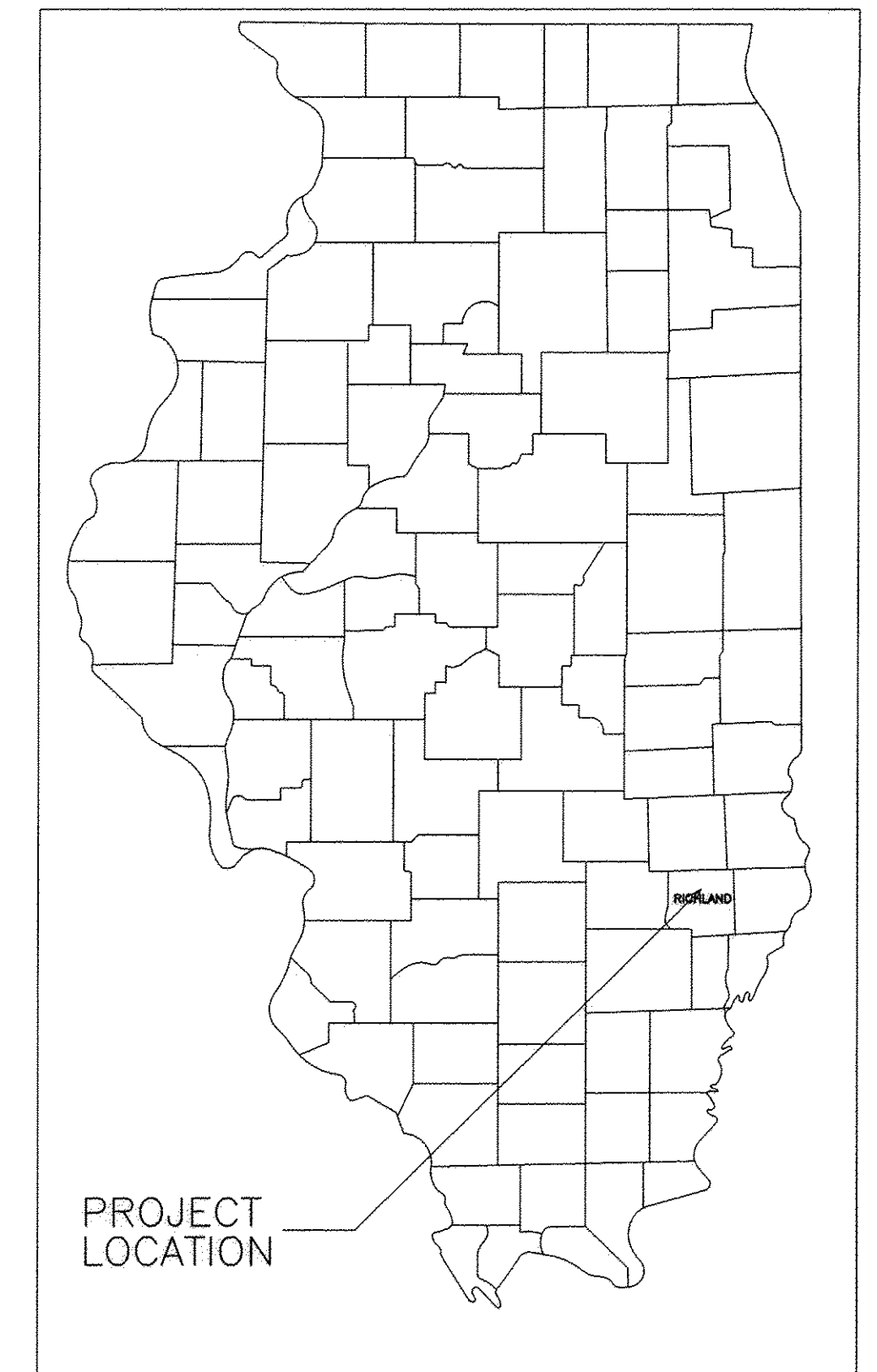


ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 84	12-04131-00-BR	RICHLAND	13	1
CONTRACT NO. 95815		ILLINOIS		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLANS FOR PROPOSED  
STP - BRIDGE  
SECTION 12-04131-00-BR RICHLAND COUNTY  
PROJECT BROS-0159(051)  
JOB NO. C-97-037-17  
T.R. 84

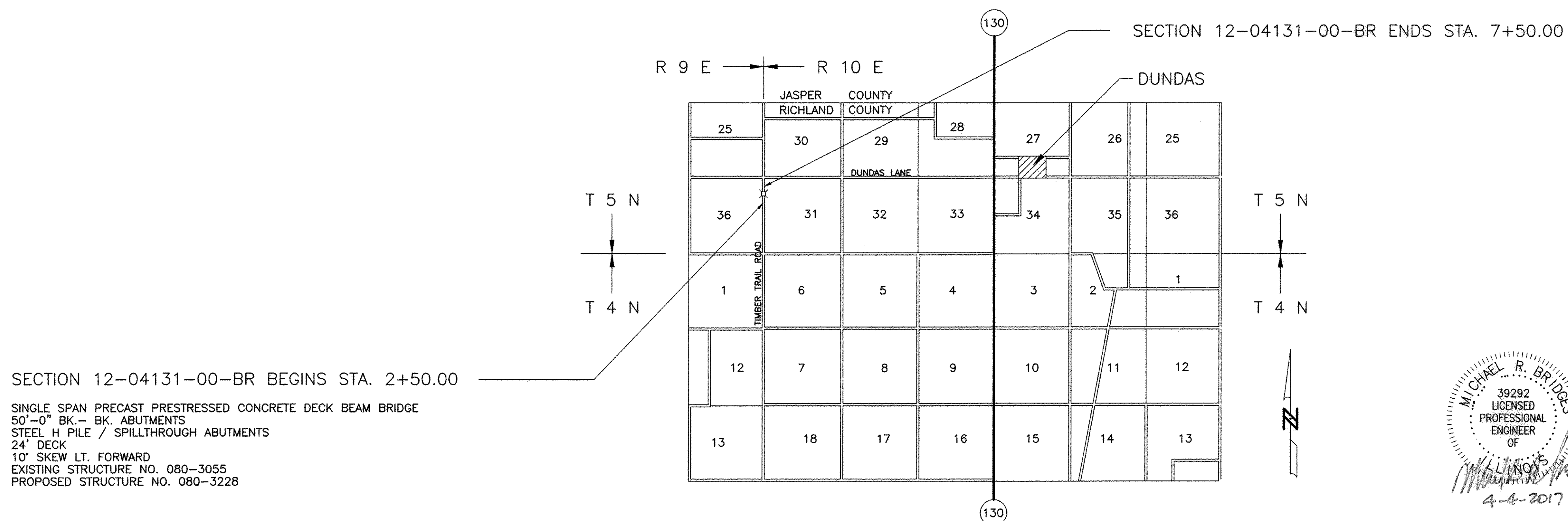
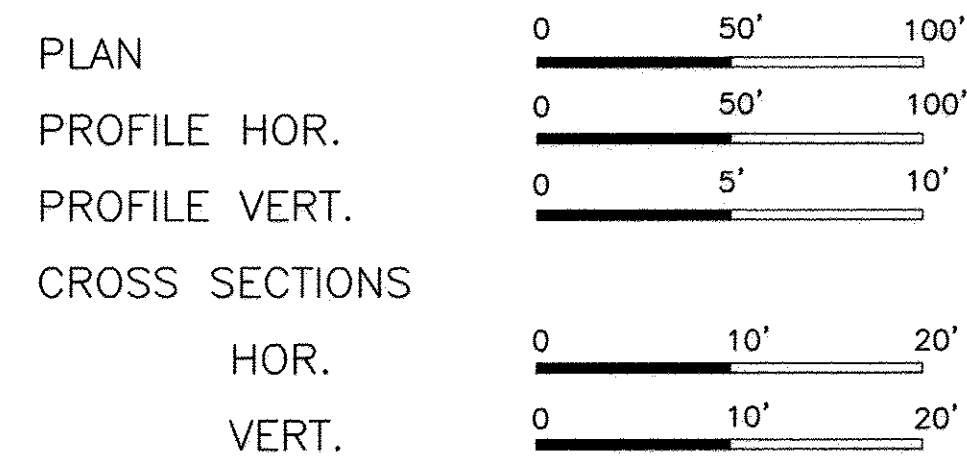


CONTRACT NO. 95815

INDEX OF SHEETS

SHEET	ITEM
1	COVER SHEET
2	SUMMARY OF QUANTITIES
3	ROADWAY PLAN AND PROFILE
4	GENERAL PLAN AND ELEVATION
5	21" x 48" PPC DECK BEAMS
6	21" x 48" PPC DECK BEAMS
7	ABUTMENTS
8	HP PILES DETAILS
9	STEEL RAILING, TYPE S-1
10	NAME PLATE FOR BRIDGES
11	BORING LOGS
12-13	CROSS SECTIONS

- STANDARD DRAWINGS
- STANDARD 000001-06
  - STANDARD 280001-07
  - STANDARD 701901-06
  - STANDARD BLR 21-9
  - STANDARD 725001-01



SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE  
50'-0" BK.-BK. ABUTMENTS  
STEEL H PILE / SPILLTHROUGH ABUTMENTS  
24' DECK  
10' SKEW LT. FORWARD  
EXISTING STRUCTURE NO. 080-3055  
PROPOSED STRUCTURE NO. 080-3228

FUNCTIONAL CLASSIFICATION - LOCAL ROAD  
ADT = 100  
DESIGN SPEED = 30 MPH

NET LENGTH SECTION 12-04131-00-BR = 500.00 Ft. = 0.095 Mi.



Joint Utility Locating Information for Excavators  
JULIE 1-800-892-0123

**CHARLESTON ENGINEERING, INC.**  
**CONSULTING ENGINEERS**  
105 NORTH KITCHELL  
P.O. BOX 397  
OLNEY, ILLINOIS 62450  
(618) 382-0736  
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

APPROVED April 13 2017  
Deanna J. Colwell, P.E.  
COUNTY ENGINEER

---

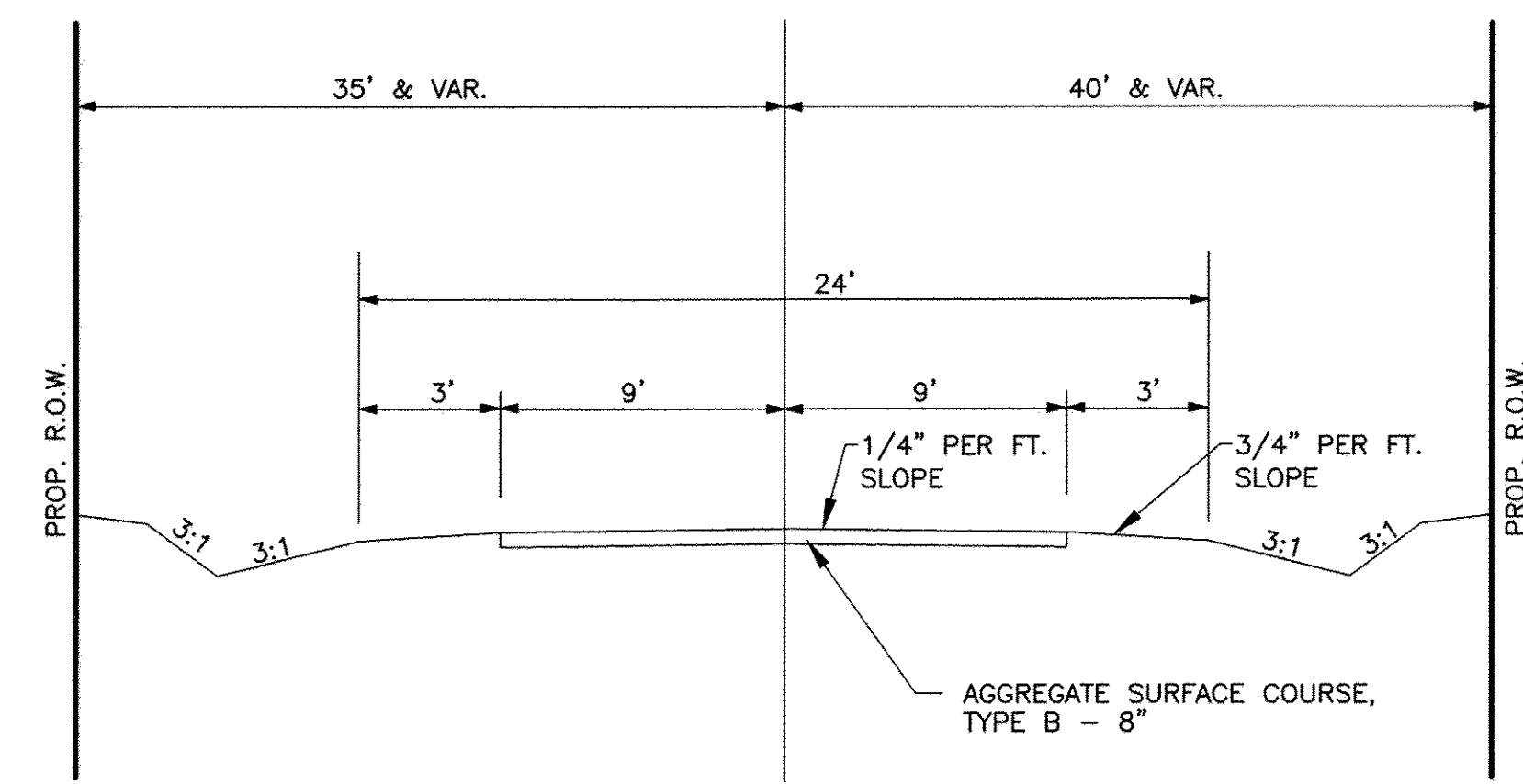
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PASSED April 13 2017  
Tom Kemmer  
DISTRICT SEVEN ENGINEER OF  
LOCAL ROADS AND STREETS

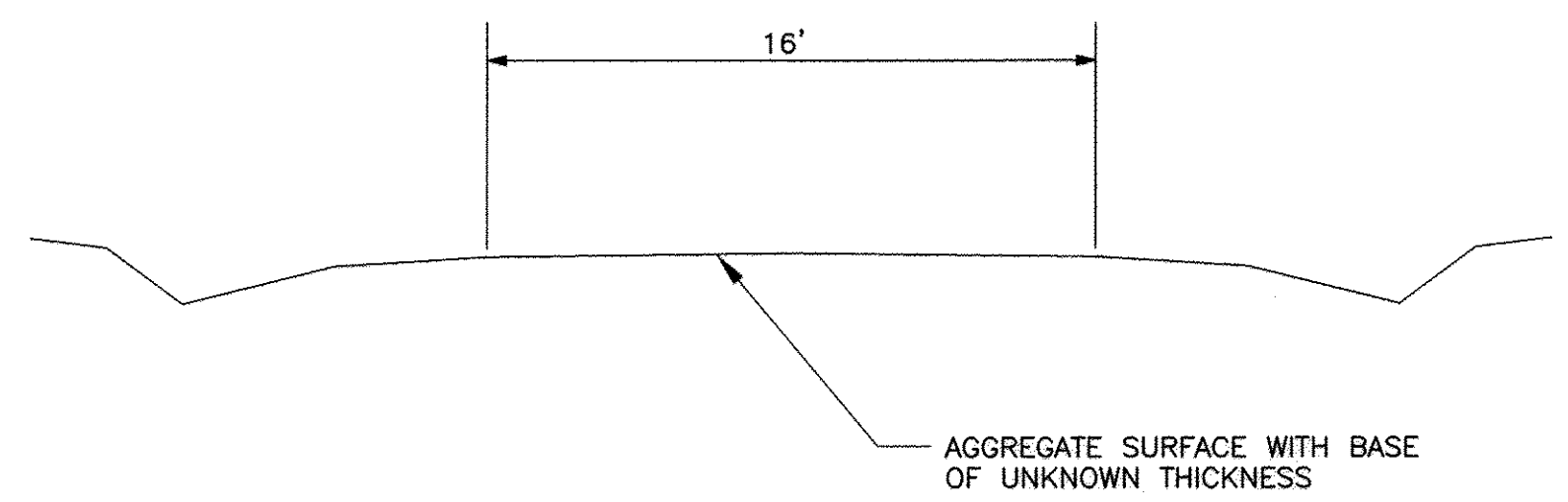
Releasing For Bid Based on Limited Review April 13 2017  
John R. ...  
REGION FOUR ENGINEER

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 84	12-04131-00-BR	RICHLAND	13	2
CONTRACT 95815		ILLINOIS		

DESIGN DATA  
LOCAL ROAD  
ADT = 100



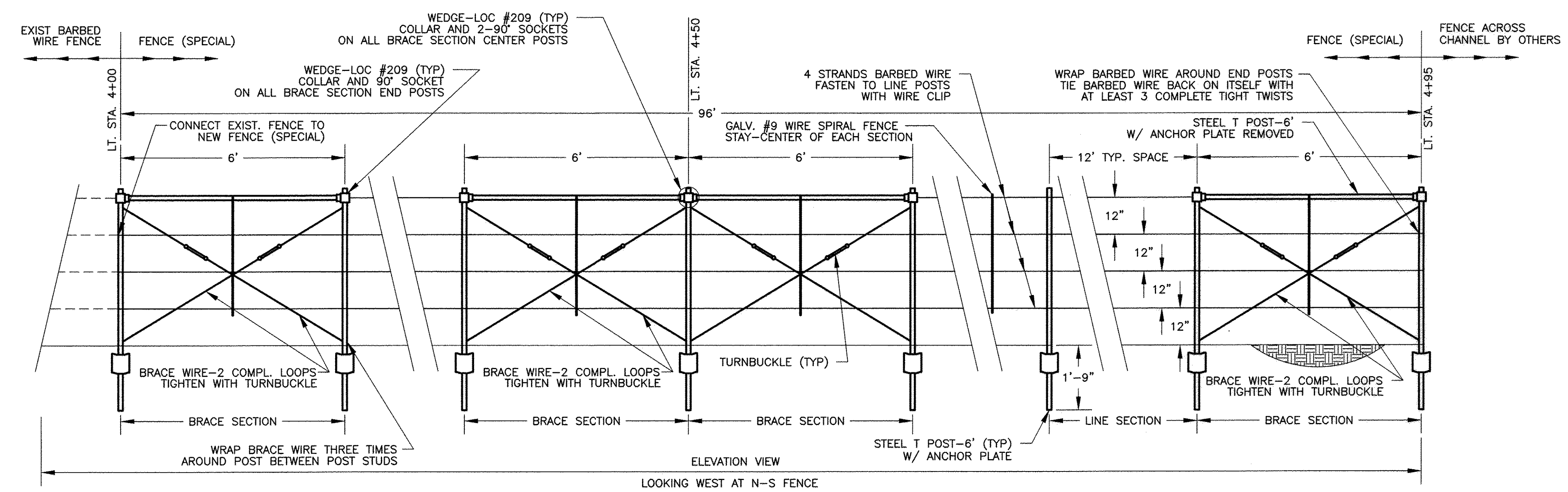
TYPICAL SECTION  
PROPOSED



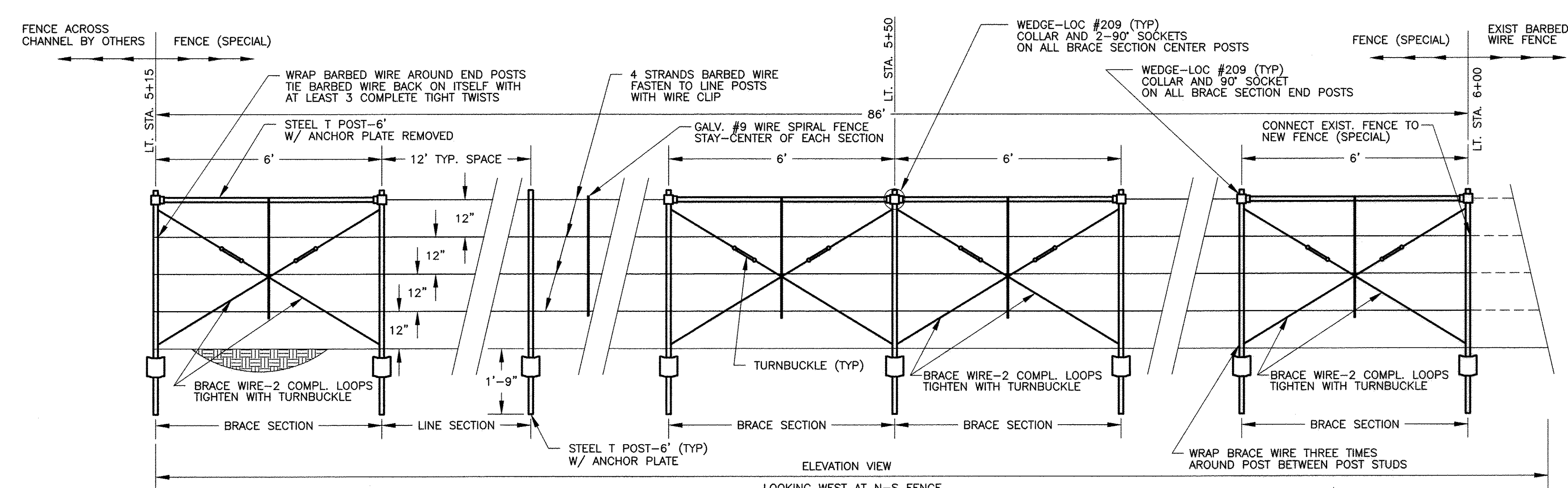
TYPICAL SECTION  
EXISTING

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	UNIT	QUANTITY
Δ X2200003	FENCE (SPECIAL)	FOOT	182
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.50
X2830495	AGGREGATE DITCH (SPECIAL)	TON	115
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L. SUM	1
Δ Z0022800	FENCE REMOVAL	FOOT	225
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	7
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	19
20200100	EARTH EXCAVATION	CU YD	215
20300100	CHANNEL EXCAVATION	CU YD	114
20400800	FURNISHED EXCAVATION	CU YD	375
28000305	TEMPORARY DITCH CHECKS	FOOT	77
28000400	PERIMETER EROSION BARRIER	FOOT	175
28100707	STONE DUMPED RIPRAP, CLASS A4	SQ YD	360
28200200	FILTER FABRIC	SQ YD	360
35101400	AGGREGATE BASE COURSE, TYPE B	TON	37
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	360
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	10
50300225	CONCRETE STRUCTURES	CU YD	16.5
50300280	CONCRETE ENGASEMENT	CU YD	2.8
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1160
50800105	REINFORCEMENT BARS	POUND	2450
Δ 50900205	STEEL RAILING, TYPE S1	FOOT	100
51201400	FURNISHING STEEL PILES HP 10 X 42	FOOT	105
51202305	DRIVING PILES	FOOT	105
51203400	TEST PILE STEEL HP 10 X 42	EACH	1
51500100	NAME PLATES	EACH	1
67100100	MOBILIZATION	L. SUM	1
Δ 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4

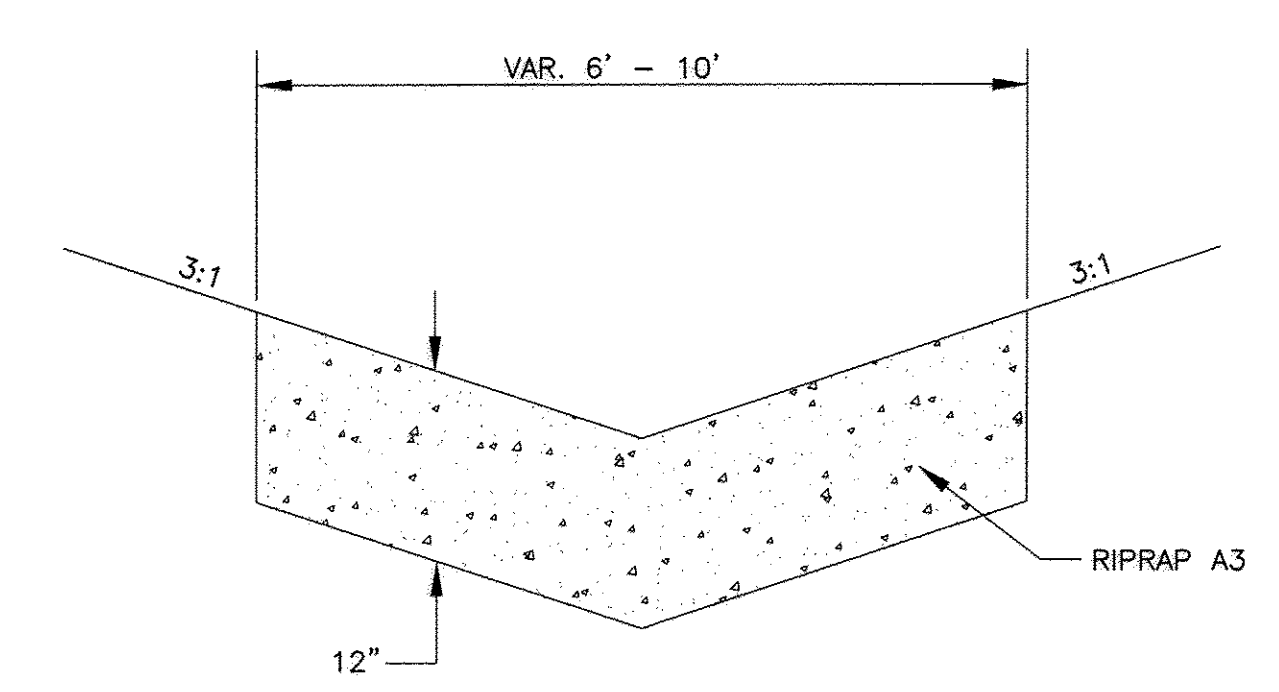
Δ SPECIALTY ITEMS



FENCE (SPECIAL) DETAIL  
LT. STA. 4+00 TO 4+95



FENCE (SPECIAL) DETAIL  
LT. STA. 5+15 TO 6+00

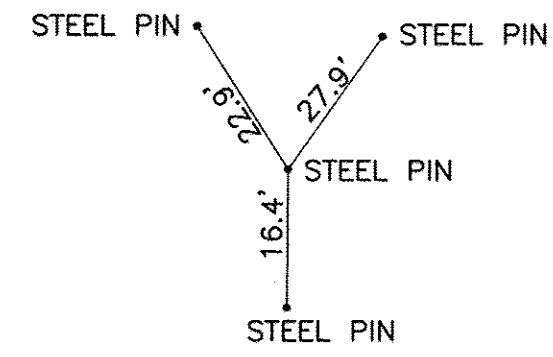


AGGREGATE DITCH (SPECIAL) DETAIL

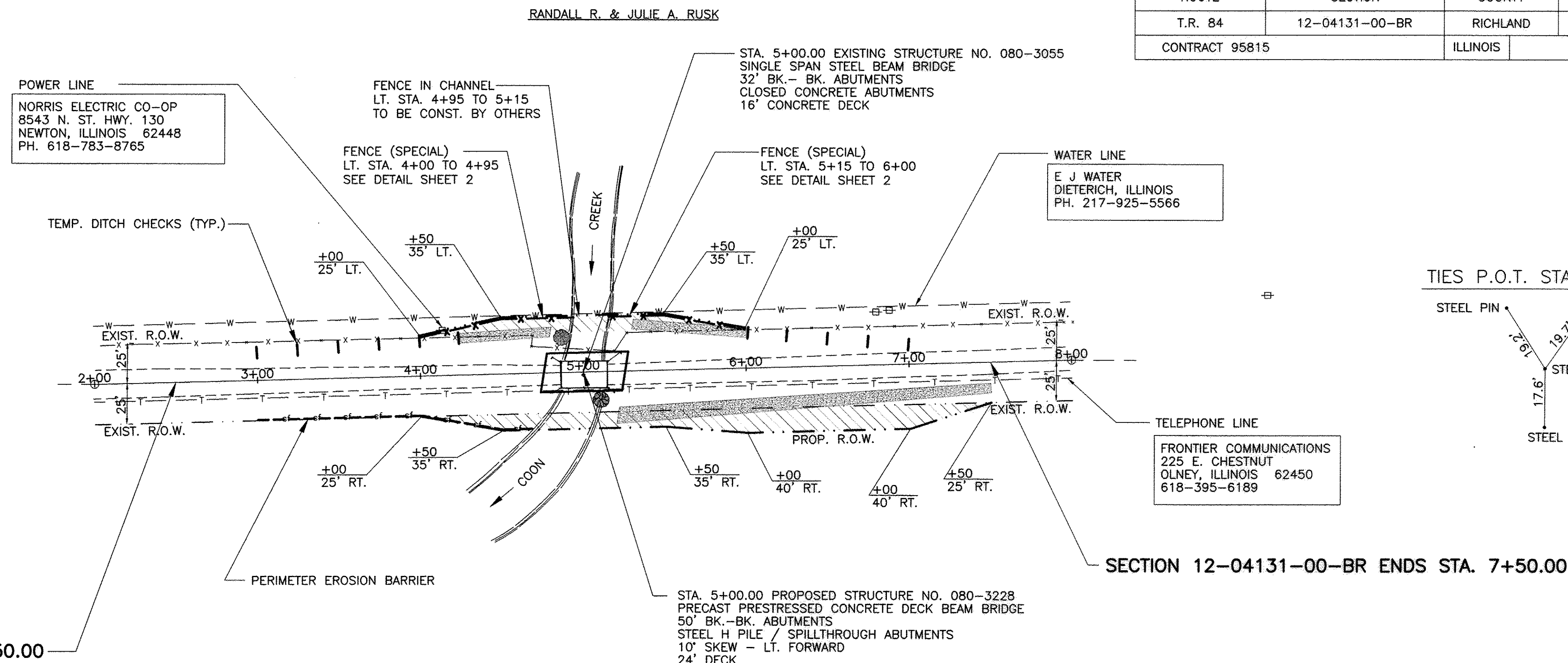


SCALES:  
 1" = 50' HOR  
 1" = 5' VER

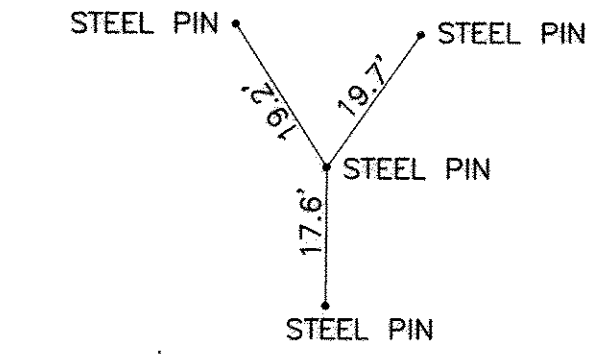
TIES P.O.T. STA. 2+00.00



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 84	12-04131-00-BR	RICHLAND	13	3
CONTRACT 95815		ILLINOIS		



TIES P.O.T. STA. 8+00.00



SECTION 12-04131-00-BR BEGINS STA. 2+50.00

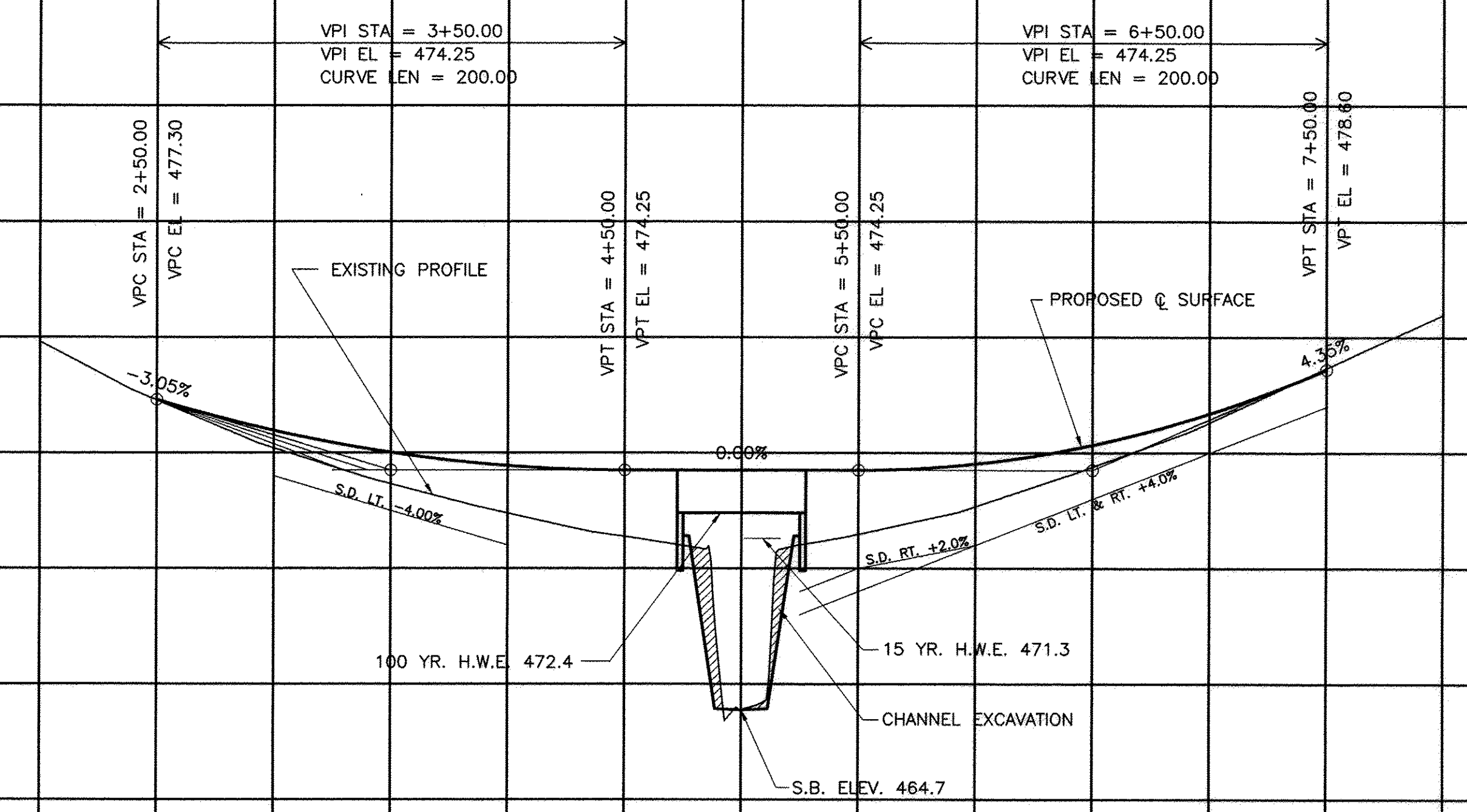
SECTION 12-04131-00-BR ENDS STA. 7+50.00

ROBERT KEITH CRAIG TRUST

B.M. RT. STA. 5+20  
 N.E. COR. WINGWALL  
 ELEV. 471.18

TRANSITION EXISTING ROADWAY TO PROPOSED ROADWAY  
 STA. 2+00 TO 2+50 AND STA. 7+50 TO 8+00  
 QUANTITIES FOR THE ABOVE ARE INCLUDED IN THOSE LISTED

STA.	DESCRIPTION	UNIT	QUANTITY
495			495
490			490
485	EARTHWORK	CU. YD.	
	CHANNEL EXCAVATION		114
	STRUCTURE EXCAVATION		10
	EARTH EXCAVATION		215
	EMBANKMENT		585
	FURNISHED EXCAVATION		375
480	* IT IS ESTIMATED THAT 50% OF THE CHANNEL EXCAVATION WILL BE SUITABLE FOR USE IN THE EMBANKMENT. UNSUITABLE MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR.		
475	AGGREGATE SURFACE COURSE, TYPE B	TON	360
	STA. 2+50 TO 7+50		
470	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.50
	STA. 2+50 TO 7+50		
465	TREE REMOVAL (6 TO 15 UNITS DIA.)	UNIT	7
	STA. 2+50 TO 7+50		
460	TREE REMOVAL (OVER 15 UNITS DIA.)	UNIT	19
	STA. 2+50 TO 7+50		
455			455
450			450



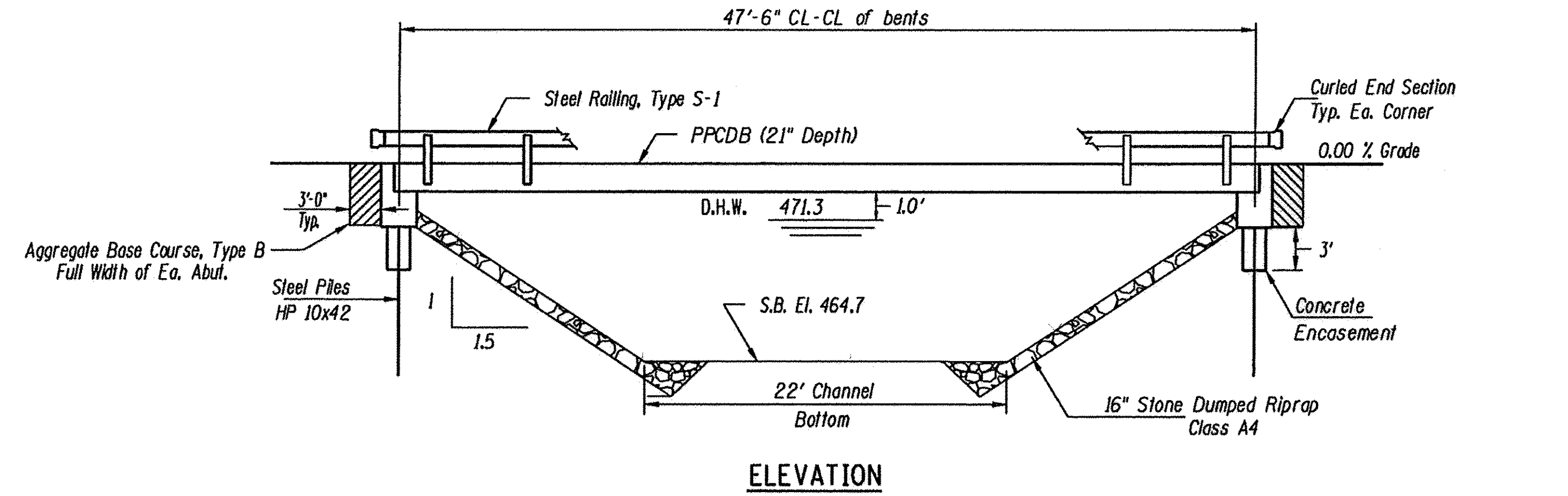
ITEM	UNIT	QUANTITY
TEMPORARY DITCH CHECKS	FOOT	42
FENCE REMOVAL	FOOT	35
PERIMETER EROSION BARRIER	FOOT	175
FENCE (SPECIAL)	FOOT	182
AGGREGATE DITCH (SPL)	TON	115

Existing Structure - Single span bridge with Steel Beams supported on closed concrete abutments, 16' 0" to 0 Concrete Deck, 32' Bk to Bk Abutments. (To Be Removed, No Salvage) Existing S.N. 080-3055

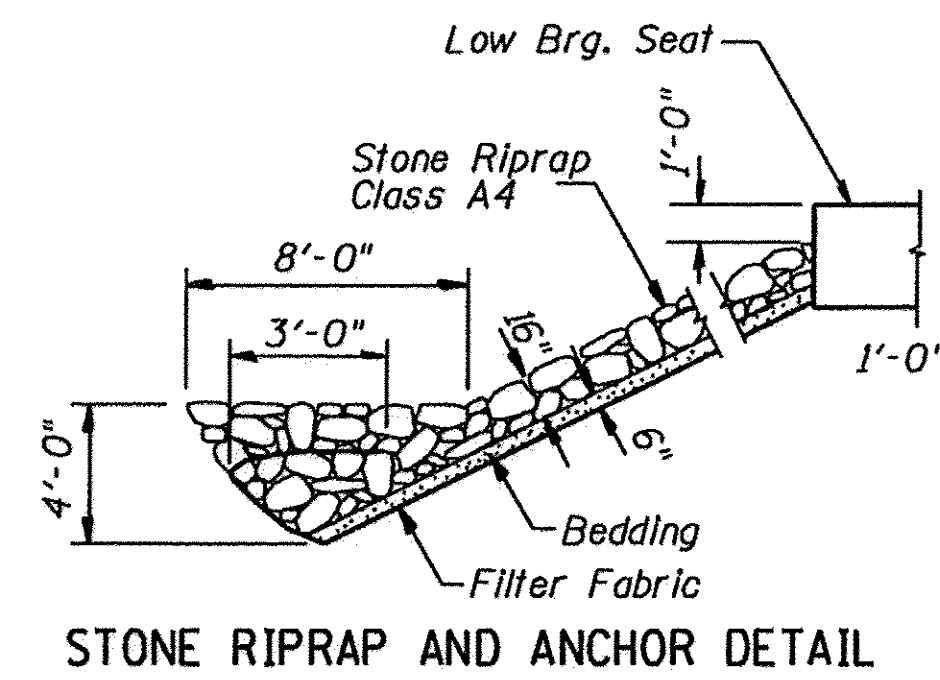
B.M.- N.E. Corner Wingwall  
Rl. Sta. 5+20  
Elev. 471.18

**GENERAL NOTES**

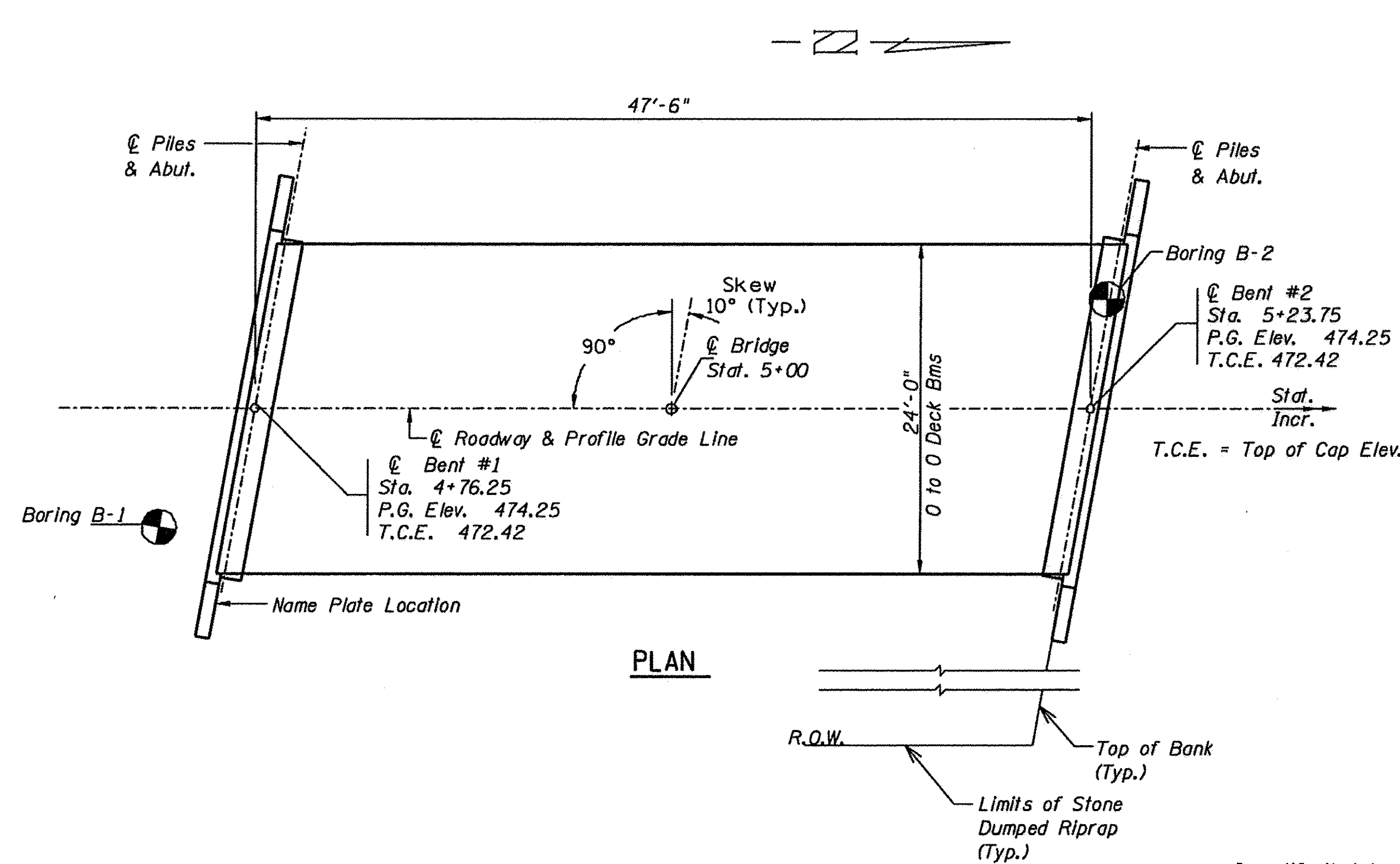
- Steel H piles shall meet AASHTO M270 Grade 50 specifications.
- Test Piles shall be driven to 110% the Nominal Required Bearing indicated in the pile data.
- The Contractor shall drive one test pile, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
- See special provisions for boring logs.
- A Corrosion inhibitor, as covered in the Standard Specifications, shall be used in the precast prestressed concrete deck beams.



**ELEVATION**



**STONE RIPRAP AND ANCHOR DETAIL**



**PLAN**

**TOTAL BILL OF MATERIAL**

Item	Unit	Super-Structure	Sub-Structure	Total
Channel Excavation	Cu. Yds.		114	114
Stone Dumped Riprap, Class A4	Sq. Yd.		360	360
Filter Fabric	Sq. Yd.		360	360
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yds.		10	10
Concrete Structures	Cu. Yds.		16.5	16.5
Concrete Encasement	Cu. Yds.		2.8	2.8
P.P. Conc. Dk. Bm. 21" Dp.	Sq. Ft.	1160		1160
Reinforcement Bars	Pound		2450	2450
Steel Railing, Type S1	Foot	100		100
Furnishing Steel Piles HP10X42	Foot		105	105
Driving Piles	Foot		105	105
Test Pile Steel HP10X42	Each		1	1
Name Plates	Each		1	1
Aggregate Base Course, Type B	Ton		37.3	37.3

COON CREEK  
SEC. 12-04131-00-BR BUILT 201-  
DENVER ROAD DISTRICT  
RICHLAND COUNTY  
LOADING HL-93  
STR. NO. 080-3228

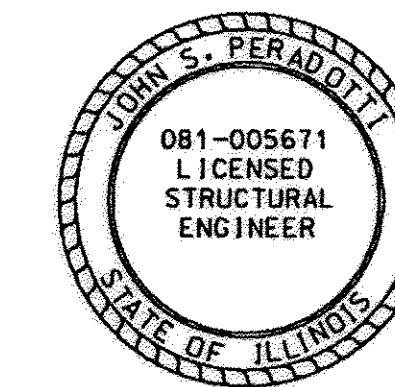
**LETTERING FOR NAME PLATE**

Locate Name Plate at southwest  
Corner of Bridge (See Sheet 7)

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the type of structure and comply with the requirements of the current AASHTO LRFD Specifications.

*John S. Peradotti 2/10/17*

John S. Peradotti  
S.E., #81-5671  
Expires Nov. 30, 2018



**DESIGN SPECIFICATIONS**

2014 AASHTO LRFD Bridge Design Specifications and all applicable interims.

**LOADING HL-93**

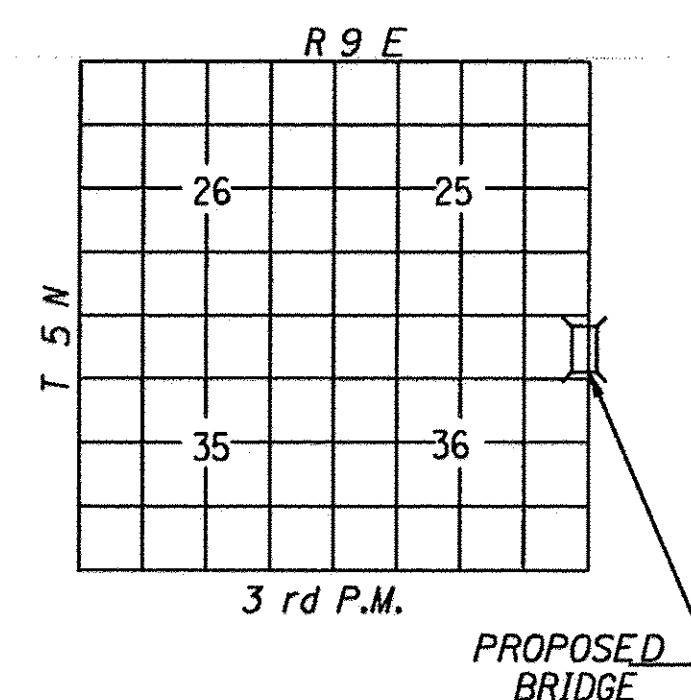
Allow 50#/sq. ft. for future wearing surface

**SEISMIC DATA**

Soil Site Class = C  
Design Spectral Acceleration at 0.2 sec. ( $S_{0.2}$ ) = 0.438  
Design Spectral Acceleration at 1.0 sec. ( $S_{1.0}$ ) = 0.168  
Seismic Design Category = B

**WATERWAY INFORMATION**

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural H.W.E.	Head-Ft.		Headwater El.	
			Exst.	Prop.		Exst.	Prop.	Exst.	Prop.
Design	15	1141	163 *	250	471.3				
Base	100	1850	163 *	305	472.4	0.40	0.1	427.80	427.50
Overtopping									
Max. Calc.	500								
Freq. Yr.			(15)	(100)					
* Exst. Over Road Flow (Sq Ft):			28	185					



**LOCATION SKETCH**

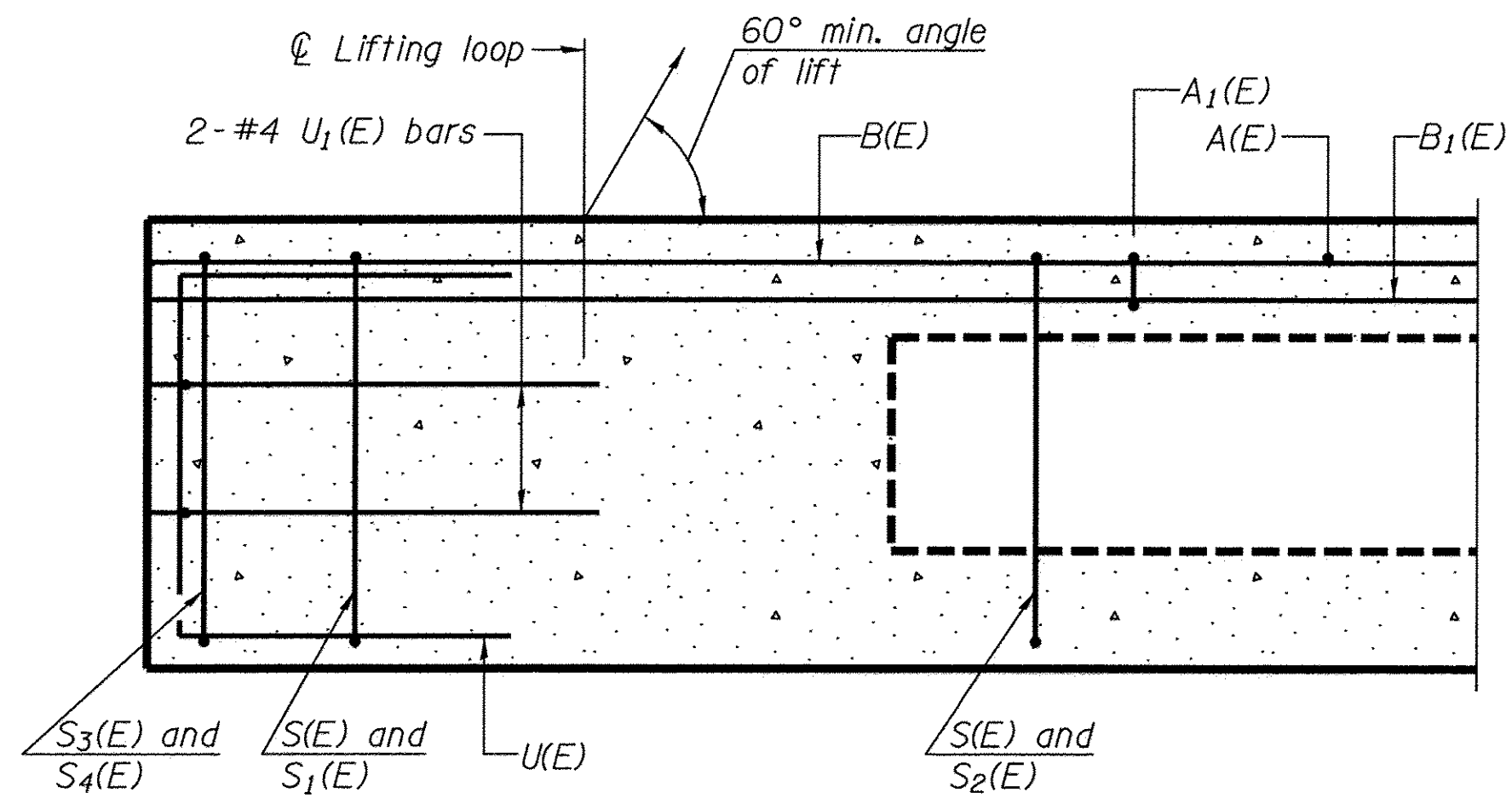
**Round Table Design, Inc.**  
1020 Main St.  
Mt. Vernon, Illinois 62864  
(618) 224-7819  
round-table-design.com

**GENERAL PLAN & ELEVATION**  
T.R. 84 (TIMBER TRAIL RD.)  
OVER COON CREEK  
SECTION 12-04131-00-BR  
RICHLAND COUNTY  
STRUCTURE NO. 080-3228

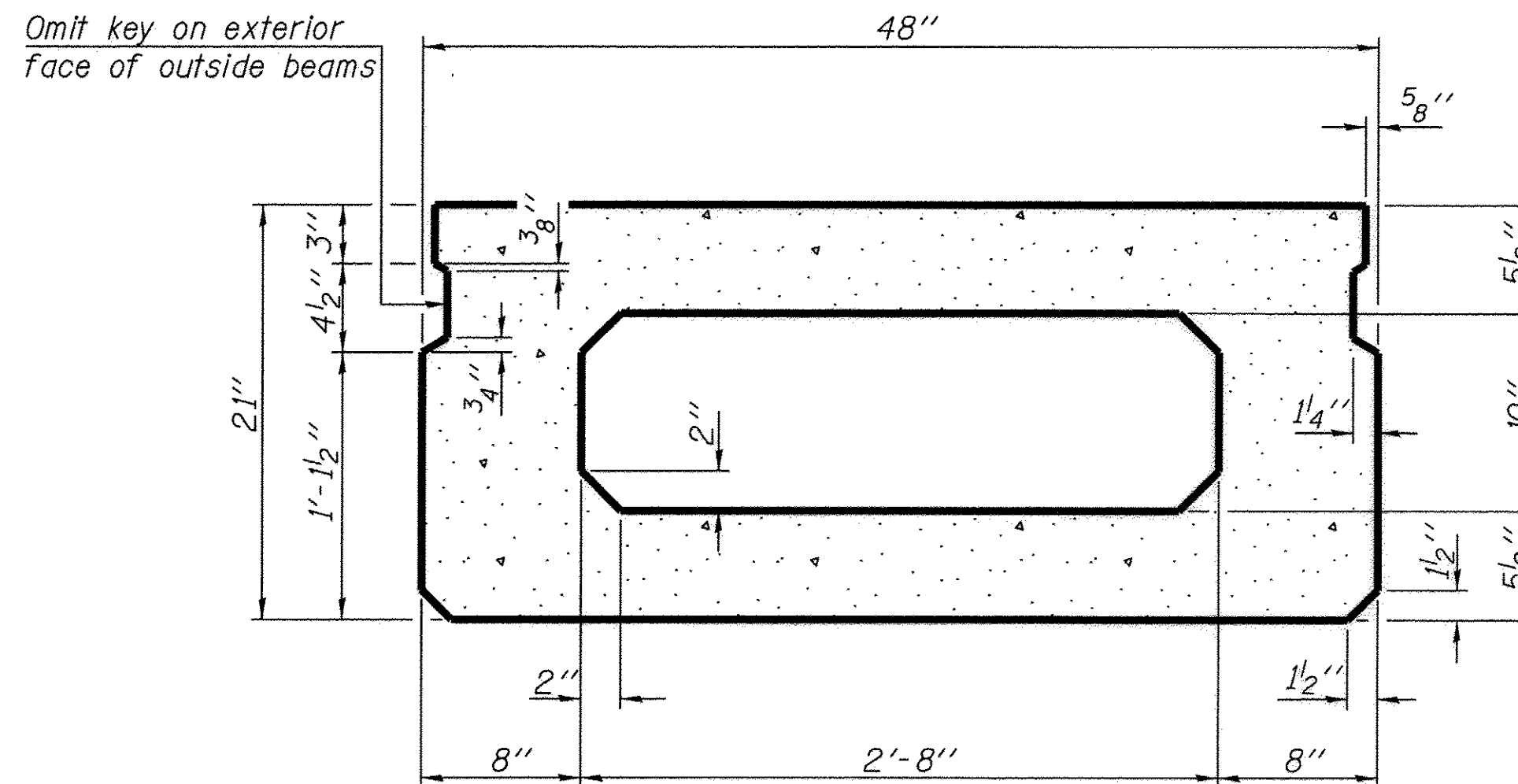
Sheet 1 of 7

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NO. 080-3228		T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			84	12-04131-00-BR	RICHLAND	13	4
			CONTRACT NO. 9585				
			ILLINOIS FED. AID PROJECT				

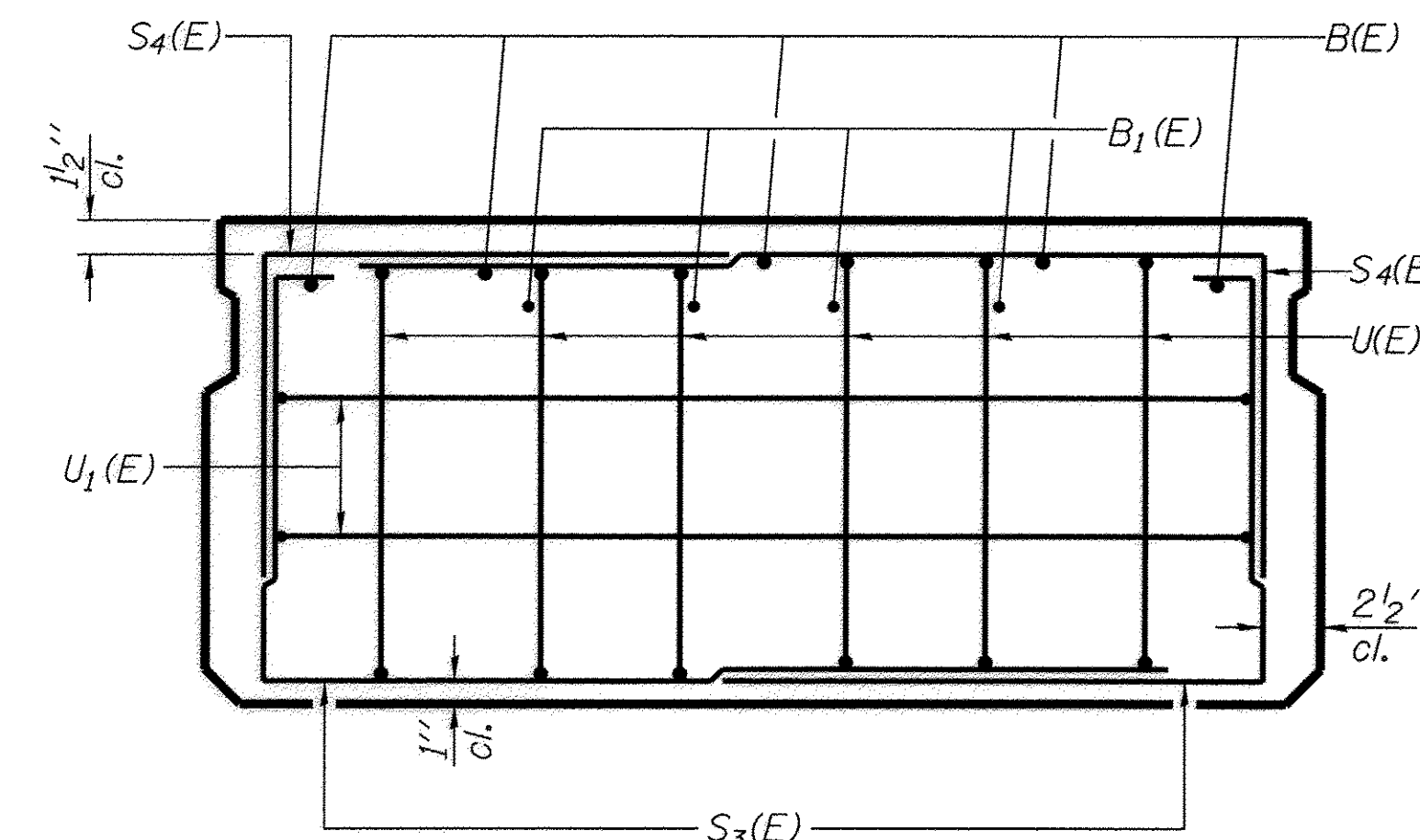




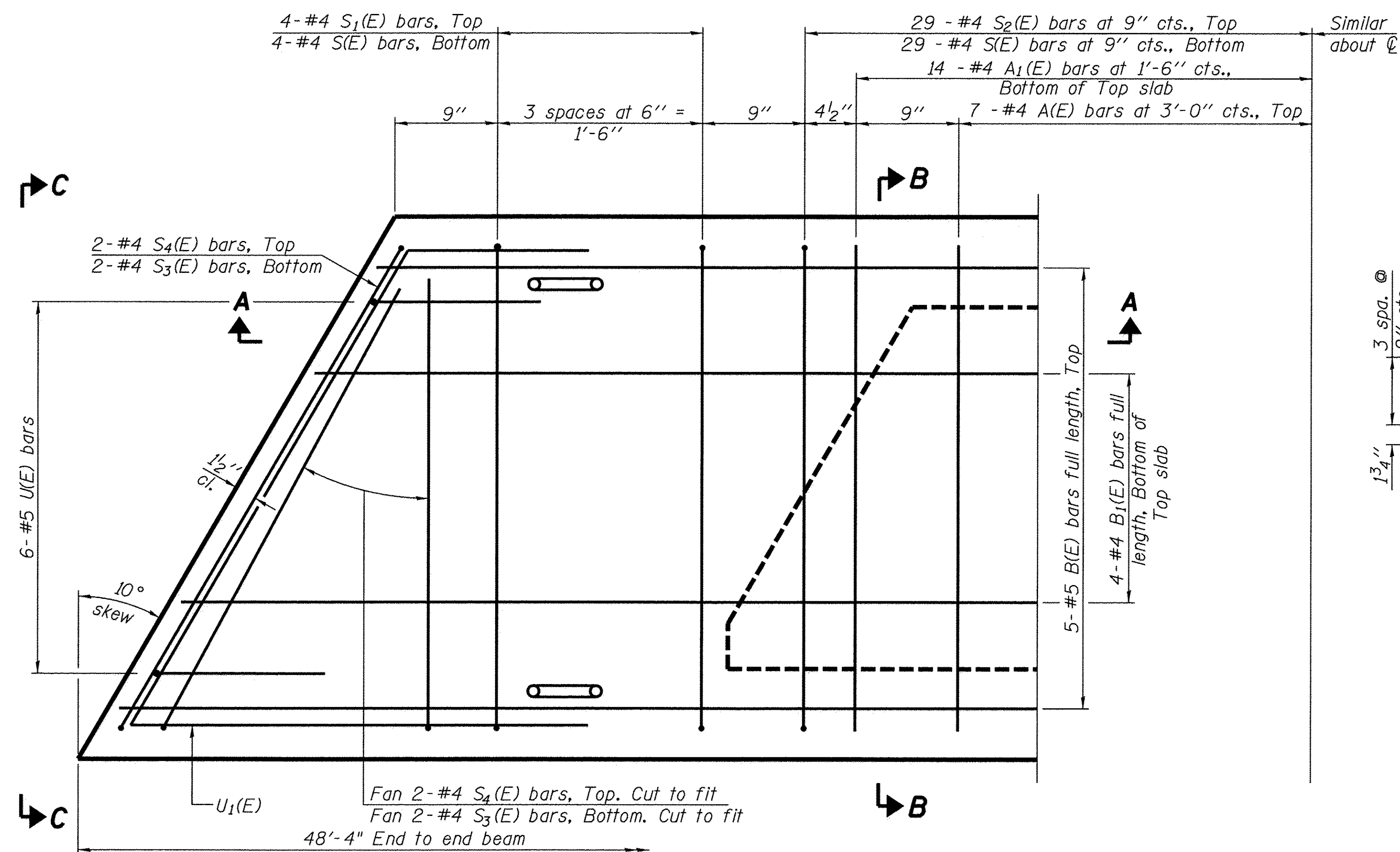
**SECTION A-A**



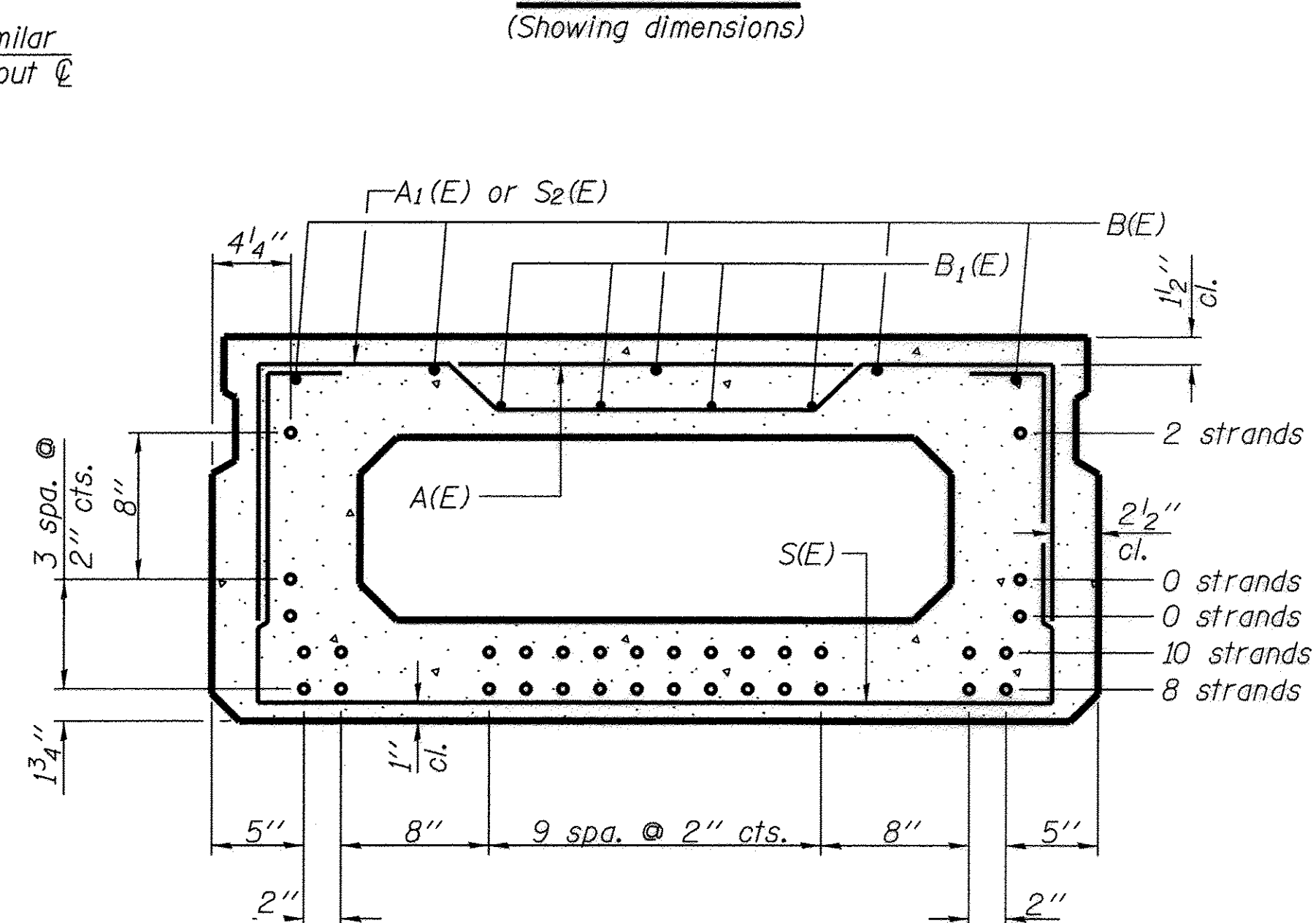
**SECTION B-B**  
(Showing dimensions)



**VIEW C-C**



**PLAN VIEW**



**SECTION B-B**

(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

Bar	No.	Size	Length	Shape
A(E)	14	#4	3'-7"	—
A1(E)	28	#4	3'-10"	—
B(E)	5	#5	48'-1"	—
B1(E)	4	#4	48'-1"	—
S(E)	66	#4	7'-5"	—
S1(E)	8	#4	5'-11"	—
S2(E)	58	#4	6'-2"	—
S3(E)	8	#4	4'-8"	—
S4(E)	8	#4	3'-11"	—
U(E)	12	#5	4'-0"	—
U1(E)	4	#4	6'-8"	—

Note: See sheet 3 of 7 for additional details and Bill of Material.

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

**MINIMUM BAR LAP**

#4 bar = 1'-11"  
#5 bar = 2'-6"

PD-2148-L

06-01-16

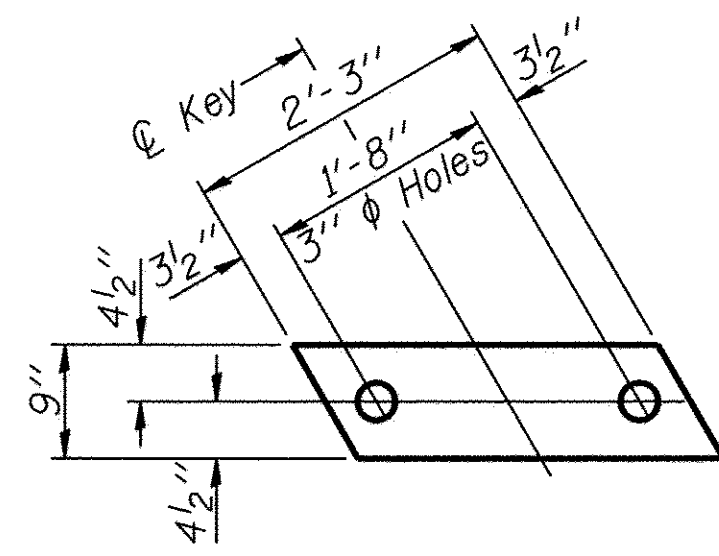
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

21" x 48" PPC DECK BEAM  
STRUCTURE NO. 080-3228

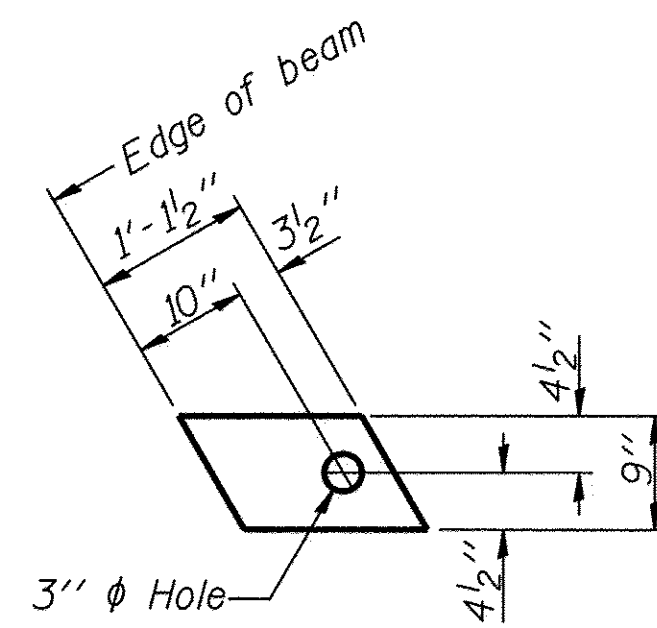
21" x 48" PPC DECK BEAMS  
T.R. 84 (TIMBER TRAIL RD.)  
OVER COON CREEK  
SECTION 12-04131-00-BR  
RICHLAND COUNTY  
STRUCTURE NO. 080-3228

Sheet 2 of 7

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
84	12-04131-00-BR	Richland	13	5
				CONTRACT NO. 95015
ILLINOIS FED. AID PROJECT				



**FABRIC BEARING PAD**  
(Interior)

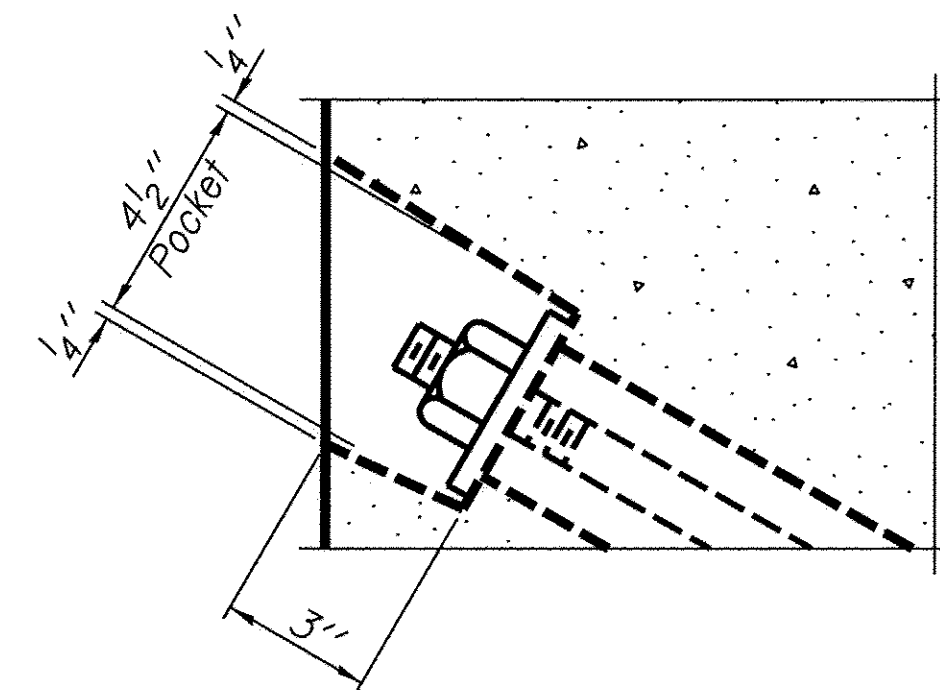


**FABRIC BEARING PAD**  
(Exterior)

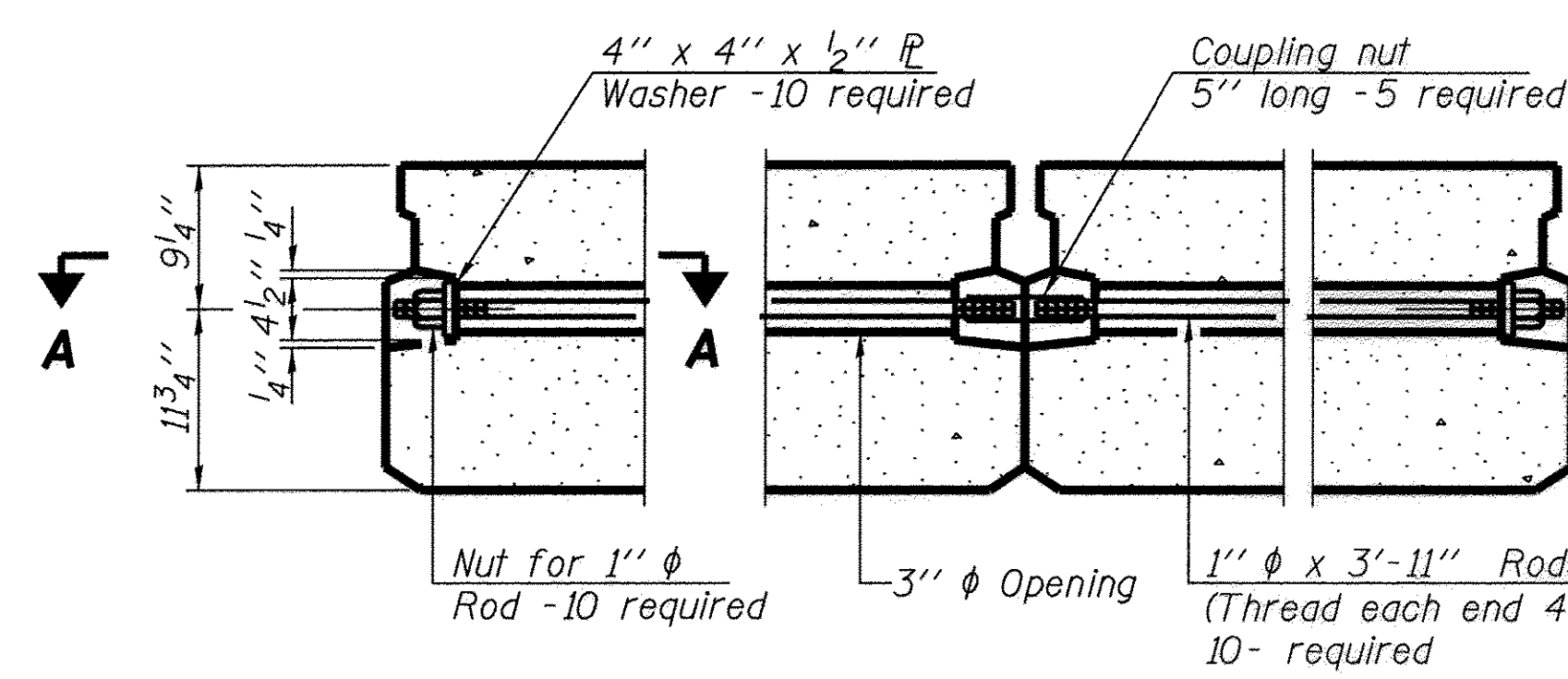
**FIXED**

Notes:

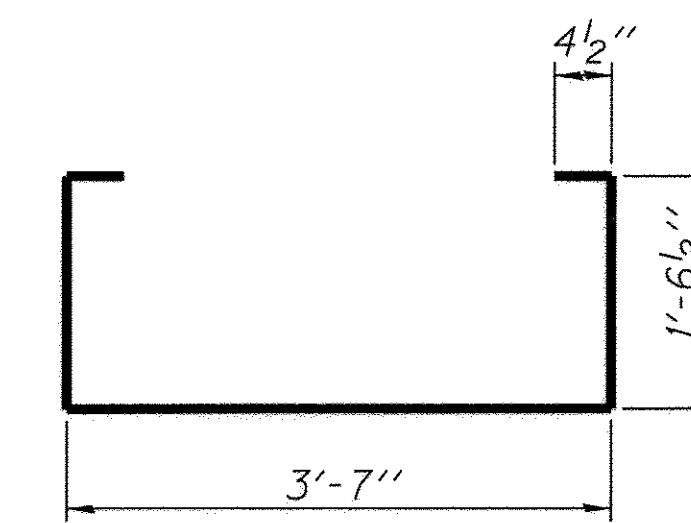
All bearing pads shall be 1" thick.  
Omit holes when using expansion bearings.  
Expansion bearing pad shall be bonded to the substructure.



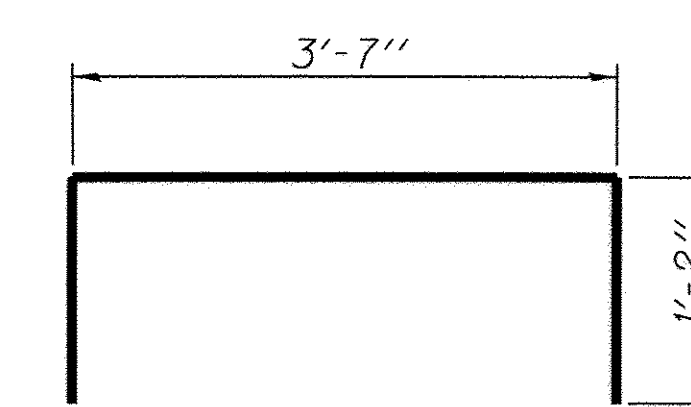
**SECTION A-A**



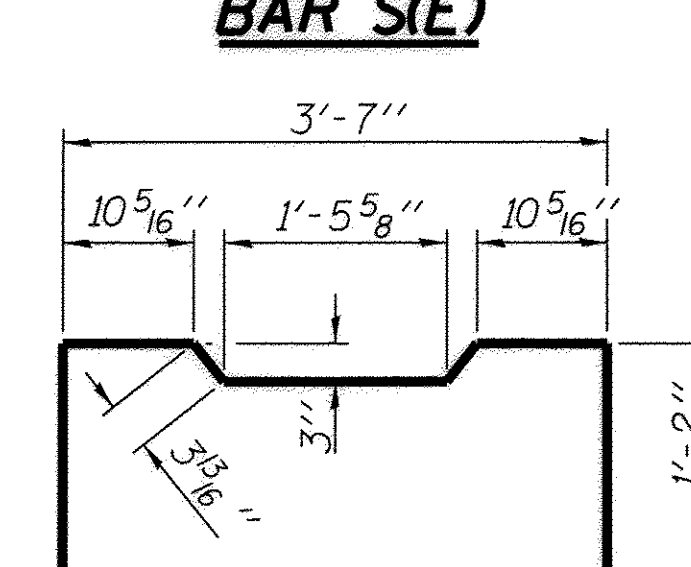
**TYPICAL TRANSVERSE TIE ASSEMBLY**



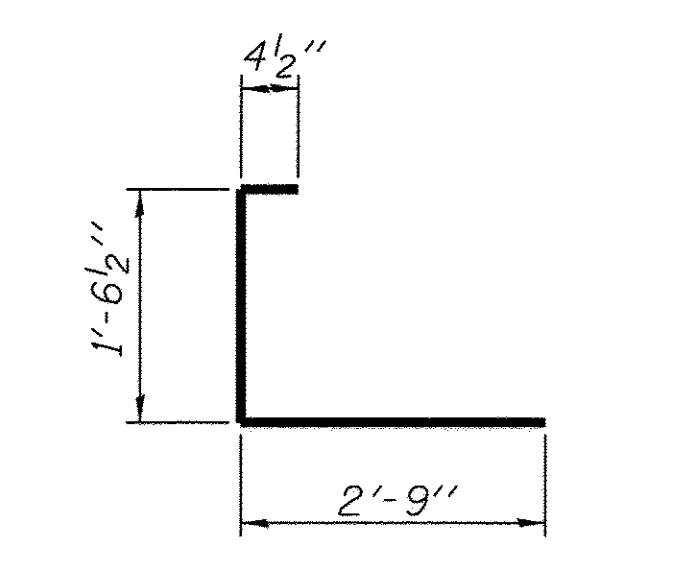
**BAR S1(E)**



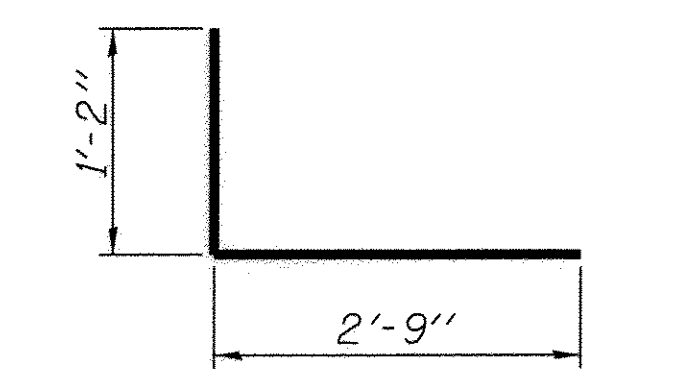
**BAR S2(E)**



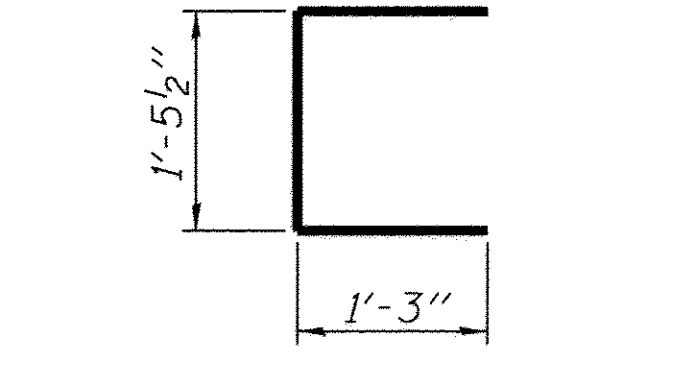
**BAR S3(E)**



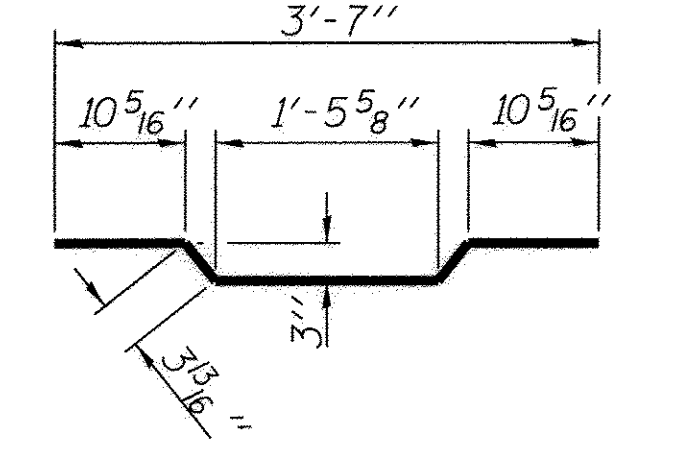
**BAR S4(E)**



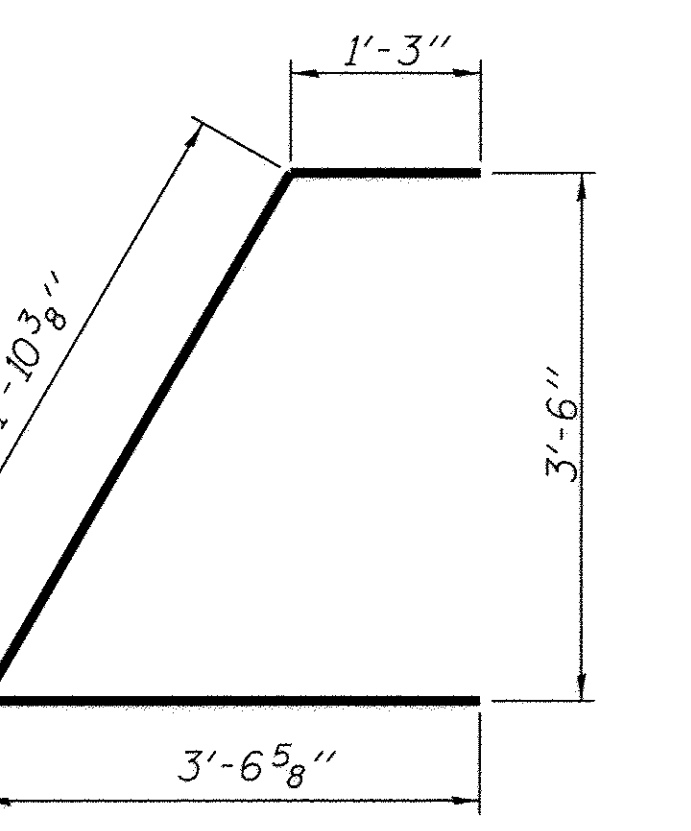
**BAR U1(E)**



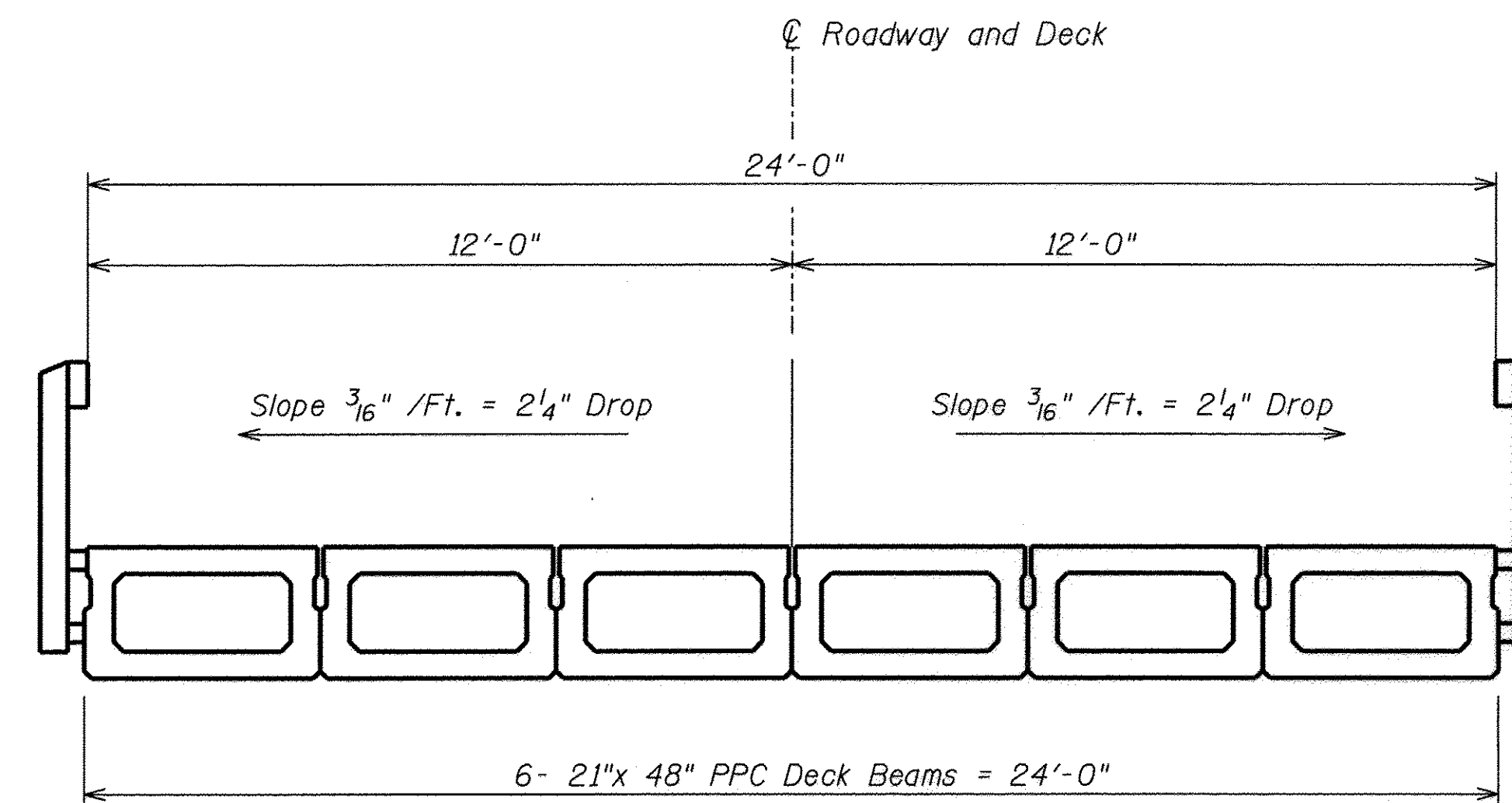
**BAR U2(E)**



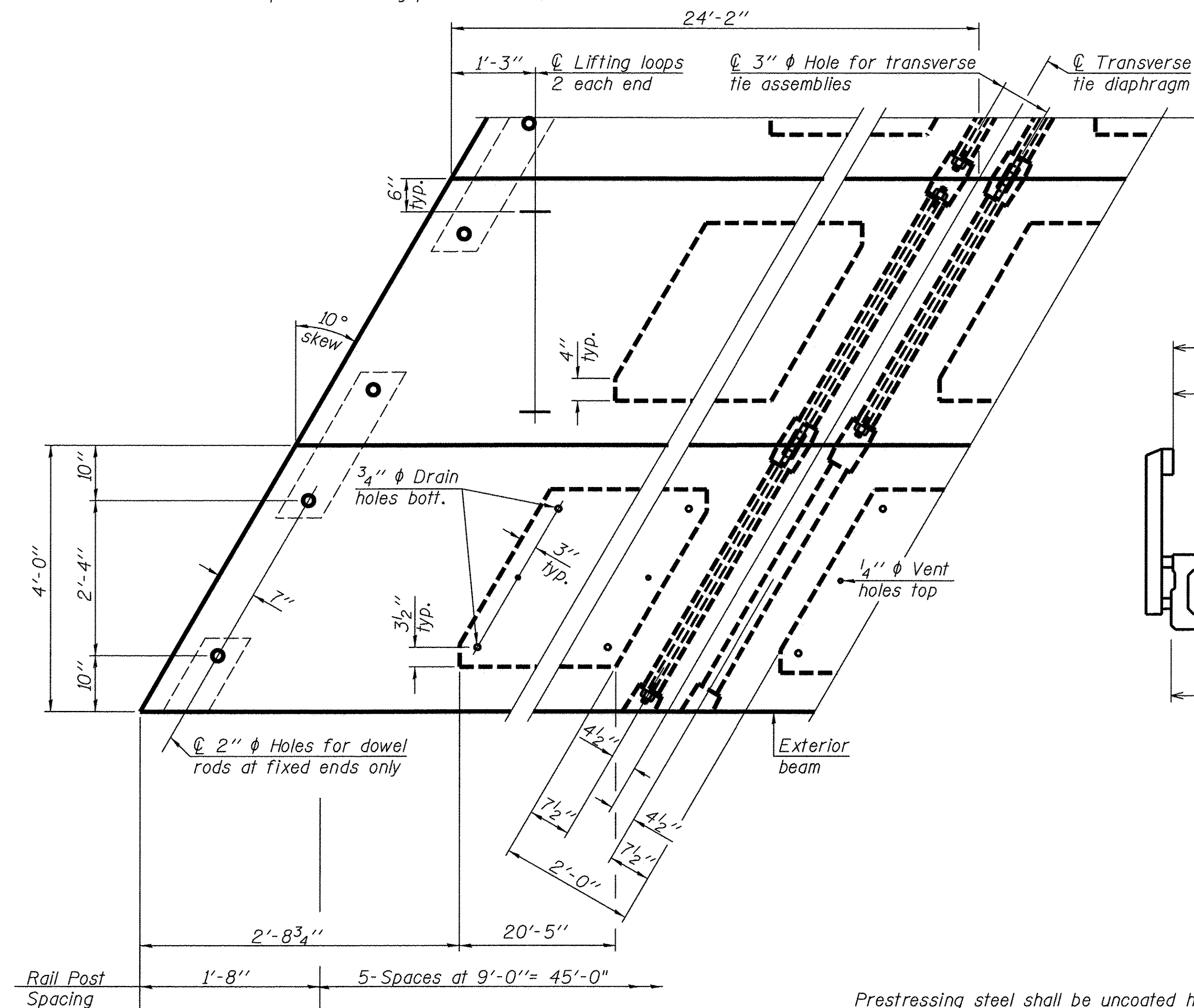
**BAR A1(E)**



**BAR U3(E)**



**CROSS SECTION**

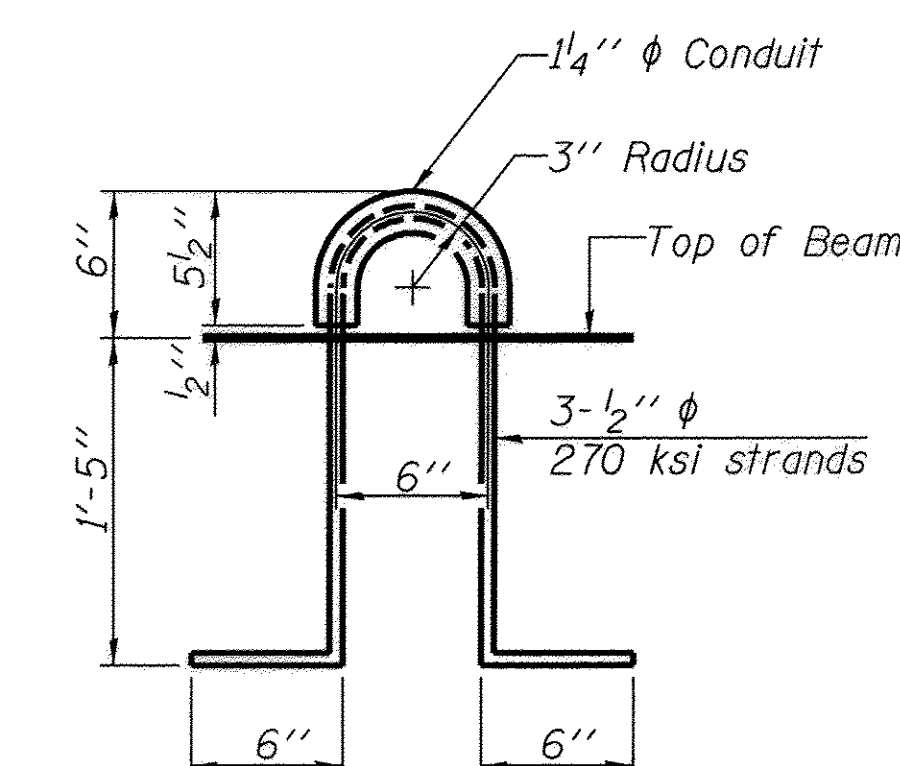


**PLAN VIEW**

Note: Connect beams in pairs with the transverse tie configuration shown.

**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.  
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.  
A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.  
Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.  
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.  
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



**LIFTING LOOP DETAIL**

**BILL OF MATERIAL**

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	1160
---	---------	------

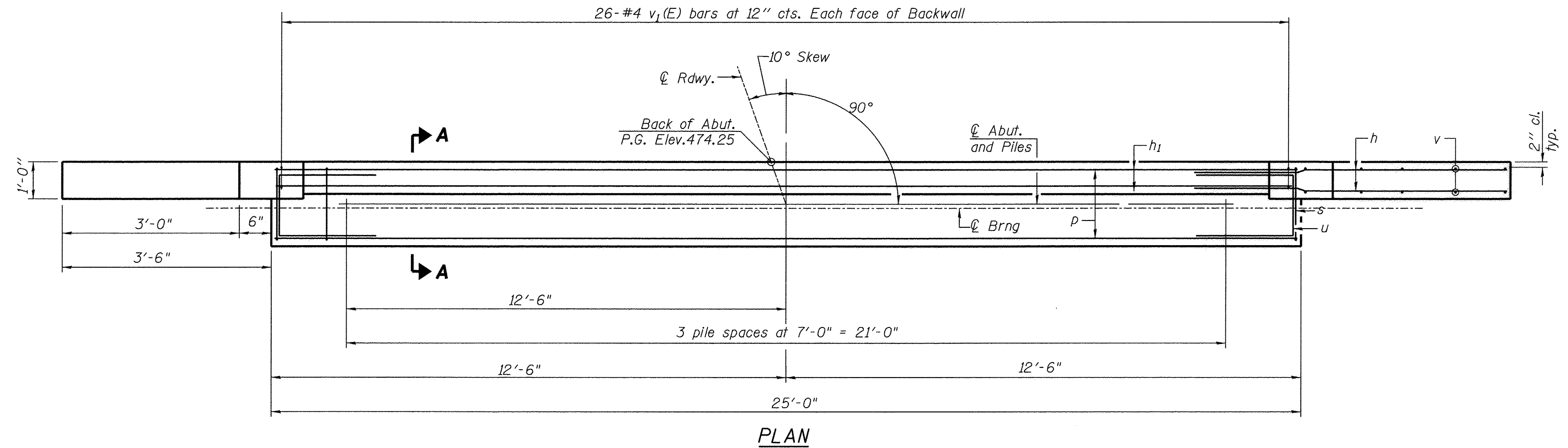
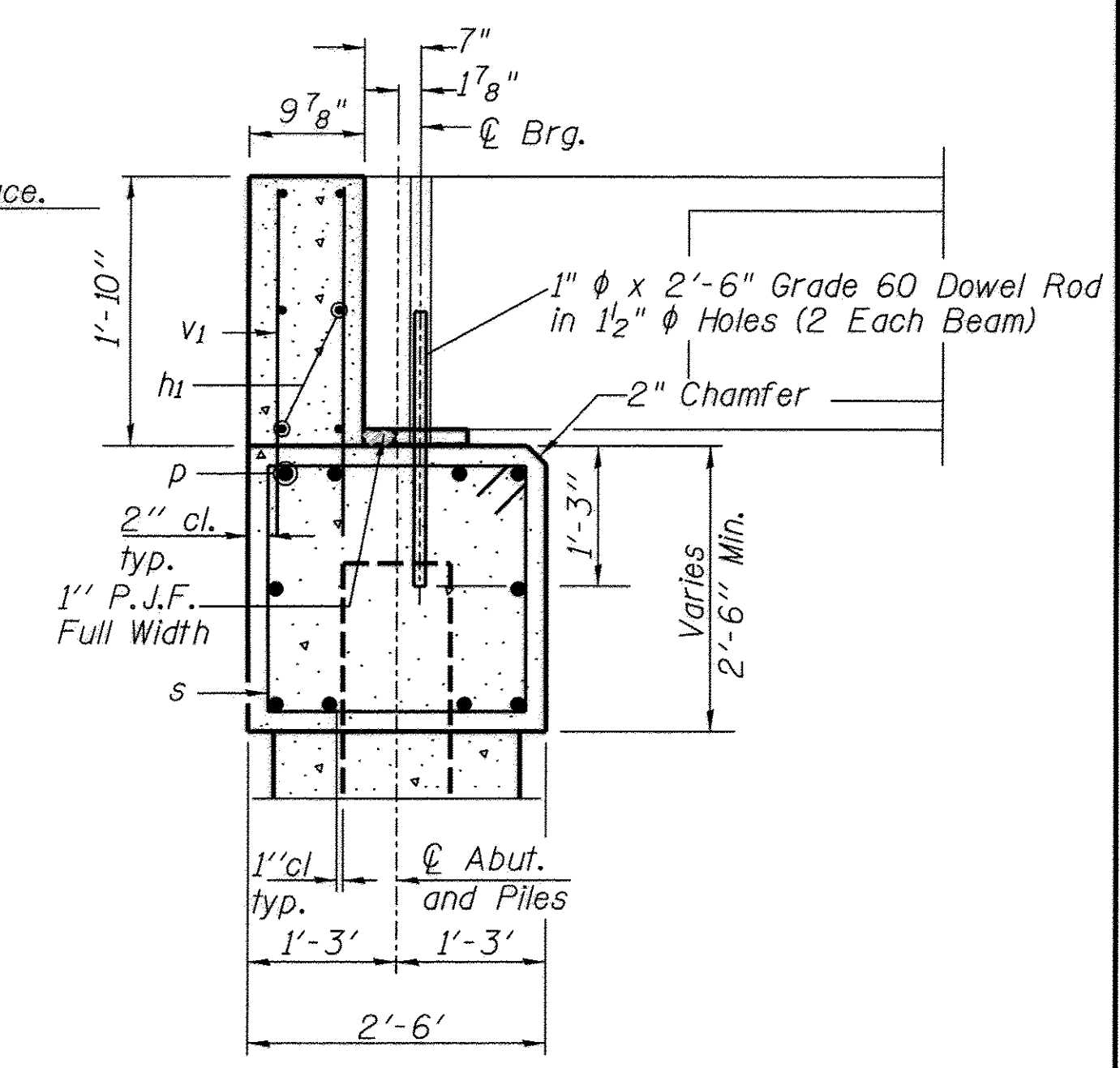
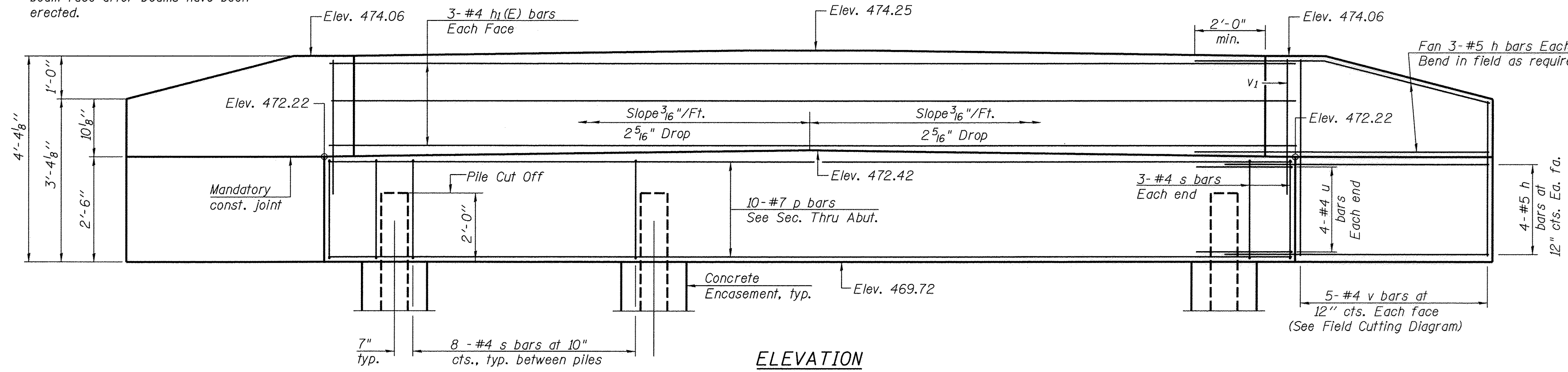
21" x 48" PPC DECK BEAMS  
T.R. 84 (TIMBER TRAIL RD.)  
OVER COON CREEK  
SECTION 12-04131-00-BR  
RICHLAND COUNTY  
STRUCTURE NO. 080-3228

Sheet 3 of 7

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
84	12-04131-00-BR	Richland	13	6
CONTRACT NO. 96815				
ILLINOIS FED. AID PROJECT				



\* Cast top of wingwall flush with exterior beam face after beams have been erected.

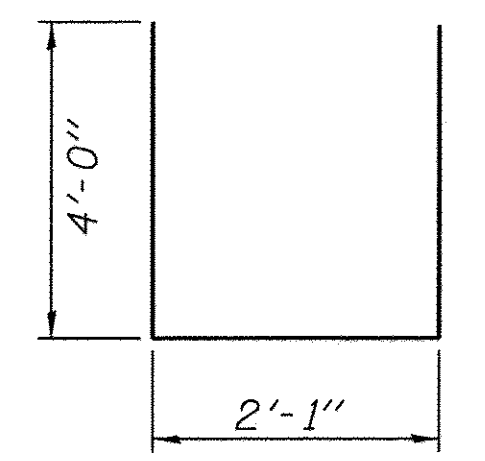
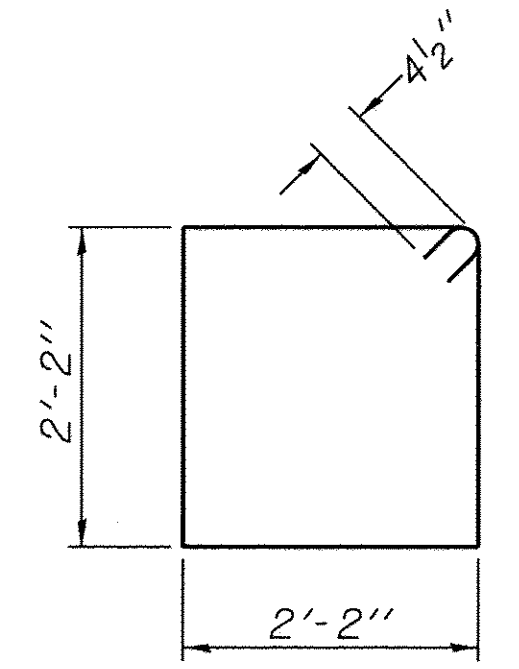
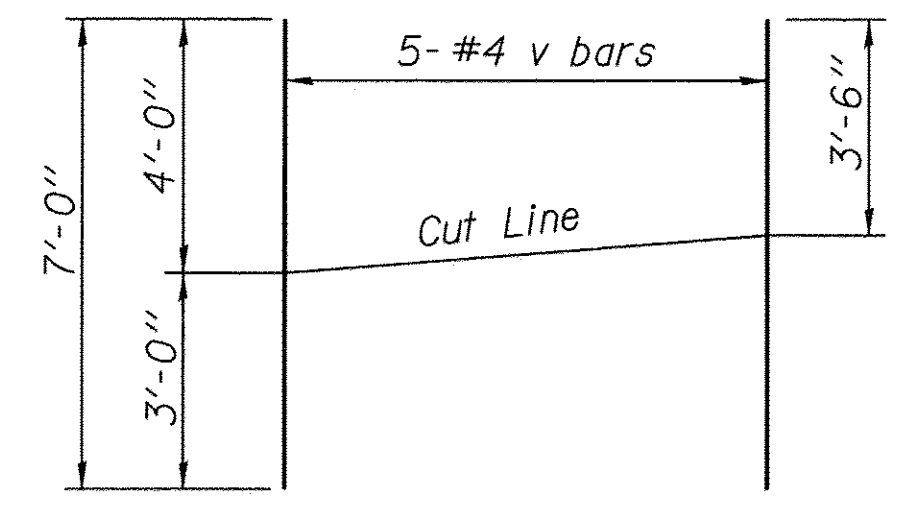


**BILL OF MATERIAL FOR TWO ABUTMENTS**

Bar	No.	Size	Length	Shape
h	64	#5	5'-10"	—
h <sub>1</sub>	12	#4	25'-0"	—
p	20	#7	24'-8"	—
s	60	#4	9'-5"	□
u	16	#4	10'-1"	□
v	20	#4	7'-0"	—
v <sub>1</sub>	104	#4	3'-10"	—
Structure Excavation		Cu. Yd.	10	
Concrete Structures		Cu. Yd.	16.5	
Reinforcement Bars, Epoxy Coated		Pound	2450	
Furnishing Steel Piles, HP10x42		Foot	105	
Driving Piles		Foot	105	
Test Pile		Each	1	
Concrete Encasement		Cu. Yd.	2.8	

**PILE DATA**

Type: HP10x42  
 Nominal Required Bearing: 305  
 Factored Resistance Available: 168  
 Est. Length: 15 ft.  
 No. Production Piles: 7  
 No. Test Piles: 1, Bent #1



Notes:  
 For details of piles and Concrete Encasement, see sheet 5 of 7.  
 Cast backwall after beams have been erected.

**ABUTMENTS**  
 T.R. 84 (TIMBER TRAIL RD.)  
 OVER COON CREEK  
 SECTION 12-04131-00-BR  
 RICHLAND COUNTY  
 STRUCTURE NO. 080-3228

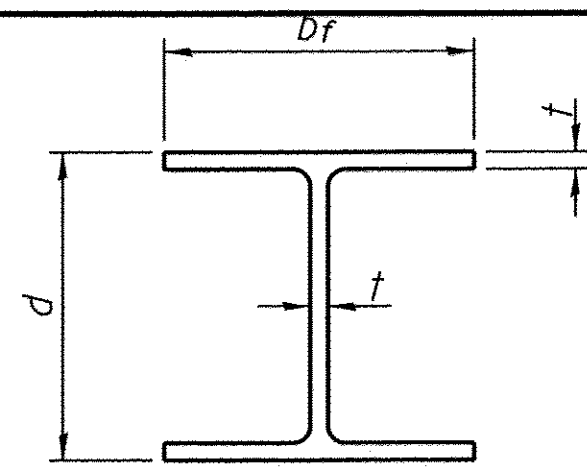
Sheet 4 of 7

AD-2742-0 7-1-10

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

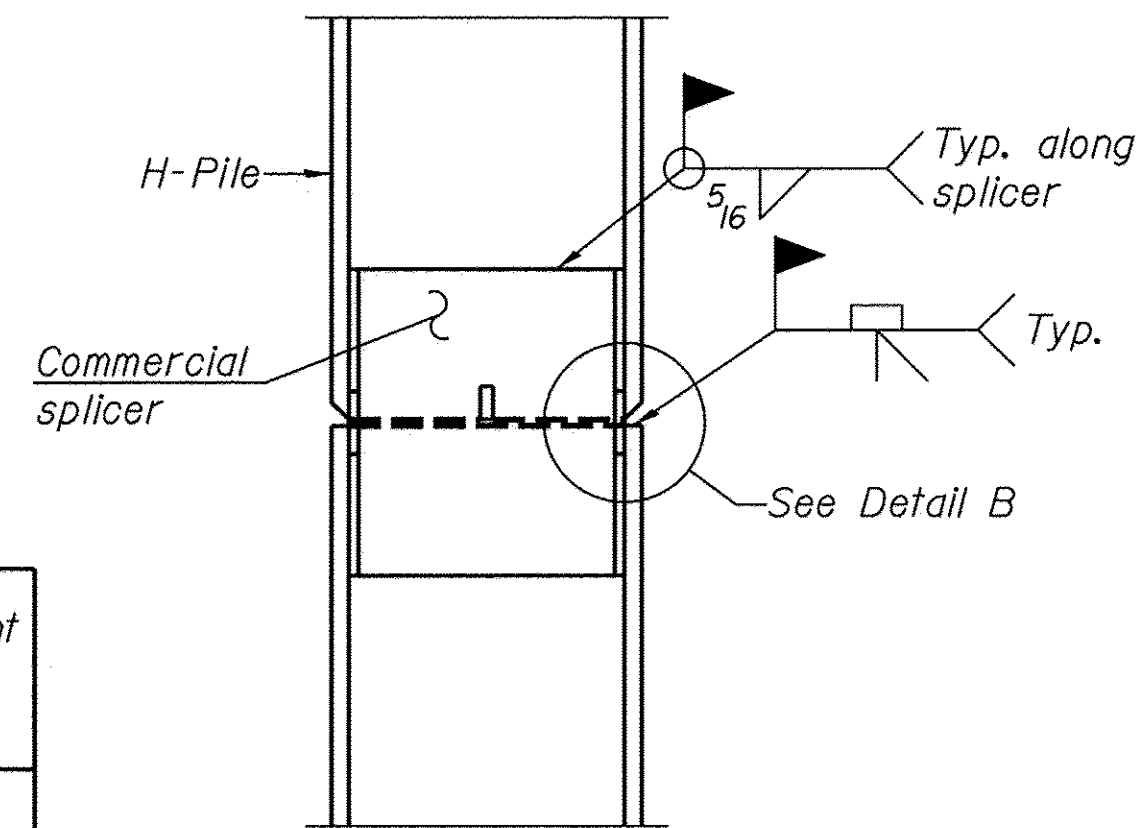
**ABUTMENTS**  
**STRUCTURE NO. 080-3228**

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
84	12-04131-00-BR	Richland	13	7
				CONTRACT NO. 080-3228
ILLINOIS FED. AID PROJECT				

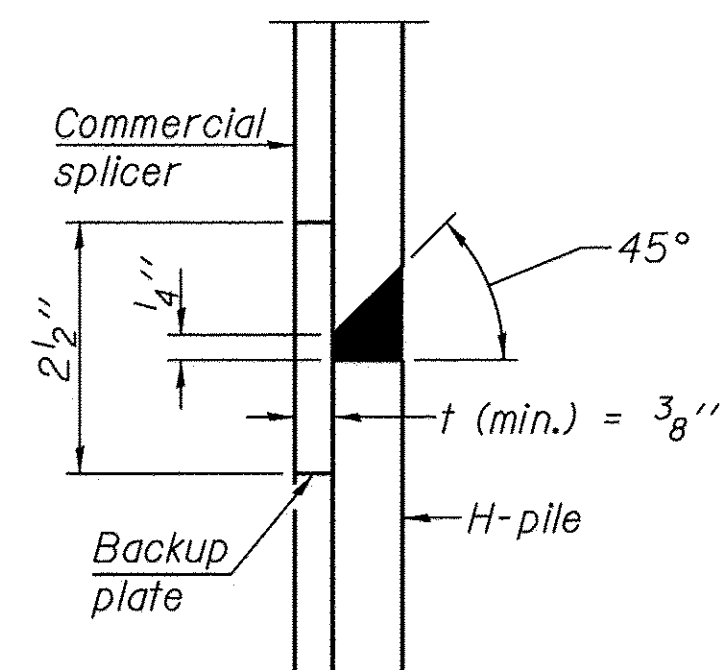


**STEEL PILE TABLE**

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A	Encasement Quantity C.Y./ft.
HP 14x117	14 1/4"	14 7/8"	13/16"	30"	0.173
x102	14"	14 3/4"	1/16"	30"	0.174
x89	13 7/8"	14 3/4"	5/8"	30"	0.175
x73	13 5/8"	14 5/8"	1/2"	30"	0.176
HP 12x84	12 1/4"	12 1/4"	1/16"	24"	0.110
x74	12 1/8"	12 1/4"	5/8"	24"	0.111
x63	12"	12 3/8"	1/2"	24"	0.112
x53	11 3/4"	12"	7/16"	24"	0.112
HP 10x57	10"	10 1/4"	9/16"	24"	0.112
x42	9 3/4"	10 3/8"	7/16"	24"	0.113
HP 8x36	8"	8 1/8"	7/16"	18"	0.063

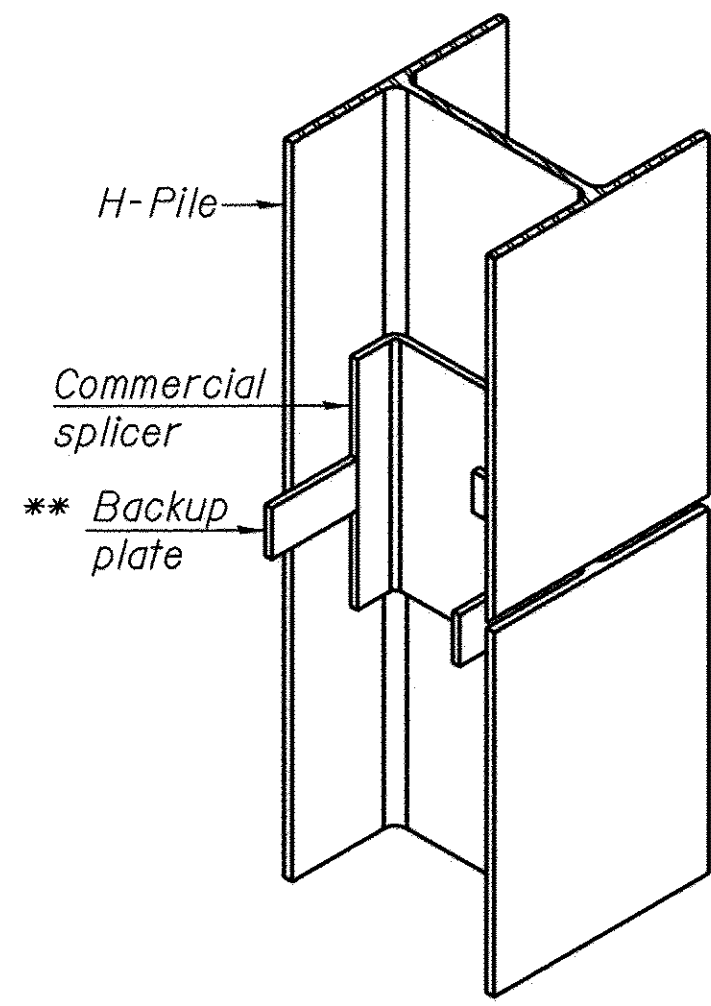


**ELEVATION**

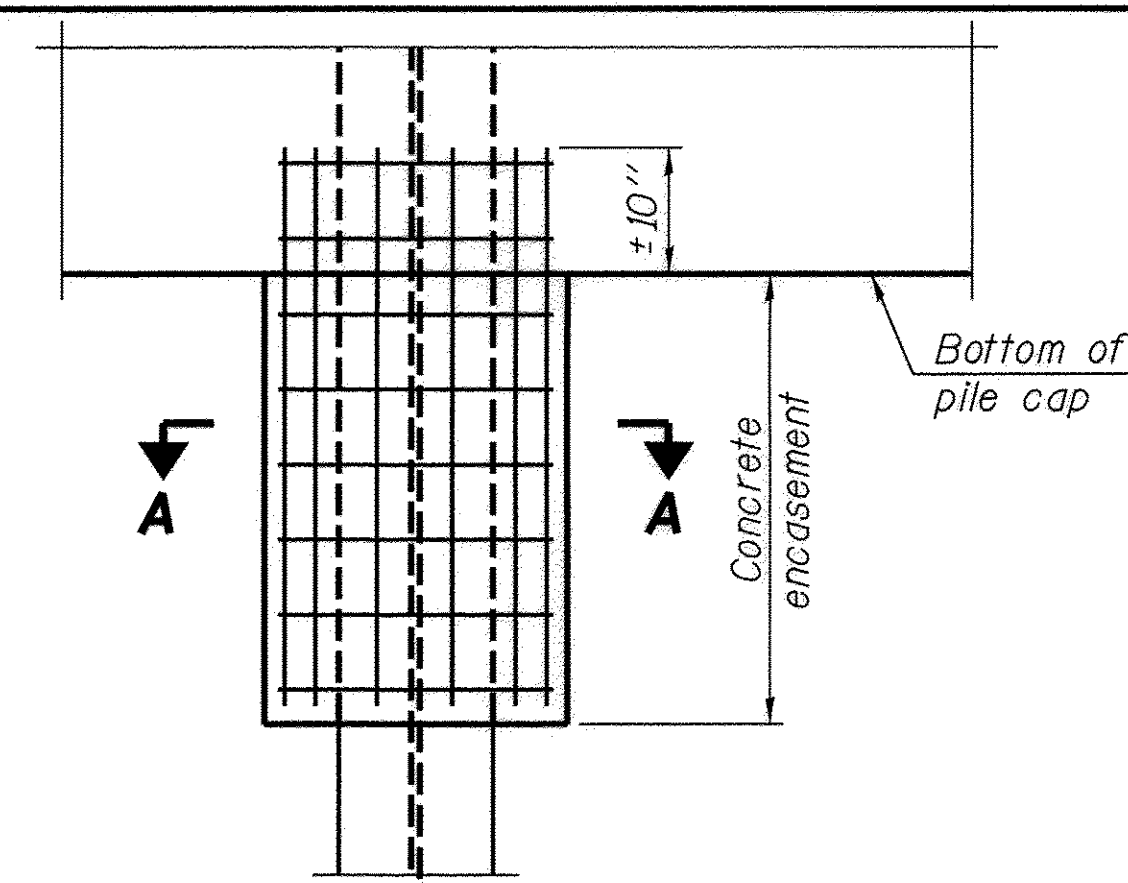


**DETAIL "B"**

**WELDED COMMERCIAL SPLICE**

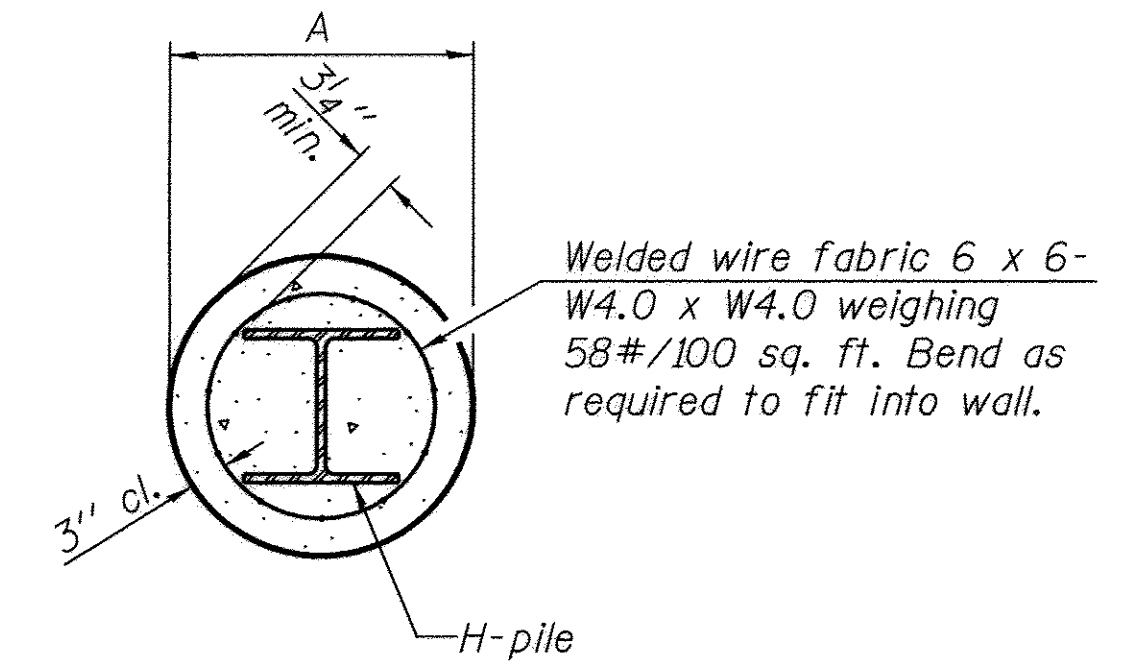


**ISOMETRIC VIEW**



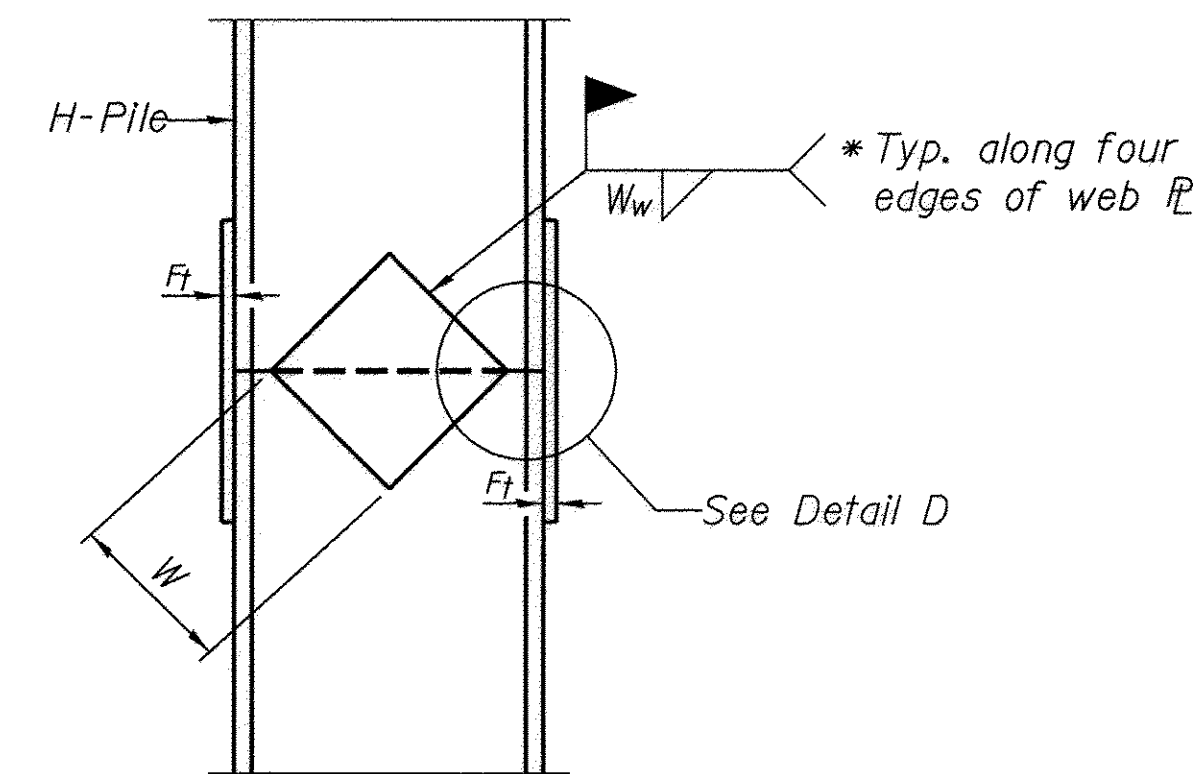
**ELEVATION**

**PILE ENCASEMENT**

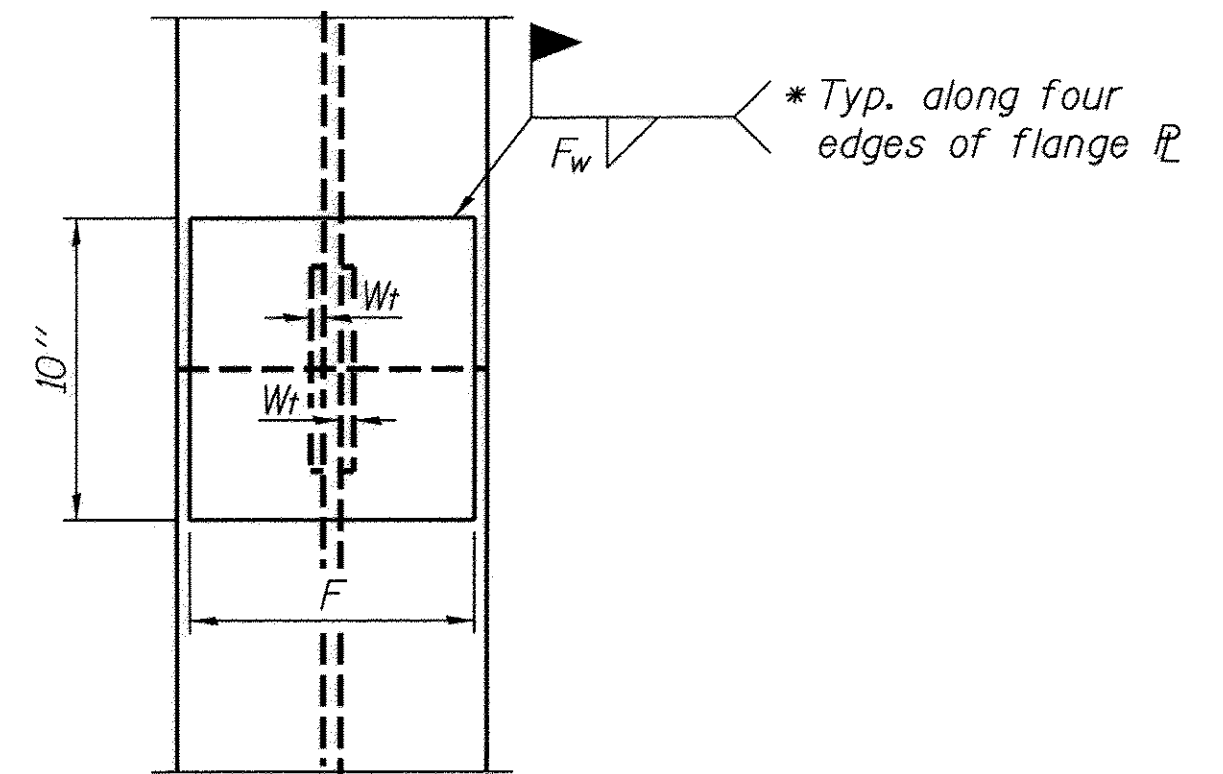


**SECTION A-A**

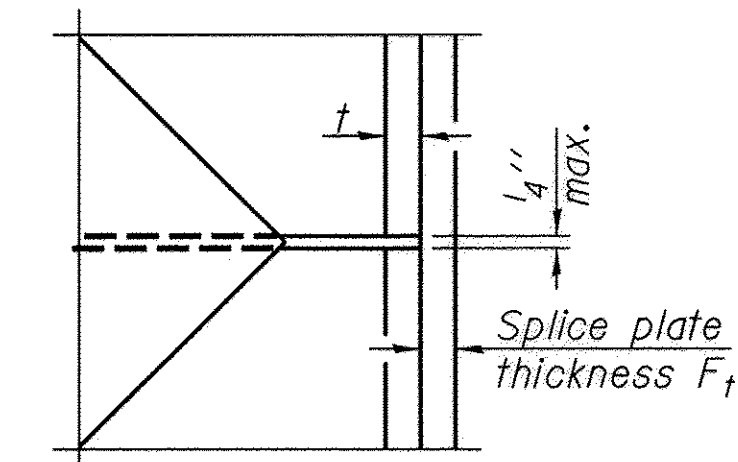
Note: Forms for encasement may be omitted when soil conditions permit.



**ELEVATION**



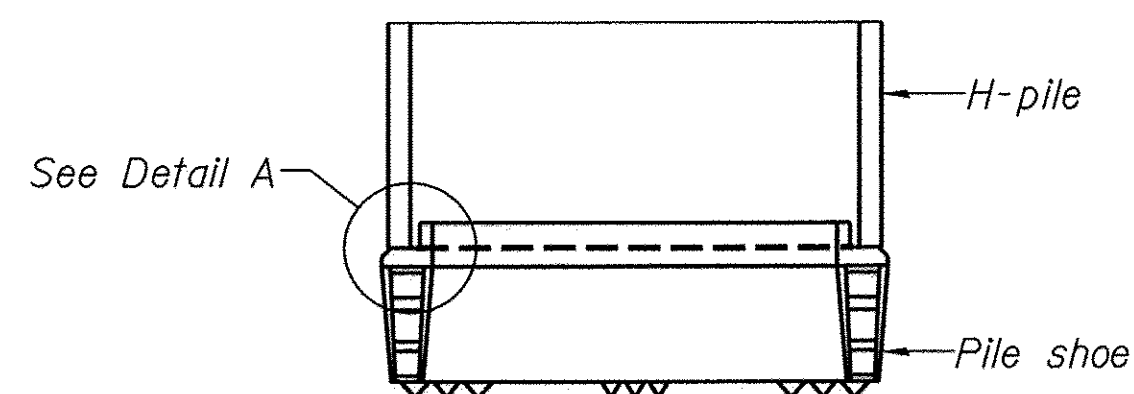
**END VIEW**



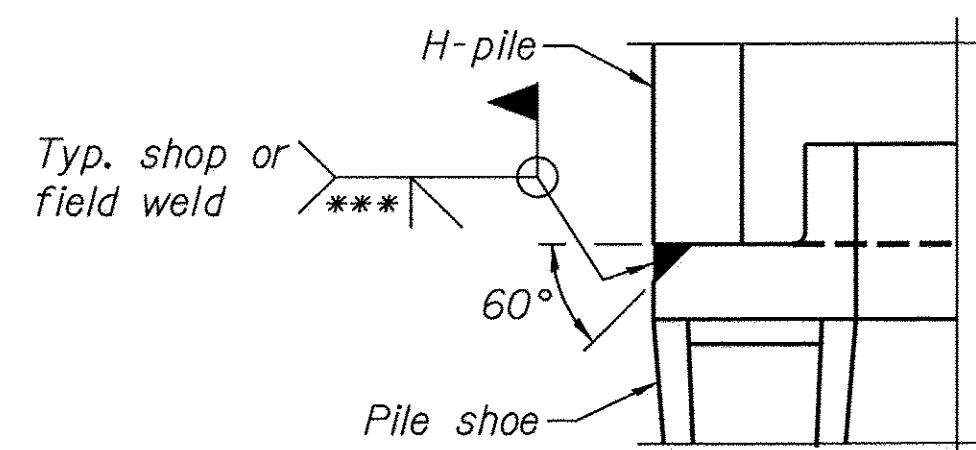
**DETAIL D**

**WELDED PLATE FIELD SPLICE**

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

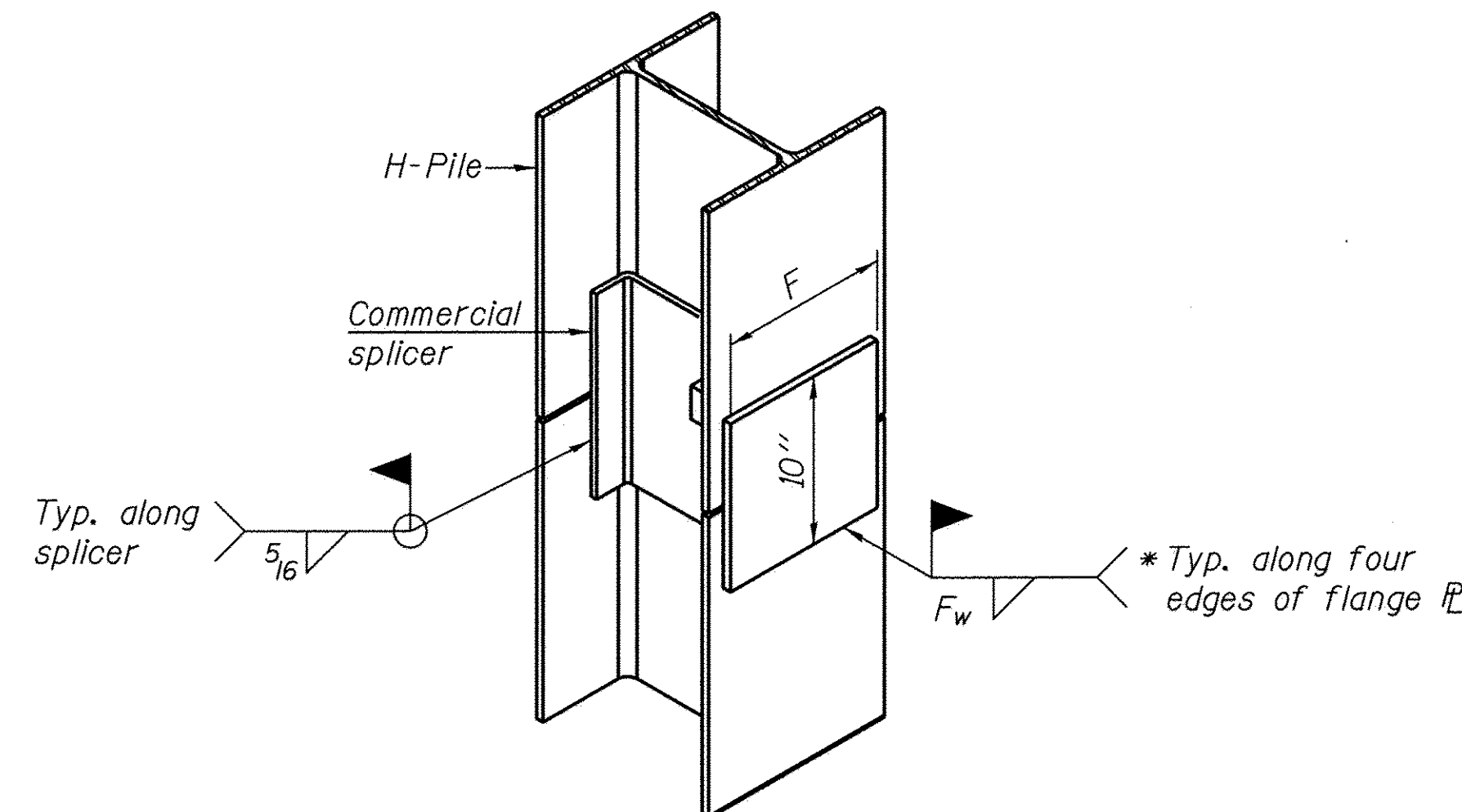


**ELEVATION**



**DETAIL A**

**H-PILE SHOE ATTACHMENT**



**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE ALTERNATE**

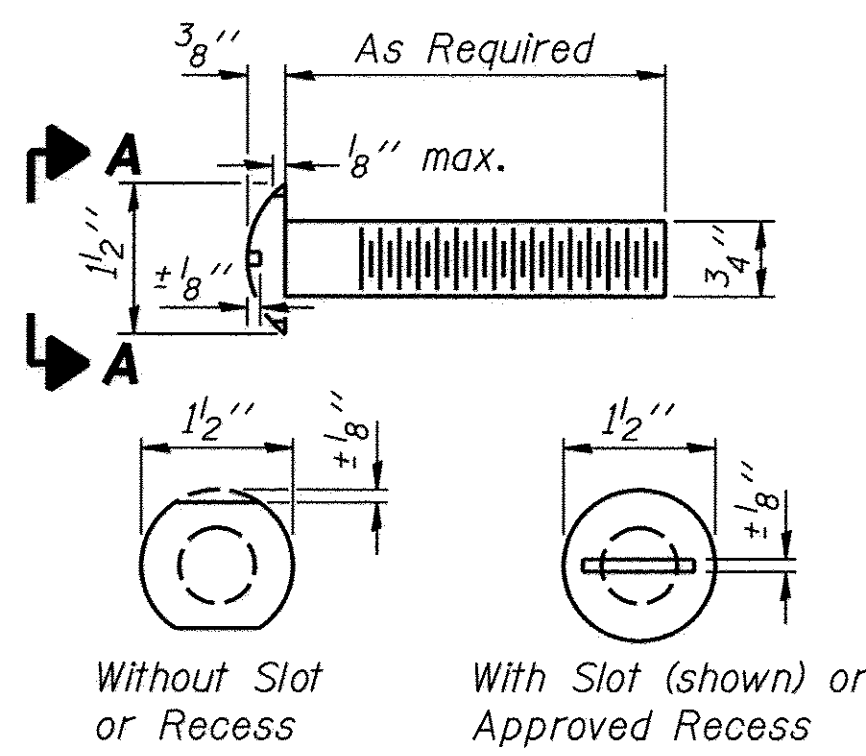
- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).

Note: The steel H-piles shall be according to AASHTO M270 Grade 50.

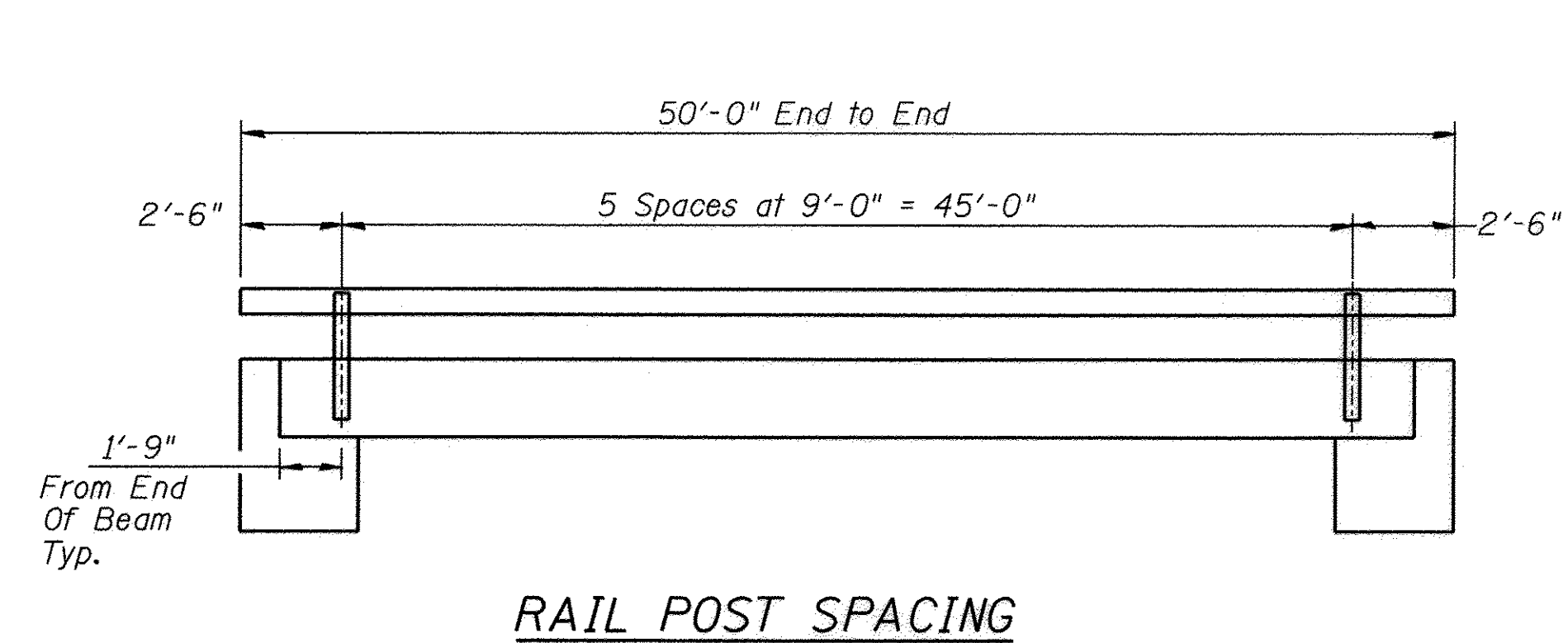
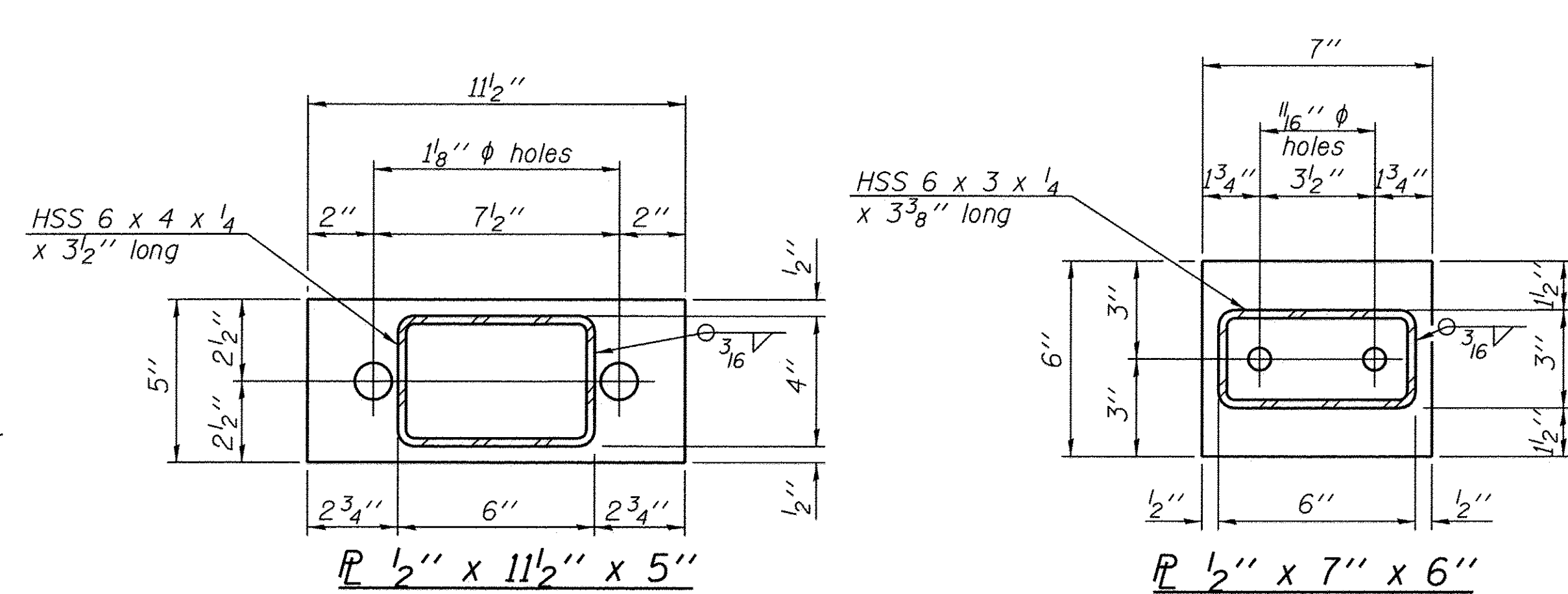
HP PILES DETAILS  
T.R. 84 (TIMBER TRAIL RD.)  
OVER COON CREEK  
SECTION 12-04131-00-BR  
RICHLAND COUNTY  
STRUCTURE NO. 080-3228

Sheet 5 of 7

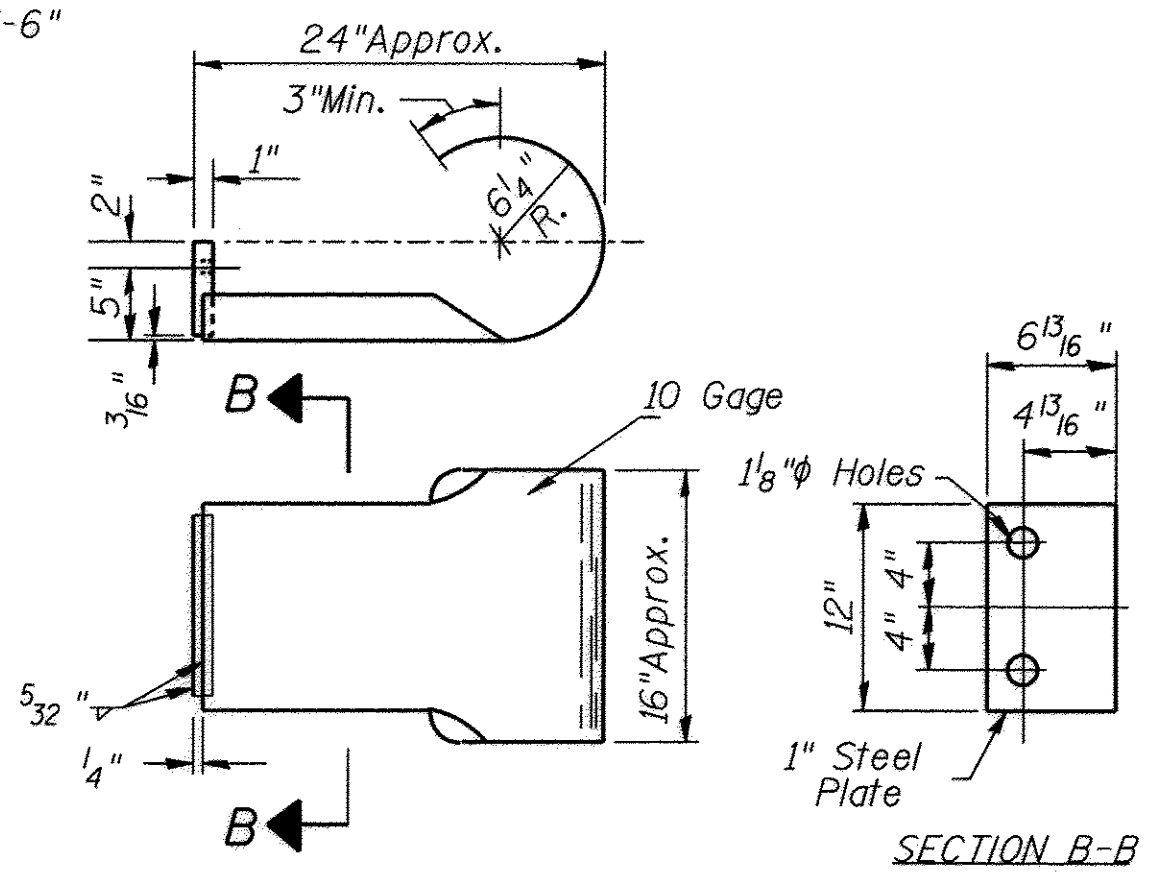




**VIEW A-A  
ROUND HEAD BOLT**

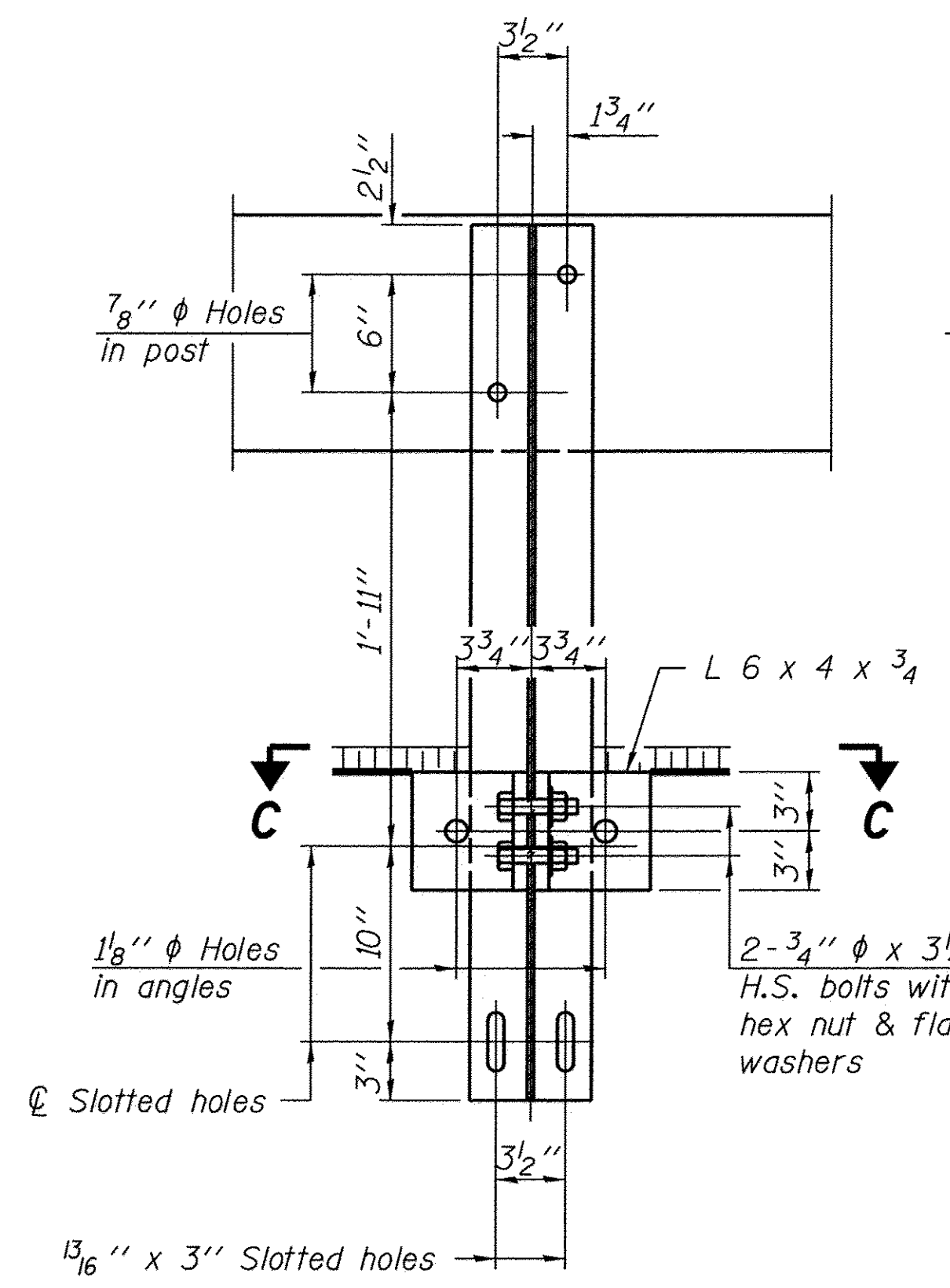


**RAIL POST SPACING**

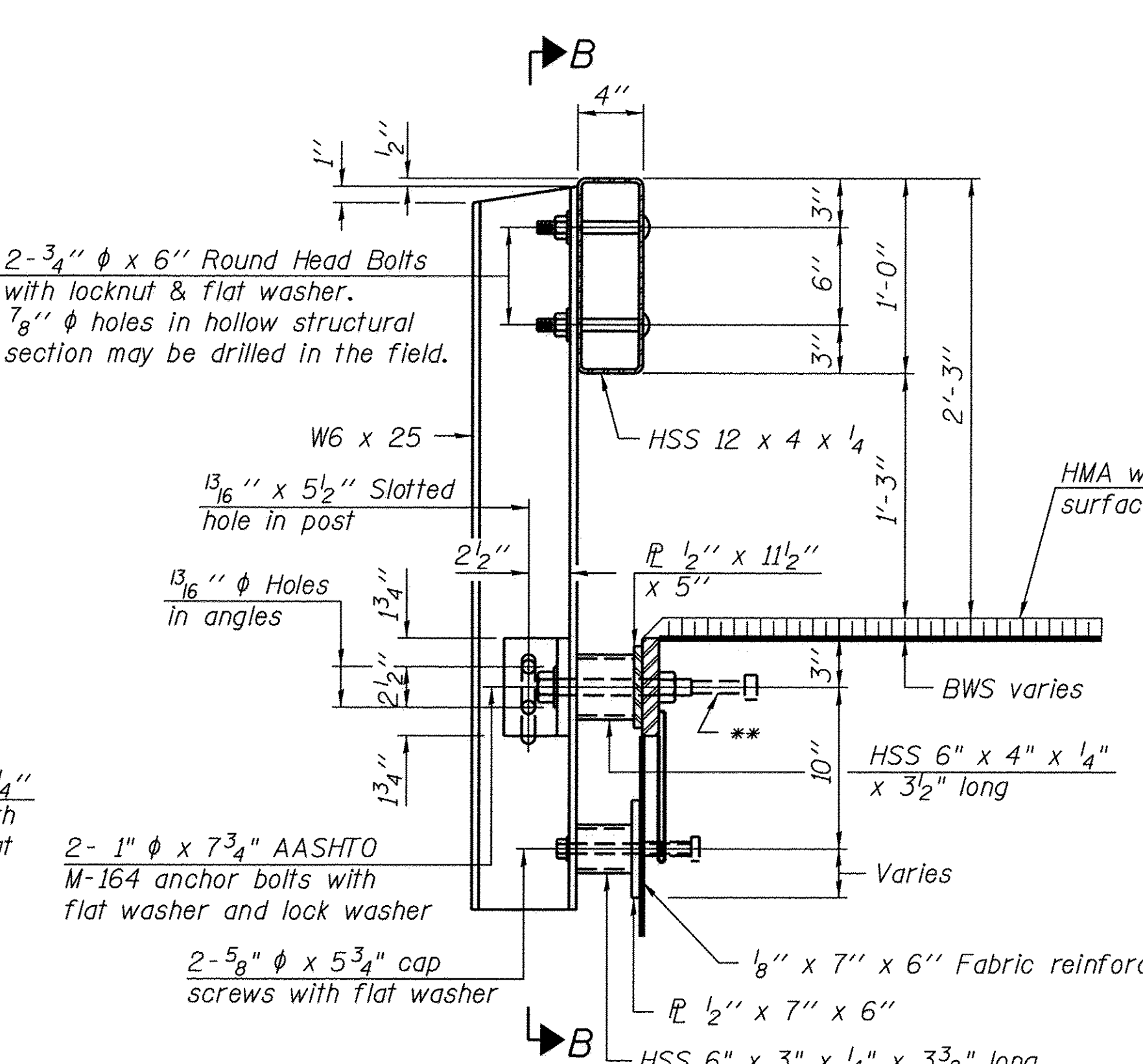


**CURLED END SECTION**

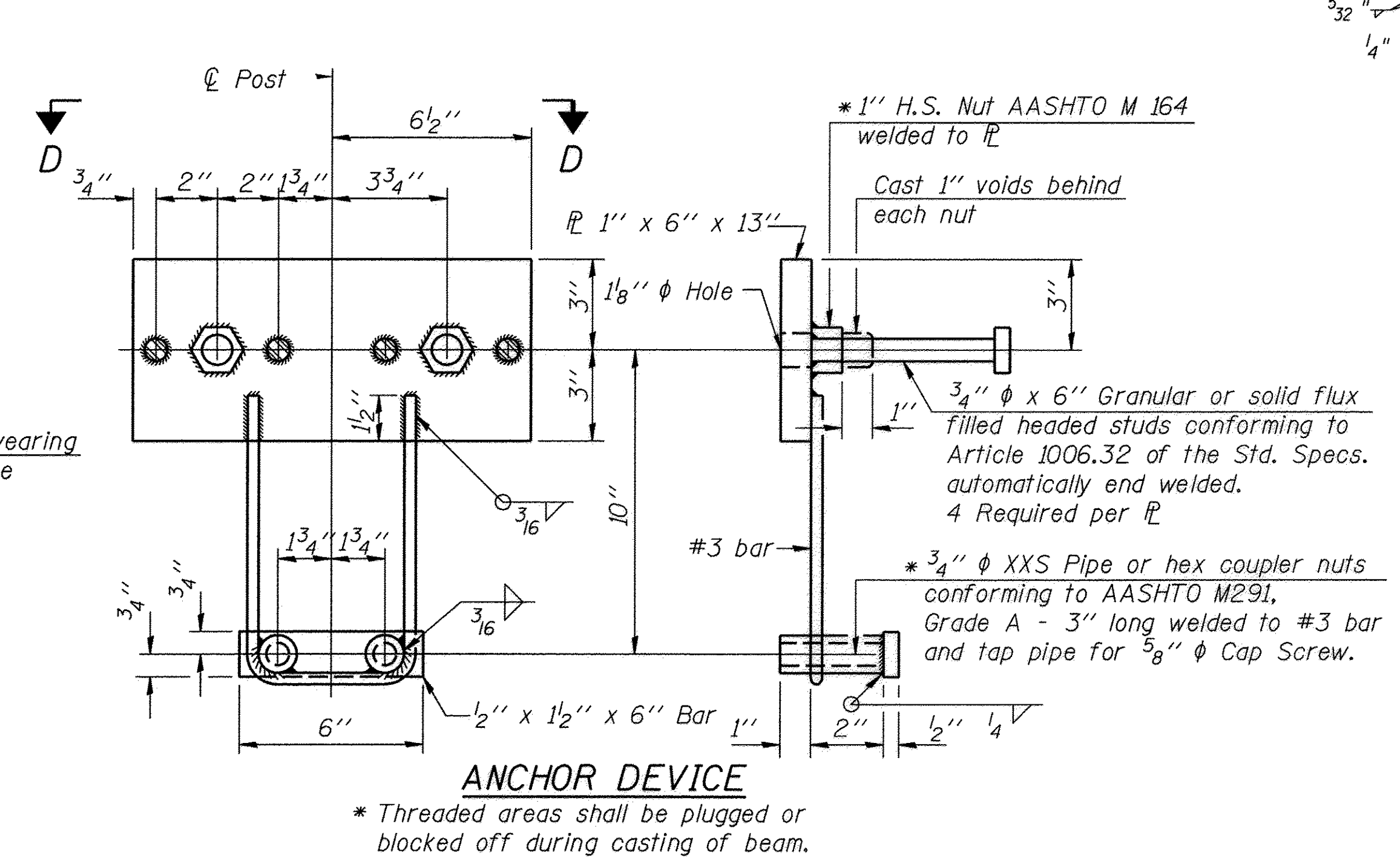
(4 Req'd.) Cost Included with Steel Railing, Type S-1



**SECTION B-B**



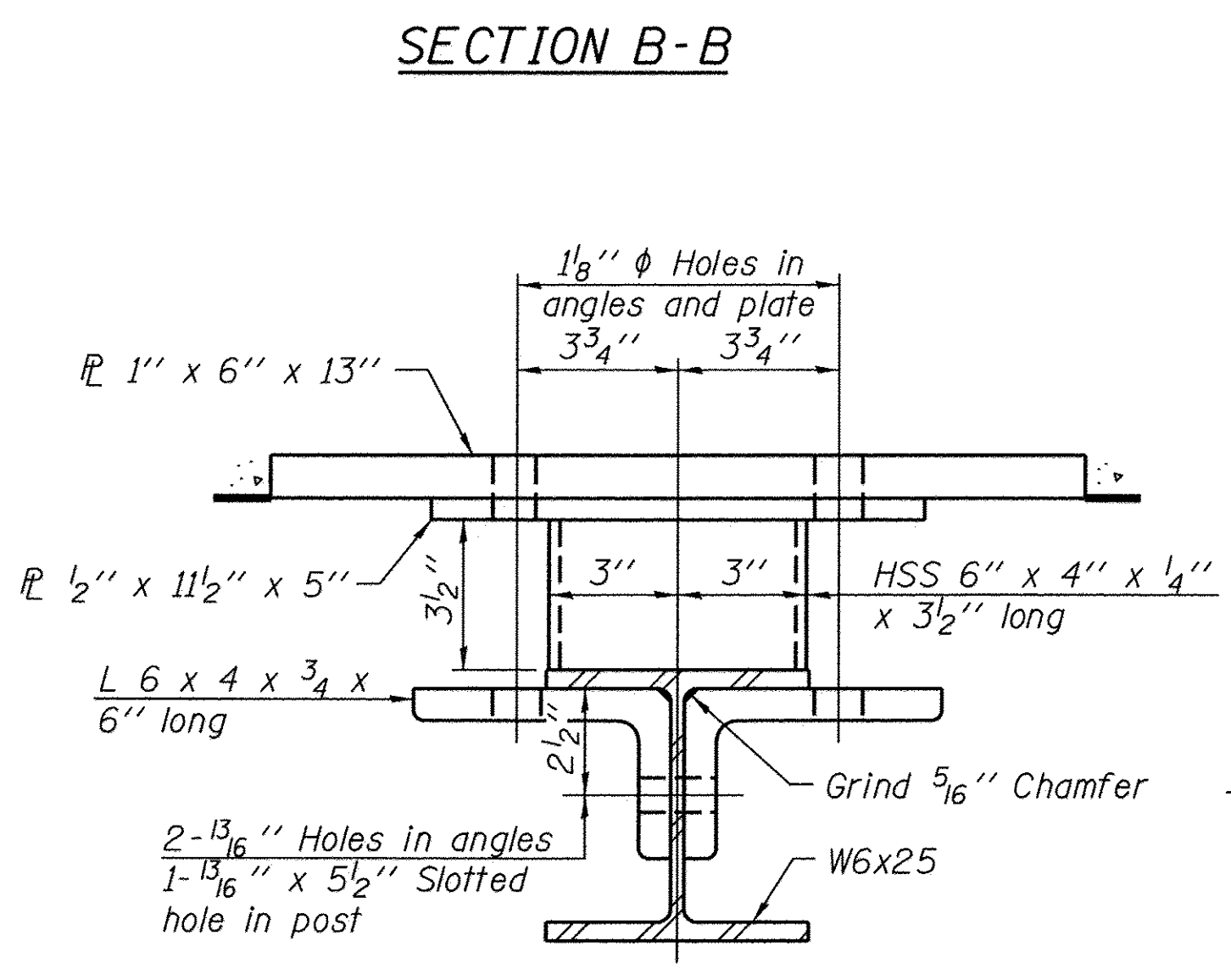
**SECTION AT RAILING POST**



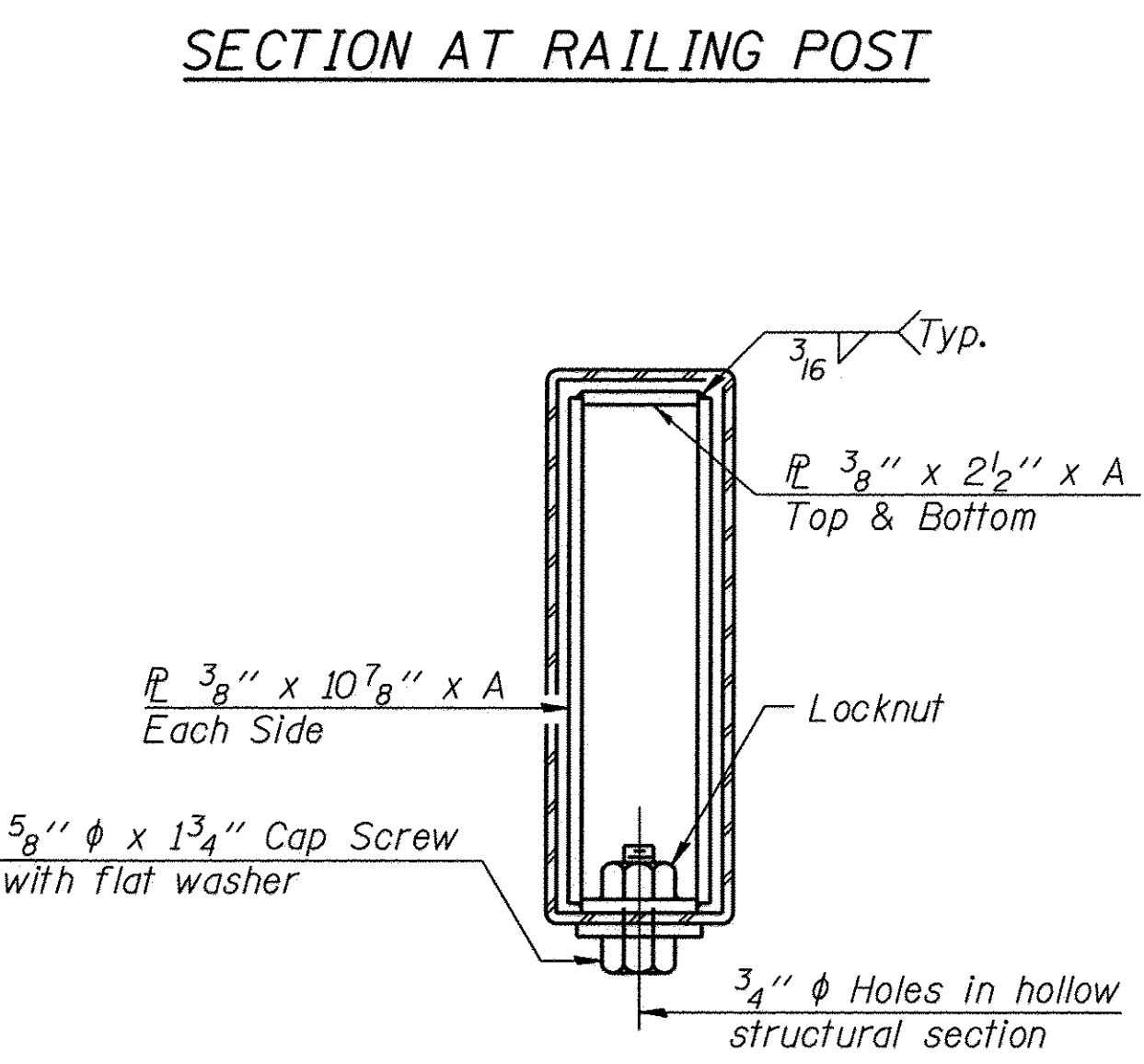
**ANCHOR DEVICE**

\* Threaded areas shall be plugged or blocked off during casting of beam.

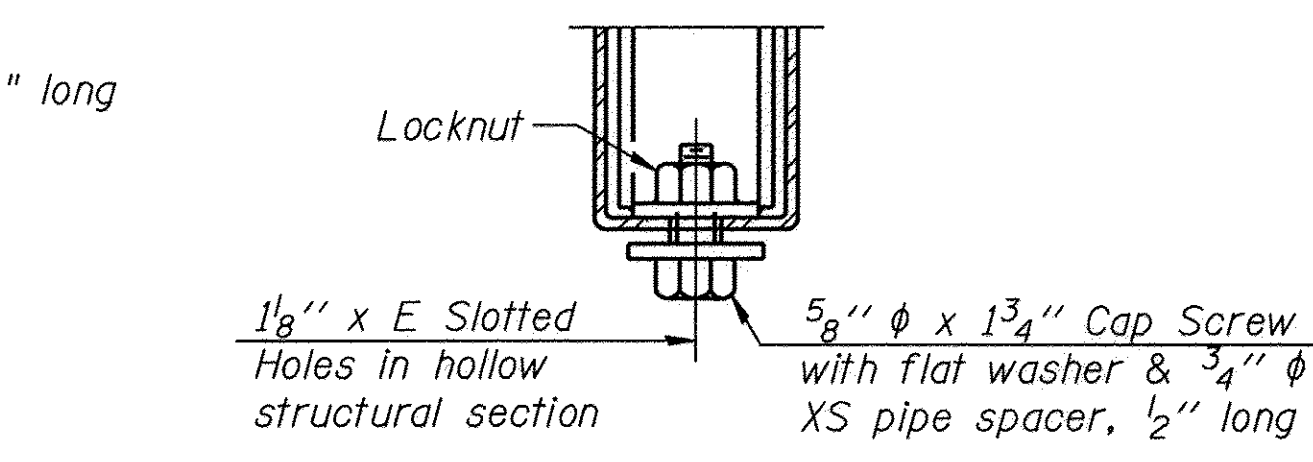
**Notes:**  
For multi-span bridges, sufficient 1/4 inch x 6 inch x 1-2 inch galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.  
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.  
\*\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



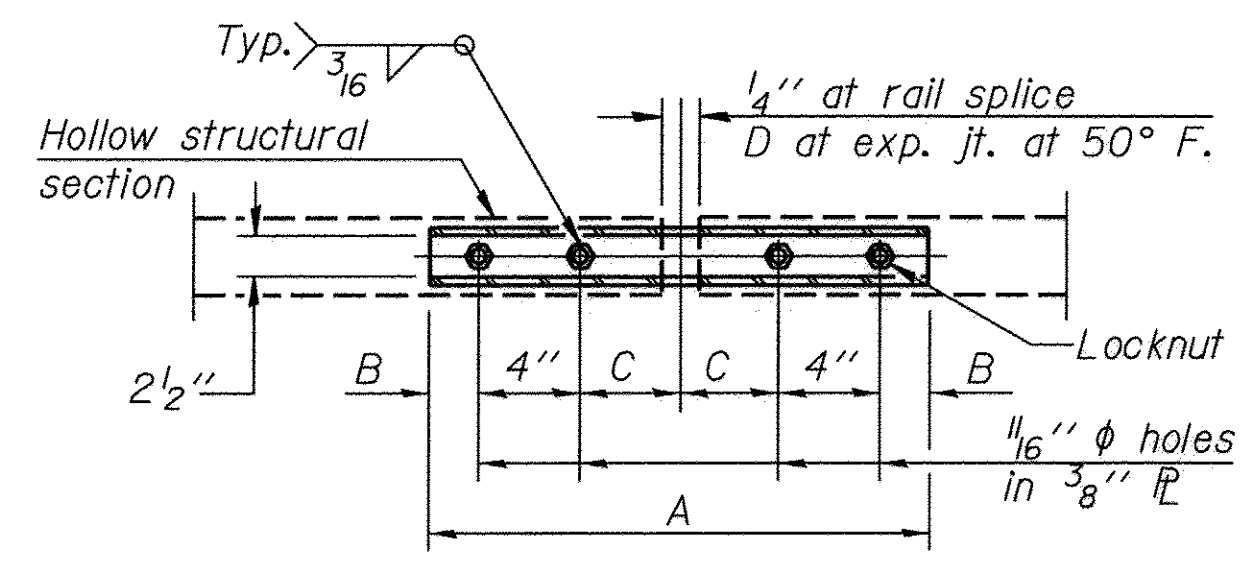
**SECTION C-C**



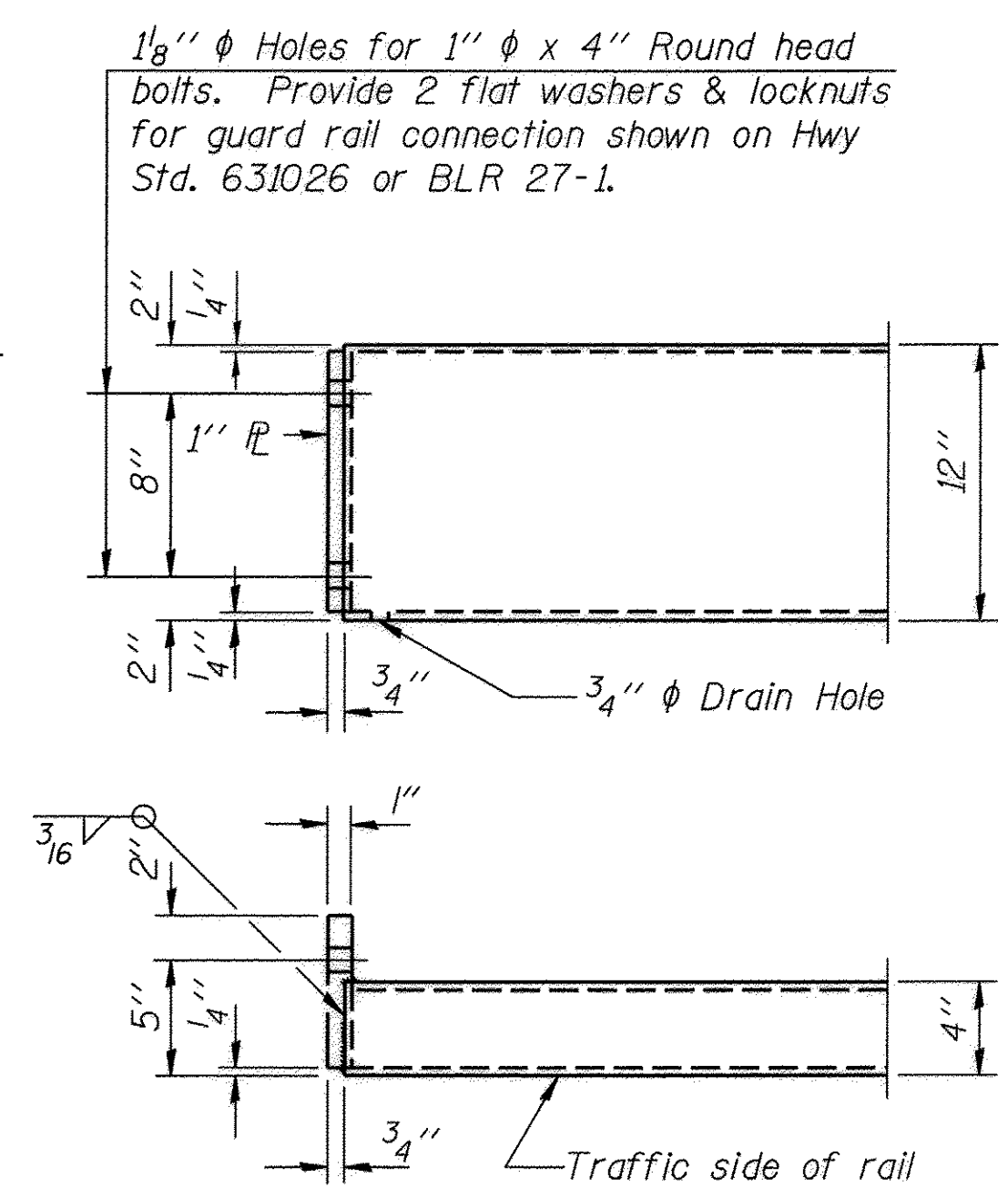
**SECTIONS AT RAIL SPLICE**



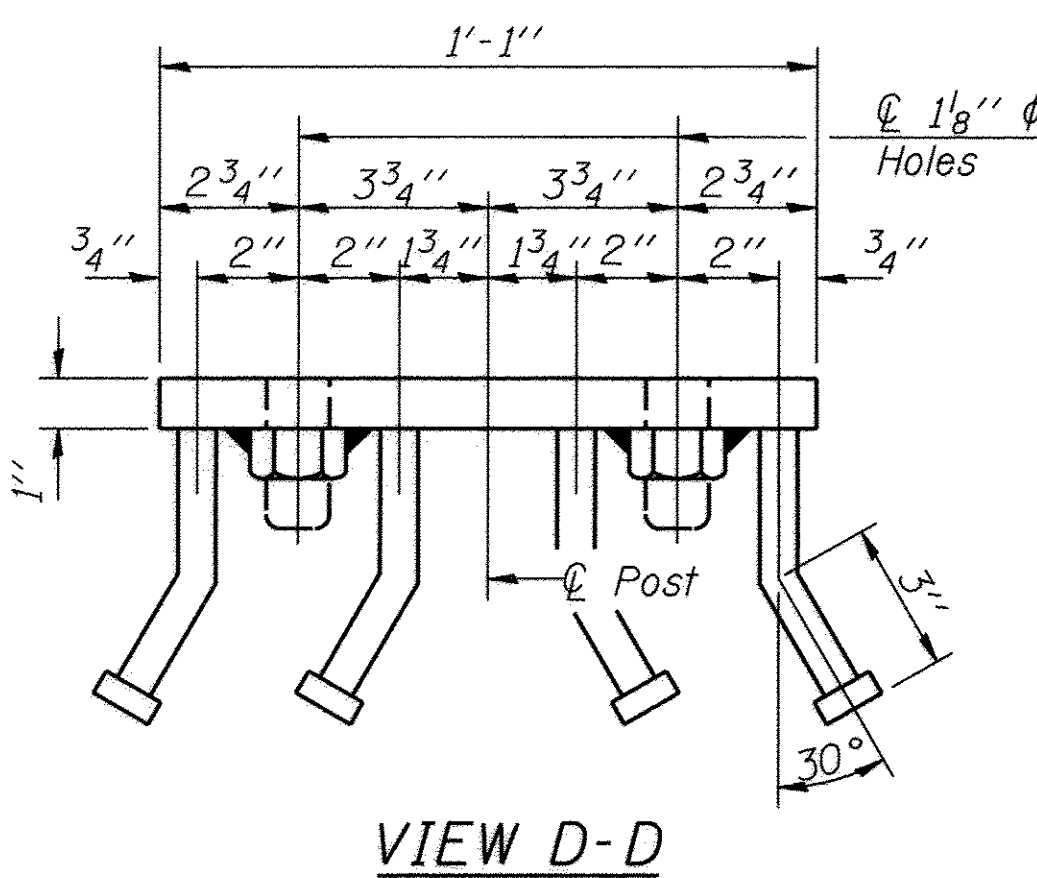
**RAIL SPLICE CONNECTION  
AT EXPANSION JT.**



**PLAN-BOTT. SPLICE P  
TYPICAL**



**END OF RAIL DETAILS**



**VIEW D-D**

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	100

**STEEL RAILING, TYPE S-1  
T.R. 84, TIMBER TRAIL RD.  
OVER COON CREEK  
SECTION 12-04131-00-BR  
RICHLAND COUNTY  
STRUCTURE NO. 080-3228**

R-23A

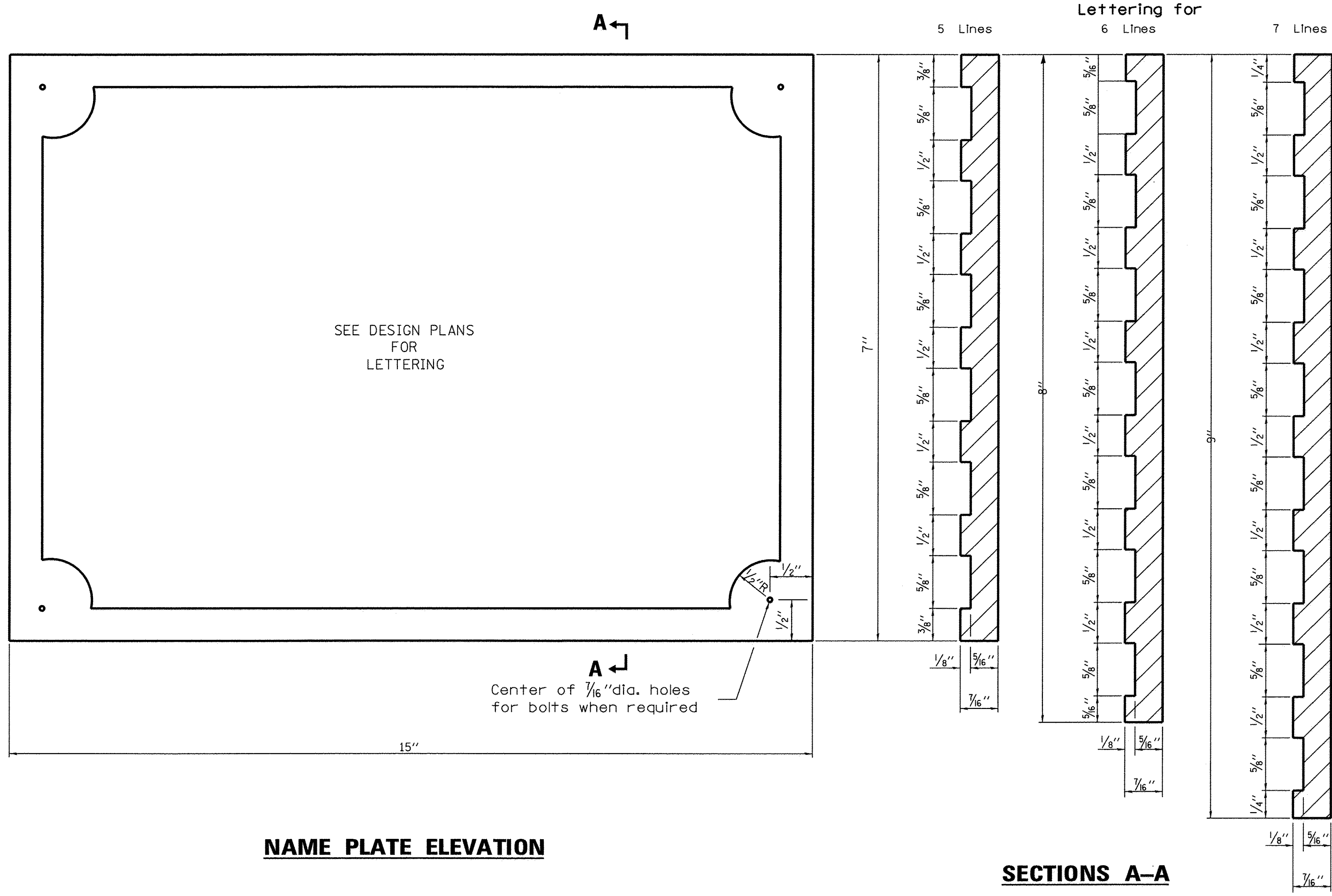
1-12-15 (10'-9" Maximum Post Spacing)

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STEEL RAILING, TYPE S-1  
STRUCTURE NO. 080-3228**

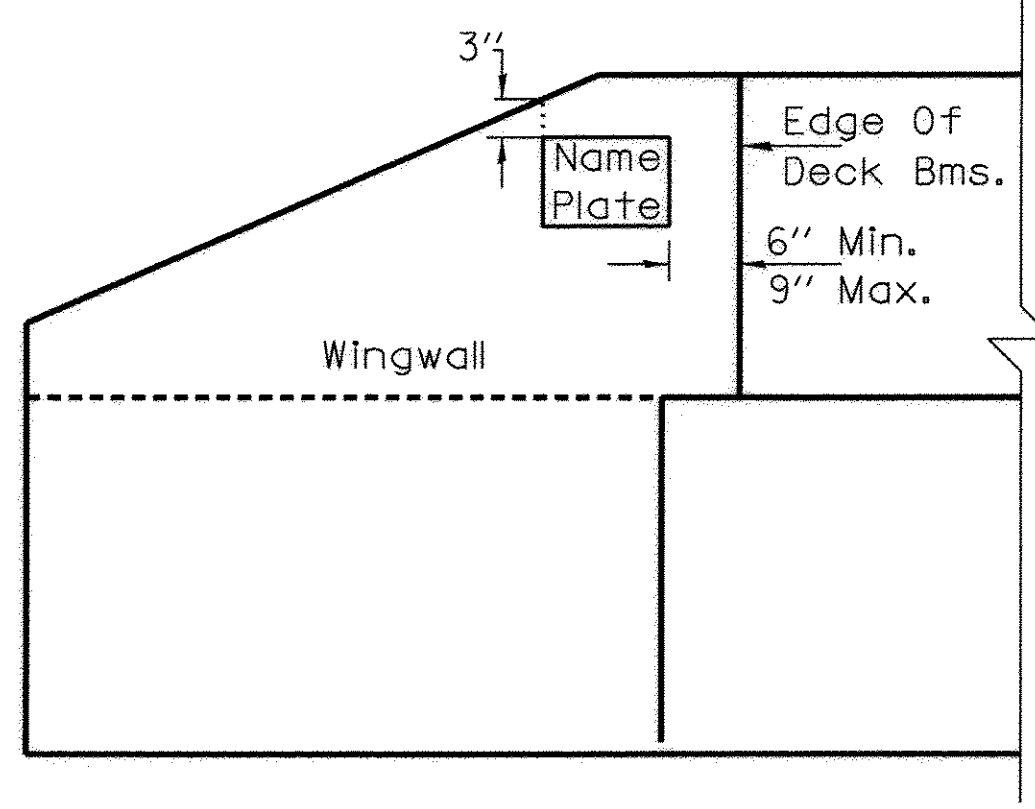
T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
84	12-04131-00-BR	Richland	13	9
				CONTRACT NO. 96815
ILLINOIS FED. AID PROJECT				

Sheet 6 of 7



**NAME PLATE ELEVATION**

NOTE  
Border and lettering:  
Raised 1/8", square cut and not tapered.



NAME PLATE FOR BRIDGES  
T.R. 84 (TIMBER TRAIL RD.)  
OVER COON CREEK  
SECTION 12-04131-00-BR  
RICHLAND COUNTY  
STRUCTURE NO. 080-3228

Sheet 7 of 7

<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>NAME PLATE FOR BRIDGES STRUCTURE NO. 080-3228</b>			
	T.R. 84	SECTION 12-04131-00-BR	COUNTY Richland	TOTAL SHEETS 13
CONTRACT NO. 95815				SHEET NO. 10
ILLINOIS FED. AID PROJECT				



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 84	12-04131-00-BR	RICHLAND	13	11
DENVER ROAD DISTRICT		ILLINOIS		

<b>NOBLE</b>				<b>BORING No. B-1</b>		<b>water level reading</b>				
<b>ENGINEERING CONSULTANTS</b>		County: Richland, IL		Sheet No. 1 of 1		1st encounter: Dry				
Client: Richland County Highway Dept.		Weather: Rainy		Temperature: 50's		<b>water level reading</b>				
Driller: Noble Engineering Consultants		Date Start: 4-24-13		Surface Elevation: Bridge Deck (0)		@completion dry				
Location: Structure 080-3055		Date Finished: 4-24-13		Driller: Tony Schocker		Backfill: Soil cuttings				
Depth:	Sample No.	Sample Depth	N-Value	Blow Count	Recovery (%)	Qp (tsf)*	Soil Description	W %	USC Class.	Elev.**
1							0.0'-1.0' gravel			-1
2	SS-1	1.0'-2.5'	13	3-5-8	100	-	1.0'-3.0' silt, clay, etc, FILL, brown	7.2	FILL	-2
3										-3
4	SS-2	3.5'-5.0'	4	1-2-2	0	-	3.0'-8.0' SILTY CLAY, trace to some sand, stiff, brown mottled gray		CL	-4
5										-5
6	SS-3	6.0'-7.5'	10	2-4-6	100	1.6		21.4	CL	-6
7										-7
8										-8
9	SS-4	8.5'-10.0'	100	10-45-55	100	2.1		14.9	CL	-9
10										-10
11										-11
12										-12
13										-13
14	SS-5	13.5'-15.0'	100+	41-100/5"	80	-	9.0'-22.7' HIGHLY WEATHERED SHALE, gray to dark gray below 18'	10.9		-14
15										-15
16										-16
17										-17
18										-18
19	SS-6	18.5'-20.0'	100+	100/2"	100	-		18.8		-19
20										-20
21										-21
22							AR 22.7'			-22
23										
24										
25										
26										
27										
28										
29										
30										
Drilling Method: HSA (3-3/4" id)		comments		* Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder						
Depth: 0' to 22.7'				** ground surface elevation at boring location is estimated and is not surveyed						
Drill Rig: Mobile B-47										
Sampling: split-spoon (SS)										

<b>NOBLE</b>				<b>BORING No. B-2</b>		<b>water level reading</b>				
<b>ENGINEERING CONSULTANTS</b>		County: Richland, IL		Sheet No. 1 of 1		1st encounter: Dry				
Client: Richland County Highway Dept.		Weather: Rainy		Temperature: 60's		<b>water level reading</b>				
Driller: Noble Engineering Consultants		Date Start: 4-24-13		Surface Elevation: Bridge Deck (0)		@completion dry				
Location: Structure 080-3055		Date Finished: 4-24-13		Driller: Tony Schocker		Backfill: Soil cuttings				
Depth:	Sample No.	Sample Depth	N-Value	Blow Count	Recovery (%)	Qp (tsf)*	Soil Description	W %	USC Class.	Elev.**
1							0.0'-0.3' Topsoil			-1
2	SS-1	1.0'-2.5'	4	1-2-2	100	-	0.3'-3.0' silt, clay, etc, FILL, brown	18.1	FILL	-2
3										-3
4	SS-2	3.5'-5.0'	8	2-4-4	100	1.2	3.0'-8.0' SILTY CLAY, trace to some sand, stiff, brown mottled gray	17.2	CL	-4
5										-5
6	SS-3	6.0'-7.5'	36	3-12-24	100	4.5+		11.7	CL	-6
7										-7
8										-8
9	SS-4	8.5'-10.0'	100+	33-100/5"	100	-		11.4	CL	-9
10										-10
11										-11
12										-12
13										-13
14	SS-5	13.5'-15.0'	100+	79-100/4"	80	-	8.0'-21.5' HIGHLY WEATHERED SHALE, gray	11.3		-14
15										-15
16										-16
17										-17
18										-18
19	SS-6	18.5'-20.0'	100+	100/3"	100	-		15.1		-19
20										-20
21										-21
22							AR 21.5'			-22
23										
24										
25										
26										
27										
28										
29										
30										
Drilling Method: HSA (3-3/4" id)		comments		* Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder						
Depth: 0' to 21.5'				** ground surface elevation at boring location is estimated and is not surveyed						
Drill Rig: Mobile B-47										
Sampling: split-spoon (SS)										

CHARLESTON ENGINEERING, INC.  
CONSULTING ENGINEERS  
105 NORTH KITCHELL  
P.O. BOX 597  
OLNEY, ILLINOIS 62450  
(618) 392-0736  
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.002513

**BORING LOGS**

**STRUCTURE NO. 080-3126**

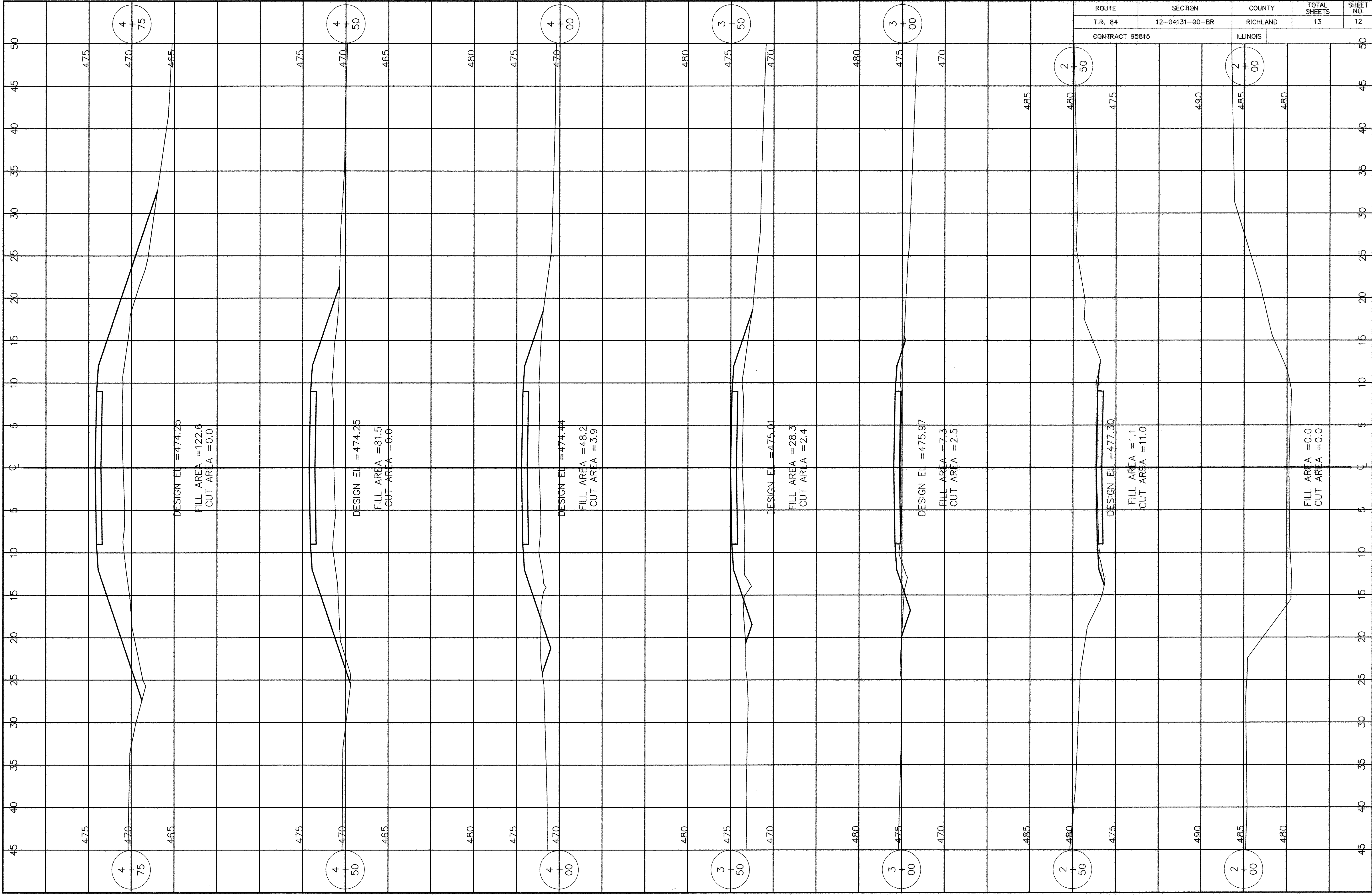
**T.R. 84**

**COON CREEK**

**SECTION 12-04131-00-BR**

**RICHLAND COUNTY**

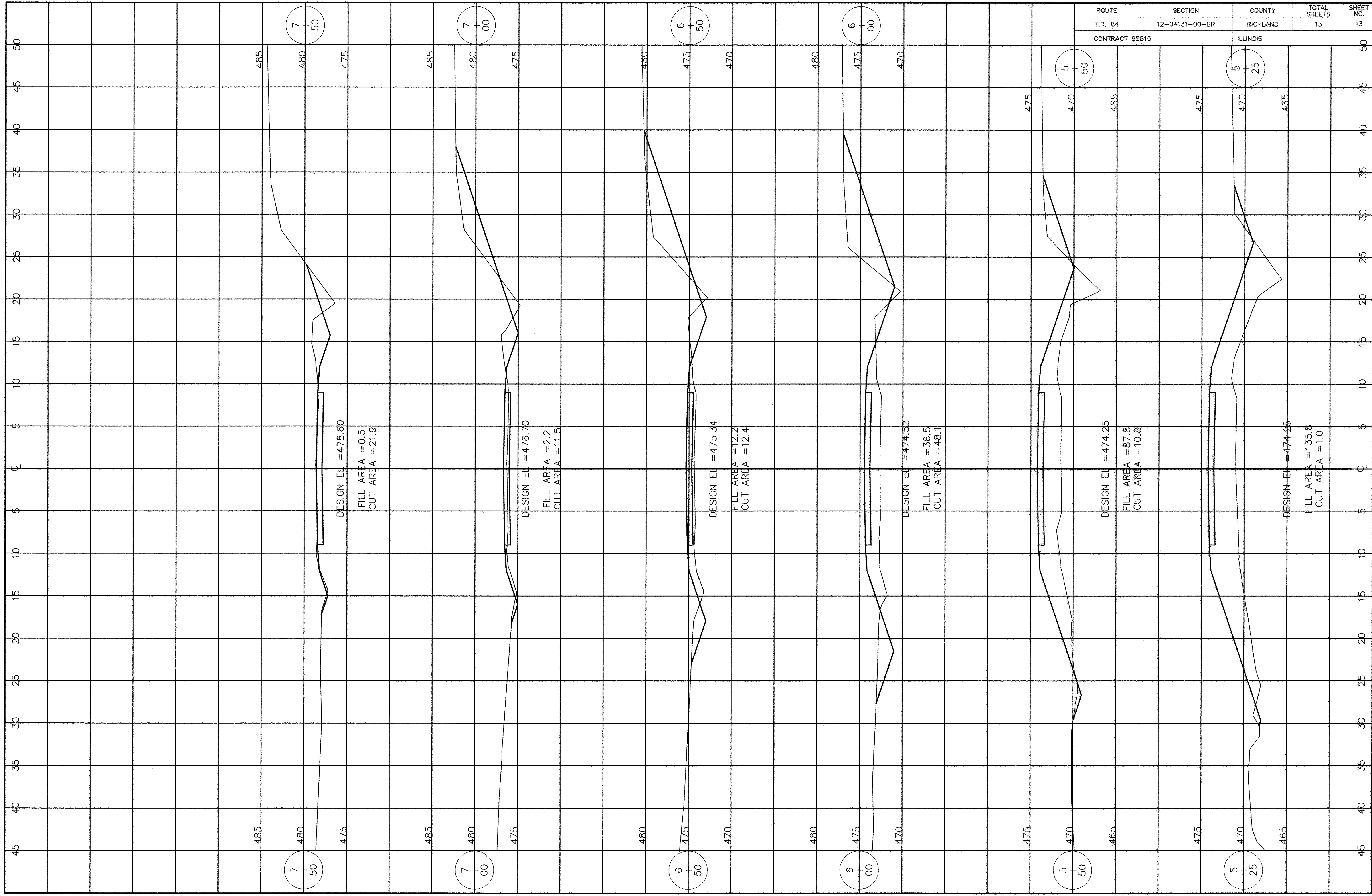
**STATION 5+00.00**



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 84	12-04131-00-BR	RICHLAND	13	12

CONTRACT 95815 ILLINOIS





ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 84	12-04131-00-BR	RICHLAND	13	13
CONTRACT 95815		ILLINOIS		