

18'-7" - PAY LIMIT

WW1 & WW4

FACE OF RAIL TO HAVE 7' CONVEX RADIUS

Please Provide weld Procedure for Pie Cut and Chord

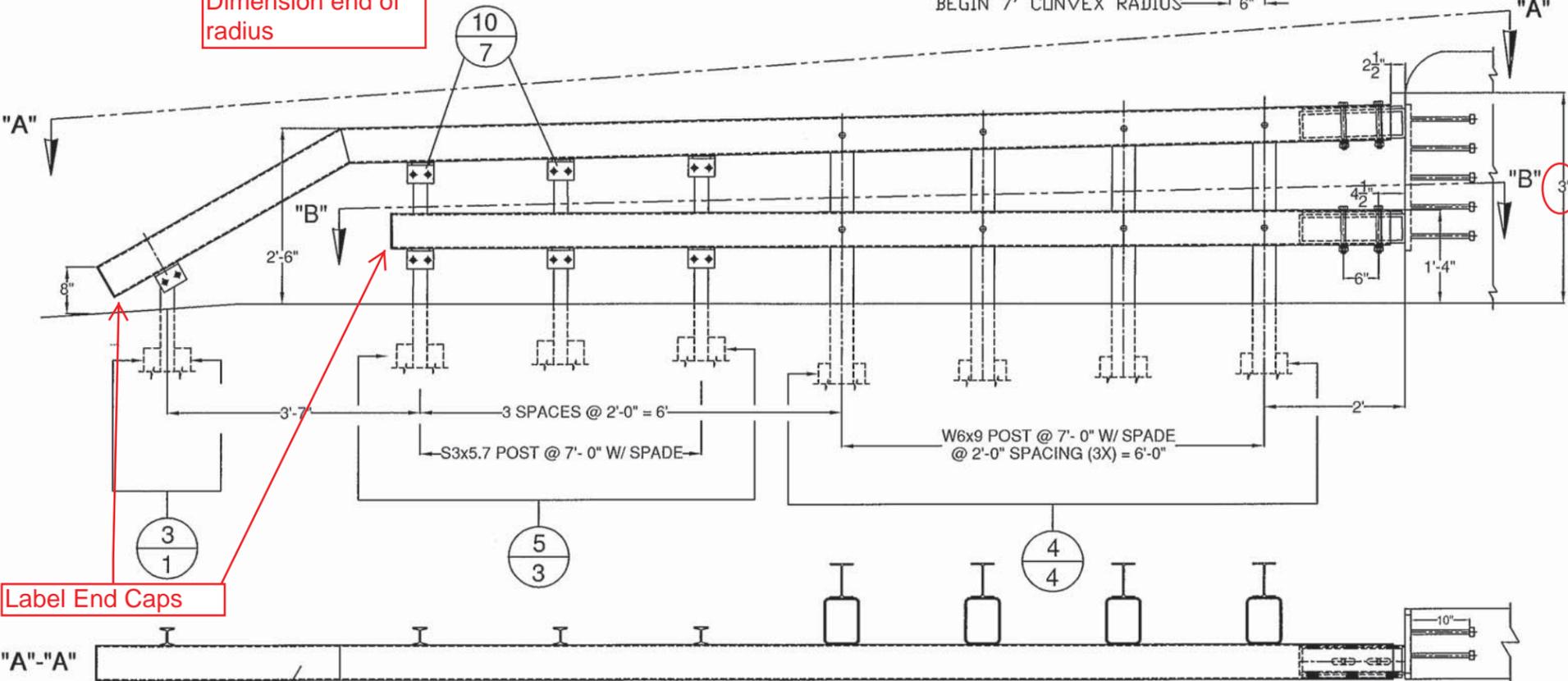
Please provide weld procedure for kick down?

End Caps are only labeled for the Lower Rail on WW2 and WW3. An End Cap should be shown on every kick back and kick down where the rail terminates.

Wing Wall 1 Approach Rail will need to be bent in the vertical direction as well. Theoretical Ground Elevations are given at each post location on sheet 20 of the Contract Plans.

Dimension to Top of Plate is 2'-10" (TYP)

Dimension end of radius



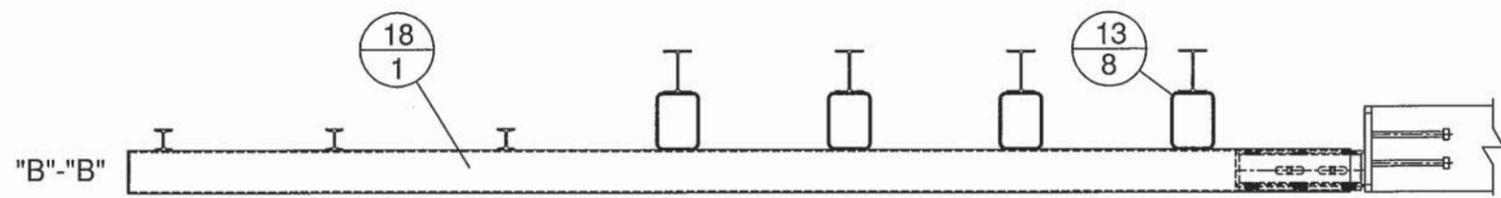
Label End Caps

Vermont Agency of Transportation
RECEIVED
 CK'D BY JG, RF OK'D BY GL
 February 2, 2016
 RESUBMIT YES Rejected
 BY KH DATE 2-23-2016

Clarify Pay Item as there are two different 900.620 Items for Guardrail. Label as Item 900.620 Special Provision (Guardrail Approach Section to Concrete Bridge Railing). These approach rail drawings will not be considered as a submittal for Item 900.620 Special Provision (Guardrail End Assembly, Type IIA).

SEE ADDITIONAL SHEETS FOR DETAILED VIEWS

GUARD RAIL TO BRIDGE RAIL TRANSITION



ITEM #: 900.620 SHEET 1 OF 9

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

TOLERANCE UNLESS OTHERWISE NOTED:
 FRACTIONS = ± 1/16"
 ANGLES = ± 1/2"
 DIAMETERS = ± 1/32"

SPECIAL PROVISION, GRAS - CONCRETE COMBINATION BR.
 ROUTE NO. T.H. 3 (CLASS 2), RURAL COLLECTOR, BRIDGE # 11
 TOWN OF CLARENDON, RUTLAND COUNTY, VT.

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY

ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14518
 E-Mail: dlong@elderlee.com / epeek@elderlee.com
 Tel: 315-789-6670 Fax: 315-789-6616

DRAWN E.P. 01/29/16
 CHECKED D.L.
 APPROVED M.V.
 SCALE SCHEMATIC
 DRAWING NO. FRL - CLARENDON (48) - 1

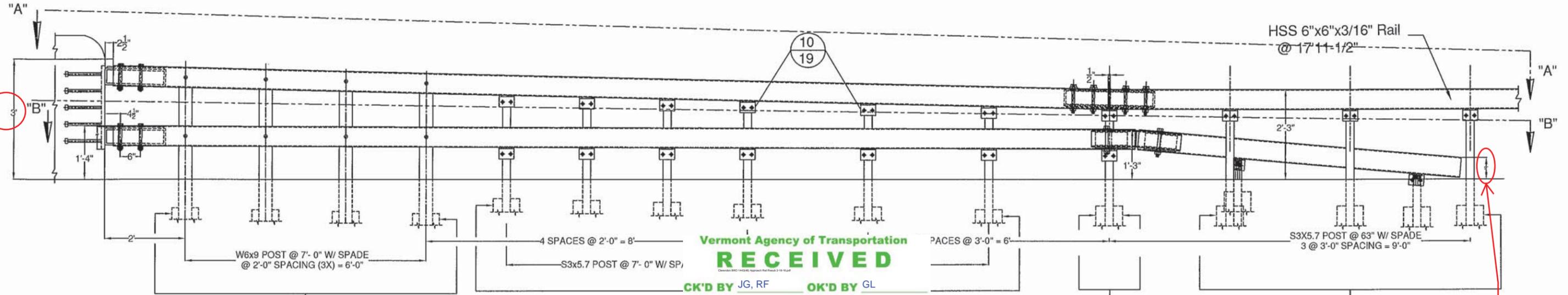
34' - PAY LIMIT

WW2

HSS 6"x6"x3/16" Kickback @ 9'-0" w/End Cap

BEGIN 700' CONVEX RADIUS @ POST 1

POST 1 POST 2 POST 3 POST 4 POST 5 POST 6 POST 7 POST 8 POST 9 POST 10 POST 11 POST 12 POST 13 POST 14



Vermont Agency of Transportation
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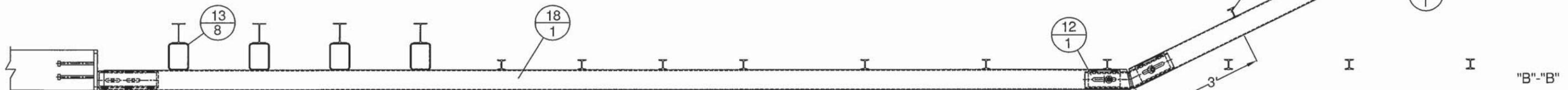
February 2, 2016

RESUBMIT YES Rejected
BY KH DATE 2-23-2016

Illegible

SEE ADDITIONAL SHEETS FOR DETAILED VIEWS

GUARD RAIL TO BRIDGE RAIL TRANSITION



Label as Item 900.620 Special Provision (Guardrail Approach Section to Concrete Bridge Railing).

ITEM #: 900.620

SHEET 2 OF 9

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

SPECIAL PROVISION, GRAS - CONCRETE COMBINATION BR.

ROUTE NO. T.H. 3 (CLASS 2), RURAL COLLECTOR, BRIDGE # 11
TOWN OF CLARENDON, RUTLAND COUNTY, VT.

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R	NO.	DATE	DESCRIPTION	BY	R	NO.	DATE	DESCRIPTION	BY
E					E				
V					V				

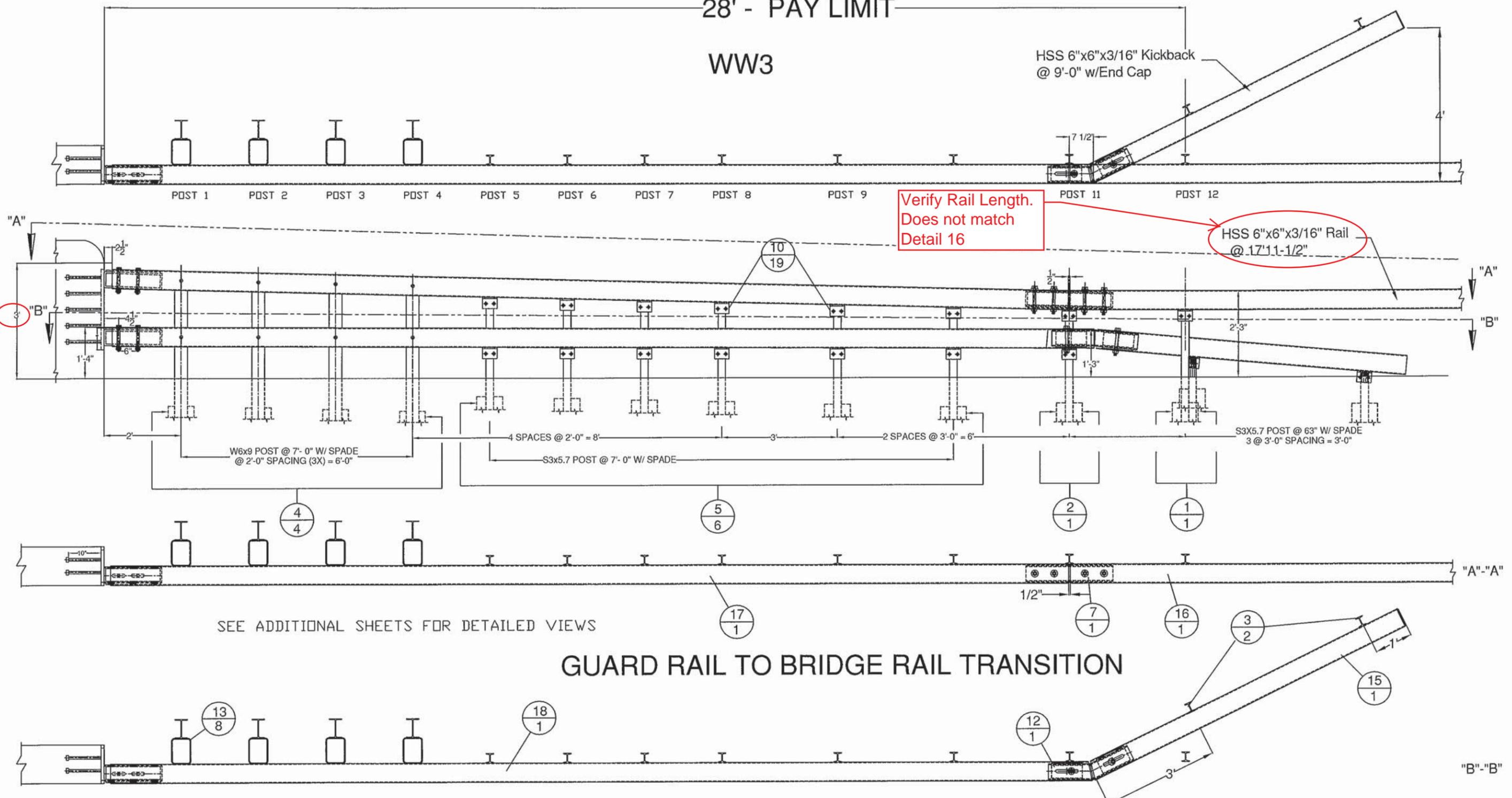
ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14518
E-Mail: dlong@elderlee.com / epeek@elderlee.com
Tel: 315-789-6670 Fax: 315-789-6615

DRAWN	E.P.	01/29/16
CHECKED	D.L.	.
APPROVED	M.V.	.
SCALE	SCHEMATIC	
DRAWING NO. FRL - CLARENDON (48)		

28' - PAY LIMIT

WW3

HSS 6"x6"x3/16" Kickback @ 9'-0" w/End Cap



SEE ADDITIONAL SHEETS FOR DETAILED VIEWS

GUARD RAIL TO BRIDGE RAIL TRANSITION

Label as Item 900.620 Special Provision (Guardrail Approach Section to Concrete Bridge Railing).

GENERAL NOTES:

- 1) ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 525 OF THE STANDARD SPECIFICATIONS.
- 2) BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT-LB).
- 3) PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
- 4) ANY BENDING OF RAIL SHALL BE DONE AT THE FABRICATION PLANT. RADII GREATER THAN 16' TO BE CURVED ON A TUBE BENDING MACHINE, RADII LESS THAN 16' TO BE "PIE CUT" AND WELDED. CURVED RAILING WILL HAVE AN 18" LENGTH ON EACH END STRAIGHT TO ACCOMADATE SPLICES.

Vermont Agency of Transportation
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ITEM #: 900.620

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

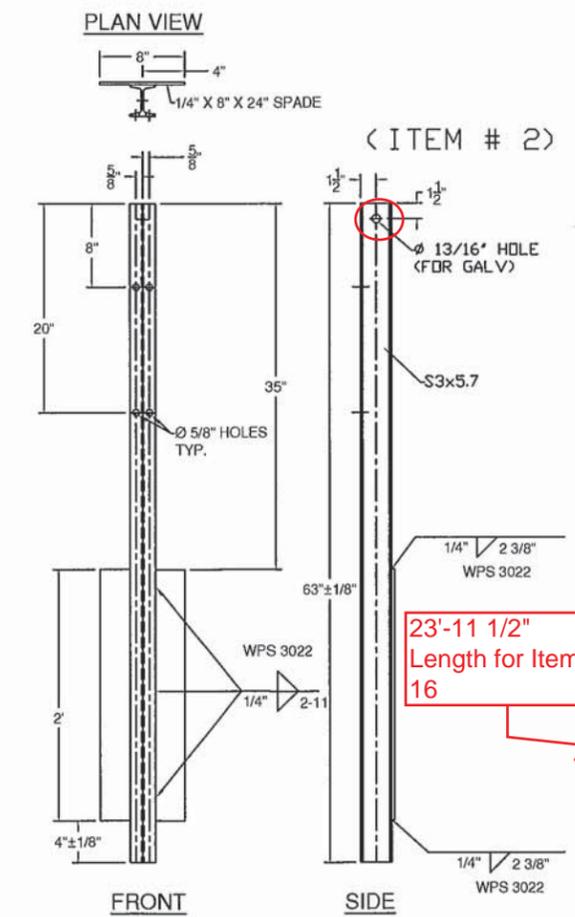
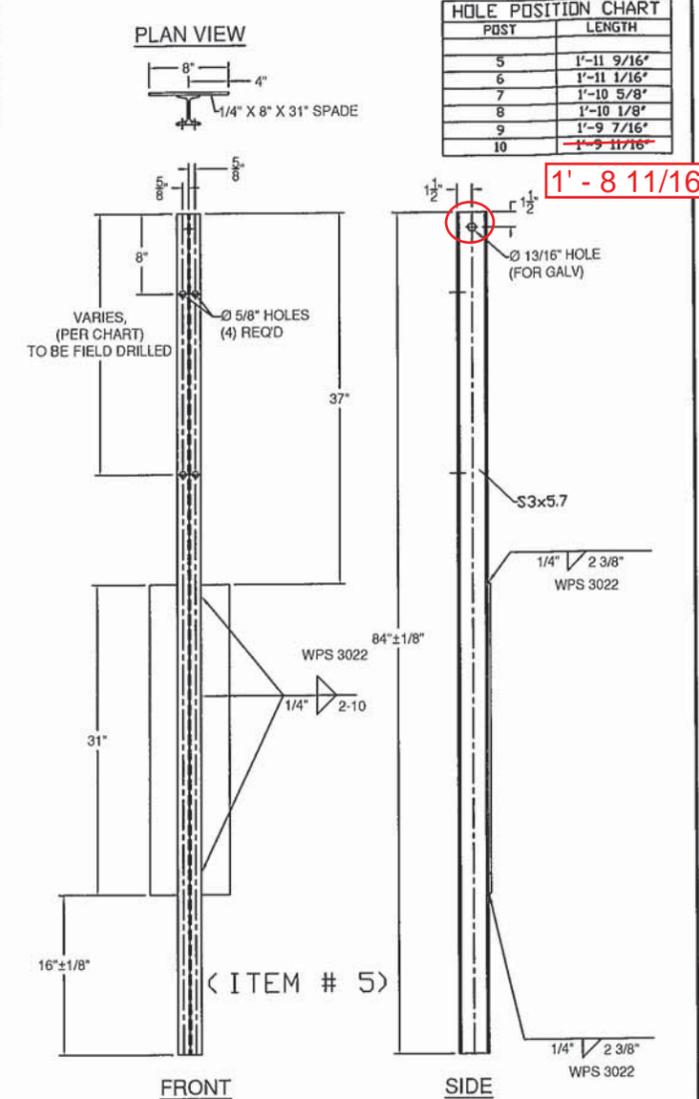
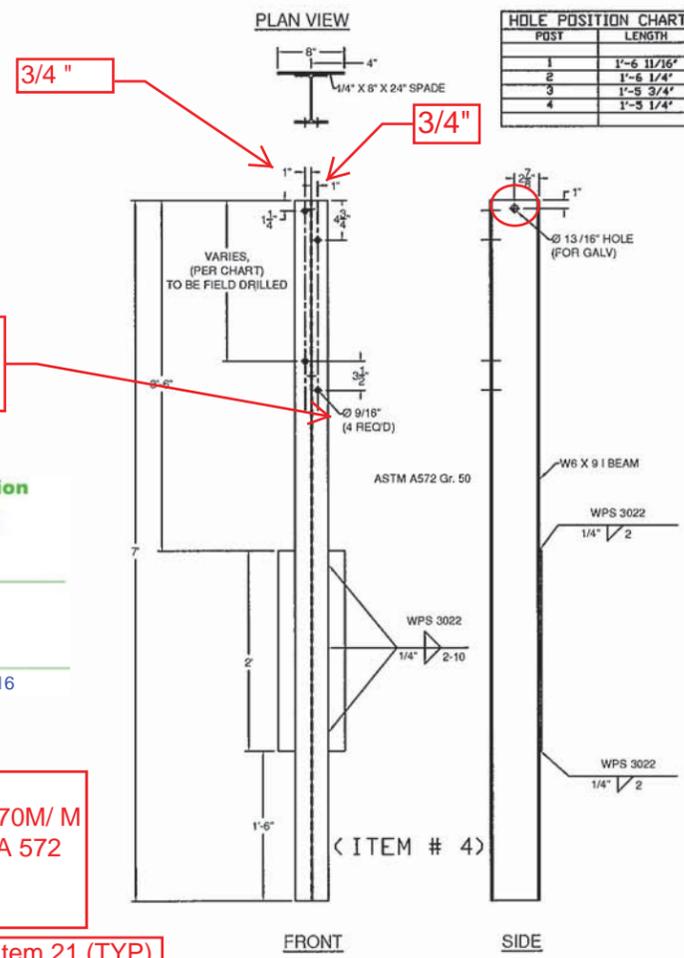
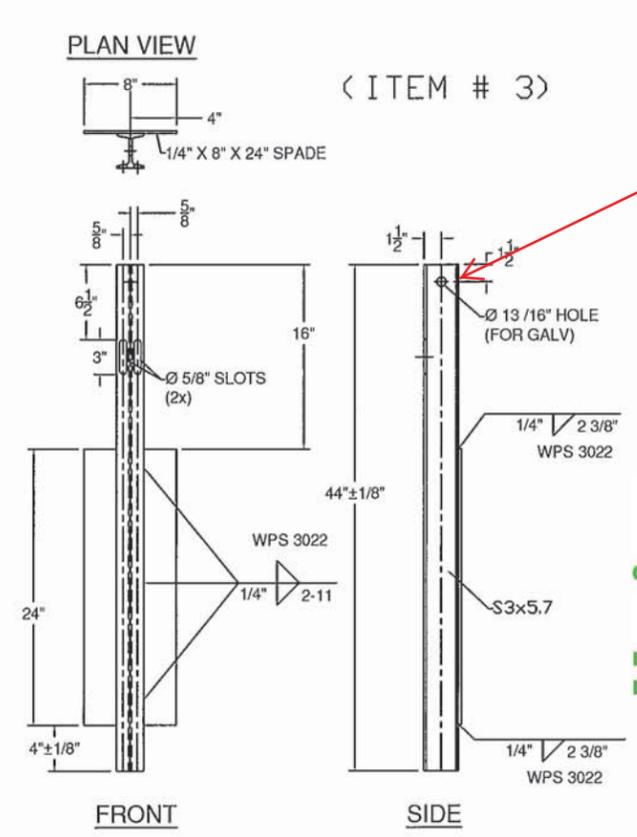
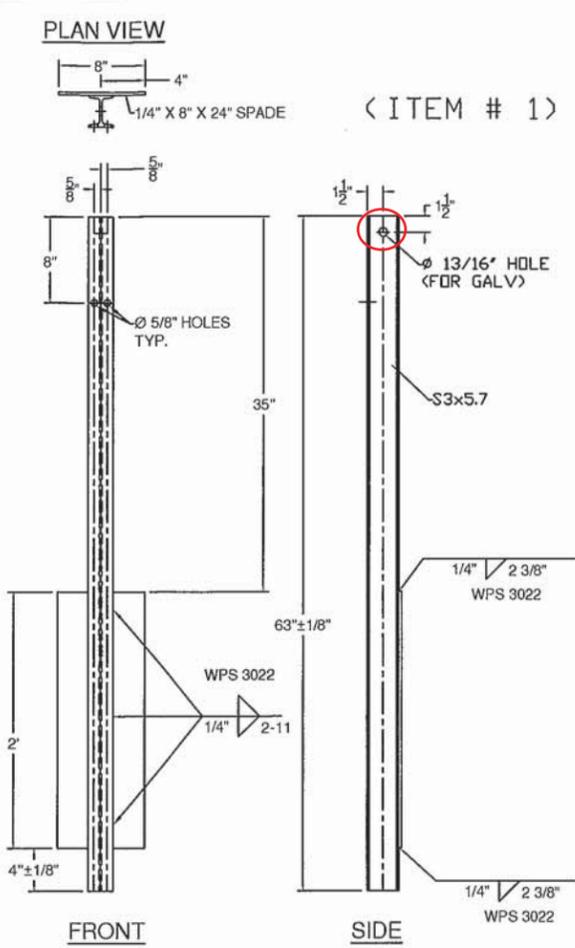
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 DIAMETERS = ± 1/32"

SPECIAL PROVISION, GRAS - CONCRETE COMBINATION BR.

ROUTE NO. T.H. 3 (CLASS 2), RURAL COLLECTOR, BRIDGE # 11
TOWN OF CLARENDON, RUTAND COUNTY, VT.

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY

ELDERLEE, INC.	01/29/16
OAKS CORNERS, NEW YORK 14578	D.L.
E-Mail: dlong@elderlee.com / epeek@elderlee.com	M.V.
Tel: 315-789-6670 Fax: 315-789-6615	SCALE SCHEMATIC
	DRAWING NO. FRL - CLARENDON (48) - 1



Hole shall be at bottom of the post. See Box Beam Details Sheet.

5/8" Diameter hole Typically used for 1/2" Delta

Item 10 shall conform to the requirements of AASHTO M 270M/ M 270 Grade 345 (50) or ASTM A 572 per subsection 732.03 of the standard specifications (TYP)

Lock Washer not required for Item 21 (TYP)

23'-11 1/2" Length for Item 16

Lock Washers

Lock Washers

Vermont Agency of Transportation
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 BY KH DATE 2-23-2016

POST	LENGTH
1	1'-6 11/16"
2	1'-6 1/4"
3	1'-5 3/4"
4	1'-5 1/4"

POST	LENGTH
5	1'-11 9/16"
6	1'-11 1/16"
7	1'-10 5/8"
8	1'-10 1/8"
9	1'-9 7/16"
10	1'-9 11/16"

BILL OF MATERIALS, WW2				
ITEM #	QTY.	COMPONENT #	DESCRIPTION	MATERIAL (ASTM)
1	3	0013.57021	3' I-POST, PUNCH 8" W/SPD @ 63" LG	ASTM A572 Gr. 50
2	1	0013.57025	3' I-POST W/SPD @ 63", PUNCH 8", & 20"	ASTM A572 Gr. 50
3	2	0013.57060	3' I-END POST W/SPD @ 3'-8" LG	ASTM A572 Gr. 50
4	4	-	W6X9 POST @ 7' W/SPD & Ø9/16" HOLES @ VARIOUS	ASTM A572 Gr. 50
5	6	-	3' I-POST, PUNCH 8" & VARIOUS", W/ØX31" SPADE @ 7'	ASTM A572 Gr. 50
7	1	0033.00640	HSS 5X5 BENT TUBE SPLICE @ 27' LG W/ 1/4" SHIMS	A500 Gr. B / A572 Gr 50
10	19	0054.00050	REG BB SHELF ANGLES @ 4-1/2"	ASTM A36
12	1	0054.00074	HSS 5X5 DBL BEND TUBE SPL @ 26 3/4" LG - 25° ANGLE	A500 Gr. B / A572 Gr 50
13	8	0054.00563	6X8" TRANS. TUBE B/D @ 6' LG	A500 Gr. B
15	1	0054.09000	6X6" BB @ 9'-0" KICKBACK, W/ CAP & 13° ANGLE	A500 Gr. B / A36
16	1	-	6X6" BB @ 17'-11 1/2", DRILL 3" CC (W/ 700' CONVEX RAD.)	A500 Gr. B
17	1	-	6X6" BB TOP TRANS @ 24'-9 5/16" LG (W/ 700' CONVEX RAD.)	A500 Gr. B
18	1	-	6X6" BB BTM TRANS @ 25'-5" LG (W/700' CONVEX RAD.)	A500 Gr. B
19	19	0080.03355	3/8" X 7 1/2" BOLT, NUT, & 2 FW	A307, A563, F436
20	19	0080.04100	1/2" x 1-1/2" BOLT, NUT, & FW	A307, A563, F436
21	16	0080.04120	1/2" x 1-1/2" BOLT, NUT, 2 FW & LW	A307, A563, F436
23	10	0080.06340	3/4" X 7-1/2" BOLT, NUT, 2 FW	A325, A563, F436
24	8	0080.06370	3/4" X 8" CARR BOLT, NUT, FW & LW	A307, A563, F436

BILL OF MATERIALS, WW3				
ITEM #	QTY.	COMPONENT #	DESCRIPTION	MATERIAL (ASTM)
1	1	0013.57021	3' I-POST, PUNCH 8" W/SPD @ 63" LG	ASTM A572 Gr. 50
2	1	0013.57025	3' I-POST W/SPD @ 63", PUNCH 8", & 20"	ASTM A572 Gr. 50
3	2	0013.57060	3' I-END POST W/SPD @ 3'-8" LG	ASTM A572 Gr. 50
4	4	-	W6X9 POST @ 7' W/SPD & Ø9/16" HOLES @ VARIOUS	ASTM A572 Gr. 50
5	6	-	3' I-POST, PUNCH 8" & VARIOUS", W/ØX31" SPADE @ 7'	ASTM A572 Gr. 50
7	1	0033.00640	HSS 5X5 BENT TUBE SPLICE @ 27' LG W/ 1/4" SHIMS	A500 Gr. B / A572 Gr 50
10	19	0054.00050	REG BB SHELF ANGLES @ 4-1/2"	ASTM A36
12	1	0054.00074	HSS 5X5 DBL BEND TUBE SPL @ 26 3/4" LG - 25° ANGLE	A500 Gr. B / A572 Gr 50
13	8	0054.00563	6X8" TRANS. TUBE B/D @ 6' LG	A500 Gr. B
15	1	0054.09000	6X6" BB @ 9'-0" KICKBACK, W/ CAP & 13° ANGLE	A500 Gr. B / A36
16	1	0054.18000	6X6" BB @ 17'-11 1/2", DRILL 3" CC	A500 Gr. B
17	1	-	6X6" BB TOP TRANS @ 24'-9 5/16" LG	A500 Gr. B
18	1	-	6X6" BB BTM TRANS @ 25'-5" LG	A500 Gr. B
19	17	0080.03355	3/8" X 7 1/2" BOLT, NUT, & 2 FW	A307, A563, F436
20	17	0080.04100	1/2" x 1-1/2" BOLT, NUT, & FW	A307, A563, F436
21	16	0080.04120	1/2" x 1-1/2" BOLT, NUT, 2 FW & LW	A307, A563, F436
23	10	0080.06340	3/4" X 7-1/2" BOLT, NUT, 2 FW	A325, A563, F436
24	8	0080.06370	3/4" X 8" CARR BOLT, NUT, FW & LW	A307, A563, F436

HARDWARE NOTES	
ITEM #	FUNCTION
19	BOLT RAIL TO SHELF ANGLE (ITEM #10)
20	BOLT SHELF ANGLE (ITEM # 10) TO POST
21	BOLT BLOCK-OUTS (ITEM # 13) TO HEAVY POST (ITEM # 4)
23	SPLICE TUBING (ITEM #'S 7 & 12), & (4) PER PARAPET WALL CONNECTION
24	BOLT RAIL (ITEMS #'S 17, & 18 TO BLOCK-OUTS (ITEM # 13)

BILL OF MATERIALS, WW1 & WW4				
ITEM #	QTY.	COMPONENT #	DESCRIPTION	MATERIAL (ASTM)
3	2	0013.57060	3' I-END POST W/SPD @ 3'-8" LG	ASTM A572 Gr. 50
4	8	-	W6X9 POST @ 7' W/SPD & Ø9/16" HOLES @ VARIOUS	ASTM A572 Gr. 50
5	6	-	3' I-POST, PUNCH 8" & VARIOUS", W/ØX31" SPADE @ 7'	ASTM A572 Gr. 50
10	14	0054.00050	REG BB SHELF ANGLES @ 4-1/2"	ASTM A36
13	16	0054.00563	6X8" TRANS. TUBE B/D @ 6' LG	A500 Gr. B
17	2	-	6X6" BB TOP TRANS @ 14'-2 1/2" LG W/ TURNDOWN & 7' CONVEX RADIUS	A500 Gr. B
18	2	-	6X6" BB BTM TRANS @ 14'-2 1/2" LG W/ 7' CONVEX RADIUS	A500 Gr. B
19	14	0080.03355	3/8" X 7 1/2" BOLT, NUT, & 2 FW	A307, A563, F436
20	14	0080.04100	1/2" x 1-1/2" BOLT, NUT, & FW	A307, A563, F436
21	32	0080.04120	1/2" x 1-1/2" BOLT, NUT, 2 FW & LW	A307, A563, F436
23	8	0080.06340	3/4" X 7-1/2" BOLT, NUT, 2 FW	A325, A563, F436
24	16	0080.06370	3/4" X 8" CARR BOLT, NUT, FW & LW	A307, A563, F436

ITEM #: 900.620 Label as Item 900.620 Special Provision (Guardrail Approach Section to Concrete Bridge Railing).

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

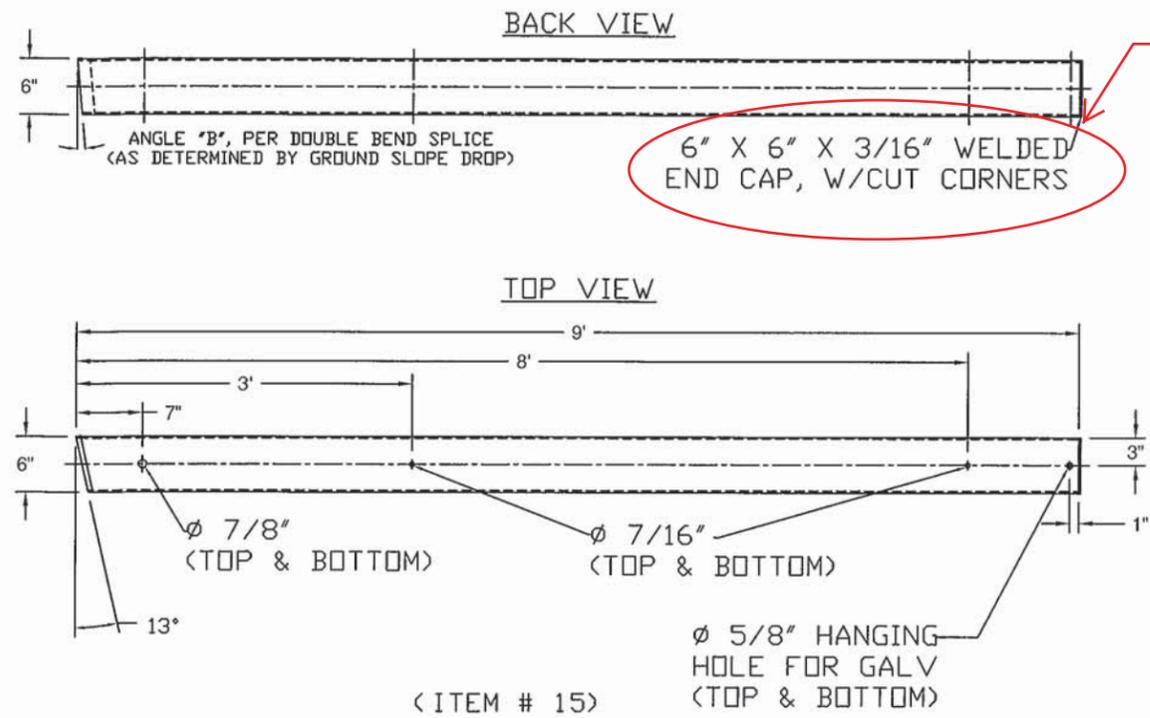
TOLERANCE UNLESS OTHERWISE NOTED:
 FRACTIONS = ± 1/16"
 ANGLES = ± 1/2"
 DIAMETERS = ± 1/32"

SPECIAL PROVISION, GRAS - CONCRETE COMBINATION DR.
 ROUTE NO. T.H. 3 (CLASS 2), RURAL COLLECTOR, BRIDGE # 11
 TOWN OF CLARENDON, RUTAND COUNTY, VT.

R	NO.	DATE	DESCRIPTION	BY	R	NO.	DATE	DESCRIPTION	BY
E					E				
V					V				

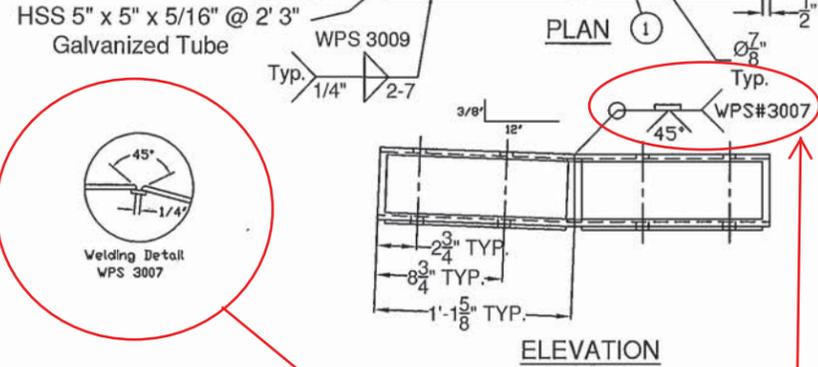
ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14518
 E-Mail: dlong@elderlee.com / epeek@elderlee.com
 Tel: 315-789-6670 Fax: 315-789-6615

DRAWN E.P. 01/29/16
 CHECKED D.L.
 APPROVED M.V.
 SCALE SCHEMATIC
 DRAWING NO. FRL - CLARENDON (48)-T



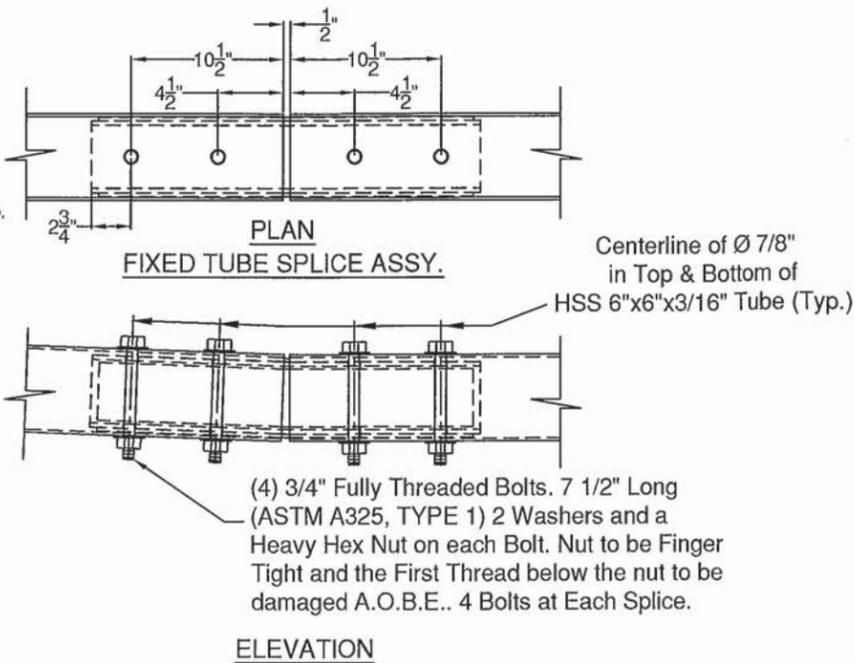
Provide Weld Details for End Cap.

6" X 6" X 3/16" WELDED END CAP, W/CUT CORNERS



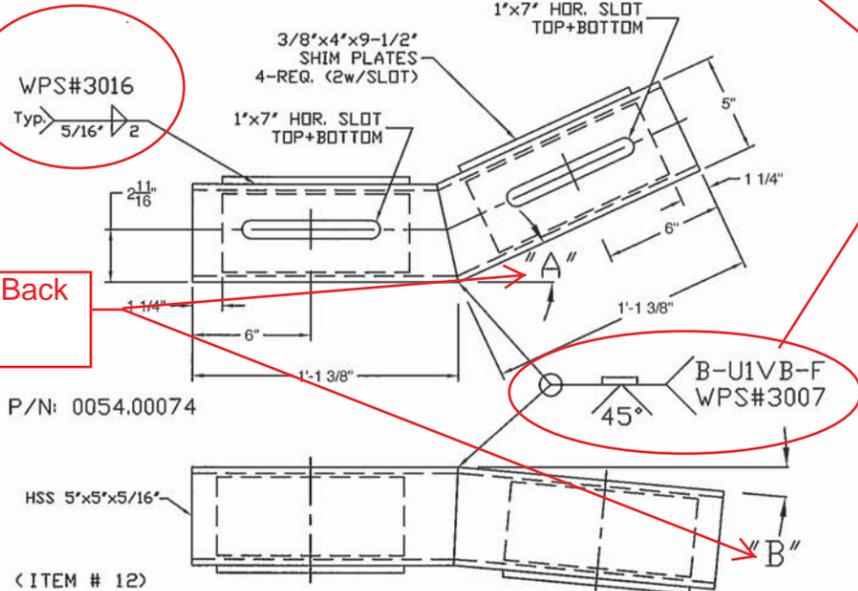
ITEM#	QTY.	DESCRIPTION
1	2	5" X 5" X 5/16" TUBE @ 27" ASTM A500 Gr. B
2	6	1/4" X 4" X 12 1/2" ASTM A36/A709 Gr-36/CVN
3	4	3/16" X 1" X 4" BACKER PLATE

(ITEM # 7)



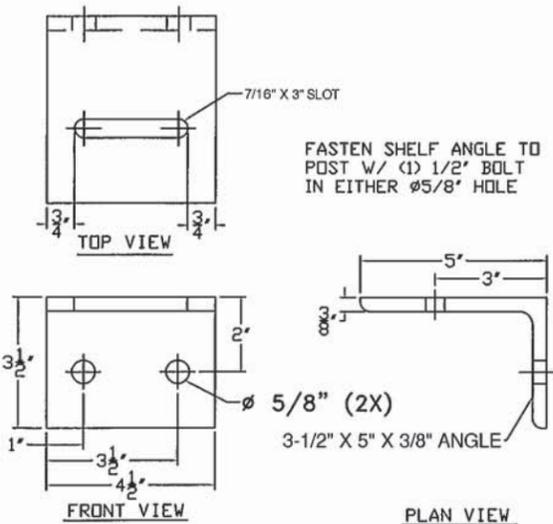
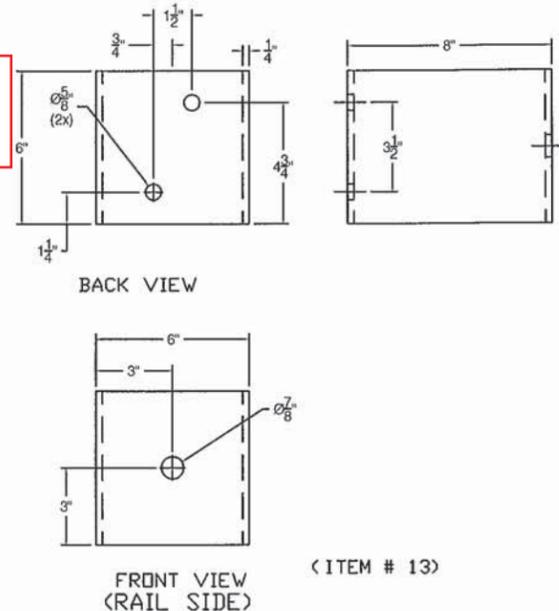
(4) 3/4" Fully Threaded Bolts, 7 1/2" Long (ASTM A325, TYPE 1) 2 Washers and a Heavy Hex Nut on each Bolt. Nut to be Finger Tight and the First Thread below the nut to be damaged A.O.B.E.. 4 Bolts at Each Splice.

Weld is intended to be a 2x2" intermittent weld.



Please detail Turn Back Angle Values

This detail doesn't match what is shown on WPS #3007



(ITEM # 10)

A - SEE PLAN FOR TURN BACK DISTANCE, SET ANGLE ACCORDINGLY.
 B - TURN DOWN ANGLE SET BY THE 9' MEASUREMENT AT THE END OF THE BOX BEAM.

Label as Item 900.620 Special Provision (Guardrail Approach Section to Concrete Bridge Railing).

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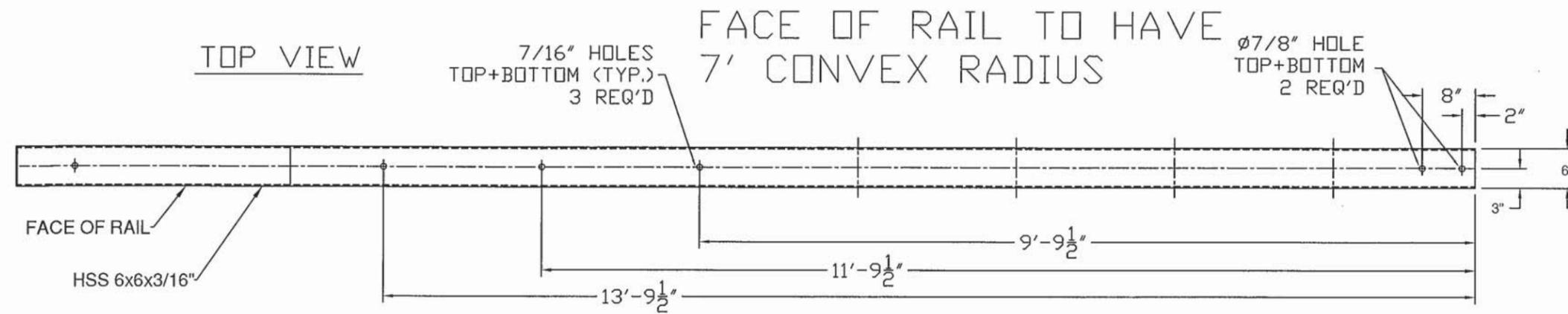
ITEM #: 900.620
 STRUCTURAL STEEL TO COMPLY W/ ASTM A6
 TOLERANCE UNLESS OTHERWISE NOTED:
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SHEET 5 OF 9
SPECIAL PROVISION, GRAS - CONCRETE COMBINATION BR.
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 TOWN OF CLARENDON, RUTLAND COUNTY, VT.

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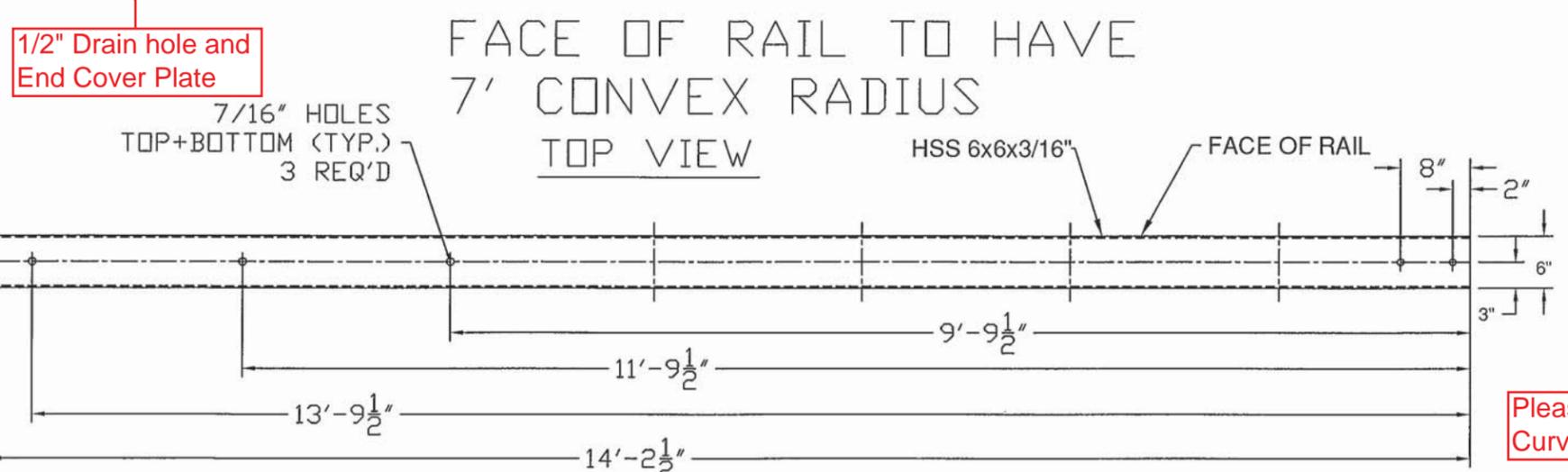
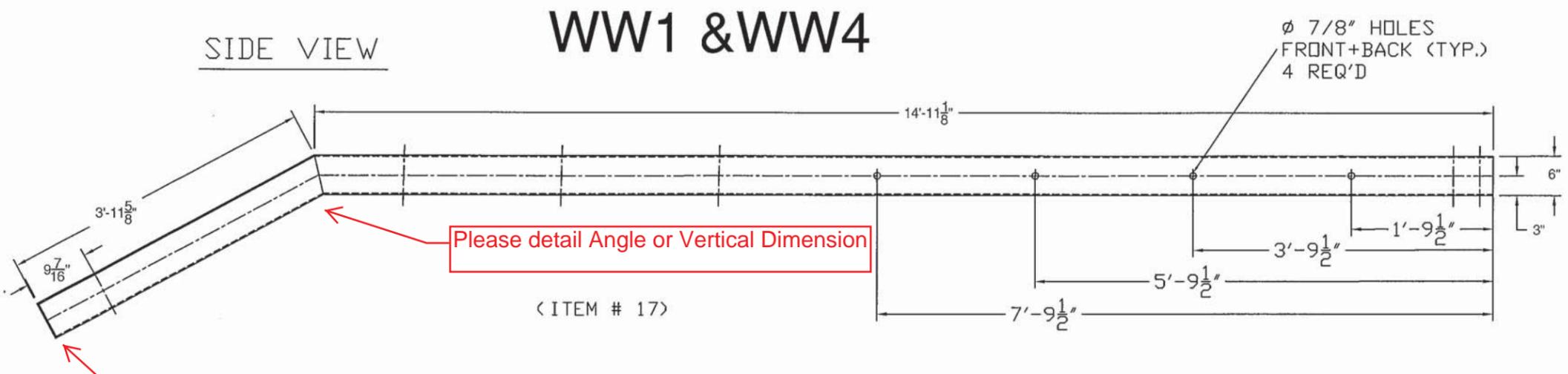
ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14518
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DRAWN	E.P.	01/29/16
CHECKED	D.L.	
APPROVED	M.V.	
SCALE	SCHMATIC	
DRAWING NO. FRL - CLARENDON (48) - 1		



Wing Wall 1 Approach Rail will need to be bent in the vertical direction as well. Theoretical Ground Elevations are given at each post location on sheet 20 of the Contract Plans.

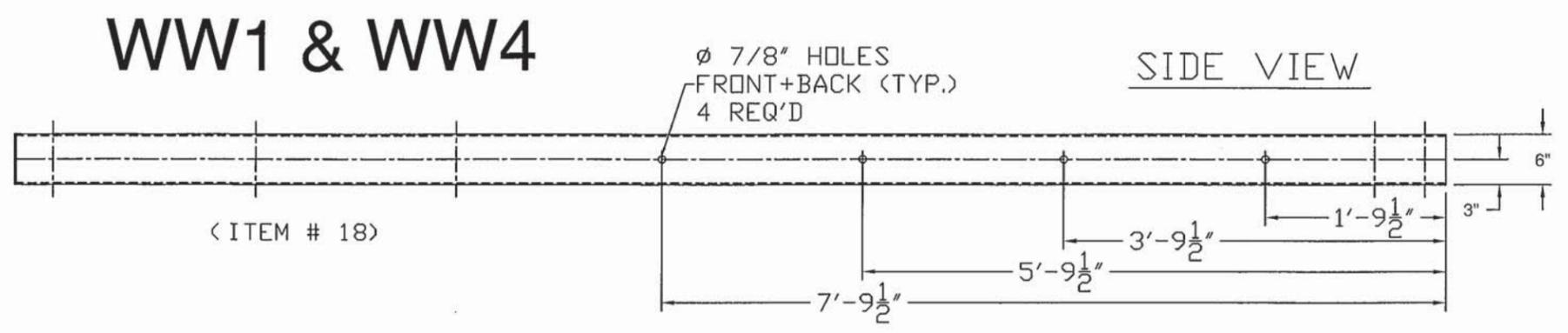
Please Detail Points of Curvature on Box Beam



Please Detail Points of Curvature on Box Beam

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ITEM #: 900.620 SHEET 6 OF 9

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

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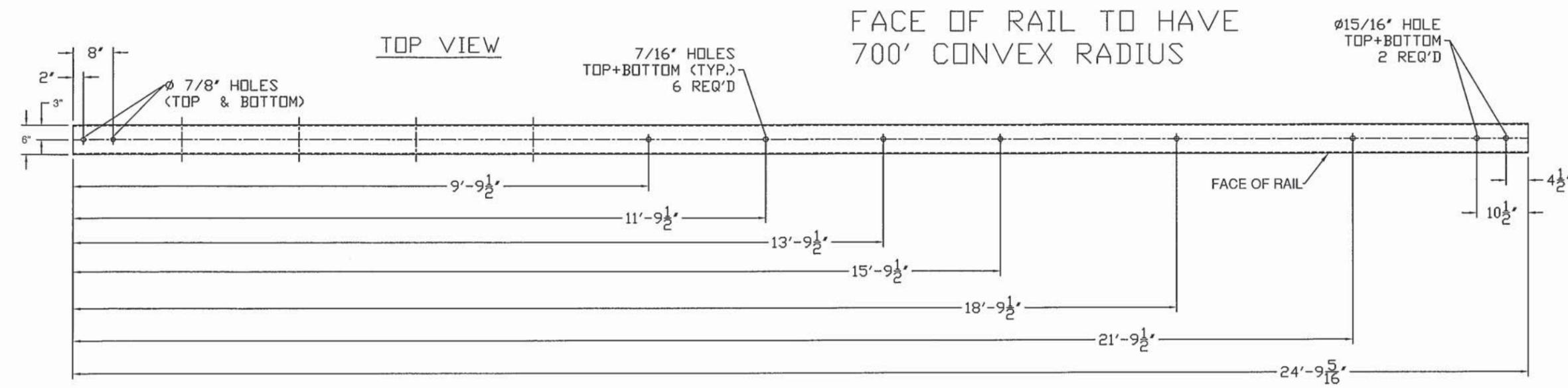
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 TOWN OF CLARENDON, RUTAND COUNTY, VT.

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY

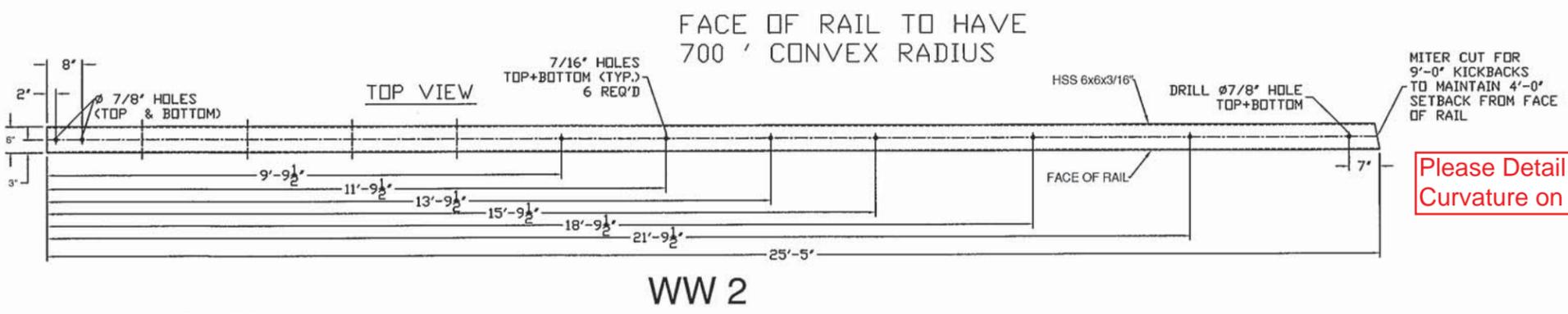
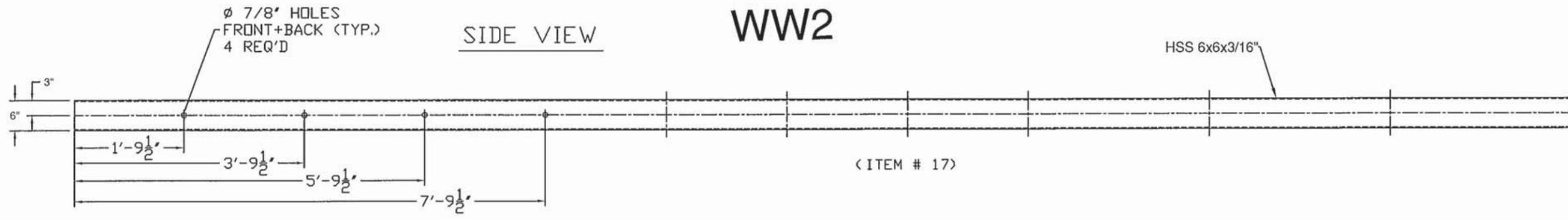
ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14518
 E-Mail: dlong@elderlee.com / epeek@elderlee.com
 Tel: 315-789-6670 Fax: 315-789-6616

CERTIFIED FABRICATOR

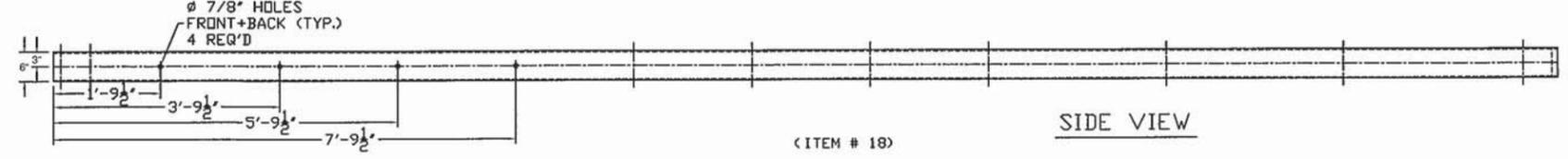
DRAWN	E.P.	01/29/16
CHECKED	D.L.	
APPROVED	M.V.	
SCALE	SCHEMATIC	
DRAWING NO. FRL - CLARENDON (48) - T		



Please Detail Points of Curvature on Box Beam



Please Detail Points of Curvature on Box Beam



Label as Item 900.620 Special Provision (Guardrail Approach Section to Concrete Bridge Railing).

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ITEM #: 900.620 SHEET 7 OF 9

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

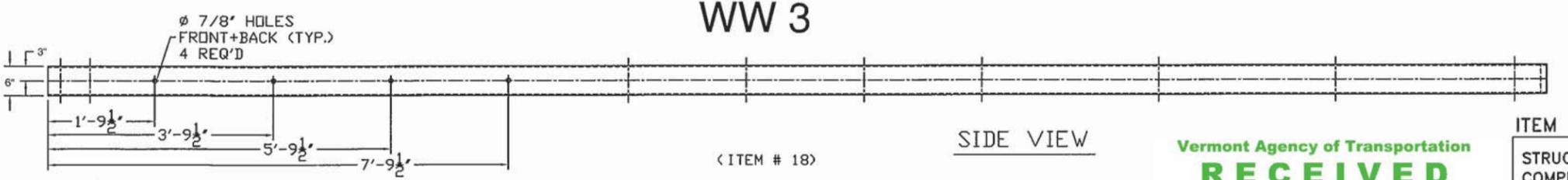
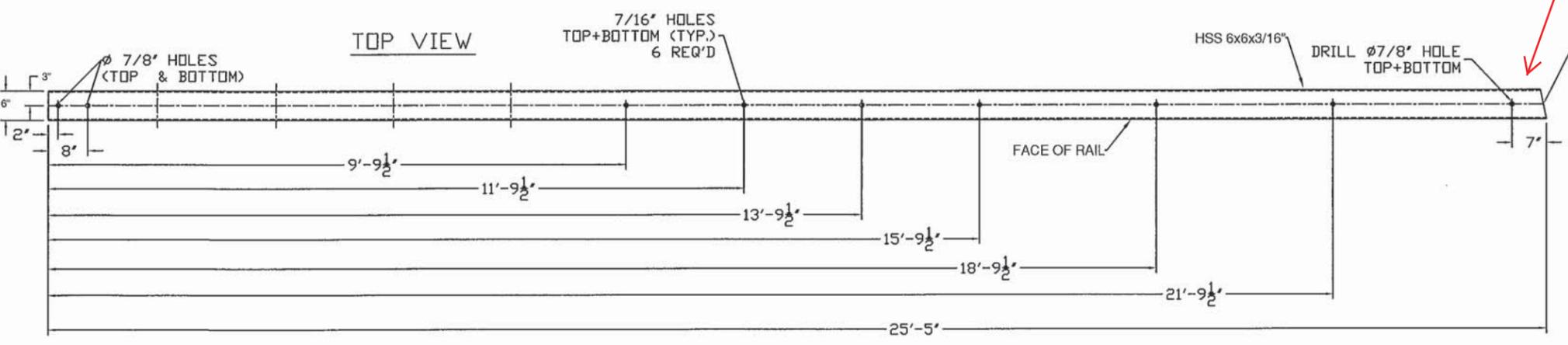
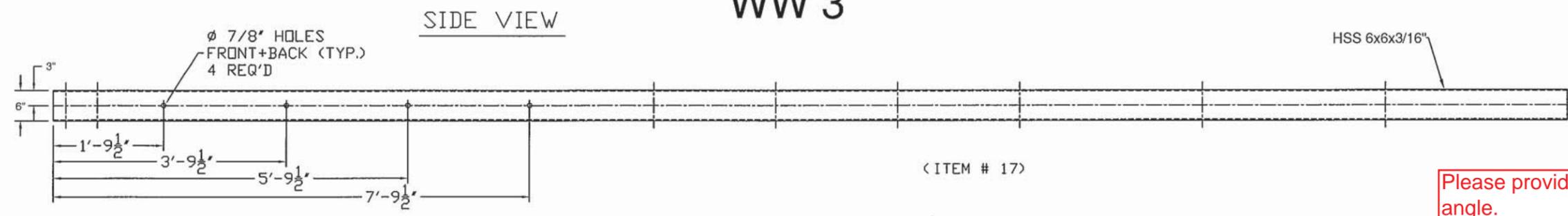
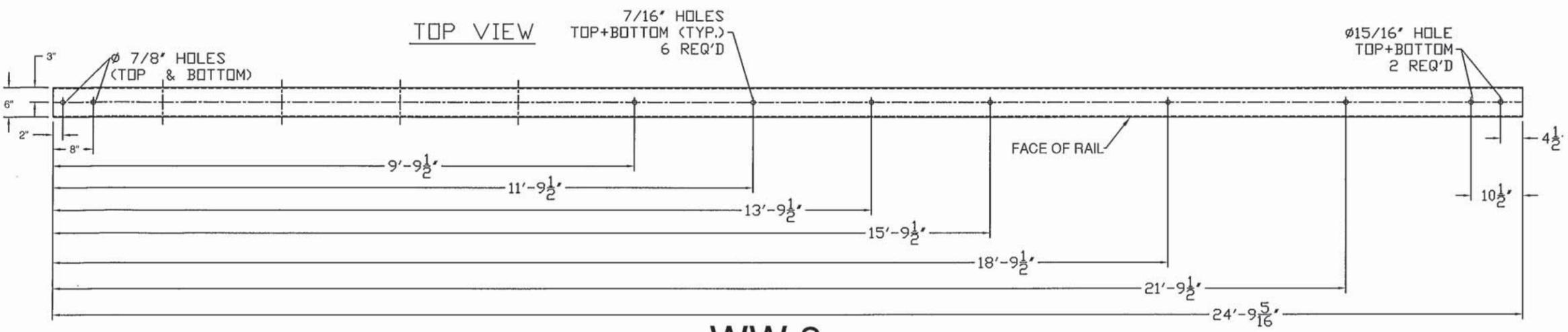
SPECIAL PROVISION, GRAS - CONCRETE COMBINATION BR.
 ROUTE NO. T.H. 3 (CLASS 2), RURAL COLLECTOR, BRIDGE # 11
 TOWN OF CLARENDON, RUTAND COUNTY, VT.

NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY

TOLERANCE UNLESS OTHERWISE NOTED:
 FRACTIONS = ± 1/16"
 ANGLES = ± 1/2"
 DIAMETERS = ± 1/32"

ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14578
 E-Mail: dlong@elderlee.com / epeek@elderlee.com
 Tel: 315-789-6670 Fax: 315-789-6615

DRAWN	E.P.	01/29/16
CHECKED	D.L.	
APPROVED	M.V.	
SCALE	SCHMATIC	
DRAWING NO.	FRL - CLARENDON (48) - T	



Please provide a miter cut angle.

MITER CUT FOR 9'-0" KICKBACKS TO MAINTAIN 4'-0" SETBACK FROM FACE OF RAIL

Label as Item 900.620 Special Provision (Guardrail Approach Section to Concrete Bridge Railing).

Vermont Agency of Transportation
RECEIVED
 CK'D BY JG, RF OK'D BY GL
 February 2, 2016
 RESUBMIT YES Rejected
 BY KH DATE 2-23-2016

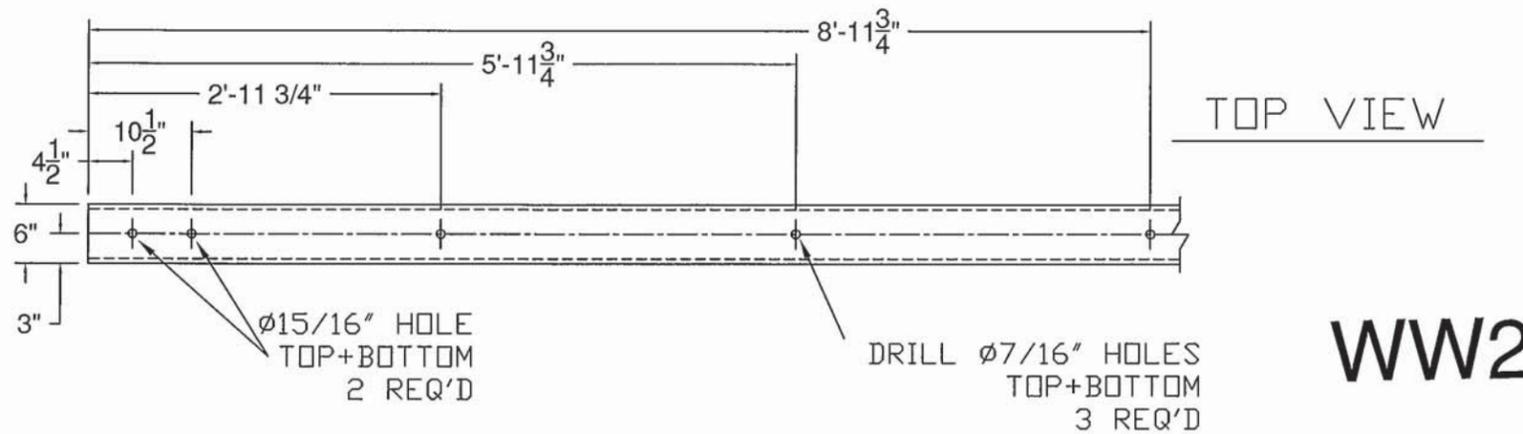
ITEM #: 900.620
 STRUCTURAL STEEL TO COMPLY W/ ASTM A6
 TOLERANCE UNLESS OTHERWISE NOTED:
 FRACTIONS = ± 1/16"
 ANGLES = ± 1/2"
 DIAMETERS = ± 1/32"

SPECIAL PROVISION, GRAS - CONCRETE COMBINATION BR.
 ROUTE NO. T.H. 3 (CLASS 2), RURAL COLLECTOR, BRIDGE # 11
 TOWN OF CLARENDON, RUTAND COUNTY, VT.

NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY

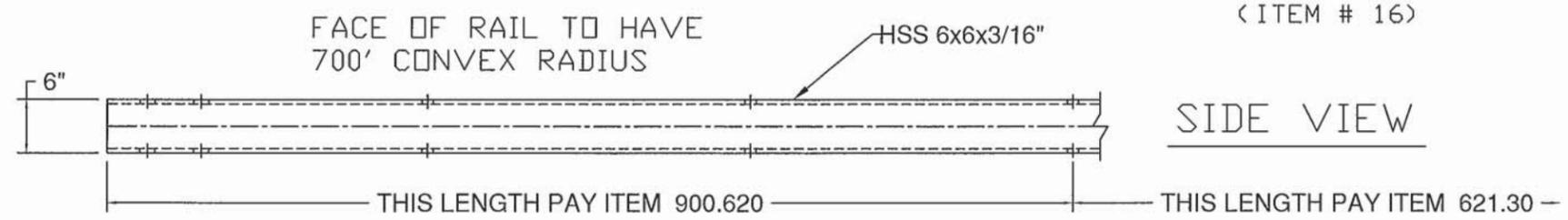
ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14518
 E-Mail: dlong@elderlee.com / epeek@elderlee.com
 Tel: 315-789-6670 Fax: 315-789-6616

DRAWN	E.P.	01/29/16
CHECKED	D.L.	
APPROVED	M.V.	
SCALE	SCHEMATIC	
DRAWING NO. FRL - CLARENDON (48) - T		

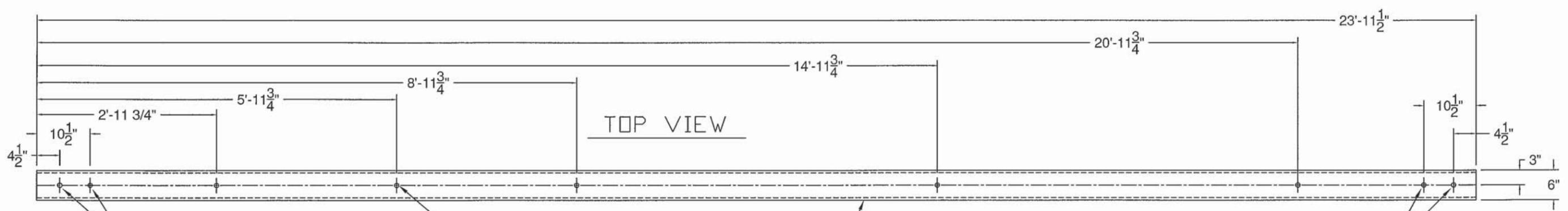


WW2

(ITEM # 16)

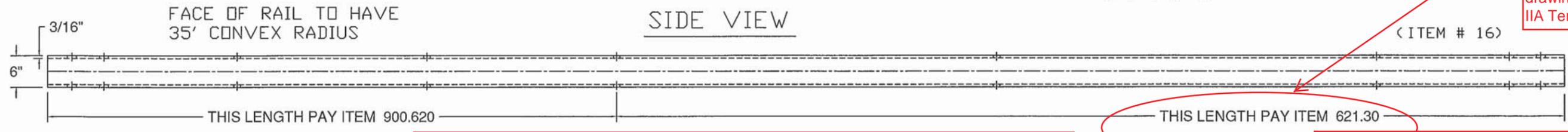


SIDE VIEW



WW3

(ITEM # 16)



SIDE VIEW

The Length of Rail to be paid under Item 900.620 Special Provision (Type IIA Terminal). Separate Fabrication drawings will be required for the Type IIA Terminal End Assembly.

Please see Type IIA details (Sheet 26) of Contract Plans for Post Spacing and rail curvature.

Label as Item 900.620 Special Provision (Guardrail Approach Section to Concrete Bridge Railing).

Vermont Agency of Transportation
RECEIVED
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 February 2, 2016
 RESUBMIT YES Rejected
 BY KH DATE 2-23-2016

ITEM #: 900.620 SHEET 9 OF 9

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

SPECIAL PROVISION, GRAS - CONCRETE COMBINATION BR.
 ROUTE NO. T.H. 3 (CLASS 2), RURAL COLLECTOR, BRIDGE # 11
 TOWN OF CLARENDON, RUTAND COUNTY, VT.

REVISION	NO.	DATE	DESCRIPTION	BY	REVISION	NO.	DATE	DESCRIPTION	BY

TOLERANCE UNLESS OTHERWISE NOTED:
 FRACTIONS = ± 1/16"
 ANGLES = ± 1/2"
 DIAMETERS = ± 1/32"

ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14518
 E-Mail: dlong@elderlee.com / epeek@elderlee.com
 Tel: 315-789-6670 Fax: 315-789-6616

DRAWN	E.P.	01/29/16
CHECKED	D.L.	
APPROVED	M.V.	
SCALE	SCHEMATIC	
DRAWING NO. FRL - CLARENDON (48) - T		

WELDING PROCEDURE SPECIFICATION

PQR ELDERLEE#3

Material Specification	A500 GR B to A572 GR 50
Welding Process	FCAW-G
Manual or Machine	SEMAUTOMATIC
Position of Welding	FLAT/HORIZONTAL
Filler Metal Specification	A5.29
Filler Metal Classification	E81T1-Ni1C-JH4
Flux	N/A
Shielding Gas	CO 2 Dew Point -40DEG F Flow Rate 50CFH
Single or Multiple Pass	SINGLE
Single or Multiple Arc	SINGLE
Welding Current	DC
Polarity	REVERSE ELECTRODE POSITIVE
Welding Progression	STRINGER
Root Treatment	PER D1.5
Preheat and Interpass Temperature	PER D1.5
Postheat Temperature	NONE
Heat Input	Min _____ Max _____

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
1	1/16	310	25	11	
Variable	LIMITS	341 TO 269	27 TO 23	12 TO 10	

THIS DETAIL IS DIFFERENT THAN WHAT IS SHOWN ON THE PLANS

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 3007 Contractor Elderlee, Inc.
 Revision No. _____ Authorized By RANDY SCOTT
 Date 12/14/2015

Vermont Agency of Transportation
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 CK'D BY JG, RF OK'D BY GL
 February 2, 2016
 RESUBMIT YES **Rejected**
 BY KH DATE 2-23-2016

WELDING PROCEDURE SPECIFICATION

PQR ELDERLEE #3

Material Specification A709 TO A500 GR B
 Welding Process FCAW-G
 Manual or Machine SEMAUTOMATIC
 Position of Welding FLAT/HORIZONTAL
 Filler Metal Specification A5.29
 Filler Metal Classification E81T1-Ni1C-JH4
 Flux N/A
 Shielding Gas CO 2 Dew Point -40DEG F Flow Rate 50CFH
 Single or Multiple Pass SINGLE
 Single or Multiple Arc SINGLE
 Welding Current DC
 Polarity REVERSE ELECTRODE POSITIVE
 Welding Progression STRINGER
 Root Treatment D1.5
 Preheat and Interpass Temperature D1.5
 Postheat Temperature NONE
 Heat Input Min _____ Max _____

WELDING PROCEDURE.

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
1	1/16	310	25	11	
Variable	LIMITS	341	27	12	
		TO 269	TO 23	TO 10	

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 3009

Contractor Elderlee, Inc.

Revision No. _____

Authorized By RANDY SCOTT

Date 3/20/2014

Vermont Agency of Transportation
RECEIVED

CK'D BY JG, RF OK'D BY GL

February 2, 2016

RESUBMIT YES **Rejected**

BY KH DATE 2-23-2016

WELDING PROCEDURE SPECIFICATION

PQR ELDERLEE #3

Material Specification A500 TO A572 GR 50
 Welding Process FCAW-G
 Manual or Machine SEMAUTOMATIC
 Position of Welding FLAT/HORIZONTAL
 Filler Metal Specification A5.29
 Filler Metal Classification E81T1-Ni1C-JH4
 Flux N/A
 Shielding Gas CO 2 Dew Point -40DEG F Flow Rate 50CFH
 Single or Multiple Pass SINGLE
 Single or Multiple Arc SINGLE
 Welding Current DC
 Polarity REVERSE
 Welding Progression STRINGER
 Root Treatment PER D1.5
 Preheat and Interpass Temperature PER D1.5
 Postheat Temperature NONE
 Heat Input Min _____ Max _____

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
1	1/16	310	25	11	
Variable	LIMITS	341	27	12	
		TO 269	TO 23	TO 10	

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 3016

Contractor Elderlee, Inc.

Revision No. _____

Authorized By RANDY SCOTT

Date 8/4/2014

Vermont Agency of Transportation
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CK'D BY JG, RF OK'D BY GL

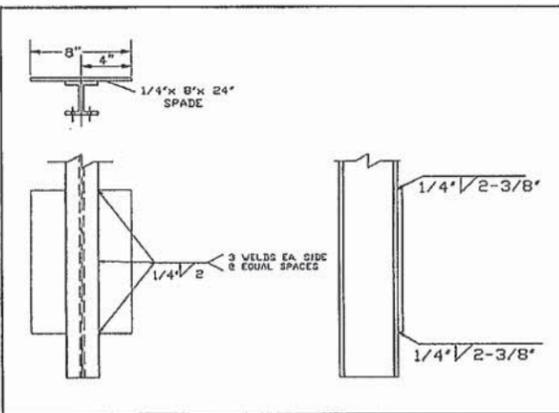
February 2, 2016

RESUBMIT YES **Rejected**
 BY KH DATE 2-23-2016

WELDING PROCEDURE SPECIFICATION

Material Specification	A572 GR 50		
Welding Process	GMAW		
Manual or Machine	SEMIAUTOMATIC/ROBOTIC		
Position of Welding	FLAT/HORIZONTAL		
Filler Metal Specification	A5.18		
Filler Metal Classification	L-56	LINCOLN	
Flux	N/A		
Shielding Gas	90% ARGON /10% CO2	Dew Point	-40DEG F Flow Rate 45CFH
Single or Multiple Pass	SINGLE		
Single or Multiple Arc	SINGLE		
Welding Current	DC		
Polarity	REVERSE		
Welding Progression	STRINGER		
Root Treatment	PER D1.5		
Preheat and Interpass Temperature	PER D1.5		
Postheat Temperature	NONE		
Heat Input	Min		Max

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
	.045	190	22	19	
Variable	LIMITS	171	20	17	
		TO 209	TO 24	TO 21	

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 3022

Contractor Elderlee, Inc.

Revision No. _____

Authorized By RANDY SCOTT

Date 3/20/2014

Vermont Agency of Transportation
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Division 500 - Highway Approach and Roadway 2-16-16-14
 CK'D BY JG, RF OK'D BY GL
 February 2, 2016
 RESUBMIT YES Rejected
 BY KH DATE 2-23-2016