

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 52	14-08135-00-BR	LAWRENCE	13	1
CONTRACT NO. 95788		ILLINOIS	PROJECT BROS-0101(055)	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM - BRIDGE**

SECTION 14-08135-00-BR LAWRENCE COUNTY

PROJECT BROS-0101(055)

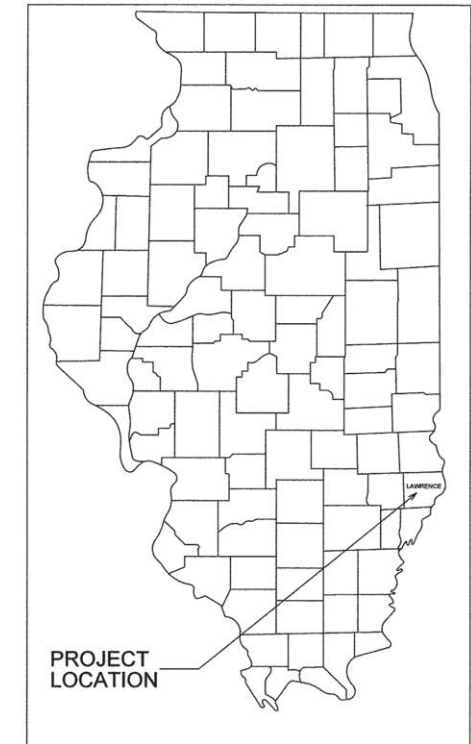
JOB NO. C-97-050-15

T.R. 52

CONTRACT NO. 95788

Joint Utility Locating Information for Excavators

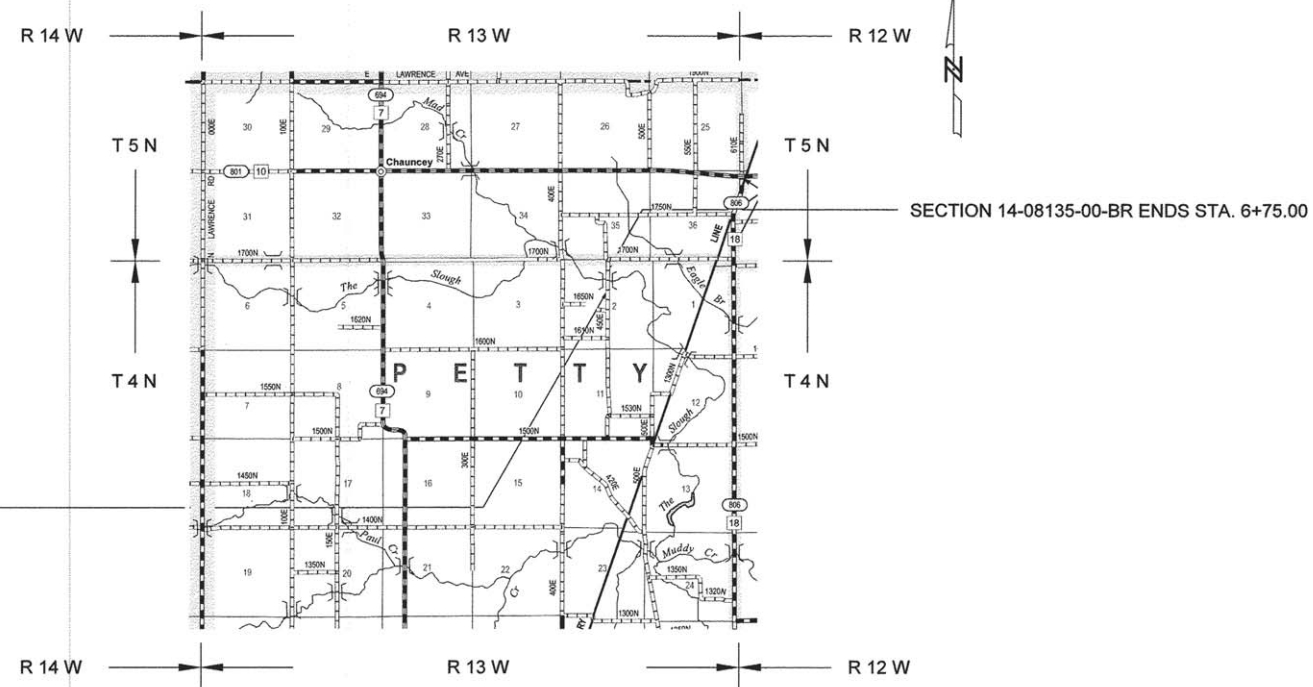
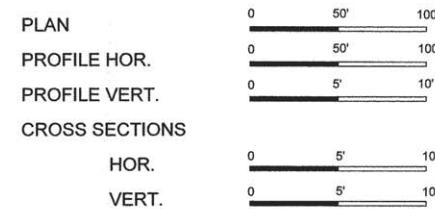
JULIE 1-800-892-0123



INDEX OF SHEETS

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4	GENERAL PLAN AND ELEVATION
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- STANDARD DRAWINGS
- STANDARD 000001-06
 - STANDARD 280001-07
 - STANDARD 515001-03
 - STANDARD 701901-05
 - STANDARD 725001
 - STANDARD 728001-01
 - STANDARD BLR 21-9
 - STANDARD T20001-C1

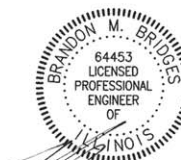


SECTION 14-08135-00-BR BEGINS STA. 1+00.00

TWO SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE
 108'-0" BK-BK ABUTMENTS
 STEEL H PILE / SPILLTHROUGH ABUTMENTS
 STEEL H PILE / INDIVIDUALLY ENCASED PILE BENT PIER
 28" DECK
 EXISTING STRUCTURE NO. 051-3058
 PROPOSED STRUCTURE NO. 051-3303

NET LENGTH SECTION 14-08135-00-BR = 575.00 Ft. = 0.109 Mi.

FUNCTIONAL CLASSIFICATION - RURAL LOCAL ROAD
 ADT = 75
 DESIGN SPEED = 30 MPH



Brandon M. Bridges
 3/30/2016
 Lic. Exp. 11/30/2017

CHARLESTON ENGINEERING, INC.
 CONSULTING ENGINEERS
 105 NORTH KITCHELL
 P.O. BOX 397
 OLNEY, ILLINOIS 62450
 (618) 392-0736
 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

APPROVED 3-31-2016
[Signature]
 COUNTY ENGINEER

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PASSED 4-5-16
[Signature]
 DISTRICT SEVEN ENGINEER OF
 LOCAL ROADS AND STREETS

Releasing For
 Bid Based on
 Limited Review

4-5-16
[Signature]
 REGION FOUR ENGINEER

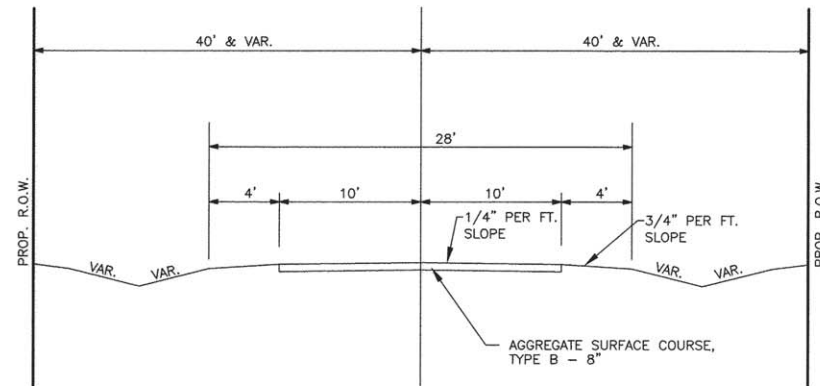
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 52	14-08135-00-BR	LAWRENCE	13	2
CONTRACT NO. 95788		ILLINOIS	PROJECT BROS-0101(055)	

DESIGN DATA

RURAL LOCAL ROAD
ADT = 75

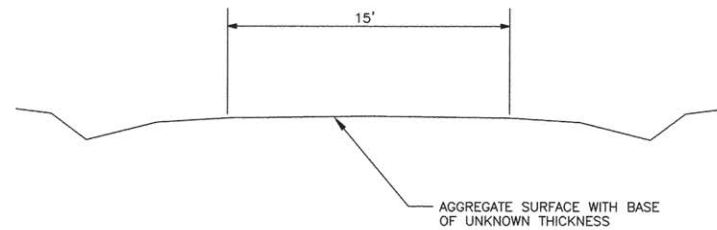
GENERAL NOTES

- SEEDING: THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 250 OF THE STANDARD SPECIFICATIONS AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR SEEDING, CLASS 2 (SPECIAL).
 - SPRING SEEDING SHALL EXTEND FROM JANUARY 1 TO JUNE 30
FALL SEEDING SHALL EXTEND FROM JULY 1 TO DECEMBER 31
 - FERTILIZER NUTRIENTS SHALL BE APPLIED AT THE RATE OF 100 LB/ACRE
 - MULCHING SHALL BE DONE IN ACCORDANCE WITH ARTICLE 251 OF THE STANDARD SPECIFICATIONS AND SHALL BE DONE BY METHOD 2, PROCEDURE 1 AT THE RATE OF 2 TONS PER ACRE.
- NO PAYMENT FOR OVERHAUL WILL BE MADE ON THIS SECTION.



TYPICAL SECTION

PROPOSED

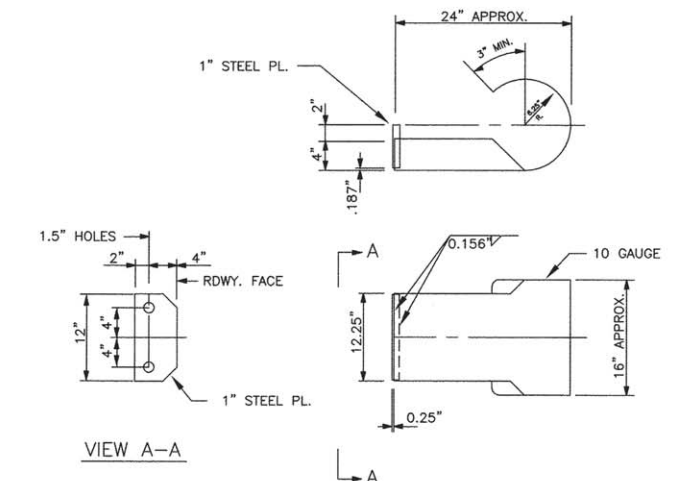


TYPICAL SECTION

EXISTING

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	UNIT	QUANTITY
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.50
20200100	EARTH EXCAVATION	CU YD	105
20300100	CHANNEL EXCAVATION	CU YD	190
20400800	FURNISHED EXCAVATION	CU YD	760
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50
28000305	TEMPORARY DITCH CHECKS	FOOT	7.0
28000400	PERIMETER EROSION BARRIER	FOOT	400
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	225
35101400	AGGREGATE BASE COURSE, TYPE B	TON	70
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	600
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	37.4
50300280	CONCRETE ENCASEMENT	CU YD	8.3
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21\"	SQ FT	2968
50800105	REINFORCEMENT BARS	POUND	4300
Δ 50900205	STEEL RAILING, TYPE S1	FOOT	212
51201400	FURNISHING STEEL PILES HP10X42	FOOT	270
51201600	FURNISHING STEEL PILES HP12X53	FOOT	120
51202305	DRIVING PILES	FOOT	390
51203400	TEST PILE STEEL HP10X42	EACH	1
51203600	TEST PILE STEEL HP12X53	EACH	1
51204650	PILE SHOES	EACH	13
51500100	NAME PLATES	EACH	1
67100100	MOBILIZATION	L. SUM	1
72000200	SIGN PANEL - TYPE 2	SQ FT	36.0
72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	42
Δ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4

Δ SPECIALTY ITEMS



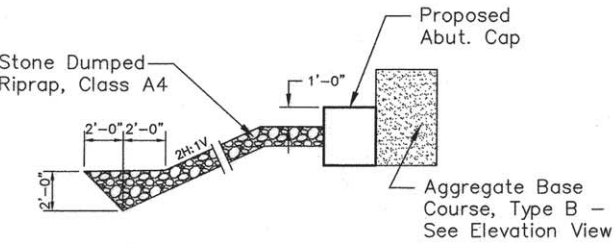
CURLED END SECTION DETAILS

4 REQUIRED - COST INCLUDED IN
"STEEL RAILING, TYPE S-1"

B.M.-Rt. Sta. 4+00, Nail in Existing Bridge, Elev. 440.33

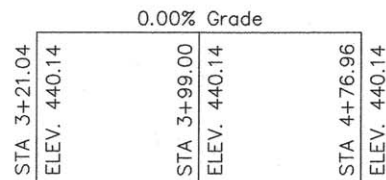
Existing Structure - Existing structure No. 051-3058 consists of a two-span precast prestressed concrete deck beam bridge bearing on closed concrete abutments supported on wood piling. The bk. to bk. of abutments length is 83.0' and the out-to-out roadway width is 21.0'. The existing structure shall be completely removed. Road closure shall be used during construction.

No Salvage - See Special Provisions; "Removal of Existing Structures."



SECTION A-A

Note: See Special Provisions for Stone Dumped Riprap, Class A4



PROFILE GRADE
(along ϕ roadway)

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $F_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $F'_s = 270,000$ psi ($\frac{1}{2}$ " low relax. strands)
 $F_{si} = 201,960$ psi ($\frac{1}{2}$ " low relax. strands)

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications - 6th edition

SEISMIC DATA

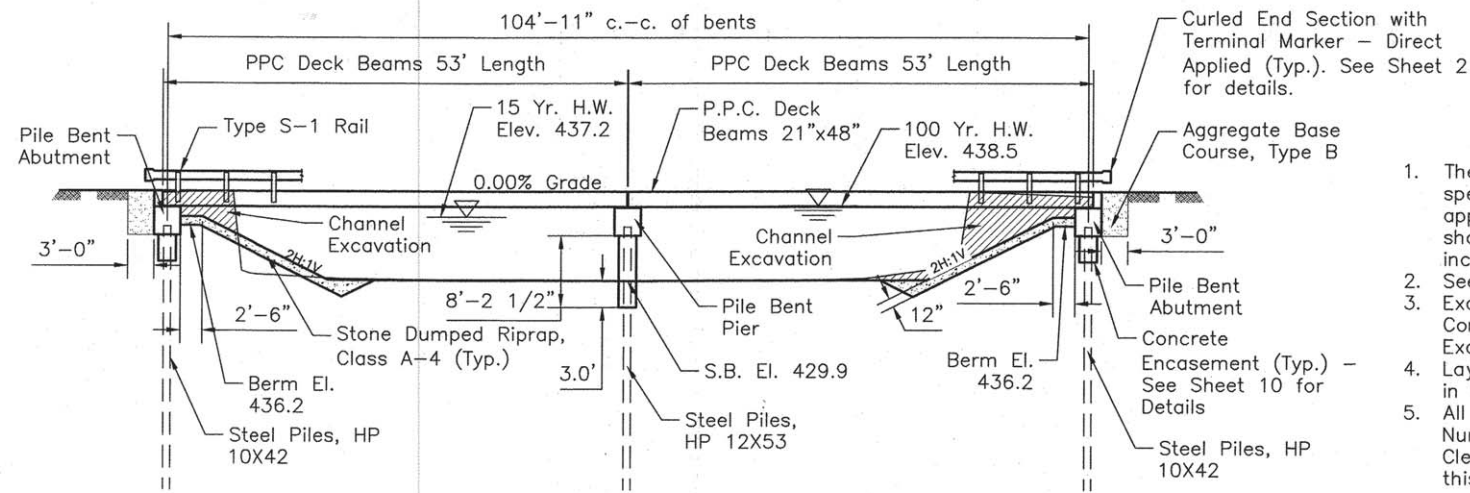
Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.226g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.521g
Soil Site Class = D

PILE DATA (2-ABUTS.)

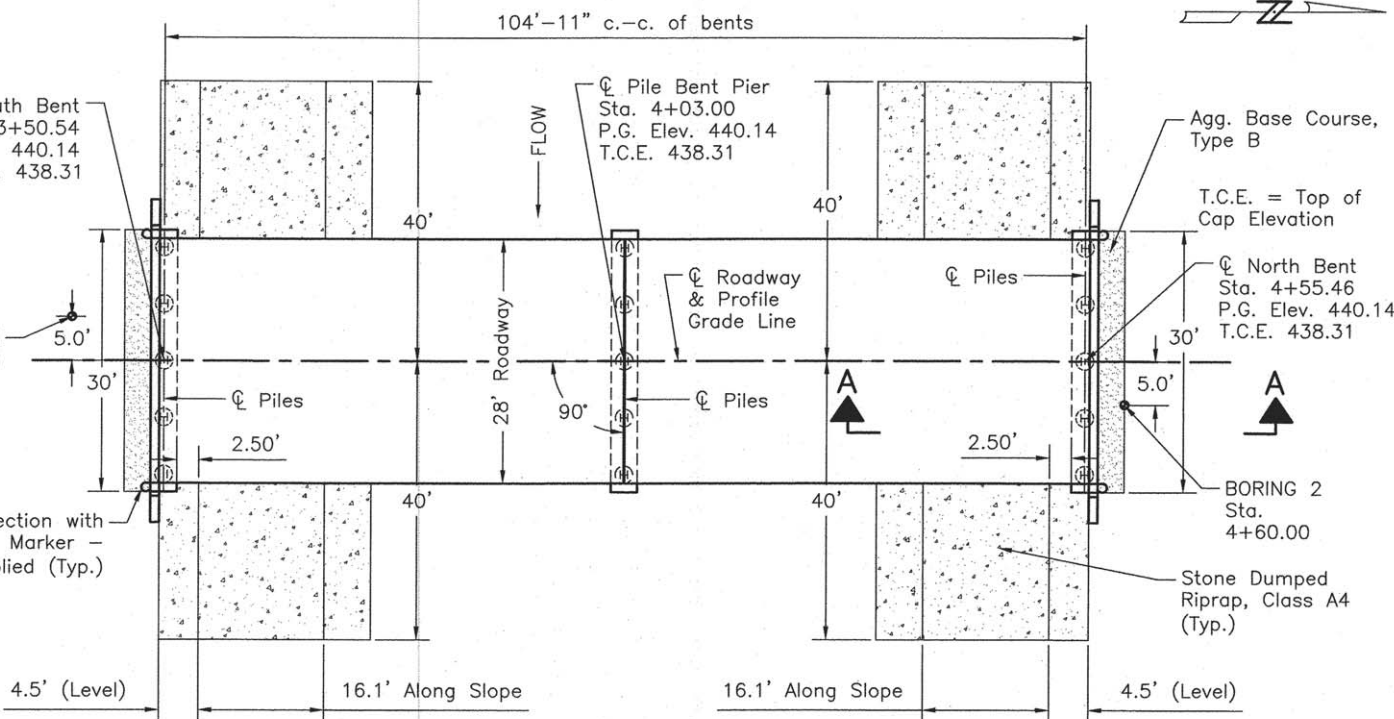
Type: HP 10 X 42
Nominal Required Bearing: 335 kips
Factored Resistance Available: 184 kips
Estimated Pile Length: 30 Feet - Both Abutments
Number of Production Piles: 5 - South Abutment, 4 - North Abutment
Number of Test Piles: 1 - North Abutment

PILE DATA (PIER)

Type: HP 12 X 53
Nominal Required Bearing: 419 kips
Factored Resistance Available: 230 kips
Estimated Pile Length: 30 Feet
Number of Production Piles: 4 - Pier
Number of Test Piles: 1 - Pier



ELEVATION



PLAN

Skew Angle = 0°

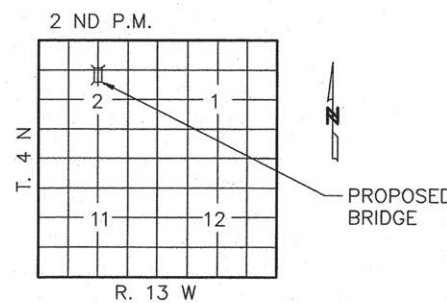
LOADING HL-93

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

STATION 4+03.00
THE SLOUGH
SEC. 14-08135-00-BR BUILT 201-
PETTY ROAD DISTRICT
LAWRENCE COUNTY
LOADING HL-93
STR. NO. 051-3303

LETTERING FOR NAME PLATE

Locate Name Plate at SE Corner of Bridge (See Std. 515001)



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 2118.3 SQ MI		Low Grade Elev = 435.89 @ Sta. 1+00							
Flood	Freq. Yr.	Q. C.F.S.	Opening Exist.	Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	15	37,500	578.1	583.4	437.2	0.0	0.0	437.2	437.2
Base	100	56,900	624.8	682.4	438.5	0.0	0.0	438.5	438.4
Overtopping									
Max. Calc.	500								

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 52	14-08135-00-BR	LAWRENCE	13	4
CONTRACT NO. 95788		ILLINOIS	PROJECT BROS-0101(055)	

GENERAL NOTES

- The Contractor shall drive the test piles to 110% of the nominal required bearing specified in production locations at the North Abutment and the Pier or as approved by the Engineer before ordering the remainder of piles. The test piles shall be equipped with steel pile shoes, and the cost of the pile shoes shall be included in items Test Pile Steel HP 10 X 42 and Test Pile Steel HP 12 X 53.
- See Sheet 11 for boring logs.
- Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- All proposed construction activities shall be in accordance with Nationwide Permit Number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Channel Excavation	Cu. Yd.	-	-	190	190
Stone Dumped Riprap, Class A4	Tons	-	-	225	225
Aggregate Base Course, Type B	Tons	-	-	70	70
Removal of Existing Structures	Each	-	-	-	1
Concrete Structures	Cu. Yd.	-	10.4	27.0	37.4
Concrete Encasement	Cu. Yd.	-	4.8	3.5	8.3
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	2968	-	-	2968
Reinforcement Bars	Pound	-	1070	3230	4300
Steel Railing, Type S-1	Foot	212	-	-	212
Furnishing Steel Piles HP 10 X 42	Foot	-	-	270	270
Furnishing Steel Piles HP 12 X 53	Foot	-	120	-	120
Driving Piles	Foot	-	120	270	390
Test Pile Steel HP 10 X 42	Each	-	-	1	1
Test Pile Steel HP 12 X 53	Each	-	1	-	1
Pile Shoes	Each	-	4	9	13
Name Plates	Each	-	-	1	1
Terminal Marker - Direct Applied	Each	4	-	-	4
Cofferdam (Type 1) (Location - 1)	Each	-	1	-	1

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 style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.



LIC. EXP. 11-30-2016
N. Fakhroddin
12-28-2015

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ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

GENERAL PLAN & ELEVATION

STRUCTURE NO. 051-3303

T.R. 52

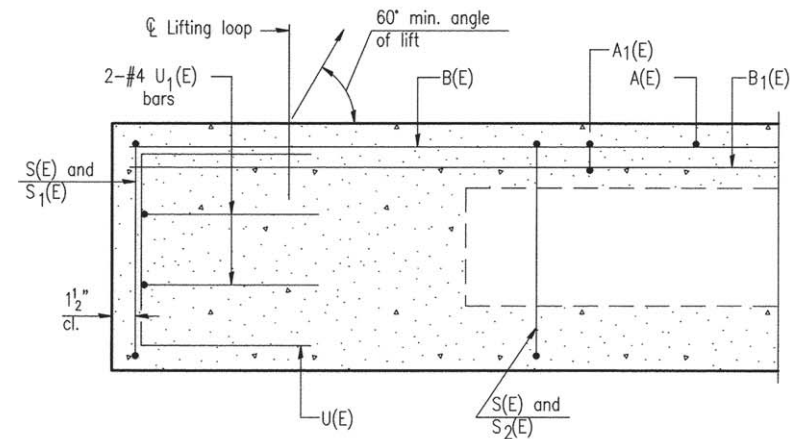
OVER THE SLOUGH

SECTION 14-08135-00-BR

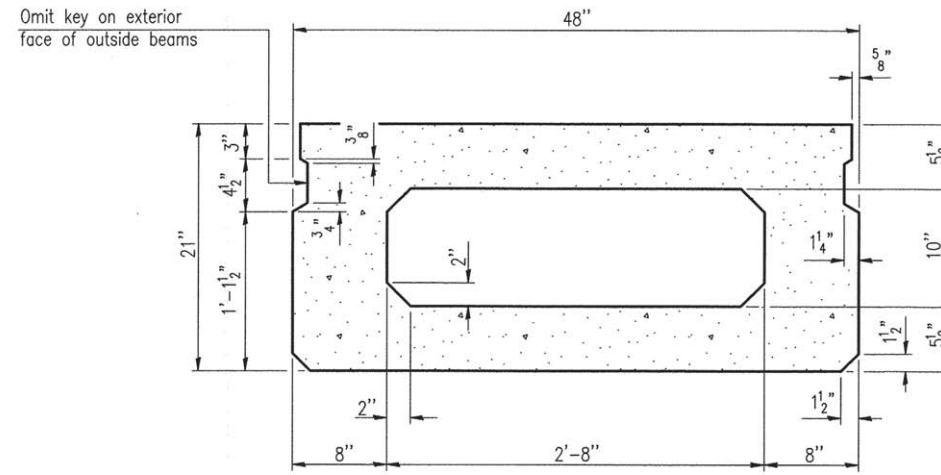
LAWRENCE COUNTY

STATION 4+03.00

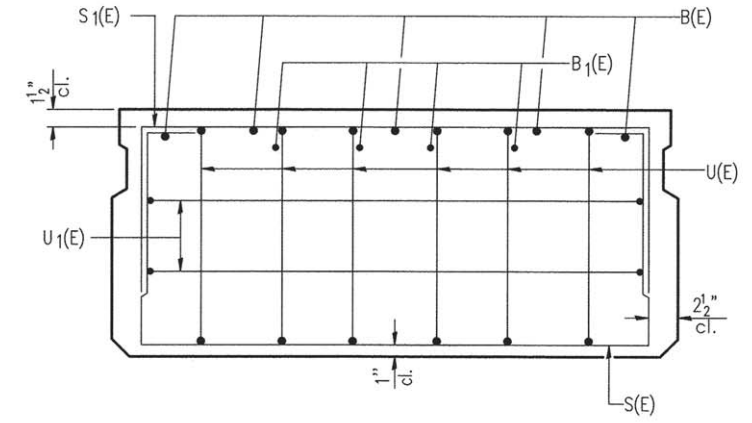
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 52	14-08135-00-BR	LAWRENCE	13	5
CONTRACT NO. 95788		ILLINOIS	PROJECT BROS-0101(055)	



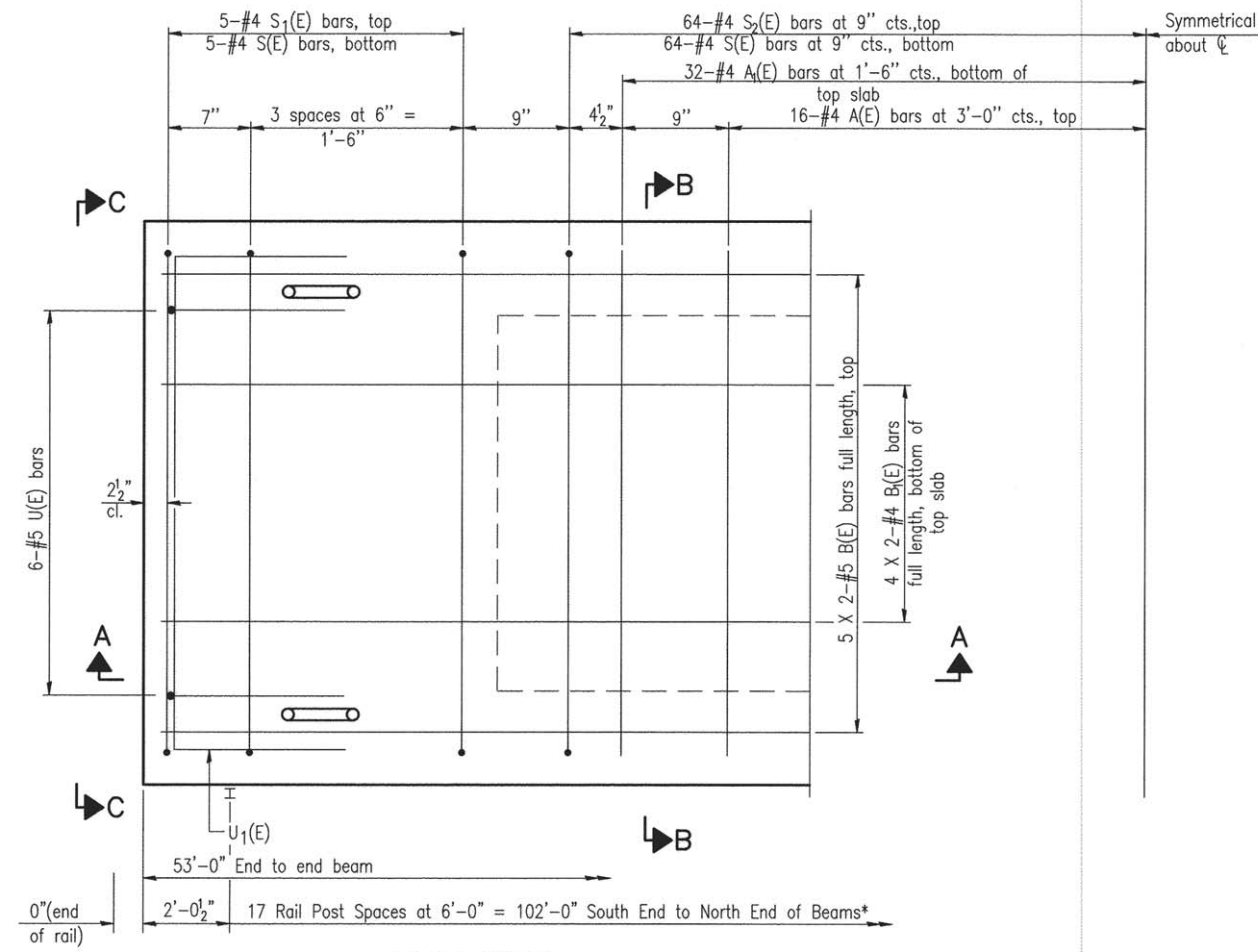
SECTION A-A



SECTION B-B
(Showing dimensions)



VIEW C-C

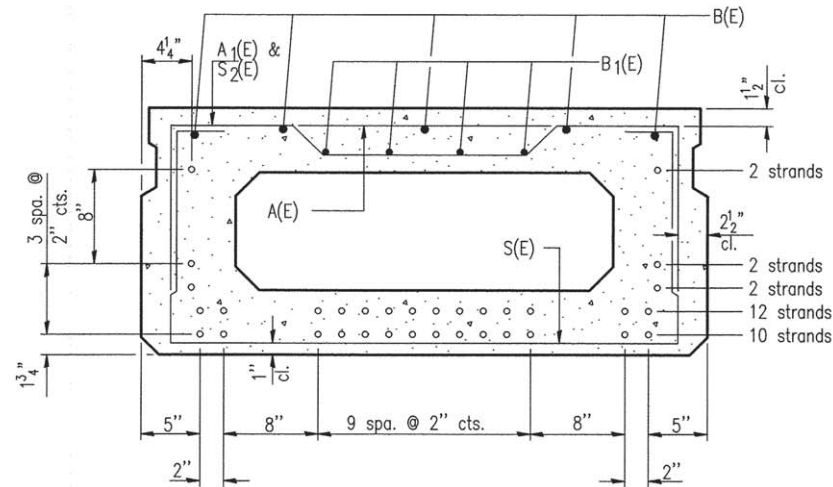


PLAN VIEW

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.

* See Sheet 7 for Rail Post Spacing Elevation View.

Symmetrical about ϕ



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)	16	#4	3'-7"	—
A1(E)	32	#4	3'-10"	—
B(E)	10	#5	27'-7"	—
B1(E)	8	#4	27'-7"	—
S(E)	74	#4	7'-5"	□
S1(E)	10	#4	5'-11"	□
S2(E)	64	#4	6'-2"	□
U(E)	12	#5	4'-0"	□
U1(E)	4	#4	6'-0"	□

Note: See sheet 6 of 13 for additional details and Bill of Material.

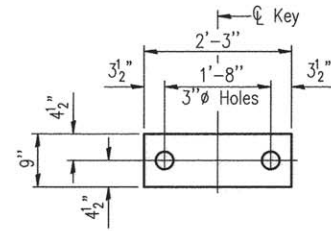
MINIMUM BAR LAP

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

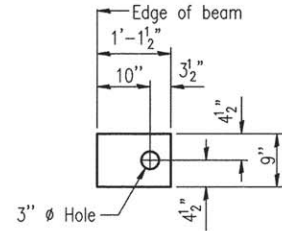
CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS
105 NORTH KITCHELL
P.O. BOX 397
OLNEY, ILLINOIS 62450
(618) 382-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.002613

SUPERSTRUCTURE
STRUCTURE NO. 051-3303
T.R. 52
OVER THE SLOUGH
SECTION 14-08135-00-BR
LAWRENCE COUNTY
STATION 4+03.00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 52	14-08135-00-BR	LAWRENCE	13	6
CONTRACT NO. 95788		ILLINOIS	PROJECT BROS-0101(055)	



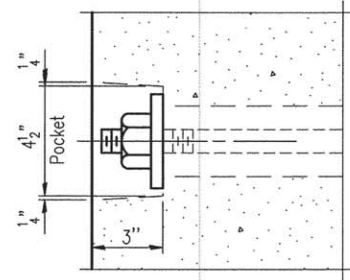
FABRIC BEARING PAD
(Interior)



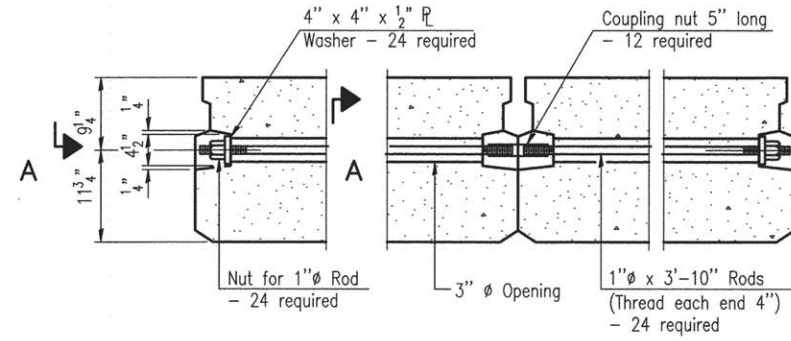
FABRIC BEARING PAD
(Exterior)

FIXED

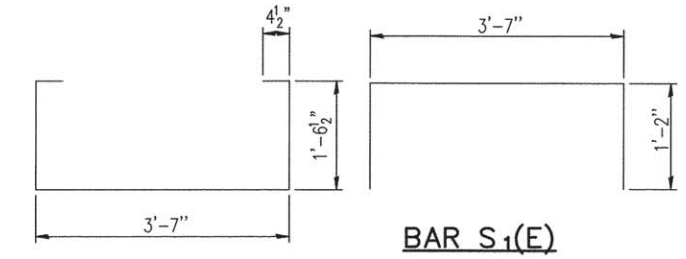
Notes:
All bearing pads shall be 1/2" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

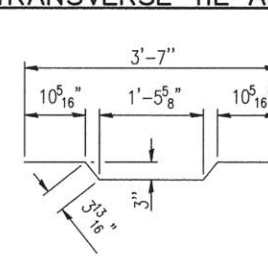


TYPICAL TRANSVERSE TIE ASSEMBLY

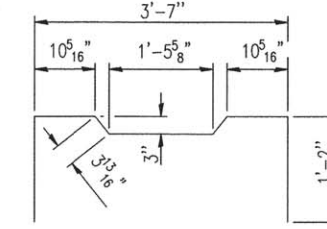


BAR S(E)

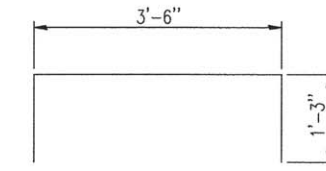
BAR S1(E)



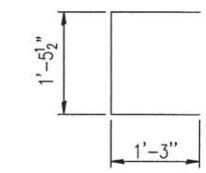
BAR A1(E)



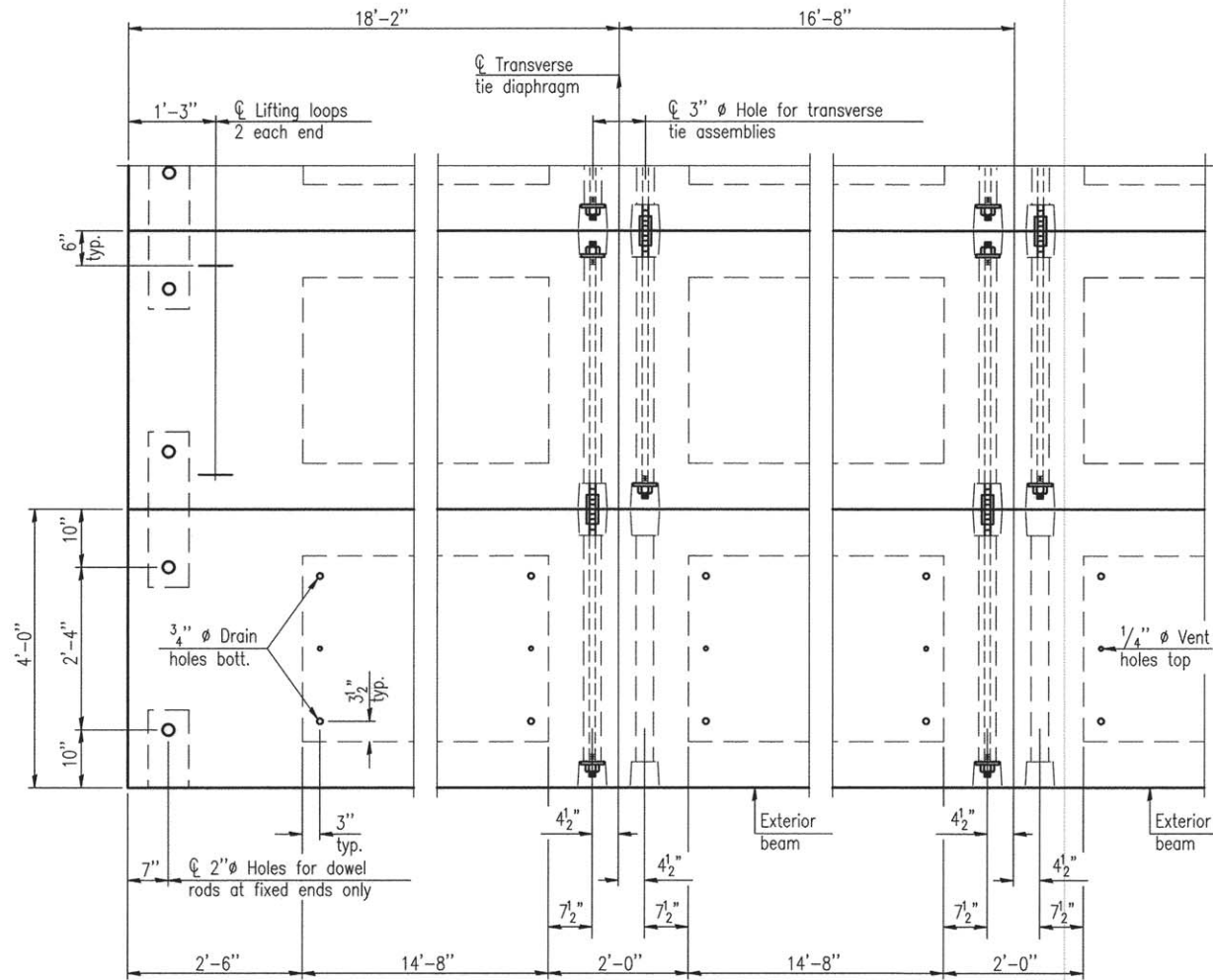
BAR S2(E)



BAR U1(E)



BAR U(E)

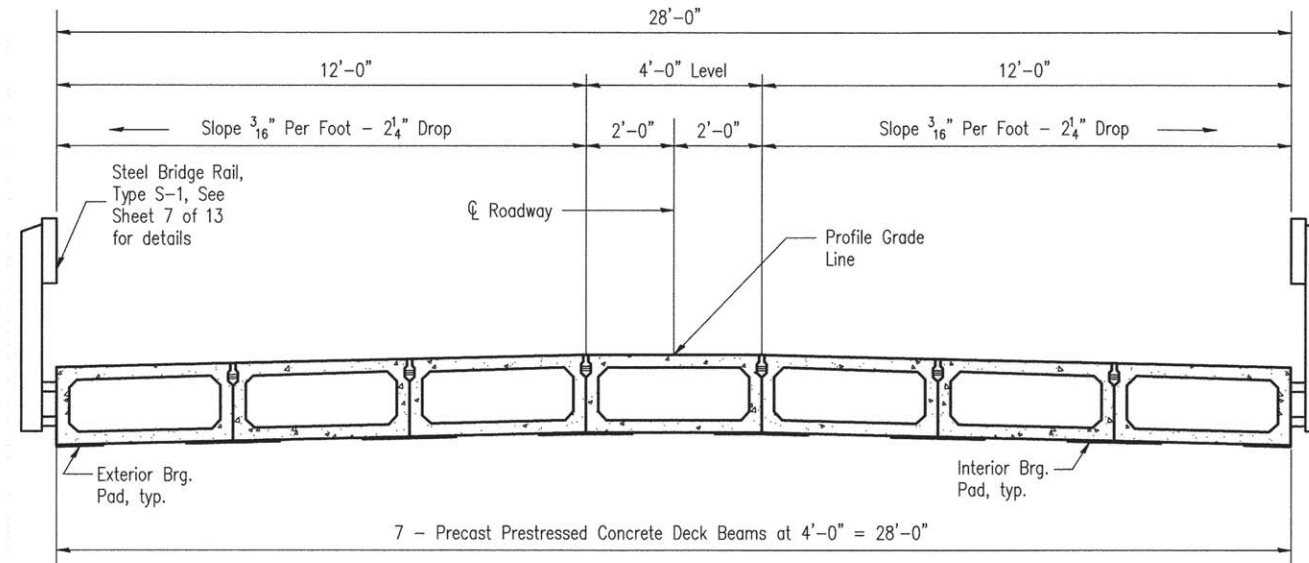


PLAN VIEW

NOTES

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

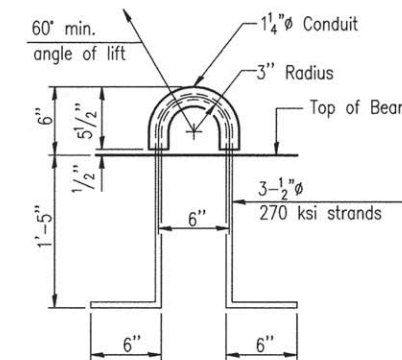
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). 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" lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 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.



CROSS SECTION

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	2968
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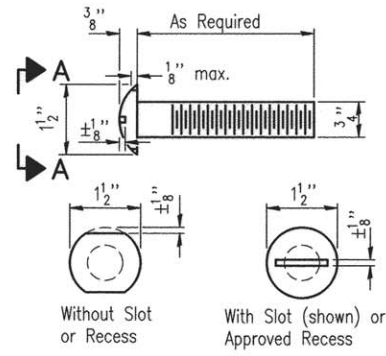


LIFTING LOOP DETAIL

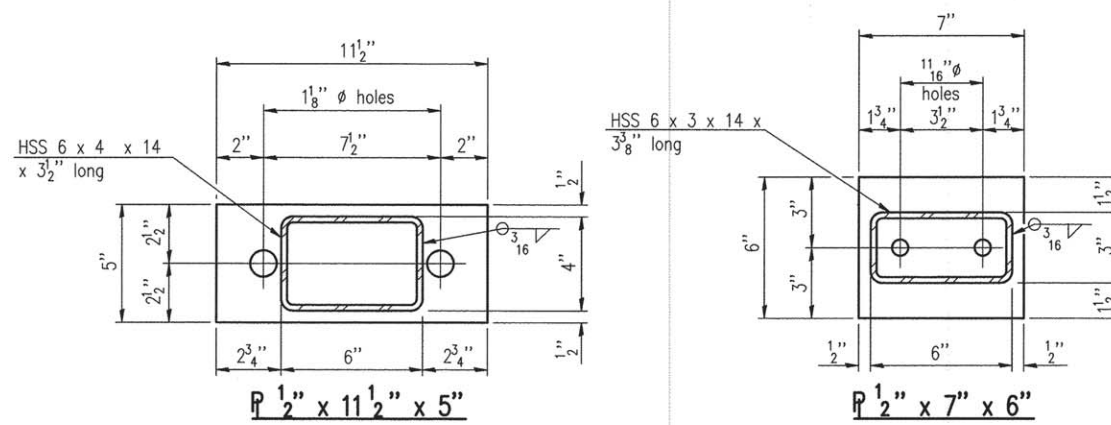
CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS
105 NORTH KITCHELL
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SUPERSTRUCTURE DETAILS
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T.R. 52
OVER THE SLOUGH
SECTION 14-08135-00-BR
LAWRENCE COUNTY
STATION 4+03.00

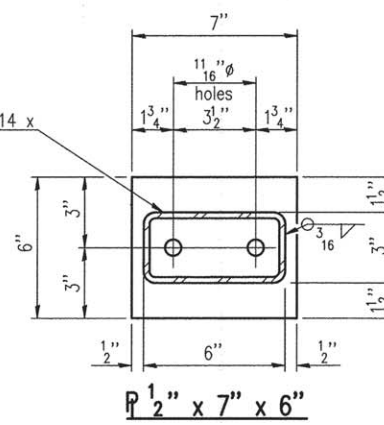
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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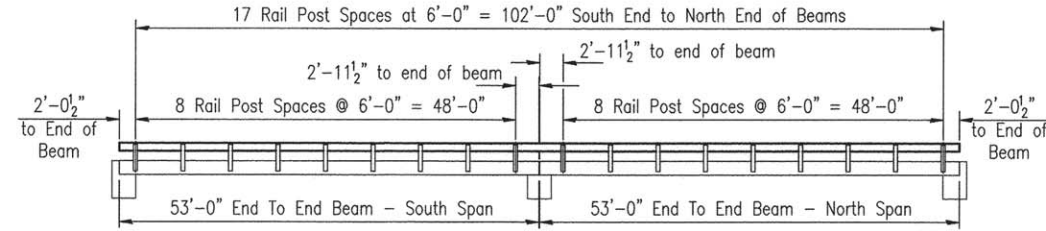
**VIEW A-A
ROUND HEAD BOLT**



P 1/2" x 11 1/2" x 5"



P 1/2" x 7" x 6"



RAIL POST SPACING - ELEVATION

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	4 1/2"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	5 1/2"
Rail Splice	1 1/4"	1'-8"	2"	4"	—

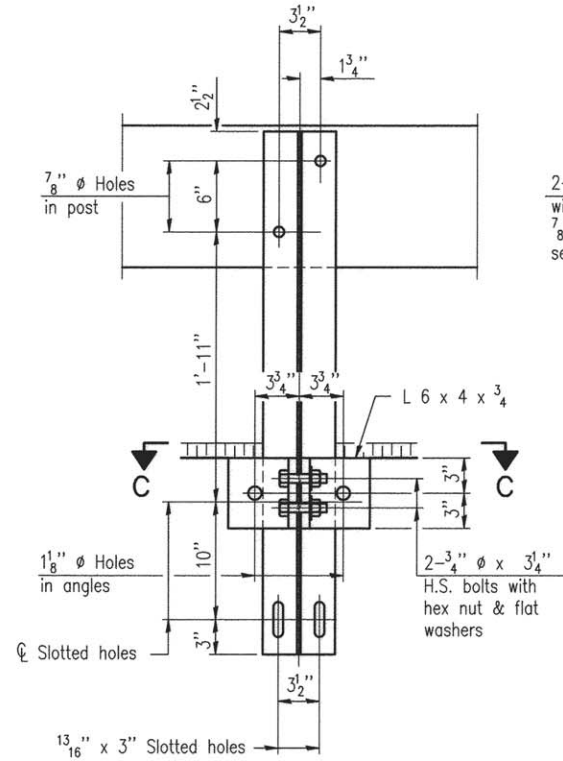
T = Total movement at expansion joint as shown on the design plans.

Notes:

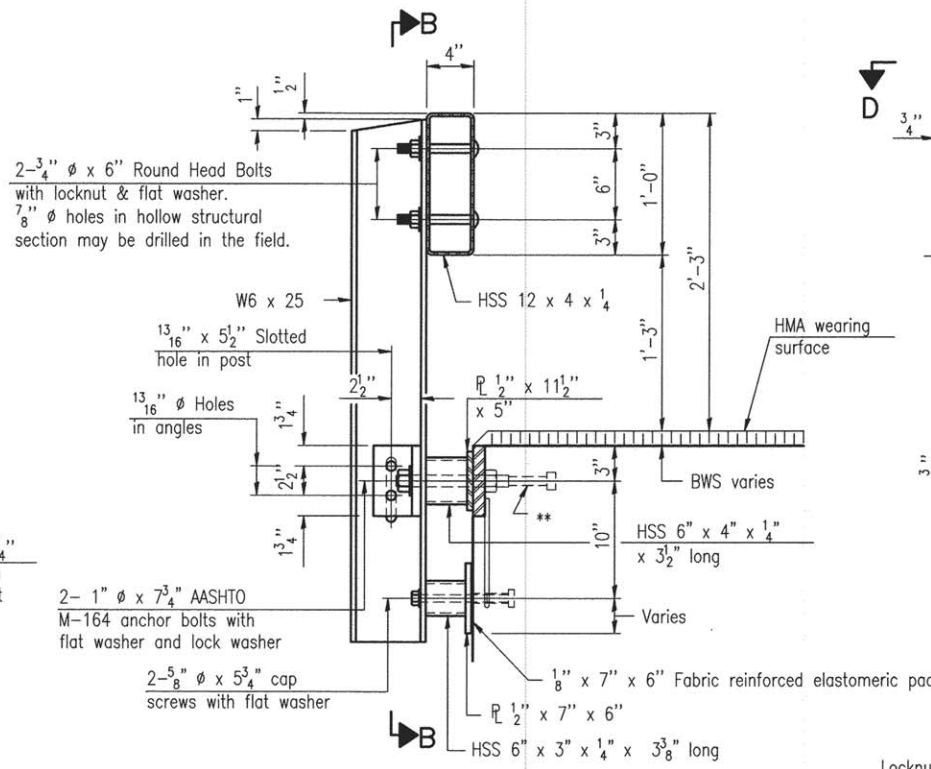
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.

All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

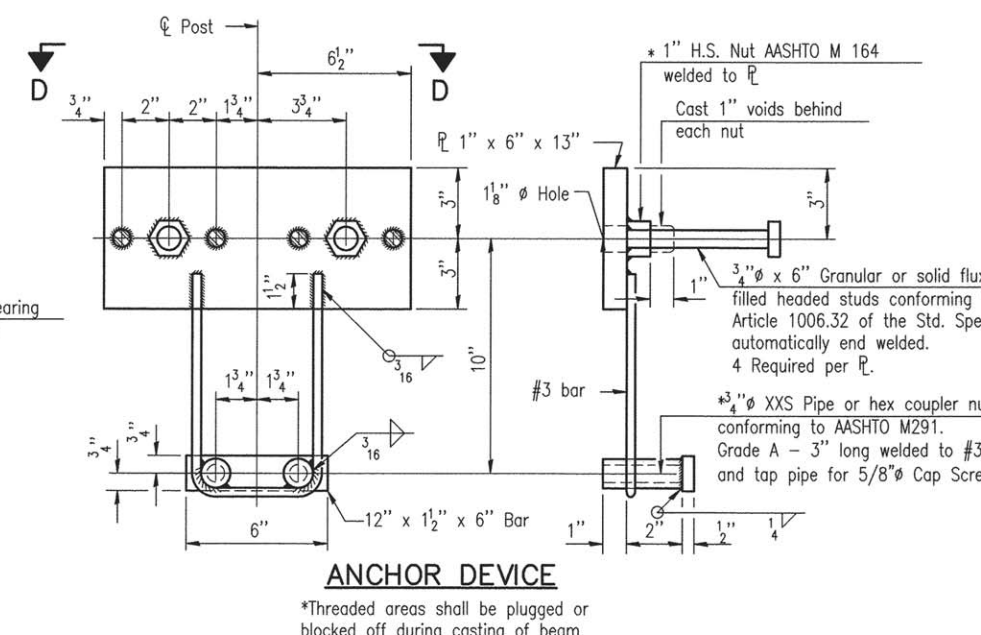
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



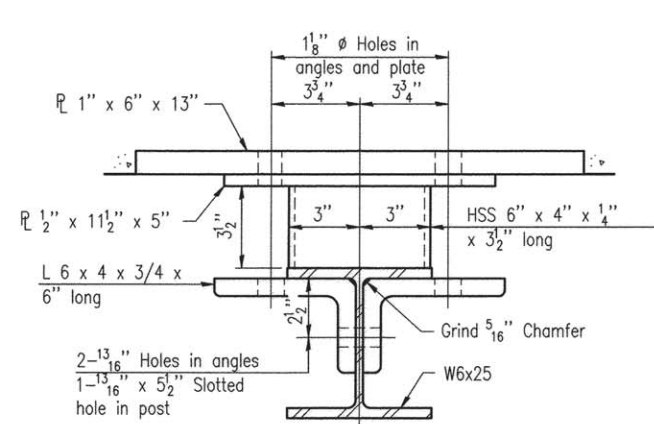
SECTION C-C



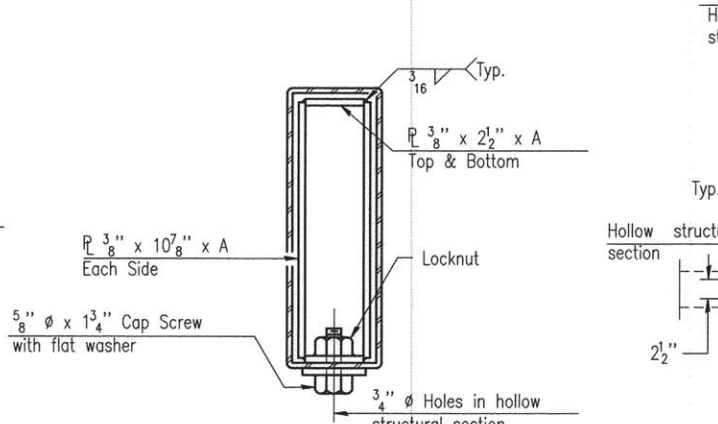
SECTION AT RAILING POST



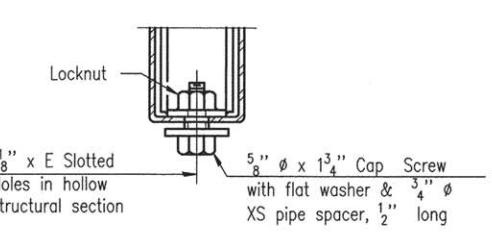
ANCHOR DEVICE



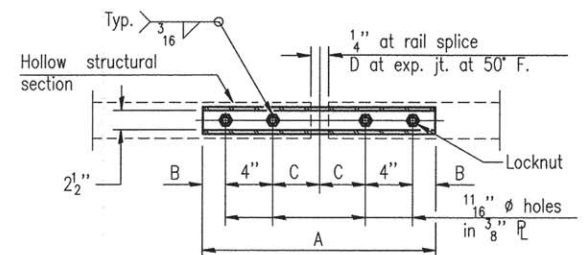
SECTION C-C



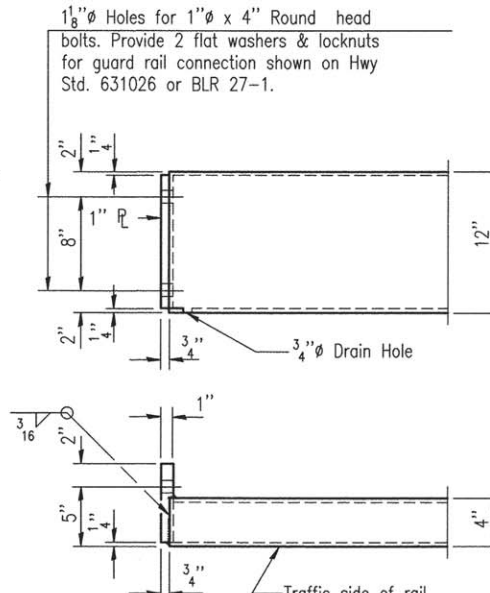
SECTIONS AT RAIL SPLICE



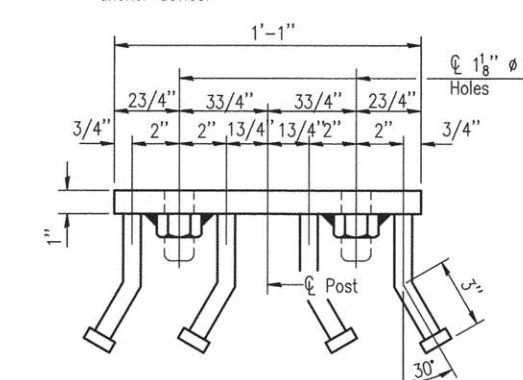
RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE P TYPICAL



END OF RAIL DETAILS



VIEW D-D

BILL OF MATERIAL

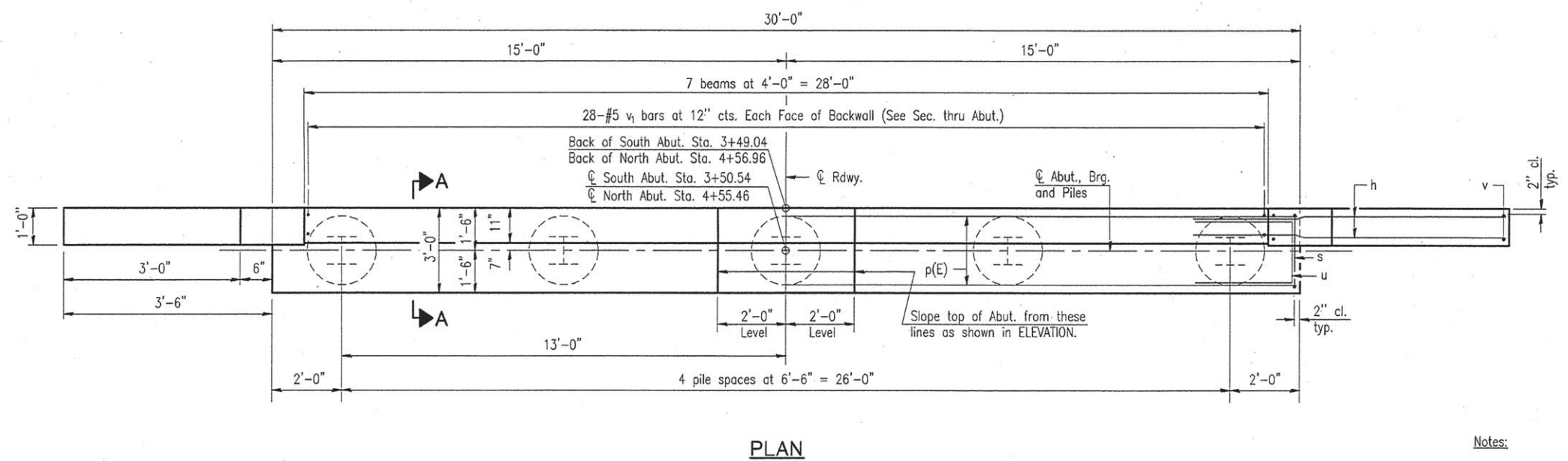
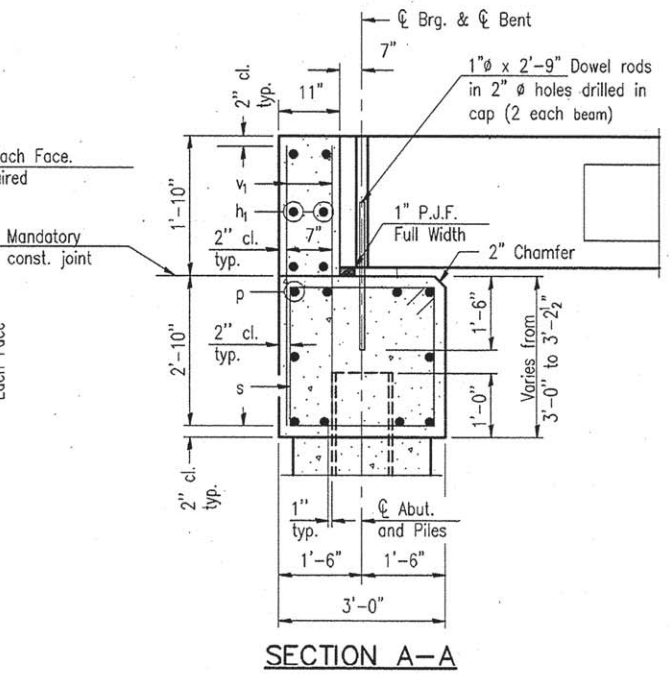
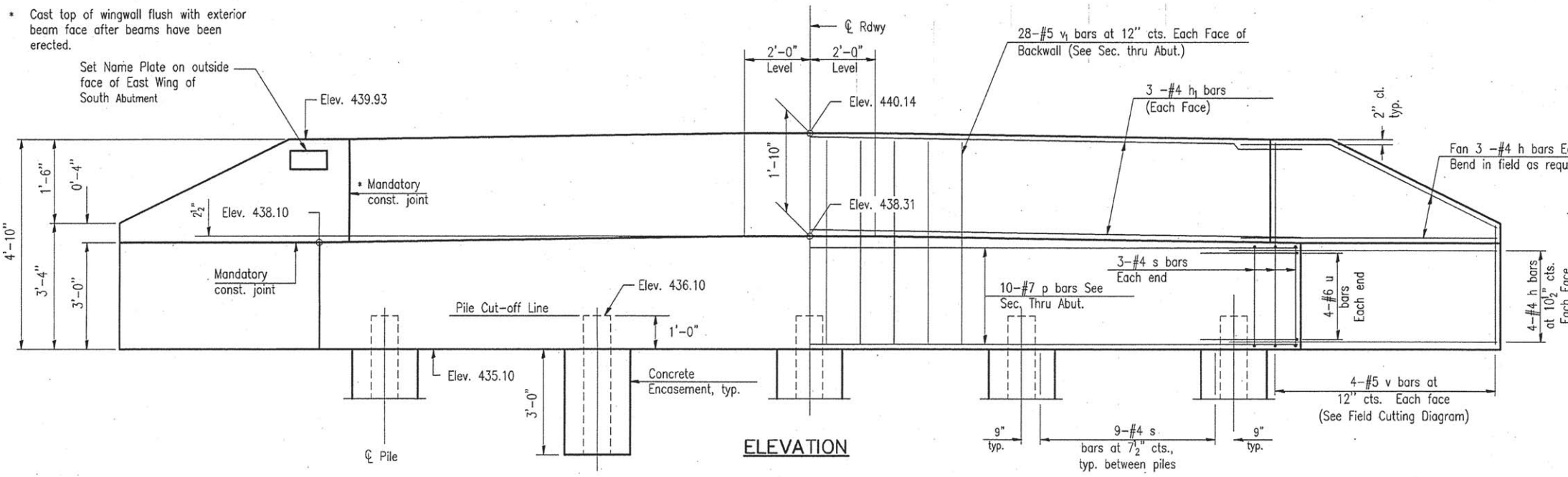
Item	Unit	Quantity
Steel Railing, Type S-1	Foot	212

CHARLESTON ENGINEERING, INC.
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ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

**STEEL RAILING, TYPE S-1
STRUCTURE NO. 051-3303
T.R. 52
OVER THE SLOUGH
SECTION 14-08135-00-BR
LAWRENCE COUNTY
STATION 4+03.00**

(10'-9" Maximum Post Spacing)

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 52	14-08135-00-BR	LAWRENCE	13	8
CONTRACT NO. 95788		ILLINOIS	PROJECT BROS-0101(055)	



BILL OF MATERIAL - 2 ABUTS.

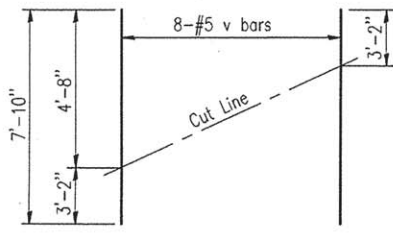
Bar	No.	Size	Length	Shape
h	56	#4	5'-3"	—
h1	12	#4	29'-8"	—
p	20	#7	29'-8"	—
s	84	#4	11'-5"	□
u	16	#6	11'-8"	—
v	16	#5	7'-10"	—
v1	112	#5	4'-6"	—
Concrete Structures			Cu. Yd.	27.0
Reinforcement Bars			Pound	3230
Furnishing Steel Piles				
HP 10 X 42			Foot	270
Driving Piles			Foot	270
Test Pile HP 10 X 42			Each	1
Pile Shoes			Each	9
Concrete Encasement			Cu. Yd.	3.5

Notes:

1. Cast backwall after beams have been erected.
2. The Backwall and the portion of the Wingwalls above the mandatory construction joint shall be cast against the in-place beam.
3. Extend "h" bars into the abutment cap.
4. For details of piles and Concrete Encasement, see sheet 10 of 13.
5. Drawings not to scale.

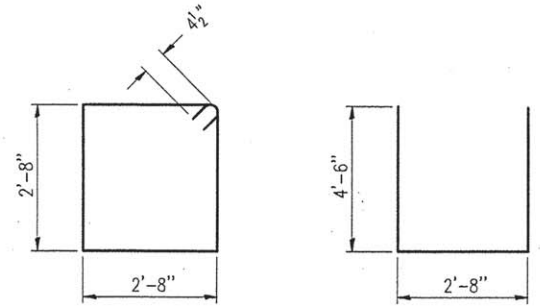
PILE DATA

Type: HP 10 X 42
 Nominal Required Bearing: 335 kips
 Factored Resistance Available: 184 kips
 Est. Length: 30 Feet
 No. Production Piles: 9
 No. Test Piles: 1 - North Abutment



FIELD CUTTING DIAGRAM

Order v bars full length. Cut as shown and use remainder of bars in opposite face.



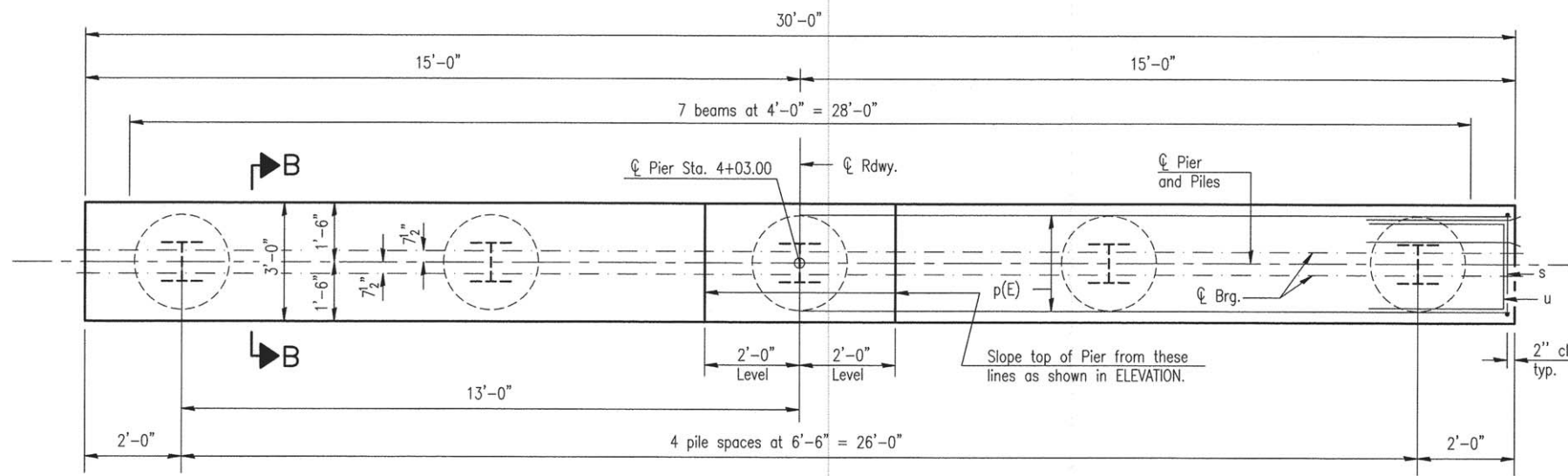
BAR s

BAR u

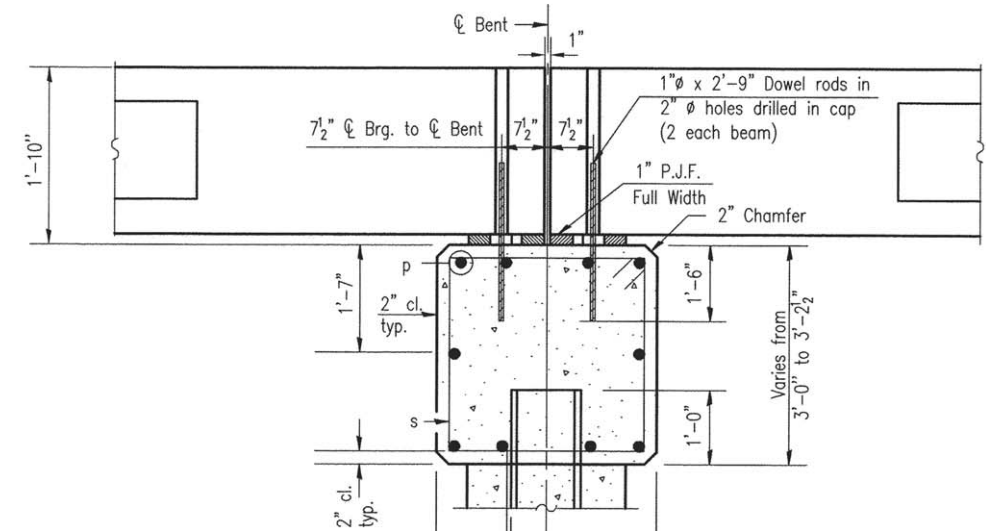
CHARLESTON ENGINEERING, INC.
 CONSULTING ENGINEERS
 105 NORTH KITCHELL
 P.O. BOX 397
 OLNEY, ILLINOIS 62450
 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184 003513

ABUTMENT DETAILS
 STRUCTURE NO. 051-3303
 T.R. 52
 OVER THE SLOUGH
 SECTION 14-08135-00-BR
 LAWRENCE COUNTY
 STATION 4+03.00

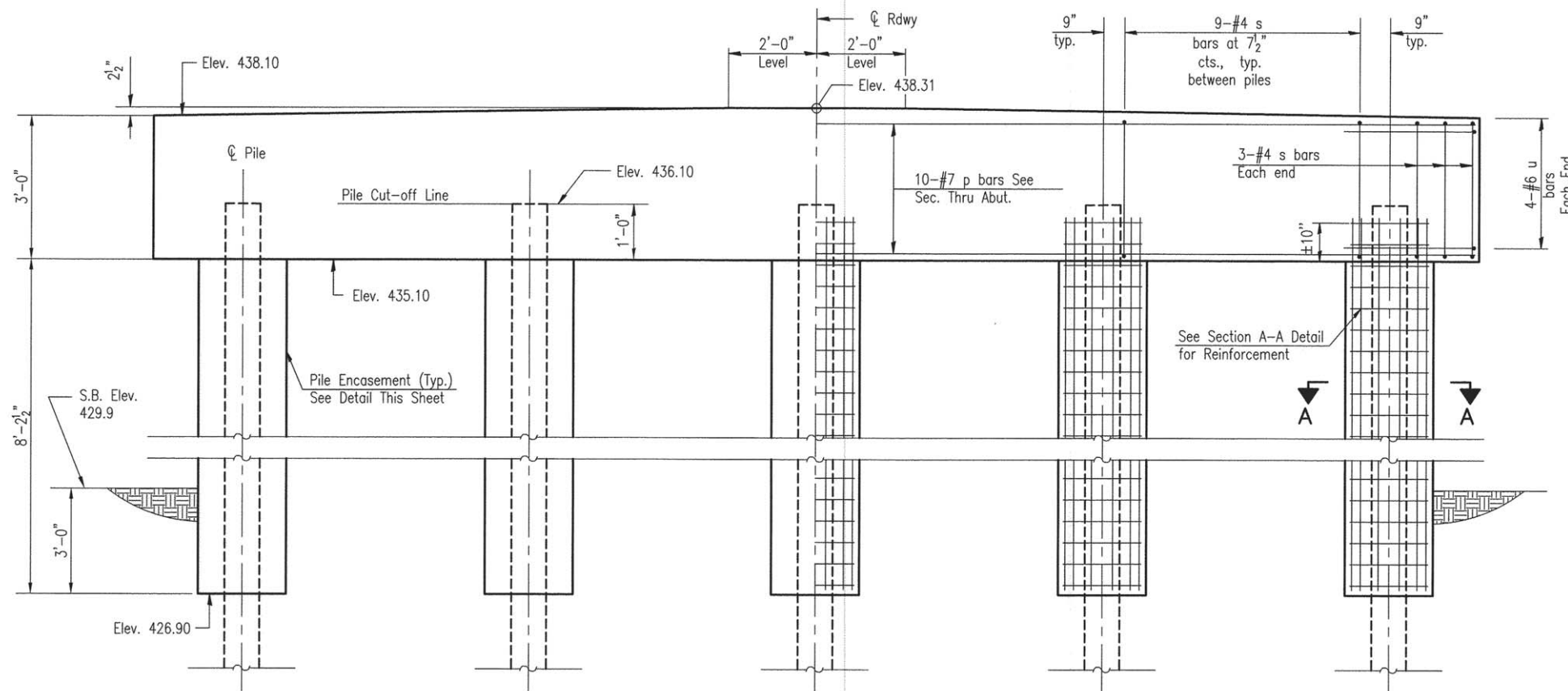
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 52	14-08135-00-BR	LAWRENCE	13	9
CONTRACT NO. 95788		ILLINOIS	PROJECT BROS-0101(055)	



PLAN - PIER CAP



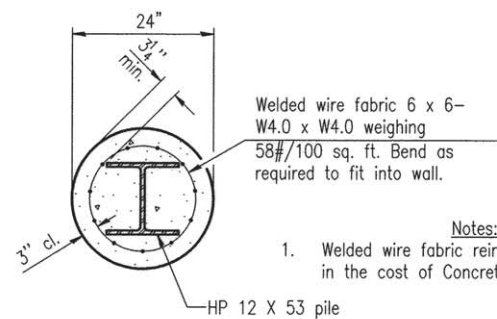
SECTION B-B



ELEVATION

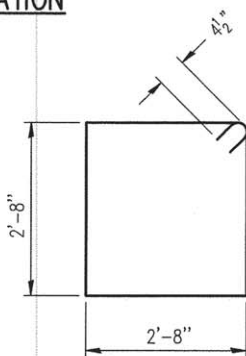
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p	10	#7	29'-8"	—
s	42	#4	11'-5"	□
u	8	#6	11'-8"	—
Concrete Structures		Cu. Yd.	10.4	
Reinforcement Bars		Pound	1070	
Furnishing Steel Piles		Foot	120	
HP 12 X 53		Foot	120	
Driving Piles		Foot	120	
Test Pile Steel HP 12 X 53		Each	1	
Pile Shoes		Each	4	
Concrete Encasement		Cu. Yd.	4.8	
Cofferdam (Type 1)		Each	1	
(Location - 1)				

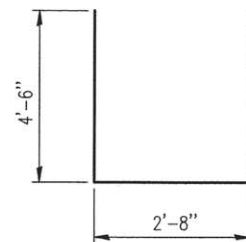


SECTION A-A

Notes:
1. Welded wire fabric reinforcement is included in the cost of Concrete Encasement.



BAR s



BAR u

- Notes:
1. For details of piles see sheet 10 of 13.
2. Drawings not to scale.

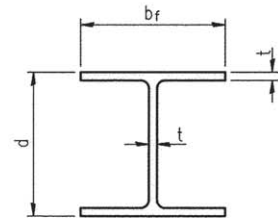
PILE DATA

Type: HP 12 X 53
Nominal Required Bearing: 419 kips
Factored Resistance Available: 230 kips
Est. Length: 30 Feet
No. Production Piles: 4
No. Test Piles: 1

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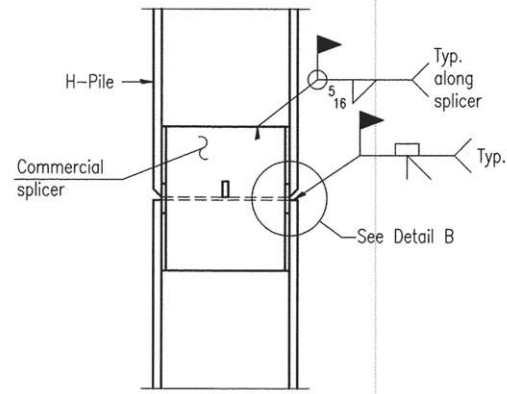
PIER DETAILS
STRUCTURE NO. 051-3303
T.R. 52
OVER THE SLOUGH
SECTION 14-08135-00-BR
LAWRENCE COUNTY
STATION 4+03.00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 52	14-08135-00-BR	LAWRENCE	13	10
CONTRACT NO. 95788		ILLINOIS	PROJECT BROS-0101(055)	

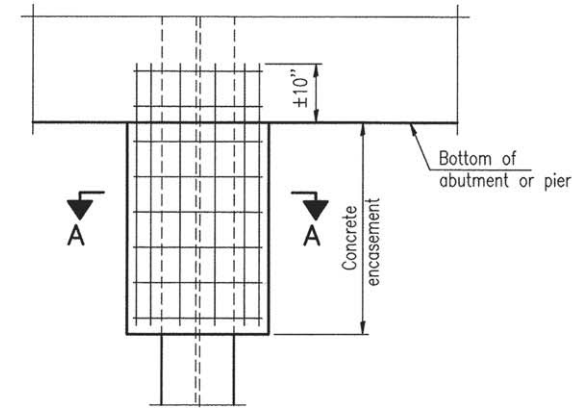


STEEL PILE TABLE

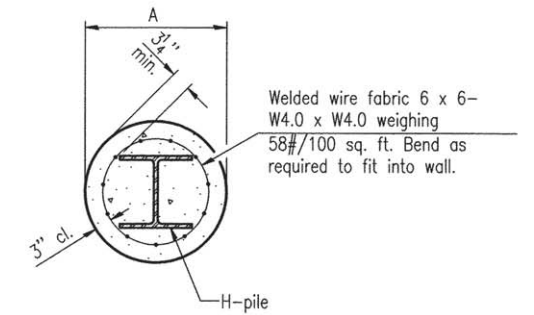
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 10x42	9 ³ / ₄ "	10 ¹ / ₈ "	7 ¹ / ₁₆ "	24"
HP 12x53	11 ³ / ₄ "	12"	7 ¹ / ₁₆ "	24"



ELEVATION



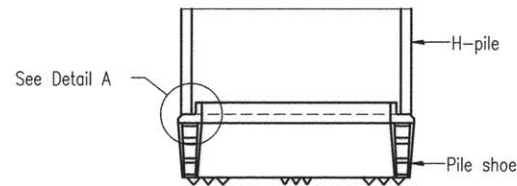
ELEVATION



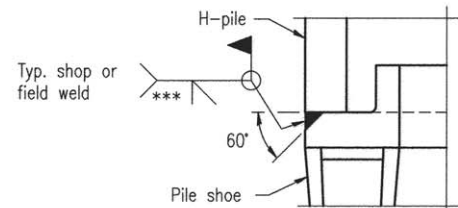
SECTION A-A

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

PILE ENCASEMENT

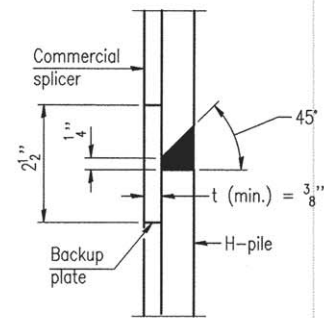


ELEVATION

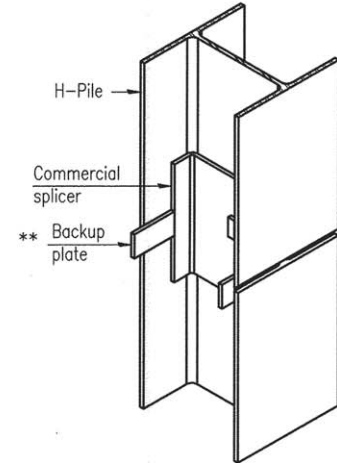


DETAIL A

H-PILE SHOE ATTACHMENT

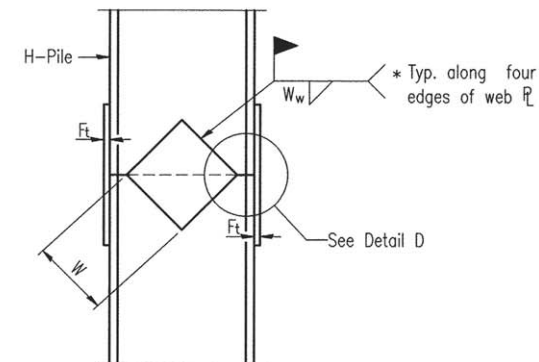


DETAIL "B"

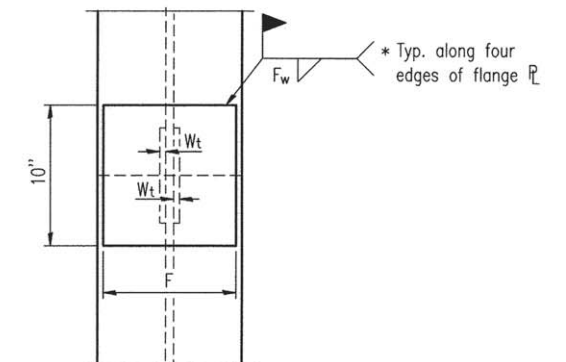


ISOMETRIC VIEW

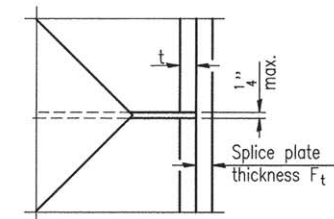
WELDED COMMERCIAL SPLICE



ELEVATION



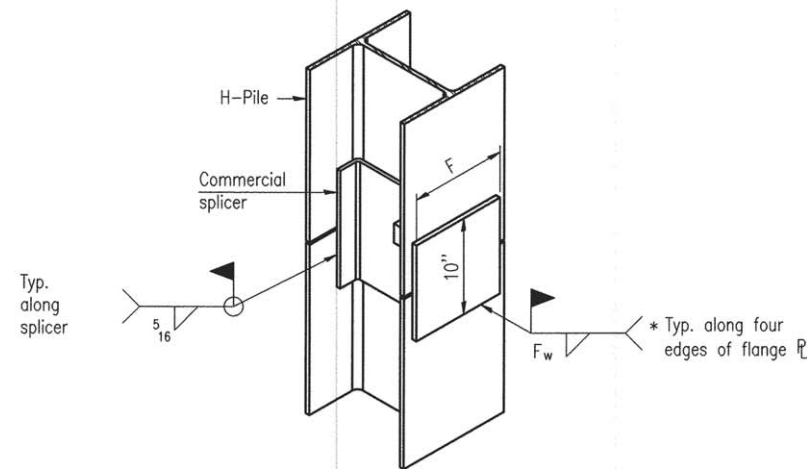
END VIEW



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 10x42	8"	5 ¹ / ₈ "	9 ¹ / ₁₆ "	5 ¹ / ₄ "	1 ¹ / ₂ "	3 ¹ / ₈ "
HP 12x53	10"	5 ¹ / ₈ "	1 ¹ / ₂ "	6 ¹ / ₂ "	1 ¹ / ₂ "	3 ¹ / ₈ "



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

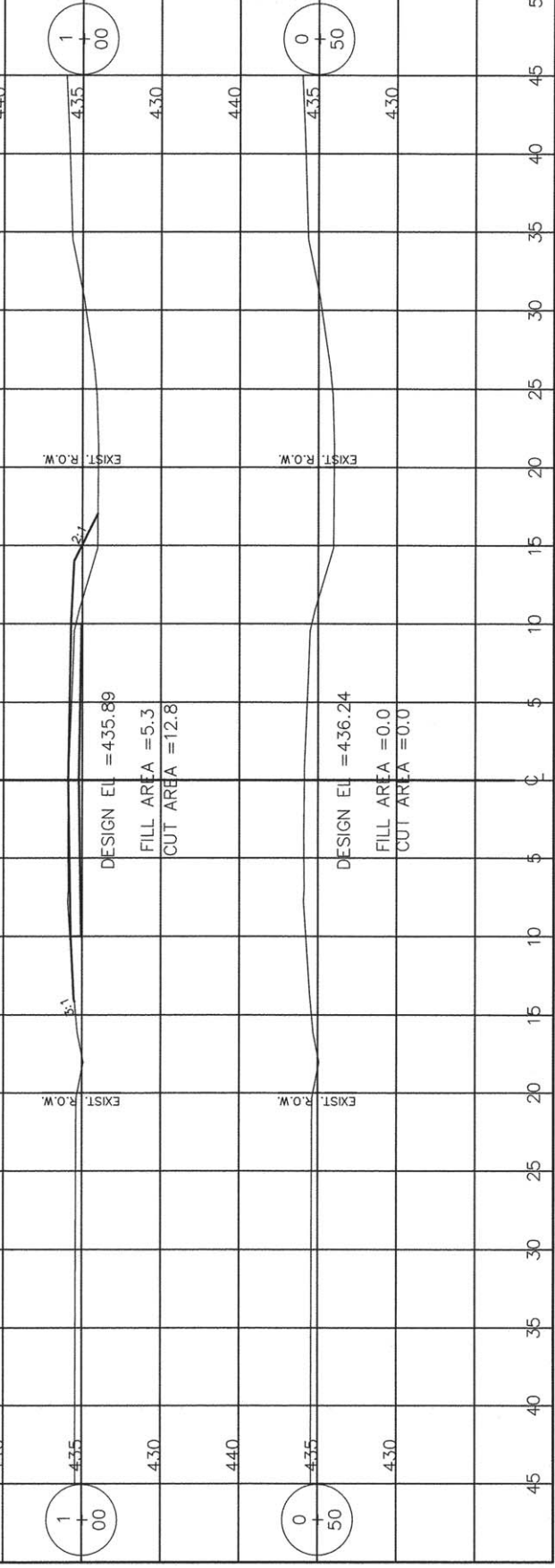
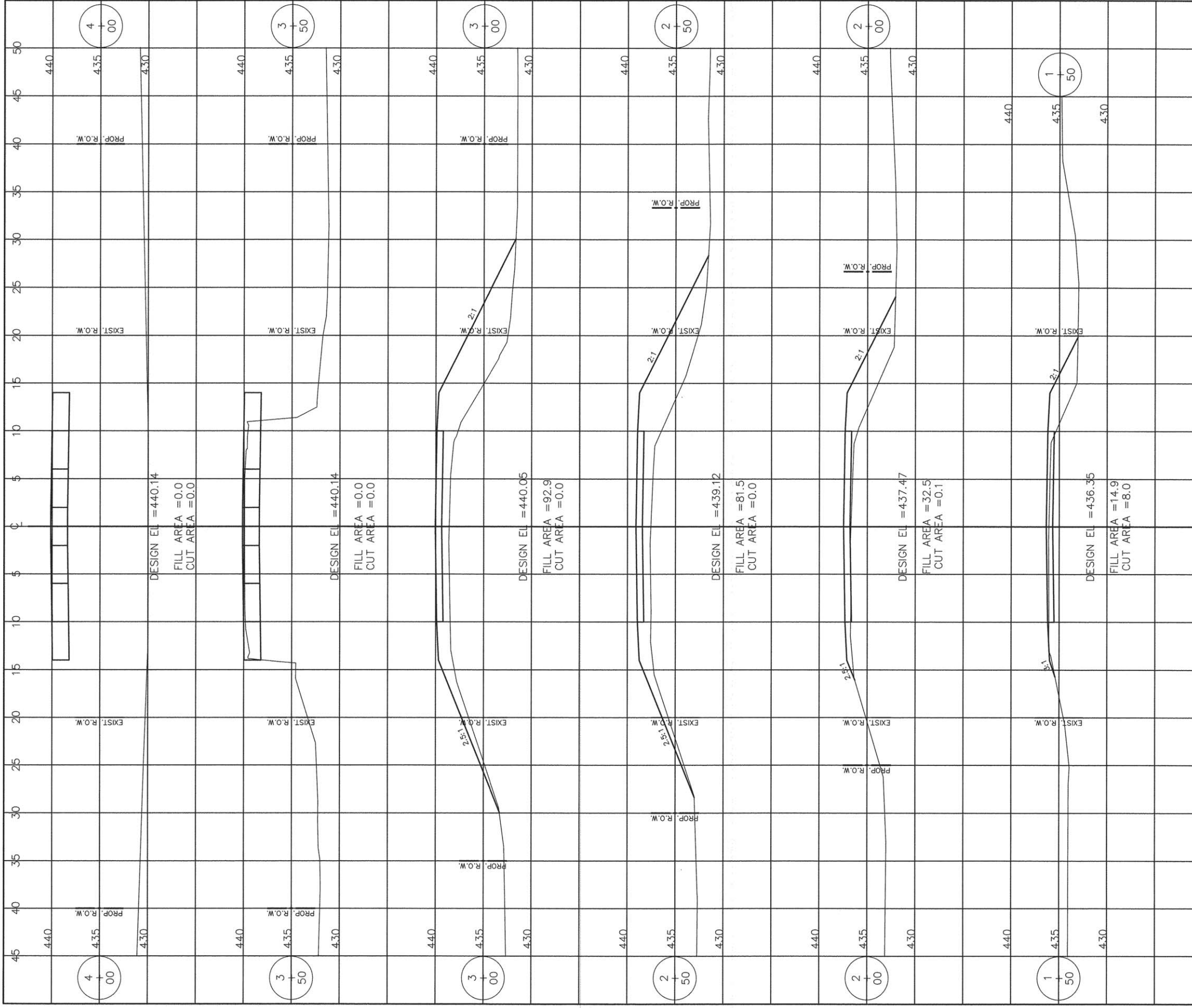
- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- ***Weld size per pile shoe manufacturer (5/16" min.).

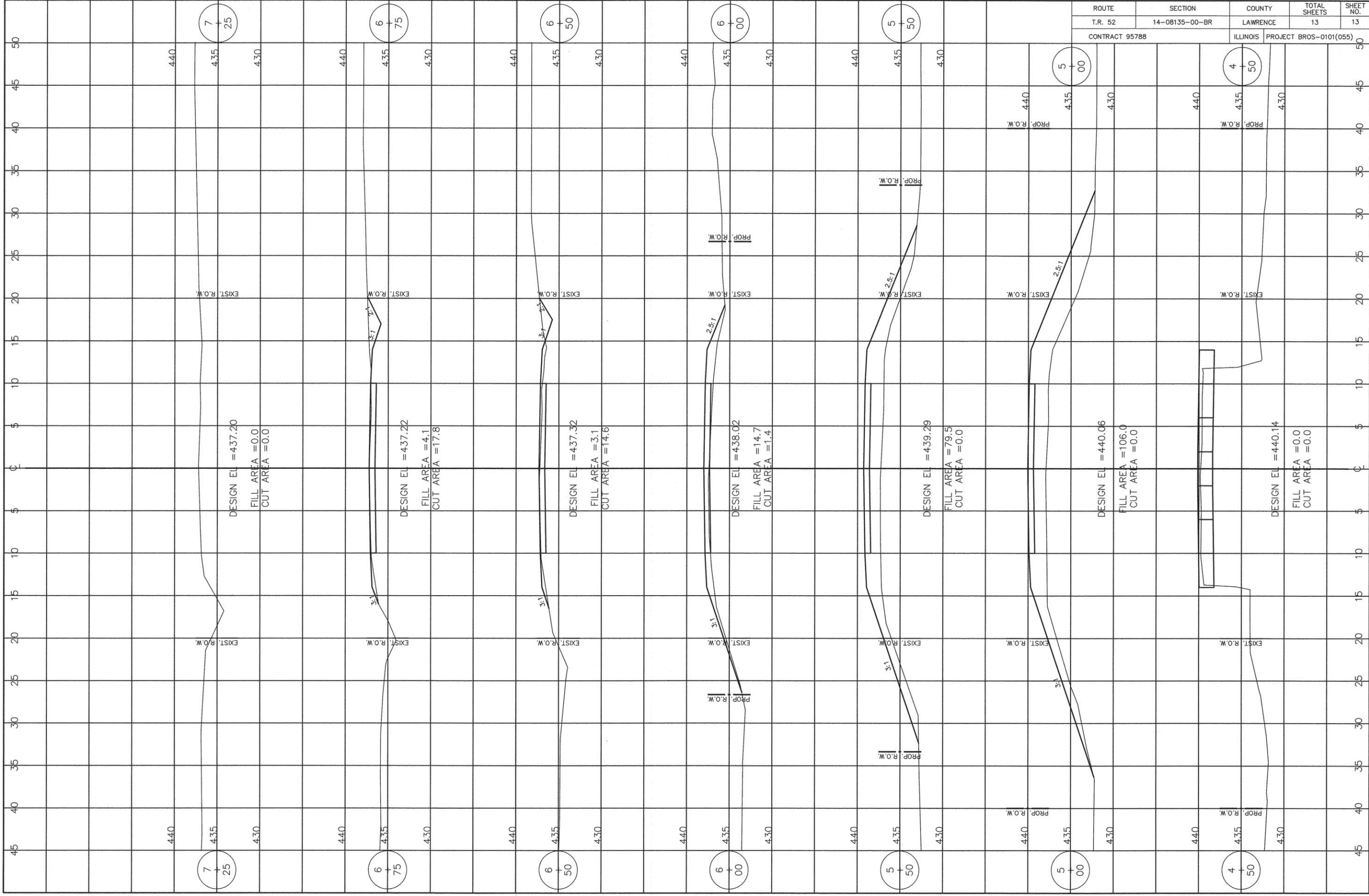
Note: The steel H-piles shall be according to AASHTO M270 Grade 50.

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PILE DETAILS
STRUCTURE NO. 051-3303
T.R. 52
OVER THE SLOUGH
SECTION 14-08135-00-BR
LAWRENCE COUNTY
STATION 4+03.00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 52	14-08135-00-BR	LAWRENCE	13	12
CONTRACT 95788		ILLINOIS	PROJECT BROS-0101(055)	





ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 52	14-08135-00-BR	LAWRENCE	13	13
CONTRACT 95788		ILLINOIS PROJECT BROS-0101(055)		