GENERAL NOTES

WHEREVER IN THE PLANS OR SPECIFICATIONS THE TERM STANDARD SPECIFICATIONS IS USED, IT SHALL BE UNDERSTOOD BY THE CONTRACTOR TO MEAN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS AND ADOPTED JANUARY 1, 2022.

EXISTING ROAD SIGNS THAT CONFLICT WITH CONSTRUCTION OPERATIONS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT PAY ITEMS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR.

EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS & MUST BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E., PHONE 800-892-0123, AND ALL UTILITY COMPANIES PRIOR TO DIGGING.

THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION OPERATIONS.

THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS TO PROTECT PUBLIC AND PRIVATE PROPERTY. IF AT ANY TIME THE CONTRACTOR DAMAGES OR DESTROYS PUBLIC OR PRIVATE PROPERTY, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, RESTORE SUCH PROPERTY TO A CONDITION EQUAL TO THAT EXISTING BEFORE SUCH DAMAGE.

THE CONTRACTOR SHALL NOTIFY THE PERRY COUNTY HIGHWAY DEPARTMENT RESIDENT ENGINEER AND THE COUNTY ENGINEER 72 HOURS IN ADVANCE OF CONSTRUCTION WORK.

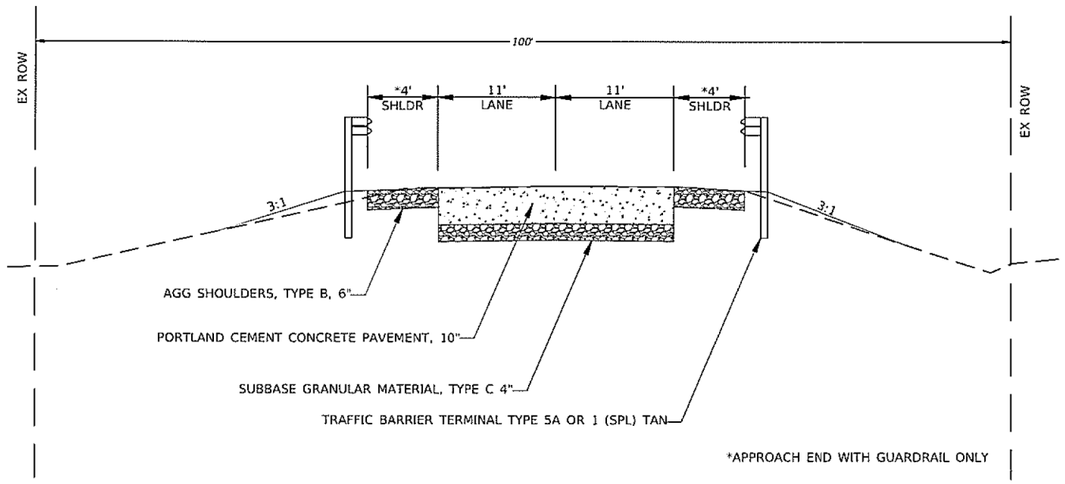
UTILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES AT THE TIME OF CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL COOPERATE WITH THESE ORGANIZATIONS WHILE THEY PERFORM THEIR WORK.

GRADING SHALL BE DONE BY HAND AROUND LIGHTS POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE SHALLOW FILLS OR CUTS ARE ADJACENT TO THE ITEMS. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

THE FOLLOWING APPLICATION RATES HAVE BEEN USED IN THE CALCULATION OF THE PLAN QUANTITIES:

RIPRAP:	1.75 TONS/CU YD
AGG SHOULDERS:	2.05 TONS/CU YD
SUBBASE AGG MATERIAL:	2.05 TONS/CU YD



TYPICAL SECTION
NOT TO SCALE

SUMMARY OF QUANTITIES

	Pay Item	Description	Unit	Total
	20200100	Earth Excavation	Cu. Yd.	38
	20300100	Channel Excavation	Cu. Yd.	390
	28000400	Perimeter Erosion Barrier	Foot	100
	28100707	Stone Dumped Riprap, Class A4	Sq. Yd.	380
	31102100	Subbase Aggregate Material, Type C 4"	Sq. Yd.	37
	42000500	Portland Cement Concrete Pavement 10"	Sq. Yd.	37
	48101200	Aggregate Shoulders, Type B	Ton	16
*	50100100	Removal of Existing Structures	Each	1
	50200100	Structure Excavation	Cu. Yd.	122
	50300225	Concrete Structures	Cu. Yd.	28.8
	50400505	Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1910
	50800205	Reinforcement Bars, Epoxy Coated	Pound	3850
+	50901050	Steel Railing, Type SM	Foot	130 (1)
	51201600	Furnishing Steel Piles HP12x53	Foot	810
	51202305	Driving Piles	Foot	810
	51204650	Pile Shoes	Each	20
	51500100	Name Plates	Each	1
	59300100	Controlled Low-Strength Material	Cu. Yd.	49.2
+	63100075	Traffic Barrier Terminal, Type 5A	Each	2
+	63100167	Traffic Barrier Terminal, Type 1 (Special) Tangent	Each	2
	63200310	Guardrail Removal	Foot	156
	67100100	Mobilization	L Sum	1
+	72501000	Terminal Marker - Direct Applied	Each	4
*	X2501020	Seeding Class 2A (Special)	Acre	0.2
*	X7011800	Traffic Control and Protection, Standard BLR 21	L Sum	1
*	Z0013798	Construction Layout	L Sum	1

* Indicates Special Provision + SPECIALITY ITEM

EARTHWORK SCHEDULE

LOCATION	1 20200100 EARTH EXCAVATION (CU YD)	2 20300100 CHANNEL EXCAVATION (CU YD)	3 *EXCAVATION TO BE USED IN EMBANKMENT (ADJUSTED FOR SHRINKAGE) (COL 1 + COL 2) X 0.75 (CU YD)	4 *EMBANKMENT (FILL) (CU YD)	5 EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
2+17.50 TO 3+82.50	38	390	321	40	281
TOTAL	38	390	321	40	281

EARTH EXCAVATION SHRINKAGE FACTOR ASSUMED TO BE 25%
ITEMS MARKED WITH AN ASTERISK (*) ARE FOR INFORMATIONAL PURPOSES ONLY
CHANNEL EXCAVATION MAY BE UNSUITABLE FOR EMBANKMENT. COUNTY TO DETERMINE SUITABILITY IN THE FIELD.

DESIGNED: BCG	REVISED — (1) 05/30/2025	
DRAWN: MSH	REVISED —	
CHECKED: JMB	REVISED —	
DATE: 1/29/2025	REVISED —	

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
DECATUR (217) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
PARIS (217) 422-8544
METROPOLIS
184-001397

GENERAL NOTES, SOQ AND TYPICAL SECTION
WHITE WALNUT ROAD OVER WHITE WALNUT CREEK
SHEET NO. OF SHEETS STA. 2+00 TO STA. 4+00

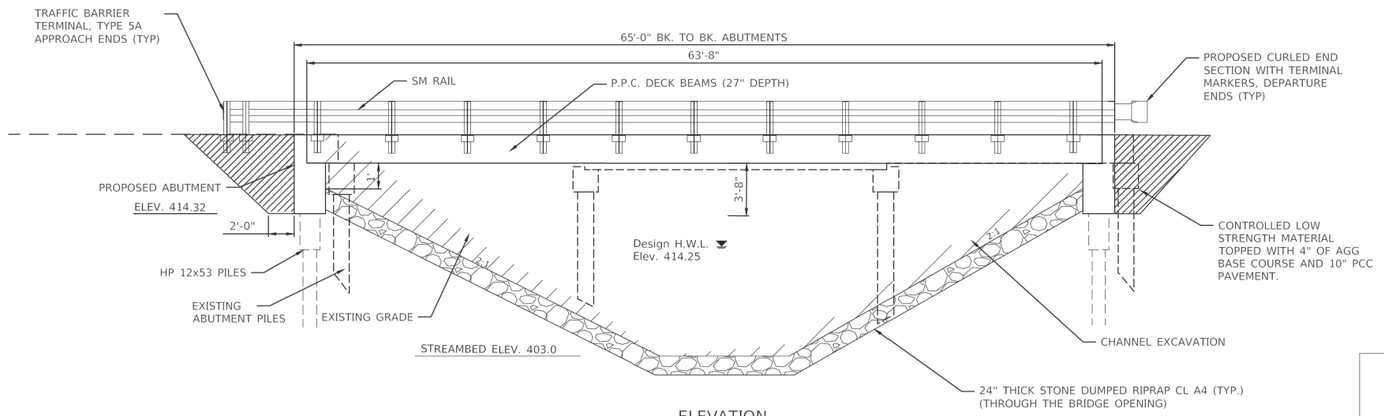
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9964	20-00148-00-BR	PERRY	12	2
		CONTRACT NO. 99752		
	ILLINOIS			

EXISTING STRUCTURE (SN 073-3015):
THE EXISTING STRUCTURE IS A 69'-4" THREE SPAN CONCRETE CHANNEL BEAM BRIDGE ON TIMBER PILE ABUTMENTS AND PRECAST PILE PIERS.

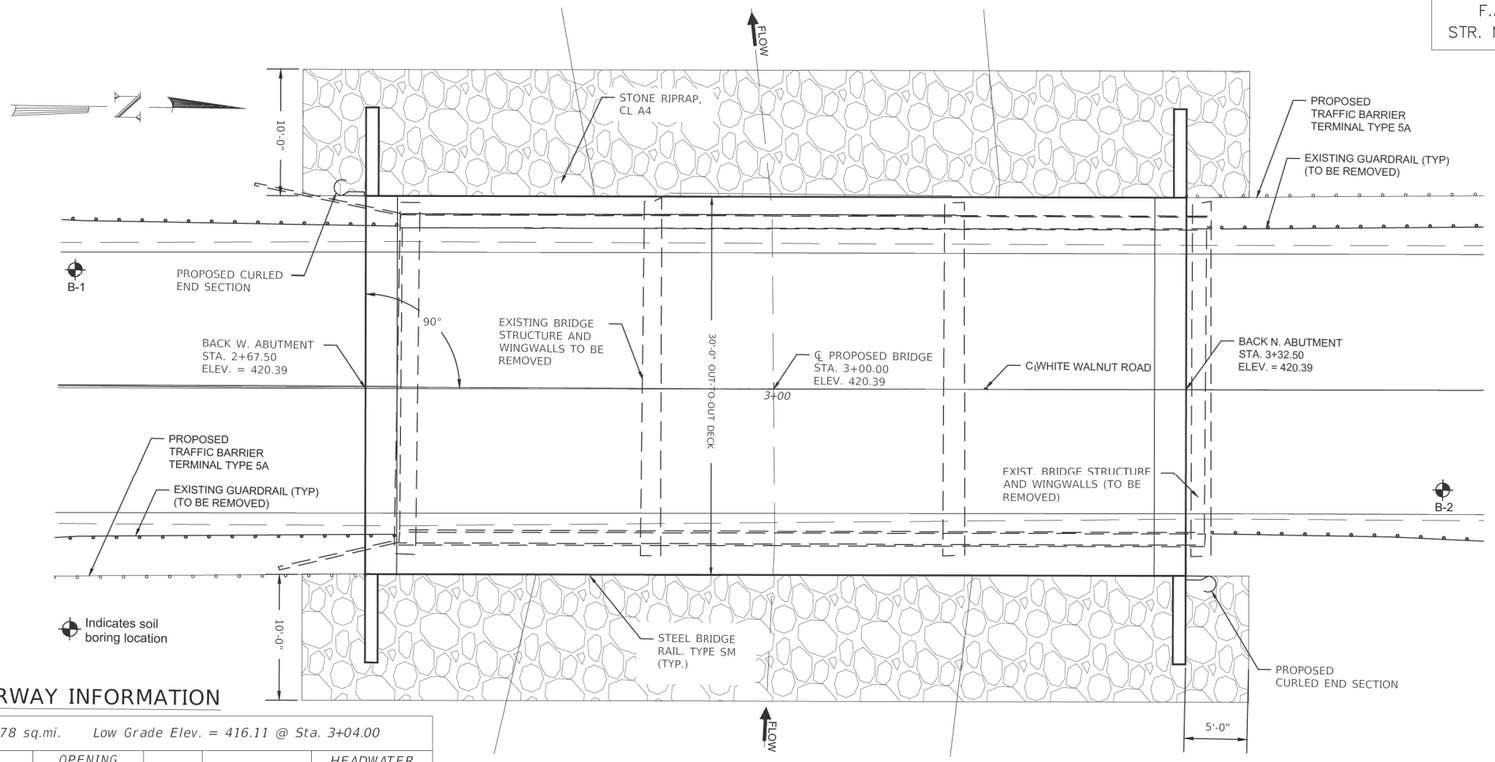
ROAD TO BE CLOSED
DURING CONSTRUCTION.

NO SALVAGE.

BENCHMARK:
BENCHMARK- SPIKE IN POWER POLE
LEFT OF STATION 1+56.02
ELEV. 414.13'



ELEVATION



PLAN

WATERWAY INFORMATION

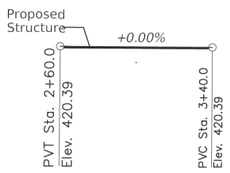
Drainage Area = 15.78 sq.mi. Low Grade Elev. = 416.11 @ Sta. 3+04.00

FLOOD	FREQ. (YR.)	Q (C.F.S.)	OPENING (SQ.FT.)		NAT. H.W.E.	HEAD (FT.)		HEADWATER ELEV.	
			EXIST.	PROP.		EXIST.	PROP.	EXIST.	PROP.
Design	20	3238	593.00	623.00	414.25	1.72	1.45	415.97	415.70
Base	100	4720	593.00	623.00	414.63	3.39	3.11	418.02	417.74
Overtopping									
Max. Calc	500	6430	593.00	623.00	414.94	5.54	4.91	420.48	419.85

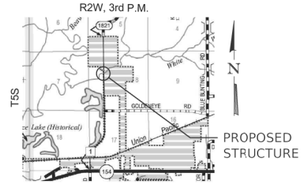
20-Year velocity through existing bridge = 6.71 ft/s
20-Year velocity through proposed bridge = 6.71 ft/s

WHITE WALNUT CREEK
BUILT 20 BY
PERRY COUNTY
SEC. 20-00148-00-BR
F.A. RT. 9964 STA 3+00.00
STR. NO. 073-3200 LOADING HL-93

NAME PLATE
SEE STD. 515001



PROFILE GRADE
(Along ℄ Roadway)



LOCATION SKETCH

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures	Each	1
Concrete Structures	Cu Yd	28.8
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq Ft	1910
Reinforcement Bars, Epoxy Coated	Pound	3850
Steel Railing, Type SM	Foot	130
Furnishing Steel H-Piles, HP12x53	Foot	810
Driving Piles	Foot	810
Name Plates	Each	1
Pile Shoes	Each	20
Controlled Low-Strength Material	Cu Yd	49.2
Structure Excavation	Cu Yd	122
Terminal Marker - Direct Applied	Each	4

GENERAL NOTES:

1. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
2. All Construction joints shall be bonded.
3. See Roadway Plans for channel excavation limits and quantities.
4. See special provisions for boring logs.
5. Reinforcement bars designated (E) shall be epoxy coated.

LOADING HL-93
Allow 50 lb/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
AASHTO LRFD Bridge Design Specifications, 9th Ed.

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-relaxation strands)
f'_{si} = 202,000 psi ($\frac{1}{2}$"∅ low-relaxation strands)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec (SD1) = 0.307g
Design Spectral Acceleration at 0.2 sec (SDS) = 0.718g
Soil Site Class = D

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)		
	S. Abut.	N. Abut.	Item 113
Q100	415.62	415.62	8
Q200	415.62	415.62	
Design	415.62	415.62	
Check	415.62	415.62	

LICENSED STRUCTURAL ENGINEER
JEREMY M. BUENING
081-006696
STATE OF ILLINOIS

Jeremy Buening 4/2/2025

JEREMY M. BUENING, P.E., S.E. Date
Expires 11/30/2026

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 Bridge Design Specifications.

DESIGNED: BCG	REVISED — ⚠1 05/30/2025	
DRAWN: MSH	REVISED —	
CHECKED: JMB	REVISED —	
DATE: 1/29/2025	REVISED —	

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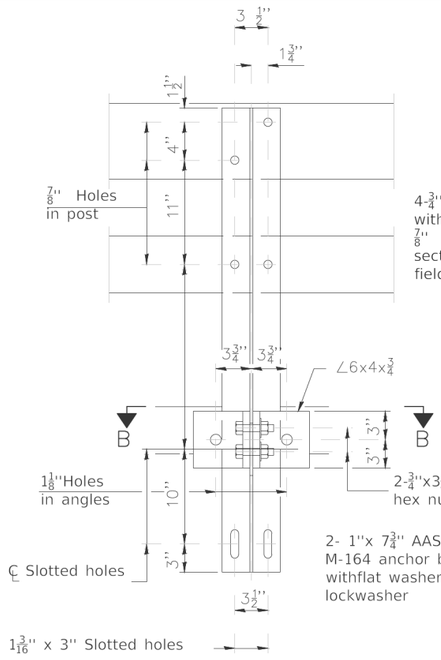
184-001397

GENERAL PLAN AND ELEVATION
WHITE WALNUT ROAD OVER WHITE WALNUT CREEK

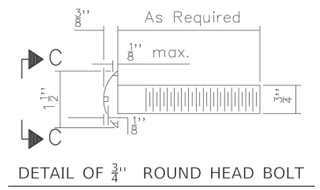
SHEET NO. 1 OF 7 SHEETS STA. 2+00 TO STA. 4+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9964	20-00148-00-BR	PERRY	12	4
			CONTRACT NO 99752.	
		ILLINOIS		

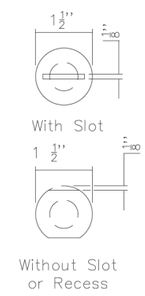


SECTION A-A

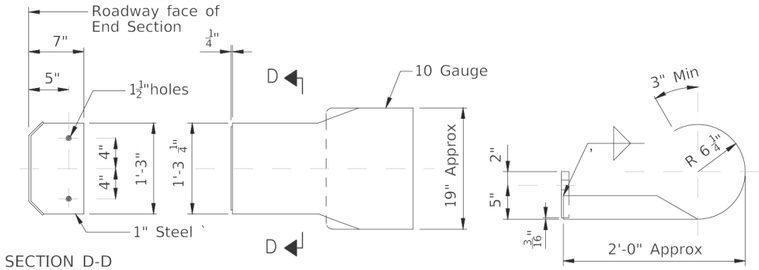
SECTION AT RAIL POST



DETAIL OF 3/4" ROUND HEAD BOLT



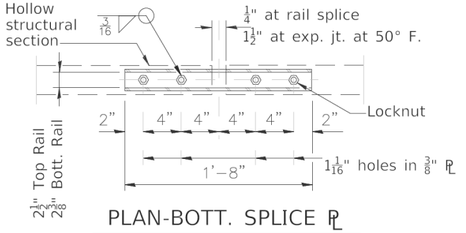
VIEW C-C



SECTION D-D

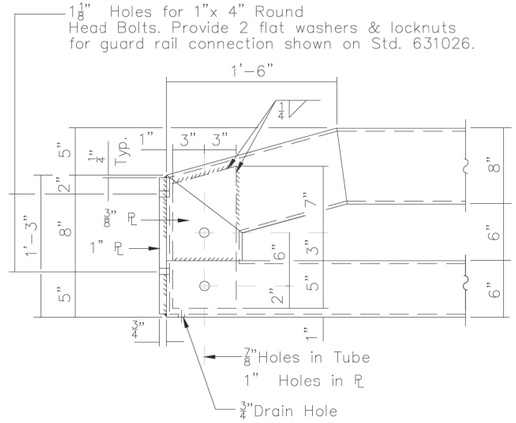
DETAILS OF CURLED END SECTION - 2 EACH

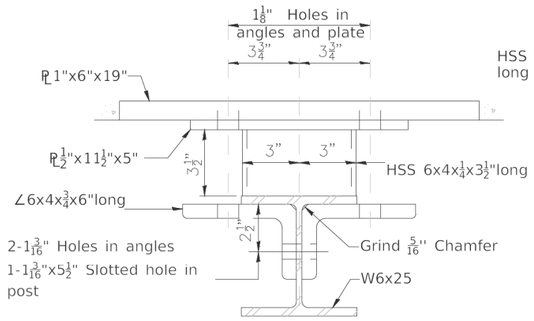
(Cost included with Steel Railing, Type SM)



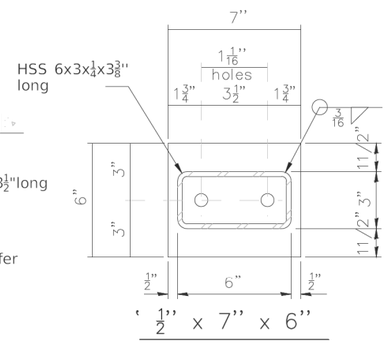
PLAN-BOTT. SPLICE PL

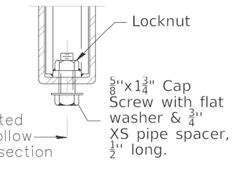
TYPICAL



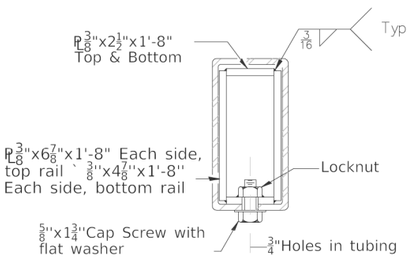


SECTION B-B

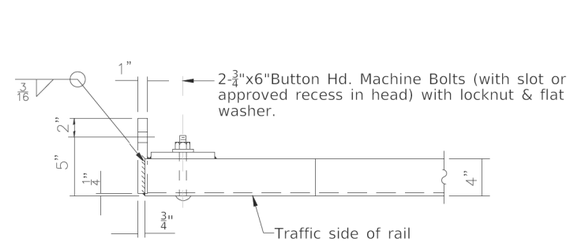




RAIL SPLICE CONNECTION AT EXPANSION JT.



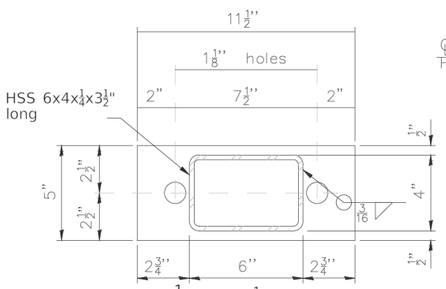
SECTION AT RAIL SPLICE

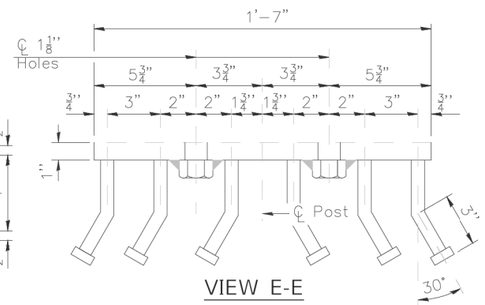


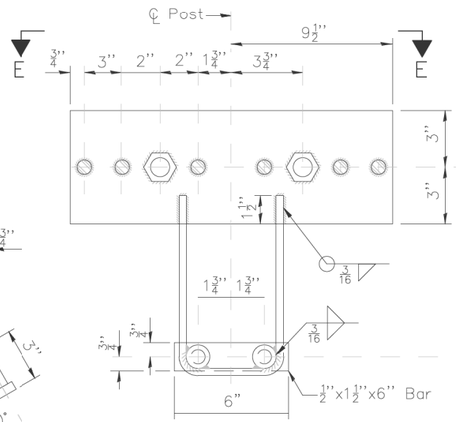
END OF RAIL DETAILS

Notes:
For multi-span bridges, sufficient 1/4"x6"x1'-2"galvanized steel shims shall be provided to align rail between adjacent spans.Cost included with Steel Railing, Type SM. Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

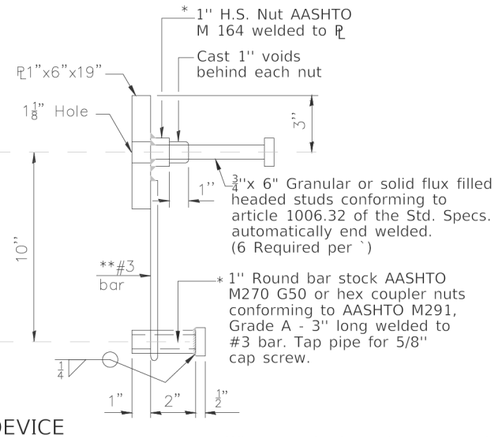
*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device. The anchorage studs may be bent down 1/2" to accommodate the top reinforcement bar placement.







ANCHOR DEVICE



(6'-3" Maximum Post Spacing)

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

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	130

DESIGNED: BCG	REVISED —	1 05/30/2025	
DRAWN: MSH	REVISED —		
CHECKED: JMB	REVISED —		
DATE: 1/29/2025	REVISED —		

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184-001397

STEEL RAILING, TYPE SM

WHITE WALNUT ROAD OVER WHITE WALNUT CREEK

SHEET NO. 2 OF 7 SHEETS | STA. 2+00 TO STA. 4+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9964	20-00148-00-BR	PERRY	12	5
		CONTRACT NO 99752.		
	ILLINOIS			