STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

VARIOUS ROUTES SECTION D6 CABLE / GUARDRAIL 2014 SAFETY ITEM REPAIR **VARIOUS COUNTIES IN D6**

C-96-056-13

HANCOCK MASON SCHUYLER LOGAN **ADAMS** MENARD CASS **BROWN** SANGAMON MORGAN SCOTT PIKE CHRISTIAN MACOUPIN MONTGOMERY

INDEX OF SHEETS

COVERSHEET

GENERAL NOTES

3-5 SUMMARY OF QUANTITIES

6-16 PRE-MGS HIGHWAY STANDARDS

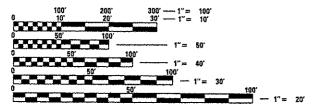
CABLE GUARD MARKER DETAIL

FOR LIST OF STANDARDS, SEE SHEET NO. 2

NOTE:

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SECTION D6 CABLE / GUARDRAIL 2014 CONSISTS OF REPAIR OF DAMAGED **GUARDRAIL AND OTHER ITEM AS** DIRECTED BY THE ENGINEER ON **VARIOUS ROUTES IN IDOT DISTRICT** SIX UNDER STATE JURISDICTION



ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

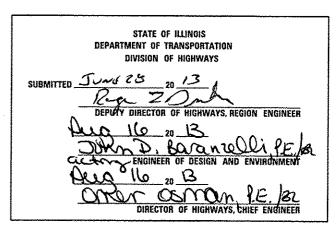
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

SENIOR TEAM ENGINEER VINCE MADONIA 217-785-9046 TEAM ENGINEER JAY EDWARDS 217-785-5321

CONTRACT NO. 72G20

DE CABLE/GUARDRAIL 2014





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

HIGHWAY STANDARDS

STANDARD NO.	TITLE
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-09	TRAFFIC BARRIER TERMINAL, TYPE 2
631026-05	TRAFFIC BARRIER TERMINAL, TYPE 2 TRAFFIC BARRIER TERMINAL, TYPE 5
631031-11	TRAFFIC BARRIER TERMINAL. TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT SAND MODULE IMPACT ATTENUATORS
643001-01	SAND MODULE IMPACT ATTENUATORS
664001-02	CHAIN LINK FENCE
665001-02	WOVEN WIRE FENCE
701001-02	WOVEN WIRE FENCE OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 M) AWAY
701006-04	OFF-ROAD OPERATIONS. 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701101-03	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 M) AWAY
701201-04	LANE CLOSURE, 2L, 2W. DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701411-08	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS > 45 MPH
701421-05	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS > 45 MPH TO 55 MPH
701422-05	LANE CLOSURE, MULTILANE, FOR SPEEDS > 45 MPH TO 55 MPH
701426-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS & 45 MPH LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS < 40 MPH
701456-02	PARTIAL EXIT RAMP CLOSURE FREEWAY/EXPRESSWAY
701501-06	URBAN LANE CLOSURE, 2L. 2W, UNDIVIDED
701502-05	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701601-08	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701602-06	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-08	URBAN LANE CLOSURE, MULTILANE. 2W WITH MOUNTABLE MEDIAN
701701-08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-02	TRAFFIC CONTROL DEVICES

GENERAL NOTES

ALL DISTURBED AREAS CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE GRADED AND SEEDED WITH CLASS 2 ROADSIDE MIXTURE AND FERTILIZED AS STATED IN SECTION 250 OF THE STANDARD SPECIFICATIONS. COST SHALL BE CONSIDERED INCLUDED IN THE UNIT COST OF THE WORK BEING PERFORMED.

REMOVAL OF DAMAGED IMPACT ATTENUATORS SHALL BE INCLUDED IN THE COST OF THE IMPACT ATTENUATOR BEING INSTALLED.

REMOVAL AND DISPOSAL OF DAMAGED FENCE SHALL BE INCLUDED IN THE COST OF THE FENCE BEING INSTALLED.

DISTRICT SIX
EXAMINED June 28 20 13 William Gay OPERATIONS ENGINEER
EXAMINED JULIE 28 20 13
EXAMINED LONE CO 20 15
PROJECT IMPLEMENTATION ENGINEER
EXAMINED June 27 20 13
20 D
PROGRAM DEVELOPMENT ENGINEER

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE:

SHEET

GENERAL	NOTES		F.A. RTE.	SECTION	COUNTY	TOTAL	SHE
			VAR	•	•	17	2
					CONTRACT	NO.	2G2
SHEETS	STA.	TO STA.			. AID PROJECT		
		•	6 CABLE/GUA	ARDRAIL 2014			

	·				CONSTRUCT	ON CODE
				REGULAR PROGRAM 6-00664-0200	MCHD 6-00664-9997	STATEWIDE HIGH-TENSION CABLE RAIL REPAIR 0-01844-6001
				ROADWAY	ROADWAY	ROADWAY
CODE			TOTAL	0021	0021	0021
NO.	ITEM	UNIT	QUANTITY		100% STATE	100% STATE
				-		
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A. 6 FOOT POSTS	FOOT	500	350	150	
63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	250	200	50	
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	4		1	
63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	**************************************		1	
			T declaration of the control of the			
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	44		- 1	
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	12	5	7	
63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	1		<u> </u>	
63200310	GUARDRAIL REMOVAL	FOOT	750	550	200	
						· -
64300450	IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3	EACH	4	1		
66400105	CHAIN LINK FENCE, 4'	FOOT	300	200	100	
66500105	WOVEN WIRE FENCE, 4'	FOOT	300	100	200	
67100100	MOBILIZATION	L SUM	1	0.3	0. 4	0. 3
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	3	1	2	
78200410	GUARDRAIL MARKERS, TYPE A	EACH	300	150	150	

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION COUNTY SHEETS NO.

VAR - - 17 3

CONTRACT NO. 72G20

INCLINOIS FED. AID PROJECT

DG CABLE/GUARDRAIL 2014 SUMMARY OF QUANTITIES SCALE: SHEET OF SHEETS STA. TO STA.

CONSTRUCTION CODE

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				REGULAR	***	STATEWIDE HIGH-TENSION
				PROGRAM	MCHD	CABLE RAIL REPAIR
			-		6-00664-9997	
f		1	T	ROADWAY	ROADWAY	ROADWAY
0005			TOTAL	0021	0021	0021
CODE			1			
NO.	ITEM	TINU	QUANTITY	100% STATE	100% STATE	100% STATE
						in contract to
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	32	15	17	
					-	
X0325231	CABLE GUARD MARKER	EACH	430		50	380
			-			
x0325899	REPAIR HIGH TENSION CABLE (GIBRALTAR)	FOOT	850		200	650
X0325900	REPAIR HIGH TENSION BARRIER TERMINAL (GIBRALTAR)	EACH	. 3	-	1	2
						. ^
X0325901	REPAIR POSTS (GIBRALTAR)	EACH	210		40	170
X0325902	REMOVE AND REPLACE POSTS (GIBRALTAR)	EACH	70		20	50
A Land Company of the		***************************************				
X0327490	REPAIR HIGH TENSION CABLE (NU-CABLE)	FOOT	425		100	325
X0327491	REPAIR POSTS (NU-CABLE)	EACH	57		15	42
				·		
x0327492	REMOVE AND REPLACE POSTS (NU-CABLE)	EACH	200		30	170
X0327493	REPAIR HIGH TENSION BARRIER TERMINAL (NU-CABLE)	EACH	3		1	2
	·					·
X6431220	REMOVE AND REPLACE IMPACT ATTENUATOR SAND MODULE	EACH	20	10	10	
						·
X7011834	TRAFFIC CONTROL AND PROTECTION, CALL OUT WORK	EACH	17	8	9	
X7011836	TRAFFIC CONTROL AND PROTECTION, FREEWAY/EXPRESSWAY, CALL OUT WORK	EACH	34	12	9	13
	<u> </u>	- 	·*	· · · · · · · · · · · · · · · · · · ·	**************************************	·

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTATIES SCALE: SHEET OF SHEETS STA.

CONSTRUCTION CODE

SECTION COUNTY SHEETS NO.

VAR - 17 4

CONTRACT NO. 72G20

ILLINOIS FED. AID PROJECT

DE CABLE/GUARDRAIL 2014

TO STA.

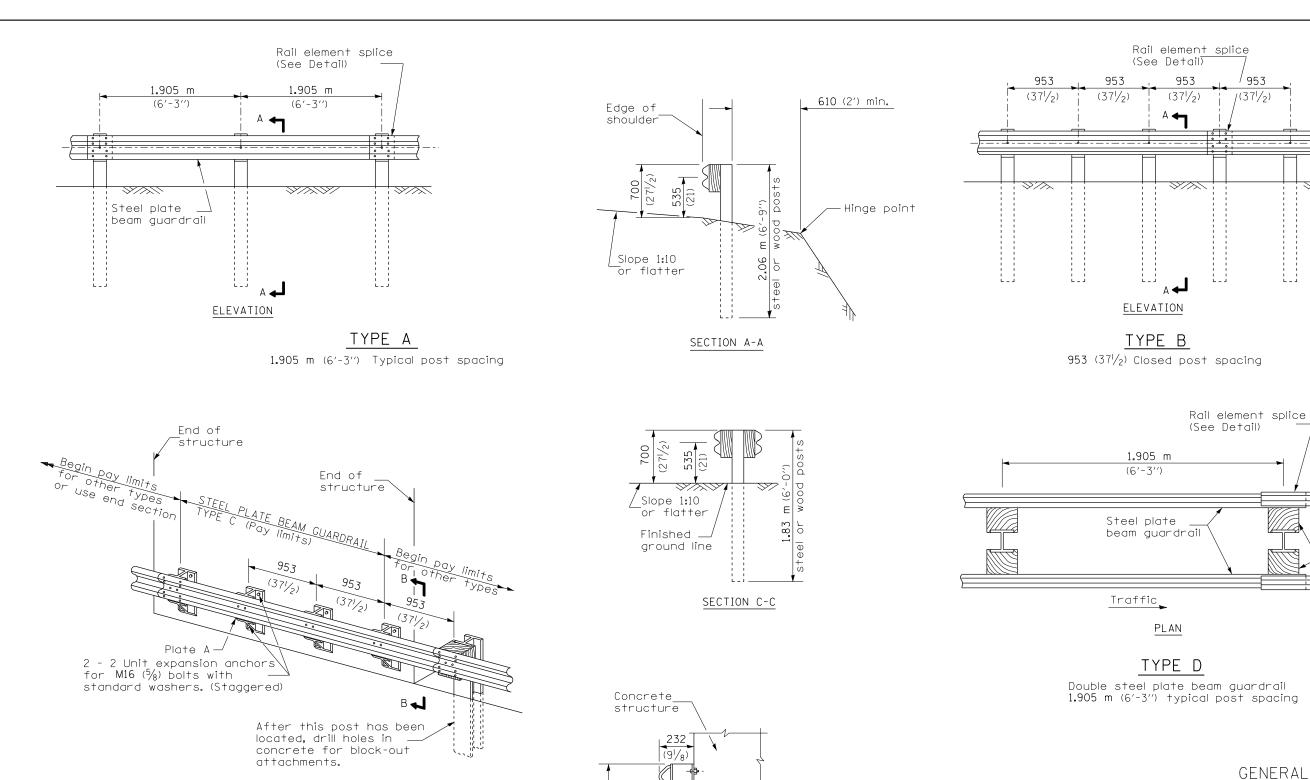
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				REGULAR		STATEWIDE HIGH-TENSION
				PROGRAM	MCHD	CABLE RAIL REPAIR
				6-00664-0200	6-00664-9997	0-01844-6001
				ROADWAY	ROADWAY	ROADWAY
CODE			TOTAL	0021	0021	0021
NO.	ITEM	UNIT	QUANTITY	100% STATE	100% STATE	100% STATE
			A CONTRACTOR OF THE CONTRACTOR		volation and the state of the s	
20008759	CALL OUT	EACH	26	16	10	
Z0008760	EMERGENCY WORK CALL OUT	EACH	25	4	8	13
			the state of the s			
Z0029654	HIGH TENSION CABLE MEDIAN BARRIER TERMINALS	EACH	****			1 .
Z0052000	REPAIR STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	. 750	500	250	
			-			
Z0052410	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	EACH	12	7	5	
		-				
Z0052415	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (FLARED)	EACH	9-4		1	
		de de la constitución de la cons				
Z0052600	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1			
		- Arratemic Volta - Arratemic				
Z0053000	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	1		1	
Z0053200	REPAIR TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	1			

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DEPARTMENT	OF	TRANSPORTATION

		SUMM	ARY OF Q	UANTITI	ES	F.A.	SECTION	COUNTY	TOTAL	SHEET NO.
						VAR	•	•	17	5
								CONTRACT	NO, 7	72G20
SCALE	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		
						20.010	CARRADODATE SOLA			



GENERAL NOTES

-Block-outs

953

 $/(37\frac{1}{2})$

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.

TYPE C	
953 $(37\frac{1}{2})$ Block-out spacing	

structure \
Slope 1:10 or flatter Finished ground line
SECTION B-B
SECTION D D

FILE NAME =	USER NAME = sparksgw	DESIGNED -	REVISED -
c:\pw_work\pwidot\sparksgw\d0346074\D67	2G20-sht-630001-06_SteelPlateBeamGrdraıl.dgn	DRAWN -	REVISED -
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

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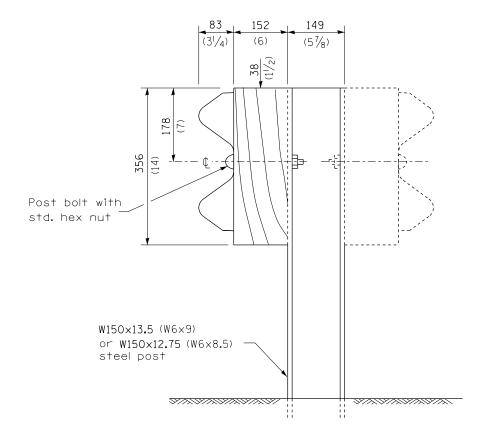
PRE-					630001–06	F.A.• RTE.	SECTION		COUNTY
	STEEL				- -	VAR	•		•
		EFFEC	TIVE 4	-1-06	(SHEET 1 OF 4)				CONTRA
	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS	FED. AI	D PROJECT

• D6 CABLE/GUARDRAIL 2014

COUNTY TOTAL SHEET NO.

17 6

CONTRACT NO. 72G20



STEEL POST CONSTRUCTION

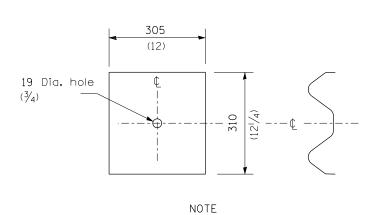
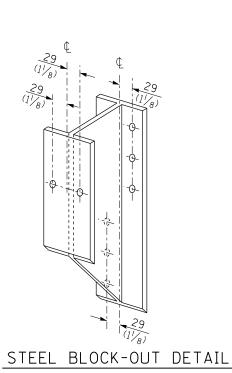
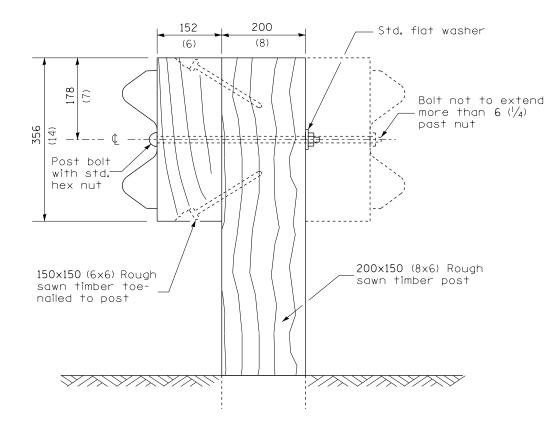


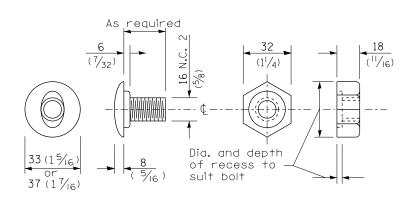
Plate A shall be placed between rail element and block-out at non-splice mounting points only when steel block-outs are used.

PLATE A



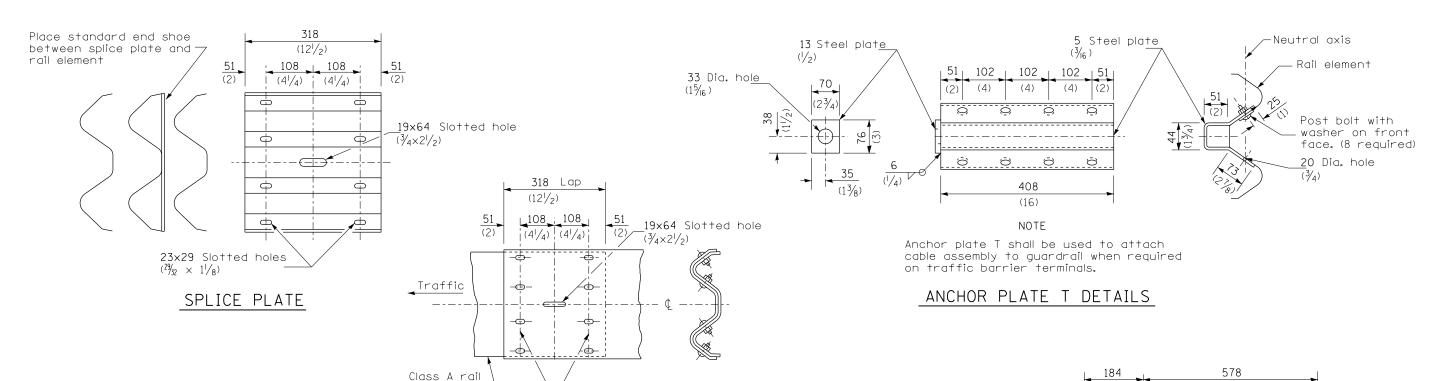


WOOD POST CONSTRUCTION



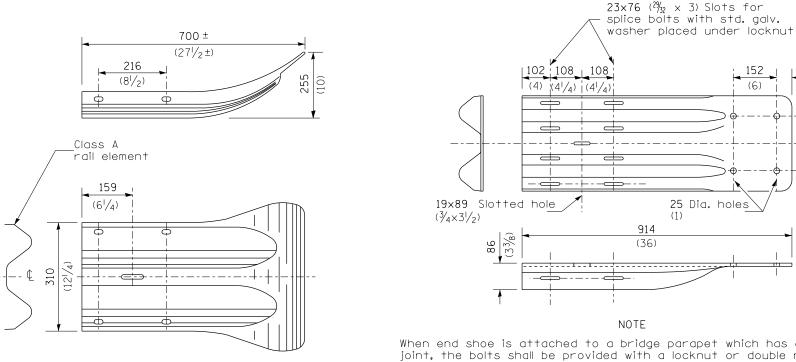
POST OR SPLICE BOLT & NUT

FILE NAME =		USER NAME = sparksgw	DESIGNED -	REVISED -		PR	E-MGS I	HIGH	WAY S	STANDARD	630001-06	F.A.•	SECTION	COUNTY	TOTAL	L SHEET
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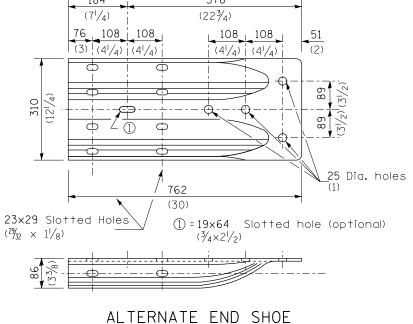
 23×29 ($^{29}\!\!/_{32}$ \times $1^{1}\!/_{8}$) Slotted holes for M16 ($^{5}\!/_{8}$) splice bolts

RAIL ELEMENT SPLICE



END SECTION

element



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.

152

(6)

51

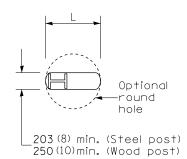
(2)

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.

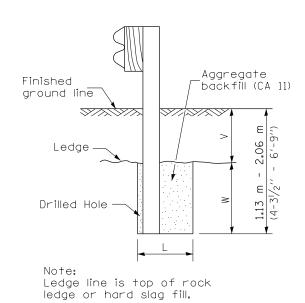
Externally threaded studs protruding from the surface of the concrete will not be permitted.

END SHOE

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	PLOT SCALE = 26.0000 '/ in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION			EFFE	CTIVE 4-1-06	(SHEET 3 OF 4)			CONTRACT	NO. 72G2O
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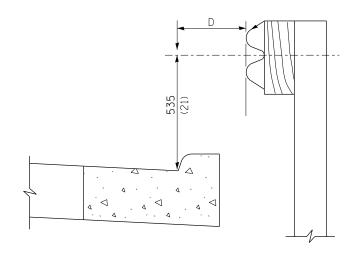


PLAN



ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED



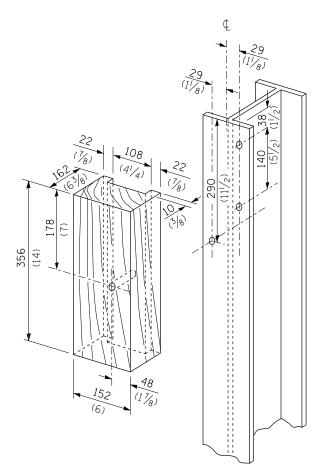
Note:

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.

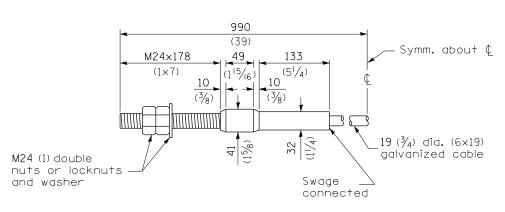
GUARDRAIL PLACED BEHIND CURB

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

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



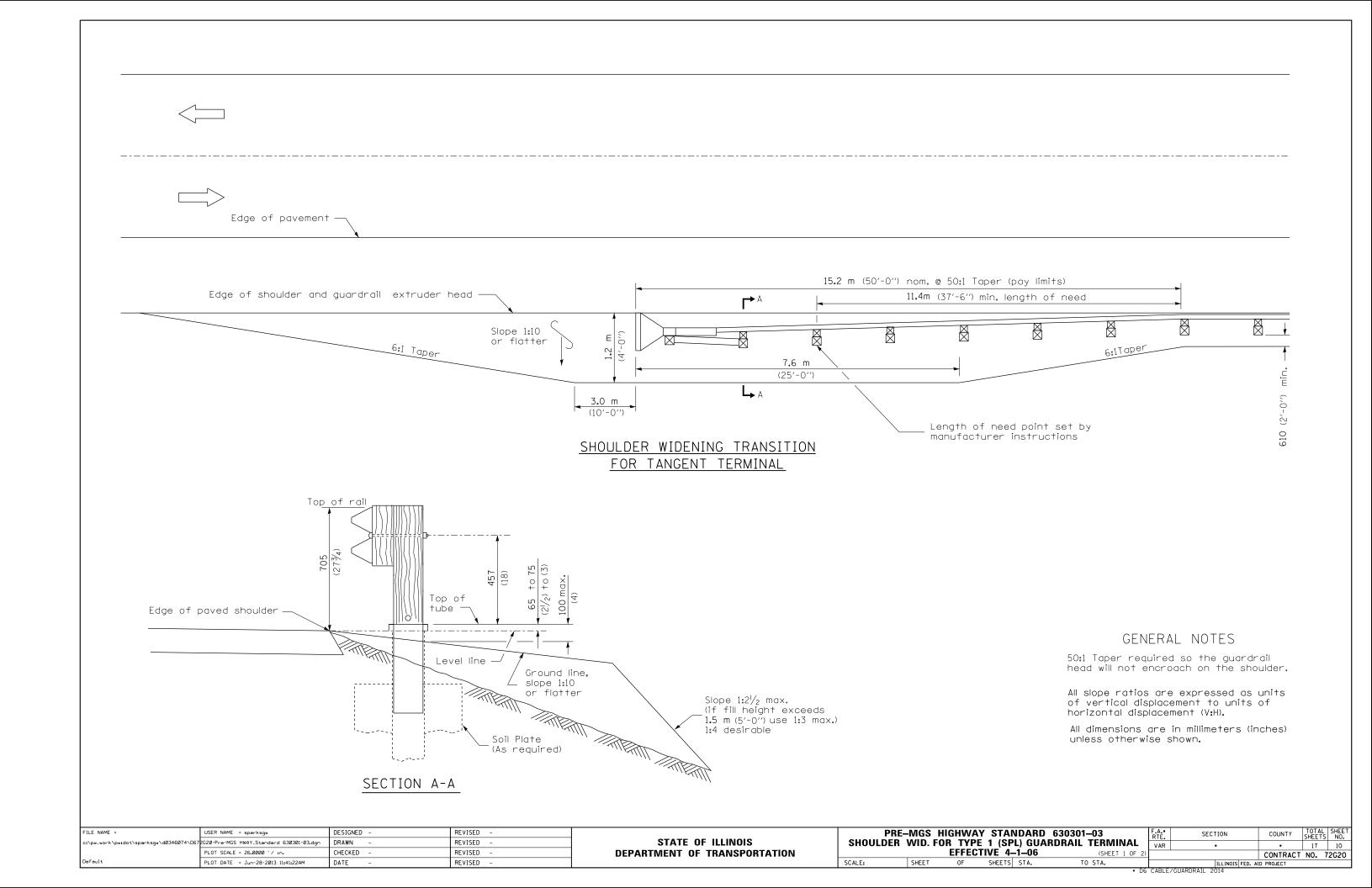
WOOD BLOCK-OUT AND STEEL POST DETAILS

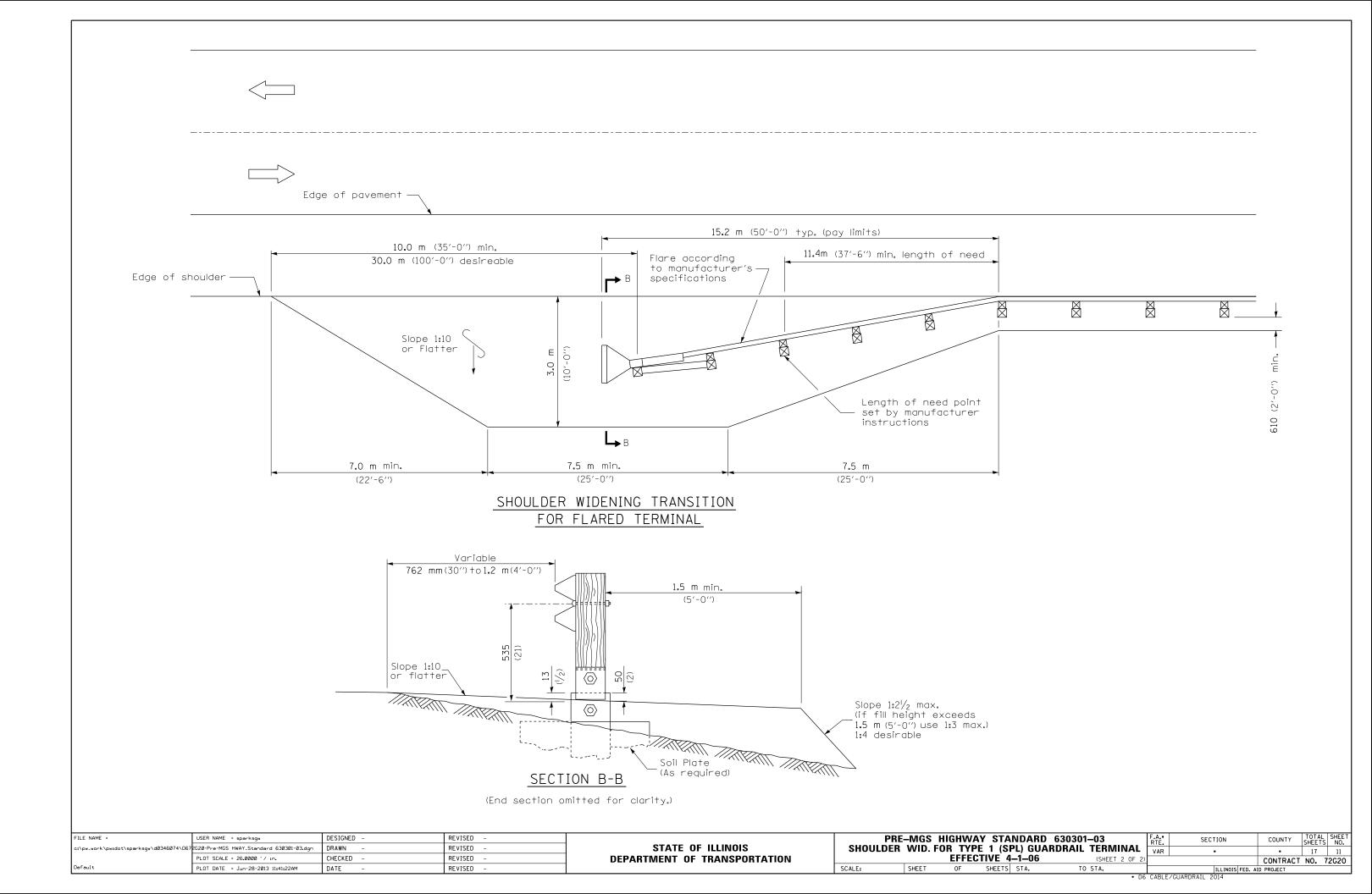


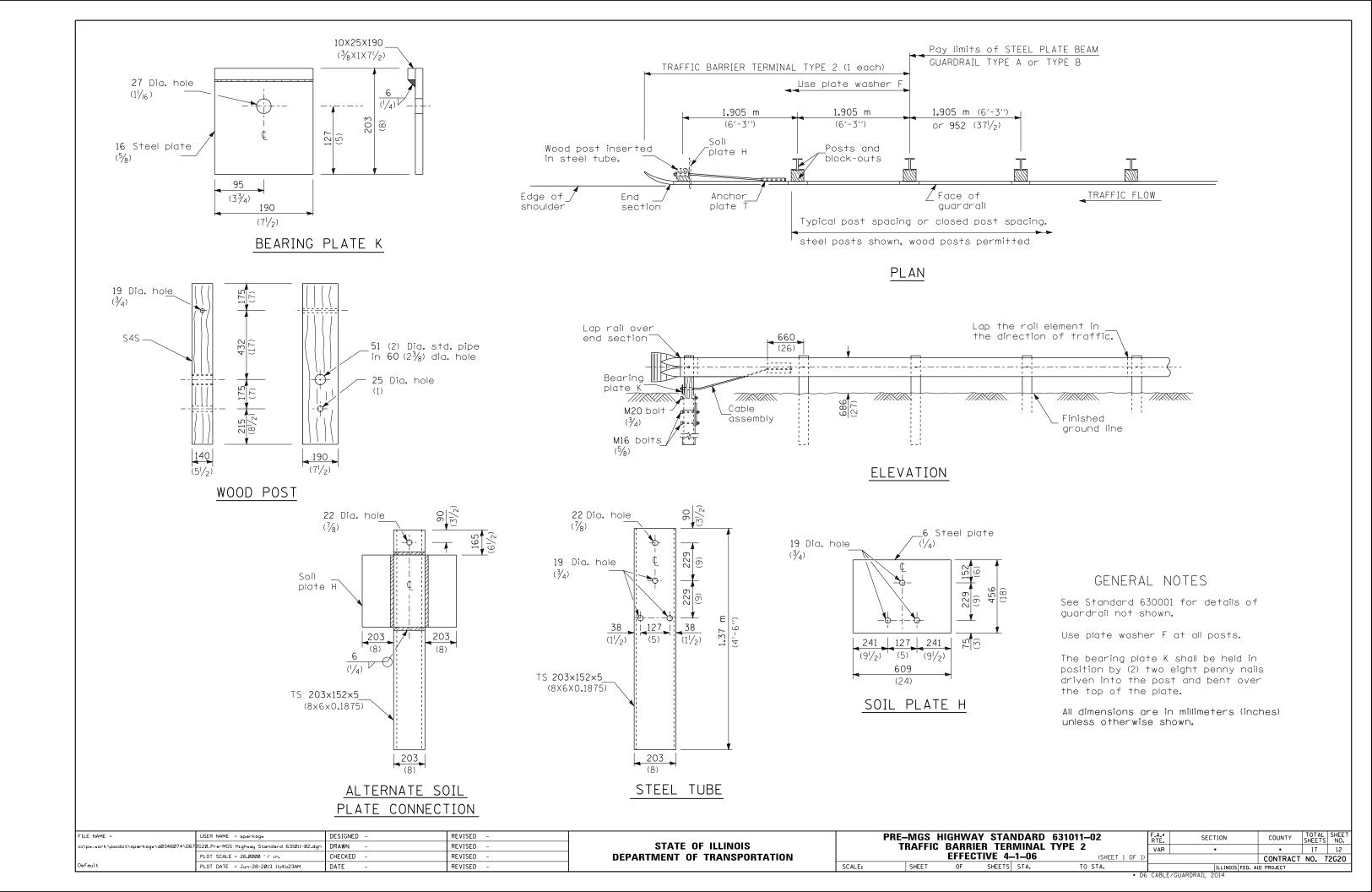
CABLE ASSEMBLY

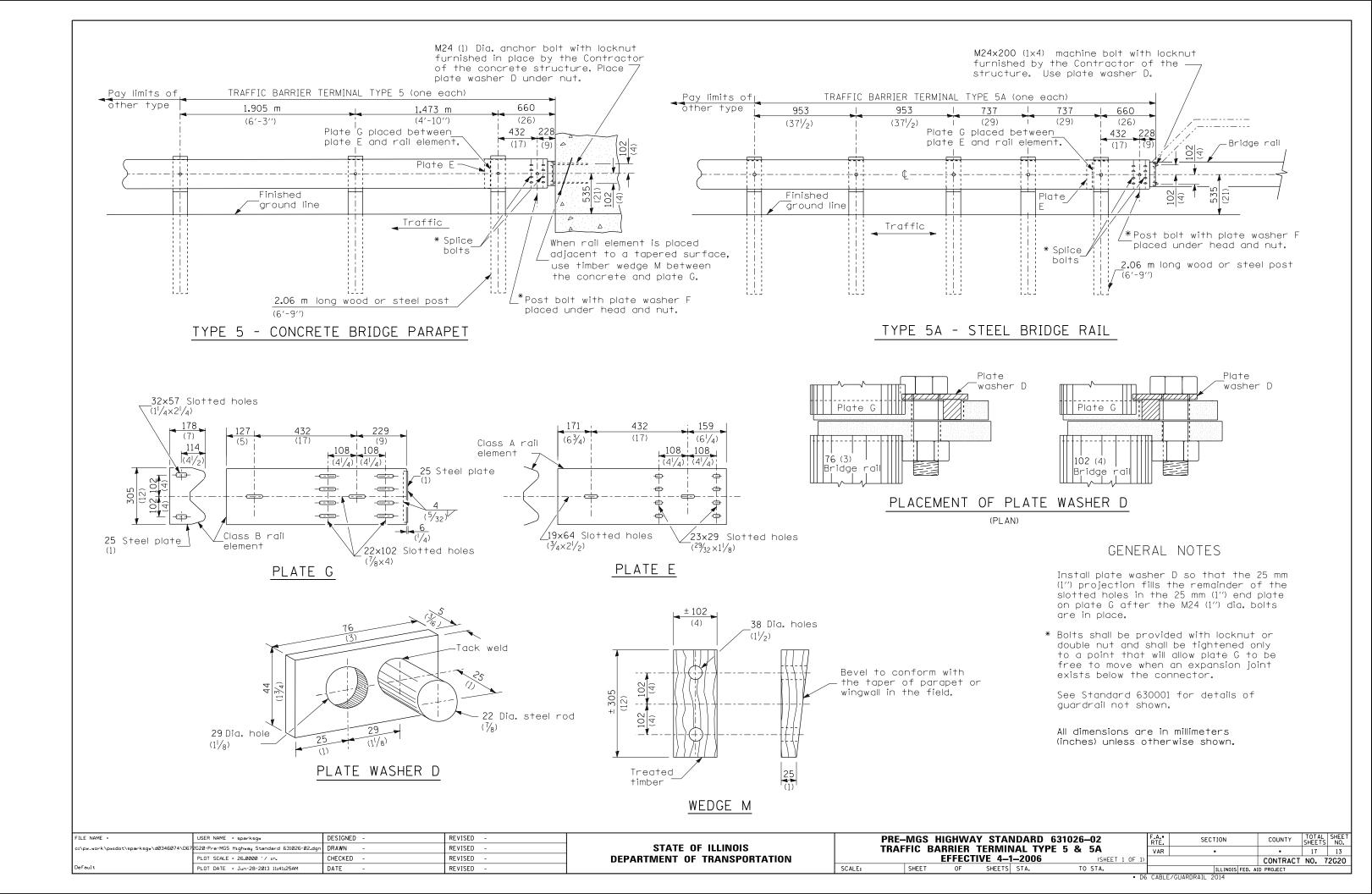
(18,100 kg (40,000 lbs.) min. breaking strength)
Tighten to taut tension.

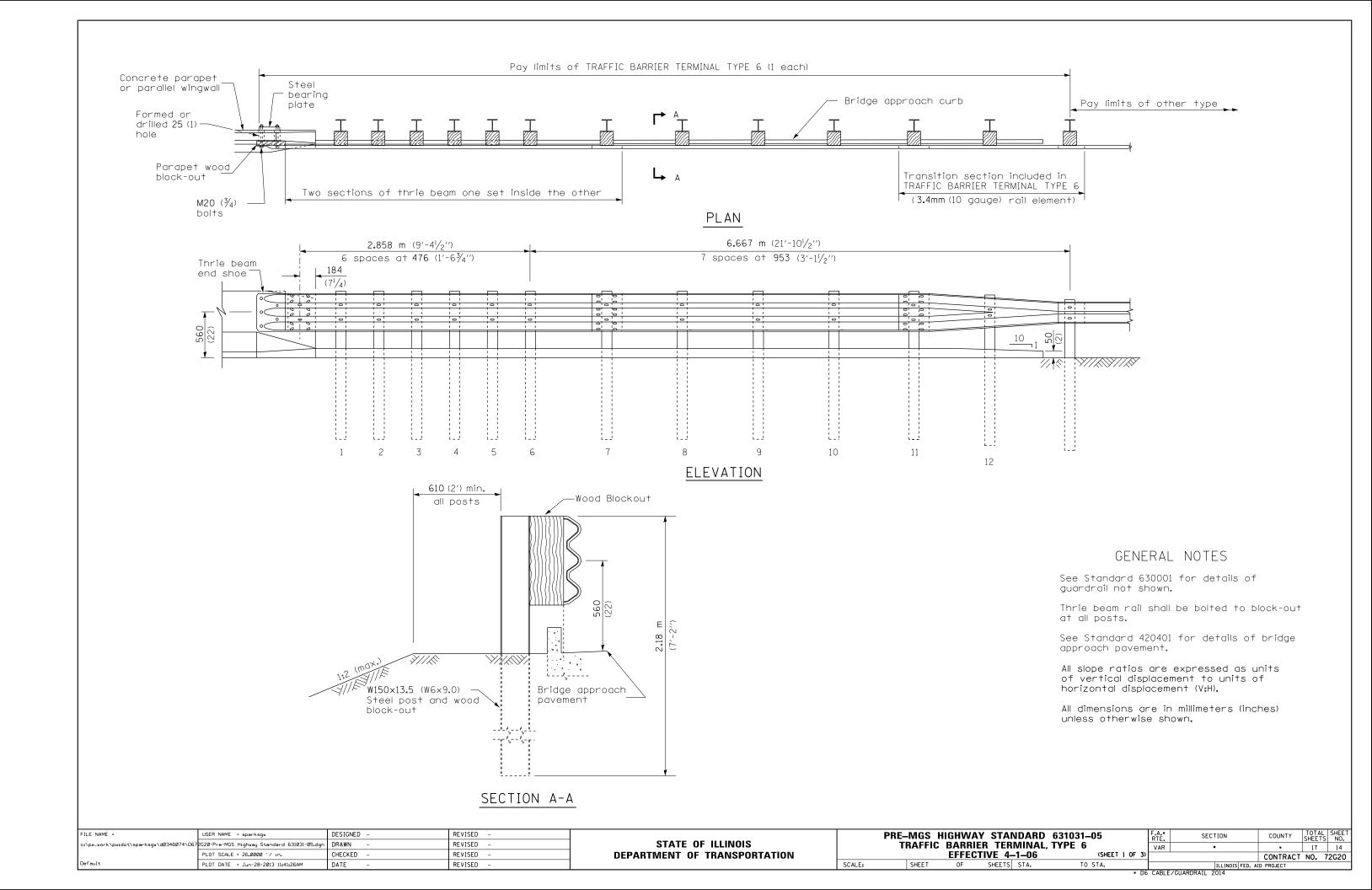
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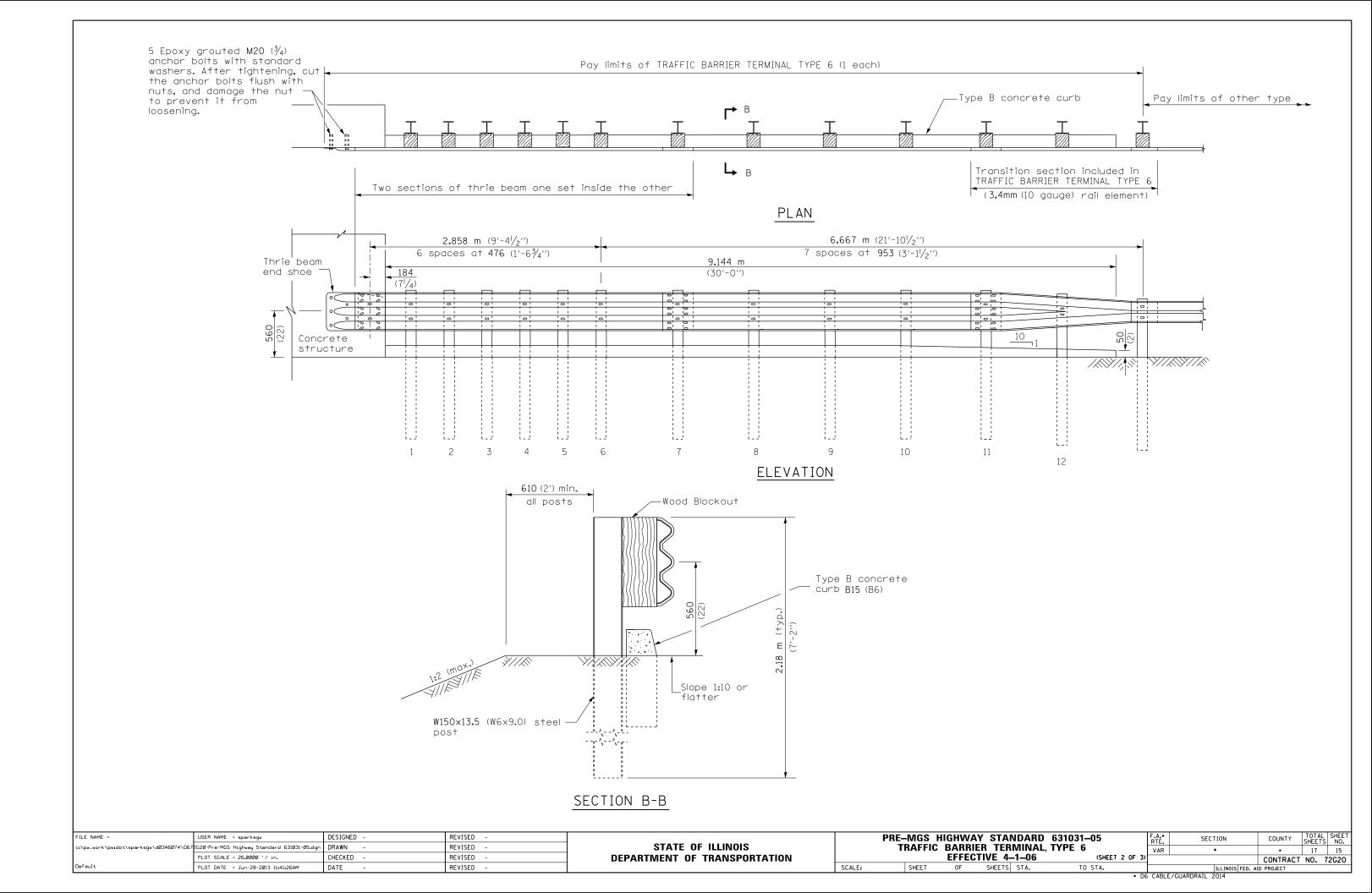


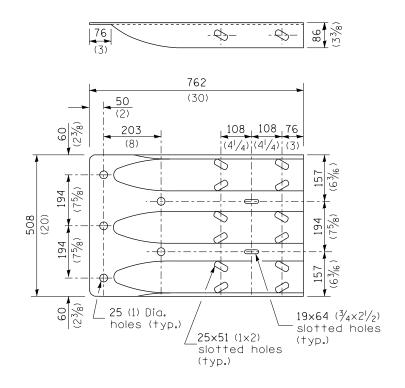










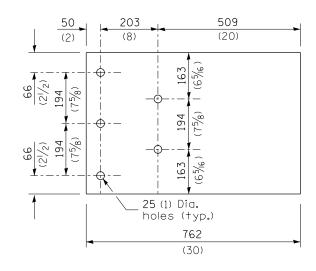


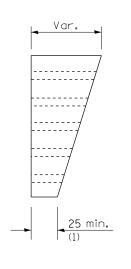
(51) (65/8) (75/8) (63/4) (65/8) (75/8) (63/4) (65/8) (75/8) (63/4)

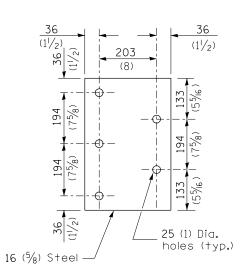
UT DETAIL POST 12 WOOD BLOCKOUT DETAIL

THRIE BEAM END SHOE DETAIL

POSTS 1-11 WOOD BLOCKOUT DETAIL





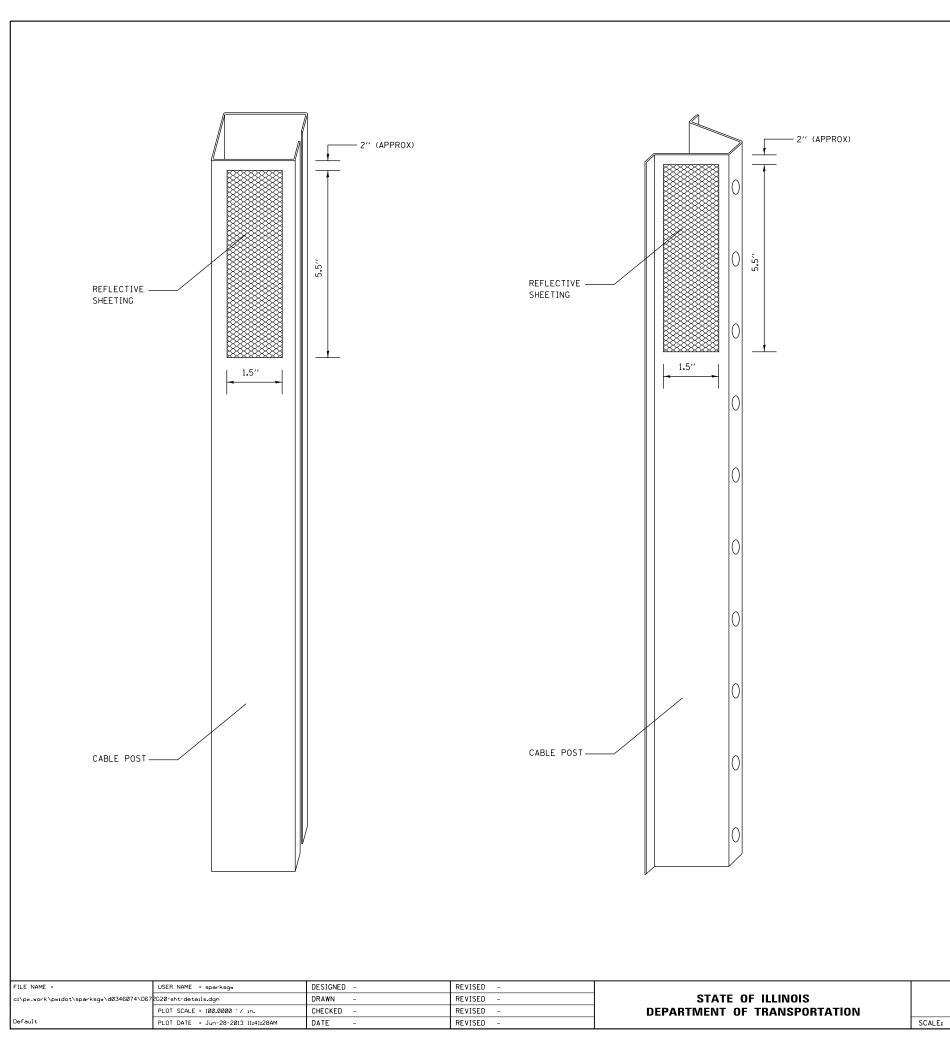


PARAPET WOOD BLOCK-OUT DETAIL

PARAPET STEEL BEARING PLATE DETAIL

(5 each individual $125 \times 125 \times 16$ ($5 \times 5 \times 5\%$) steel plates with centered 25 (1) holes may be substituted for the plate shown.)

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NOTES:

MATERIAL: THE MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 1090 AND 1091 OF THE STANDARD SPECIFICATIONS.

CONSTRUCTION REQUIREMENTS: THE REFLECTIVE SHEETING SHALL BE INSTALLED DIRECTLY ON THE CABLE POSTS. THE REFLECTIVE SHEETING SHALL BE INSTALLED AS SHOWN IN THE PLANS, ON EVERY OTHER POST (IN ORDER TO PROVIDE A SPACING OF 40"). THE SURFACE OF THE POST SHALL BE CLEANED OF ALL CONTAMINANTS PRIOR TO THE INSTALLATION OF THE REFLECTIVE SHEETING. THE SURFACE SHALL BE CLEANED USING A 5-8 PERCENT PHOSPHORIC ACID SOLUTION AND RINSED WITH CLEAN WATER OR AS RECOMMENDED BY THE MANUFACTURER OF THE REFLECTIVE SHEETING AND AS APPROVED BY THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR CABLE GUARD MARKER.