

092

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR		VARIOUS	10	1
		ILLINOIS	CONTRACT NO. 70D53	

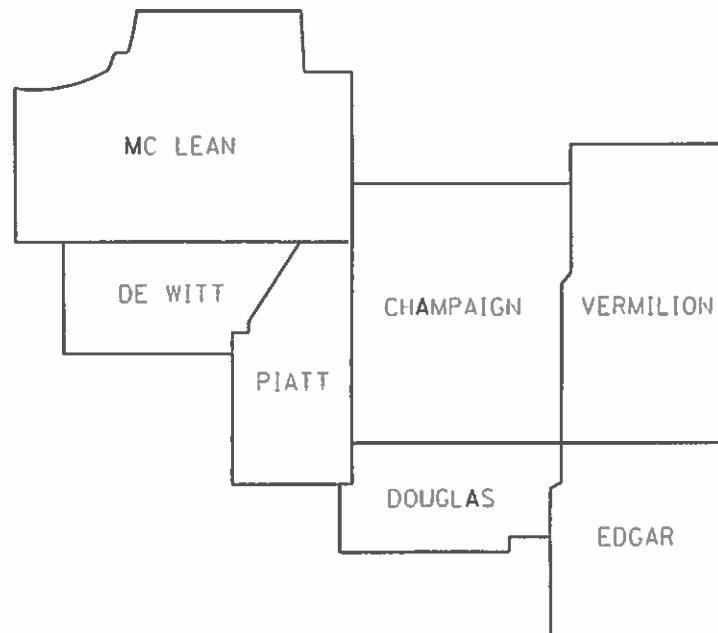
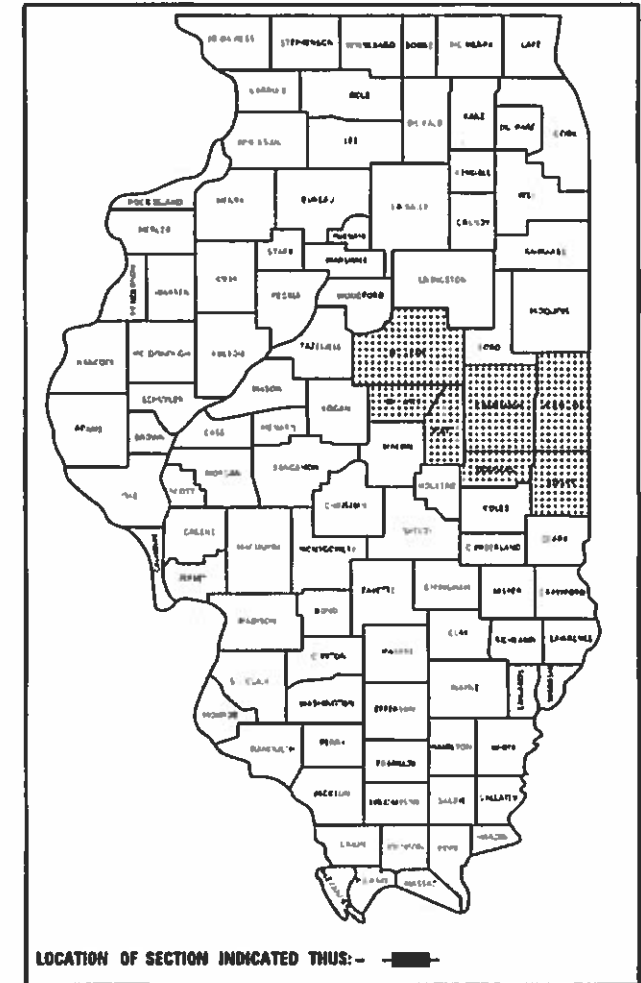
* D5 GR & FENCE REPAIR 2020-1

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3-6

PROPOSED
HIGHWAY PLANS

VARIOUS ROUTES
SECTION D5 GR & FENCE REPAIR 2020-1
GUARDRAIL & FENCE REPAIR
VARIOUS COUNTIES

C-95-001-20



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
OR 811

PROJECT ENGINEER: JASON STULTS
PHONE NUMBER: 217-465-4181

CONTRACT NO. 70D53

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 12-14 2018
Kensil A. Harnett
REGIONAL ENGINEER

March 22, 2019
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

March 22, 2019
[Signature]
DIRECTOR OF HIGHWAY PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES

LOCATION: VARIOUS VARIOUS VARIOUS
 ROUTES ROUTES ROUTES

COUNTY: VARIOUS VARIOUS VARIOUS
FUNDING BREAKOUT: 100% STATE 100% STATE 100% STATE
CONSTRUCTION CODE: 0021 0021 0021

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	MCHD	CONTRACT MAINT	HTCB
6300001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	100.0	75.0	25.0	
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	4.0	2.0	2.0	
63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	1.0	1.0		
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	1.0	1.00		
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	1.0	1.0		
63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	1.0	1.0		
63100105	TRAFFIC BARRIER TERMINAL, TYPE 10	EACH	1.0	1.0		
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	33.0	20.0	13.00	
63400105	GUARD POSTS	EACH	10.0	10.0		
64300260	IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1.0	1.0		
64300370	IMPACT ATTENUATORS (FULLY REDIRECTIVE, WIDE), TEST LEVEL 3	EACH	1.0	1.0		
66400105	CHAIN LINK FENCE, 4'	FOOT	300.0	200.0	100.0	
66400305	CHAIN LINK FENCE, 6'	FOOT	450.0	250.0	200.0	
66500105	WOVEN WIRE FENCE, 4'	FOOT	2500.0	1,750.0	750.0	

*SPECIALTY ITEM

* D5 GR & FENCE REPAIR 2020-1

MODEL: \\MODELNAME
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PROJECT: \\PROJECT
DRAWING: \\DRAWING

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	DRAWN -	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 12/6/2018	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: N/A SHEET 1 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	*	VARIOUS	10	3
CONTRACT NO. 70D53				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

LOCATION: VARIOUS VARIOUS VARIOUS
 ROUTES ROUTES ROUTES

COUNTY: VARIOUS VARIOUS VARIOUS
FUNDING BREAKOUT: 100% STATE 100% STATE 100% STATE
CONSTRUCTION CODE: 0021 0021 0021

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	MCHD	CONTRACT MAINT	HTCB
66501200	WOVEN WIRE GATES, 4' X 8' DOUBLE	EACH	1.0	1.0		
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	28.0	14.0	14.0	
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	14.0	8.0	6.0	
X0325256	REPAIR HIGH TENSION CABLE (BRIFEN)	FOOT	70.0	40.0		30.0
X0325258	REPAIR HIGH TENSION CABLE SYSTEM END SECTION (BRIFEN)	EACH	2.0	1.0		1.0
X0325260	REPAIR POSTS (BRIFEN)	EACH	11.0	6.0		5.0
X0325264	REPAIR IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1.0	1.0		
X0325899	REPAIR HIGH TENSION CABLE (GIBALTAR)	FOOT	700.0	550.0		150.0
X0325901	REPAIR POSTS (GIBALTAR)	EACH	700.0	550.0		150.0
X0325975	REPAIR HIGH TENSION CABLE SYSTEM END SECTION (GIBALTAR)	EACH	18.0	16.0		2.0
X0326201	REPAIR HIGH TENSION CABLE (TRINITY)	FOOT	200.0	150.0		50.0
X0326202	REPAIR POSTS (TRINITY)	EACH	130.0	100.0		30.0
X0326203	REPAIR HIGH TENSION CABLE SYSTEM END SECTION (TRINITY)	EACH	4.0	2.0		2.0
X2300003	SPLICING HIGH TENSION CABLE (BRIFEN)	EACH	1.0	1.0		

*SPECIALTY ITEM

* D5 GR & FENCE REPAIR 2020-1

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PROJECT: \\PROJECT
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PLOT DATE = 12/6/2018	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: N/A SHEET 2 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	*	VARIOUS	10	4
CONTRACT NO. 70D53				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

LOCATION: VARIOUS VARIOUS VARIOUS
 ROUTES ROUTES ROUTES

COUNTY: VARIOUS VARIOUS VARIOUS
FUNDING BREAKOUT: 100% STATE 100% STATE 100% STATE
CONSTRUCTION CODE: 0021 0021 0021

CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	MCHD	CONTRACT MAINT	HTCB
X2300004	SPLICING HIGH TENSION CABLE (GIBRALTAR)	EACH	5.0	3.0		2.0
X2300005	SPLICING HIGH TENSION CABLE (TRINITY)	EACH	2.0	2.0		
X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	50.0	25.0	25.0	
X6331110	STEEL POSTS, SPECIAL	EACH	2.0	2.0		
X6340205	GUARD POSTS REMOVAL	EACH	10.0	10.0		
X6432110	REPLACE IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3	EACH	80.0	70.0	10.0	
X6640594	CHAIN LINK FENCE POST 4'	EACH	24.0	15.0	9.0	
X6640601	CHAIN LINK FENCE POST 6'	EACH	24.0	15.0	9.0	
Z0008760	EMERGENCY WORK CALL OUT	EACH	40.0	25.0	15.0	
Z0012752	CONCRETE STRUCTURE REPAIR	CU FT	11.0	8.0	3.0	
Z0020210	PULL POST ARRANGEMENT	EACH	28.0	20.0	8.0	
Z0052000	REPAIR STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	4000.0	2,500.0	1,500.0	
Z0052100	REPAIR STEEL PLATE BEAM GUARDRAIL, TYPE B	FOOT	25.0	25.0		
Z0052410	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	EACH	20.0	14.0	6.0	

*SPECIALTY ITEM

* D5 GR & FENCE REPAIR 2020-1

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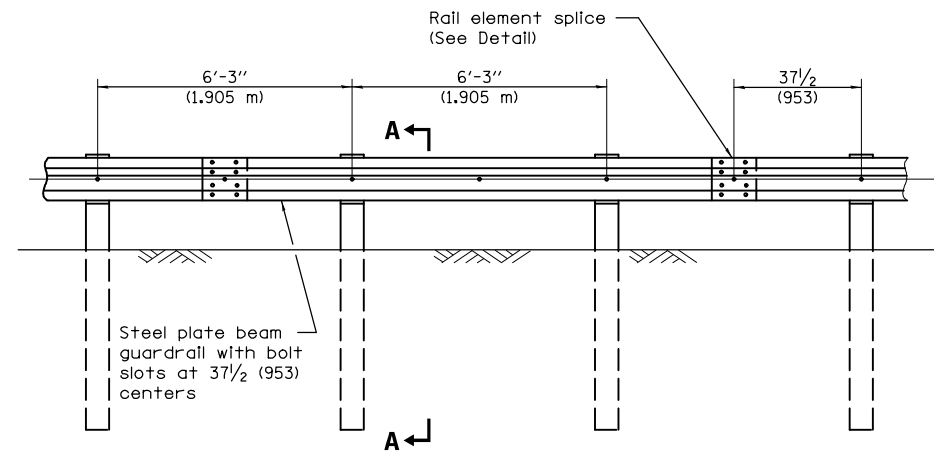
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: N/A SHEET 3 OF 4 SHEETS STA. TO STA.

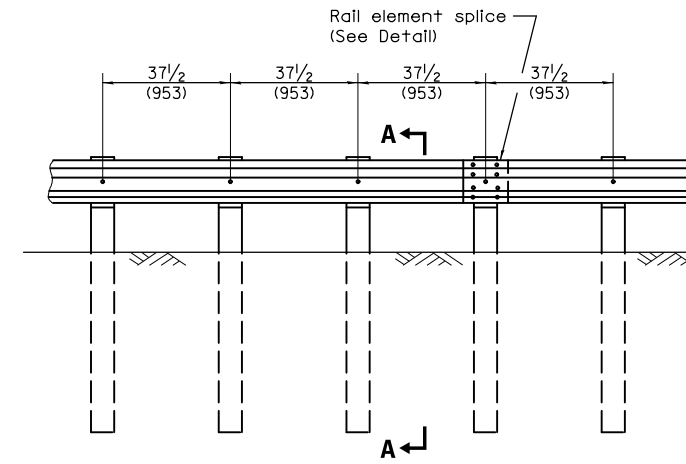
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CONTRACT NO. 70D53				
ILLINOIS FED. AID PROJECT				



ELEVATION

TYPE A

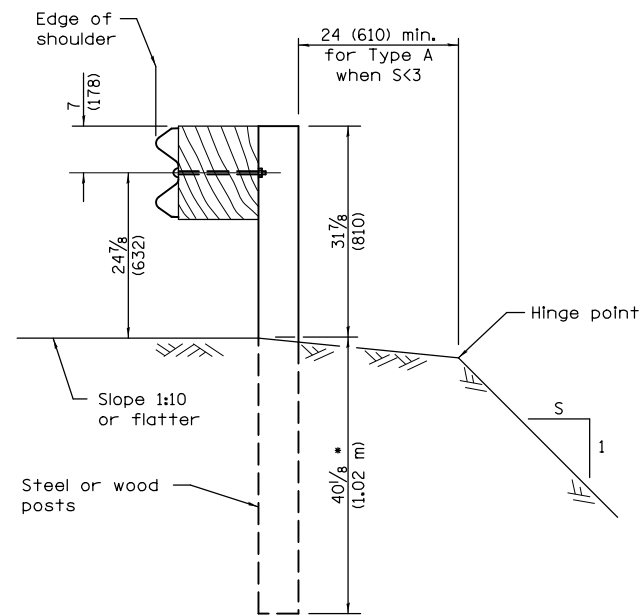
6'-3" (1.905 m) Typical post spacing



ELEVATION

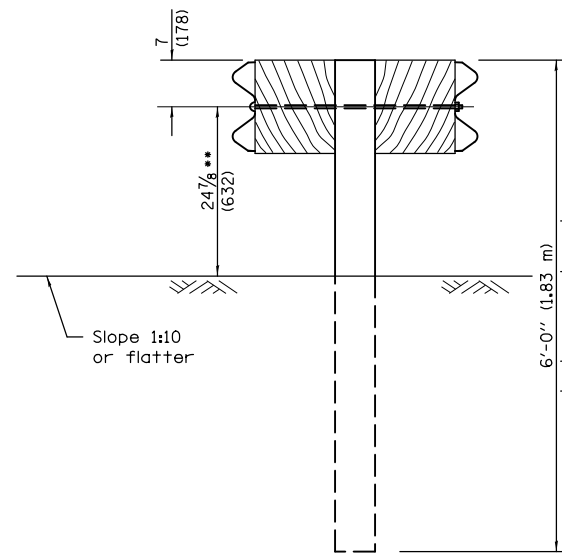
TYPE B

37 1/2 (953) Closed post spacing



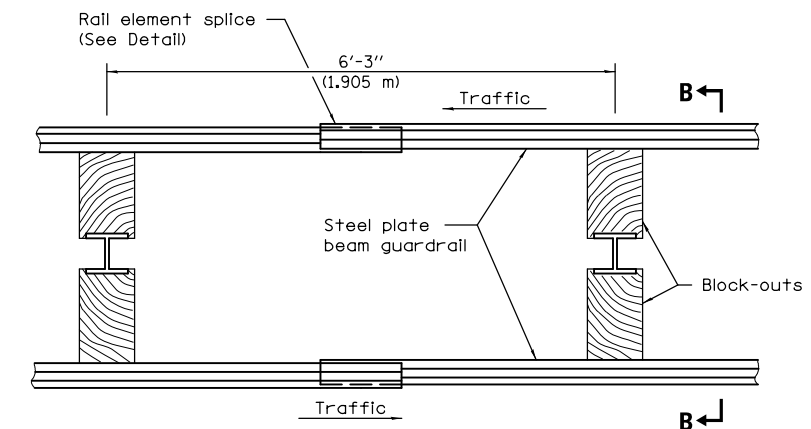
SECTION A-A

- When "S" is less than 3 and the distance from the back of post is less than 24 (610), the post shall be steel and the embedment shall be 76 7/8 (1934).



SECTION B-B

- When connecting Type D guardrail to an impact attenuator, adjust this dimension to 21 7/8 (556) over a distance of 25'-0" (7.62 m) from point of connection.



PLAN

TYPE D

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

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**

(Sheet 1 of 4)

STANDARD 630001-10

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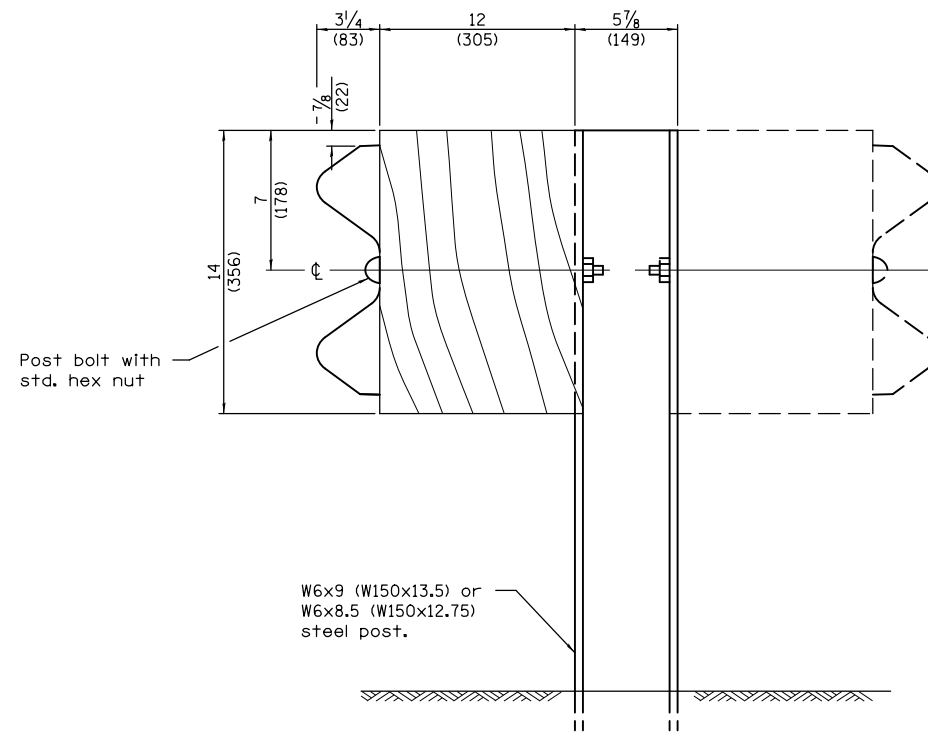
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAIL OF 27 1/2" STEEL PLATE BEAM GUARDRAIL

SCALE: N/A SHEET 1 OF 4 SHEETS STA. TO STA.

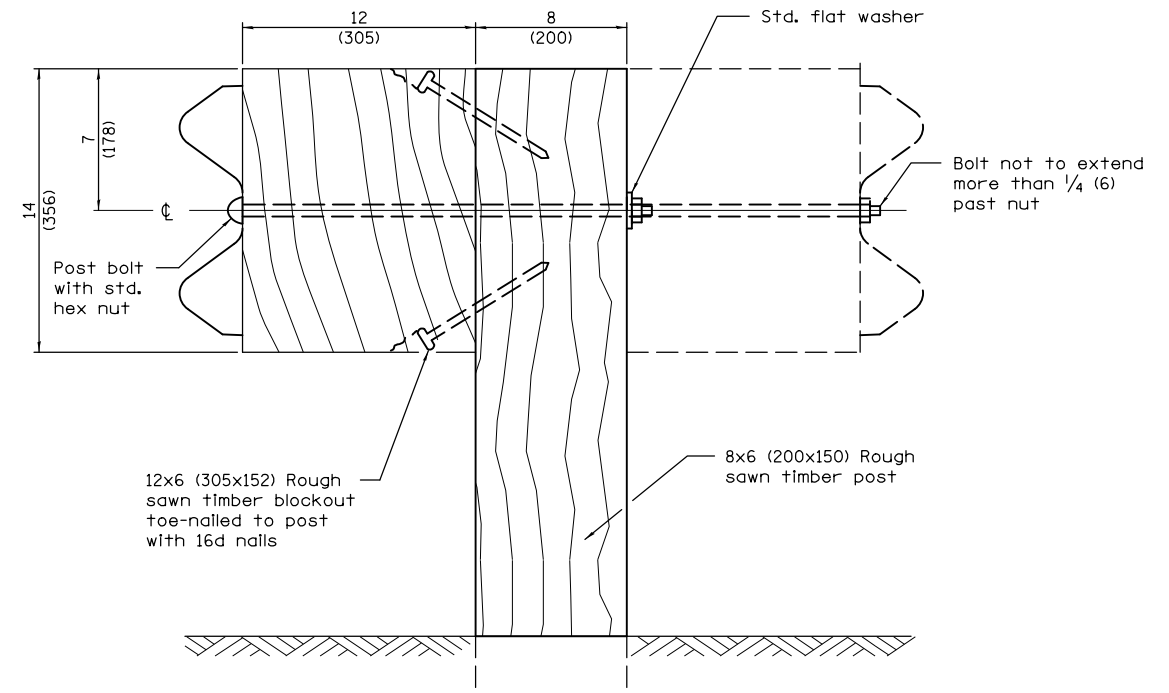
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CONTRACT NO. 70D53				
ILLINOIS FED. AID PROJECT				

* D5 GR & FENCE REPAIR 2020-1

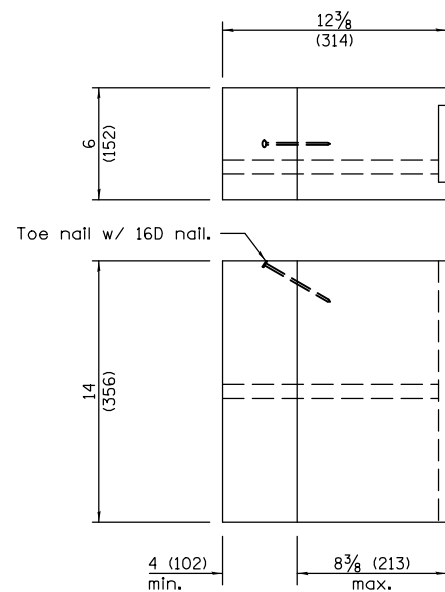


W6x9 (W150x13.5) or
W6x8.5 (W150x12.75)
steel post.

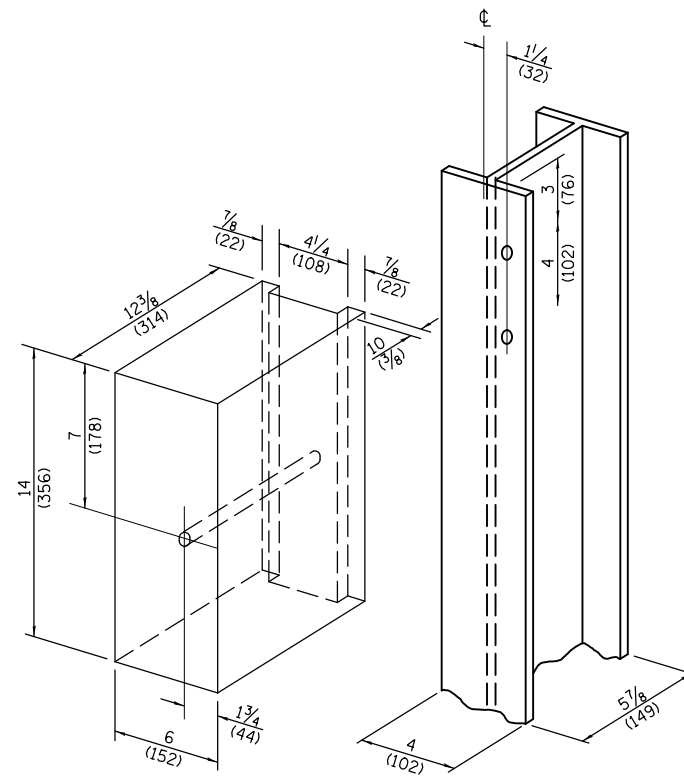
STEEL POST CONSTRUCTION



WOOD POST CONSTRUCTION

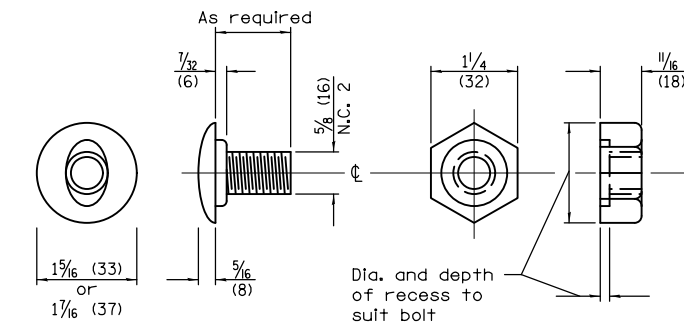


**TWO-PIECE WOOD
BLOCKOUT OPTION**



Note:
All holes 3/4 (20) dia.

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



POST OR SPLICE BOLT & NUT

**STEEL PLATE BEAM
GUARDRAIL**

(Sheet 2 of 4)

STANDARD 630001-10

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

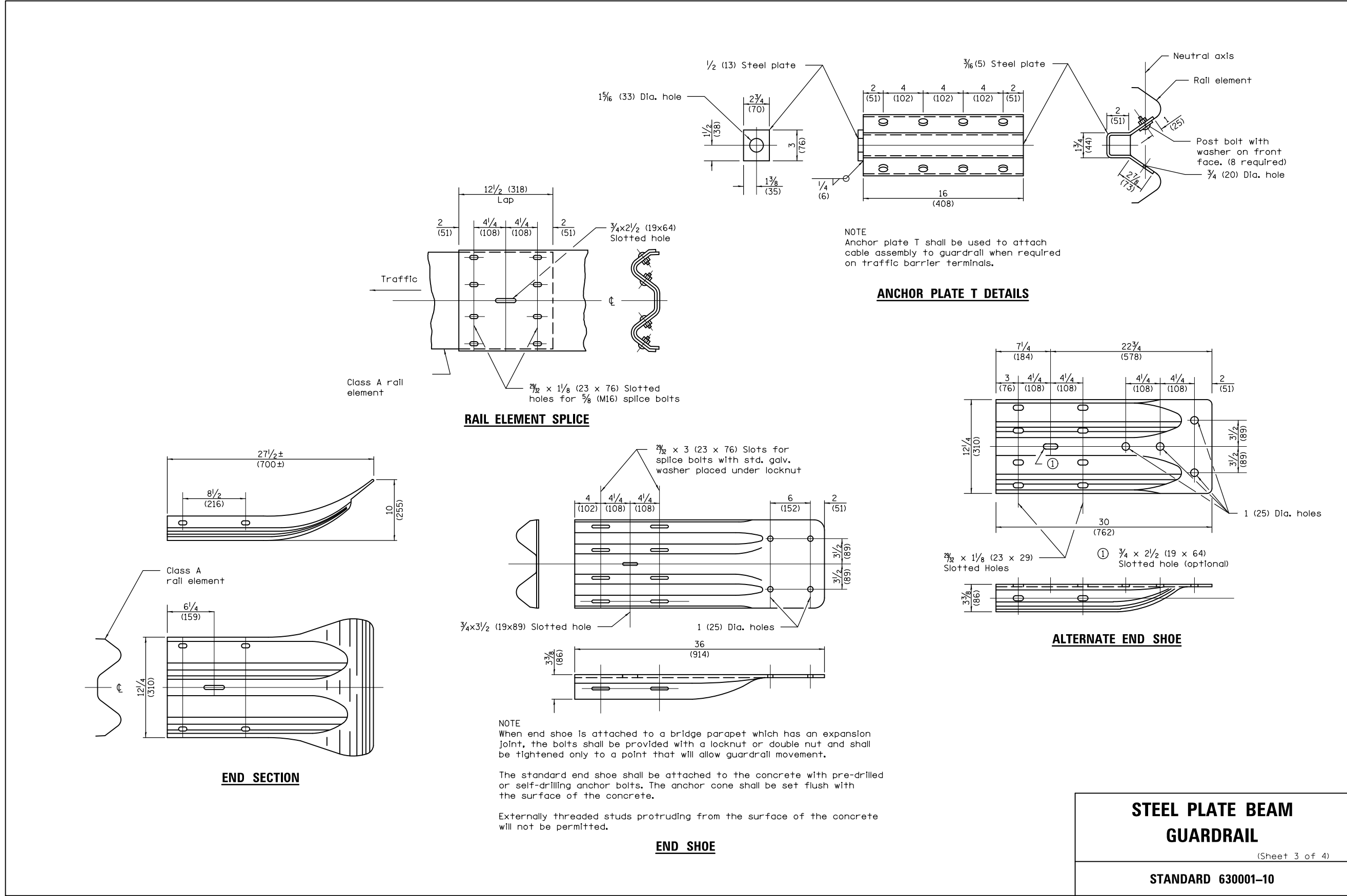
DETAIL OF 27 1/2" STEEL PLATE BEAM GUARDRAIL

SCALE: N/A SHEET 2 OF 4 SHEETS STA. TO STA.

* D5 GR & FENCE REPAIR 2020-1

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 70D53	
ILLINOIS FED. AID PROJECT				

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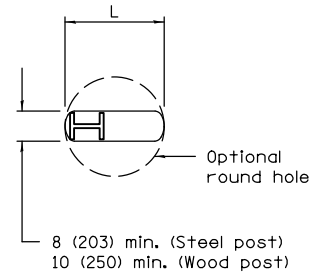
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

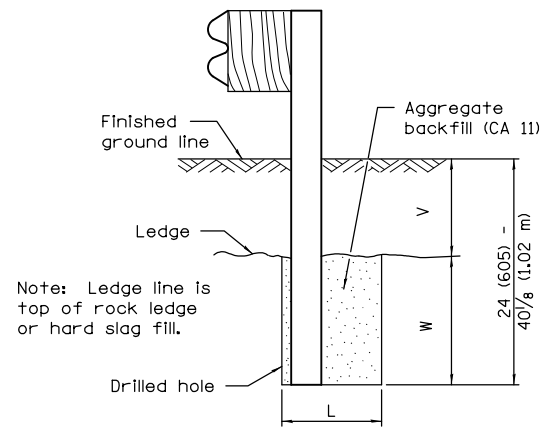
DETAIL OF 27 1/2" STEEL PLATE BEAM GUARDRAIL			
SCALE: N/A	SHEET 3 OF 4 SHEETS	STA.	TO STA.

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 70D53	
		ILLINOIS	FED. AID PROJECT	

* D5 GR & FENCE REPAIR 2020-1



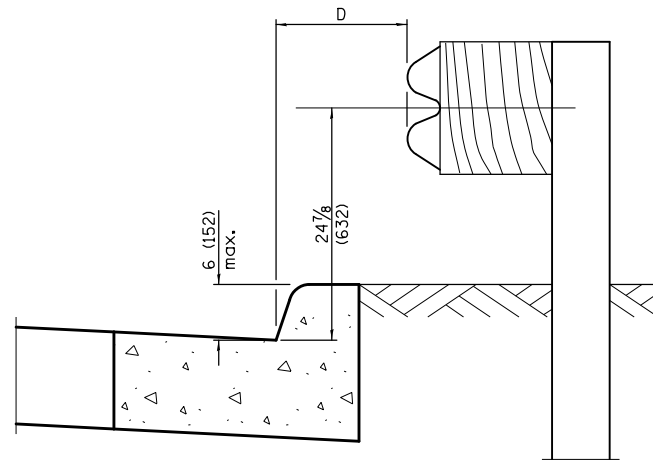
PLAN



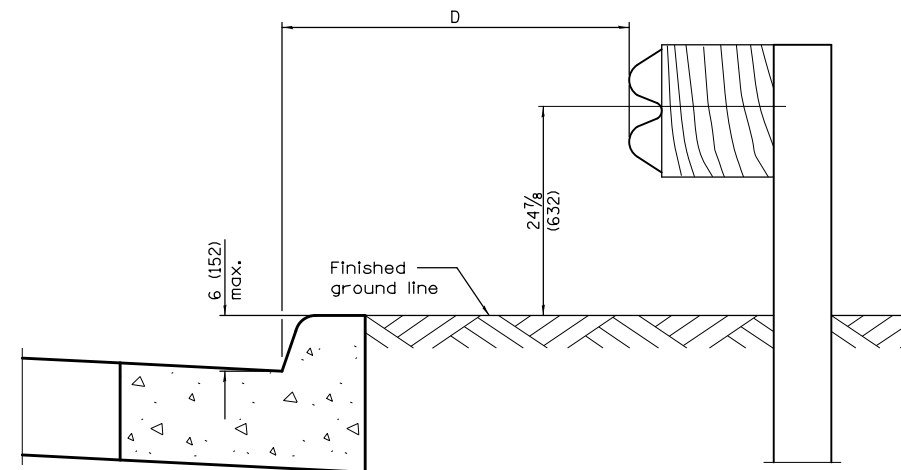
ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

V	W	L	
		Steel Post	Wood Post
0 - 6 (0 - 152)	24 (610)	21 (530)	23 (580)
> 6 - 18 (> 152 - 458)	18 (458)	14 1/2 (368)	16 1/2 (419)
> 18 - 31 (> 458 - 787)	12 (305)	8 (203)	10 (250)
> 31 - 40 7/8 (> 787 - 1,02 m)	12 - 0 (305 - 0)	8 (203)	10 (250)



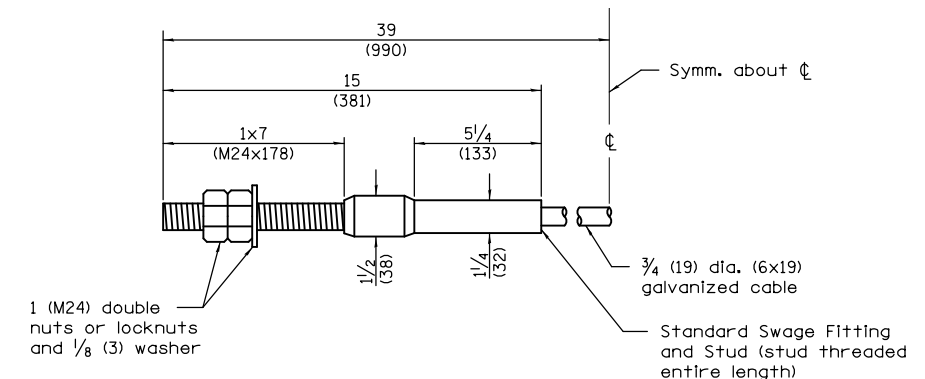
0 ≤ D < 4'-0" (1.2 m)



4'-0" (1.2 m) ≤ D ≤ 12'-0" (3.7 m)

GUARDRAIL PLACED BEHIND CURB

Note: 'D' shall not exceed 6 (152) for design speeds greater than 45 mph.



CABLE ASSEMBLY

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

**STEEL PLATE BEAM
GUARDRAIL**

(Sheet 4 of 4)

STANDARD 630001-10

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAIL OF 27 1/2" STEEL PLATE BEAM GUARDRAIL

SCALE: N/A SHEET 4 OF 4 SHEETS STA. TO STA.

* D5 GR & FENCE REPAIR 2020-1

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	*	VARIOUS	10	10
			CONTRACT NO. 70D53	

ILLINOIS FED. AID PROJECT

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