DESIGNER: CLARK JONES
PHONE: (309)671-3452

CONTRACT NO. 68752

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(103BR)I-1	MERCER	9	1

+4
13

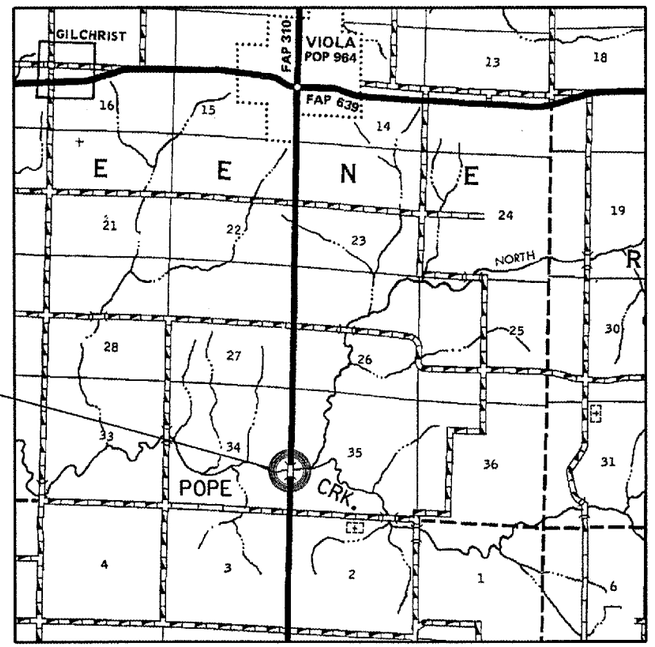
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP 310 (US.67)
SECTION (103BR)I-1
MERCER COUNTY
C-94-131-07

D-94-086-07

LOCATION OF SECTION INDICATED THUS: –



SN. 066-0003

LOCATION MAP

PROJECT CONSISTS OF THE INSTALLATION OF STEEL SUPPORTING BEAMS FOR BRACING (5) DETERIORATED PPC BEAMS ON STRUCTURE (SN.066-0003) CARRYING US67 OVER POPE CREEK THREE MILES SOUTH OF VIOLA.

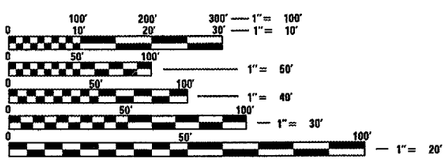
INDEX OF SHEETS:

STANDARDS:

701001-01 701901

701006-02 780001-01

701201-02



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 EXCAVATION
1-800-892-0123

CONTRACT NO. 68752 CAT. NO. 033591-00D

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Oct 19 20 07

Gyle E. Craven
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 7 20 07

Eric E. Harm
Interim ENGINEER OF DESIGN AND ENVIRONMENT

Dec 7 20 07

Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT ENGINEER: JIM MILLER
PHONE: (309)671-3451

COMMITMENTS

No commitments have been made for this project.

GENERAL NOTES

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Construction field requirements for guardrail work shall be according to Article 633 of the "Standard Specifications for Road and Bridge Construction".

Construction field requirements for Erosion Control Blanket work shall be according to Supplemental Specification for Section 1081.

Onsite storage of metal materials shall be off of the pavement and according to Article 1006.34

CONTRACT NO. 68752

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(103BR)I-1	MERCER	9	3
STA. 10+530.216 TO STA. 10+560.696				
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	100% STATE SAFETY - 2A MERCER RURAL	TOTAL
25100630	EROSION CONTROL BLANKET	SQYD	222	222
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	34,900	34,900
63301000	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARDRAIL	FOOT	32	32
67100100	MOBILIZATION	LSUM	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1	1

* Seeding of minor areas shall be included in the cost of Erosion Control Blanket.

REVISIONS NAME	DATE
CEJ	06/08/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

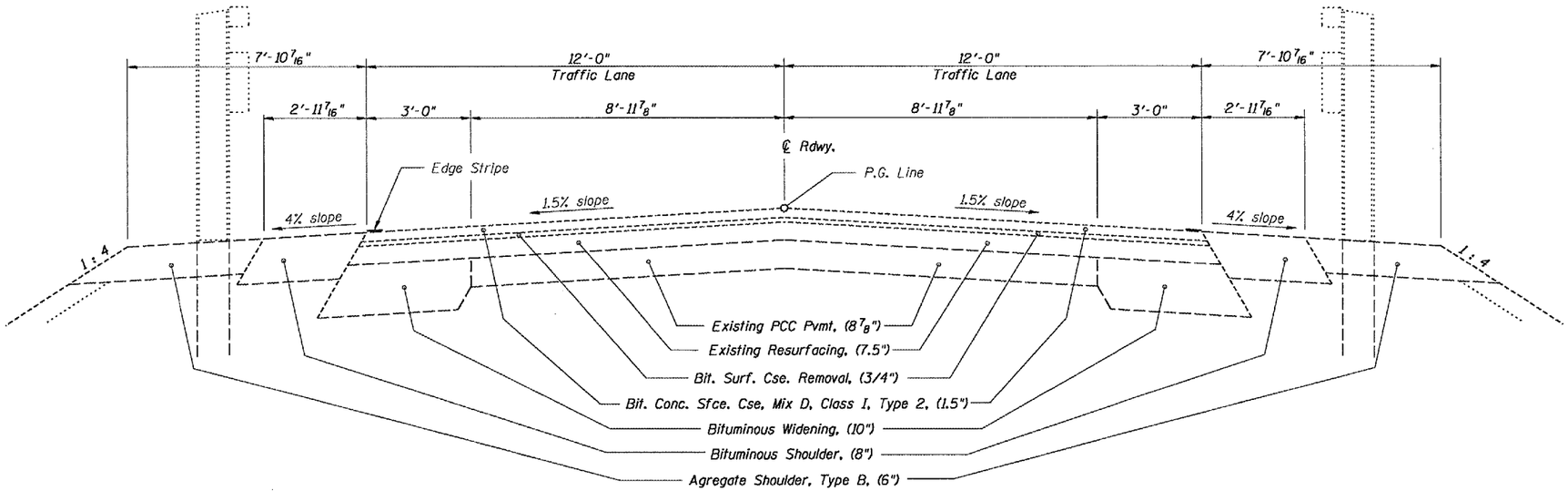
SUMMARY OF QUANTITIES

SCALE: VERT. HORIZ.
DATE 07-02-2007
DRAWN BY CEJ
CHECKED BY

$DATE$6-29-07
$FILEL$S:\GENDRAFT\STD&PLNS\SQUAD14\BridgeRepContracts\EmergencyPPCBeamRepairs\68752 SN066-0003 US67over PopeCrk.dgn
$SCALE$
REF

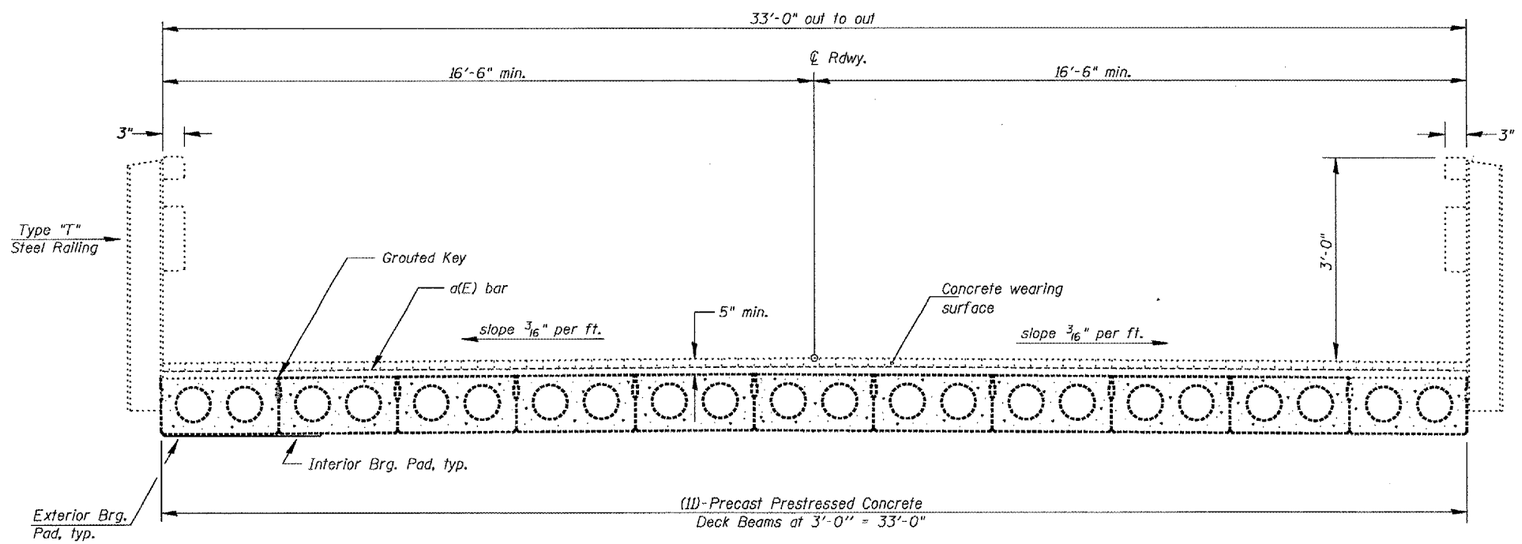
CONTRACT NO. 68752

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(103VR)1-1	MERCER	9	4
STA. 10+530.216	TO STA. 10+560.696			
FED. ROAD DIST. NO. 4	ILLINOIS FED. AID PROJECT			



ROADWAY SECTION

Lt. & Rt. Sta. 10+317.480 to Sta. 10+530.246
Lt. & Rt. Sta. 10+560.666 to Sta. 10+873.157



EXISTING BRIDGE CROSS SECTION

(Looking North)

SN.066-0003 US. 67
over POPE CRK.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: VERT.
HORIZ.
DATE 07-03-2007

DRAWN BY CEJ
CHECKED BY

PLOT DATE = $DATE$-29-07
FILE NAME = $FILENAME$
PLOT SCALE = $SCALE$
REFERENCE = REF

...\dab00036\sheet4transmit.dgn 11/8/2007 10:58:13 AM

CONTRACT NO. 68752

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(1038R)I-1	MERCER	9	5
STA. 10+530.216 TO STA. 10+560.696				
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

MOBILIZATION

LOCATION	UNIT	QUANTITY
Jobsite	LSUM	1.0

T.C & P STANDARD 701201

LOCATION	UNIT	QUANTITY
Jobsite	LSUM	1.0

REM & RE-ERECT STL PL BM GUARDRAIL

LOCATION	UNIT	QUANTITY
Jobsite	FOOT	32

FURNISH & ERECT STRUCTURAL STEEL

LOCATION	UNIT	QUANTITY
Under Existing Superstructure	POUND	34,900

EROSION CONTROL BLANKET

LOCATION	UNIT	QUANTITY
Jobsite Embankment & R.O.W.	SQYD	222

PLOT DATE = $DATE$6-29-07
FILE NAME = $FILEL$$\GENDRAFT\STD&PLNS\SQUAD14\BridgeRepContracts\EmergencyPPCBeamRepairs\68752 SN066-0083 US67overPopeCrk.dgn
PLOT SCALE = 10.5882 m / IN.
REFERENCE = REF

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: VERT.
HORIZ.
DATE 09-02-2007

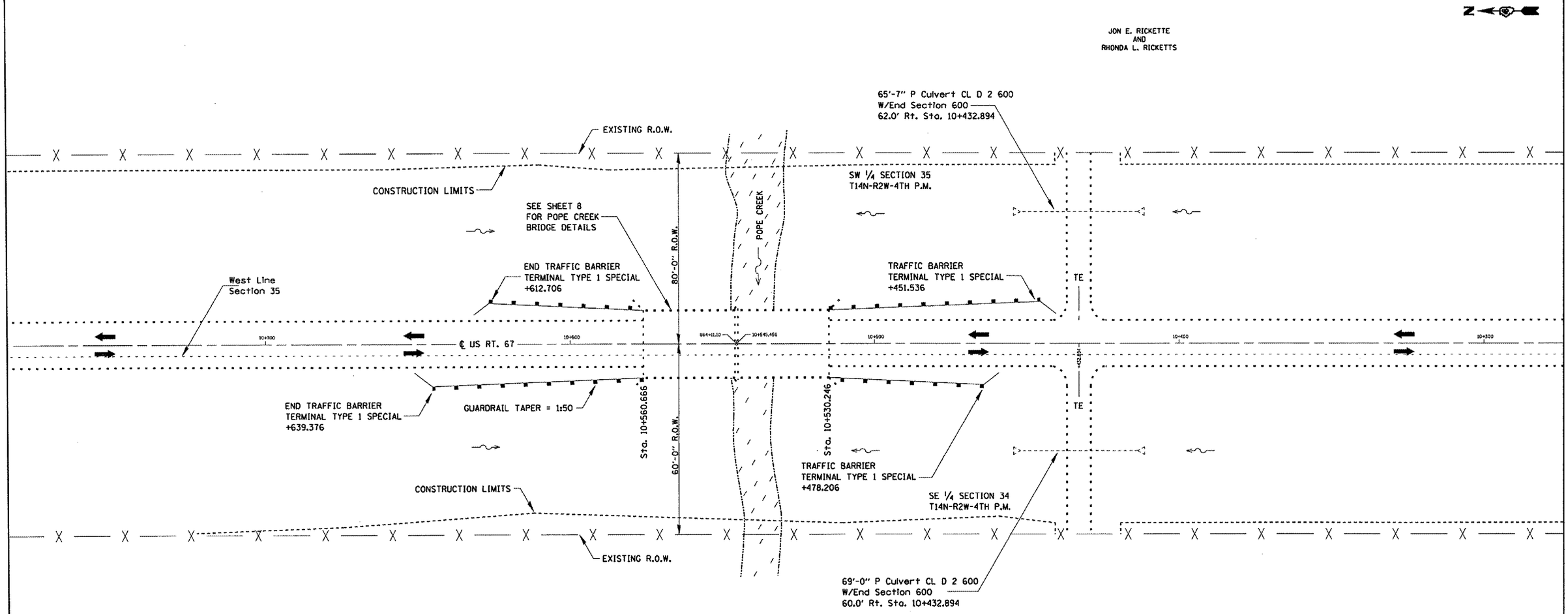
DRAWN BY CEJ
CHECKED BY

CONTRACT NO. 68752

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(103BRII-1	MERCER	9	6
STA. 10+530.216		TO STA. 10+560.216		
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT		

BENCHMARK #66:
Sta. 10+528.601 - 5.791m. Rt. Chiseled Square on top of East end wingwall of Pope Creek bridge. Elev. 203.067

T14N-R2W-4TH P.M.
SECTION 34 & 35



SN.066-0003 US. 67
over POPE CRK.

NOTES
When it is necessary for the Contractor to remove guardrail for temporary off-road access the appearance and condition of the affected sod area shall be left as it was found and according to the discretion of the Engineer. All necessary work and Seeding Minor Areas shall be included in cost of Erosion Control Blanket.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL LAYOUT

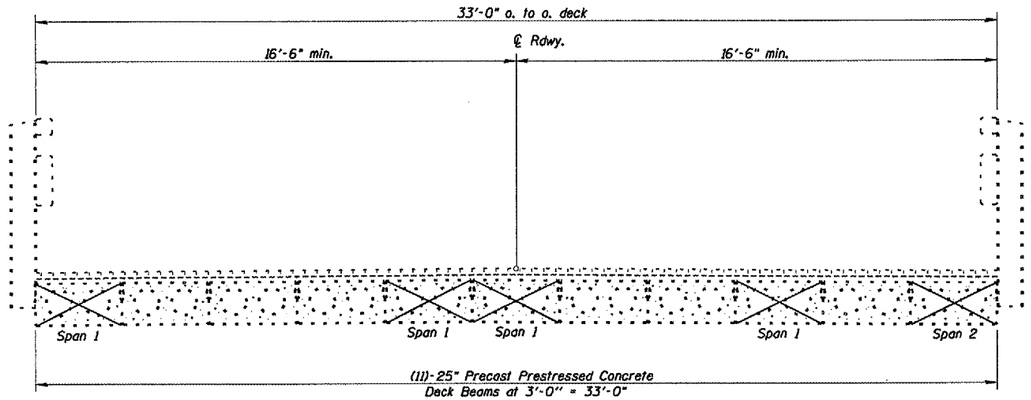
SCALE: VERT.
HORIZ.
DATE 06-18-2007

DRAWN BY CEJ
CHECKED BY

$DATE$ 6-29-07
$FILENAME$ C:\DESIGN\DRAFT\STDPLNS\SQUAD14\Bridge Repr Contracts\Emergency PC Bear Repairs\68752 SN066-0003 US67over PopeCrk.dgn
$SCALE$
REF

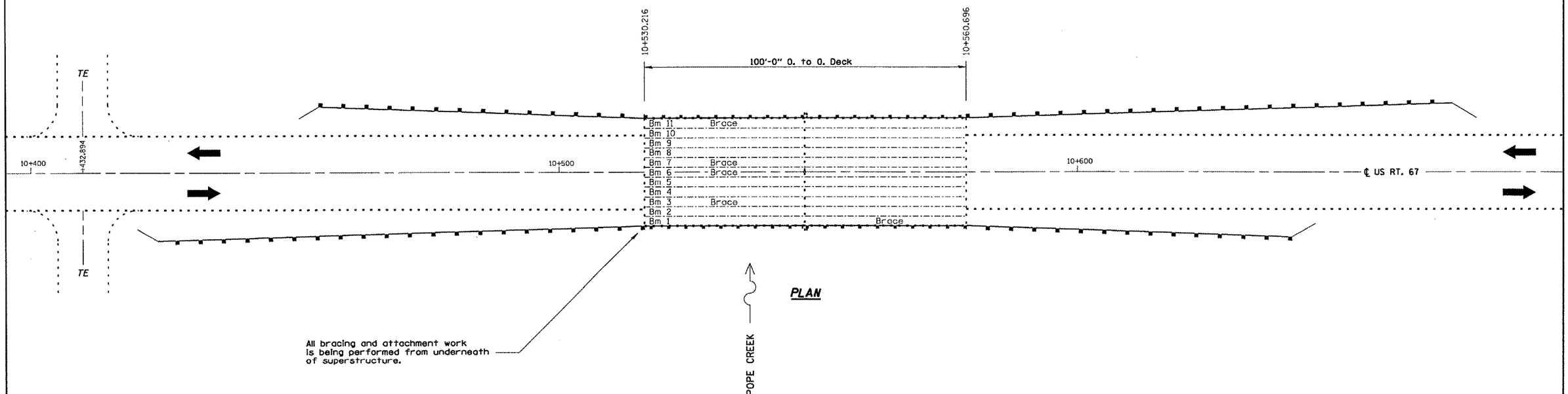
CONTRACT NO. 68752

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(103BR)I-1	MERCER	9	7
STA. 10+530.216		TO STA. 10+560.696		
FED. ROAD DIST. NO. 4	ILLINOIS FED. AID PROJECT			



PPC Deck Beams to be Braced

BRIDGE CROSS SECTION
(Looking North)



PLAN

NOTES
Refer to Highway Standard 701201 in conjunction with this sheet for exact placement of traffic management devices and other clarifications as construction symbols and dimensioning were duplicated off of this standard.

SN.066-0003 US. 67
over POPE CRK.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL

SCALE: VERT.
HORIZ.
DATE 07-10-2007

DRAWN BY CEJ
CHECKED BY

#DATE#6-29-07
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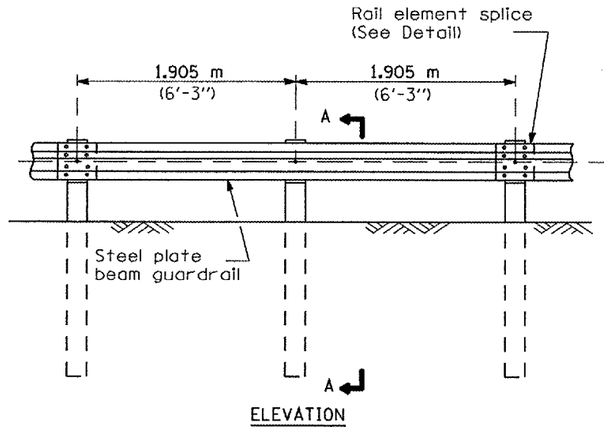
#REF#

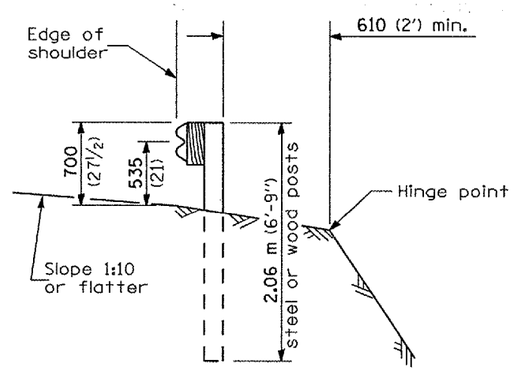
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				7A
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Contract 68752

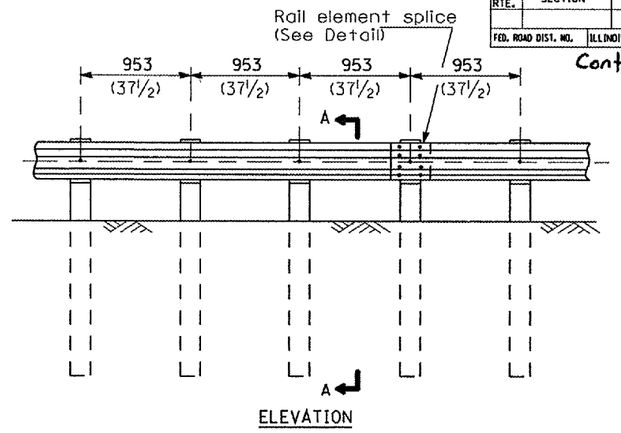


TYPE A

1.905 m (6'-3") Typical post spacing

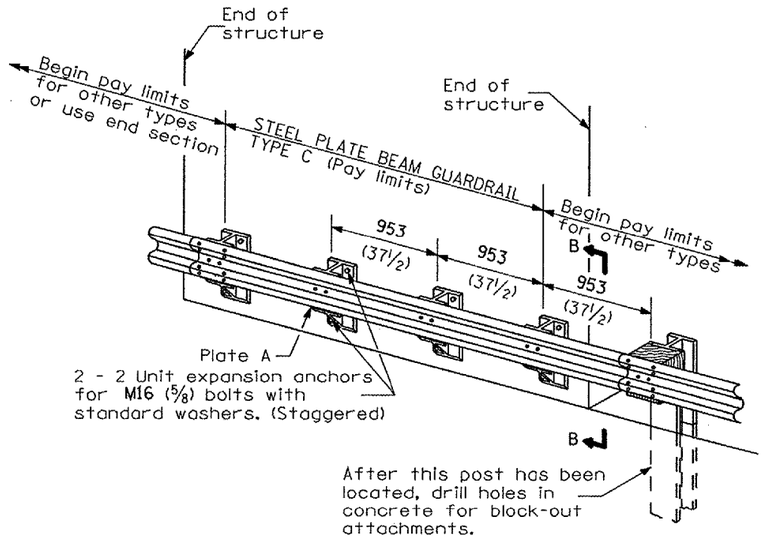


SECTION A-A



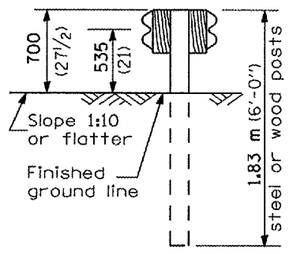
TYPE B

953 (37½) Closed post spacing

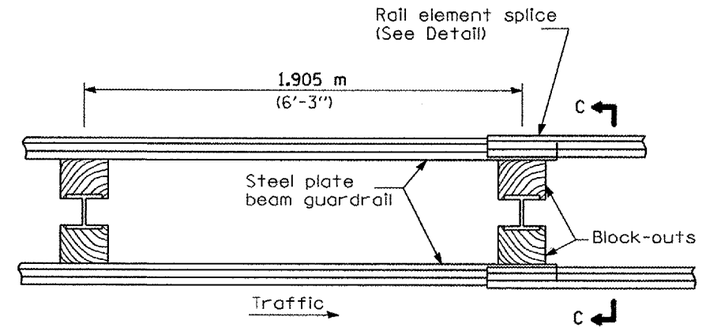


TYPE C

953 (37½) Block-out spacing



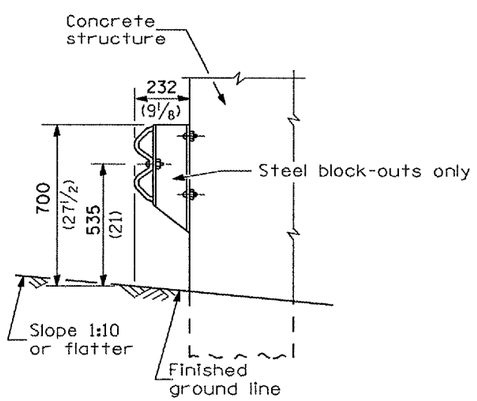
SECTION C-C



PLAN

TYPE D

Double steel plate beam guardrail
1.905 m (6'-3") typical post spacing



SECTION B-B

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in millimeters (inches) unless otherwise shown.

The existing steel posts may be drilled to match the bolt pattern shown herein for the wood block-out, or a new steel post shall be provided.

This detail is applicable to the guardrail system used prior to January 1, 2007. For details on the Midwest Guardrail System, see Standard 630001.

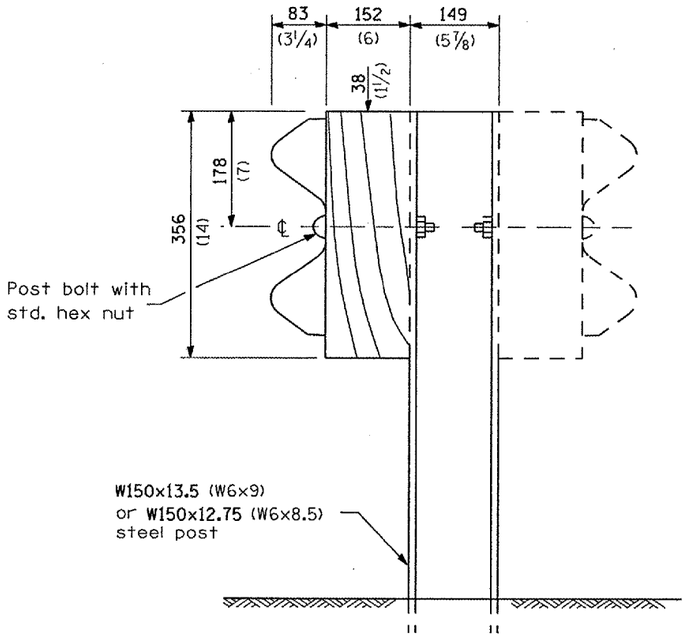
REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL

(Sheet 1 of 4)

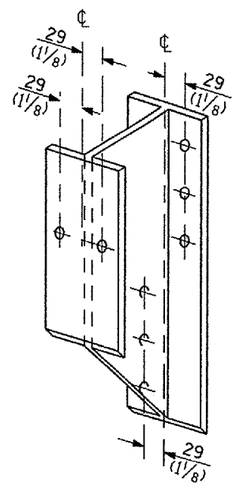
DETAIL

CONTRACT 68752

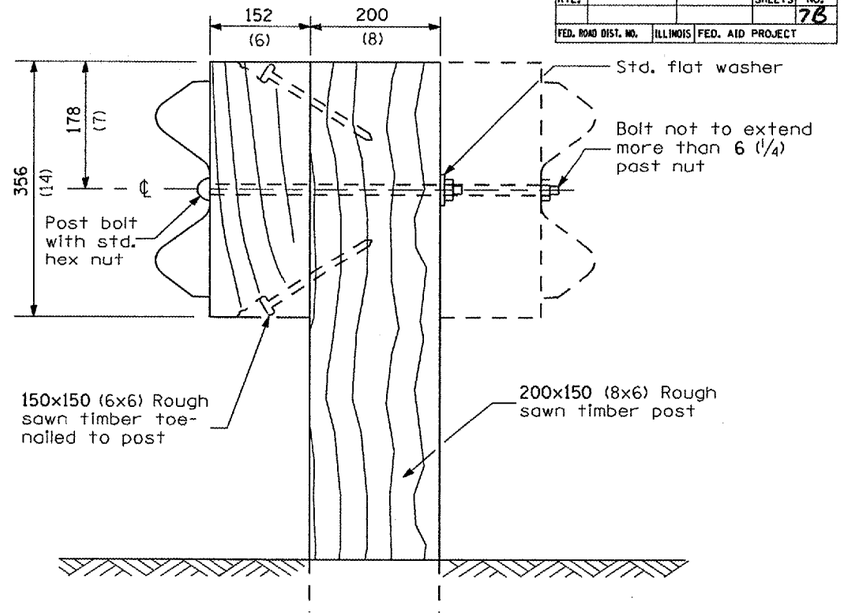
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				78
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



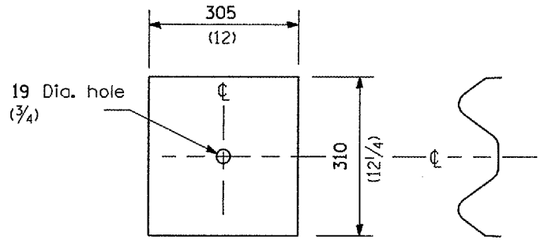
STEEL POST CONSTRUCTION



STEEL BLOCK-OUT DETAIL



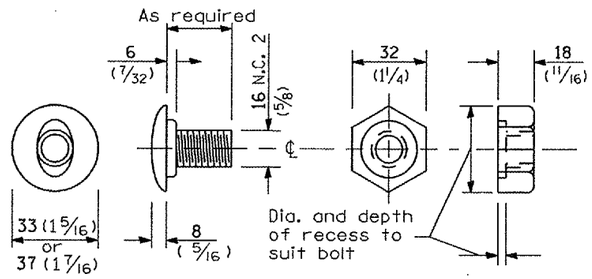
WOOD POST CONSTRUCTION



NOTE

Plate A shall be placed between rail element and block-out at non-splice mounting points only when steel block-outs are used.

PLATE A



POST OR SPLICE BOLT & NUT

REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL

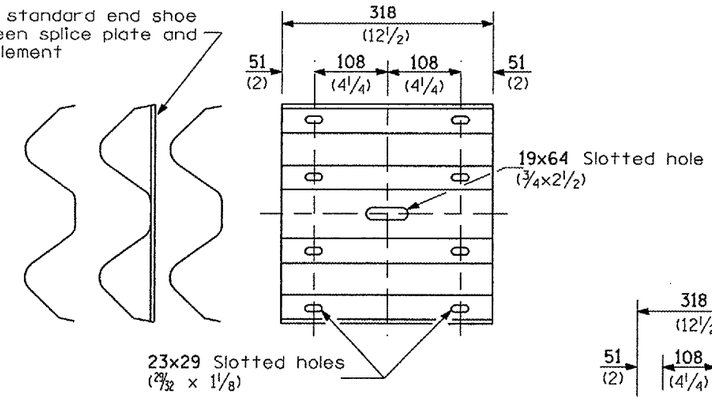
(Sheet 2 of 4)

DETAIL

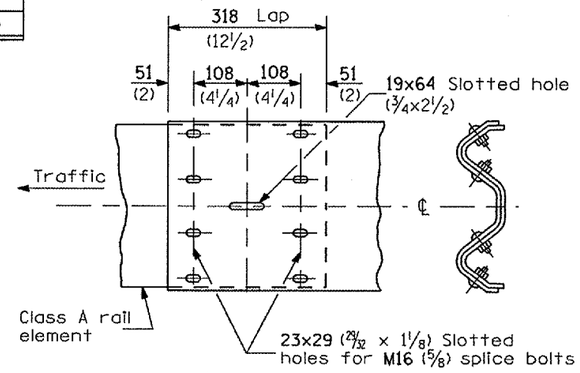
CONTRACT 68752

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				7c
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

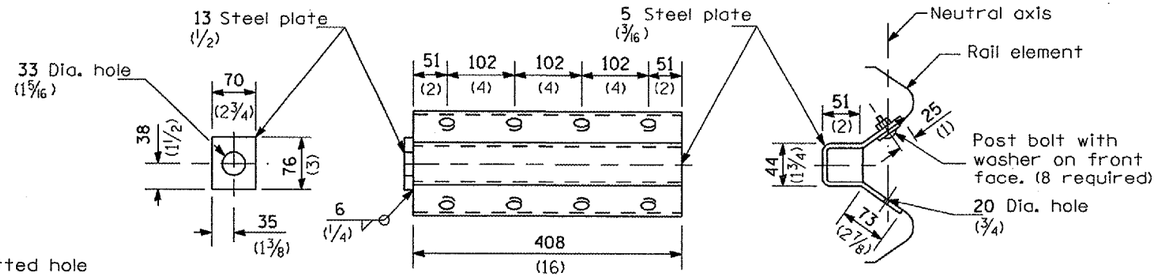
Place standard end shoe between splice plate and rail element



SPLICE PLATE



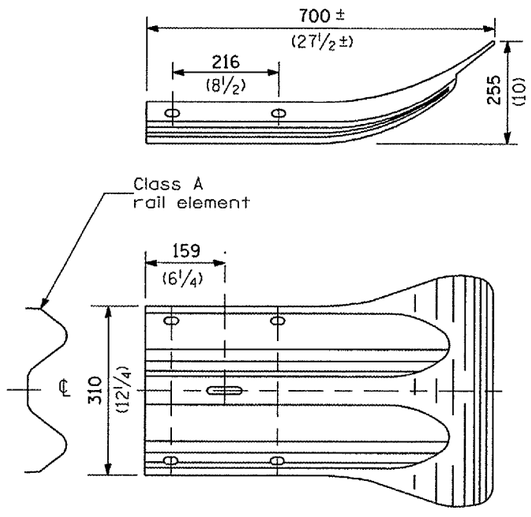
RAIL ELEMENT SPLICE



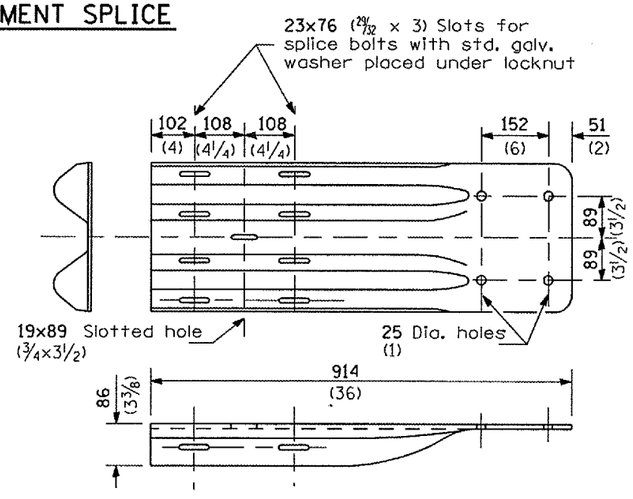
NOTE

Anchor plate T shall be used to attach cable assembly to guardrail when required on traffic barrier terminals.

ANCHOR PLATE T DETAILS



END SECTION



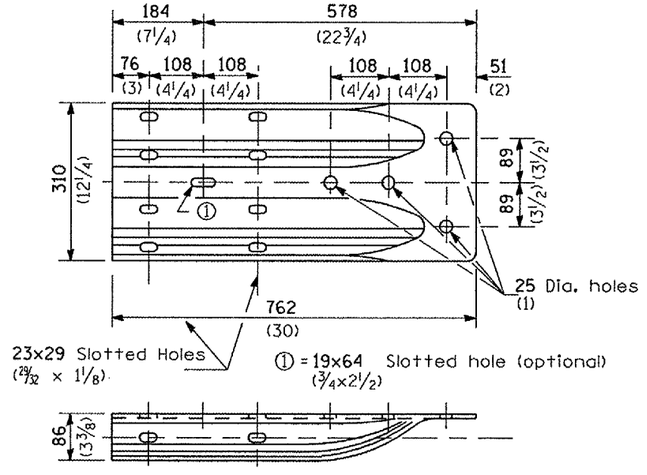
NOTE

When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

The standard end shoe shall be attached to the concrete with pre-drilled or self-drilling anchor bolts. The anchor cone shall be set flush with the surface of the concrete.

Externally threaded studs protruding from the surface of the concrete will not be permitted.

END SHOE



ALTERNATE END SHOE

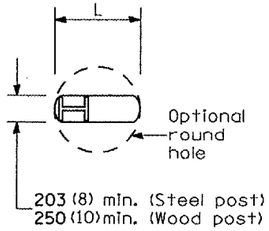
REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL

(Sheet 3 of 4)

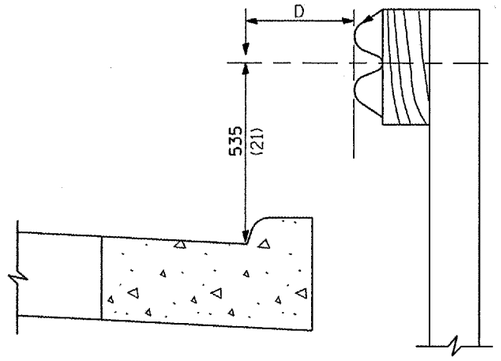
DETAIL

CONTRACT 68752

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				7D
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



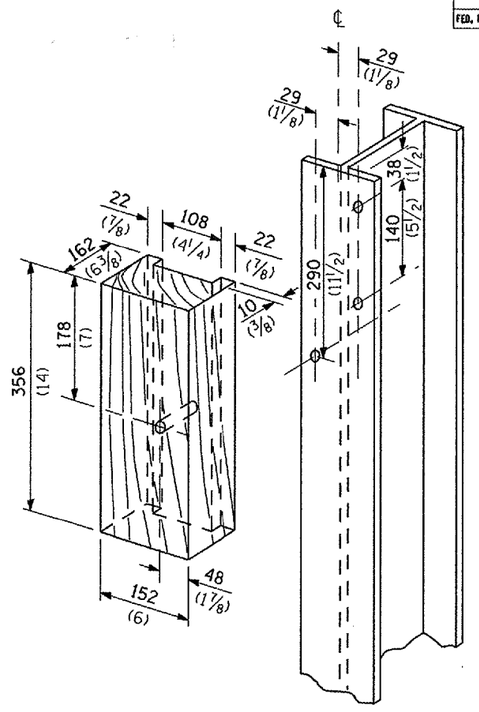
PLAN



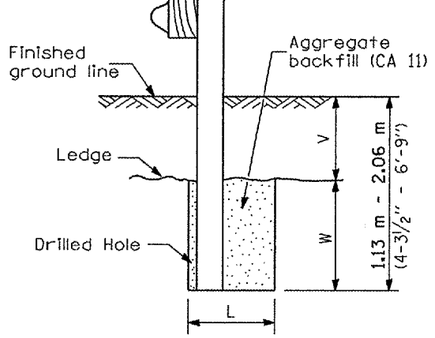
Note:
If it is necessary for D to be more than 300 (12) and less than 3.0 m (10'-0") type M-5 (M-2) curb and gutter (Std. 606001) shall be used in front of and in advance of the guardrail.

GUARDRAIL PLACED BEHIND CURB

(D = 0 desirable to 300 (12) maximum)



WOOD BLOCK-OUT AND STEEL POST DETAILS

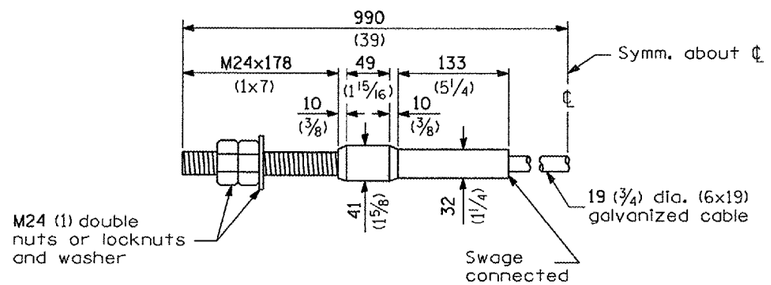


Note:
Ledge line is top of rock ledge or hard slag fill.

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

V	W	L	
		Steel Post	Wood Post
0 - 460 (0 - 18)	610 (24)	530 (21)	580 (23)
>460 - 825 (>18 - 41.5)	305 (12)	203 (8)	250 (10)
>825 - 1.13 m (>41.5 - 53.5)	305 - 0 (12 - 0)	203 (8)	250 (10)



CABLE ASSEMBLY

(18,100 kg (40,000 lbs.) min. breaking strength)
Tighten to taut tension.

REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL

(Sheet 4 of 4)

DETAIL

**Contractor is to verify beam length prior to ordering material. Other sections meeting the section modulus requirements shown may be allowed subject to approval by the Bureau of Bridges and Structures. Maximum Girder depth = 33". No additional payment will be allowed if the contractor chooses a heavier steel section than the one specified in the plans

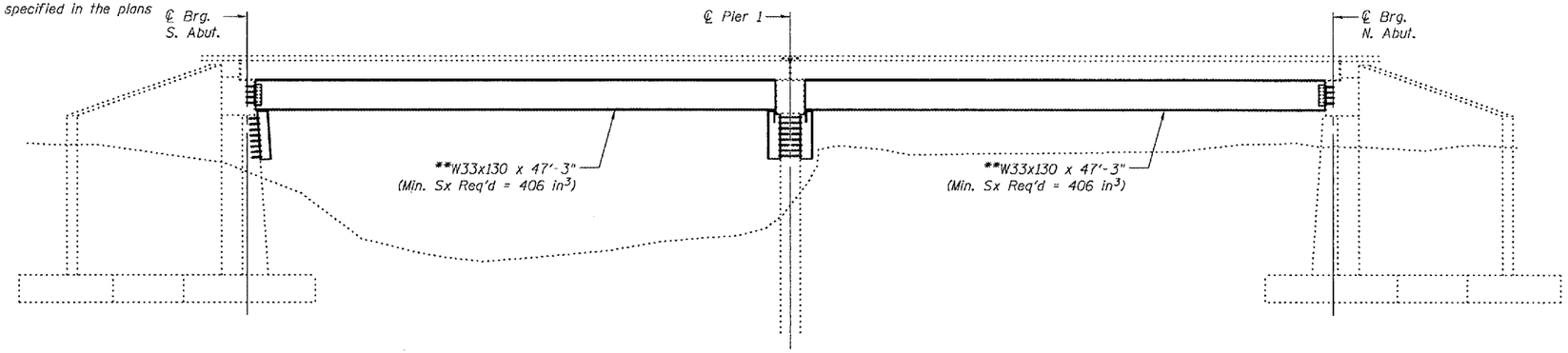
*℄ Transverse tie ℄'s (3 per span). Place additional shims at midpoints between tie ℄'s. Securely weld shims to top flange of support beam. Minimum shim size is 6" x flange width.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

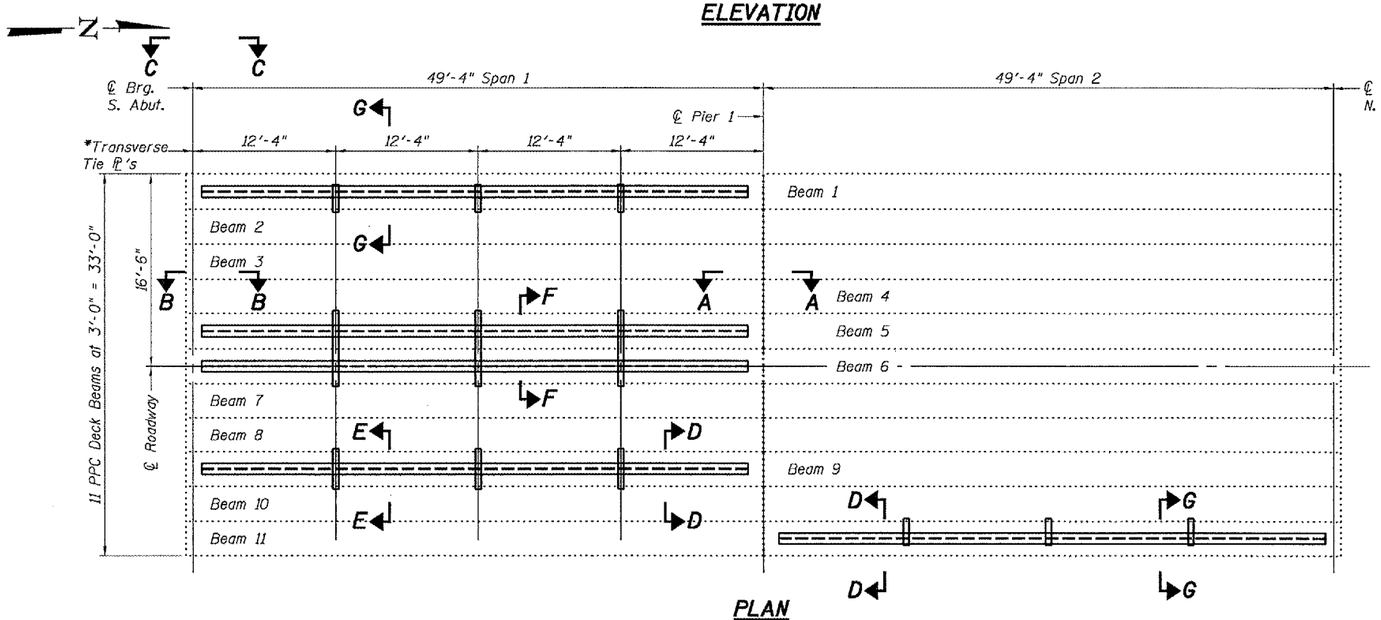
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 53		Mercer	9	8
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
2 SHEETS

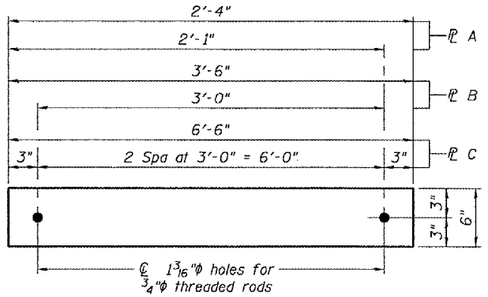
Contract Number: 68752



ELEVATION



PLAN



TRANSVERSE TIE ℄'S

℄ A ½" x 2'-4" x 6" (6 Req'd)
℄ B ½" x 3'-6" x 6" (3 Req'd)
℄ C ½" x 6'-6" x 6" (3 Req'd)

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

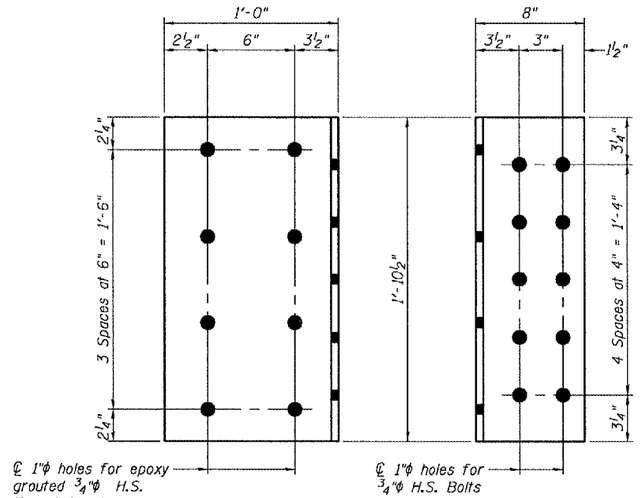
The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractors responsibility to account for the condition of the beams when developing construction procedures.

See Section 584 of the Standard Specifications for Epoxy Grouting of Threaded Rods; Minimum embedment 9".

If the contractor's procedure for placement of beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the existing beams. To distribute load to multiple beams and protect the existing surface, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams.

The cost of epoxy grouting threaded rods on the pier cap, abutments and beams shall be included with Furnishing and Erecting Structural Steel.

The Contractor has the option of using used steel. See Special Provisions.



BENT ℄ D

℄ ½" x 1'-7½" x 1'-10½" (4 Req'd)

DESIGNED		
CHECKED		
DRAWN		
CHECKED	SJB	AJB

November 7, 2007

EXAMINED
ENGINEER OF STRUCTURAL TECHNICS

PASSED
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
RALPH E. ANDERSON
081-004625
SPRINGFIELD
LICENSED STRUCTURAL ENGINEER

Expires: November 30, 2008

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	34,900

PLAN AND ELEVATION
F.A.P. RT 310
MERCER COUNTY
SN 066-0003

SLT-94-001-07

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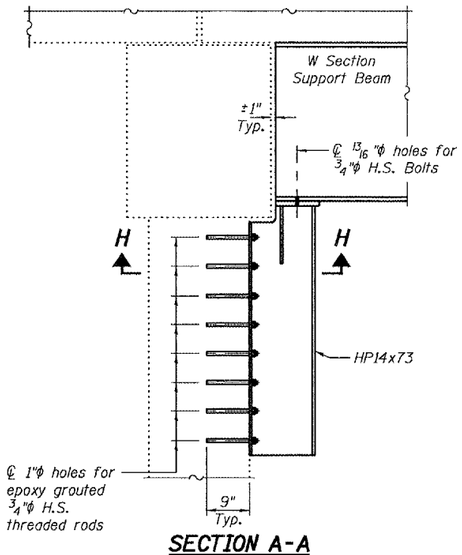
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

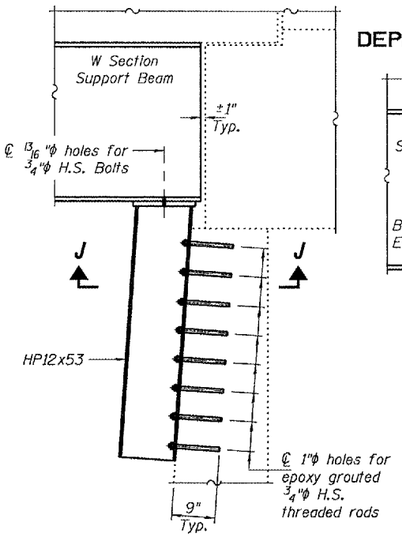
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 53		Mercer	9	9
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2
2 SHEETS

Contract Number: 68752



SECTION A-A



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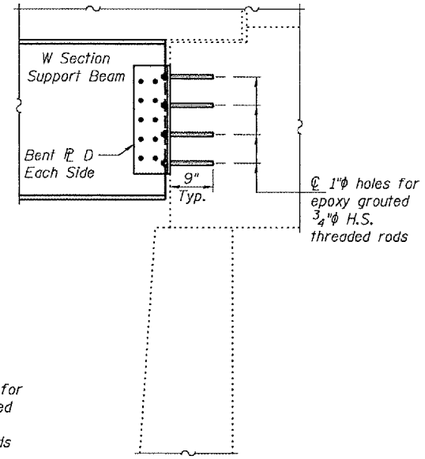

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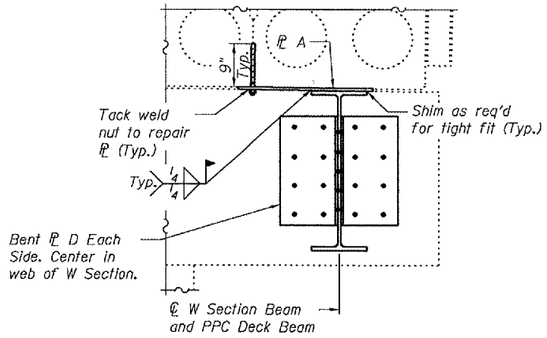
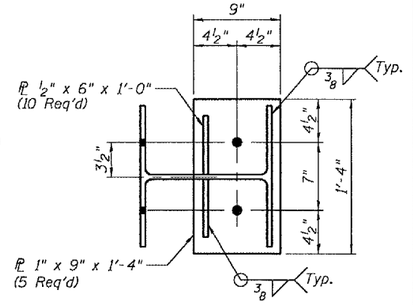
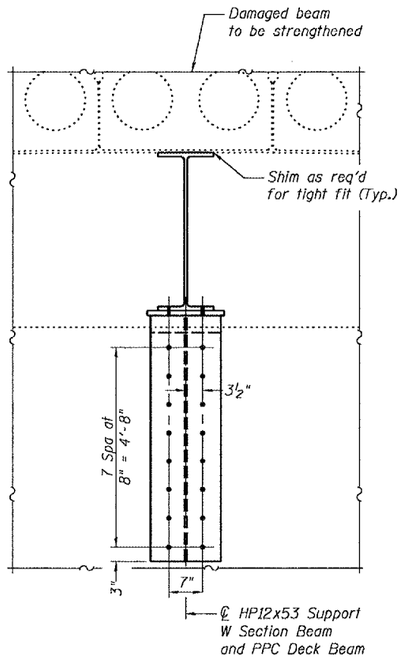


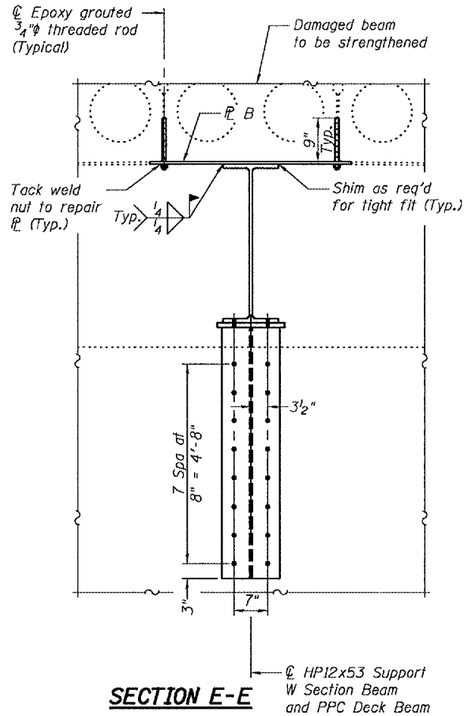
SECTION G-G



SECTION H-H



SECTION D-D



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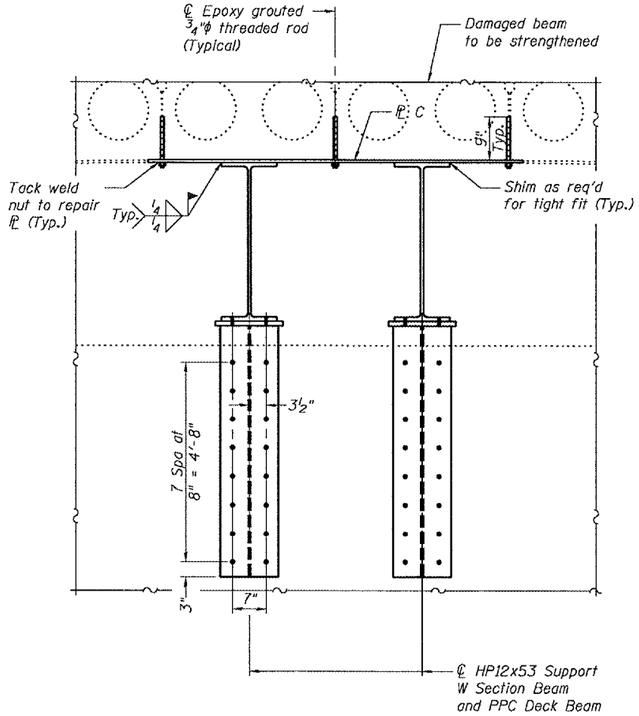
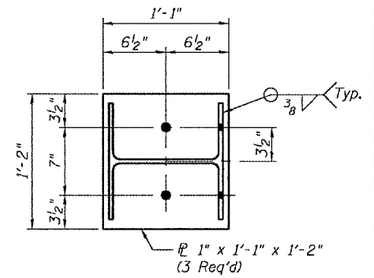
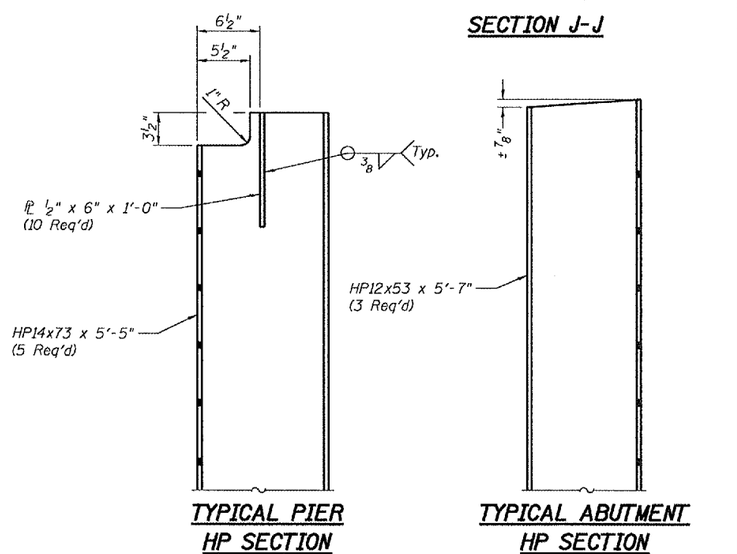


SECTION F-F



SECTION J-J



TYPICAL PIER HP SECTION

TYPICAL ABUTMENT HP SECTION

DESIGNED	S.J.B.
CHECKED	A.J.B.
DRAWN	Drew Christopher
CHECKED	S.J.B. A.J.B.

November 7, 2007

EXAMINED — ENGINEER OF STRUCTURAL SERVICES

PASSED — ENGINEER OF BRIDGES AND STRUCTURES

SUPPORT DETAILS
F.A.P. RT 310
MERCER COUNTY
SN 066-0003

SLT-94-001-07

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