

026

FOR INDEX OF SHEETS & STATE STANDARDS  
SEE SHEET NO. 2

01-17-2020 LETTING ITEM 086

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PROPOSED HIGHWAY PLANS

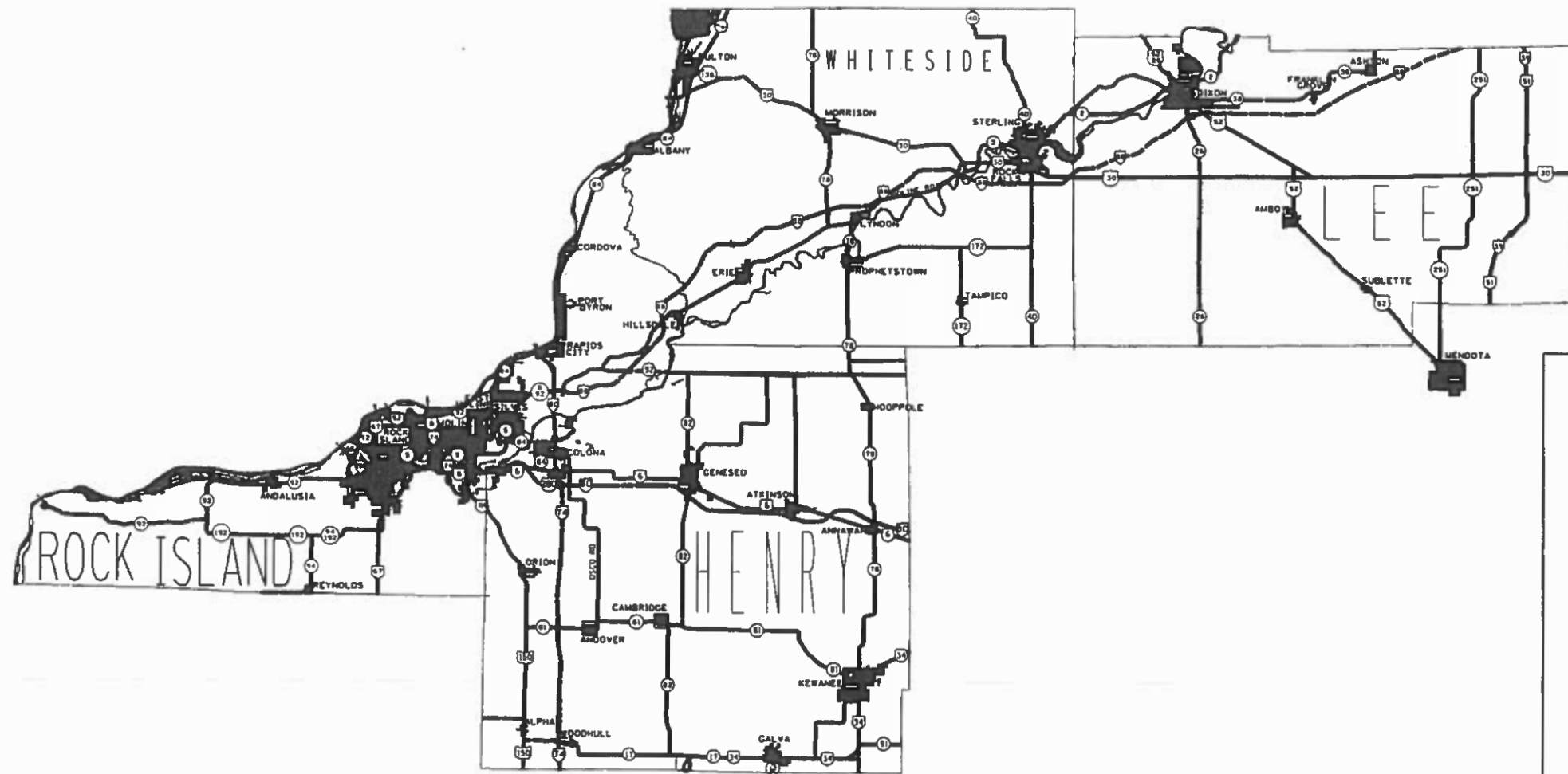
VARIOUS ROUTES  
SECTION D2 GR (SOUTH) 2020  
PROJECT  
VARIOUS COUNTIES  
C-92-094-19

F.A. RTE. VAR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	D2 GR (SOUTH) 2020	VARIOUS	26	1

CONTRACT NO. 64N96  
D-92-062-19

PROJECT ENGINEER: SCOTT KULLERSTRAND

SQUAD LEADER: LANCE NICKLAUS 815-284-5407



J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123

CONTRACT NO. 64N96

VARIOUS ROUTES SECTION D2 GR (SOUTH) 2020 VARIOUS COUNTIES

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED October 09, 2019  
*[Signature]*

REGION ENGINEER

Dec 6, 2019  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

Dec 6, 2019  
*[Signature]*  
DIRECTOR OF HIGHWAYS, PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

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**STANDARDS**

630001-12	Steel Plate Beam Guardrail
630101-10	Guardrail Mounted on Existing Culverts
630301-09	Shoulder Widening for Type 1 (Special) Guardrail Terminals
631011-10	Traffic Barrier Terminal, Type 2
631026-06	Traffic Barrier Terminal, Type 5
631031-16	Traffic Barrier Terminal, Type 6
631046-04	Traffic Barrier Terminal, Type 10
635001-02	Delineators
664001-02	Chain Link Fence
665001-02	Woven Wire Fence
701001-02	Typical Application of Traffic Control Devices
701006-05	Typical Application of Traffic Control Devices
701101-05	Typical Application of Traffic Control Devices
701106-02	Typical Application of Traffic Control Devices
701201-05	Typical Application of Traffic Control Devices
701301-04	Typical Application of Traffic Control Devices
701400-09	Typical Application of Traffic Control Devices
701401-12	Typical Application of Traffic Control Devices
701406-12	Typical Application of Traffic Control Devices
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701421-08	Typical Application of Traffic Control Devices
701426-09	Typical Application of Traffic Control Devices
701428-01	Traffic Control, Setup and Removal, Freeway/Expressway
701501-06	Typical Application of Traffic Control Devices
701502-09	Typical Application of Traffic Control Devices
701601-09	Typical Application of Traffic Control Devices
701602-10	Typical Application of Traffic Control Devices
701606-10	Typical Application of Traffic Control Devices
701701-10	Typical Application of Traffic Control Devices
701901-08	Traffic Control Devices
720011-01	Metal Posts For Signs, Markers, & Delineators
725001-01	Object and Terminal Markers
728001-01	Telescoping Steel Sign Support
729001-01	Application of Type A and B Metal Posts
782006-01	Guardrail and Barrier Wall Reflector Mounting Details

**SUMMARY OF QUANTITIES**

VARIOUS ROUTES  
SECTION D2 GR (SOUTH) 2020  
VARIOUS COUNTIES  
CONTRACT # 64N96  
SHEET 3 OF 26

100% State  
0021

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	MHTMCB	MCHD FUND	CONTRACT MAINT
20400800	FURNISHED EXCAVATION	CU YD	50		25	25
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	3		2	1
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	3		2	1
63100105	TRAFFIC BARRIER TERMINAL, TYPE 10	EACH	2		1	1
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	30		20	10
63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	15		10	5
63301210	REMOVE AND RE-RECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	50		25	25
63500105	DELINEATORS	EACH	25		15	10
66400105	CHAIN LINK FENCE, 4'	FOOT	280		50	200
66400305	CHAIN LINK FENCE, 6'	FOOT	150		75	75
66500105	WOVEN WIRE FENCE, 4'	FOOT	300		250	50
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	65		60	5

**SUMMARY OF QUANTITIES**

VARIOUS ROUTES  
SECTION D2 GR (SOUTH) 2020  
VARIOUS COUNTIES  
CONTRACT # 64N96  
SHEET 4 OF 26

100% State  
0021

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	MHTMCB	MCHD FUND	CONTRACT MAINT
X0325899	REPAIR HIGH TENSION CABLE (GIBRALTAR)	FOOT	180	180		
X0325900	REPAIR HIGH TENSION BARRIER TERMINAL (GIBRALTAR)	EACH	3	3		
X0325902	REMOVE AND REPLCE POSTS (GIBRALTAR)	EACH	50	50		
X0327382	REPAIR HAIRPINS (GIBRALTAR)	EACH	50	50		
X0327383	REPAIR LOCK PLATES (GIBRALTAR)	EACH	50	50		
X6320310	LONG POST FOR STEEL PLATE BEAM GUARDRAIL	EACH	10		5	5
X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	75		25	50
X6331101	TUBULAR THRIE BEAM	FOOT	25		12.5	12.5
X6331110	STEEL POSTS SPECIAL	EACH	30		20	10
X6432110	REPLCE IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3	EACH	20		15	5
X6640594	CHAIN LINK FENCE POST 4'	EACH	25		10	15
X6640601	CHAIN LINK FENCE POST 6'	EACH	25		15	10
Z0008760	EMERGENCY WORK CALL OUT	EACH	10		5	5
Z0012752	CONCRETE STRUCTURE REPAIR	CU FT	24		16	8
Z0020210	PULL POST ARRANGEMENT	EACH	10		5	5
Z0029668	REPAIR TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL - POST	EACH	40		20	20

**SUMMARY OF QUANTITIES**

VARIOUS ROUTES  
SECTION D2 GR (SOUTH) 2020  
VARIOUS COUNTIES  
CONTRACT # 64N96  
SHEET 5 OF 26

100% State  
0021

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	MHTMCB	MCHD FUND	CONTRACT MAINT
Z0052000	REPAIR STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	3000		2250	750
Z0052100	REPAIR STEEL PLATE BEAM GUARDRAIL, TYPE B	FOOT	25		12.5	12.5
Z0052410	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	EACH	25		15	10
Z0052415	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (FLARED)	EACH	6		3	3
Z0052600	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	6		3	3
Z0053000	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	2		1	1
Z0053200	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	3		2	1

### GENERAL NOTES

When posts are required to be placed through bituminous shoulders, all costs to do so shall be considered included in the contract unit cost of the work being done. The final top 3 inches of the area around the post shall be capped with either bituminous material or grout.

Standard 631021 (Traffic Barrier Terminal, Type 4) is obsolete and can no longer be installed. Typically, a Type 4 Terminal was used in the median of multi-lane divided highway. They are, however, still in use and when damage to one occurs, it is to be removed and replaced with a Traffic Barrier Terminal, Type 1, Special that is to be at least 12 feet off the edge of the pavement. To obtain the 12 foot distance, the existing SPBGR Type A will have to be removed and re-erected with a flair rate of 1:30 until the face of the guardrail is 12 feet out from the edge of the pavement. At this point, (where the SPBGR Type A is 12 feet off the edge of pavement), a new Traffic Barrier Terminal Type 1, Special (Tangent or Flared) is to be installed.

The Contractor shall supply the Resident Engineer with the manufacturer's installation requirements for the Traffic Barrier Terminal Type 1, Special to be used on this contract, both tangent and flared.

Wood blockouts on wood posts shall be connected with one nail to prevent the blockout from moving.

All disturbed areas in the right of way, caused by the Contractor's operations, shall be seeded with class 2A salt tolerant roadside mixture as stated in Section 250, Article 250.07 of the Standard Specifications for Road and Bridge Construction. All costs for seeding shall be considered included in the unit cost of the work being performed.

If the Contractor would like the work locations listed with GPS coordinates on the work orders, we can do that with units provided by the Contractor. We would require seven (7) units for this contract, one for each of our field engineers and field technicians. The Contractor would be responsible for all costs to keep the units in an operational condition. Please note that if the same contractor wins both guardrail repair contracts for our District, the total number of GPS units required would be ten (10).

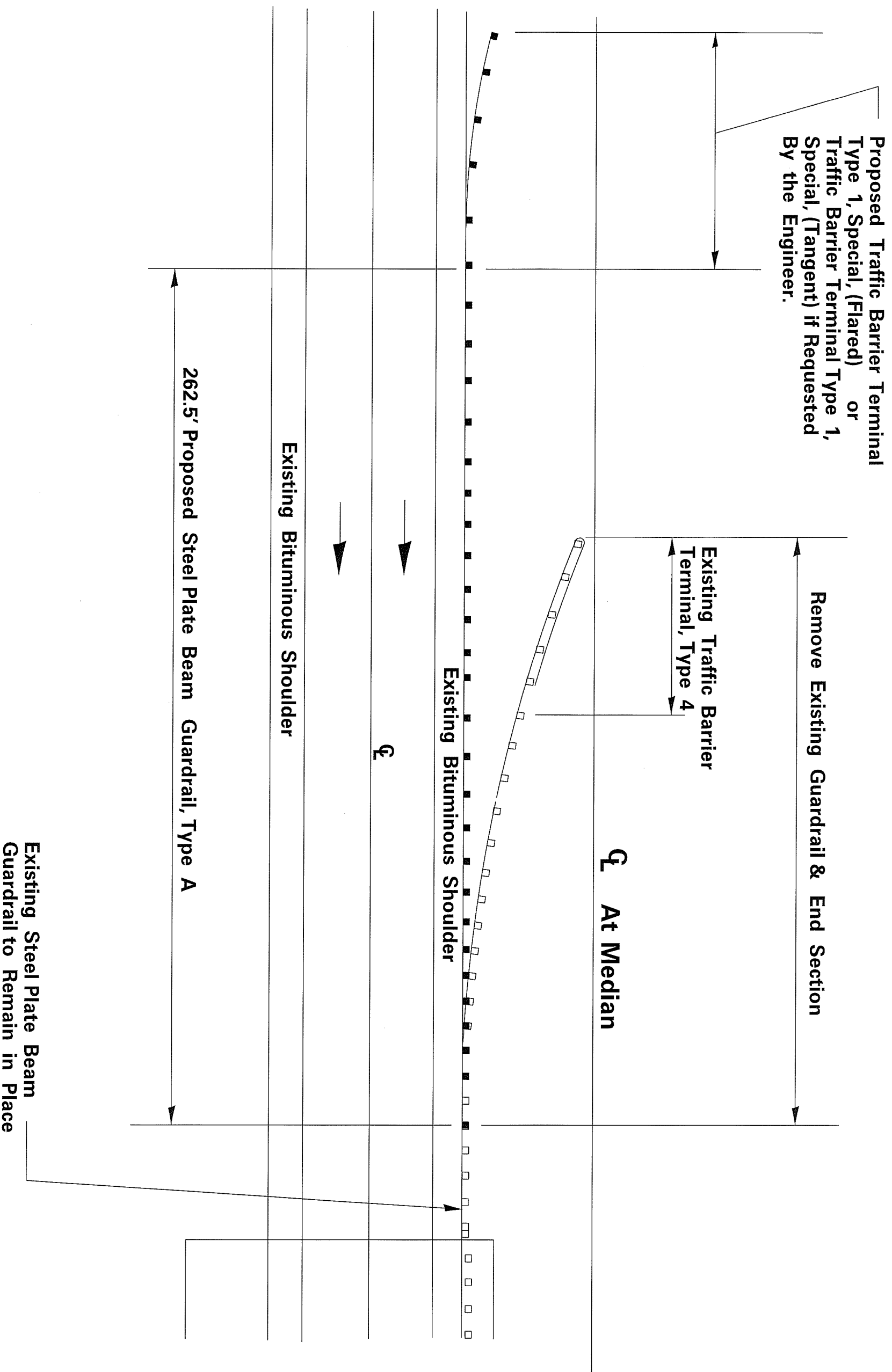
Delineators shall be installed as shown in Standard 635001, except that the post shall be rotated 180° and only metal-backed delineators shall be permitted. Delineators shall be placed at the ends of approach guardrail terminal sections. This work will be paid for at the contract unit price each for DELINEATORS.

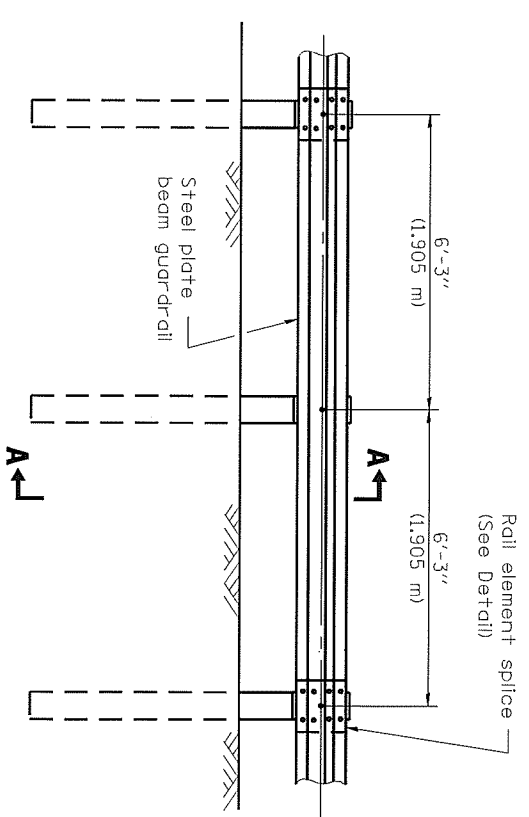
The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123.

IDOT is not a member of JULIE. If you are near any overhead lighting, intersection lighting or traffic signals, contact the IDOT Traffic Office at 815/284-5469 at least 48 hours prior to work.

# Additional Options for Repair to Damaged Obsolete Traffic Barrier Terminal Type 4

Various Routes  
D2 GR (South) 2020  
Various Counties  
Sheet 7 of 26  
Contract Number: 64N96

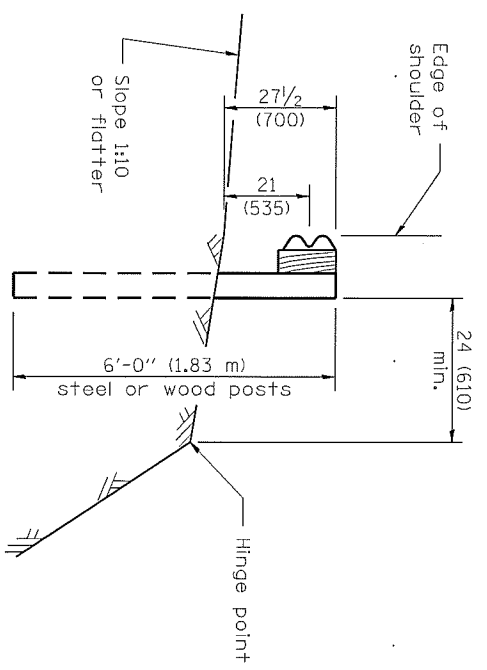




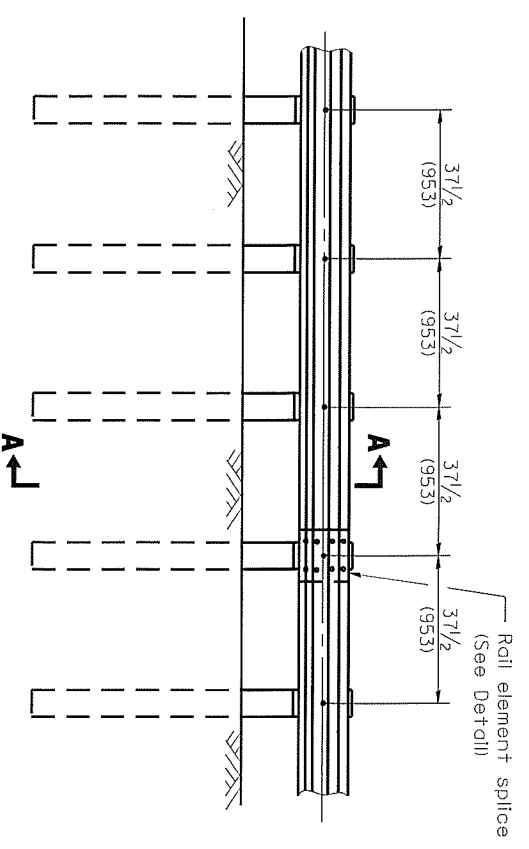
**ELEVATION**

**TYPE A**

6'-3" (1,905 m) Typical post spacing



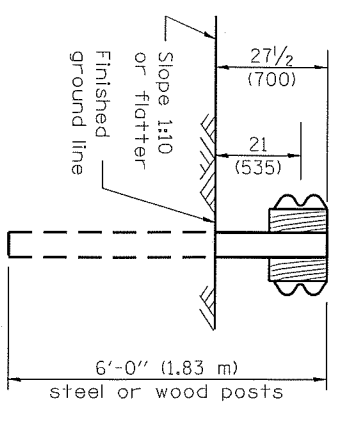
**SECTION A-A**



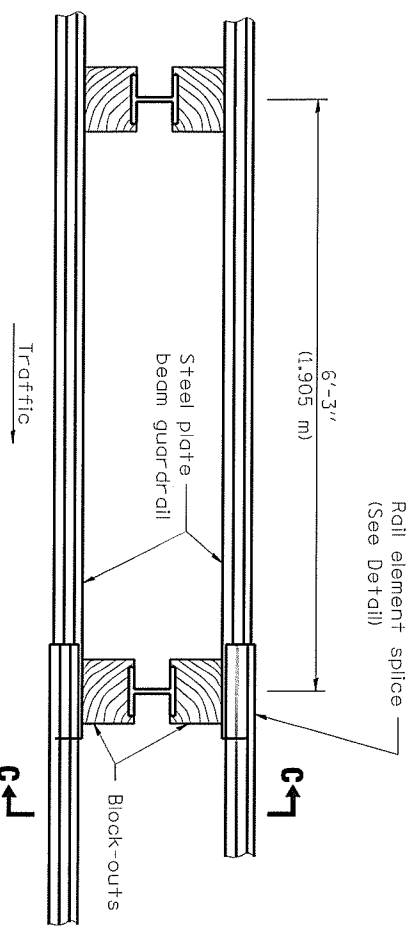
**ELEVATION**

**TYPE B**

37 1/2 (953) Closed post spacing



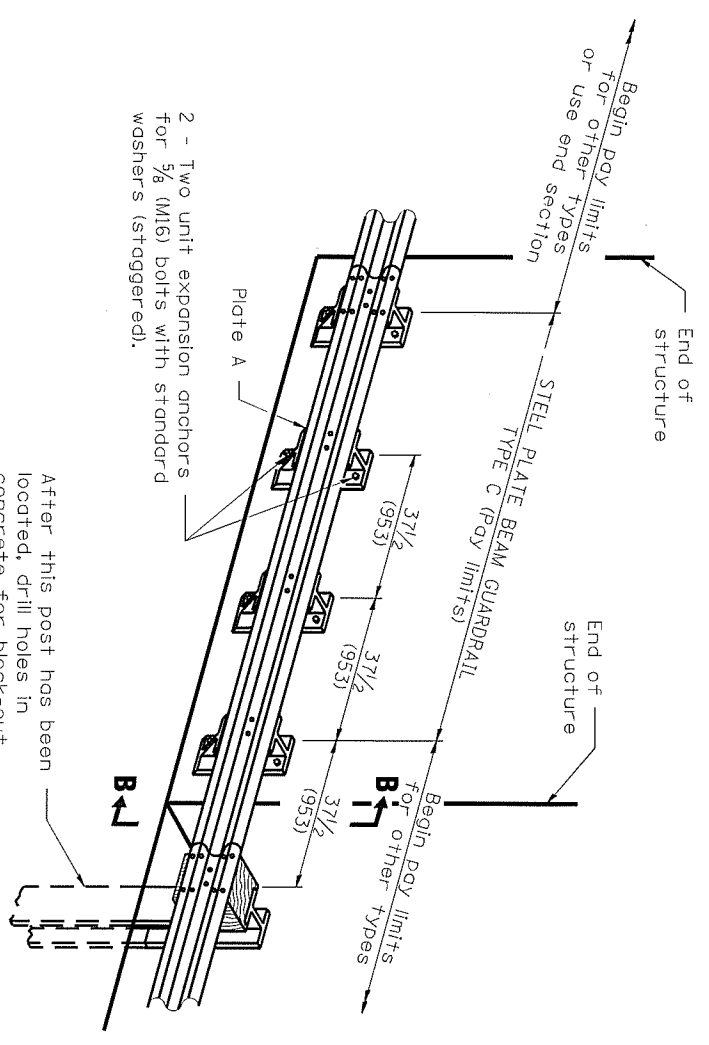
**SECTION C-C**



**PLAN**

**TYPE D**

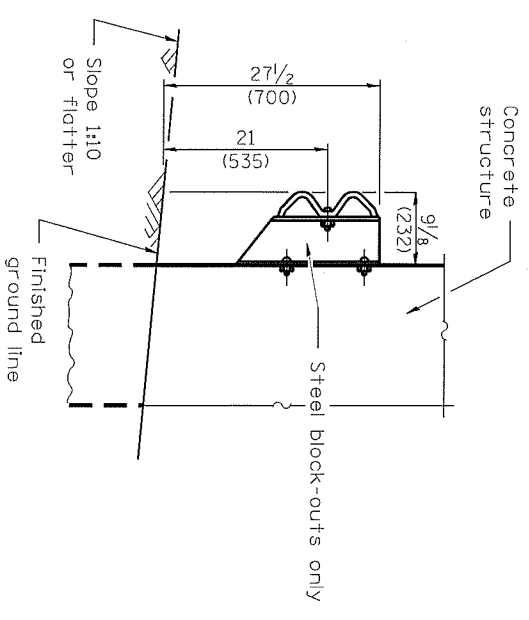
Double steel plate beam guard-rail  
6'-3" (1,905 m) typical post spacing



After this post has been located, drill holes in concrete for block-out attachments.

**TYPE C**

37 1/2 (953) Block-out 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 inches (millimeters) unless otherwise shown.

**STEEL PLATE BEAM GUARDRAIL**

**27 1/2" (700mm) HEIGHT**

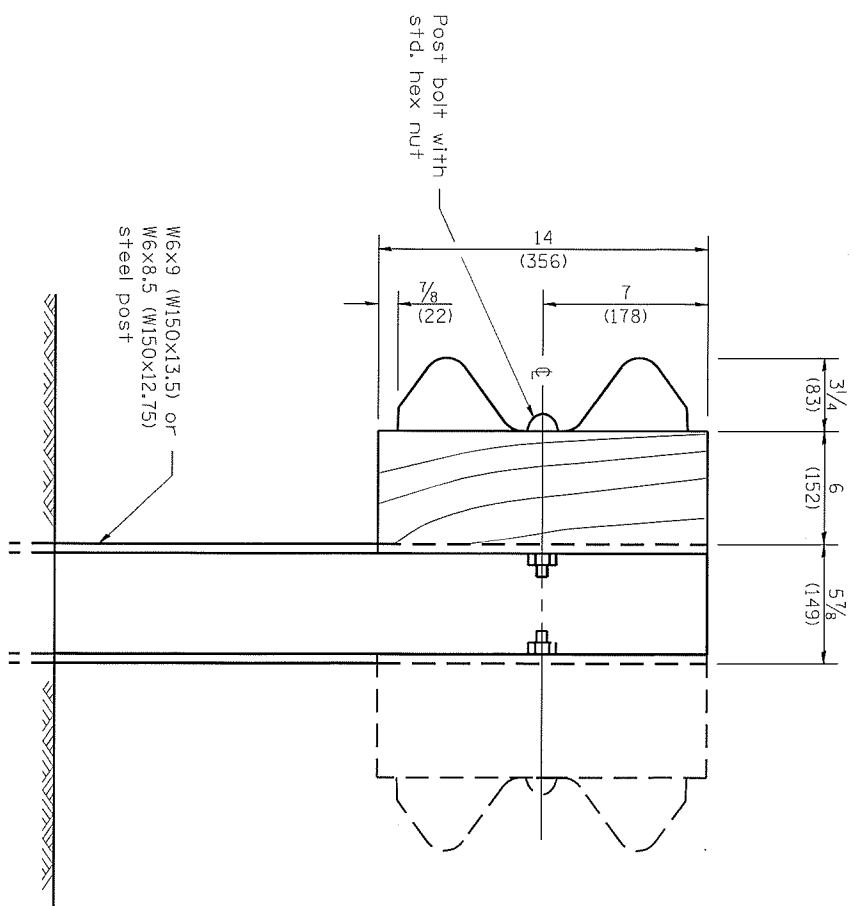
(Sheet 1 of 4)

**STANDARD B.L.R. 26-2**

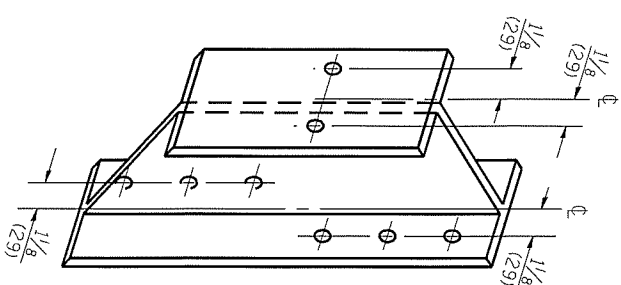
Various Routes  
D2 GR (South) 2020  
Various Counties  
Sheet 8 of 26  
Contract #64N96

Illinois Department of Transportation  
APPROVED January 1, 2010  
ENGINEER OF LOCAL ROADS AND STREETS  
APPROVED January 1, 2010  
ENGINEER OF DESIGN AND ENVIRONMENT

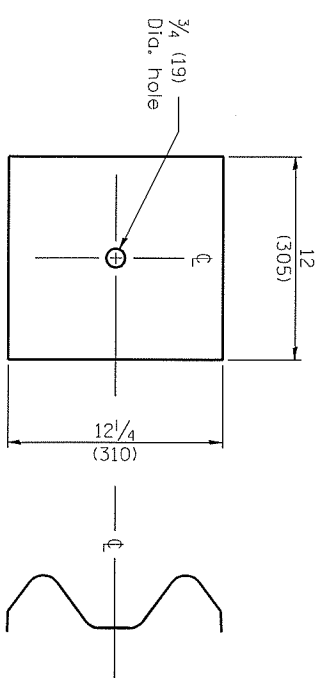




**STEEL POST CONSTRUCTION**

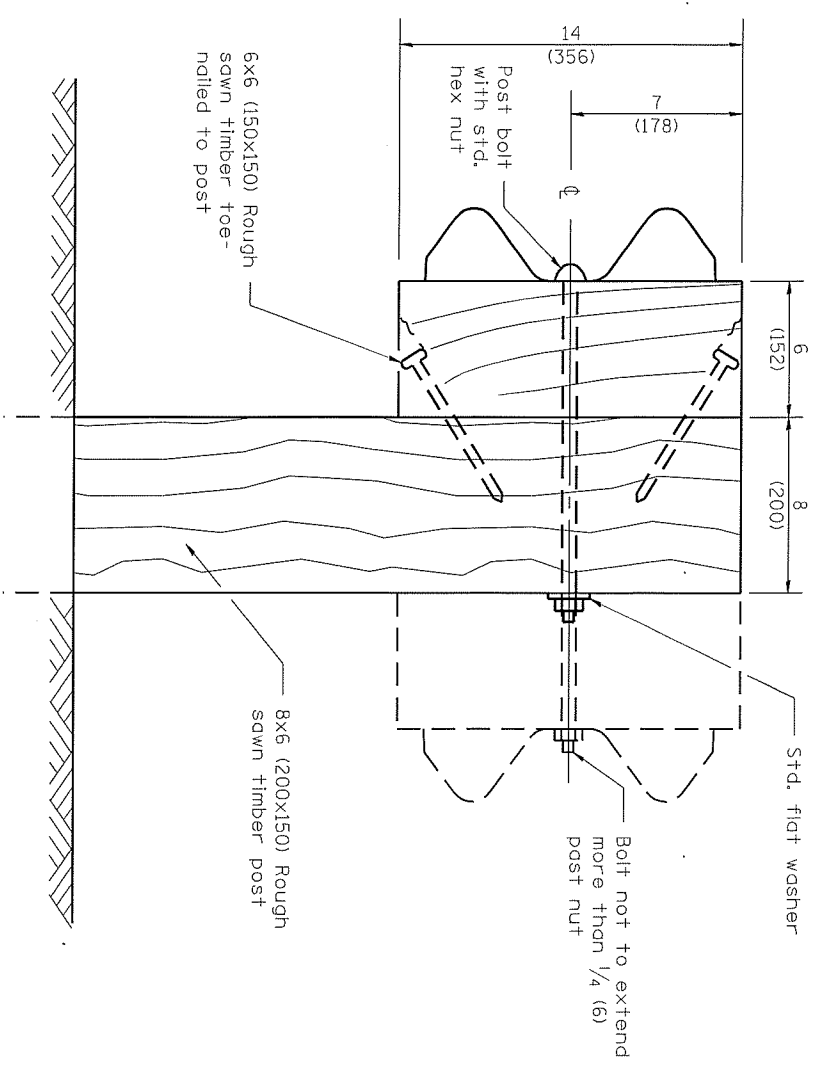


**STEEL BLOCK-OUT DETAIL**

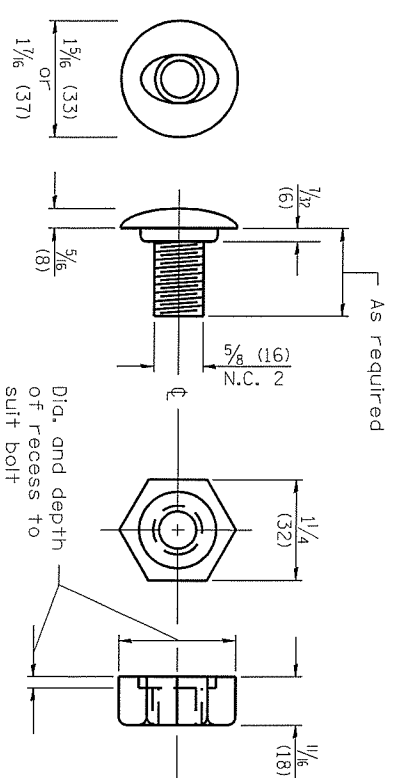


**NOTE**  
 Plate A shall be placed between rail element and block-out at non-splice mounting points only when steel block-outs are used.

**PLATE A**



**WOOD POST CONSTRUCTION**



**POST OR SPLICE BOLT & NUT**

Illinois Department of Transportation

APPROVED January 1, 2010

*David Rice*

ENGINEER OF LOCAL ROADS AND STREETS

APPROVED January 1, 2010

*Charles J. Thompson*

ENGINEER OF DESIGN AND ENVIRONMENT

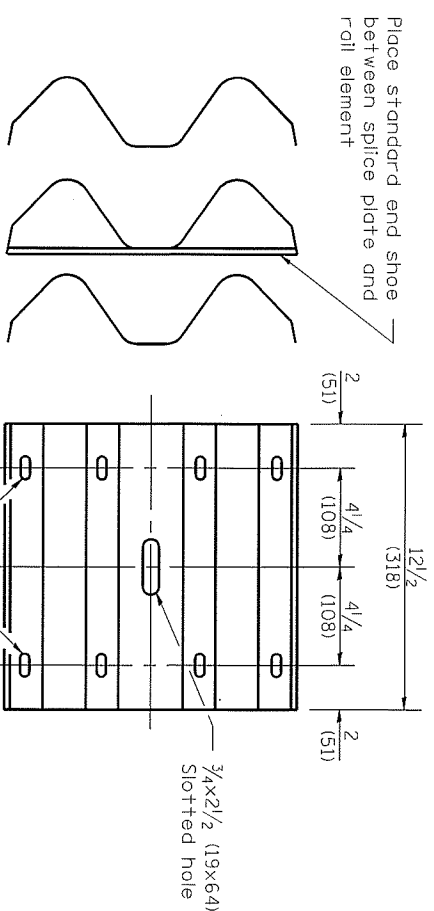
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Various Routes  
 D2 GR (South) 2020  
 Various Counties  
 Sheet 9 of 26  
 Contract #64N96

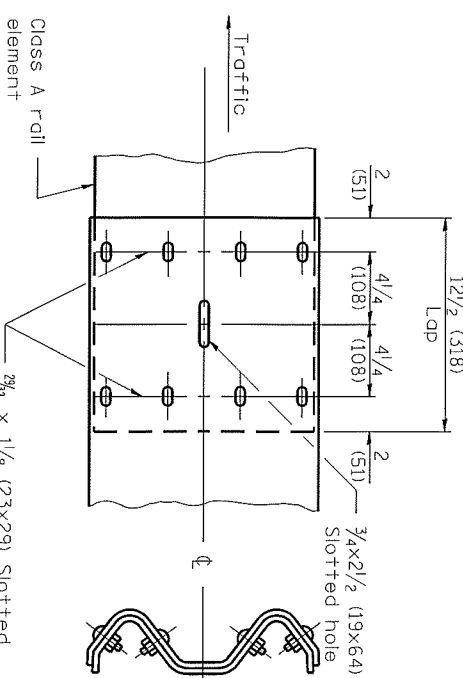
**STEEL PLATE BEAM GUARDRAIL**  
**27 1/2" (700mm) HEIGHT**

(Sheet 2 of 4)

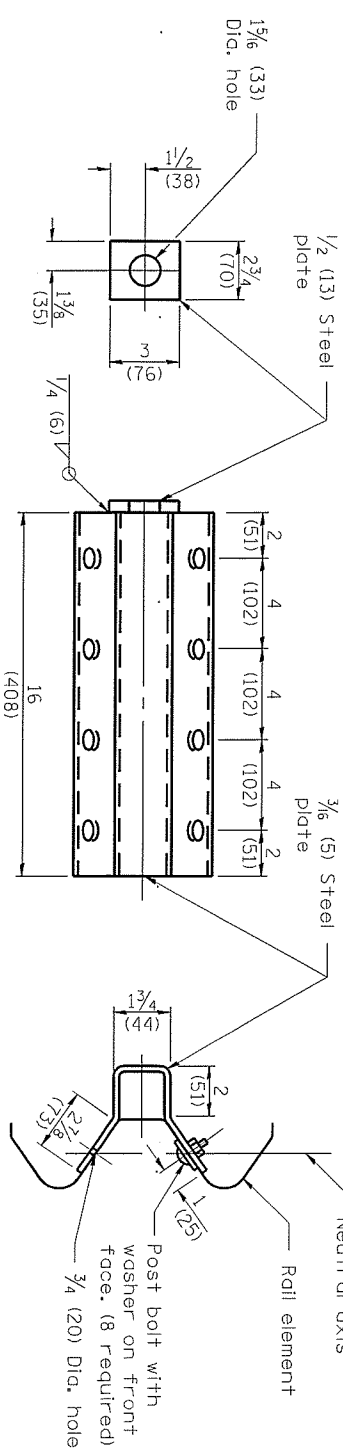
**STANDARD B.L.R. 26-2**



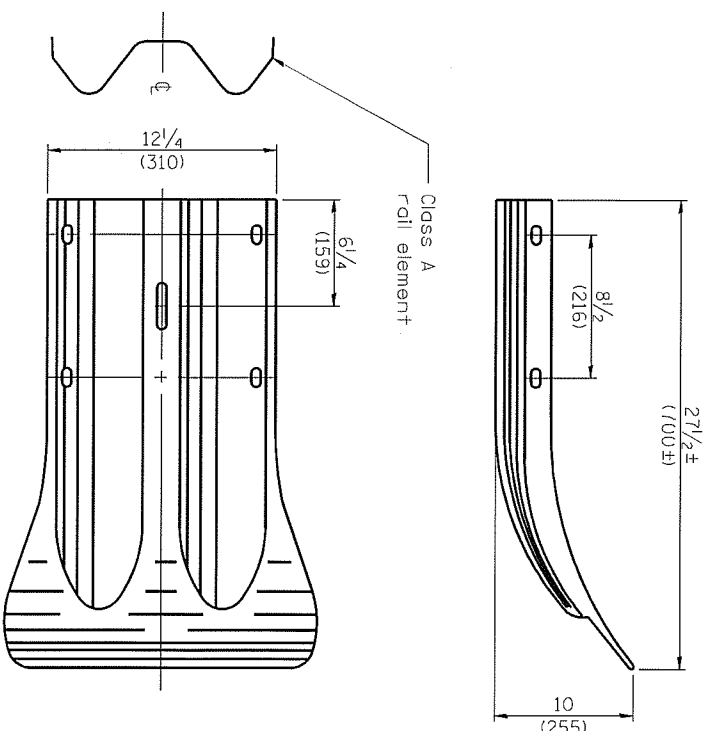
**SPLICE PLATE**



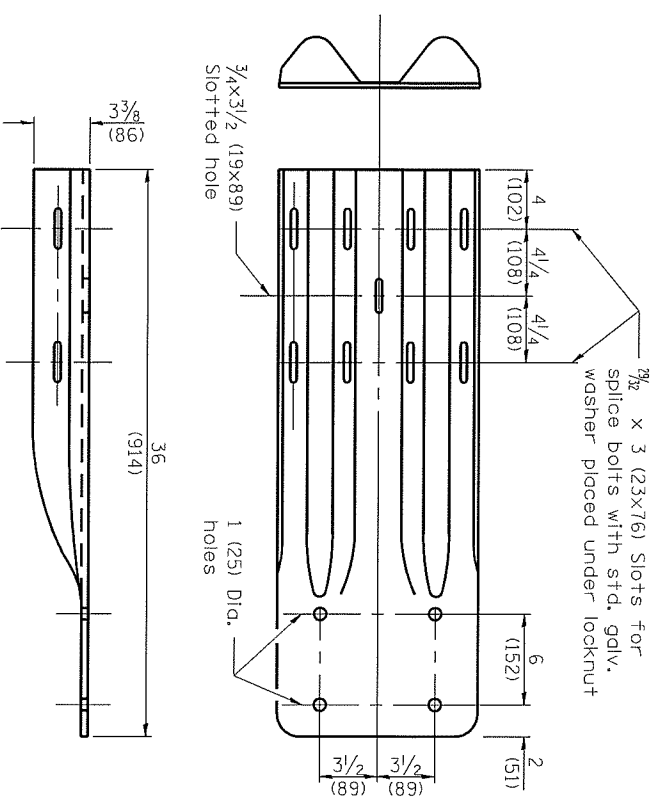
**RAIL ELEMENT SPLICE**



**ANCHOR PLATE T DETAILS**



**END SECTION**

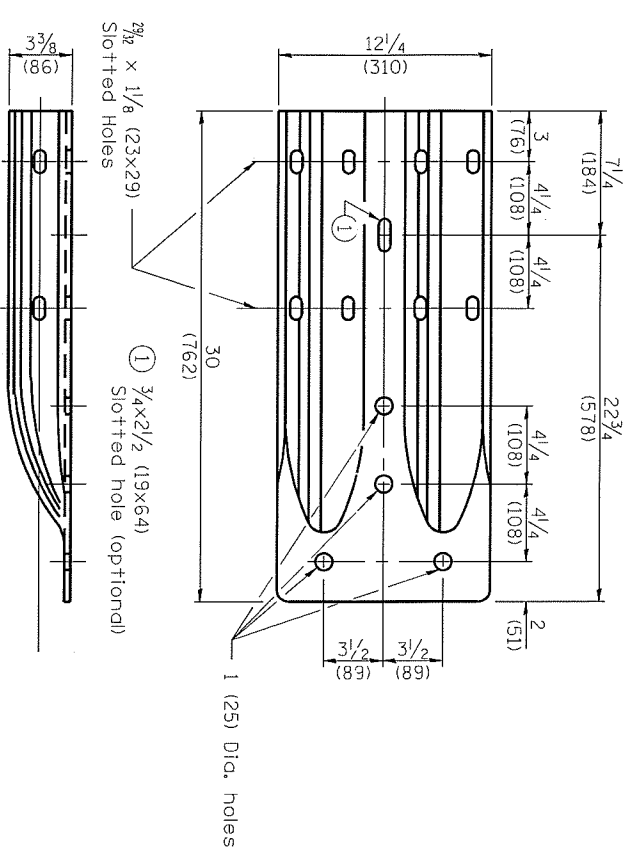


**NOTE**

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.



**ALTERNATE END SHOE**

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 APPROVED January 1, 2010  
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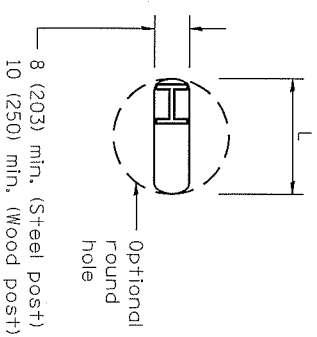
**END SHOE**

Various Routes  
 D2 GR (South) 2020  
 Various Counties  
 Sheet 10 of 26  
 Contract #64N96

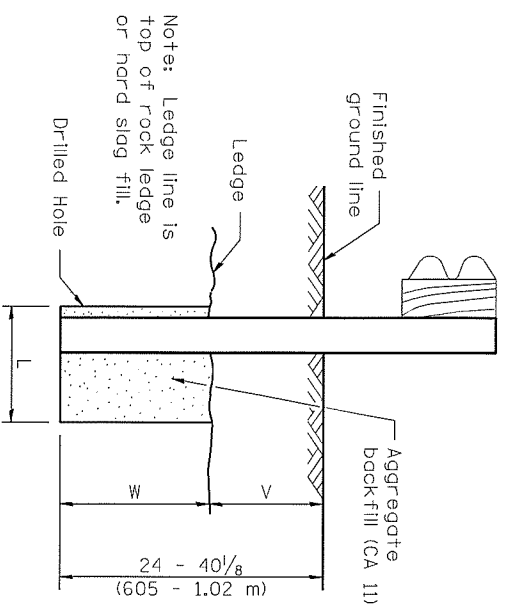
**STEEL PLATE BEAM GUARDRAIL**  
**27 1/2" (700mm) HEIGHT**

STANDARD B.L.R. 26-2

(Sheet 3 of 4)

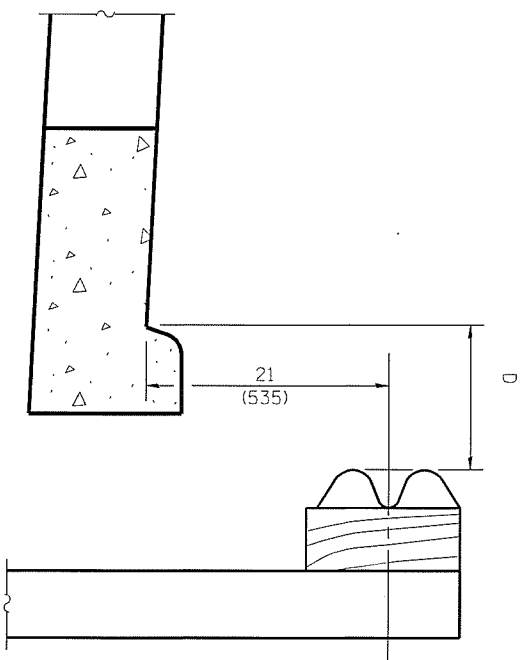


**PLAN**



**ELEVATION**

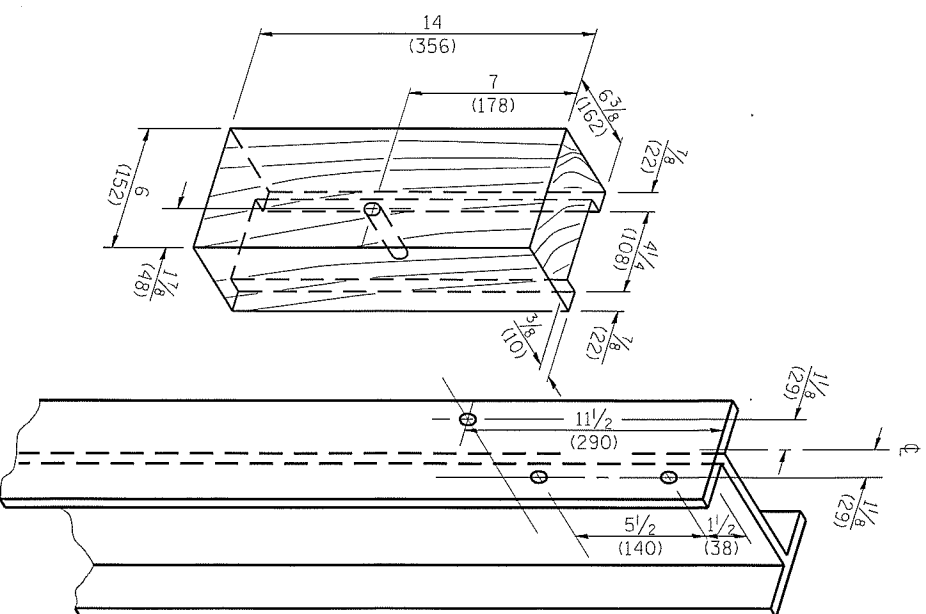
**FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED**



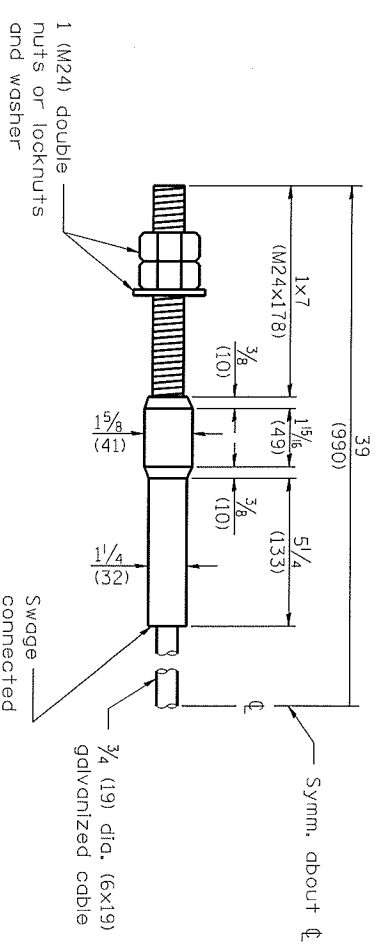
Note:  
If it is necessary for D to be more than 12 (300) and less than 10'-0" (3.0 m) Type M-2 (M-5) curb and gutter (Std. 606001) shall be used in front of and in advance of the guard-rail.

**GUARDRAIL PLACED BEHIND CURB**  
(D = 0 desirable to 12 (300) maximum)

V	W	L	
		Steel Post	Wood Post
0 - 16 1/8 (0 - 410)	24 (610)	21 (530)	23 (580)
>16 1/8 - 28 1/8 (>410 - 714)	12 (305)	8 (203)	10 (250)
>28 1/8 - 40 1/8 (>714 - 1.02 m)	12 - 0 (305 - 0)	8 (203)	10 (250)



**WOOD BLOCK-OUT AND STEEL POST DETAILS**



**CABLE ASSEMBLY**  
(40,000 lbs., (18,100 Kg) min. breaking strength)  
Tighten to taut tension.

Illinois Department of Transportation

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APPROVED January 1, 2010  
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Various Routes  
D2 GR (South) 2020  
Various Counties  
Sheet 11 of 26  
Contract #64N96

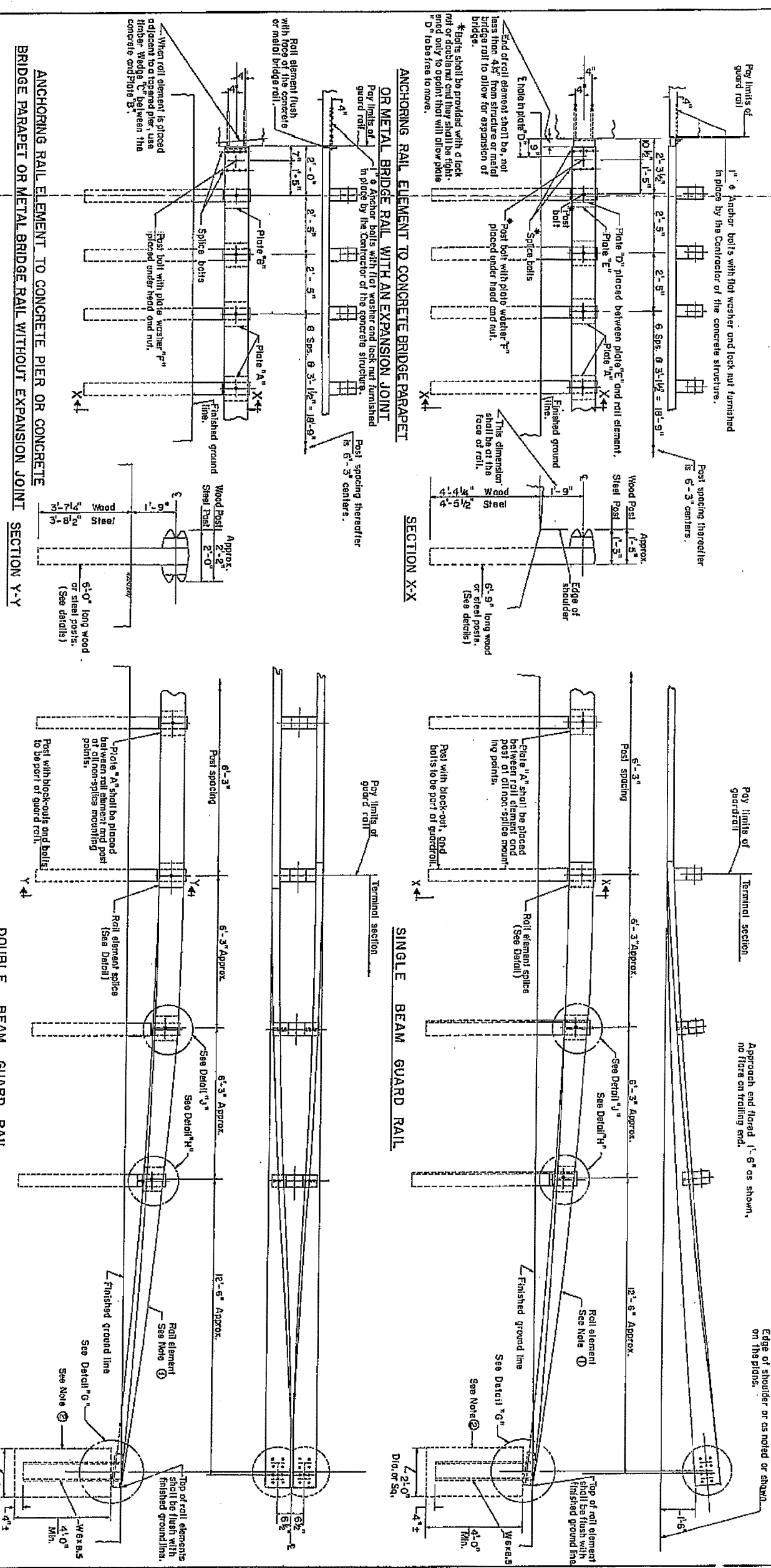
**STEEL PLATE BEAM GUARDRAIL**  
**27 1/2" (700mm) HEIGHT**

(Sheet 4 of 4)

STANDARD B.L.R. 26-2

Various Routes  
 D2 GR (South) 2020  
 Various Counties  
 Sheet 12 of 26  
 Contract #64N96

### STANDARD DESIGN STEEL PLATE BEAM GUARD RAIL



**GENERAL NOTE**  
 1 Rail element shall be twisted 90° (in 25 feet). Care shall be exercised to provide a smooth curve with no kinks.  
 2 Rail element and post may be assembled and positioned to proper alignment prior to placing concrete around post.  
 Rail element, steel post, and all the steel supports, fastenings and accessories shall be galvanized.  
 Steel brackets Detail "H" and "J", steel block-outs, and steel posts may be provided with additional holes so that these items will not be required to be made right and left handed.  
 Steel brackets Detail "H" and "J" may be fabricated from W 6x8.5 beam flanges of the shape specified, by cutting web of beam as shown dotted and holding together on both sides.

**ANCHORING RAIL ELEMENT TO CONCRETE BRIDGE PARAPET OR METAL BRIDGE RAIL WITH AN EXPANSION JOINT**  
 Pay limits of guard rail  
 1"  $\phi$  Anchor bolts with flat washer and lock nut furnished in place by the Contractor of the concrete structure.  
 2'-0" 2'-5" 2'-5" 6 Spcs. @ 3'-1 1/2" = 18'-9"  
 Rail element flush with top of the concrete or metal bridge rail.  
 Plate "A" X  
 Plate "B"  
 Splice bolts  
 Post bolt with plate washer "F"  
 Placed under head and nut.  
 Finished ground  
 Wood Post 2'-2"  
 Steel Post 2'-0"  
 Approx. 6'-3" spacing  
 6'-0" long wood or steel posts (See details)

**ANCHORING RAIL ELEMENT TO CONCRETE BRIDGE PARAPET OR METAL BRIDGE RAIL WITHOUT EXPANSION JOINT**  
 Pay limits of guard rail  
 2'-0" 2'-5" 2'-5" 6 Spcs. @ 3'-1 1/2" = 18'-9"  
 Rail element flush with top of the concrete or metal bridge rail.  
 Plate "A" X  
 Plate "B"  
 Splice bolts  
 Post bolt with plate washer "F"  
 Placed under head and nut.  
 Finished ground  
 Wood Post 2'-2"  
 Steel Post 2'-0"  
 Approx. 6'-3" spacing  
 6'-0" long wood or steel posts (See details)

STATE OF ILLINOIS	ISSUED 2-11-65
DEPARTMENT OF TRANSPORTATION	REVISIONS
PASSED BY: <i>[Signature]</i> 5-11-73	D.W.W. 7-11-74
APPROVED BY: <i>[Signature]</i> 10-11-75	D.W.W. 8-5-75
DESIGNED BY: <i>[Signature]</i> 1975	

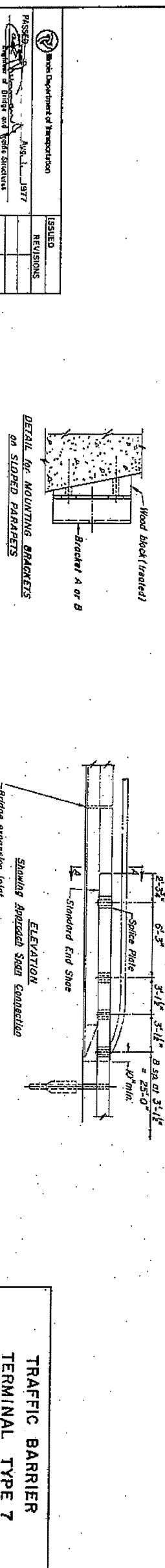
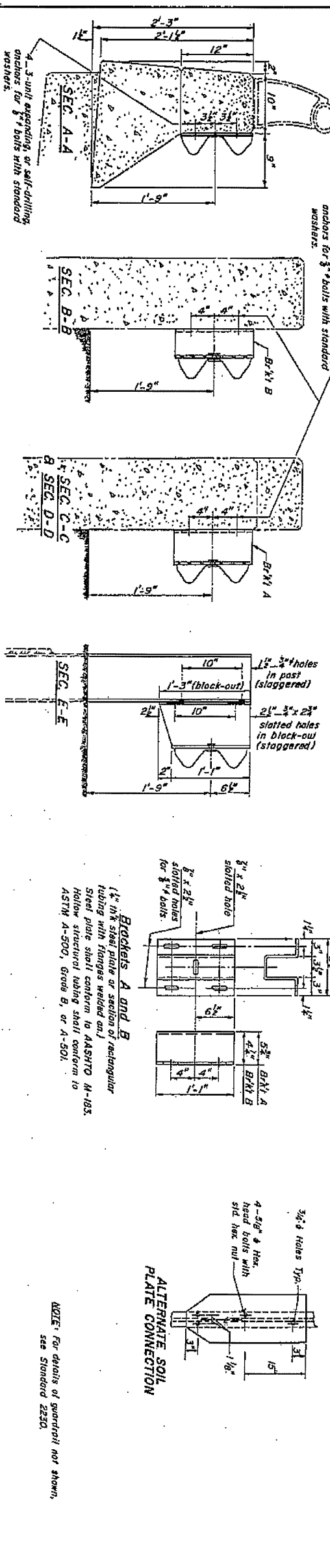
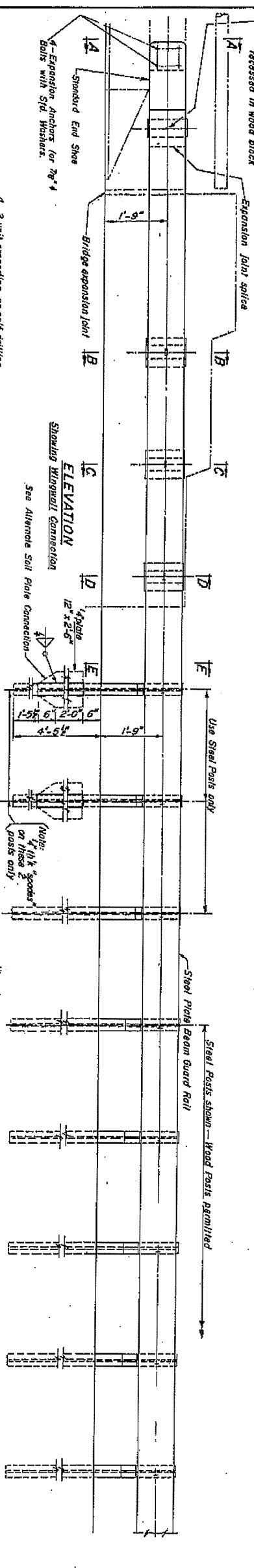
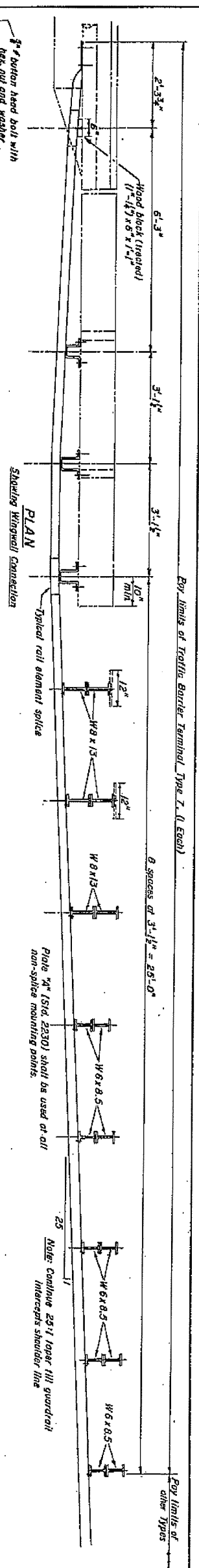
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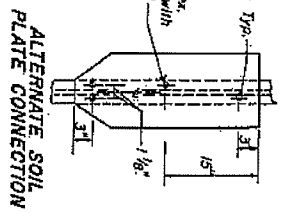
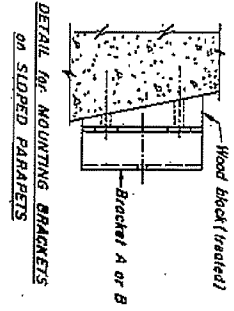


Various Routes  
 D2 GR (South) 2020  
 Various Counties  
 Sheet 16 of 26  
 Contract #64N96



Missouri Department of Transportation  
 PASSED BY THE BOARD OF DIRECTORS  
 AUGUST 1, 1977  
 APPROVED BY THE DIRECTOR OF PUBLIC SAFETY  
 SEPTEMBER 1, 1977

ISSUED	REVISIONS

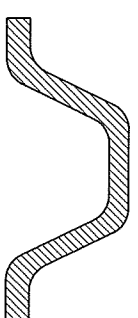
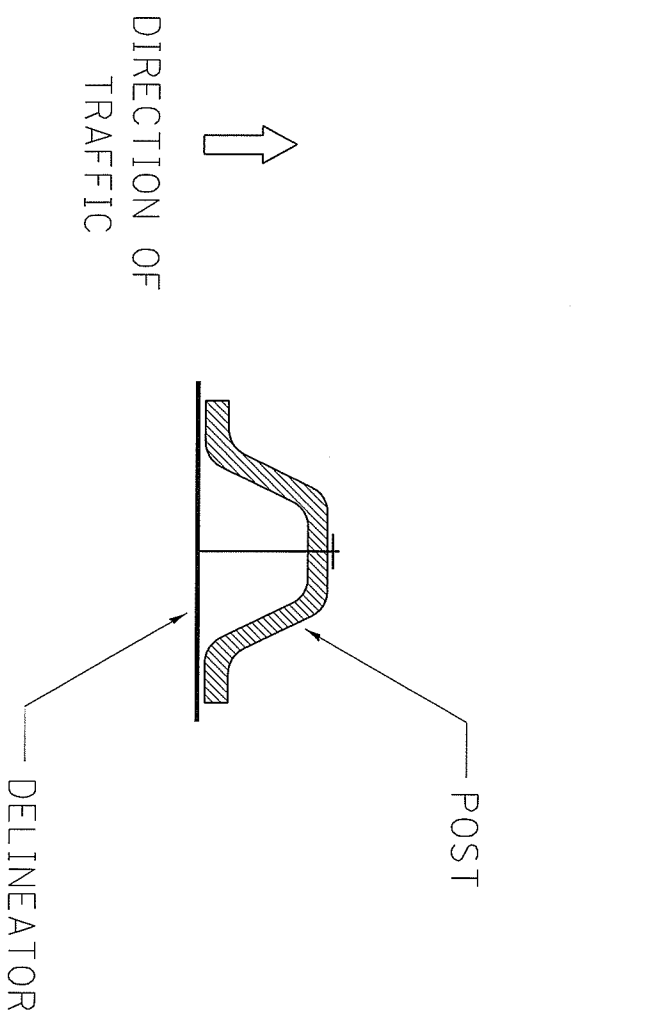


NOTE: For details of guardrail not shown, see Standard 2250.

TRAFFIC BARRIER  
 TERMINAL TYPE 7  
 STANDARD 2344  
 (Full Size)

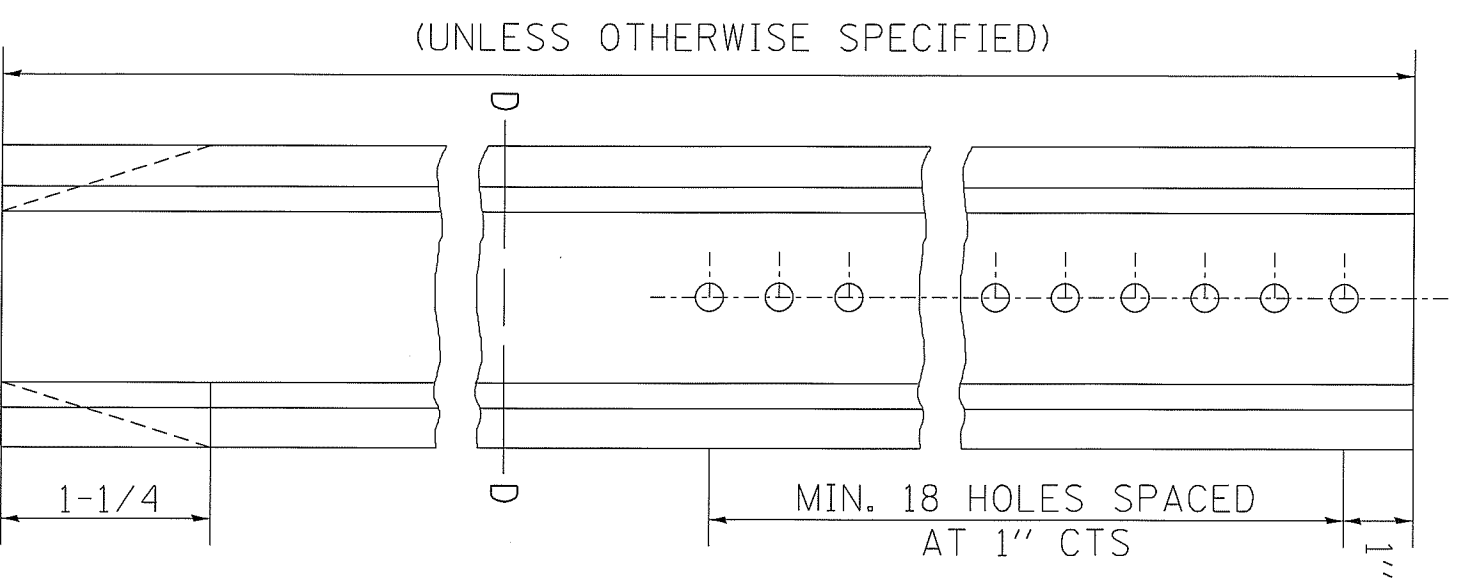


# DELINEATOR AND POST ORIENTATION



DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHECD AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



REVISED	-	10-3-11
REVISED	-	
REVISED	-	
REVISED	-	

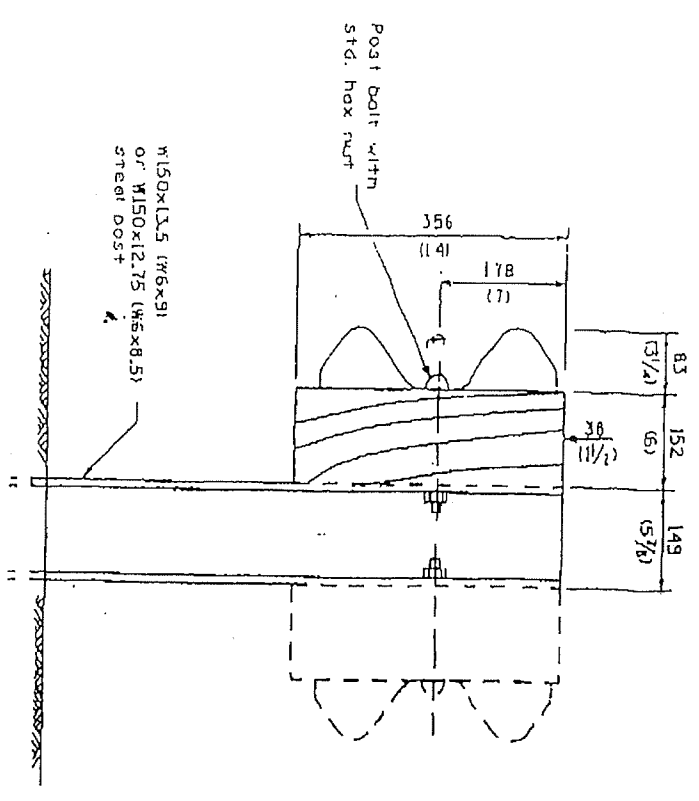
<b>REGION 2 / DISTRICT 2 STANDARD</b>				
SCALE:	51.4981' / in.	SHEET NO.	OF	SHEETS
				STA.
				TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D2 GR (SOUTH) 2020	VARIOUS	26	17
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 64N96		

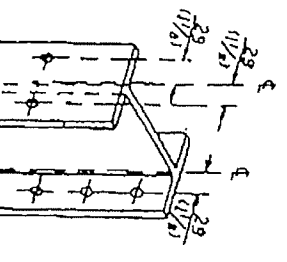
PLOT DATE = Jul-01-2019 11:48:27 AM



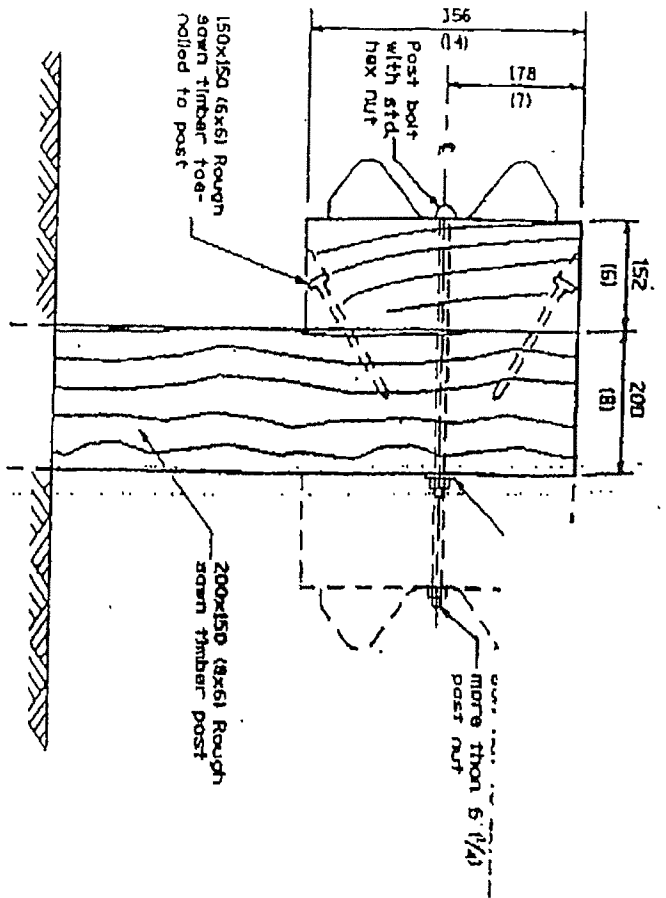
Various Routes  
 D2 GR (South) 2020  
 Various Counties  
 Sheet 19 of 26  
 Contract #64N96



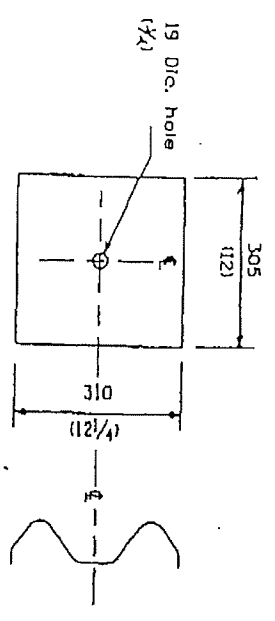
STEEL POST CONSTRUCTION



STEEL BLOCK-OUT DETAIL



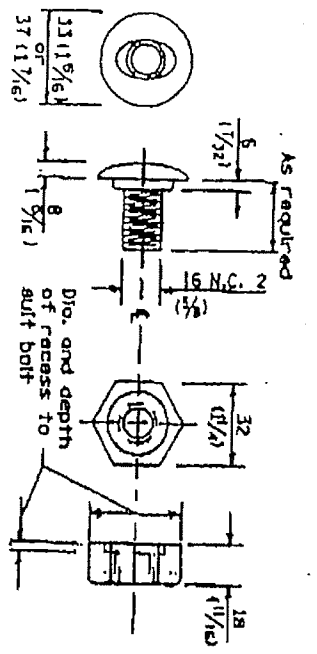
WOOD POST CONSTRUCTION



NOTE

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

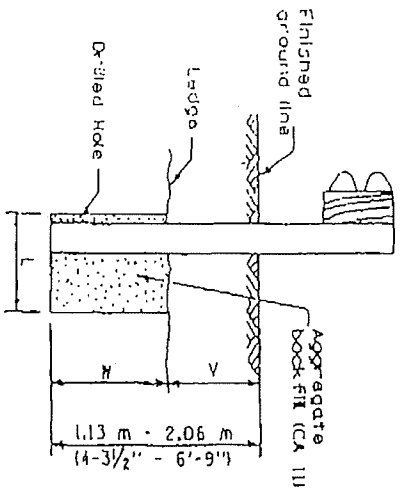
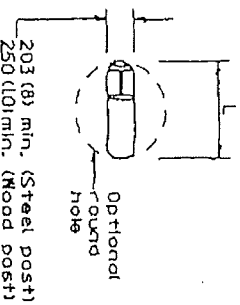
PLATE A



POST OR SPLICE BOLT & NUT

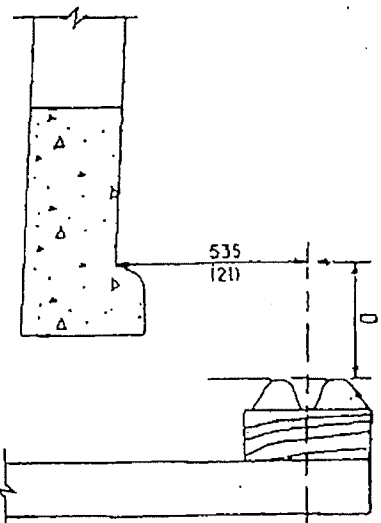
REMOVE AND REERECT  
 STEEL PLATE BEAM GUARDRAIL  
 Sheet 2 of 41  
 DETAIL





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

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

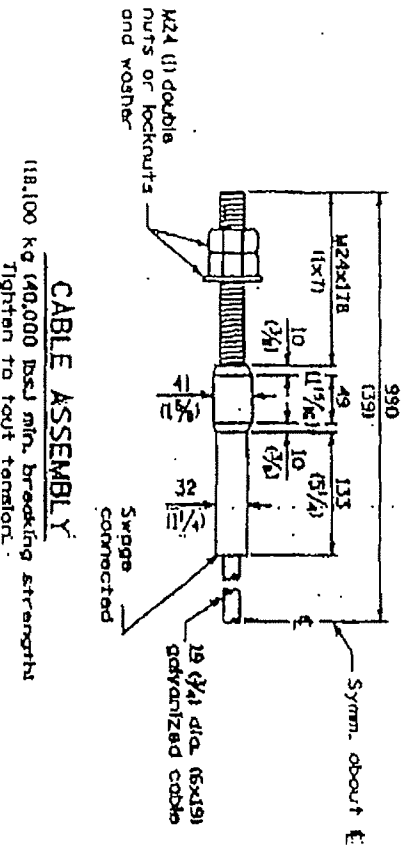
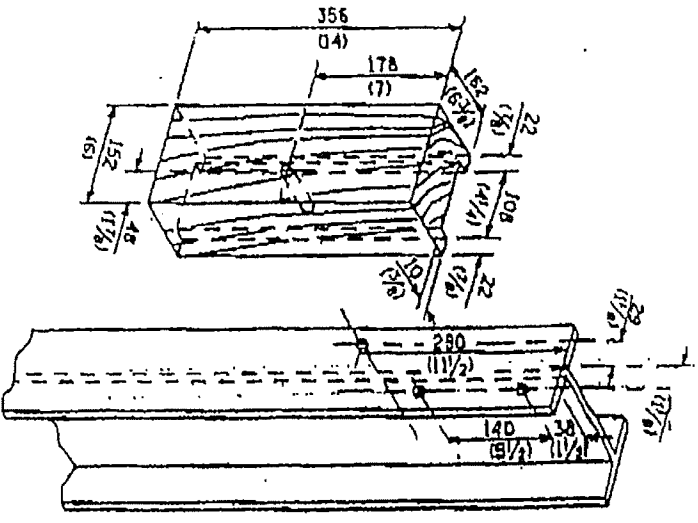


Note:  
 If it is necessary for D to be more than 300 (12) and less than 310 (10'-0") type M-5 (M-21 curb and gutter (Std. 505001)) shall be used in front of and in advance of the guardrail.

GUARDRAIL PLACED BEHIND CURB

D = 0 desirable to 300 (12) maximum

V	W	L	
		Steel Post	Wood Post
0 - 460 (0 - 18)	610 (24)	530 (21)	580 (23)
>460 - 625 (18 - 41.5)	305 (12)	203 (8)	250 (10)
>625 - 1113 m (41.5 - 53.5)	305 - 0 (12 - 0)	203 (8)	250 (10)

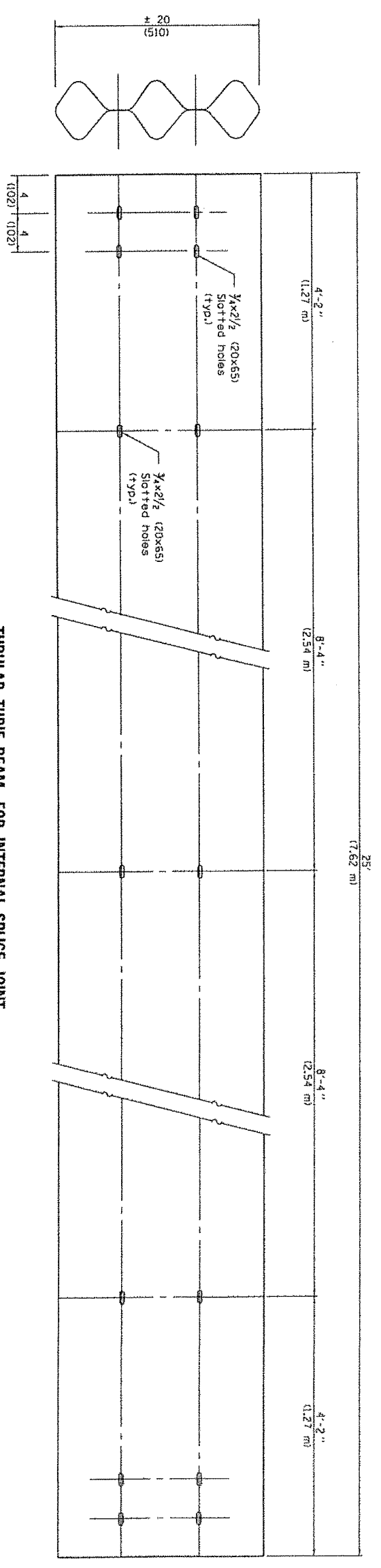


REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL

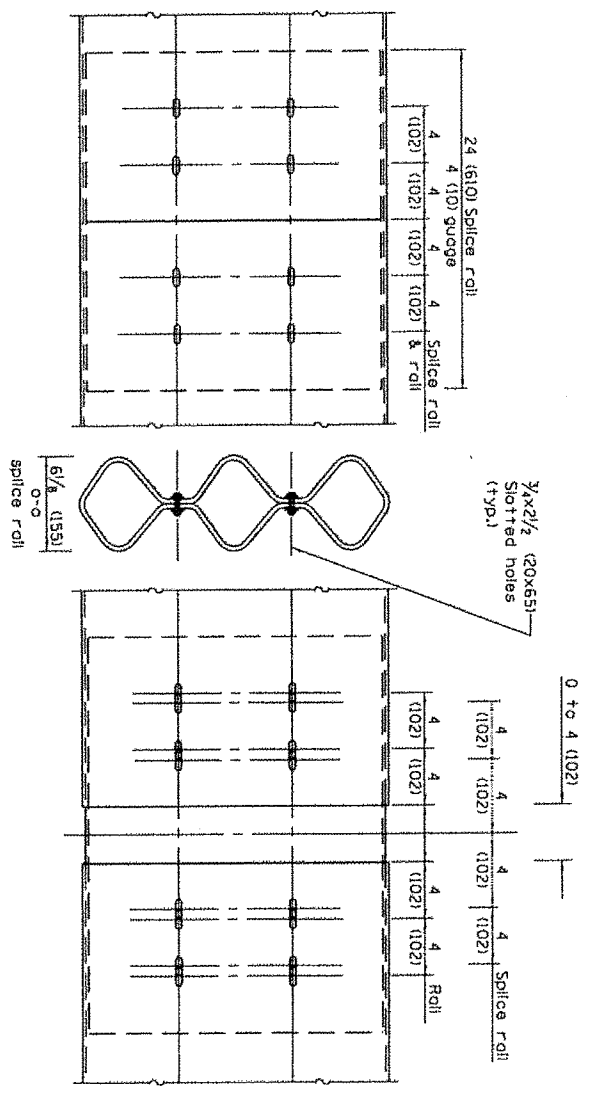
DETAIL

Sheet 4 of 4

Various Routes  
 D2 GR (South) 2020  
 Various Counties  
 Sheet 22 of 26  
 Contract #64N96

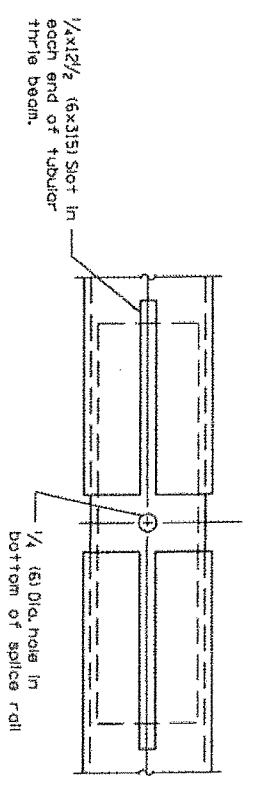


TUBULAR THRIE BEAM FOR INTERNAL SPLICE JOINT



INTERNAL SPLICE JOINT

INTERNAL EXPANSION SPLICE JOINT



BOTTOM VIEW OF INTERNAL EXPANSION SPLICE JOINT

**GENERAL NOTES**

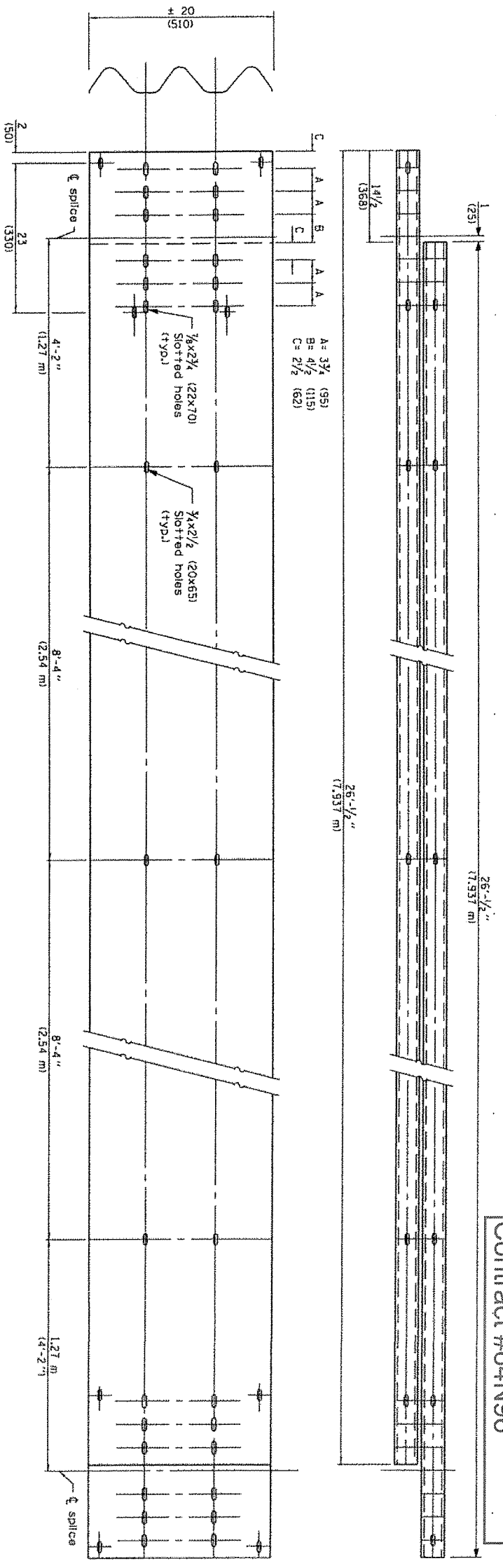
Plate Washers B are to be placed under both heads and nuts of splicing bolts for internal splice and internal expansion splice joint.  
 Plate Washers C are to be placed under both heads and nuts of splicing bolts for lap expansion and interlap splice joint.  
 See Standard 509001 for details of guardrail not shown.  
 All dimensions are in inches (millimeter's) unless otherwise shown.

Illinois Department of Transportation  
 PASSED JANUARY 1, 2011  
 ENGINEER OF PUBLIC ROAD PROCEEDINGS  
 APPROVED JANUARY 1, 2011  
 ENGINEER OF DESIGN AND ENVIRONMENT  
 ISSUED 1-1-97

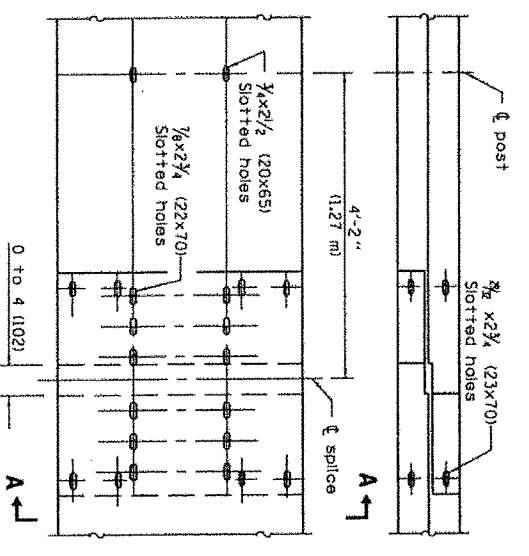
DATE	REVISIONS
1-1-11	Corrected note on 'Plate Washer B' detail.
1-1-09	Switched units to English metric. Added Plate Washer F detail.

**TUBULAR THRIE BEAM RETROFIT RAIL FOR BRIDGES**  
 STANDARD 509001-02  
 (Sheet 1 of 3)

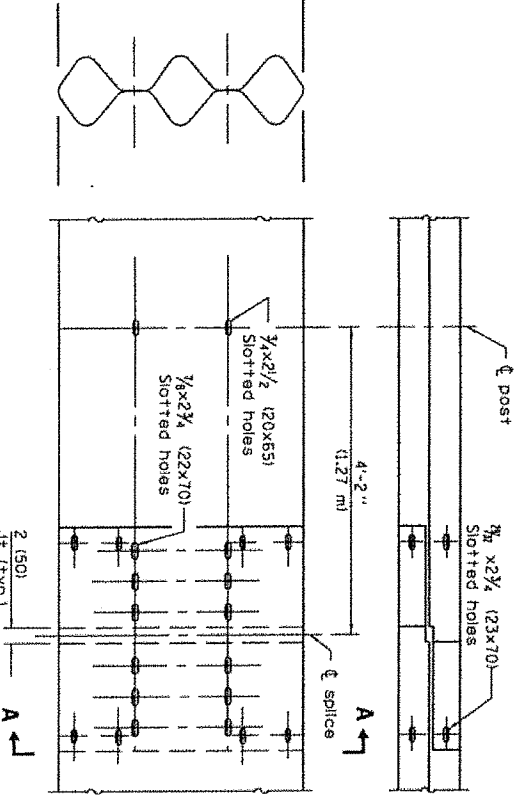
Various Routes  
 D2 GR (South) 2020  
 Various Counties  
 Sheet 23 of 26  
 Contract #64N96



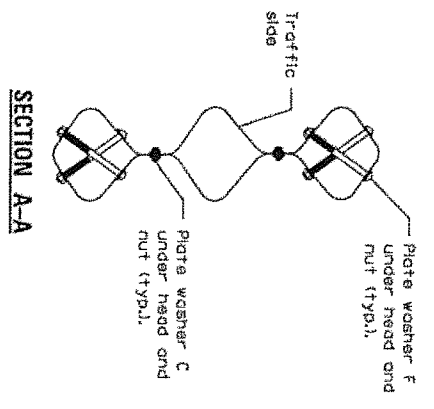
TUBULAR THREE BEAM FOR LAP SPICE JOINT



LAP EXPANSION SPICE JOINT



LAP SPICE JOINT



Illinois Department of Transportation  
 PROJECT NUMBER: 1-2011  
 ENGINEER OF DESIGN AND PROCEDURES: [Signature]  
 APPROVED: [Signature]  
 ENGINEER OF DESIGN AND ENVIRONMENT: [Signature]  
 ISSUED 1-1-97

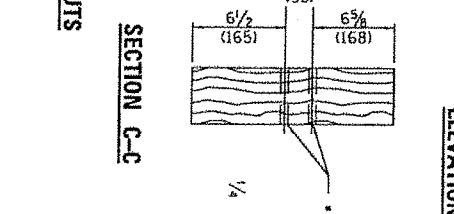
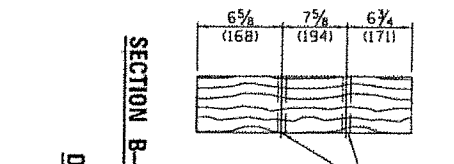
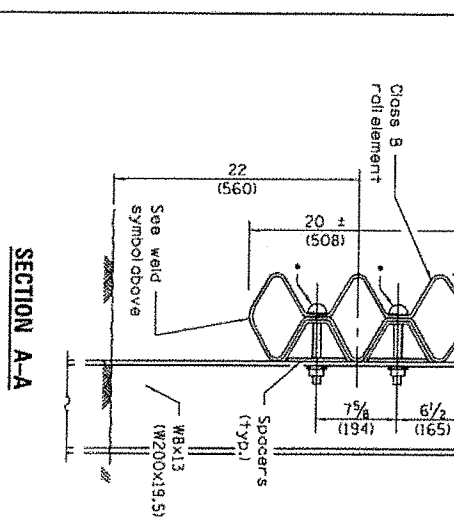
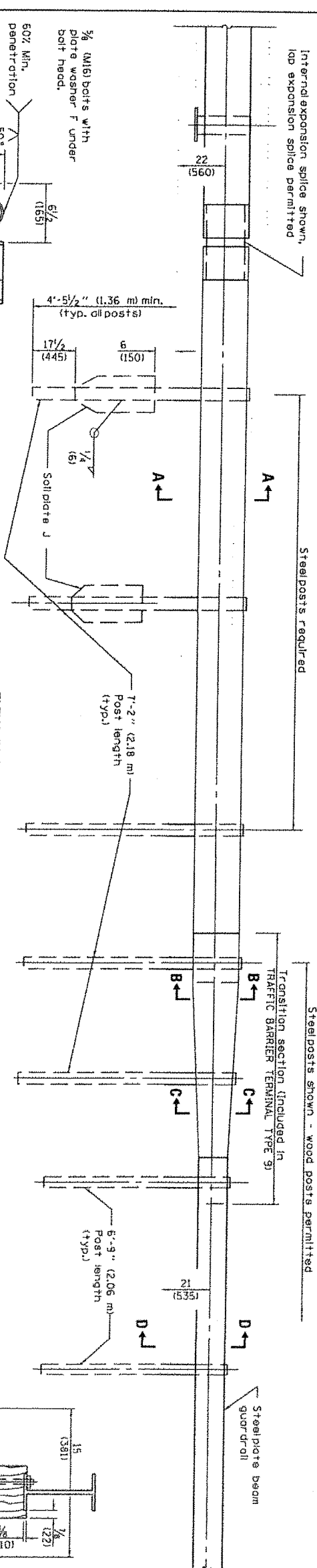
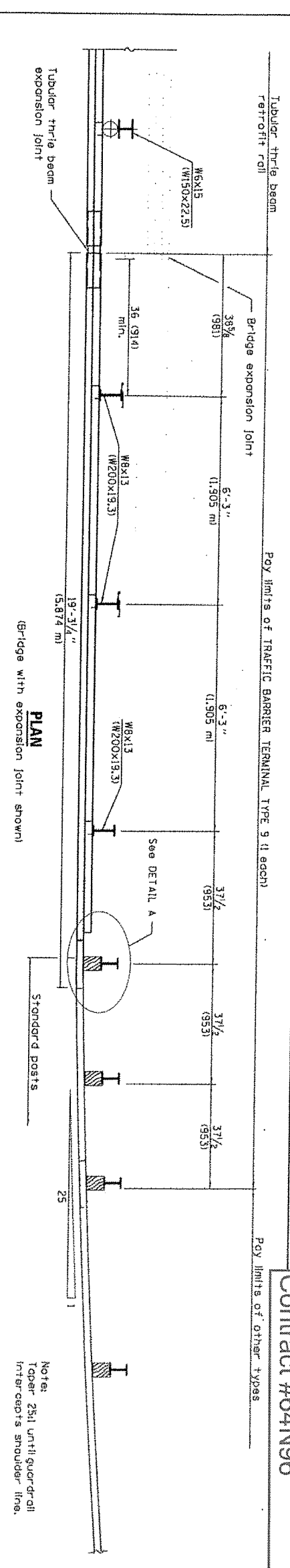
TUBULAR THREE BEAM  
 RETROFIT RAIL FOR BRIDGES  
 STANDARD 509001-02  
 (Sheet 2 of 31)







Various Routes  
 D2 GR (South) 2020  
 Various Counties  
 Sheet 26 of 26  
 Contract #64N96



Illinois Department of Transportation  
 PASSED January 1, 2011  
 ENGINEER OF POLICE AND PROCEDURES  
 APPROVED January 1, 2011  
 ENGINEER OF DESIGN AND ENVIRONMENT  
 ISSUED 1-1-97

**SOIL PLATE J & ALTERNATE CONNECTION DETAILS**  
 4-3/4 (119) Dia. holes with 3/8 (MIS) hex head bolts with std. hex nut (typ.)

DATE	REVISIONS
1-1-11	Omitted 5/8 (149) dimension from Section D-D.
1-1-09	Switched units to English (metric).

**TRAFFIC BARRIER TERMINAL TYPE 9**  
 STANDARD 631041-03

**GENERAL NOTES**  
 See Standards 509001 and 530001 for details of guardrail elements not shown.  
 The Type 9 terminal should be installed after the posts for the bridge retrofit rail have been located as shown on Standard 509001.  
 All dimensions are in inches (millimeters) unless otherwise shown.

