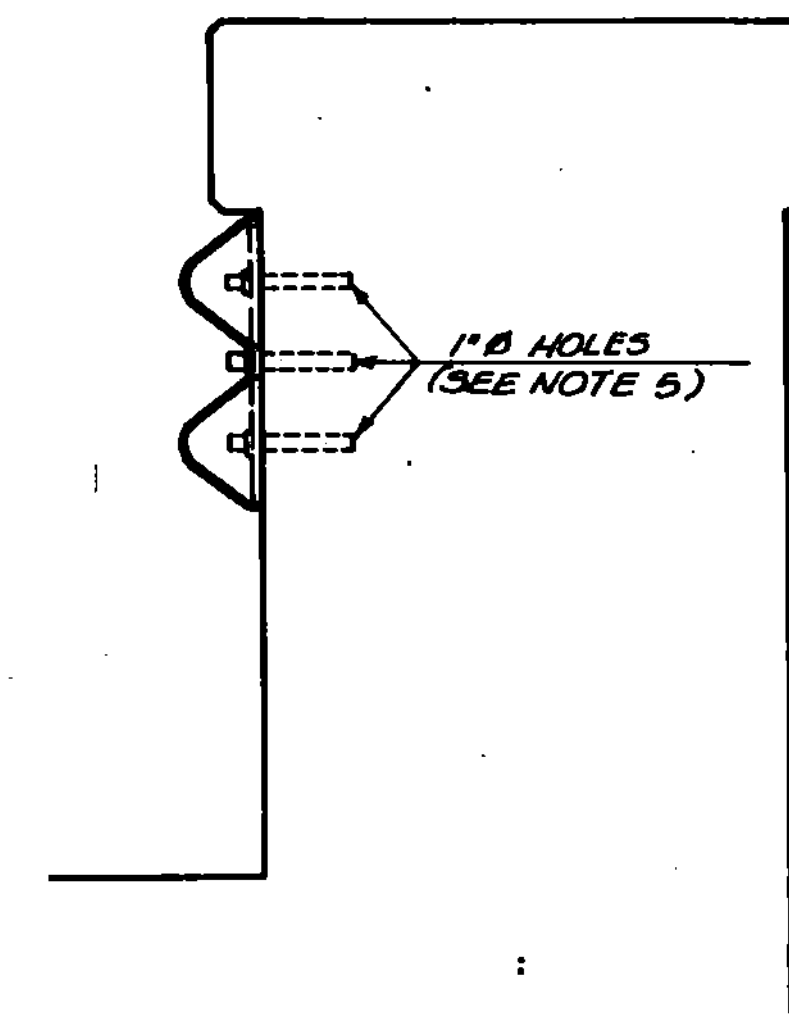
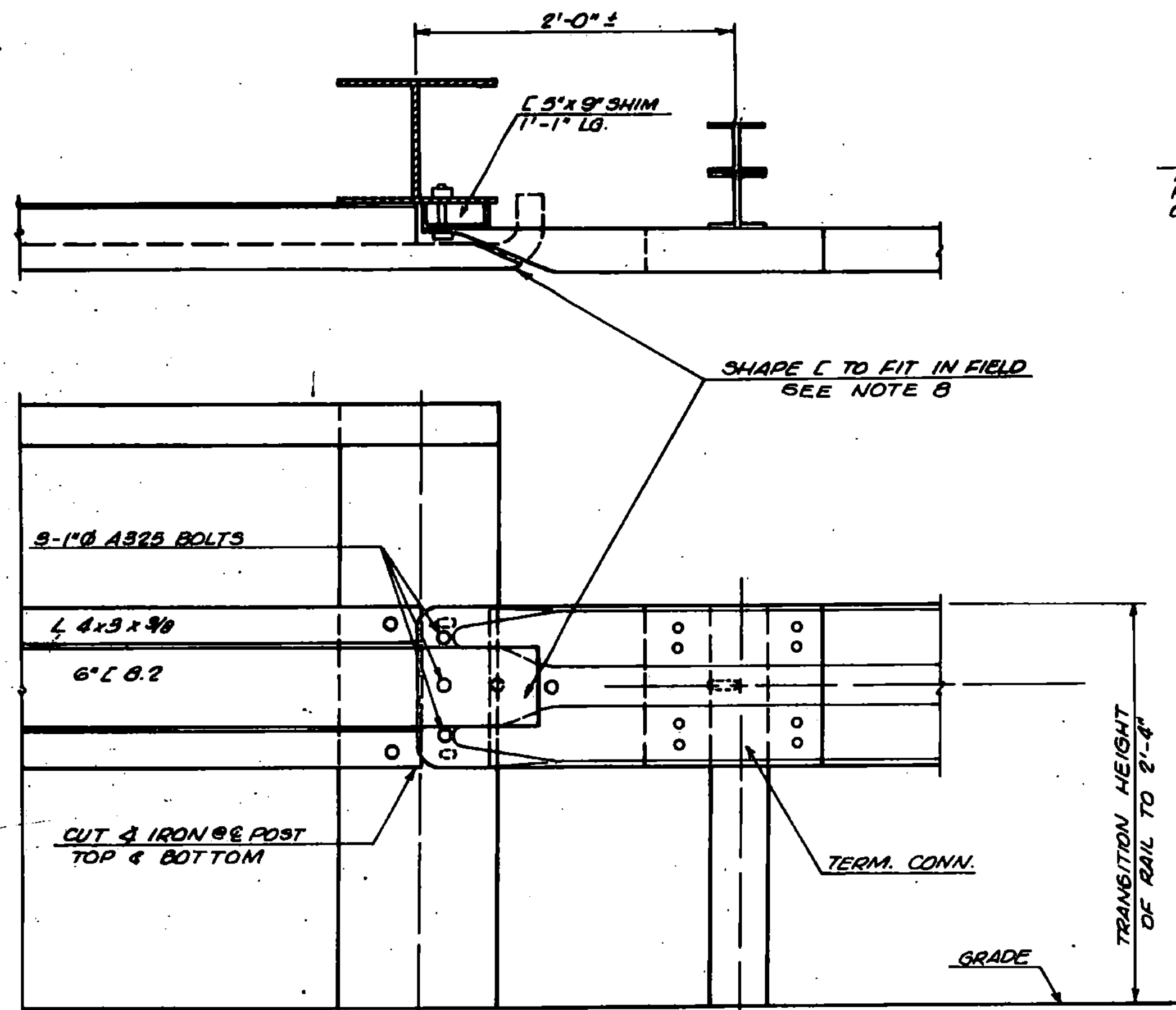
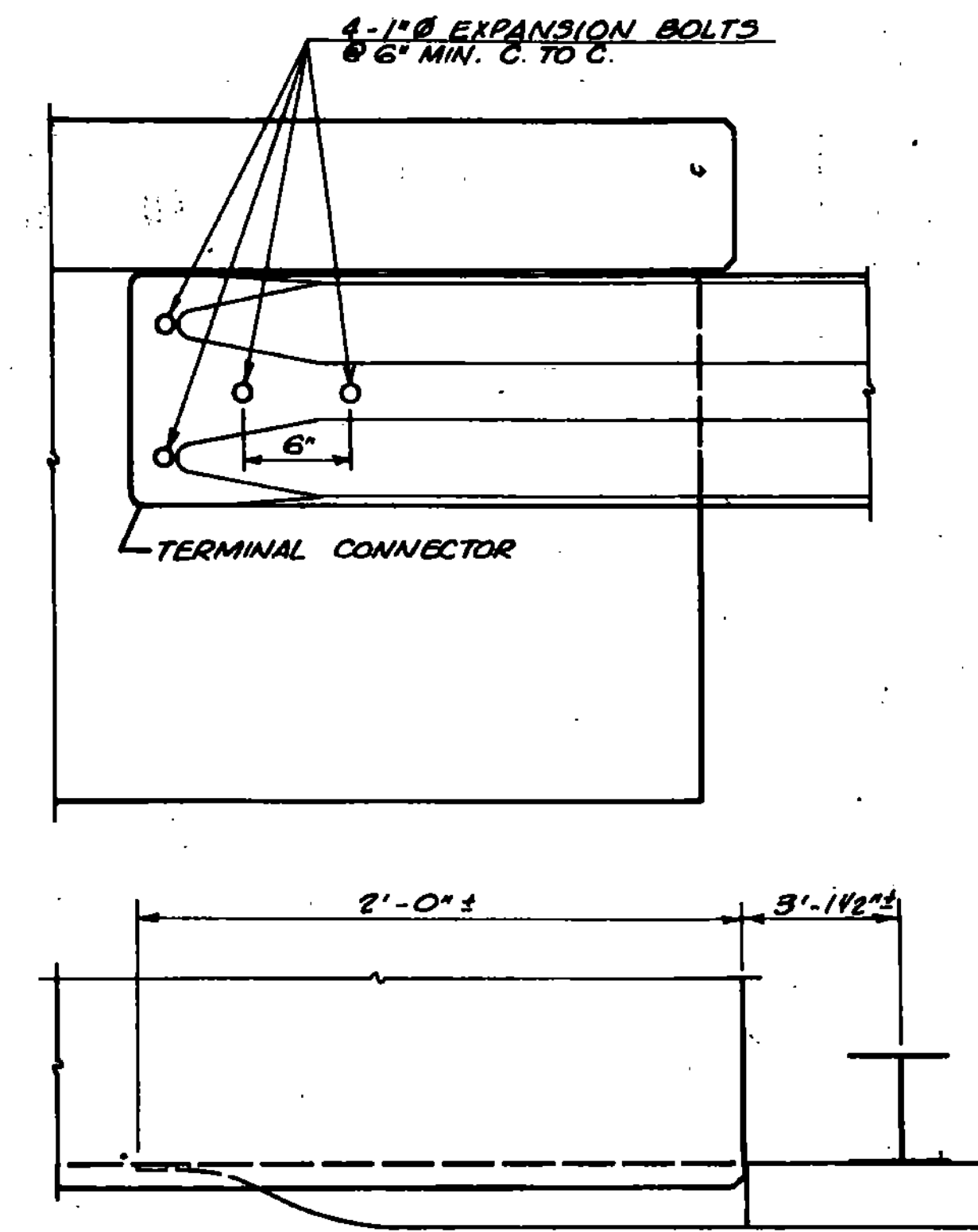


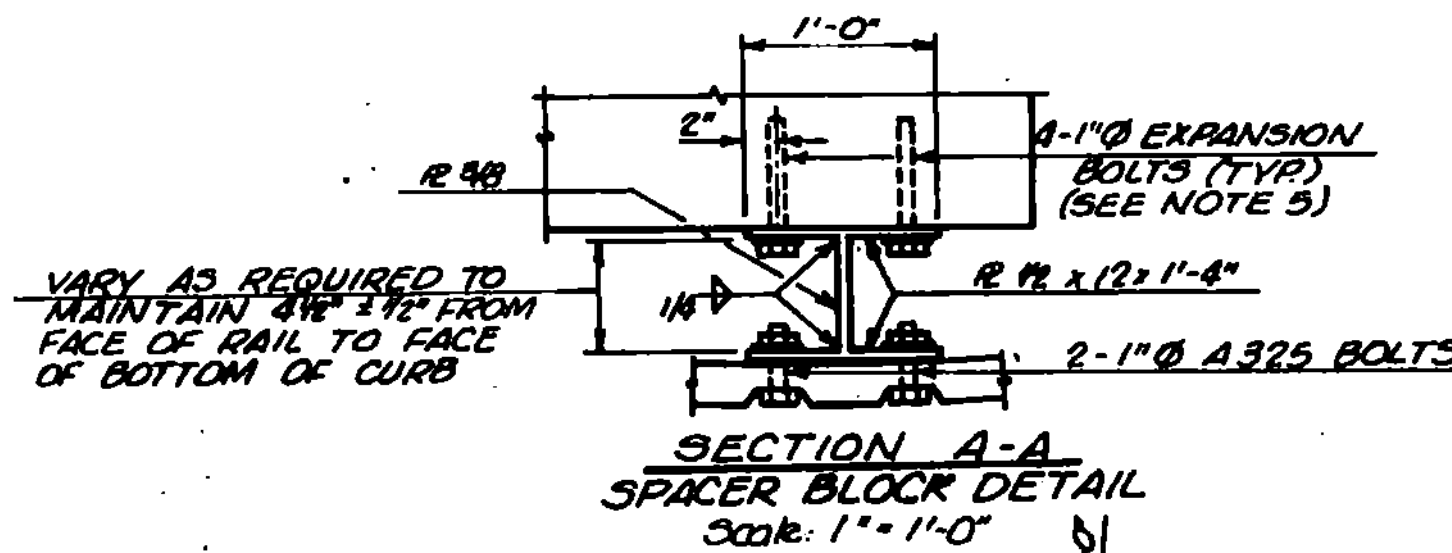
DETAIL "B"
Steel Beam Installation
on Concrete Post
Scale 1/2" = 1'-0"



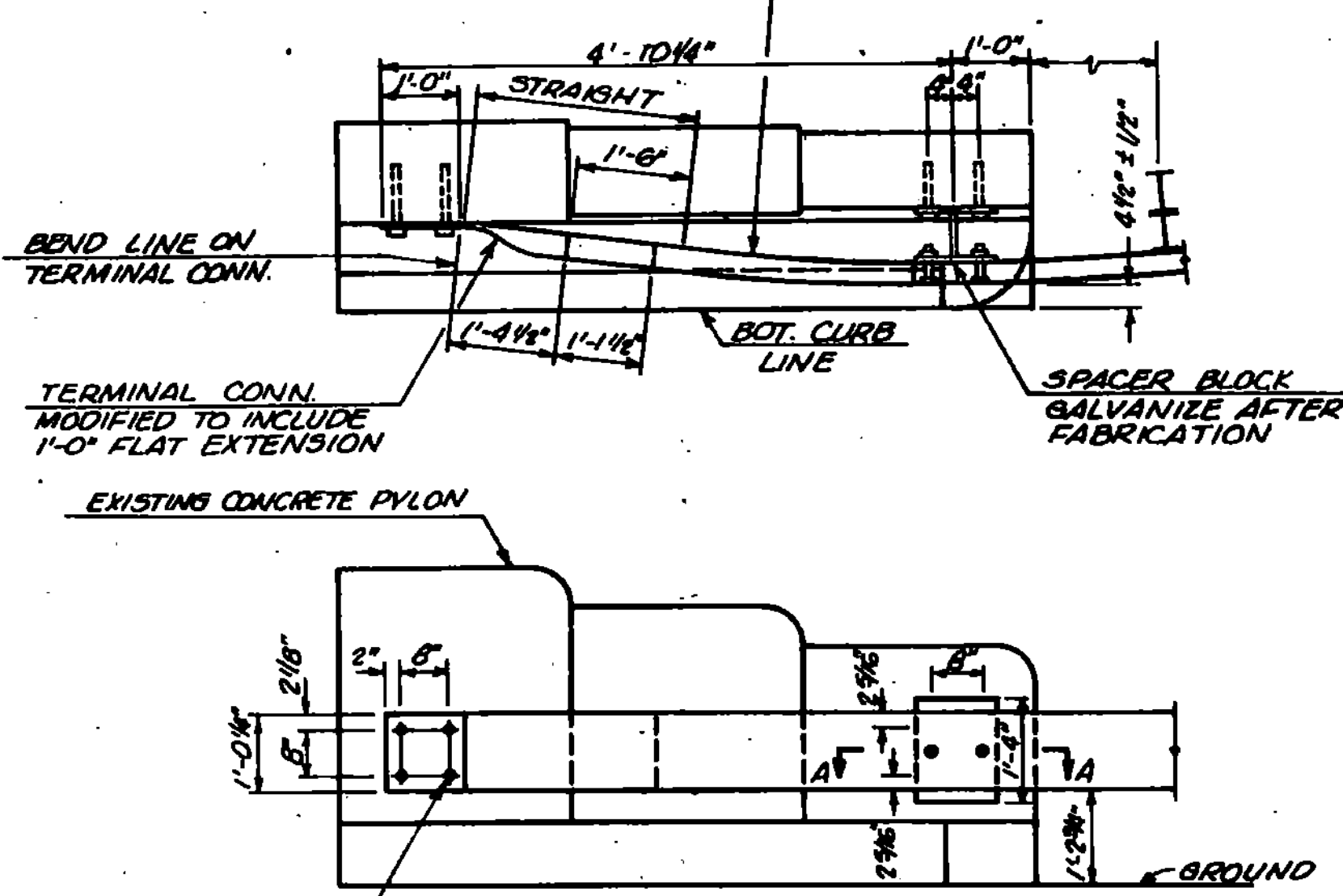
DETAIL "C"
Terminal Connection
to Solid Rail
Scale 1/2" = 1'-0"



DETAIL "D"
Terminal Connection to
Steel Truss Rail
Scale 1/2" = 1'-0"



SECTION A-A
SPACER BLOCK DETAIL
Scale: 1" = 1'-0"



DETAIL "A"
Blocked-out Steel Beam Connection
on Concrete Pylon with Curb
Scale 1/2" = 1'-0"

- GENERAL NOTES**
- AT LEAST 2 PANELS (25') OF RAIL AT APPROACH TO BRIDGE SHALL BE HEAVY DUTY STEEL BEAM. SEE STANDARD G-1 FOR ADDITIONAL DETAILS.
 - ALL METAL PARTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M III. ALL FIELD ALTERATIONS TO GALVANIZED MEMBERS SHALL BE PAINTED WITH 2 COATS OF ZINC RICH PAINT (SECTION 708.07).
 - TERMINAL CONNECTORS SHALL BE STANDARD HM-TF-19/RE-8.
 - EXPANSION BOLTS SHALL BE STAINLESS STEEL, ASTM A 582 TYPE 309, 1" Ø BY 9 INCHES IN LENGTH WITH A MINIMUM THREAD LENGTH OF 2 INCHES. EXPANSION WEDGES SHALL BE ASTM A 276 TYPE 304. NUTS AND WASHERS SHALL BE TYPE 18-8 STAINLESS STEEL.
 - 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.
 - STEEL BEAM RAILING TO BE INSTALLED ON EXISTING CONCRETE POSTS SHALL BE DRILLED TO FIT IN THE FIELD.
 - POST SPACING TO BE 3'-1 1/2" AT EACH CORNER OF ALL BRIDGES FOR ONE PANEL (12.5'). UNLESS OTHERWISE NOTED NORMAL LINE POST SPACING TO BE 6'-3".
 - 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.
 - EXISTING BRIDGE RAILING SHALL NOT BE REMOVED UNTIL THE NEW BRIDGE RAILING AND ALL NECESSARY ACCESSORIES ARE ON PROJECT.
 - ONLY ONE SIDE OF EACH BRIDGE SHALL BE WORKED ON AT A TIME.
 - WHEN THE CURB TO RAIL OFFSET EXCEEDS 6", USE A SPACER BLOCK AS SHOWN IN SECTION A-A. MAINTAIN 4 1/2" ± 1/2" CURB TO RAIL OFFSET.
 - THE POST MAY BE DRILLED THROUGH AND THE RAIL FASTENED WITH ONE 5/8" Ø GALVANIZED BOLT. A 6" SQUARE GALVANIZED WASHER (1/4" THICK) SHALL BE INSTALLED ON THE BACK SIDE OF THE POST.

REVISIONS & CORRECTIONS
FEB. 16, 1978 - CONSTRUCTION DETAILS REVISED.
NOV. 25, 1980 - TITLE BLOCK REVISED

APPROVED: DATE Nov. 29, 1977

 CHIEF ENGINEER

 CHIEF OF DESIGN

 DESIGN ENGINEER

**STEEL BEAM GUARD RAIL ATTACHMENTS
TO EXISTING BRIDGE
TERMINAL CONNECTOR FOR STEEL BEAM GUARD RAIL**



**STANDARD
G-16**