

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 64	15-09034-00-BR	MARION	11	1
			CONTRACT NO. 97749	

INDEX OF SHEETS

1. COVER SHEET
2. SUMMARY OF QUANTITIES, TYPICAL SECTIONS, GENERAL NOTES, AND COMMITMENTS
3. PLAN AND PROFILE OF ROADWAY
4. GENERAL PLAN AND ELEVATION
- 5.-6. PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS
7. STEEL RAILING, TYPE S1 DETAILS
8. ABUTMENT DETAILS
9. HP PILE DETAILS
- 10.-11. CROSS SECTIONS OF ROADWAY

HIGHWAY STANDARDS (SEE SPECIFICATIONS)

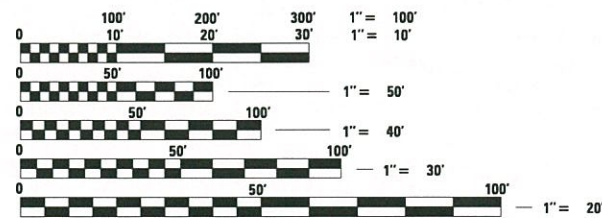
- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 515001-04 NAME PLATE FOR BRIDGES
- 701901-08 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 720006-04 SIGN PANEL ERECTION DETAILS
- 725001-01 OBJECT AND TERMINAL MARKERS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
- BLR 24-2 MAILBOX TURNOUT FOR LOCAL ROADS

SOIL BORINGS (SEE SPECIFICATIONS)

DESIGN CLASSIFICATION: RURAL LOCAL ROAD

ADT₂₀₁₇ : 100

DESIGN SPEED: 30 MPH

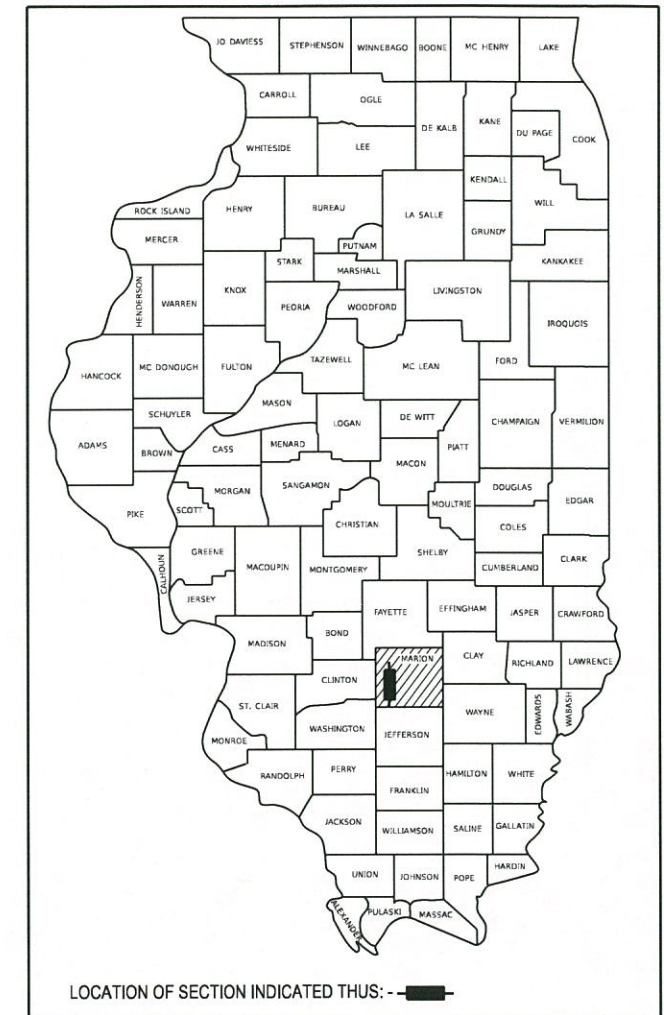


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS
1-800-892-0123 or 811 Website: <http://www.illinois1call.com>

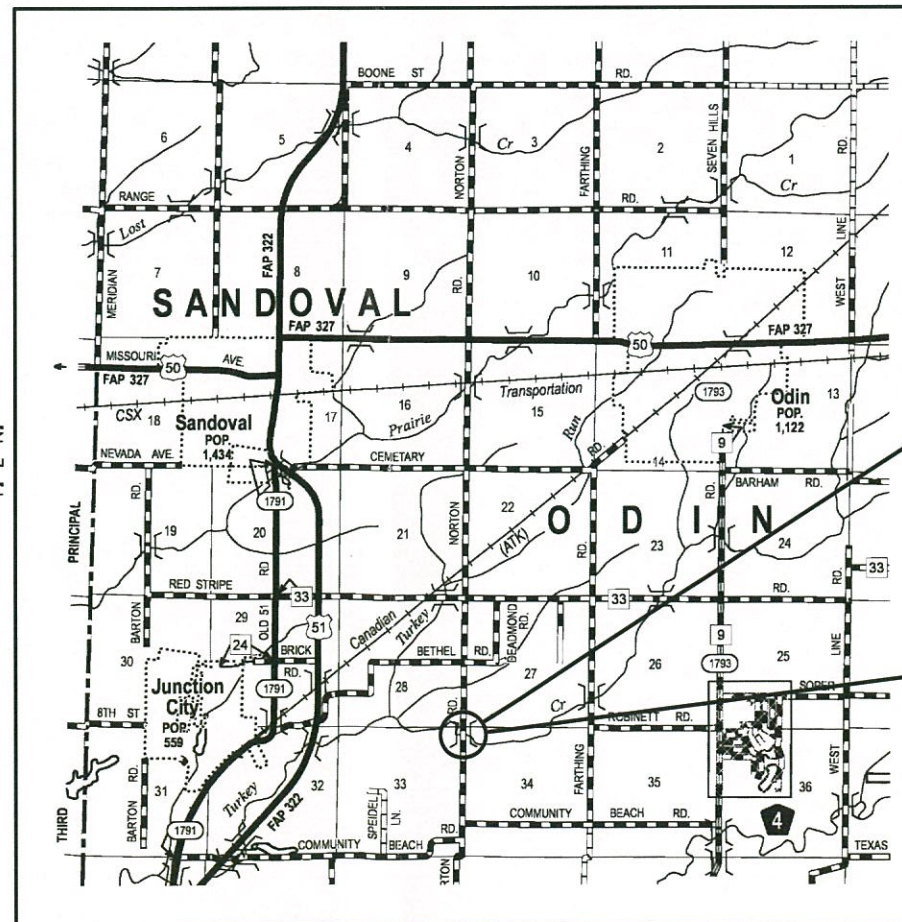
PLANS FOR PROPOSED STP OFF-SYSTEM BRIDGE

TR 64 (NORTON ROAD)
OVER TURKEY CREEK
SECTION 15-09034-00-BR
PROJECT NO. 2MUY(482)
ODIN ROAD DISTRICT
MARION COUNTY
JOB NO. C-98-018-21



LOCATION OF SECTION INDICATED THUS: - - -

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS



SECTION ENDS
STA. 23+00.00

SECTION 15-09034-00-BR INCLUDES THE CONSTRUCTION OF A SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE CARRYING TR 64 OVER TURKEY CREEK, 67'-0" BK. TO BK. ABUTMENTS X 24" WIDE, NO SKEW. EXISTING STRUCTURE NO. 061-3071 PROPOSED STRUCTURE NO. 061-3325

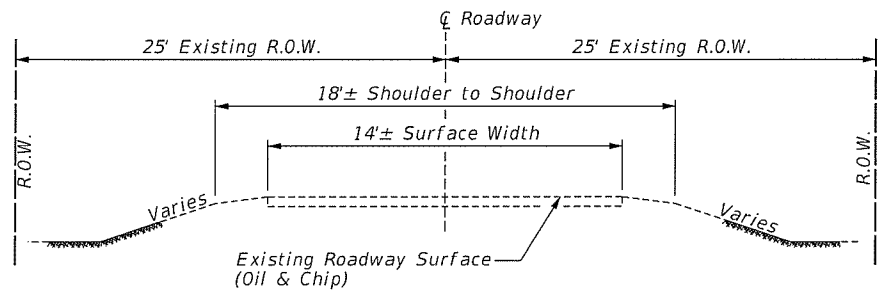
SECTION BEGINS
STA. 16+52.63

LOCATION: NEAR THE NW CORNER, SECTION 34, T2N, R1E, 3rd P.M.
GROSS LENGTH OF PROJECT: 647.37 FT. = 0.123 MI.
NET LENGTH OF PROJECT: 647.37 FT. = 0.123 MI.
NOT TO SCALE

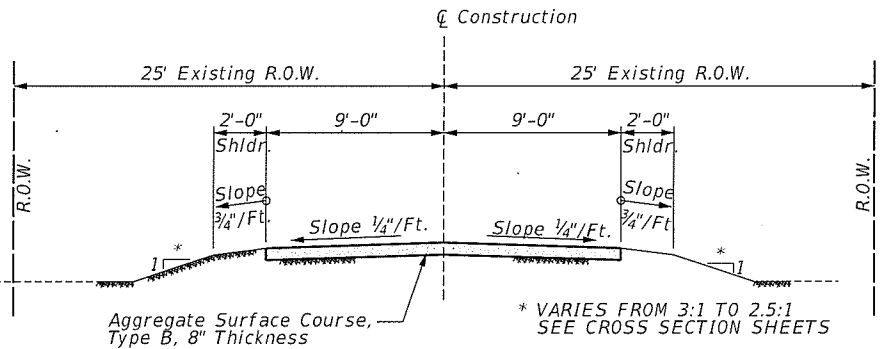
APPROVED	11/16/2020	<i>[Signature]</i>
MARION COUNTY ENGINEER		
PASSED	December 8, 2020	<i>[Signature]</i>
DISTRICT EIGHT ENGINEER OF LOCAL ROADS & STREETS		
RELEASING FOR BID BASED ON LIMITED REVIEW	December 8, 2020	<i>[Signature]</i>
REGION FIVE ENGINEER		



[Signature] 11/16/2020
BRENT L. TAYLOR
SALEM, ILLINOIS
ILLINOIS LICENSED PROFESSIONAL
ENGINEER NO. 062-066114
EXPIRES NOV. 30, 2021



TYPICAL SECTION
EXISTING APPROACH ROADWAY



TYPICAL SECTION
PROPOSED APPROACH ROADWAY

STA. 16+52.63 TO 19+50.39
STA. 20+17.39 TO 23+00.00
(Surface Width Varies in Transitions)

EXTRA BARS FOR TEST SAMPLES				
Bar	No.	Size	Length	Shape
h1	1	#4	23'-8"	—
v1	3	#5	5'-6"	—
h	2	#6	8'-0"	—
p	1	#7	24'-8"	—
Reinforcement Bars			Pound	110

These bars shall be identical to and delivered with the bars of the same mark listed on the bridge sheets. This chart assumes that all bars of the same size on the job will have the same heat numbers. If bars of the same size on the job have different heat numbers, then the Contractor shall supply additional bars from other heat numbers for sampling by the Engineer at no additional cost.

The weight of these extra bars has been included in the Summary of Quantities for the project.

The contractor shall cut test bars as directed by the Engineer (if required for transport, etc.) The cost for cutting the bars shall be included in Reinforcement Bars and no additional compensation will be allowed.

UTILITIES
J.U.L.I.E. Dig No. X0481164-00X & X0481165-00X

Electric:
Tri-County Electric
Danny Hopfinger
PO Box 309
3906 Broadway
Mount Vernon, IL 62864
Phone: 618-244-5151

Water:
Odin Water Dept.
Rudie Walker
618-775-8460 / 618-322-6940(Cell)
odinh2o@yahoo.com

Telephone:
ATT/Distribution
G11629@att.com

Pipeline:
Countrymark Refining & Logistics
Jamie Posner
812-833-259 / 812-270-2107(Cell)
jamie.posner@countrymark.com

GENERAL NOTES

- This section shall be constructed according to the plans, the Special Provisions, and the "Standard Specifications for Road and Bridge Construction", adopted April 1, 2016.
- Roadway Centerline profiles refer to the finished surface.
- Existing utilities shown are located from surface observations or information provided by the respective utilities and must be considered approximate and are only included for the convenience of the bidder. There may be others, the exact location of which are unknown and not shown. The Contractor will be responsible for notifying the respective utilities before work is begun. Field marking of underground utilities may be obtained by providing a minimum of 48 hours advance notice through the J.U.L.I.E. system by calling 1-800-892-0123, 811, or by direct contact with non-members of J.U.L.I.E.
- Factors used for quantity calculations are as follows:
Stone Riprap 130 pounds/cu. ft.
Aggregate Surface Course 2.1 tons/cu. yd.
Porous Granular Embankment 2.1 tons/cu. yd.

COMMITMENTS

No tree clearing will be allowed or performed from April 1 through September 30, to prevent any adverse effects to the federally threatened Northern Long-eared bat or federally endangered Indiana bat.

Existing fence replacement within the limits of construction will be done by others and will be coordinated by the Township.

The County Engineer will notify public service providers prior to the start of construction.

SUMMARY OF QUANTITIES			
Code No.	Item	Unit	Total Quantity
20200100	EARTH EXCAVATION	CU YD	90
20300100	CHANNEL EXCAVATION	CU YD	170
20400800	FURNISHED EXCAVATION	CU YD	570
20700110	POROUS GRANULAR EMBANKMENT	TON	90
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	530
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	29.2
50300280	CONCRETE ENCASEMENT	CU YD	2.8
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1560
50800105	REINFORCEMENT BARS	POUND	3810
Δ 50900205	STEEL RAILING, TYPE S1	FOOT	134
51201600	FURNISHING STEEL PILES HP12x53	FOOT	350
51202305	DRIVING PILES	FOOT	350
51203600	TEST PILE STEEL HP12x53	EACH	1
51204650	PILE SHOES	EACH	8
51500100	NAME PLATES	EACH	1
67100100	MOBILIZATION	LSUM	1
Δ 72000100	SIGN PANEL - TYPE 1	SQ FT	18
Δ 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
Δ 72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	30
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.25
** X2810808	STONE DUMPED RIPRAP, CLASS A4 (SPECIAL)	TON	195
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1

** STONE DUMPED RIPRAP, CLASS A4 AS CALLED OUT IN THE PLANS REFERS TO STONE DUMPED RIPRAP, CLASS A4 (SPECIAL)

Δ SPECIALTY ITEMS

DATE	
BY	
PLAN	SURVEYED
	PLOTTED
	ALIGNED
	CHECKED
	FILED
NOTE BOOK NO.	

DATE	
BY	
PROFILE	SURVEYED
	GRADES CHECKED
	STRUCTURE NOTATION CHECKED
NOTE BOOK NO.	

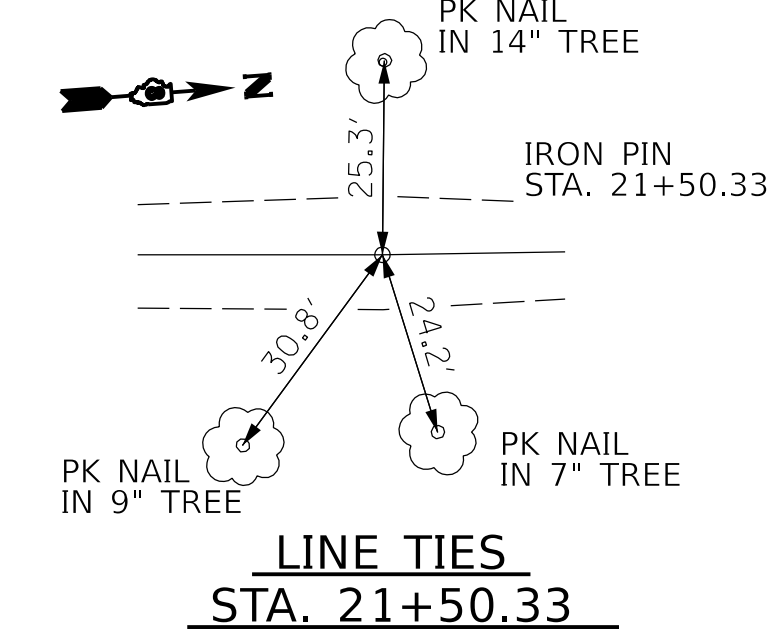
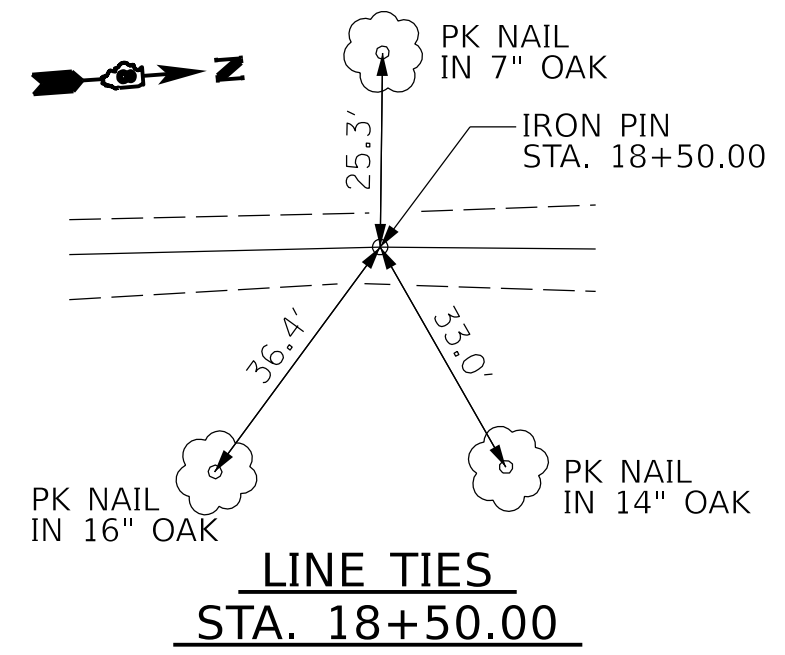
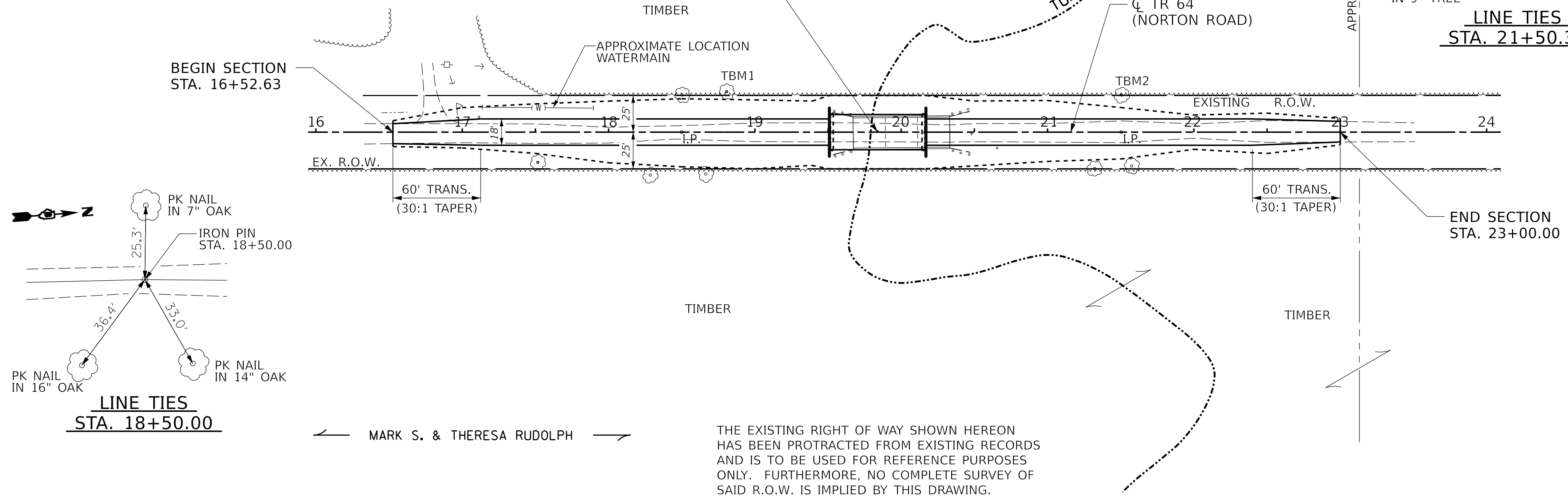
SCALES:
 HORZ. - 0 50 100
 VERT. - 0 5 10
 ----- LIMITS OF CONSTRUCTION

ROBERT L. PENNINGTON, et al

☐ PROPOSED STRUCTURE. STA. 19+83.89
 SINGLE SPAN PRECAST PRESTRESSED
 CONCRETE DECK BEAM BRIDGE. NO SKEW.
 67'-0" BK. TO BK. ABUTMENTS x 24' WIDE.
 EXISTING STRUCTURE NO. 061-3071
 PROPOSED STRUCTURE NO. 061-3325

EXISTING STRUCTURE: STRUCTURE NO. 061-3071. THREE SPAN BRIDGE WITH A PRECAST CONCRETE CHANNEL BEAM SUPERSTRUCTURE ON CLOSED TIMBER ABUTMENTS WITH TIMBER WINGWALLS AND TIMBER PILE BENT PIERS. 66'+- L. x 22.5'+- W. TO BE REMOVED.

GARY RUDOLPH, c/o LEONARD DEAN & SHIRLEY L. SANDERS

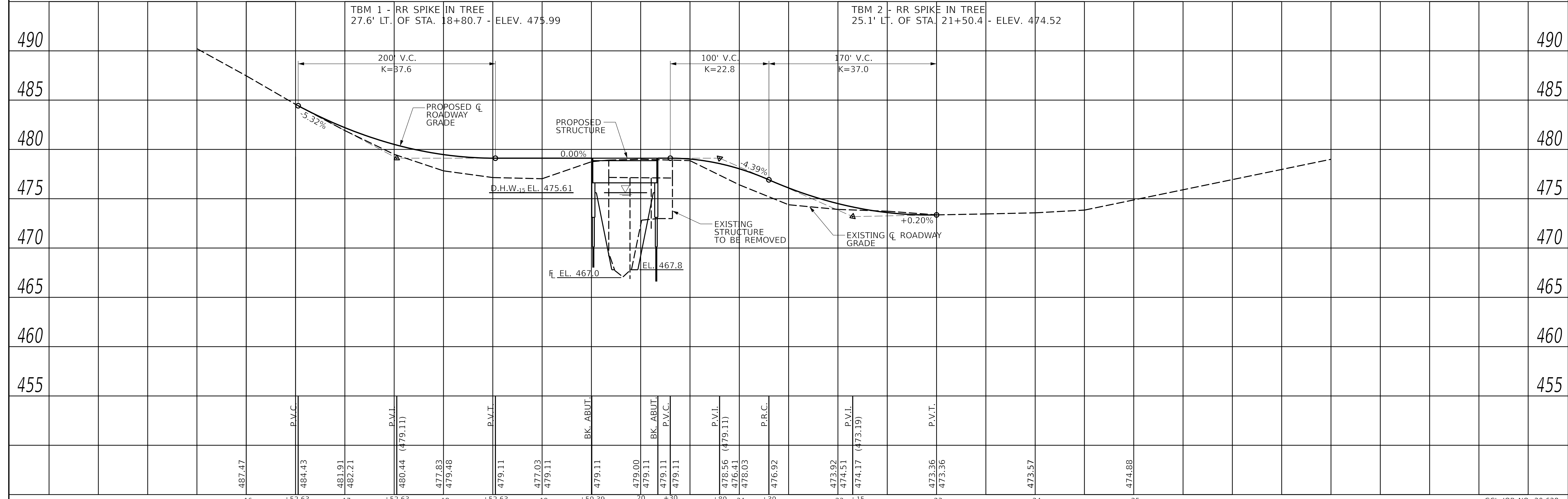


NOTES
 TWO (2) "ROAD MAY FLOOD" SIGN PANELS (W8-18, 36"x36") SHALL BE INSTALLED ON TELESCOPING STEEL SIGN SUPPORTS AT LOCATIONS AS DIRECTED BY THE ENGINEER.

LOCATION	EARTH EXCAVATION CU. YD.	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE* CU. YD.	EMBANKMENT CU. YD.	EARTHWORK BALANCE** WASTE (+) OR SHORTAGE (-) CU. YD.
STA. 16+52.63 TO STA. 19+50.39	25	19	390	-371
STA. 20+17.39 TO STA. 23+00.00	62	47	247	-200
TOTAL	87	66	637	-571

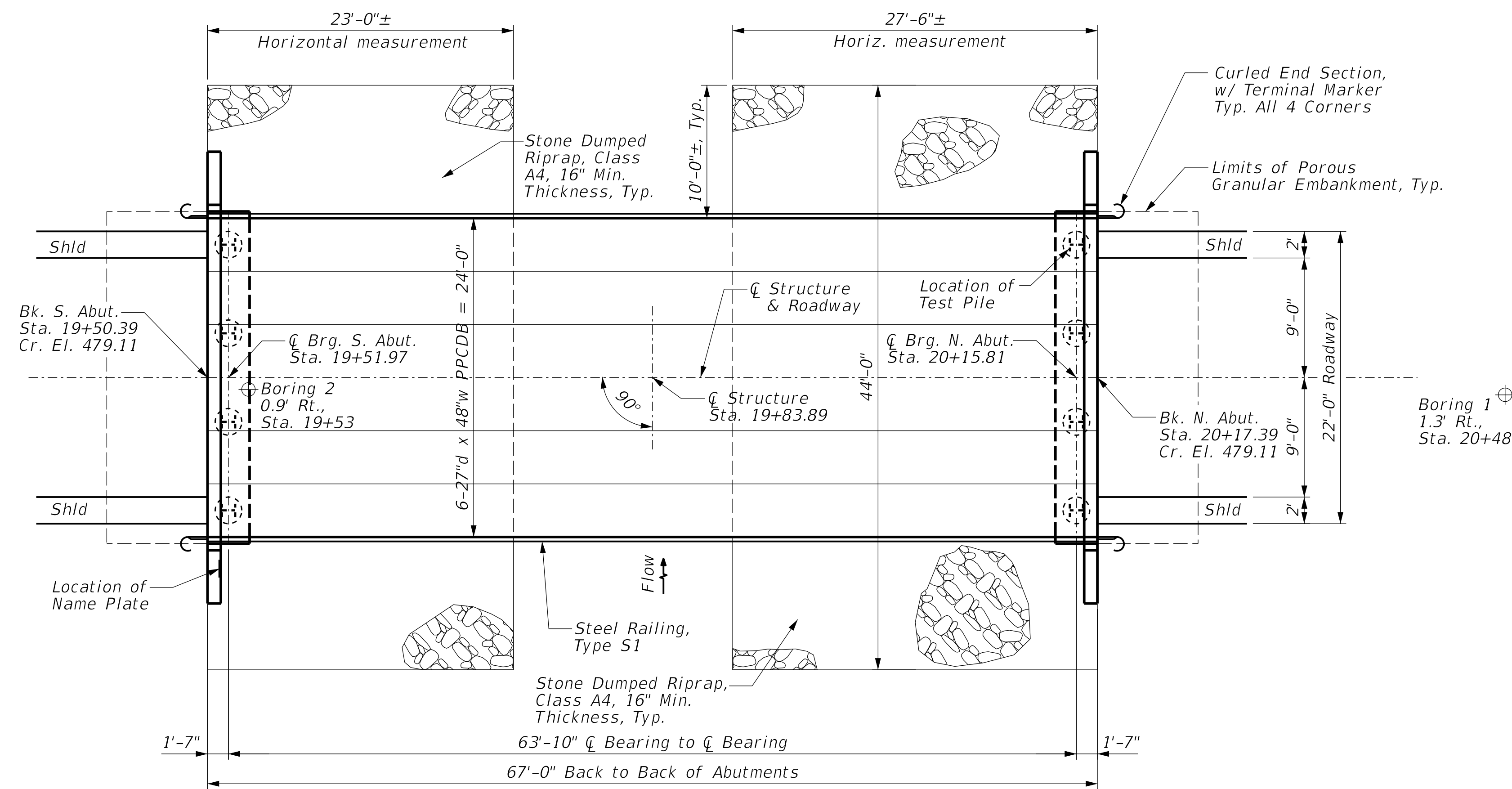
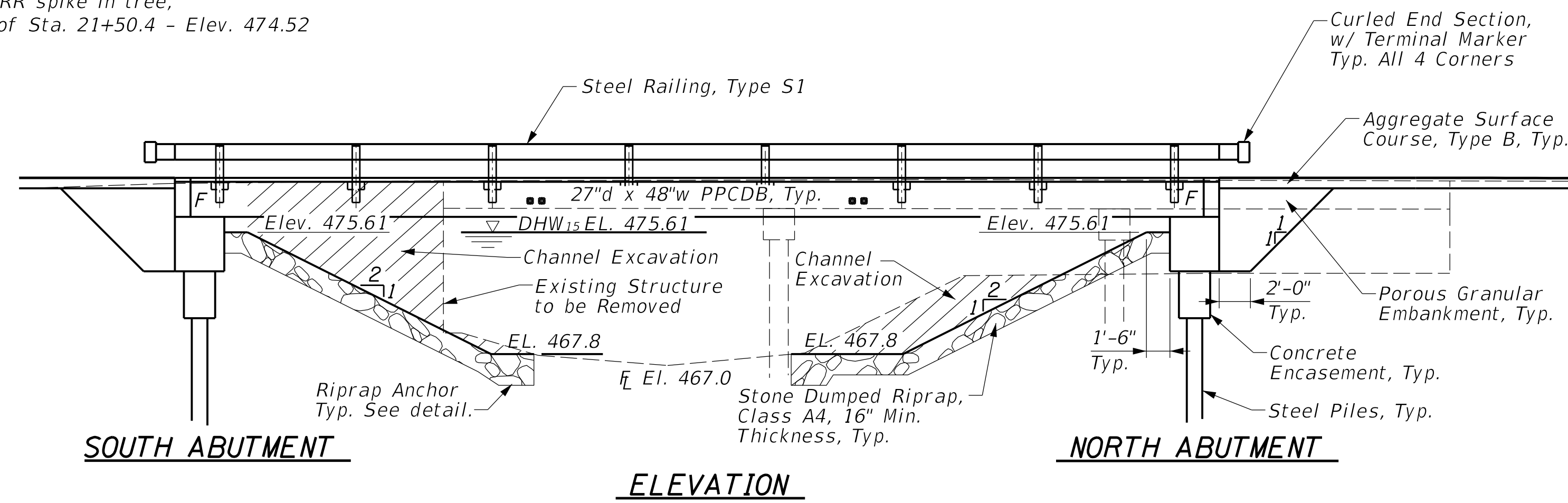
*25% SHRINKAGE **FURNISHED EXCAVATION

THE EXISTING RIGHT OF WAY SHOWN HEREON HAS BEEN PROTRACTED FROM EXISTING RECORDS AND IS TO BE USED FOR REFERENCE PURPOSES ONLY. FURTHERMORE, NO COMPLETE SURVEY OF SAID R.O.W. IS IMPLIED BY THIS DRAWING.



TBM 1 - RR spike in tree,
27.6' Lt. of Sta. 18+80.7 - Elev. 475.99

TBM 2 - RR spike in tree,
25.1' Lt. of Sta. 21+50.4 - Elev. 474.52

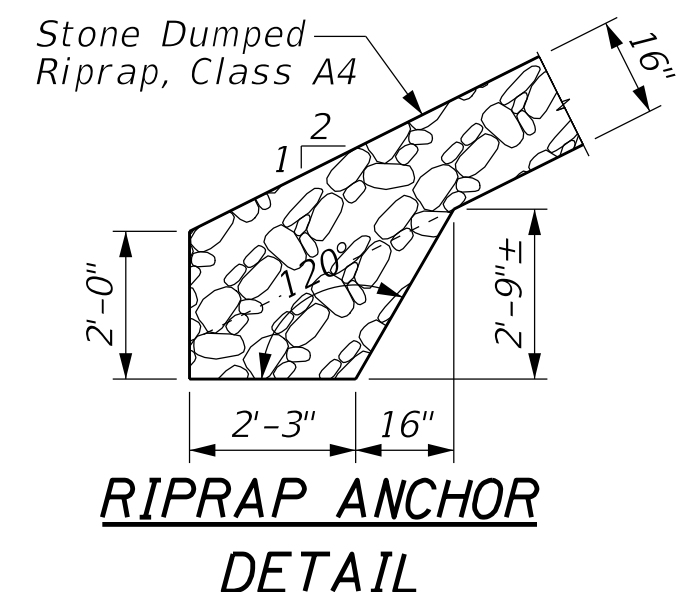


PLAN

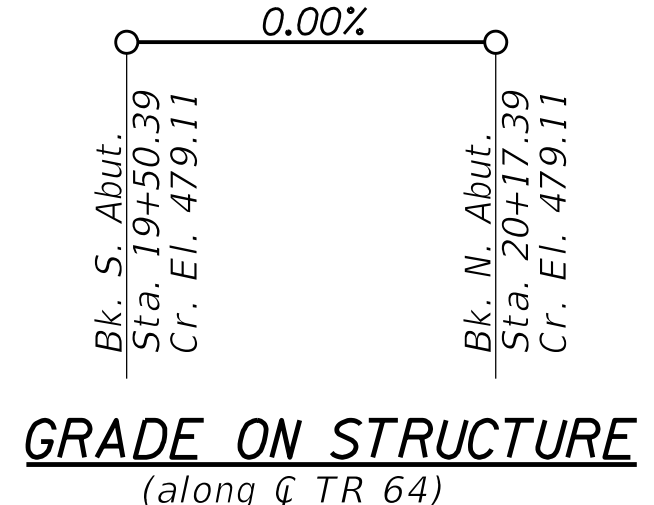
WATERWAY INFORMATION

Drainage Area = 12.74 sq. mi. Exist. Low Grade Elev. 473.36 @ Sta. 23+00.00
 Prop. Low Grade Elev. 473.35 @ Sta. 22+92.59

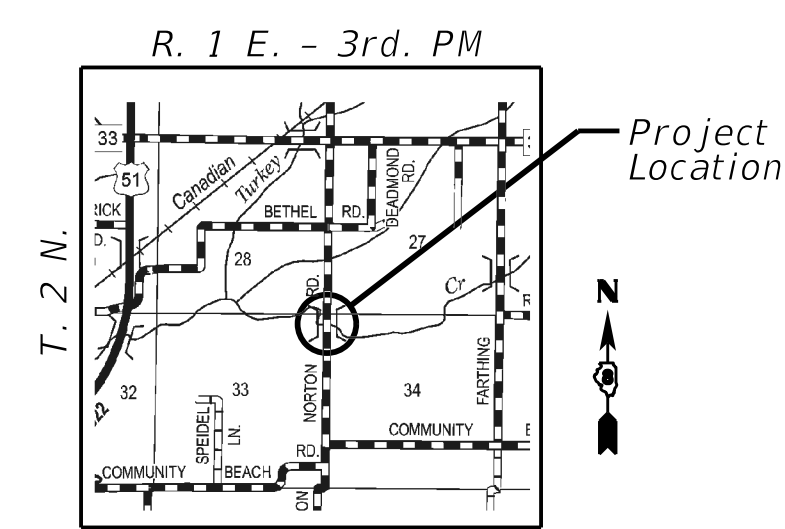
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	15	2550	319	336	475.61	0.33	0.23	475.94	475.84
Base	100	4220	373	388	476.45	0.36	0.48	476.81	476.93
Max. Calc.	500	5710	412	398	477.05	0.38	0.61	477.43	477.66



RIPRAP ANCHOR DETAIL



GRADE ON STRUCTURE
(along CL TR 64)



LOCATION SKETCH

LOADING HL-93

50#/sq. ft. included in dead load for future wearing surface.

DESIGN SPECIFICATIONS

2017 (8th ED.) AASHTO LRFD Bridge Design Specifications.

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
 $f_{pu} = 270,000$ psi ($1/2$ " low lax. strands)
 $f_{pbt} = 201,960$ psi ($1/2$ " low lax. strands)
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
 Soil Site Classification = D
 $S_{D1} = 0.269$ $S_{D5} = 0.632$

Existing Structure: Structure No. 061-3071. Three span bridge with a precast concrete channel beam superstructure on closed timber abutments with timber wingwalls and timber pile bent piers. 66'± L. x 22.5'± W. To be removed.

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	TOTAL
Channel Excavation	Cu Yd	170
Porous Granular Embankment	Ton	90
Removal of Existing Structures	Each	1
Concrete Structures	Cu Yd	29.2
Concrete Encasement	Cu Yd	2.8
PPCDB (27" Depth)	Sq Ft	1560
Reinforcement Bars	Pound	3810
Steel Railing, Type S1	Foot	134
Furnishing Steel Piles HP12x53	Foot	350
Driving Piles	Foot	350
Test Pile Steel HP12x53	Each	1
Pile Shoes	Each	8
Name Plates	Each	1
Terminal Marker - Direct Applied	Each	4
* Stone Dumped Riprap, Class A4 (Special)	Ton	195

* Stone Dumped Riprap, Class A4 as called out in the plans refers to Stone Dumped Riprap, Class A4 (Special)

GENERAL NOTES

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Channel excavation shall be excavated as shown within the limits of the proposed bridge, then tapered to the existing channel at the ROW line. If the Engineer deems the material satisfactory, it may be used to construct the roadway embankment.

The Contractor is hereby advised that very stiff soils may be encountered prior to the location of anticipated required bearing. See soil borings for further information.

See Specifications for Soil Borings.

Do not scale these drawings.

Reinforcement bars designated (E) shall be epoxy coated.

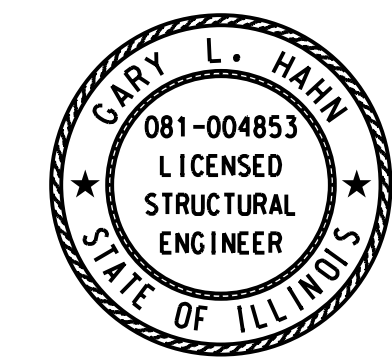
The abutment bearing seat surfaces for the precast prestressed concrete deck beams shall be adjusted by shimming to assure firm and even bearing. As required, 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

TURKEY CREEK
 BUILT 20__ BY
MARION COUNTY
 SEC. 15-09034-00-BR
 TR 64 STA. 19+83.89
 LOADING HL-93
 STRUCTURE NO. 061-3325

NAME PLATE

See Std. 515001

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.



Gary L. Hahn 11/16/2020
 Gary L. Hahn
 Salem, Illinois
 Illinois Licensed Structural
 Engineer No. 081-004853
 Expires Nov. 30, 2022

gonzalez
 GONZALEZ COMPANIES, LLC
 7 CARPENTER DRIVE
 SALEM, IL 62881
 PHONE (618) 222-2221
 www.gonzalezcos.com
 ILLINOIS PROFESSIONAL DESIGN FIRM 184-004564

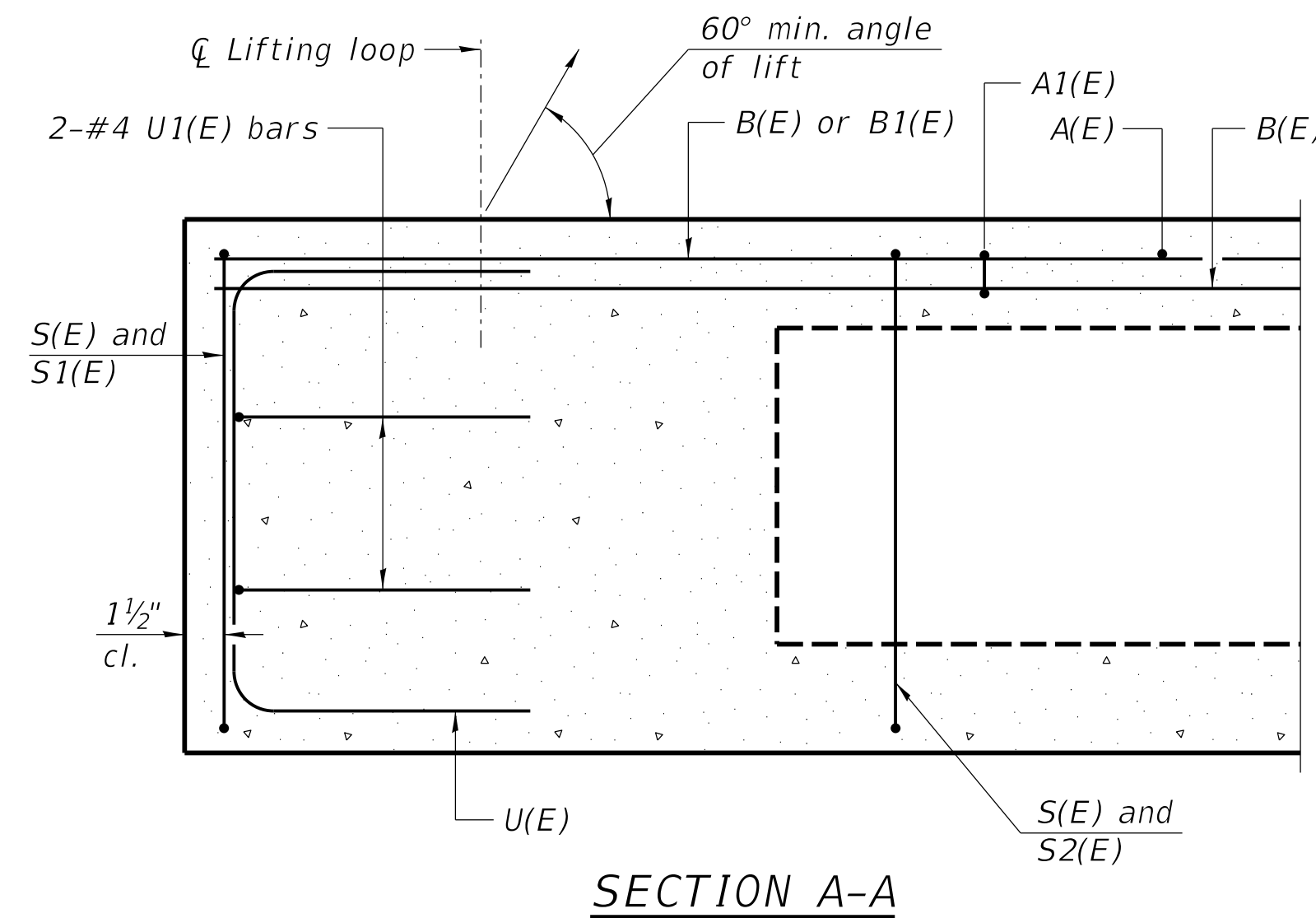
DESIGNED - BLT	REVISED -
DRAWN - JN, JMW	REVISED -
CHECKED - GLH	REVISED -
DATE - 11/16/2020	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION

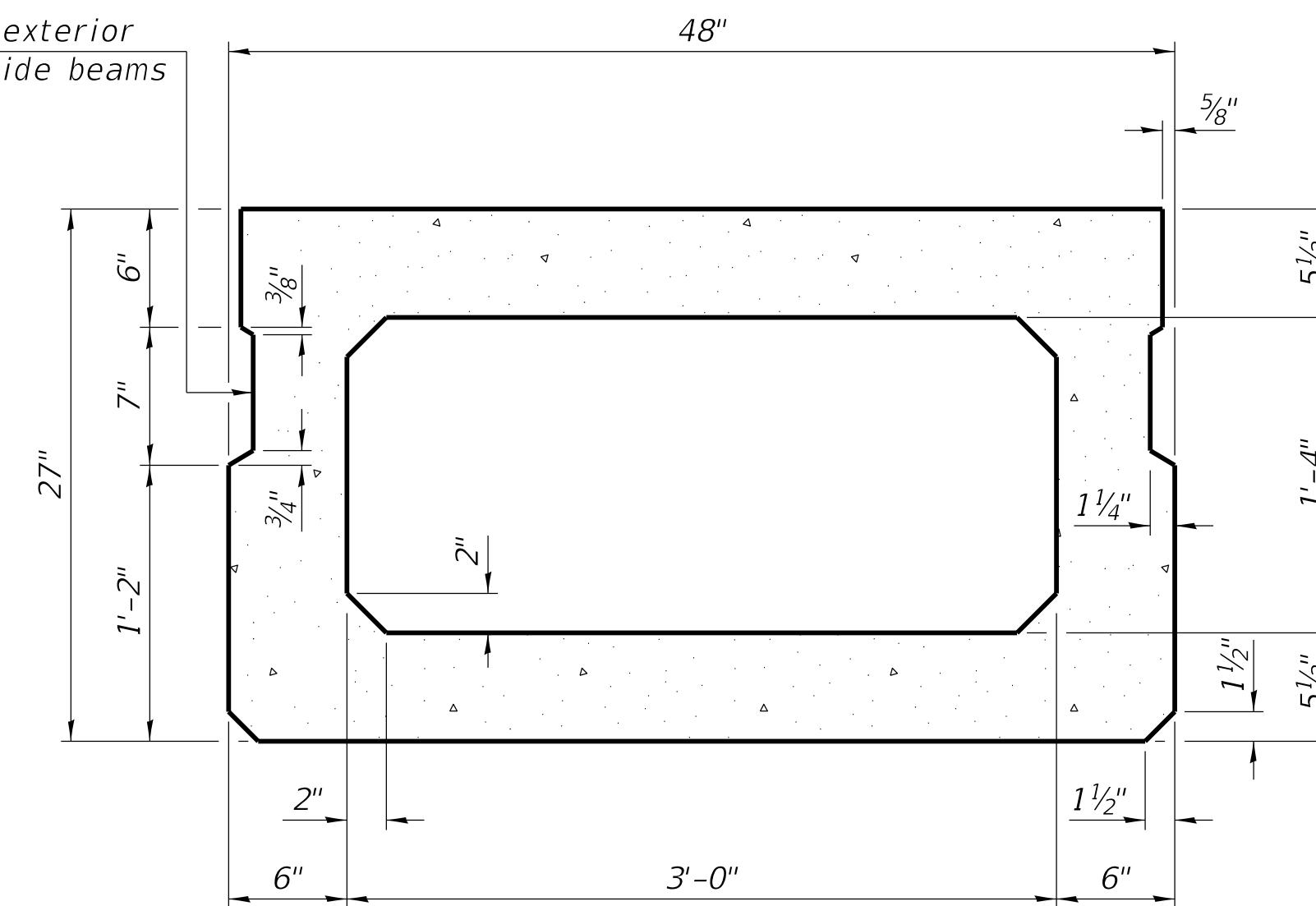
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 64	15-09034-00-BR	MARION	11	4

CONTRACT NO. 97749

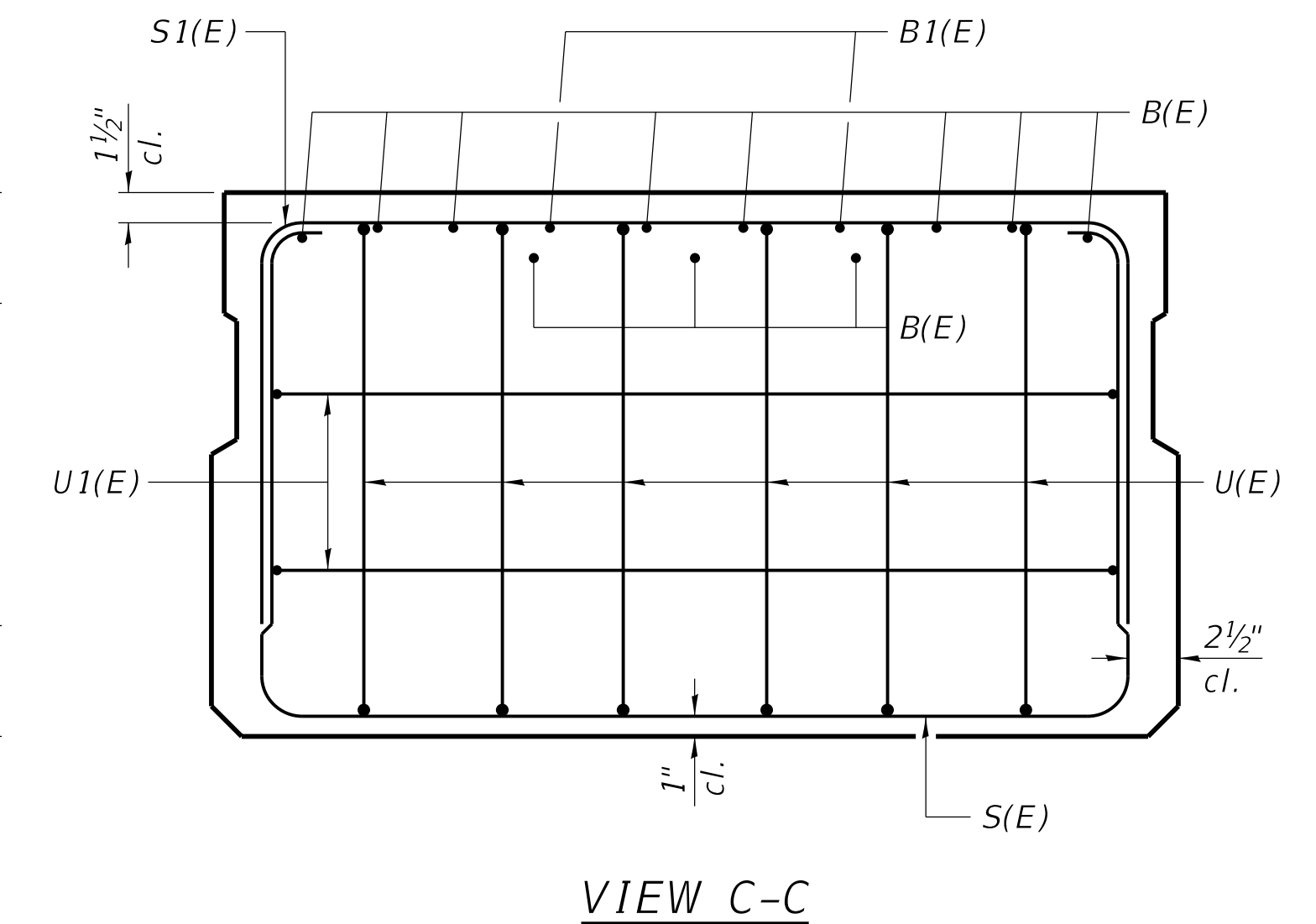


SECTION A-A

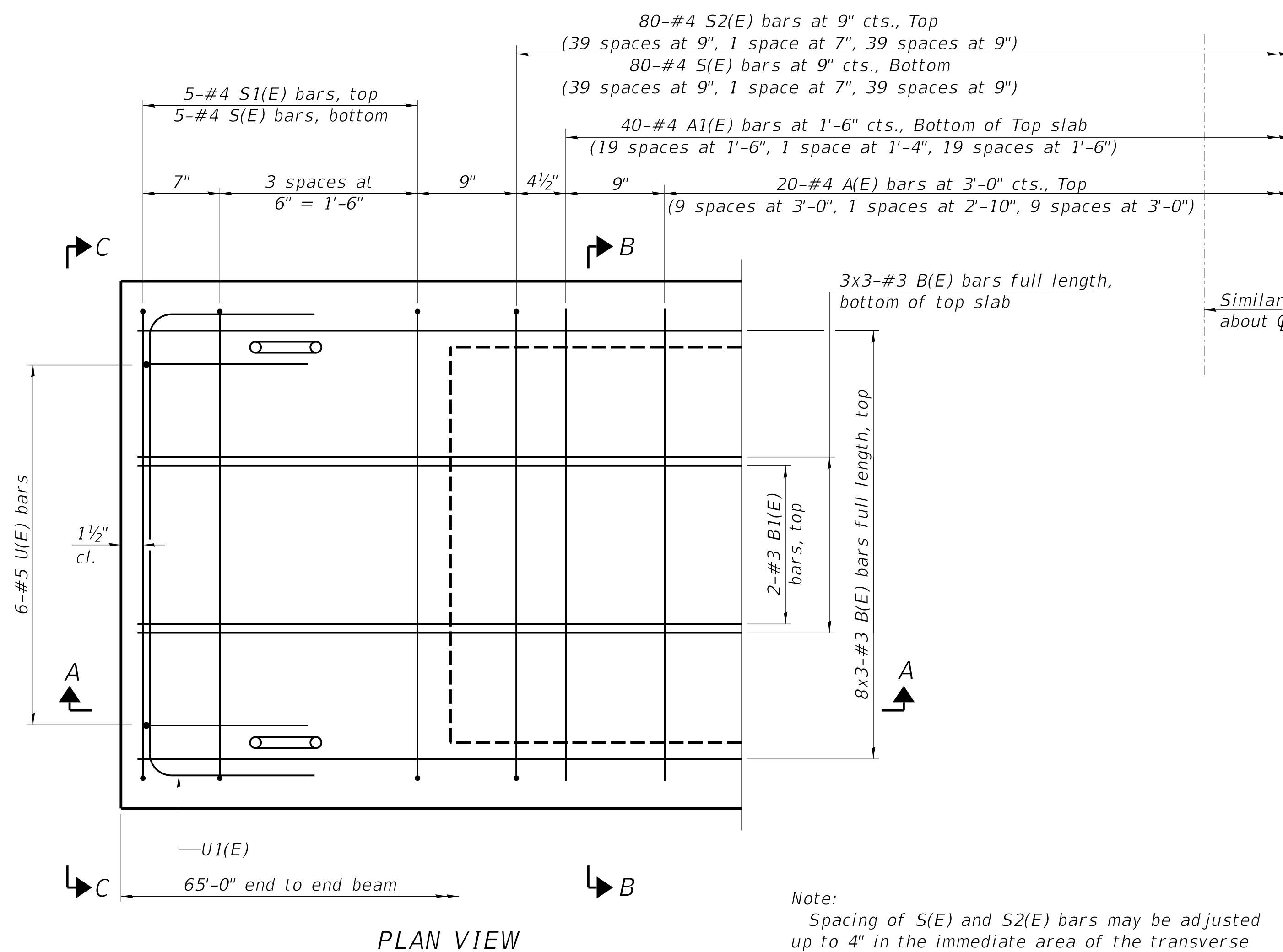
Omit key on exterior face of outside beams



SECTION B-B
(Showing dimensions)



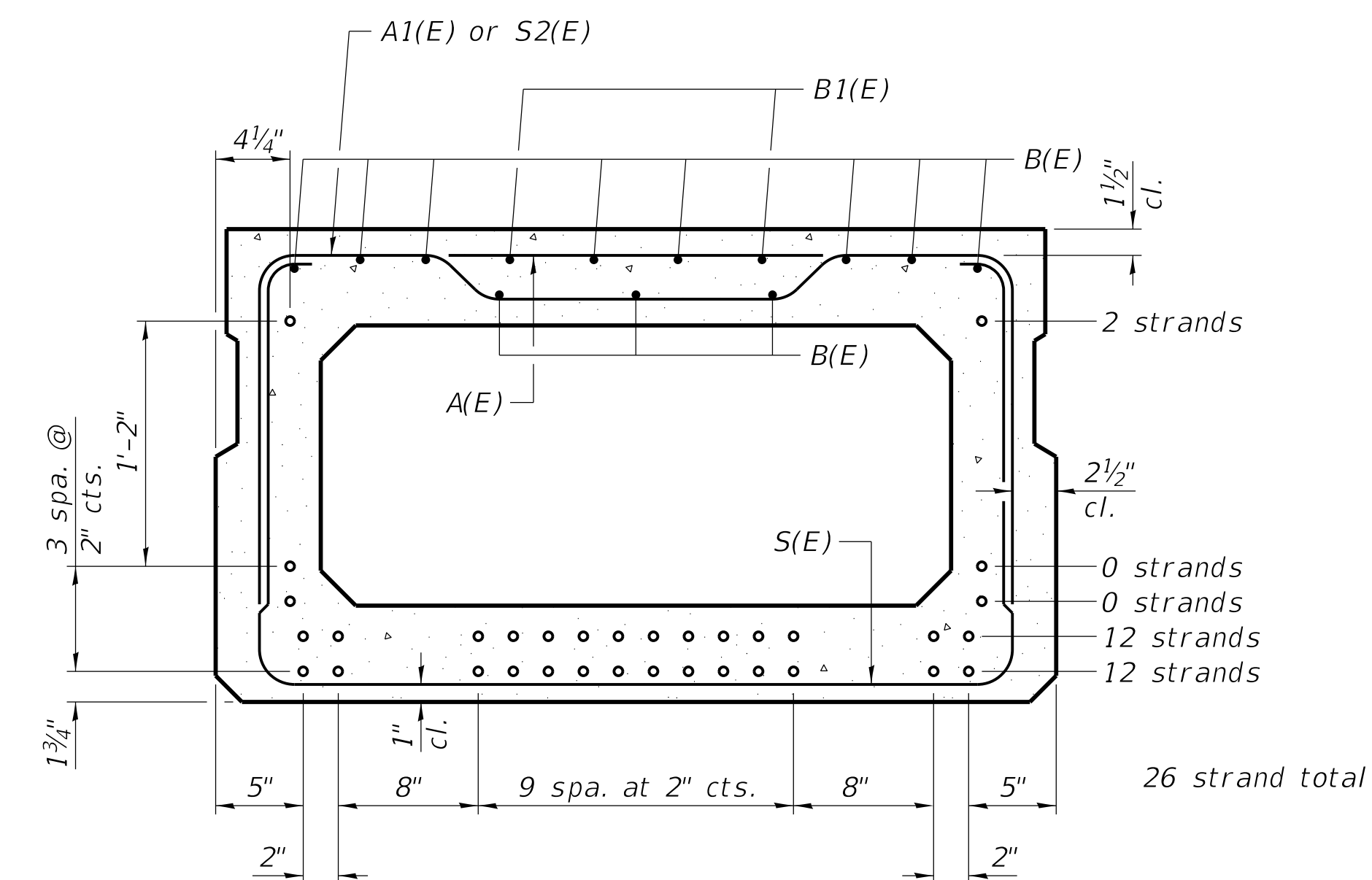
VIEW C-C



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.

Bars indicated thus: 4x3-#5 etc. indicates 4 lines of bars with 3 lengths per line.



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)	20	#4	3'-7"	—
A1(E)	40	#4	3'-10"	—
B(E)	33	#3	22'-7"	—
B1(E)	4	#3	10'-0"	—
S(E)	90	#4	8'-5"	⌋
S1(E)	10	#4	6'-11"	⌋
S2(E)	80	#4	7'-2"	⌋
U(E)	12	#5	4'-6"	⌋
U1(E)	4	#4	6'-0"	⌋

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

MINIMUM BAR LAP
#3 bar = 1'-6"



GONZALEZ COMPANIES, LLC
7 CARPENTER DRIVE
SALEM, IL 62881
PHONE (618) 222-2221
www.gonzalezcos.com
ILLINOIS PROFESSIONAL DESIGN FIRM 184.004564

DESIGNED - BLT
CHECKED - GLH
DRAWN - JN, JMW
DATE - 11/16/2020

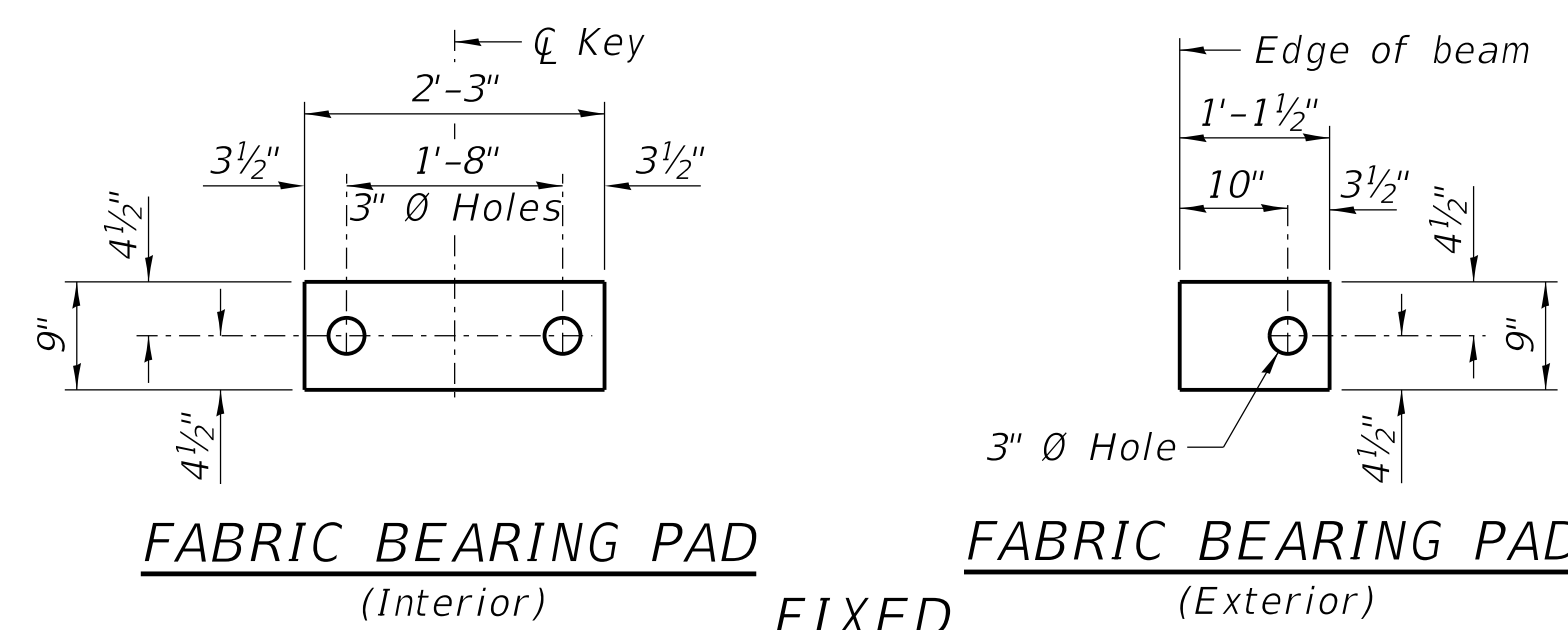
REVISED -
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REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS

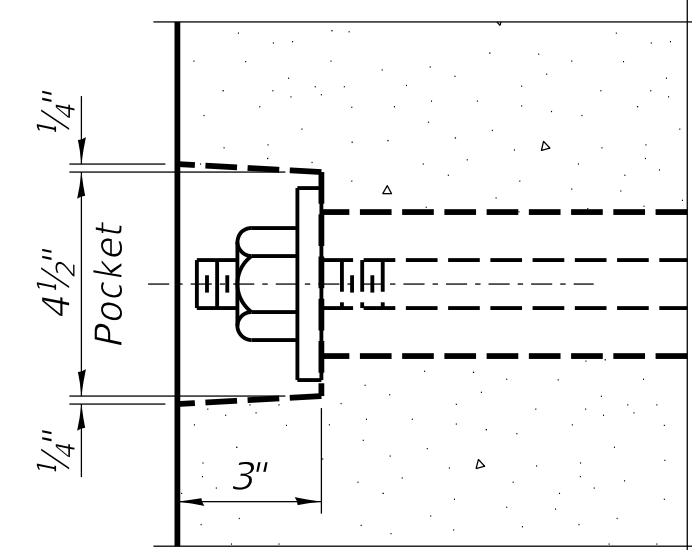
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 64	15-09034-00-BR	MARION	11	5
CONTRACT NO. 97749				

GCL JOB NO. 20-628

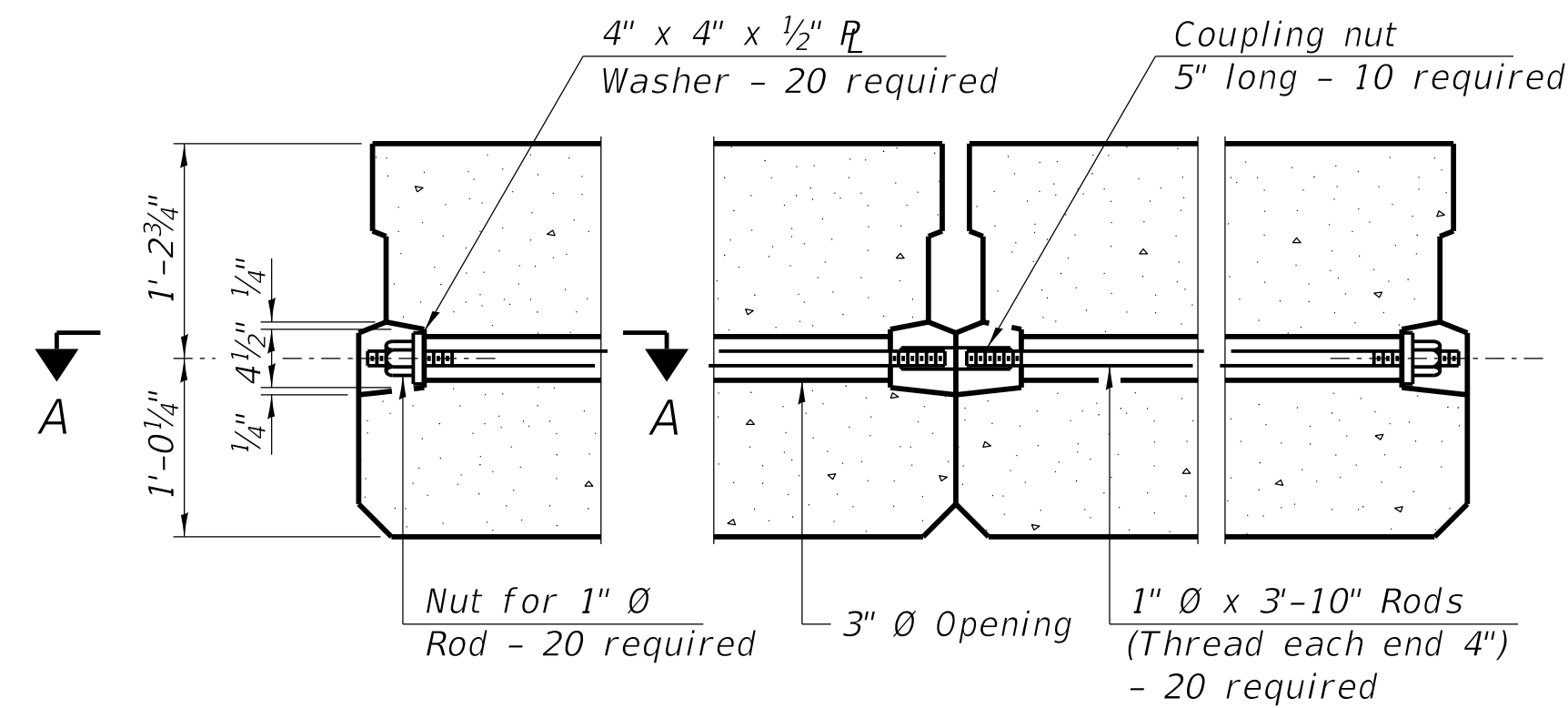


FABRIC BEARING PAD
(Interior) **FIXED** (Exterior)

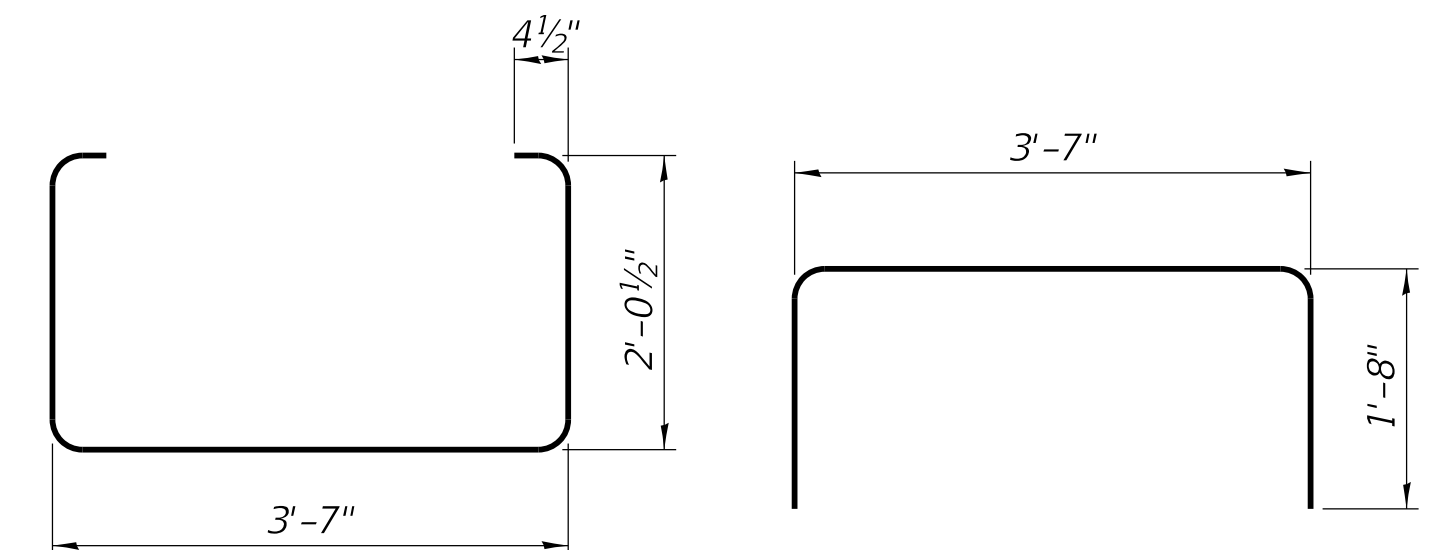
Notes: All bearing pads shall be 1" thick.



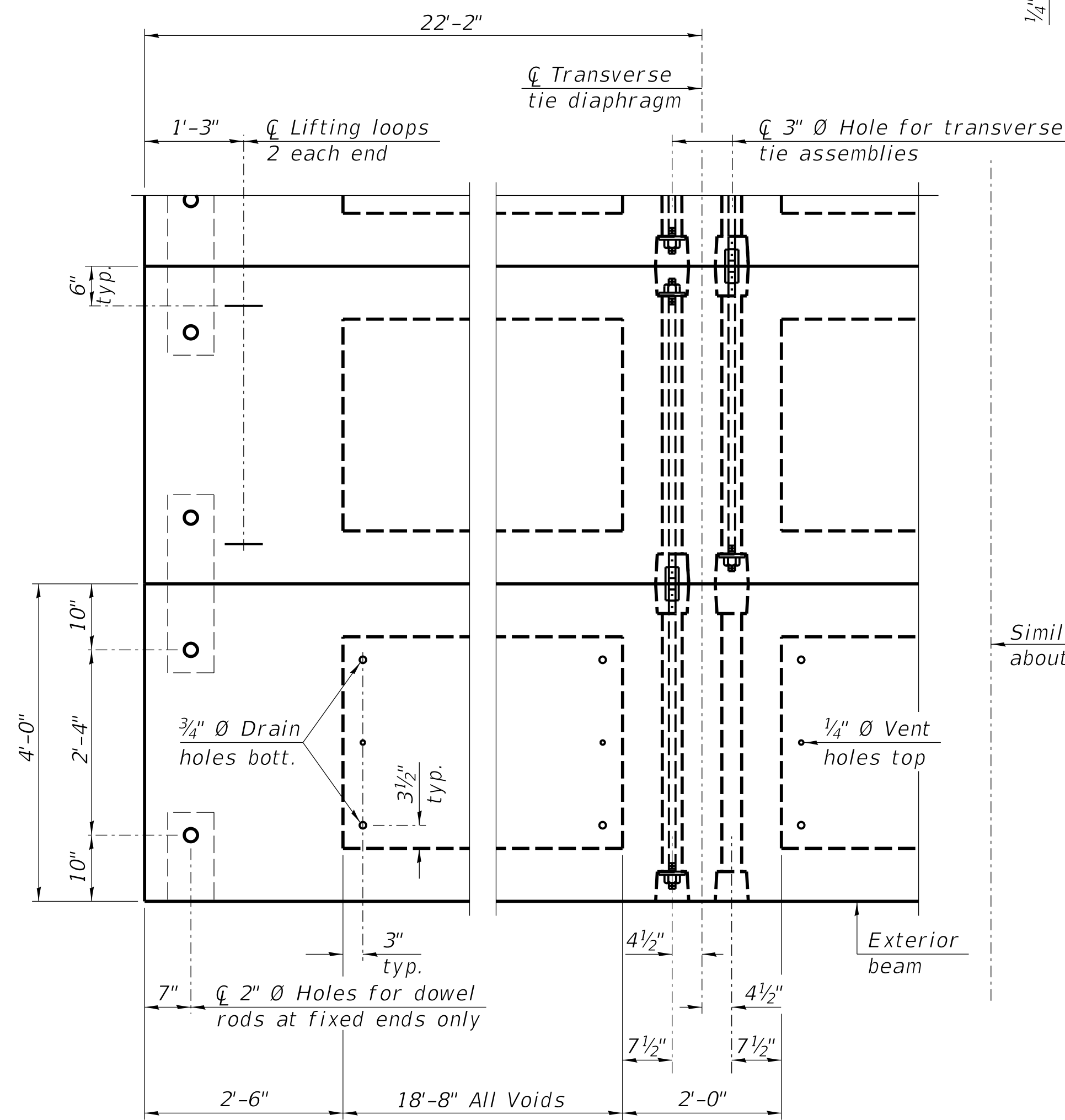
SECTION A-A



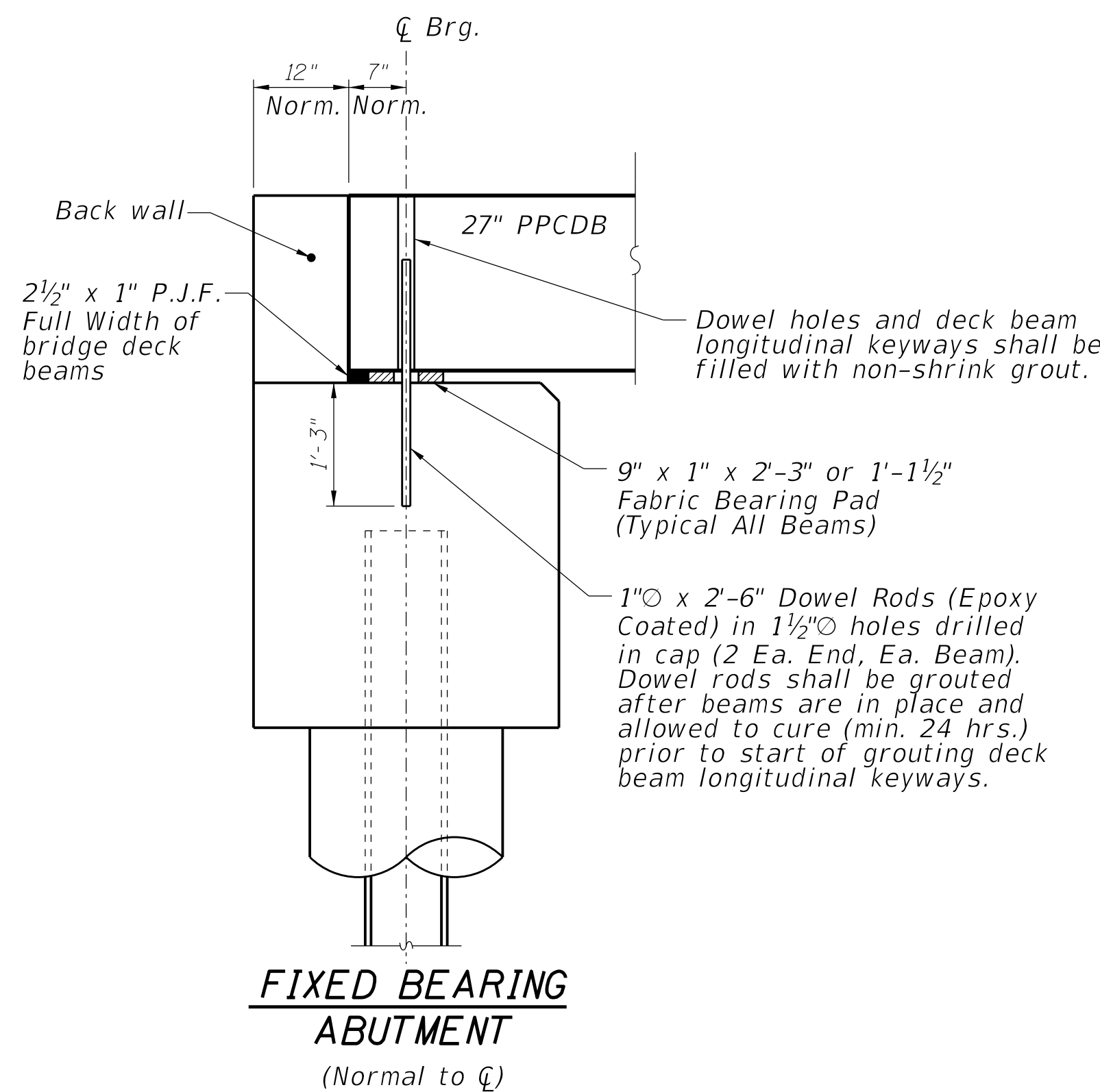
TYPICAL TRANSVERSE TIE ASSEMBLY



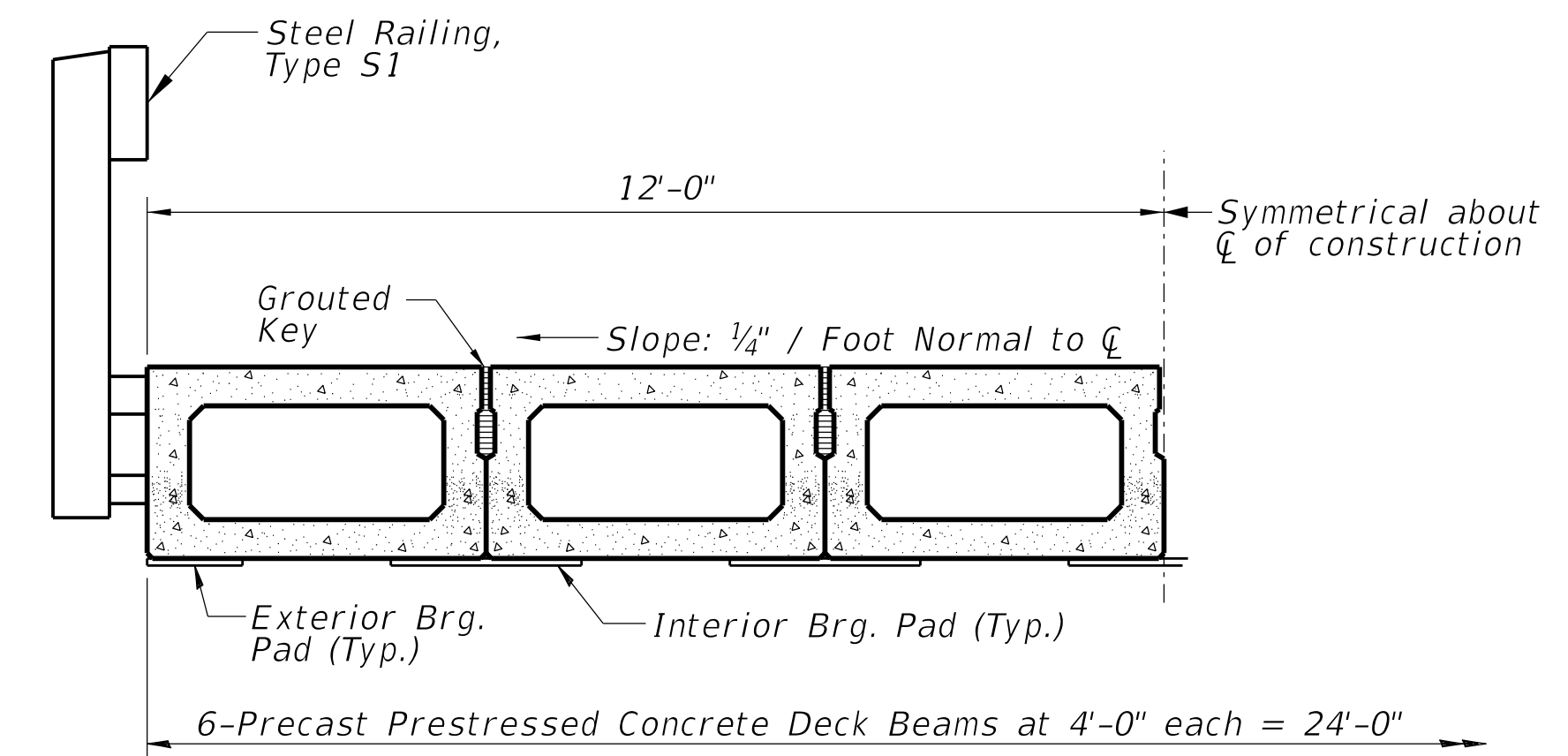
BAR S(E) **BAR S1(E)**
BAR U(E) **BAR U1(E)**



PLAN VIEW



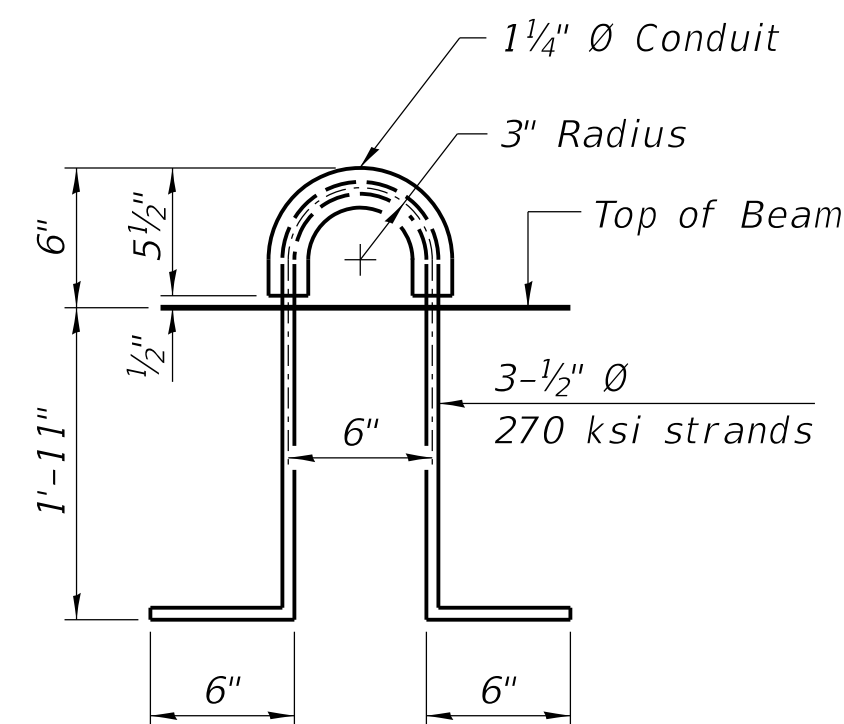
FIXED BEARING ABUTMENT
(Normal to C)



HALF CROSS SECTION

See Sheet 7 for the details showing the spacing and mounting of posts and rails to the PPCDB.

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

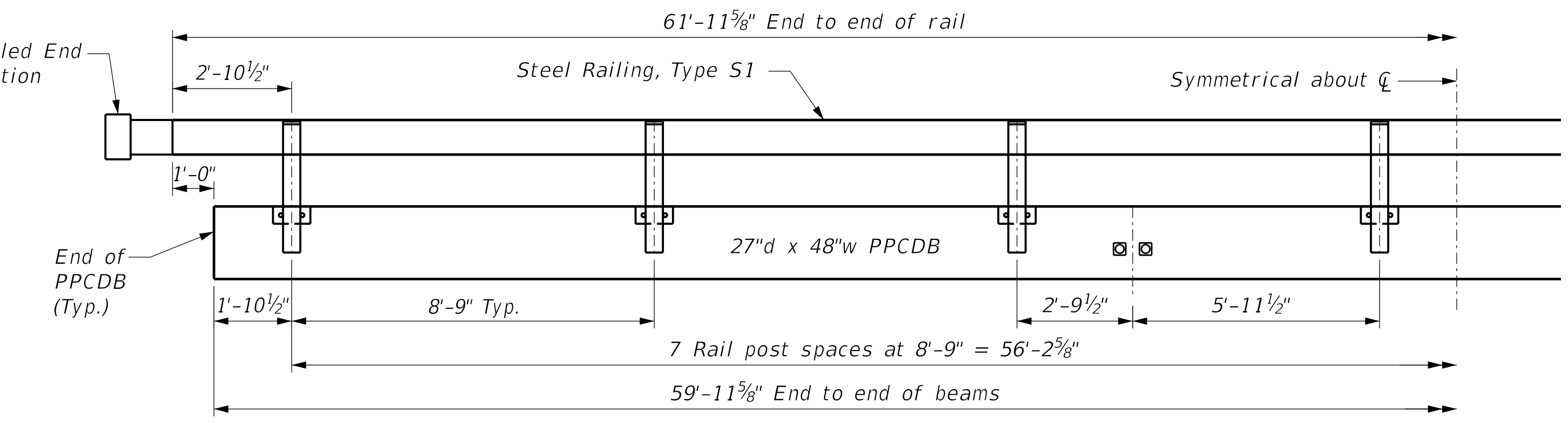
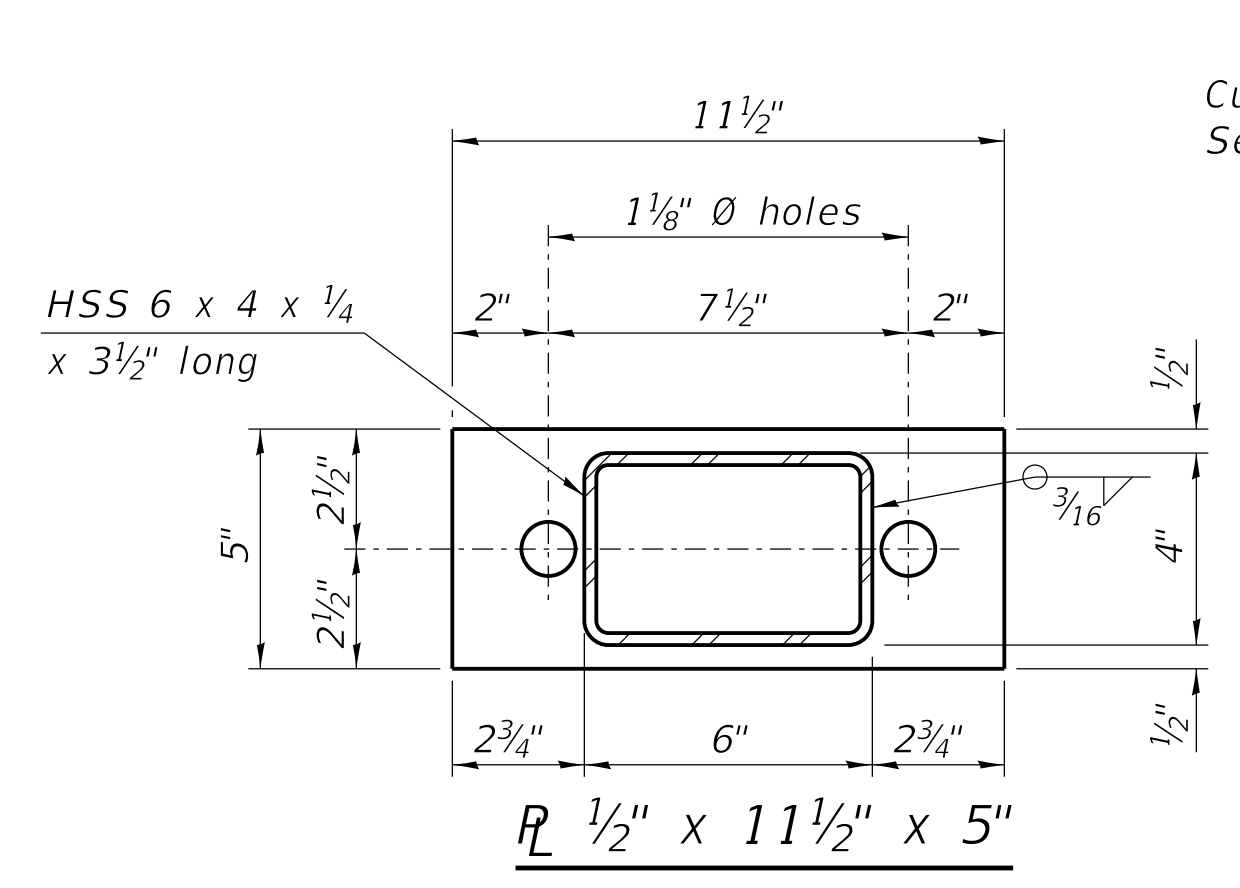
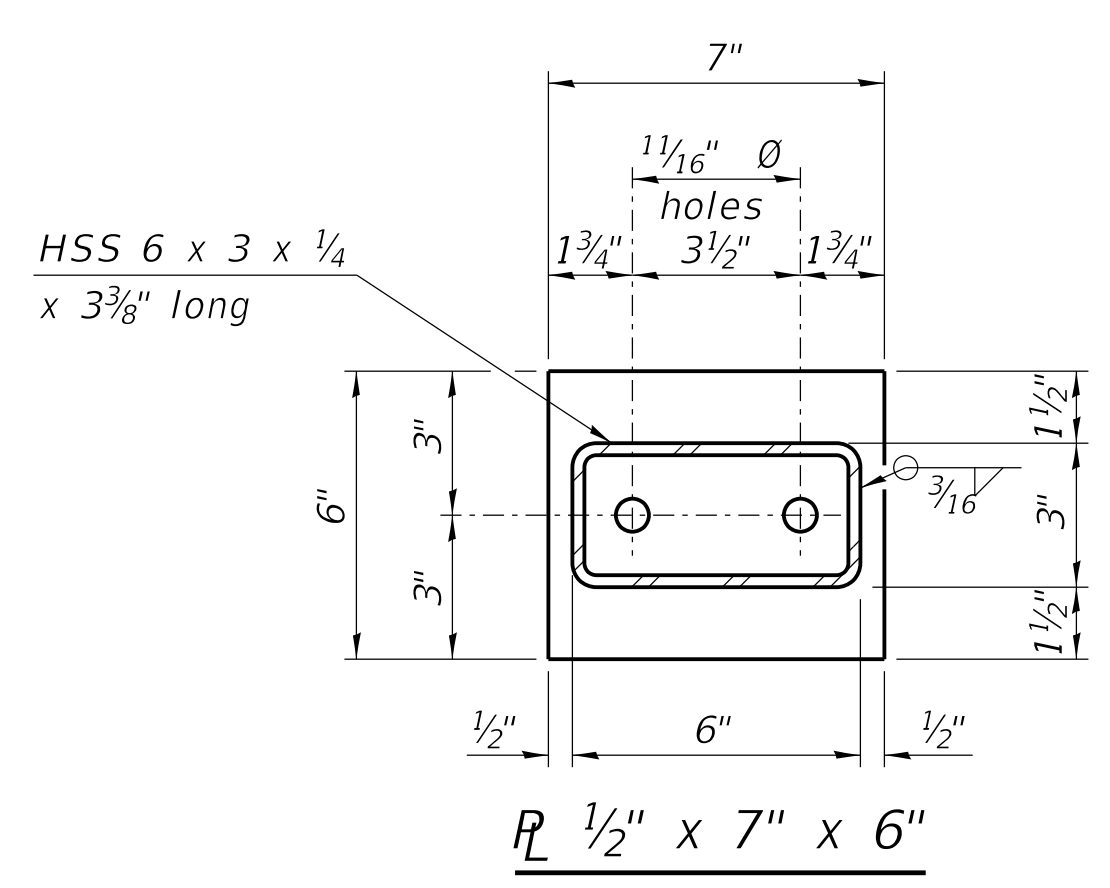


LIFTING LOOP DETAIL

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" Ø 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" Ø 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.
Reinforcement bars shall conform to ASTM A706, Grade 60 (IL Mod.)

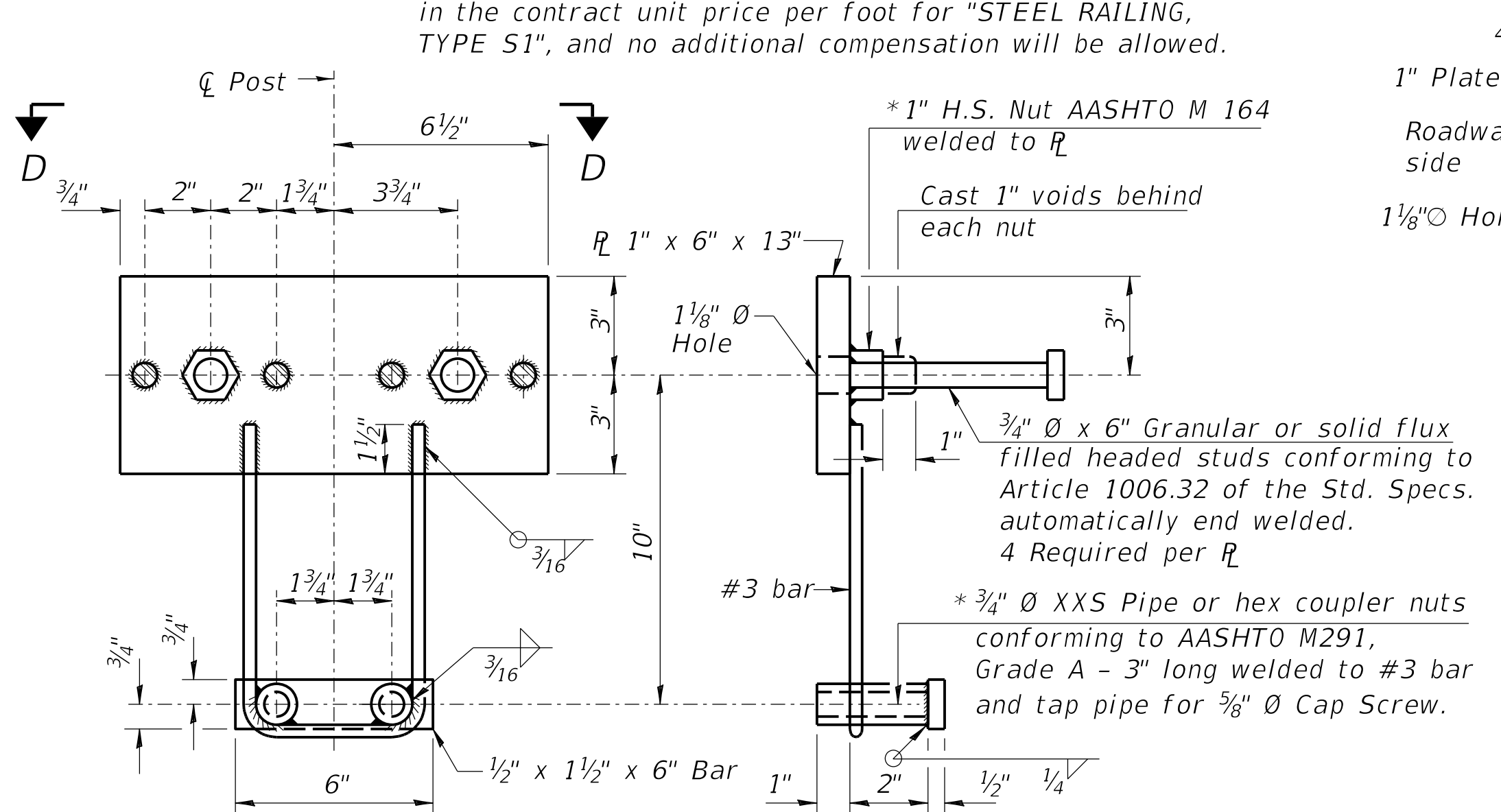
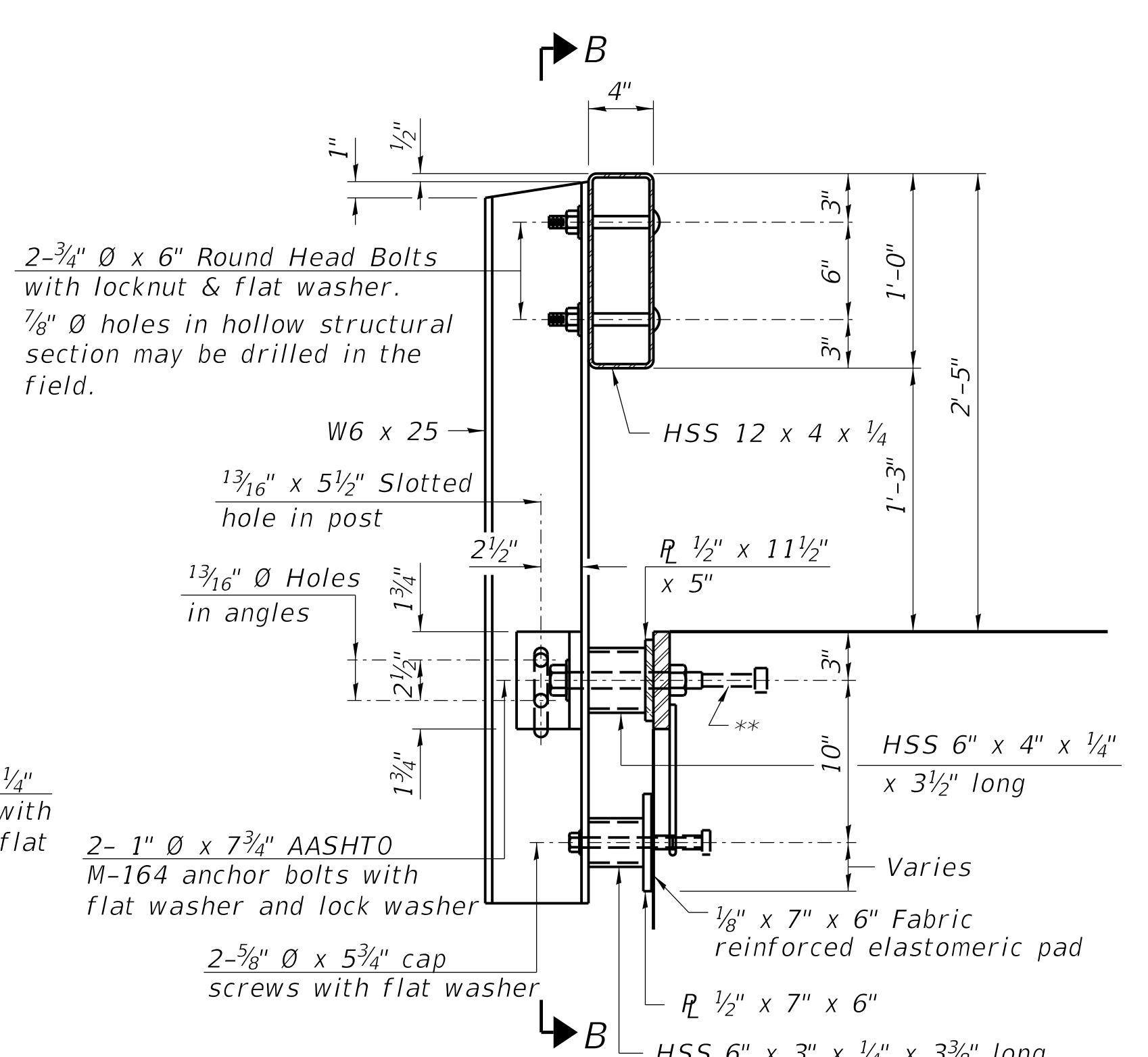
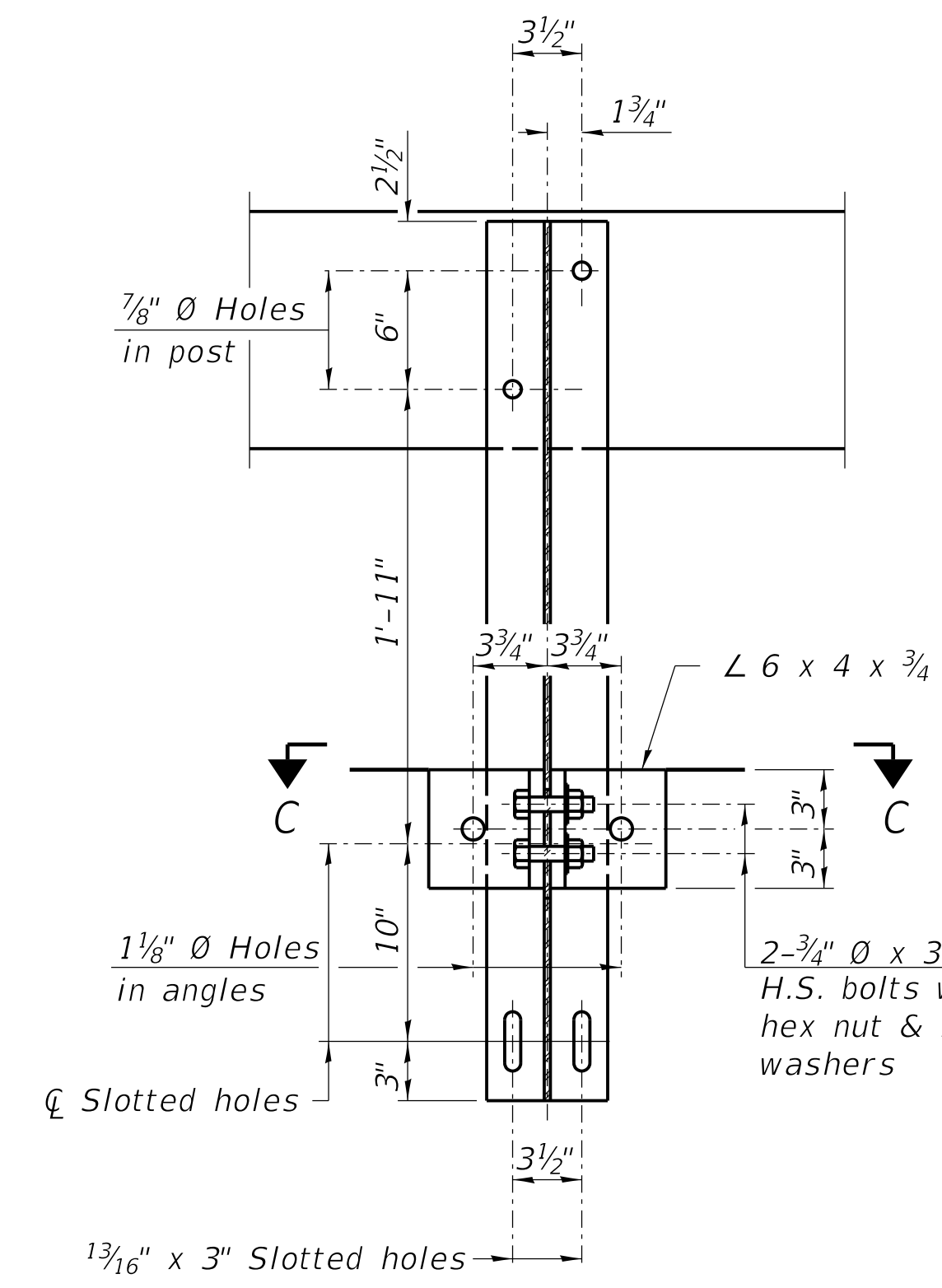
BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1560
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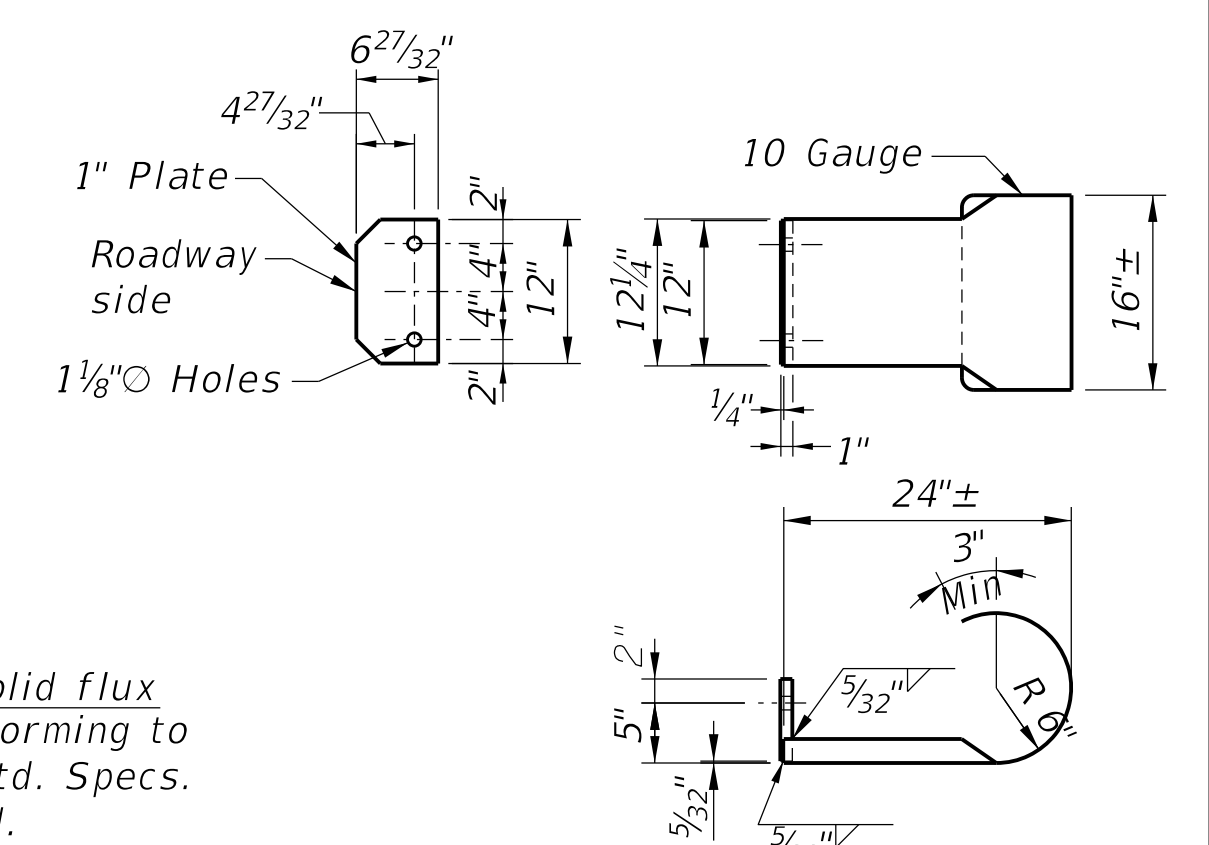


RAIL POST SPACING

Note: The cost of the Curled End Sections shall be included in the contract unit price per foot for "STEEL RAILING, TYPE S1", and no additional compensation will be allowed.



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

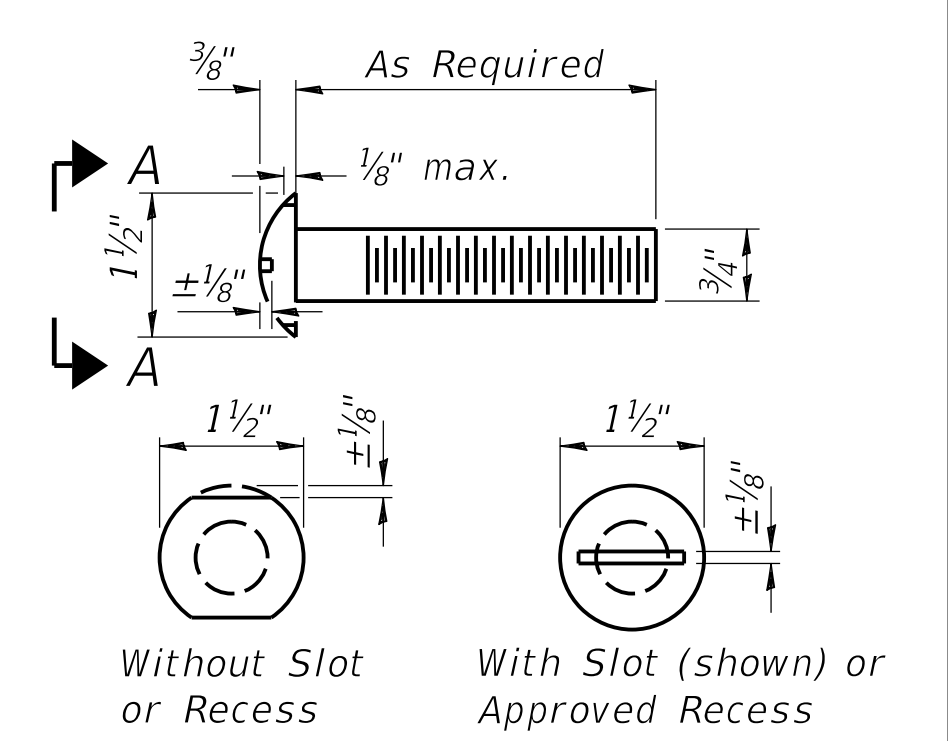
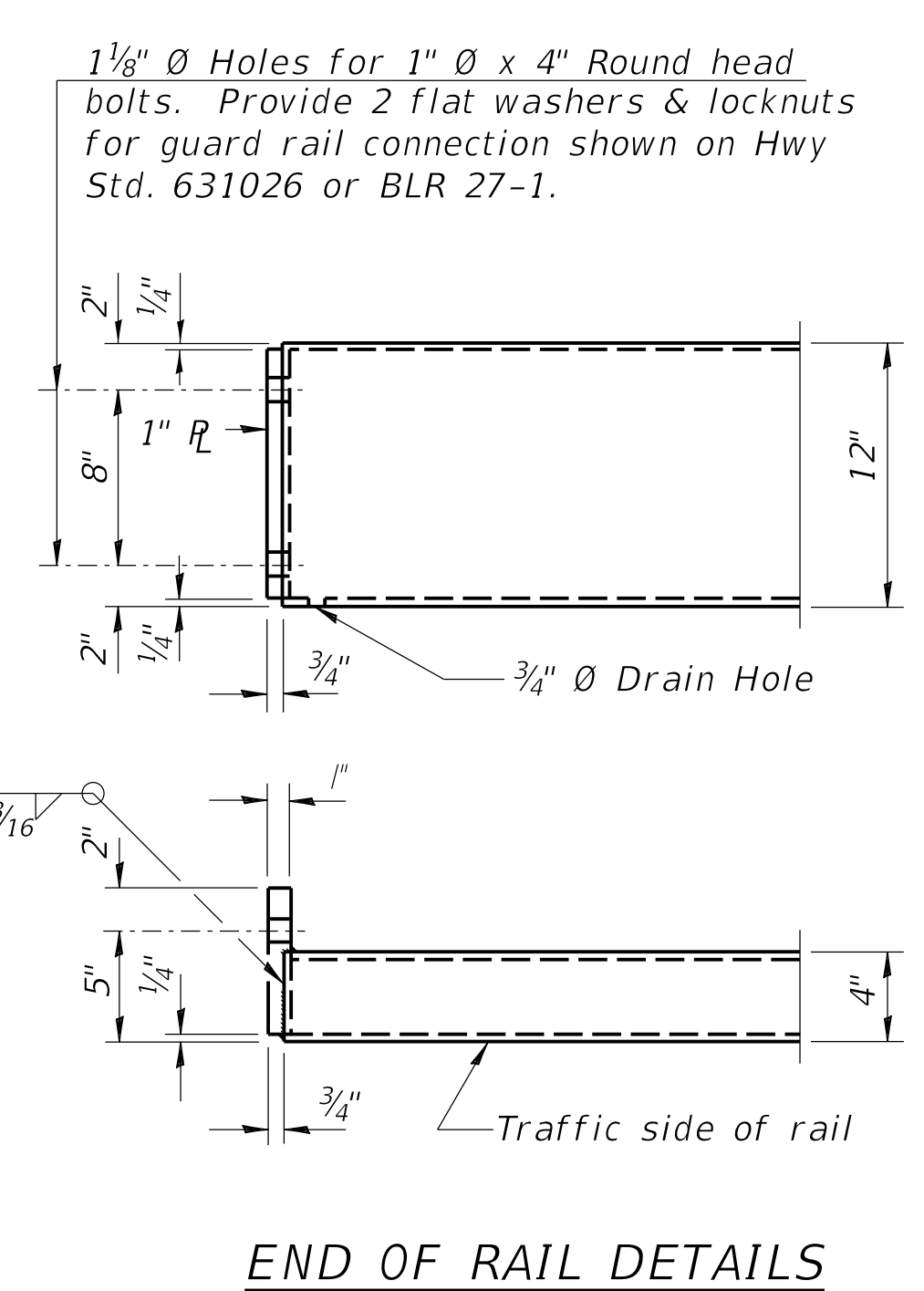
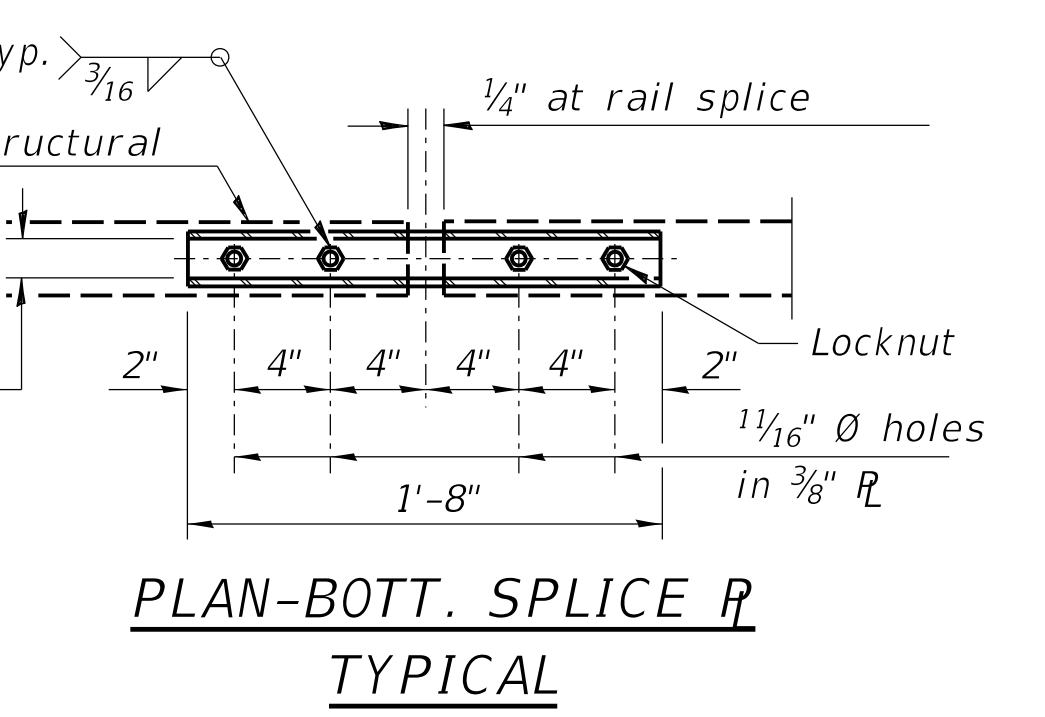
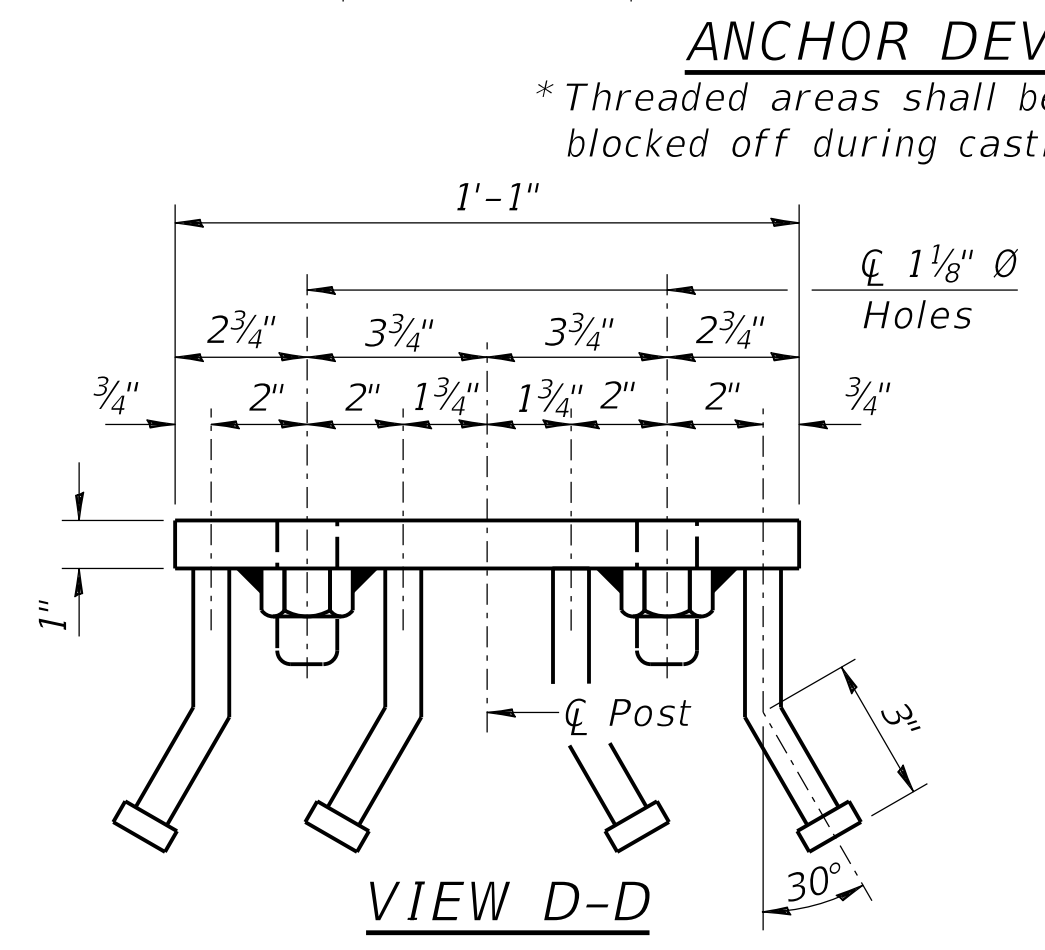
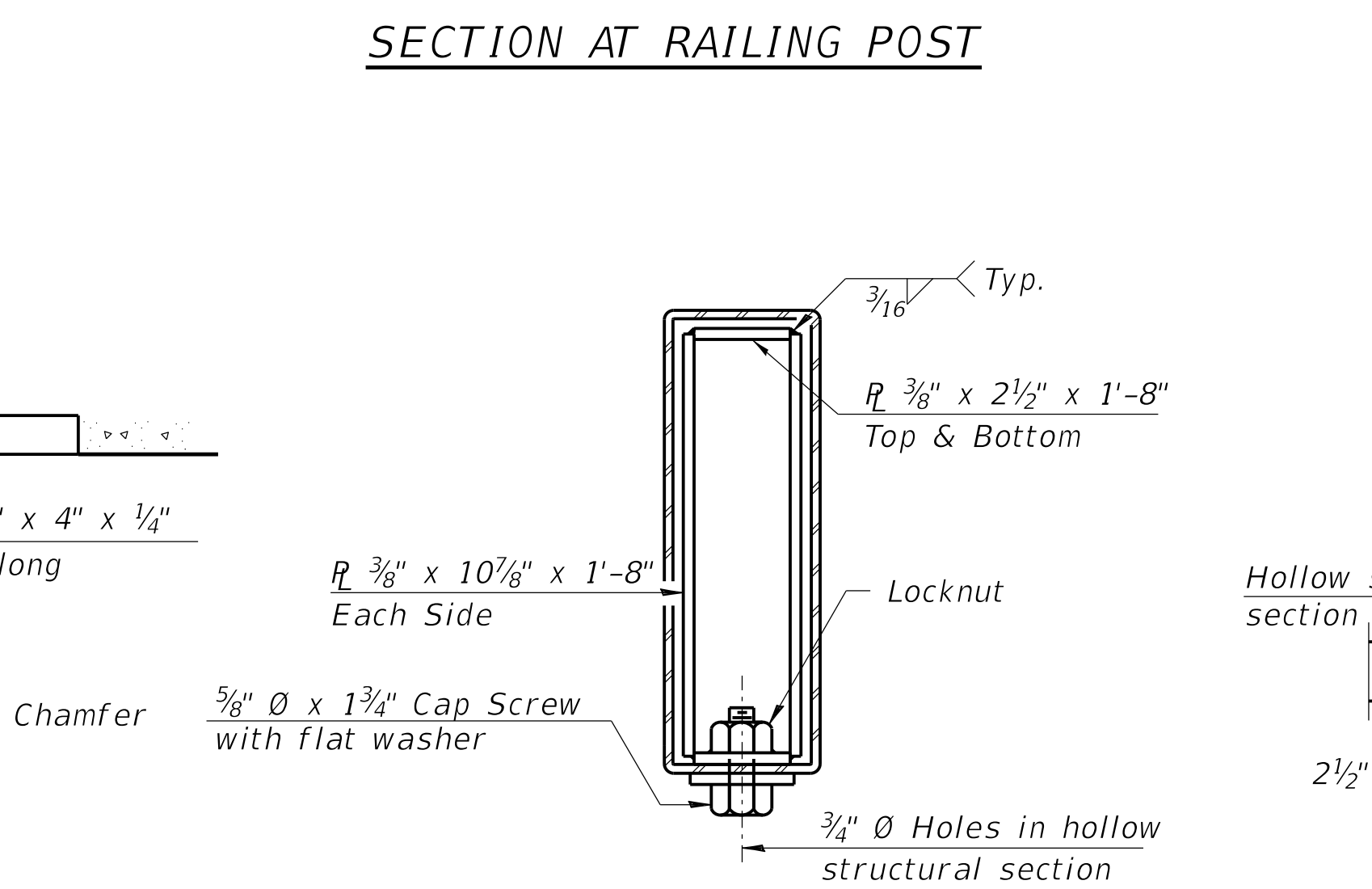
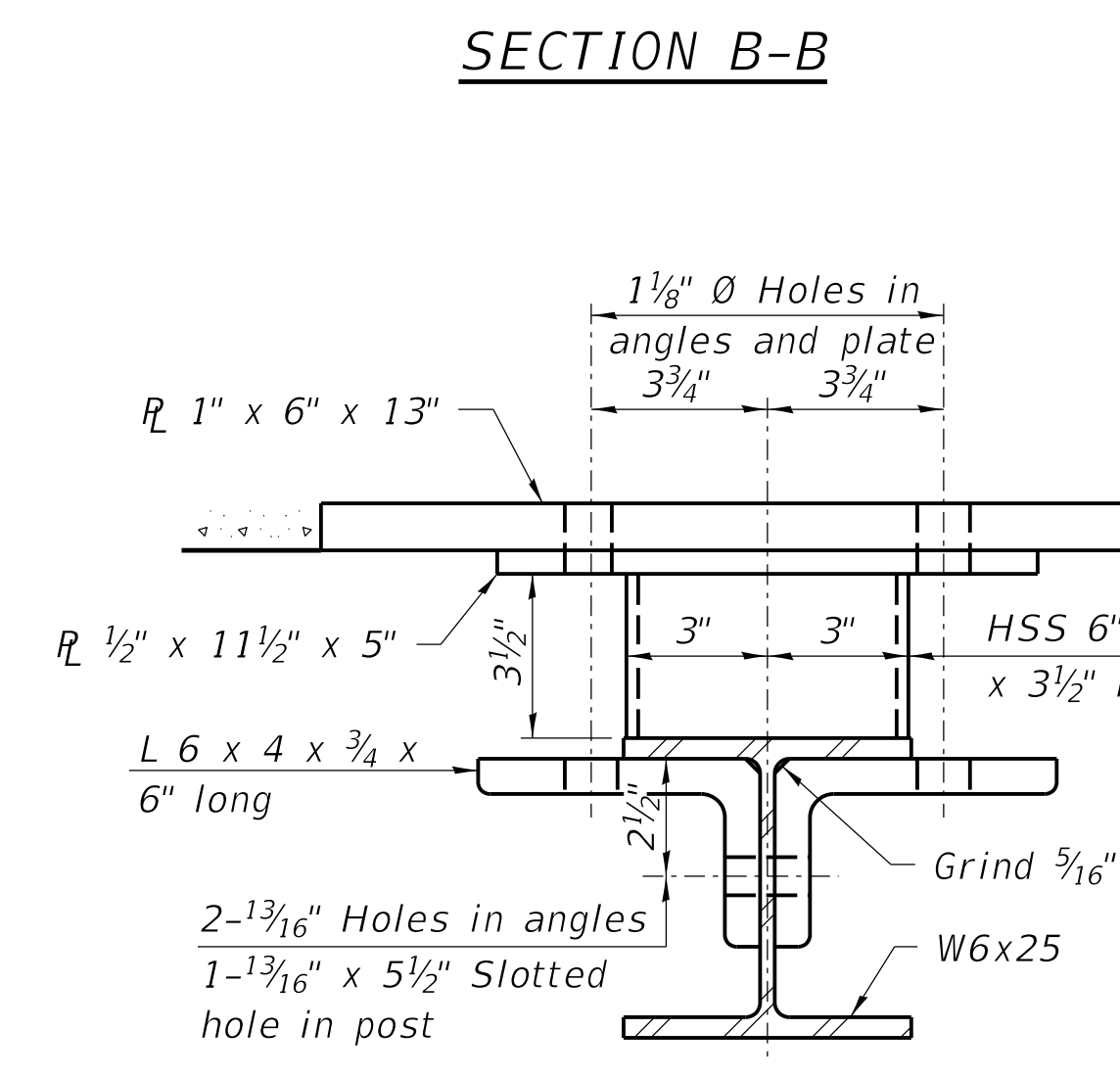


CURLED END SECTION DETAILS

Notes: All field drilled holes shall be coated with an approved zinc rich paint before erection.

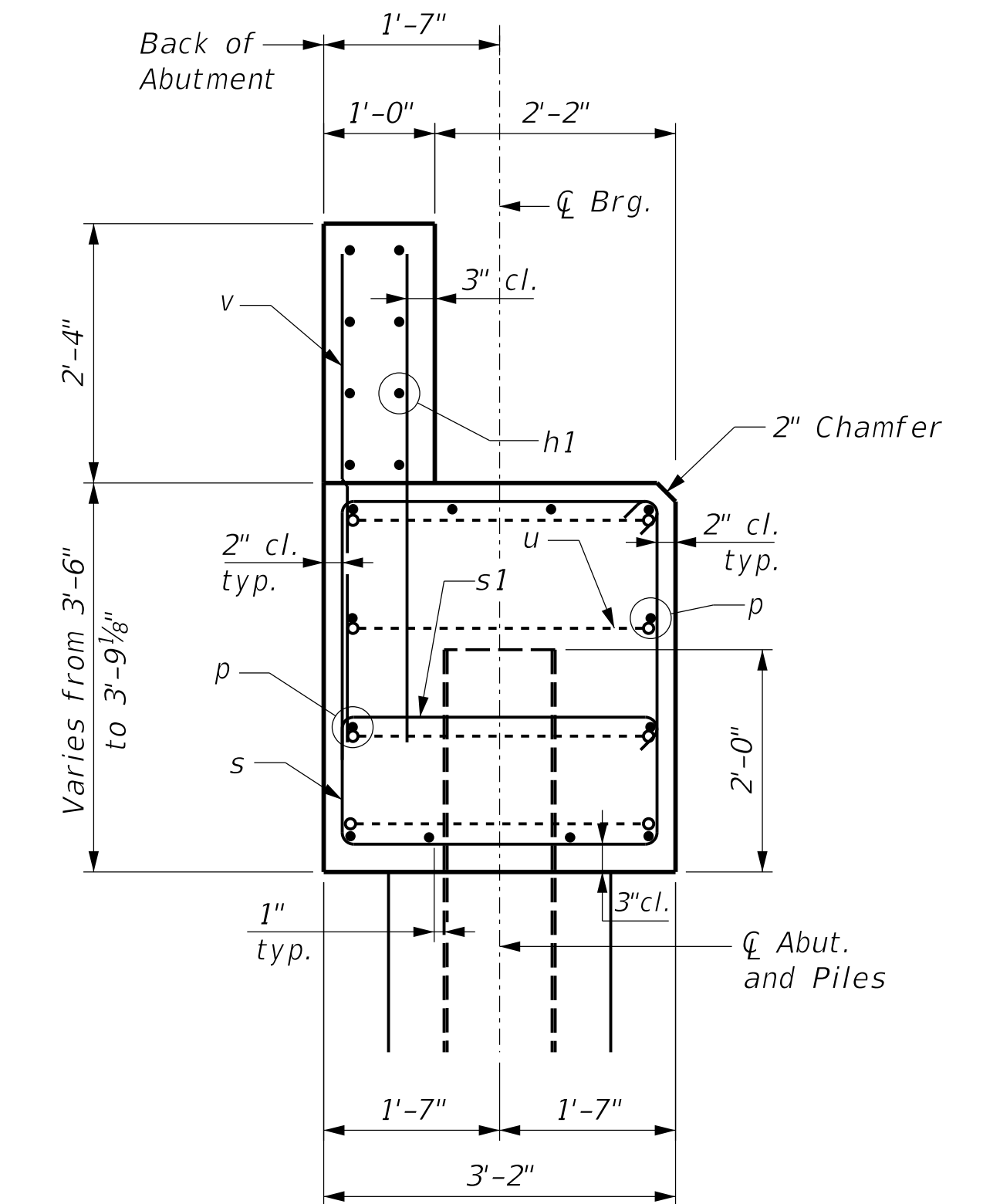
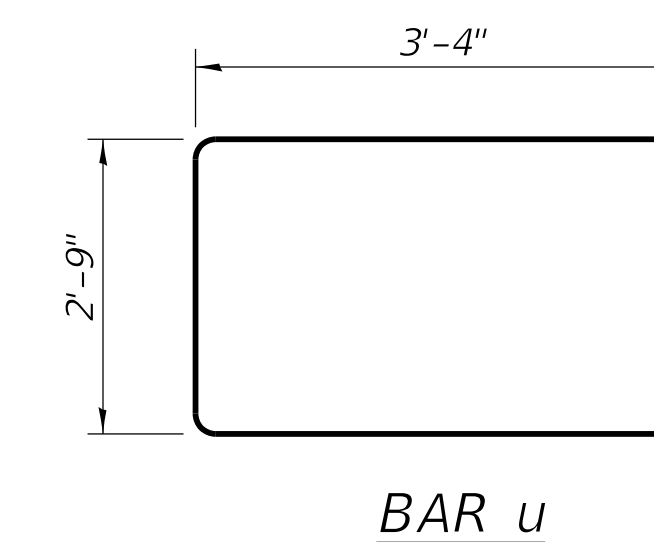
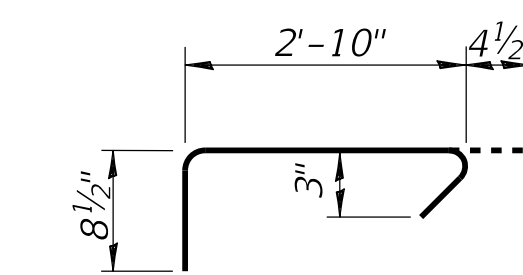
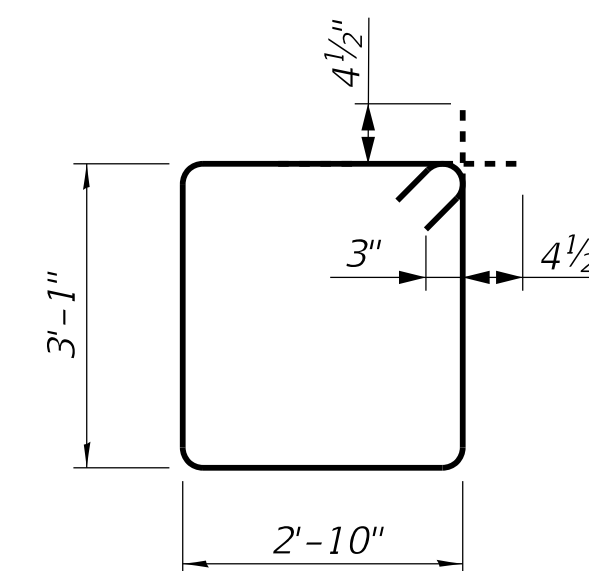
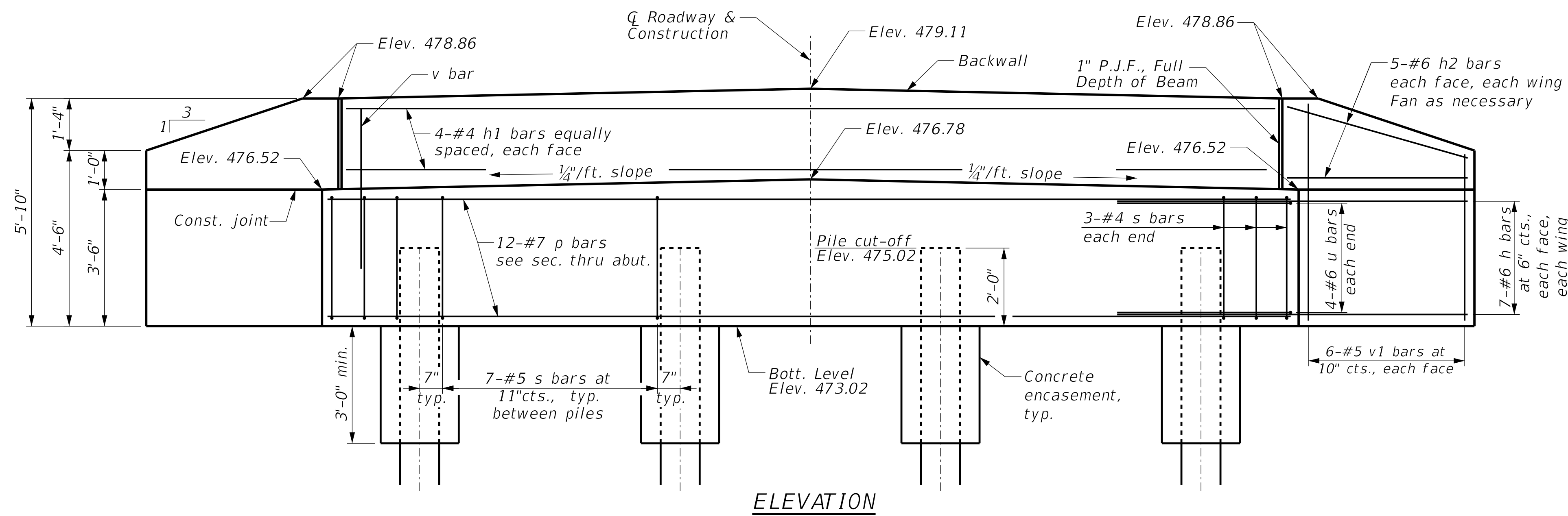
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

**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. The anchorage studs may be bent down 1/2" to accommodate the top reinforcement bar placement.



BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	Foot	134

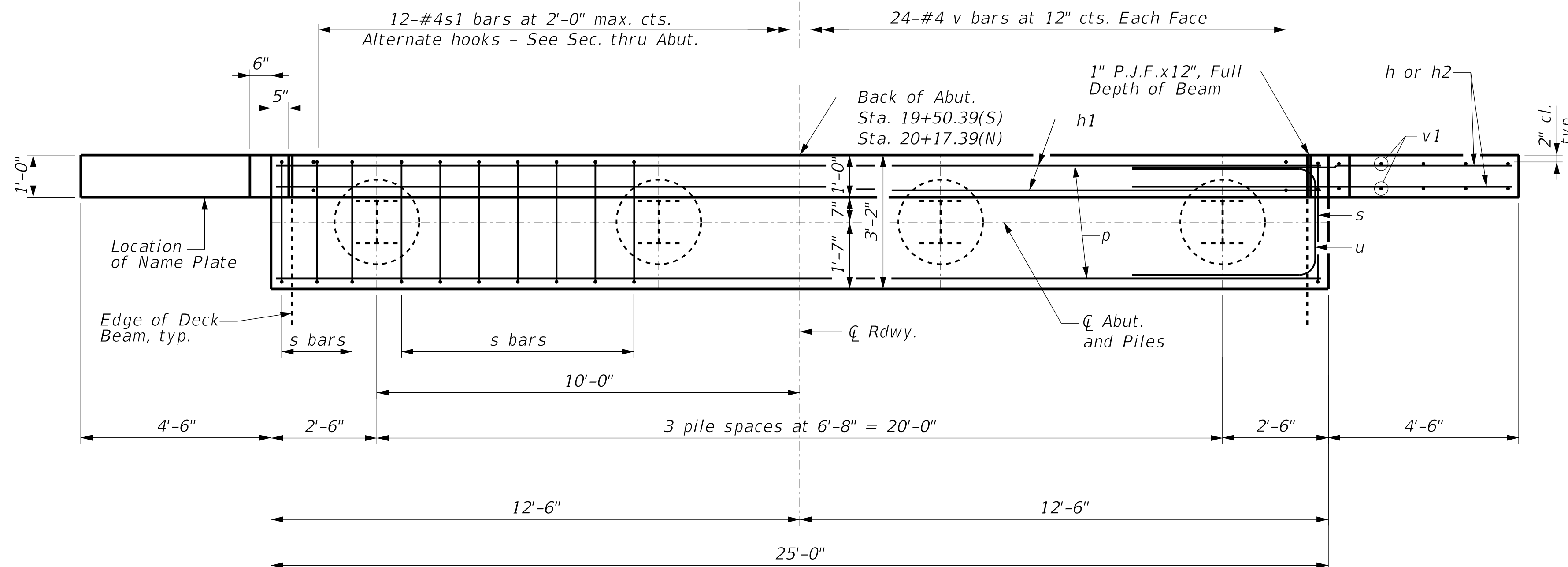


BILL OF MATERIAL FOR ONE ABUTMENT

Bar	No.	Size	Length	Shape	
h	28	#6	8'-0"	—	
h1	8	#4	23'-8"	—	
h2	20	#6	4'-8"	—	
p	12	#7	24'-8"	—	
s	27	#4	12'-7"	□	
s1	12	#4	3'-11"	┌	
u	8	#6	9'-5"	U	
v	48	#4	4'-0"	—	
v1	24	#5	5'-6"	—	
Concrete Structures				Cu Yd	14.6
Concrete Encasement				Cu Yd	1.4
* Reinforcement Bars				Pound	1850
** Furnishing Steel Piles HP12x53				Foot	350
** Driving Piles				Foot	350
** Test Pile, HP12x53				Each	1
** Pile Shoes				Each	8

* Does not include test bars.
** Includes Both Abutments

Notes:
For details of piles and Concrete Encasement, see Sheet 9.



GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified).

All exposed edges shall have standard 3/4" chamfer, unless otherwise noted or as directed by the Engineer.

All clearances between rebar and form surface shall be 2", unless otherwise noted.

Space reinforcement in cap to miss PPCDB dowel rods.

The Steel H-piles shall be according to AASHTO M270 Grade 50.

The Contractor shall drive one (1) Test Pile of the size indicated in a permanent location as shown on the plans or as directed by the Engineer before ordering the remainder of the piles.

The Test Pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

The back wall and portion of the wingwalls above the construction joint shall be cast against the in-place deck beams.

The position of the 90° & 135° hooked ends of the s1 bar shall be alternated between adjacent bars horizontally.

PILE DATA SOUTH ABUTMENT

Type: Steel HP12x53
Nominal Required Bearing: 418 kips
Factored Resistance Available: 230 kips
Est. Length: 50'/pile
No. Production Piles: w/Piles shoes 4
No. Test Piles: w/ Pile shoes 0

PILE DATA NORTH ABUTMENT

Type: Steel HP12x53
Nominal Required Bearing: 418 kips
Factored Resistance Available: 230 kips
Est. Length: 50'/pile
No. Production Piles: w/Piles shoes 3
No. Test Piles: w/ Pile shoes 1



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DRAWN - JN, JMW
DATE - 11/16/2020

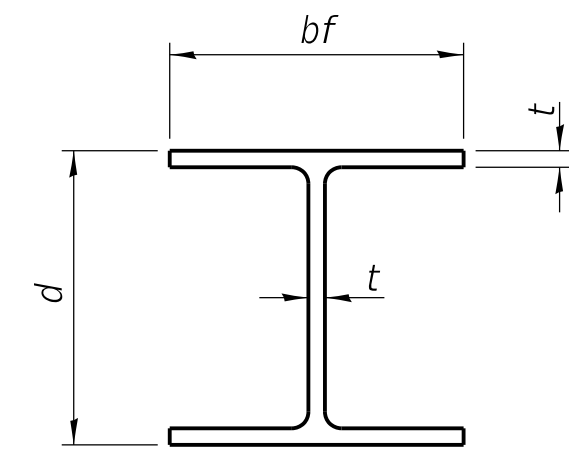
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS

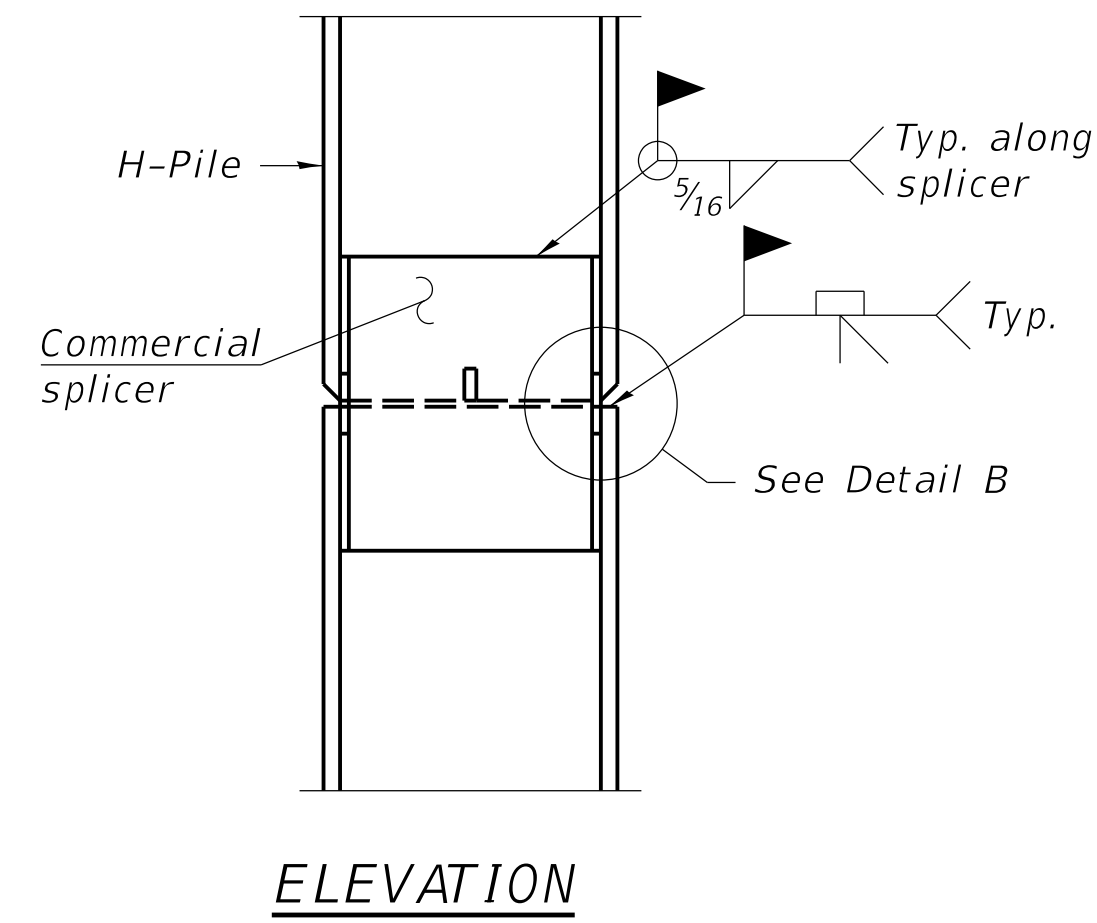
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 64	15-09034-00-BR	MARION	11	8
CONTRACT NO. 97749				

GCL JOB NO. 20-628

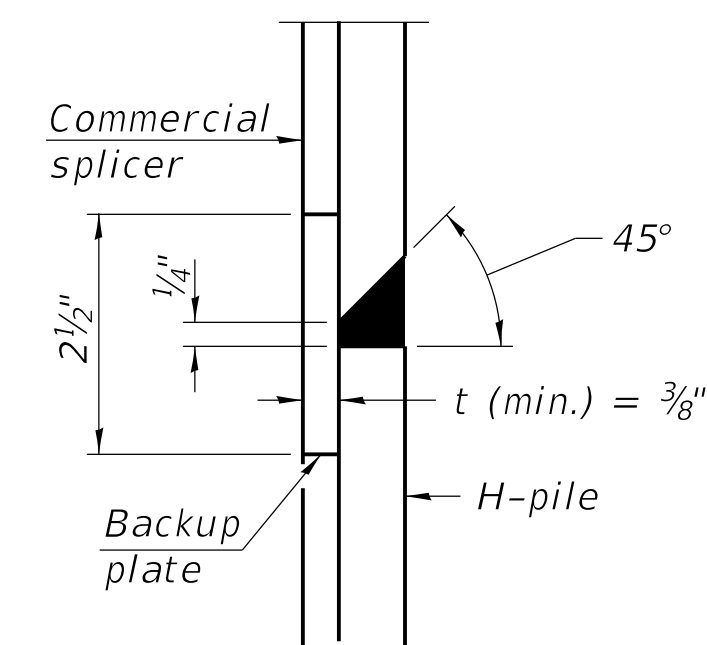


STEEL PILE TABLE

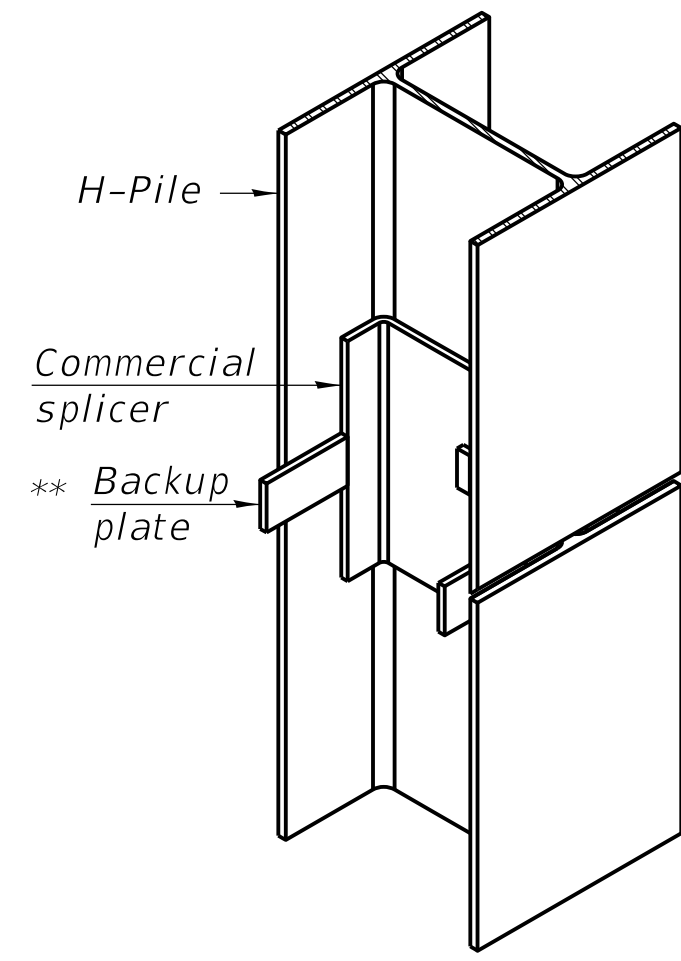
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

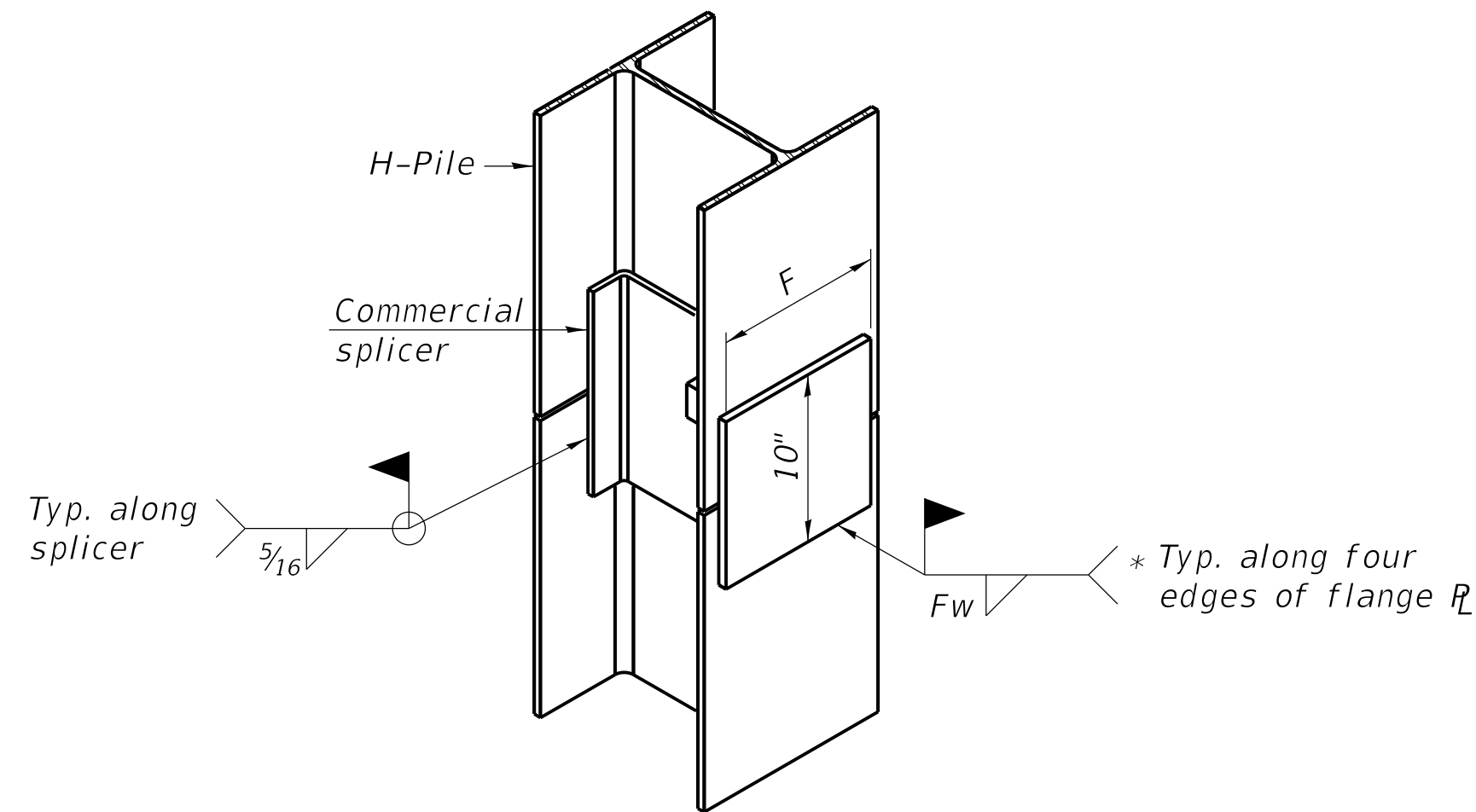


DETAIL "B"



ISOMETRIC VIEW

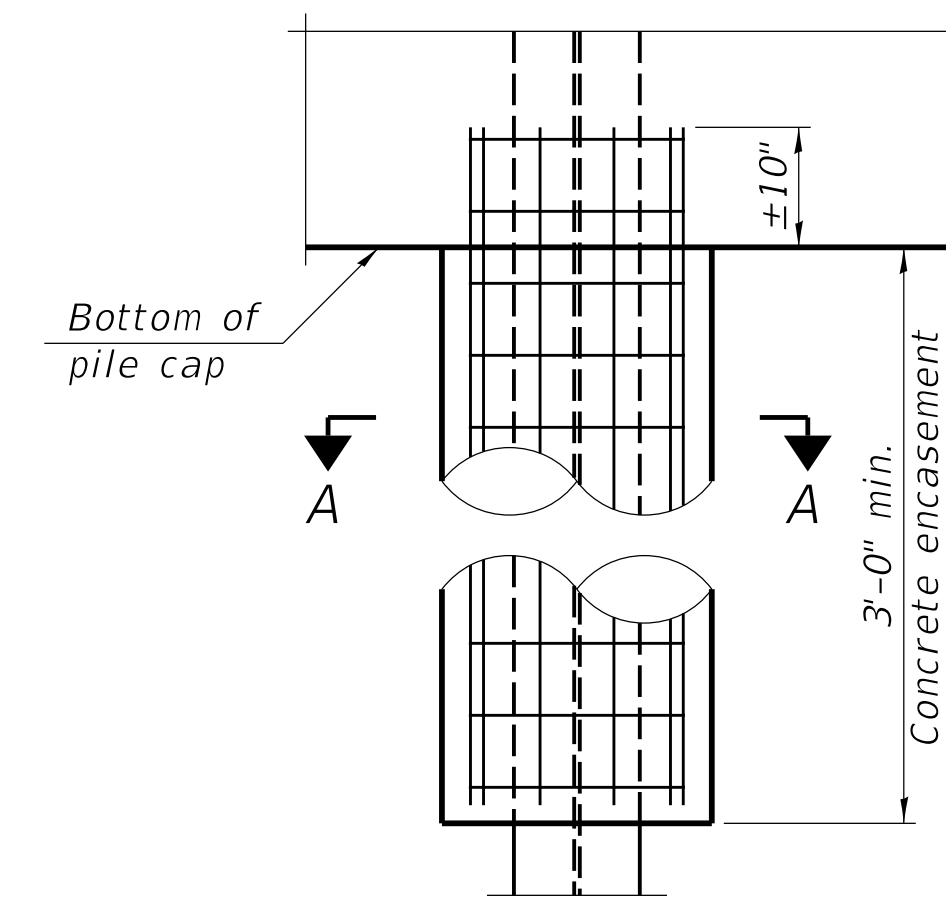
WELDED COMMERCIAL SPLICE



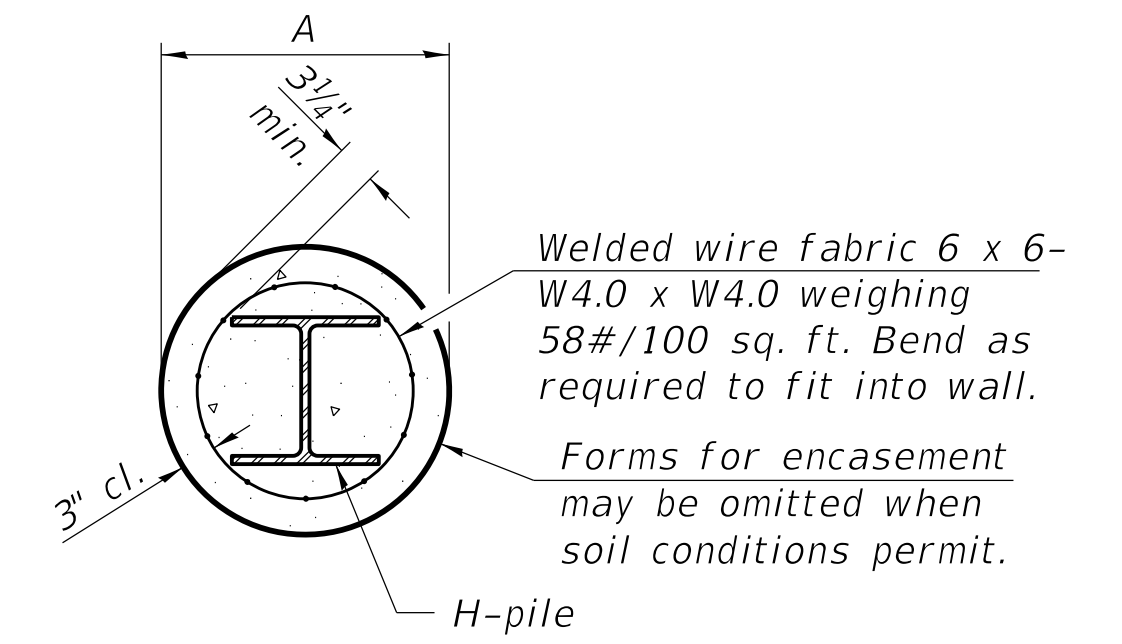
ISOMETRIC VIEW

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.).

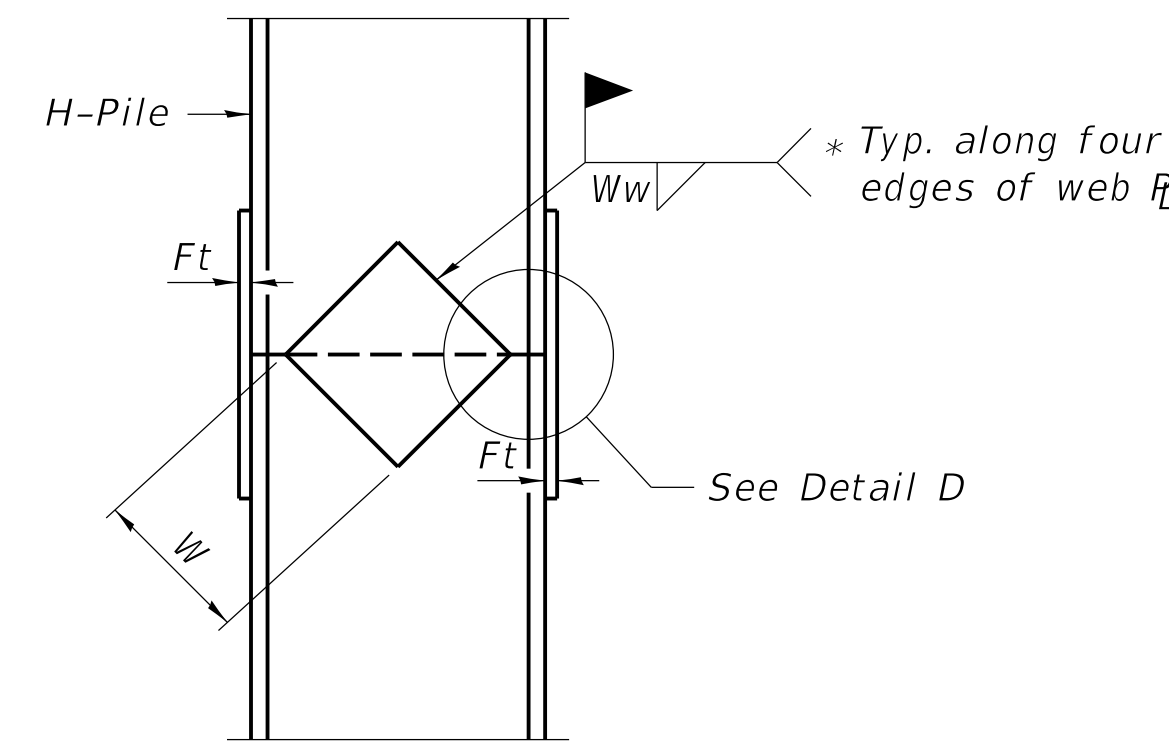


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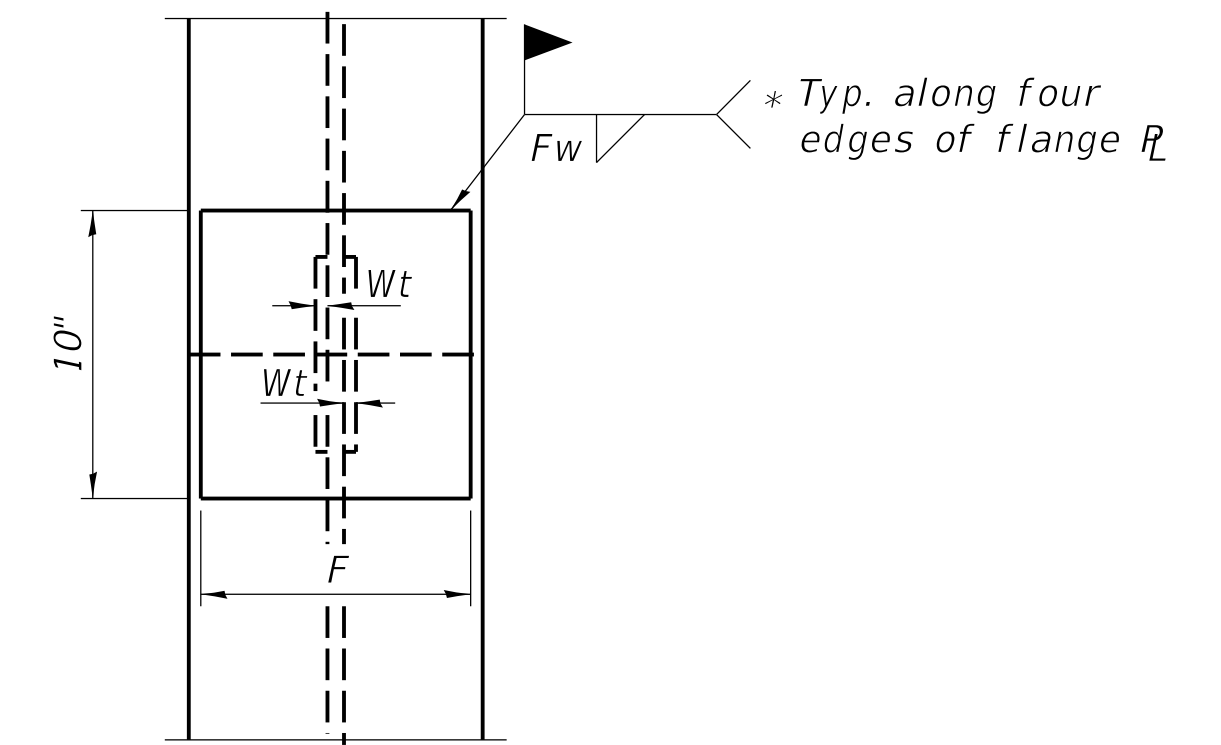


SECTION A-A

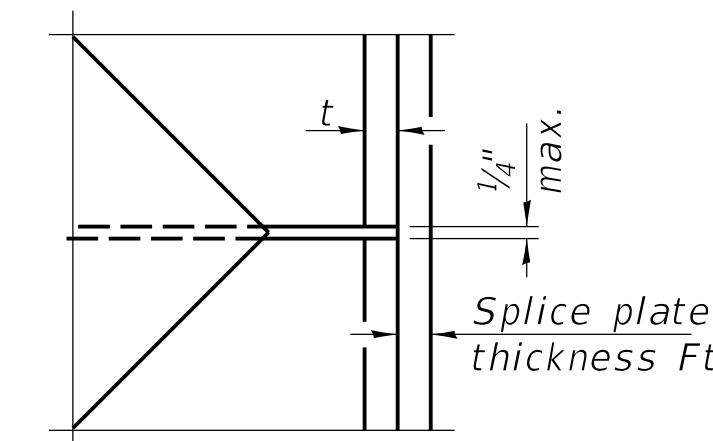
INDIVIDUAL PILE CONCRETE ENCASUREMENT (when specified)



ELEVATION



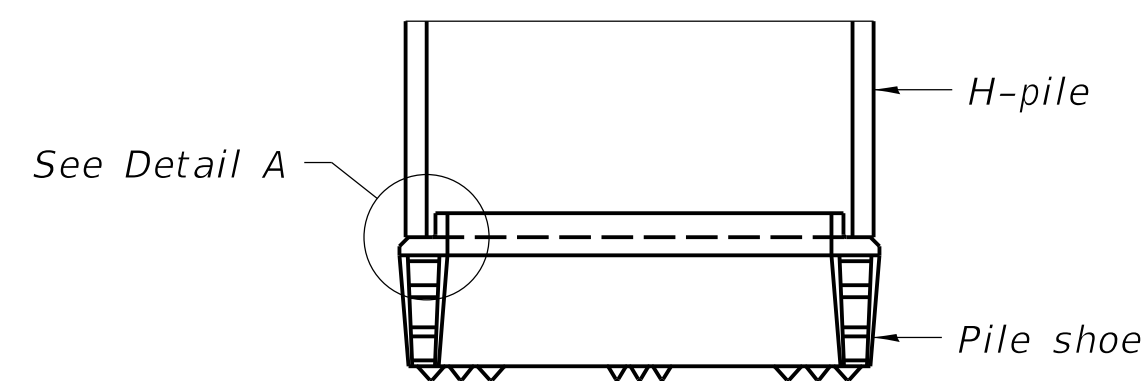
END VIEW



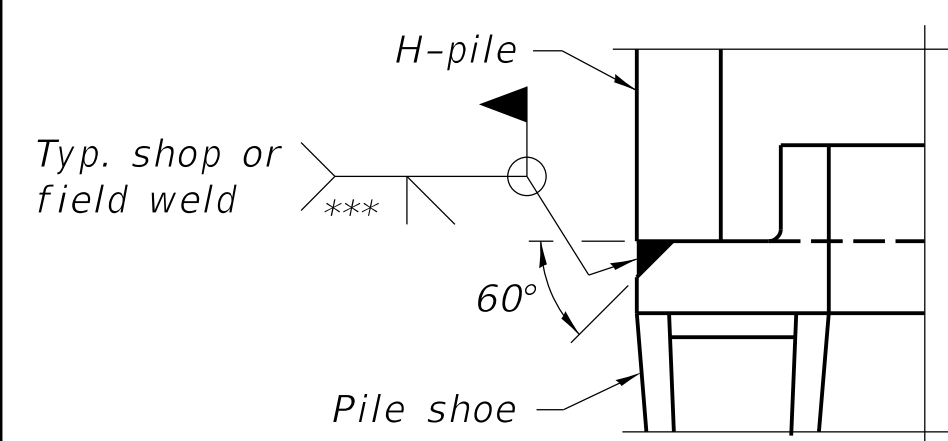
DETAIL D

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 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 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 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

SHOE ATTACHMENT

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



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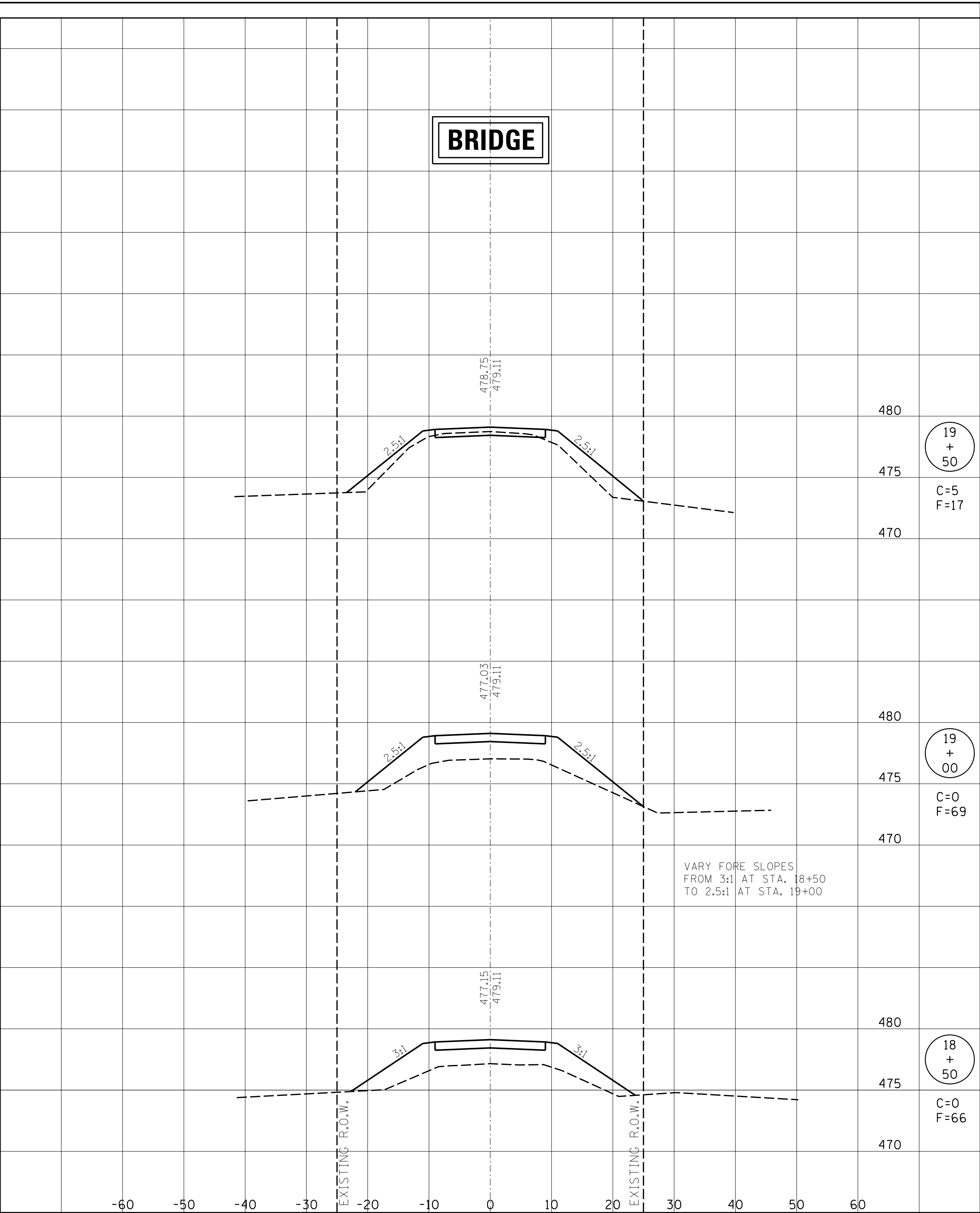
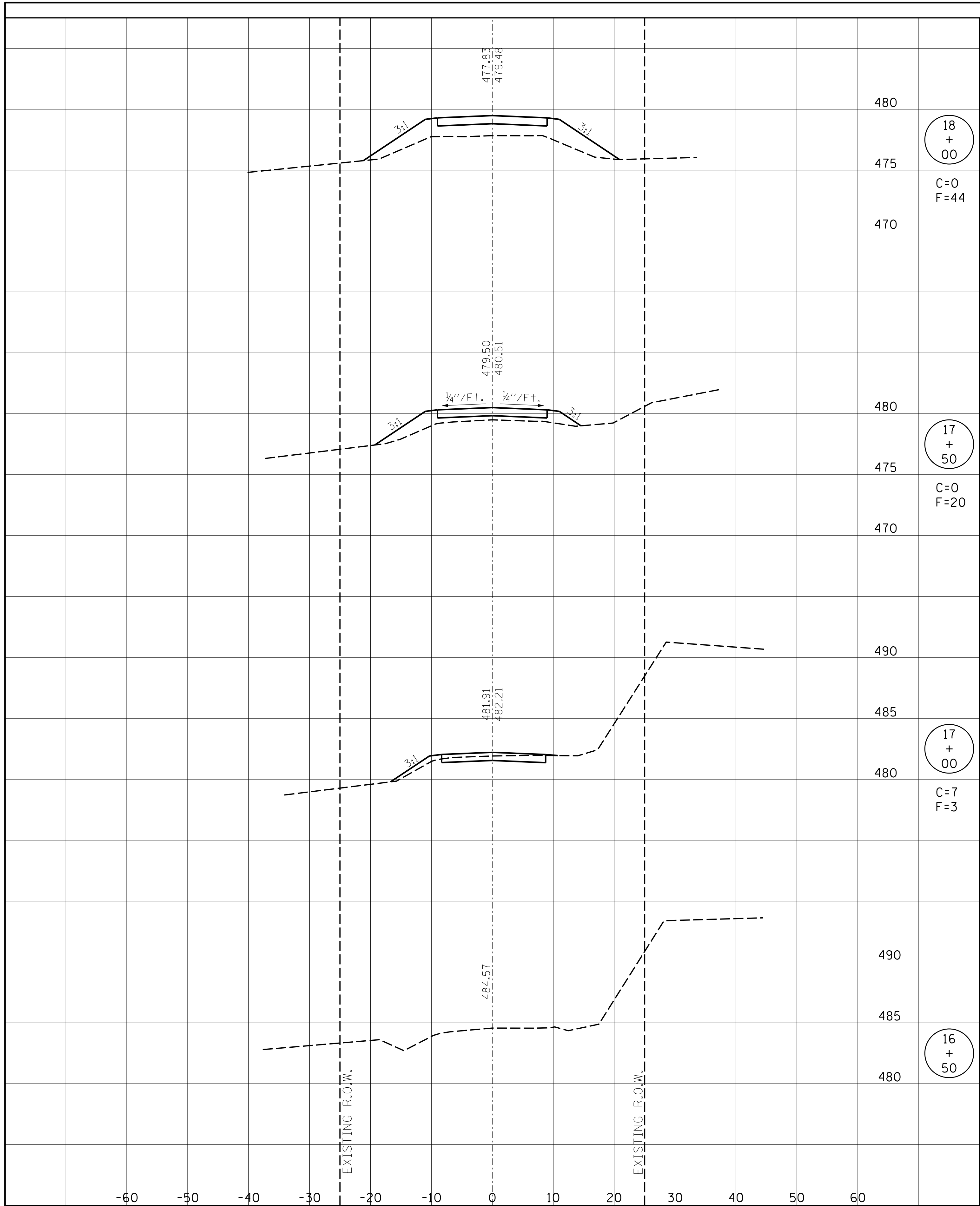
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS

GCL JOB NO. 20-628
ROUTE TR 64 SECTION 15-09034-00-BR COUNTY MARION TOTAL SHEETS 11 SHEET NO. 9 CONTRACT NO. 97749

FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
AREAS CHECKED	TEMPLATE	
	AREAS	
	CHECKED	

ORIGINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	
AREAS CHECKED	TEMPLATE	
	AREAS	
	CHECKED	



VARY FORE SLOPES FROM 3:1 AT STA. 18+50 TO 2.5:1 AT STA. 19+00

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DATE	-	11/16/2020	REVISED	-

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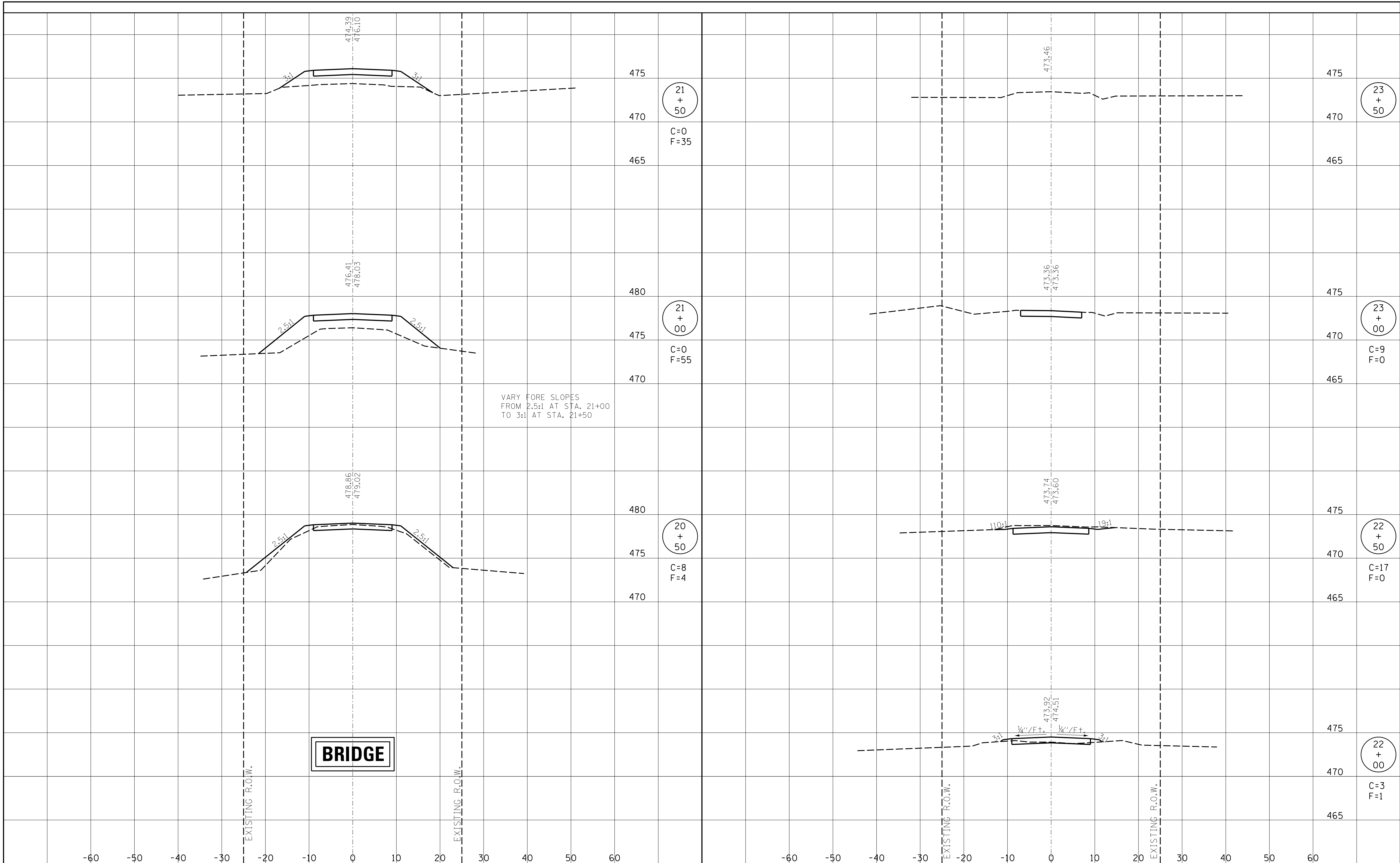
CROSS SECTIONS OF ROADWAY
 STA. 16+50 TO STA. 19+50

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 64	15-09034-00-BR	MARION	11	10
CONTRACT NO. 97749				

GCL JOB NO. 20-628

FINAL SURVEY NO.	SURVEYED BY	DATE
NOTE BOOK NO.	PLOTTED BY	
	TEMPLATE AREAS CHECKED	

ORIGINAL SURVEY NO.	SURVEYED BY	DATE
NOTE BOOK NO.	PLOTTED BY	
	TEMPLATE AREAS CHECKED	



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CHECKED	-	BLT	REVISED	-
DATE	-	11/16/2020	REVISED	-

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS OF ROADWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 64	15-09034-00-BR	MARION	11	11
CONTRACT NO. 97749				

STA. 20+50 TO STA. 23+50