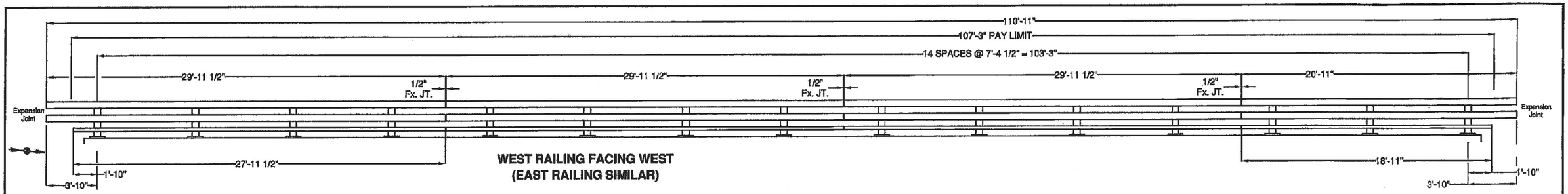
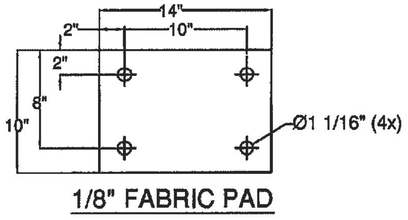
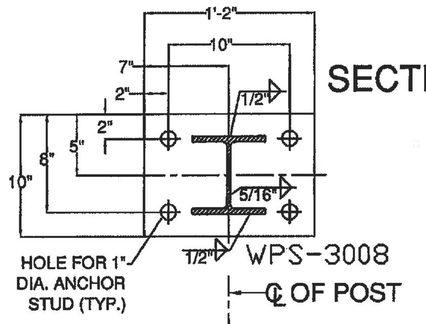


WEST RAILING FACING WEST
(EAST RAILING SIMILAR)



1/8" FABRIC PAD



SECTION A-A

Vermont Agency of Transportation
RECEIVED
ON: May 23, 2014
and Checked for
CONFORMANCE
BY: Rob Young DATE: 05/30/2014

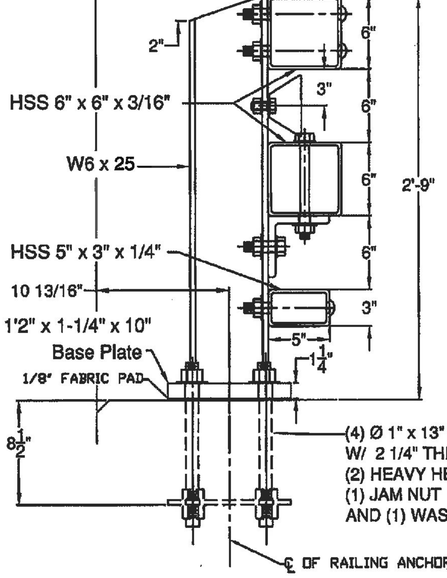
_____ Approved
_____ Rejected
__X__ Approved As Noted

This review is only for general conformance with the design concept and the information given in the Construction Documents. Corrections or comments made on the shop drawings during the review do not relieve the Contractor from compliance with the requirements of the Plans and Specifications. Review of a specific item shall not include review of an assembly of which an item is a component. The Contractor is responsible for dimensions to be confirmed and corrected at the job site; information that pertains solely to the fabrication process or to the means, methods, techniques, sequences and procedures of construction, coordination of the Work with that of other trades and performing all Work in a safe and satisfactory manner.

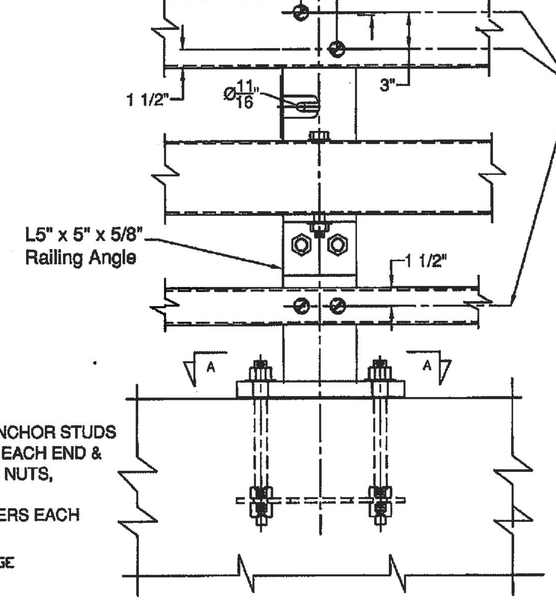
Date 5/29/2014
McFarland Johnson By D. Kull

BILL OF MATERIAL				
ITEM #	QTY	PART #	DESCRIPTION	ASTM DESIGNATION
1	30	0033.03610	W6x25, THREE RAIL POST @ 2'-9" DA ON 1 1/4x10x1'-2" B.P.	A572 Gr. 50
2	2	0033.22800	HSS 3" X 5" X 1/4" RAIL @ 27'-11 1/2"	A500 Gr. B
3	2	0033.13000	HSS 3" X 5" X 1/4" RAIL @ 29'-11 1/2"	A500 Gr. B
4	2	0033.21811	HSS 3" X 5" X 1/4" RAIL @ 18'-11"	A500 Gr. B
5	4	0033.63000	HSS 6" X 6" X 3/16" RAIL @ 29'-11 1/2"	A500 Gr. B
6	8	0033.53000	HSS 6" X 6" X 3/16" RAIL @ 29'-11 1/2"	A500 Gr. B
7	4	0033.62011	HSS 6" X 6" X 3/16" RAIL @ 20'-11"	A500 Gr. B
8	6	0033.00840	2-1/8" X 4-1/4" FIX. SPLICE BAR @ 2'-3"	A572 Gr. 50
9	12	0033.00640	HSS 5" X 5" X 5/16" FIX. SPLICE TUBE @ 2'-3"	A500 Gr. B, A572 Gr. 50
10	30	0033.00220	3/8" X 10" X 14" ANCHOR PLATES	A572 Gr. 50
11	30	0033.90050	1/8" X 10" X 14" FABRIC PAD	AASHTO M251
12	122*	0042.21013	Ø 1" X 13" ANCHOR STUDS, W/ 2 1/4" THD. EACH END	A449 TYPE 1
13	242*	0080.18901	Ø 1" HEAVY HEX NUTS	A563
14	120	0080.18911	Ø 1" FLAT WASHERS	F436
15	120	0080.18905	Ø 1" HEX JAM NUTS	A563
16	120	0080.07500	Ø 7/8" X 8" ROUND HEAD BOLT, NUT, SQ. WASHER, L.W.	A449, A563, F436, ASME D18.2
17	30	0080.06400	Ø 3/4" X 8" HEX BOLT, NUT, (2) F.W., & L.W.	A325, A563, F436, & ASME D18.2
18	60	0080.06140	Ø 3/4" X 2-3/4" HEX BOLT, NUT, (2) F.W., & L.W.	A325, A563, F436, & ASME D18.2
19	48	0080.06340	Ø 3/4" X 7-1/2" HEX BOLT, NUT, & (2) F.W.	A325, A563, & F436
20	24	0080.06255	Ø 3/4" X 4-1/2" HEX BOLT, NUT, & (2) F.W.	A325, A563, & F436
21	30	0033.00500	L5" X 5" X 5/8" RAILING ANGLE @ 6'	A572 Gr. 50
22	TBD		DELINEATORS - NOT SHOWN	(SUPPLIED BY CUSTOMER)

*=2 EXTRA FOR VDOT TESTING



SECTION



ELEVATION

STEEL BRIDGE RAILING

Vermont Agency of Transportation
RECEIVED
ON: April 28, 2014
and Checked for
CONFORMANCE
BY: Rob Young DATE: 05/16/2014

__X__ Approved
_____ Rejected
_____ Approved As Noted

This review is only for general conformance with the design concept and the information given in the Construction Documents. Corrections or comments made on the shop drawings during the review do not relieve the Contractor from compliance with the requirements of the Plans and Specifications. Review of a specific item shall not include review of an assembly of which an item is a component. The Contractor is responsible for dimensions to be confirmed and corrected at the job site; information that pertains solely to the fabrication process or to the means, methods, techniques, sequences and procedures of construction; coordination of the Work with that of other trades and performing all Work in a safe and satisfactory manner.

Date 5/16/2014
McFarland Johnson By D. Kull

GENERAL NOTES:

1) ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 525 OF THE STANDARD SPECIFICATIONS.
2) PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16".
3) ALL POST SHALL BE SET NORMAL TO GRADE. THE MAXIMUM CENTER TO CENTER SPACING OF BRIDGE RAIL POST IS 8'-3".
4) SECTIONS OF RAIL TUBE SHALL BE ATTACHED TO A MINIMUM OF TWO BRIDGE POSTS AND PREFERABLY TO AT LEAST 4 POSTS.
5) RAIL TUBE EXPANSION JOINTS SHALL BE PROVIDED IN ANY RAIL BAY SPANNING THE END OF AN INTEGRAL ABUTMENT BRIDGE AND AT ALL SUPER STRUCTURE EXPANSION JOINTS. EXPANSION JOINT WIDTH SHALL BE 4"@ 68°F AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
6) STD. SPLICE HOLES ONLY IN BRIDGE RAIL TUBES. REST TO BE DRILLED BY CUSTOMER. FIELD DRILLED HOLES TO BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.
7) BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT-LB).
8) SEE STANDARD DRAWING G-I 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.
9) ANY BENDING OF RAIL SHALL BE DONE AT THE FABRICATION PLANT ACCORDING TO A PROCEDURE PROVIDED BY THE FABRICATOR.
10) THE MINIMUM DISTANCE FROM THE POST TO AN EXPANSION JOINT SHALL BE DETERMINED BY THE MINIMUM EDGE DISTANCE OF 5" FROM ANY ANCHOR STUD TO THE END OF THE SLAB, OR THE EXPANSION JOINT RECESS POUR, IF ONE IS USED.
11) PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
12) THIS RAILING MEETS THE REQUIREMENTS FOR A TL-4 SERVICE LEVEL.

ITEM #: 525.335

SHEET 1 OF 2

APPROVED BY:

BRIDGE RAIL DETAILS SHEET

WARREN BRF 013-4 (32), VT ROUTE 100 (MINOR ARTERIAL) BRIDGE # 166
TOWN OF WARREN, COUNTY OF WASHINGTON, VT.

REV	NO.	DATE	DESCRIPTION	BY

REV	NO.	DATE	DESCRIPTION	BY

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

AISC CERTIFIED FABRICATOR

DRAWN	E.P.	4/24/14
CHECKED	D.L.	4/24/14
APPROVED	.	.
SCALE	SCHEMATIC	
DRAWING NO.	F.R. LaFAYETTE-WARREN	

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