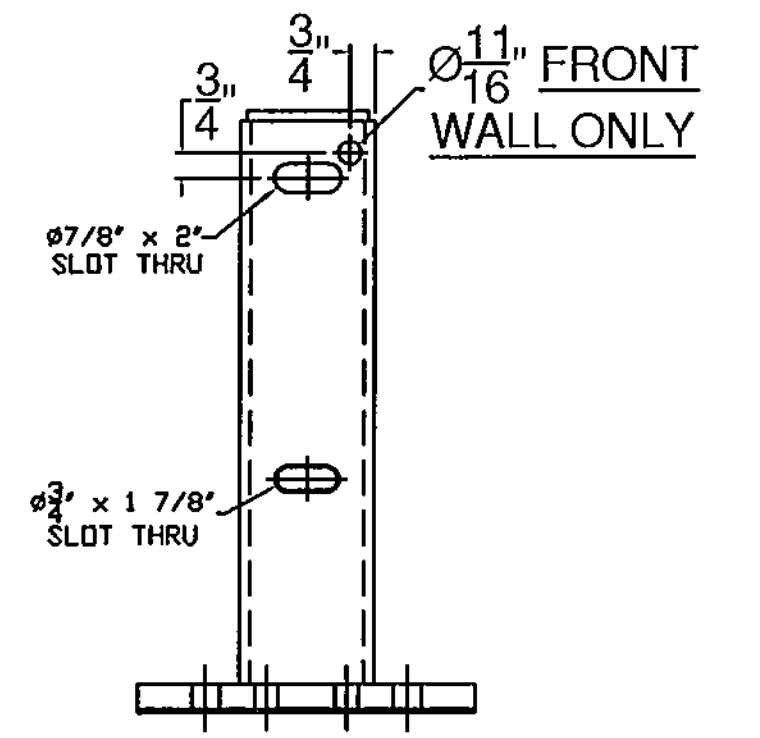
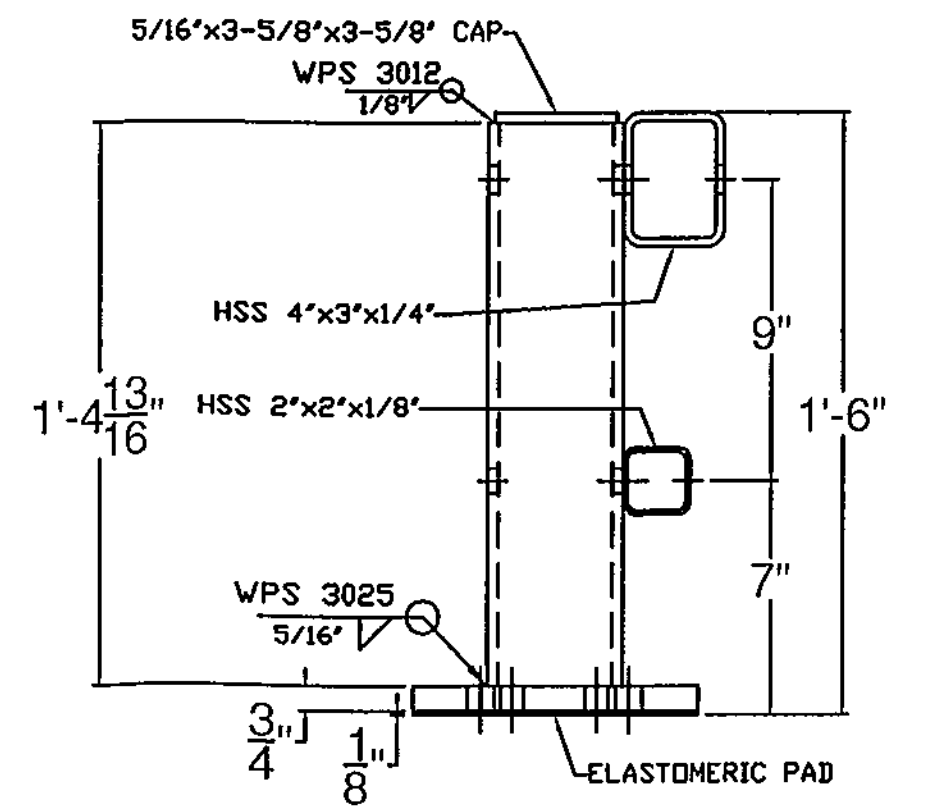
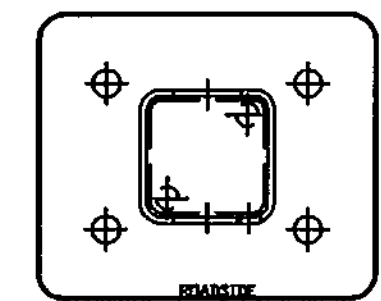
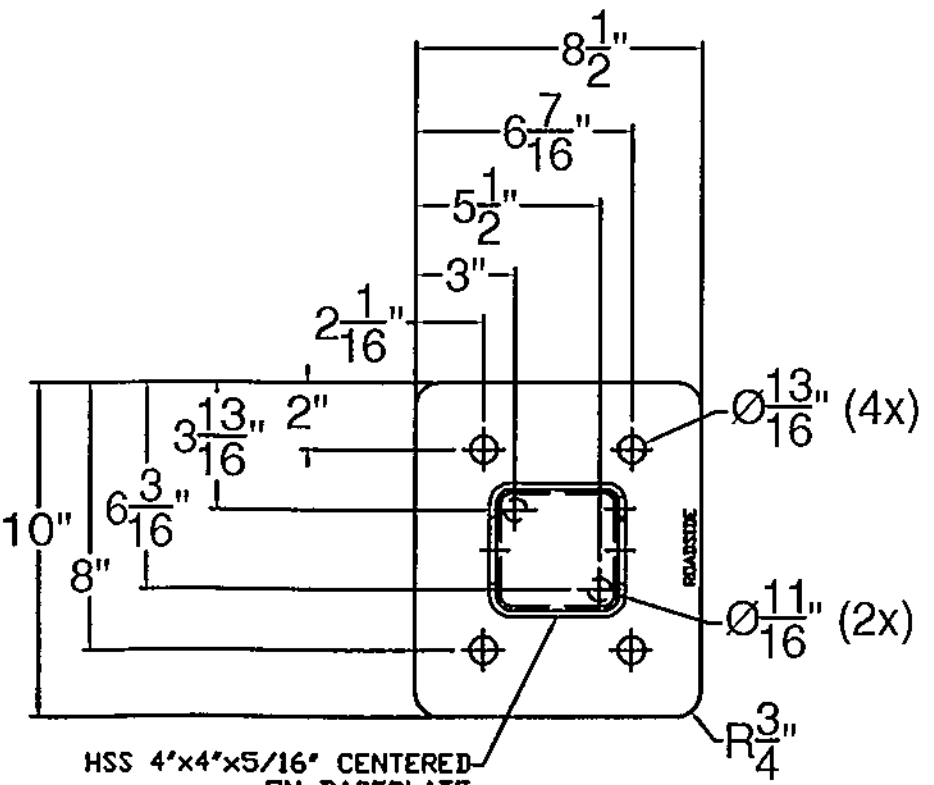
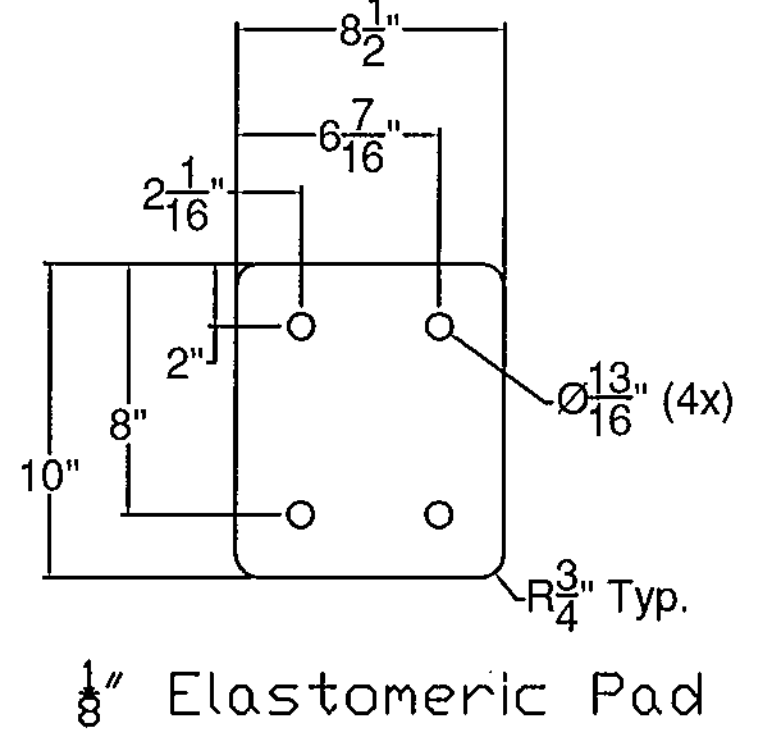
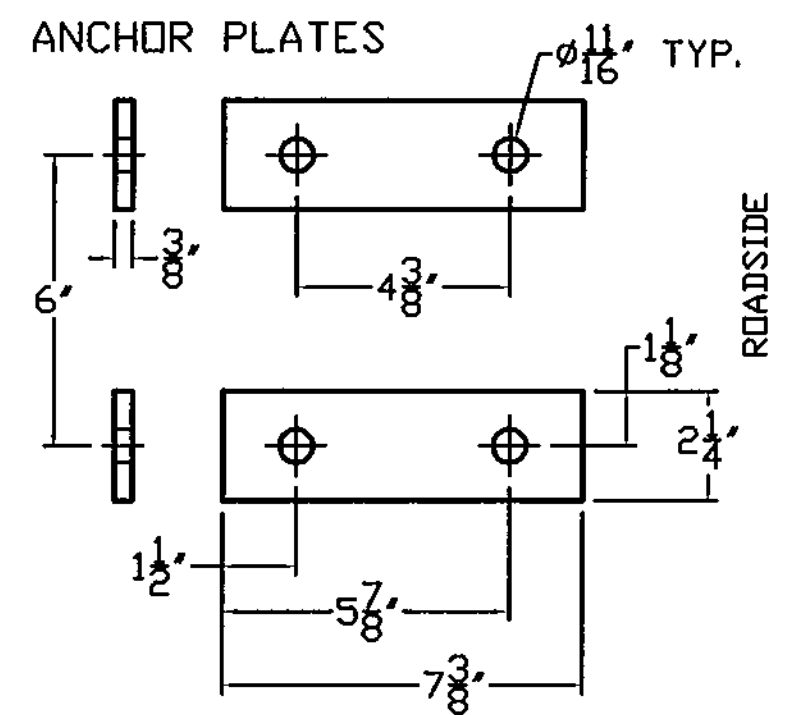
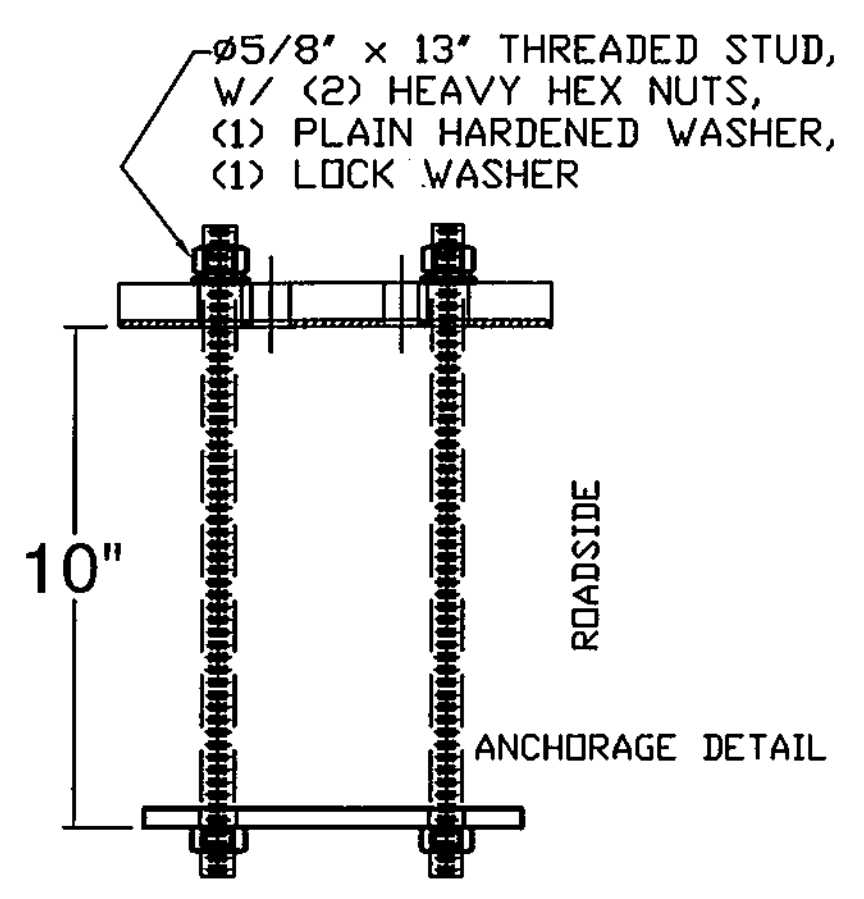


HARDWARE NOTES	
ITEM #	FUNCTION
13	BOLT BOTTOM RAIL TO POST (ITEM #1)
14	BOLT TOP RAIL TO POST (ITEM #1)
15	BOLT BOTTOM SPLICE BARS (ITEM #6) TO BOTTOM RAIL
16	BOLT TOP SPLICE BARS (ITEM #7) TO TOP RAIL

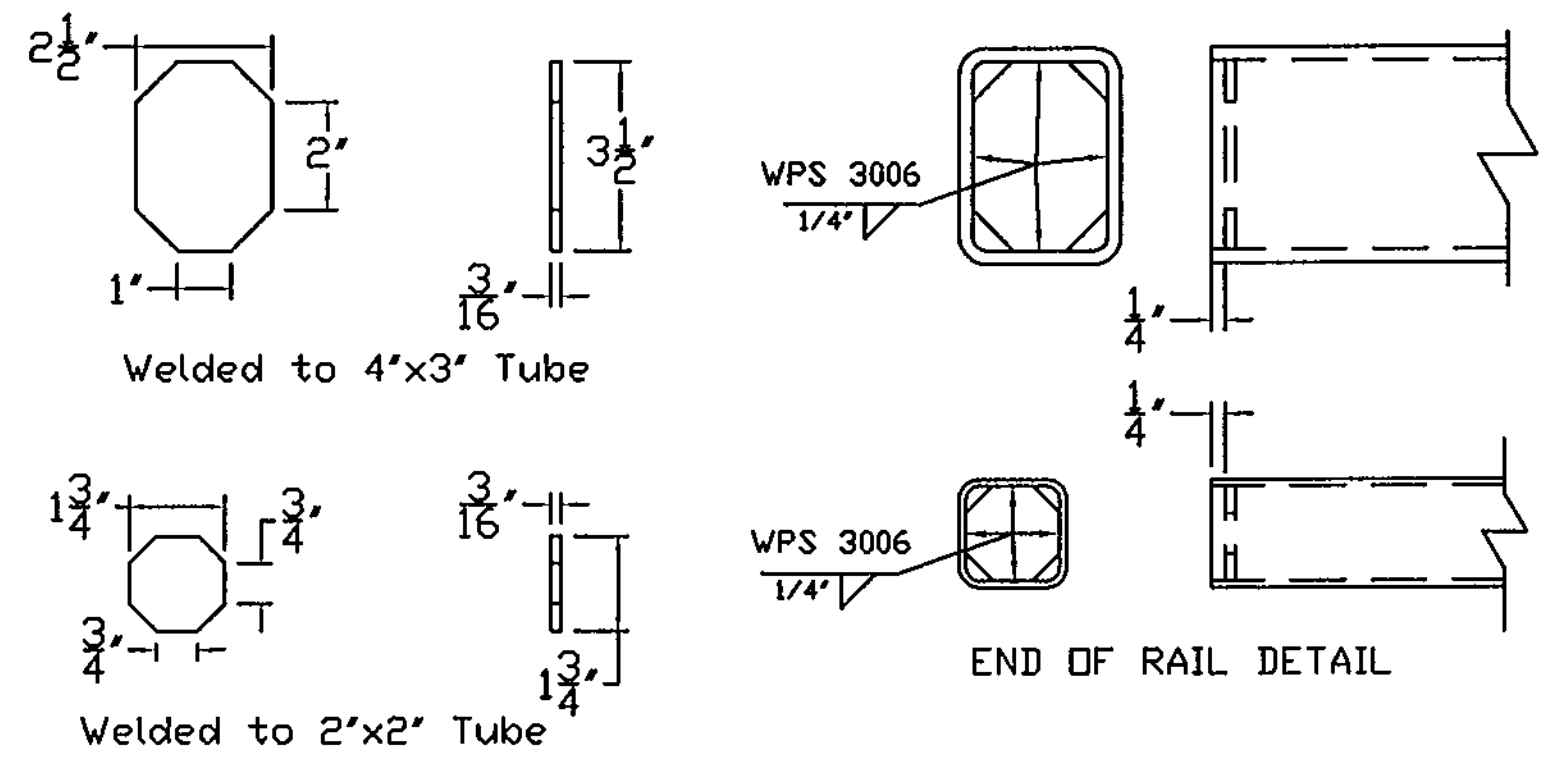
BILL OF MATERIAL				
ITEM #	QTY	PART #	DESCRIPTION	ASTM DESIGNATION
1	22	0033.90017	TWO RAIL POST & BASE PLATE ASSEMBLY	A572 Gr. 50, A500 Gr. B
2	2	TBD	4" X 3" X 1/4" RAIL @ 29'-11 1/2" W/ END PLATES	A500 Gr. B / A572 Gr. 50
3	2	TBD	4" X 3" X 1/4" RAIL @ 35'-4 5/8" W/ END PLATES	A500 Gr. B / A572 Gr. 50
4	2	TBD	2" X 2" X 1/8" RAIL @ 29'-11 1/2" W/ END PLATES	A500 Gr. B / A572 Gr. 50
5	2	TBD	2" X 2" X 1/8" RAIL @ 35'-4 5/8" W/ END PLATES	A500 Gr. B / A572 Gr. 50
6	2	0033.90069	1-1/2" X 1-1/2" FIX. SPL. BAR @ 2' 4"	A572 Gr. 50
7	2	0033.90071	2-1/4" X 3-1/4" FIX. SPL. BAR @ 2' 4"	A572 Gr. 50
8	44	0033.00295	3/8" X 2 1/4" X 7 3/8" ANCHOR PLATES	A36
9	90*	0042.05813	Ø 5/8" X 13" ANCHOR STUDS	A449
10	178*	0080.15901	Ø 5/8" HEAVY HEX NUTS	A563
11	88	0080.15911	Ø 5/8" FLAT WASHERS	F436
12	88	0080.15920	Ø 5/8" LOCK WASHERS	ASME B18.21
13	22	0080.05565	Ø 5/8" X 7 1/2" SLOTTED, ROUND HEAD BOLT, NUT, F.W., & L.W.	A449, A563, F436, & ASME B18.21
14	22	0080.06410	Ø 3/4" X 8 1/2" SLOTTED, ROUND HEAD BOLT, NUT, F.W., & L.W.	A449, A563, F436, & ASME B18.21
15	8	0080.05275	Ø 5/8" X 3" HEX BOLT, NUT, F.W., & L.W.	A325, A563, F436, & ASME B18.21
16	8	0080.07330	Ø 7/8" X 5 1/2" HEX BOLT, NUT, F.W., & L.W.	A325, A563, F436, & ASME B18.21
17	22	0033.00053	1/8" ELASTOMERIC PAD	D2240
18	2	0054.900015	APPROACH, END WALL CONNECTORS	PER BOM
19	2	0054.900016	TRAILING, END WALL CONNECTORS	PER BOM
20	6		DELINEATORS (SUPPLIED BY F.R. LAFAYETTE)	ALUMINUM

\*-2 EXTRA FOR VOAT TESTING



- NOTES:**
- ALL WORK AND MATERIALS SHALL CONFORM TO SECTION 525.
  - PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16\".
  - ALL POSTS SHALL BE SET NORMAL TO GRADE.
  - SECTIONS OF RAIL TUBE SHALL BE ATTACHED TO A MINIMUM OF TWO BRIDGE POSTS AND PREFERABLY TO AT LEAST 4 POSTS.
  - HOLES IN RAILS FOR TUBE ATTACHMENT, WILL BE SHOP-DRILLED AND MAY BE FIELD DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.
  - BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT-LB).
  - RAIL TUBES SHALL BE ATTACHED USING FULL DIAMETER BODY ASTM A449 (TYPE 1) ROUND HEAD BOLTS INSERTED THROUGH THE FACE OF THE TUBE.
  - SEE STANDARD DRAWING G-1 FOR DETAILS OF DELINEATORS. A DELINEATOR SHALL BE INSTALLED AT 30 FOOT SPACING OR THE NEAREST POST. WHITE IS TO BE INSTALLED ON THE DRIVER'S RIGHT. FOR ONE WAY BRIDGES, YELLOW IS TO BE INSTALLED ON THE DRIVER'S LEFT. PAYMENT FOR DELINEATORS SHALL BE INCIDENTAL TO OTHER ITEMS.
  - AESTHETIC TREATMENT TYPE SHALL BE APPLIED AS SPECIFIED IN THE CONTRACT PLANS. IF NONE IS SPECIFIED IT SHALL NOT BE USED. AESTHETIC TREATMENT DETAILED ON THIS SHEET MAY ALSO BE APPLIED ON THE FASCIA SIDE OF THE RAIL, IF SPECIFIED IN THE CONTRACT PLANS.
  - BRIDGE RAILING SHALL HAVE A RUBBED FINISH IN ACCORDANCE WITH SECTION 501.
  - HOLES FOR MOUNTING DELINEATORS TO BE FIELD DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.

Vermont Agency of Transportation  
**RECEIVED**  
 CK'D BY RF, SC OK'D BY G. Laroche  
 April 11, 2016  
 RESUBMIT No Approved  
 BY K. Higgins DATE 04/11/2016



ITEM #: 525.45  
 STRUCTURAL STEEL TO COMPLY W/ ASTM A6  
 TOLERANCE UNLESS OTHERWISE NOTED:  
 FRACTIONS = ± 1/16"  
 ANGLES = ± 1/2"  
 DIAMETERS = ± 1/32"

SHEET 1 OF 3

**BRIDGE RAIL DETAILS SHEET**  
 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
E 1	2/11/16	REVISE PER 2/8/16 MARK-UP	E.P.	E			
V 2	3/31/16	REVISE END WALL CONNECTORS (TIP DOWN)	E.P.	V			

DRAWN	E.P.	1/20/16
CHECKED	D.L.	1/20/16
APPROVED		
SCALE	SCHEMATIC	
DRAWING NO. FRL - CLARENDON (48)		

**ELDERLEE, INC.**  
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