PO Box 508
Barton, VT 05822
Phone: (802) 525-9506
Fax: (802) 525-4616
www.jpsicard.com

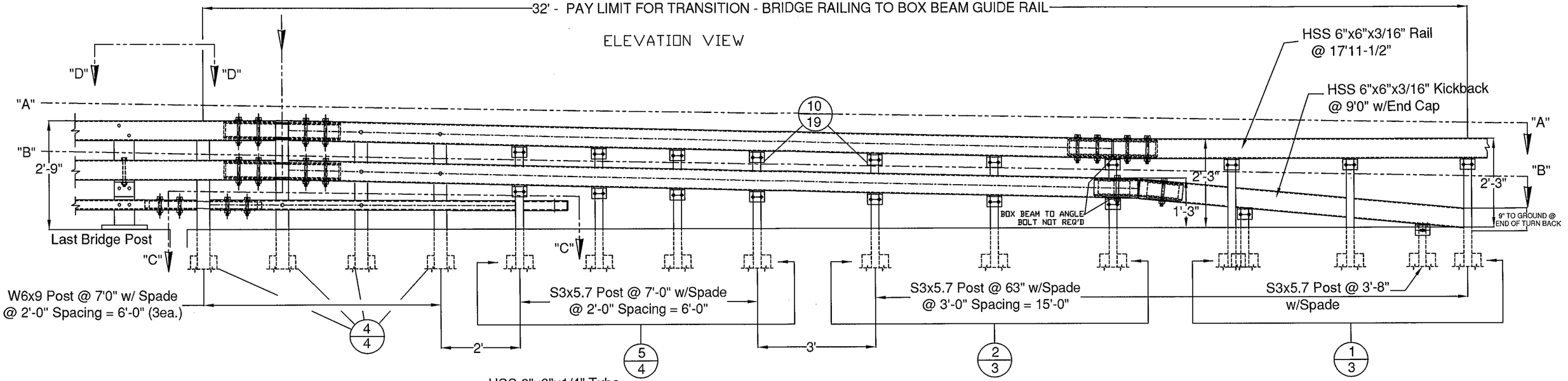
Submittal Data Sheet

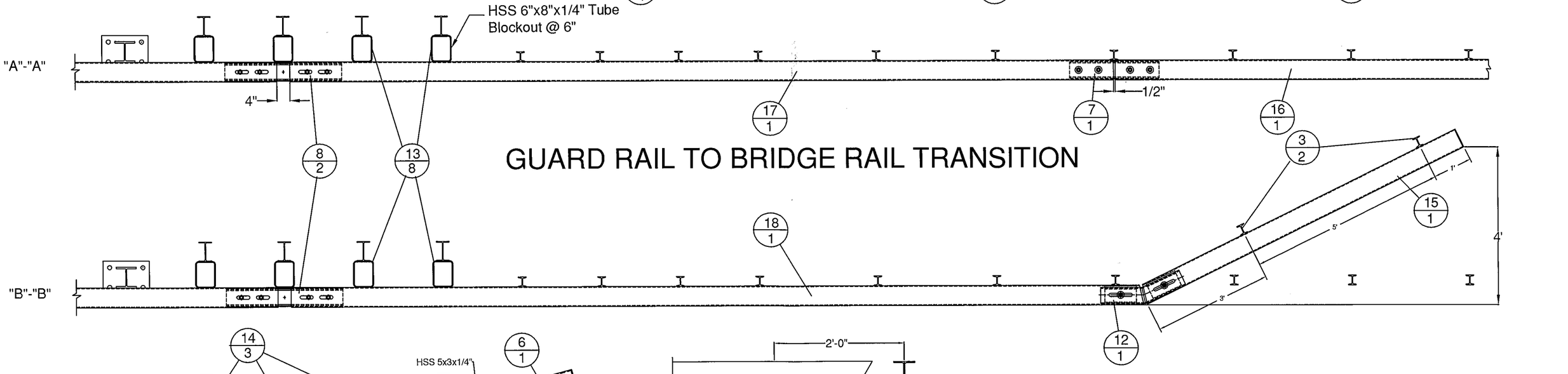
Submittal #:	2
Submission #:	2
Date:	1/7/2014
Project Name:	Randolph BRO (1444) Bridge Replacement
Owner:	Town of Randolph, VT
Engineer:	Vtrans
Contractor:	J.P. Sicard Inc.
Item Number:	525.335, 621.30, 621.725
Supplier:	Lafayette Highway Specialties
Description of Item:	Bridge Railing (3 rail box beam), Box Beam Guardrail, Guardrail Approach Section, (3 rail box beam)
Subsitution:	NO
Engineers Review Comments:	

Submitted By:	Brad Drake
Title:	Project Manager
Company:	JP Sicard Inc

32' - PAY LIMIT FOR TRANSITION - BRIDGE RAILING TO BOX BEAM GUIDE RAIL

ELEVATION VIEW





GUARD RAIL TO BRIDGE RAIL TRANSITION

VIEW "D"-"D"

ITEM #: 621.725

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

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

SHEET 1 OF 5

GUARD RAIL TO BRIDGE RAIL TRANSITION DETAILS SHEET

TOWN HIGHWAY 65 (PALMER ROAD), CLASS 3 LOCAL ROAD - BRIDGE # 35
PROJECT: BRO 1444(57), TOWN OF RANDOLPH, COUNTY OF ORANGE, VT.

REV	NO.	DATE	DESCRIPTION	BY

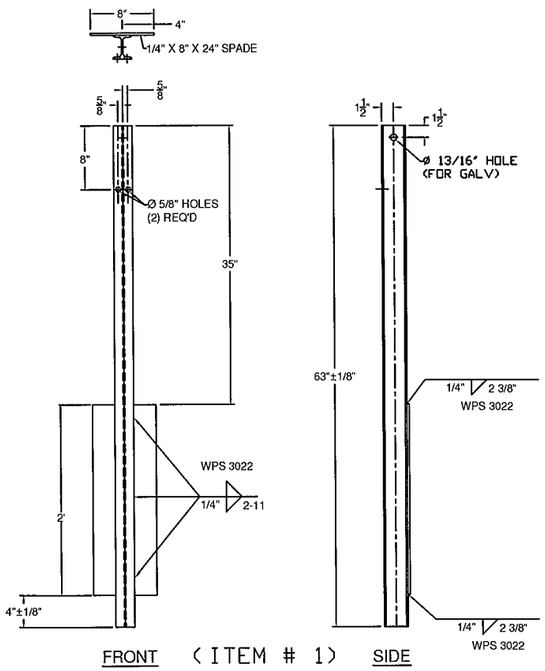
REV	NO.	DATE	DESCRIPTION	BY

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

CERTIFIED FABRICATOR

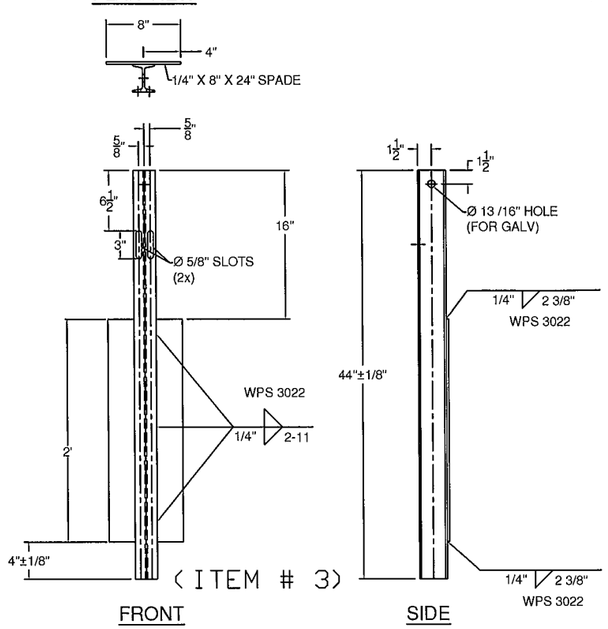
DRAWN	E.P.	12/12/14
CHECKED	D.L.	12/15/14
APPROVED	.	.
SCALE	SCHEMATIC	
DRAWING NO.	F.R.L.-RANDOLPH-T	

PLAN VIEW



FRONT (ITEM # 1) SIDE

PLAN VIEW

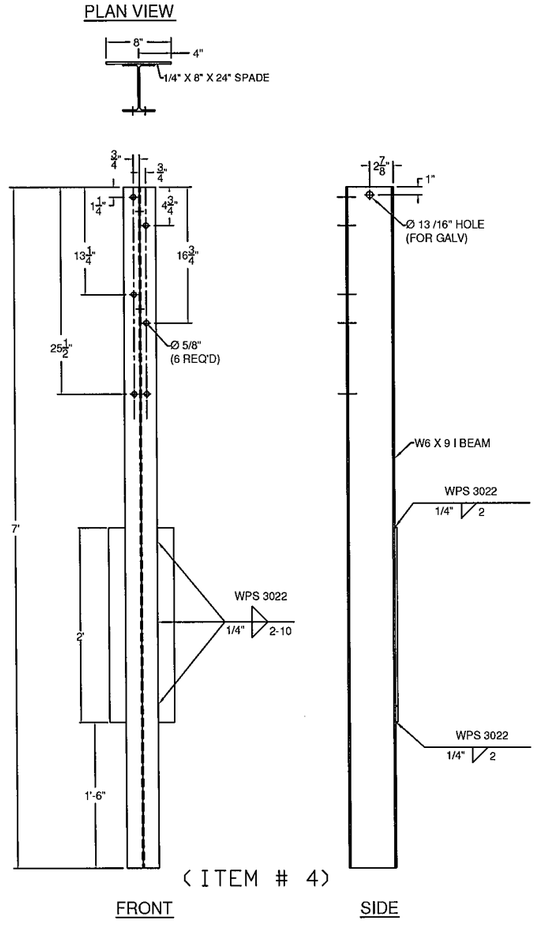


FRONT (ITEM # 3) SIDE

GENERAL NOTES:

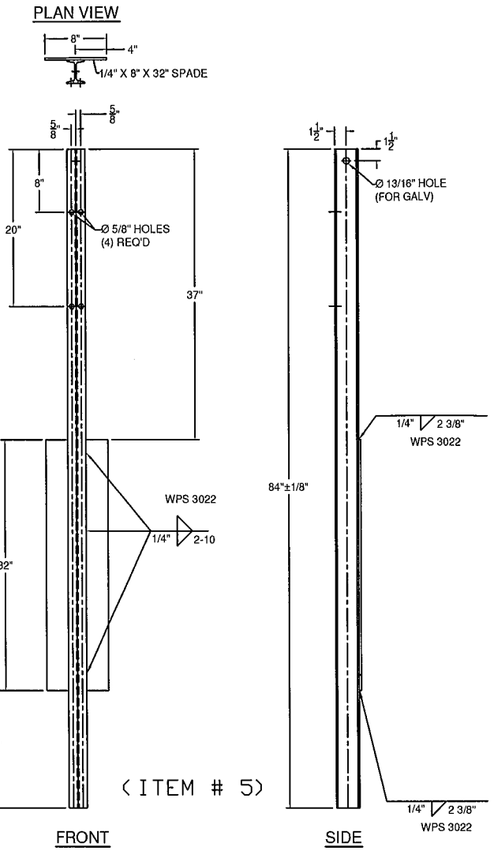
1) ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 525 OF THE STANDARD SPECIFICATIONS.
2) BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT-LB).
3) PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
4) BOX BEAM TUBE AND STEEL POST MATERIALS, DIMENSION SIZES AND NOTES SHALL BE THE SAME AS THOSE OF THE BRIDGE RAIL, UNLESS OTHERWISE NOTED.
5) 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 WIIL HAVE AN 18" LENGTH ON EACH END STRAIGHT TO ACCOMADATE SPLICES. "PIE CUTS ARE LOCATED SO AS TO NOT CONFLICT WITH POST FASTENING HOLES. PIE CUTS WILL BE WELDED ACCORDING TO PROCEDURE WPS-3026.

PLAN VIEW



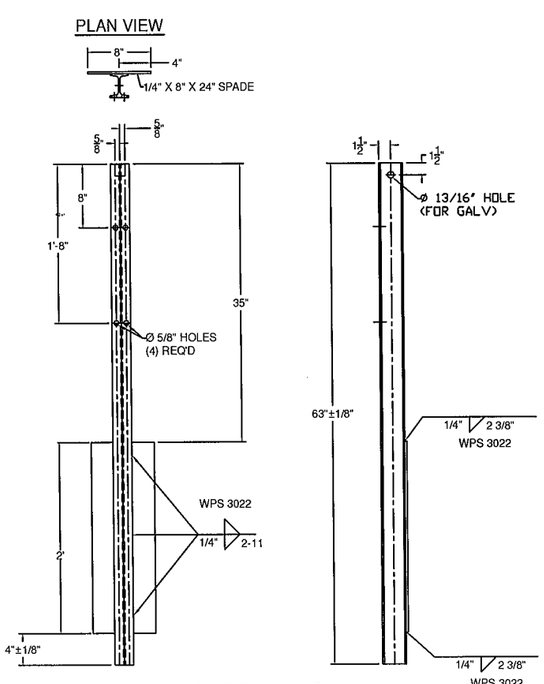
FRONT (ITEM # 4) SIDE

PLAN VIEW



FRONT (ITEM # 5) SIDE

PLAN VIEW



FRONT (ITEM # 2) SIDE

BILL OF MATERIALS (EACH CORNER)

ITEM #	QTY.	COMPONENT #	DESCRIPTION	MATERIAL (ASTM)
1	3	0013.57021	3' I-POST, PUNCH 8' W/SPD @ 63' LG	ASTM A572 Gr. 50
2	3	0013.57025	3' I-POST, PUNCH 8', & 20' W/SPD @ 63' LG	ASTM A572 Gr. 50
3	2	0013.57060	3' I-END POST W/SPD @ 3'-8' LG	ASTM A572 Gr. 50
4	4	0013.09001	W6X9 POST @ 7' W/SPD & 5/8' HOLES	ASTM A572 Gr. 50
5	4	0013.57010	3' I-POST, PUNCH 8' & 20', W/8X32' SPADE @7'	ASTM A572 Gr. 50
6	1	0033.80403	3X5' BTM TRANS RAIL W/5'-0' KB, EXP END	A500 Gr. B
7	1	0033.00640	HSS 5X5 TUBE SPLICE @27' LG W/ 1/4' SHIMS	A500 Gr. B / A572 Gr 50
8	2	0033.00730	HSS 5x5 EXP TUBE SPLICE @ 36' LG W/ 1/4' SHIMS	A500 Gr. B / A572 Gr 50
9	1	0033.00930	BR EXP BAR SPLICE 2-1/8' X 4-1/4' @ 36' LG	ASTM A36
10	19	0054.00050	REG BB SHELF ANGLES @ 4-1/2'	ASTM A36
12	1	0054.00074	HSS 5X5 DBL BEND TUBE SPL @ 27' LG,	A500 Gr. B / A572 Gr 50
13	8	0054.00563	6X8' TRANS. TUBE B/□ @ 6' LG	A500 Gr. B
14	3	0054.00565	6X8' TRANS. TUBE B/□ @ 3' LG	A500 Gr. B
15	1	0054.09000	6X6' BB @ 9'-0' KICKBACK, W/ CAP, & 13° MITER	A500 Gr. B / A36
*16	0.5	0054.18000	6X6' BB @ 17'-11 1/2', DRILL 3' CC	A500 Gr. B
*17	1	0054.90092	6X6' BB TOP TRANS @ 20'-9 5/8' LG W/EXP END	A500 Gr. B
*18	1	0054.90093	6X6' BB BTM TRANS @ 21'-4 5/8' LG W/EXP END	A500 Gr. B
19	18	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	22	0080.04120	1/2' x 1-1/2' BOLT, NUT, 2 FW & LW	A307, A563, F436
22	4	0080.06255	3/4' X 4-1/2' BOLT, NUT, 2 FW	A325, A563, F436
23	12	0080.06340	3/4' X 7-1/2' BOLT, NUT, 2 FW	A325, A563, F436
24	6	0080.06370	3/4' X 8' CARR BOLT, NUT, FW & LW	A307, A563, F436
25	2	0080.06400	3/4' X 8' BOLT, NUT, 2 FW, & LW	A325, A563, F436

* WW3 - ITEMS 16, 17, & 18 - FACE OF RAIL TO HAVE 110' CONCAVE RADIUS
* WW4 - ITEMS 16, 17, & 18 - FACE OF RAIL TO HAVE 50' CONVEX RADIUS

HARDWARE NOTES

ITEM #	FUNCTION
19	BOLT RAIL TO SHELF ANGLE (ITEM #10)
20	BOLT SHELF ANGLE (ITEM #'S 10 & 11) TO POST
21	BOLT BLOCK-OUTS (ITEM #'S 13 & 14) TO HEAVY POST
22	(4) PER SPLICE BAR (ITEM #9)
23	(4) PER SPLICE TUBING (ITEM #'S 7 & 8)
24	BOLT RAIL (ITEMS #'S 6,17, & 18 TO BLOCK-OUTS (ITEM #'S 13 & 14) [WHERE FASTENED]
25	BOLT DOUBLE BEND SPLICE TUBE (ITEM #12) TO RAIL (ITEM #18) & KICKBACK (ITEM #15)

ITEM #: 621.725

SHEET 2 OF 5

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

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

GUARD RAIL TO BRIDGE RAIL TRANSITION DETAILS SHEET

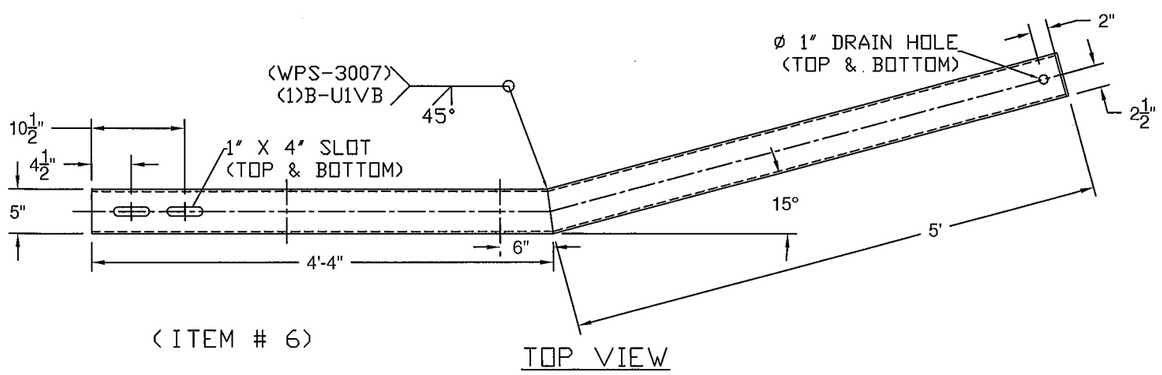
TOWN HIGHWAY 65 (PALMER ROAD), CLASS 3 LOCAL ROAD - BRIDGE # 35
PROJECT: BRO 1444(57), TOWN OF RANDOLPH, COUNTY OF ORANGE, VT.

REV	NO.	DATE	DESCRIPTION	BY

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

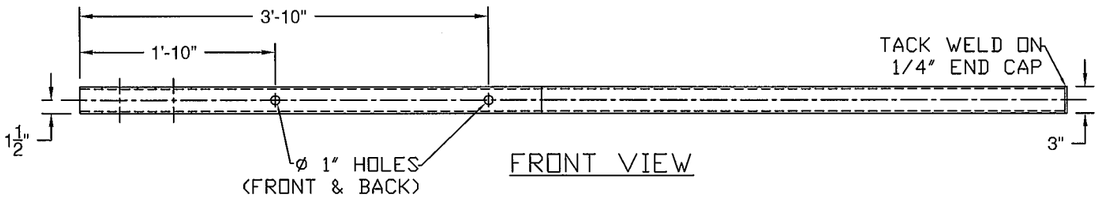
AISC CERTIFIED FABRICATOR

DRAWN	E.P.	12/12/14
CHECKED	D.L.	12/15/14
APPROVED	.	.
SCALE	SCHEMATIC	
DRAWING NO.	F.R.L.-RANDOLPH-T	



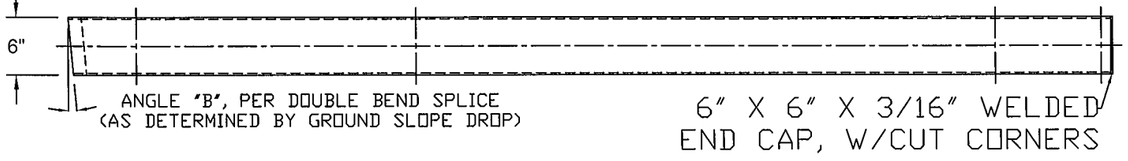
(ITEM # 6)

TOP VIEW

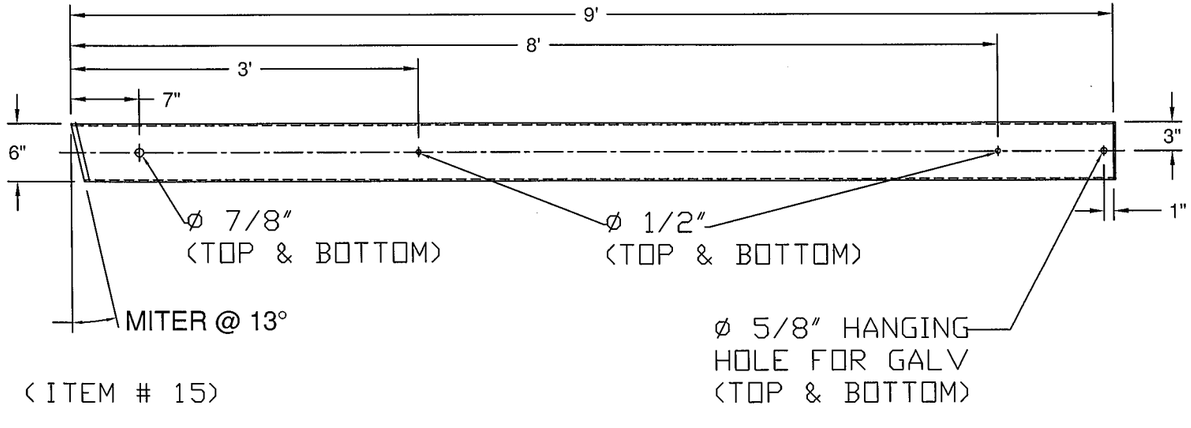


FRONT VIEW

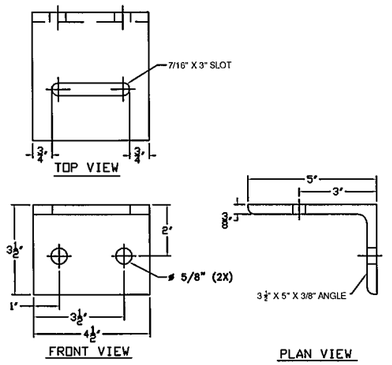
BACK VIEW



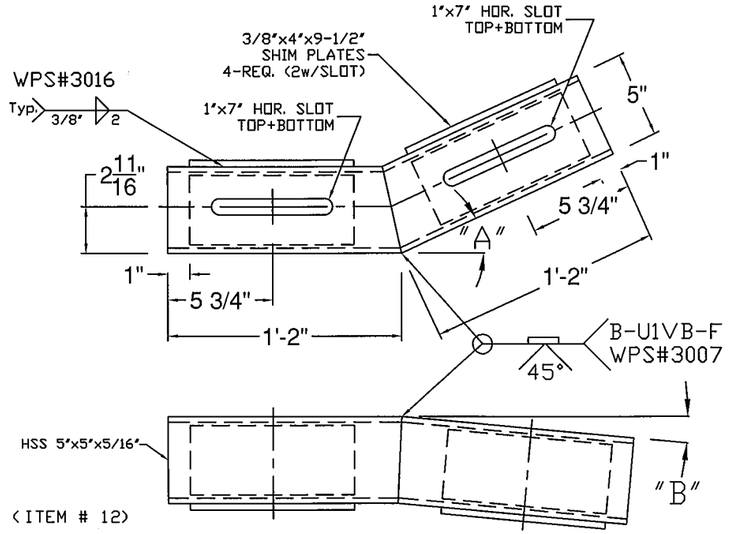
TOP VIEW



(ITEM # 15)

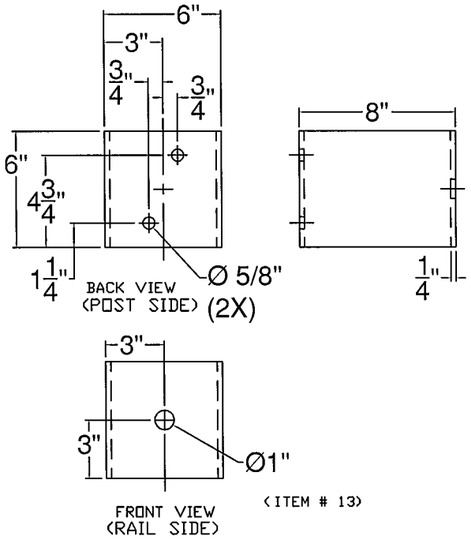


(ITEM # 10)

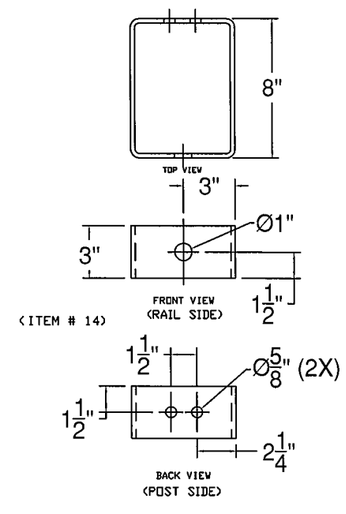


(ITEM # 12)

"A" - 26°
"B" - TURN DOWN ANGLE SET BY THE 9" MEASURMENT AT THE END OF THE BOX BEAM.



(ITEM # 13)



ITEM #: 621.725

SHEET 3 OF 5

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

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

GUARD RAIL TO BRIDGE RAIL TRANSITION DETAILS SHEET

TOWN HIGHWAY 65 (PALMER ROAD), CLASS 3 LOCAL ROAD - BRIDGE # 35
PROJECT: BRO 1444(57), TOWN OF RANDOLPH, COUNTY OF ORANGE, VT.

REV	NO.	DATE	DESCRIPTION	BY

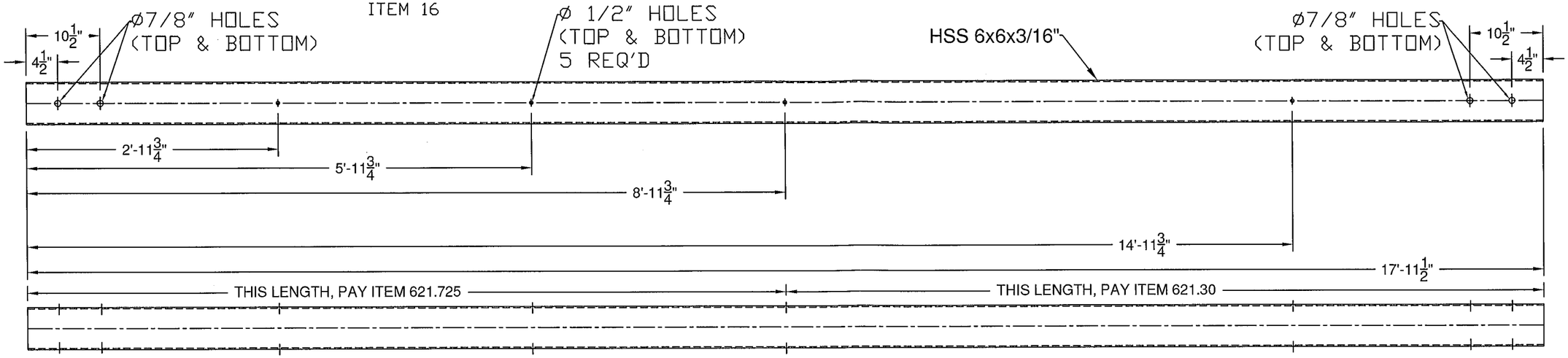
REV	NO.	DATE	DESCRIPTION	BY

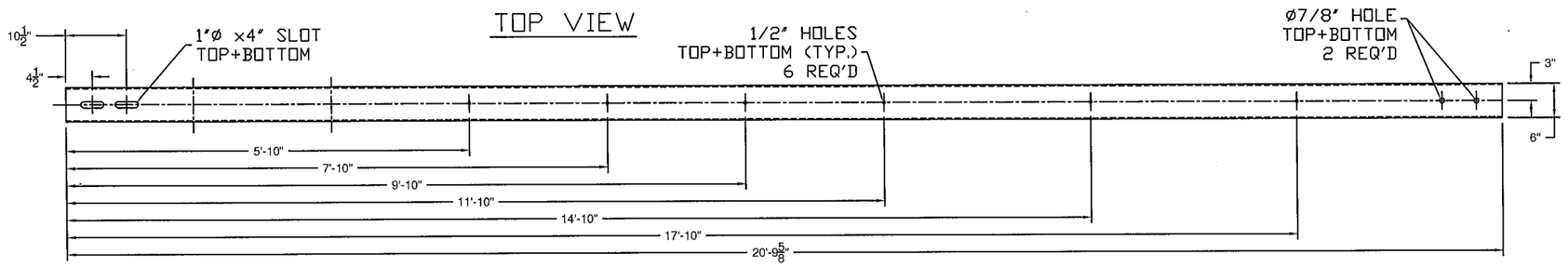
ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14518
E-Mail: dlong@elderlee.com / epeek@elderlee.com
Tel: 315-789-6670 Fax: 315-789-6615

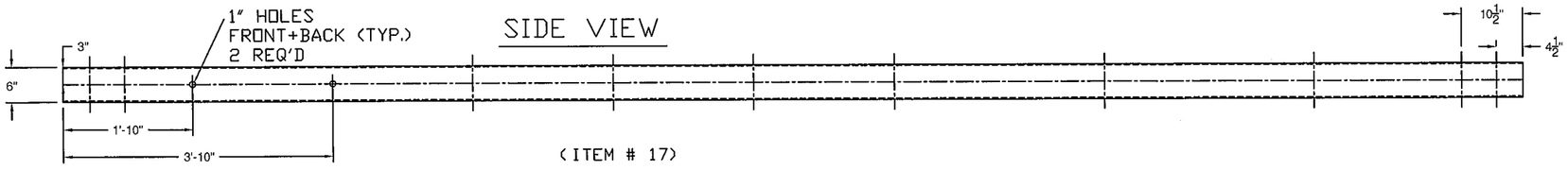
AISC CERTIFIED FABRICATOR

DRAWN	E.P.	12/12/14
CHECKED	D.L.	12/15/14
APPROVED		
SCALE	SCHEMATIC	
DRAWING NO.	F.R.L.-RANDOLPH-T	

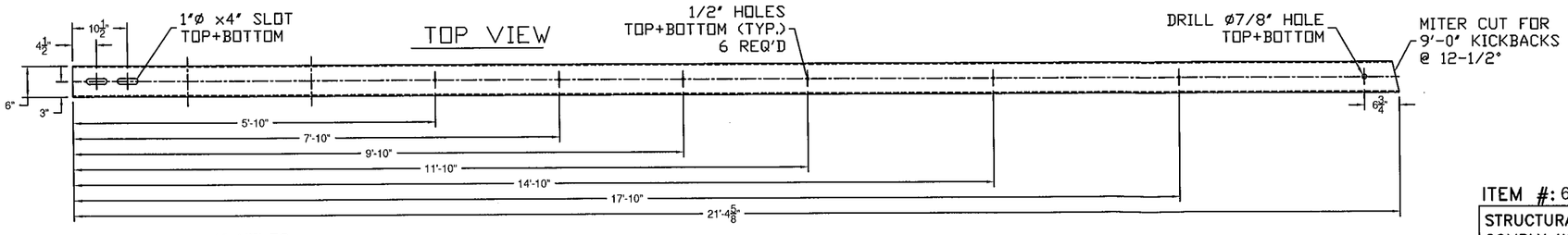
ITEM 16

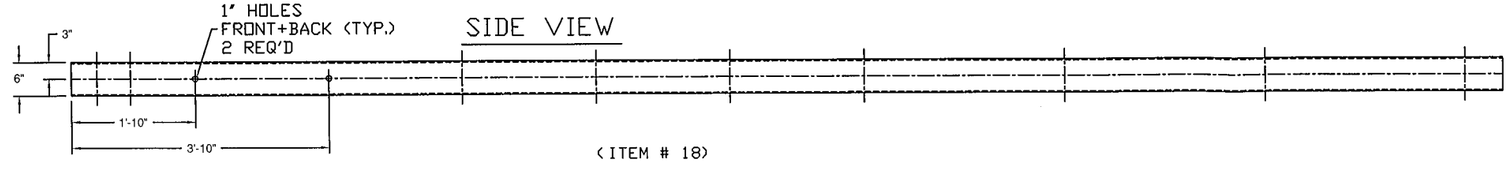






(ITEM # 17)





(ITEM # 18)

ITEM #: 621.725

SHEET 4 OF 5

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

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

GUARD RAIL TO BRIDGE RAIL TRANSITION DETAILS SHEET

TOWN HIGHWAY 65 (PALMER ROAD), CLASS 3 LOCAL ROAD - BRIDGE # 35
PROJECT: BRO 1444(57), TOWN OF RANDOLPH, COUNTY OF ORANGE, VT.

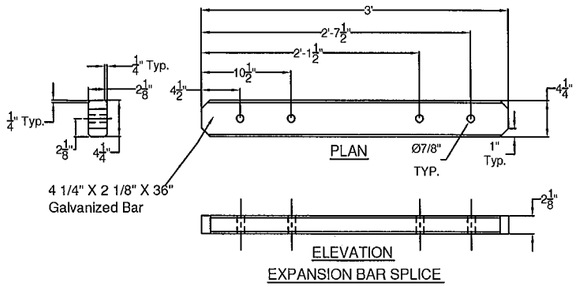
REV	NO.	DATE	DESCRIPTION	BY	REV	NO.	DATE	DESCRIPTION	BY

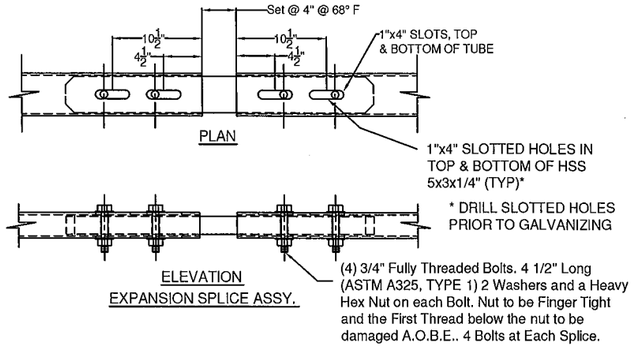
ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14518
E-Mail: dlong@elderlee.com / epeek@elderlee.com
Tel: 315-789-6670 Fax: 315-789-6615

CERTIFIED FABRICATOR

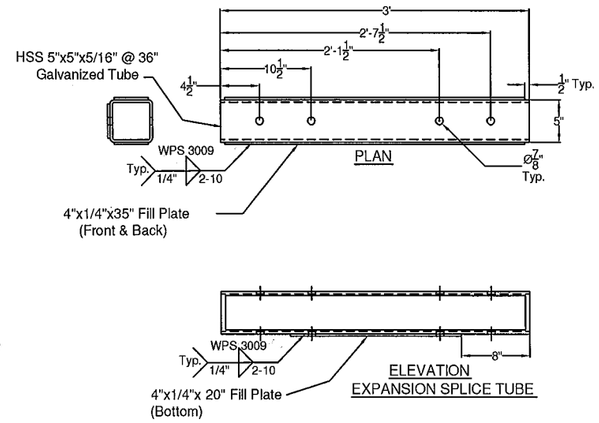
DRAWN	E.P.	12/12/14
CHECKED	D.L.	12/15/14
APPROVED	.	.
SCALE	SCHEMATIC	
DRAWING NO.	F.R.L.-RANDOLPH-T	

SPLICE BAR - EXPANSION

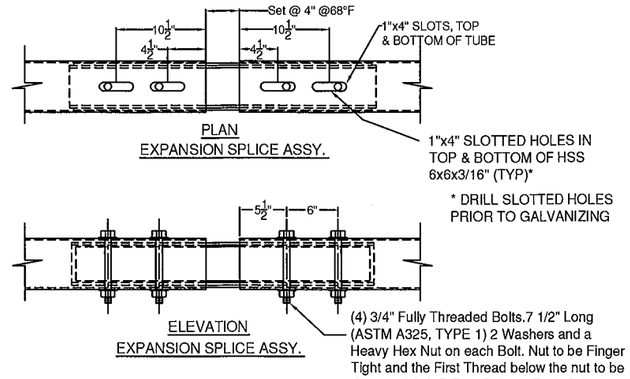




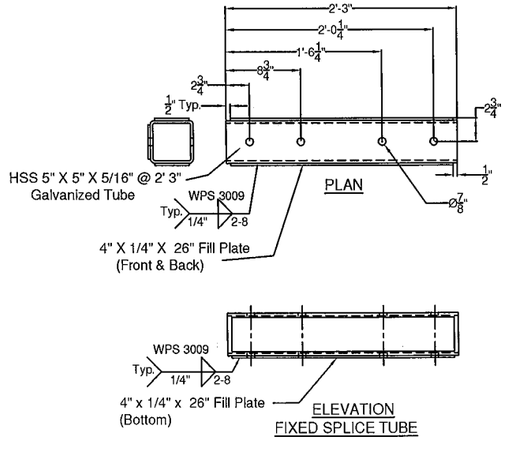
〈ITEM # 9〉

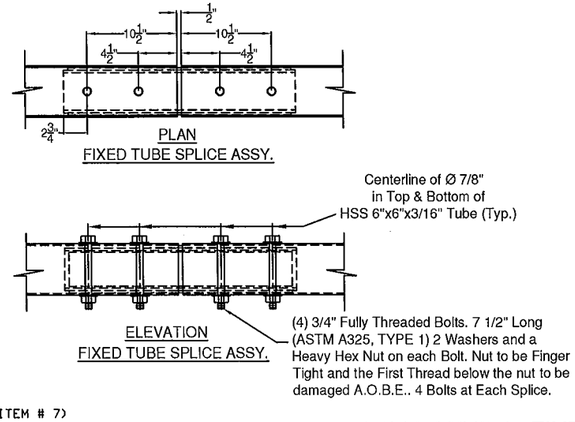


SPLICE TUBE - EXPANSION



〈ITEM # 8〉





〈ITEM # 7〉

SPLICE TUBE - FIXED

ITEM #: 621.725

SHEET 5 OF 5

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

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

GUARD RAIL TO BRIDGE RAIL TRANSITION DETAILS SHEET

TOWN HIGHWAY 65 (PALMER ROAD), CLASS 3 LOCAL ROAD - BRIDGE # 35
PROJECT: BRO 1444(57), TOWN OF RANDOLPH, COUNTY OF ORANGE, VT.

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

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

AISC CERTIFIED FABRICATOR

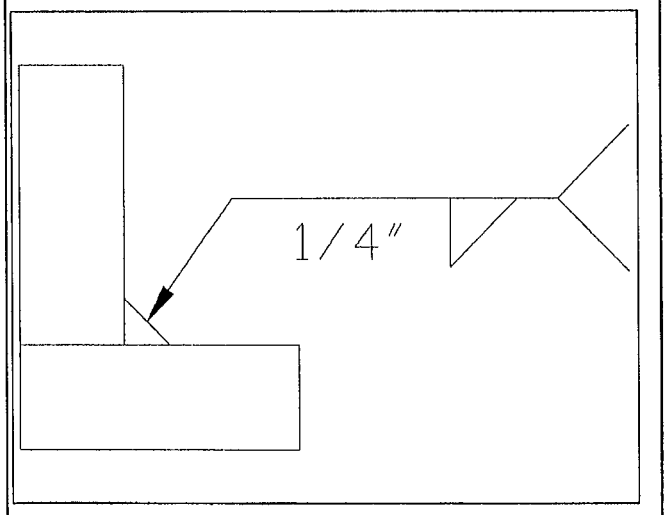
DRAWN	E.P.	12/12/14
CHECKED	D.L.	12/15/14
APPROVED	.	.
SCALE	SCHEMATIC	
DRAWING NO.	F.R.L.-RANDOLPH-T	

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 TO 269	27 TO 23	12 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

Revision No. _____

Contractor Elderlee, Inc.

Authorized By RANDY SCOTT

Date 3/20/2014

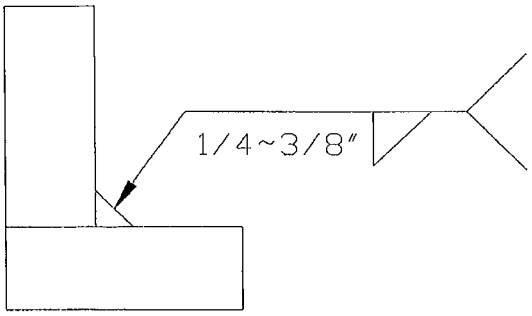
WELDING PROCEDURE SPECIFICATION

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 TO 269	27 TO 23	12 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

Revision No. _____

Contractor Elderlee, Inc.

Authorized By RANDY SCOTT

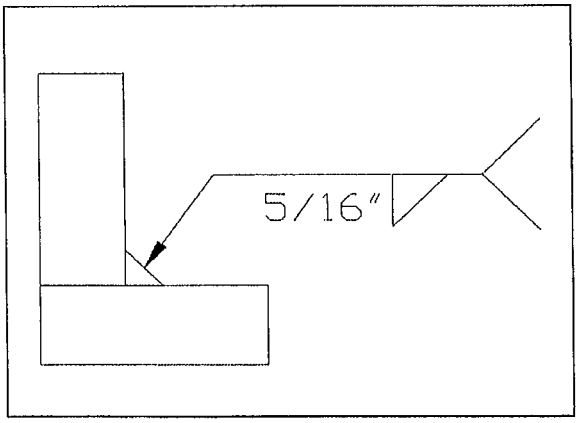
Date 8/4/2014

WELDING PROCEDURE SPECIFICATION

PQR ELDERLEE #3

Material Specification	ASTM A572 GR. 50 TO A325
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	CLEAN 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 procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 3019

Revision No. _____

Contractor Elderlee, Inc.

Authorized By RANDY SCOTT

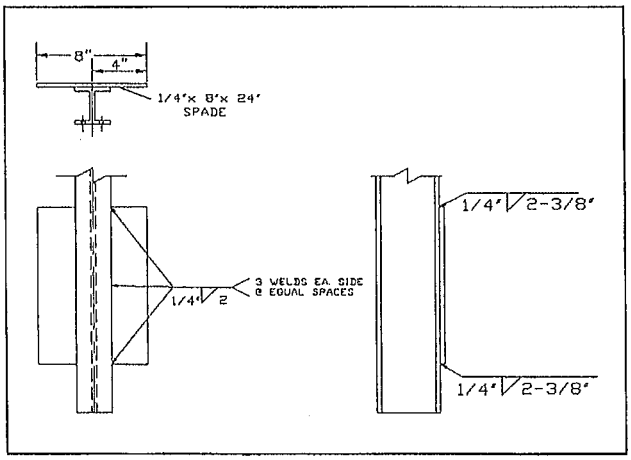
Date 7/28/2014

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 TO 209	20 TO 24	17 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

Revision No. _____

Contractor Elderlee, Inc.

Authorized By RANDY SCOTT

Date 3/20/2014