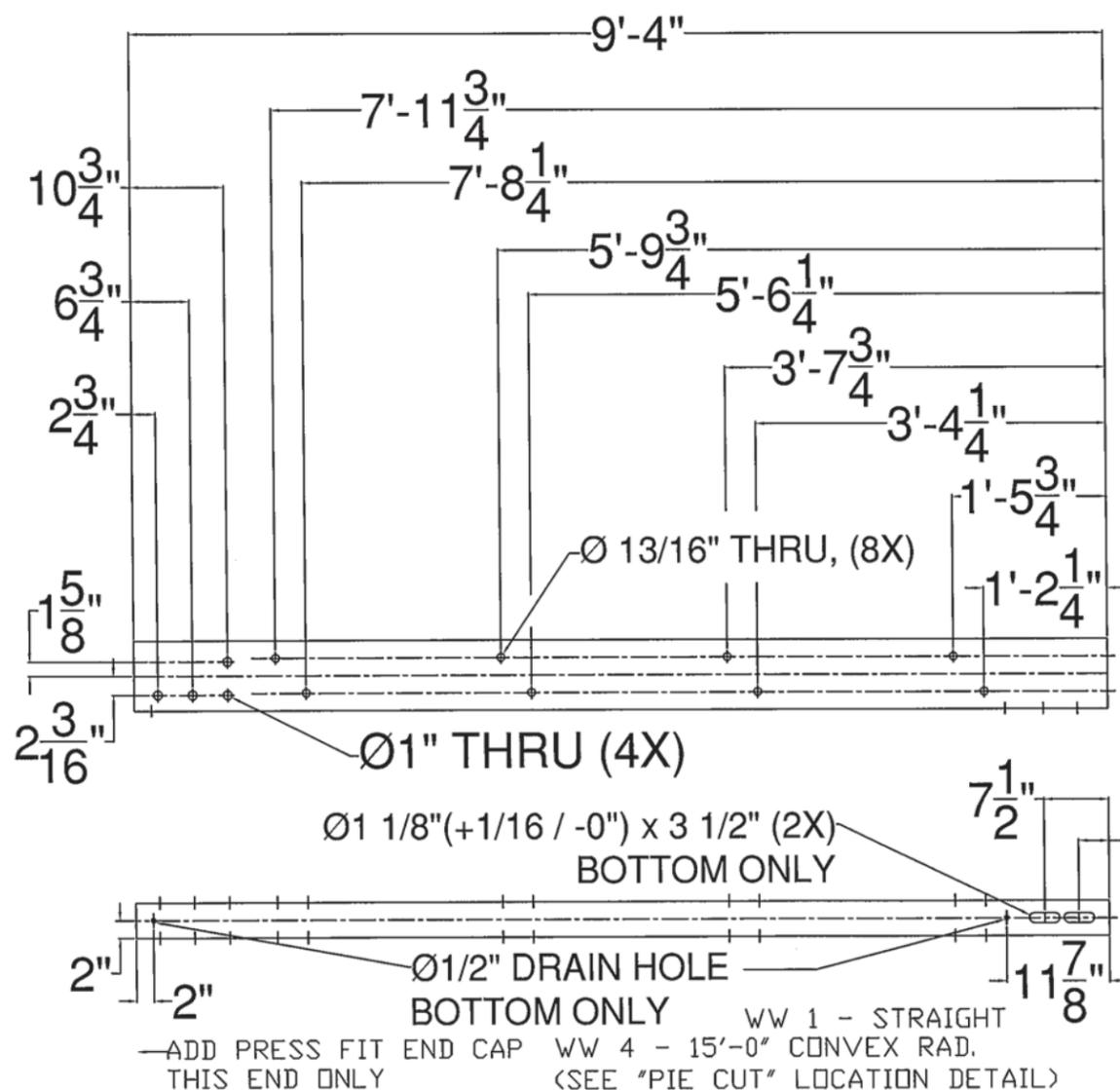


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 ON: **June 9, 2014**
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CONFORMANCE
 BY: Jennifer Fitch DATE: 06/09/2014



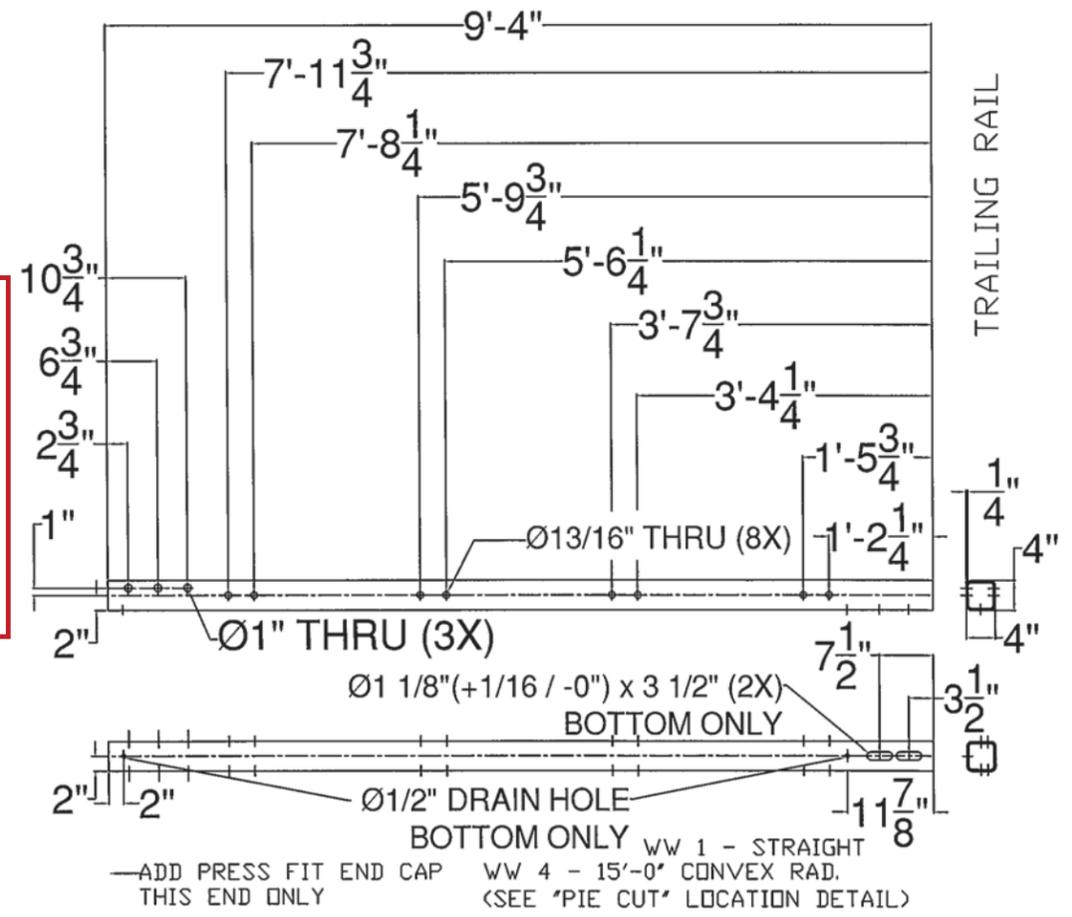
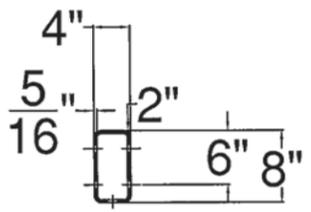
TRAILING RAIL

SHOP DRAWING REVIEW

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VHB Job Number: 57517
 Reviewed By: B Masse
 Date: 6-9-14



ITEM #: 621.72

SHEET 2 OF 4

APPROVED BY:		2 RAIL BRIDGE RAIL TO GUARDRAIL TRANSITION ROCHESTER, BR# 0162 (18) VT RTE 73 (MAJOR COLLECTOR), BRIDGE NO: 19, OVER WHITE RIVER TOWN OF ROCHESTER, COUNTY OF WINDSOR, VT					
R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
E 1	6/6/14	REVISED PER 5/30/14 MARK-UP	E.P.	E			
ELDERLEE, INC. OAKS CORNERS, NEW YORK 14518 E-Mail: dlong@elderlee.com Tel: 315-789-6670 Fax: 315-789-6615				DRAWN E.P. 5/16/14 CHECKED D.L. 5/16/14 APPROVED SCALE SCHEMATIC DRAWING NO. F.R.L. ROCHESTER, TR19			

Vermont Agency of Transportation

RECEIVED

ON: **June 9, 2014**

and Checked for

CONFORMANCE

BY: **Jennifer Fitch** DATE: **06/09/2014**

BILL OF MATERIAL (621.72) WW-3		
QTY	DESCRIPTION	ASTM DESIGNATION
1	THRIE BEAM TERMINAL CONNECTION (10 Ga)	AASHTO M180
1	THRIE BEAM TRANSITION @ 7'-3 1/2' (10 Ga)	AASHTO M180
1	CONNECTION PLATE	M270 Gr. 36
2	12' 6" THRIE BEAM (12Ga) W/ 34'-6" RAD.	AASHTO M180
4	W6X25 POST @ 8'-0" (PUNCHING VARIES - POST 1-4)	A572 Gr. 50
1	DEFLECTOR PLATE (APPROACH OR TRAILING)	A36
1	8" X 4" X 5/16" RAIL @ 9'-4" W/ 34'-6" RAD.	A500 Gr. B
1	4" X 4" X 1/4" RAIL @ 9'-4" W/ 34'-6" RAD.	A500 Gr. B
1	8" X 4" X 1/4" END CAP	A36
1	4" X 4" X 1/4" END CAP	A36
1	7" x 3" x 3/8" SPLICE TUBE @ 1' 11 3/4"	A500 Gr. B
1	3" x 3" x 5/16" SPLICE TUBE @ 1' 11 3/4"	A500 Gr. B
8	Ø 3/4" SCH. 40 PIPE @ 1/2"	A53
8	Ø 5/8" X 1 3/4" HEX BOLTS	A307
8	Ø 5/8" FLAT WASHER, HARDENED, TYPE A, PLAIN WIDE	A307
7	Ø 3/4" X 6" CARRIAGE BOLT, & NUT	A307
1	Ø 3/4" X 2" CARRIAGE BOLT, & NUT	A307
19	Ø 5/8" X 1'-6" BUTTON HEAD POST BOLT, PLATE WASHER, F.W. & NUT	A307, A36, F844 or 307, & A563
32	Ø 5/8" X 1 1/4" BUTTON HEAD SPLICE BOLT, RECESSED NUT & F.W.	A307
19	3/16" SPEC. PLATE WASHER @ 1 3/4" X 3"	A36
16	Ø 3/4" X 6" ROUND HEAD BOLT, F.W., LOCK W. & NUT	A449, F436, ASME B18.21.1, & A563
10	6 X 8" WOOD POST @ 7'-0"	TIMBER
9	6 X 8" WOOD BLOCKOUTS @ 1'-6"	TIMBER
1	6 X 8" WOOD BLOCKOUTS @ 1'-2"	TIMBER
10	Ø 7/8" POST BOLT @ 18", F.W. & NUT	F568, F436, A563

SHOP DRAWING REVIEW

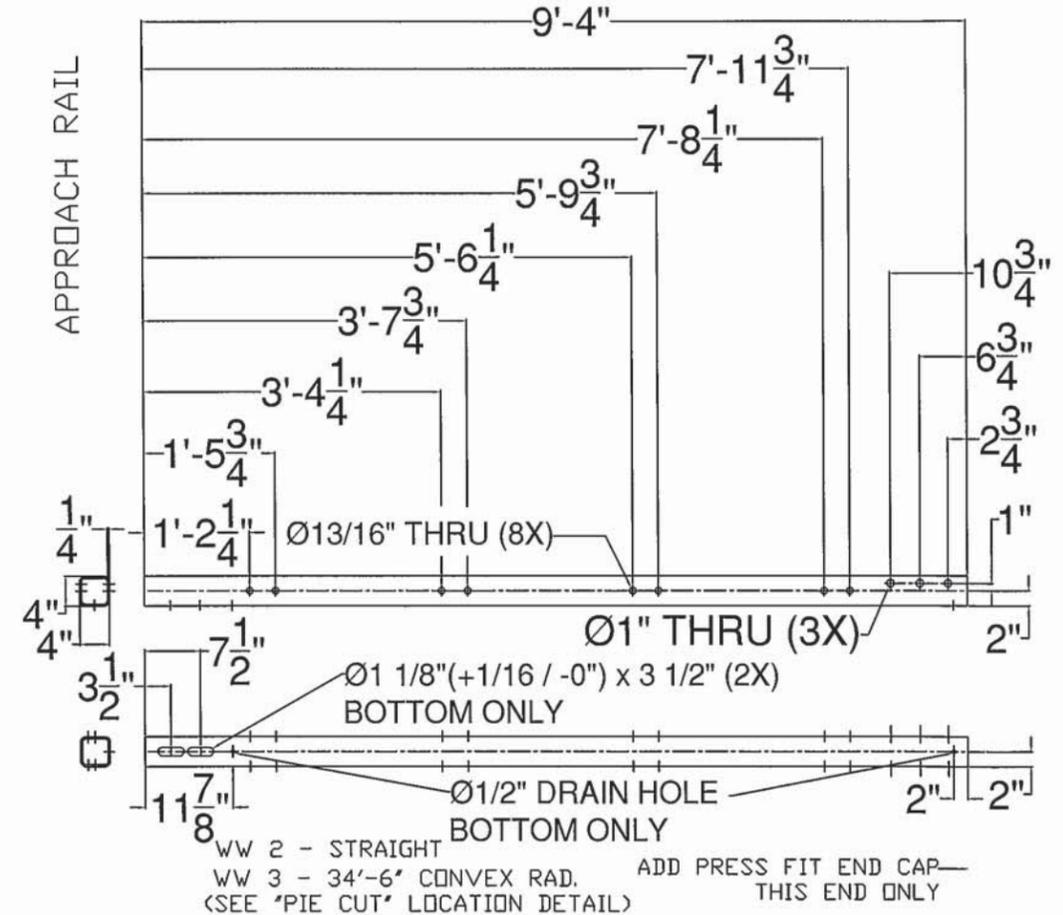
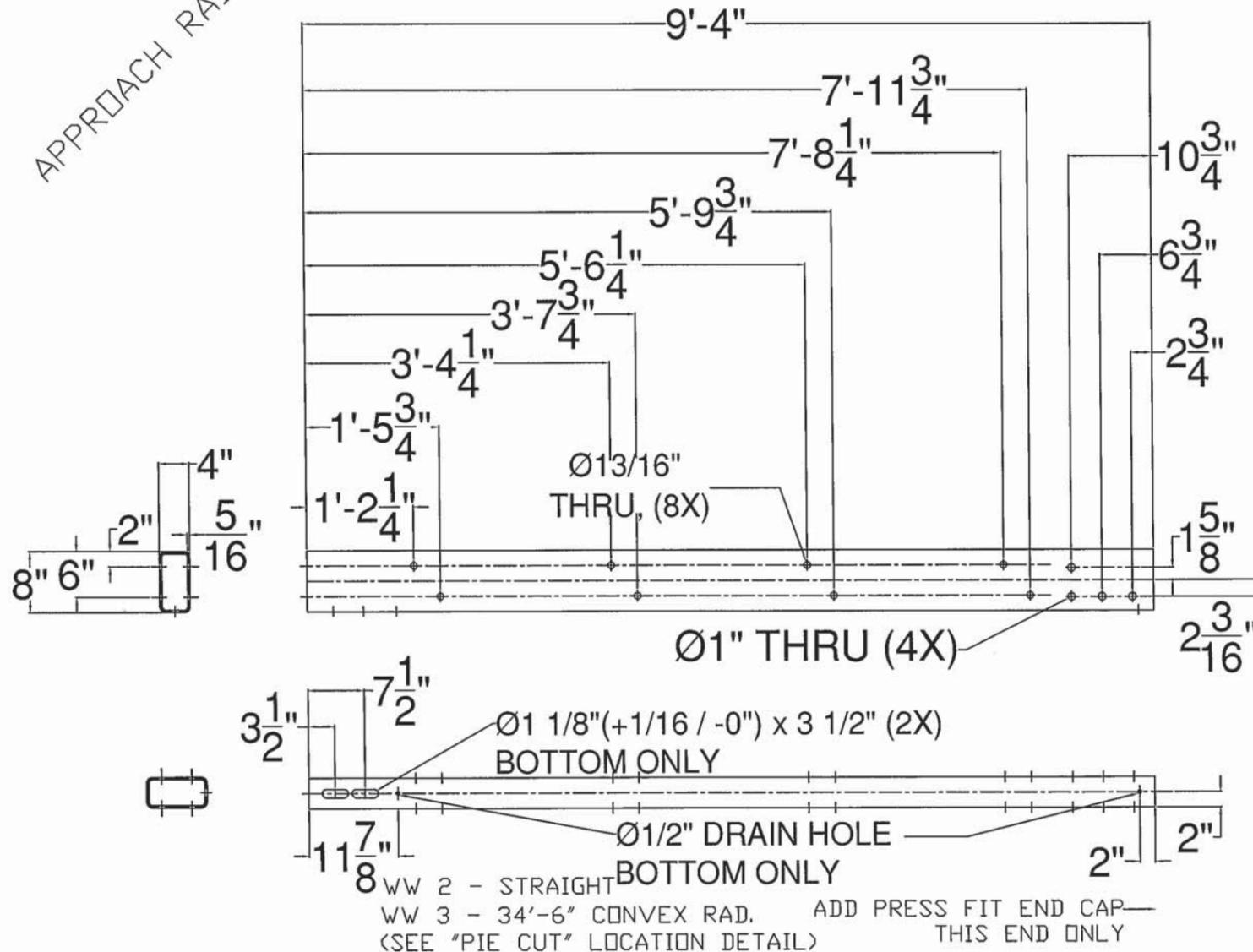
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VHB Job Number: 57517
 Reviewed By: B. Masse
 Date: 6-9-14

APPROACH RAIL



ITEM #: 621.72

SHEET 3 OF 4

APPROVED BY:

2 RAIL BRIDGE RAIL TO GUARDRAIL TRANSITION

ROCHESTER, BR# 0162 (18) VT RTE 73 (MAJOR COLLECTOR), BRIDGE NO: 19, OVER WHITE RIVER
 TOWN OF ROCHESTER, COUNTY OF WINDSOR, VT

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
1	6/6/14	REVISED PER 5/30/14 MARK-UP	E.P.				



ELDERLEE, INC.

OAKS CORNERS, NEW YORK 14518

E-Mail: dlong@elderlee.com

Tel: 315-789-6670 Fax: 315-789-6615



DRAWN E.P. 5/16/14

CHECKED D.L. 5/16/14

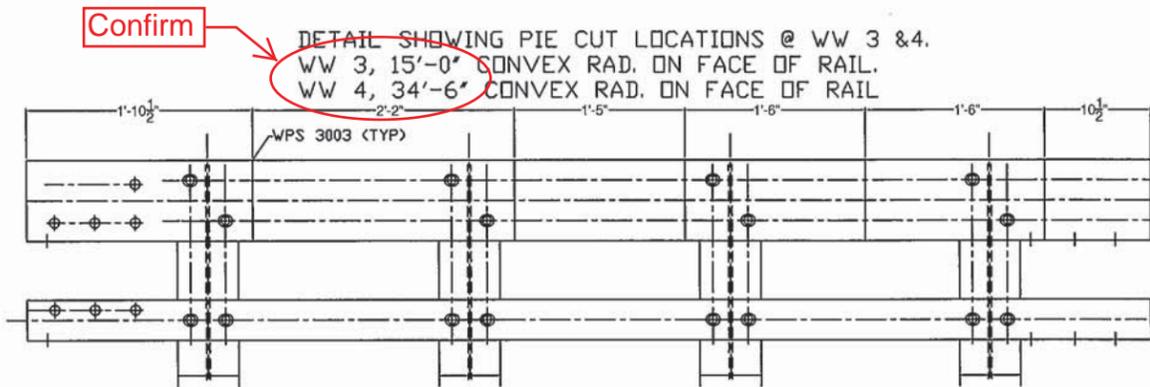
APPROVED

SCALE SCHEMATIC

DRAWING NO. F.R.L. ROCHESTER, TR19

BILL OF MATERIAL (621.72) WW-4

QTY	DESCRIPTION	ASTM DESIGNATION
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Vermont Agency of Transportation

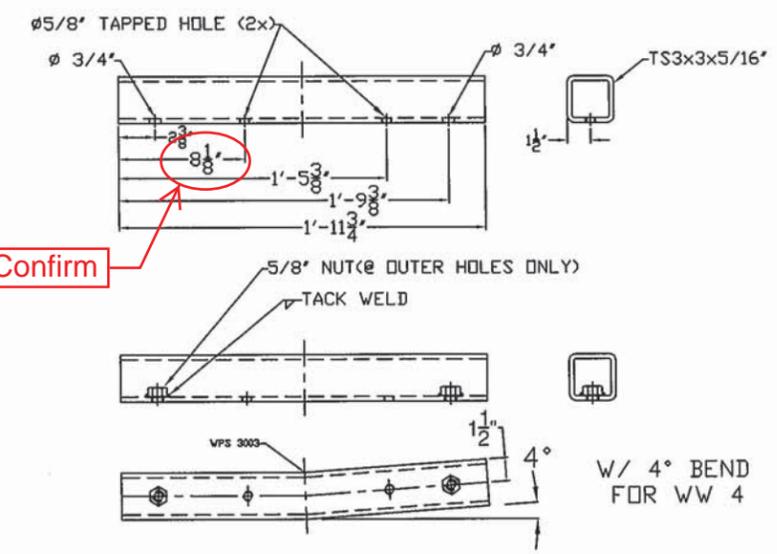
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ON: **June 9, 2014**

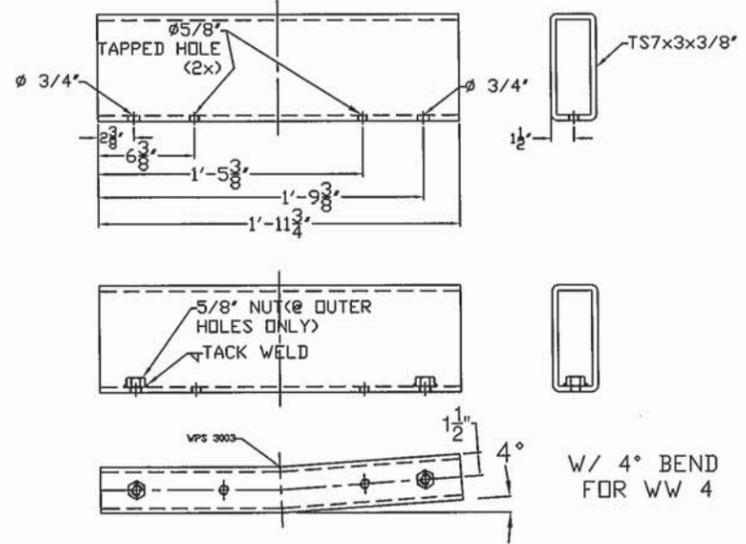
and Checked for
CONFORMANCE

BY: **Jennifer Fitch** DATE: **06/09/2014**

EXPANSION SPLICE FOR: TS4x4x1/4"



EXPANSION SPLICE FOR: TS8x4x5/16"



SHOP DRAWING REVIEW

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VHB Job Number: 57517
 Reviewed By: B. Masse
 Date: 6-9-14

ITEM #: 621.72

SHEET 4 OF 4

APPROVED BY:

2 RAIL BRIDGE RAIL TO GUARDRAIL TRANSITION

ROCHESTER, BR# 0162 (18) VT RTE 73 (MAJOR COLLECTOR), BRIDGE NO : 19, OVER WHITE RIVER
 TOWN OF ROCHESTER, COUNTY OF WINDSOR, VT

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
E 1	6/6/14	REVISED PER 5/30/14 MARK-UP	E.P.	E			

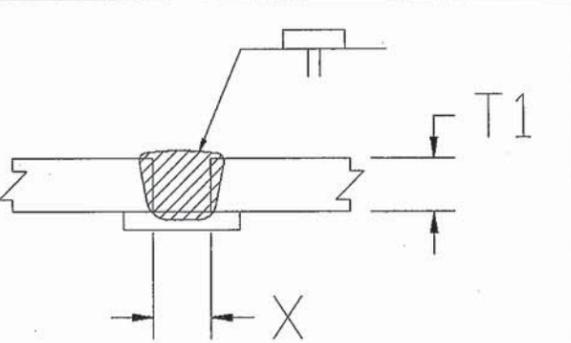
ELDERLEE, INC.
 OAKS CORNERS, NEW YORK 14518
 E-Mail: dlong@elderlee.com
 Tel: 315-789-6670 Fax: 315-789-6615

DRAWN	E.P.	5/16/14
CHECKED	D.L.	5/16/14
APPROVED		
SCALE	SCHEMATIC	
DRAWING NO. F.R.L. ROCHESTER, TR19		

WELDING PROCEDURE SPECIFICATION

Material Specification	PQR ELDERLEE#3	
Welding Process	A500 GR B	
Manual or Machine	FCAW	
Position of Welding	SEMAUTOMATIC	
Filler Metal Specification	FLAT / HORIZONTAL	
Filler Metal Classification	A5.20 - 95	
Flux	E81T-Ni1C-JH4	
Shielding Gas	N/A	
Single or Multiple Pass	CO 2	Dew Point -40DEG F Flow Rate 50CFH
Single or Multiple Arc	SINGLE	
Welding Current	SINGLE	
Polarity	DC	
Welding Progression	REVERSE ELECTRODE POSITIVE	
Root Treatment	STRINGER	
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		
Variable	LIMITS	310	25	11	 <p>SEQUENCE OF WELD PASSES SHALL BE SHOWN DIAGRAMATICALLY</p>
		341	27	12	
		TO	TO	TO	
		269	23	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. 3003 Contractor Elderlee, Inc.
 Revision No. _____ Authorized By RANDY SCOTT
 Date 5/8/2014

Vermont Agency of Transportation

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ON: **June 9, 2014**

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BY: Jennifer Fitch DATE: 06/09/2014

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VHB Job Number: 57517
 Reviewed By: B. Masse
 Date: 6-9-14

WELDING PROCEDURE SPECIFICATION

PQR ELDERLEE #3

Material Specification	ASTM-A500-A53-GRADE B TO A36
Welding Process	FCAW-G
Manual or Machine	SEMAUTOMATIC
Position of Welding	1G
Filler Metal Specification	A5.29
Filler Metal Classification	E81T1-Ni1C-JH4
Flux	N/A
Shielding Gas	CO 2 Dew Point -40DEG F FLOW RATE 50 CFH
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	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. 3012 Contractor Elderlee, Inc.
 Revision No. _____ Authorized By RANDY SCOTT
 Date 3/20/2014

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Vermont Agency of Transportation

RECEIVED

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CONFORMANCE

BY: **Jennifer Fitch** DATE: **06/09/2014**