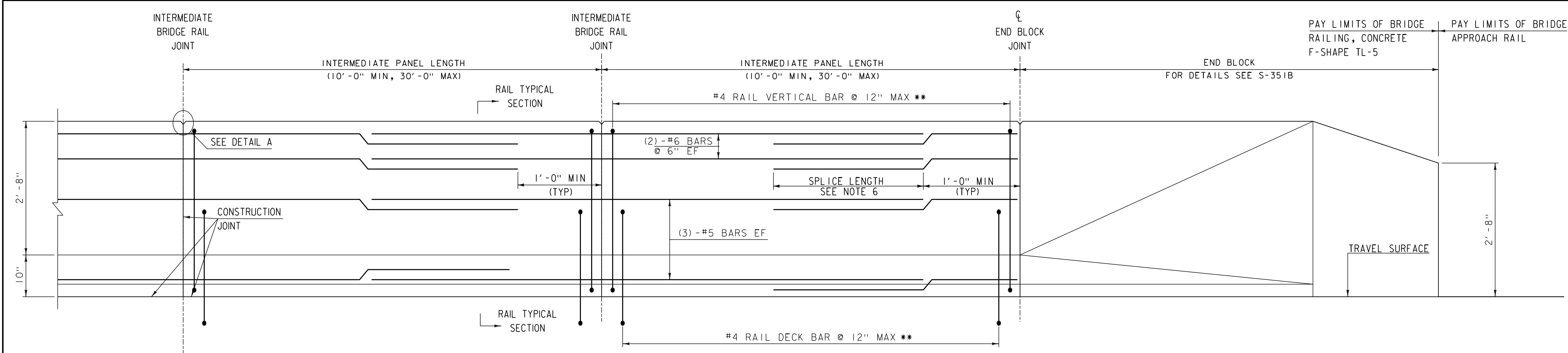
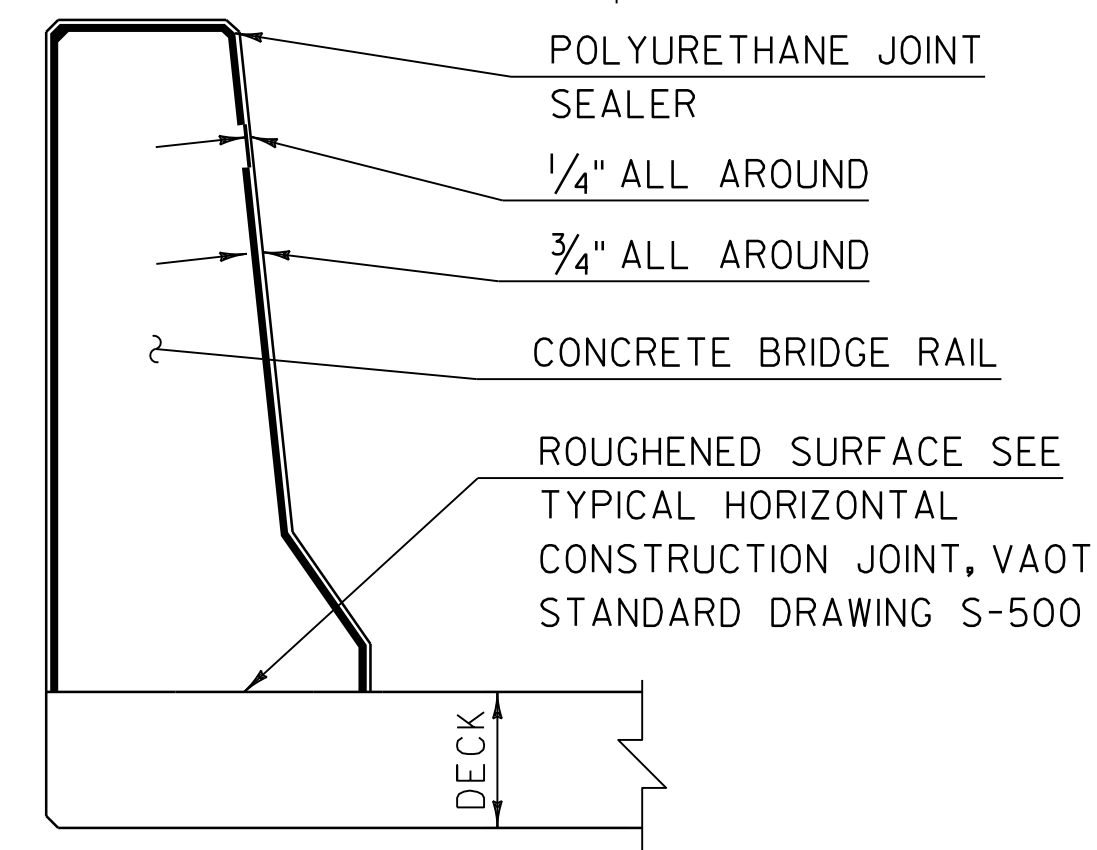
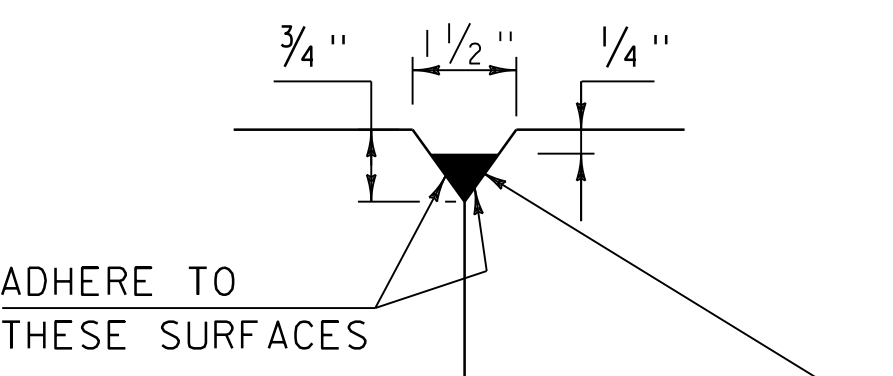




BRIDGE RAIL ELEVATION
NTS



BRIDGE RAIL JOINT SECTION

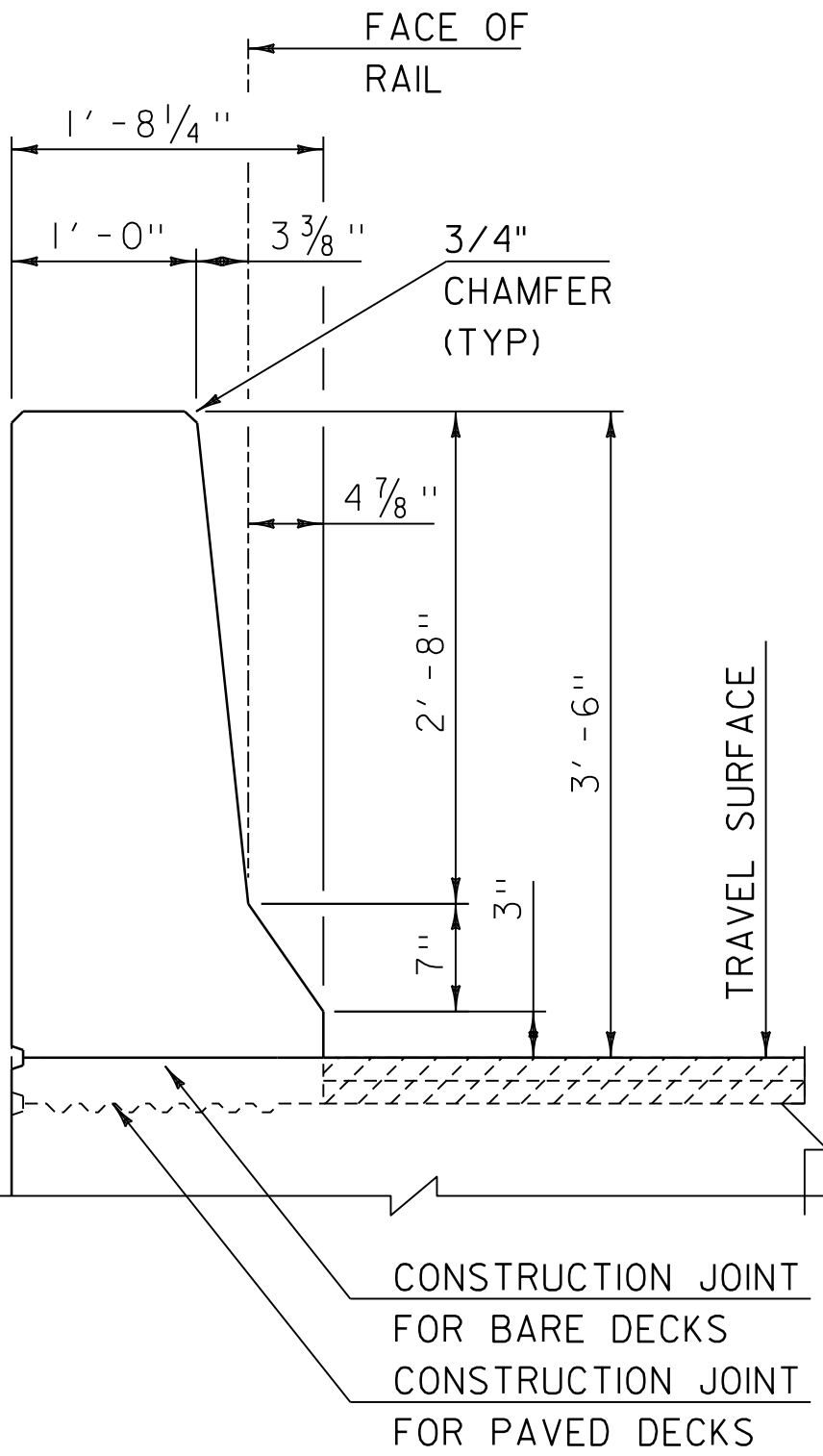


POLYURETHANE JOINT SEALER MEETING THE REQUIREMENTS OF SECTION 524. COLOR TO MATCH CONCRETE. PAYMENT TO BE INCIDENTAL TO THE BRIDGE RAIL ITEM

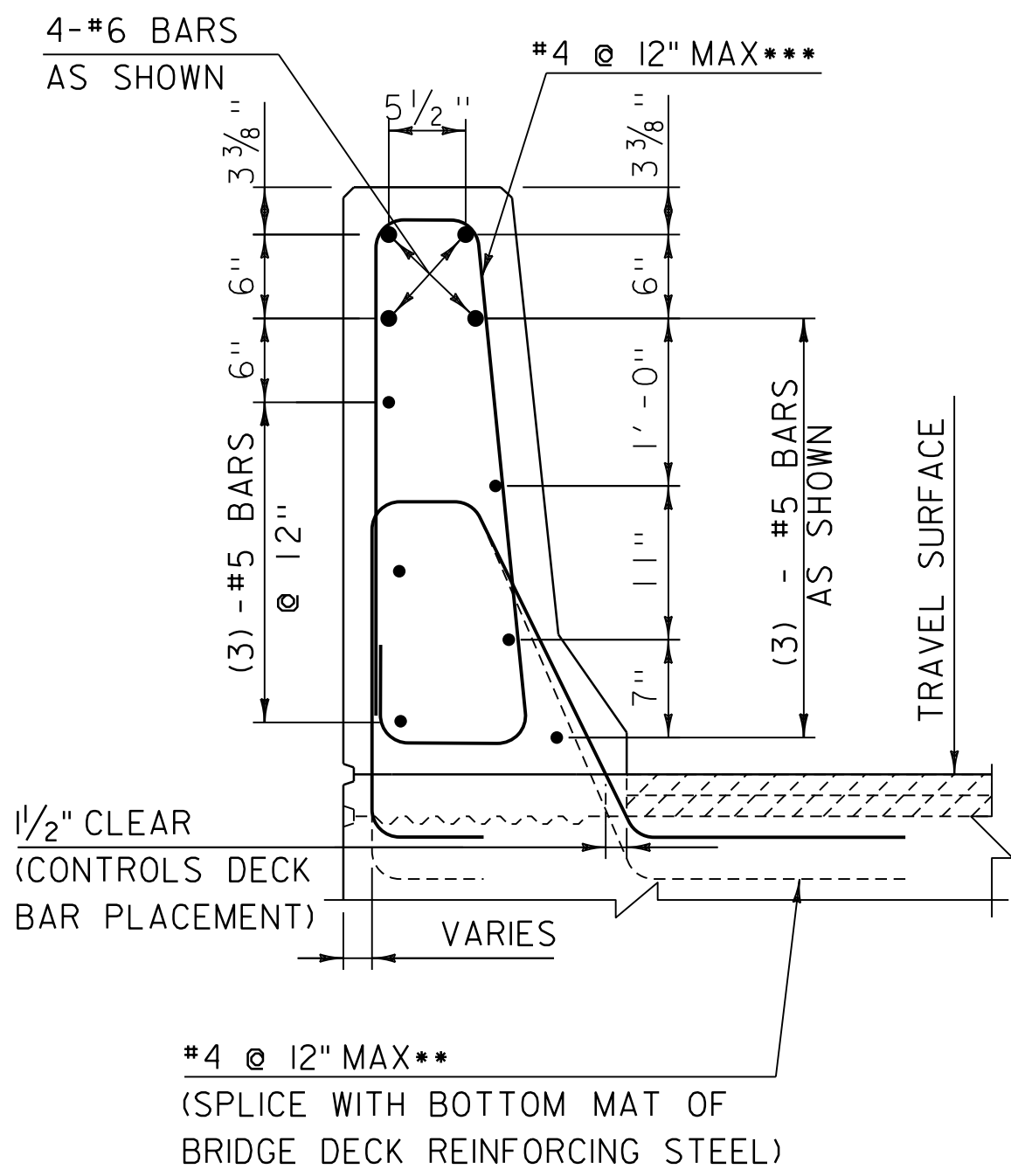
DETAIL "A"

CONCRETE RAIL JOINT NOTES

- CONCRETE RAIL MAY BE PLACED IN ONE CONTINUOUS OPERATION IF AN APPROVED SHRINKAGE REDUCING ADMIXTURE LISTED IN THE SPECIAL PROVISIONS IS USED WITH THE CONCRETE MIX DESIGN. PAYMENT FOR THE SHRINKAGE REDUCING ADMIXTURE WILL BE INCIDENTAL TO THE BRIDGE RAIL CONCRETE ITEM.
- WHEN BRIDGE RAIL JOINTS ARE USED THE PANELS SHALL BE PLACED IN ALTERNATE SECTIONS WITH A MINIMUM OF 48 HOUR DELAY BETWEEN ADJACENT PLACEMENTS.

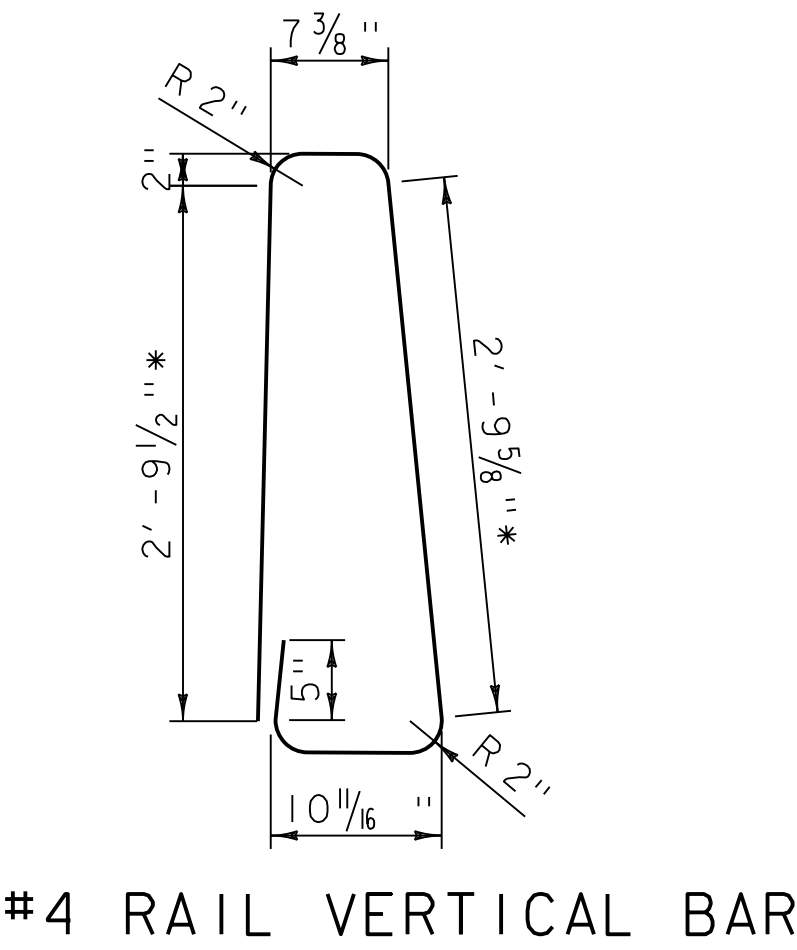


RAIL TYPICAL SECTION

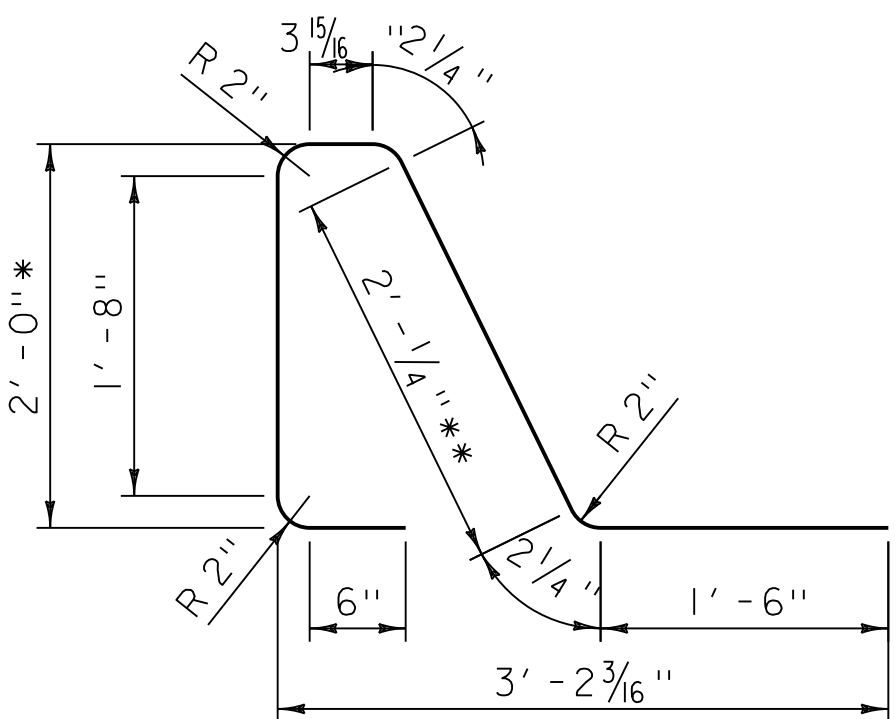


RAIL REINFORCING SECTION

NOTE:
* INCREASE THIS DIMENSION BY 3" FOR PAVED DECKS
** INCREASE THIS DIMENSION BY 3/4" FOR PAVED DECKS
*** REDUCE SPACING OF THESE REINFORCEMENT BARS TO HALF THE SPACING SHOWN WITHIN 10'-0" OF AN EXPANSION JOINT IN THE BARRIER AND AT THE END OF THE BRIDGE BARRIER.



#4 RAIL VERTICAL BAR



#4 RAIL DECK BAR

- NOTES:
- ALL WORK AND MATERIALS SHALL CONFORM TO SECTION 525.
 - ALL REINFORCING STEEL SHALL BE STEEL AND OF THE SAME TYPE AND GRADE AS SPECIFIED IN THE PLANS.
 - SEE STANDARD DRAWING G-1 FOR DETAILS OF DELINEATORS. A DELINEATOR SHALL 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 THE BRIDGE RAILING, CONCRETE F-SHAPE TL-5 PAY ITEM.
 - THE DISTANCE FROM CENTER LINE OF THE ROADWAY TO THE FACE OF BRIDGE RAIL SHALL BE ESTABLISHED BY THE DESIGNING ENGINEER. THE DISTANCE FROM CENTER LINE OF THE ROADWAY TO THE FACE OF APPROACH RAIL SHALL BE ESTABLISHED BY THE TYPE OF APPROACH RAIL CHOSEN. IF THE CHOSEN APPROACH RAIL IS WIDER OR NARROWER THAN THE STANDARD RAIL USED FOR ROADWAYS, THE DIFFERENCE SHALL BE ADJUSTED IN THE 25'-0" SECTION OF RAIL ADJACENT TO THE APPROACH RAIL.
 - ALL #4 RAIL DECK BARS TO BE SHOWN IN THE DECK REINFORCING PLANS. ALL REBAR SHALL BE INCLUDED IN THE REINFORCING STEEL SCHEDULE FOR PROJECT WITH A NOTE STATING THAT THESE BARS ARE PAID FOR AS PART OF THE BRIDGE RAILING, CONCRETE F-SHAPE TL-5 PAY ITEM.
 - THE BARRIER LAP SPLICE LENGTH:
2'-2" FOR #4 BARS
3'-7" FOR #5 BARS
4'-4" FOR #6 BARS
 - MATERIAL STRENGTH:
CONCRETE:
MINIMUM STRENGTH F'C = 4,000 PSI
MODULAR RATIO (Es/Ec) N=8
 - PROVIDE 2" COVER UNLESS OTHERWISE NOTED.
 - THIS BRIDGE RAILING MAY BE USED IN SITUATIONS WHERE THE VERMONT AGENCY OF TRANSPORTATION REQUIRES A RATING OF TL-5 OR LESS.

REV.	DATE	DESCRIPTION
0	FEB. 15, 2023	ORIGINAL APPROVAL
1	JUNE 25, 2024	ADJUSTMENTS TO #4 RAIL DECK BAR
2	JULY 22, 2026	REMOVED NOTE ABOUT FINISH REQUIREMENTS
OTHER STANDARDS REQUIRED: G-1, S-351B, S-351C, S-363, S-500		
VTRANS AND FHWA APPROVAL ON FILE WITH CONTRACT ADMINISTRATION		

BRIDGE RAILING;
CONCRETE F-SHAPE TL-5



STANDARD
S - 351A