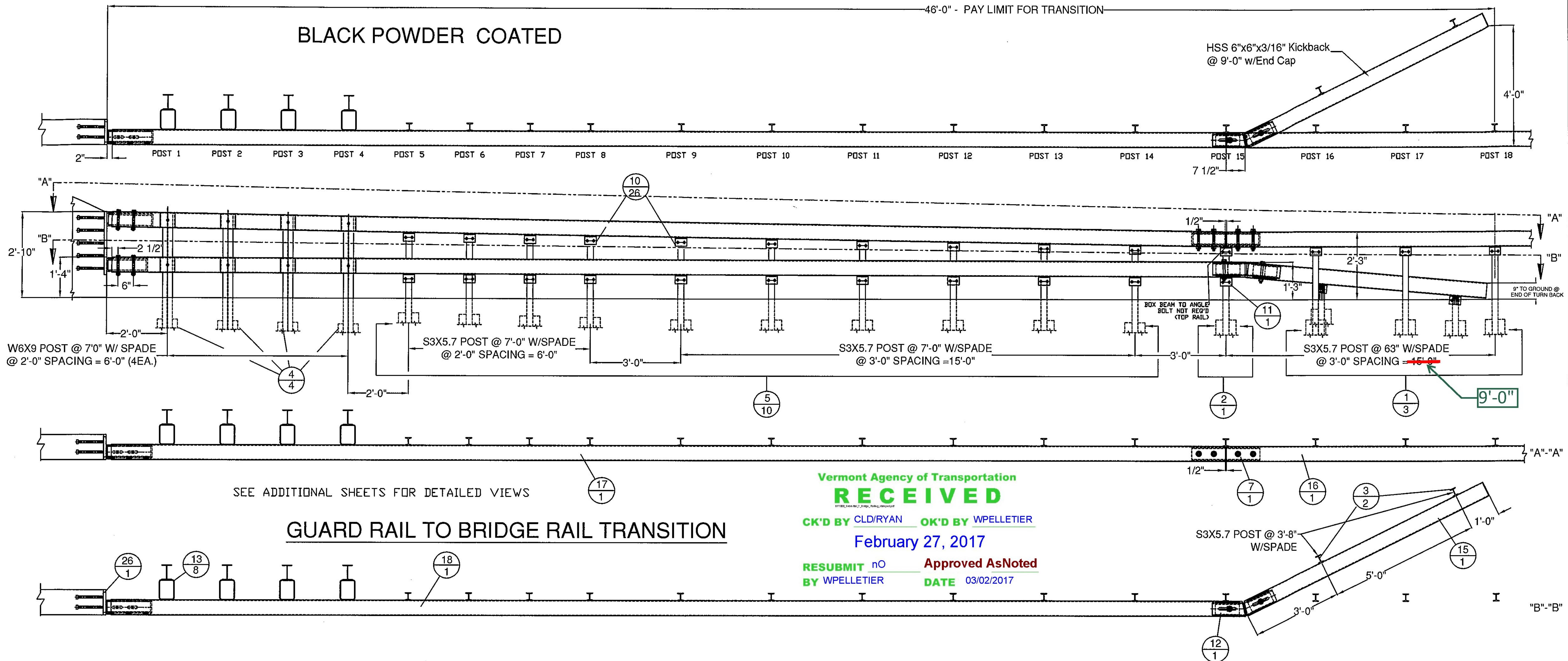


46'-0" - PAY LIMIT FOR TRANSITION

BLACK POWDER COATED



SEE ADDITIONAL SHEETS FOR DETAILED VIEWS

GUARD RAIL TO BRIDGE RAIL TRANSITION

Vermont Agency of Transportation
RECEIVED
 CK'D BY CLD/RYAN OK'D BY WPelletier
 February 27, 2017
 RESUBMIT nO Approved AsNoted
 BY WPelletier DATE 03/02/2017

BILL OF MATERIALS, (PER CORNER) (2 NORTH & 2 SOUTH REQ'D)			
ITEM #	QTY.	COMPONENT #	DESCRIPTION
1	3	0013.57021	3' I-POST, PUNCH 8" W/SPD @ 63' LG
2	1	0013.57025	3' I-POST, PUNCH 8", & 20" W/SPD @ 63' LG
3	2	0013.57060	3' I-END POST W/SPD @ 3'-8" LG
4	4	-	W6X9 POST @ 7' W/SPD & 5/8" HOLES @ VARIOUS
5	10	-	3' I-POST, PUNCH 8" & VARIOUS, W/8X32" SPADE @ 7'-0"
7	1	0033.00640	HSS 5X5 TUBE SPLICE @ 27' LG W/ 1/4" SHIMS
10	26	0054.00050	REG BB SHELF ANGLES @ 4-1/2"
11	1	0054.00051	SPECIAL BB SHELF ANGLES @ 4-1/2"
12	1	0054.00074	HSS 5X5 DBL BEND TUBE SPL @ 27' LG & 26" ANGLE
13	8	0054.00583	6X8x1/4" TRANS. TUBE B/D @ 6' LG
15	1	0054.09000	6X6" BB @ 9'-0" KICKBACK, W/ CAP & 13" ANGLE
16	1	0054.00009	6X6" BB @ 9'-0", DRILL 3" CC (INCLUDED W/ GUARDRAIL)
17N	1	-	6X6" BB TOP TRANS @ 36'-9 3/4" LG, W/ 366' CONVEX RAD.
17S	1	-	6X6" BB TOP TRANS @ 36'-9 3/4" LG, W/ 394' CONCAVE RAD.
18N	1	-	6X6" BB BTM TRANS @ 37'-5" LG, W/ 366' CONVEX RAD.
18S	1	-	6X6" BB BTM TRANS @ 37'-5" LG, W/ 394' CONCAVE RAD.
19	26	0080.03355	3/8" X 7 1/2" BOLT, NUT, & 2 FW
20	27	0080.04100	1/2" X 1-1/2" BOLT, NUT, & FW
21	16	0080.04120	1/2" X 1-1/2" BOLT, NUT, 2 FW & LW
23	10	0080.06340	3/4" X 7-1/2" BOLT, NUT, 2 FW
24	8	0080.06370	3/4" X 8" CARR BOLT, NUT, FW & LW
25	1	0080.06400	3/4" X 8" BOLT, NUT, 2 FW, & LW
26	-	-	PARAPET WALL CONNECTIONS, LEFT / RIGHT

SHOP DRAWING REVIEW

REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.

REJECTED REVISE AND RESUBMIT APPROVED AS NOTED

REVISIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DID NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRECTING ALL QUANTITIES AND DIMENSIONS; SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATING THEIR WORK WITH THAT OF ALL OTHER TRADES; AND PERFORMING THEIR WORK IN A SAFE AND SATISFACTORY MANNER.

CLD Consulting Engineers
 540 Commercial Street
 Manchester, NH 03101
 603-886-8223

Job Number: 140116
 Reviewed by: S. Beaumont
 Date: 02/27/2017

GENERAL NOTES:

- 1) ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 621 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 ACCOMMODATE SPLICES. "PIE CUTS ARE LOCATED SO AS TO NOT CONFLICT WITH POST FASTENING HOLES. PIE CUTS WILL BE WELDED ACCORDING TO PROCEDURE WPS-3026.
- 5) STEEL COMPONENTS TO BE POWDER COATED BLACK 27038 PER FEDERAL STANDARD NO 595, & PER ASTM D7803 FOLLOWING GALVANIZING.

HARDWARE NOTES	
ITEM #	FUNCTION
19	BOLT RAIL TO SHELF ANGLE (ITEM #10)
20	BOLT SHELF ANGLE (ITEM # 10) TO POST (ITEM #'S 1, 2, 3, & 5)
21	BOLT BLOCK-OUTS (ITEM # 13) TO HEAVY PDST (ITEM #4)
23	SPLICE TUBING (ITEM #'S 7 & 12), & (4) PER PARAPET WALL CONNECTION (ITEM #26)
24	BOLT RAIL (ITEMS #'S 17, & 18) TO BLOCK-OUTS (ITEM #13)
25	BOLT RAIL (ITEM #18) & DOUBLE BEND SPLICE (ITEM #12) TO SHELF ANGLE (ITEM #11)

ITEM #: 621.72

STRUCTURAL STEEL TO COMPLY W/ ASTM A6

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

SHEET 1 OF 4

TRANSITION - CONCRETE PARAPET TO HIGHWAY GUIDE RAIL
 VT. ROUTE 2B (URBAN MINOR ARTERIAL) BRIDGE #6
 TOWN OF ST. JOHNSBURY, CALEDONIA COUNTY, VT.

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

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

ORTHOGONAL PROJECTION

DRAWN E.P. 2/15/17
 CHECKED D.L. 2/15/17
 APPROVED
 SCALE SCHEMATIC
 DRAWING NO. FRL-ST. JOHNSBURY (20)