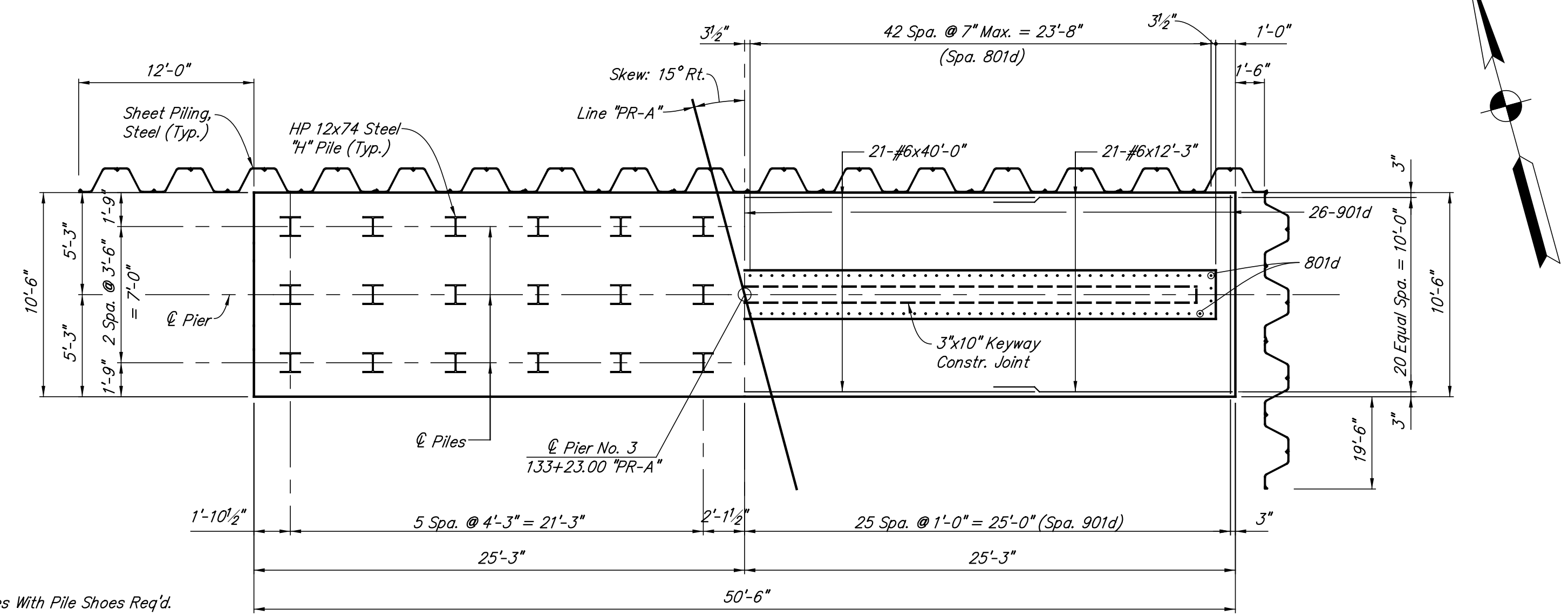
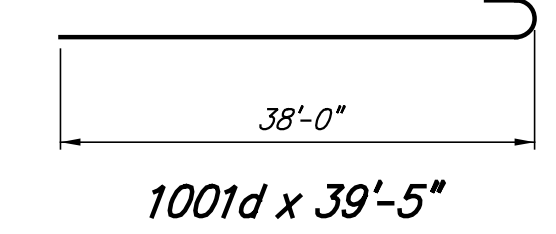
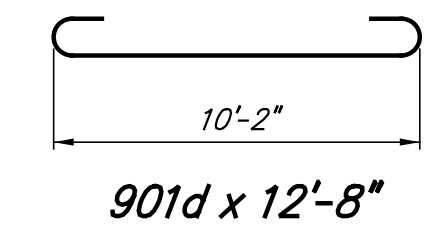
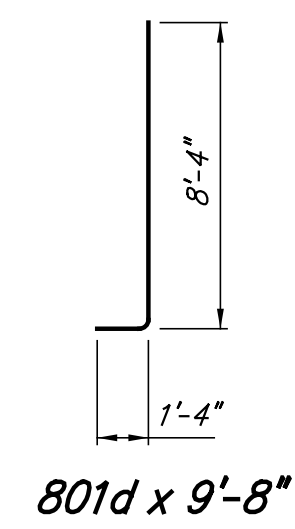
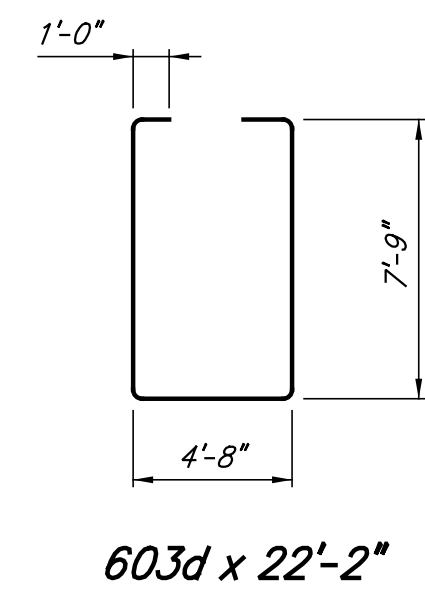
Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	7'-4"



Mark	L	A	B	Incr.	N
601d	31'-6"	10'-10"	20'-8"	11 3/4" ±	11
602d	45'-5"	15'-1"	30'-4"	3'-9 3/4"	5



Mark	A	B	Length
402d	4'-8"	8"	6'-0"
403d	4'-8"	1'-0"	6'-8"
501d	2'-2"	10"	3'-10"



NOTE: 36-HP 12x74 Steel "H" Piles With Pile Shoes Req'd.

LEFT HALF SHOWS PILE SPACING  
RIGHT HALF SHOWS REINFORCING STEEL

**FOOTING PLAN**

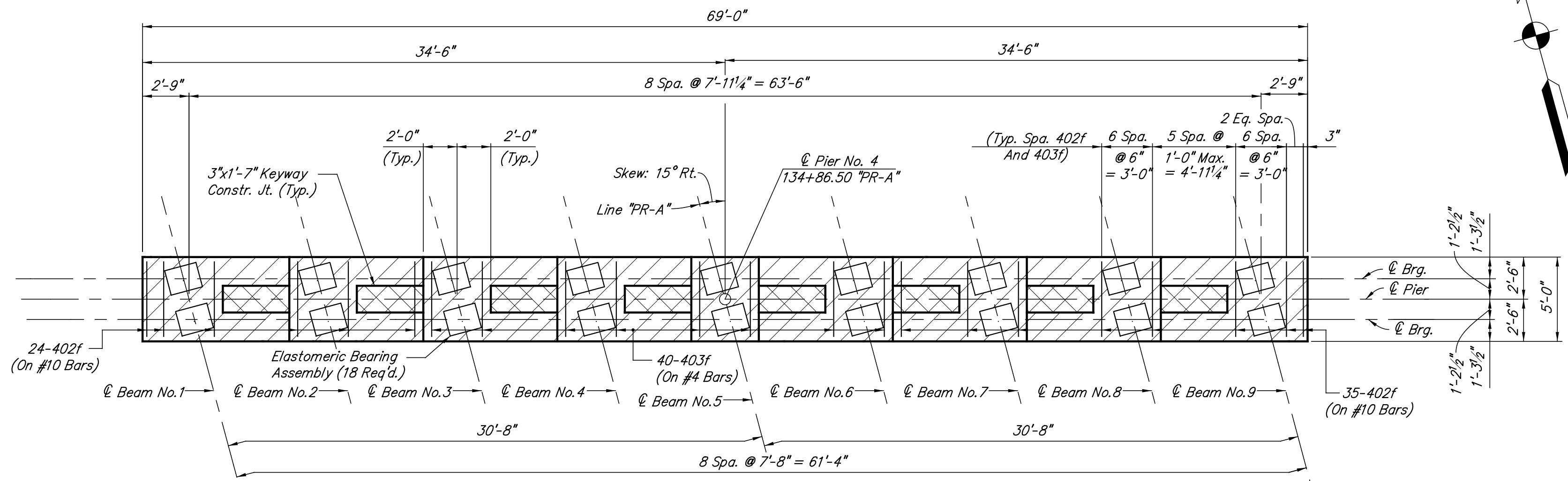
**PIER NO. 3  
BILL OF MATERIALS**

Plain Reinforcing Steel			
Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)
1001d	26	39'-5"	
Total No. 10			4410
901d	51	12'-8"	
Total No. 9			2197
801d	176	9'-8"	
#8	176	21'-9"	
Total No. 8			14764
601d	22	31'-6"	
602d	5	45'-5"	
603d	48	22'-2"	
#6	85	40'-0"	
#6	4	31'-0"	
#6	21	12'-3"	
#6	6	11'-9"	
#6	12	11'-3"	
#6	44	10'-3"	
Total No. 6			9646
501d	44	3'-10"	
Total No. 5			176
401d	616	3'-4"	
402d	56	6'-0"	
403d	51	6'-8"	
#4	6	35'-3"	
Total No. 4			1965
Total Plain Reinforcing Steel			33158
Concrete			
Class "A" in Substructure			
Pour No. 1			44.9 Cys
Pour No. 2			44.9 Cys
Pour No. 3			99.9 Cys
Total Class "A" in Substructure			189.7 Cys
Class "B" in Footing			117.8 Cys
Miscellaneous			
Surface Seal			1460 Sft.
36-Piles, Steel "H", HP12x74			
x 95'-0" Approximate			3420 Lft.
Pile Shoe, HP12x74			36 Each

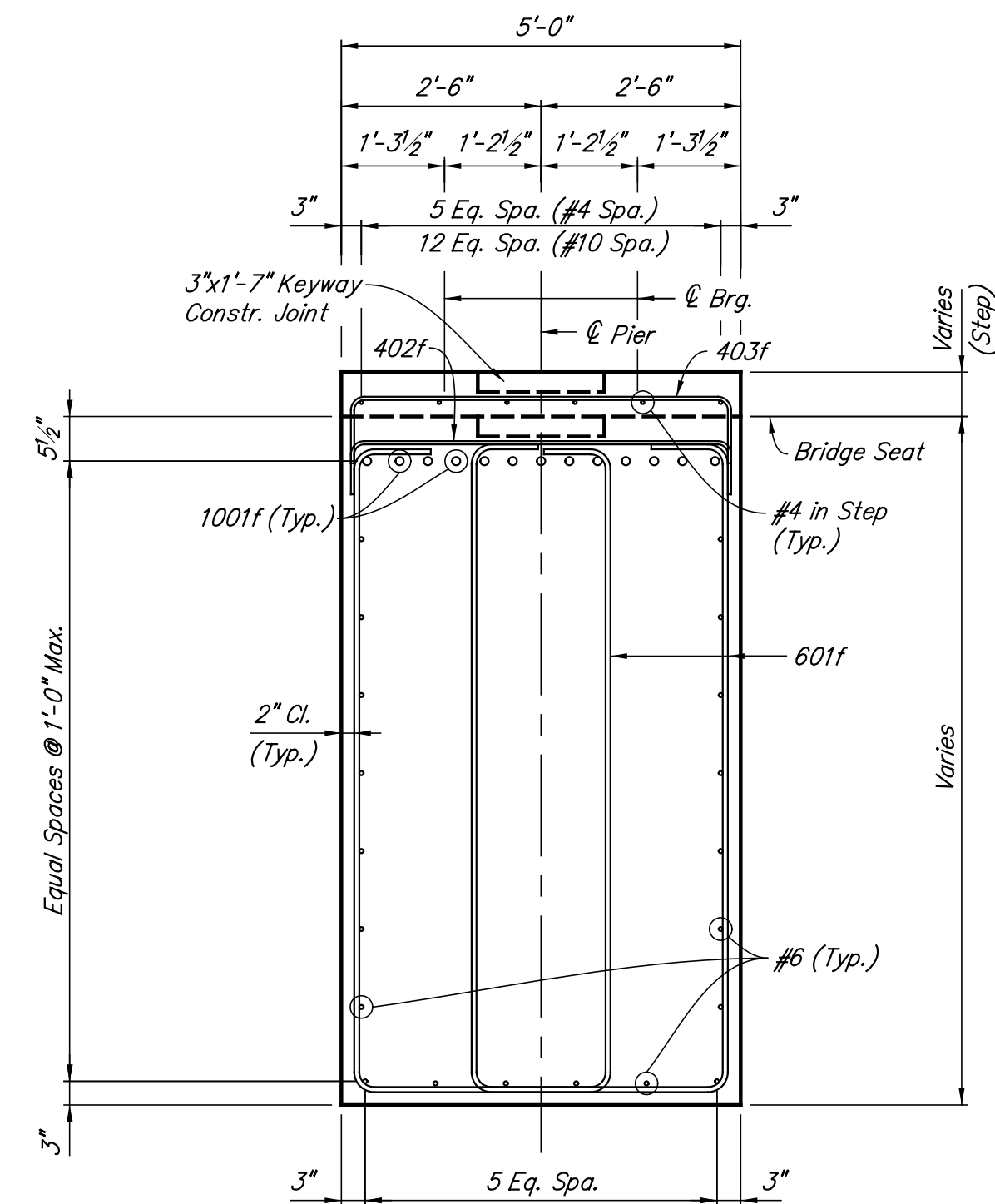
NOTES:  
For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.  
All reinforcing steel to be plain.  
For pier backfill limits, see Standard Drawing E211-BFIL-03.

	RECOMMENDED FOR APPROVAL <i>David B. Day</i> DESIGN ENGINEER DATE: 6/1/2012	INDIANA DEPARTMENT OF TRANSPORTATION  <b>PIER NO. 3 DETAILS</b>	HORIZONTAL SCALE 3/16" = 1'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
	DESIGNED: DZ DRAWN: EWM CHECKED: RMC CHECKED: DAD		SURVEY BOOK B-33357	DESIGNATION NO. 0014210





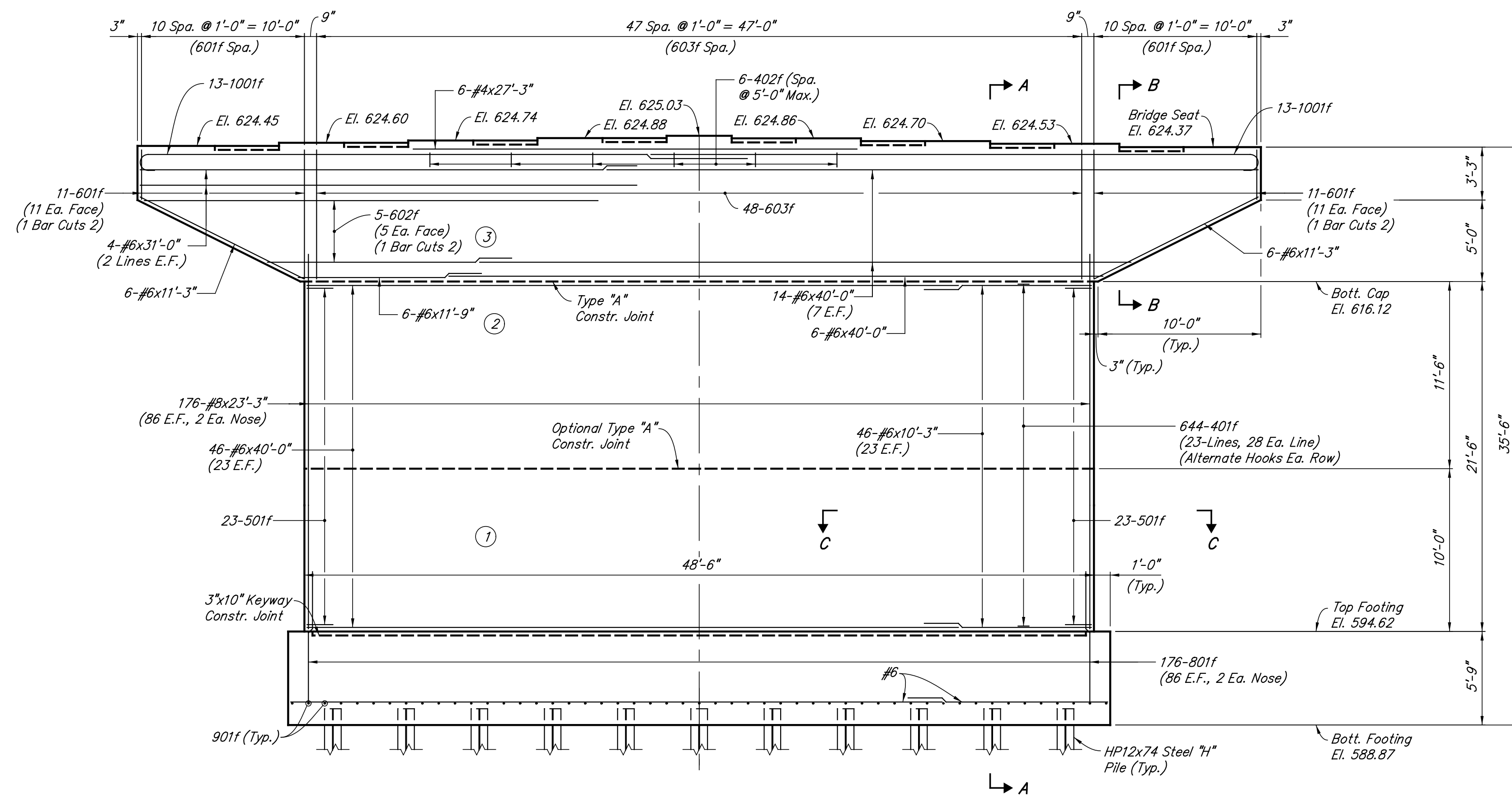
**CAP PLAN**



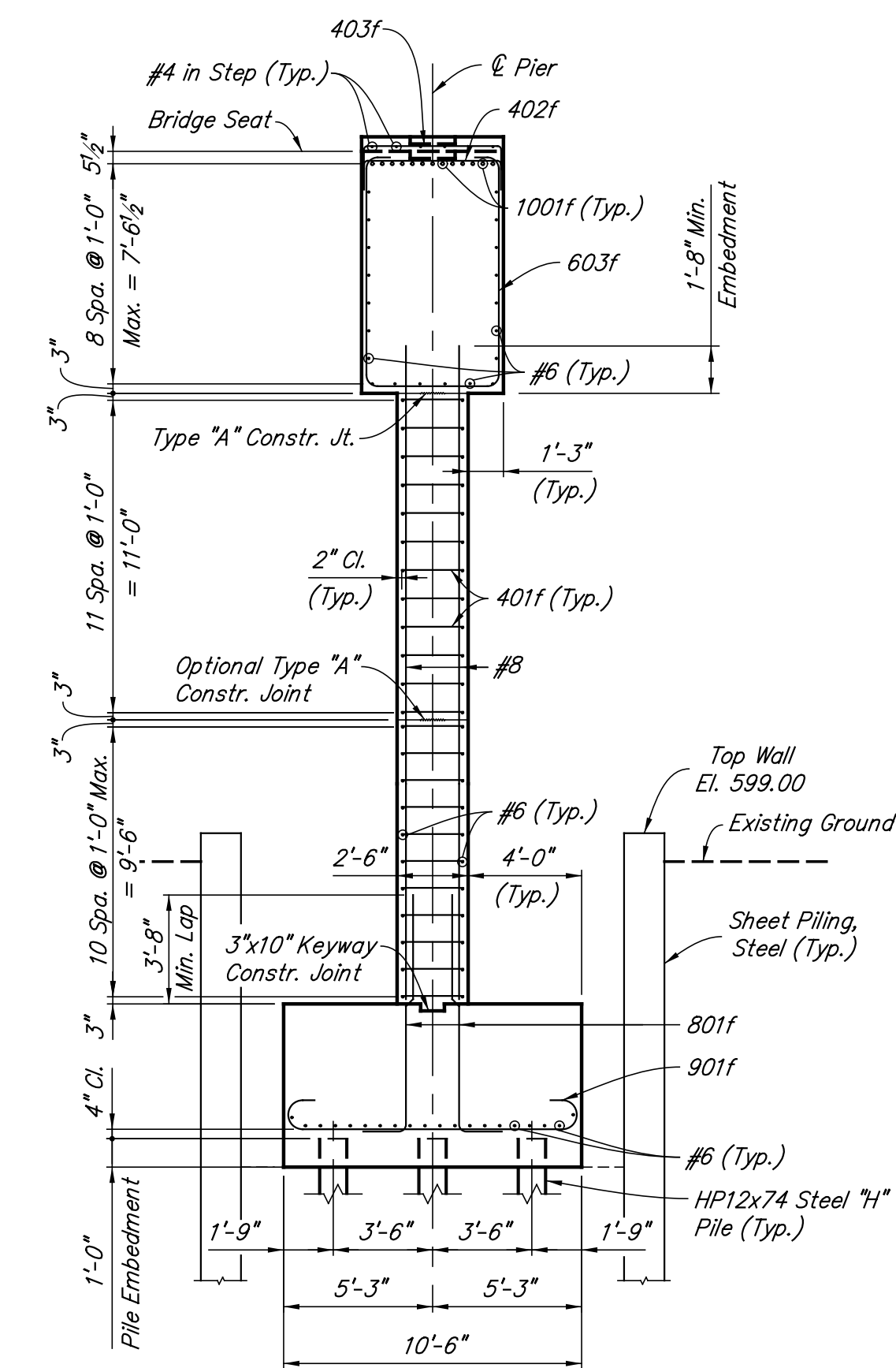
**SECTION B-B**

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

Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	5'-11"

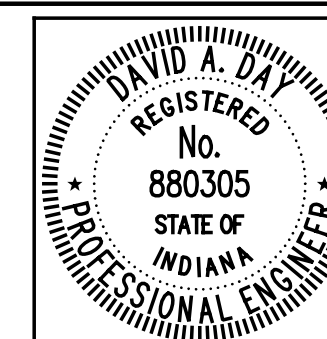


**ELEVATION**



**SECTION A-A**

- NOTES:**
- For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.
  - All reinforcing steel to be plain.
  - Cross-Hatched areas indicate limits of Expanded Polystyrene cut out to clear elastomeric bearing pads by 1/2" on all sides. For additional detail and treatment of keyway construction joint, see Sheet No. 97.
  - For Elastomeric Bearing Assembly Details, see Sheet No. 87.
  - Surface Seal the top and vertical surfaces of pier cap.
  - For additional details and Bill Of Materials, see Sheet No. 66.
  - For pier backfill limits, see Standard Drawing E211-BFIL-03.
  - (X) Indicates concrete pour number and sequence of pours.



RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: EWM  
 CHECKED: RMC CHECKED: DAD

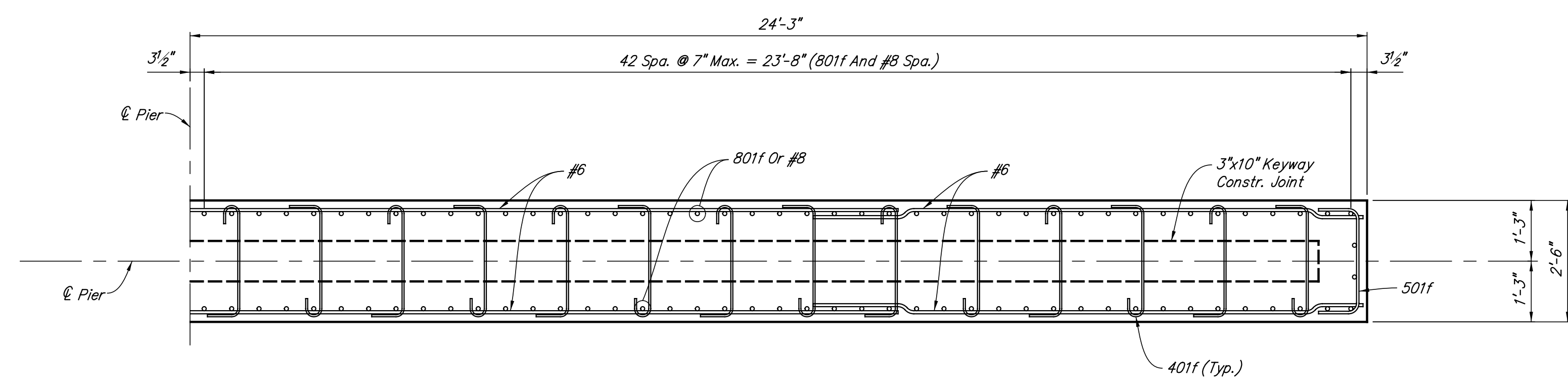
INDIANA  
 DEPARTMENT OF TRANSPORTATION

**PIER NO. 4 DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	65 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

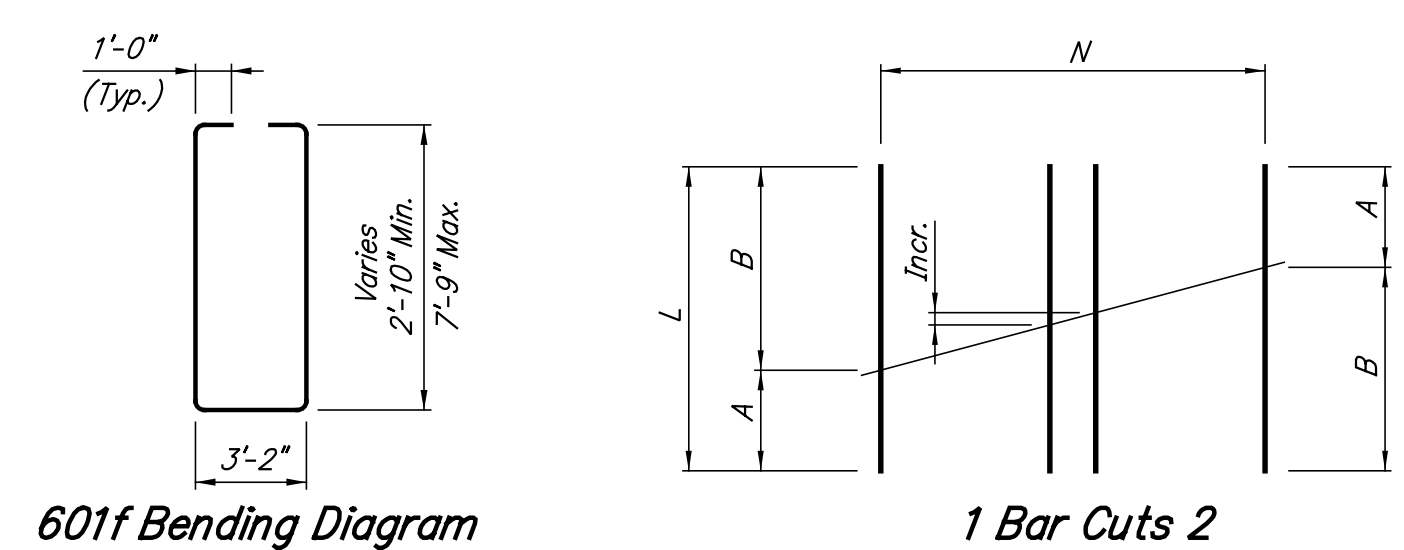
**PIER NO. 4  
BILL OF MATERIALS**

Plain Reinforcing Steel			
Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)
1001f	26	39'-5"	
Total No. 10			4410
901f	51	12'-8"	
Total No. 9			2197
801f	176	9'-5"	
#8	176	23'-3"	
Total No. 8			15351
601f	22	31'-6"	
602f	5	45'-5"	
603f	48	22'-2"	
#6	86	40'-0"	
#6	4	31'-0"	
#6	20	12'-3"	
#6	6	11'-9"	
#6	12	11'-3"	
#6	46	10'-3"	
Total No. 6			9719
501f	46	3'-10"	
Total No. 5			184
401f	644	3'-4"	
402f	65	6'-0"	
403f	40	6'-8"	
#4	6	27'-3"	
Total No. 4			1982
Total Plain Reinforcing Steel			33843
Concrete			
Class "A" in Substructure			
Pour No. 1			44.9 Cys
Pour No. 2			51.6 Cys
Pour No. 3			99.8 Cys
Total Class "A" in Substructure			196.3 Cys
Class "B" in Footing			
			112.9 Cys
Miscellaneous			
Surface Seal			1460 Sft.
32-Piles, Steel "H", HP12x74			
x 95'-0" Approximate			3040 Lft.
1-Test Pile, Dynamic, Production			
x 105'-0" Approximate			105 Lft.
Pile Shoe, HP12x74			33 Each



**SECTION C-C**  
Scale: 1/2" = 1'-0"

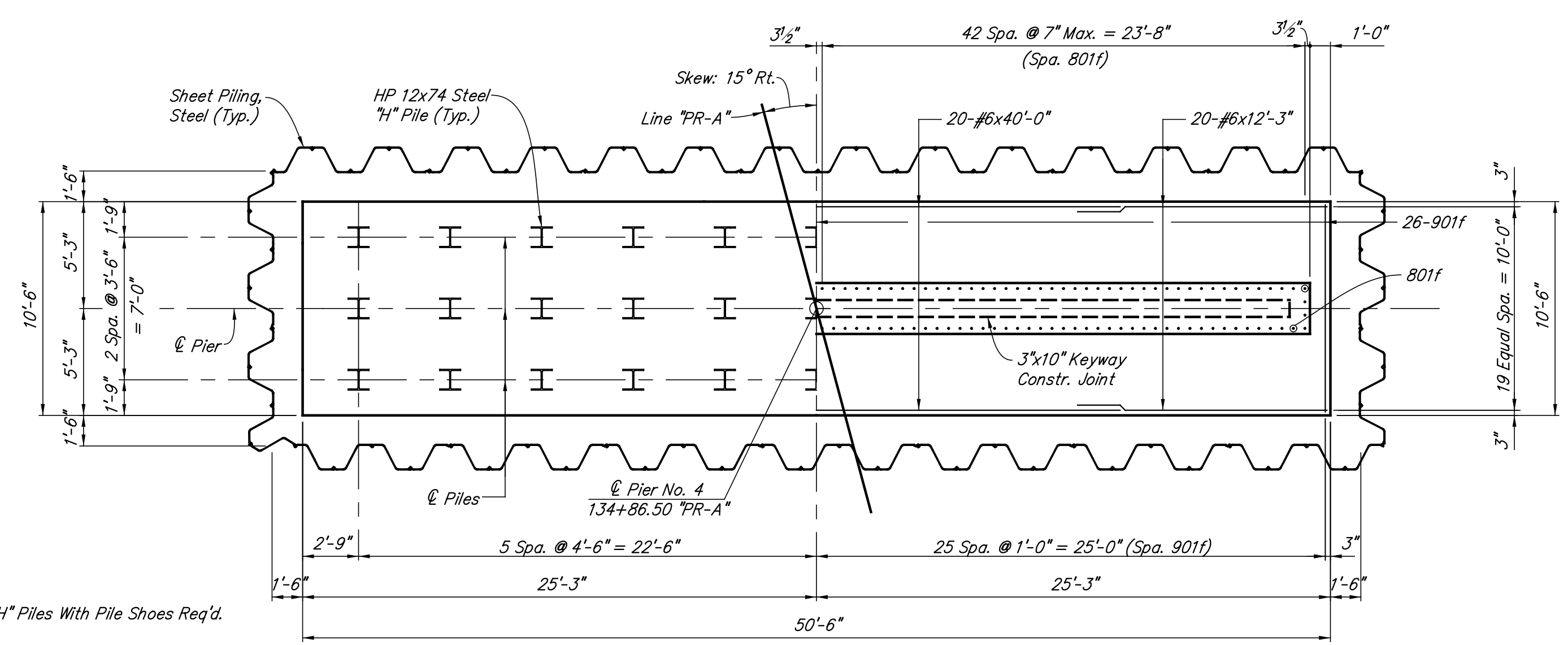
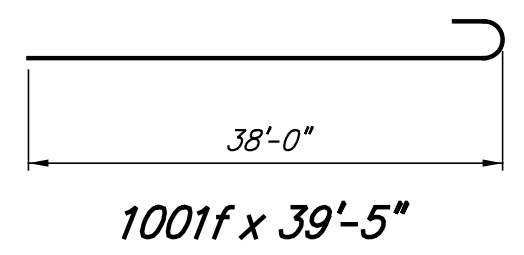
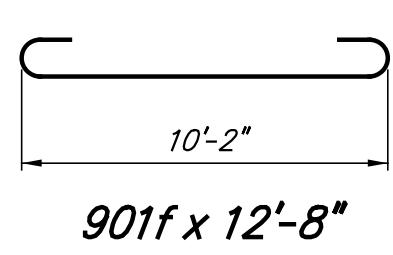
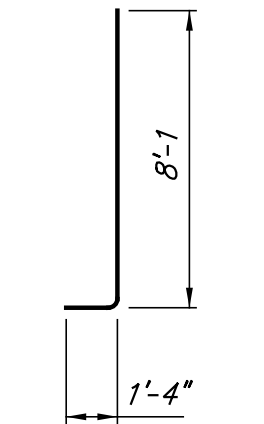
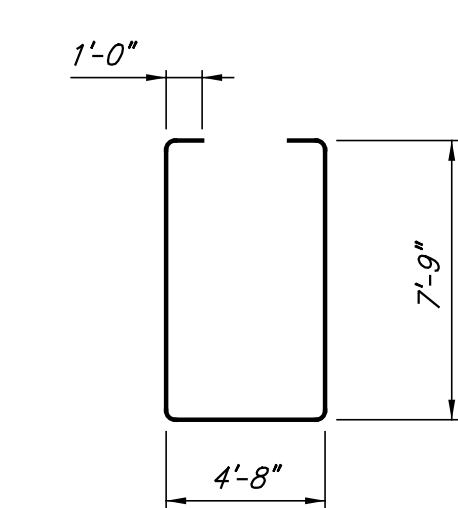
Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	7'-4"



Mark	L	A	B	Incr.	N
601f	31'-6"	10'-10"	20'-8"	1 3/4" ±	11
602f	45'-5"	15'-1"	30'-4"	3'-9 3/4"	5



Mark	A	B	Length
402f	4'-8"	8"	6'-0"
403f	4'-8"	1'-0"	6'-8"
501f	2'-2"	10"	3'-10"

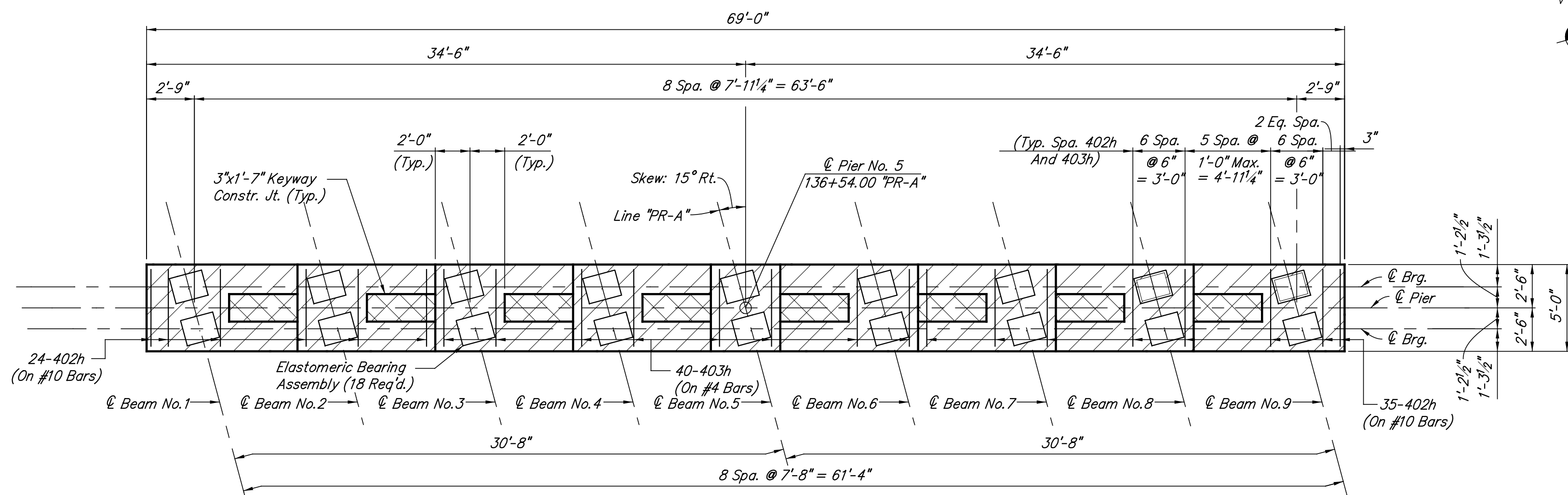


NOTE:  
33-HP 12x74 Steel "H" Piles With Pile Shoes Req'd.

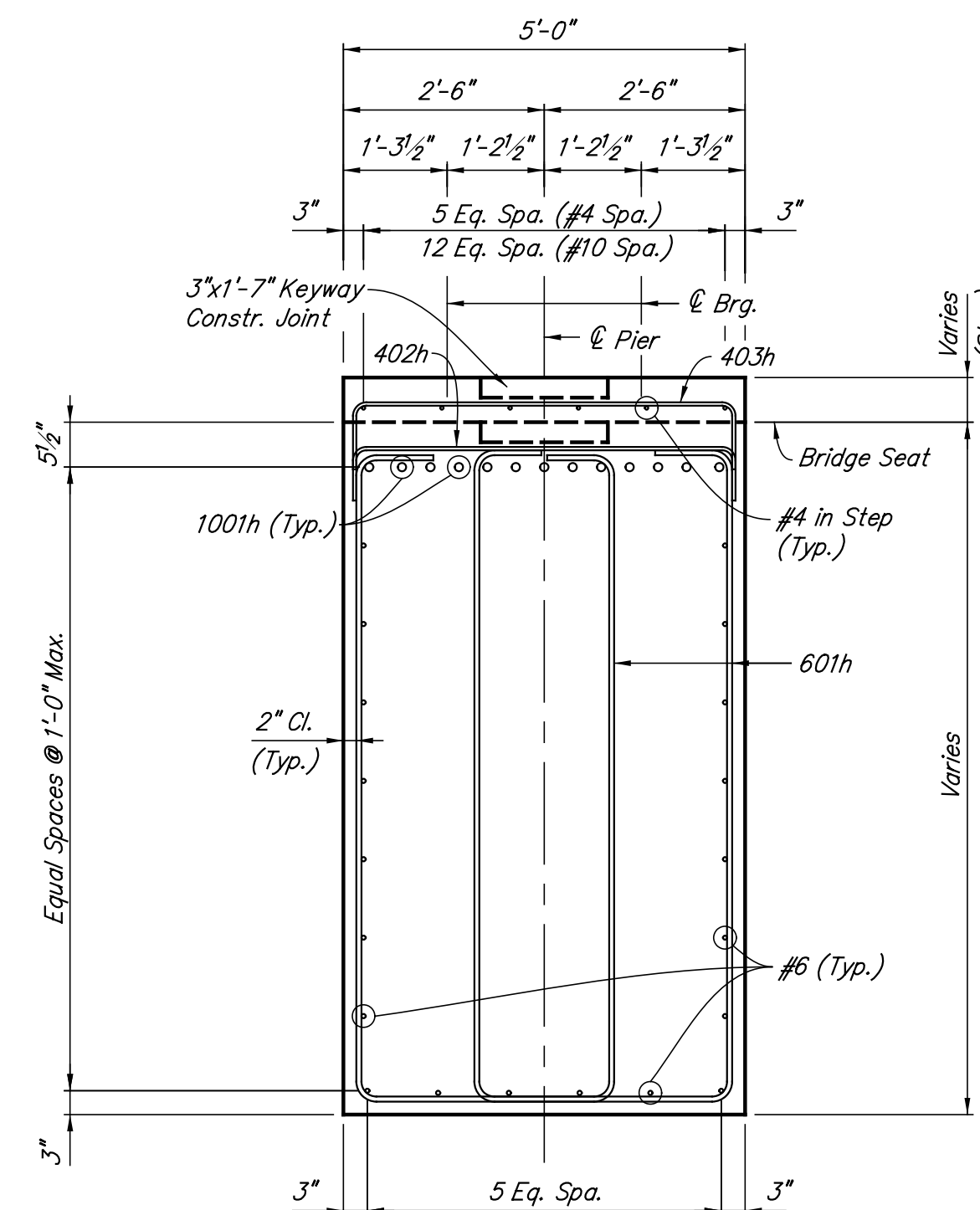
LEFT HALF SHOWS  
PILE SPACING  
**FOOTING PLAN**  
RIGHT HALF SHOWS  
REINFORCING STEEL

**NOTES:**  
For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.  
All reinforcing steel to be plain.  
For pier backfill limits, see Standard Drawing E211-BFIL-03.

	RECOMMENDED FOR APPROVAL <i>David B. Day</i> DESIGN ENGINEER DATE: 6/1/2012	INDIANA DEPARTMENT OF TRANSPORTATION  <b>PIER NO. 4 DETAILS</b>	HORIZONTAL SCALE 3/16" = 1'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
	DESIGNED: DZ DRAWN: EWM CHECKED: RMC CHECKED: DAD		SURVEY BOOK CONTRACT B-33357	DESIGNATION NO. 0014210



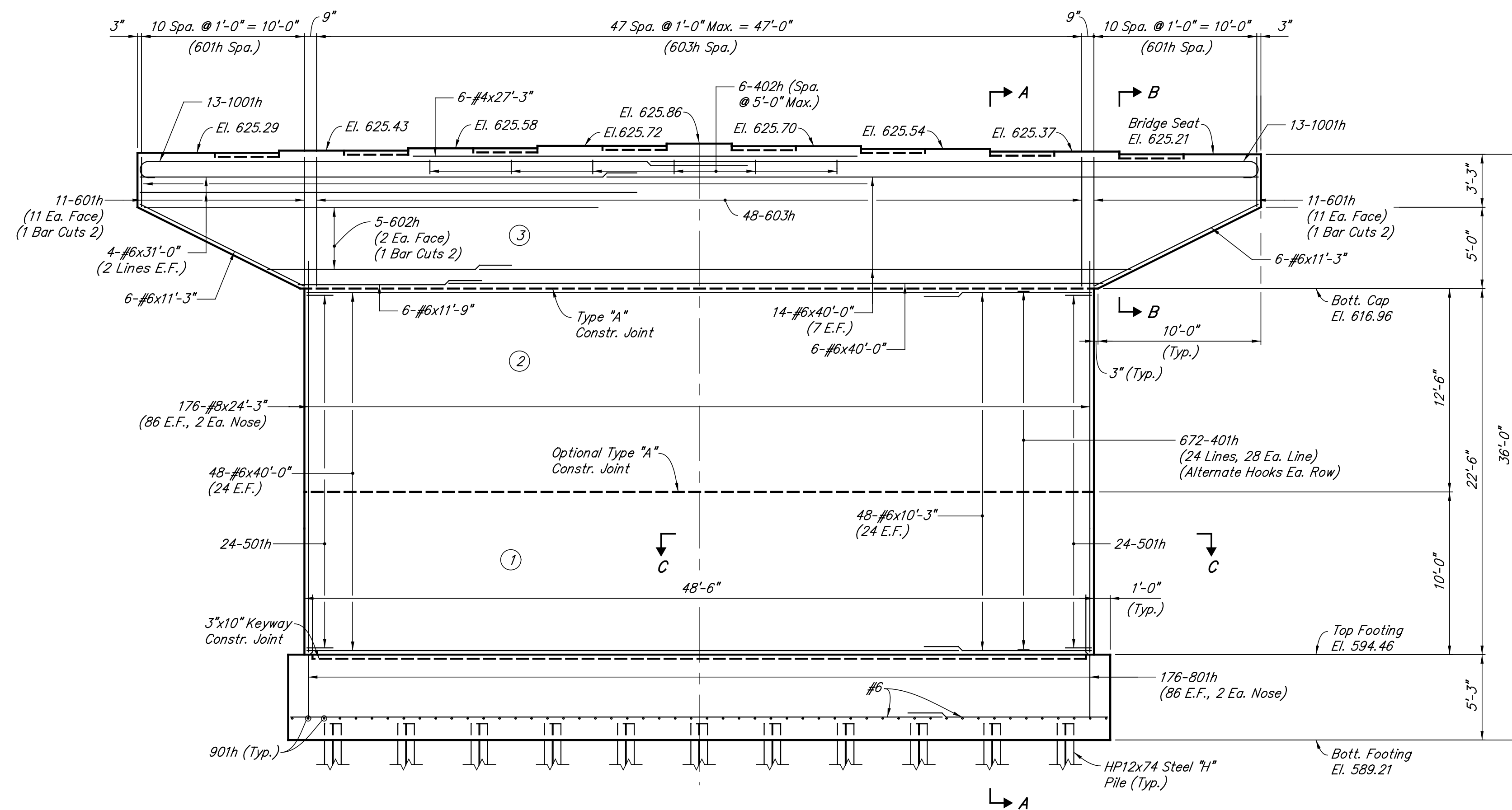
**CAP PLAN**



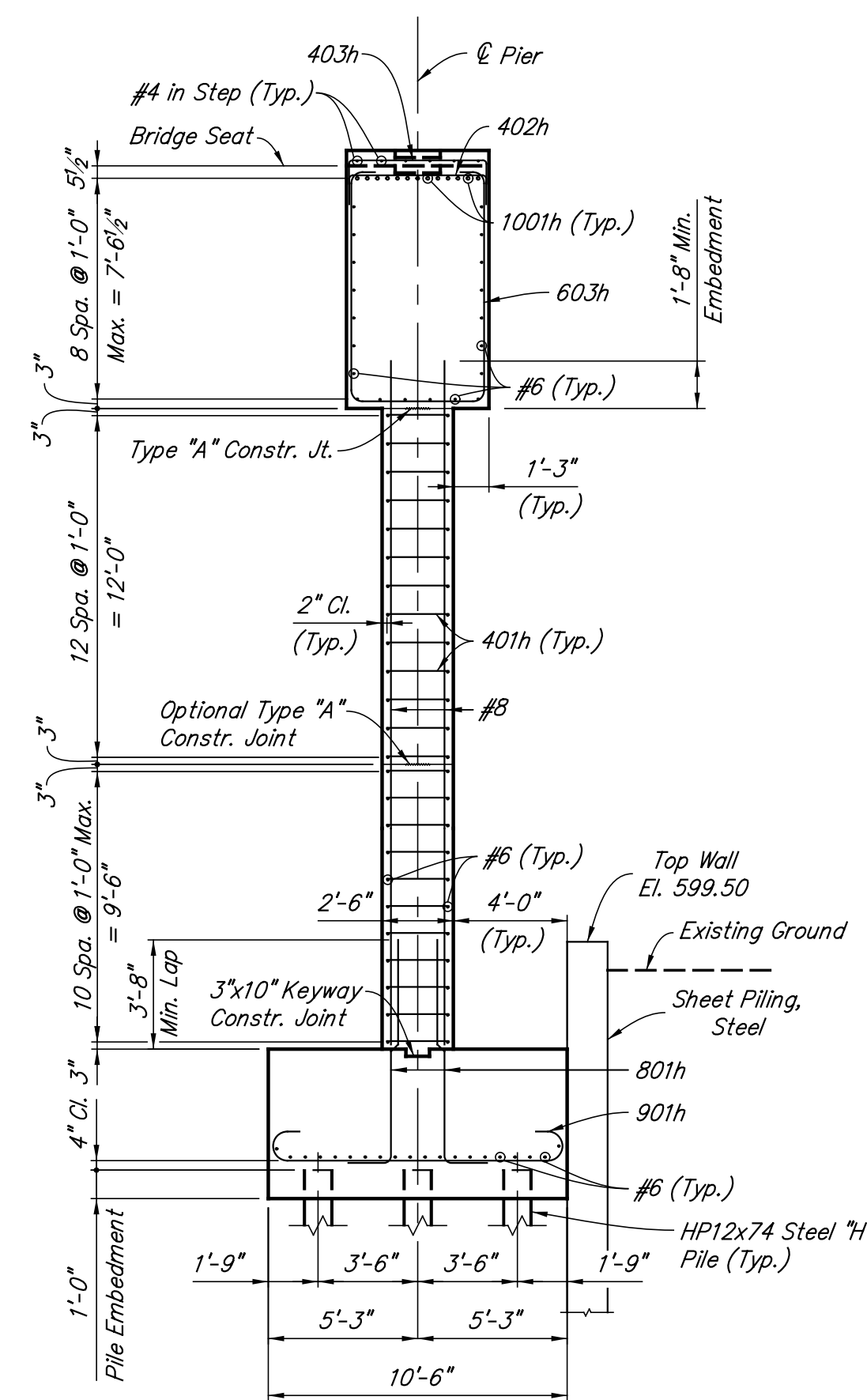
**SECTION B-B**

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

Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	5'-11"



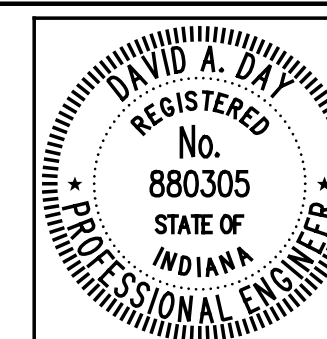
**ELEVATION**



**SECTION A-A**

**NOTES:**

- For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.
- All reinforcing steel to be plain.
- Cross-hatched areas indicate limits of Expanded Polystyrene cut out to clear elastomeric bearing pads by 1/2" on all sides. For additional detail and treatment of keyway construction joint, see Sheet No. 97.
- For Elastomeric Bearing Assembly Details, see Sheet No. 87.
- Surface Seal the top and vertical surfaces of pier cap.
- For additional details and Bill Of Materials, see Sheet No. 68.
- For pier backfill limits, see Standard Drawing E211-BFIL-03.
- (X) Indicates concrete pour number and sequence of pours.



RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: DZ DRAWN: EWM  
 CHECKED: RMC CHECKED: DAD

INDIANA  
 DEPARTMENT OF TRANSPORTATION

**PIER NO. 5 DETAILS**

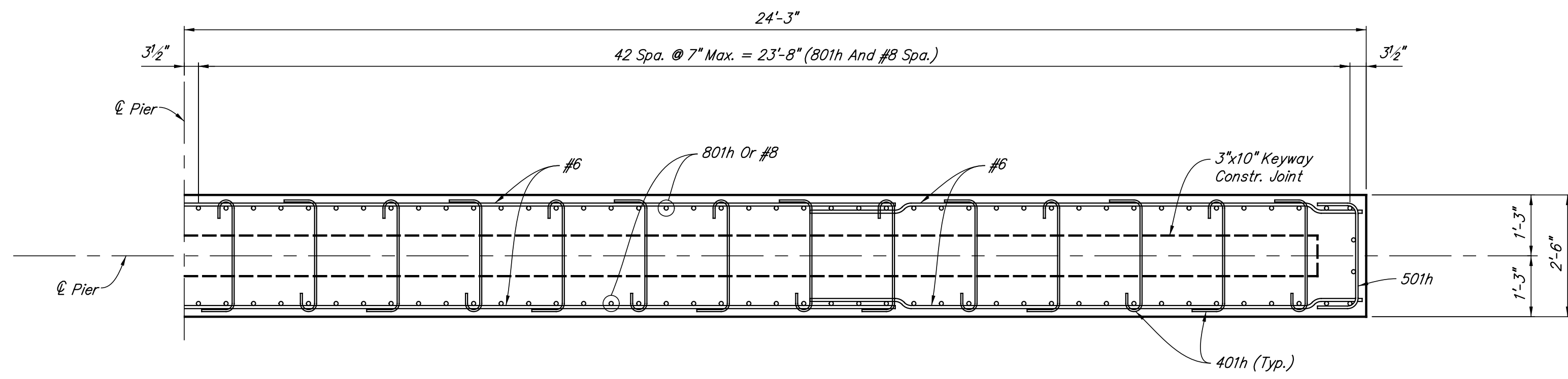
HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	67 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

**PIER NO. 5  
BILL OF MATERIALS**

Size And Mark	Plain Reinforcing Steel No. of Bars	Length (Feet)	Weight (Lbs.)
1001h	26	39'-5"	4410
Total No. 10			
901h	51	12'-8"	2197
Total No. 9			
801h	176	9'-0"	15625
#8	176	24'-3"	
Total No. 8			
601h	22	31'-6"	9870
602h	5	45'-5"	
603h	48	22'-2"	9870
#6	88	40'-0"	
#6	4	31'-0"	9870
#6	20	12'-3"	
#6	6	11'-9"	9870
#6	12	11'-3"	
#6	48	10'-3"	9870
Total No. 6			
501h	48	3'-10"	192
Total No. 5			
401h	672	3'-4"	2045
402h	65	6'-0"	
403h	40	6'-8"	2045
#4	6	27'-3"	
Total No. 4			
Total Plain Reinforcing Steel			34,339

Concrete	
Class "A" in Substructure	
Pour No. 1	44.9 Cys
Pour No. 2	56.1 Cys
Pour No. 3	99.8 Cys
Total Class "A" in Substructure	
200.8 Cys	
Class "B" in Footing	
103.1 Cys	

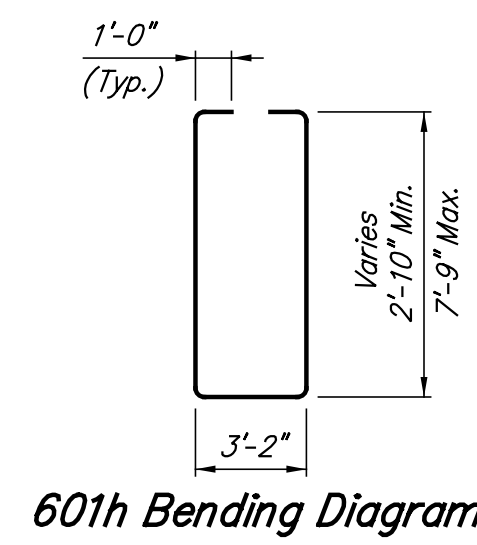
Miscellaneous	
Surface Seal	1460 Sft.
33-Piles, Steel "H", HP12x74	
x 95'-0" Approximate	3135 Lft.
Pile Shoe, HP12x74	33 Each



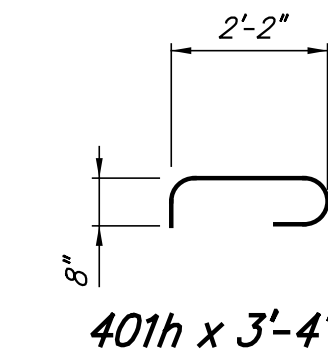
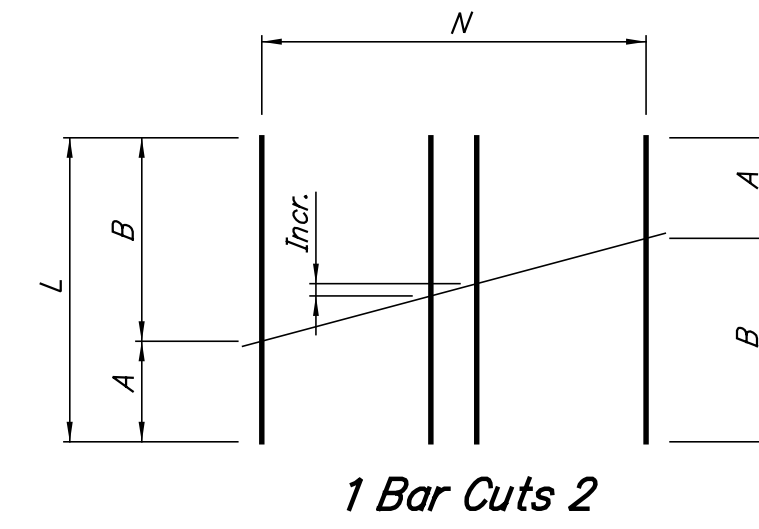
**SECTION C-C**

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

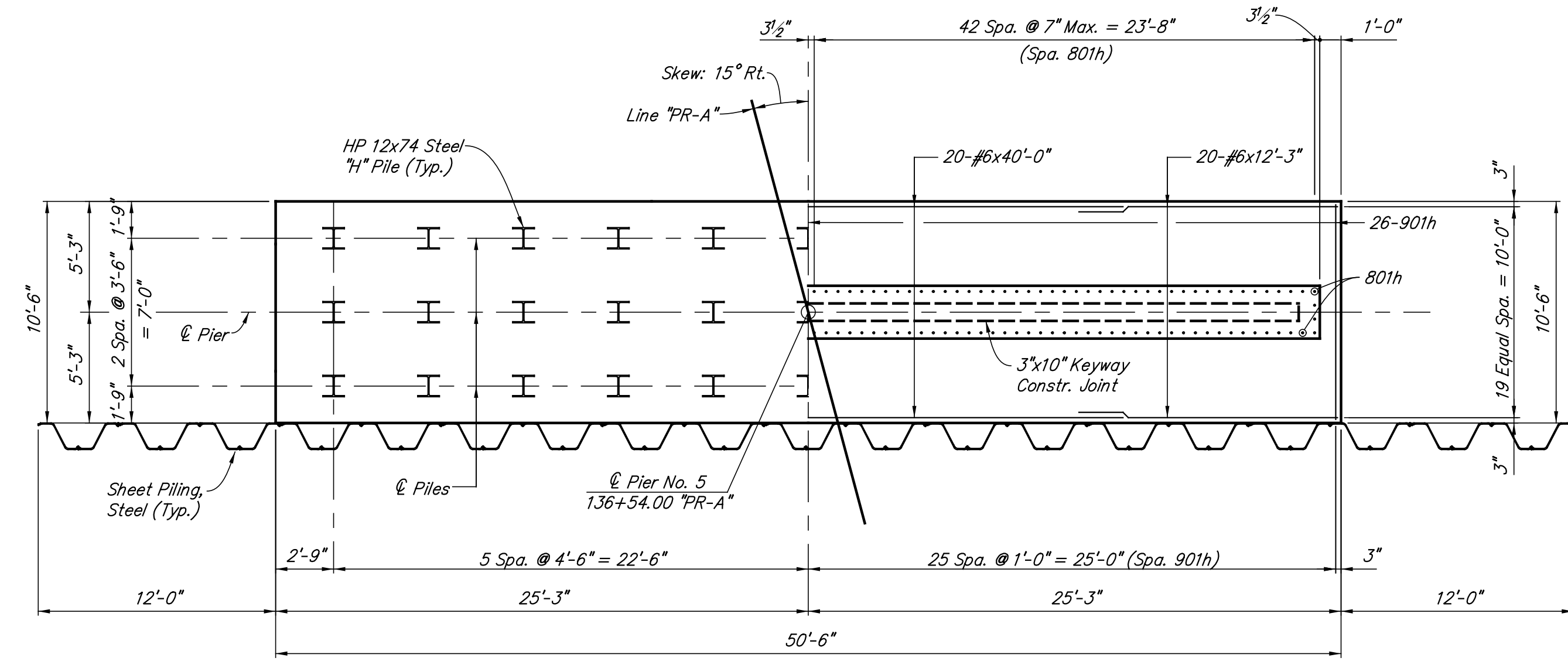
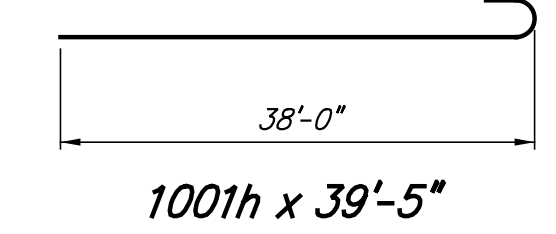
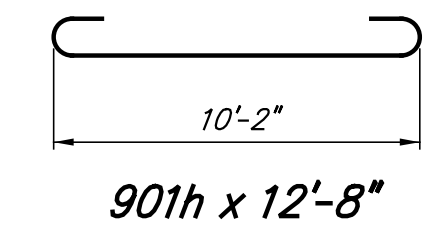
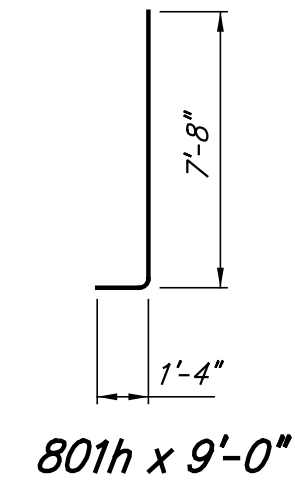
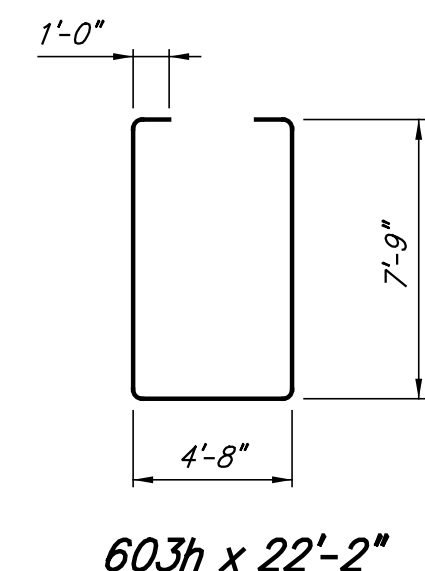
Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	7'-4"



Mark	L	A	B	Incr.	N
601h	31'-6"	10'-10"	20'-8"	1 3/4" ±	11
602h	45'-5"	15'-1"	30'-4"	3'-9 3/4"	5



Mark	A	B	Length
402h	4'-8"	8"	6'-0"
403h	4'-8"	1'-0"	6'-8"
501h	2'-2"	10"	3'-10"



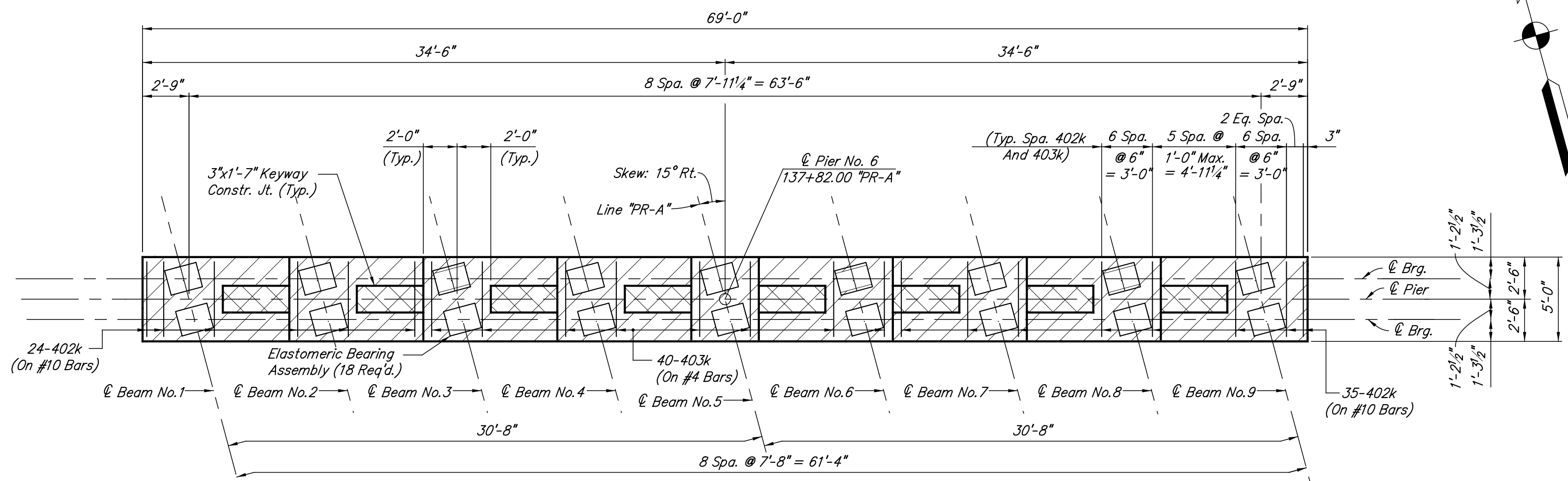
NOTE: 33-HP 12x74 Steel "H" Piles With Pile Shoes Req'd.

LEFT HALF SHOWS PILE SPACING  
RIGHT HALF SHOWS REINFORCING STEEL

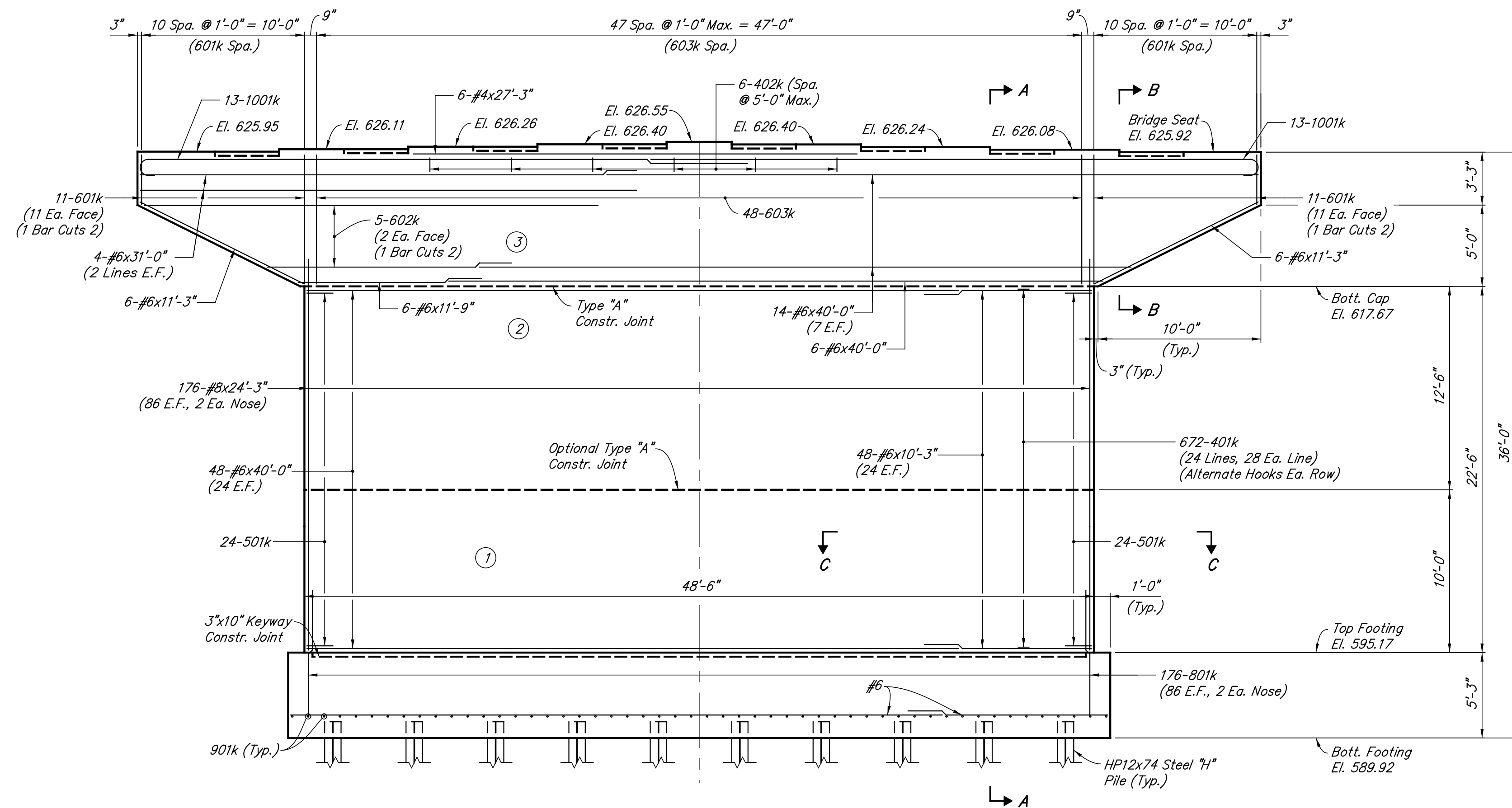
**FOOTING PLAN**

**NOTES:**  
For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.  
All reinforcing steel to be plain.  
For pier backfill limits, see Standard Drawing E211-BFIL-03.

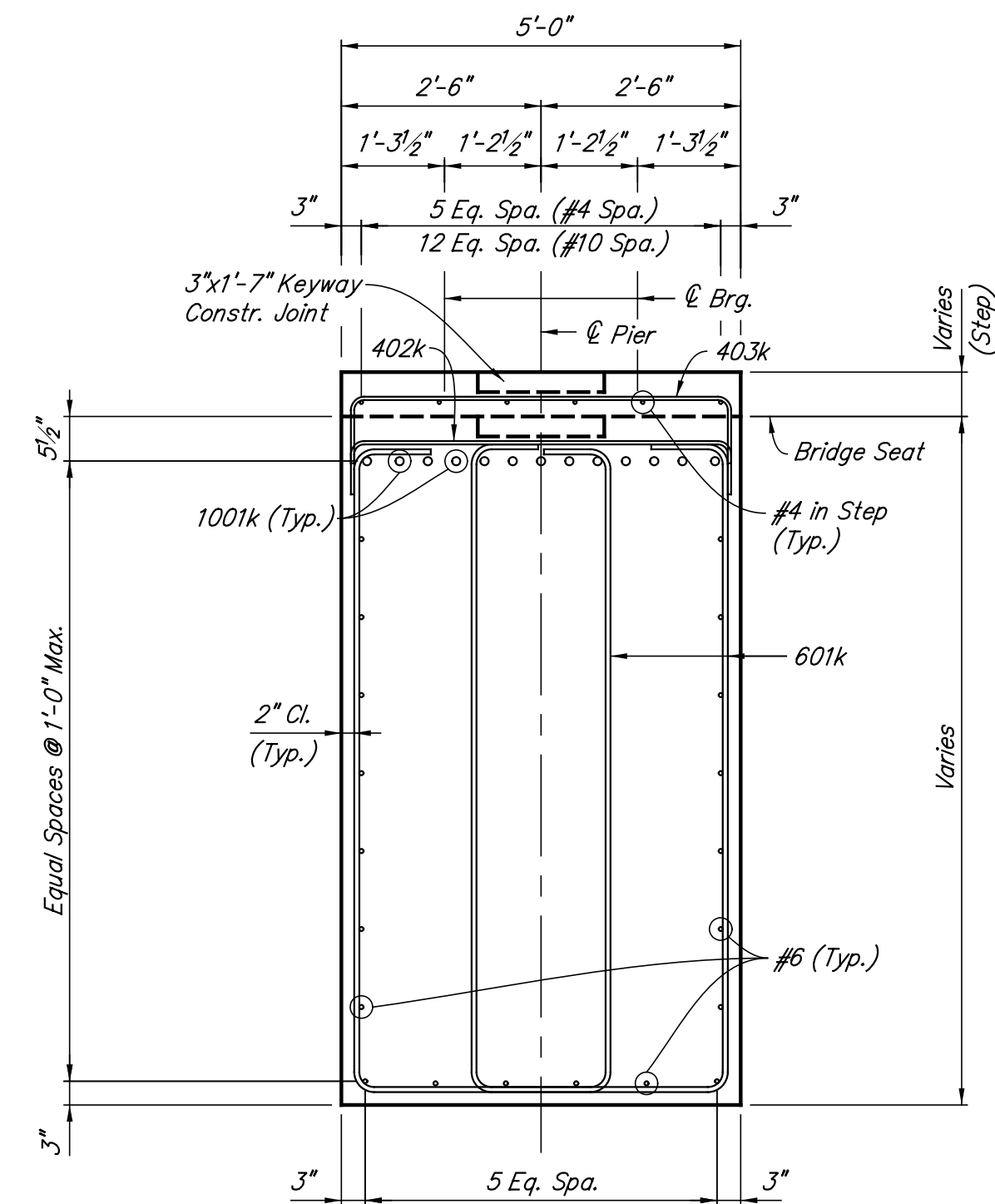
	RECOMMENDED FOR APPROVAL <i>David B. Day</i> DESIGN ENGINEER DATE: 6/1/2012	INDIANA DEPARTMENT OF TRANSPORTATION  <b>PIER NO. 5 DETAILS</b>	HORIZONTAL SCALE 3/16" = 1'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
	DESIGNED: DZ DRAWN: EWM CHECKED: RMC CHECKED: DAD		VERTICAL SCALE DESIGNATION NO. 0014210	SURVEY BOOK CONTRACT B-33357



**CAP PLAN**

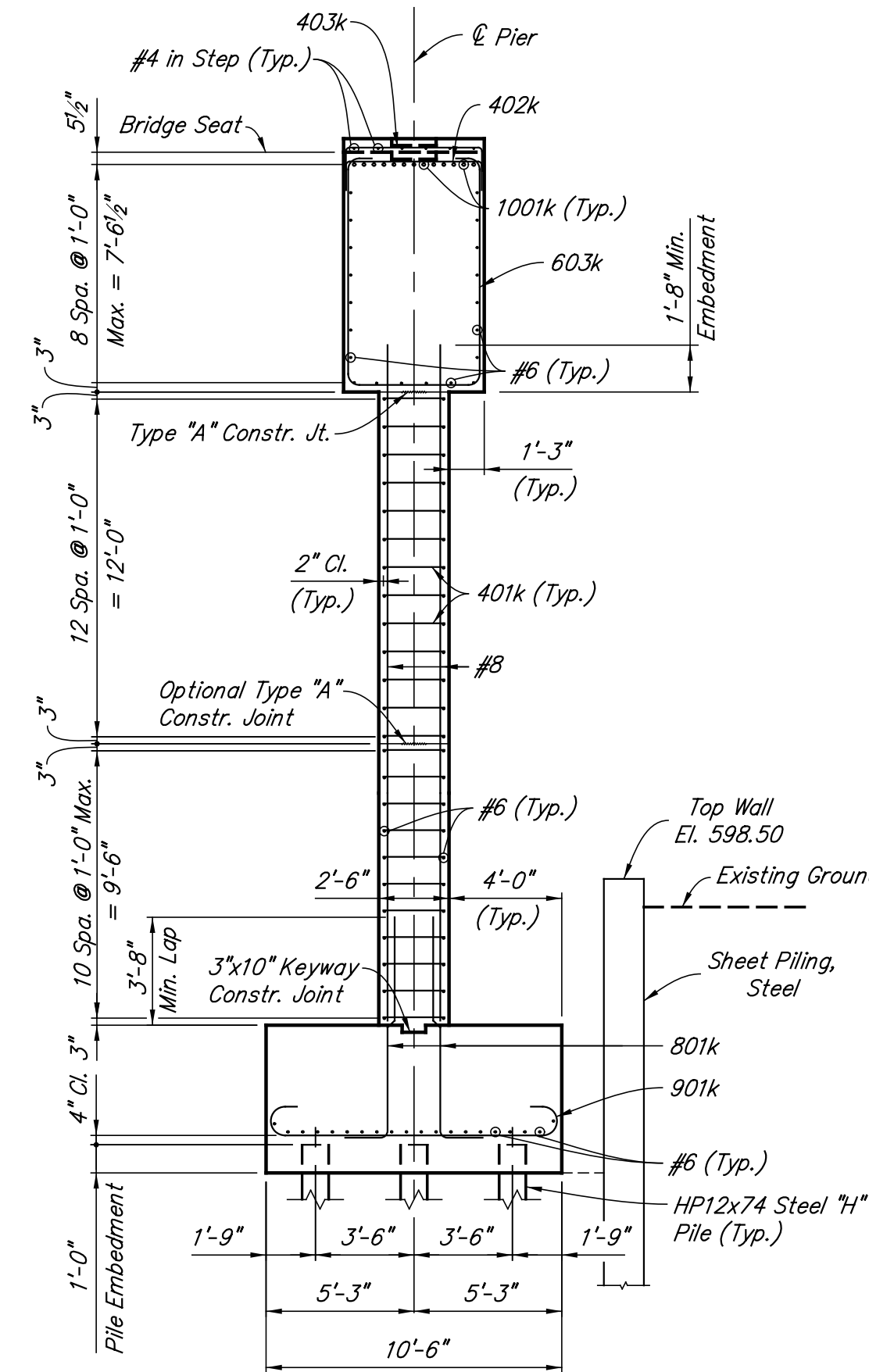


**ELEVATION**



**SECTION B-B**

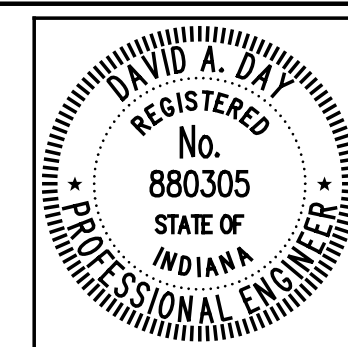
Scale: 1/2" = 1'-0"



**SECTION A-A**

Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	5'-11"

- NOTES:**
- For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.
  - All reinforcing steel to be plain.
  - Cross-hatched areas indicate limits of Expanded Polystyrene cut out to clear elastomeric bearing pads by 1/2" on all sides. For additional detail and treatment of keyway construction joint, see Sheet No. 97.
  - For Elastomeric Bearing Assembly Details, see Sheet No. 87.
  - Surface Seal the top and vertical surfaces of pier cap.
  - For additional details and Bill Of Materials, see Sheet No. 70.
  - For pier backfill limits, see Standard Drawing E211-BFIL-03.
  - (X) Indicates concrete pour number and sequence of pours.



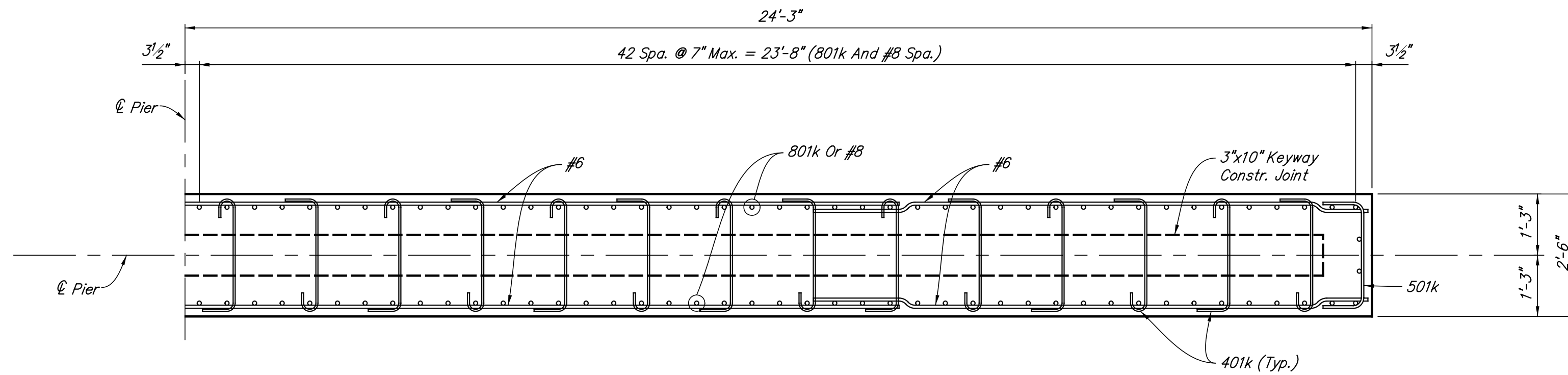
RECOMMENDED FOR APPROVAL: *David B. Day*, 6/1/2012, DESIGN ENGINEER  
 DESIGNED: DZ, DRAWN: EWM  
 CHECKED: RMC, CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**PIER NO. 6 DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	69 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

**PIER NO. 6  
BILL OF MATERIALS**

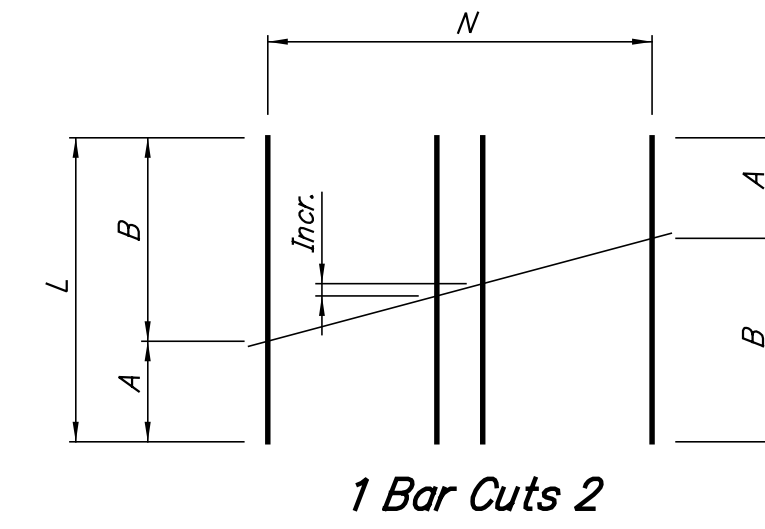
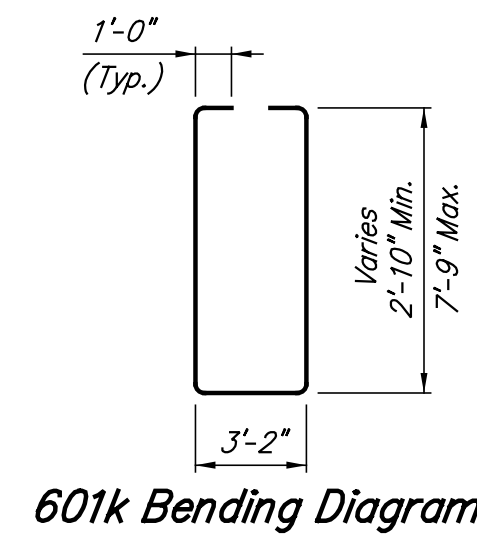
Size And Mark	Plain Reinforcing Steel No. of Bars	Length (Feet)	Weight (Lbs.)
1001k	26	39'-5"	
Total No. 10			4410
901k	51	12'-8"	
Total No. 9			2197
801k	176	9'-0"	
#8	176	24'-3"	
Total No. 8			15625
601k	22	31'-6"	
602k	5	45'-5"	
603k	48	22'-2"	
#6	88	40'-0"	
#6	4	31'-0"	
#6	20	12'-3"	
#6	6	11'-9"	
#6	12	11'-3"	
#6	48	10'-3"	
Total No. 6			9870
501k	48	3'-10"	
Total No. 5			192
401k	672	3'-4"	
402k	65	6'-0"	
403k	40	6'-8"	
#4	6	27'-3"	
Total No. 4			2045
Total Plain Reinforcing Steel			34339
Concrete			
Class "A" in Substructure			
Pour No. 1			44.9 Cys
Pour No. 2			56.1 Cys
Pour No. 3			99.6 Cys
Total Class "A" in Substructure			200.6 Cys
Class "B" in Footing			103.1 Cys
Miscellaneous			
Surface Seal			1460 Sft.
29-Piles, Steel "H", HP12x74 x 90'-0" Approximate			2610 Lft.
1-Test Pile, Dynamic, Production x 100'-0" Approximate			100 Lft.
Pile Shoe, HP12x74			30 Each



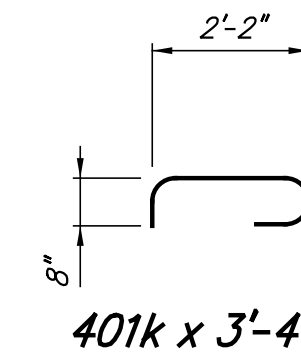
**SECTION C-C**

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

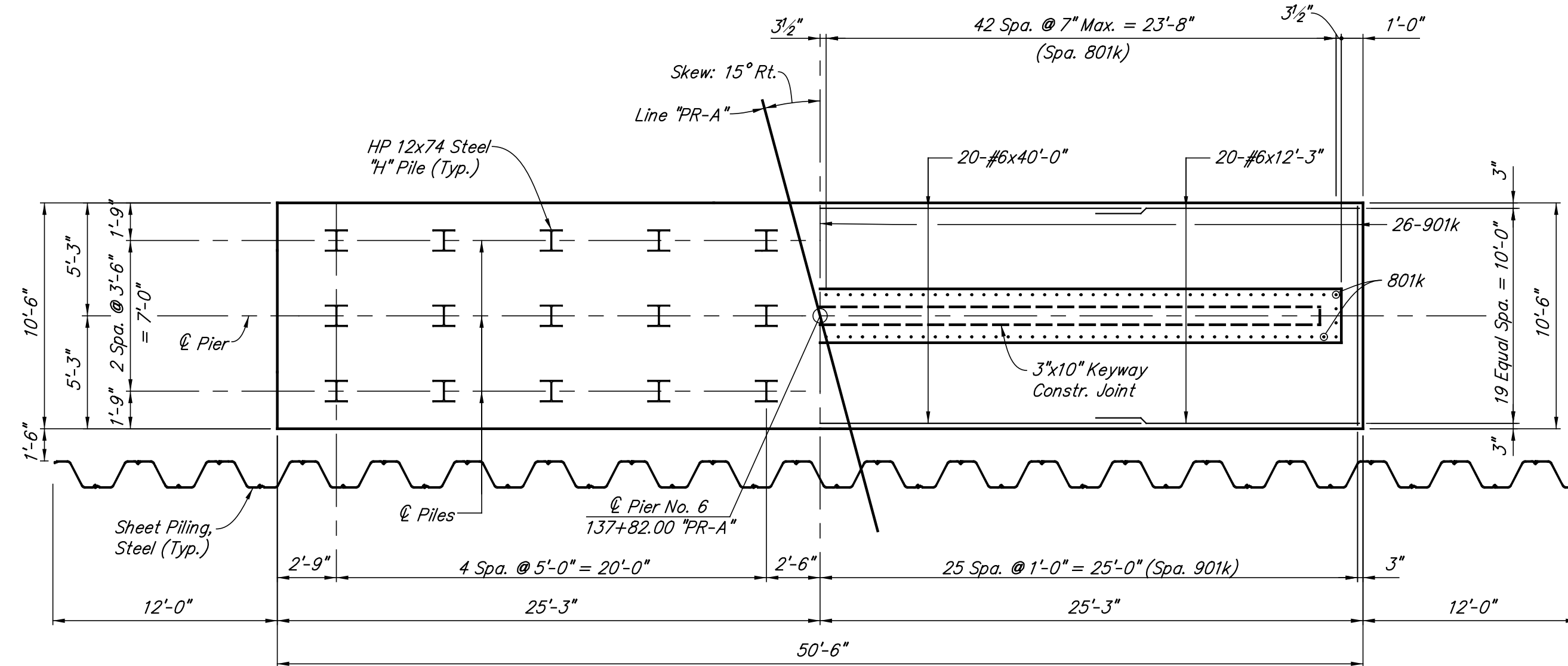
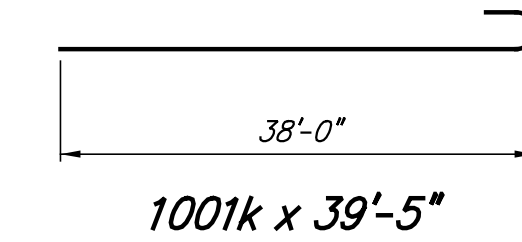
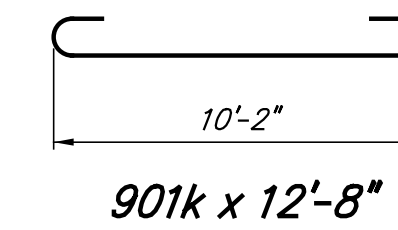
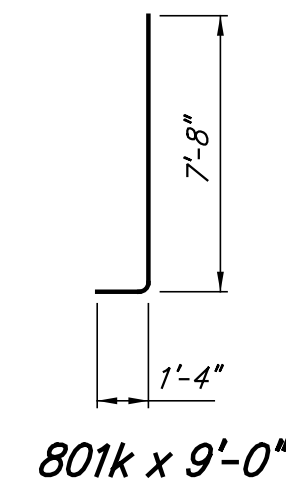
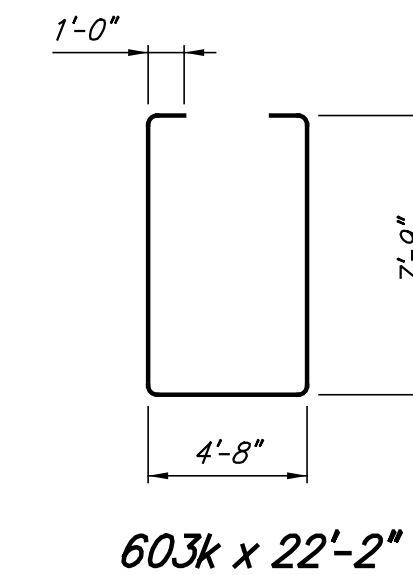
Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	7'-4"



Mark	L	A	B	Incr.	N
601k	31'-6"	10'-10"	20'-8"	1 3/4" ±	11
602k	45'-5"	15'-1"	30'-4"	3'-9 1/4"	5



Mark	A	B	Length
402k	4'-8"	8"	6'-0"
403k	4'-8"	1'-0"	6'-8"
501k	2'-2"	10"	3'-10"



NOTE:  
30-HP 12x74 Steel "H" Piles With Pile Shoes Req'd.

LEFT HALF SHOWS  
PILE SPACING

RIGHT HALF SHOWS  
REINFORCING STEEL

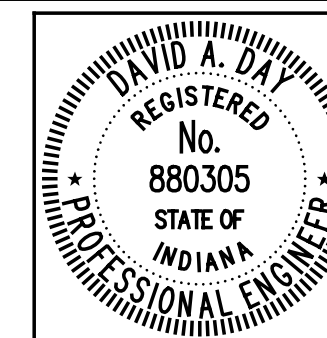
**FOOTING PLAN**

**NOTES:**

For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.

All reinforcing steel to be plain.

For pier backfill limits, see Standard Drawing E211-BFIL-03.



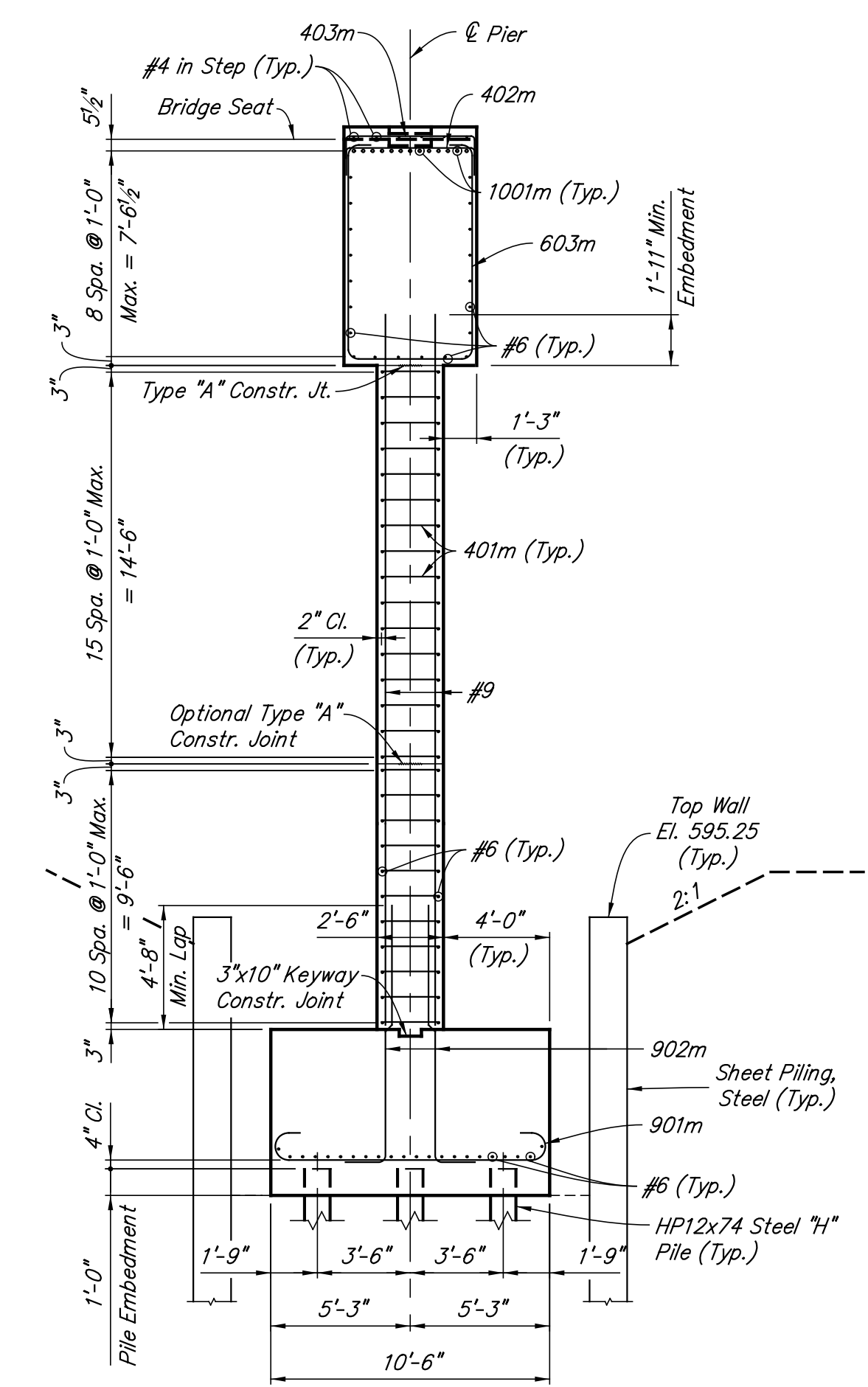
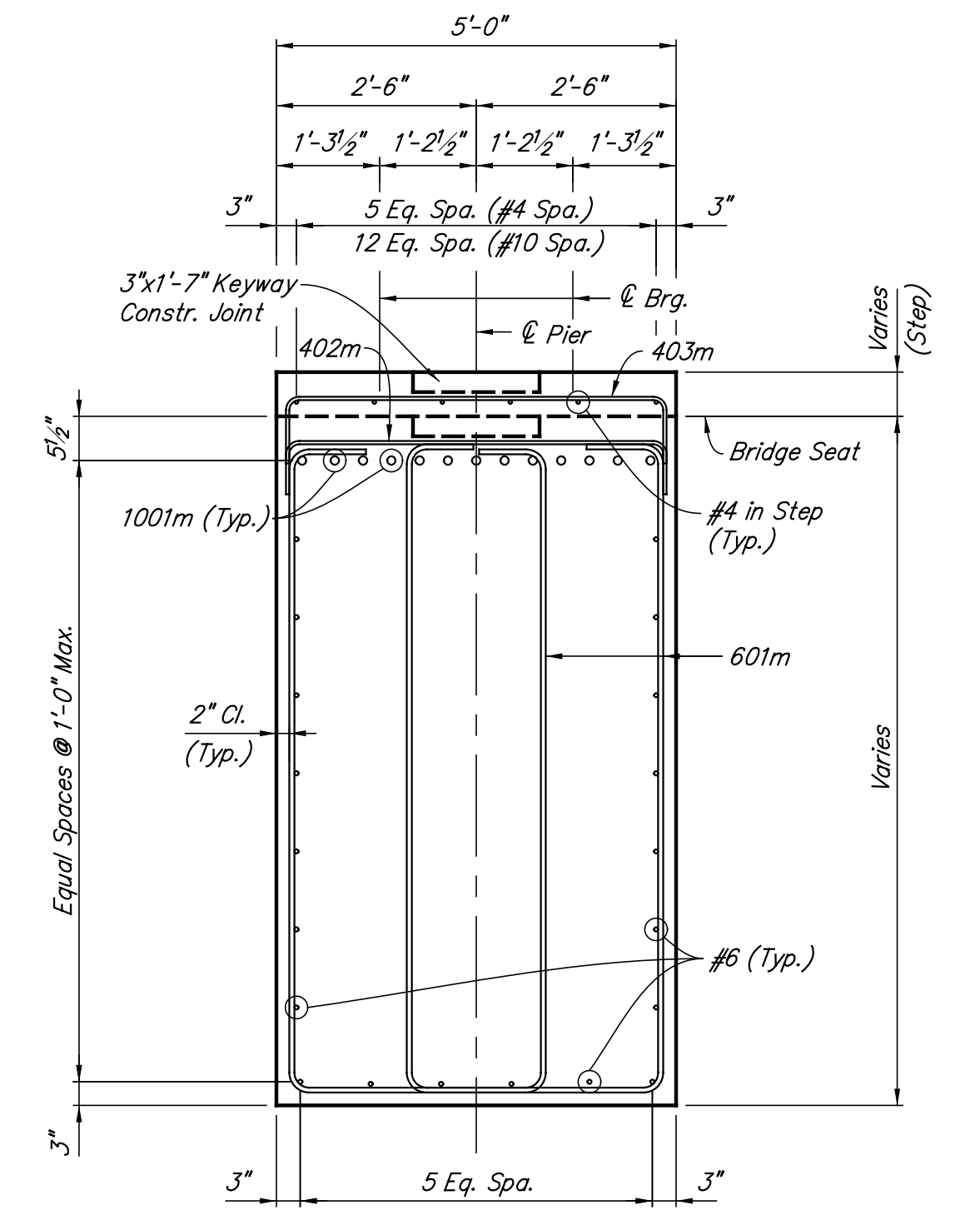
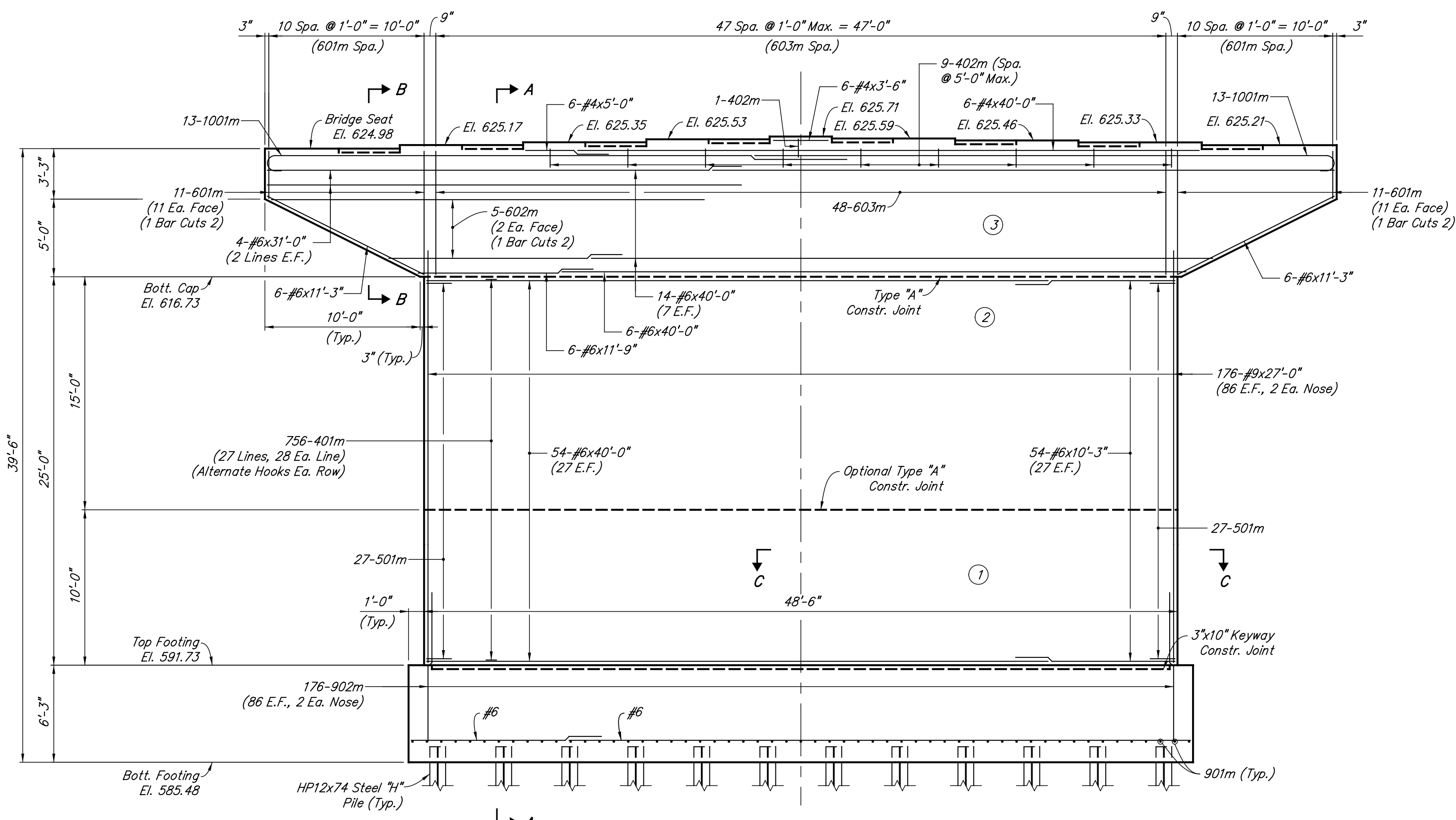
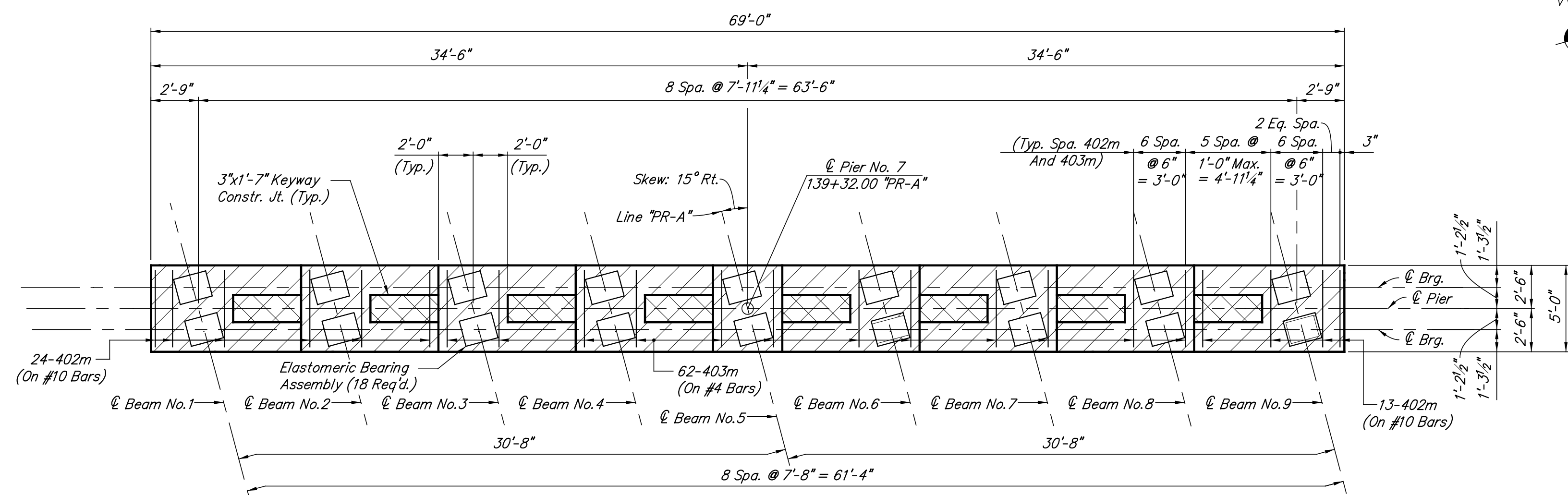
RECOMMENDED FOR APPROVAL  
*David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: EWM  
CHECKED: RMC CHECKED: DAD

INDIANA  
DEPARTMENT OF TRANSPORTATION

PIER NO. 6 DETAILS

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	70 of 147
CONTRACT	PROJECT NO.
B-33357	N881008



Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#9	4'-8"
#10	5'-11"

**NOTES:**

For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.

All reinforcing steel to be plain.

Cross-Hatched areas indicate limits of Expanded Polystyrene cut out to clear elastomeric bearing pads by 1/2" on all sides. For additional detail and treatment of keyway construction joint, see Sheet No. 97.

For Elastomeric Bearing Assembly Details, see Sheet No. 87.

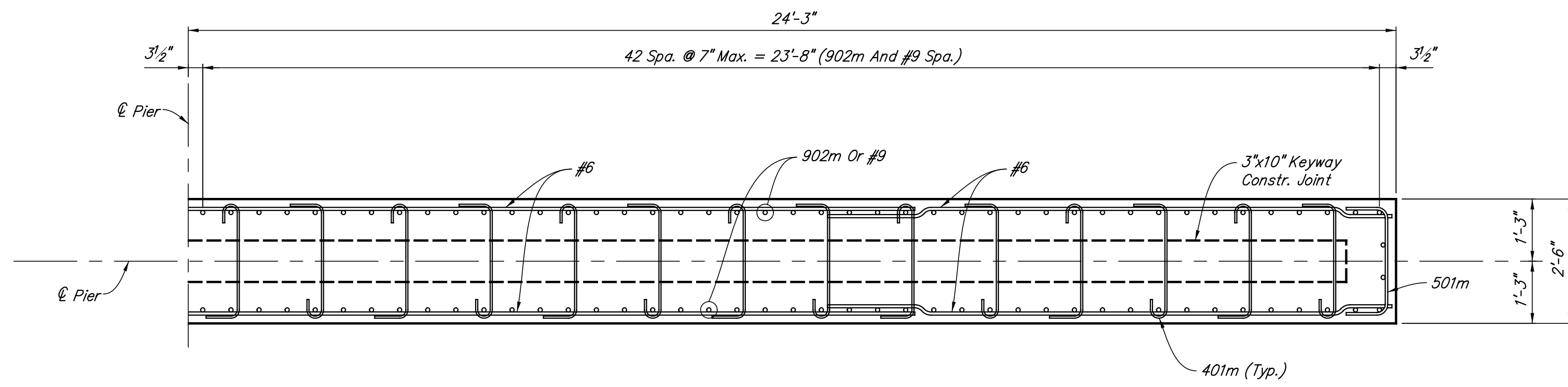
Surface Seal the top and vertical surfaces of pier cap.

For additional details and Bill Of Materials, see Sheet No. 72.

For pier backfill limits, see Standard Drawing E211-BFIL-03.

(X) Indicates concrete pour number and sequence of pours.

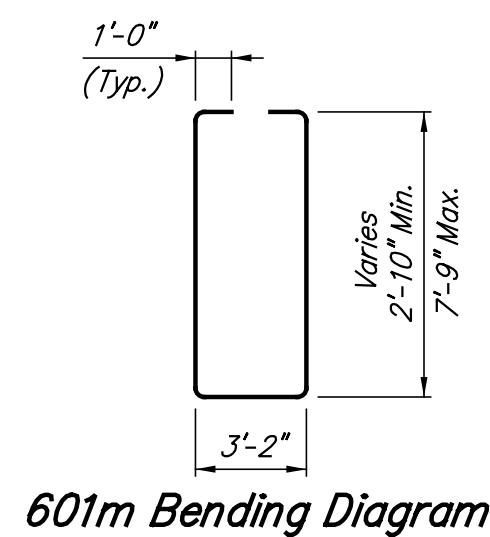
	RECOMMENDED FOR APPROVAL <i>David B. Day</i> DESIGN ENGINEER 6/1/2012 DATE	INDIANA DEPARTMENT OF TRANSPORTATION  <b>PIER NO. 7 DETAILS</b>	HORIZONTAL SCALE 3/16" = 1'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
	DESIGNED: DZ DRAWN: EWM CHECKED: RMC CHECKED: DAD		VERTICAL SCALE DESIGNATION NO. 0014210	SURVEY BOOK CONTRACT B-33357



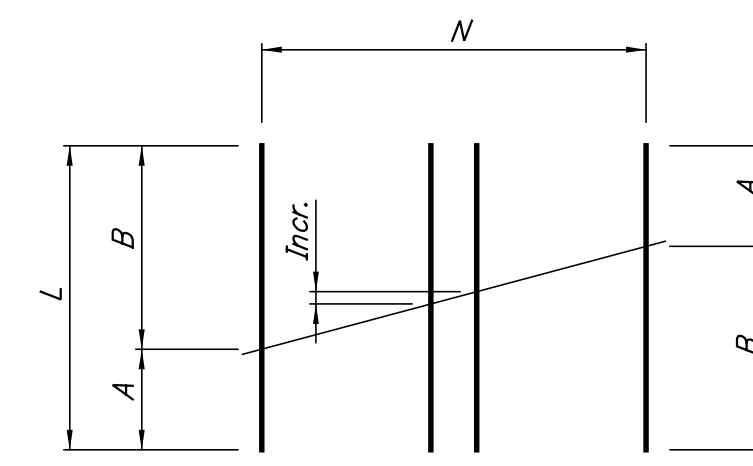
**SECTION C-C**

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

Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#9	4'-8"
#10	7'-4"

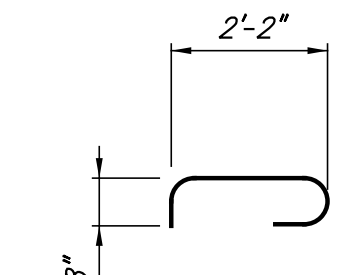


601m Bending Diagram

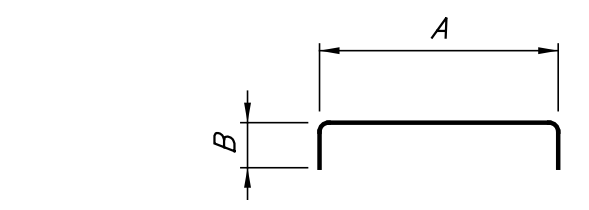


1 Bar Cuts 2

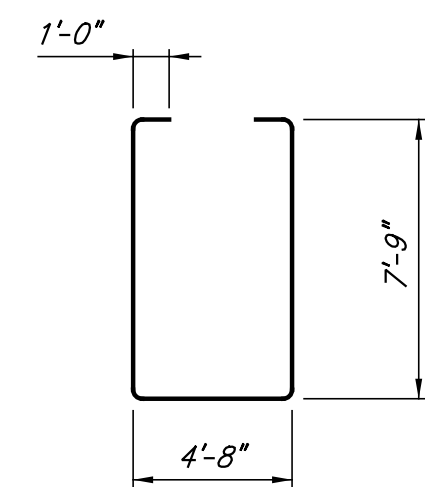
Mark	L	A	B	Incr.	N
601m	31'-6"	10'-10"	20'-8"	1 3/4" ±	11
602m	45'-5"	15'-1"	30'-4"	3'-9 3/4"	5



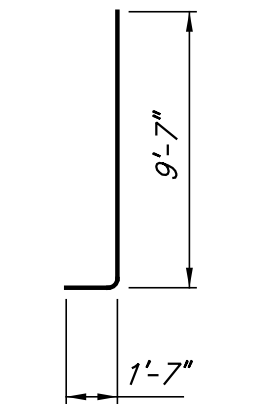
401m x 3'-4"



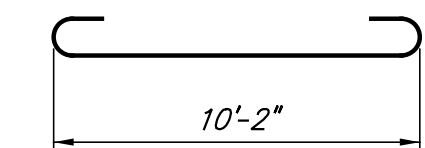
Mark	A	B	Length
402m	4'-8"	8"	6'-0"
403m	4'-8"	1'-0"	6'-8"
501m	2'-2"	10"	3'-10"



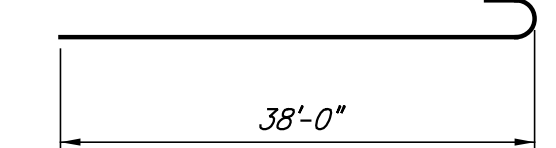
603m x 22'-2"



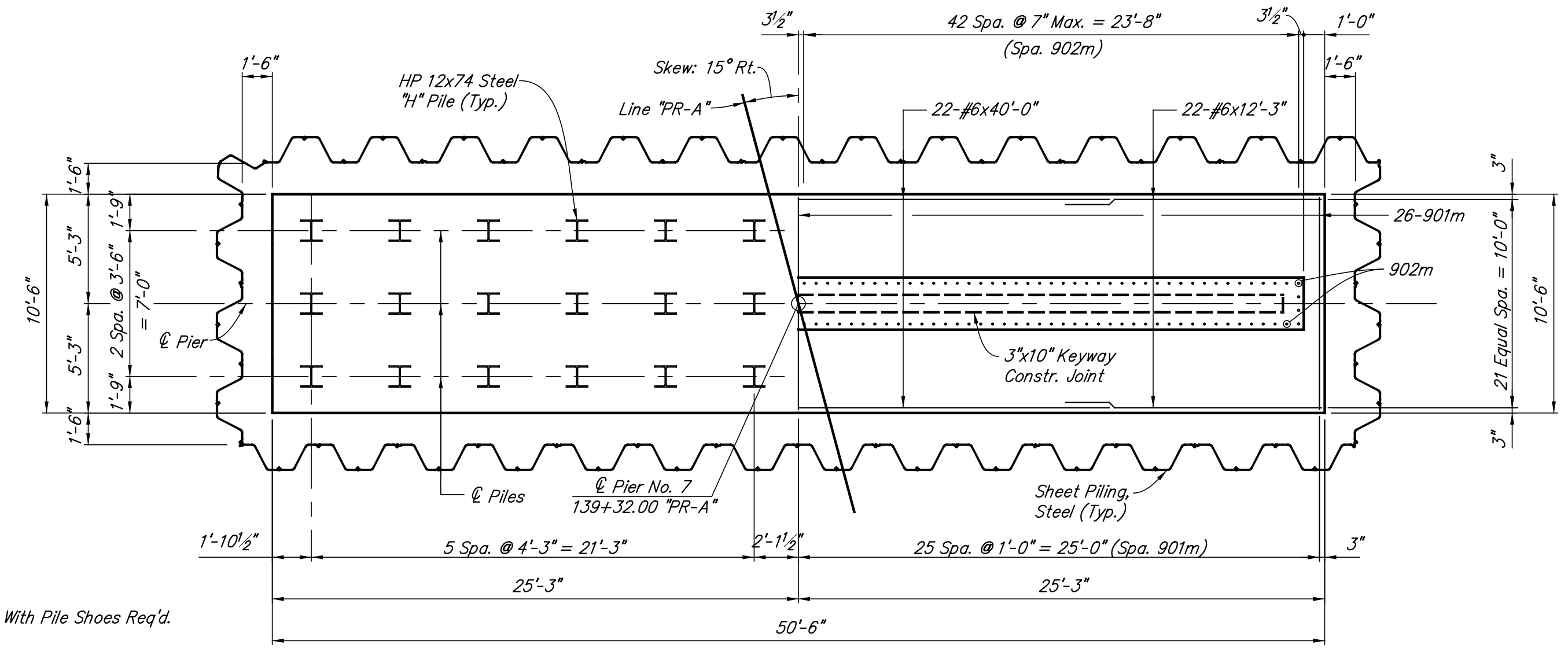
902m x 11'-2"



901m x 12'-8"



1001m x 39'-5"



NOTE:  
36-HP 12x74 Steel "H" Piles With Pile Shoes Req'd.

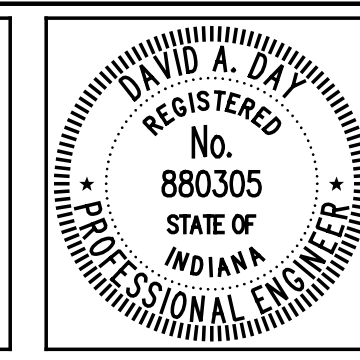
LEFT HALF SHOWS PILE SPACING  
RIGHT HALF SHOWS REINFORCING STEEL

**FOOTING PLAN**

NOTES:  
For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.  
All reinforcing steel to be plain.  
For pier backfill limits, see Standard Drawing E211-BFIL-03.

**PIER NO. 7  
BILL OF MATERIALS**

Size And Mark	Plain Reinforcing Steel No. of Bars	Length (Feet)	Weight (Lbs.)
1001m	26	39'-5"	4410
Total No. 10			
901m	51	12'-8"	25036
902m	176	11'-2"	
#9	176	27'-0"	
Total No. 9			
601m	22	31'-6"	10479
602m	5	45'-5"	
603m	48	22'-2"	
#6	96	40'-0"	
#6	4	31'-0"	
#6	22	12'-3"	
#6	6	11'-9"	
#6	12	11'-3"	
#6	54	10'-3"	
Total No. 6			
501m	54	3'-10"	216
Total No. 5			
401m	756	3'-4"	1470 Sft.
402m	47	6'-0"	
403m	62	6'-8"	
#4	6	40'-0"	
#4	6	5'-0"	
#4	6	3'-6"	
Total No. 4			
Total Plain Reinforcing Steel			42484
Concrete			
Class "A" in Substructure			
Pour No. 1			44.9 Cys
Pour No. 2			67.4 Cys
Pour No. 3			100.8 Cys
Total Class "A" in Substructure			213.1 Cys
Class "B" in Footing			122.7 Cys
Miscellaneous			
Surface Seal			1470 Sft.
36-Piles, Steel "H", HP12x74			
x 85'-0" Approximate			3060 Lft.
Pile Shoe, HP12x74			36 Each

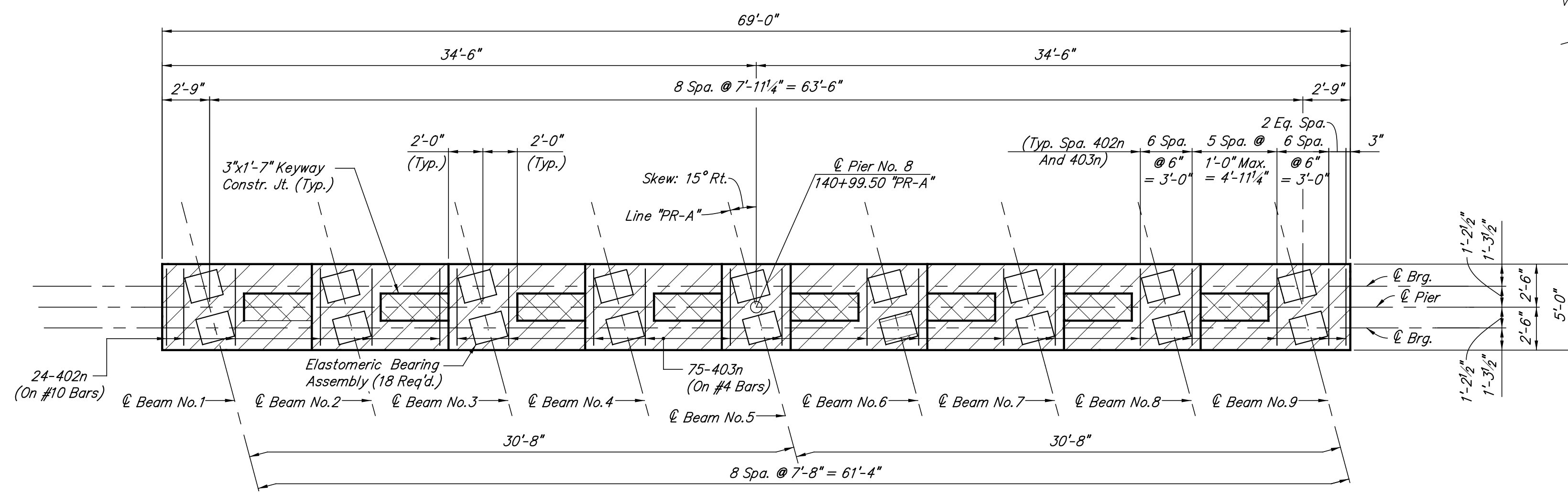


RECOMMENDED FOR APPROVAL: *David B. Day*, DESIGN ENGINEER, 6/1/2012 DATE  
DESIGNED: DZ DRAWN: EWM  
CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**PIER NO. 7 DETAILS**

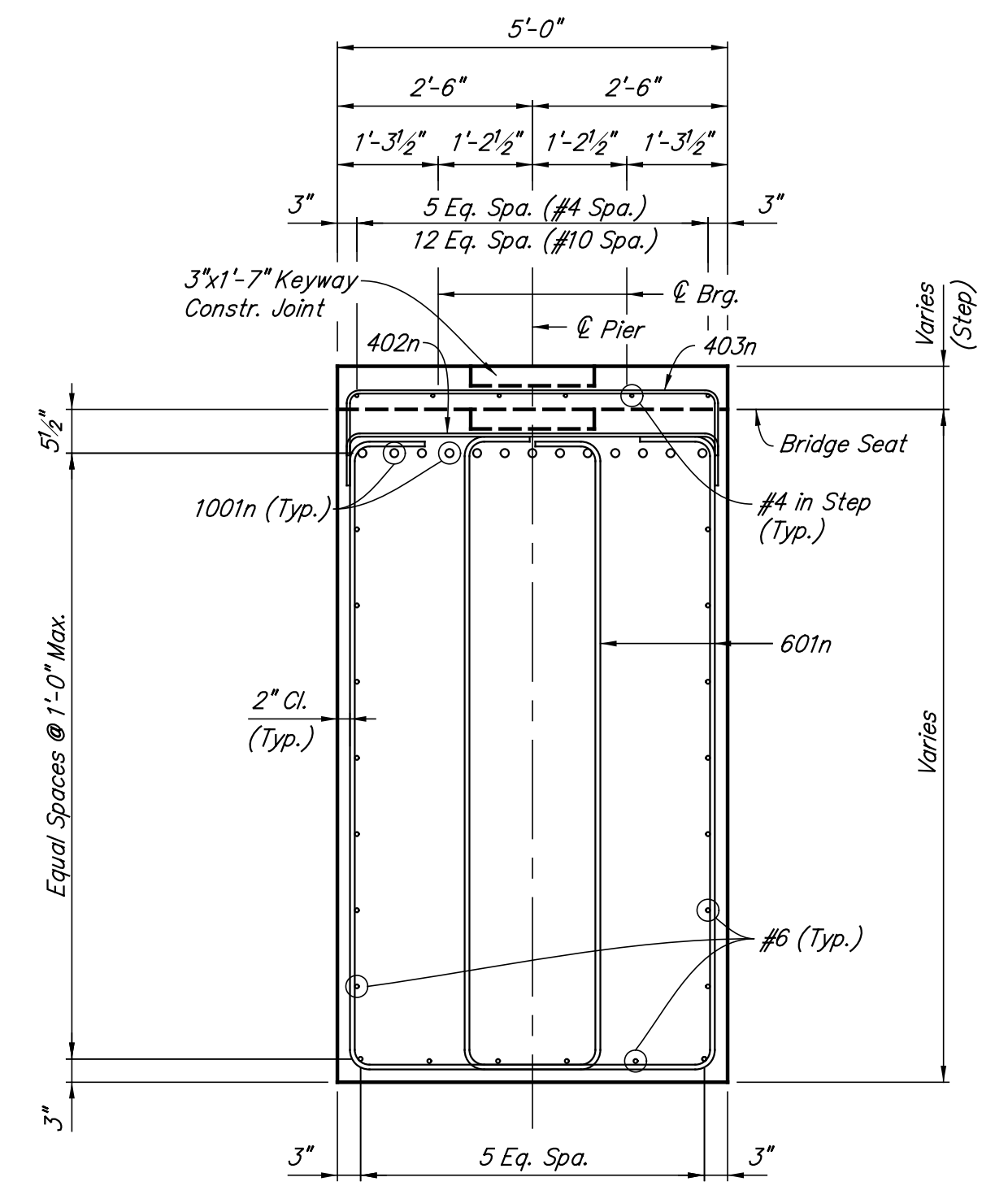
HORIZONTAL SCALE 3/16" = 1'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 72 of 147
CONTRACT B-33357	PROJECT NO. N881008





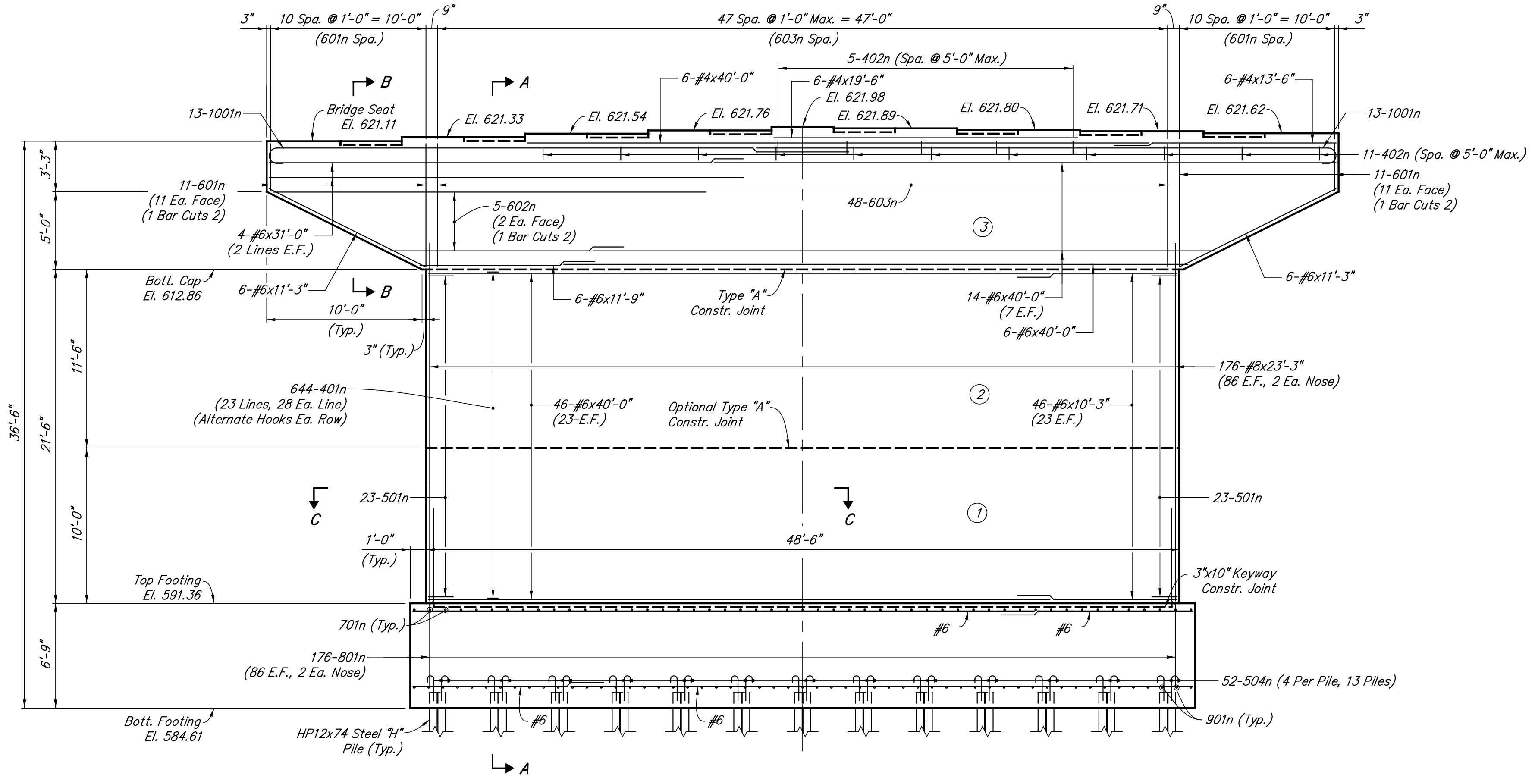
**CAP PLAN**

Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	5'-11"

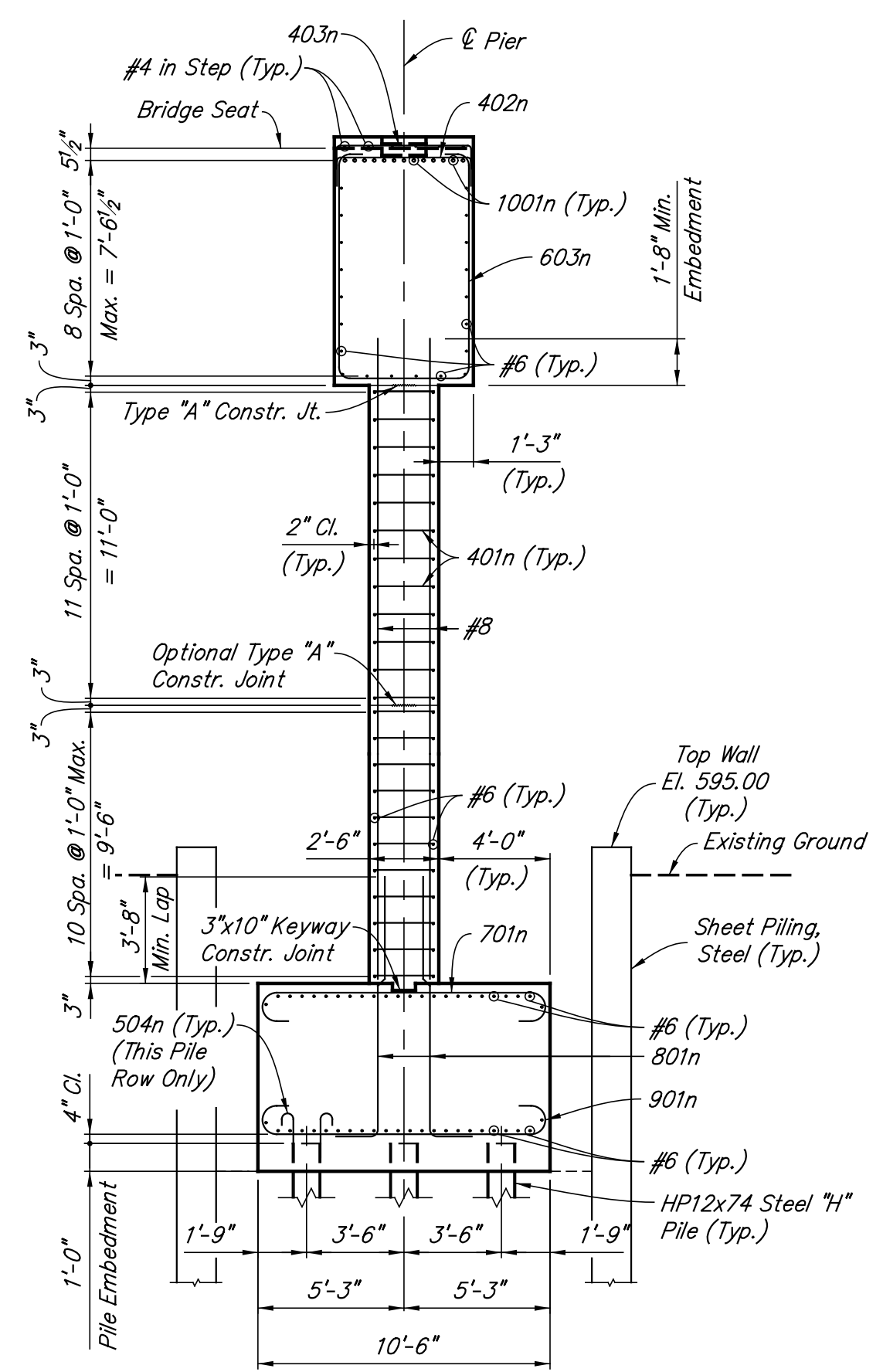


**SECTION B-B**

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



**ELEVATION**

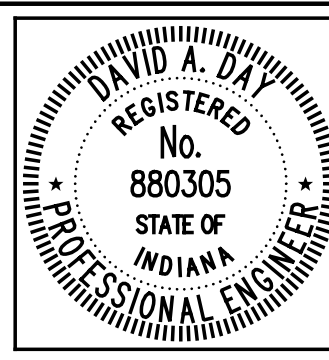


**SECTION A-A**

**PILE HOOK DETAIL**

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

- NOTES:**
- For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.
  - All reinforcing steel to be plain.
  - Cross-hatched areas indicate limits of Expanded Polystyrene cut out to clear elastomeric bearing pads by 1/2" on all sides. For additional detail and treatment of keyway construction joint, see Sheet No. 97.
  - For Elastomeric Bearing Assembly Details, see Sheet No. 87.
  - Surface Seal the top and vertical surfaces of pier cap.
  - For additional details and Bill Of Materials, see Sheet No. 74.
  - For pier backfill limits, see Standard Drawing E211-BFIL-03.
  - (X) Indicates concrete pour number and sequence of pours.



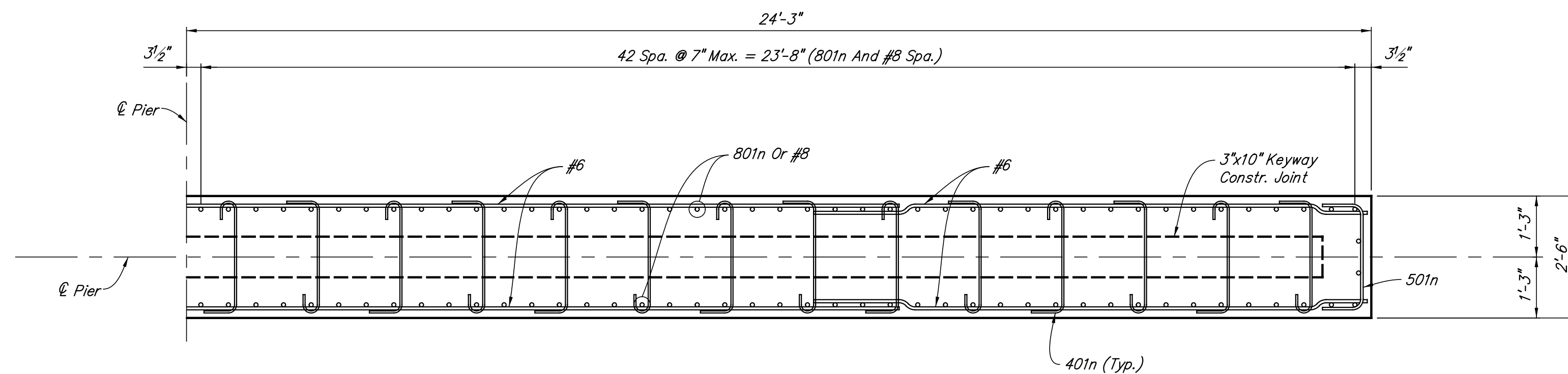
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: EWM  
 CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

**PIER NO. 8 DETAILS**

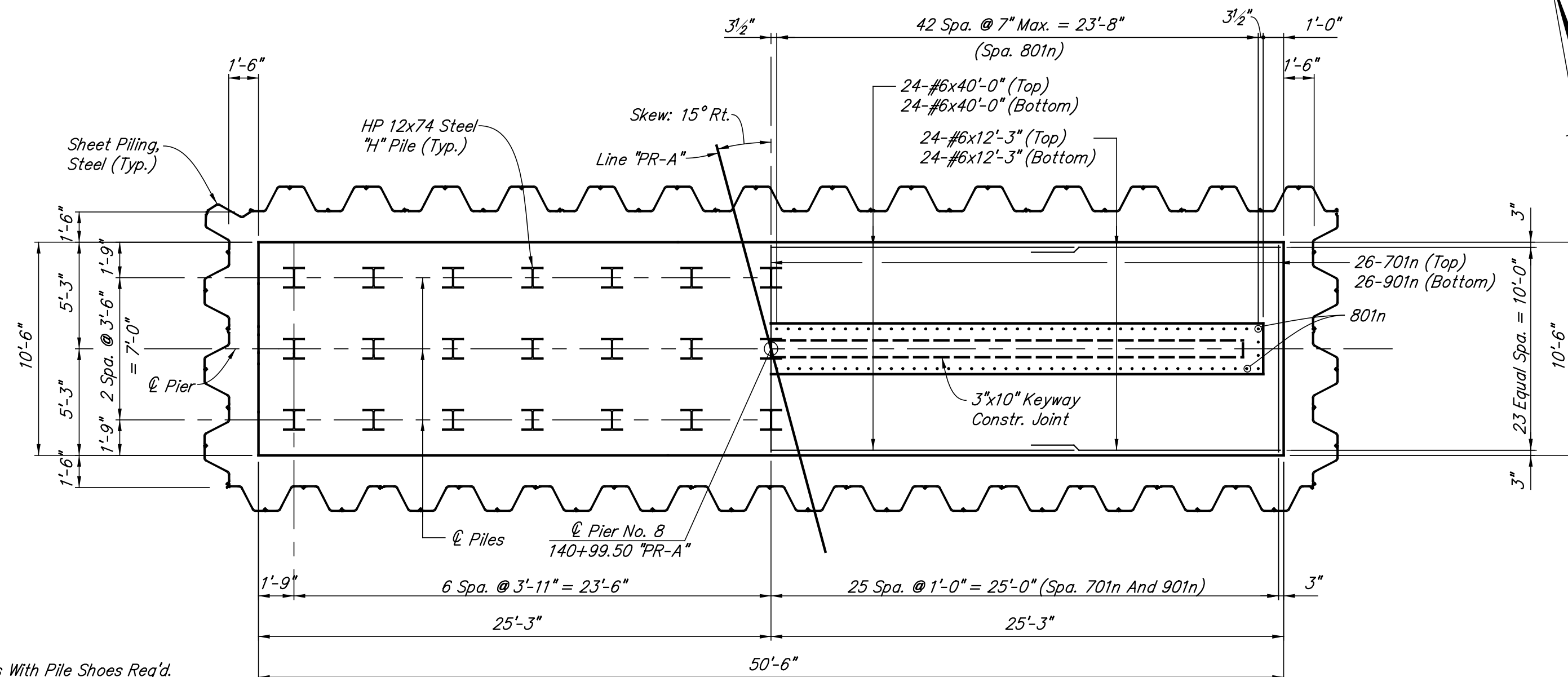
HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0", UNLESS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	73 of 147
CONTRACT	PROJECT NO.
B-33357	N881008



**SECTION C-C**

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

Min. Lap	
#4	1'-5"
#5	1'-9"
#6	2'-1"
#8	3'-8"
#10	7'-4"

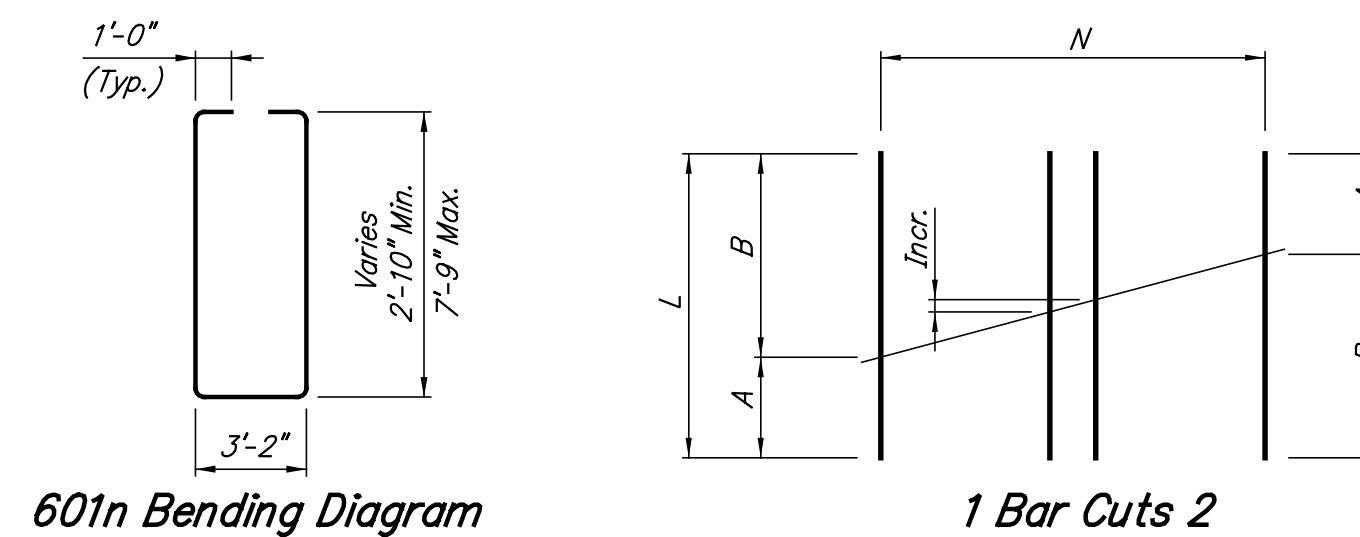


NOTE:  
39-HP 12x74 Steel "H" Piles With Pile Shoes Req'd.

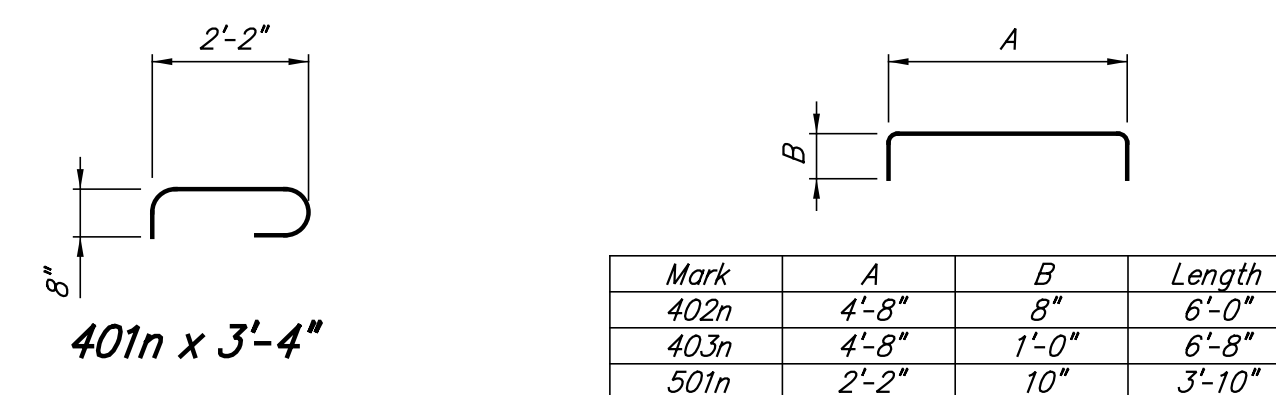
LEFT HALF SHOWS  
PILE SPACING

**FOOTING PLAN**

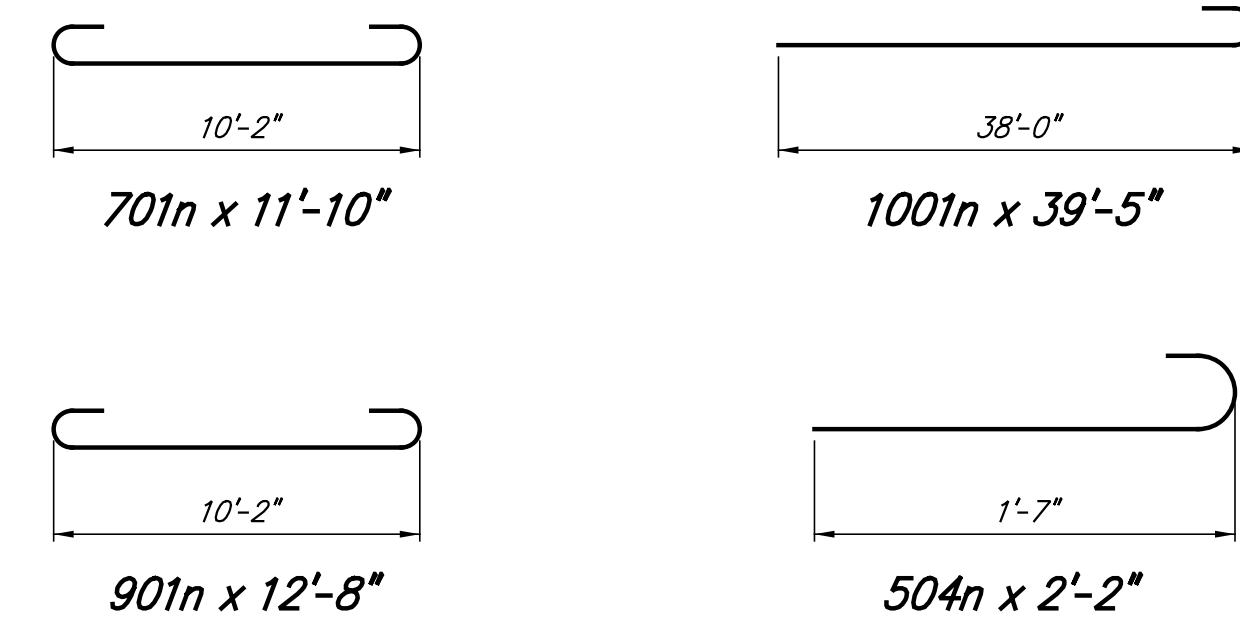
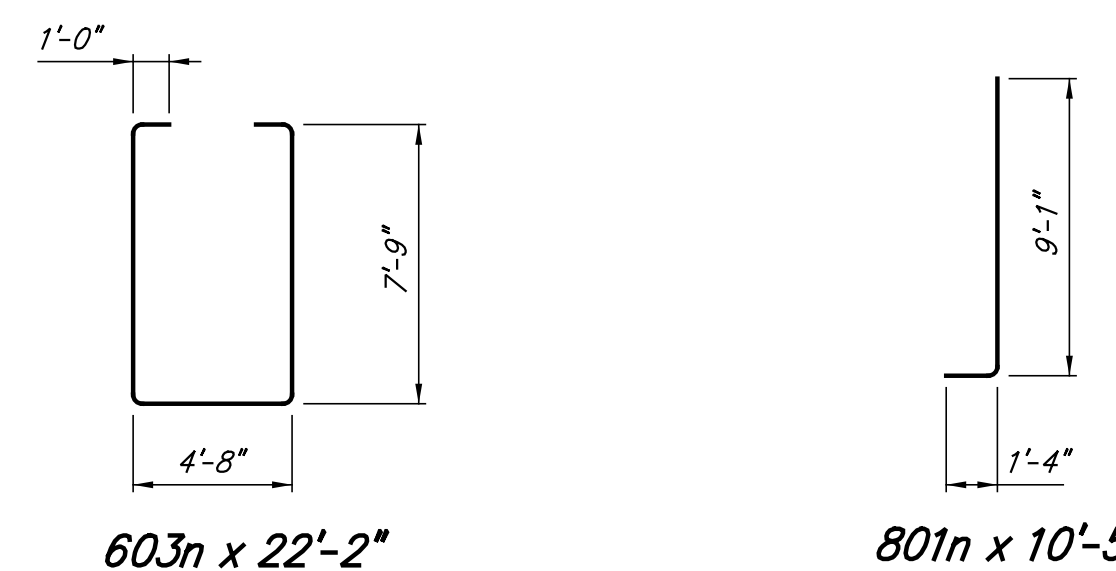
RIGHT HALF SHOWS  
REINFORCING STEEL



Mark	L	A	B	Incr.	N
601n	31'-6"	10'-10"	20'-8"	11 3/4" ±	11
602n	45'-5"	15'-1"	30'-4"	3'-9 3/4"	5



Mark	A	B	Length
402n	4'-8"	8"	6'-0"
403n	4'-8"	1'-0"	6'-8"
501n	2'-2"	10"	3'-10"



**PIER NO. 8  
BILL OF MATERIALS**

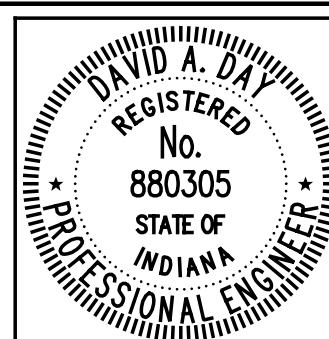
Size And Mark	Plain Reinforcing Steel No. of Bars	Length (Feet)	Weight (Lbs.)
1001n	26	39'-5"	4410
Total No. 10			
901n	51	12'-8"	2197
Total No. 9			
801n	176	10'-5"	15821
#8	176	23'-3"	
Total No. 8			
701n	51	11'-10"	1234
Total No. 7			
601n	22	31'-6"	11916
602n	5	45'-5"	
603n	48	22'-2"	
#6	114	40'-0"	
#6	4	31'-0"	
#6	48	12'-3"	
#6	6	11'-9"	
#6	12	11'-3"	
#6	46	10'-3"	
Total No. 6			
501n	46	3'-10"	
504n	52	2'-2"	
Total No. 5			
401n	644	3'-4"	2221
402n	40	6'-0"	
403n	75	6'-8"	
#4	6	40'-0"	
#4	6	19'-6"	
#4	6	13'-6"	
Total No. 4			
Total Plain Reinforcing Steel			38101
Concrete			
Class "A" in Substructure			
Pour No. 1			44.9 Cys
Pour No. 2			51.6 Cys
Pour No. 3			102.6 Cys
Total Class "A" in Substructure			199.1 Cys
Class "B" in Footing			132.6 Cys
Miscellaneous			
Surface Seal			1490 Sft.
38-Piles, Steel "H", HP12x74 x 95'-0" Approximate			3610 Lft.
1-Test Pile, Dynamic, Production x 105'-0" Approximate			105 Lft.
Pile Shoe, HP12x74			39 Each

**NOTES:**

For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.

All reinforcing steel to be plain.

For pier backfill limits, see Standard Drawing E211-BFIL-03.

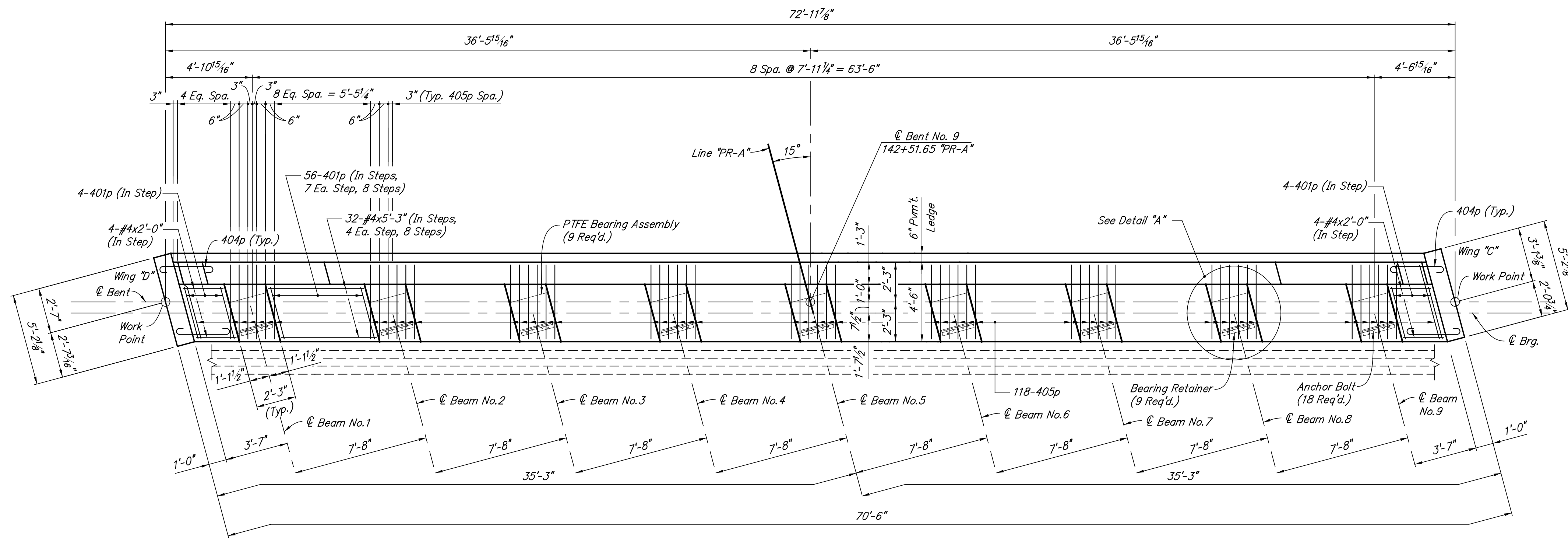


RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

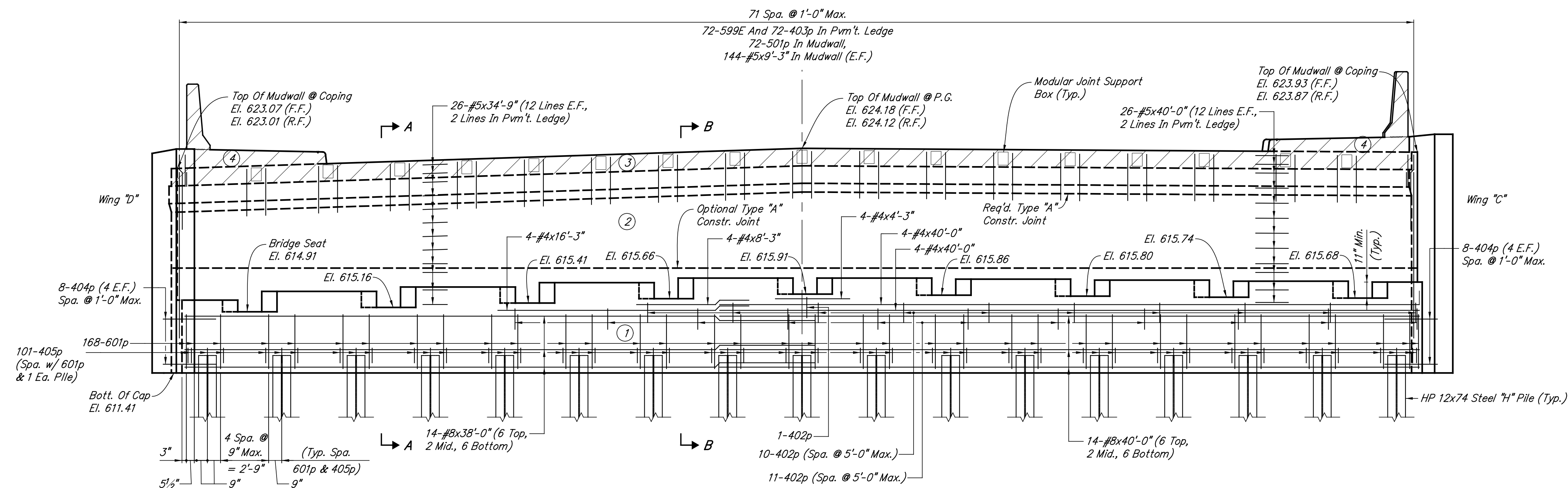
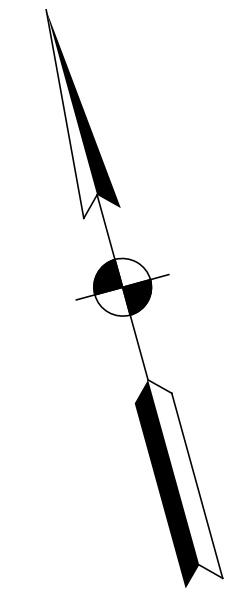
DESIGNED: DZ DRAWN: EWM  
CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**PIER NO. 8 DETAILS**

HORIZONTAL SCALE 3/16" = 1'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 74 of 147
CONTRACT B-33357	PROJECT NO. N881008



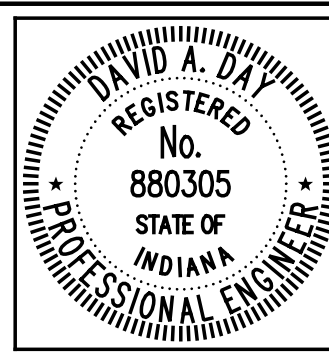
**PLAN**



**ELEVATION**

Min. Lap	
#4	1'-8"
#5	2'-0"
#8	5'-5"

- NOTES:**
- For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.
  - All reinforcing steel to be epoxy coated.
  - Hatched area to be poured with superstructure.
  - For PTFE Bearing Assembly Details and Bearing Retainer Details, see Sheet No. 87.
  - Surface Seal all exposed surfaces of wings, top and front face of mudwall, and exposed surfaces of bent cap.
  - For additional details and Bill Of Materials, see Sheet No. 76.
  - For end bent backfill limits, see Standard Drawing E211-BFIL-04.
  - (X) Indicates concrete pour number and sequence of pours.
  - For Detail "A", see Sheet No. 59.



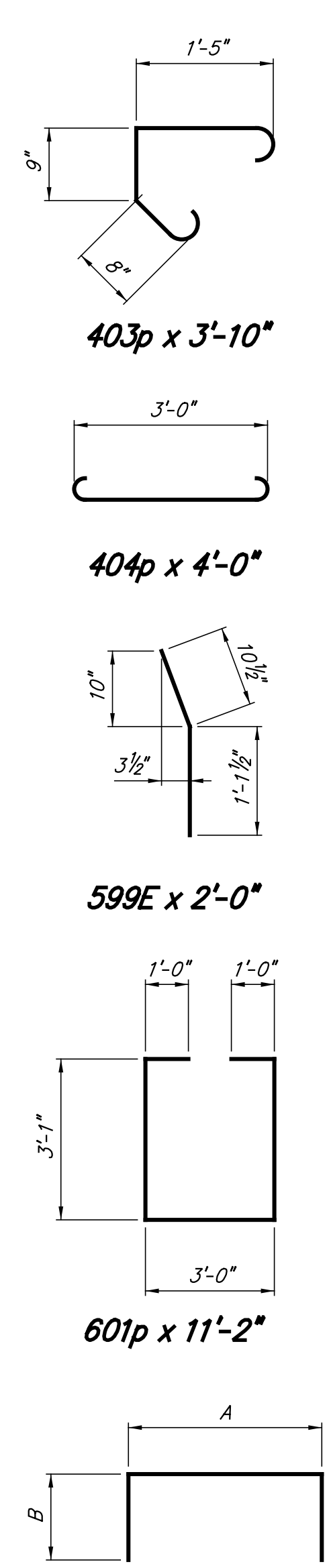
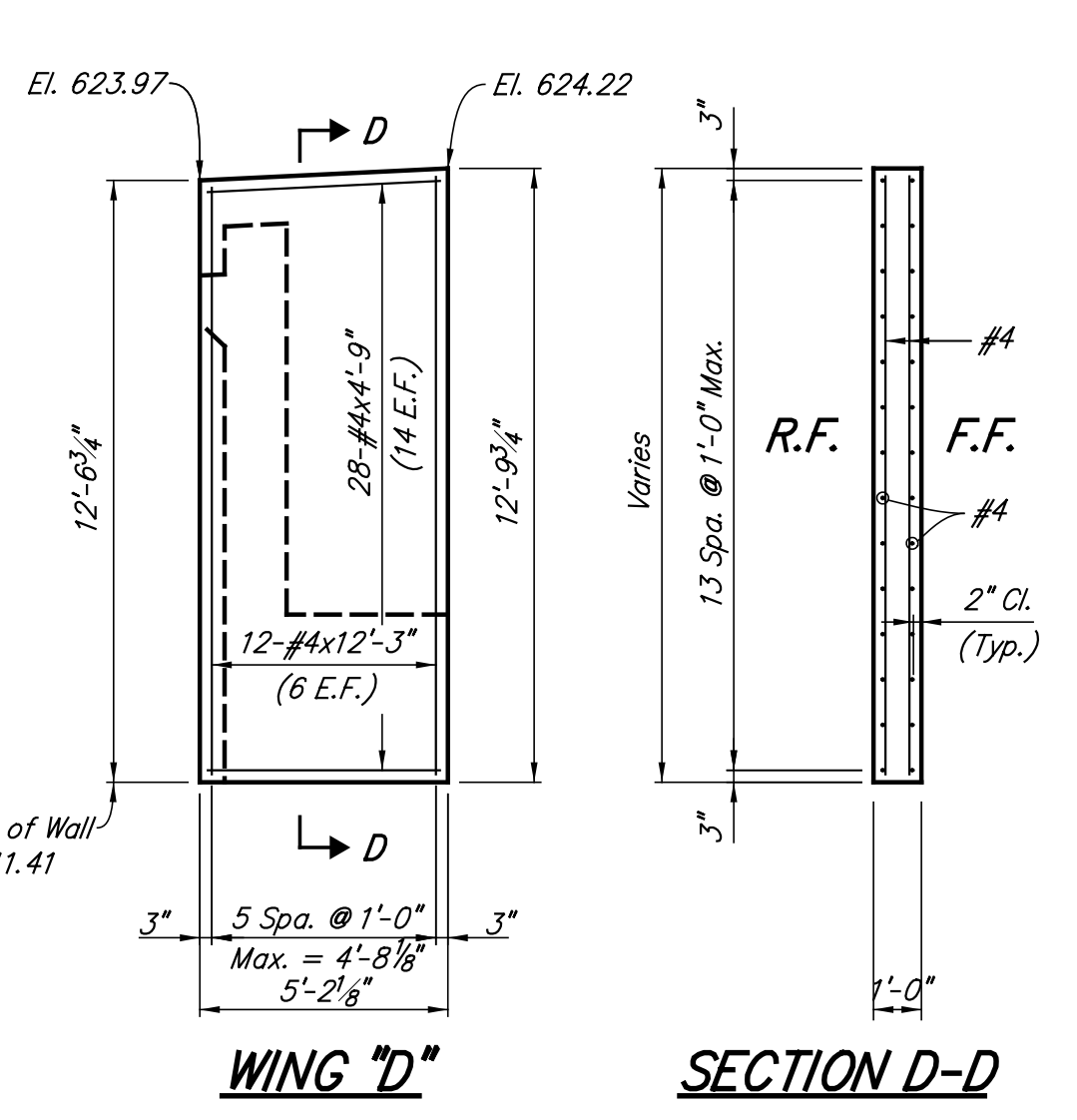
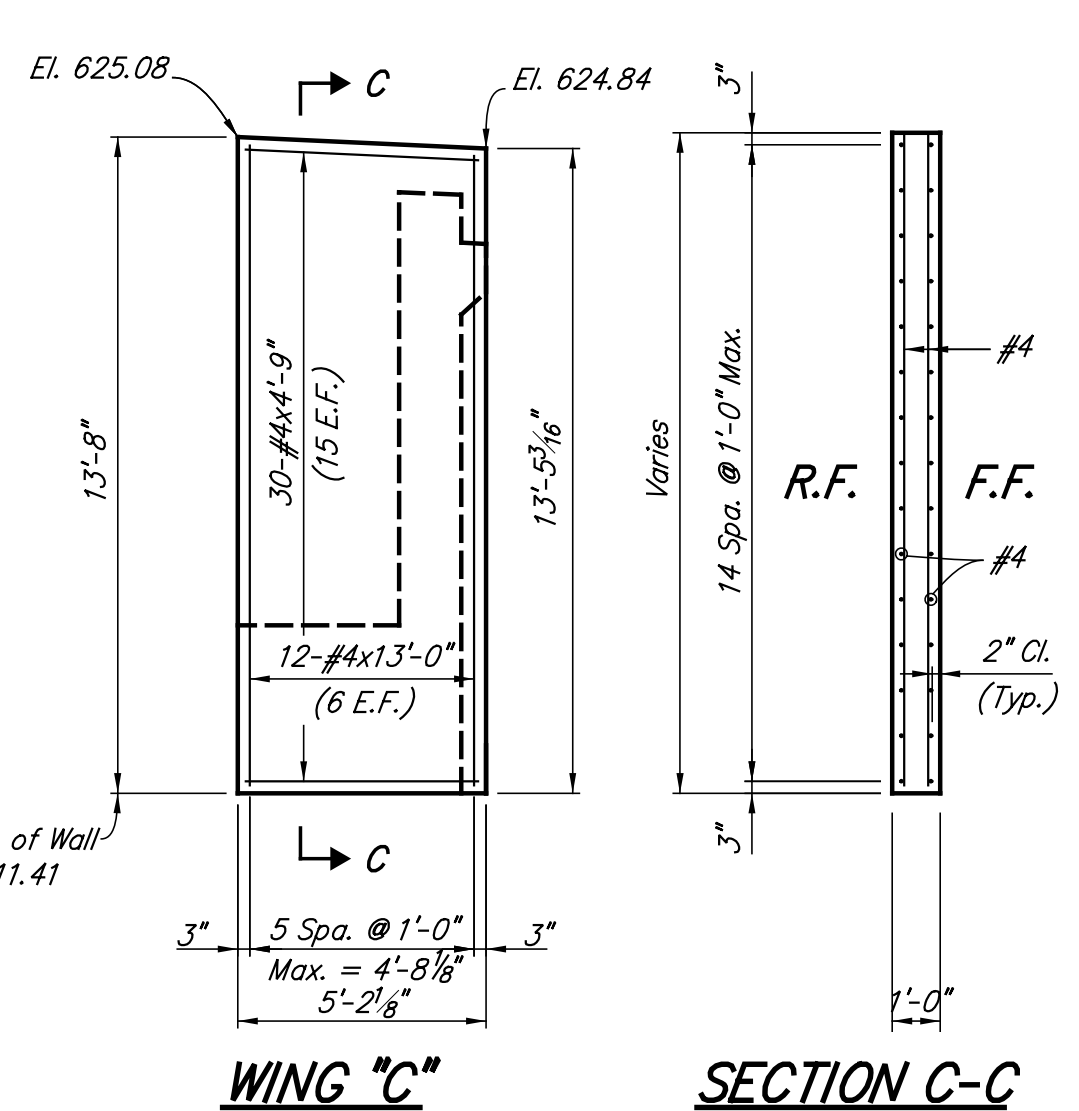
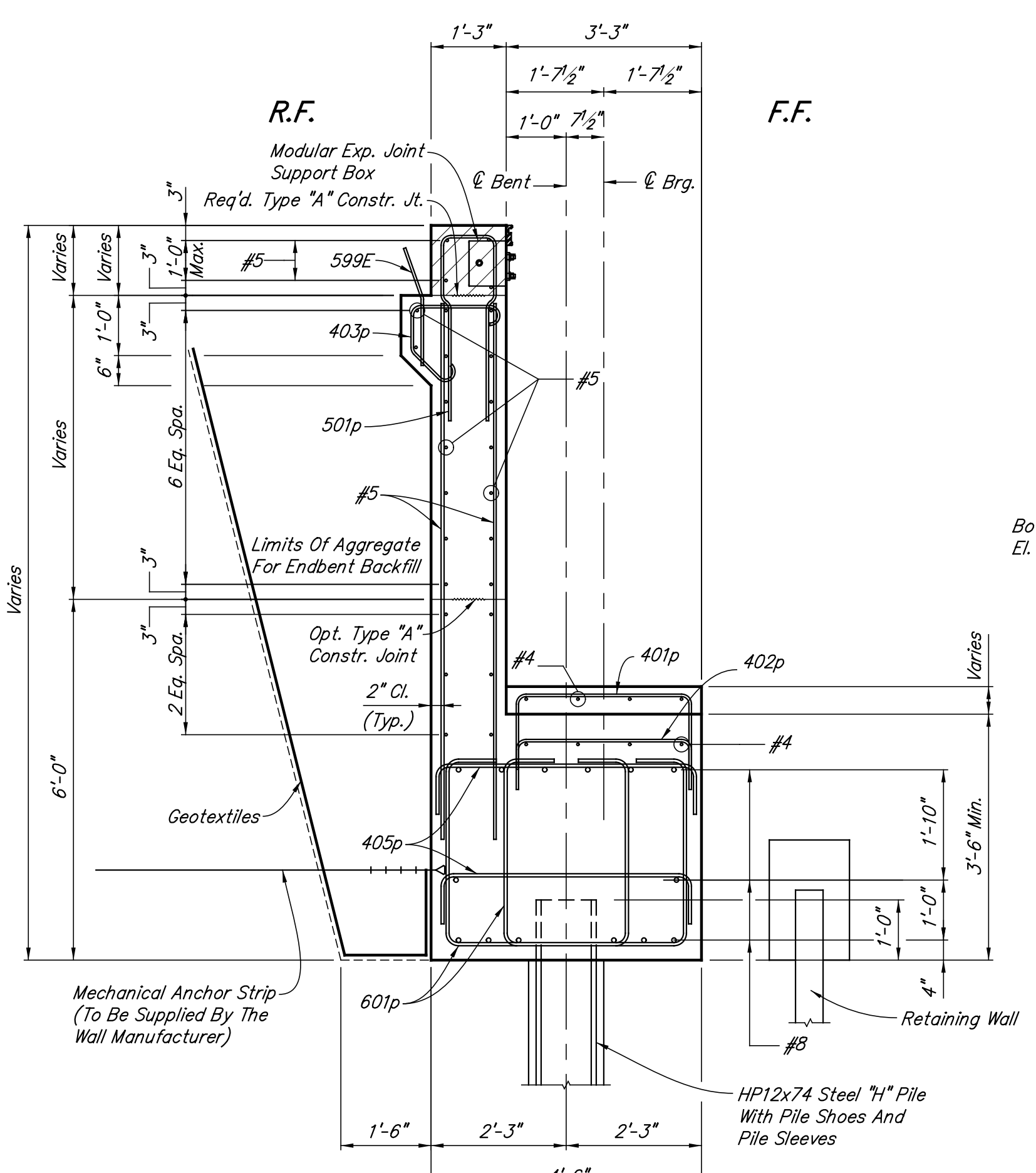
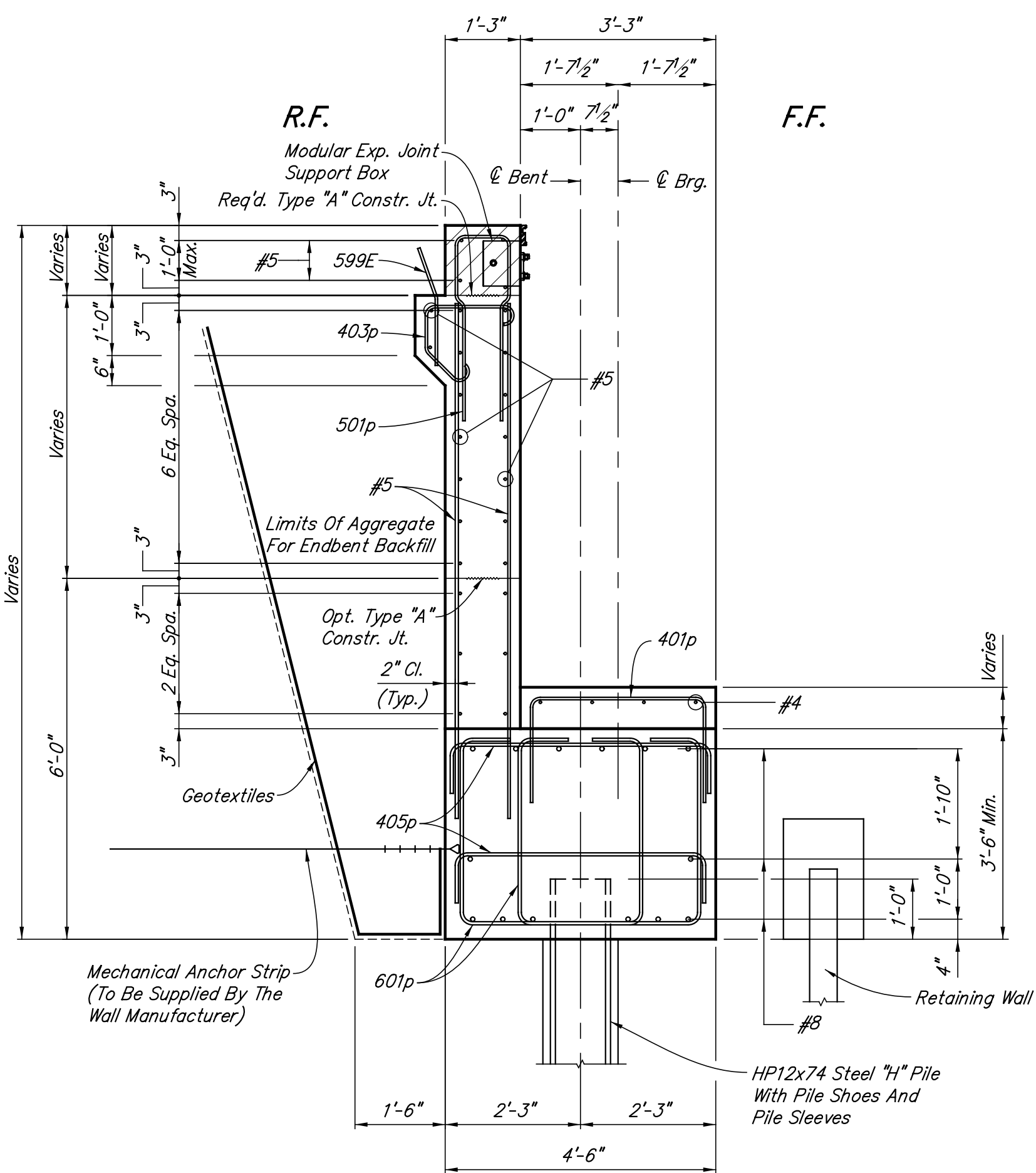
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: EWM  
 CHECKED: RMC CHECKED: DAD

INDIANA  
 DEPARTMENT OF TRANSPORTATION

**BENT NO. 9 DETAILS**

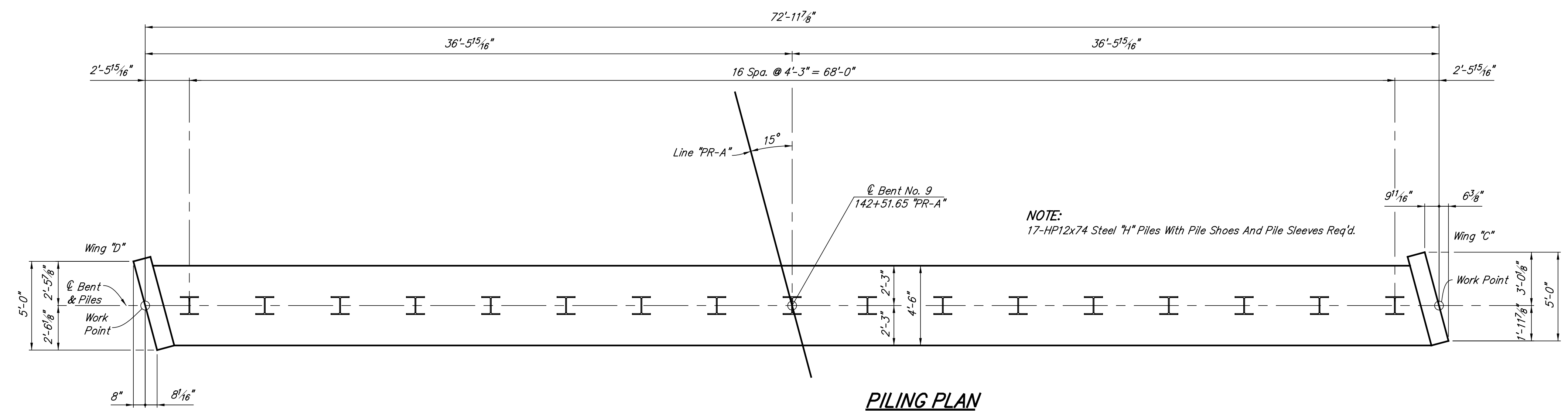
HORIZONTAL SCALE 1/4" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 75 of 147
CONTRACT B-33357	PROJECT NO. N881008



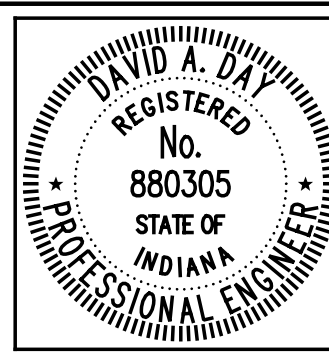
MARK	A	B	Length
401p	2'-11"	1'-9"	6'-5"
402p	2'-11"	1'-4"	5'-7"
405p	4'-2"	8"	5'-6"
501p	11"	4'-3"	9'-5"

**BENT NO. 9  
BILL OF MATERIALS**

Epoxy Coated Reinforcing Steel			
Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)
#8	14	40'-0"	
#8	14	38'-0"	
Total No. 8			2916
601p	168	11'-2"	
Total No. 6			2818
599E	72	2'-0"	
501p	72	9'-5"	
#5	26	40'-0"	
#5	26	34'-9"	
#5	144	9'-3"	
Total No. 5			4274
401p	64	6'-5"	
402p	22	5'-7"	
403p	72	3'-10"	
404p	16	4'-0"	
405p	219	5'-6"	
#4	8	40'-0"	
#4	4	16'-3"	
#4	12	13'-0"	
#4	12	12'-3"	
#4	4	8'-3"	
#4	32	5'-3"	
#4	58	4'-9"	
#4	4	4'-3"	
#4	8	2'-0"	
Total No. 4			2189
Total Epoxy Coated Reinforcing Steel			12197
Concrete			
Class "A" in Substructure			
Pour No. 1			66.3 Cys
Pour No. 2			18.8 Cys
Total Class "A" in Substructure			85.1 Cys
Class "C" in Superstructure			
Pour No. 3			3.8 Cys
Pour No. 4 (2 @ 0.3 Cys.)			0.6 Cys
Total Class "C" in Superstructure			4.4 Cys
Miscellaneous			
Surface Seal			1300 Sft.
16-Piles, Steel "H", HP12x74 x105'-0" Approximate			1680 Lft.
1-Test Pile, Dynamic, Production x115'-0" Approximate			115 Lft.
Pile Shoe, HP12x74			17 Each
Pile Sleeve			17 Each



**NOTES:**  
For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.  
All reinforcing steel to be epoxy coated.  
Hatched area to be poured with superstructure.  
Surface Seal all exposed surfaces of wings, top and front face of mudwall, and exposed surfaces of bent cap.  
For end bent backfill limits, see Standard Drawing E211-BFIL-04.

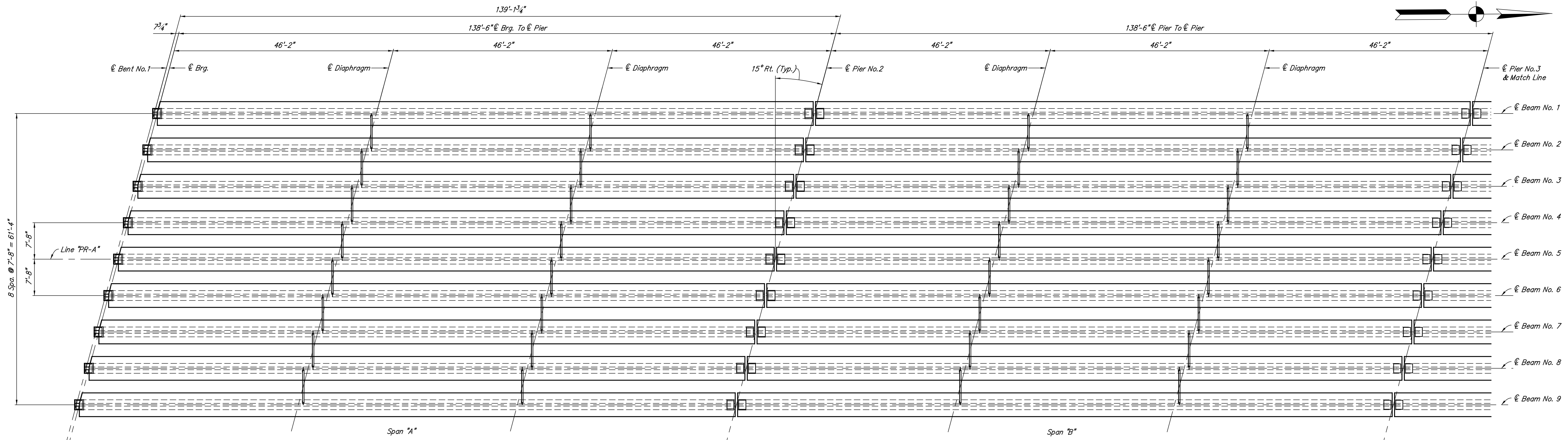


RECOMMENDED FOR APPROVAL: *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

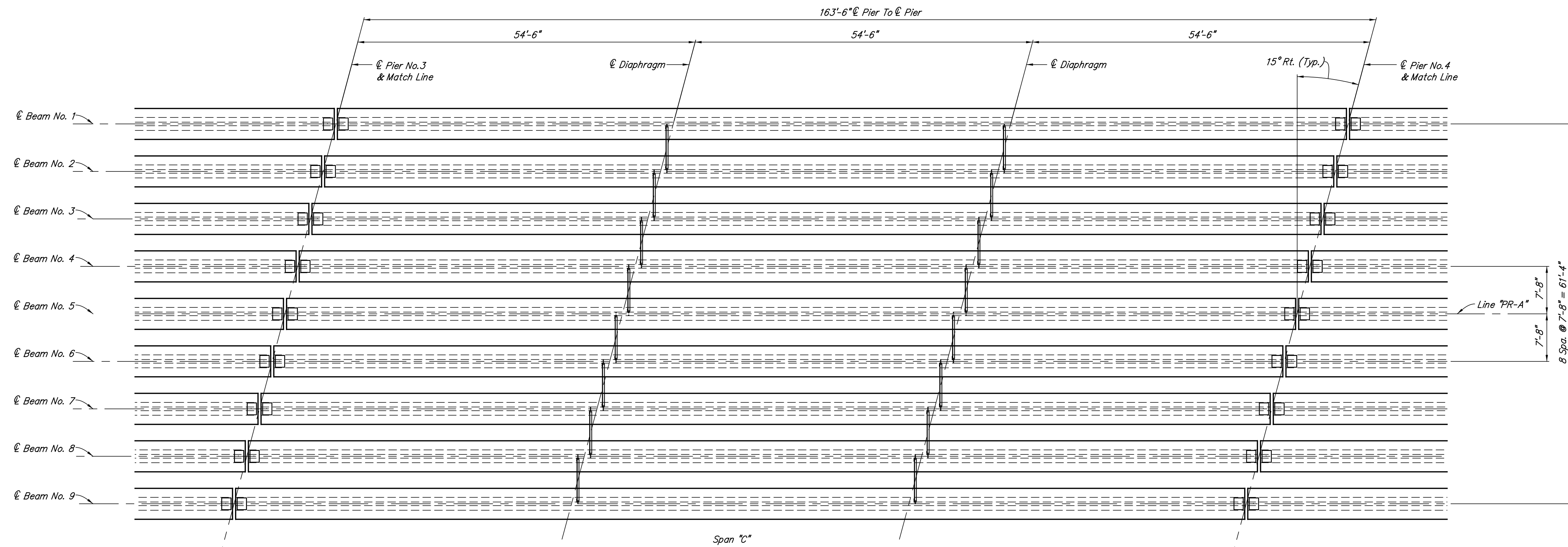
DESIGNED: DZ DRAWN: EWM  
CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**BENT NO. 9 DETAILS**

HORIZONTAL SCALE 1/2" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 76 of 147
CONTRACT B-33357	PROJECT NO. N881008

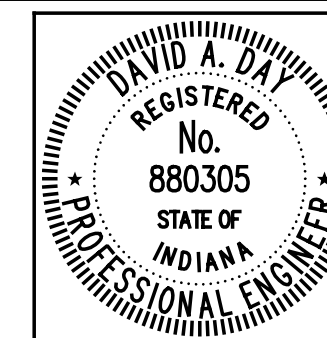


**PARTIAL FRAMING PLAN - SPANS "A" & "B"**



**PARTIAL FRAMING PLAN - SPAN "C"**

- NOTES:**
- For Steel Diaphragm Details, See Standard Drawings E707-SDPC-05 And -06.
  - For Spans "D" Thru "F", See Sheet No. 78.
  - For Spans "G" And "H", See Sheet No. 79.
  - For Beam Details, See Sheets No. 80-86.
  - For Additional Details, See Sheet No. 87.



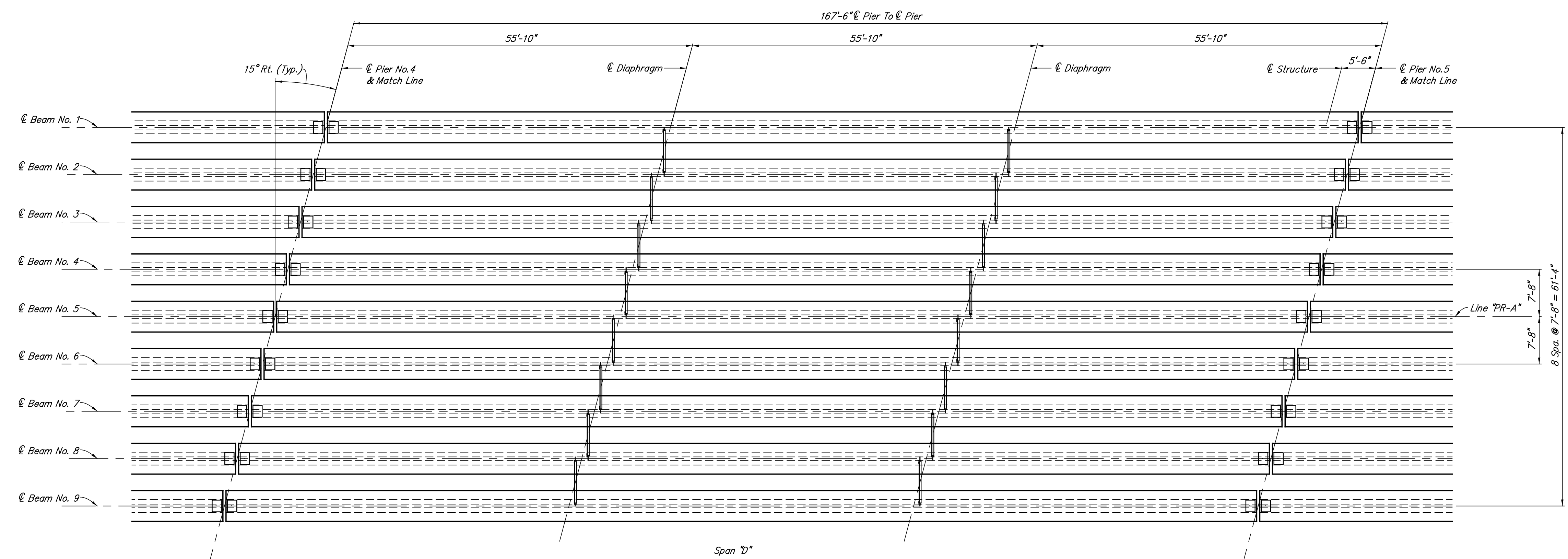
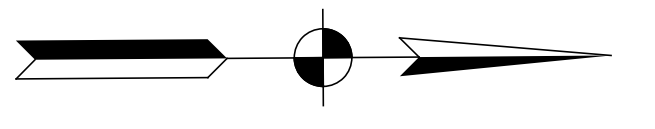
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: EWM  
 CHECKED: RMC CHECKED: DAD

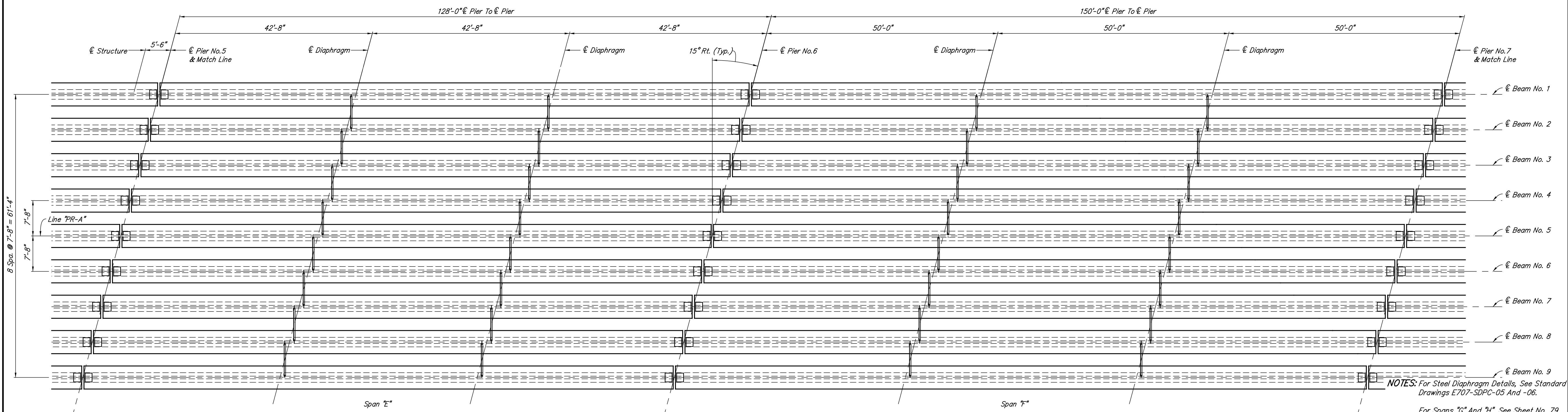
INDIANA  
 DEPARTMENT OF TRANSPORTATION

**FRAMING PLAN**

HORIZONTAL SCALE 3/16" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 77 of 147
CONTRACT B-33357	PROJECT NO. N881008



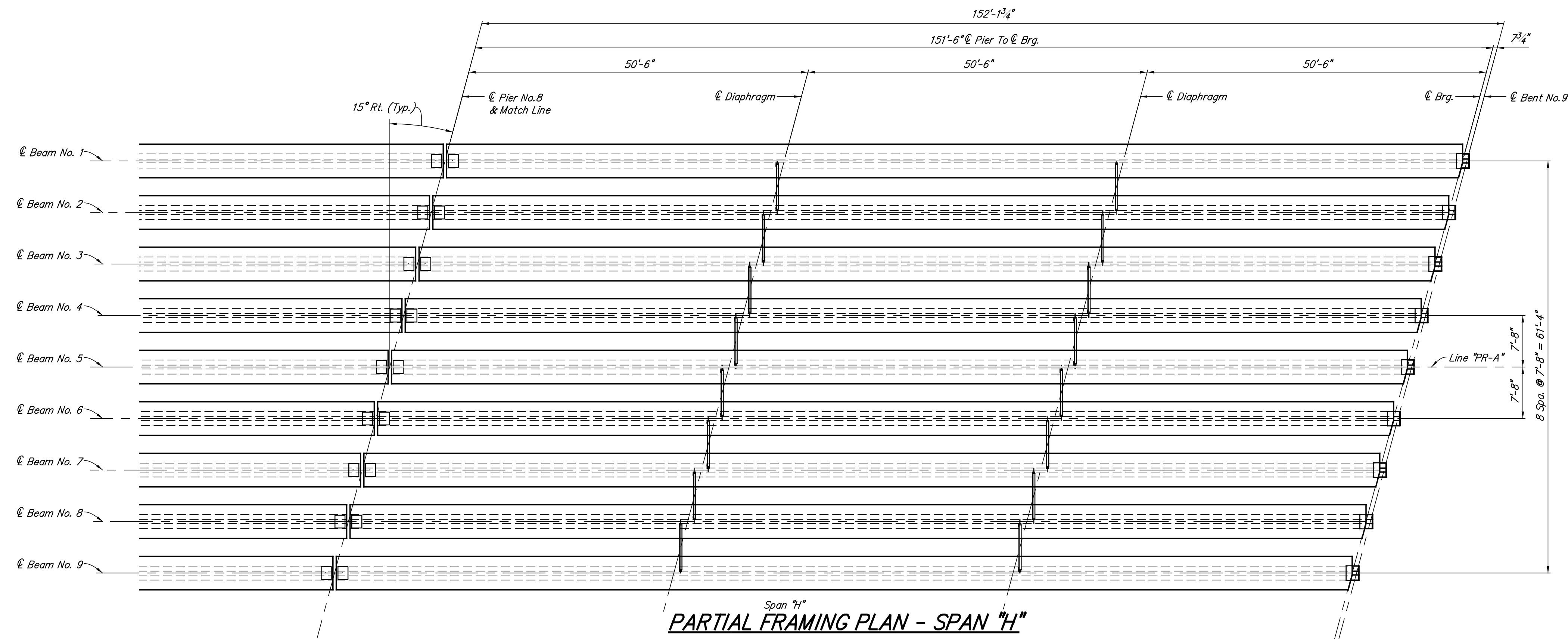
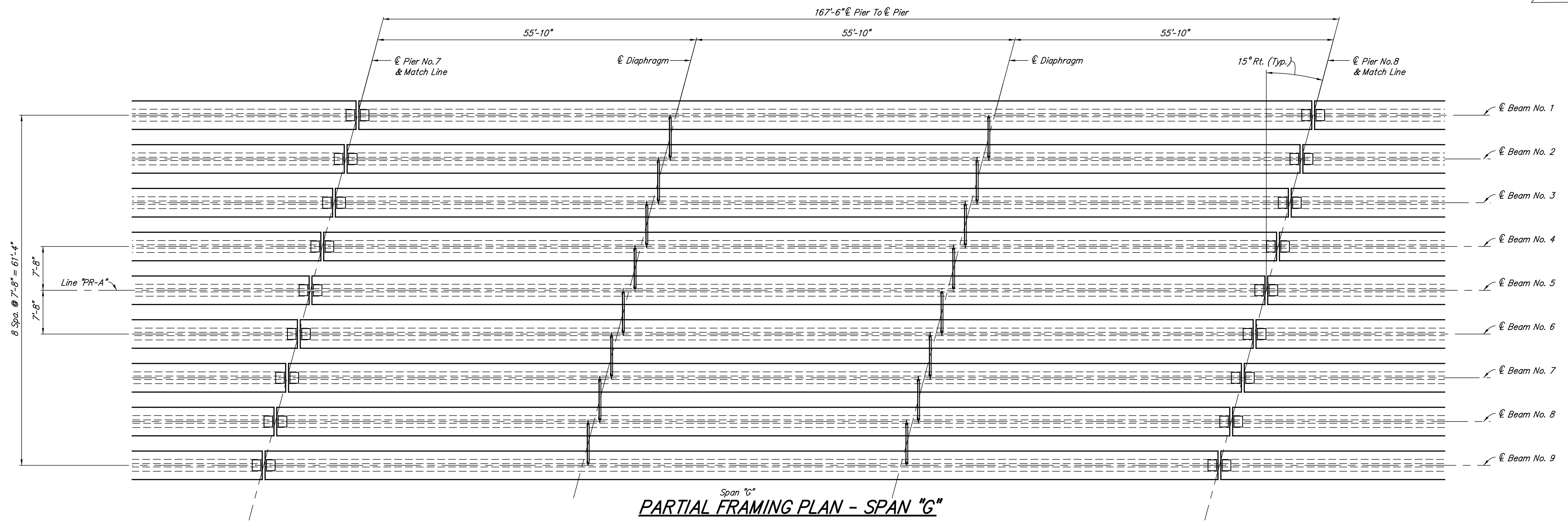
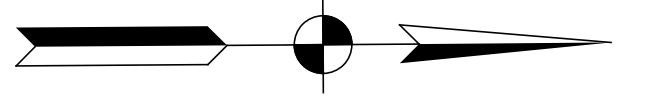
**PARTIAL FRAMING PLAN - SPAN "D"**



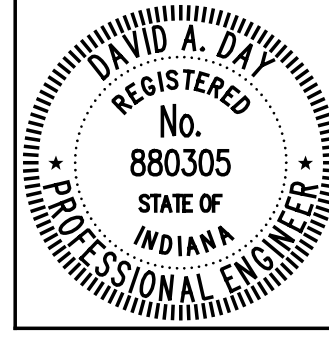
**PARTIAL FRAMING PLAN - SPANS "E" & "F"**

NOTES: For Steel Diaphragm Details, See Standard Drawings E707-SDPC-05 And -06.  
 For Spans "G" And "H", See Sheet No. 79.  
 For Beam Details, See Sheets No. 80-86.  
 For Additional Details, See Sheet No. 87.

	RECOMMENDED FOR APPROVAL <i>David B. Day</i> 6/1/2012 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE $\frac{3}{16}'' = 1'-0''$	BRIDGE FILE 152-45-02730
	DESIGNED: DZ CHECKED: RMC	DRAWN: EWM CHECKED: DAD	<b>FRAMING PLAN</b>		VERTICAL SCALE DESIGNATION NO. 0014210
				CONTRACT B-33357	PROJECT NO. N881008



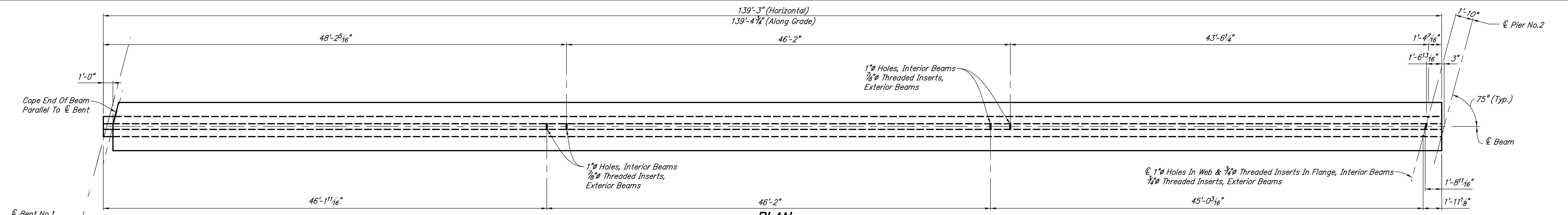
**NOTES:**  
 For Steel Diaphragm Details, See Standard Drawings E707-SDPC-05 And -06.  
 For Beam Details, See Sheets No. 80-86.  
 For Additional Details, See Sheet No. 87.



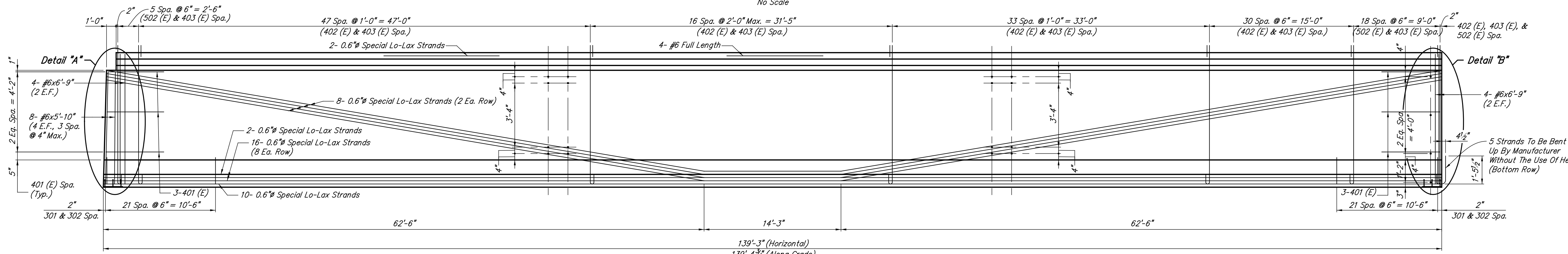
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: DZ DRAWN: EWM  
 CHECKED: RMC CHECKED: DAD

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
**FRAMING PLAN**

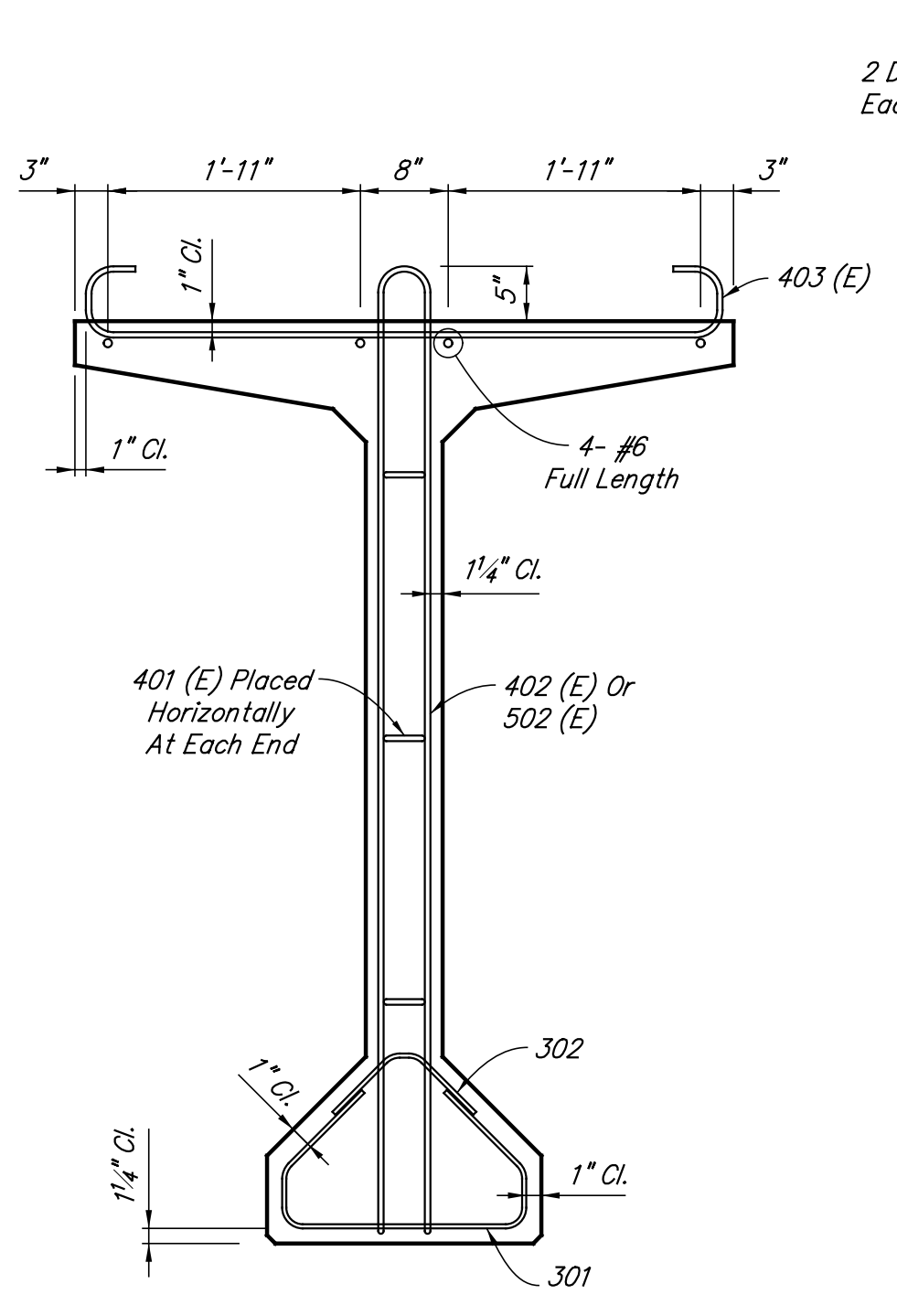
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VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 79 of 147
CONTRACT B-33357	PROJECT NO. N881008



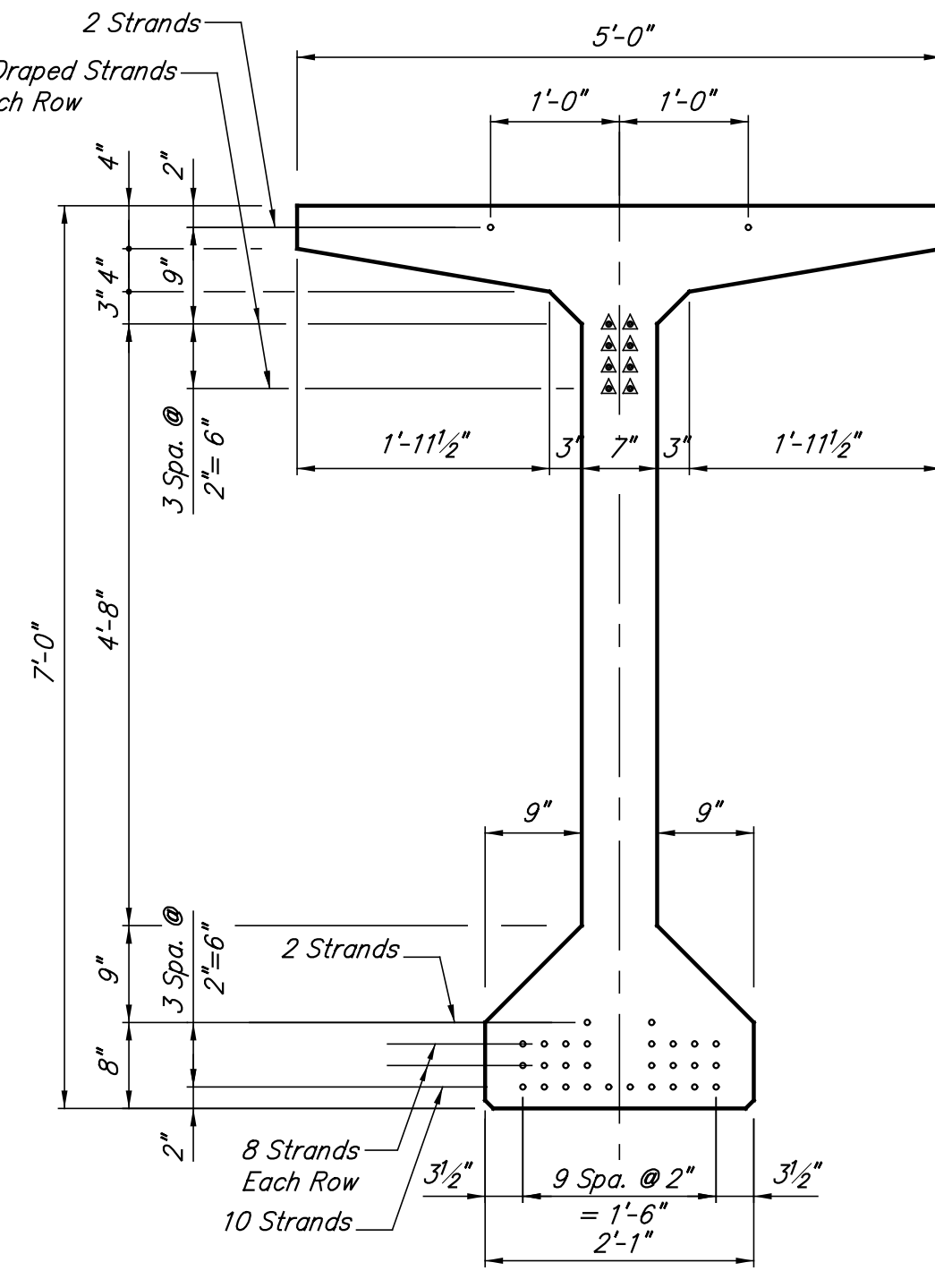
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No Scale



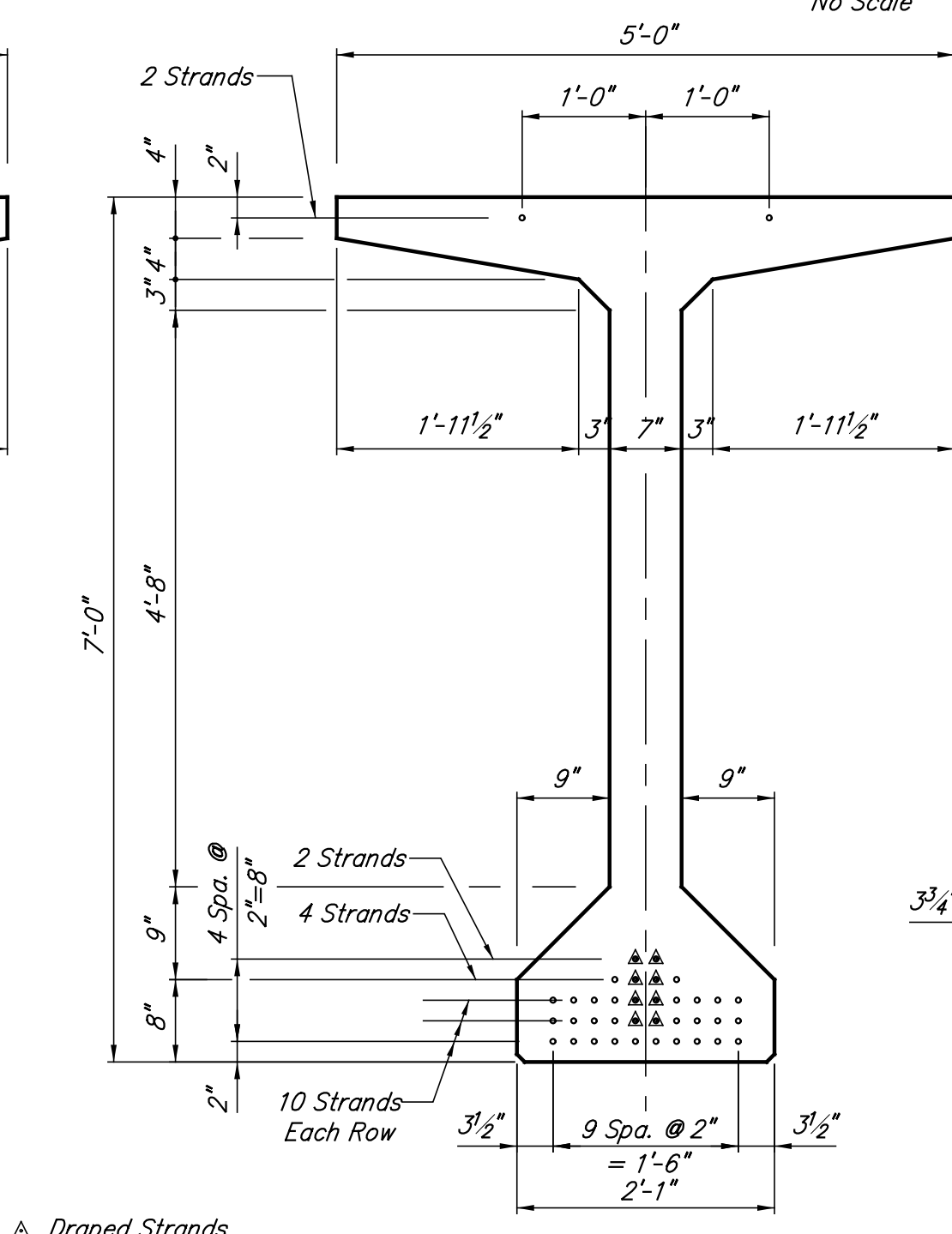
**ELEVATION**  
No Scale



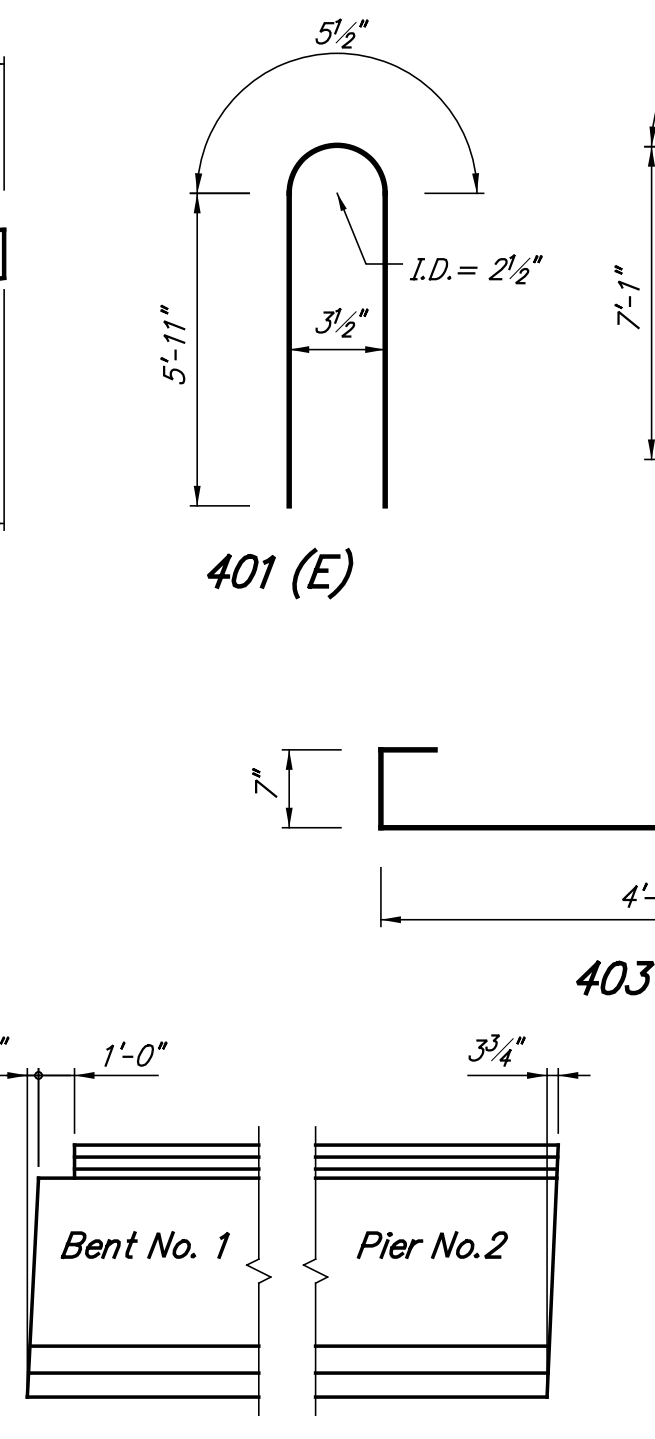
**SECTION SHOWING REINFORCING**  
Scale: 3/4\"/>



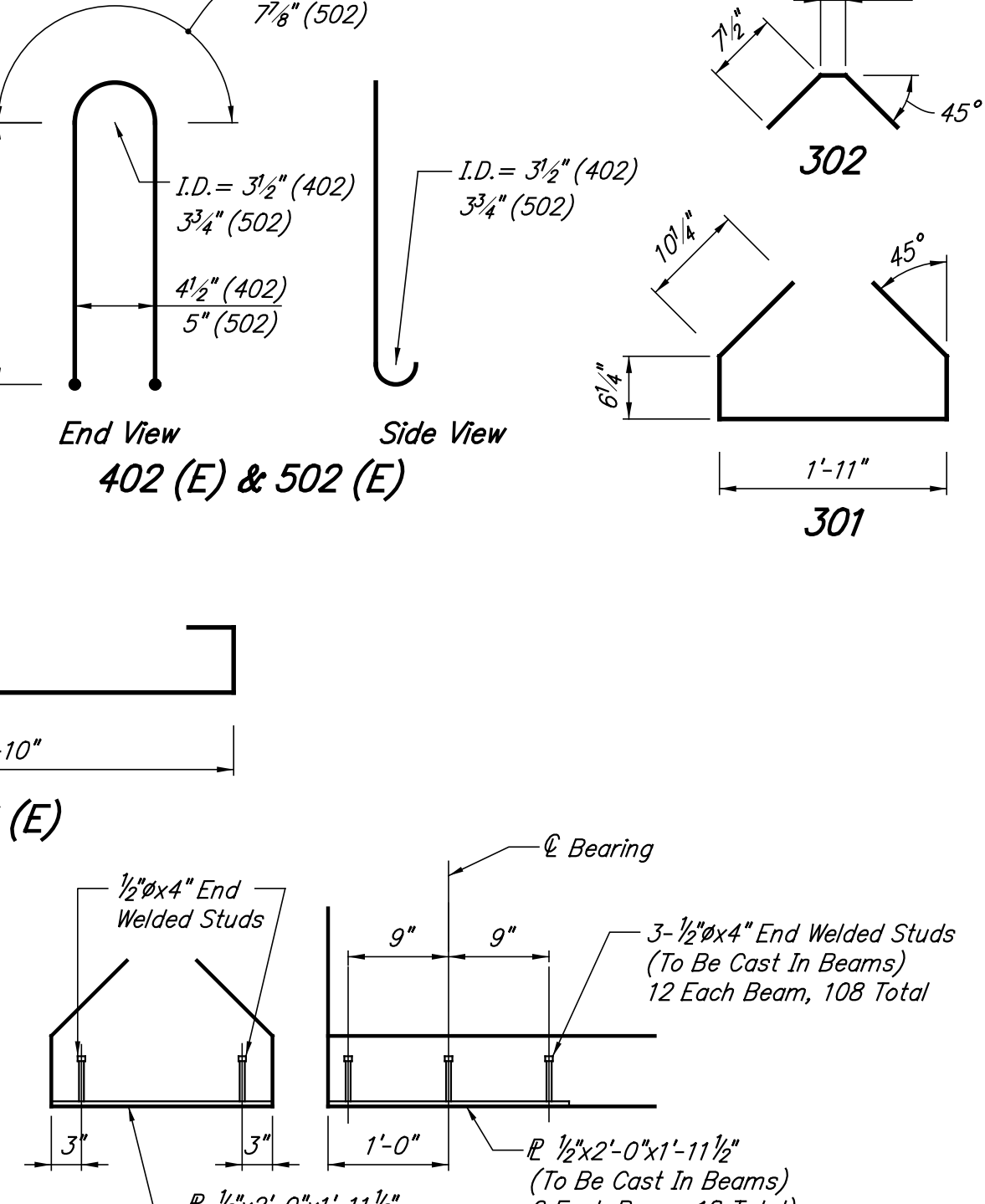
**TYPICAL SECTION AT BEAM END**  
Scale: 3/4\"/>



**TYPICAL SECTION AT MID-SPAN**  
Scale: 3/4\"/>



**DETAIL "A" DETAIL "B"**  
No Scale

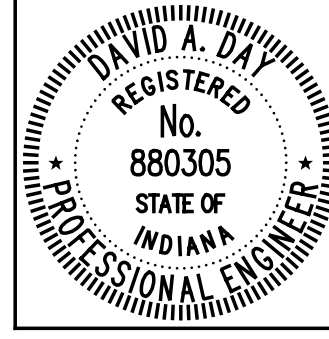


**BEAM END DETAILS**  
No Scale

Residual Camber Table	
Initial Beam Camber	2 3/8"
Superimposed Dead Load Deflection	1 5/8"
Residual Camber	1 1/8"

Initial Beam Camber equals upward deflection from prestressing force minus downward deflection from dead load of the beam in inches.

- NOTES:**
- Beams shall be cast a minimum of 15 days before the deck is poured.
  - Beams are to be supported at bearing points while stored and while transporting to the job site.
  - Top of beams are to be scored transversely at about 3" centers with a pointed tool.
  - For tolerances of prestressed beams, see Standard Drawing E707-BPBF-03.
  - For reinforcing bar notes, see Standard Drawing E703-BRST-01.
  - Reinforcing bars designated (E) shall be epoxy coated.
  - The concrete strength shall be 6,000 psi minimum at release and 7,000 psi minimum at 28 days.
  - 0.6" Dia. ( $A_s = 0.217 \text{ si}$ ) (270 ksi) Special Lo-Lax Strands to be pulled to 43,950 Lbs each.
  - All mild reinforcing steel to be Grade 60.
  - Sealer on the outside face of exterior beams to be done by the fabricator in the shop. Do not rub.



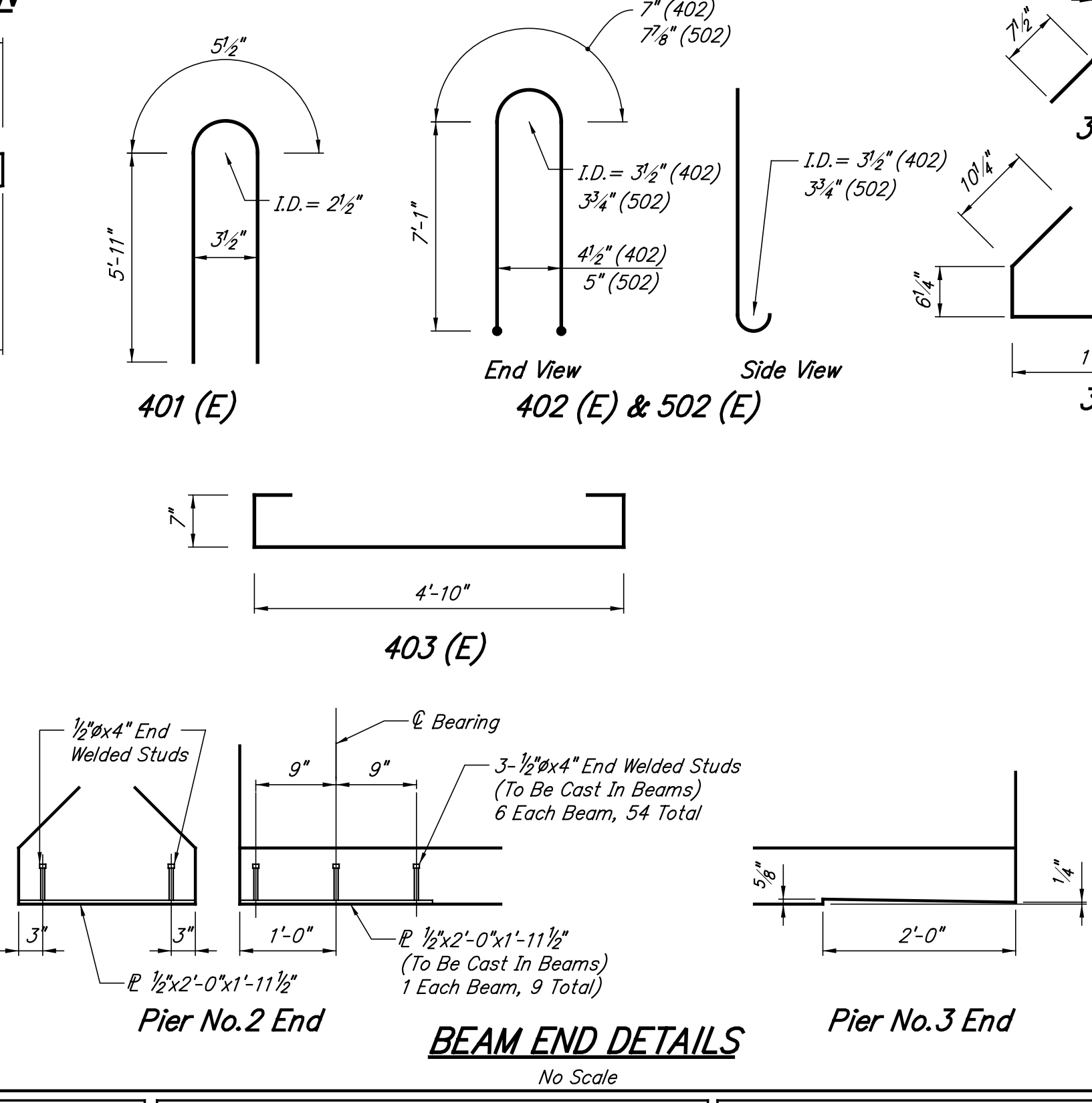
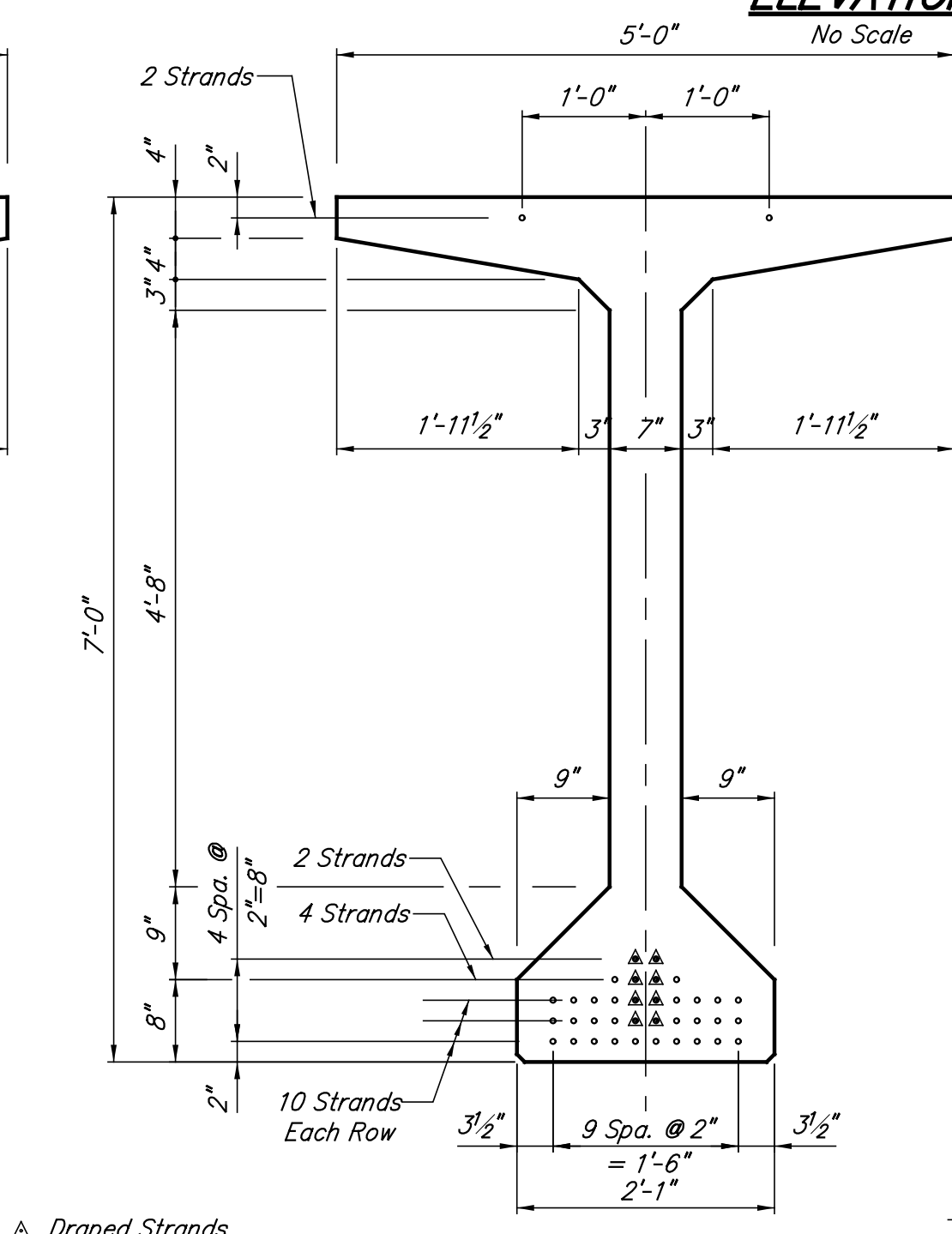
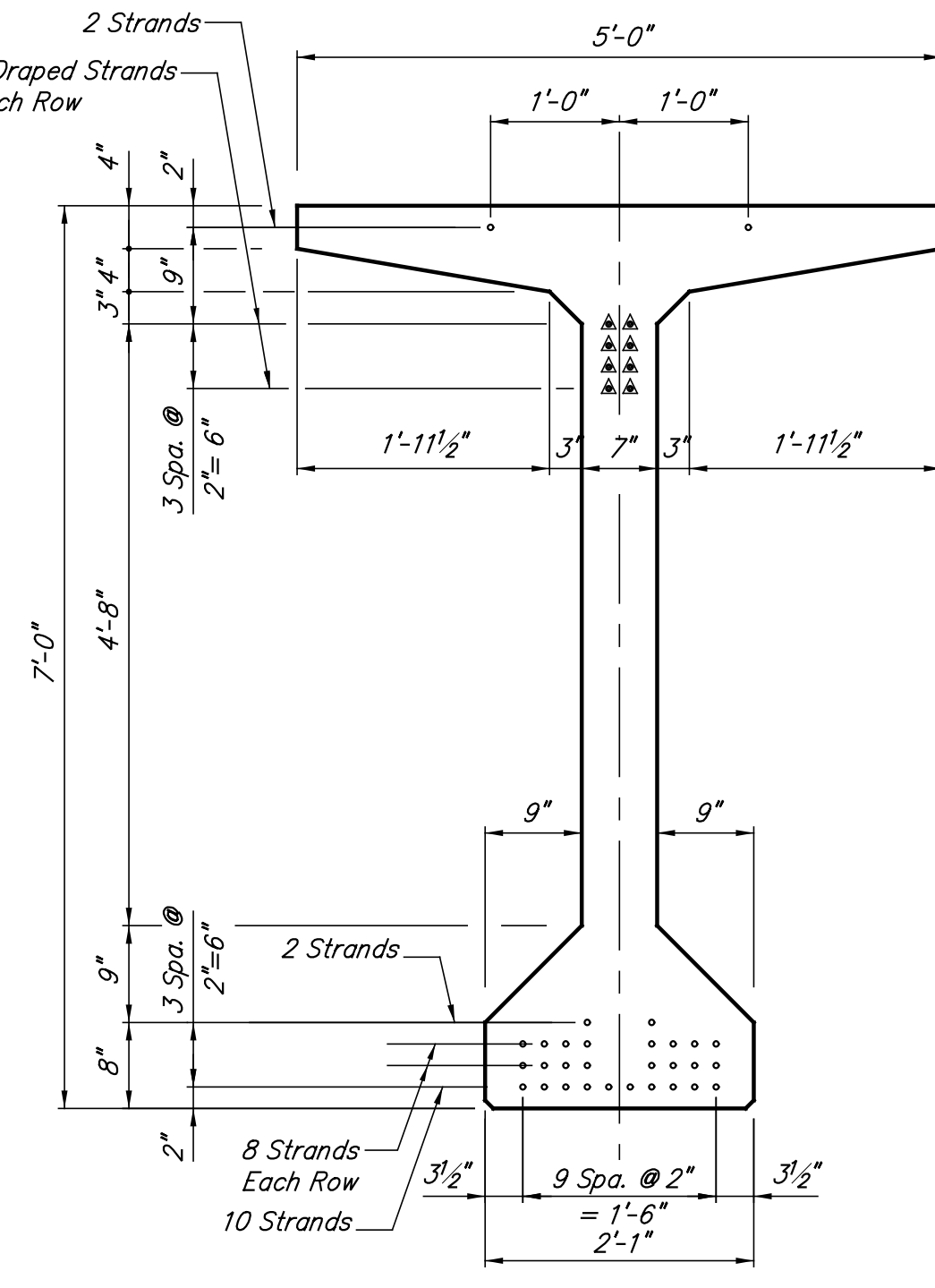
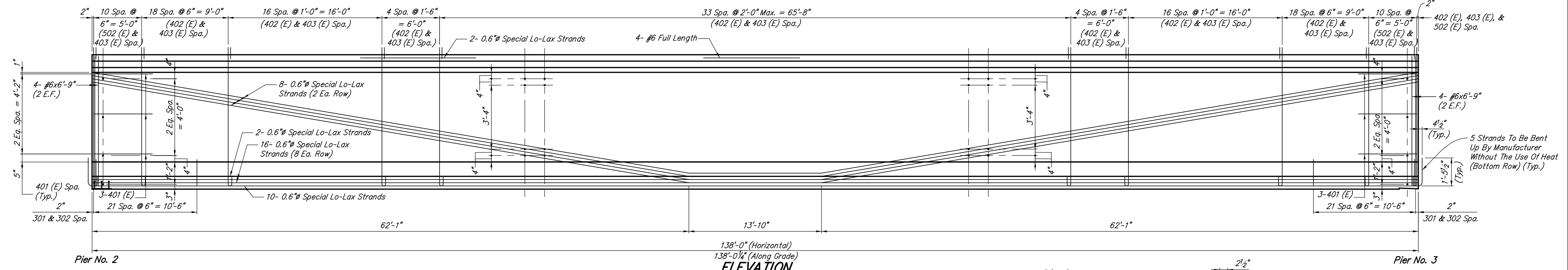
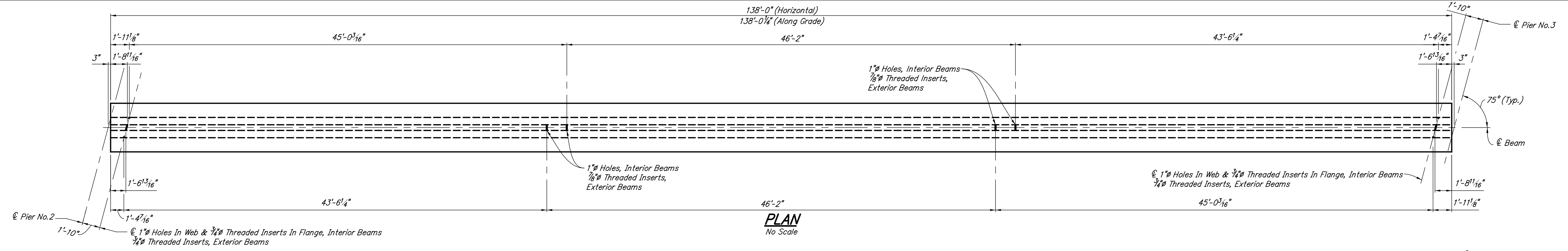
RECOMMENDED FOR APPROVAL: *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: EWM  
CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**BEAM DETAILS - SPAN "A"**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
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CONTRACT	PROJECT NO.
B-33357	N881008

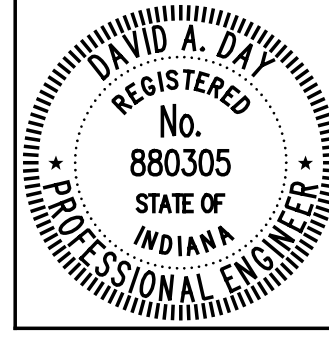




Residual Camber Table	
Initial Beam Camber	2 3/8"
Superimposed Dead Load Deflection	1 5/8"
Residual Camber	1 1/8"

Initial Beam Camber equals upward deflection from prestressing force minus downward deflection from dead load of the beam in inches.

- NOTES:**
- Beams shall be cast a minimum of 15 days before the deck is poured.
  - Beams are to be supported at bearing points while stored and while transporting to the job site.
  - Top of beams are to be scored transversely at about 3" centers with a pointed tool.
  - For tolerances of prestressed beams, see Standard Drawing E707-BPBF-03.
  - For reinforcing bar notes, see Standard Drawing E703-BRST-01.
  - Reinforcing bars designated (E) shall be epoxy coated.
  - The concrete strength shall be 6,000 psi minimum at release and 7,000 psi minimum at 28 days.
  - 0.6" Dia. ( $A_s = 0.217$  si) (270 ksi) Special Lo-Lax Strands to be pulled to 43,950 Lbs. each.
  - All mid reinforcing steel to be Grade 60.
  - Sealer on the outside face of exterior beams to be done by the fabricator in the shop. Do not rub.



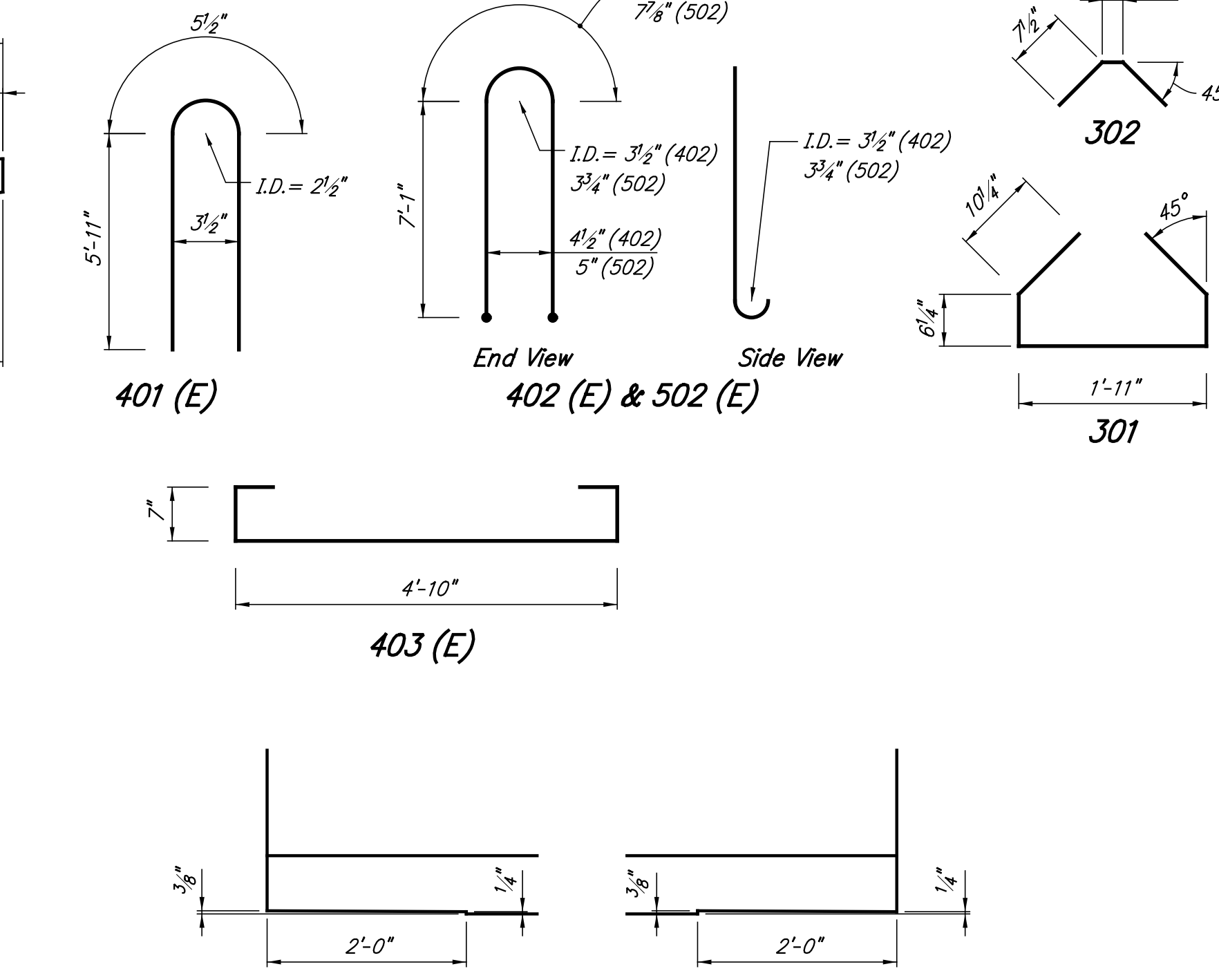
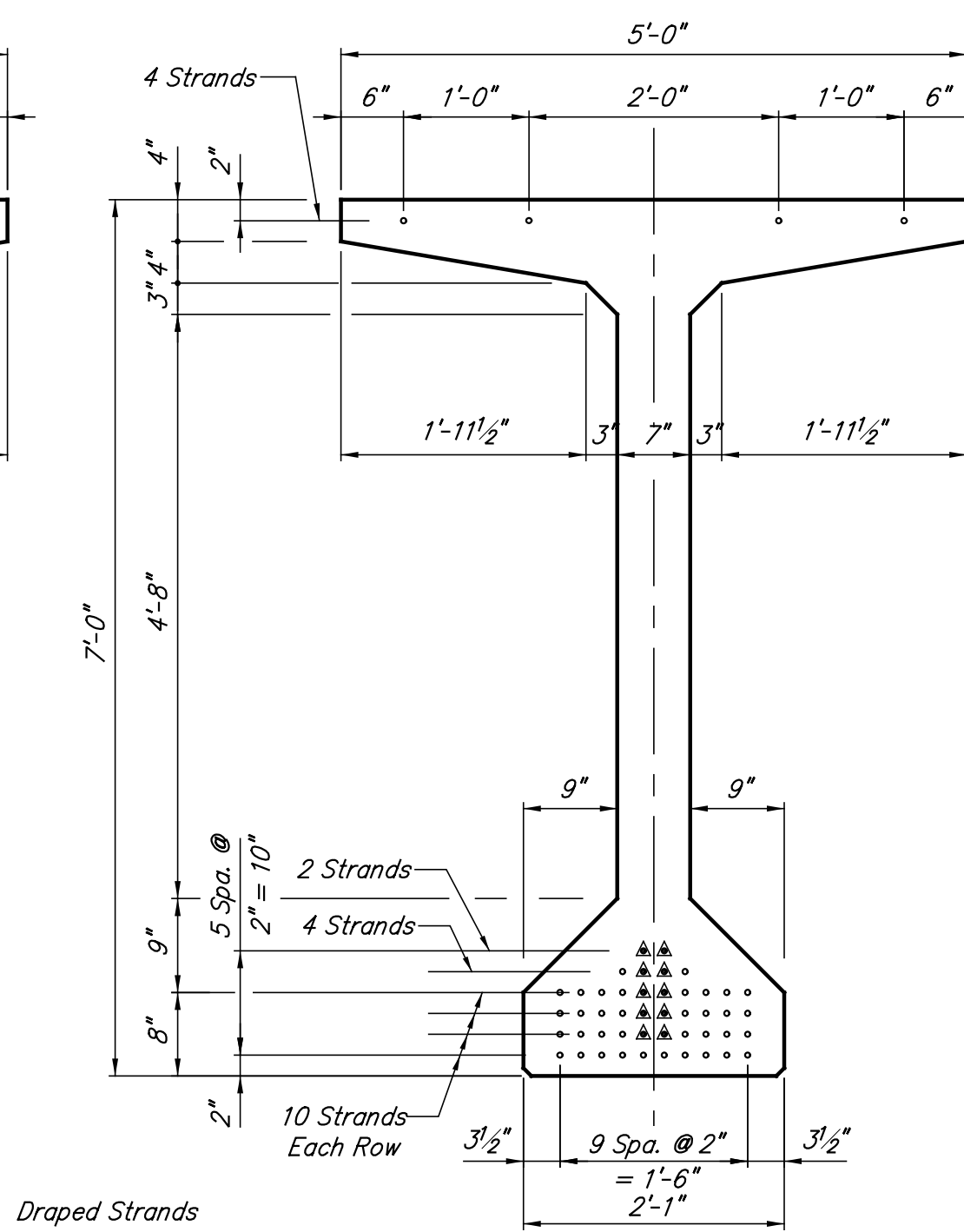
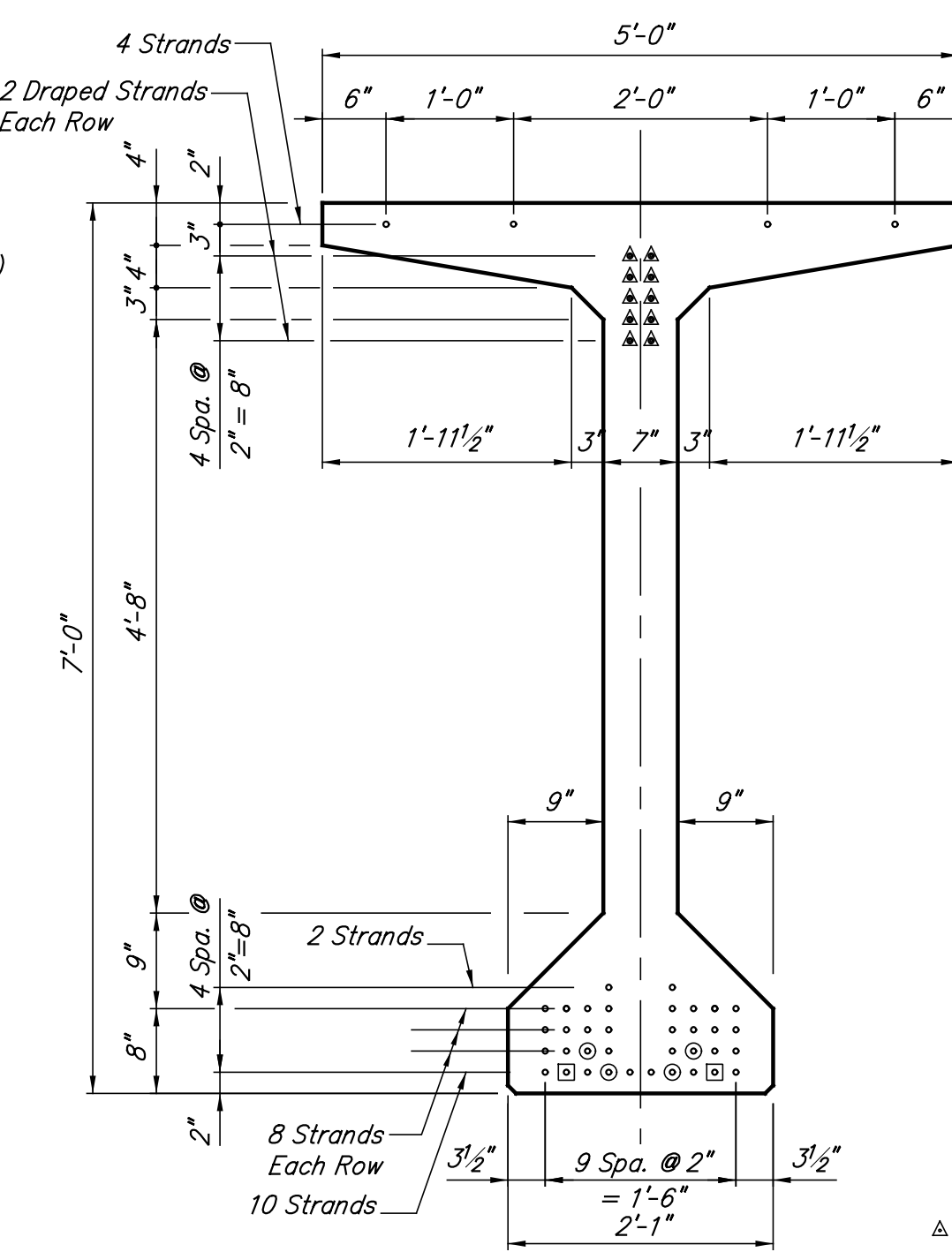
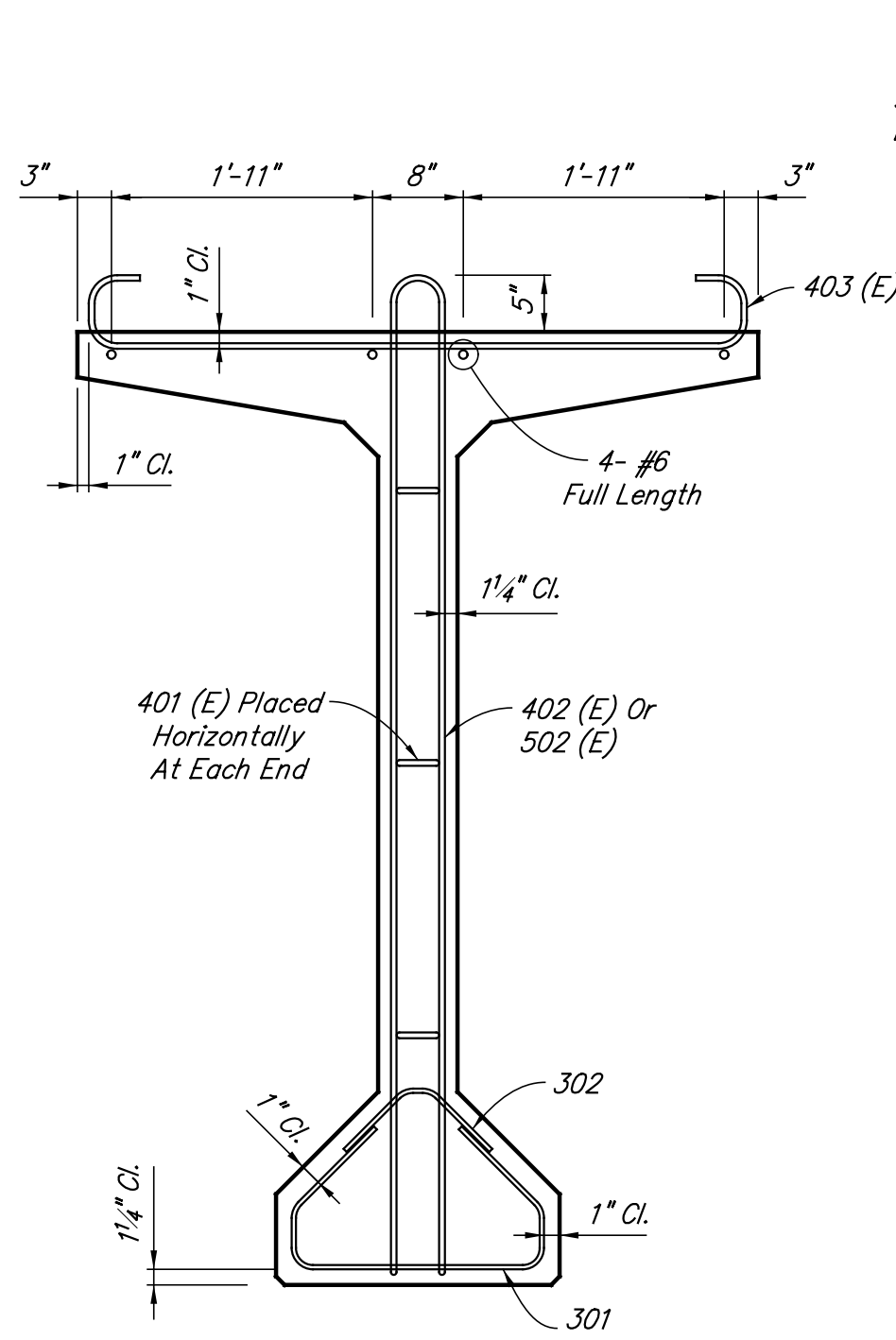
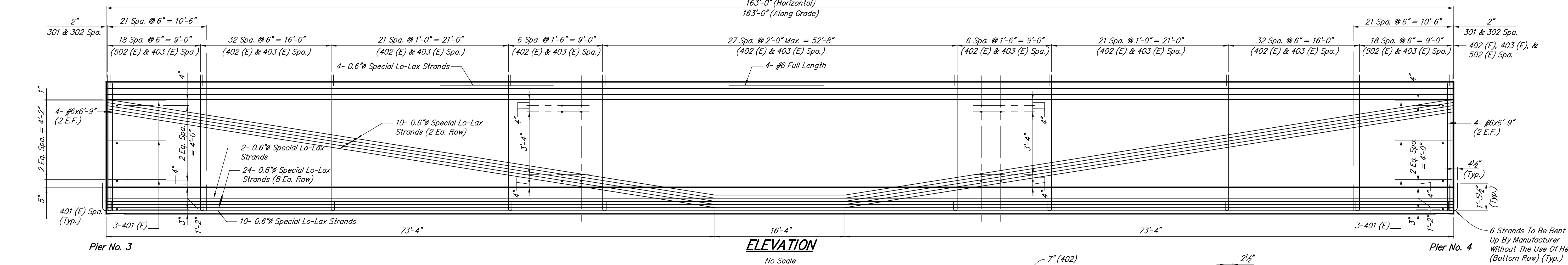
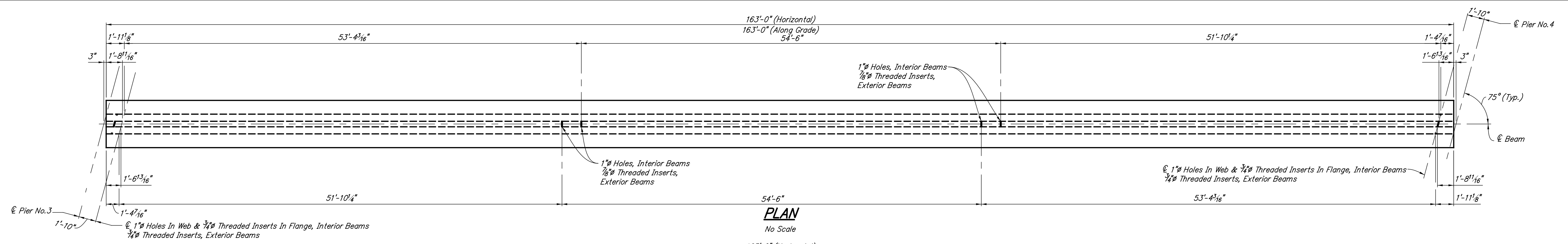
RECOMMENDED FOR APPROVAL: *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: EWM  
CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

**BEAM DETAILS - SPAN "B"**

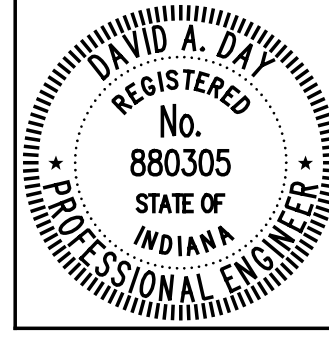
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
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CONTRACT	PROJECT NO.
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Residual Camber Table	
Initial Beam Camber	5/8"
Superimposed Dead Load Deflection	2/8"
Residual Camber	3/4"

Initial Beam Camber equals upward deflection from prestressing force minus downward deflection from dead load of the beam in inches.

- NOTES:**
- Beams shall be cast a minimum of 15 days before the deck is poured.
  - Beams are to be supported at bearing points while stored and while transporting to the job site.
  - Top of beams are to be scored transversely at about 3" centers with a pointed tool.
  - For tolerances of prestressed beams, see Standard Drawing E707-BPBF-03.
  - For reinforcing bar notes, see Standard Drawing E703-BRST-01.
  - Reinforcing bars designated (E) shall be epoxy coated.
  - The concrete strength shall be 6,000 psi minimum at release and 7,000 psi minimum at 28 days.
  - 0.6" Dia. ( $A_s = 0.217$  si) (270 ksi) Special Lo-Lax Strands to be pulled to 43,950 Lbs. each.
  - All mild reinforcing steel to be Grade 60.
  - Sealer on the outside face of exterior beams to be done by the fabricator in the shop. Do not rub.



RECOMMENDED FOR APPROVAL  
DESIGNED: DZ  
CHECKED: RMC

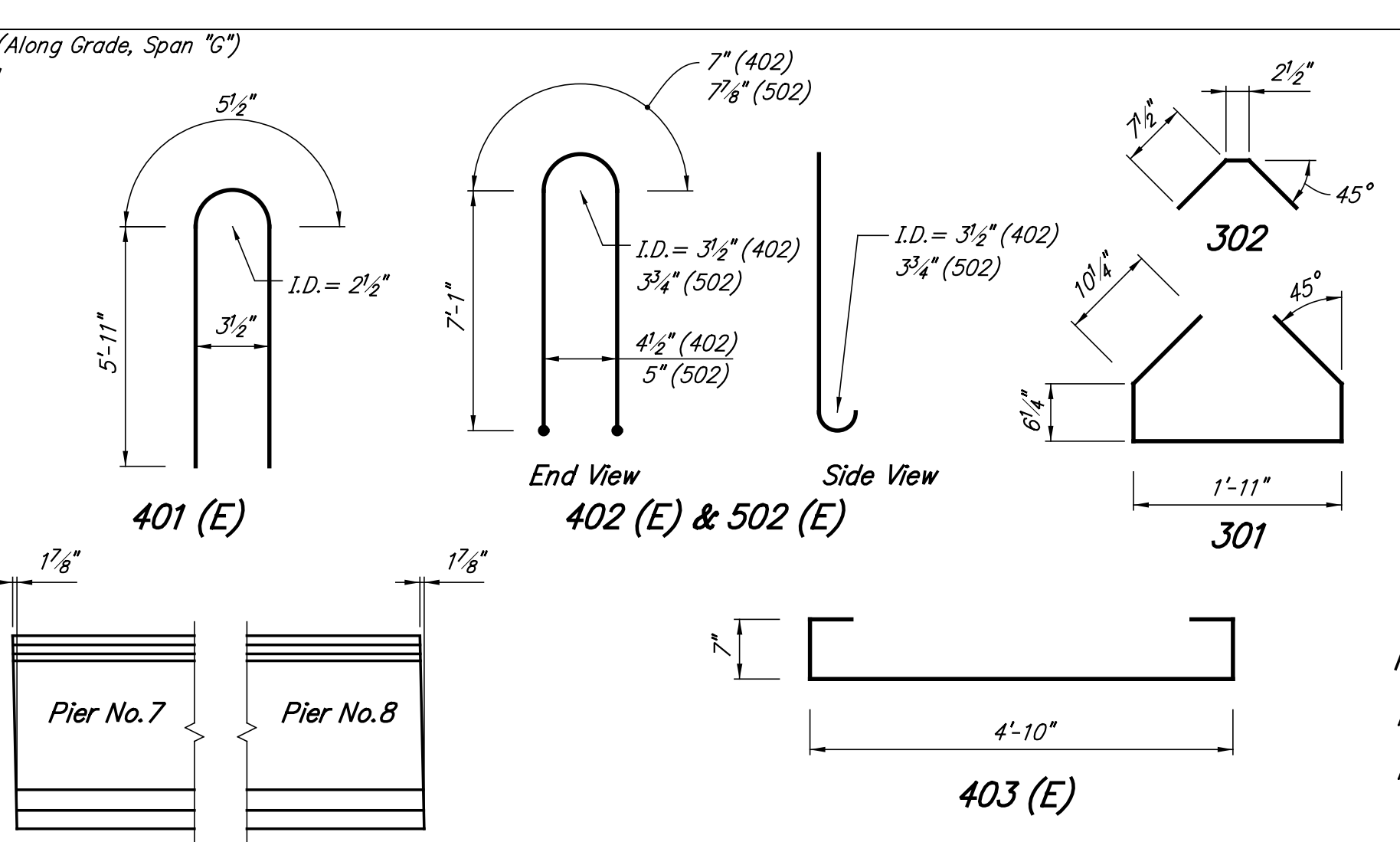
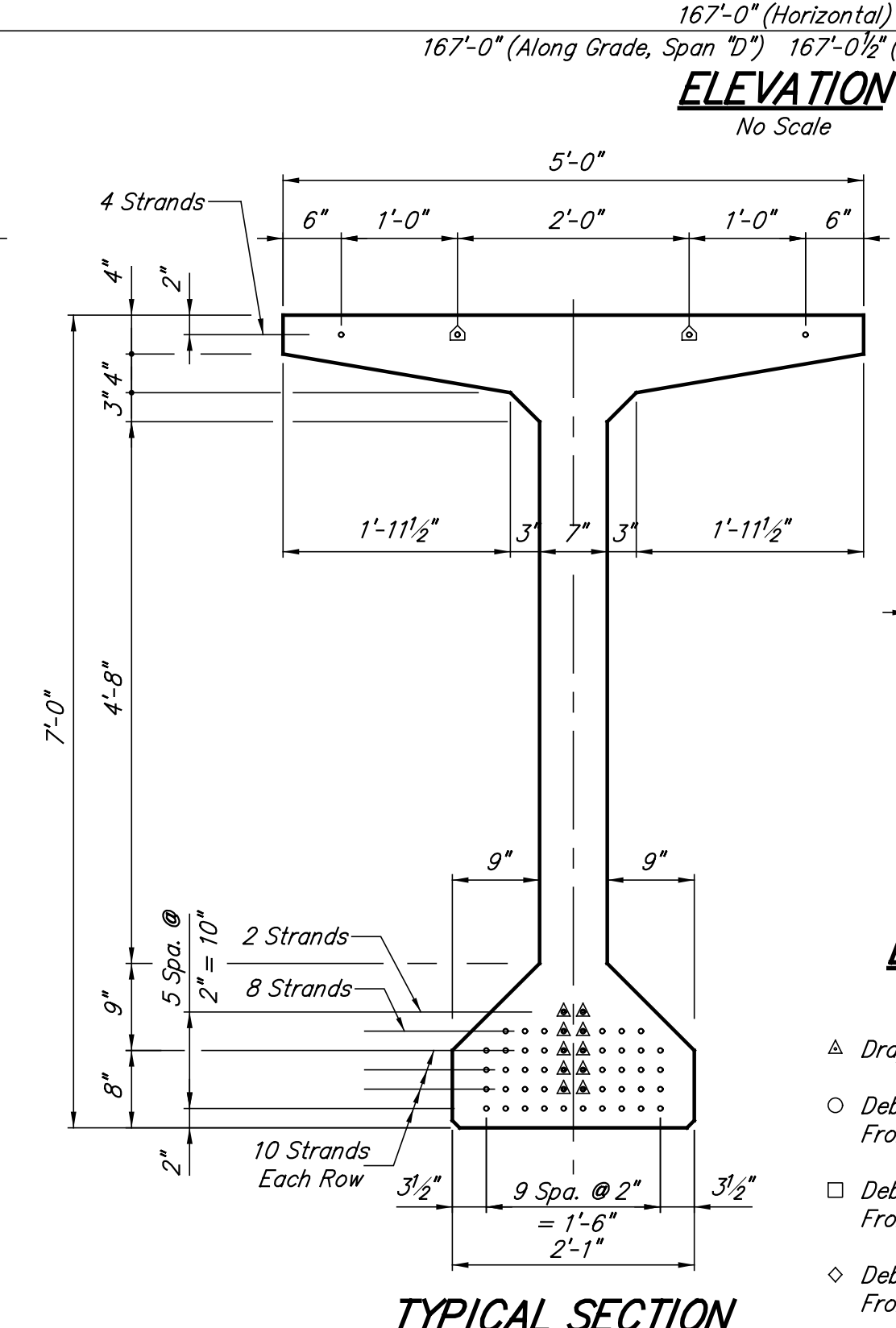
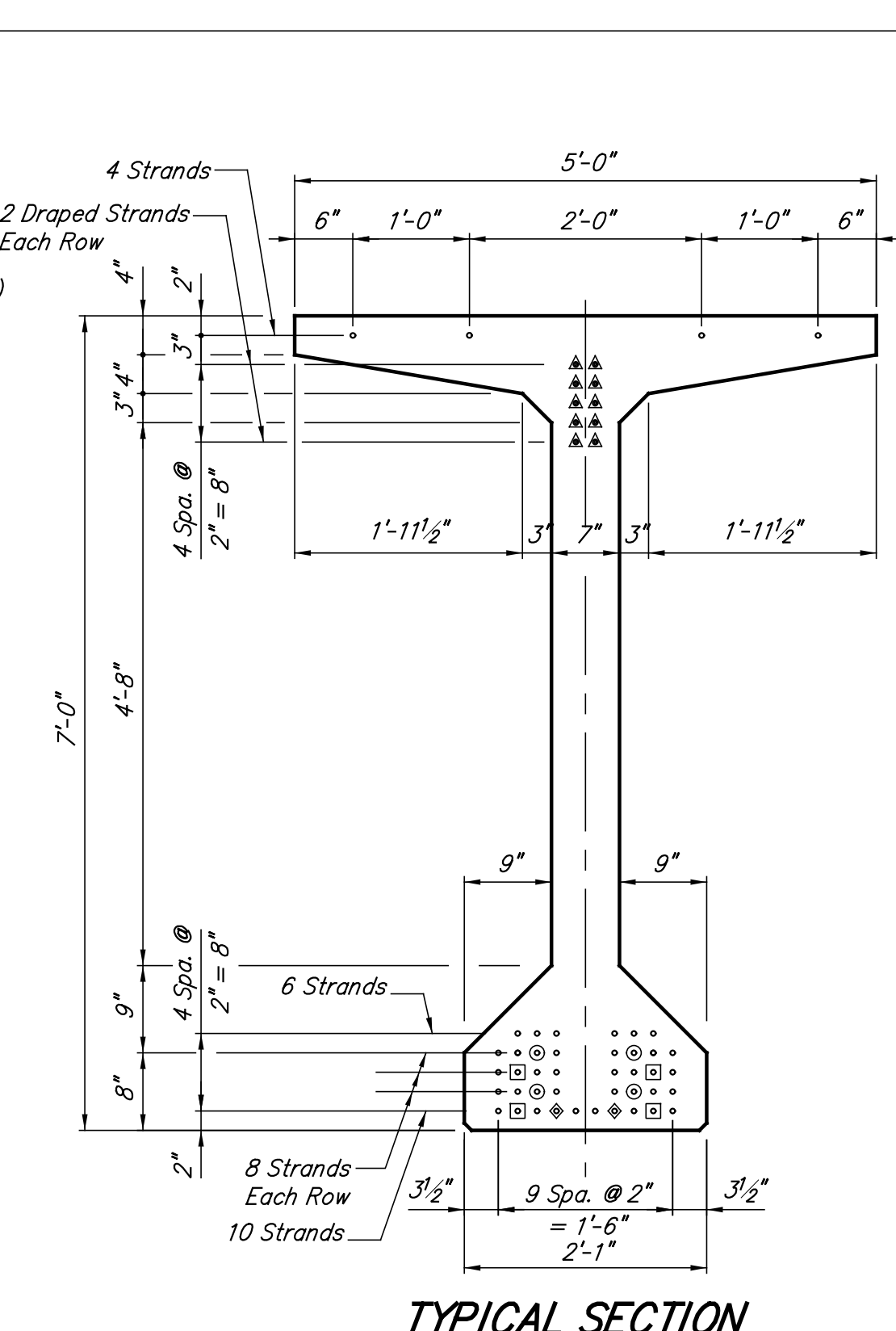
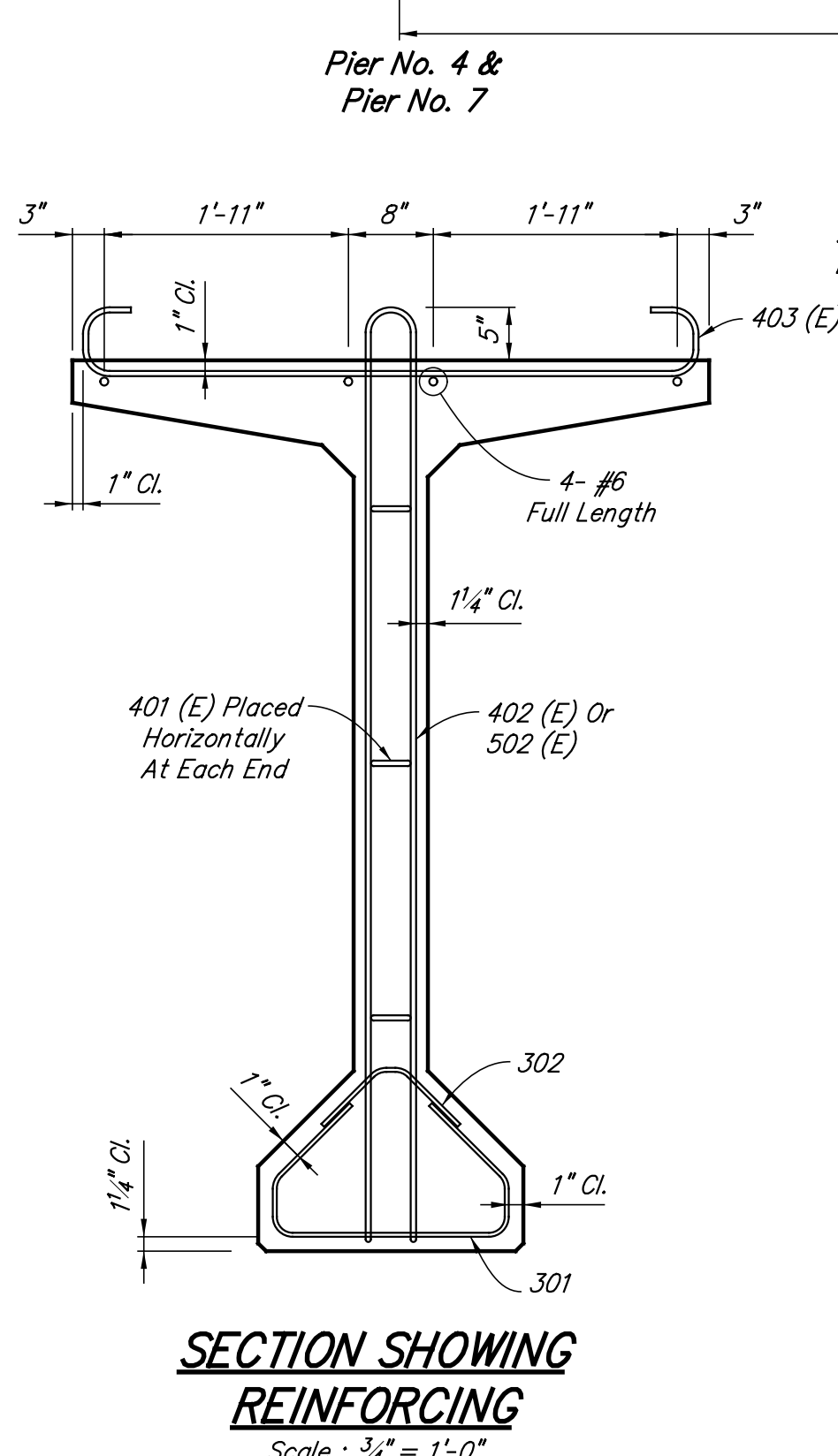
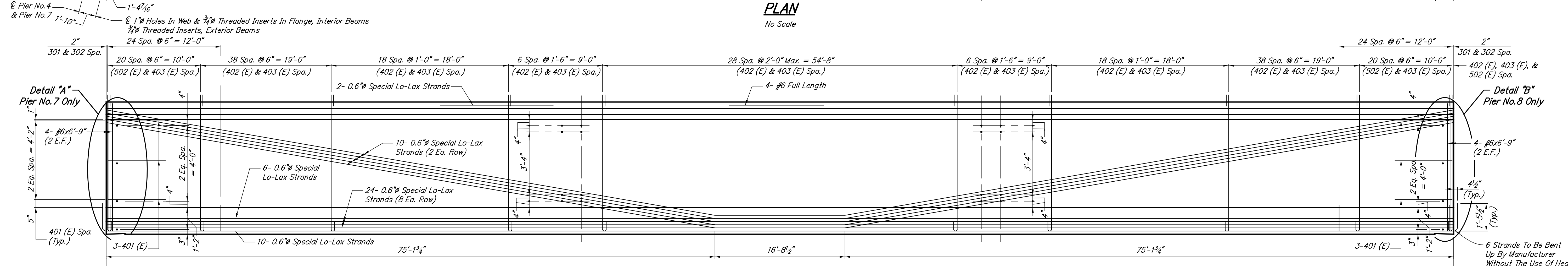
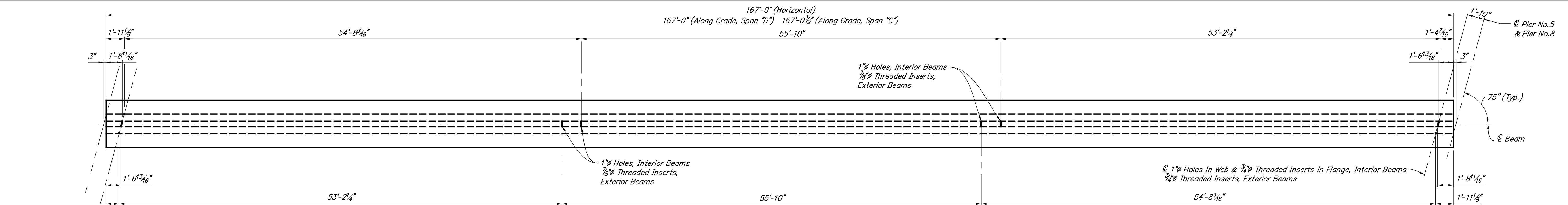
DESIGN ENGINEER  
DRAWN: EWM  
CHECKED: DAD

6/1/2012  
DATE

INDIANA  
DEPARTMENT OF TRANSPORTATION

**BEAM DETAILS - SPAN "C"**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
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SURVEY BOOK	SHEETS
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	Span "D"	Span "G"
Initial Beam Camber	4 3/8"	4 3/8"
Superimposed Dead Load Deflection	3 1/4"	3 3/8"
Residual Camber	1 1/8"	1"

Initial Beam Camber equals upward deflection from prestressing force minus downward deflection from dead load of the beam in inches.

**NOTES:**

Beams shall be cast a minimum of 15 days before the deck is poured.

Beams are to be supported at bearing points while stored and while transporting to the job site.

Top of beams are to be scored transversely at about 3" centers with a pointed tool.

For tolerances of prestressed beams, see Standard Drawing E707-BPBF-03.

For reinforcing bar notes, see Standard Drawing E703-BRST-01.

Reinforcing bars designated (E) shall be epoxy coated.

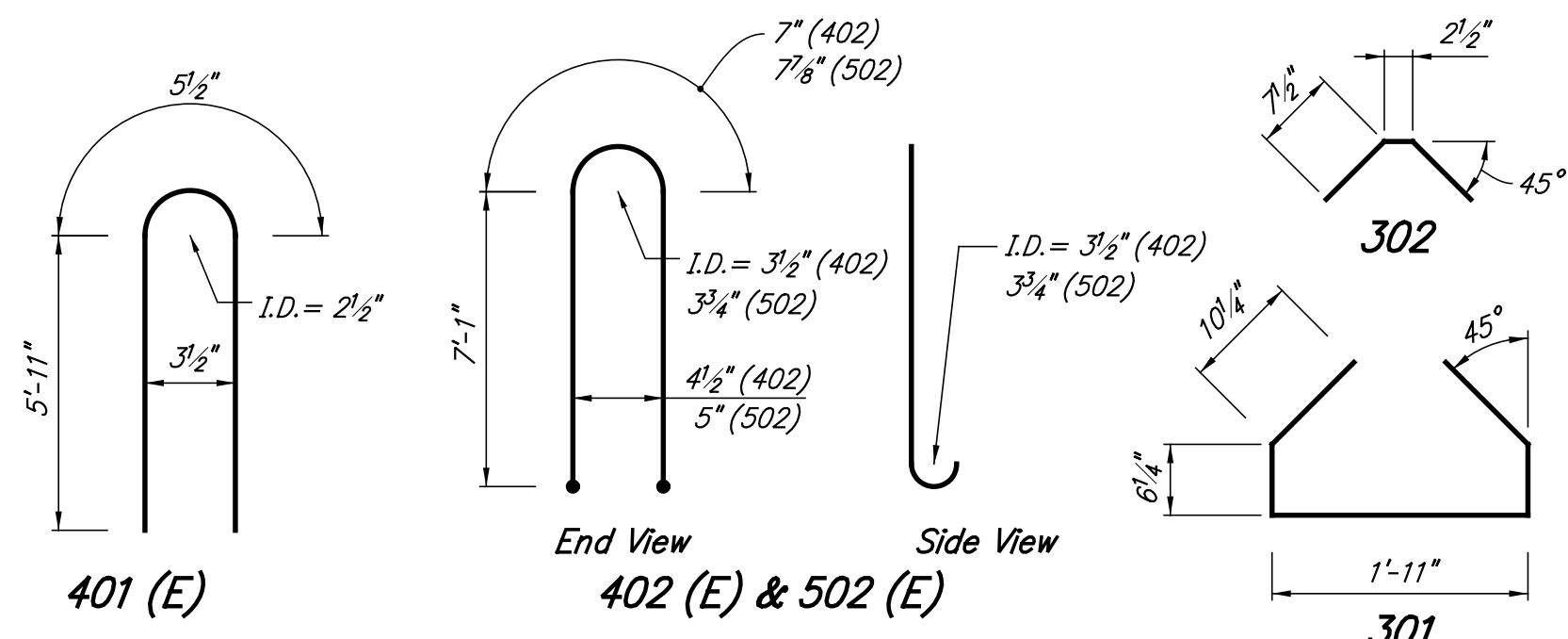
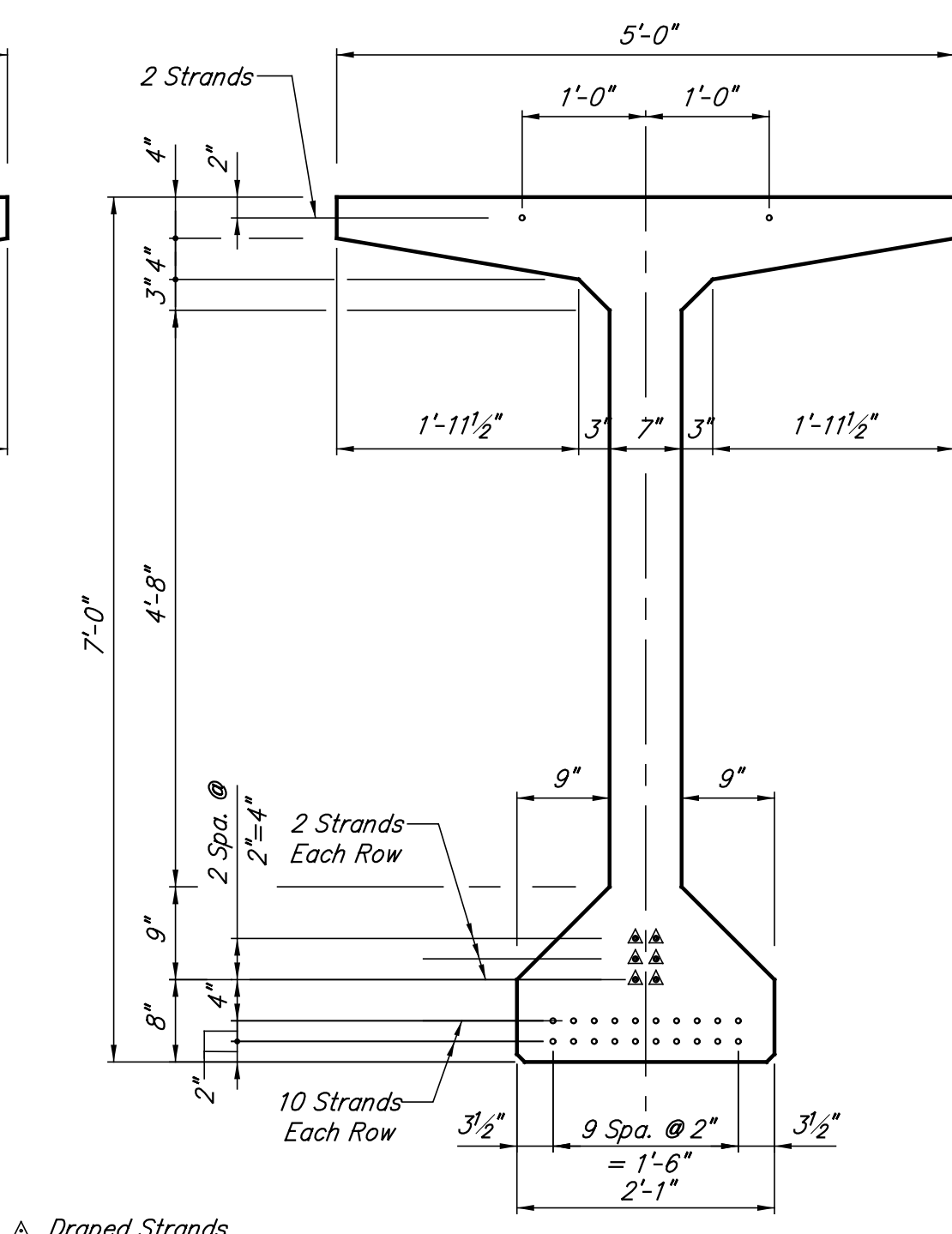
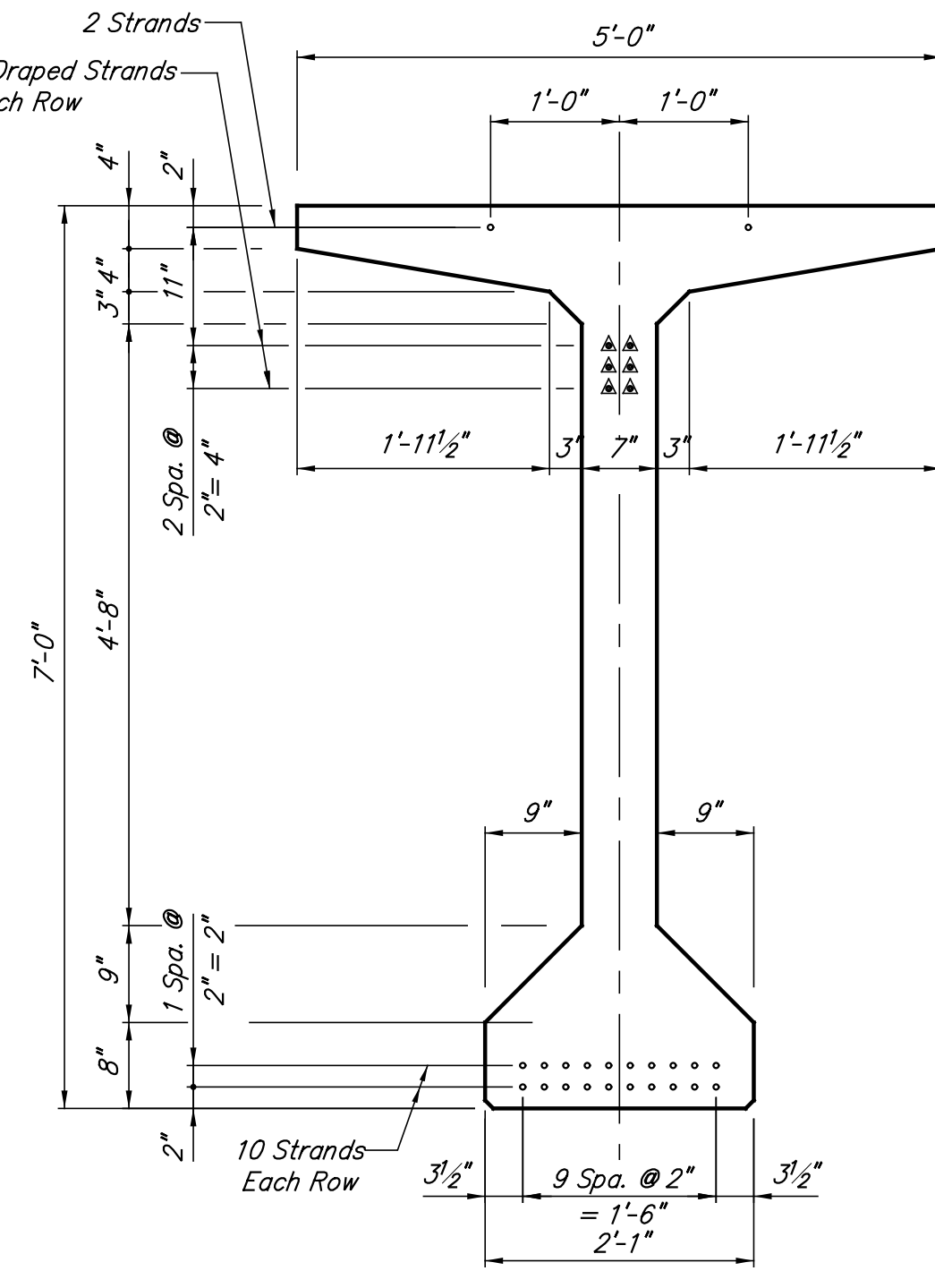
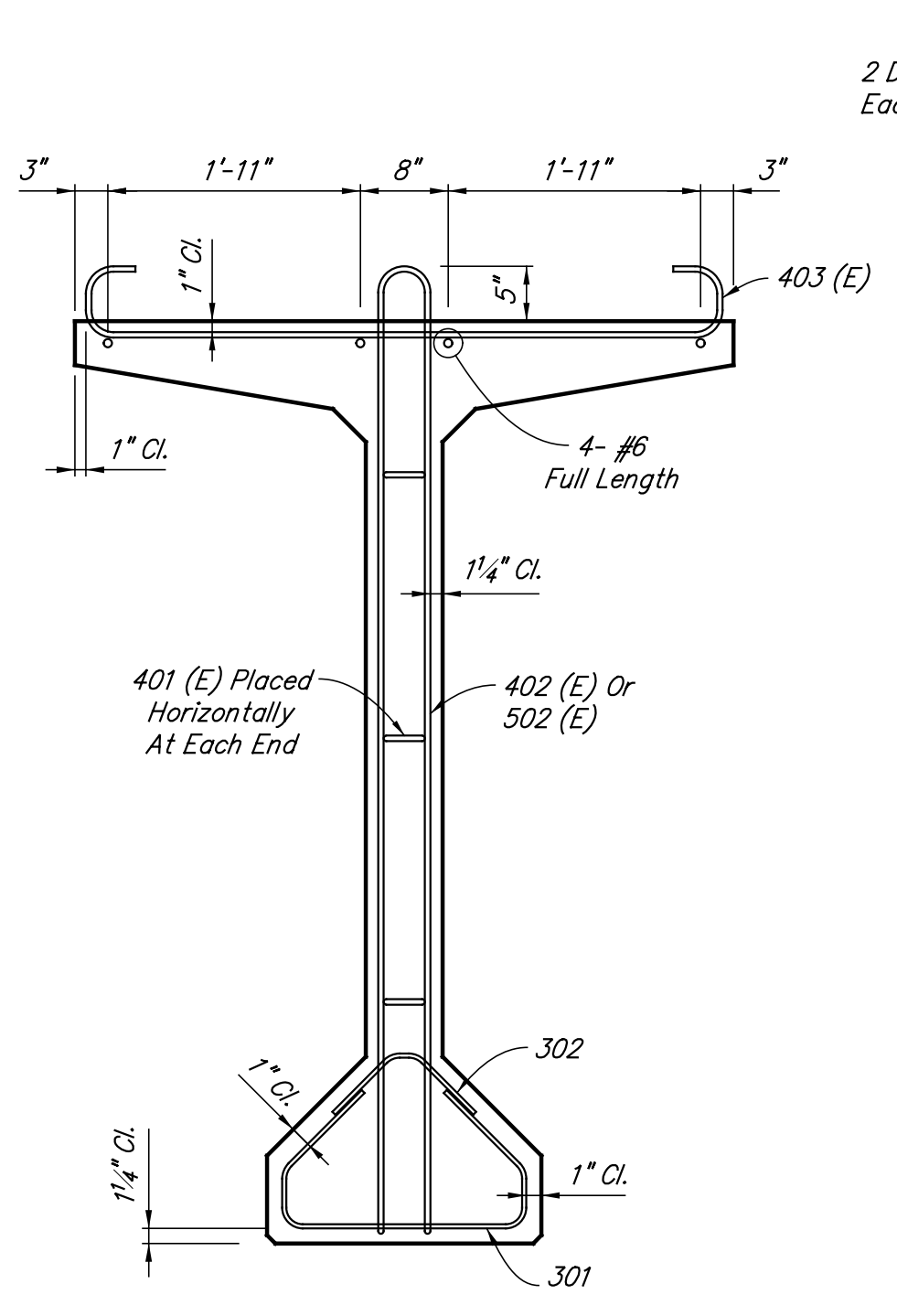
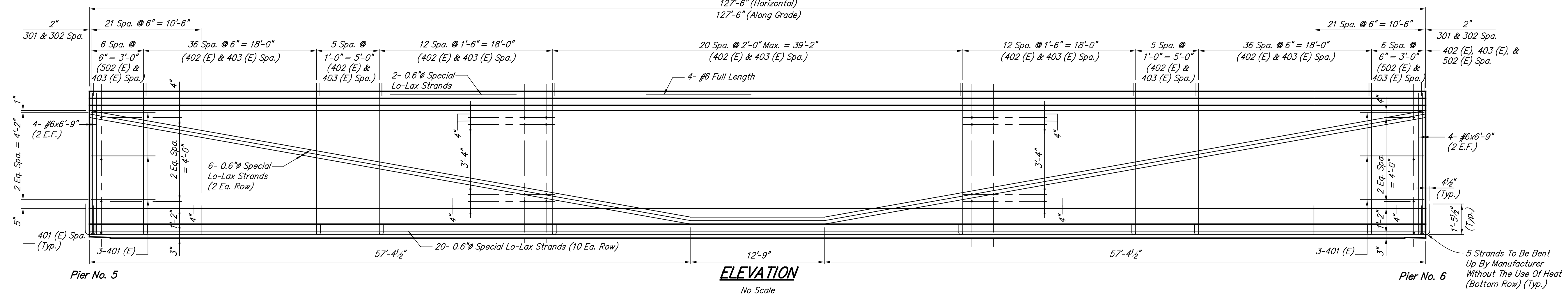
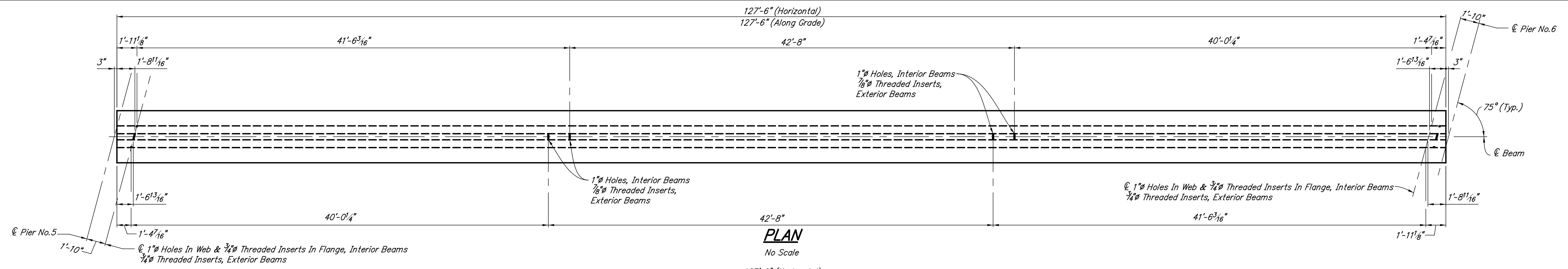
The concrete strength shall be 6,000 psi minimum at release and 7,000 psi minimum at 28 days.

0.6" Dia. ( $A_s = 0.217$  si) (270 ksi) Special Lo-Lax Strands to be pulled to 43,950 Lbs. each.

All mild reinforcing steel to be Grade 60.

Sealer on the outside face of exterior beams to be done by the fabricator in the shop. Do not rub.

	RECOMMENDED FOR APPROVAL <i>David B. Day</i> DESIGN ENGINEER 6/1/2012 DATE	INDIANA DEPARTMENT OF TRANSPORTATION  BEAM DETAILS - SPANS "D" & "G"	HORIZONTAL SCALE AS NOTED	BRIDGE FILE 152-45-02730
	DESIGNED: DZ DRAWN: EWM CHECKED: RMC CHECKED: DAD		SURVEY BOOK B-33357	DESIGNATION NO. 0014210

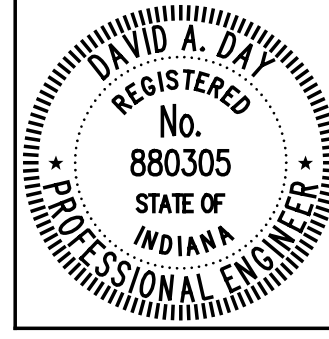


Residual Camber Table	
Initial Beam Camber	1 3/8"
Superimposed Dead Load Deflection	1"
Residual Camber	3/8"

Initial Beam Camber equals upward deflection from prestressing force minus downward deflection from dead load of the beam in inches.

**NOTES:**

- Beams shall be cast a minimum of 15 days before the deck is poured.
- Beams are to be supported at bearing points while stored and while transporting to the job site.
- Top of beams are to be scored transversely at about 3" centers with a pointed tool.
- For tolerances of prestressed beams, see Standard Drawing E707-BPBF-03.
- For reinforcing bar notes, see Standard Drawing E703-BRST-01.
- Reinforcing bars designated (E) shall be epoxy coated.
- The concrete strength shall be 6,000 psi minimum at release and 7,000 psi minimum at 28 days.
- 0.6" Dia. ( $A_s = 0.217$  si) (270 ksi) Special Lo-Lax Strands to be pulled to 43,950 Lbs. each.
- All mild reinforcing steel to be Grade 60.
- Sealer on the outside face of exterior beams to be done by the fabricator in the shop. Do not rub.



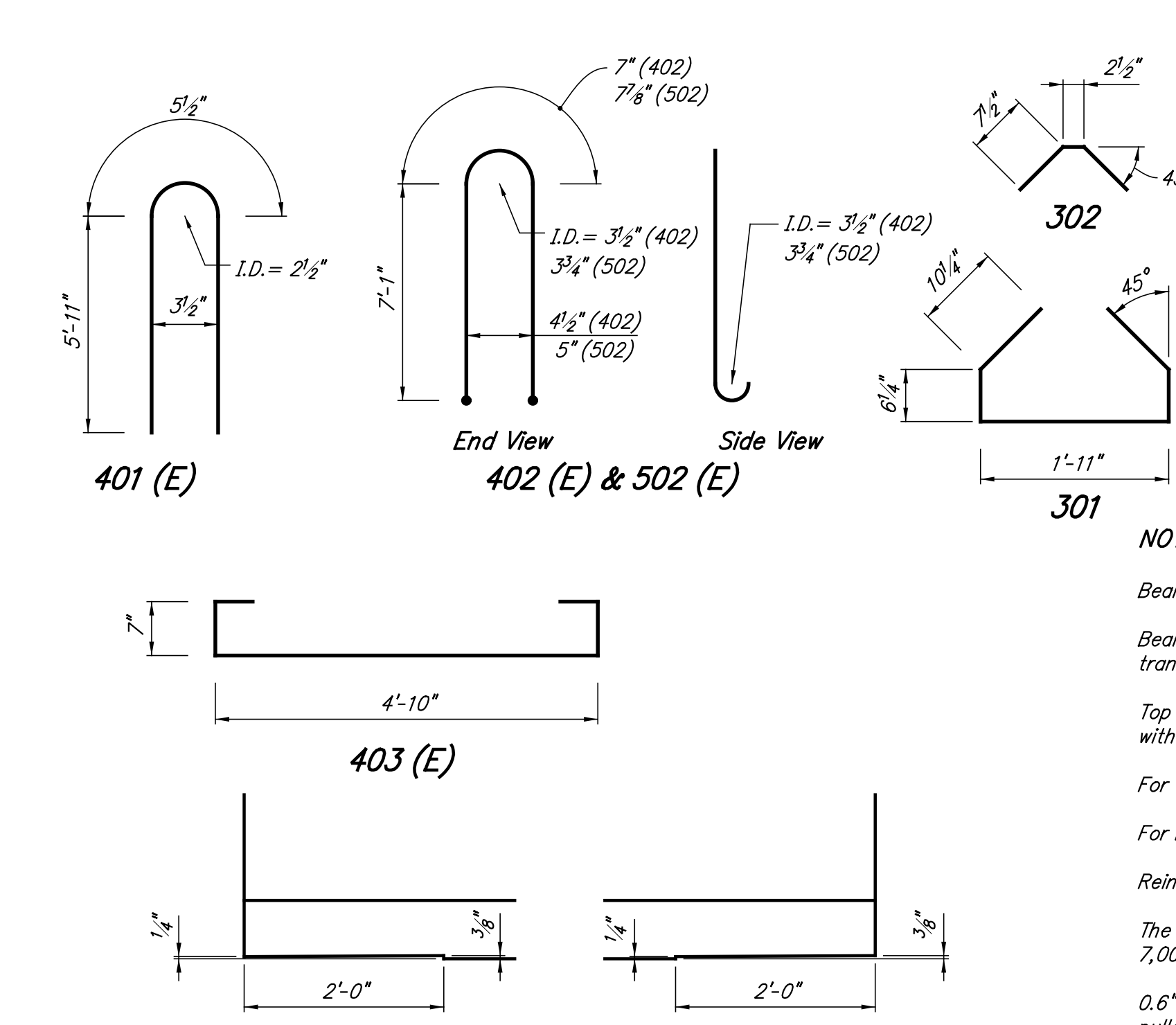
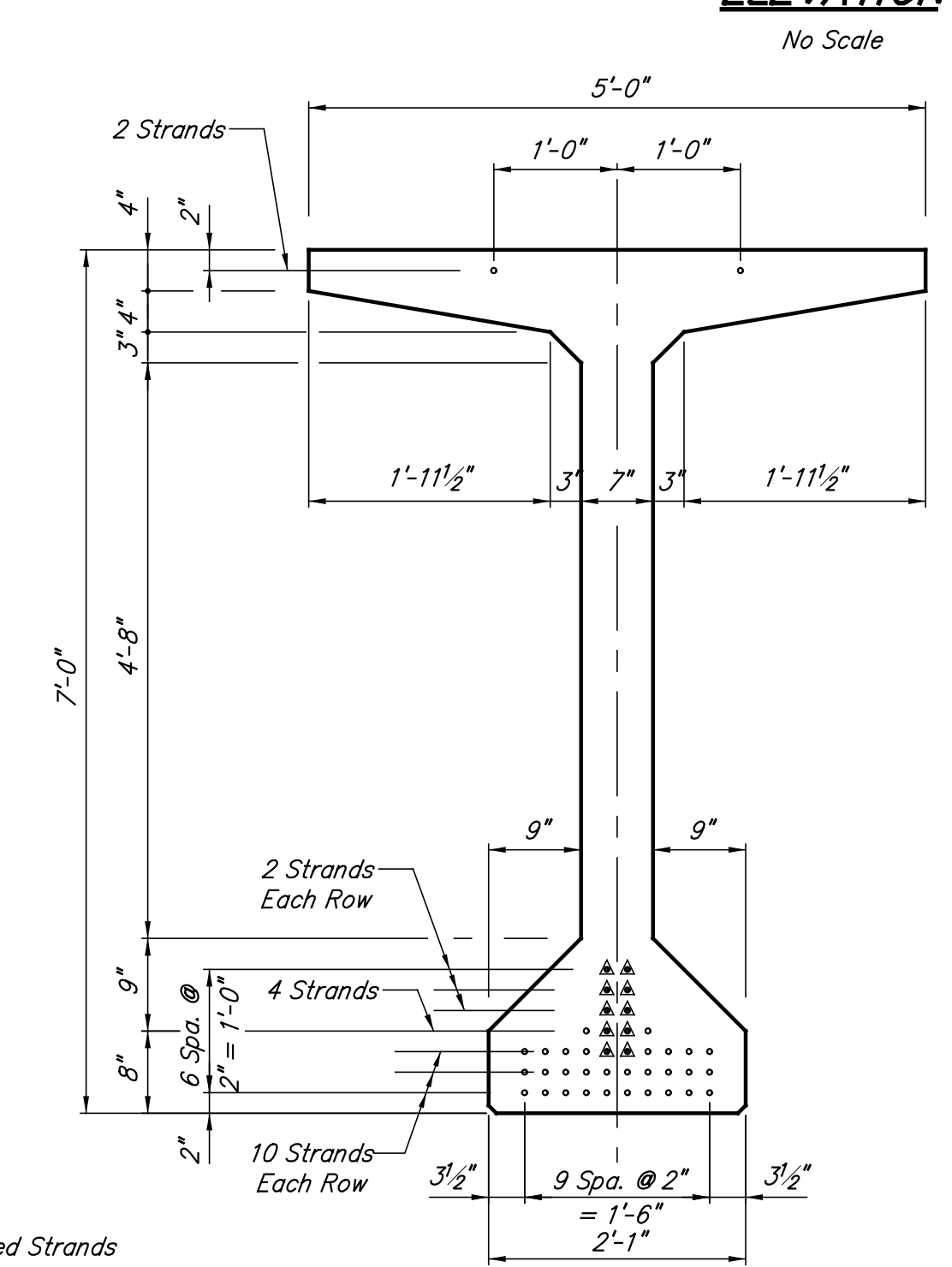
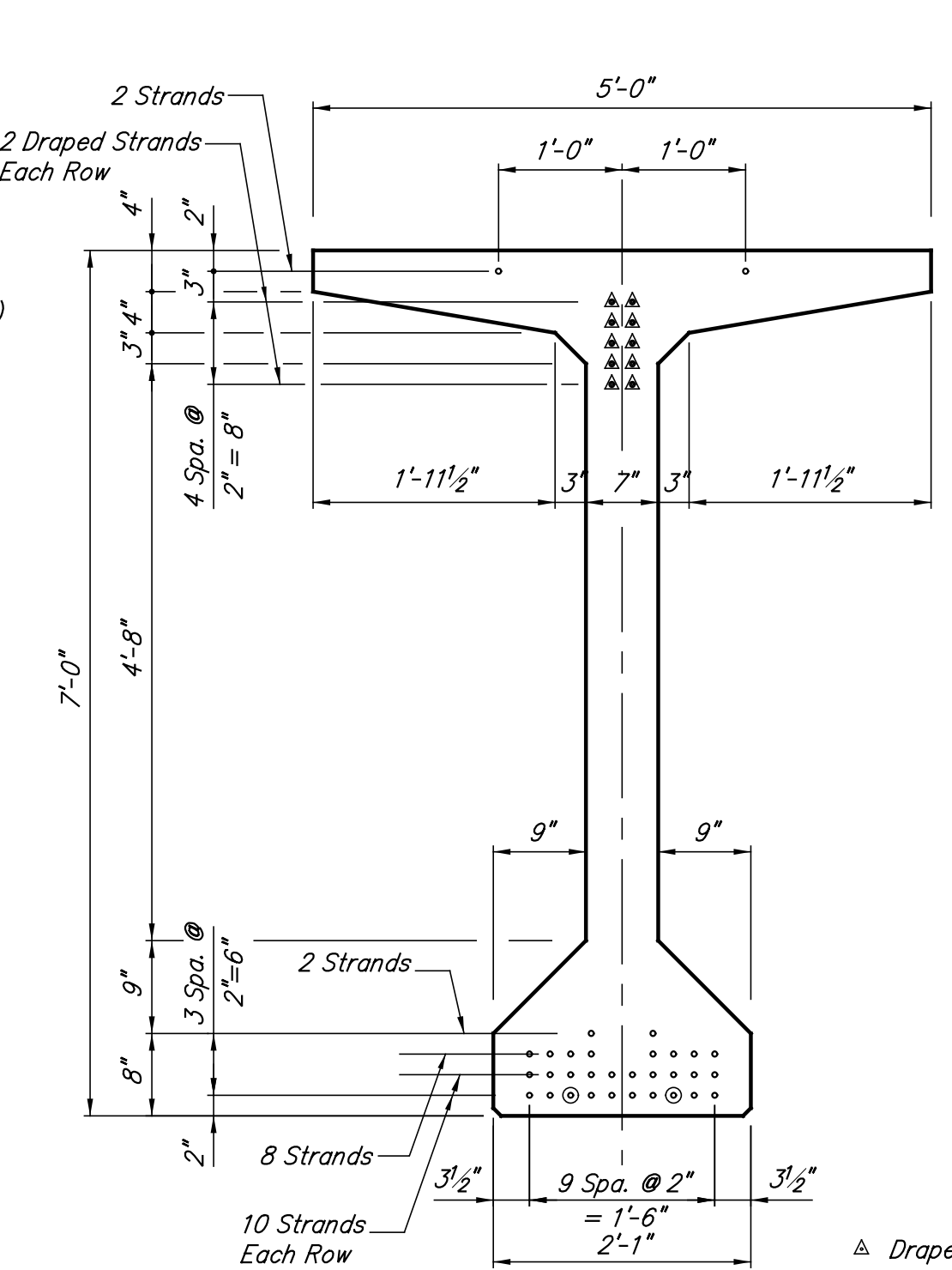
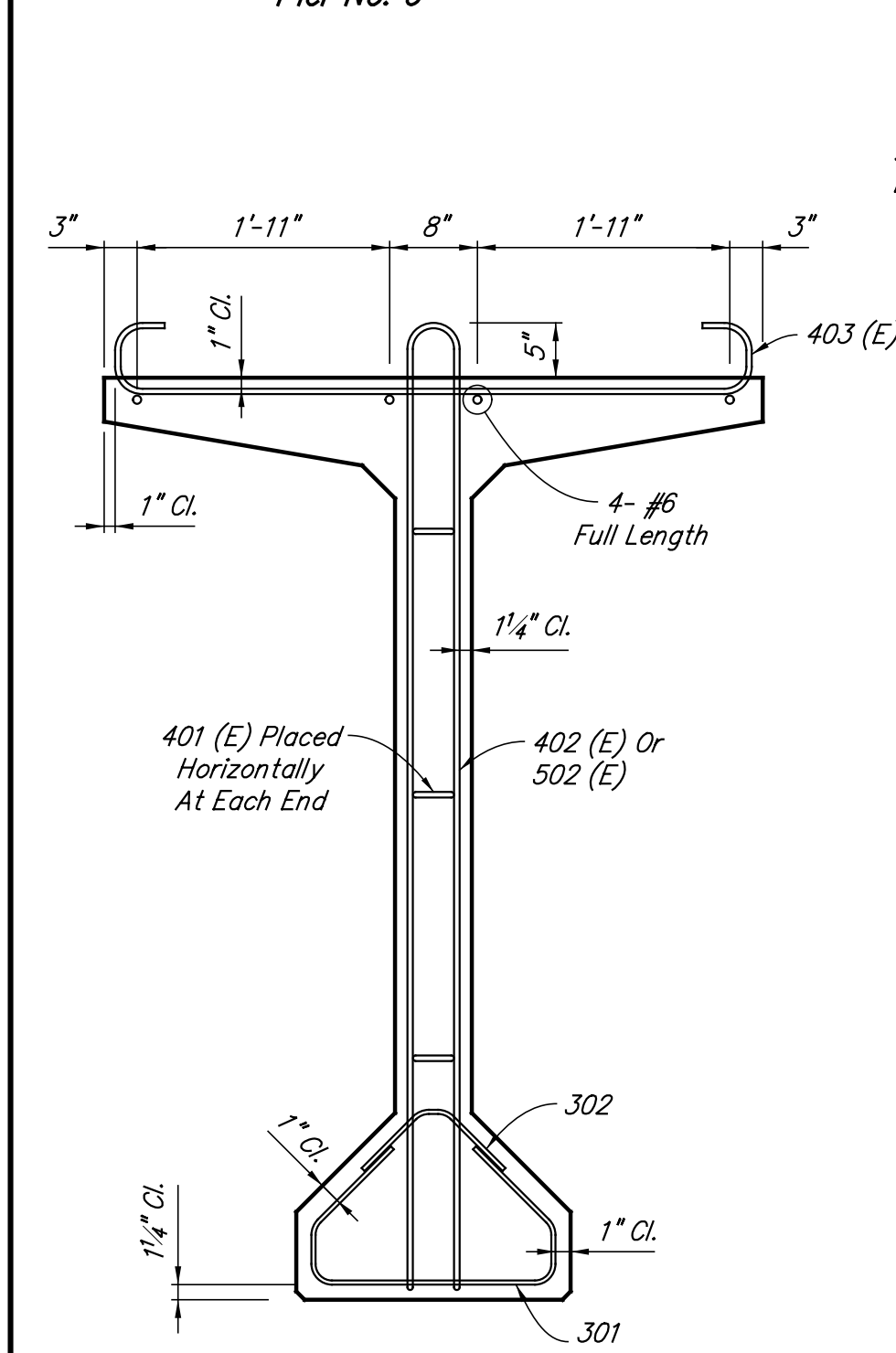
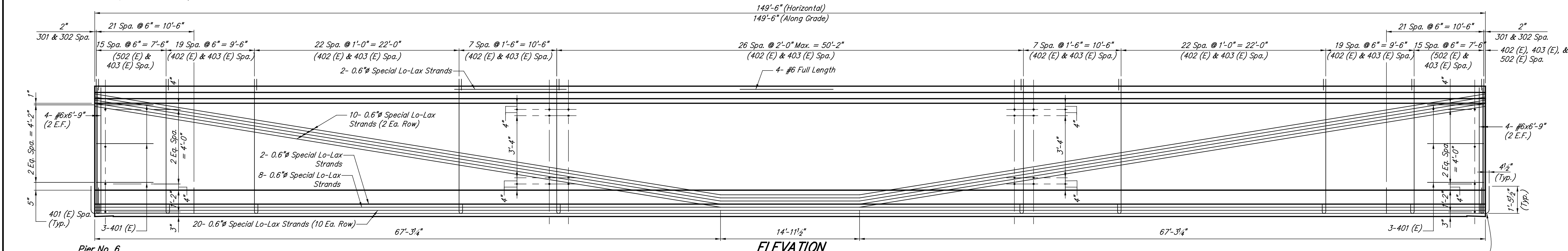
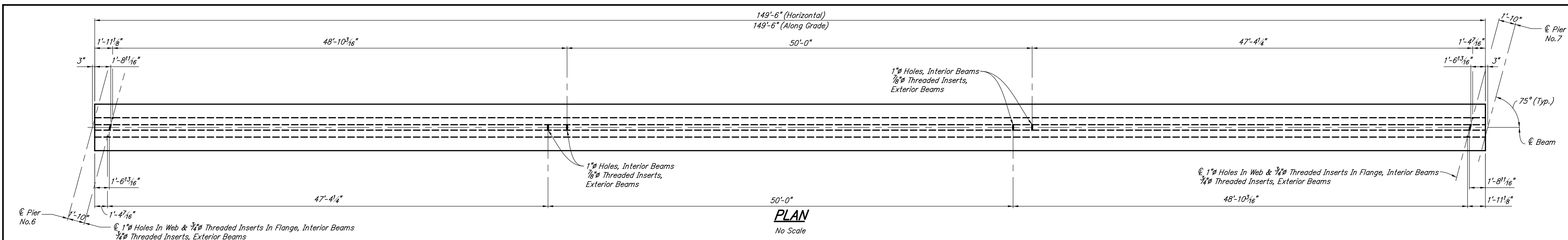
RECOMMENDED FOR APPROVAL: *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: EWM  
CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

**BEAM DETAILS - SPAN "E"**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-02730
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Residual Camber Table	
Initial Beam Camber	3"
Superimposed Dead Load Deflection	2 1/8"
Residual Camber	7/8"

Initial Beam Camber equals upward deflection from prestressing force minus downward deflection from dead load of the beam in inches.

**NOTES:**

Beams shall be cast a minimum of 15 days before the deck is poured.

Beams are to be supported at bearing points while stored and while transporting to the job site.

Top of beams are to be scored transversely at about 3" centers with a pointed tool.

For tolerances of prestressed beams, see Standard Drawing E707-BPBF-03.

For reinforcing bar notes, see Standard Drawing E703-BRST-01.

Reinforcing bars designated (E) shall be epoxy coated.

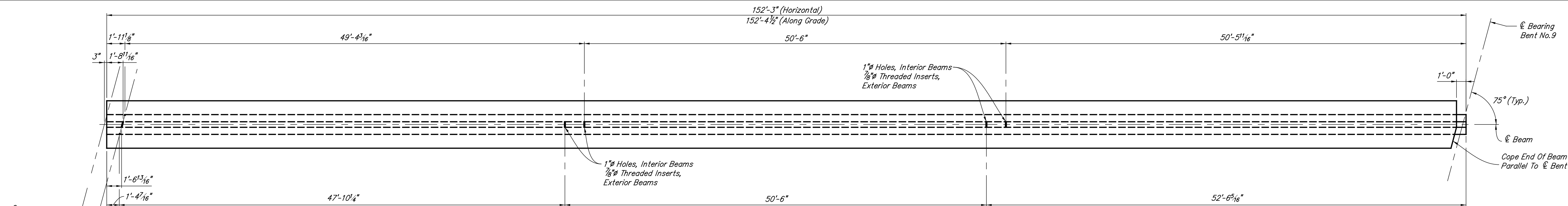
The concrete strength shall be 6,000 psi minimum at release and 7,000 psi minimum at 28 days.

0.6" Dia. (A<sub>s</sub> = 0.217 si) (270 ksi) Special Lo-Lax Strands to be pulled to 43,950 Lbs. each.

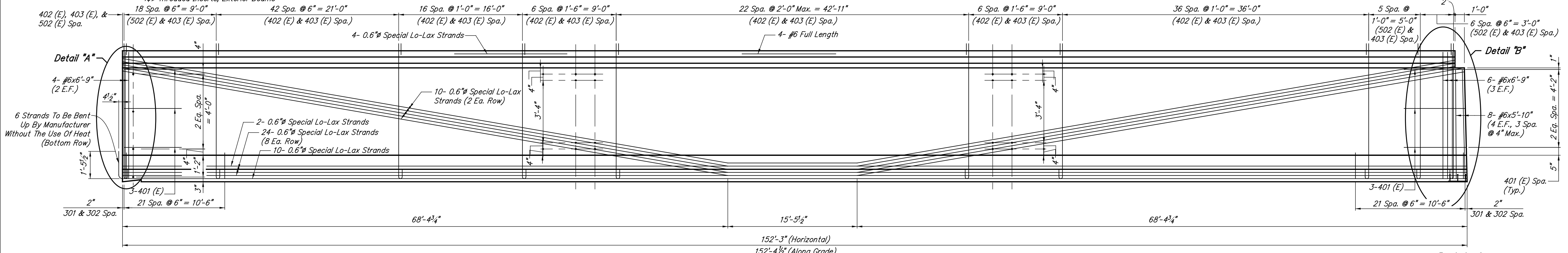
All mild reinforcing steel to be Grade 60.

Sealer on the outside face of exterior beams to be done by the fabricator in the shop. Do not rub.

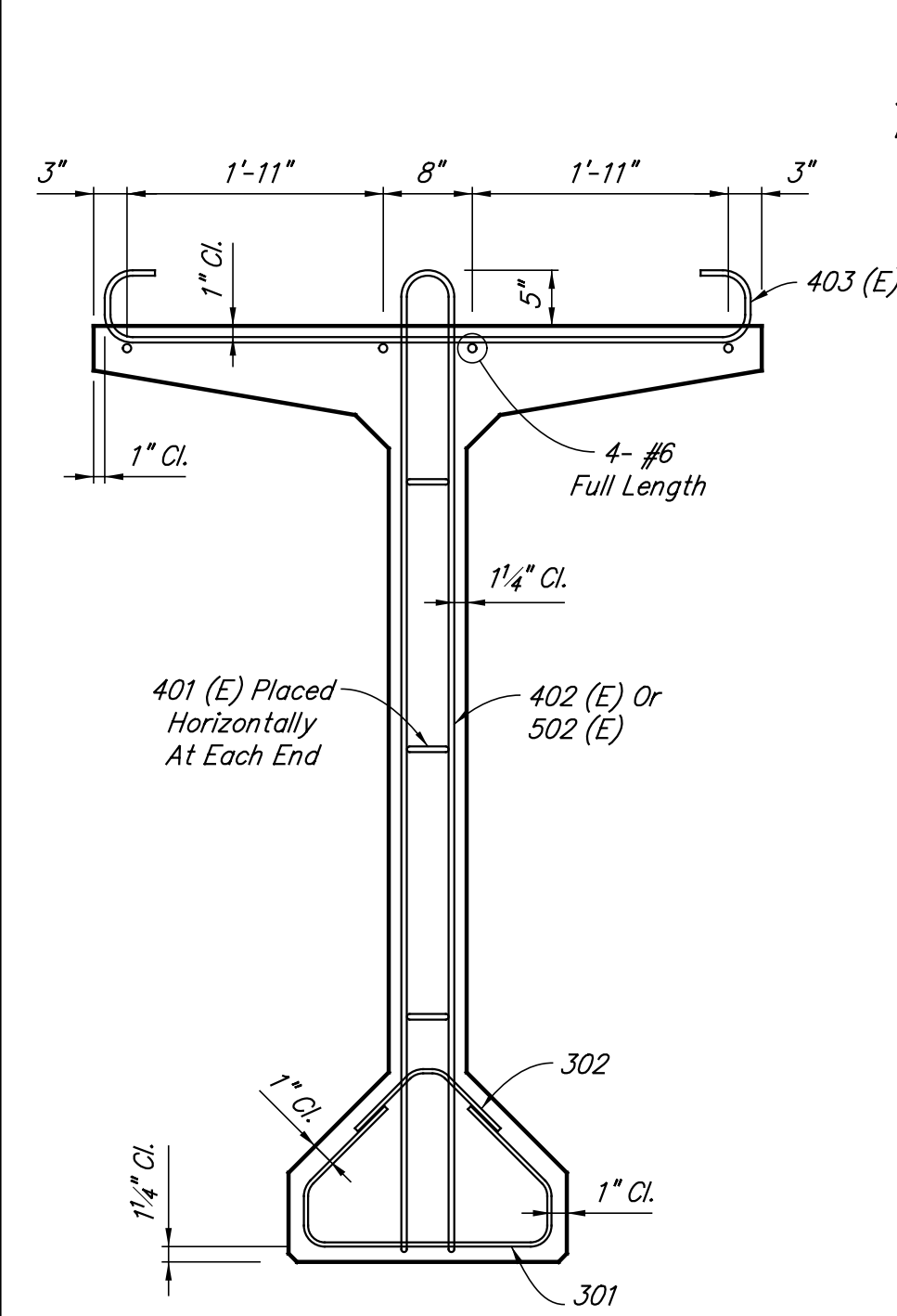
	RECOMMENDED FOR APPROVAL <i>David B. Day</i> DESIGN ENGINEER 6/1/2012 DATE	INDIANA DEPARTMENT OF TRANSPORTATION  <b>BEAM DETAILS - SPAN "F"</b>	HORIZONTAL SCALE AS NOTED	BRIDGE FILE 152-45-02730
	DESIGNED: DZ DRAWN: EWM CHECKED: RMC CHECKED: DAD		SURVEY BOOK B-33357	DESIGNATION NO. 0014210



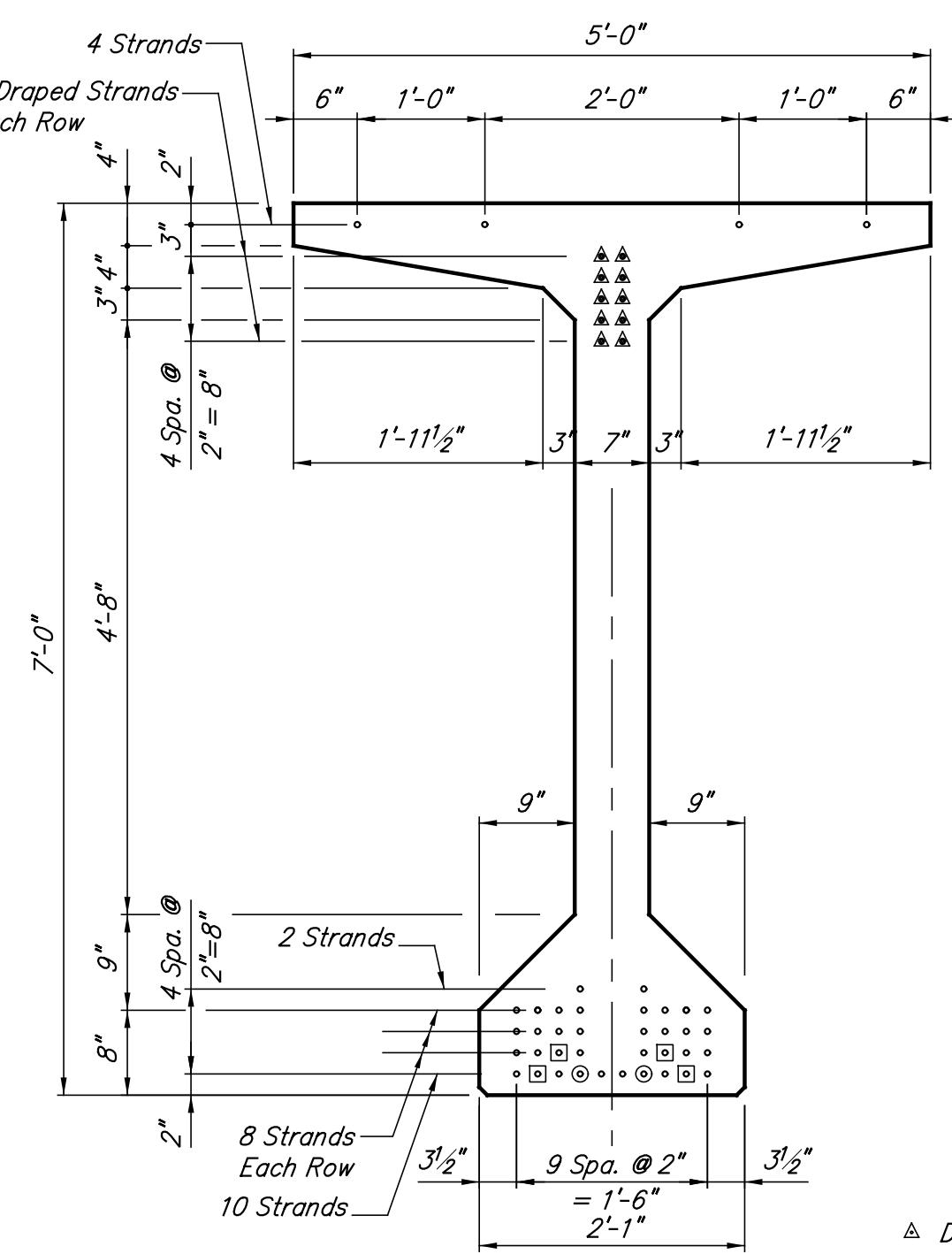
**PLAN**  
No Scale



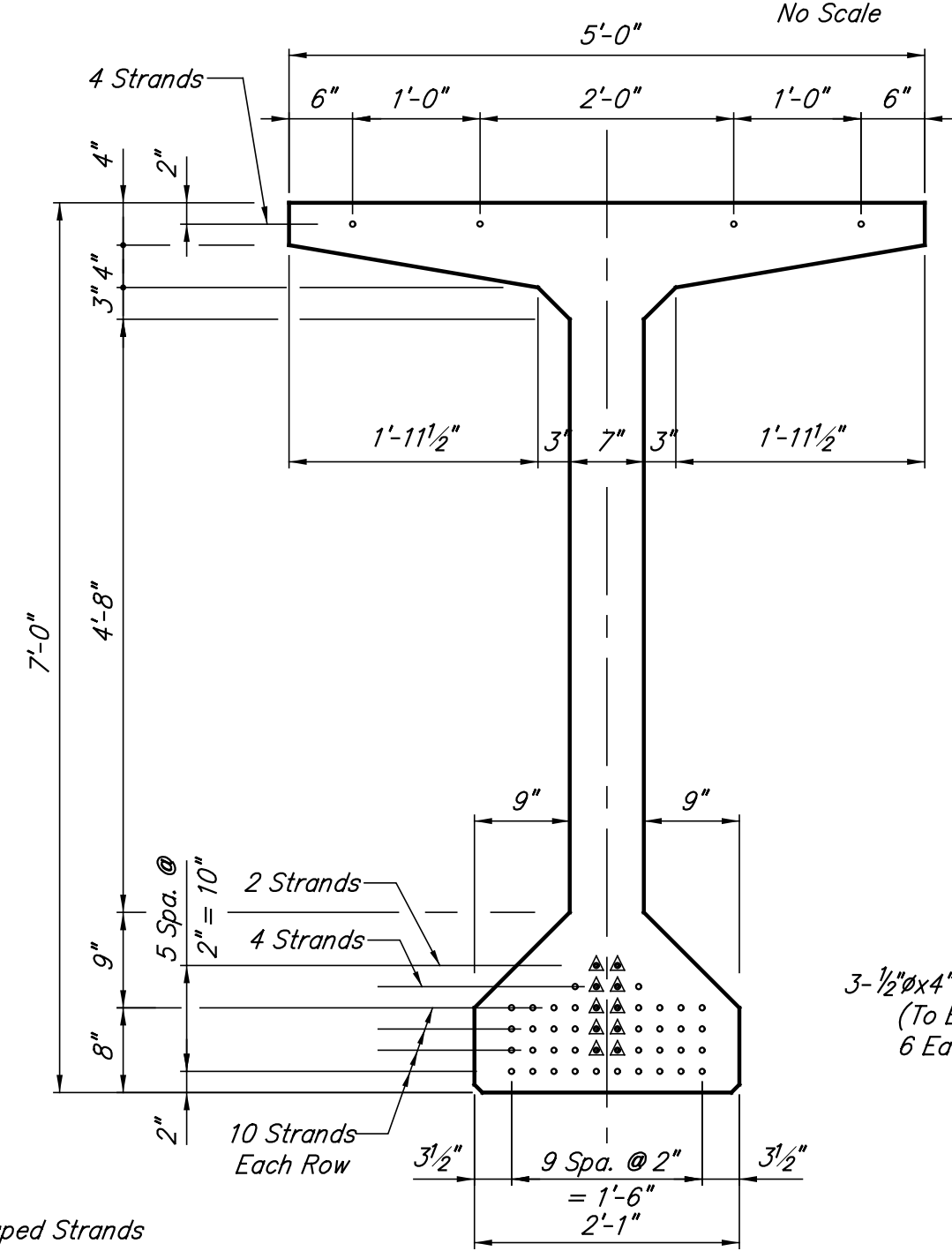
**ELEVATION**  
No Scale



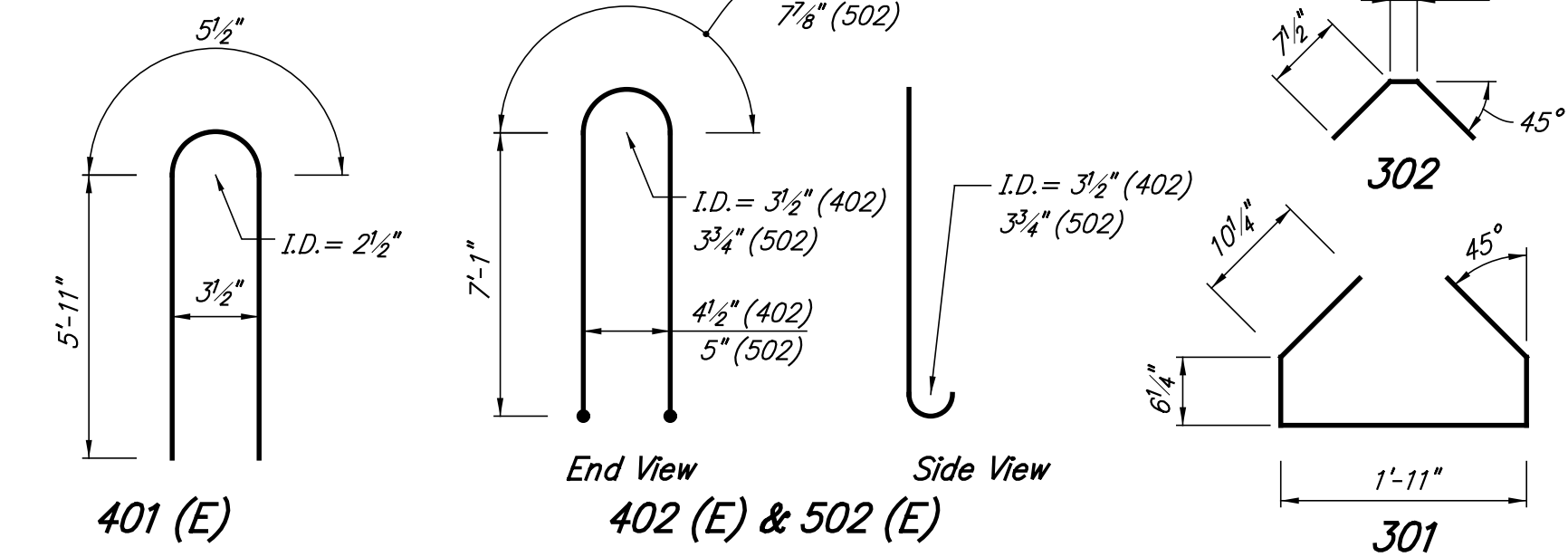
**SECTION SHOWING REINFORCING**  
Scale: 3/4" = 1'-0"



**TYPICAL SECTION AT BEAM END**  
Scale: 3/4" = 1'-0"

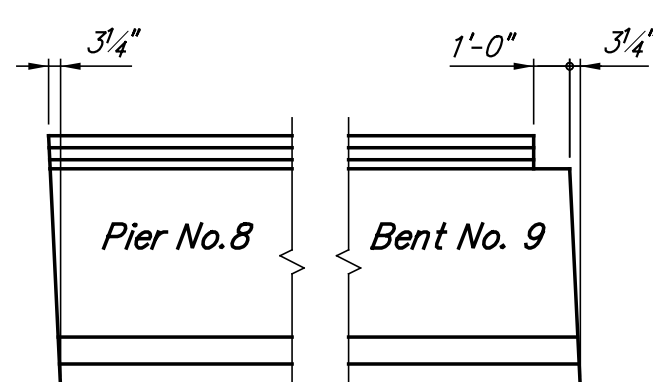


**TYPICAL SECTION AT MID-SPAN**  
Scale: 3/4" = 1'-0"



**Pier No.8 End**

**Bent No.9 End**

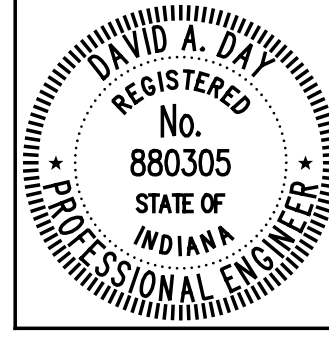


**DETAIL 'A' DETAIL 'B'**  
No Scale

Residual Camber Table	
Initial Beam Camber	3 7/8"
Superimposed Dead Load Deflection	2 3/8"
Residual Camber	1 1/2"

Initial Beam Camber equals upward deflection from prestressing force minus downward deflection from dead load of the beam in inches.

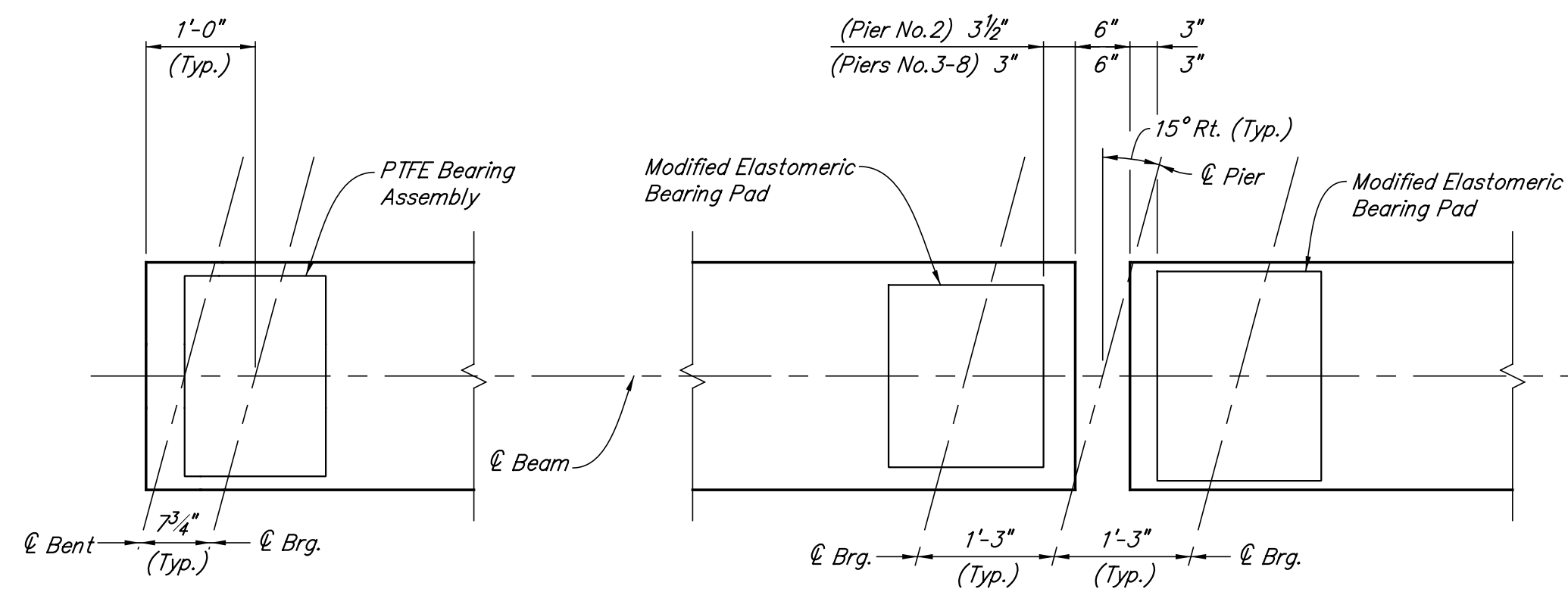
- NOTES:**
- Beams shall be cast a minimum of 15 days before the deck is poured.
  - Beams are to be supported at bearing points while stored and while transporting to the job site.
  - Top of beams are to be scored transversely at about 3" centers with a pointed tool.
  - For tolerances of prestressed beams, see Standard Drawing E707-BPBF-03.
  - For reinforcing bar notes, see Standard Drawing E703-BRST-01.
  - Reinforcing bars designated (E) shall be epoxy coated.
  - The concrete strength shall be 6,000 psi minimum at release and 7,000 psi minimum at 28 days.
  - 0.6" Dia. ( $A_s = 0.217$  sq) (270 ksi) Special Lo-Lax Strands to be pulled to 43,950 Lbs. each.
  - All mild reinforcing steel to be Grade 60.
  - Sealer on the outside face of exterior beams to be done by the fabricator in the shop. Do not rub.



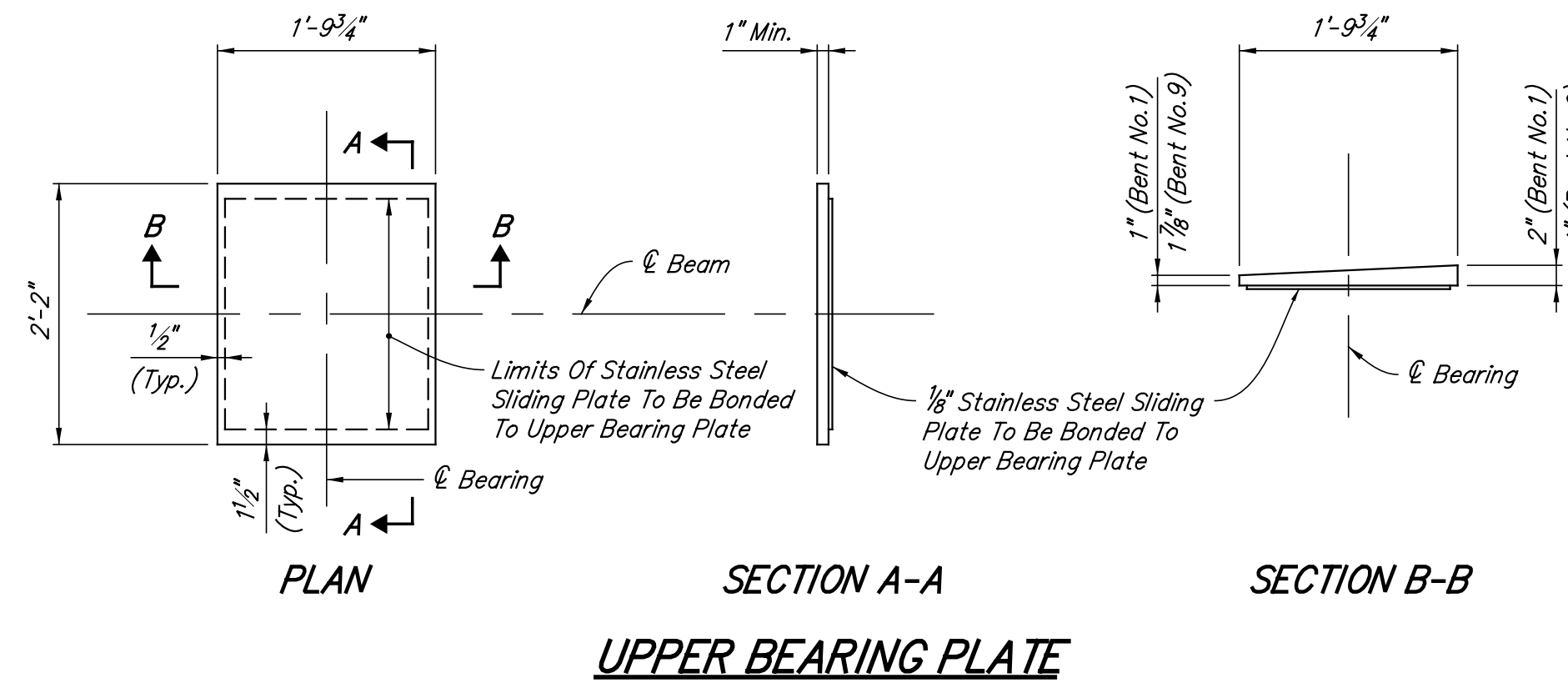
RECOMMENDED FOR APPROVAL	<i>David B. Day</i>	6/1/2012
DESIGNED:	DZ	DRAWN:
CHECKED:	RMC	CHECKED:
		DAD

INDIANA  
DEPARTMENT OF TRANSPORTATION  
**BEAM DETAILS - SPAN "H"**

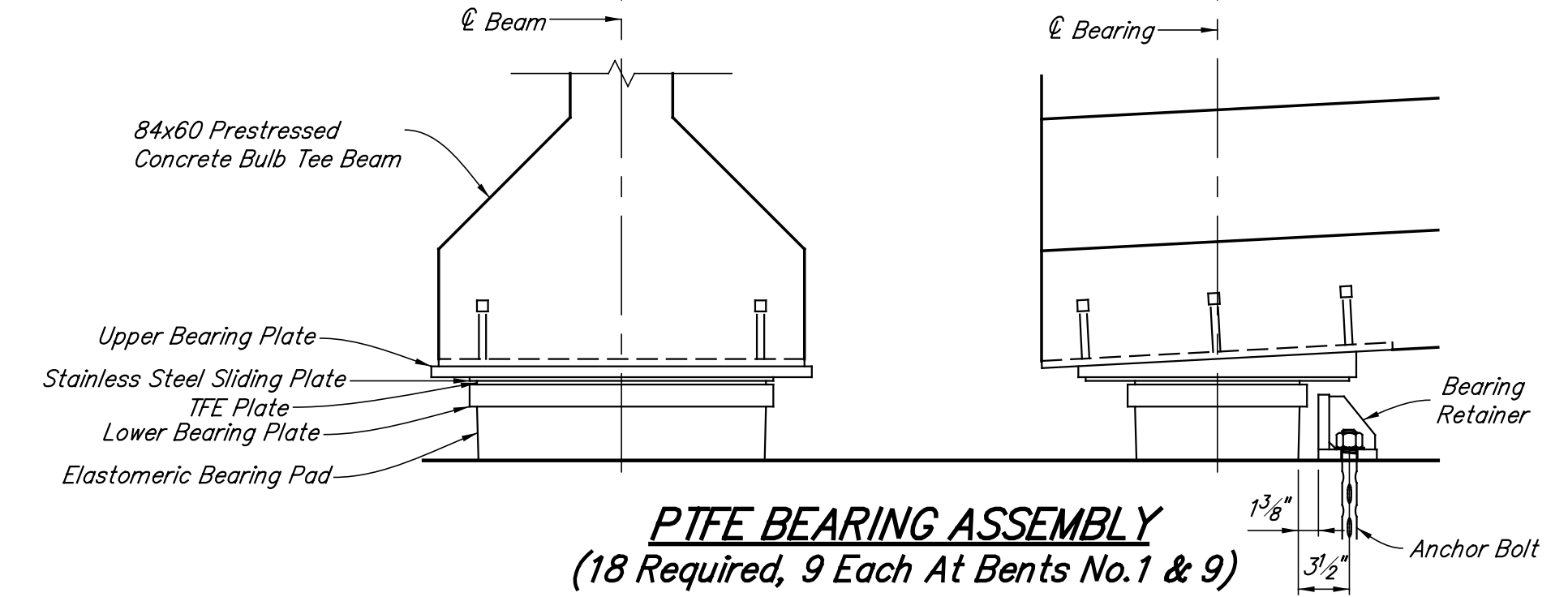
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	86 of 147
CONTRACT	PROJECT NO.
B-33357	N881008



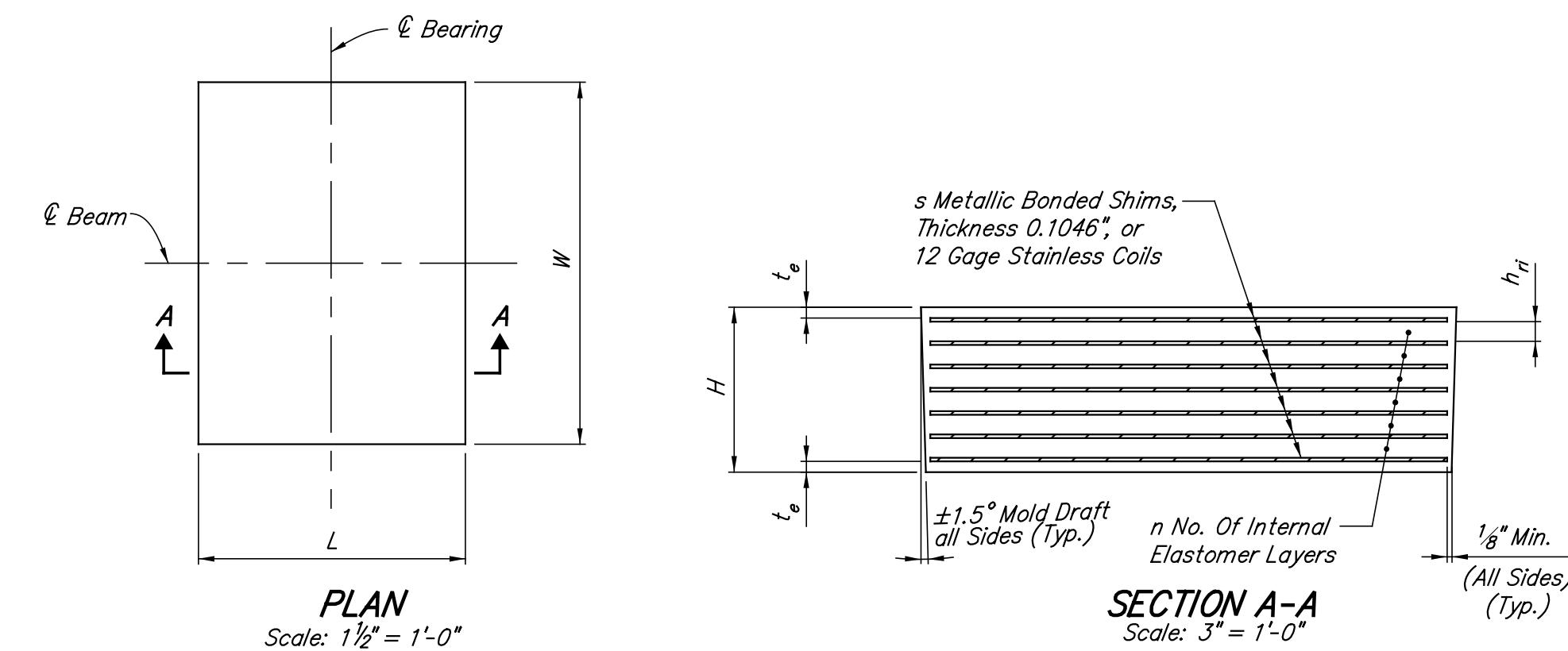
**BEAM PLACEMENT DETAILS**  
Showing Elastomeric Bearing Pad Locations



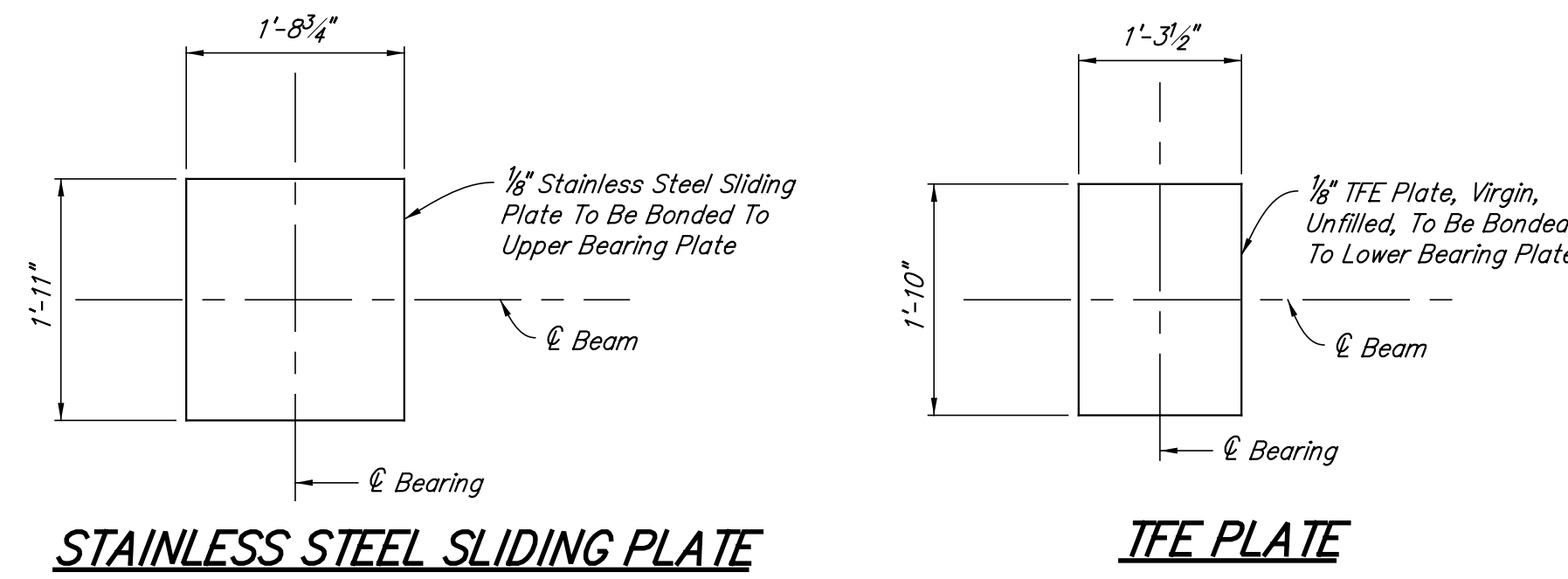
**UPPER BEARING PLATE**



**PTFE BEARING ASSEMBLY**  
(18 Required, 9 Each At Bents No. 1 & 9)

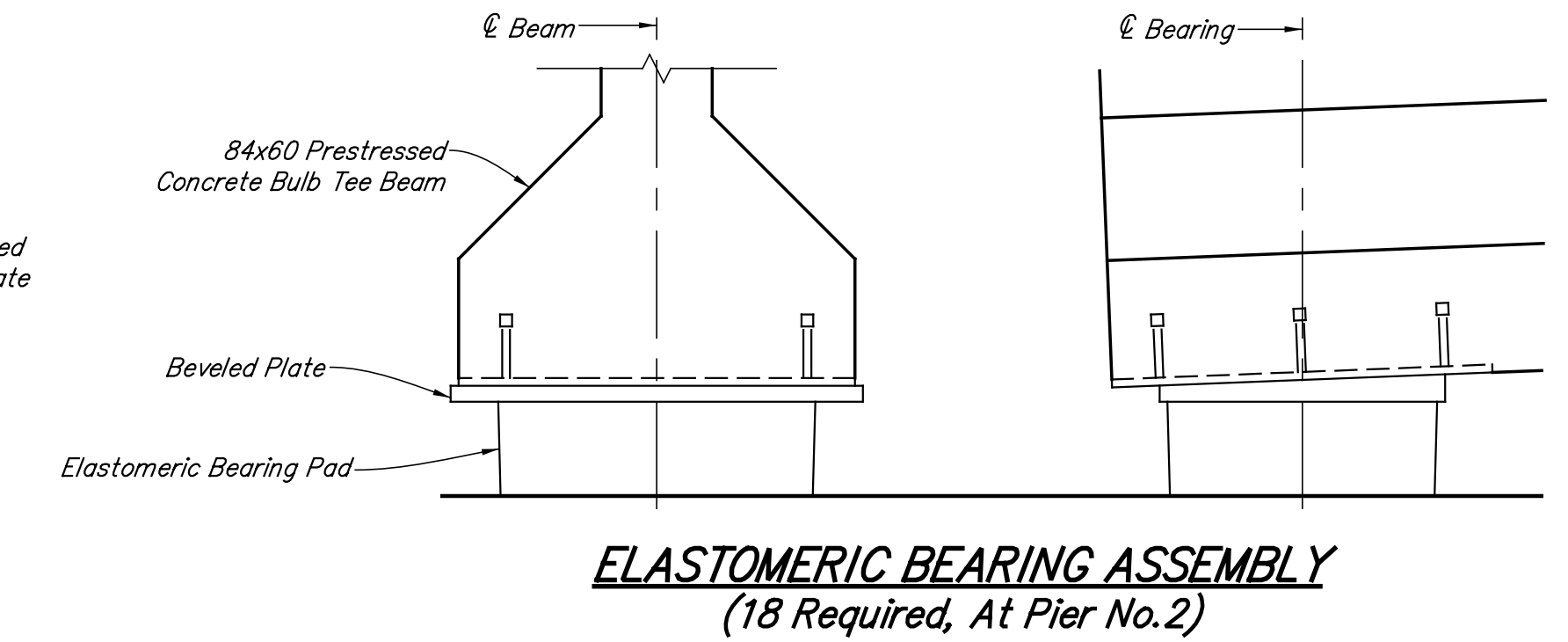


**ELASTOMERIC BEARING PAD**

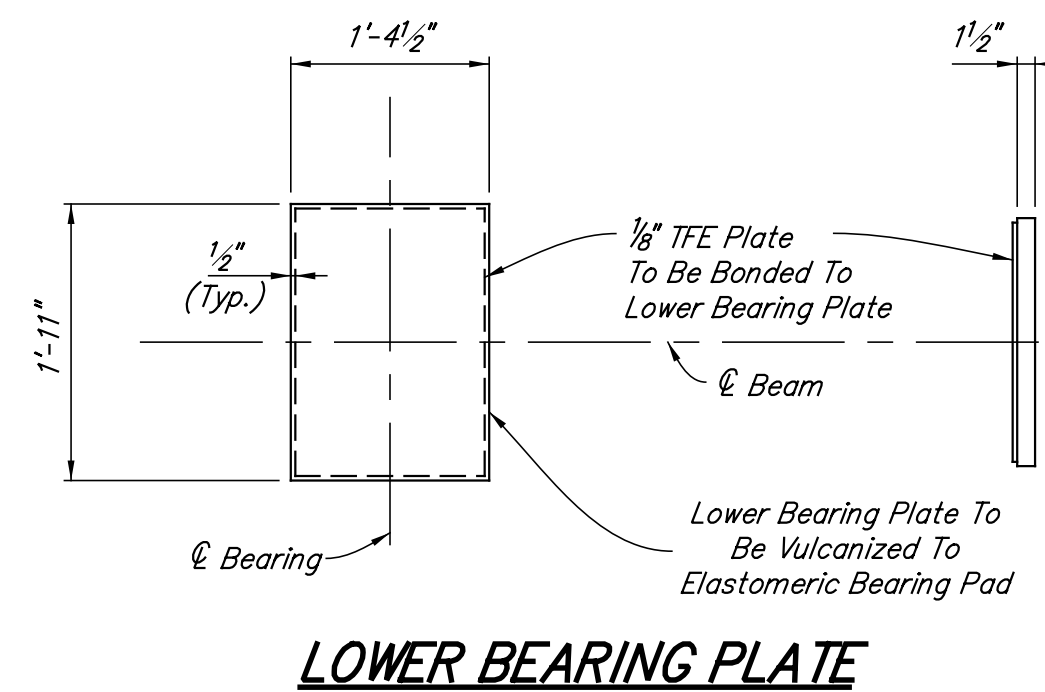


**STAINLESS STEEL SLIDING PLATE**

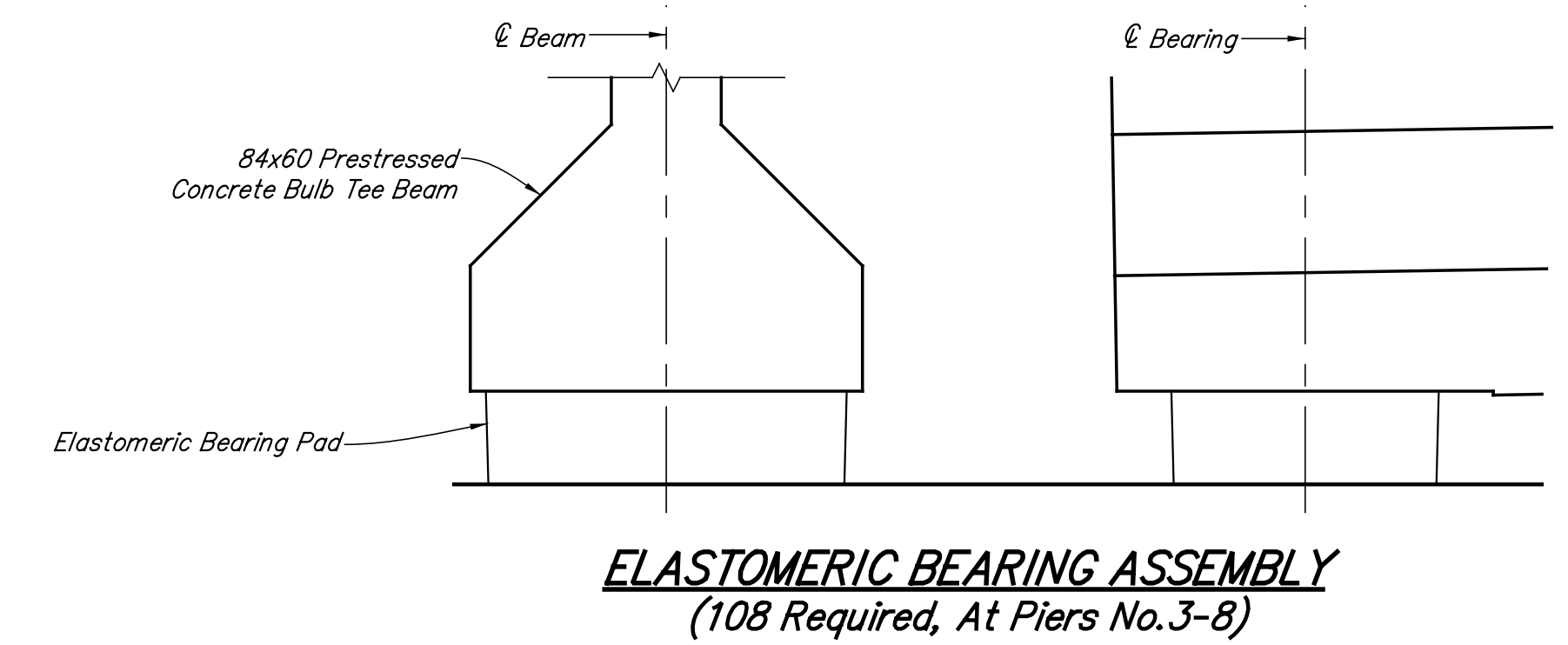
**TFE PLATE**



**ELASTOMERIC BEARING ASSEMBLY**  
(18 Required, At Pier No. 2)



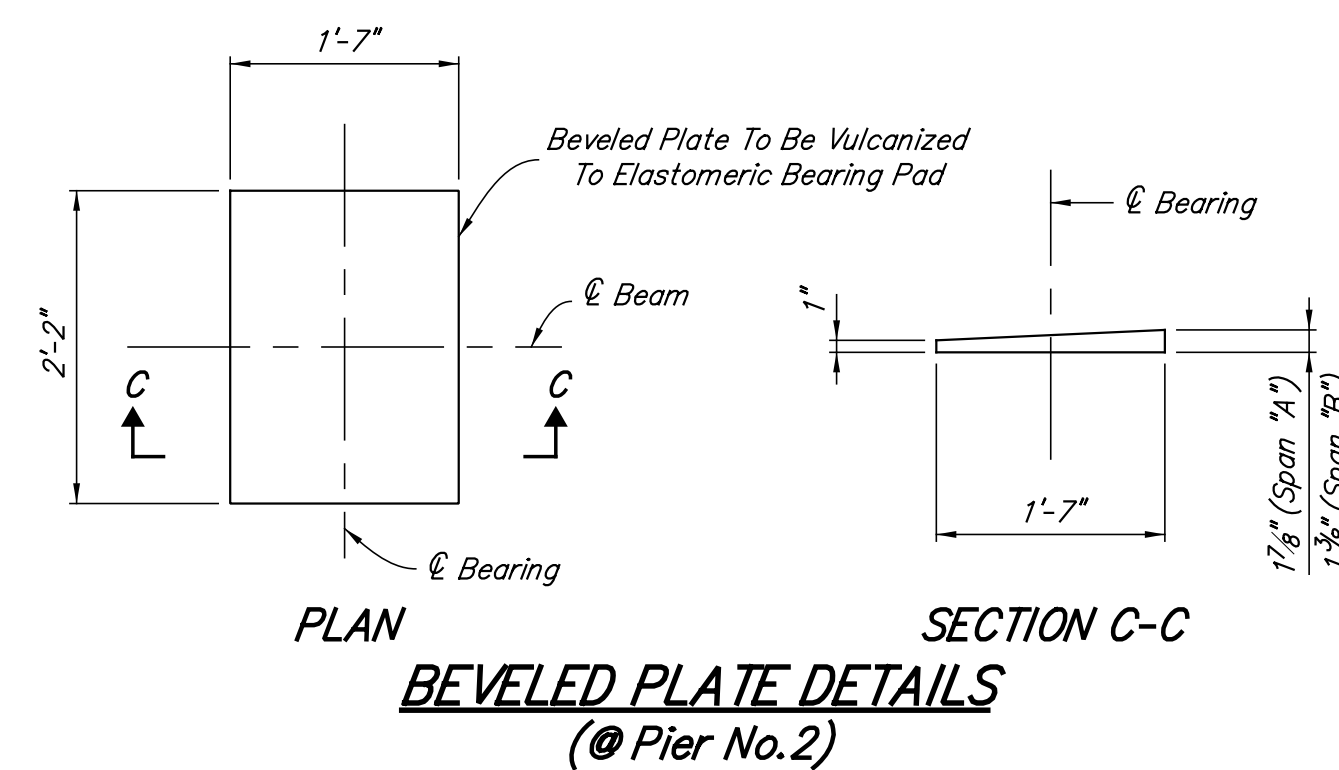
**LOWER BEARING PLATE**



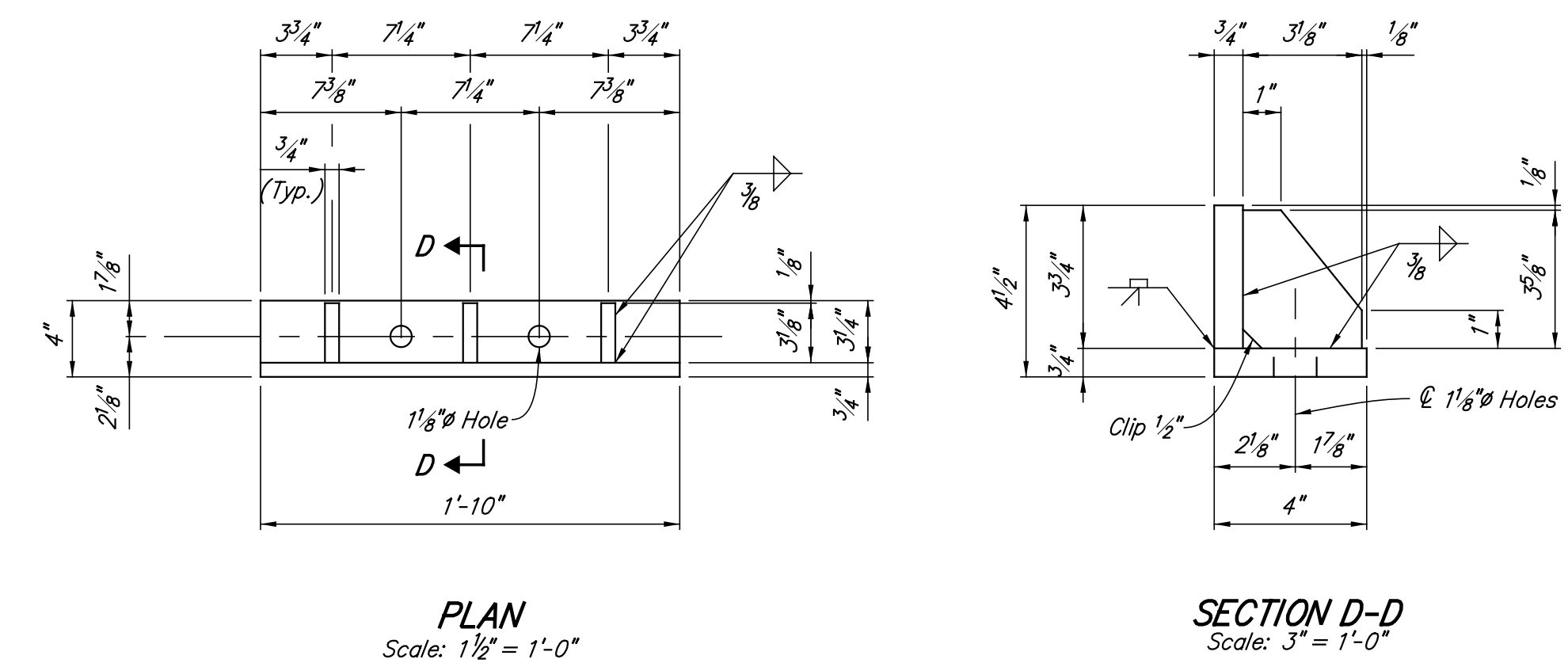
**ELASTOMERIC BEARING ASSEMBLY**  
(108 Required, At Piers No. 3-8)

Location		Elastomeric Bearing Pad									
Span	Bent Or Pier Nos.	Beam	Type	No. Req'd.	W	L	H	t <sub>e</sub>	h <sub>r</sub>	n	s
"A" & "H"	1 & 9	1-9	Modified	18	1'-10"	1'-3 1/2"	3 1/16"	1 1/32"	5/8"	4	5
"A"	2	1-9	Modified	9	1'-8"	1'-5"	5 1/16"	3/8"	5/8"	7	8
"B" - "H"	2-8	1-9	Modified	117	1'-8"	1'-6"	5 1/16"	3/8"	5/8"	7	8

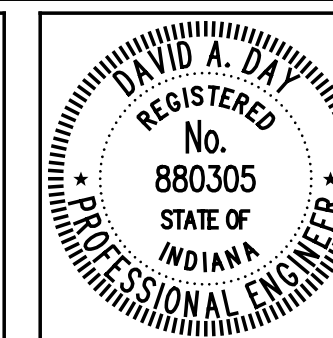
NOTE:  
Material : 55 (5±) Durometer Elastomer



**BEVELED PLATE DETAILS**  
(@ Pier No. 2)



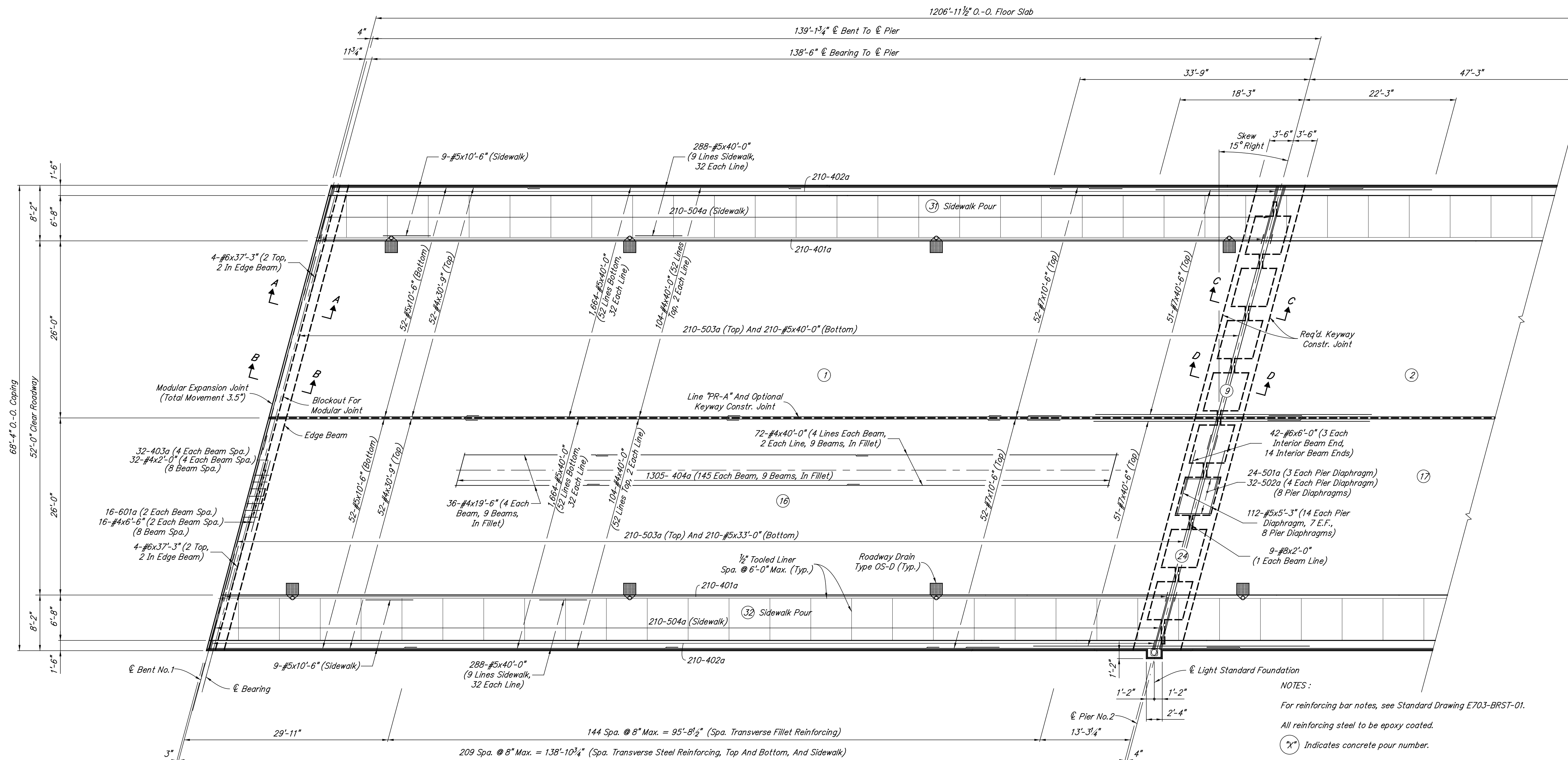
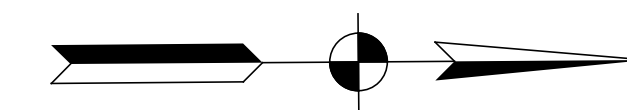
**BEARING RETAINER**  
(All Steel To Be A709, Grade 50, Painted)



RECOMMENDED FOR APPROVAL: *David B. Day*, 6/1/2012, DESIGN ENGINEER, DATE  
DESIGNED: DZ, DRAWN: EWM  
CHECKED: RMC, CHECKED: RMC

INDIANA DEPARTMENT OF TRANSPORTATION  
**ELASTOMERIC AND PTFE BEARING ASSEMBLY DETAILS**

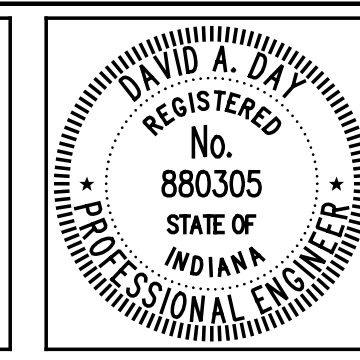
HORIZONTAL SCALE 3/4" = 1'-0", UNLESS NOTED	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 87 of 147
CONTRACT B-33357	PROJECT NO. N881008



**PARTIAL PLAN - SPAN "A"**

Min. Lap	
#4	1'-8"
#5	2'-7"
#6	3'-10"
#7	4'-9"

- NOTES:**
- For reinforcing bar notes, see Standard Drawing E703-BRST-01.
  - All reinforcing steel to be epoxy coated.
  - (X) Indicates concrete pour number.
  - Suitable restraint shall be provided to prevent the rotation of the outside beams under construction loads, such as finishing machines, forms, etc.
  - After the beams have been erected, concrete forms shall not be blocked against the expansion end of the beams in making any pours adjacent to the beam spans.
  - For Typical Section, see Sheet No. 96.
  - For Sections A-A, B-B, C-C and D-D, see Sheet No. 97.
  - For bar bending diagrams, Bill of Materials and additional details, see Sheet No. 104.
  - For Light Standard Foundation locations, see General Plan.
  - For additional lighting details, see Sheet No. 102.
  - Screed data will be furnished upon request.



RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

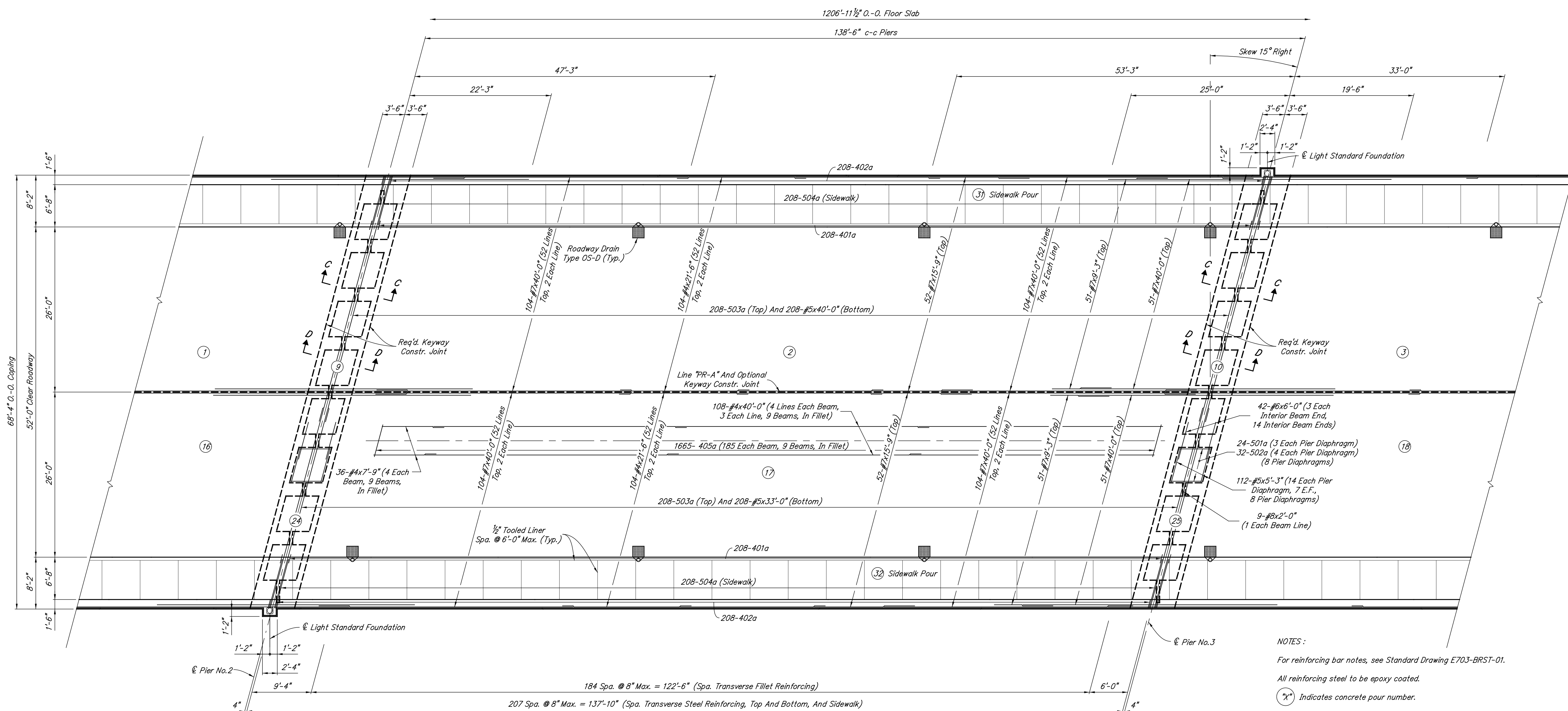
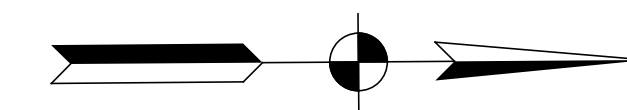
DESIGNED: DZ DRAWN: DSH  
 CHECKED: RMC CHECKED: DAD

INDIANA  
 DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS**

HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 88 of 147
CONTRACT B-33357	PROJECT NO. N881008



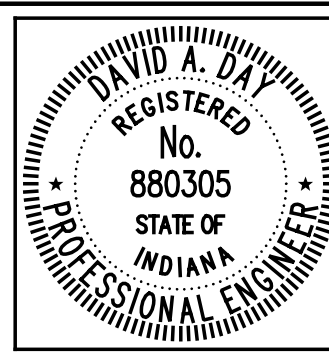


**PARTIAL PLAN - SPAN "B"**

Min. Lap	
#4	1'-8"
#5	2'-7"
#7	4'-9"

NOTES:

- For reinforcing bar notes, see Standard Drawing E703-BRST-01.
- All reinforcing steel to be epoxy coated.
- "X" Indicates concrete pour number.
- Suitable restraint shall be provided to prevent the rotation of the outside beams under construction loads, such as finishing machines, forms, etc.
- After the beams have been erected, concrete forms shall not be blocked against the expansion end of the beams in making any pours adjacent to the beam spans.
- For Typical Section, see Sheet No. 96.
- For Sections C-C and D-D, see Sheet No. 97.
- For bar bending diagrams, Bill of Materials and additional details, see Sheet No. 104.
- For Light Standard Foundation locations, see General Plan.
- For additional lighting details, see Sheet No. 102.
- Screed data will be furnished upon request.



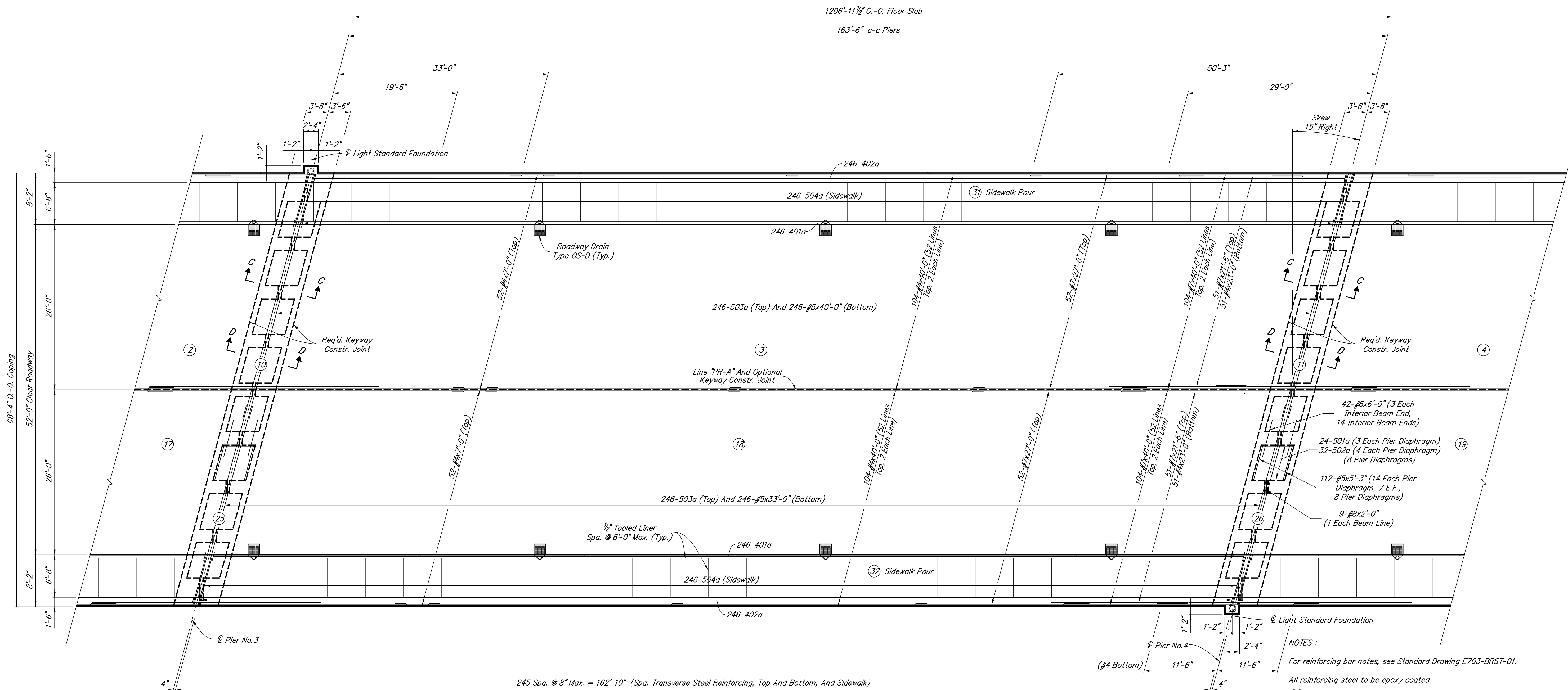
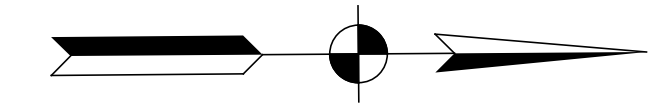
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: DSH  
 CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS**

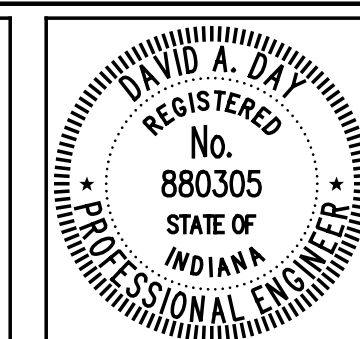
HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 89 of 147
CONTRACT B-33357	PROJECT NO. N881008



**PARTIAL PLAN - SPAN "C"**

Min. Lap	
#4	1'-8"
#5	2'-7"
#7	4'-9"

- NOTES:**
- For reinforcing bar notes, see Standard Drawing E703-BRST-01.
  - All reinforcing steel to be epoxy coated.
  - "X" Indicates concrete pour number.
  - Suitable restraint shall be provided to prevent the rotation of the outside beams under construction loads, such as finishing machines, forms, etc.
  - After the beams have been erected, concrete forms shall not be blocked against the expansion end of the beams in making any pours adjacent to the beam spans.
  - For Typical Section, see Sheet No. 96.
  - For Sections C-C and D-D, see Sheet No. 97.
  - For bar bending diagrams, Bill of Materials and additional details, see Sheet No. 104.
  - For Light Standard Foundation locations, see General Plan.
  - For additional lighting details, see Sheet No. 102.
  - Screed data will be furnished upon request.



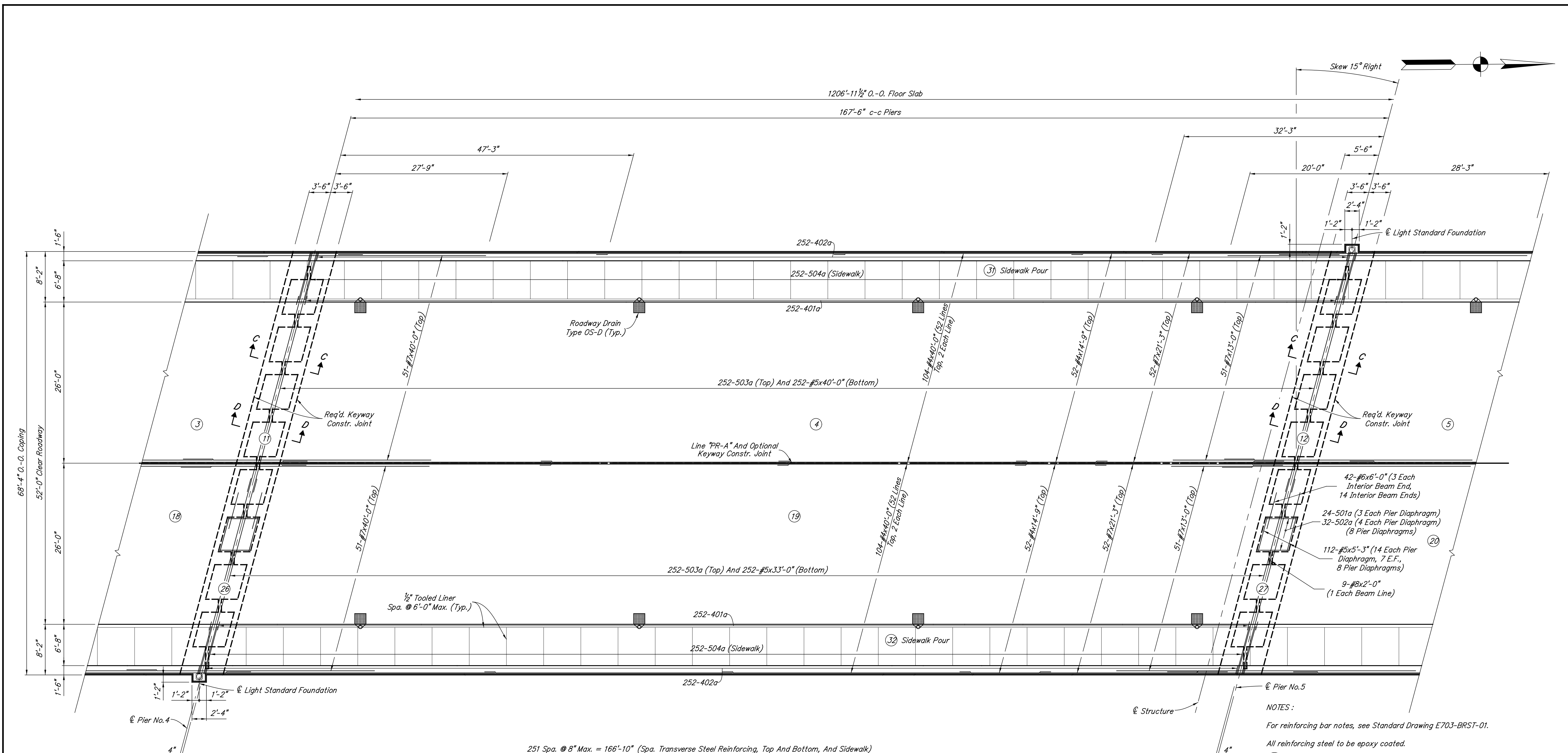
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: DSH  
 CHECKED: RMC CHECKED: DAD

INDIANA  
 DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS**

HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 90 of 147
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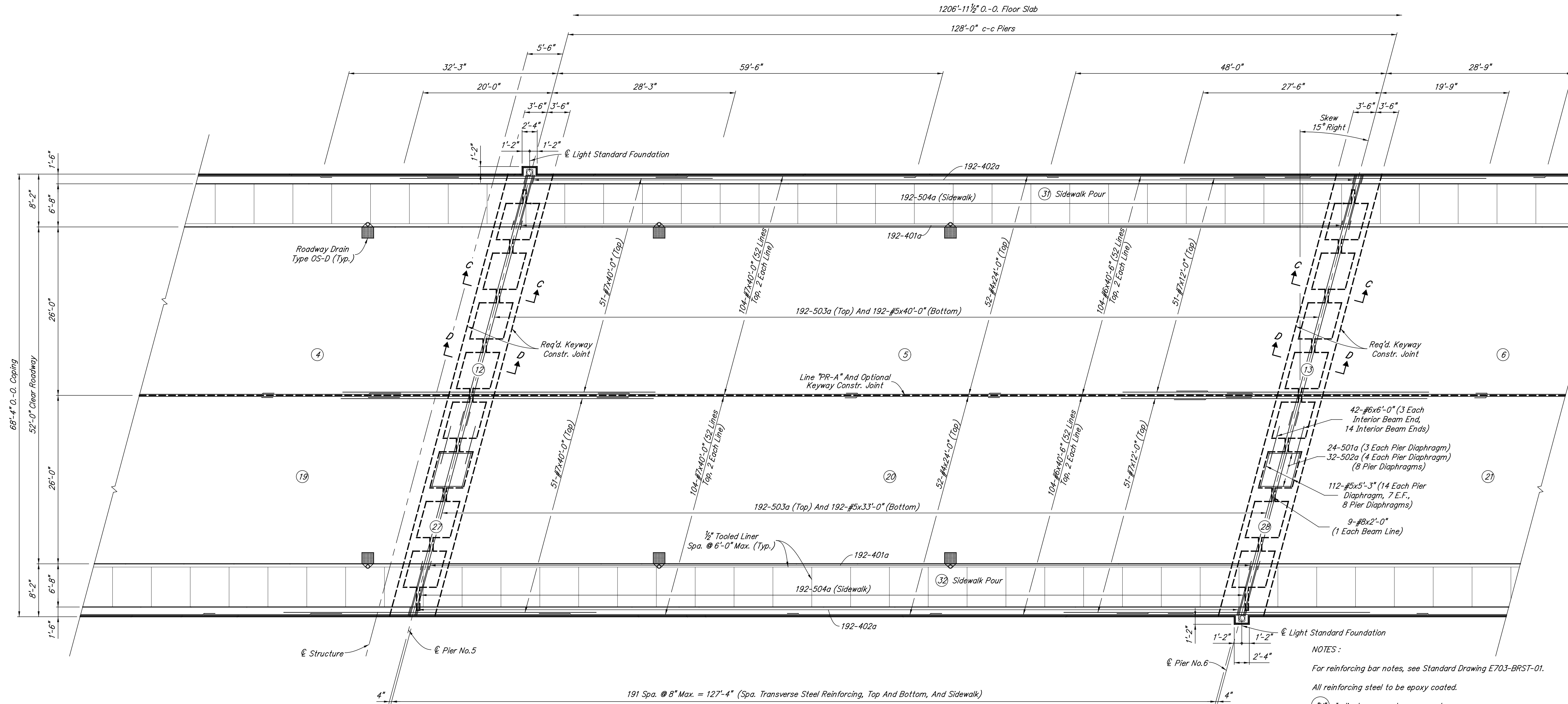
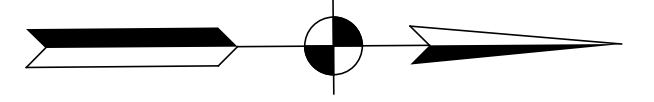
**PARTIAL PLAN - SPAN "D"**

Min. Lap	
#4	1'-8"
#5	2'-7"
#7	4'-9"

**NOTES:**

- For reinforcing bar notes, see Standard Drawing E703-BRST-01.
- All reinforcing steel to be epoxy coated.
- (\*) Indicates concrete pour number.
- Suitable restraint shall be provided to prevent the rotation of the outside beams under construction loads, such as finishing machines, forms, etc.
- After the beams have been erected, concrete forms shall not be blocked against the expansion end of the beams in making any pours adjacent to the beam spans.
- For Typical Section, see Sheet No. 96.
- For Sections C-C and D-D, see Sheet No. 97.
- For bar bending diagrams, Bill of Materials and additional details, see Sheet No. 104.
- For Light Standard Foundation locations, see General Plan.
- For additional lighting details, see Sheet No. 102.
- Screed data will be furnished upon request.

	RECOMMENDED FOR APPROVAL <i>David B. Day</i> 6/1/2012 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION  <b>SUPERSTRUCTURE DETAILS</b>	HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE 152-45-02730
	DESIGNED: DZ      DRAWN: DSH CHECKED: RMC      CHECKED: DAD		VERTICAL SCALE DESIGNATION NO. 0014210	SURVEY BOOK CONTRACT B-33357



**PARTIAL PLAN - SPAN "E"**

Min. Lap	
#4	1'-8"
#5	2'-7"
#6	3'-10"
#7	4'-9"

**NOTES:**

For reinforcing bar notes, see Standard Drawing E703-BRST-01.

All reinforcing steel to be epoxy coated.

(X) Indicates concrete pour number.

Suitable restraint shall be provided to prevent the rotation of the outside beams under construction loads, such as finishing machines, forms, etc.

After the beams have been erected, concrete forms shall not be blocked against the expansion end of the beams in making any pours adjacent to the beam spans.

For Typical Section, see Sheet No. 96.

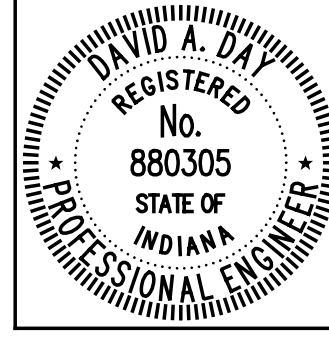
For Sections C-C and D-D, see Sheet No. 97.

For bar bending diagrams, Bill of Materials and additional details, see Sheet No. 104.

For Light Standard Foundation locations, see General Plan.

For additional lighting details, see Sheet No. 102.

Screed data will be furnished upon request.



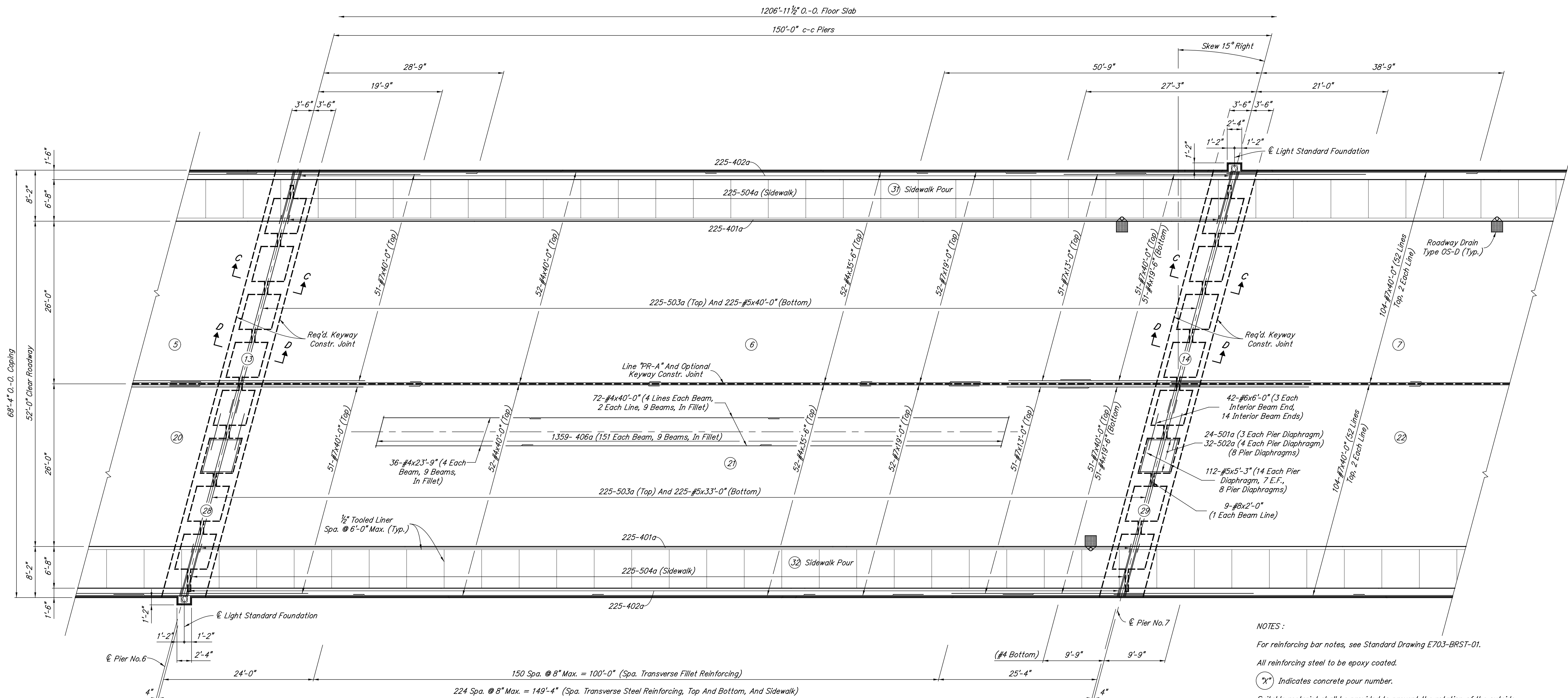
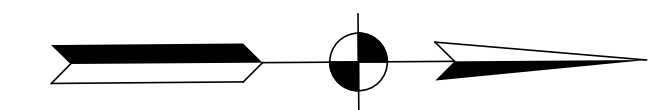
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: DSH  
CHECKED: RMC CHECKED: DAD

INDIANA  
DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS**

HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 92 of 147
CONTRACT B-33357	PROJECT NO. N881008

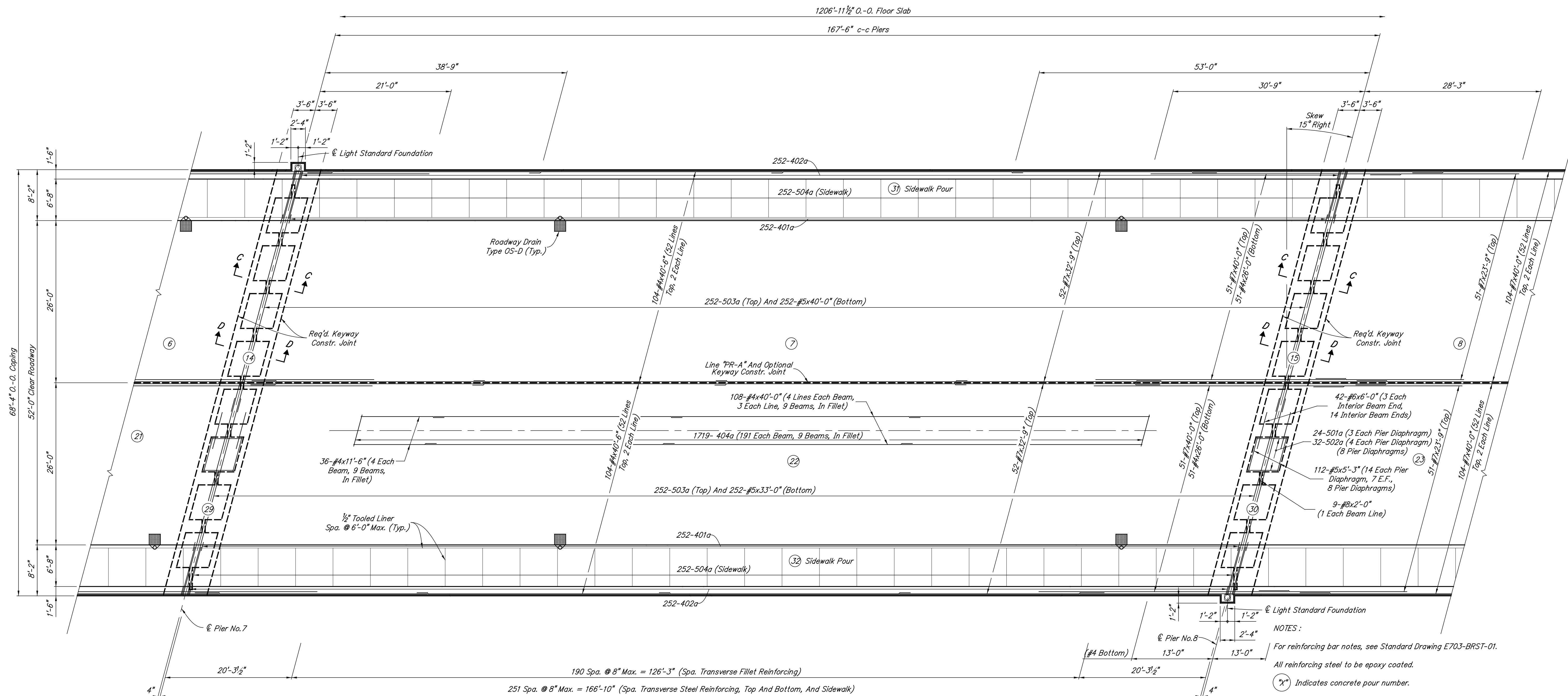
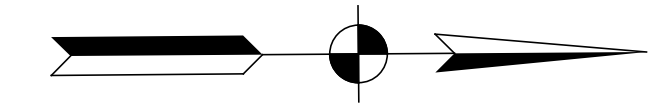


**PARTIAL PLAN - SPAN "F"**

Min. Lap	
#4	1'-8"
#5	2'-7"
#7	4'-9"

- NOTES:**
- For reinforcing bar notes, see Standard Drawing E703-BRST-01.
  - All reinforcing steel to be epoxy coated.
  - (X) Indicates concrete pour number.
  - Suitable restraint shall be provided to prevent the rotation of the outside beams under construction loads, such as finishing machines, forms, etc.
  - After the beams have been erected, concrete forms shall not be blocked against the expansion end of the beams in making any pours adjacent to the beam spans.
  - For Typical Section, see Sheet No. 96.
  - For Sections C-C and D-D, see Sheet No. 97.
  - For bar bending diagrams, Bill of Materials and additional details, see Sheet No. 104.
  - For Light Standard Foundation locations, see General Plan.
  - For additional lighting details, see Sheet No. 102.
  - Screed data will be furnished upon request.

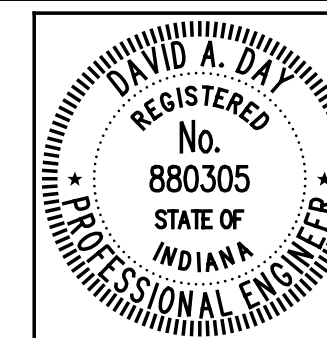
	RECOMMENDED FOR APPROVAL <i>David B. Day</i> 6/1/2012 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION  SUPERSTRUCTURE DETAILS	HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE 152-45-02730
	DESIGNED: DZ      DRAWN: DSH CHECKED: RMC      CHECKED: DAD		VERTICAL SCALE DESIGNATION NO. 0014210	SURVEY BOOK SHEETS 93 of 147



**PARTIAL PLAN - SPAN "G"**

Min. Lap	
#4	1'-8"
#5	2'-7"
#7	4'-9"

- NOTES:
- For reinforcing bar notes, see Standard Drawing E703-BRST-01.
  - All reinforcing steel to be epoxy coated.
  - "X" Indicates concrete pour number.
  - Suitable restraint shall be provided to prevent the rotation of the outside beams under construction loads, such as finishing machines, forms, etc.
  - After the beams have been erected, concrete forms shall not be blocked against the expansion end of the beams in making any pours adjacent to the beam spans.
  - For Typical Section, see Sheet No. 96.
  - For Sections C-C and D-D, see Sheet No. 97.
  - For bar bending diagrams, Bill of Materials and additional details, see Sheet No. 104.
  - For Light Standard Foundation locations, see General Plan.
  - For additional lighting details, see Sheet No. 102.
  - Screed data will be furnished upon request.



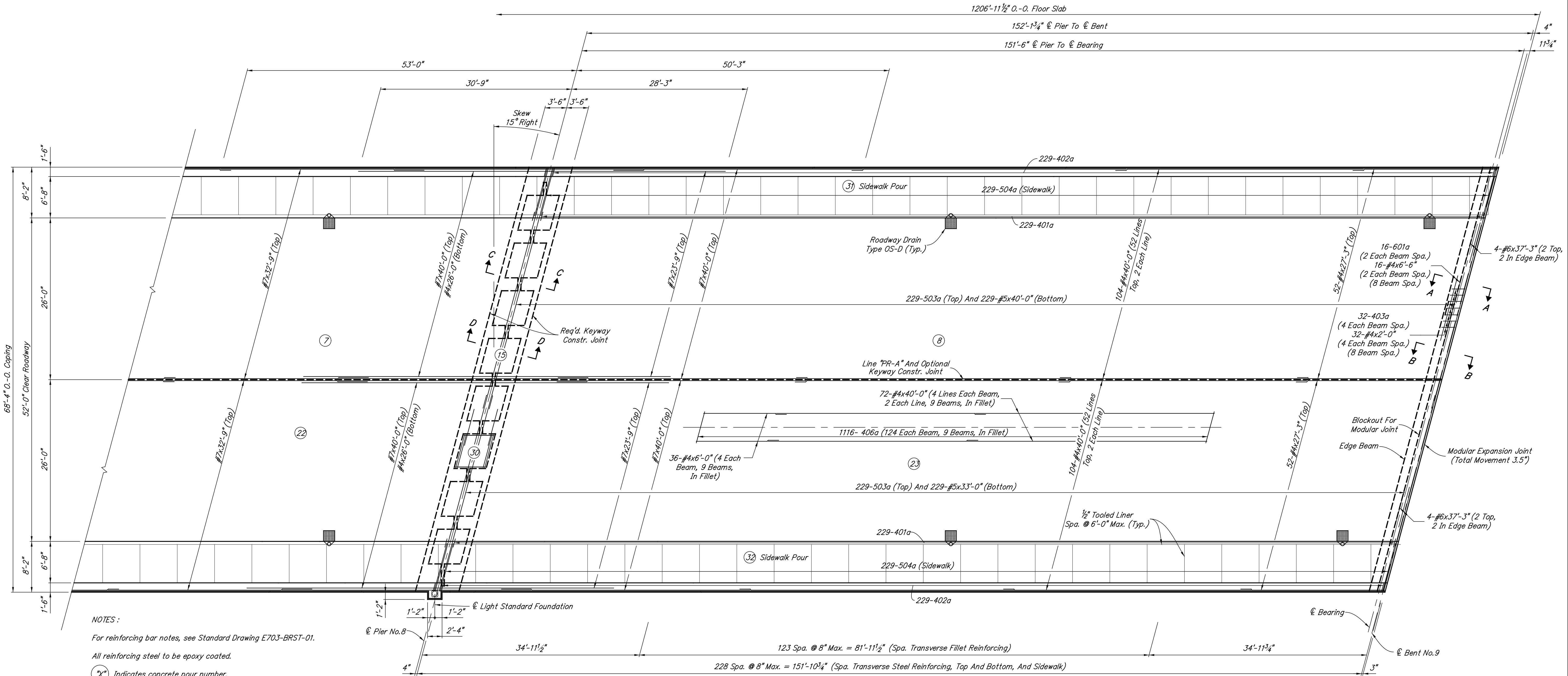
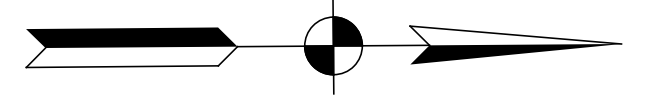
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: DSH  
 CHECKED: RMC CHECKED: DAD

INDIANA  
 DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS**

HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 94 of 147
CONTRACT B-33357	PROJECT NO. N881008

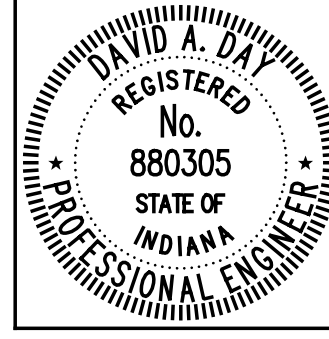


**NOTES:**

- For reinforcing bar notes, see Standard Drawing E703-BRST-01.
- All reinforcing steel to be epoxy coated.
- "X" Indicates concrete pour number.
- Suitable restraint shall be provided to prevent the rotation of the outside beams under construction loads, such as finishing machines, forms, etc.
- After the beams have been erected, concrete forms shall not be blocked against the expansion end of the beams in making any pours adjacent to the beam spans.
- For Typical Section, see Sheet No. 96.
- For Sections A-A, B-B, C-C and D-D, see Sheet No. 97.
- For bar bending diagrams, Bill of Materials and additional details, see Sheet No. 104.
- For Light Standard Foundation locations, see General Plan.
- For additional lighting details, see Sheet No. 102.
- Screed data will be furnished upon request.

Min. Lap	
#4	1'-8"
#5	2'-7"
#7	4'-9"

**PARTIAL PLAN - SPAN "H"**



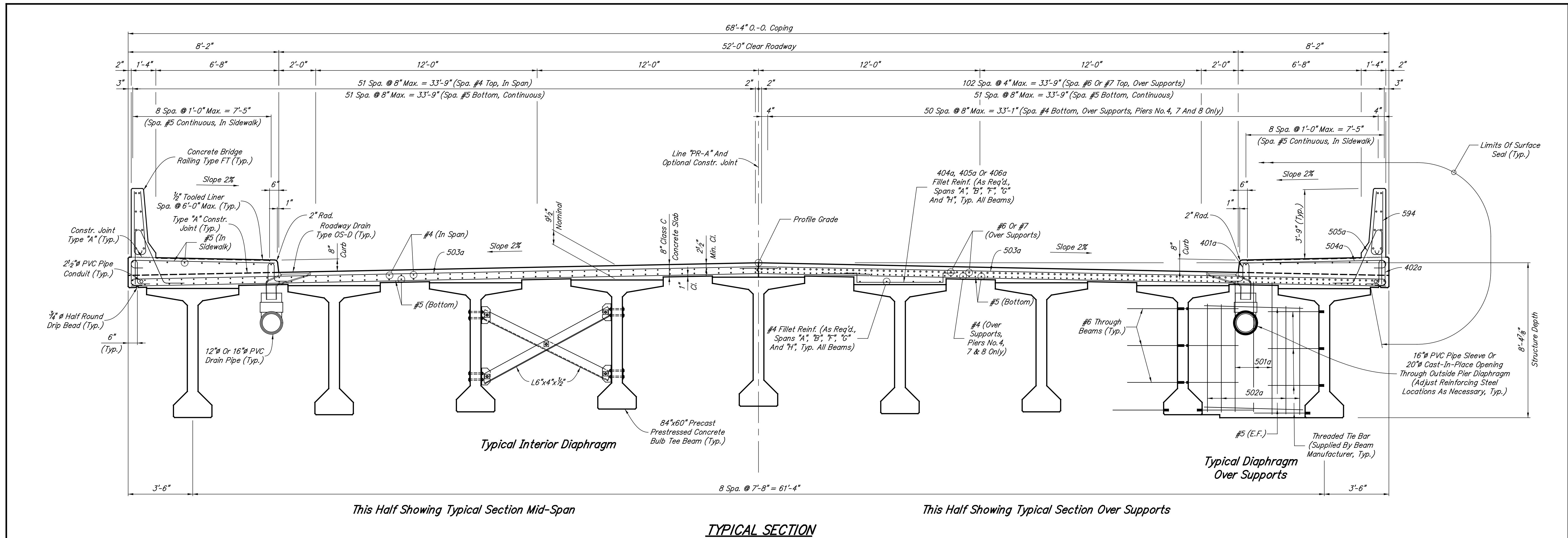
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: DSH  
 CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS**

HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 95 of 147
CONTRACT B-33357	PROJECT NO. N881008



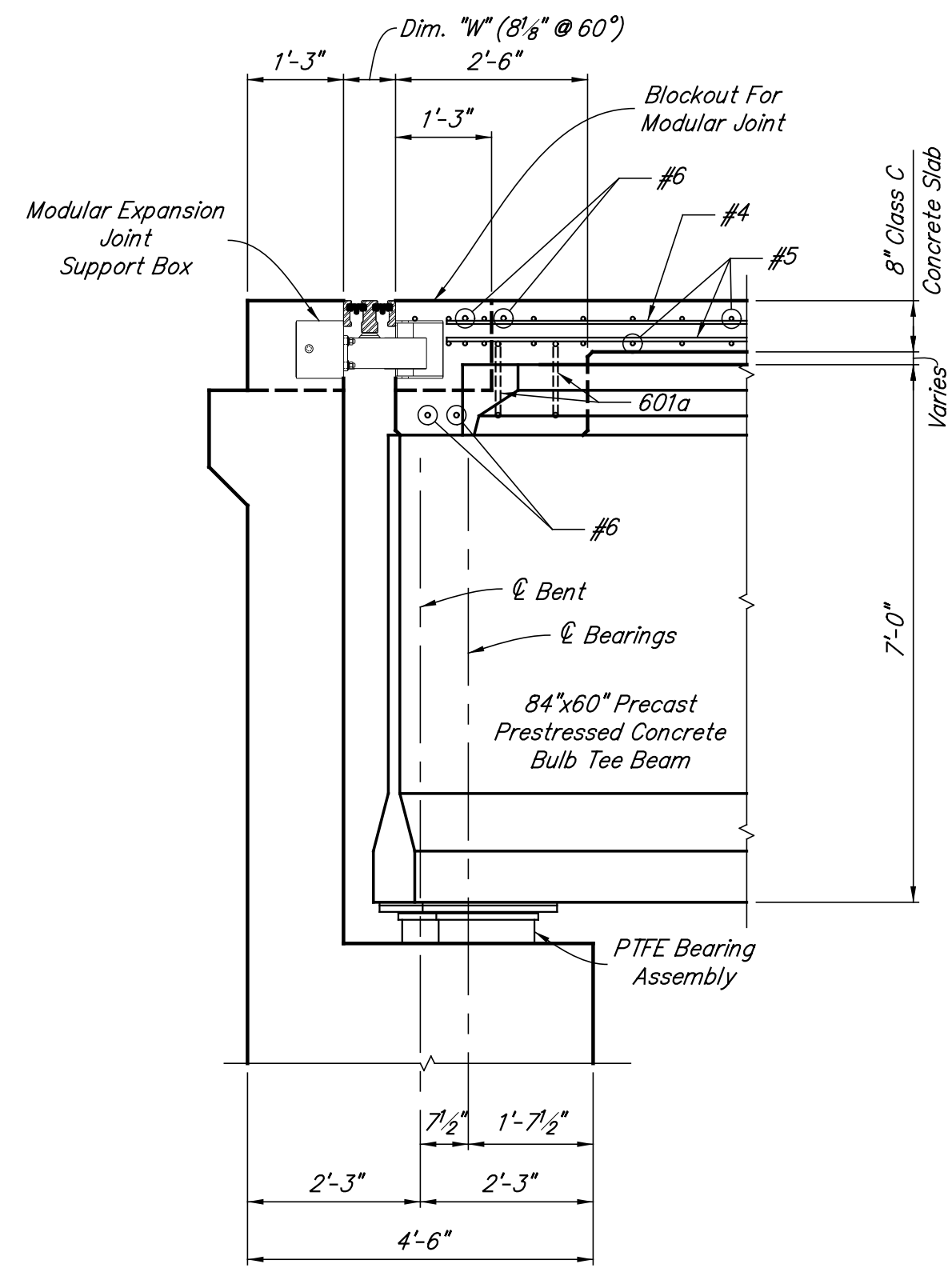
DESIGNED: DZ	DRAWN: DSH
CHECKED: RMC	CHECKED: DAD

RECOMMENDED FOR APPROVAL		6/1/2012
DESIGN ENGINEER	DATE	

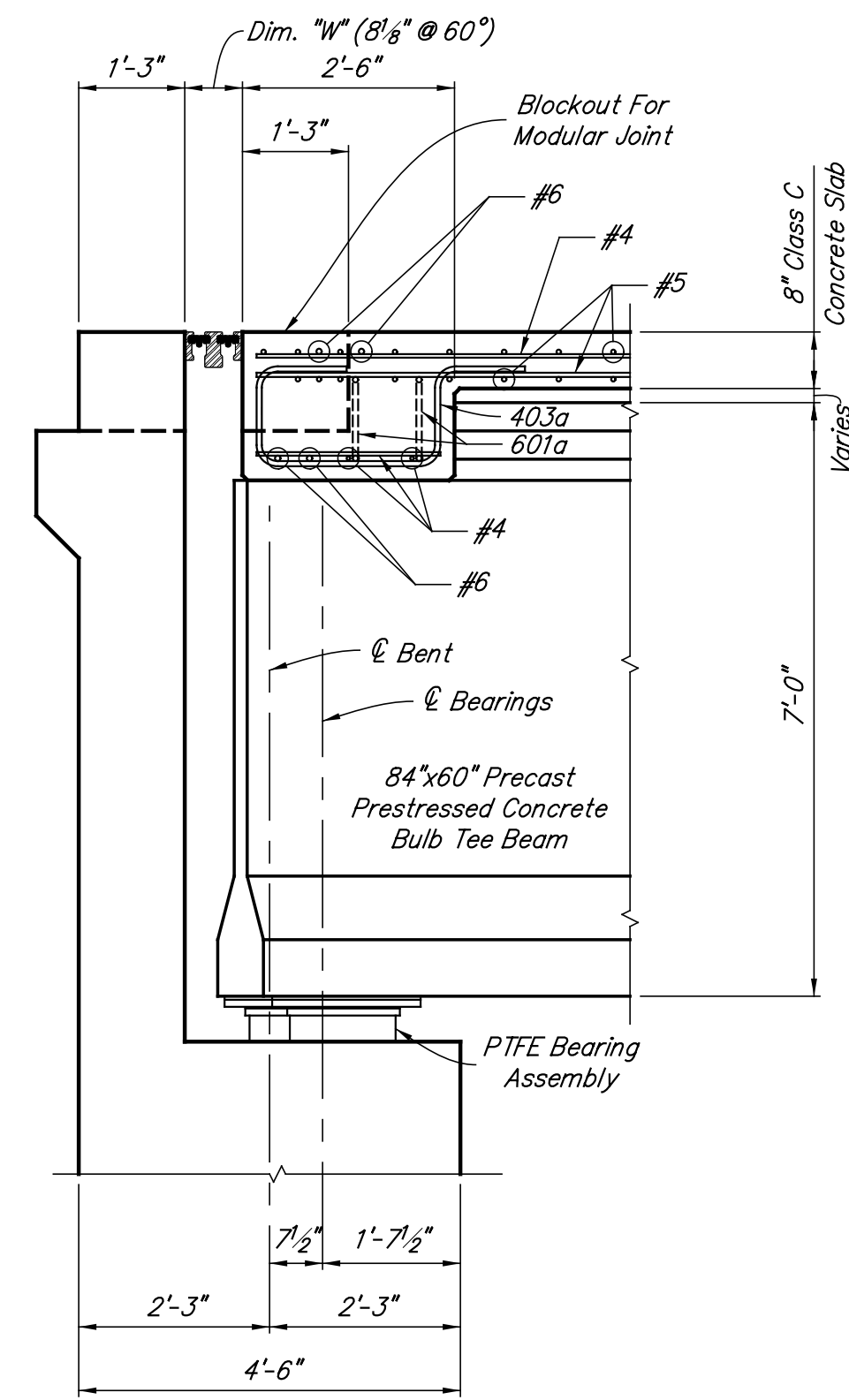
<b>INDIANA</b> DEPARTMENT OF TRANSPORTATION	
<b>SUPERSTRUCTURE DETAILS</b>	

HORIZONTAL SCALE	BRIDGE FILE
3/8" = 1'-0"	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
CONTRACT	96 of 147
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	N881008

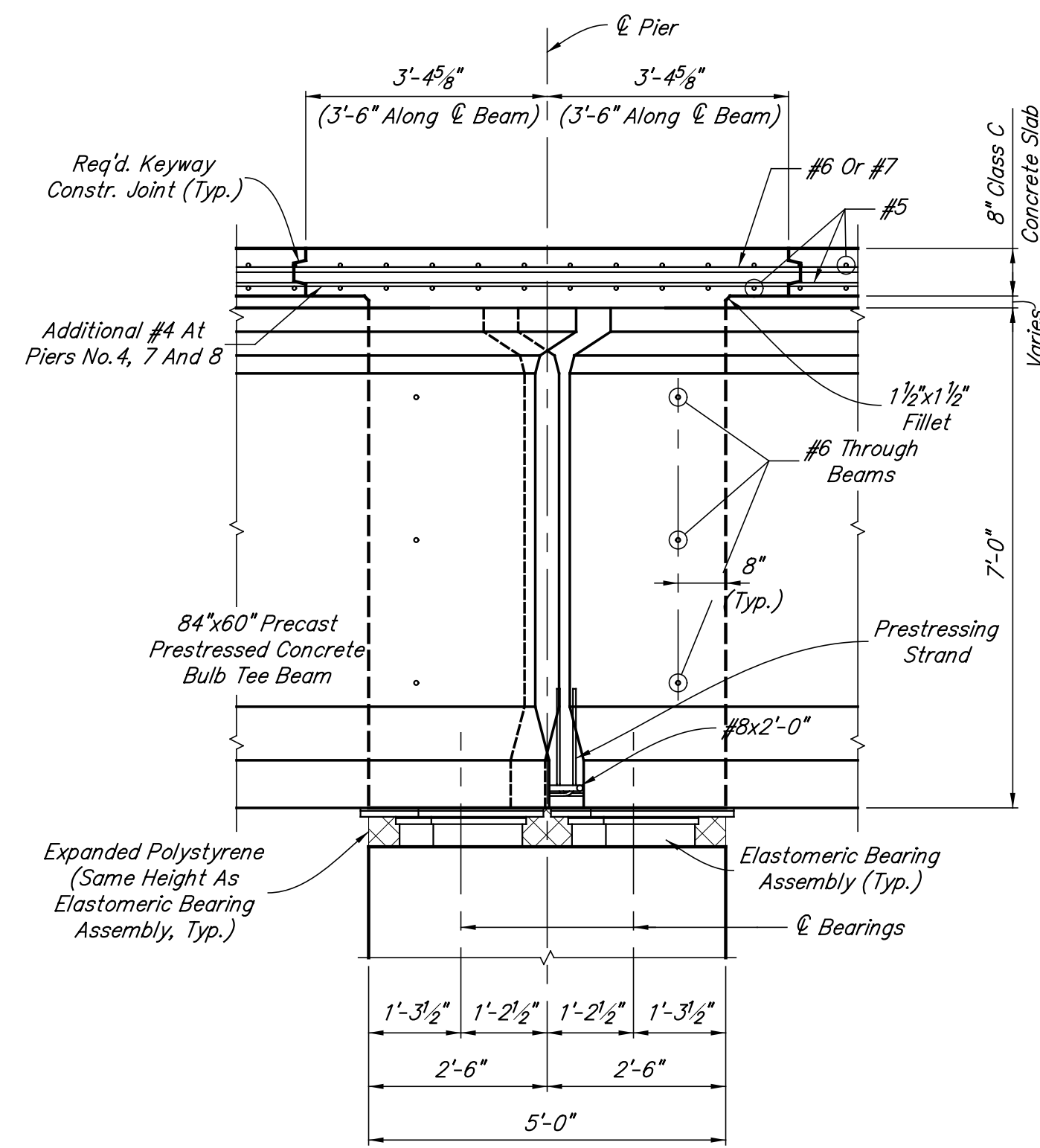




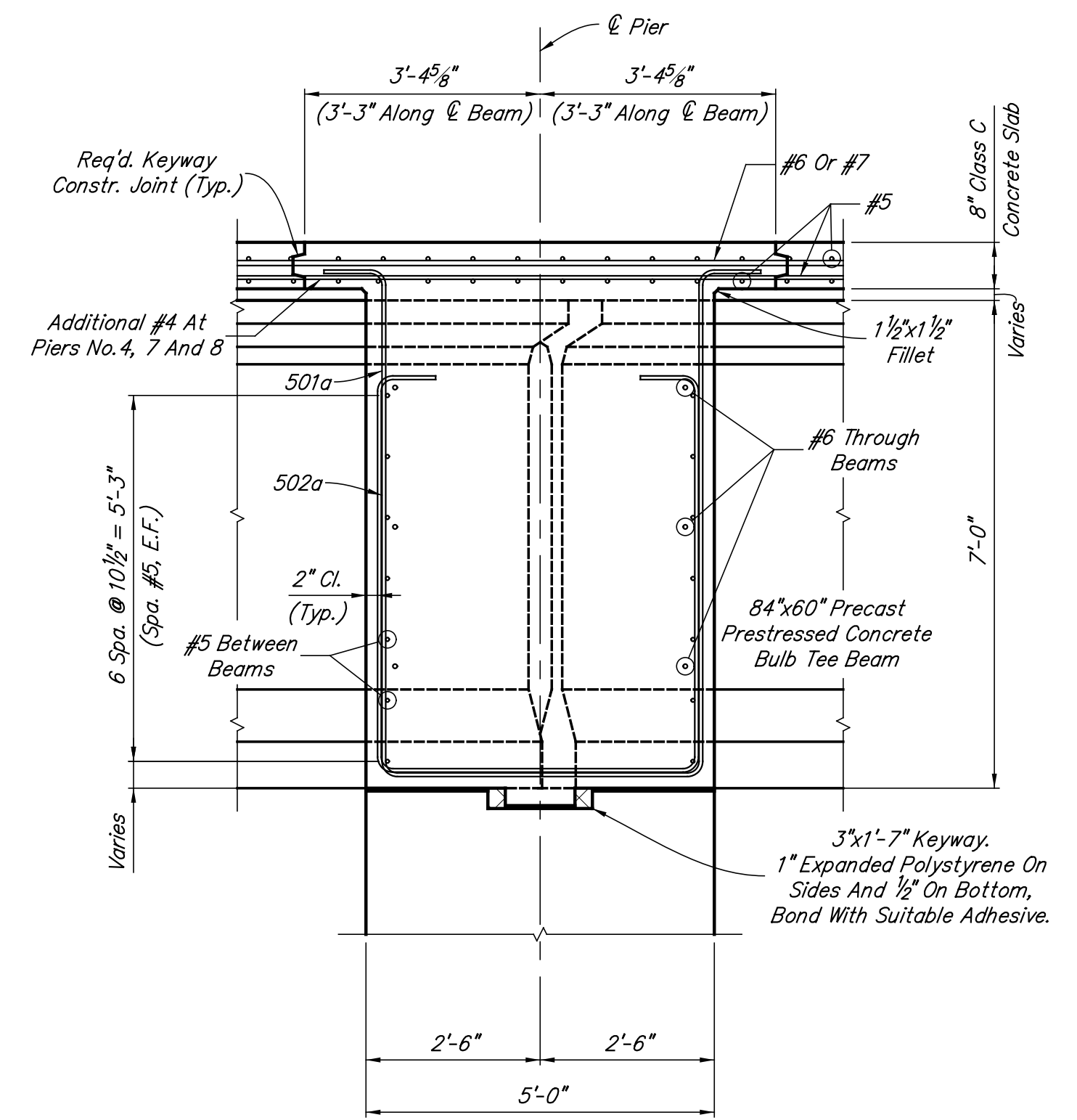
**SECTION A-A**



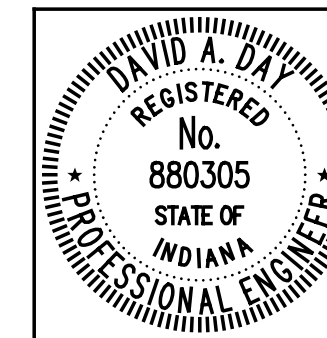
**SECTION B-B**



**SECTION C-C**



**SECTION D-D**

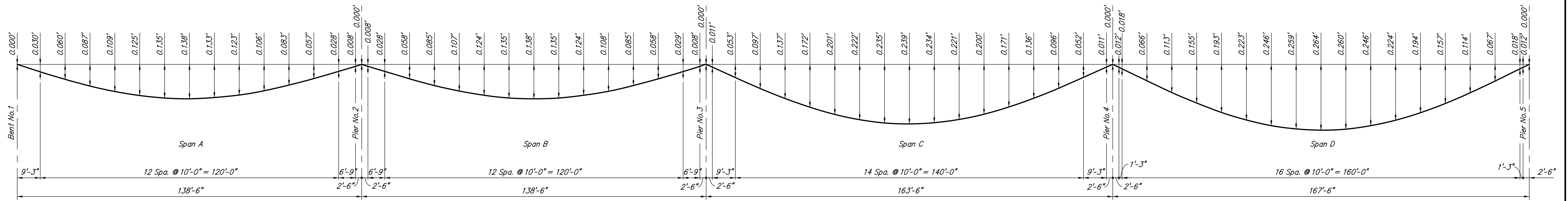


RECOMMENDED FOR APPROVAL	<i>David B. Day</i>	6/1/2012
DESIGNED:	DZ	DRAWN:
CHECKED:	RMC	CHECKED:
		DAD

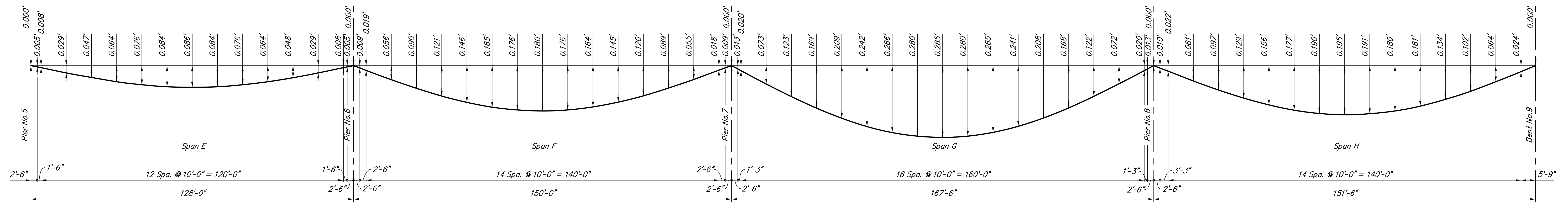
INDIANA  
DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS**

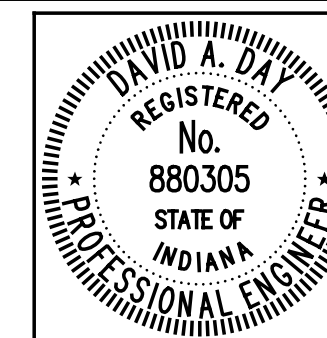
HORIZONTAL SCALE	BRIDGE FILE
1/2" = 1'-0"	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
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**CONCRETE DEAD LOAD DEFLECTIONS (In Feet)**



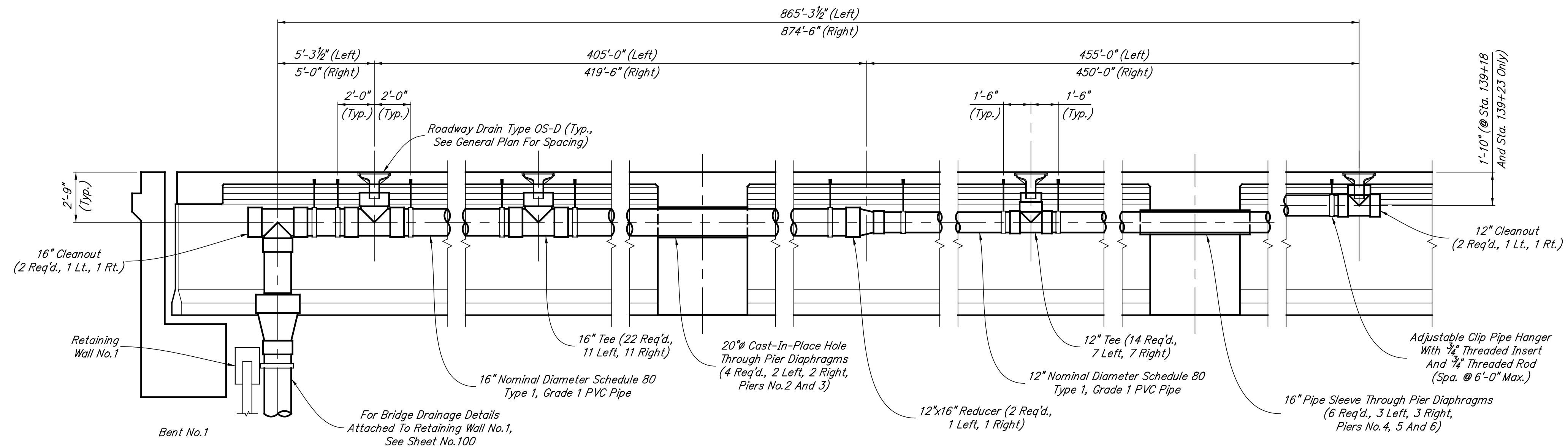
**CONCRETE DEAD LOAD DEFLECTIONS (In Feet)**



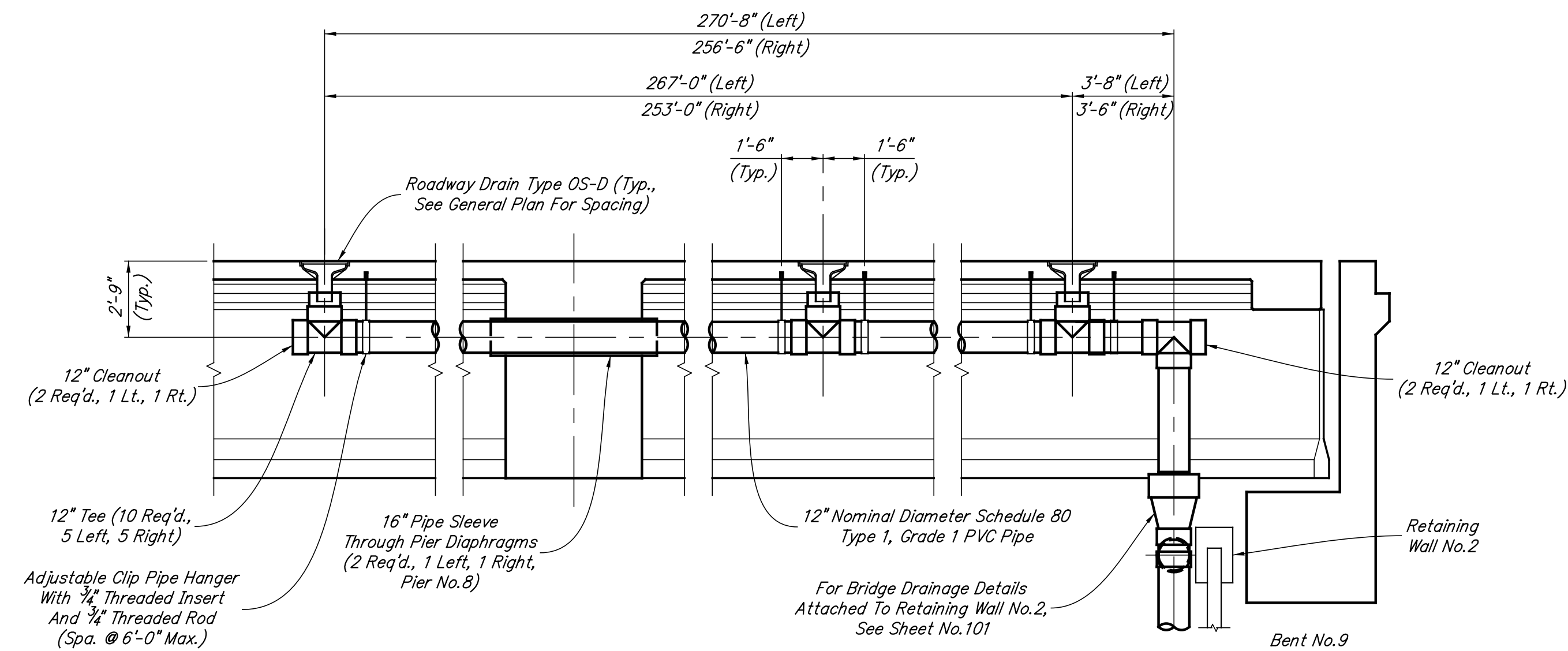
RECOMMENDED FOR APPROVAL *David A. Day* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: DZ DRAWN: DSH  
 CHECKED: RMC CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**SUPERSTRUCTURE DETAILS**

HORIZONTAL SCALE NONE	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
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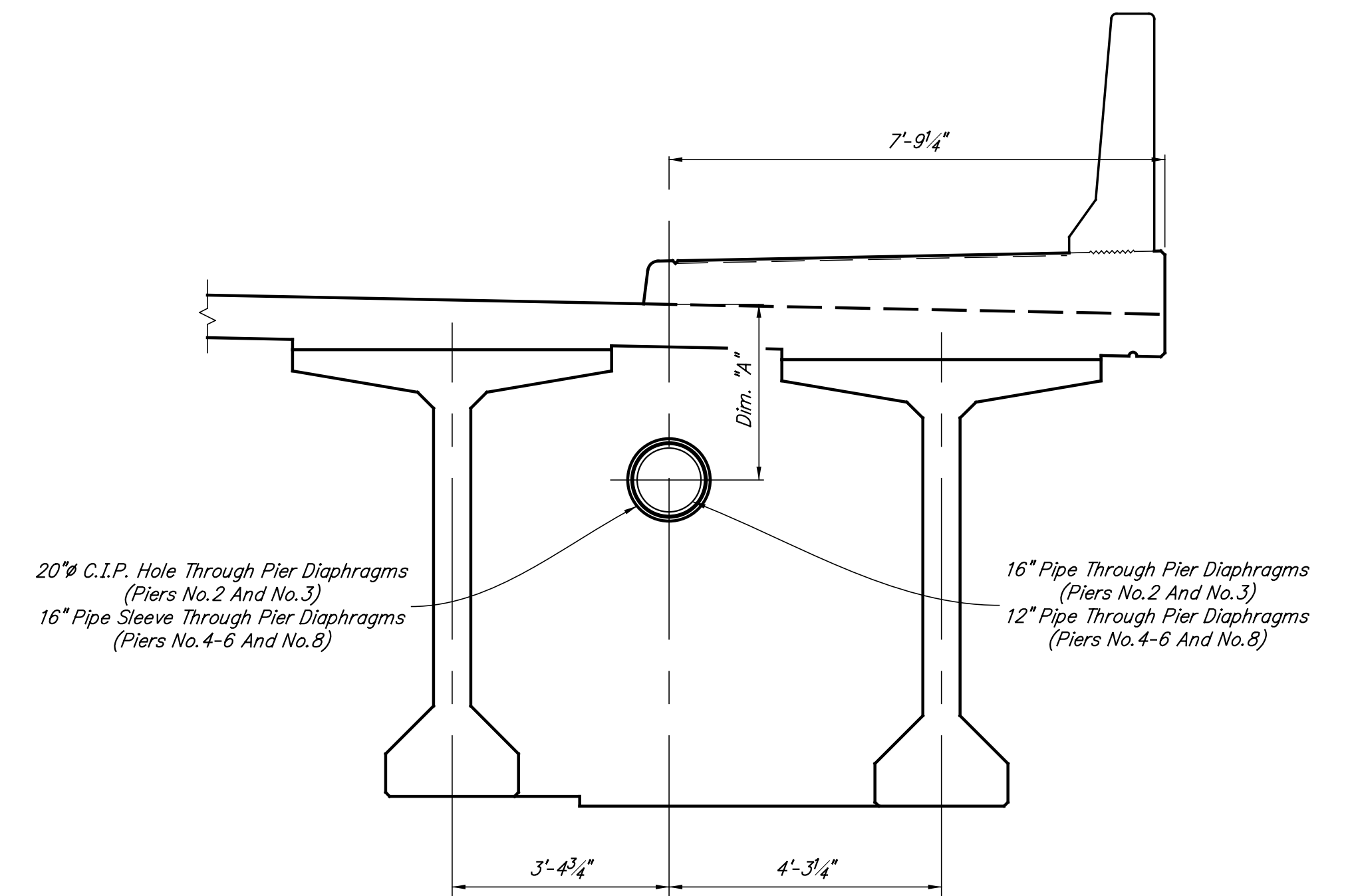


**BRIDGE DRAINAGE LONGITUDINAL SECTION - SPANS "A"-"F"**



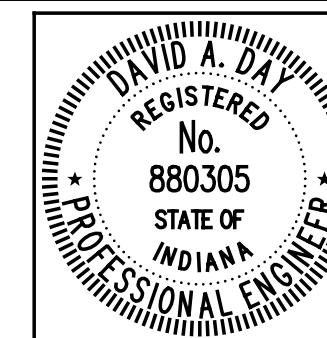
**BRIDGE DRAINAGE LONGITUDINAL SECTION - SPANS "G" AND "H"**

Location	Dim. "A"
Pier No.2 Left	2'-9"
Pier No.2 Right	2'-9"
Pier No.3 Left	2'-9"
Pier No.3 Right	2'-9"
Pier No.4 Left	2'-9"
Pier No.4 Right	2'-9"
Pier No.5 Left	2'-9"
Pier No.5 Right	2'-9"
Pier No.6 Left	2'-10 1/2"
Pier No.6 Right	2'-10 1/2"
Pier No.8 Left	2'-9"
Pier No.8 Right	2'-9"



**PIER DIAPHRAGM DETAIL**

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



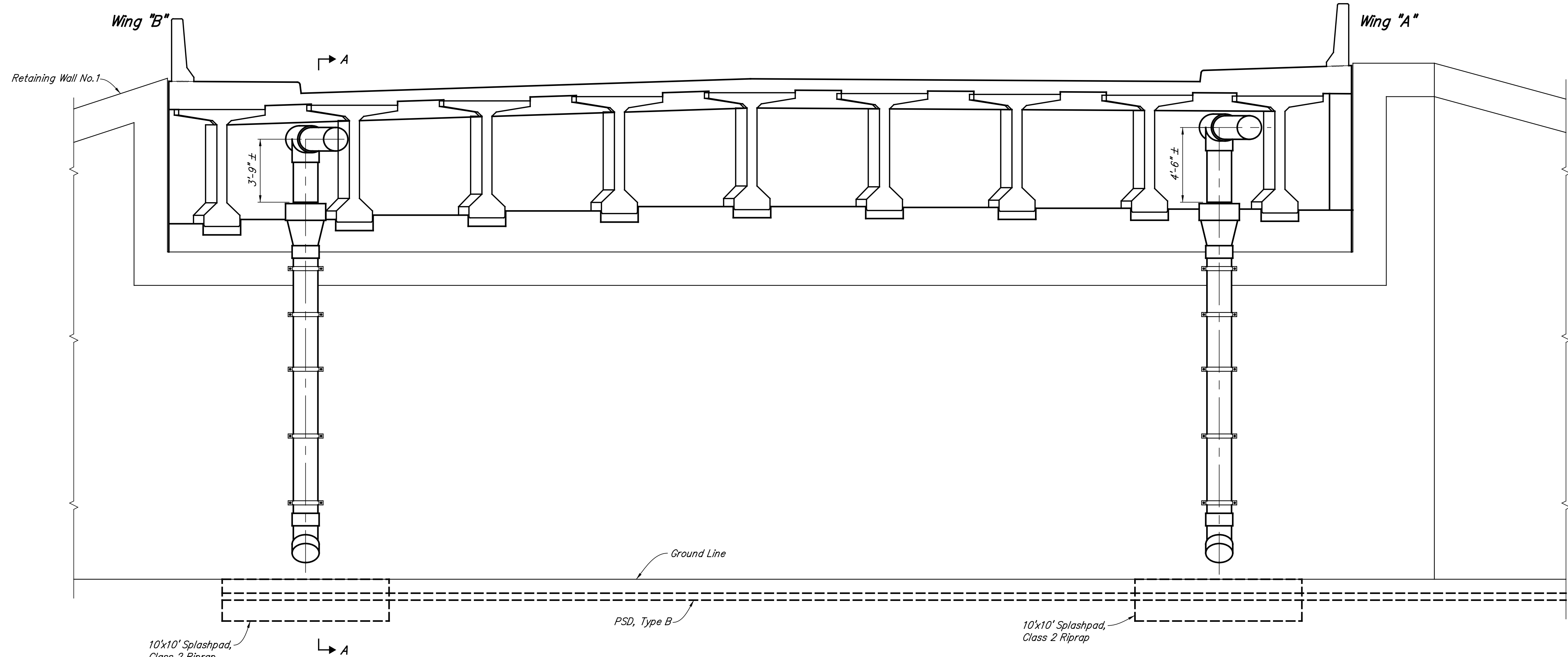
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: AMK/NRM DRAWN: DSH  
CHECKED: RMC/DAD CHECKED: DAD

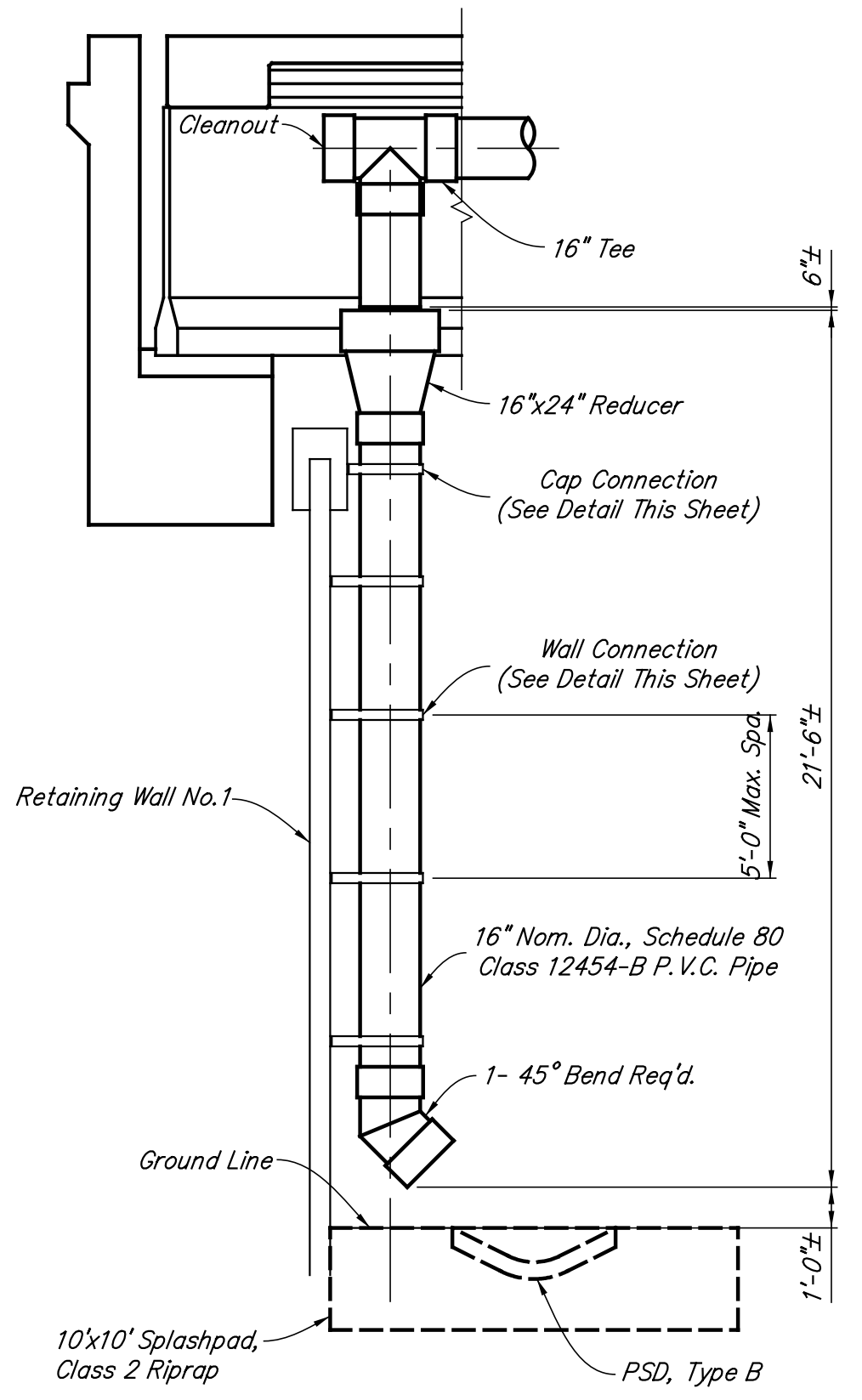
INDIANA  
DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS**

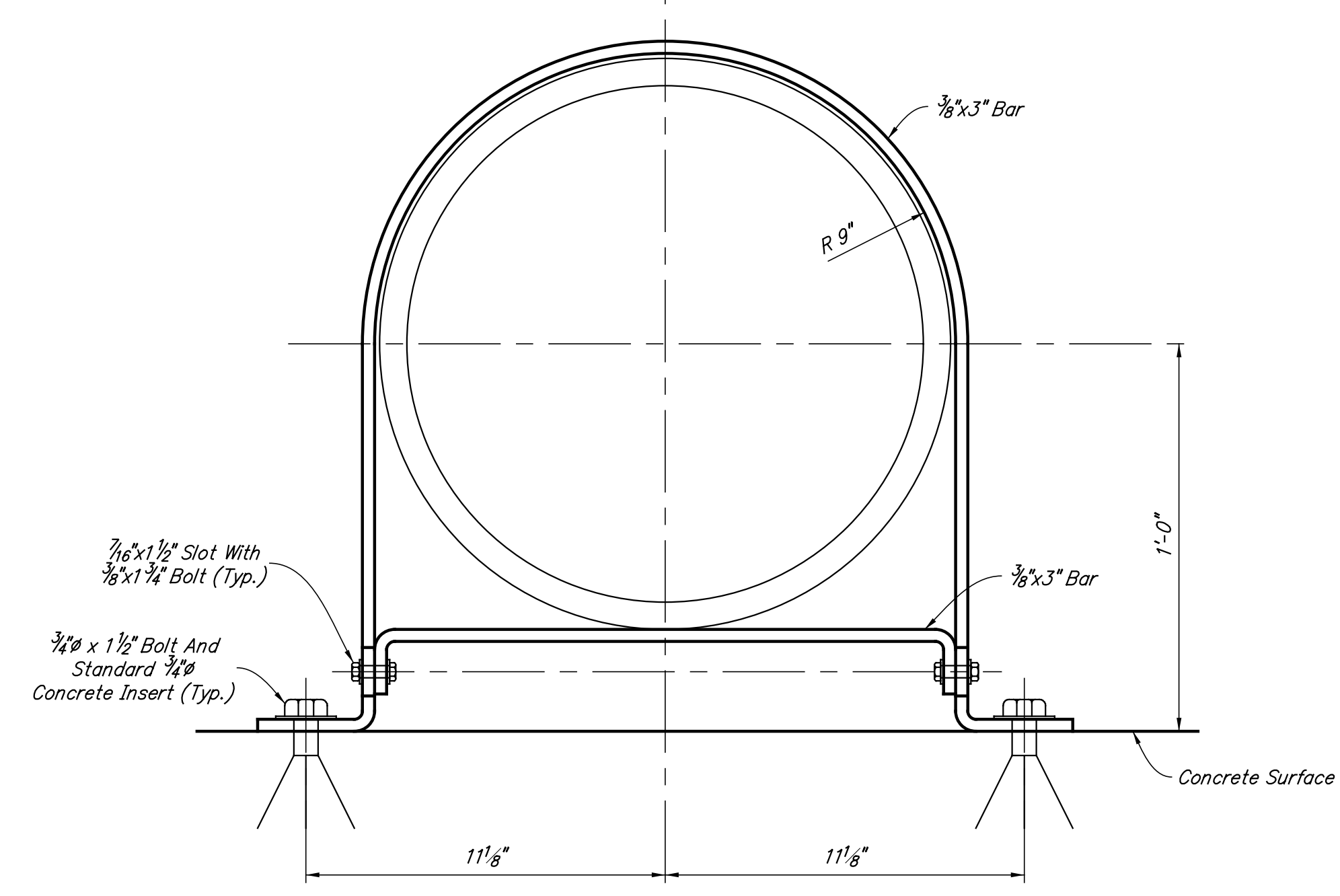
HORIZONTAL SCALE 1/4" = 1'-0", U.N.	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 99 of 147
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**ELEVATION AT BENT NO. 1**

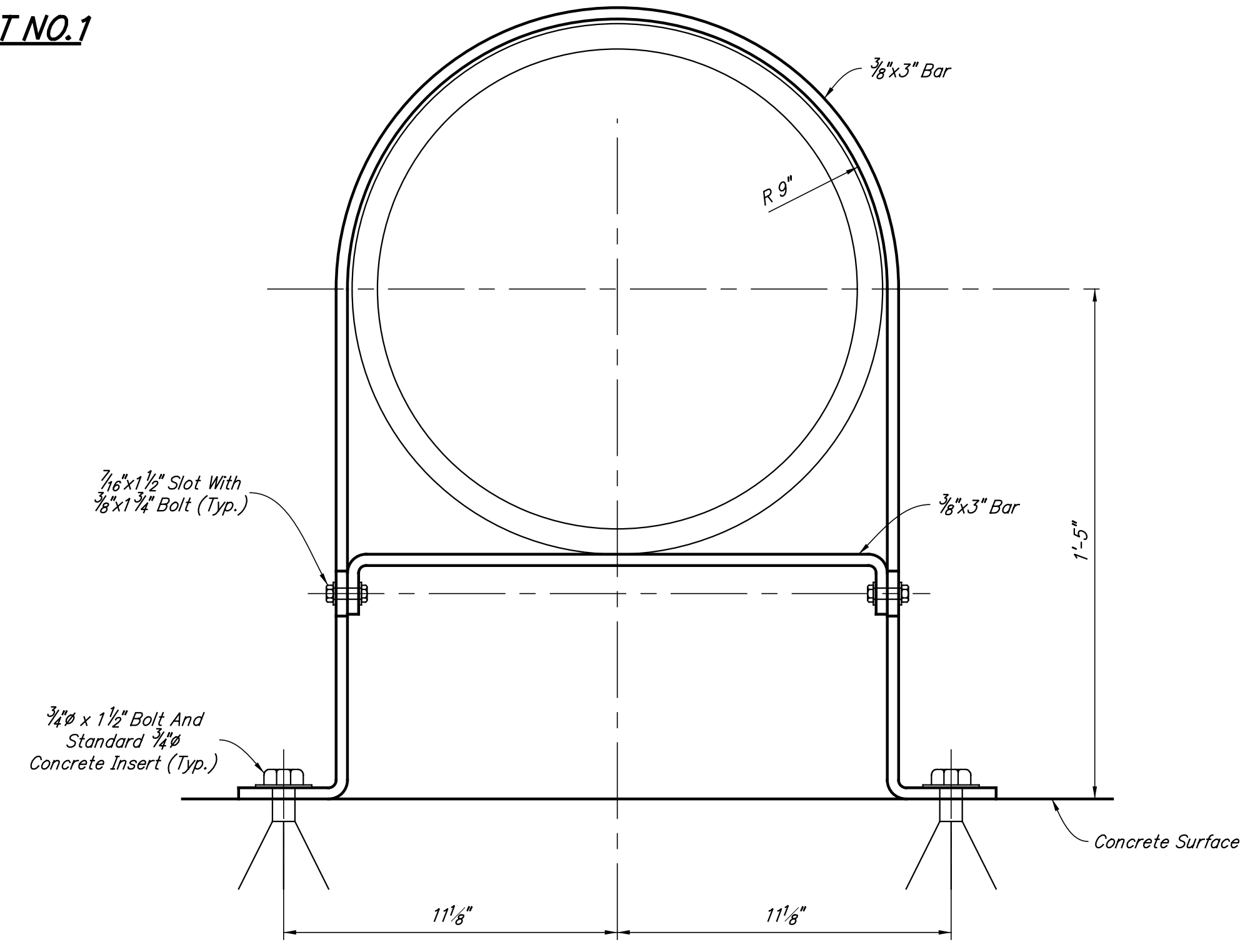


**SECTION A-A**



**CAP CONNECTION DETAIL**

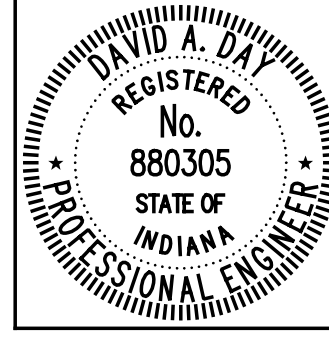
Scale: 3" = 1'-0"



**WALL CONNECTION DETAIL**

Scale: 3" = 1'-0"

**NOTES:**  
The cost of hangers, straps, bolts, concrete inserts, clean-out covers and miscellaneous items to be included in the cost of PVC Pipe.



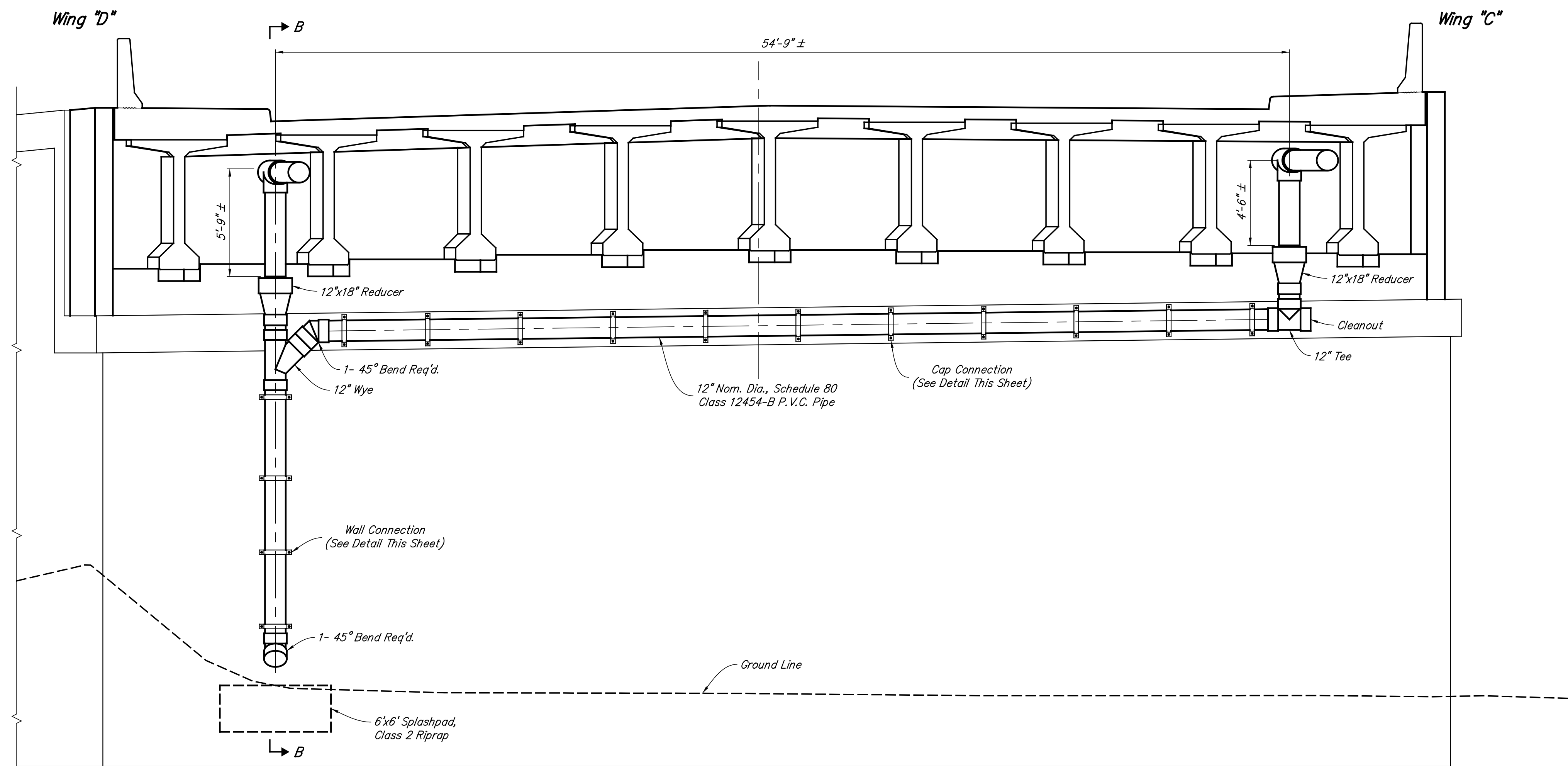
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: AMK/NRM DRAWN: DSH  
CHECKED: RMC/NRM CHECKED: DAD

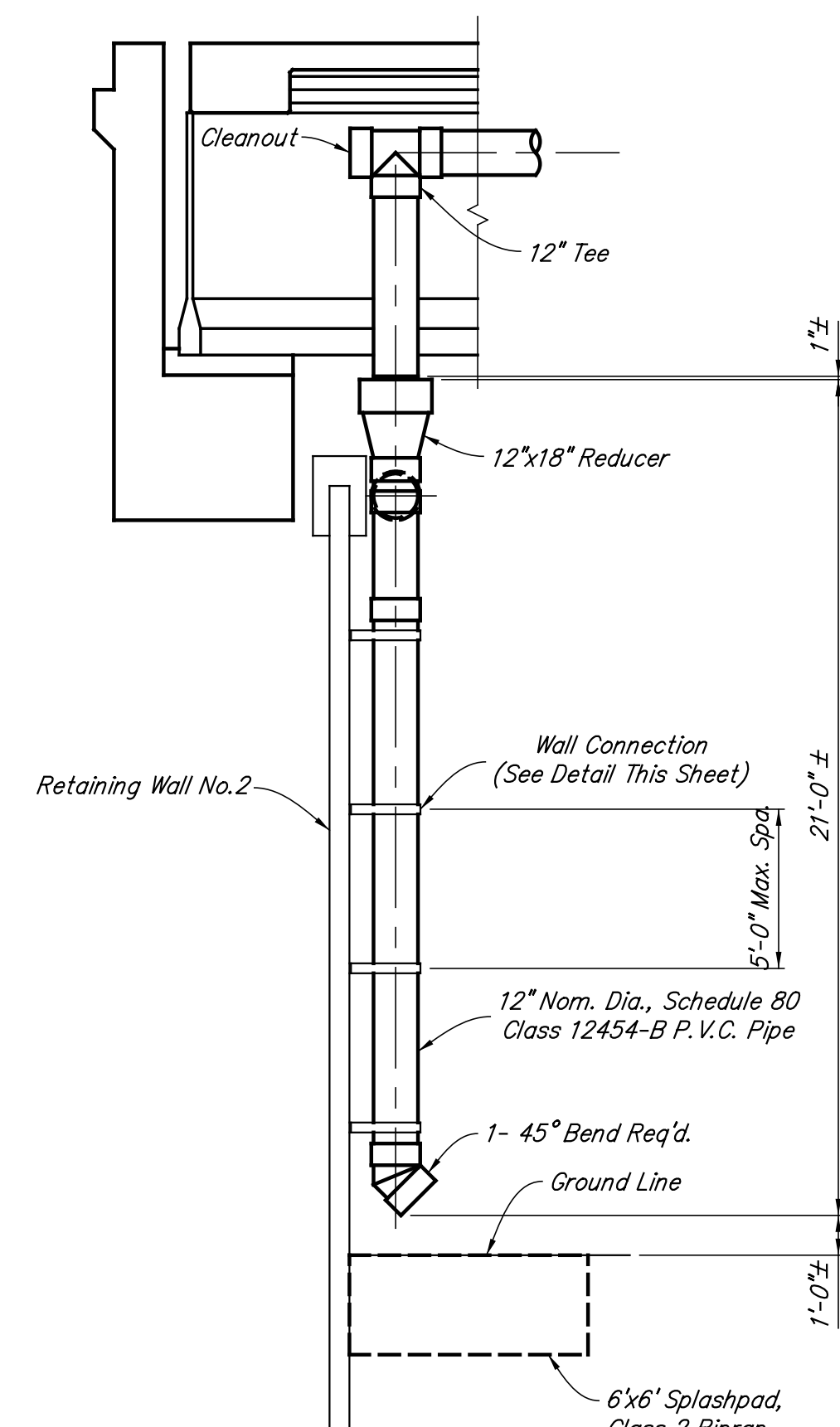
INDIANA DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS**

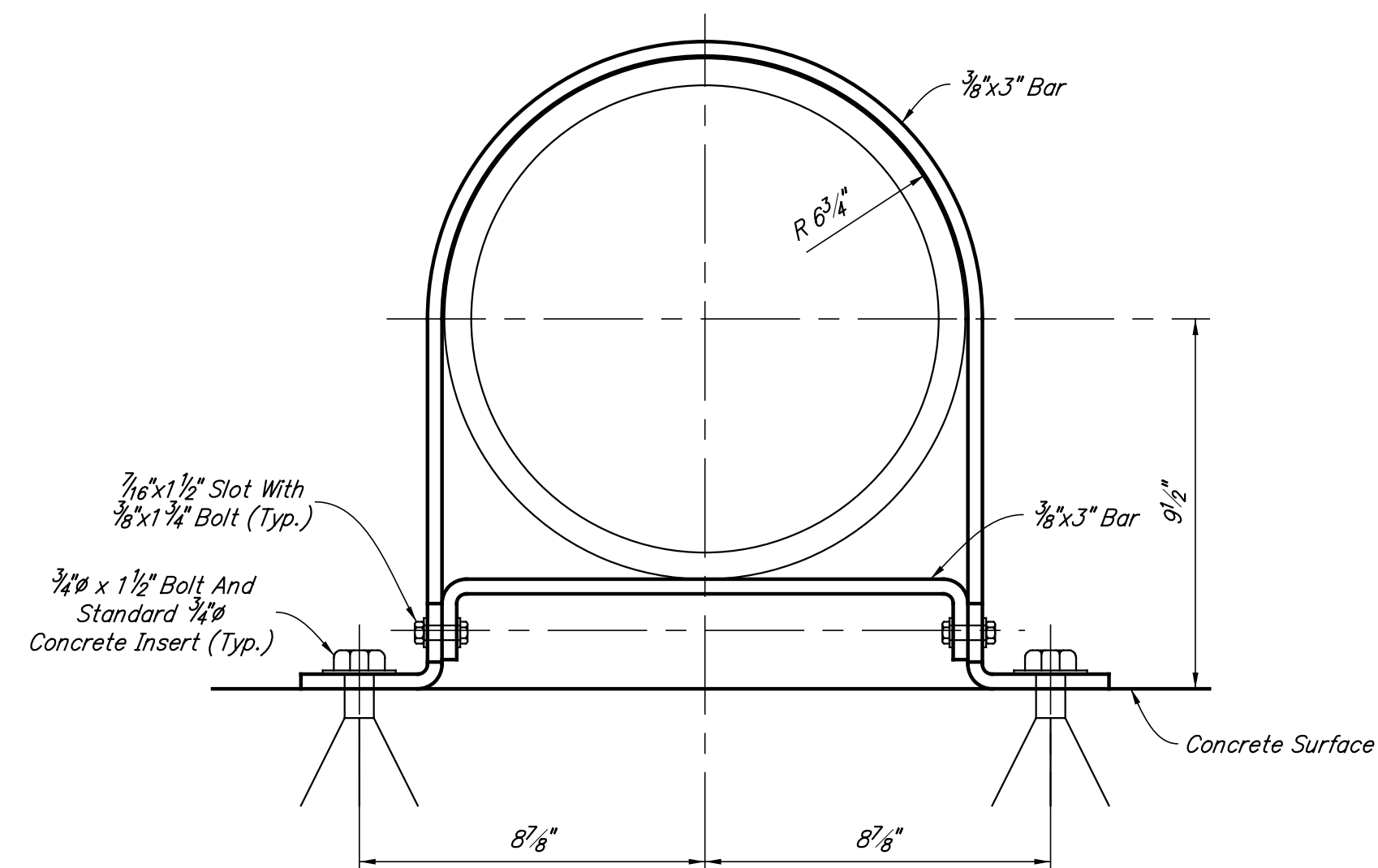
HORIZONTAL SCALE 1/4" = 1'-0", U.N.	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 100 of 147
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**ELEVATION AT BENT NO.9**

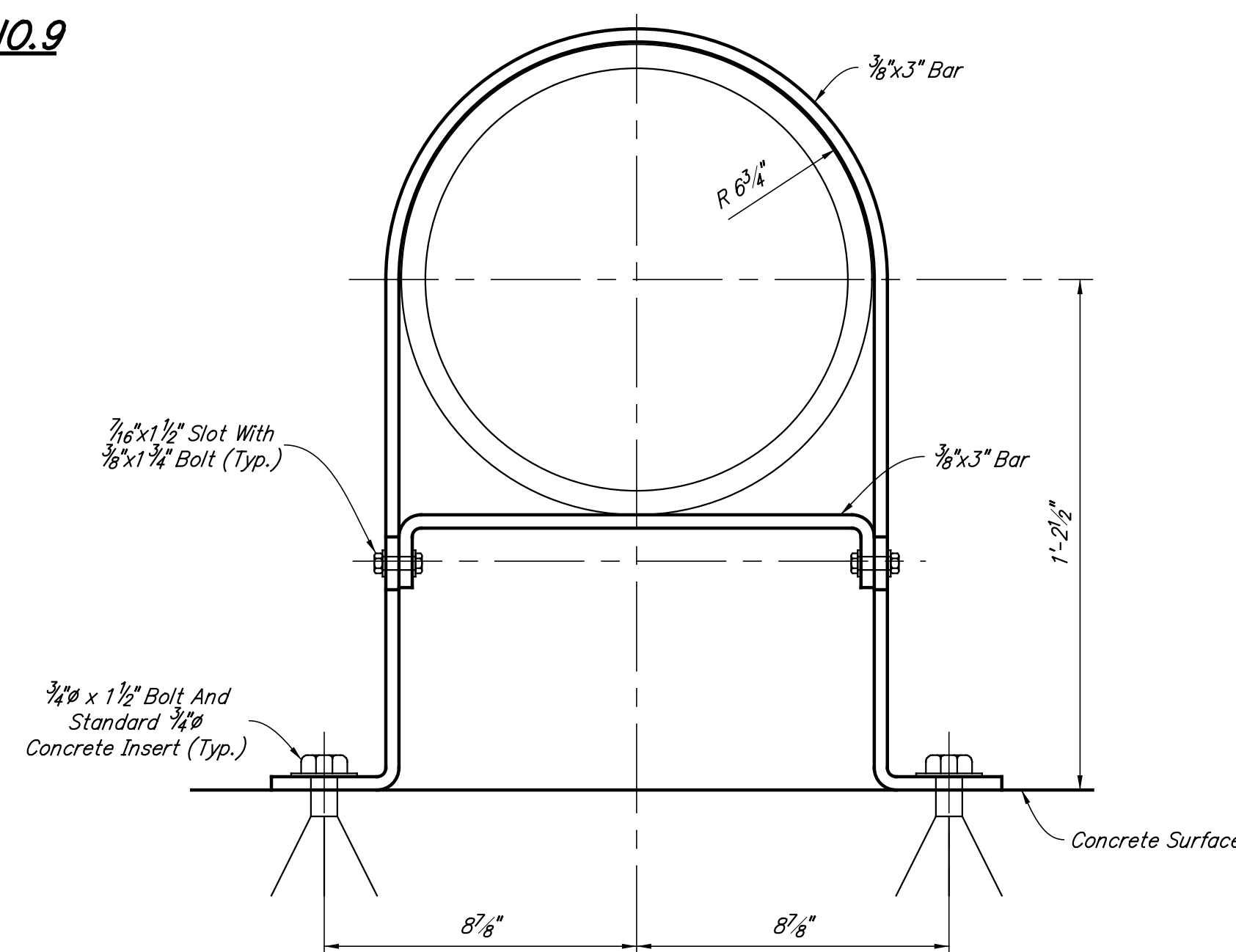


**SECTION B-B**



**CAP CONNECTION DETAIL**

Scale : 3" = 1'-0"

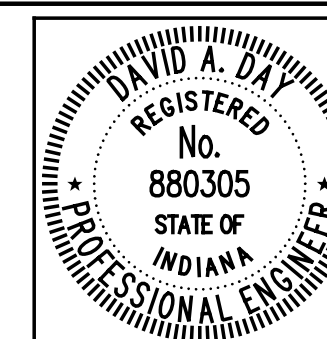


**WALL CONNECTION DETAIL**

Scale : 3" = 1'-0"

**NOTES :**

The cost of hangers, straps, bolts, concrete inserts, clean-out covers and miscellaneous items to be included in the cost of PVC Pipe.



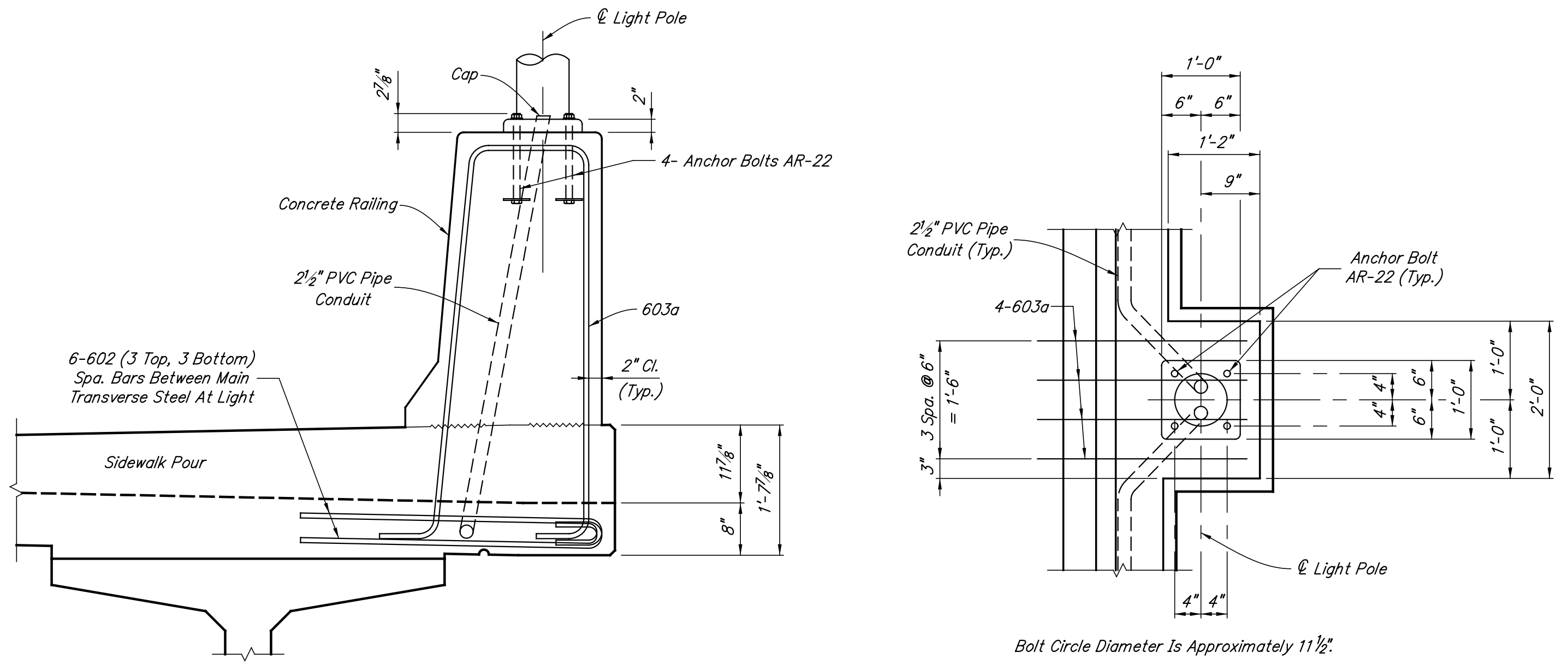
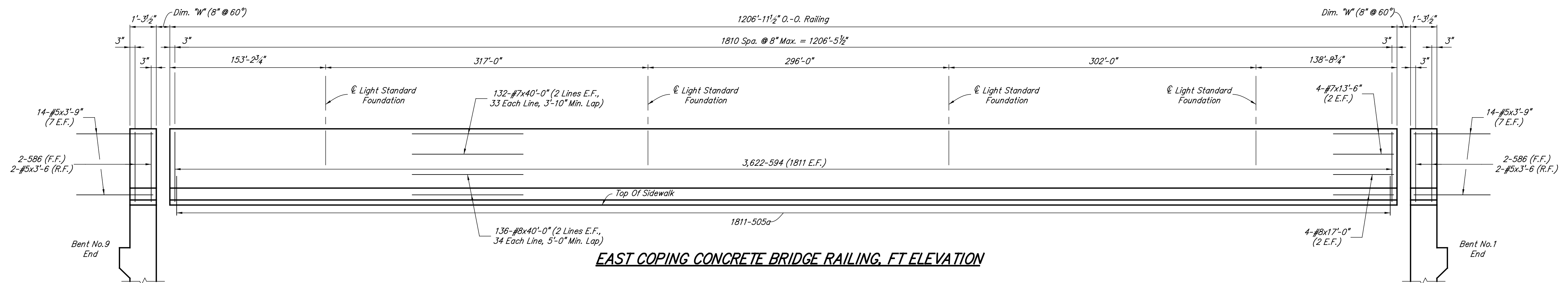
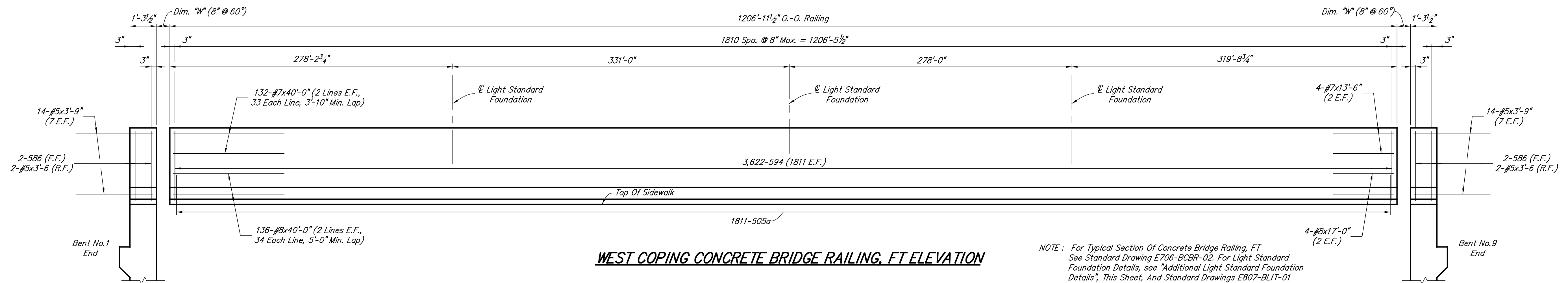
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: AMK/NRM DRAWN: DSH  
CHECKED: RMC/DAD CHECKED: DAD

INDIANA  
DEPARTMENT OF TRANSPORTATION

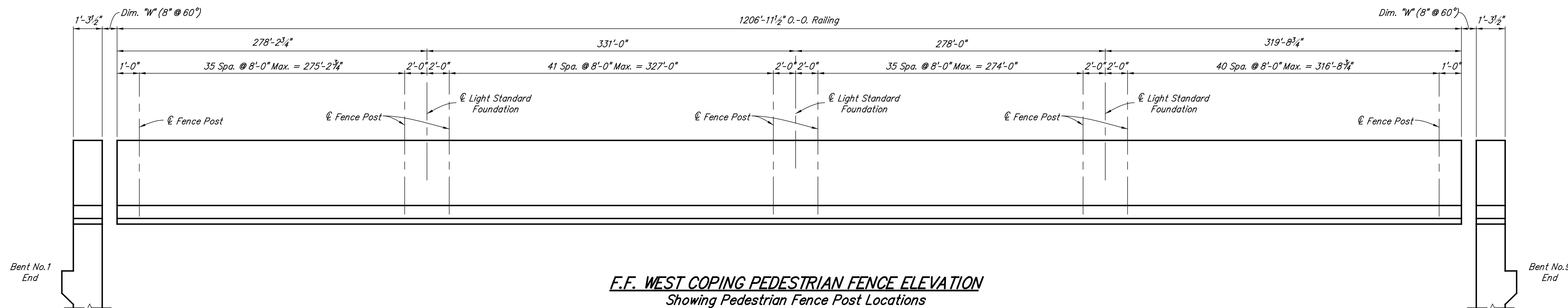
**SUPERSTRUCTURE DETAILS**

HORIZONTAL SCALE 1/4" = 1'-0", U.N.	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
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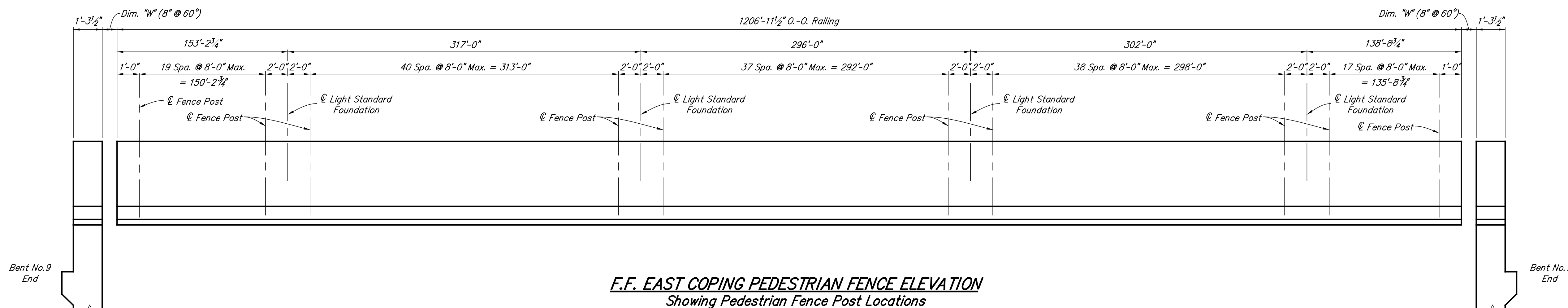


NOTES:  
 For reinforcing bar notes, see Standard Drawing E703-BRST-01.  
 All reinforcing steel to be epoxy coated, unless otherwise noted.

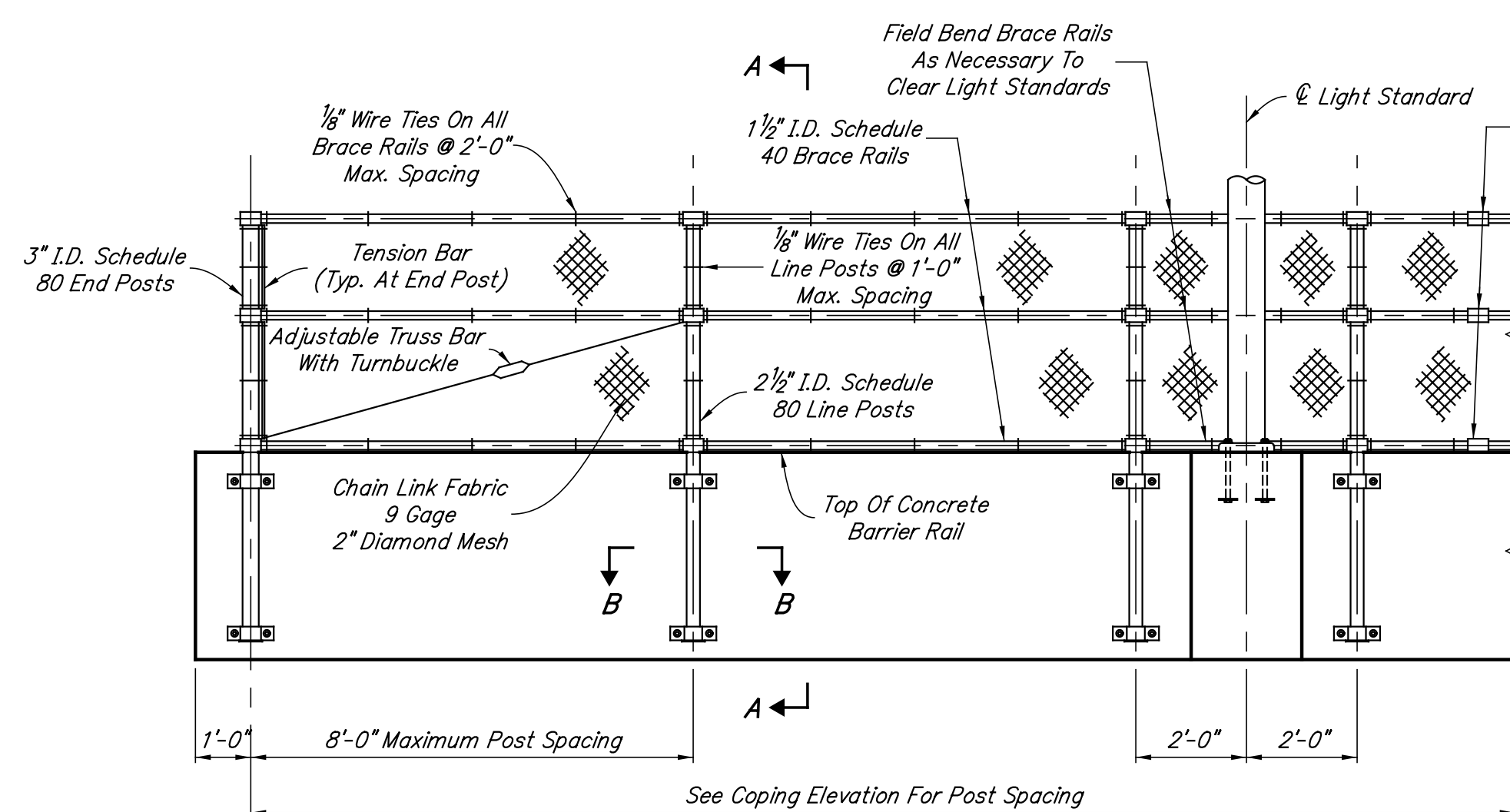
	RECOMMENDED FOR APPROVAL <i>David B. Day</i> DESIGN ENGINEER 6/1/2012 DATE	INDIANA DEPARTMENT OF TRANSPORTATION  SUPERSTRUCTURE DETAILS	HORIZONTAL SCALE NONE, U.N.	BRIDGE FILE 152-45-02730
	DESIGNED: DZ DRAWN: DSH CHECKED: RMC CHECKED: DAD		SURVEY BOOK CONTRACT B-33357	DESIGNATION NO. 0014210



**F.F. WEST COPING PEDESTRIAN FENCE ELEVATION**  
Showing Pedestrian Fence Post Locations

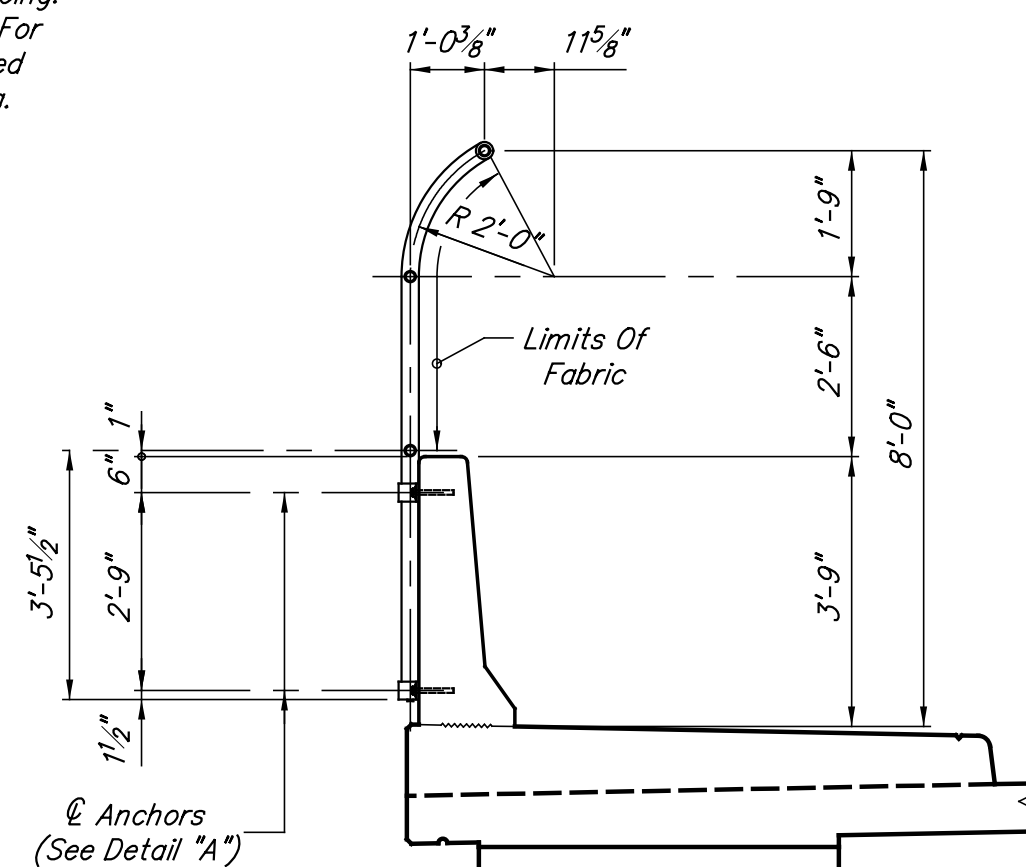


**F.F. EAST COPING PEDESTRIAN FENCE ELEVATION**  
Showing Pedestrian Fence Post Locations

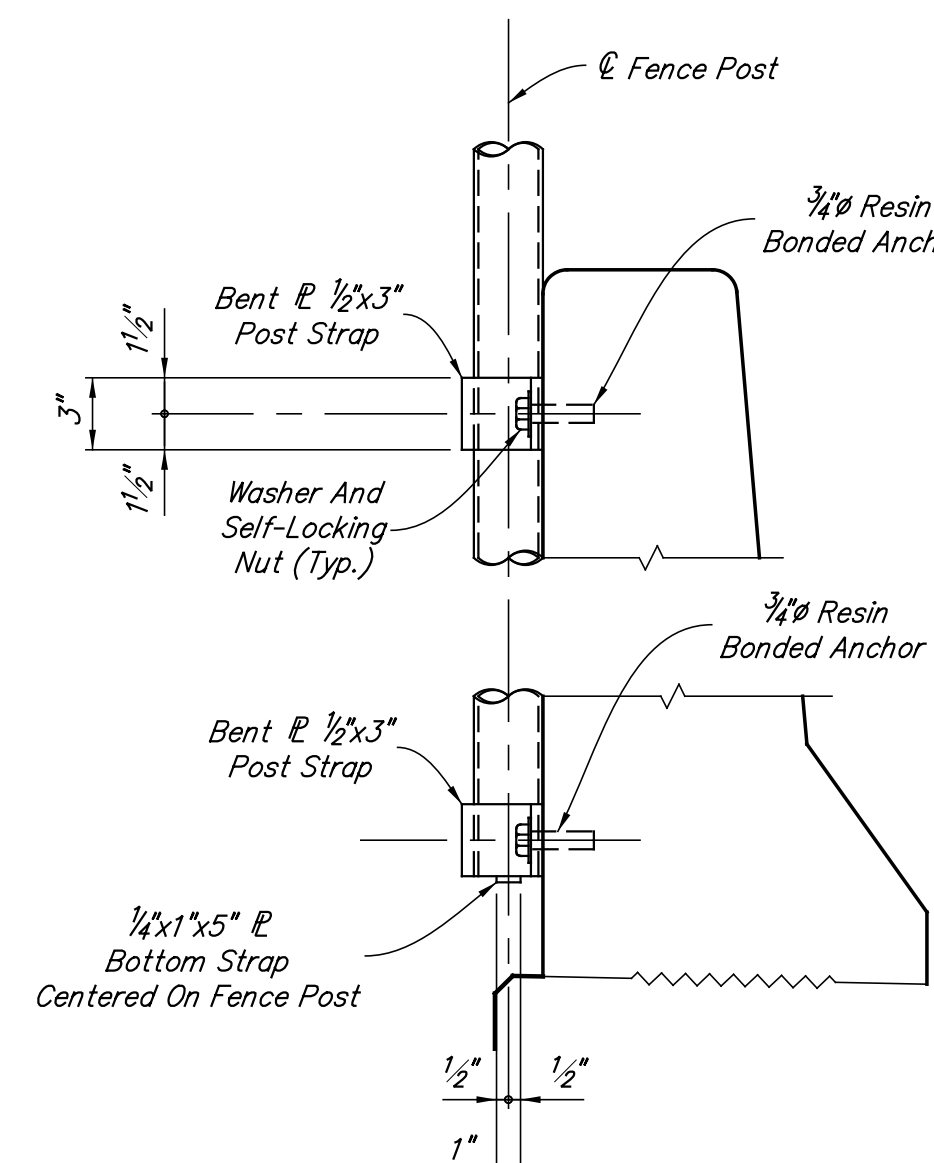


**PEDESTRIAN FENCE TYPICAL ELEVATION**  
Scale: 3/4\"/>

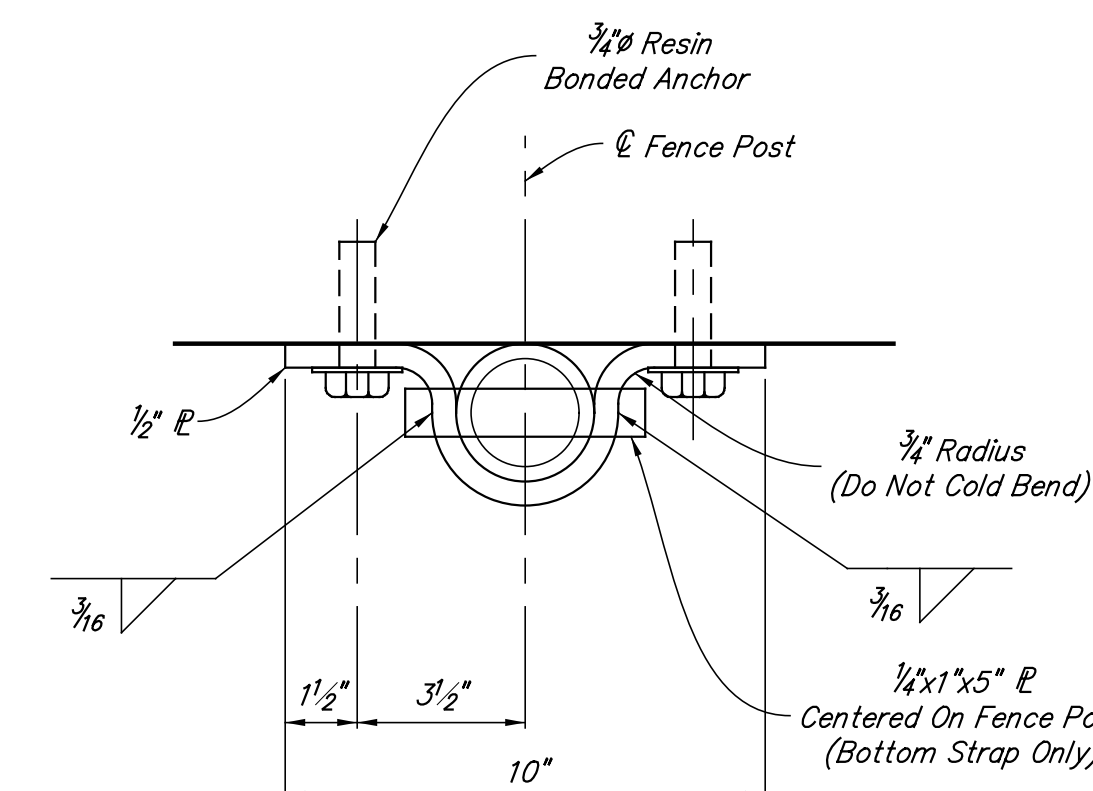
Outside Sleeve Type Coupling  
@ 27'-0\"/>



**SECTION A-A**  
Scale: 3/4\"/>

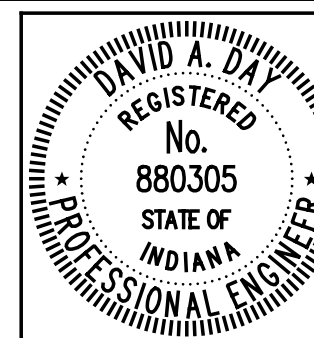


**DETAIL A-A**  
Scale: 1 1/2\"/>



**SECTION B-B**  
Scale: 3\"/>

NOTES:  
As an alternate to Resin Bonded Anchor use  
2- 1/2\"/>

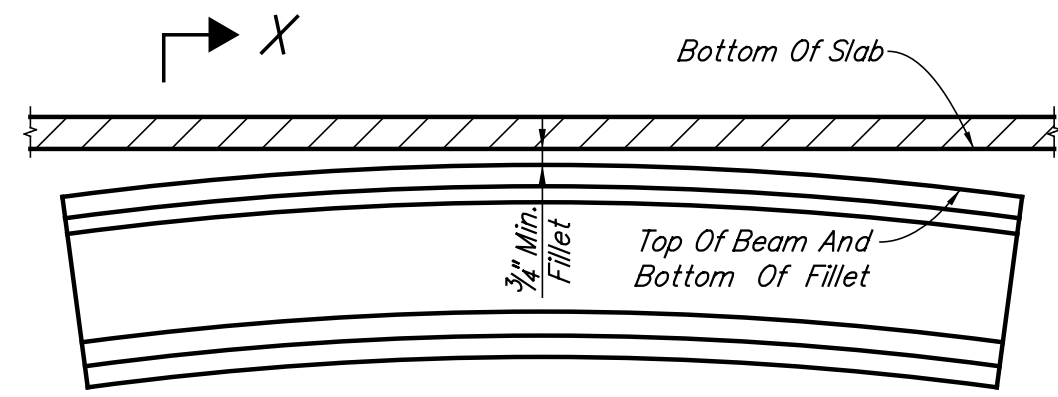


RECOMMENDED FOR APPROVAL: *David B. Day* 6/1/2012 DATE  
DESIGNED: DSH DRAWN: DSH  
CHECKED: DAD CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION

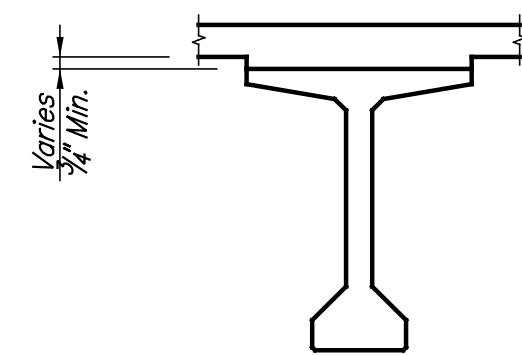
SUPERSTRUCTURE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
NONE, U.N.	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
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CONTRACT	PROJECT NO.
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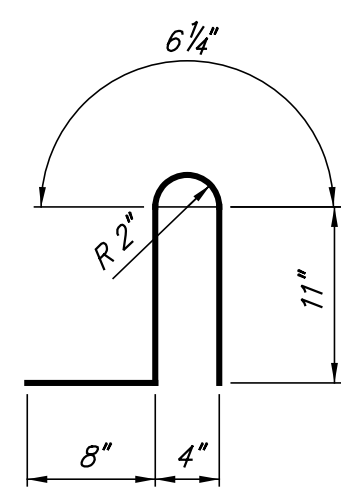


**ELEVATION**  
No Scale

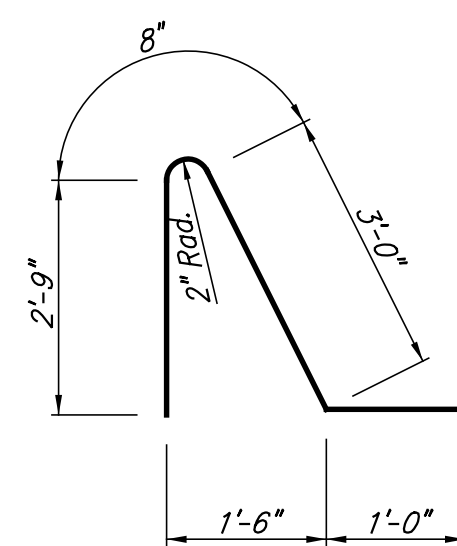
NOTE :  
Bridge Seat Elevations were calculated using design camber and dead load deflection of slab (Residual Beam Camber) with top of beam at a minimum of 3/4" below the bottom of slab elevation at centerline of span.



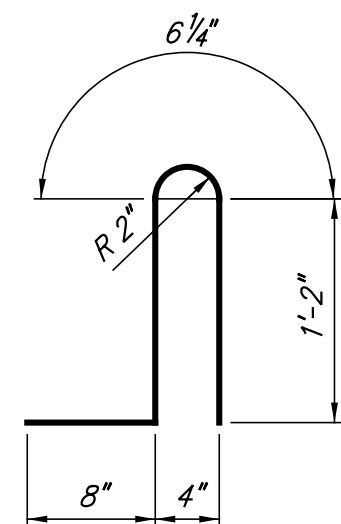
**SECTION X-X**  
No Scale



401a x 3'-0"

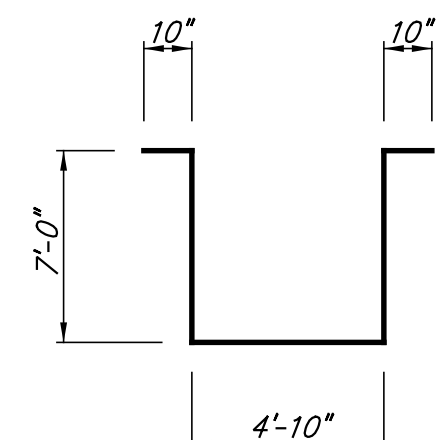


505a x 7'-5"

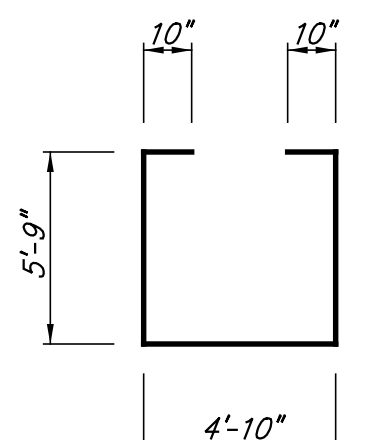


402a x 3'-6"

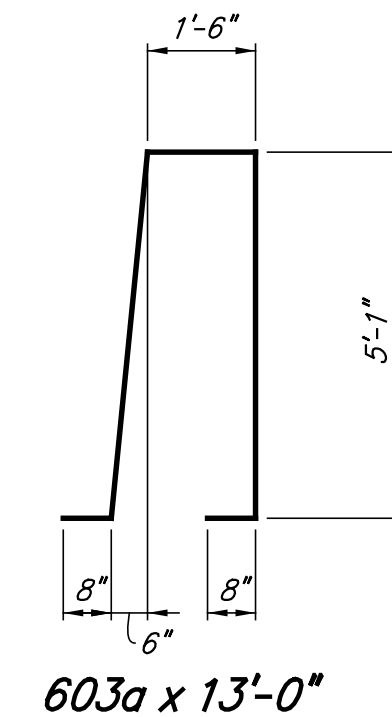
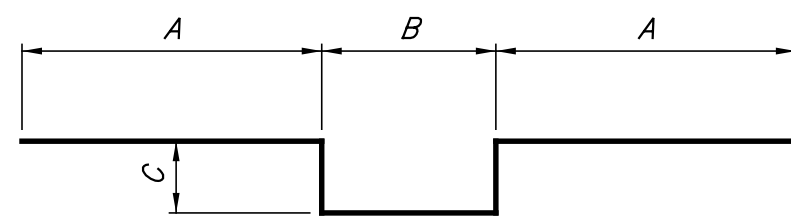
Mark	A	Length
503a	36'-6"	37'-1"
504a	7'-9"	8'-4"
594	3'-5"	4'-0"
602	3'-10"	4'-8"



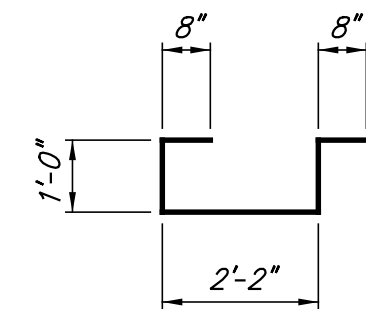
501a x 20'-6"



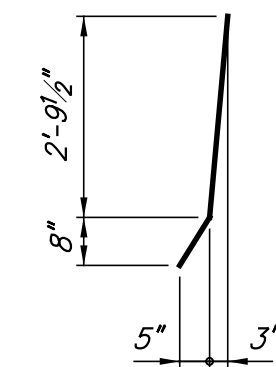
502a x 18'-0"



603a x 13'-0"



403a x 5'-6"



586 x 3'-7"

Mark	A	B	C	Length
404a	8"	4'-10"	7"	7'-4"
405a	8"	4'-10"	9"	7'-8"
406a	8"	4'-10"	6"	7'-2"
601a	4'-2"	2'-5"	1'-0"	12'-9"

**SUPERSTRUCTURE  
BILL OF MATERIALS**

Epoxy Coated Reinforcing Steel			
Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)
#8	272	40'-0"	
#8	8	17'-0"	
#8	63	2'-0"	
Total No. 8			29750
#7	102	40'-6"	
#7	2124	40'-0"	
#7	104	32'-9"	
#7	104	27'-0"	
#7	102	23'-9"	
#7	102	21'-6"	
#7	104	21'-3"	
#7	104	19'-0"	
#7	104	15'-9"	
#7	8	13'-6"	
#7	204	13'-0"	
#7	102	12'-0"	
#7	104	10'-6"	
#7	102	9'-3"	
Total No. 7			228446
601a	32	12'-9"	
602	42	4'-8"	
603a	28	13'-0"	
#6	208	40'-6"	
#6	16	37'-3"	
#6	294	6'-0"	
Total No. 6			17652
501a	168	20'-6"	
502a	224	18'-0"	
503a	3628	37'-1"	
504a	3628	8'-4"	
505a	3622	7'-5"	
586	8	3'-7"	
594	7244	4'-0"	
#5	5718	40'-0"	
#5	1814	33'-0"	
#5	122	10'-6"	
#5	784	5'-3"	
#5	56	3'-9"	
#5	8	3'-6"	
Total No. 5			544793
401a	3628	3'-0"	
402a	3628	3'-6"	
403a	64	5'-6"	
404a	3024	7'-4"	
405a	1665	7'-8"	
406a	2475	7'-2"	
#4	208	40'-6"	
#4	1368	40'-0"	
#4	104	35'-6"	
#4	104	30'-9"	
#4	104	27'-3"	
#4	102	26'-0"	
#4	104	24'-0"	
#4	36	23'-9"	
#4	102	23'-0"	
#4	208	21'-6"	
#4	138	19'-6"	
#4	104	14'-9"	
#4	36	11'-6"	
#4	36	7'-9"	
#4	104	7'-0"	
#4	32	6'-6"	
#4	36	6'-0"	
#4	64	2'-0"	
Total No. 4			112558
Total Epoxy Coated Reinforcing Steel			933199

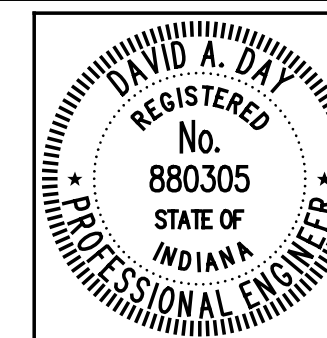
**SUPERSTRUCTURE  
BILL OF MATERIALS (CONTD.)**

Concrete	
Class "C" in Superstructure	
Pour No. 1	152.5 Cys.
Pour No. 2	160.3 Cys.
Pour No. 3	151.8 Cys.
Pour No. 4	157.3 Cys.
Pour No. 5	119.7 Cys.
Pour No. 6	154.5 Cys.
Pour No. 7	179.1 Cys.
Pour No. 8	158.8 Cys.
Pour No. 9	44.5 Cys.
Pour No. 10	44.5 Cys.
Pour No. 11	44.5 Cys.
Pour No. 12	44.5 Cys.
Pour No. 13	44.5 Cys.
Pour No. 14	44.5 Cys.
Pour No. 15	44.5 Cys.
Pour No. 16	152.5 Cys.
Pour No. 17	160.3 Cys.
Pour No. 18	151.8 Cys.
Pour No. 19	157.3 Cys.
Pour No. 20	119.7 Cys.
Pour No. 21	154.5 Cys.
Pour No. 22	179.1 Cys.
Pour No. 23	158.9 Cys.
Pour No. 24	44.5 Cys.
Pour No. 25	44.5 Cys.
Pour No. 26	44.5 Cys.
Pour No. 27	44.5 Cys.
Pour No. 28	44.5 Cys.
Pour No. 29	44.5 Cys.
Pour No. 30	44.5 Cys.
Pour No. 31	304.7 Cys.
Pour No. 32	304.8 Cys.
Total Class "C" in Superstructure	3,700.6 Cys.
Railing, Concrete, FT	2,420.0 Lft.
Miscellaneous	
Surface Seal	107690 Sft.
Modular Joint (Total Movement 3.5")	142 Lft.
Concrete Structural Members	10832 Lft.
Structural Steel, Interior Diaphragms	35072 Lbs.
Bridge Railing, Pedestrian Fence	2406 Lft.
42-Standard Roadway Drain Type OS	
With Grate D.322 Lbs. Each	13524 Lbs.
12" Dia. PVC Pipe	1648 Lft.
16" Dia. PVC Pipe	1055 Lft.
18" Dia. PVC Pipe	6 Lft.
24" Dia. PVC Pipe	6 Lft.

NOTES :

For reinforcing bar notes, see Standard Drawing E703-BRST-01.

All reinforcing steel to be epoxy coated, unless otherwise noted.



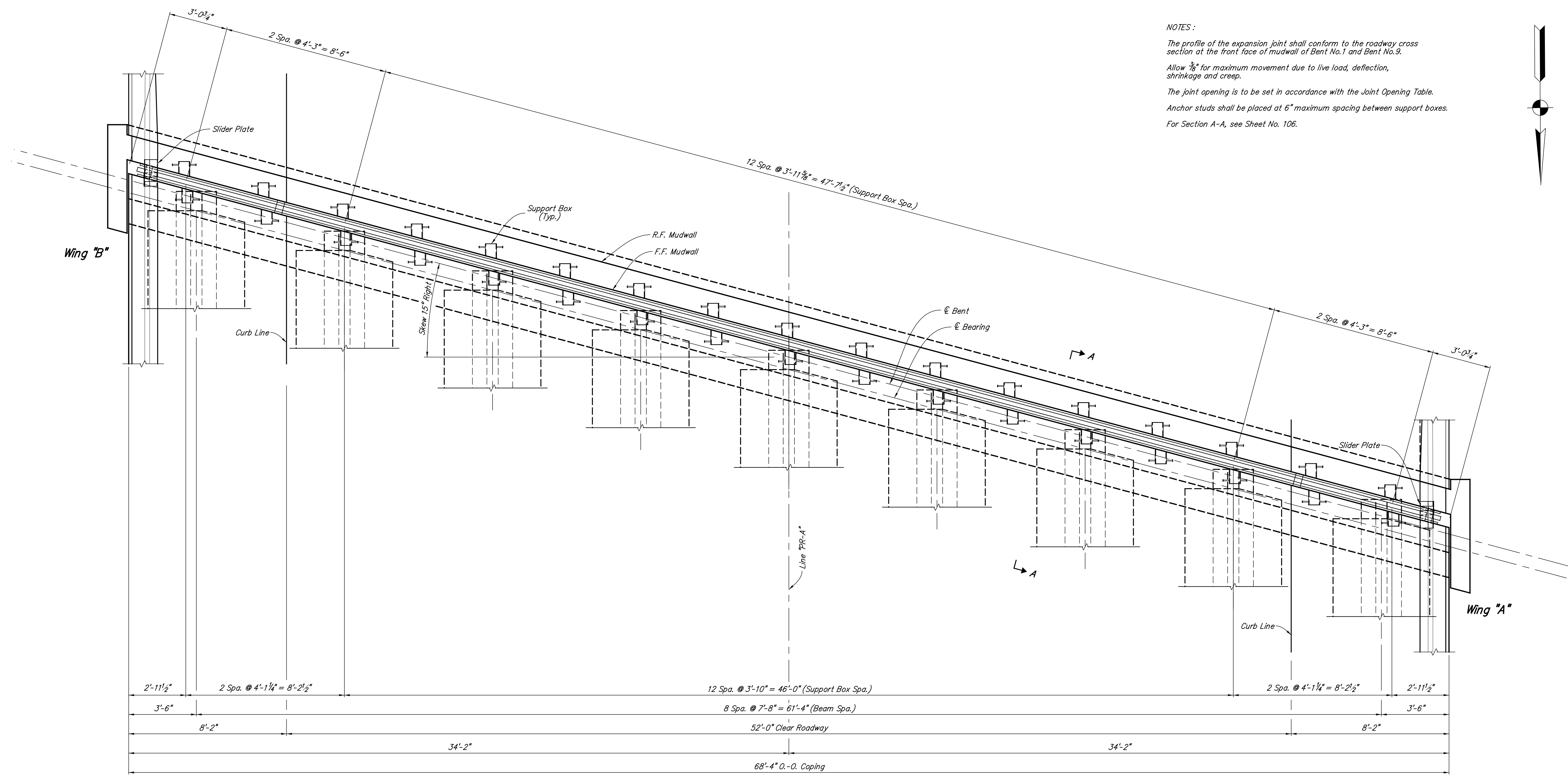
RECOMMENDED FOR APPROVAL *David B. Day* 6/1/2012  
DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: DSH  
CHECKED: RMC CHECKED: DAD

INDIANA  
DEPARTMENT OF TRANSPORTATION  
**SUPERSTRUCTURE DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
NONE	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
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B-33357	N881008





NOTES:

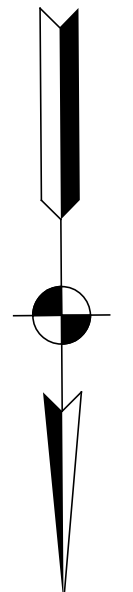
The profile of the expansion joint shall conform to the roadway cross section at the front face of mudwall of Bent No.1 and Bent No.9.

Allow  $\frac{3}{8}$ " for maximum movement due to live load, deflection, shrinkage and creep.

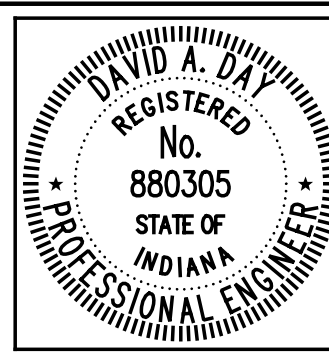
The joint opening is to be set in accordance with the Joint Opening Table.

Anchor studs shall be placed at 6" maximum spacing between support boxes.

For Section A-A, see Sheet No. 106.



**PLAN AT BENT NO.1**  
 Plan At Bent No.9 Same By 180° Rotation



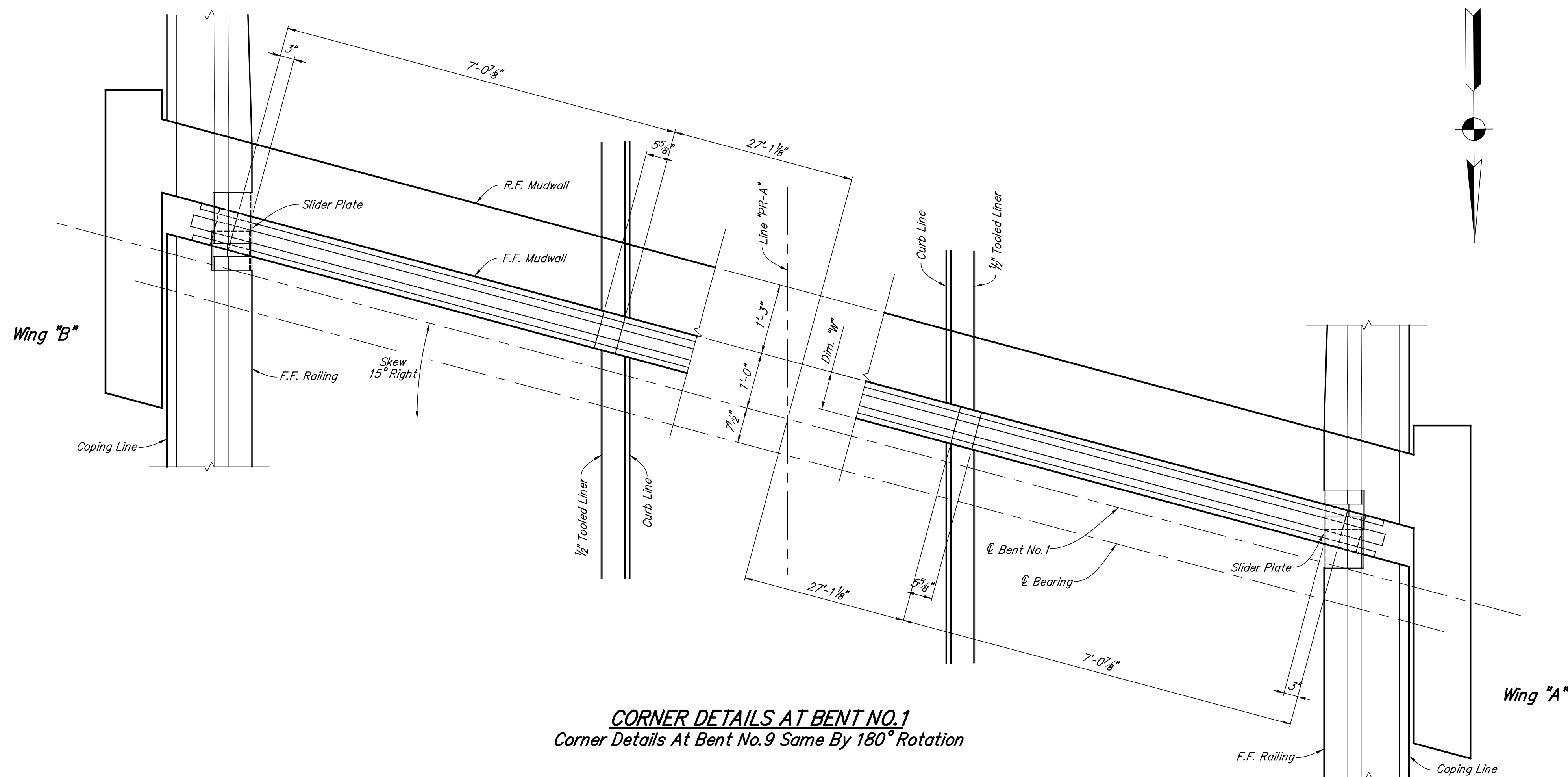
RECOMMENDED FOR APPROVAL: *David B. Day* 6/1/2012  
 DESIGN ENGINEER DATE

DESIGNED: DZ DRAWN: DSH  
 CHECKED: DAD CHECKED: DAD

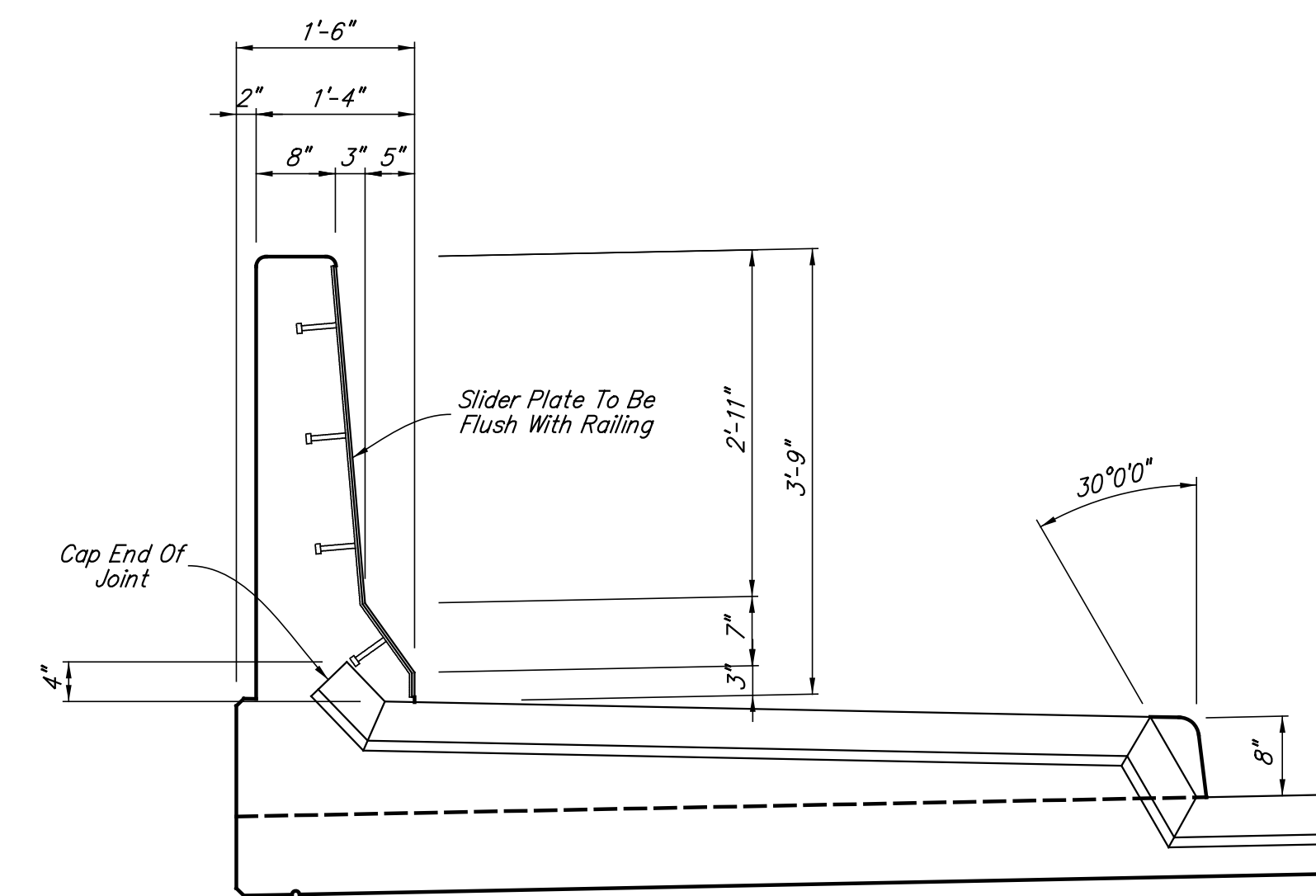
INDIANA  
 DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT DETAILS

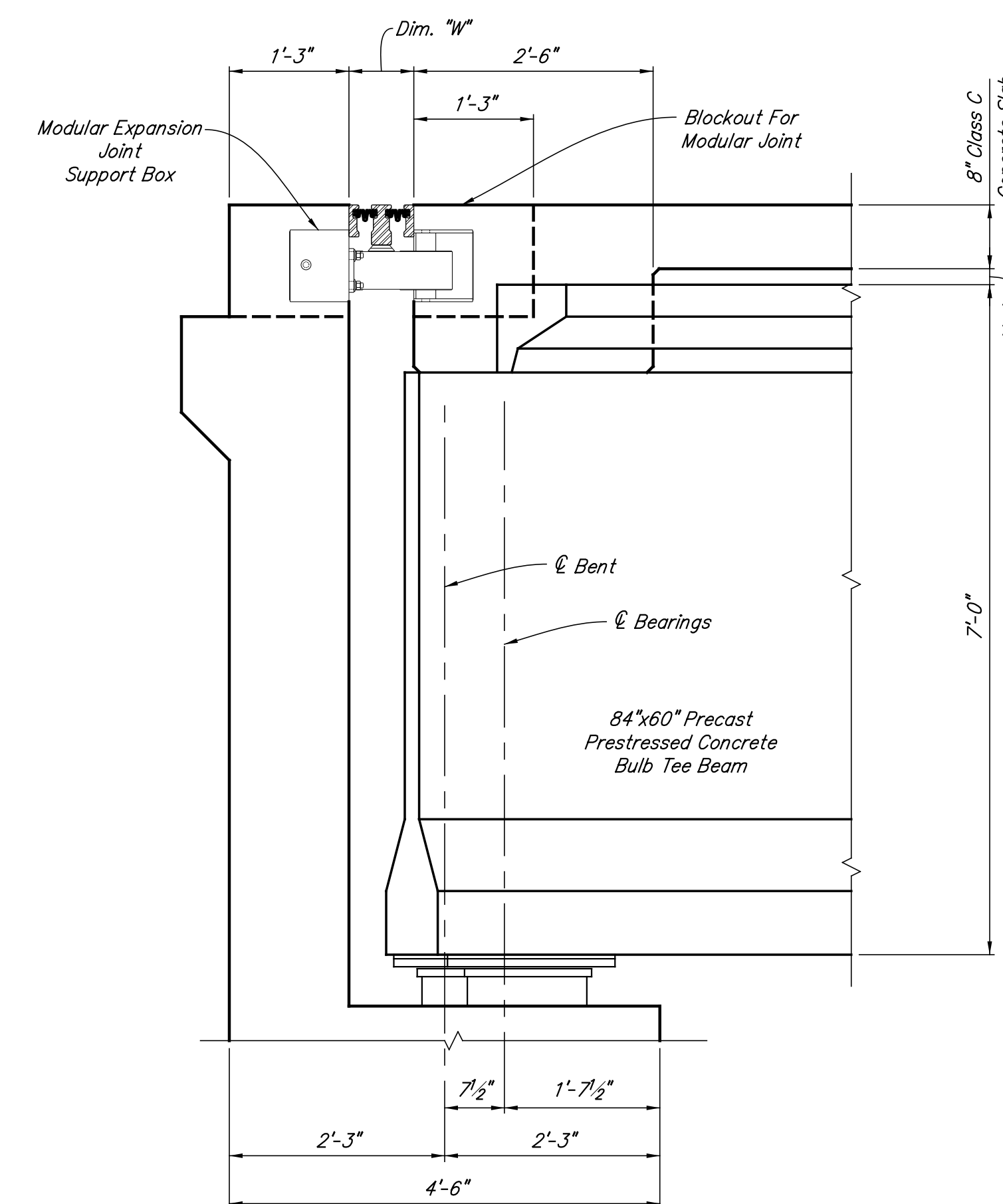
HORIZONTAL SCALE 3/8" = 1'-0"	BRIDGE FILE 152-45-02730
VERTICAL SCALE	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 105 of 147
CONTRACT B-33357	PROJECT NO. N881008



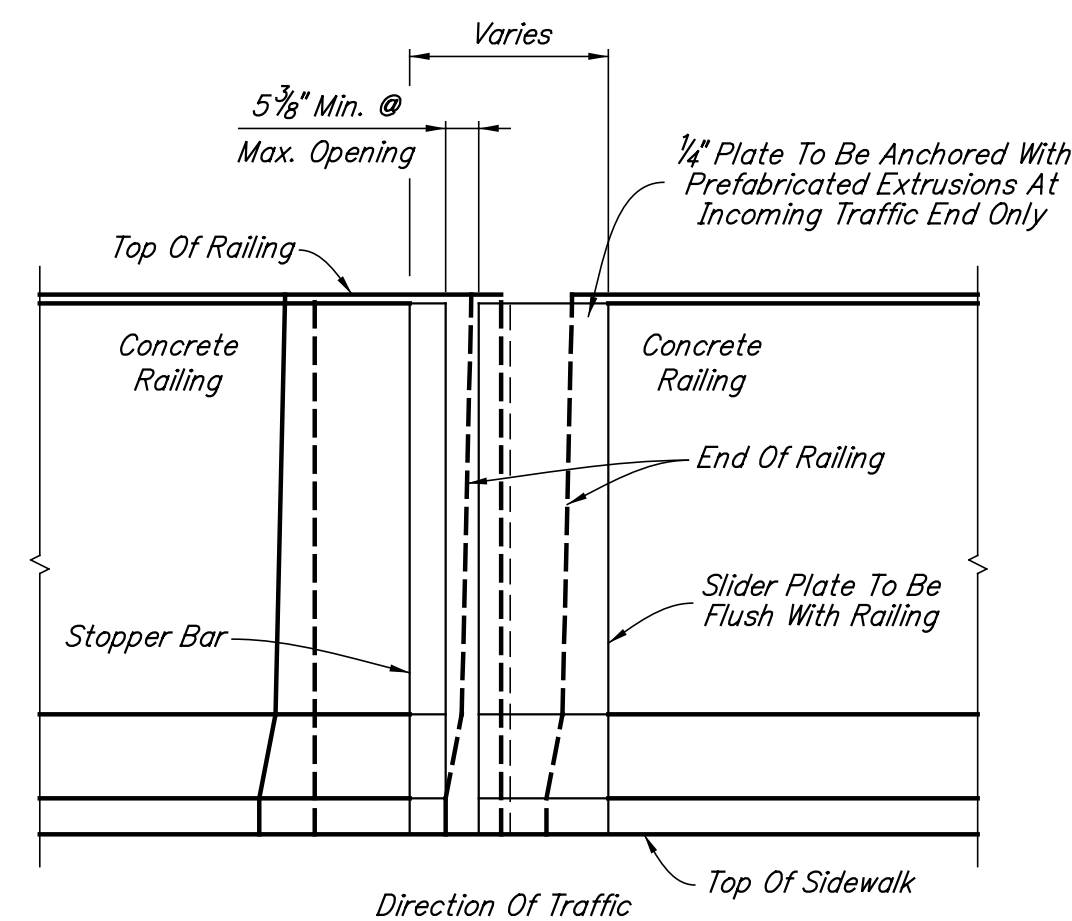
**CORNER DETAILS AT BENT NO.1**  
 Corner Details At Bent No.9 Same By 180° Rotation



**TYPICAL JOINT INSTALLATION**



**SECTION A-A**



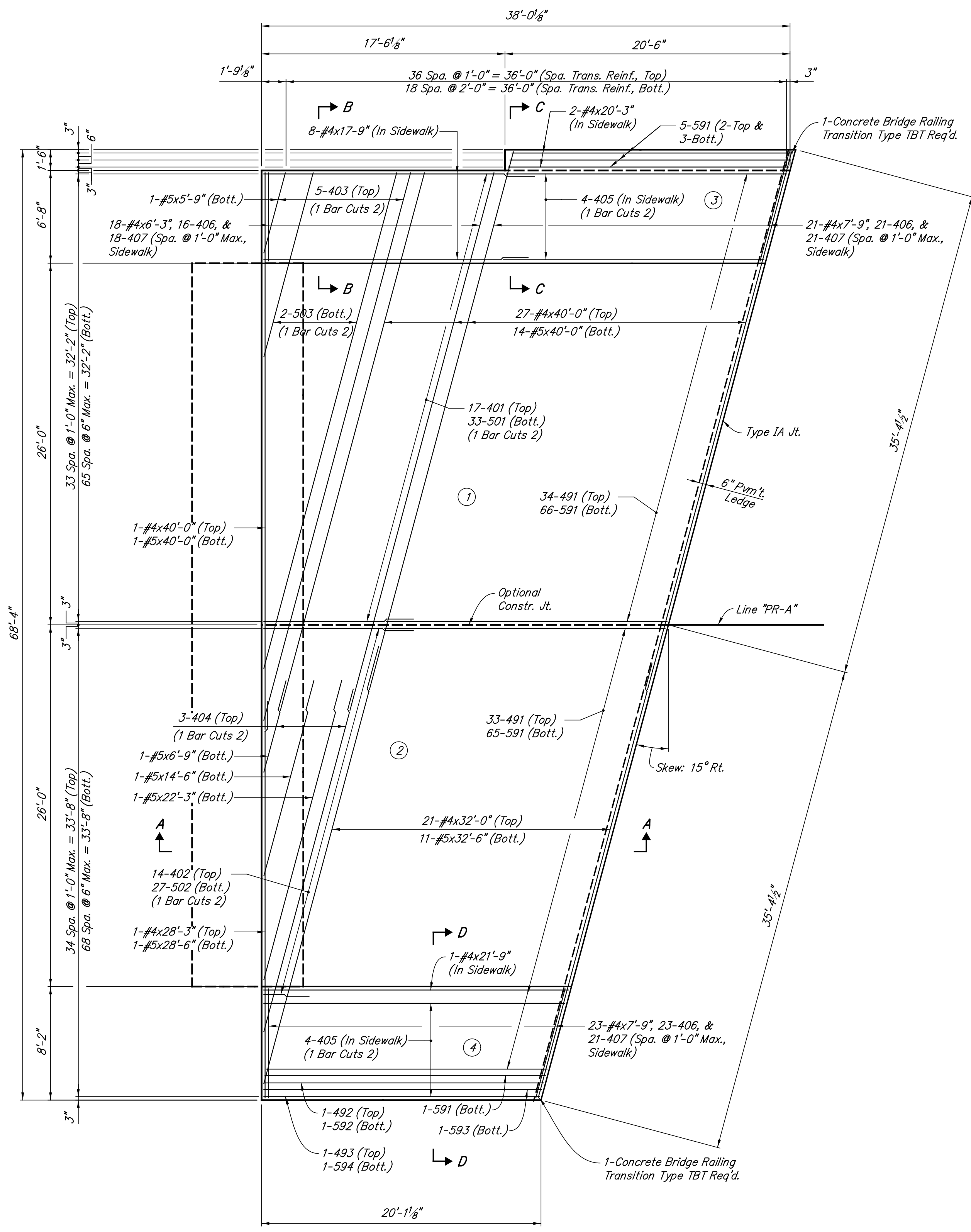
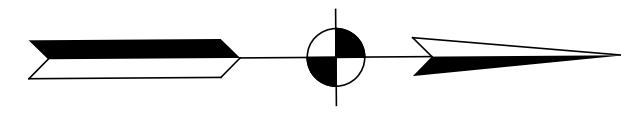
**SLIDER PLATE ELEVATION**

Joint Opening Table							
Temperature	0°	20°	40°	60°	80°	100°	120°
Dimension "W"	10 <sup>3</sup> / <sub>4</sub> "	9 <sup>7</sup> / <sub>8</sub> "	9"	8 <sup>1</sup> / <sub>8</sub> "	7 <sup>1</sup> / <sub>4</sub> "	6 <sup>3</sup> / <sub>8</sub> "	5 <sup>1</sup> / <sub>2</sub> "

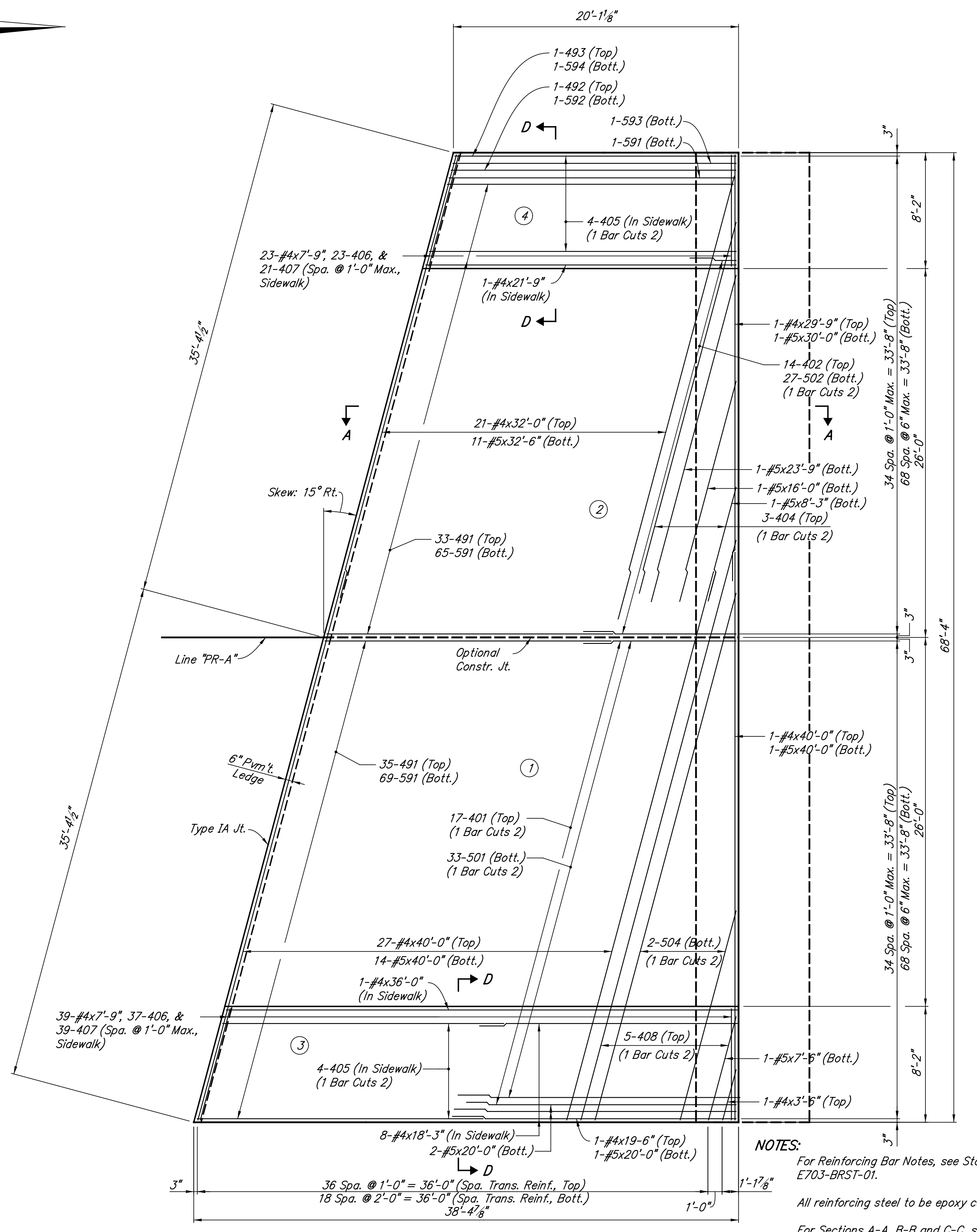
**NOTES :**

- The profile of the expansion joint shall conform to the roadway cross section at the front face of mudwall of Bent No.1 and Bent No.9.
- Allow <sup>3</sup>/<sub>8</sub>" for maximum movement due to live load, deflection, shrinkage and creep.
- The joint opening is to be set in accordance with the Joint Opening Table.
- Anchor studs shall be placed at 6" maximum spacing between support boxes.
- For location of Section A-A, see Sheet No. 105.

	RECOMMENDED FOR APPROVAL <i>David B. Day</i> 6/1/2012 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION <b>MODULAR EXPANSION JOINT DETAILS</b>	HORIZONTAL SCALE 3/4" = 1'-0"	BRIDGE FILE 152-45-02730
	DESIGNED: DZ DRAWN: DSH CHECKED: DAD CHECKED: DAD		VERTICAL SCALE SURVEY BOOK CONTRACT B-33357	DESIGNATION NO. 0014210 SHEETS 106 of 147 PROJECT NO. N881008



**PLAN @ BENT NO. 1**

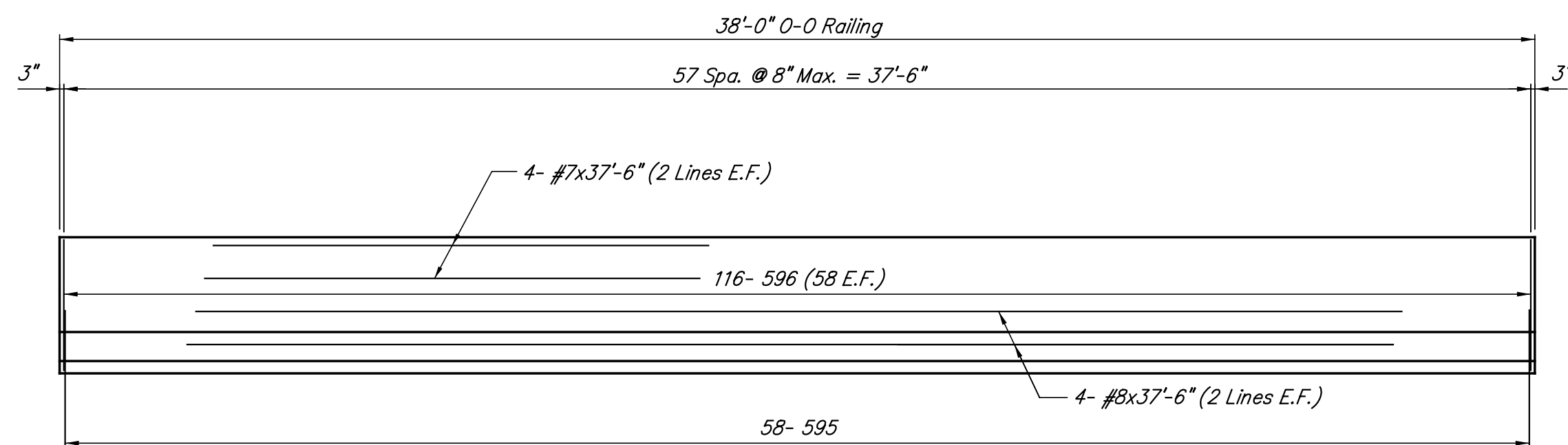


**PLAN @ BENT NO. 9**

Min. Lap	
#4	1'-7"
#5	2'-0"

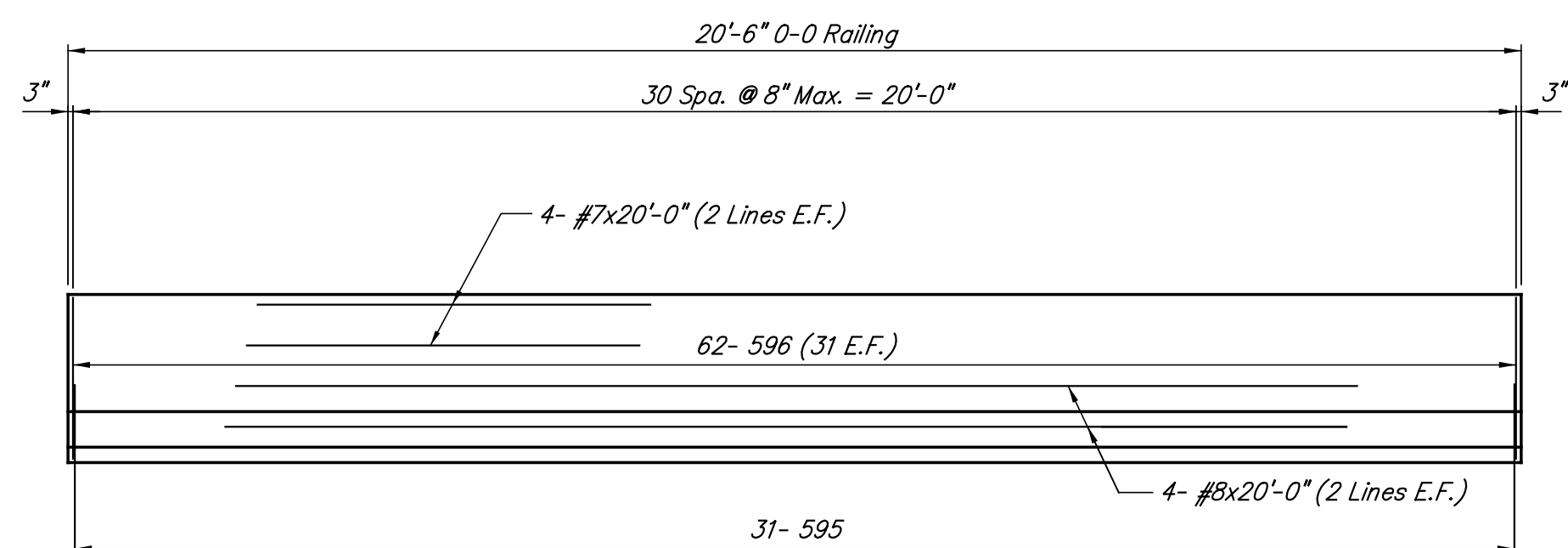
**NOTES:**  
 For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.  
 All reinforcing steel to be epoxy coated.  
 For Sections A-A, B-B and C-C, see Sheet No. 108.  
 For concrete bridge railing transition details, see Standard Drawings E706-TTBT-01 thru -03.  
 Surface seal all exposed surfaces of the approaches.  
 For additional details and Bill Of Materials, see Sheet No. 108.  
 (X) - Indicates concrete pour number and sequence of pours.

	RECOMMENDED FOR APPROVAL <i>David A. Day</i> 6/1/2012 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION <b>R.C. BRIDGE APPROACH DETAILS</b>	HORIZONTAL SCALE $\frac{3}{16}'' = 1'-0''$	BRIDGE FILE 152-45-02730
	DESIGNED: EWM DRAWN: EWM CHECKED: DAD CHECKED: DAD		SURVEY BOOK CONTRACT B-33357	DESIGNATION NO. 0014210



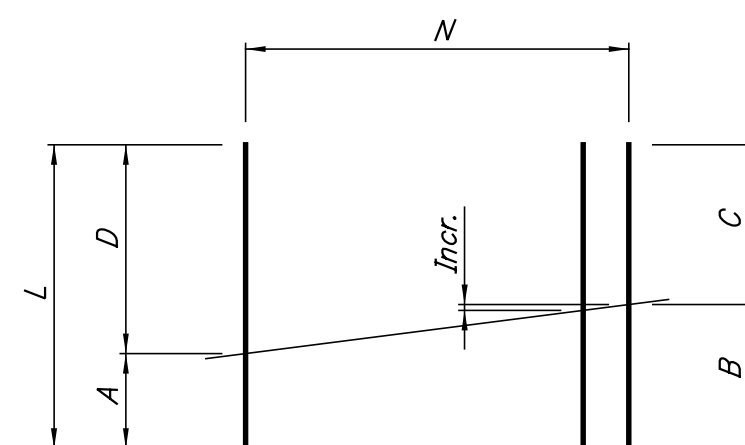
**EAST RAILING ELEVATION @ BENT NO. 9 (F.F. Railing)**

No Scale



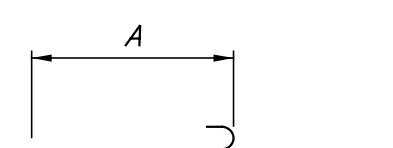
**WEST RAILING ELEVATION @ BENT NO. 9 (F.F. Railing)**

No Scale

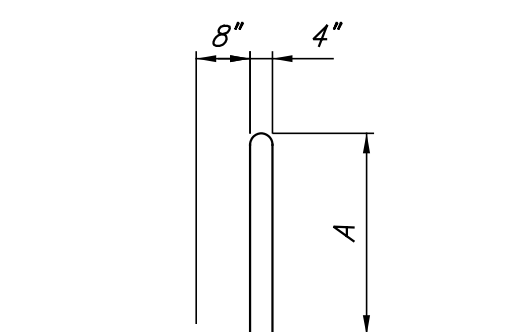


**1 Bar Cuts 2**

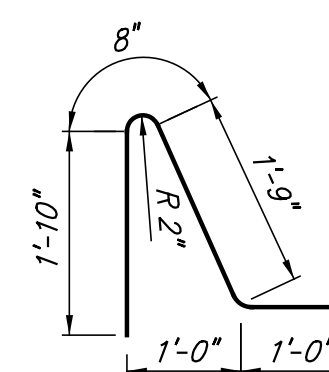
Mark	L	A	B	C	D	Incr.	N
401	29'-8"	10'-6"	14'-8"	15'-0"	19'-2"	3 1/8"±	17
402	13'-6"	3'-3"	6'-7"	6'-11"	10'-3"	3 1/8"±	14
403	46'-9"	6'-0"	21'-5"	25'-4"	40'-9"	3'-10 1/8"±	5
404	34'-8"	7'-8"	15'-5"	19'-3"	27'-0"	3'-10 1/8"±	3
405	41'-4"	19'-9"	20'-6"	20'-10"	21'-7"	3 1/8"±	4
408	49'-8"	7'-6"	22'-11"	26'-10"	42'-3"	3'-10 1/8"±	5
501	30'-8"	10'-11"	15'-3"	15'-5"	19'-9"	3 1/8"±	33
502	14'-4"	3'-8"	7'-1"	7'-3"	10'-8"	3 1/8"±	27
503	50'-7"	13'-8"	21'-5"	29'-2"	36'-11"	7' 8 1/4"±	2
504	53'-8"	15'-3"	22'-11"	30'-9"	38'-5"	7' 8 1/4"±	2



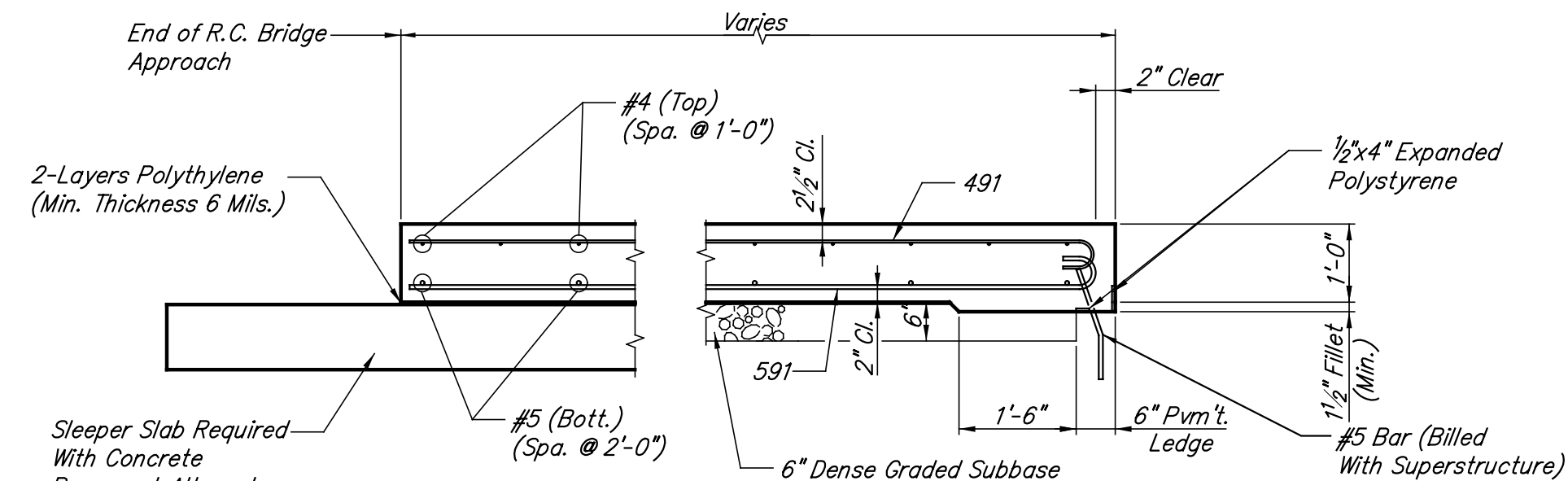
Mark	A	Length
491	20'-2"	20'-8"
492	20'-1"	20'-7"
493	19'-9"	20'-3"
591	20'-2"	20'-9"
592	20'-1"	20'-8"
593	19'-11"	20'-6"
594	19'-9"	20'-4"
596	3'-5"	4'-0"



Mark	A	Length
406	1'-3"	3'-4"
407	1'-6"	3'-10"

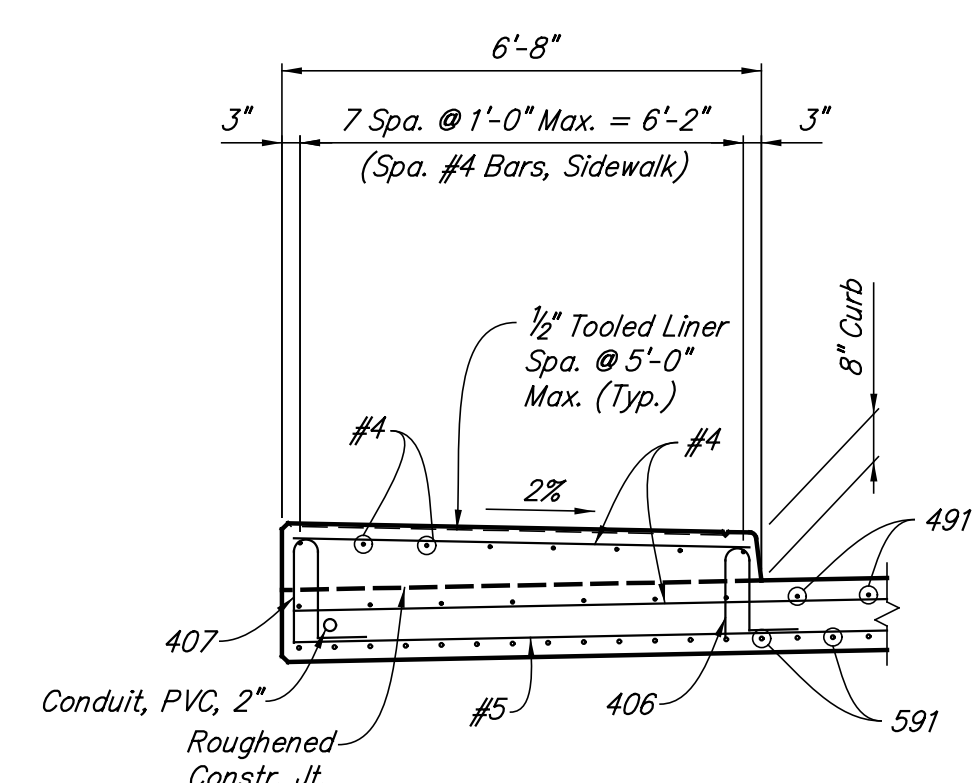


**595 x 5'-6"**



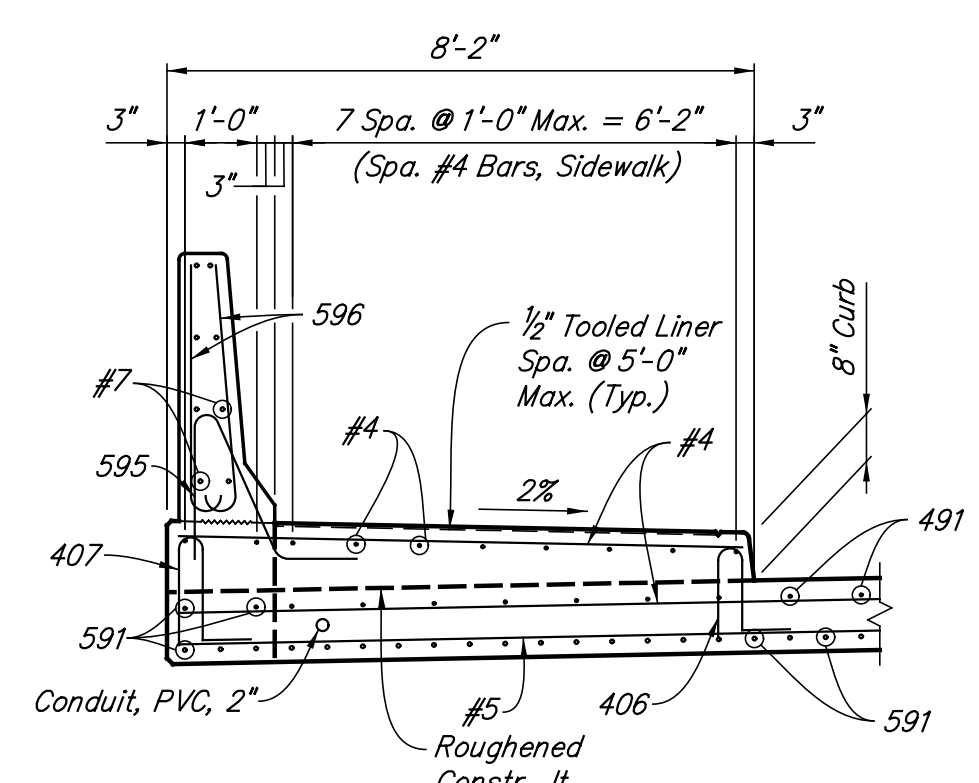
**SECTION A-A**

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



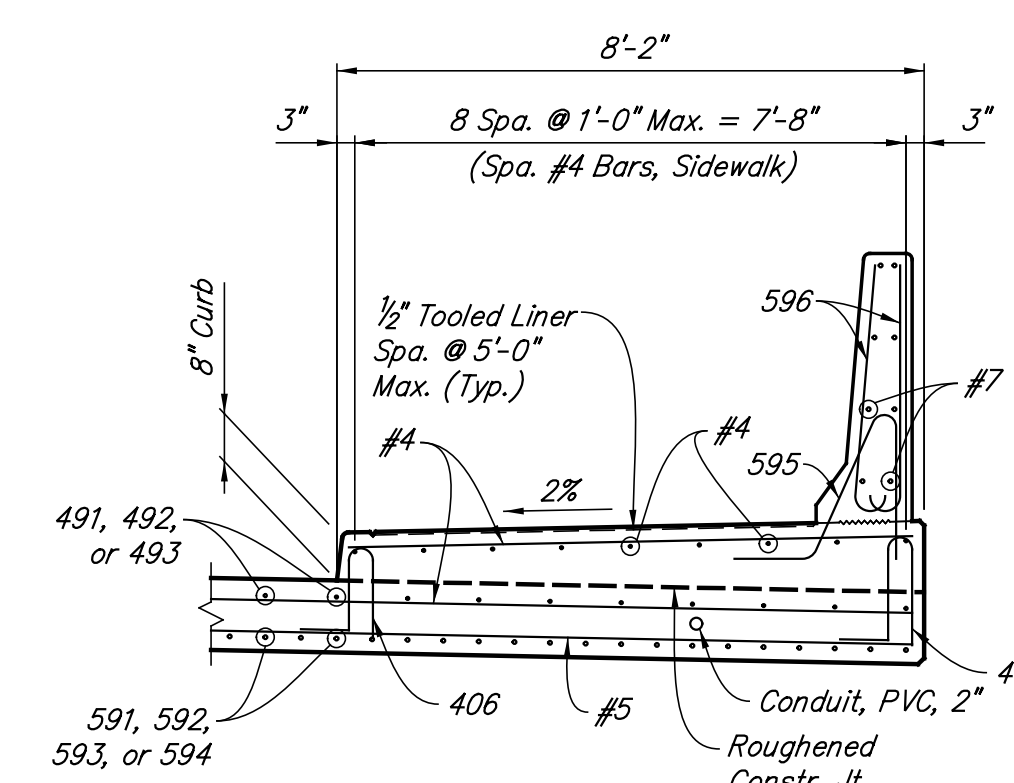
**SECTION B-B**

Scale: 3/8" = 1'-0"



**SECTION C-C**

Scale: 3/8" = 1'-0"



**SECTION D-D**

Scale: 3/8" = 1'-0"

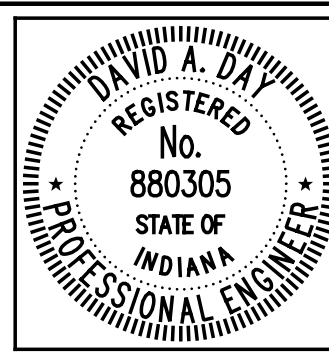
**R.C. BRIDGE APPROACH BENT NO. 1 BILL OF MATERIALS**

Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)
501	33	30'-8"	
502	27	14'-4"	
503	2	50'-7"	
591	137	20'-9"	
592	7	20'-8"	
593	1	20'-6"	
594	1	20'-4"	
#5	15	40'-0"	
#5	11	32'-6"	
#5	1	28'-6"	
#5	1	22'-3"	
#5	1	14'-6"	
#5	1	6'-9"	
#5	1	5'-9"	
Total No. 5			5674
401	17	29'-8"	
402	14	13'-6"	
403	5	46'-9"	
404	3	34'-8"	
405	8	41'-4"	
406	60	3'-4"	
407	60	3'-10"	
491	67	20'-8"	
492	7	20'-7"	
493	7	20'-3"	
#4	28	40'-0"	
#4	21	32'-0"	
#4	1	28'-3"	
#4	1	21'-9"	
#4	2	20'-3"	
#4	8	17'-9"	
#4	44	7'-9"	
#4	18	6'-3"	
Total No. 4			3805
Conc. Bridge Railing Transition, TBT			
Epoxy Coated Reinforcing Steel (2@751)			1502
Total Epoxy Coated Reinforcing Steel			10981
Concrete			
Reinf. Concrete Bridge Approach, 12"			
Pour No. 1			125.5 Sys.
Pour No. 2			93.7 Sys.
Total Reinf. Conc. Bridge Approach, 12 In. Class "C" in Superstructure (Walk)			219.2 Sys.
Pour No. 3			8.4 Cys.
Pour No. 4			5.3 Cys.
Total Class "C" in Superstructure			13.7 Cys.
Conc. Bridge Railing Trans., Type TBT			2 Each
Miscellaneous			
Surface Seal			2360 Sft.
Dense Graded Subbase			36 Cys.

**R.C. BRIDGE APPROACH BENT NO. 9 BILL OF MATERIALS**

Size And Mark	No. of Bars	Length (Feet)	Weight (Lbs.)
#8	4	37'-6"	
#8	4	20'-0"	
Total No. 8			615
#7	4	37'-6"	
#7	4	20'-0"	
Total No. 7			471
501	33	30'-8"	
502	27	14'-4"	
504	2	53'-8"	
591	135	20'-9"	
592	7	20'-8"	
593	1	20'-6"	
594	1	20'-4"	
595	89	5'-6"	
596	178	4'-0"	
#5	15	40'-0"	
#5	11	32'-6"	
#5	1	30'-0"	
#5	1	23'-9"	
#5	3	20'-0"	
#5	1	16'-0"	
#5	1	8'-3"	
#5	1	7'-6"	
Total No. 5			6961
401	17	29'-8"	
402	14	13'-6"	
404	3	34'-8"	
405	8	41'-4"	
406	60	3'-4"	
407	60	3'-10"	
408	5	49'-9"	
491	68	20'-8"	
492	7	20'-7"	
493	7	20'-3"	
#4	28	40'-0"	
#4	1	28'-3"	
#4	1	36'-0"	
#4	21	32'-0"	
#4	1	29'-9"	
#4	1	21'-9"	
#4	1	19'-6"	
#4	8	18'-3"	
#4	62	7'-9"	
#4	1	3'-6"	
Total No. 4			3863
Total Epoxy Coated Reinforcing Steel			11910
Concrete			
Pour No. 1			128.4 Sys.
Pour No. 2			93.7 Sys.
Total Reinf. Conc. Bridge Approach, 12 In. Class "C" in Superstructure (Walk)			222.1 Sys.
Pour No. 3			9.4 Cys.
Pour No. 4			5.3 Cys.
Total Class "C" in Superstructure			14.7 Cys.
Railing, Concrete, FT			59.0 Lft.
Miscellaneous			
Surface Seal			2580 Sft.
Dense Graded Subbase			37 Cys.

- NOTES:**
- For Reinforcing Bar Notes, see Standard Drawing E703-BRST-01.
  - All reinforcing steel to be epoxy coated.
  - For location of Sections A-A, B-B, C-C and D-D, see Sheet No. 107.
  - For concrete bridge railing transition details, see Standard Drawings E706-TTBT-01 thru -03.
  - For section thru railing and additional railing details, see Standard Drawings E706-BCBR-02 & 03-04.
  - For additional railing details at midwalk, see Standard Drawing E706-CBRT-03.
  - Surface seal all exposed surfaces of the approaches.
  - For additional RCBA terminal joint details, see Standard Drawings E503-BATJ-01.



RECOMMENDED FOR APPROVAL *David A. Day* 6/1/2012 DATE  
DESIGN ENGINEER  
DESIGNED: EWM DRAWN: EWM  
CHECKED: DAD CHECKED: DAD

INDIANA DEPARTMENT OF TRANSPORTATION  
**R.C. BRIDGE APPROACH DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	108 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

BRIDGE FILE	ITEM	STRUCTURE														QUANTITIES																											
		CONCRETE				RAILING, CONCRETE, FT.	CONC. BRIDGE RAILING TRANS., TBT	BR. RAILING, PEDESTRIAN FENCE	REINF. CONC. BRIDGE APPR., 10'	REINF. CONC. BRIDGE APPR., 12'	DENSE GRADED SUBBASE	REINF. STEEL TOTAL	EPOXY COATED REINF. STEEL	STRUCT. STEEL ***	ANCHOR PLATE	PILE				EXPANSION JOINT TYPE M	EXPANSION JOINT TYPE SS	CONC. STR. MEMBERS		ANCHOR BOLT	BARRIER DELINEATOR	FIELD DRILLED HOLES IN CONCRETE	24" DIA. PVC PIPE	SURFACE SEAL #	12" DIA. PVC PIPE	16" DIA. PVC PIPE	CAST IRON, GRATES, BASINS & FITTINGS	18" DIA. PVC PIPE											
		CLASS C IN SUPERSTR.	CLASS A IN SUBSTR.	CLASS B IN FOOTING	CLASS C IN STRUCTURE											NO.	STEEL H	SHOE, HP12x74	SLEEVES			CONC. BOX BEAMS TYPE	BULB TEE 84"x60"										NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.			
CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.											
	SUPERSTRUCTURE	3700.6				2420		2414				933199	35072							142			10832				6	107690	1648	1055	13524	6											
	SUBSTRUCTURE																																										
	Bent No. 1	4.4	86.1									12044																															
	Pier No. 2		179.3	127.7								34862																															
	Pier No. 3		189.7	117.8								33158																															
	Pier No. 4		196.3	112.9								33843																															
	Pier No. 5		200.8	103.1								34339																															
	Pier No. 6		200.6	103.1								34339																															
	Pier No. 7		213.1	122.7								42484																															
	Pier No. 8		199.1	132.6								38101																															
	Bent No. 9	4.4	85.1									12197																															
	R.C. BRIDGE APPROACHES																																										
	Bent No. 1	13.7										219.2	36																														
	Bent No. 9	14.7										222.1	37																														
	TOTALS	3737.8	1550.1	819.9		2479		2414				441.3	73							274			26085			279		33		142				10832				6	125550	1648	1055	13524	6

LT/RT	LOCATION LINE	STATION	DESCRIPTION	WIDTH FT.	RADI FT.	GRADE %	LENGTH FT.	DISTANCE BEYOND R/W FT.	EXCAVATION (CYS.)		HMA SURFACE 9.5 mm, MAINLINE	HMA INTERMEDIATE 19.0 mm, MAINLINE	HMA BASE 25.0 mm, MAINLINE	ASPHALT FOR TACK COAT	ASPHALT FOR PRIME COAT	CONCRETE CURB	CONCRETE SIDEWALK	CEMENT CONCRETE PAVEMENT FOR DRIVEWAYS, 6"	
									CUT	FILL	? LBS./SYD.	? LBS./SYD.	? LBS./SYD.	TONS	TONS	SYS.	SYS.	SYS.	

LT. OR RT.	STATION TO STATION	PAVED SIDE DITCH (LIN. FT.)										SODDING (SQ. YDS.)					RIPRAP										
		TYPE	PAY LENGTH	NO. OF LUGS	PAY LENGTH	CUT OFF WALLS	PAY LENGTH	TOTAL PAY LENGTH	FOR PSD	FOR DITCHES	SHOULDERS	OTHER	TOTAL SOD	REVETMENT TONS	GEOTEXTILES SQ. YD.												

STRUCTURE NUMBER	LOCATION	LEFT	RIGHT	CROSS	SIZE	DESCRIPTION		LENGTH	SKEW	FLOW LINE			CONC. CL. A IN STRS.	STRUCTURE BACKFILL	METHOD OF BACKFILL	THICKNESS		VELOCITY	RIPRAP	PIPE END SECTION	REIN. STEEL	REMARKS	
						TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE			COVER	UP STREAM	DOWN STREAM				STEEL *	ALUM. *						

LT. OR RT.	STATION TO STATION	PERIMETER PROTECTION LIN. FT.	DRAINAGE BARRIER LIN. FT.	INTERCEPTOR DITCH LIN. FT.	SLOPE DRAIN LIN. FT.	STRAW BALE DITCH CHK LIN. FT.	RIPRAP DITCH CHK LIN. FT.	SEDIMENT TRAP CU. YDS.	SEDIMENT BASIN CU. YDS.	CULVERT PROTECTION EACH	PIPE PROTECTION EACH	DROP INLET PROTECTION EACH	CURB INLET PROTECTION EACH

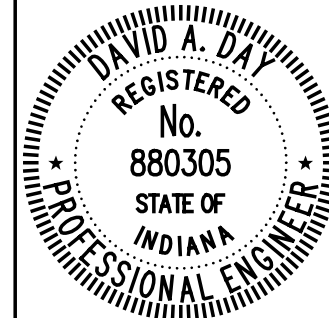
LOCATION	LEFT	RIGHT	SINGLE	DOUBLE

FROM STATION	TO STATION	R. OR L.T.	W-BEAM GUARDRAIL LENGTH				GUARDRAIL FLARE RATE	GUARDRAIL TRANSITION	GUARDRAIL END TREATMENT	CURVED W-BEAM GUARDRAIL SYSTEM				REMARKS		
			STANDARD POST AT 6'-3" SPA	STANDARD POST AT 8' SPA	STANDARD POST AT 10' SPA	NESTED GUARDRAIL				TERMINAL SYSTEM	CONNECTOR SYSTEM	GUARDRAIL REMOVE	GUARDRAIL RESET			

DATE	ITEM

NOTES :

Weight of Spirals includes weight of 1 1/2 extra turns top and bottom.  
 Spacers and 1 1/2 turns at laps included in cost of Spiral.  
 \* Estimated Quantity, to be paid for as "LSUM".  
 \*\* If the Contractor elects to use metal pipe, the thickness shall be as shown in the Approach Quantity Table.  
 \*\*\* The weight of structural steel is approximate only, and it shall be the Contractor's responsibility to determine the weight on which he bases his bid.  
 For Test Bar Samples, see Bridge Standard 703-BRST-01.

	RECOMMENDED FOR APPROVAL <i>David B. Day</i> 6/1/2012 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION  <b>BRIDGE SUMMARY</b>	HORIZONTAL SCALE NONE BRIDGE FILE 152-45-02730
	DESIGNED: _____ DRAWN: BNM CHECKED: _____ CHECKED: DAD		VERTICAL SCALE NONE DESIGNATION NO. 0014210
		SURVEY BOOK _____ SHEETS 109 of 147 CONTRACT B-33357 PROJECT NO. N881008	

**GUARDRAIL SUMMARY TABLE**

LOCATION	GUARDRAIL LENGTH															CURVED W-BEAM GUARDRAIL SYSTEM				REMARKS					
	STATION	LEFT	RIGHT	MEDIAN	W-BEAM AT 6'-3" SPA.	W-BEAM AT 3'-1.5" SPA.	W-BEAM AT 1'-6.75" SPA.	THRIE-BEAM AT 6'-3" SPA.	THRIE-BEAM AT 3'-1.5" SPA.	GUARDRAIL FLARE RATE	GUARDRAIL TRANSITION TYPE T6B	GUARDRAIL TRANSITION TYPE TTT	GUARDRAIL TRANSITION TYPE WGT	GUARDRAIL END TREATMENT OS	CURVED TERMINAL END	IMPACT ATTENUATOR CR1, W1, TL-2	IMPACT ATTENUATOR R1-W1, TL-2	TERMINAL SYSTEM			CONNECTOR SYSTEM		GUARDRAIL REMOVE	GUARDRAIL RESET	
																		ft.	ft.		ft.	ft.			ft.
123+32.30 "PR-A" To 124+70.97 "PR-A"		X																						139.00	
123+36.87 "PR-A" To 124+70.61 "PR-A"		X																						134.00	
126+44.88 "PR-A" To 130+32.38 "PR-A"		X						306.25				1	1	1											
129+77.37 "PR-A" To 130+14.87 "PR-A"		X			12.50							1		1											
142+72.85 "PR-A" To 149+26.39 "PR-A"		X																						654.00	
146+36.62 "PR-A" To 147+72.08 "PR-A"		X																						136.00	
149+78.00 "PR-A"		X															1								
TOTALS =					12.50			306.25				1	1	1	2		1							1,063.00	

**PAVED SIDE DITCH & SODDING SUMMARY TABLE**

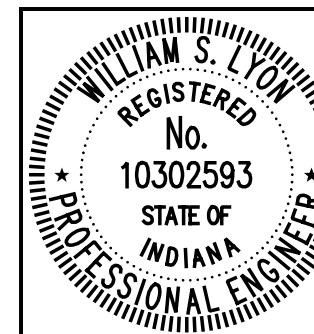
FROM STATION	TO STATION	LOCATION		PAVED SIDE DITCH										SODDING					SEE SHEET NO.								
		LEFT	MEDIAN	ACTUAL LENGTH	CUT-OFF WALLS (8 FT EQUIV LENGTH EA)	LUGS (8 FT EQUIV LENGTH EA)	TOTAL EQUIVALENT PAY LENGTHS										FOR PAVED SIDE DITCH	FOR DITCHES		FOR MEDIAN	FOR SHOULDER	FOR LAWN					
							TYPE																				
							A	B																			
Line	"PR-A"																										
129+95	130+33	X	X	48	2		64																				
130+48	130+65	X		64	2		80																				

**MONUMENT TABLE - PCCP OPTION**

LOCATION	TYPE				SECTION CORNER
	A	B	C	D	
Line "PR-A"					
117+97.77				X	
130+00.00				X	
134+00.00				X	
141+00.00				X	
152+07.11				X	

**MONUMENT TABLE - HMA OPTION**

LOCATION	TYPE				SECTION CORNER
	A	B	C	D	
Line "PR-A"					
117+97.77		X			
130+00.00		X			
134+00.00				X	
141+00.00				X	
152+07.11		X			



RECOMMENDED FOR APPROVAL: *William S. Lyon* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: NRM DRAWN: RJC  
 CHECKED: WSL CHECKED: WSL

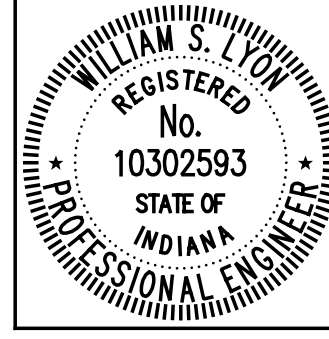
INDIANA  
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS TABLES

HORIZONTAL SCALE	BRIDGE FILE
N/A	152-45-02730
VERTICAL SCALE	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	110 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

**SUMMARY OF QUANTITIES AND APPROACH TABLE**

LOCATION (STATION)	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH "W" ft.	LENGTH "L" ft.	DISTANCE BEYOND R/W LINE ft.	RADII "R" ft.	GRADE (LESS THAN 10% NOT SHOWN)		EXCAVATION		HMA FOR APPROACHES #/SYS.	QC/QA-HMA MATERIAL FOR ROADS			HMA MATERIAL FOR ROADS		D-1 JOINTS 1.25" Ø DOWEL LFT.	TERMINAL JOINTS LFT.	ASPHALT FOR			TYPE "O" COMPACTED AGGREGATE FOR BASE NO. 53			DENSE GRADED SUBBASE		SUBGRADE TREATMENT TYPE IA SYS.	PCCP FOR APPROACHES SYS.	SUBGRADE TREATMENT TYPE IIIA SYS.	QC/QA-PCCP SYS.	SURFACE BEYOND R/W LINE			REMARKS							
						1	2	CYS.	CUT		FILL	9.5mm	19.0 mm	19.0 mm	SURFACE			INTERMD.	SEAL COAT	PRIME COAT	TACK COAT	6 in.	in.	in.	6 in.					in.	in.	9 in.		in.	10 in.	TYPE "O" COMP. AGG.	ASPHALT	CONCRETE		
						%	%					165#/SYS	330#/SYS	715#/SYS	165#/SYS			495#/SYS	TONS	TONS	TONS	TONS	TONS	TONS	TONS					TONS	TONS	TONS		TONS	TONS	TONS	TONS	TONS	TONS	TONS
<i>PCCP OPTION</i>																																								
<i>Line "PR-A"</i>																																								
<i>Alley</i>																																								
145+55.6	to	150+82.50	Varies	526.9																																				
119+60.0	Lt.	Class III	30.0	15.3	6.0	20	10																																	
145+47.0	Lt.	Class II	15.0	35.0	21.3	25	0																																	
150+29.6	Lt.	Class III	31.2	14.4		20	10																																	
150+96.0	Lt.	Class III	27.0	12.8		20	10																																	
<i>Mainline Lt.</i>																																								
117+97.77	to	119+02.15	79.4	104.4																																				
119+02.15	to	122+40.00	36.0	337.9																																				
122+40.00	to	125+40.00	30.0	300.0																																				
125+40.00	to	130+13.77	24.0	473.8																																				
142+83.23	to	151+49.04	24.0	865.8																																				
151+49.04	to	152+07.11	50.3	58.1																																				
<i>Mainline Rt.</i>																																								
117+97.77	to	118+17.72	42.4	19.9																																				
118+17.72	to	130+13.77	24.0	1196.1																																				
142+83.23	to	146+30.00	24.0	346.8																																				
146+30.00	to	149+30.00	30.0	300.0																																				
149+30.00	to	151+38.58	36.0	208.6																																				
151+38.58	to	152+07.11	69.1	68.5																																				
<i>Line "AC-1"</i>																																								
<i>Totals</i>																																								
<i>HMA OPTION</i>																																								
<i>Line "PR-A"</i>																																								
<i>Alley</i>																																								
145+55.6	to	150+82.50	Varies	526.9																																				
119+60.0	Lt.	Class III	30.0	15.3	6.0	20	10																																	
145+47.0	Lt.	Class II	15.0	35.0	21.3	25	0																																	
150+29.6	Lt.	Class III	31.2	14.4		20	10																																	
150+96.0	Lt.	Class III	27.0	12.8		20	10																																	
<i>Line "AC-1"</i>																																								
<i>Totals</i>																																								



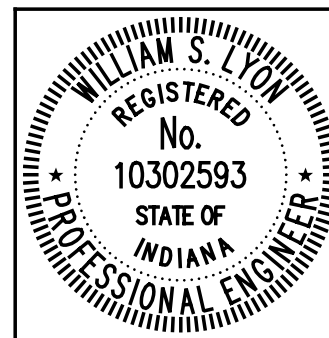
RECOMMENDED FOR APPROVAL *William S. Lyon* 6/1/2012  
 DESIGN ENGINEER DATE  
 DESIGNED: NRM DRAWN: RJC  
 CHECKED: WSL CHECKED: WSL

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
**SUMMARY OF QUANTITIES  
 AND APPROACH TABLE**

HORIZONTAL SCALE	BRIDGE FILE
VERTICAL SCALE	152-45-02730
	DESIGNATION NO.
	0014210
SURVEY BOOK	SHEETS
	111 of 147
CONTRACT	PROJECT NO.
B-33357	N881008

STRUCTURE DATA

STRUCTURE NUMBER	LOCATION				SIZE FT in.	PIPE TYPE	DESCRIPTION MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH ft.	SKEW	COVER ft.	FLOW LINE		SERVICE LIFE YR.	SITE DESIGNATION	PH	BACKFILL METHOD	STRUCTURE BACKFILL CYC.	TYPE	FLOWABLE BACKFILL CYC.	TYPE	GEOTEXTILES SYS.	RIPRAP TON	TYPE	CONCRETE CLASS A FOR STRUCTURES CYC.	VIDEO INSPECTION LFT.	PIPE END SECTION EACH	GRATED BOX END SECTION		SAFETY METAL END SECTION			CONNECT TO STR. NO.	REMARKS					
	STATION	LEFT	RIGHT	CROSS							OFFSET	UP STREAM ELEV.															DOWN STREAM ELEV.	TYPE	SLOPE	EACH	TYPE			SLOPE	EACH			
Line "PR-A"																																						
100	118+30.0		x		26.5							75	N/A	6.5																				Connect to Existing 12" Storm Pipe, Clean & Flush				
101																																						
102	118+60.0	x				12	2			100	1.8	589.28	588.78	75	N/A	6.5	1	27.7																	100			
103	119+30.0	x				12	2			59	2.7	589.79	589.50	75	N/A	6.5	1	22.9																		104		
104	119+30.0		x			12	2			7	2.4	589.50	589.46	75	N/A	6.5	1	2.2																		105		
105	119+30.0		x		36.0	15	2			96	2.7	588.83	588.39	75	N/A	6.5	1	40.3																		100		
106	120+50.0	x				12	2			59	2.7	591.13	590.83	75	N/A	6.5	1	23.0																		107		
107	120+50.0		x			12	2			7	2.4	590.83	590.78	75	N/A	6.5	1	2.3																		108		
108	120+50.0		x		36.0	12	2			116	3.1	590.78	589.08	75	N/A	6.5	1	45.9																		105		
109	122+50.0	x				12	2			59	2.7	593.35	593.10	75	N/A	6.5	1	22.7																			110	
110	122+50.0		x			12	2			22	1.0	593.10	593.05	75	N/A	6.5	1	4.8			6.4	2.3	R			1												
111	124+50.0	x				12	2			51	1.8	595.74	595.48	75	N/A	6.5	1	13.0																			112	
112	124+50.0		x			15	2			20	1.0	595.23	595.13	75	N/A	6.5	1	6.3			13.5	6.1	R			1												
112A	126+94.9			x		48	1			119	3°5'54"	591.00	590.36	75	N/A	6.5	1	95.0			40.0	24.0	R	1.4												101	Cover for Structural Backfill is 1.51ft	
113	127+50.0	x				12	2			47	1.8	604.97	604.74	75	N/A	6.5	1	5.9																			114	
114	127+50.0		x			12	2			22	1.0	604.74	604.63	75	N/A	6.5	1	5.9			57.4	30.3	R			1												
115	145+00.0	x				12	2			15	1.8	608.20	608.14	75	N/A	6.5	1	0.0																			116	
116	145+00.0	x			7.0	12	2			196	1.9	602.91	599.00	75	N/A	6.5	1	56.5																			119	
117	145+00.0		x			12	2			29	2.7	608.20	608.06	75	N/A	6.5	1	0.0																			116	
118	147+00.0	x				12	2			15	1.8	598.70	598.63	75	N/A	6.5	1	1.8																			119	
119	147+00.0	x			7.0	12	2			196	1.4	594.66	590.75	75	N/A	6.5	1	91.9																			122	
120	147+00.0		x			12	2			31	2.7	598.64	598.51	75	N/A	6.5	1	9.1																			119	
120A	149+00.0	x			37.0	12	2			168	2.6	587.26	586.60	75	N/A	6.5	1	61.9																			123A	
121	149+00.0	x				12	2			15	1.8	589.99	589.92	75	N/A	6.5	1	3.7																			122	
122	149+00.0	x			7.0	18	2			166	1.4	587.68	586.83	75	N/A	6.5	1	70.3																			125	
123	149+00.0		x			12	2			39	2.7	589.78	589.58	75	N/A	6.5	1	15.9																				122
123A	150+70.0	x			37.0	12	2			10	1.8	586.60	586.57	75	N/A	6.5	1	2.2																				124
124	150+70.0	x				12	2			15	1.8	586.57	586.50	75	N/A	6.5	1	3.7																				125
125	150+70.0	x			7.0	18	2			51	3.5	585.63	585.37	75	N/A	6.5	1	29.0																				128
126	150+70.0		x			12	2			41	1.8	586.33	586.13	75	N/A	6.5	1	11.3																				125
127	151+25.0	x				12	2			15	1.8	586.36	586.29	75	N/A	6.5	1	3.7																				128



RECOMMENDED FOR APPROVAL: *William S. Lyon*, 6/1/2012, DESIGN ENGINEER DATE  
 DESIGNED: NRM DRAWN: NRM  
 CHECKED: WSL CHECKED: WSL

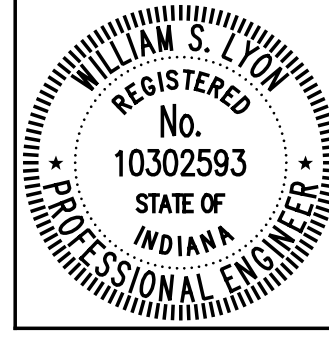
INDIANA DEPARTMENT OF TRANSPORTATION  
**STRUCTURE DATA TABLE**

HORIZONTAL SCALE N/A	BRIDGE FILE 152-45-02730
VERTICAL SCALE N/A	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 112 of 147
CONTRACT B-33357	PROJECT NO. N881008



**STRUCTURE DATA**

STRUCTURE NUMBER	LOCATION				SIZE	PIPE TYPE	DESCRIPTION MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH ft.	SKEW	COVER ft.	FLOW LINE		SERVICE LIFE YR.	SITE DESIGNATION	PH	BACKFILL METHOD	STRUCTURE BACKFILL CYS.	TYPE	FLOWABLE BACKFILL CYS.	TYPE	GEOTEXTILES SYS.	RIPRAP TON	TYPE	CONCRETE CLASS A FOR STRUCTURES CYS.	VIDEO INSPECTION LFT.	PIPE END SECTION EACH	GRADED BOX END SECTION		SAFETY METAL END SECTION		CONNECT TO STR. NO.	REMARKS				
	STATION	LEFT	RIGHT	CROSS							OFFSET	UP STREAM ELEV.															DOWN STREAM ELEV.	TYPE	SLOPE	EACH			TYPE	SLOPE	EACH	
																																				FT
Line "PR-A" Continued																																				
128	151+25.0	x			7.0	18	2	Manhole C-4	41	3.6	585.37	585.12	75	N/A	6.5	1	24.4																	131		
129	151+25.0		x			12	2	Catch Basin B-15	41	2.7	586.12	585.92	75	N/A	6.5	1	16.4																		128	
130	151+70.0	x				12	2	Catch Basin B-15	19	2.7	586.38	586.28	75	N/A	6.5	1	7.4																		131	
131	151+70.0	x			7.0	18	2	Manhole C-4	55	2.0	582.12	581.57	75	N/A	6.5	1	38.8																	202	Core Drill to Existing Manhole	
132	151+70.0		x			12	2	Catch Basin B-15	48	2.7	586.10	585.86	75	N/A	6.5	1	19.9																		131	
133								Intentionally Omitted																												
200	117+85.6		x					Existing Manhole																											Adjust Casting To Grade, Clean & Flush	
201	118+71.2	x						Existing Inlet																											To Remain In Place and Plug Pipe From East	
202	151+94.1		x					Existing Combination Manhole																											Adjust Casting To Grade, Clean & Flush	
203								Intentionally Omitted																												
Line "AC-1"																																				
300	13+00.0		x			48	1	Pipe	30	19°9'52"	1.0	590.86	590.78	75	N/A	6.5	1	22.2																	6 Inch Sump	



RECOMMENDED FOR APPROVAL: *William S. Lyon* 6/1/2012  
 DESIGN ENGINEER DATE

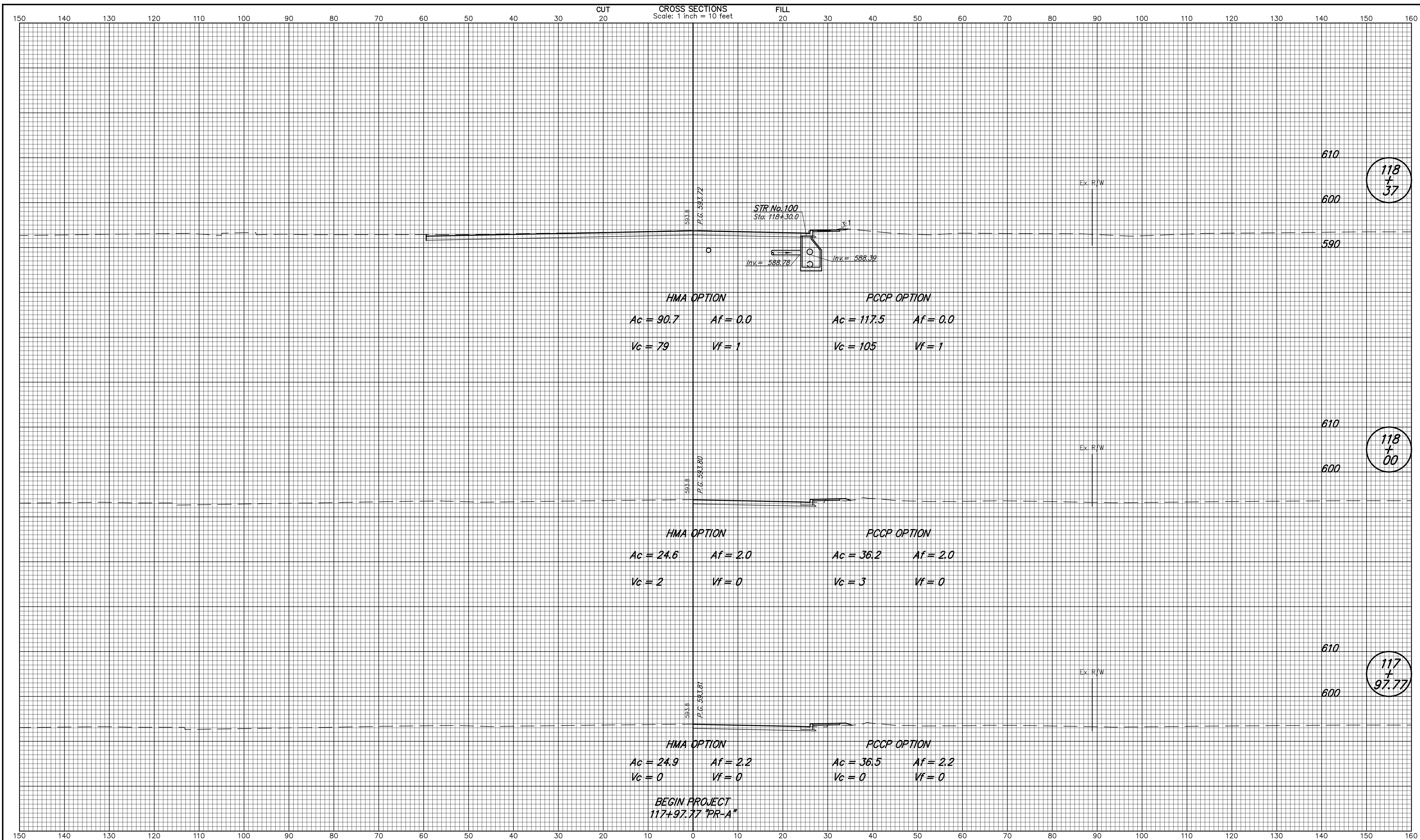
DESIGNED: NRM DRAWN: NRM  
 CHECKED: WSL CHECKED: WSL

INDIANA  
 DEPARTMENT OF TRANSPORTATION

**STRUCTURE DATA TABLE**

HORIZONTAL SCALE N/A	BRIDGE FILE 152-45-02730
VERTICAL SCALE N/A	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 113 of 147
CONTRACT B-33357	PROJECT NO. N881008



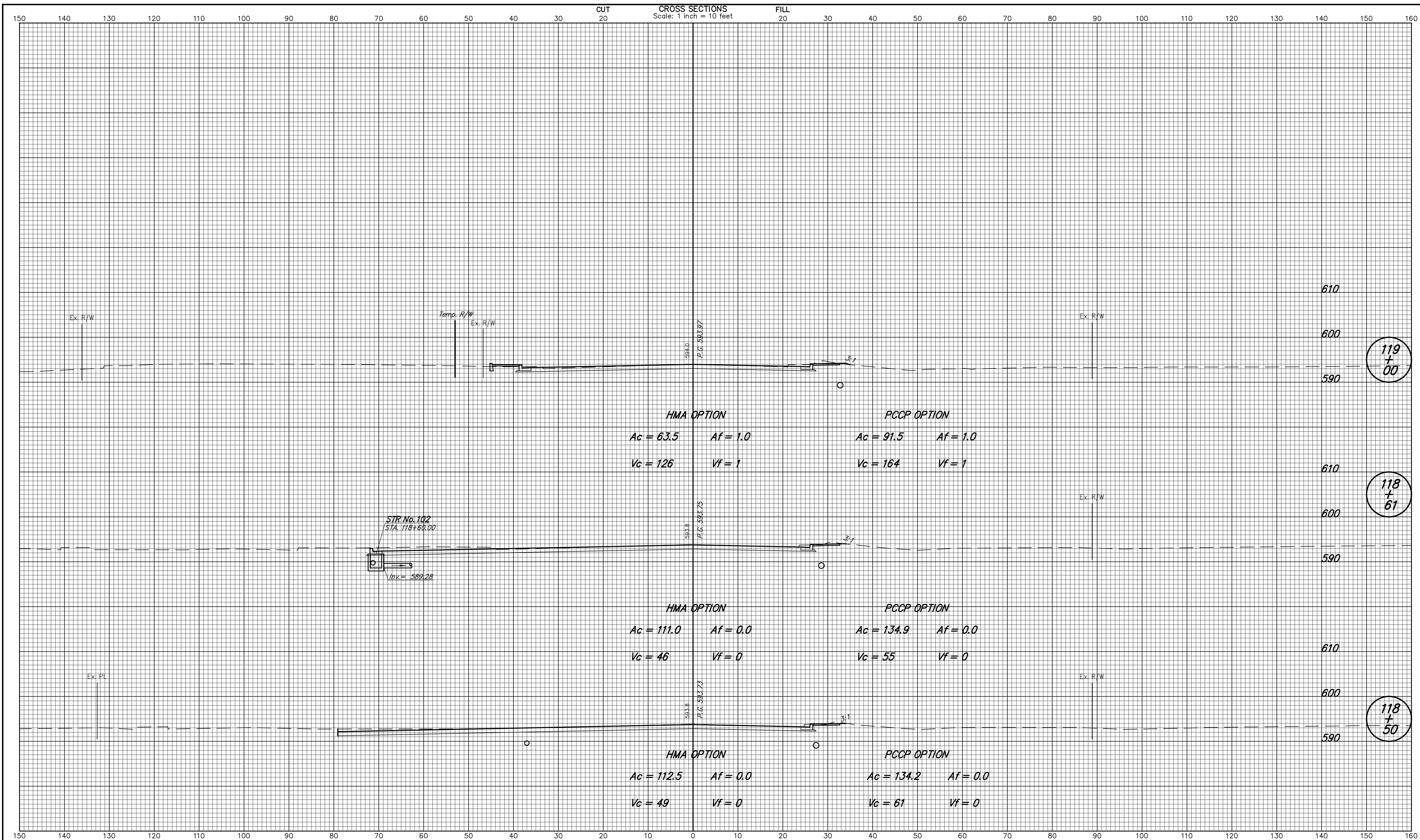


118  
+  
37

118  
+  
00

117  
+  
97.77

INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
CROSS SECTIONS LINE PR-A		VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
DESIGNED: NRM	DRAWN: RJC	SURVEY BOOK	SHEETS
CHECKED: DAD / WSL	CHECKED: DAD / WSL	CONTRACT B-33357	115 of 147 PROJECT NO. N881008

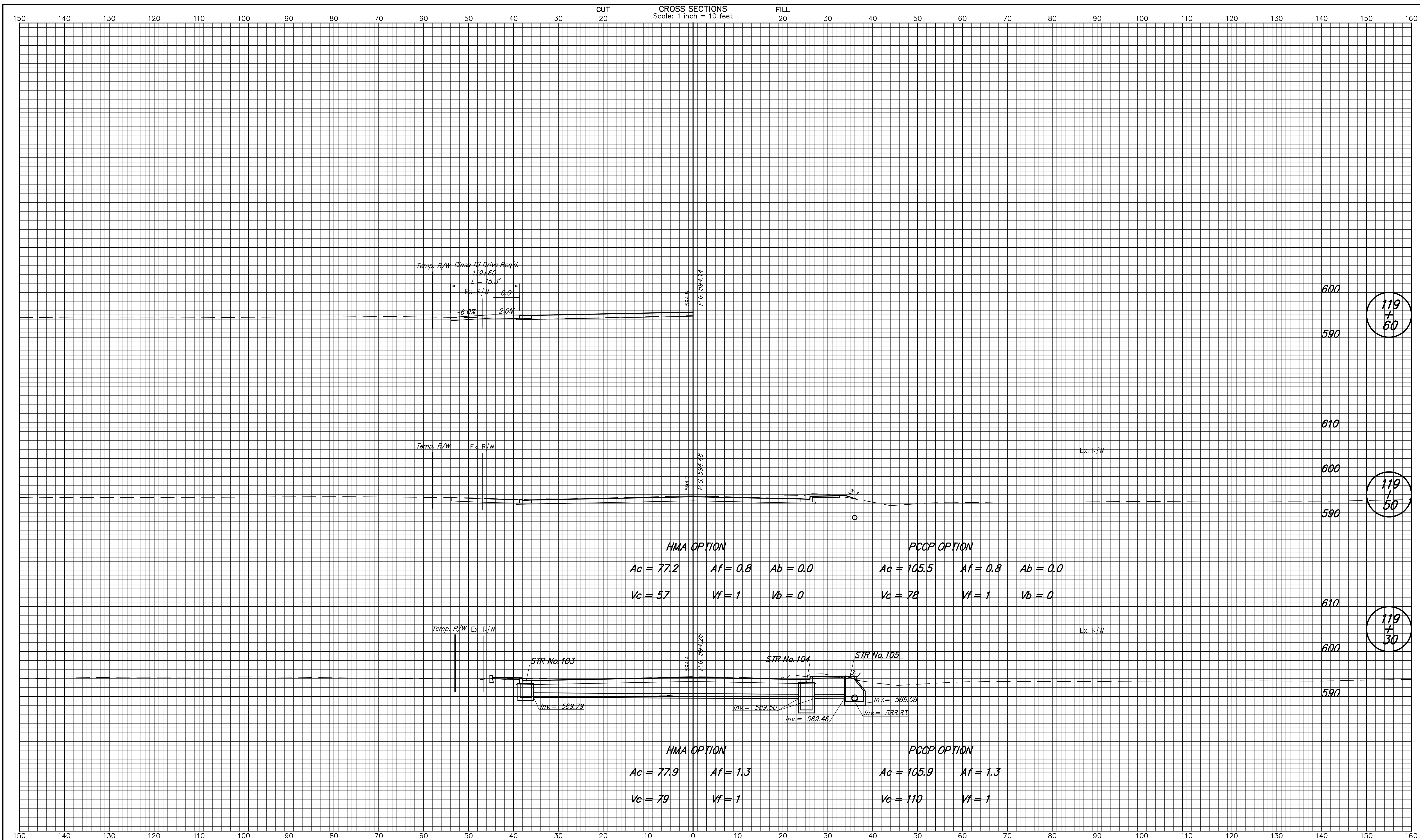


119  
+  
00

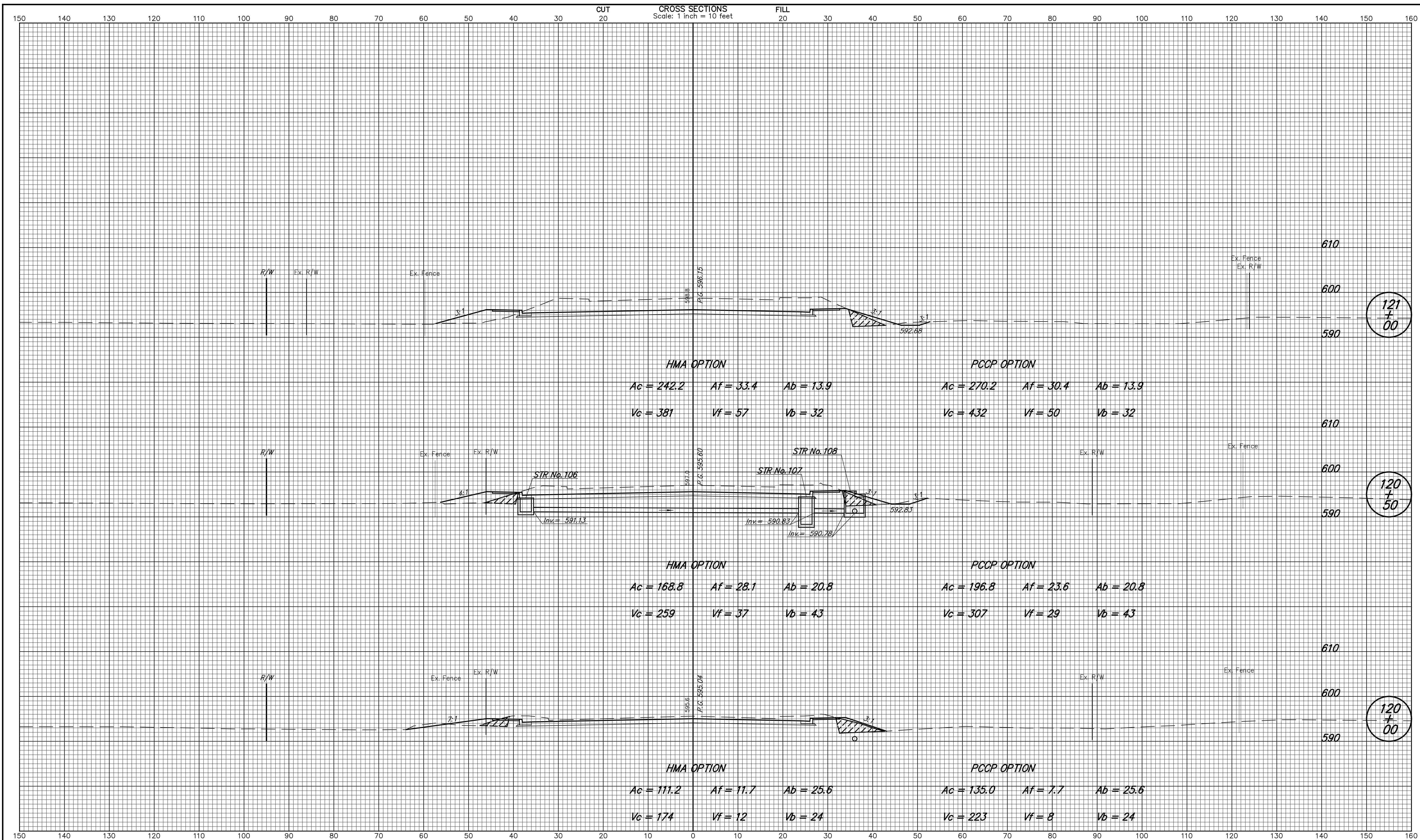
118  
+  
61

118  
+  
50

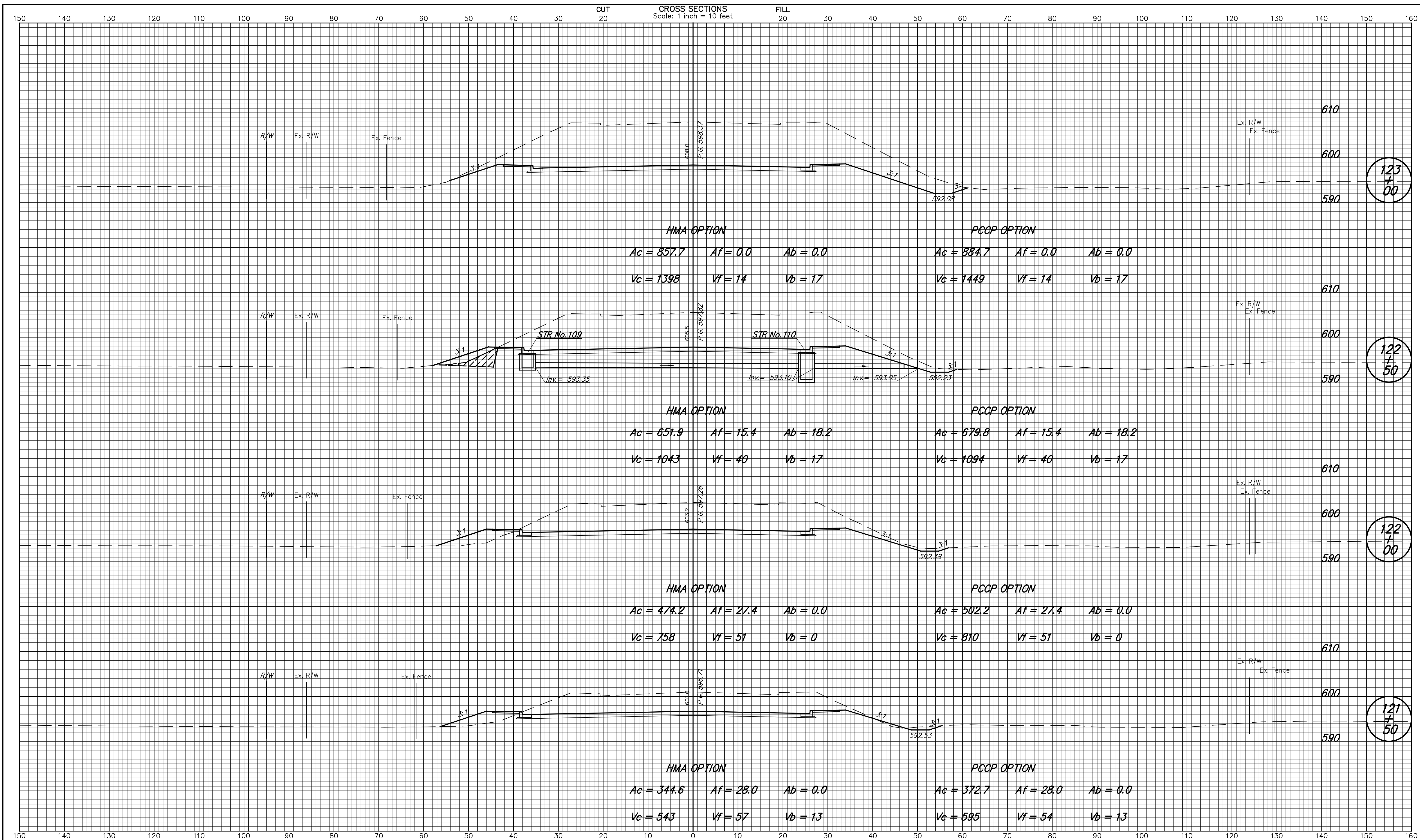
<b>INDIANA</b> DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 10' VERTICAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730 DESIGNATION NO. 0014210
<b>CROSS SECTIONS</b> LINE PR-A	SURVEY BOOK B-33357	SHEETS 116 of 147 PROJECT NO. N881008	
DESIGNED: NRM CHECKED: DAD / WSL	DRAWN: RJC CHECKED: DAD / WSL		



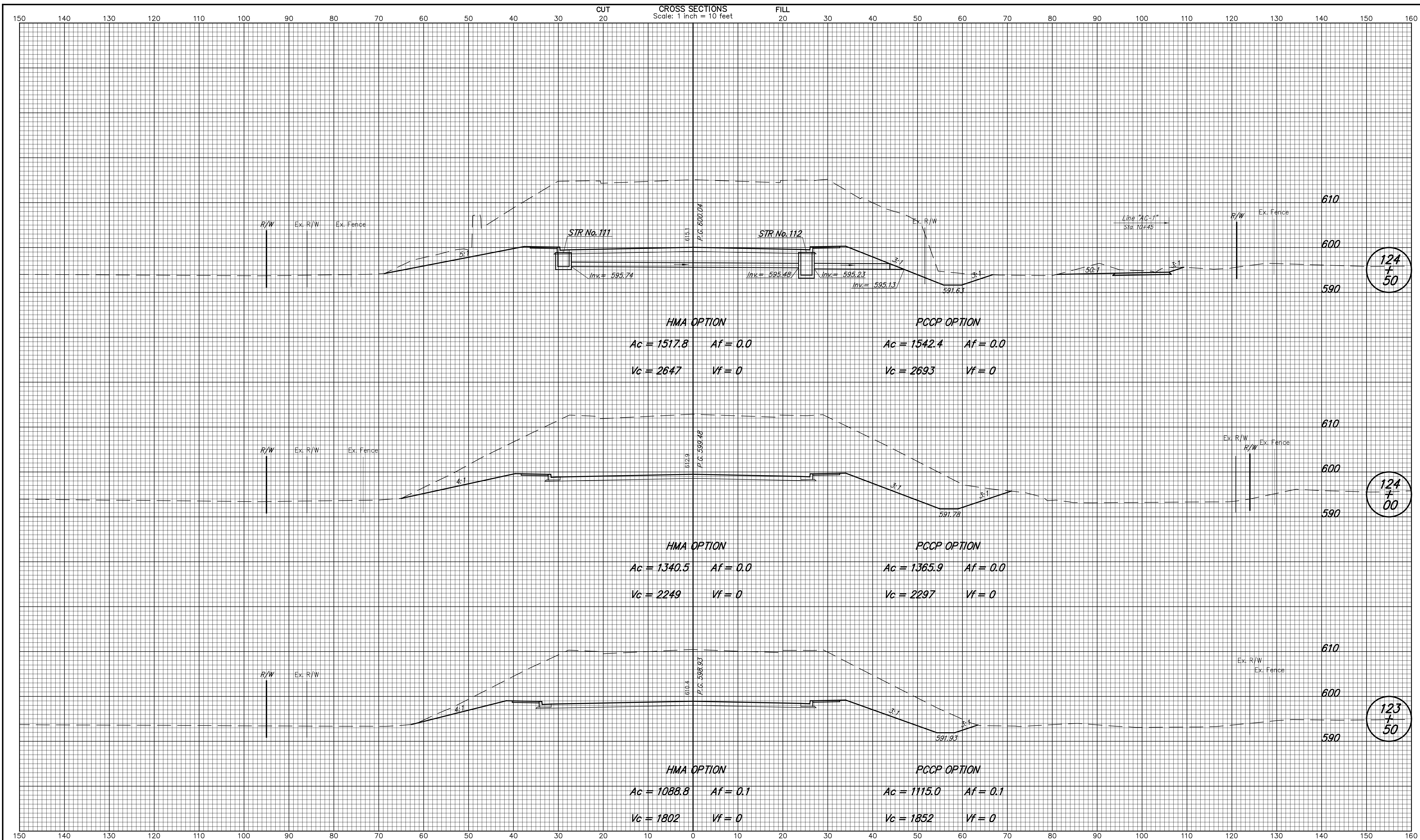
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		<b>CROSS SECTIONS</b> <b>LINE PR-A</b>		SURVEY BOOK B-33357	SHEETS 117 of 147 PROJECT NO. N881008



<b>INDIANA</b> DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 10' VERTICAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730 DESIGNATION NO. 0014210
<b>CROSS SECTIONS</b> LINE PR-A		SURVEY BOOK B-33357	SHEETS 118 of 147 PROJECT NO. N881008
DESIGNED: NRM CHECKED: DAD / WSL	DRAWN: RJC CHECKED: DAD / WSL		



<p>INDIANA DEPARTMENT OF TRANSPORTATION</p> <p><b>CROSS SECTIONS LINE PR-A</b></p>		<p>HORIZONTAL SCALE 1" = 10'</p> <p>VERTICAL SCALE 1" = 10'</p> <p>SURVEY BOOK B-33357</p>	<p>BRIDGE FILE 152-45-02730</p> <p>DESIGNATION NO. 0014210</p> <p>SHEETS 119 of 147</p> <p>PROJECT NO. N881008</p>
<p>DESIGNED: NRM</p> <p>CHECKED: DAD / WSL</p>	<p>DRAWN: RJC</p> <p>CHECKED: DAD / WSL</p>		



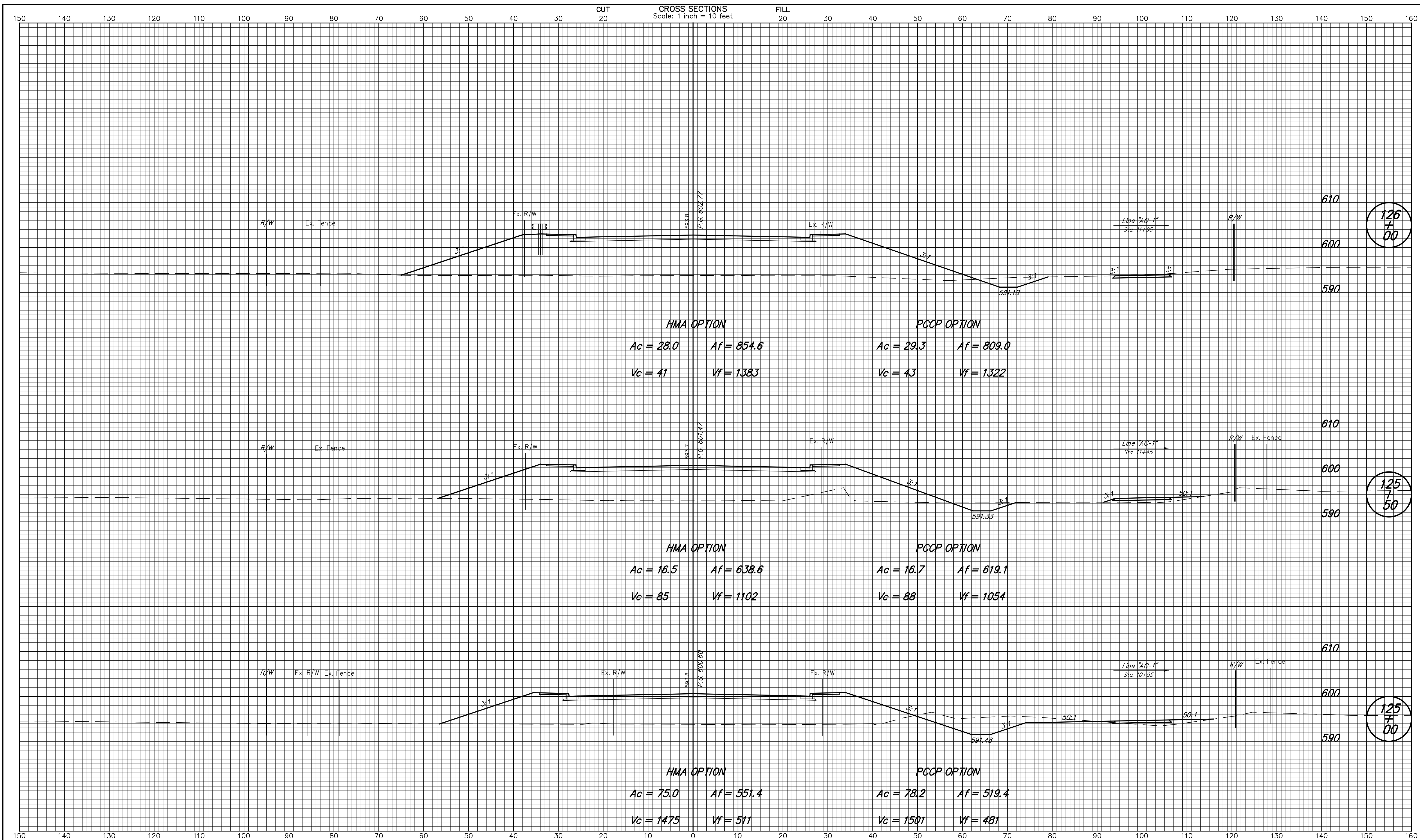
124  
+  
50

124  
+  
00

123  
+  
50

DESIGNED: NRM      DRAWN: RJC CHECKED: DAD / WSL      CHECKED: DAD / WSL		<b>INDIANA</b> <b>DEPARTMENT OF TRANSPORTATION</b>  <b>CROSS SECTIONS</b> <b>LINE PR-A</b>	HORIZONTAL SCALE 1" = 10' VERTICAL SCALE 1" = 10' SURVEY BOOK CONTRACT B-33357	BRIDGE FILE 152-45-02730 DESIGNATION NO. 0014210 SHEETS 120 of 147 PROJECT NO. N881008
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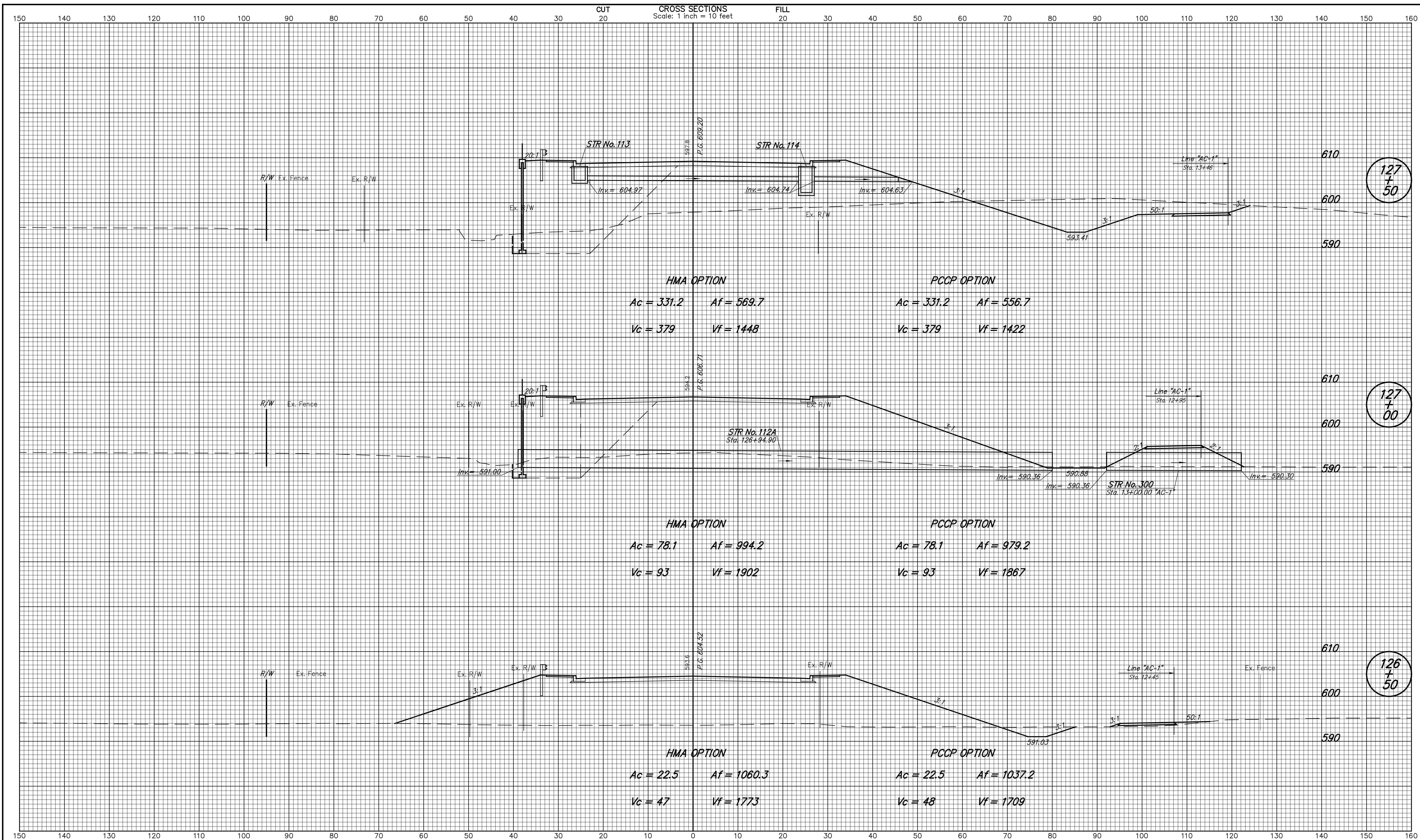


126  
+  
00

125  
+  
50

125  
+  
00

INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
CROSS SECTIONS LINE PR-A		VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
DESIGNED: NRM	DRAWN: RJC	SURVEY BOOK	SHEETS
CHECKED: DAD / WSL	CHECKED: DAD / WSL	CONTRACT B-33357	121 of 147 PROJECT NO. N881008

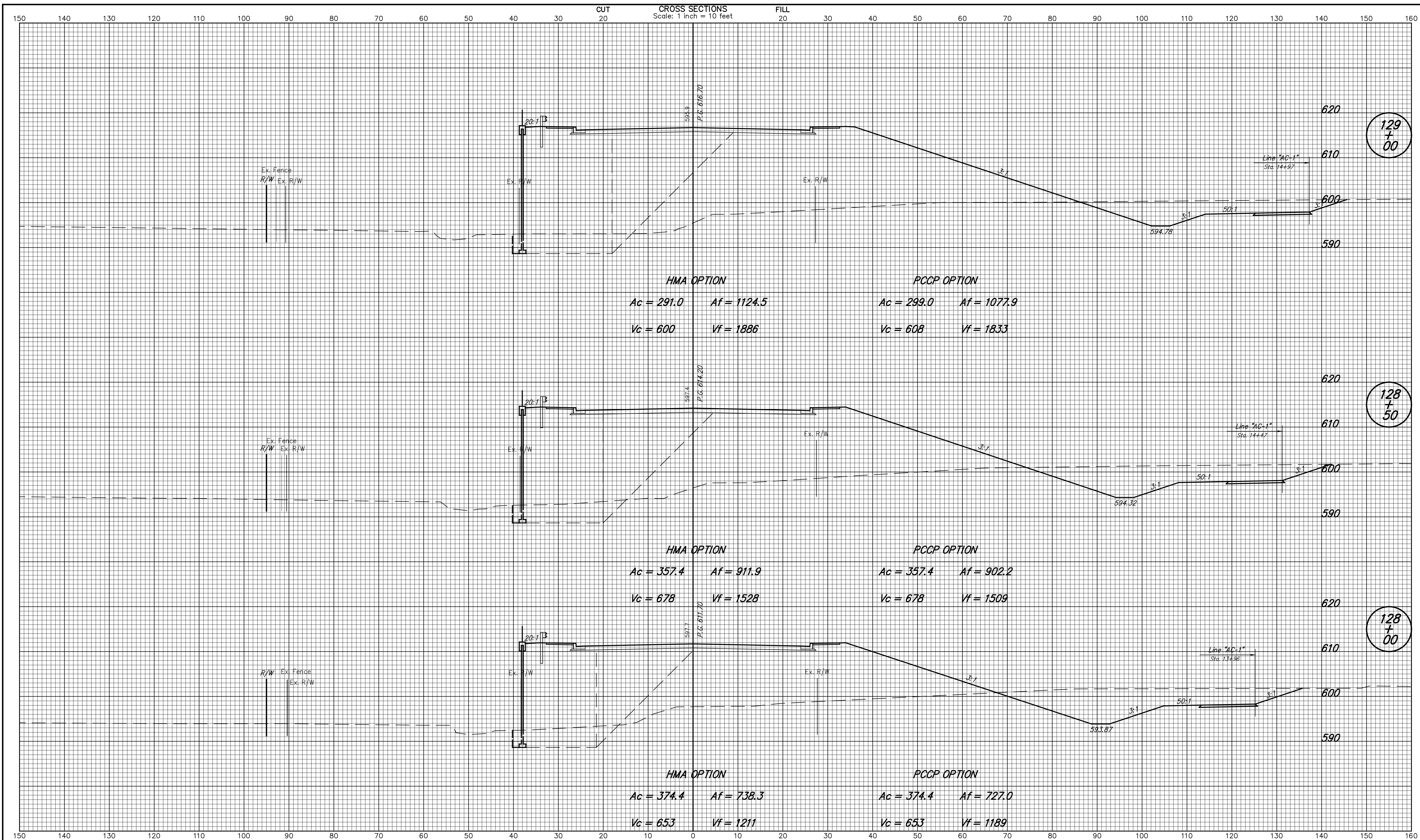


127  
+  
50

127  
+  
00

126  
+  
50

<b>INDIANA DEPARTMENT OF TRANSPORTATION</b> <b>CROSS SECTIONS</b> <b>LINE PR-A</b>		HORIZONTAL SCALE 1" = 10' VERTICAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730 DESIGNATION NO. 0014210
DESIGNED: NRM CHECKED: DAD / WSL	DRAWN: RJC CHECKED: DAD / WSL	SURVEY BOOK B-33357	SHEETS 122 of 147 PROJECT NO. N881008

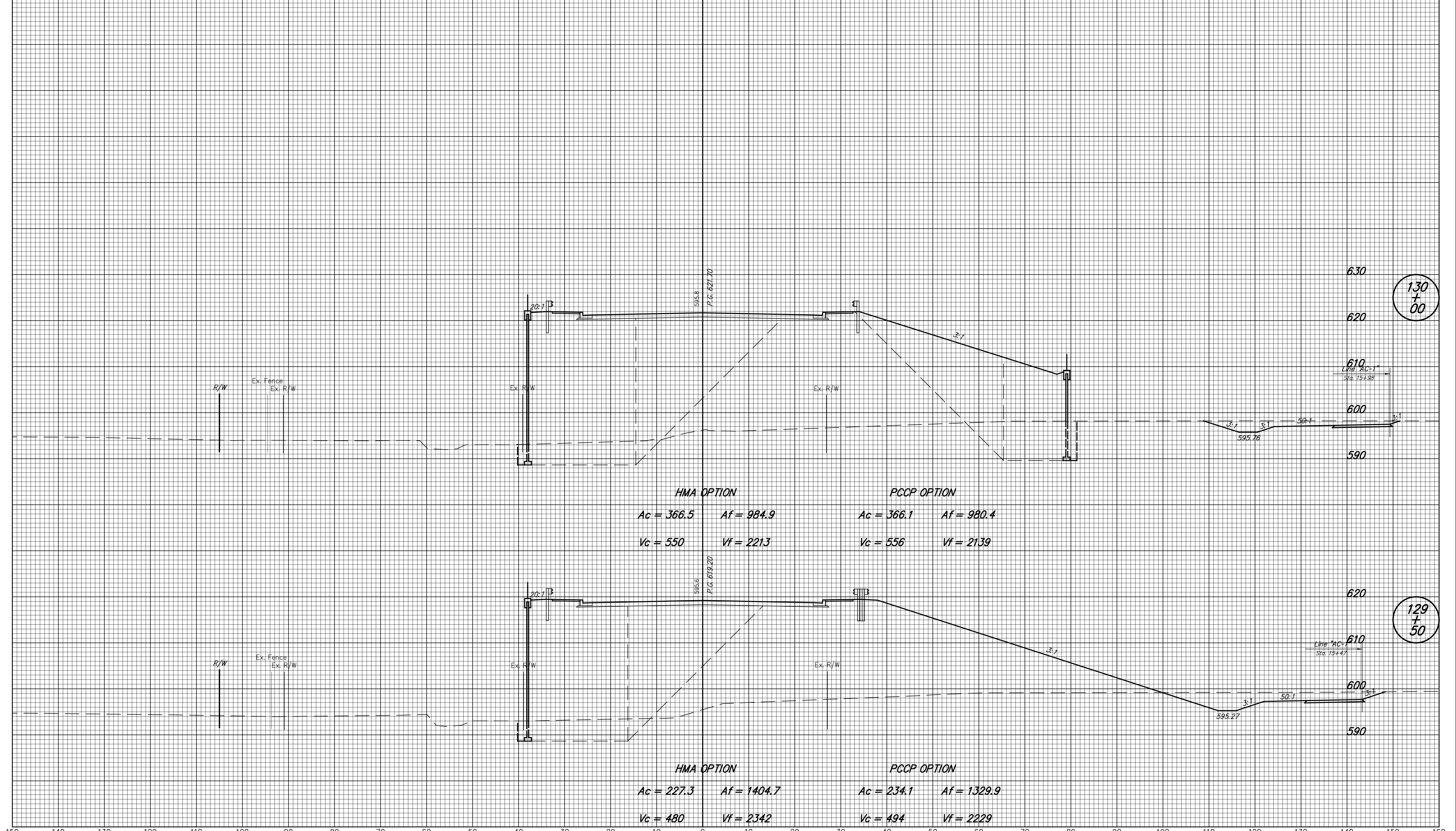


129  
+  
00

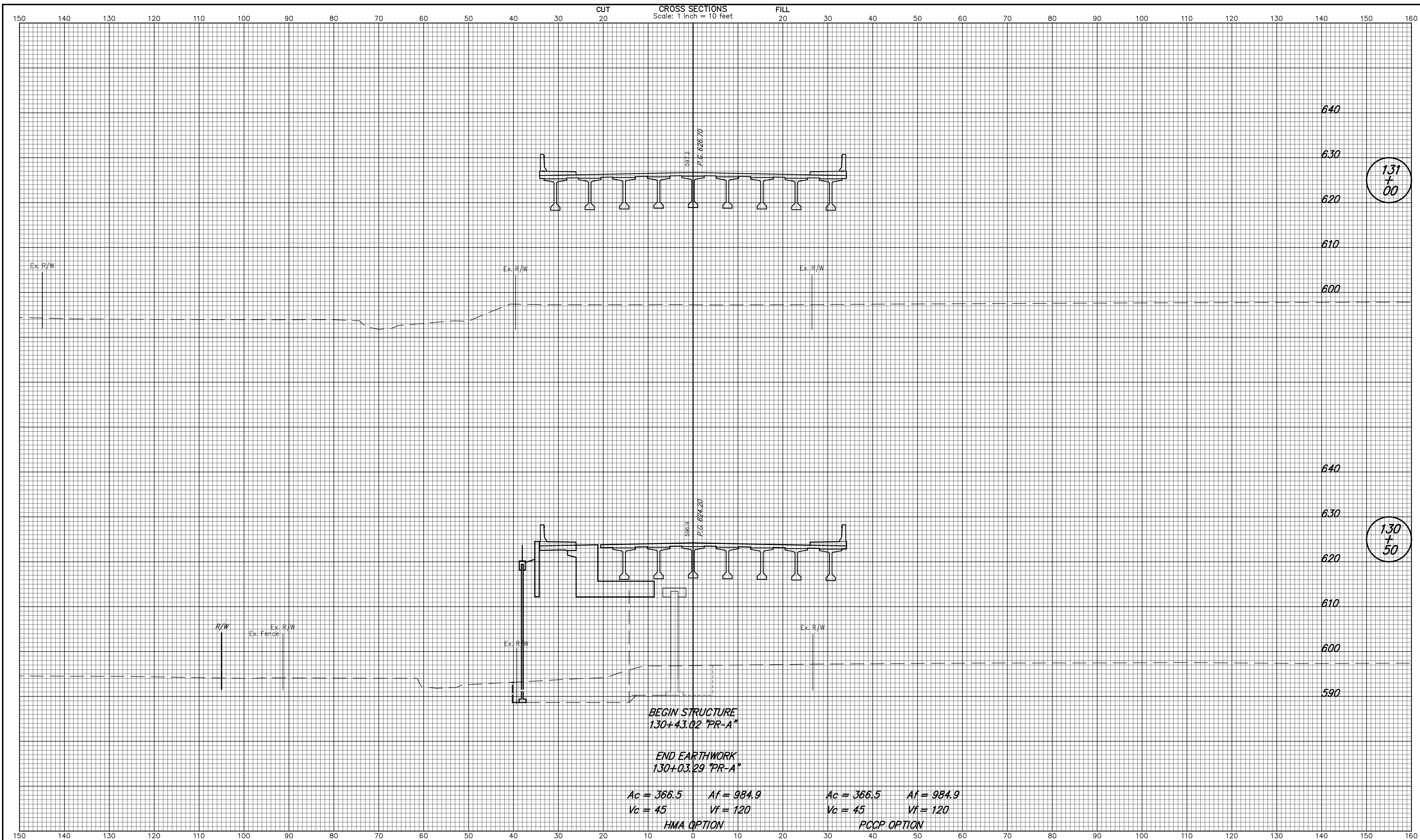
128  
+  
50

128  
+  
00

<b>INDIANA DEPARTMENT OF TRANSPORTATION</b> <b>CROSS SECTIONS</b> <b>LINE PR-A</b>		HORIZONTAL SCALE 1" = 10' VERTICAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730 DESIGNATION NO. 0014210
DESIGNED: NRM CHECKED: DAD / WSL	DRAWN: RJC CHECKED: DAD / WSL	SURVEY BOOK B-33357	SHEETS 123 of 147 PROJECT NO. N881008



DESIGNED: NRM CHECKED: DAD / WSL		DRAWN: RJC CHECKED: DAD / WSL		INDIANA DEPARTMENT OF TRANSPORTATION CROSS SECTIONS LINE PR-A		HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
						VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
				SURVEY BOOK B-33357	SHEETS 124 of 147	PROJECT NO. N881008	



BEGIN STRUCTURE  
130+43.02 "PR-A"

END EARTHWORK  
130+03.29 "PR-A"

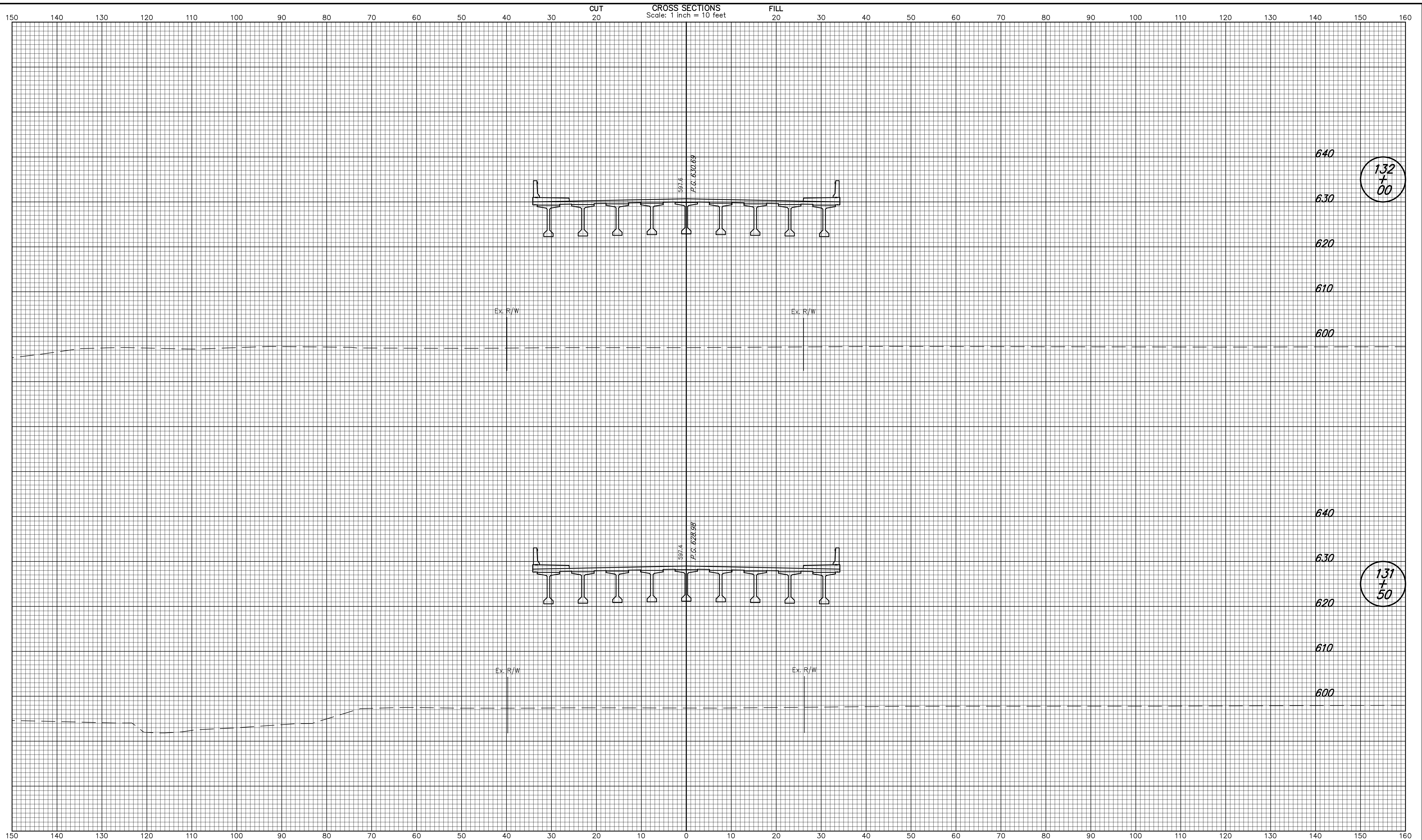
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 $V_c = 45$     $V_f = 120$

HMA OPTION

$A_c = 366.5$     $A_f = 984.9$   
 $V_c = 45$     $V_f = 120$

PCCP OPTION

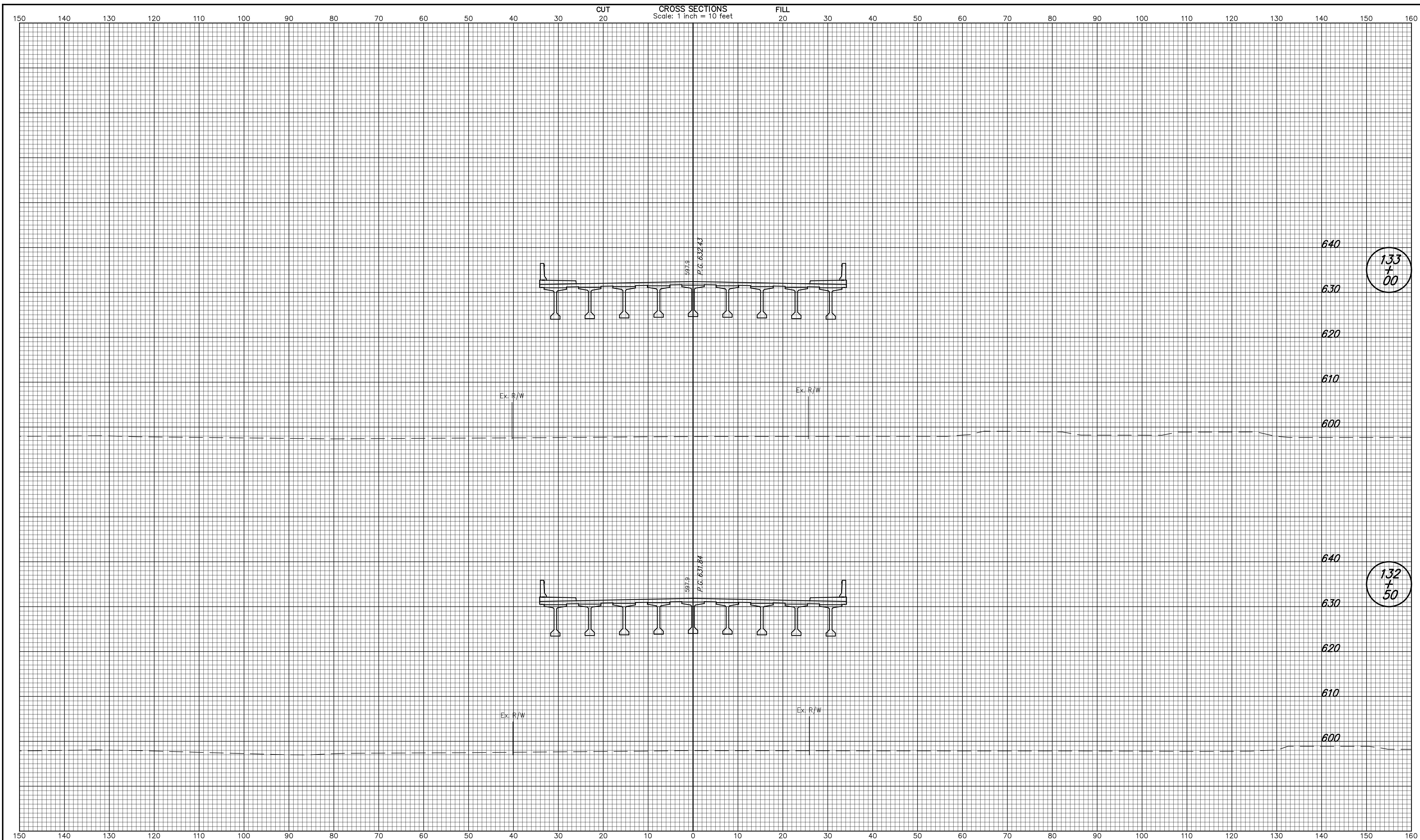
DESIGNED: NRM   DRAWN: RJC CHECKED: DAD / WSL   CHECKED: DAD / WSL		INDIANA DEPARTMENT OF TRANSPORTATION  <b>CROSS SECTIONS</b> <b>LINE PR-A</b>		HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
				VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
		SURVEY BOOK B-33357	SHEETS 125 of 147		PROJECT NO. N881008



132  
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131  
+  
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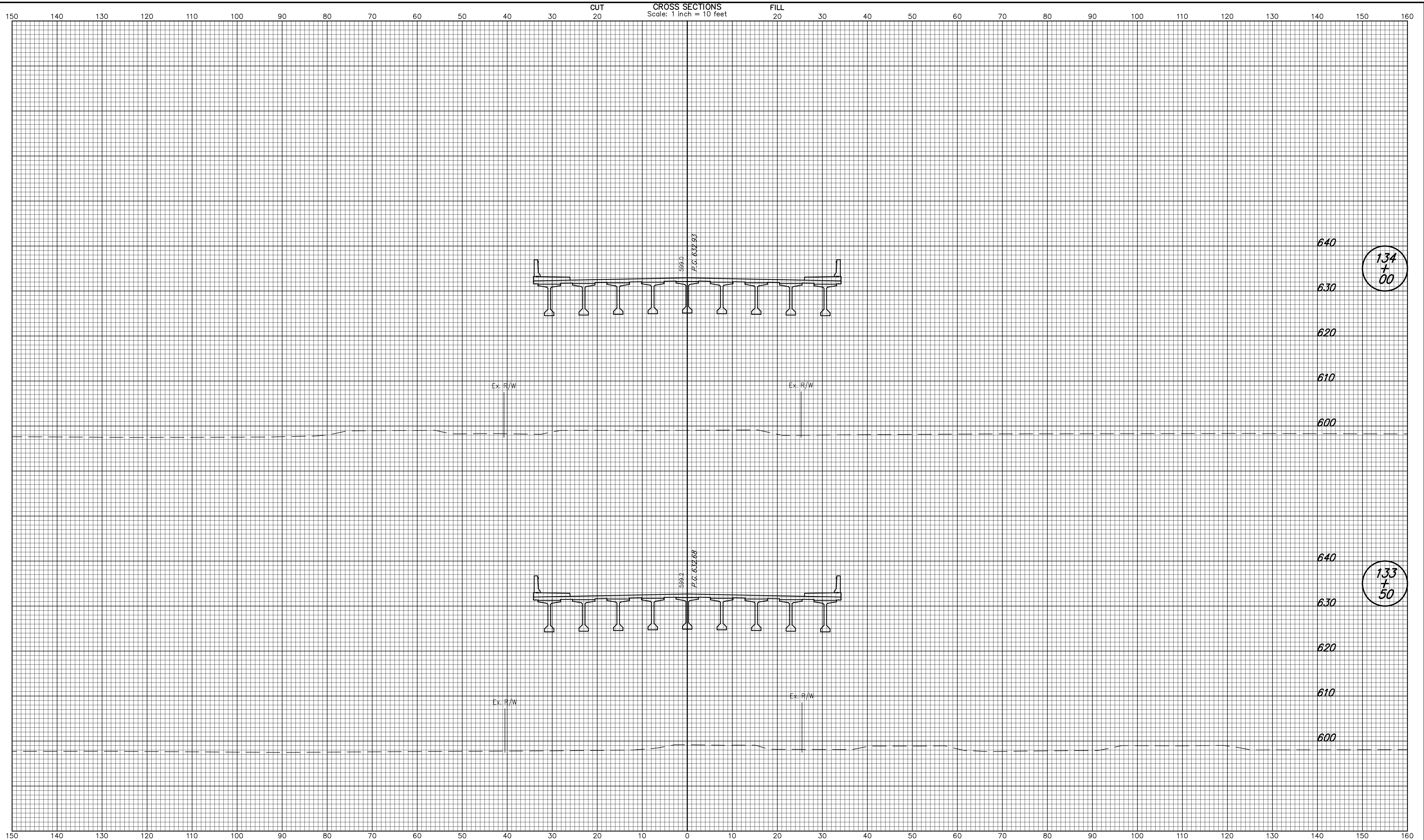
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				VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
		SURVEY BOOK B-33357	SHEETS 126 of 147		PROJECT NO. N881008



133  
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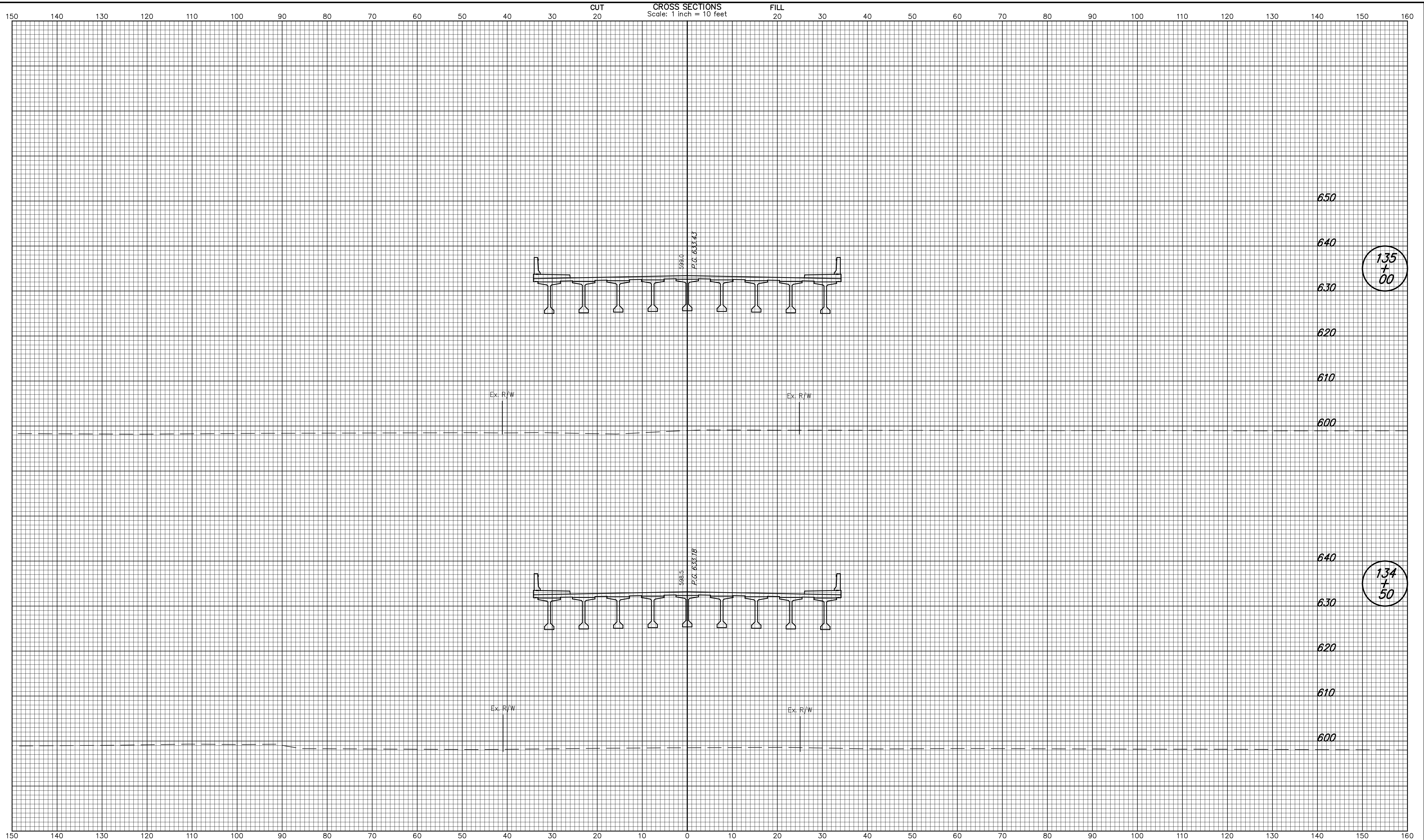
132  
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						VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
				SURVEY BOOK B-33357	SHEETS 127 of 147	PROJECT NO. N881008	

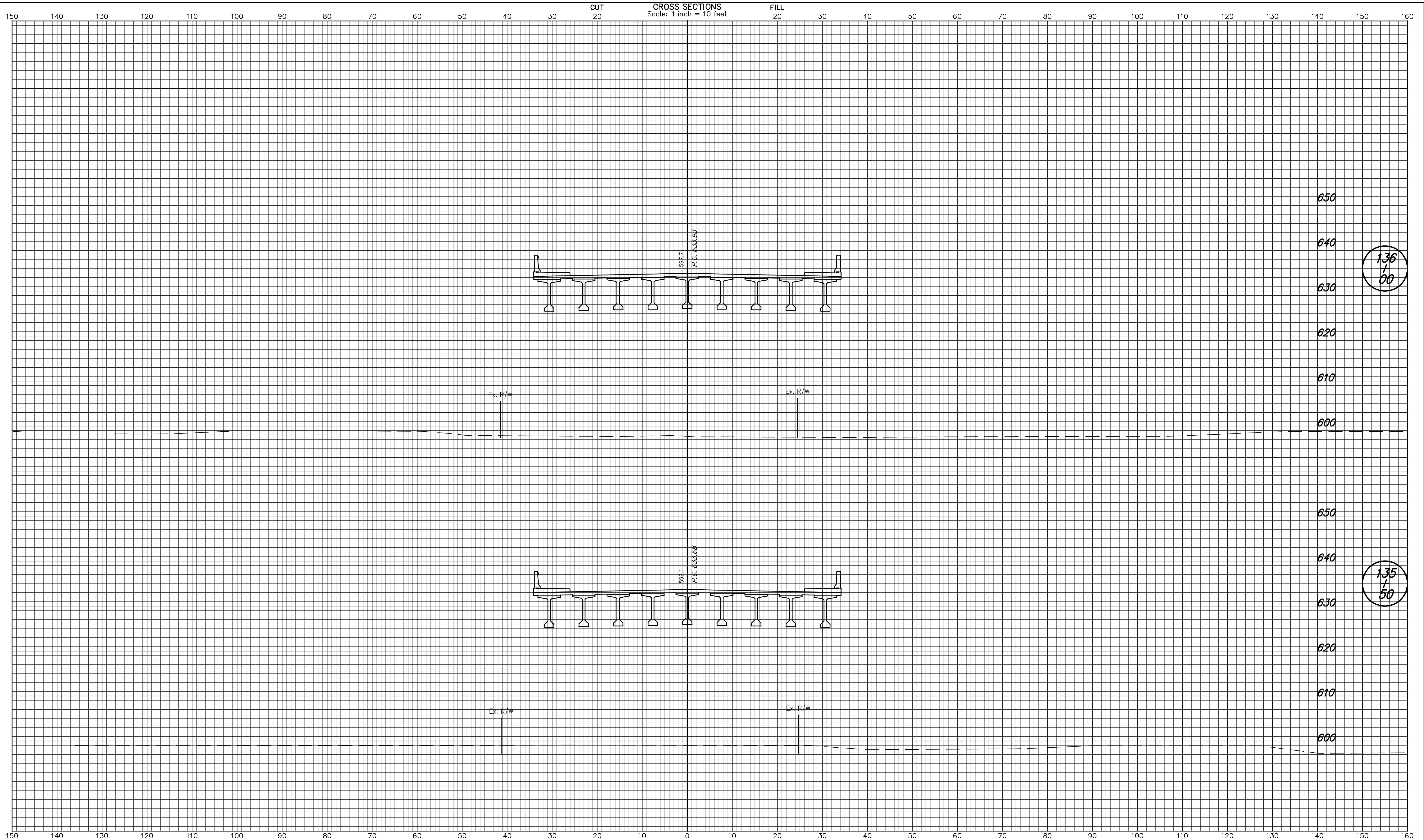


DESIGNED: NRM      DRAWN: RJC CHECKED: DAD / WSL      CHECKED: DAD / WSL		<b>INDIANA</b> <b>DEPARTMENT OF TRANSPORTATION</b>		HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
		<b>CROSS SECTIONS</b> <b>LINE PR-A</b>		VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
		SURVEY BOOK B-33357	SHEETS 128 of 147		
		CONTRACT B-33357	PROJECT NO. N881008		

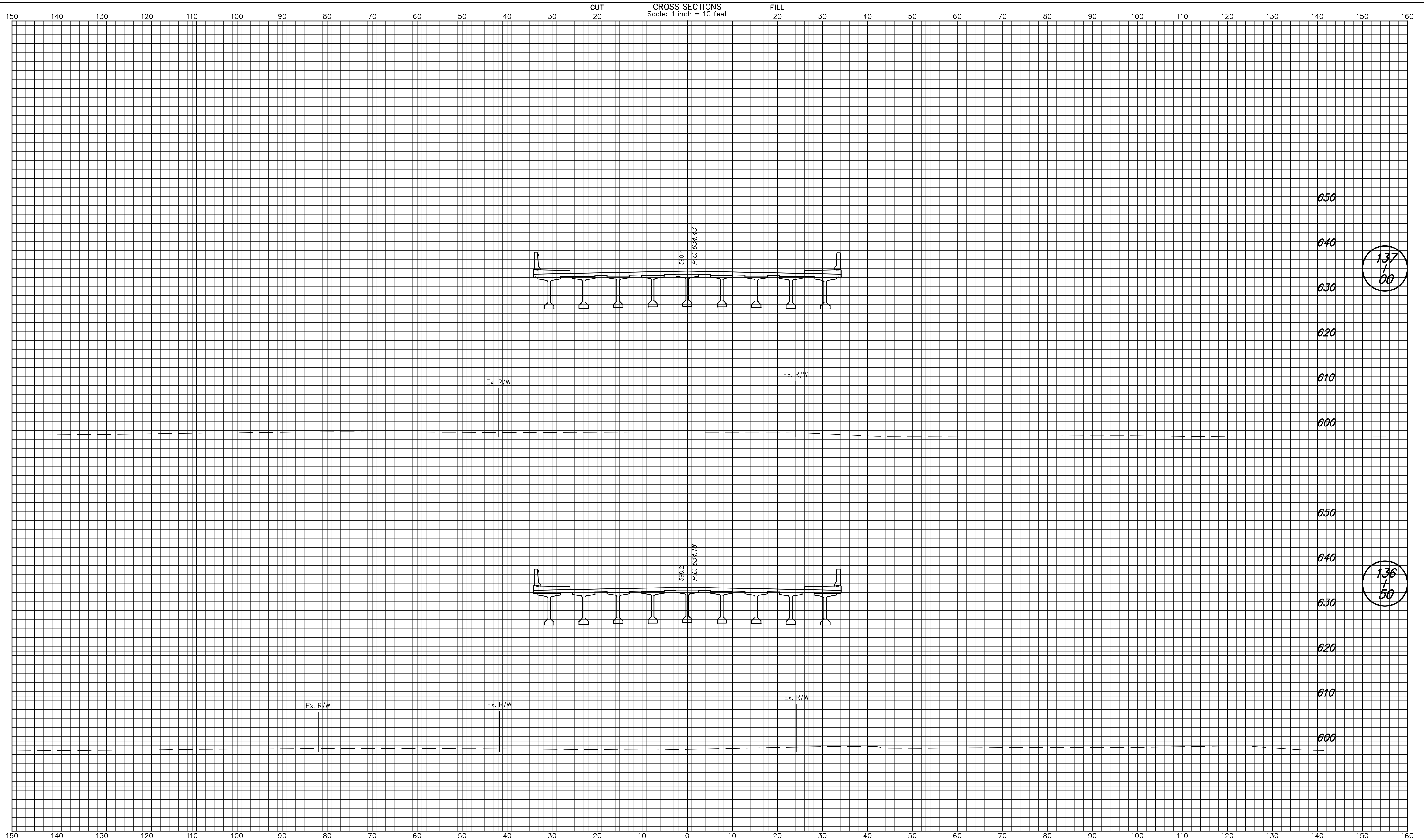




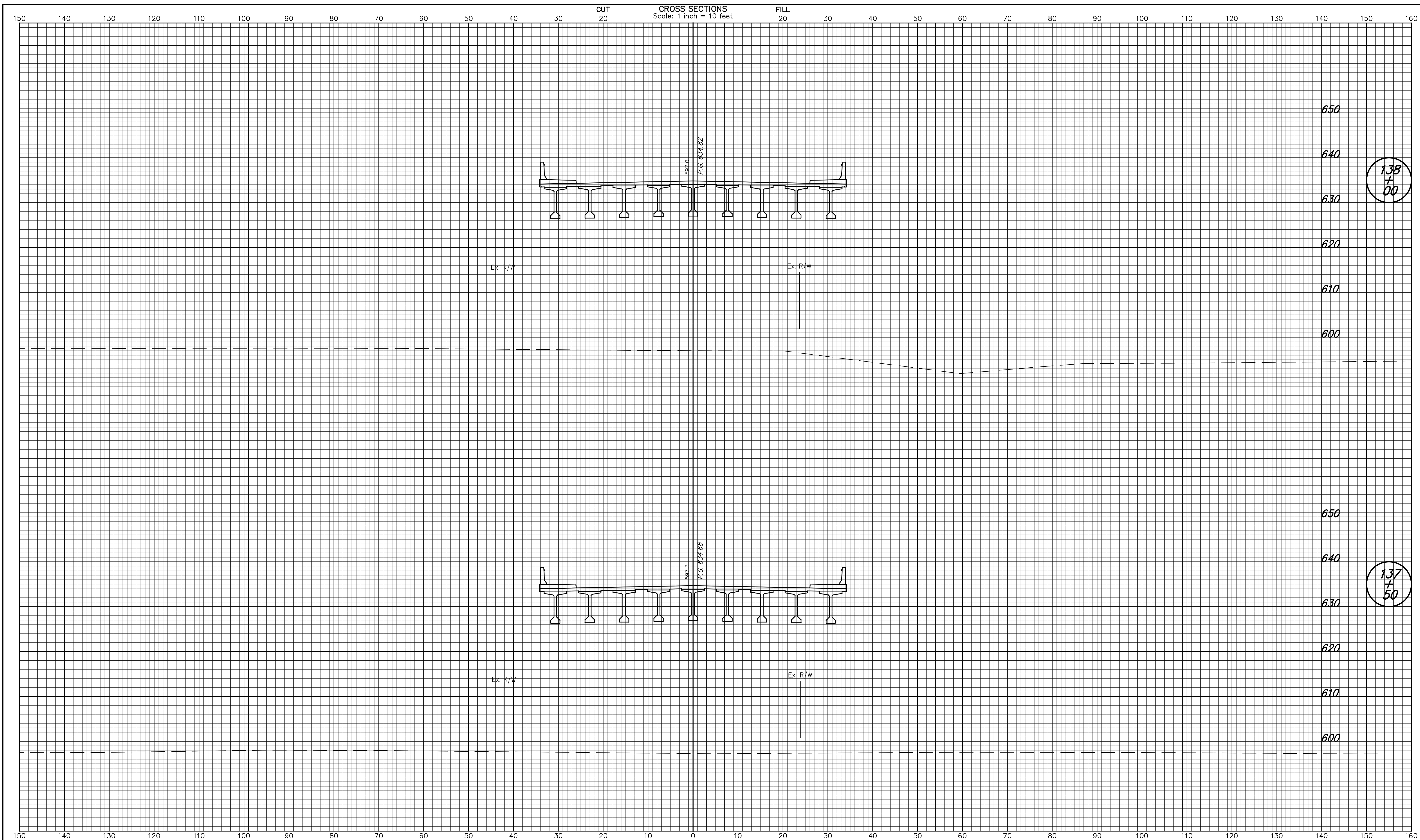
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<b>INDIANA</b> DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 10' VERTICAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730 DESIGNATION NO. 0014210
<b>CROSS SECTIONS</b> <b>LINE PR-A</b>		SURVEY BOOK B-33357	SHEETS 130 of 147 PROJECT NO. N881008
DESIGNED: NRM CHECKED: DAD / WSL	DRAWN: RJC CHECKED: DAD / WSL		



DESIGNED: NRM      DRAWN: RJC CHECKED: DAD / WSL      CHECKED: DAD / WSL		<b>INDIANA</b> <b>DEPARTMENT OF TRANSPORTATION</b>  <b>CROSS SECTIONS</b> <b>LINE PR-A</b>	HORIZONTAL SCALE 1" = 10' VERTICAL SCALE 1" = 10' SURVEY BOOK B-33357 BRIDGE FILE 152-45-02730 DESIGNATION NO. 0014210 SHEETS 131 of 147 PROJECT NO. N881008
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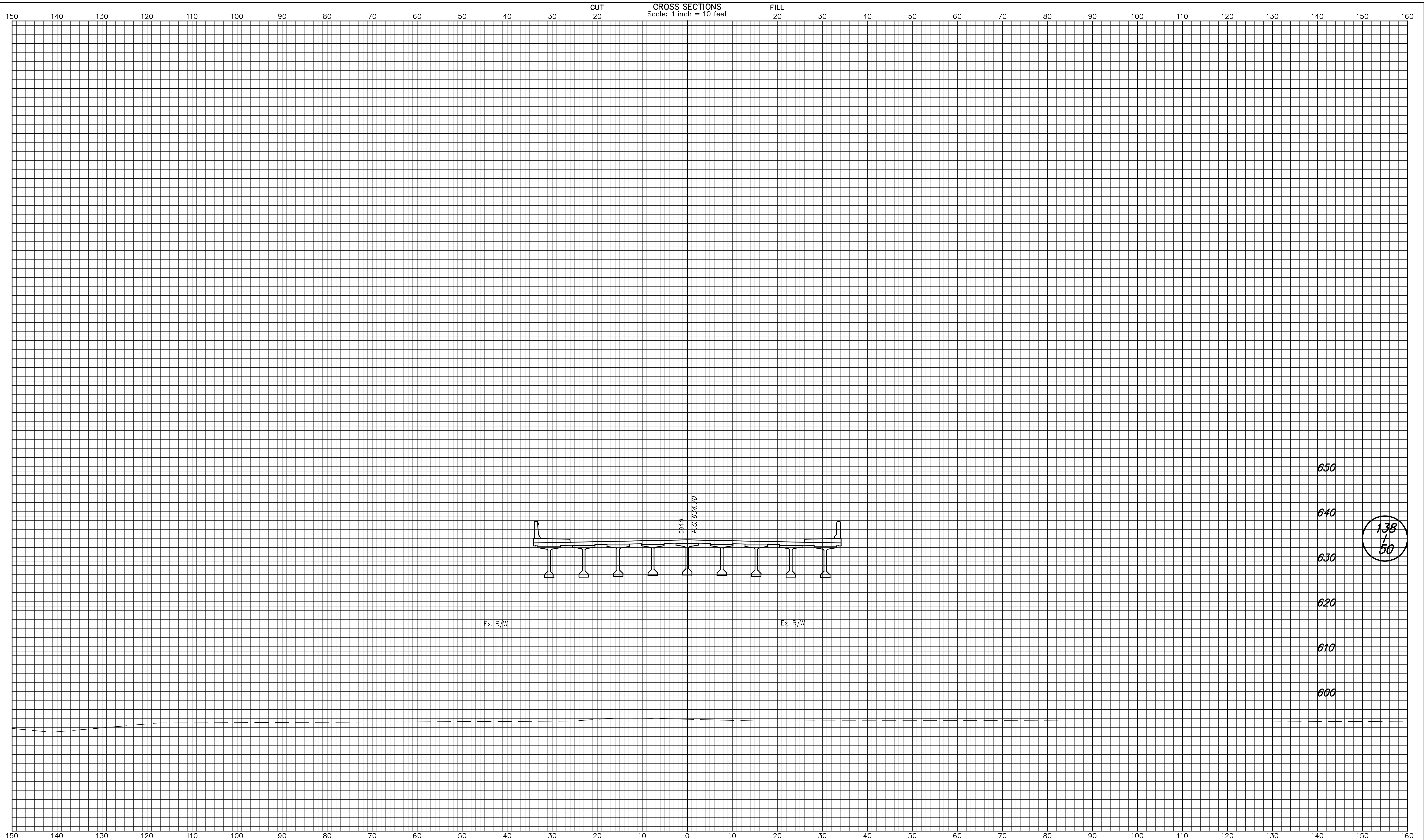


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CHECKED: DAD / WSL		CHECKED: DAD / WSL	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**CROSS SECTIONS  
LINE PR-A**

HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 132 of 147
CONTRACT B-33357	PROJECT NO. N881008

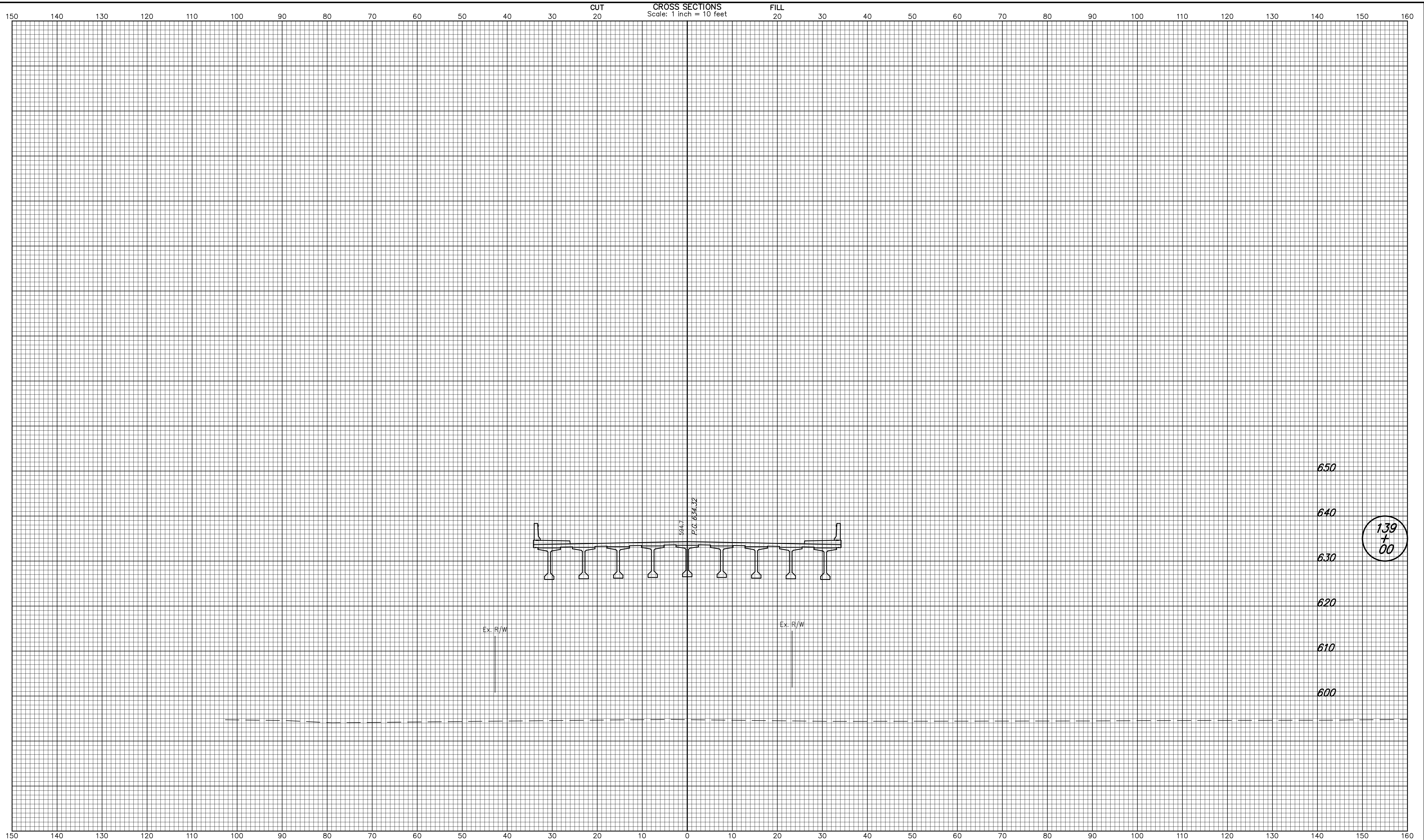


DESIGNED: NRM		DRAWN: RJC	
CHECKED: DAD / WSL		CHECKED: DAD / WSL	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**CROSS SECTIONS  
LINE PR-A**

HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 133 of 147
CONTRACT B-33357	PROJECT NO. N881008

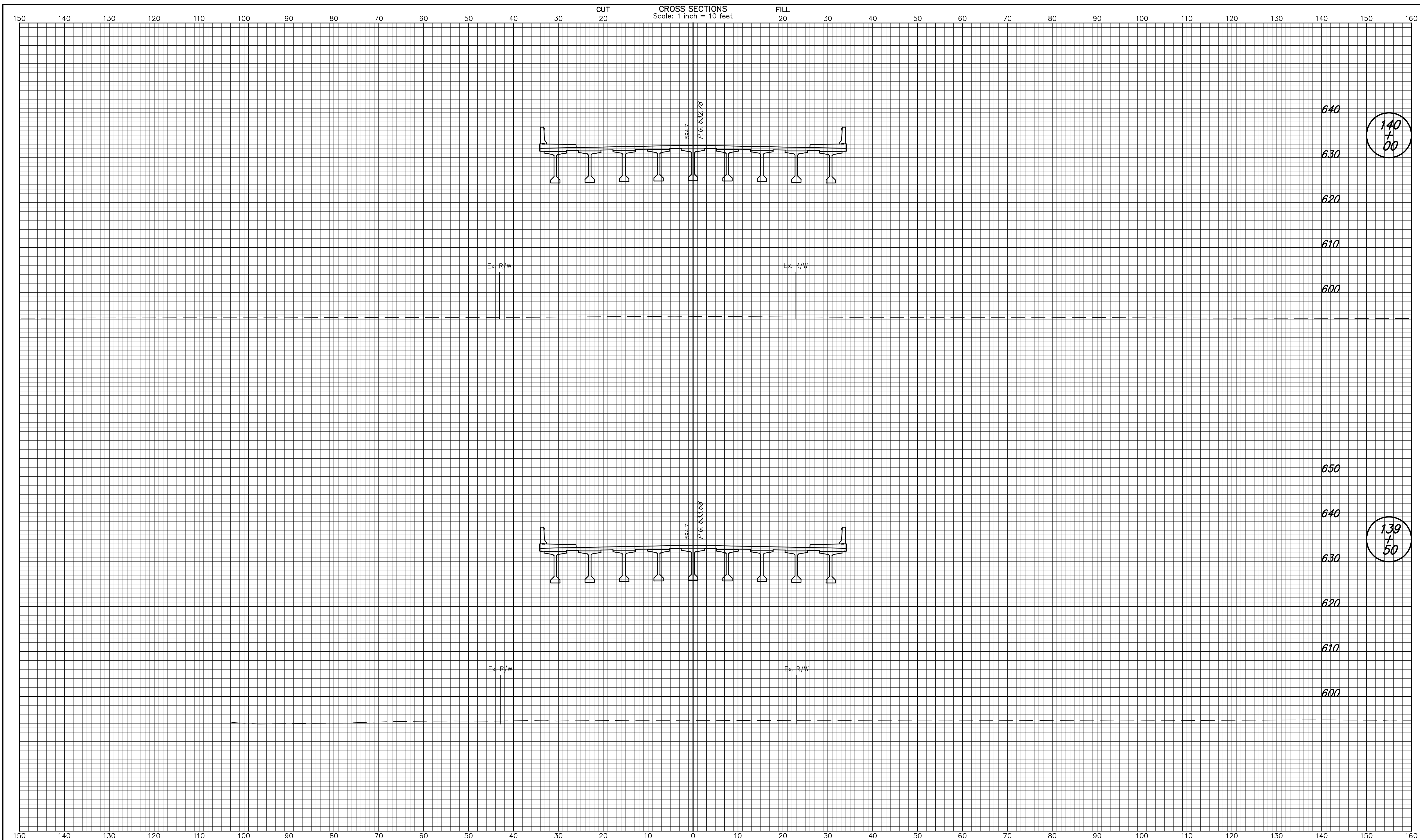


DESIGNED: NRM		DRAWN: RJC	
CHECKED: DAD / WSL		CHECKED: DAD / WSL	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**CROSS SECTIONS  
LINE PR-A**

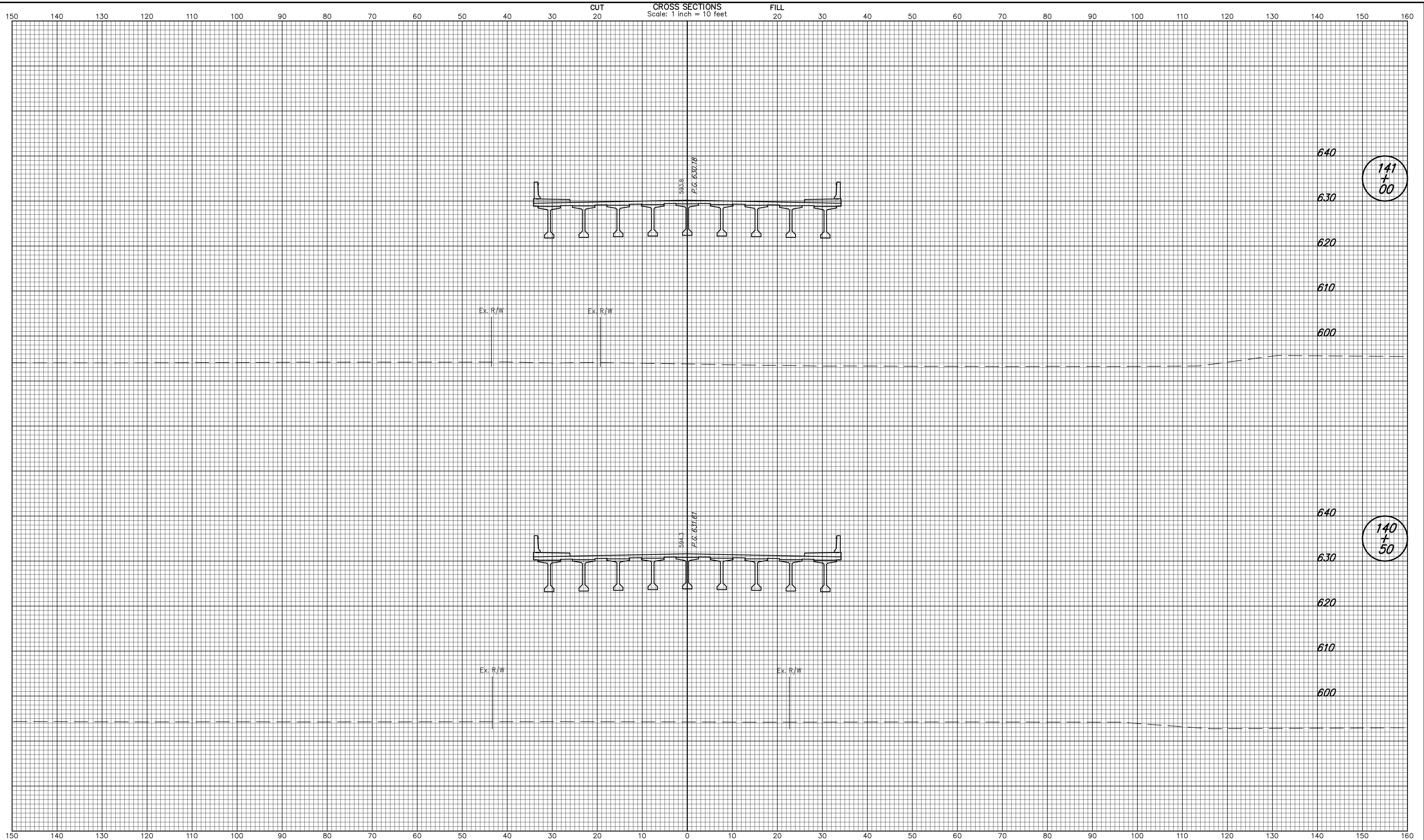
HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 134 of 147
CONTRACT B-33357	PROJECT NO. N881008



140  
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139  
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DESIGNED: NRM CHECKED: DAD / WSL		DRAWN: RJC CHECKED: DAD / WSL		INDIANA DEPARTMENT OF TRANSPORTATION  <b>CROSS SECTIONS          LINE PR-A</b>		HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
						VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
				SURVEY BOOK B-33357	SHEETS 135 of 147	PROJECT NO. N881008	



141  
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140  
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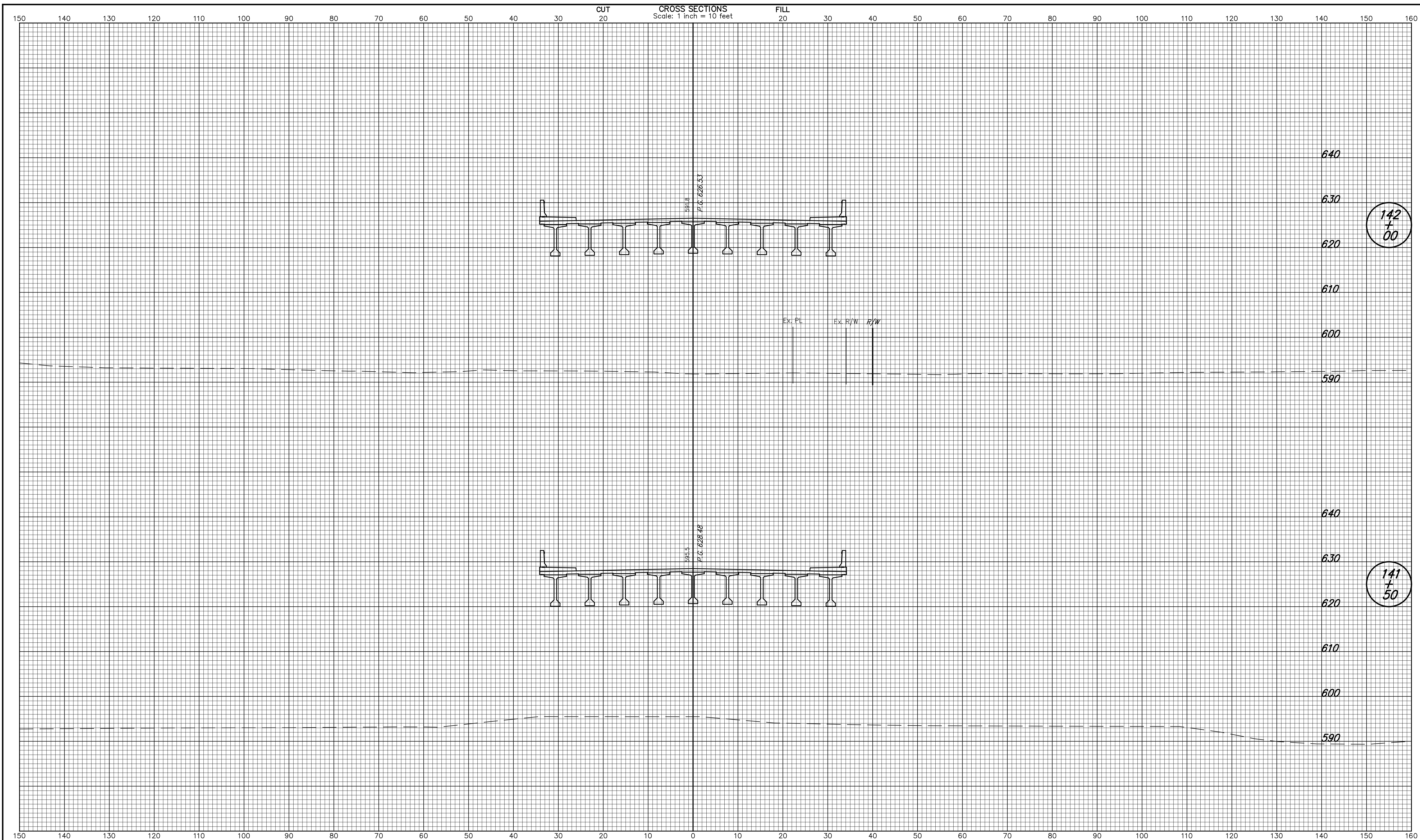
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INDIANA  
DEPARTMENT OF TRANSPORTATION

**CROSS SECTIONS  
LINE PR-A**

HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 136 of 147
CONTRACT B-33357	PROJECT NO. N881008



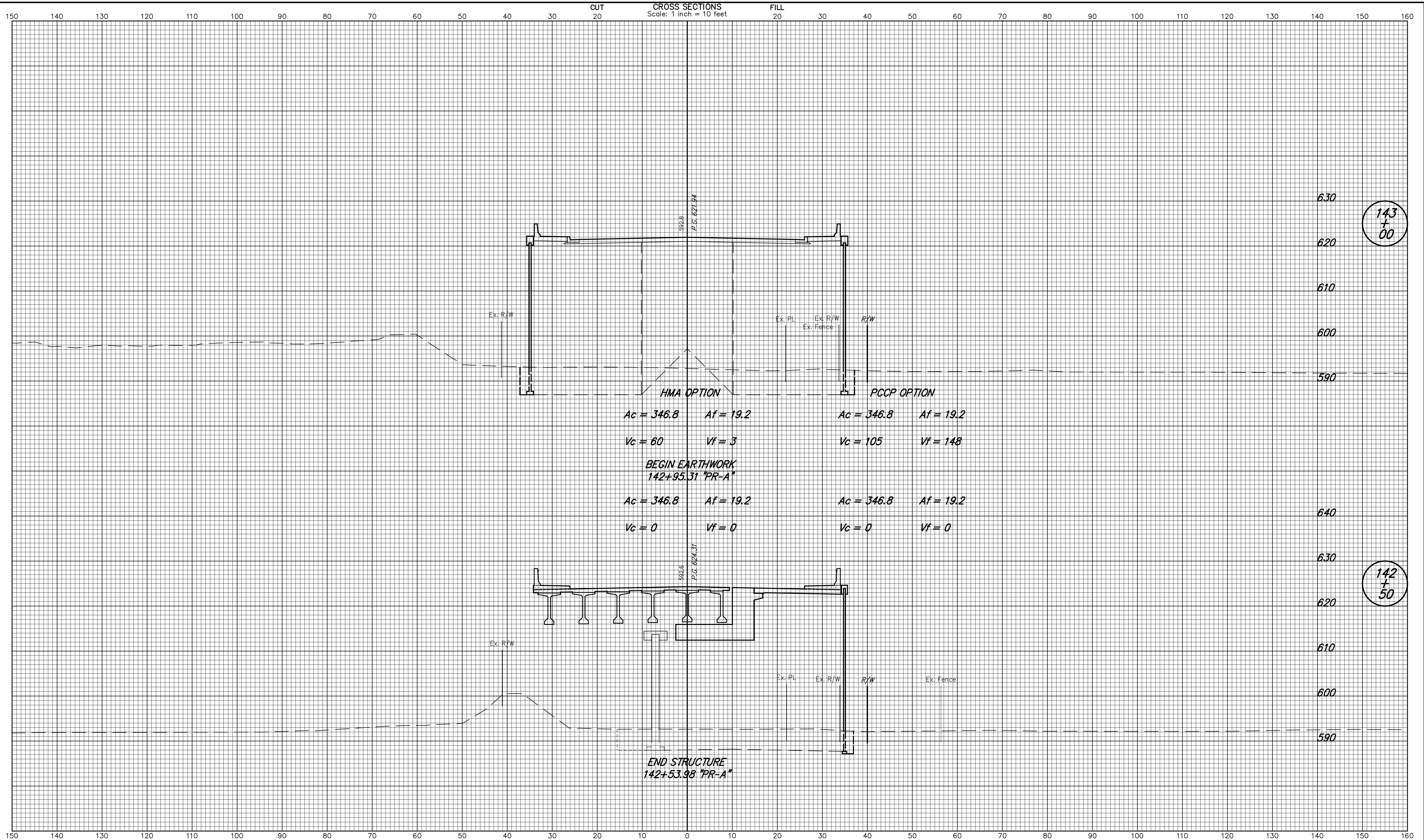


DESIGNED: NRM	DRAWN: RJC
CHECKED: DAD / WSL	CHECKED: DAD / WSL

INDIANA  
DEPARTMENT OF TRANSPORTATION

**CROSS SECTIONS  
LINE PR-A**

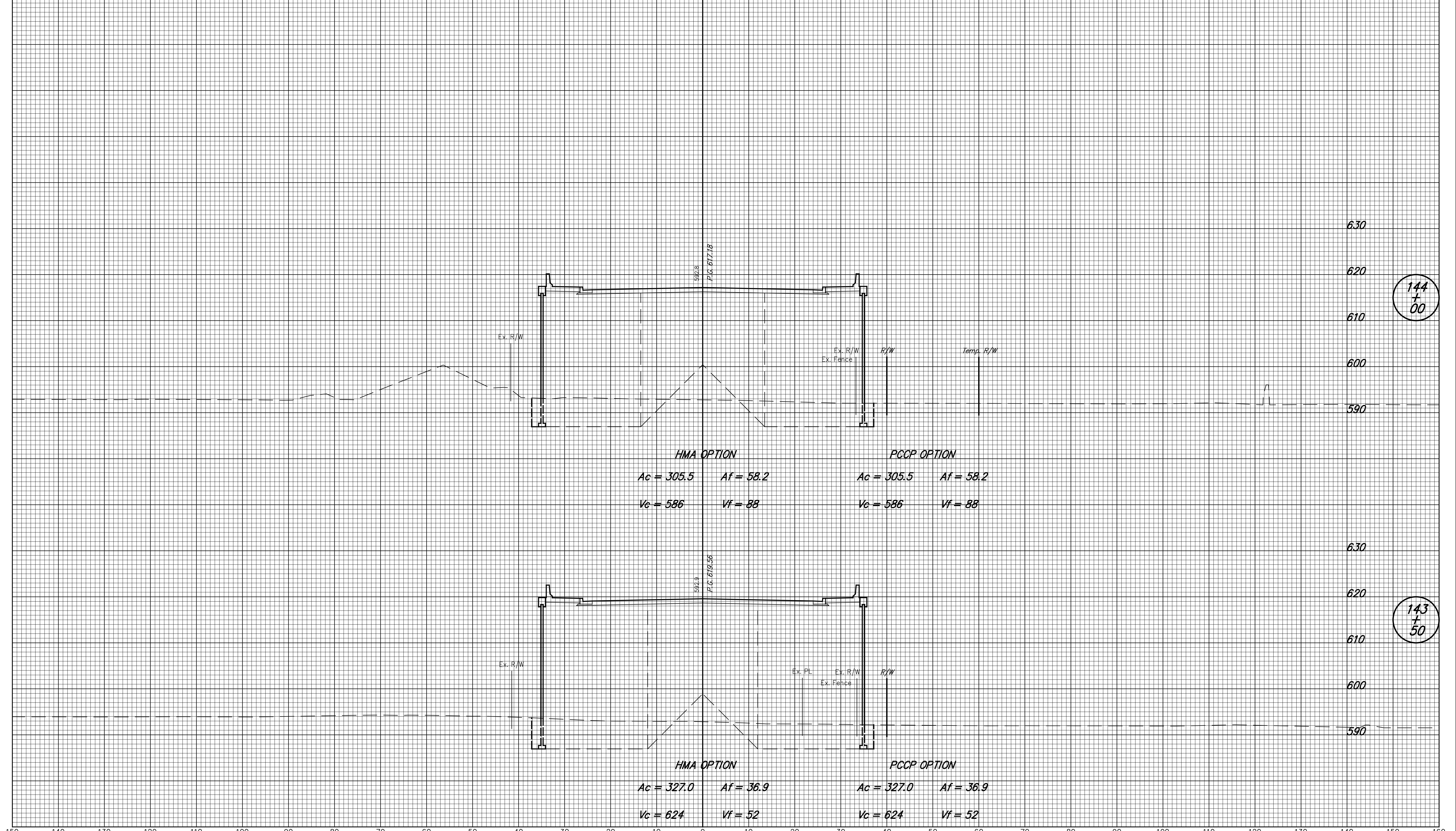
HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
SURVEY BOOK	SHEETS 137 of 147
CONTRACT B-33357	PROJECT NO. N881008



143  
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142  
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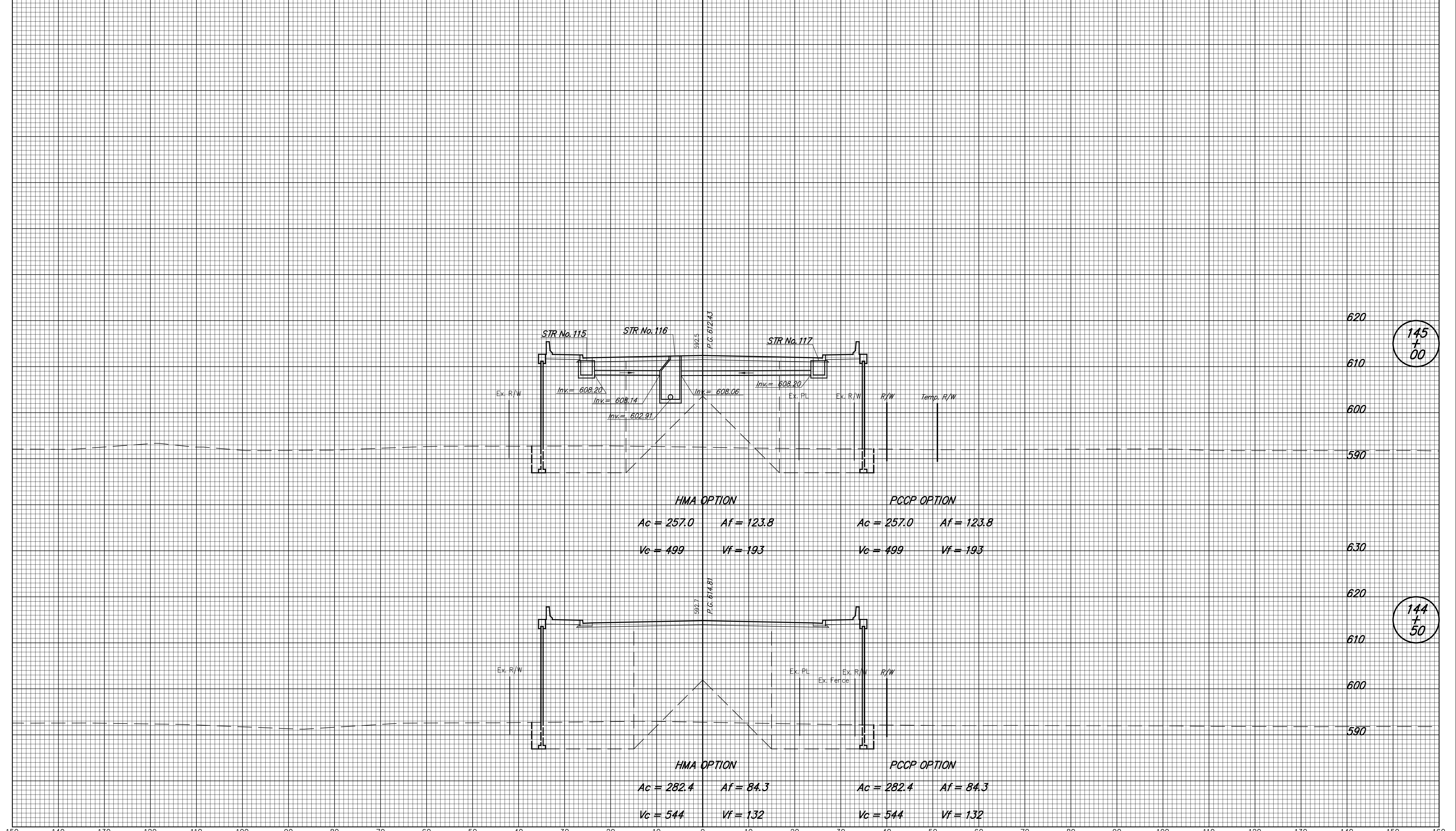
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144  
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143  
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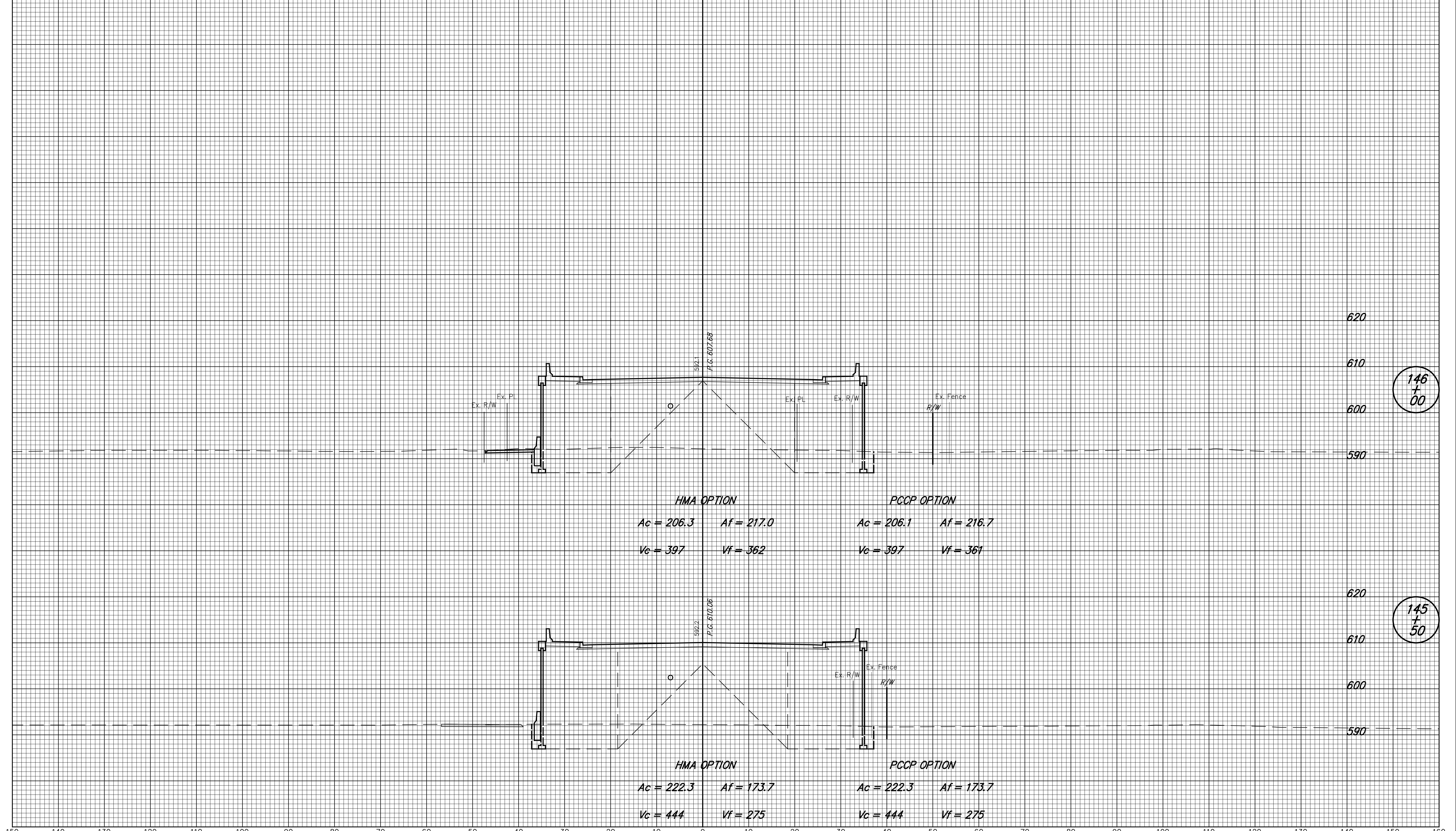
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				VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
		SURVEY BOOK B-33357	SHEETS 139 of 147	PROJECT NO. N881008	



145  
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144  
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DESIGNED: NRM		DRAWN: RJC		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 10'		BRIDGE FILE 152-45-02730	
CHECKED: DAD / WSL		CHECKED: DAD / WSL				VERTICAL SCALE 1" = 10'		DESIGNATION NO. 0014210	
CROSS SECTIONS LINE PR-A						SURVEY BOOK		SHEETS	
						CONTRACT B-33357		140 of 147	
						PROJECT NO. N881008			



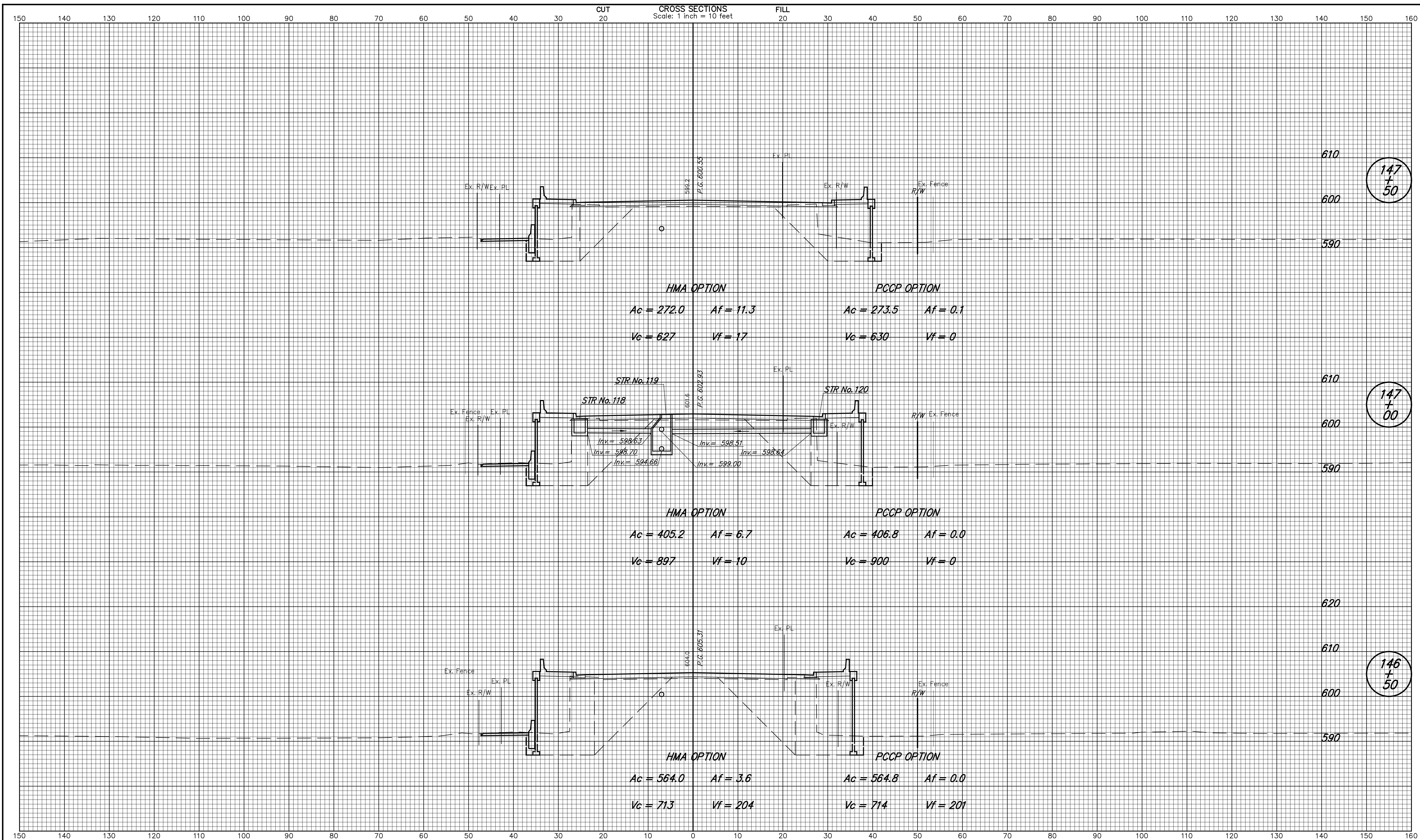
146  
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145  
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<i>HMA OPTION</i>		<i>PCCP OPTION</i>	
$Ac = 206.3$	$Af = 217.0$	$Ac = 206.1$	$Af = 216.7$
$Vc = 397$	$Vf = 362$	$Vc = 397$	$Vf = 361$

<i>HMA OPTION</i>		<i>PCCP OPTION</i>	
$Ac = 222.3$	$Af = 173.7$	$Ac = 222.3$	$Af = 173.7$
$Vc = 444$	$Vf = 275$	$Vc = 444$	$Vf = 275$

DESIGNED: NRM      DRAWN: RJC CHECKED: DAD / WSL      CHECKED: DAD / WSL		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 10' VERTICAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730 DESIGNATION NO. 0014210
		CROSS SECTIONS LINE PR-A		SURVEY BOOK B-33357	SHEETS 141 of 147 PROJECT NO. N881008

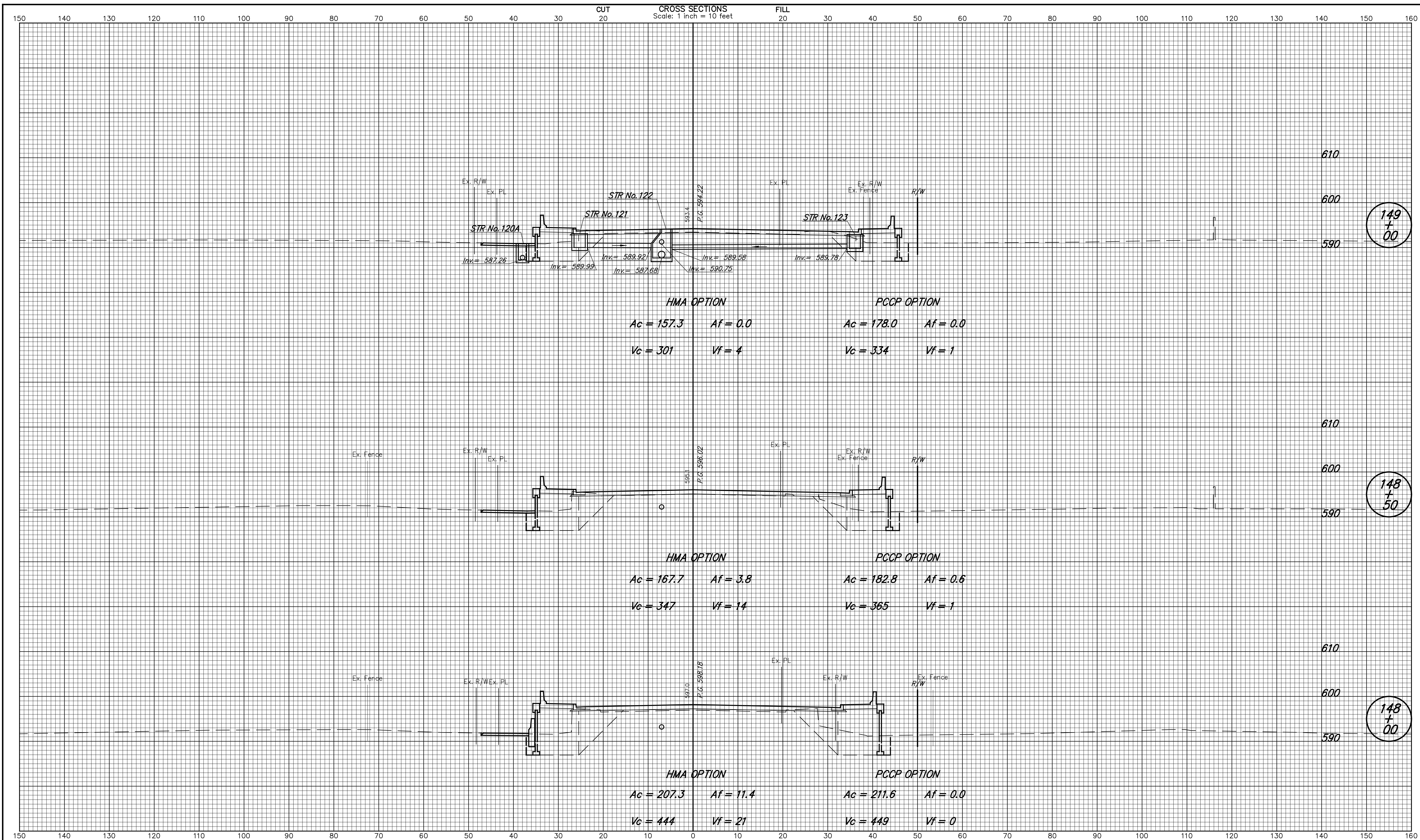


147  
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147  
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146  
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<b>INDIANA</b> DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 10' VERTICAL SCALE 1" = 10' SURVEY BOOK CONTRACT B-33357	BRIDGE FILE 152-45-02730 DESIGNATION NO. 0014210 SHEETS 142 of 147 PROJECT NO. N881008
DESIGNED: NRM CHECKED: DAD / WSL	DRAWN: RJC CHECKED: DAD / WSL	<b>CROSS SECTIONS</b> LINE PR-A	



**HMA OPTION**  
 $Ac = 157.3$     $Af = 0.0$   
 $Vc = 301$     $Vf = 4$

**PCCP OPTION**  
 $Ac = 178.0$     $Af = 0.0$   
 $Vc = 334$     $Vf = 1$

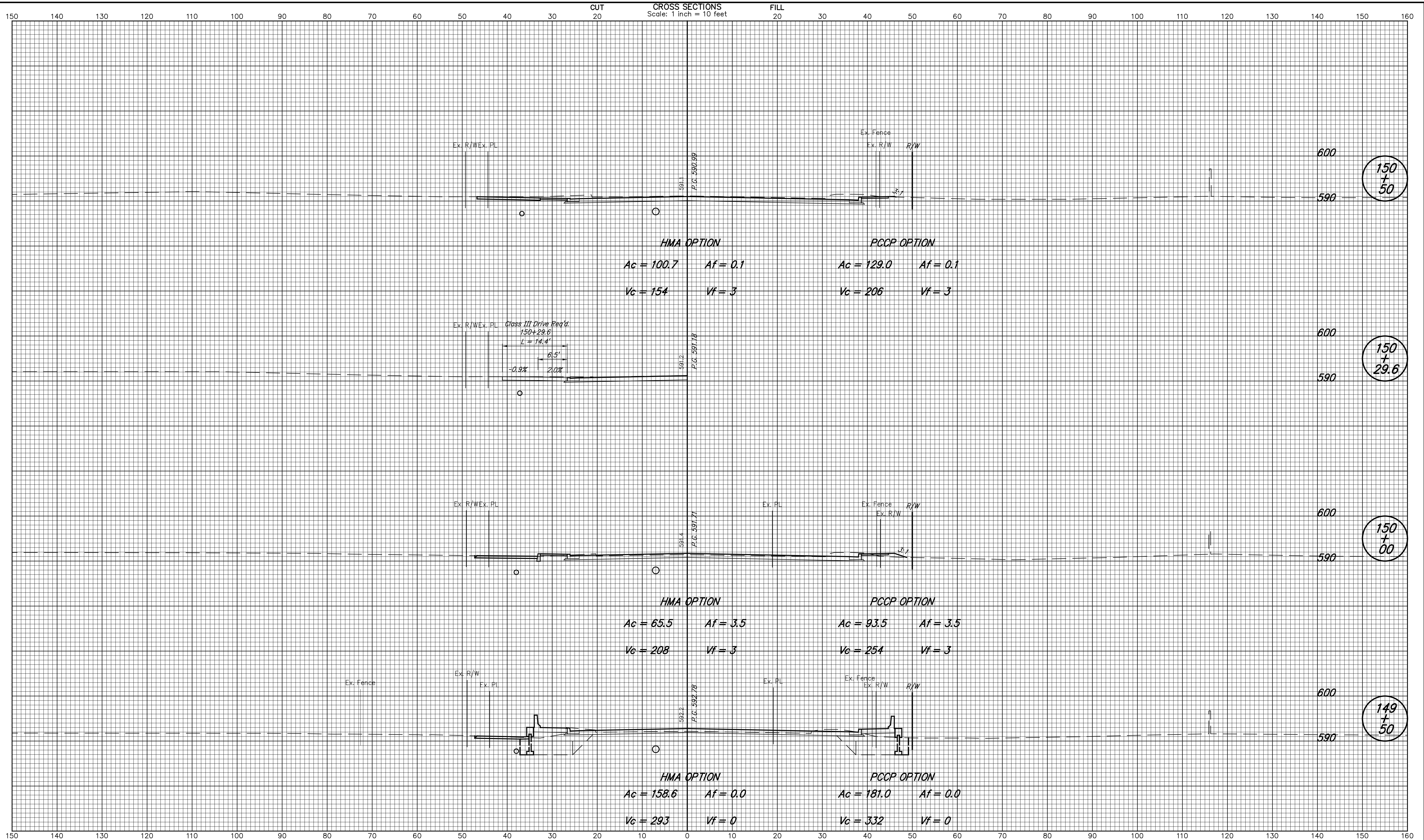
**HMA OPTION**  
 $Ac = 167.7$     $Af = 3.8$   
 $Vc = 347$     $Vf = 14$

**PCCP OPTION**  
 $Ac = 182.8$     $Af = 0.6$   
 $Vc = 365$     $Vf = 1$

**HMA OPTION**  
 $Ac = 207.3$     $Af = 11.4$   
 $Vc = 444$     $Vf = 21$

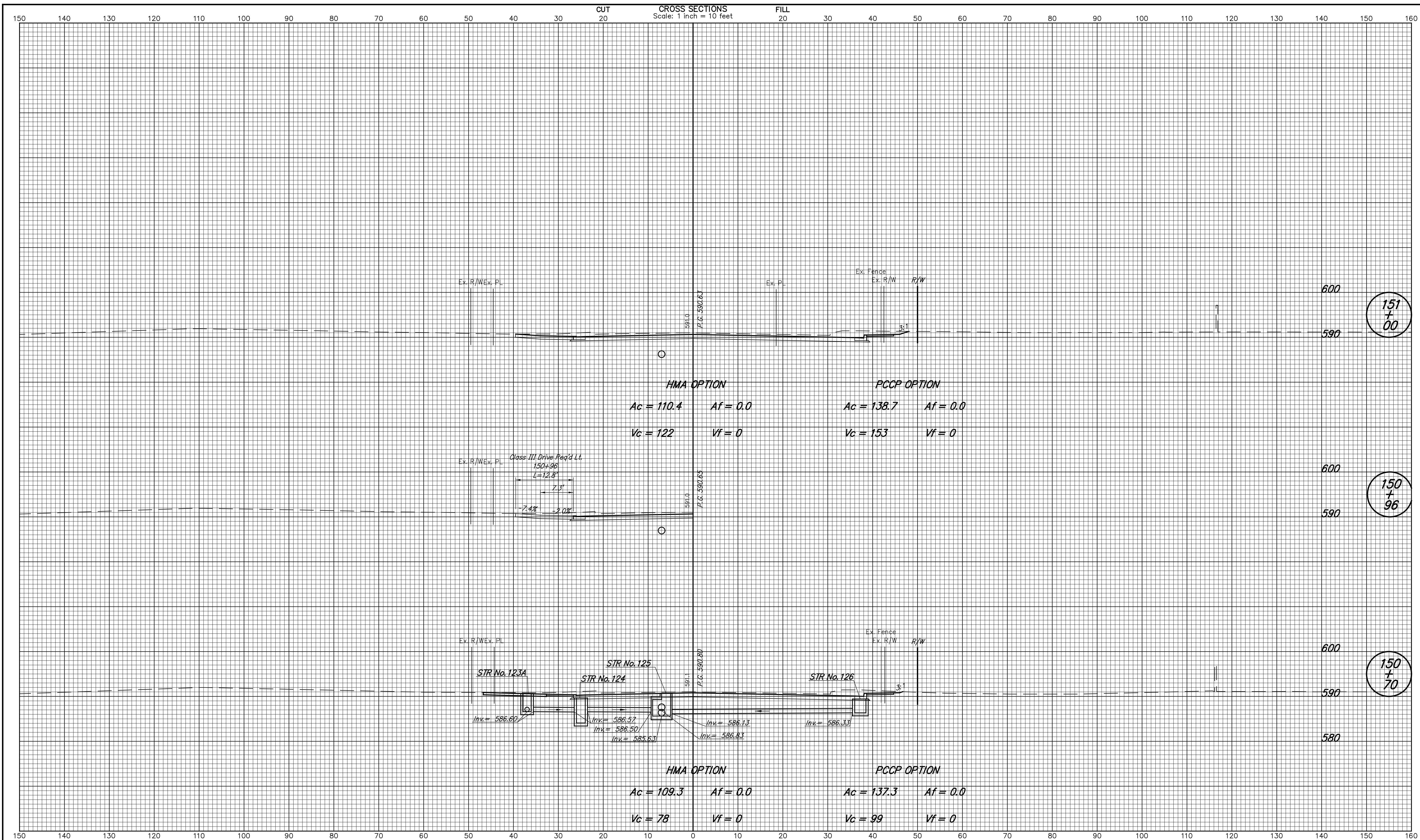
**PCCP OPTION**  
 $Ac = 211.6$     $Af = 0.0$   
 $Vc = 449$     $Vf = 0$

DESIGNED: NRM    DRAWN: RJC CHECKED: DAD / WSL    CHECKED: DAD / WSL		<b>INDIANA</b> <b>DEPARTMENT OF TRANSPORTATION</b> <b>CROSS SECTIONS</b> <b>LINE PR-A</b>		<b>HORIZONTAL SCALE</b> 1" = 10'	<b>BRIDGE FILE</b> 152-45-02730
				<b>VERTICAL SCALE</b> 1" = 10'	<b>DESIGNATION NO.</b> 0014210
		<b>SURVEY BOOK</b> B-33357	<b>SHEETS</b> 143 of 147		<b>PROJECT NO.</b> N881008

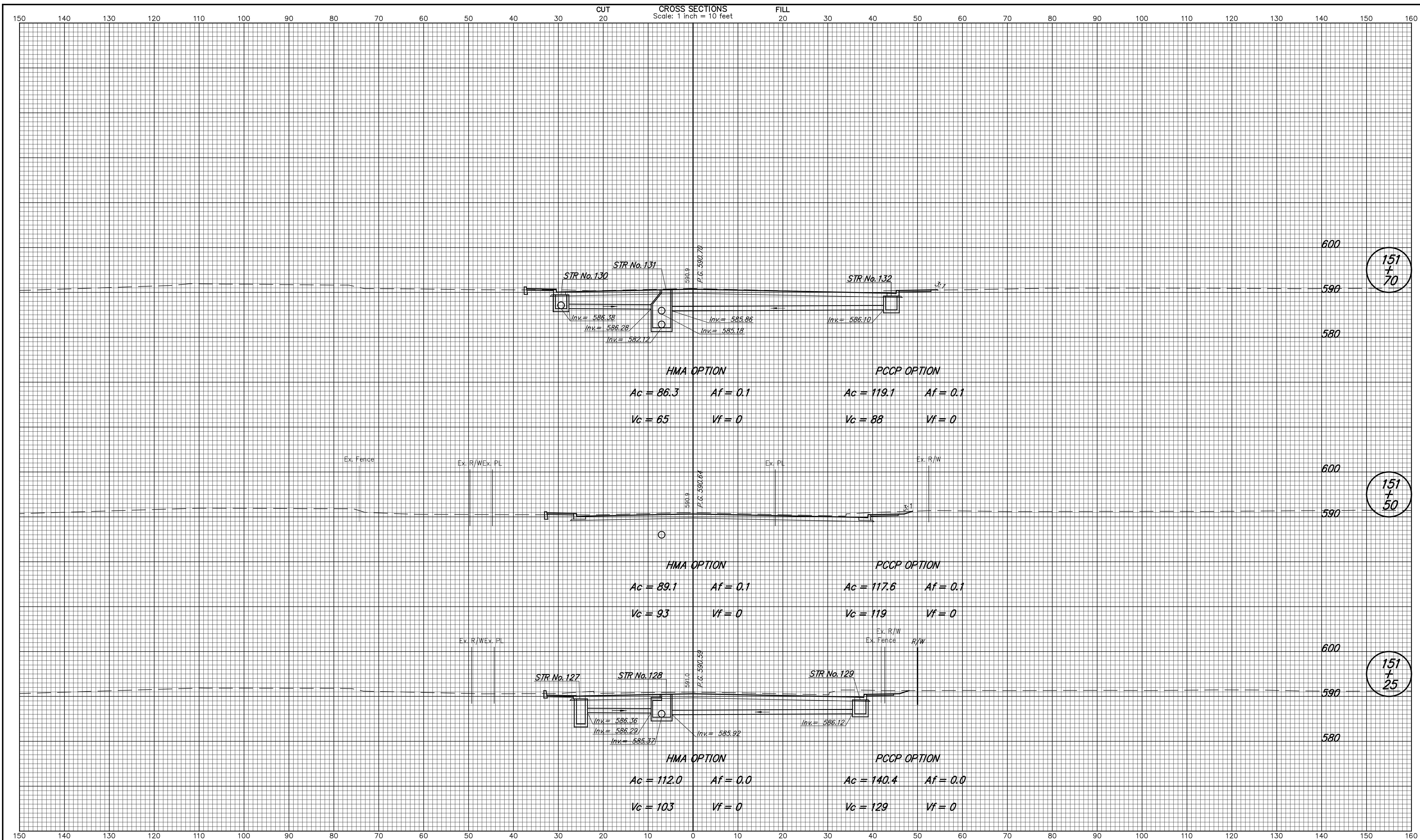


INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 10'	BRIDGE FILE 152-45-02730
CROSS SECTIONS LINE PR-A		VERTICAL SCALE 1" = 10'	DESIGNATION NO. 0014210
DESIGNED: NRM	DRAWN: RJC	SURVEY BOOK	SHEETS
CHECKED: DAD / WSL	CHECKED: DAD / WSL	CONTRACT B-33357	144 of 147 PROJECT NO. N881008





DESIGNED: NRM CHECKED: DAD / WSL		DRAWN: RJC CHECKED: DAD / WSL		<b>INDIANA</b> <b>DEPARTMENT OF TRANSPORTATION</b>  <b>CROSS SECTIONS</b> <b>LINE PR-A</b>		<b>HORIZONTAL SCALE</b> 1" = 10'	<b>BRIDGE FILE</b> 152-45-02730
						<b>VERTICAL SCALE</b> 1" = 10'	<b>DESIGNATION NO.</b> 0014210
				<b>SURVEY BOOK</b> B-33357	<b>SHEETS</b> 145 of 147	<b>PROJECT NO.</b> N881008	

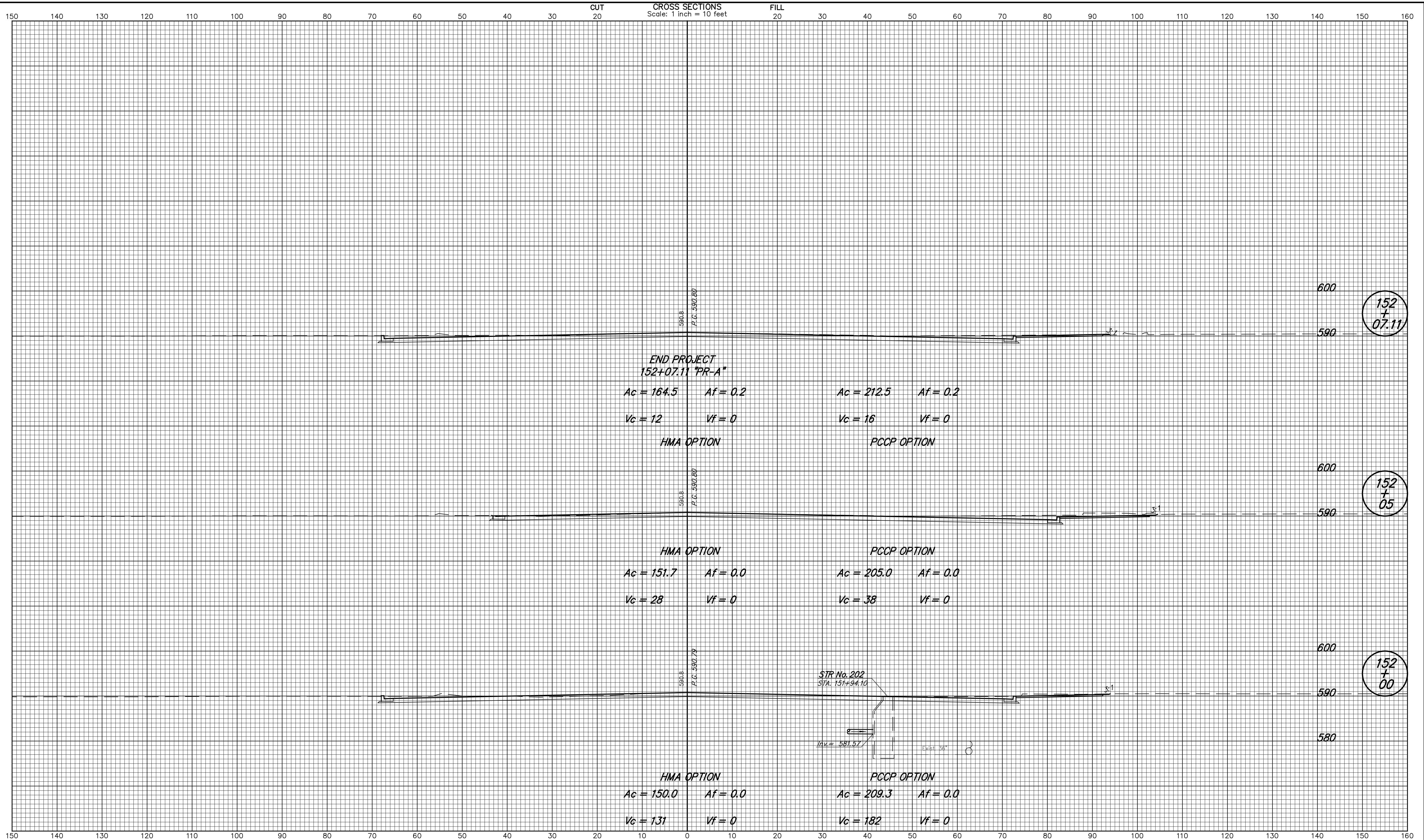


151  
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151  
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DESIGNED: NRM      DRAWN: RJC CHECKED: DAD / WSL      CHECKED: DAD / WSL		<b>INDIANA</b> <b>DEPARTMENT OF TRANSPORTATION</b>  <b>CROSS SECTIONS</b> <b>LINE PR-A</b>	HORIZONTAL SCALE 1" = 10' VERTICAL SCALE 1" = 10' SURVEY BOOK CONTRACT B-33357	BRIDGE FILE 152-45-02730 DESIGNATION NO. 0014210 SHEETS 146 of 147 PROJECT NO. N881008
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	INDIANA DEPARTMENT OF TRANSPORTATION	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>HORIZONTAL SCALE</td> <td>BRIDGE FILE</td> </tr> <tr> <td>1" = 10'</td> <td>152-45-02730</td> </tr> <tr> <td>VERTICAL SCALE</td> <td>DESIGNATION NO.</td> </tr> <tr> <td>1" = 10'</td> <td>0014210</td> </tr> <tr> <td>SURVEY BOOK</td> <td>SHEETS</td> </tr> <tr> <td></td> <td>147 of 147</td> </tr> <tr> <td>CONTRACT</td> <td>PROJECT NO.</td> </tr> <tr> <td>B-33357</td> <td>N881008</td> </tr> </table>	HORIZONTAL SCALE	BRIDGE FILE	1" = 10'	152-45-02730	VERTICAL SCALE	DESIGNATION NO.	1" = 10'	0014210	SURVEY BOOK	SHEETS		147 of 147	CONTRACT	PROJECT NO.	B-33357	N881008
HORIZONTAL SCALE	BRIDGE FILE																	
1" = 10'	152-45-02730																	
VERTICAL SCALE	DESIGNATION NO.																	
1" = 10'	0014210																	
SURVEY BOOK	SHEETS																	
	147 of 147																	
CONTRACT	PROJECT NO.																	
B-33357	N881008																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DESIGNED: NRM</td> <td>DRAWN: RJC</td> </tr> <tr> <td>CHECKED: DAD / WSL</td> <td>CHECKED: DAD / WSL</td> </tr> </table>	DESIGNED: NRM	DRAWN: RJC	CHECKED: DAD / WSL	CHECKED: DAD / WSL	<b>CROSS SECTIONS LINE PR-A</b>													
DESIGNED: NRM	DRAWN: RJC																	
CHECKED: DAD / WSL	CHECKED: DAD / WSL																	