

04-23-2021 LETTING ITEM 088
 FOR INDEX OF HIGHWAY STANDARDS, SEE SHEET NO. 2
 FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

**PROPOSED
 HIGHWAY PLANS**

TR 175 (MCGIRR ROAD)
 SECTION 15-12119-01-BR
 PROJECT G8M3(447)
 BRIDGE REPLACEMENT
 PIERCE TOWNSHIP
 DEKALB COUNTY
 STP-BR FUNDS
 C-93-006-21

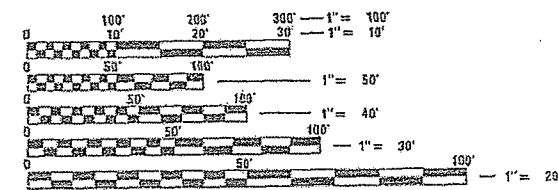
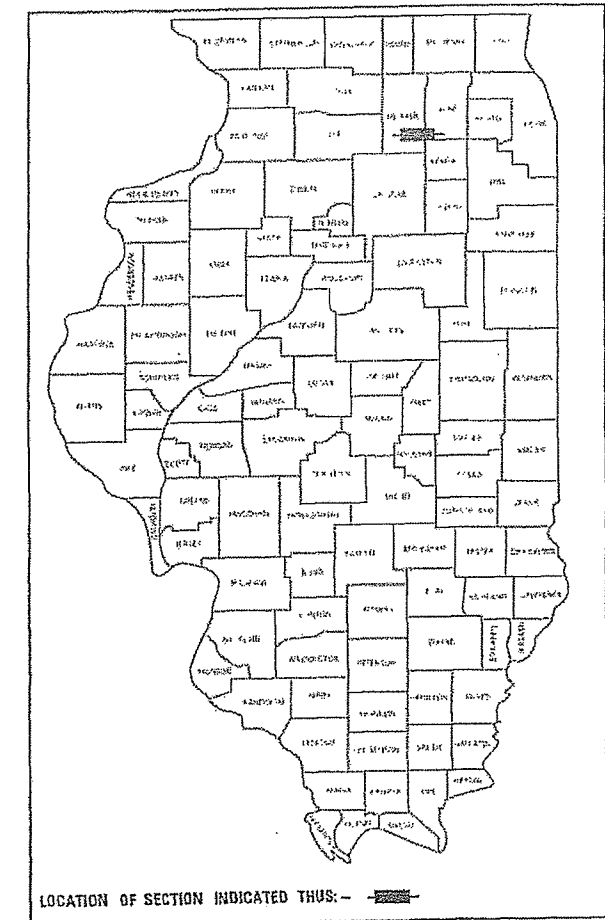
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
175	15-12119-01-BR	DEKALB	39	1

CONTRACT NO. 87739

TRAFFIC DATA: TR 175 (MCGIRR ROAD)
 CURRENT ADT = 450
 2040 ADT = 710

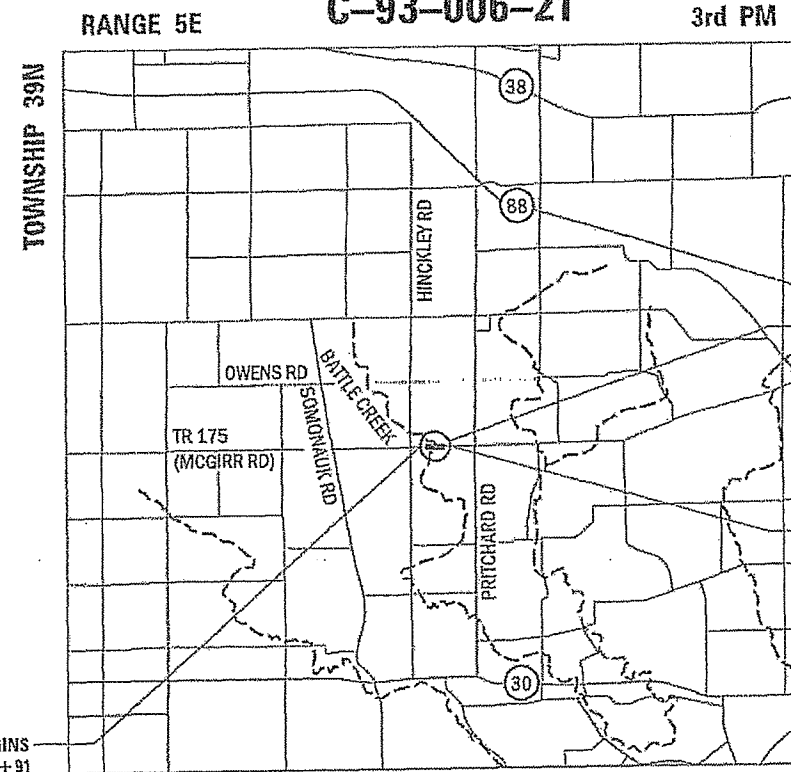
POSTED SPEED LIMIT = 45 MPH
 DESIGN SPEED LIMIT = 45 MPH

DESIGN DESIGNATION
 LOCAL ROAD (RURAL)



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 LOCATION INFORMATION FOR EXCAVATORS
 1-800-892-0123
 OR 811



BRIDGE REPLACEMENT
 STA 26+41.97
 EX STRUCTURE NO. D19-5111
 PR STRUCTURE NO. D19-5115

IMPROVEMENT ENDS
 STA 29+96

IMPROVEMENT BEGINS
 STA 21+91

GROSS LENGTH = 805 FT. = 0.152 MILE
 NET LENGTH = 805 FT. = 0.152 MILE

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

APPROVED February 16, 2021
 DEKALB COUNTY HIGHWAY DEPARTMENT, COUNTY ENGINEER

PASSED FEBRUARY 19, 2021
 DISTRICT 3 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
 BASED ON LIMITED
 REVIEW FEBRUARY 19, 2021
 REGION 2 ENGINEER

PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

CONTRACT NO. 87739



FEBRUARY 17, 2021
 MELISSA F. LANGE, S.E.
 ILLINOIS REG. STRUCTURAL ENGINEER NO. 081-006488
 EXPIRATION DATE 11-30-2022
 SHEETS 1 - 39



FEBRUARY 17, 2021
 NICHOLAS VARCHETTO, P.E.
 ILLINOIS REG. PROFESSIONAL ENGINEER NO. 062-068622
 EXPIRATION DATE 11-30-2021
 SHEETS 1 - 39

ENGINEERING RESOURCE ASSOCIATES, INC.
 24701 WEST AVENUE, SUITE 150
 WAREHOUSES, IL 60555
 (815) 397-3609

SUMMARY OF QUANTITIES (CON'T)

SPECIAL PROVISION	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
					80% FEDERAL, 20% LOCAL	
					BRIDGE	
					0010	
					RURAL	
	50105220	PIPE CULVERT REMOVAL	FOOT	31	31	
	50200100	STRUCTURE EXCAVATION	CU YD	86.8	86.8	
	50300225	CONCRETE STRUCTURES	CU YD	31.7	31.7	
	50300260	BRIDGE DECK GROOVING	SQ YD	222	222	
	50300300	PROTECTIVE COAT	SQ YD	287	287	
	50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1,998	1998	
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	7,030	7,030	
Δ	50901050	STEEL RAILING TYPE SM	FOOT	134	134	
	51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	425	425	
	51202305	DRIVING PILES	FOOT	425	425	
	51203200	TEST PILE METAL SHELLS	EACH	2	2	
	51500100	NAME PLATES	EACH	1	1	
	542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	50	50	
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	56	56	
	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	2	2	
Δ	63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2	
Δ	63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4	
Δ	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2	
	67100100	MOBILIZATION	L SUM	1	1	
Δ	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
Δ	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	3,630	3,630	
	X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	222	222	
S	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
S	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
S	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	124	124	

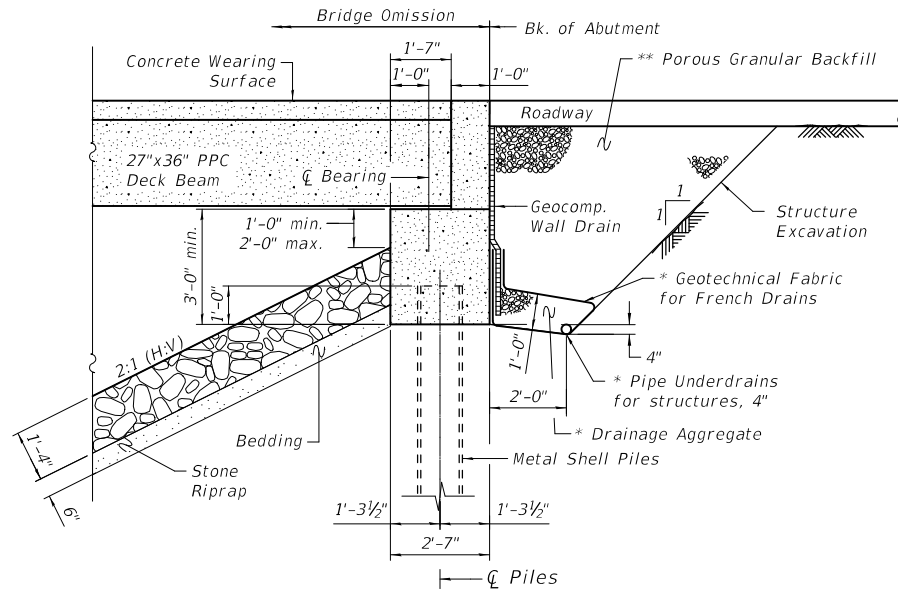
Δ SPECIALTY ITEMS

* INDICATES SPECIALTY ITEM
S INDICATES ITEMS COVERED BY SPECIAL PROVISIONS



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USER NAME = kkołodziejczyk	DESIGNED - N. VARCHETTO	REVISED - 04-08-2021	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES TR 175 (MCGIRR RD) OVER BATTLE CREEK	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
DRAWN - K. KOŁODZIEJCZYK	CHECKED - M. LANGE	REVISOR -			175	15-12119-01-BR	DEKALB	39	4	
PLOT SCALE = 20:0.0000 " = 1"	DATE - 02-17-2021	REVISOR -			CONTRACT NO. 87739		ILLINOIS FED. AID PROJECT			
PLOT DATE = 4/8/2021					SCALE:	SHEET 2 OF 2 SHEETS	STA.	TO STA.		



SECTION THRU ABUTMENT
(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures, 4"
 ** Porous Granular Backfill material shall be CA-7.

INDEX OF SHEETS

- S1 General Plan & Elevation
- S2 General Data
- S3 Superstructure
- S4 Superstructure Details
- S5 Steel Railing Type SM with Conc. Wearing Surface
- S6 -S7 27" x 36 PPC Deck Beams
- S8 West Abutment
- S9 East Abutment
- S10 Abutment Details
- S11 Metal Shell Pile Details
- S12 Soil Borings I
- S13 Soil Borings II
- S14-S16 Existing Plans

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.
 Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

BATTLE CREEK
 BUILT 2021 BY
 DEKALB COUNTY &
 PIERCE TOWNSHIP
 SEC. 15-12119-01-BR
 MCGIRR RD
 STA. 26+41.97
 STR. NO. 019-5115
 LOADING HL-93

NAME PLATE

See Std. 515001.
 Plate to be installed on SW wingwall.

TOTAL BILL OF MATERIAL

ITEM	UNIT	Super	Sub	Total
Channel Excavation	Cu. Yd.		125.6	125.6
Stone Riprap, Class A4	Sq. Yd.		504	504
Filter Fabric	Sq. Yd.		504	504
Porous Granular Backfill	Cu. Yd.		174.5	174.5
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		86.8	86.8
Concrete Structures	Cu. Yd.		31.7	31.7
Bridge Deck Grooving	Sq. Yd.	222		222
Protective Coat	Sq. Yd.	287		287
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1,998		1,998
Reinforcement Bars, Epoxy Coated	Pound	2,930	4,100	7,030
Steel Railing, Type SM	Foot	134		134
Furnishing Metal Shell Piles 12" O x 0.250"	Foot		425	425
Driving Piles	Foot		425	425
Test Pile Metal Shells	Each		2	2
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		56	56
Concrete Wearing Surface, 5"	Sq. Yd.	222		222
Pipe Underdrain for Structures, 4"	Foot		124	124

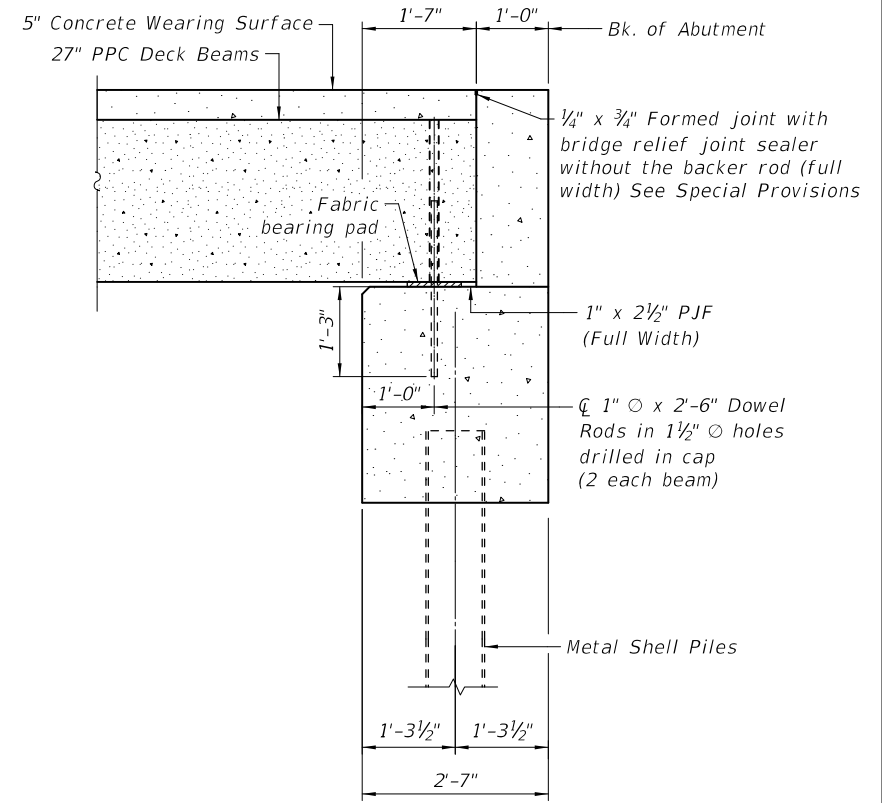
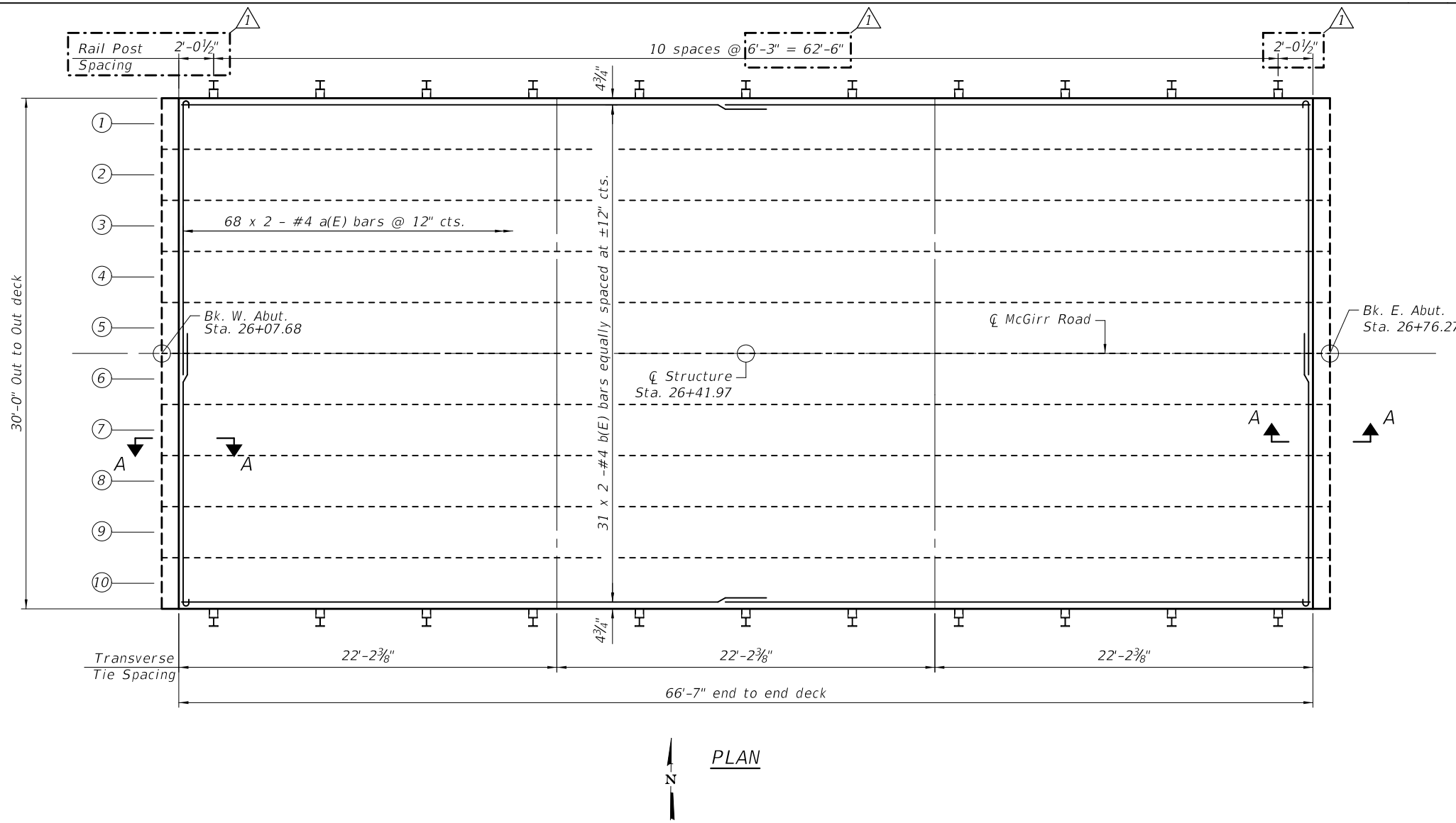


USER NAME = kkolodziejczyk	DESIGNED - K. KOLODZIEJCZYK	REVISED - 04-08-2021
DRAWN - K. KOLODZIEJCZYK	CHECKED - M. LANGE	DATE - 02-17-2021
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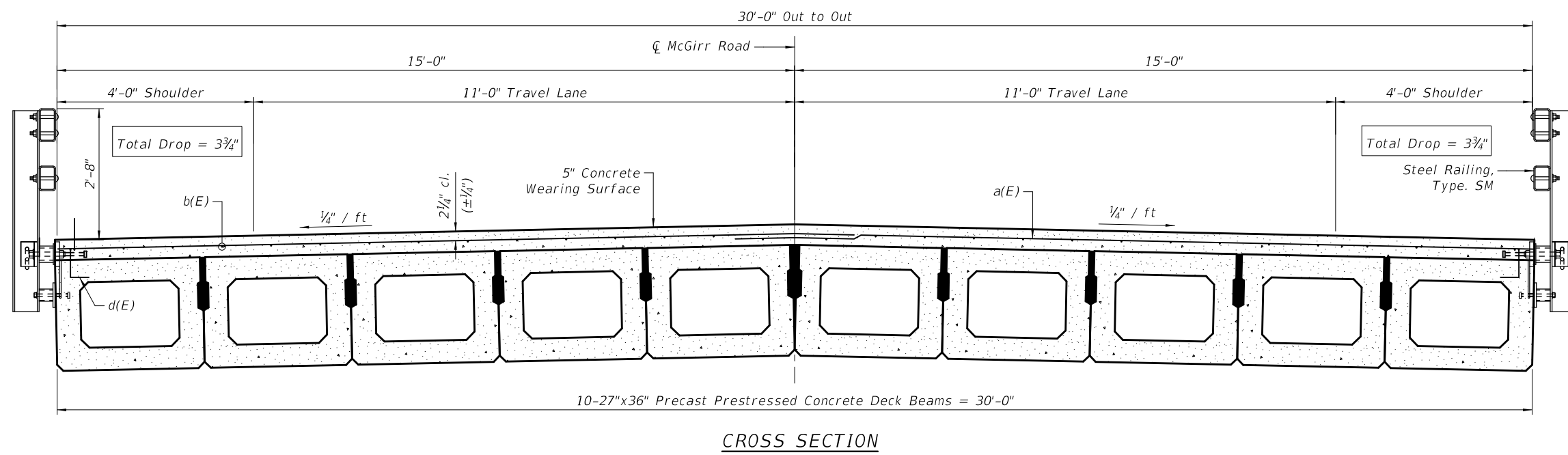
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 019-5115
TR 175 (MCGIRR RD) OVER BATTLE CREEK

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
175	15-12119-01-BR	DEKALB	39	15
			CONTRACT NO. 87739	
SCALE: N.T.S.		SHEET 52 OF 516 SHEETS		TO STA.
ILLINOIS FED. AID PROJECT				



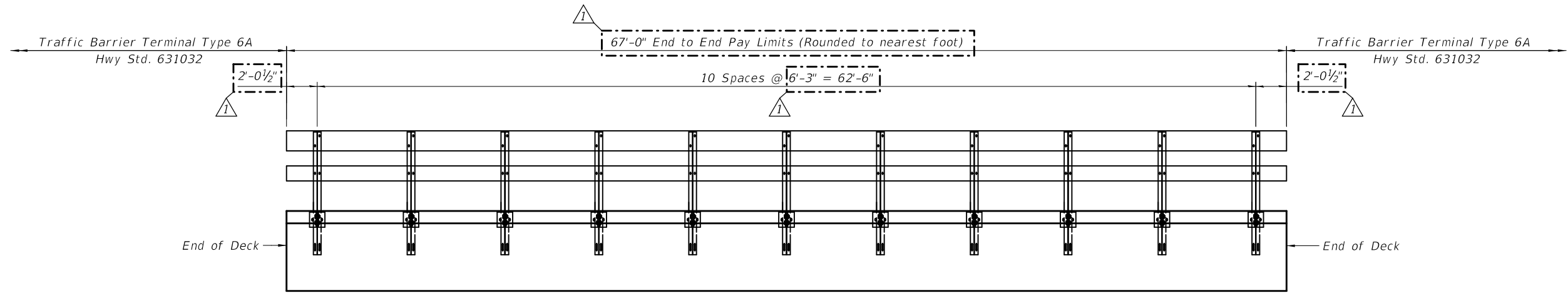
SECTION A-A



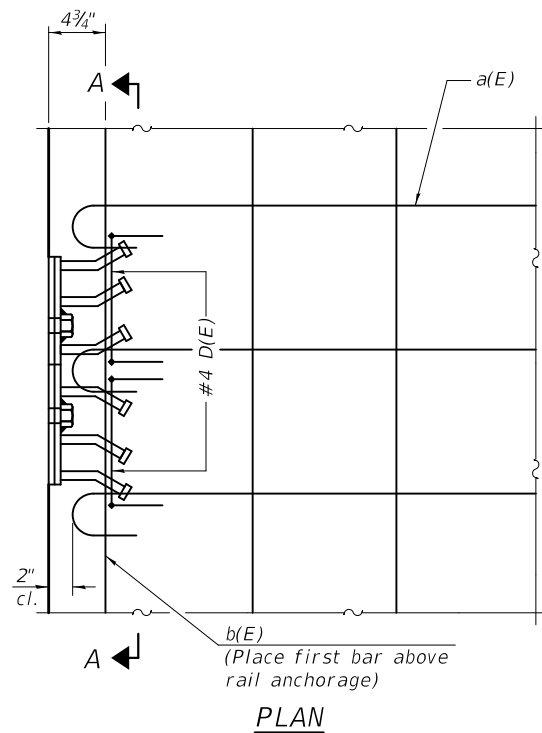
Min. Lap Splice
#4 - 2'-5"

Notes:
See sheet S4 for Superstructure Details and Bill of Material
Bars indicated thus 31 x 2-#4 etc. indicates 31 lines of bars with 2 lengths per line.
Concrete wearing surface shall be placed prior to casting the backwall.
See sheet S7 for bearing pad details

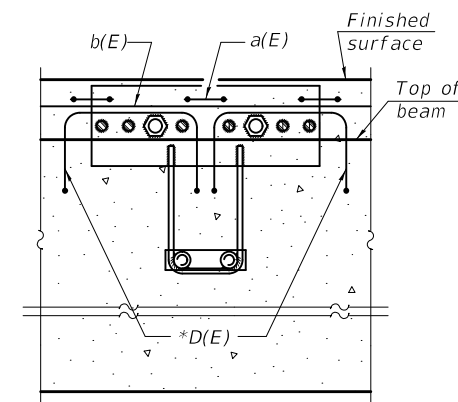
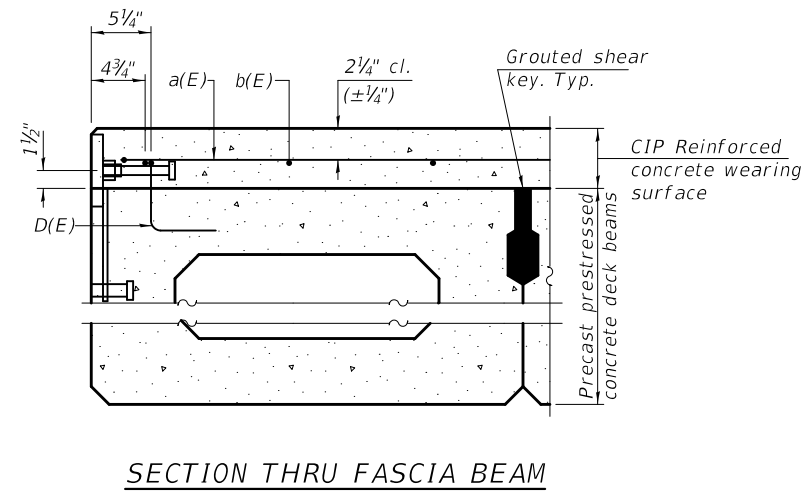
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	PLOT DATE = 4/8/2021	REVISID -	ILLINOIS FED. AID PROJECT							
				SCALE: N.T.S.		SHEET 53	OF 516 SHEETS	STA.	TO STA.	



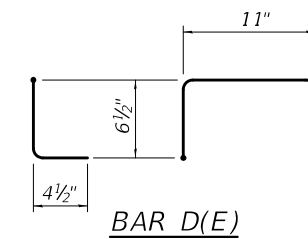
ELEVATION



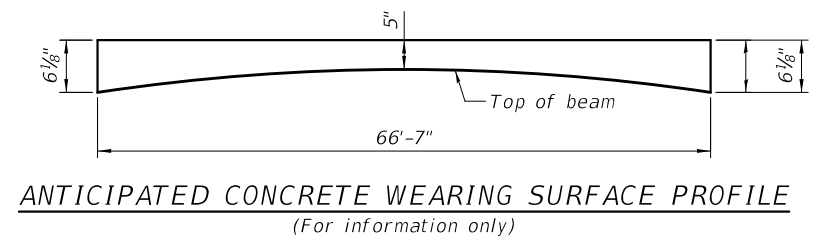
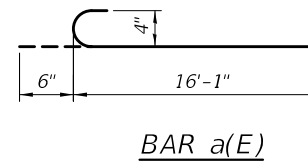
Notes:
Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.



SECTION A-A



* Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam.



SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	136	#4	16'-7"	C
b(E)	62	#4	34'-4"	—
Item		Unit	Quantity	
Reinforcement Bars, Epoxy Coated		Pound	2,930	
Concrete Wearing Surface, 5"		Sq. Yd.	222	

Bars indicated thus 1 x -#4 etc. indicates 1 line of bars with lengths per line.

SDF-DB1742-CWS-R34 1-1-2020

USER NAME = kkołodziejczyk	DESIGNED - K. KOŁODZIEJCZYK	REVISED - 04-08-2021
	DRAWN - K. KOŁODZIEJCZYK	REVISED -
PLOT SCALE = 8:0.0000 '"/in.	CHECKED - M. LANGE	REVISED -
PLOT DATE = 4/8/2021	DATE - 02-17-2021	REVISED -

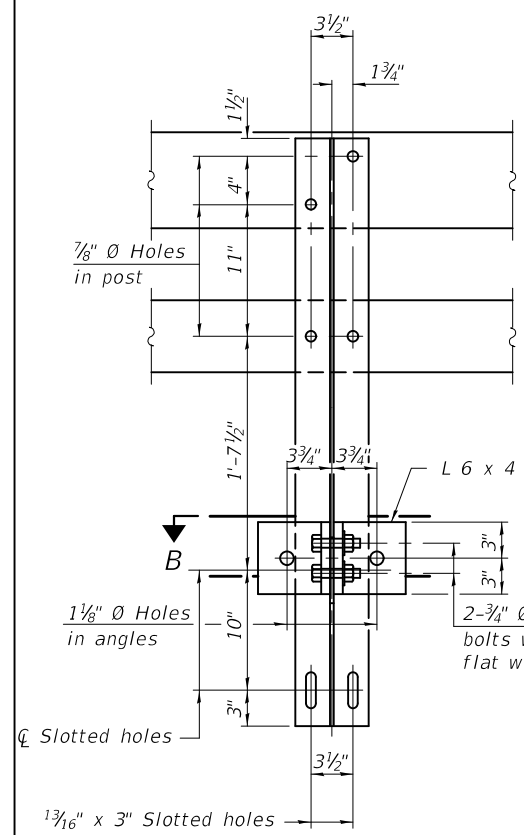
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 019-5115
TR 175 (MCGIRR RD) OVER BATTLE CREEK

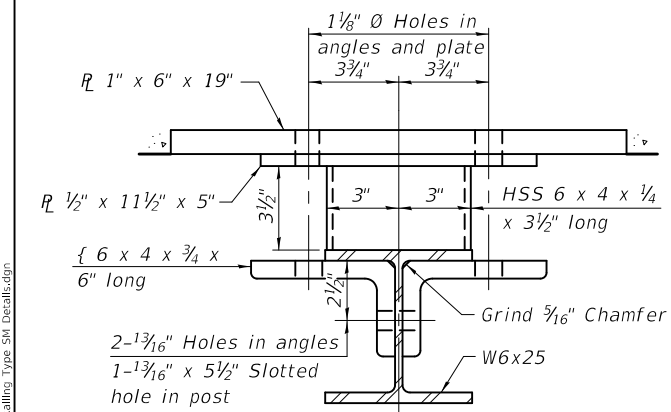
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T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
175	15-12119-01-BR	DEKALB	39	17
			CONTRACT NO. 87739	
ILLINOIS FED. AID PROJECT				

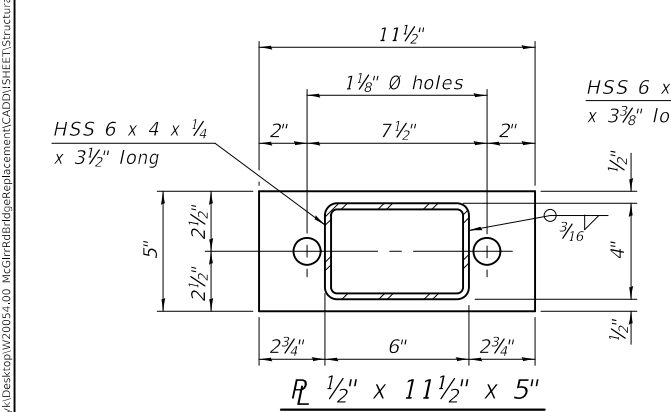
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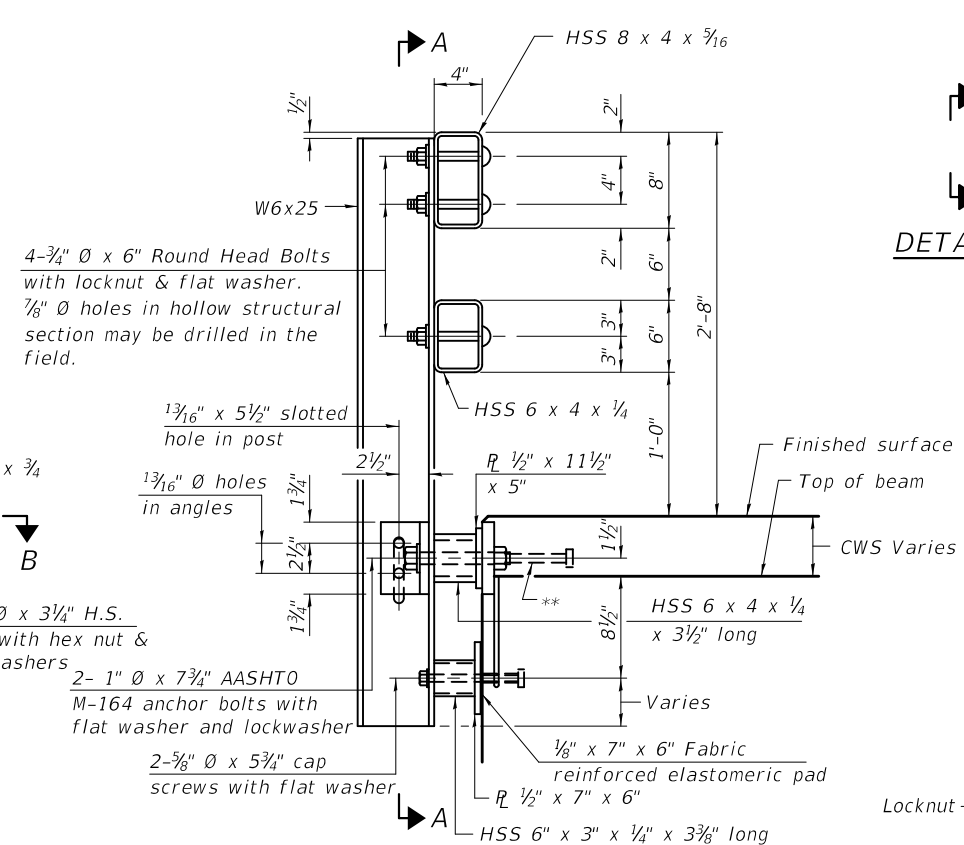
SECTION A-A



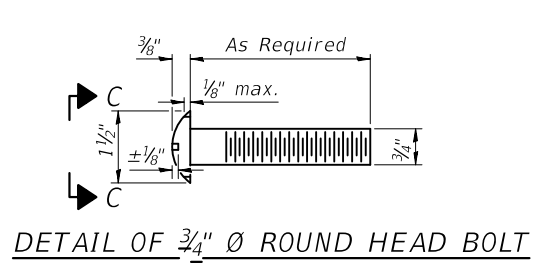
SECTION B-B



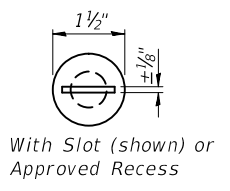
SECTION C-C



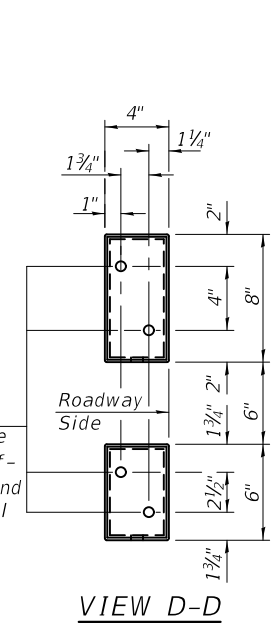
SECTION AT RAIL POST



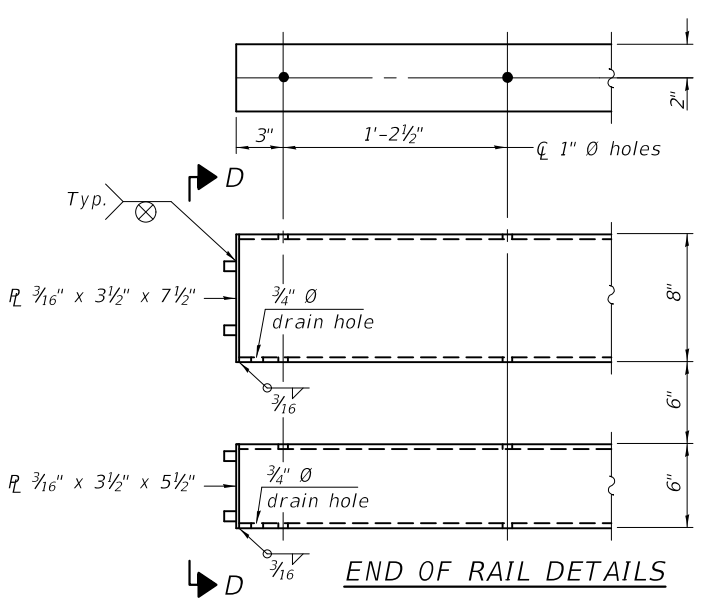
DETAIL OF 3/4" Ø ROUND HEAD BOLT



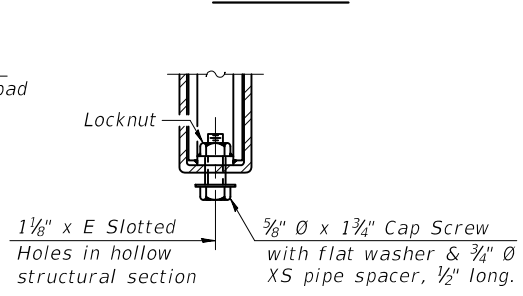
VIEW C-C



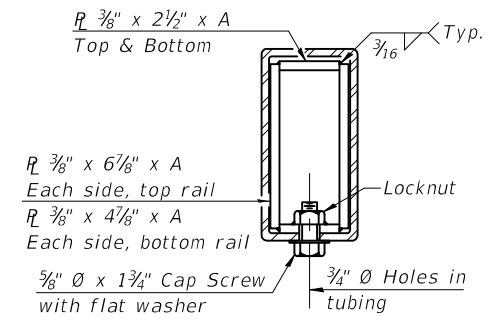
VIEW D-D



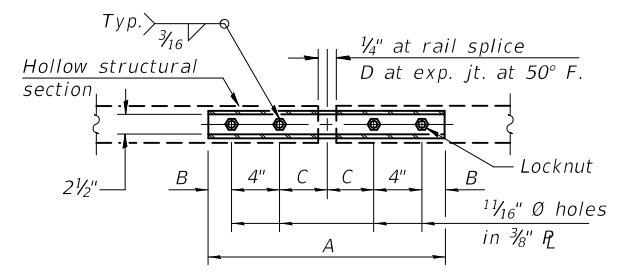
END OF RAIL DETAILS



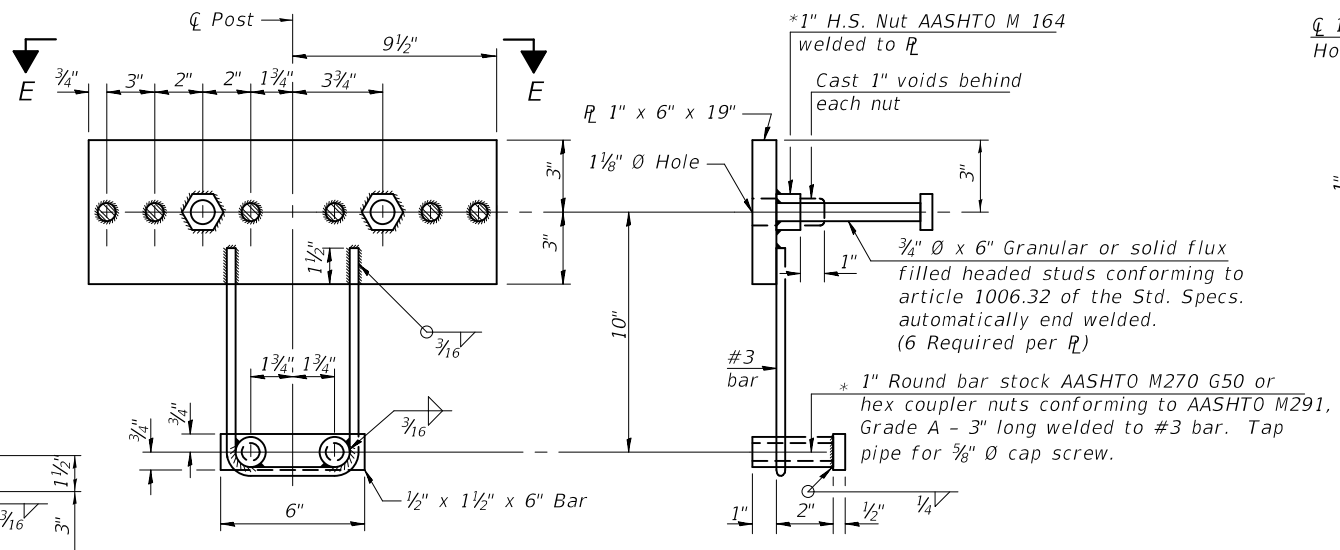
RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE R TYPICAL



ANCHOR DEVICE

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	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 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.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	134

R-34CWS 2-17-2017 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

USER NAME	DESIGNED	REVISION
= kkołodziejczyk	- K. KOŁODZIEJCZYK	- 04-08-2021
	- K. KOŁODZIEJCZYK	-
	- M. LANGE	-
	-	-
	-	-
	-	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE SM WITH CONC. WEARING SURFACE
STRUCTURE NO. 019-5115
TR 175 (MCGIRR RD) OVER BATTLE CREEK

SCALE: N.T.S. SHEET 55 OF 516 SHEETS STA. TO STA.

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
175	15-12119-01-BR	DEKALB	39	18
				CONTRACT NO. 87739

ILLINOIS FED. AID PROJECT