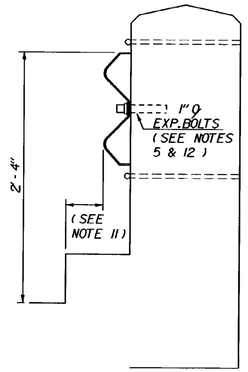
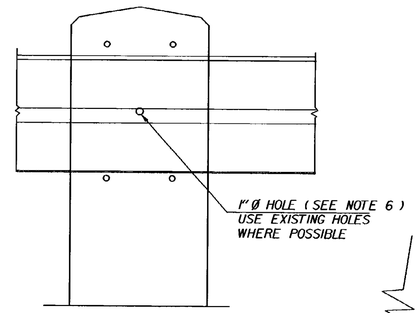
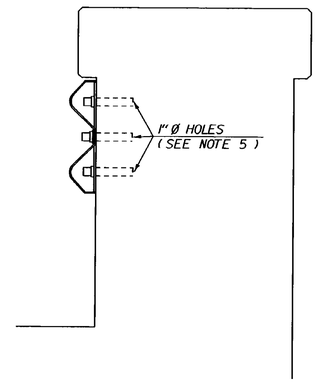
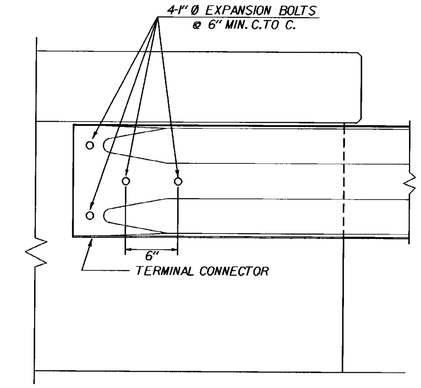




DETAIL "B"

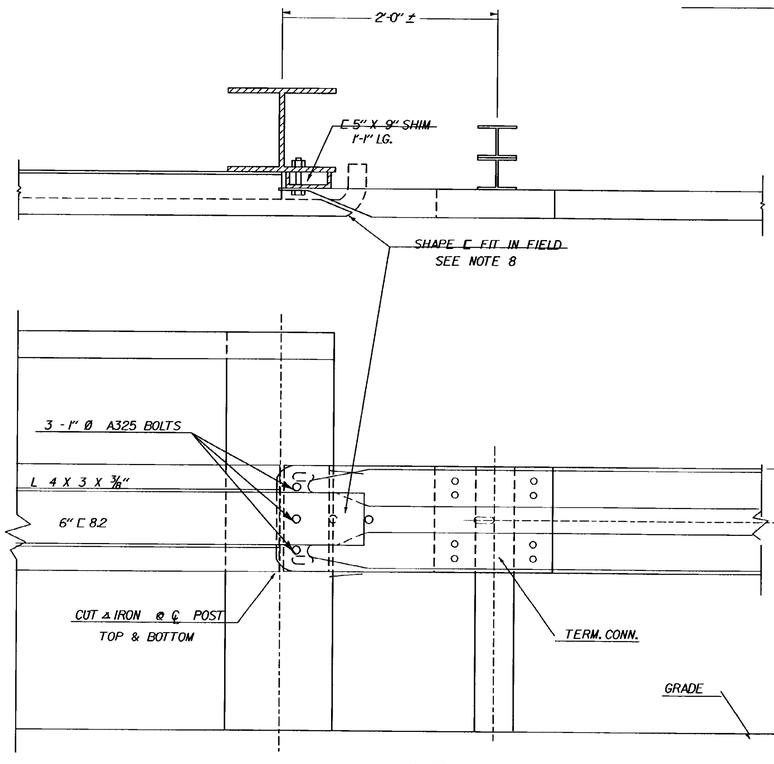
STEEL BEAM INSTALLATION
ON CONCRETE POST
SCALE: 1½" = 1'-0"





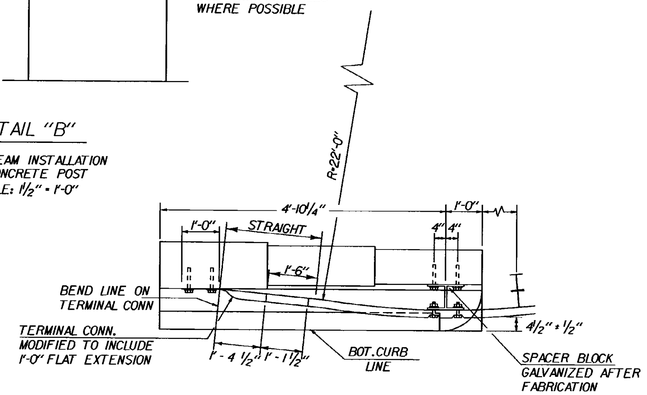
DETAIL "C"

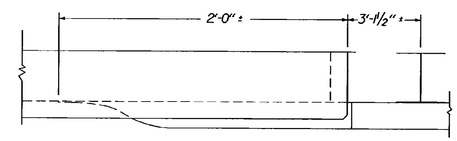
TERMINAL CONNECTION
TO SOLID RAIL
SCALE: 1½" = 1'-0"

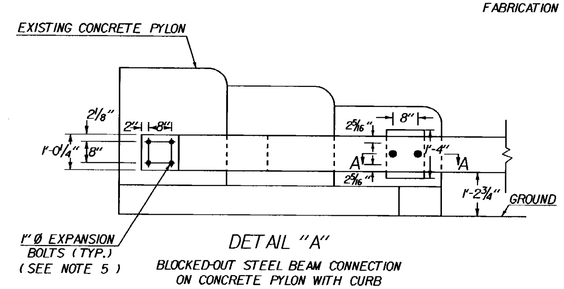


DETAIL "D"

TERMINAL CONNECTION TO
STEEL TRUSS RAIL
SCALE: 1½" = 1'-0"

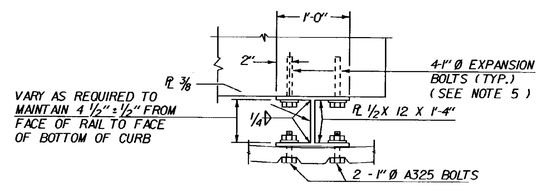






DETAIL "A"

BLOCKED-OUT STEEL BEAM CONNECTION
ON CONCRETE PYLON WITH CURB
SCALE: ½" = 1'-0"



SECTION A-A

SPACER BLOCK DETAIL
SCALE: 1" = 1'-0"

GENERAL NOTES

1. AT LEAST 2 PANELS (25') OF RAIL AT APPROACH TO BRIDGE SHALL BE HEAVY DUTY STEEL BEAM. SEE STANDARD G-1 FOR ADDITIONAL DETAILS.
2. ALL METAL PARTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-111. ALL FIELD ALTERATIONS TO GALVANIZED MEMBERS SHALL BE PAINTED WITH 2 COATS OF ZINC RICH PAINT (SECTION 708.07).
3. TERMINAL CONNECTORS SHALL BE STANDARD HM-TF-13/RE-8.
4. EXPANSION BOLTS SHALL BE STAINLESS STEEL, ASTM A582 TYPE 303, 1"Ø BY 9 INCHES IN LENGTH WITH A MINIMUM THREAD LENGTH OF 2 INCHES. EXPANSION WEDGES SHALL BE ASTM A276 TYPE 304. NUTS AND WASHERS SHALL BE TYPE 18-8 STAINLESS STEEL.
5. EXPANSION BOLTS SHALL HAVE 7" MIN. DEPTH OF EMBEDMENT INTO EXISTING CONCRETE AND SHALL BE CAPABLE OF ULTIMATE TENSILE STRENGTH = 18,000 LBS MIN. DETAILS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.
6. STEEL BEAM RAILING TO BE INSTALLED ON EXISTING CONCRETE POSTS SHALL BE DRILLED TO FIT IN THE FIELD.
7. POST SPACING TO BE 3' - 1½" AT EACH CORNER OF ALL BRIDGES FOR ONE PANAL (12.5'), UNLESS OTHERWISE NOTED. NORMAL LINE POST SPACING TO BE 6'-3".
8. WHEN CONNECTING NEW BEAM RAIL TO EXISTING STEEL RAIL ON TRUSS BRIDGES, ANY EXISTING BRIDGE RAIL CUT SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH SECTION 513.
9. EXISTING BRIDGE RAILING SHALL NOT BE REMOVED UNTIL THE NEW BRIDGE RAILING AND ALL NECESSARY ACCESSORIES ARE ON THE PROJECT.
10. ONLY ONE SIDE OF EACH BRIDGE SHALL BE WORKED ON AT A TIME.
11. WHEN THE CURB TO RAIL OFFSET EXCEEDS 8", USE A SPACER BLOCK AS SHOWN IN SECTION A-A. MAINTAIN 4½" ± ½" CURB TO RAIL OFFSET.
12. THE POST MAY BE DRILLED THROUGH AND THE RAIL FASTENED WITH ONE ⅝" Ø GALVANIZED BOLT. A 6" SQUARE GALVANIZED WASHER (¼" THICK) SHALL BE INSTALLED ON THE BACK SIDE OF THE POST.

REVISIONS AND CORRECTIONS

NOV. 29, 1977 - ORIGINAL APPROVAL DATE
FEB. 15, 1978 - CONSTRUCTION DETAILS REVISED
NOV. 25, 1980 - TITLE BLOCK REVISED
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

Gordon R. MacArthur, P.E.
DIRECTOR OF ENGINEERING

Robert M. Maughan, P.E.
DESIGN ENGINEER

STEEL BEAM GUARD RAIL ATTACHMENTS TO EXISTING BRIDGE

TERMINAL CONNECTOR FOR STEEL BEAM GUARD RAIL

VERMONT AGENCY OF TRANSPORTATION

STANDARD

G-16