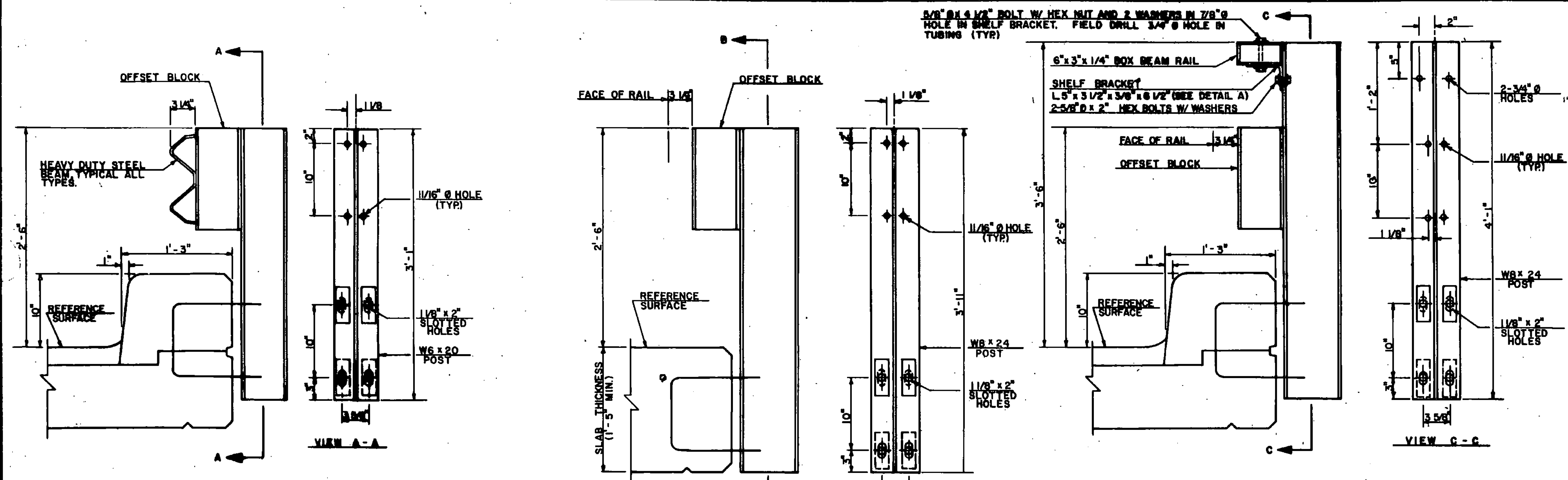
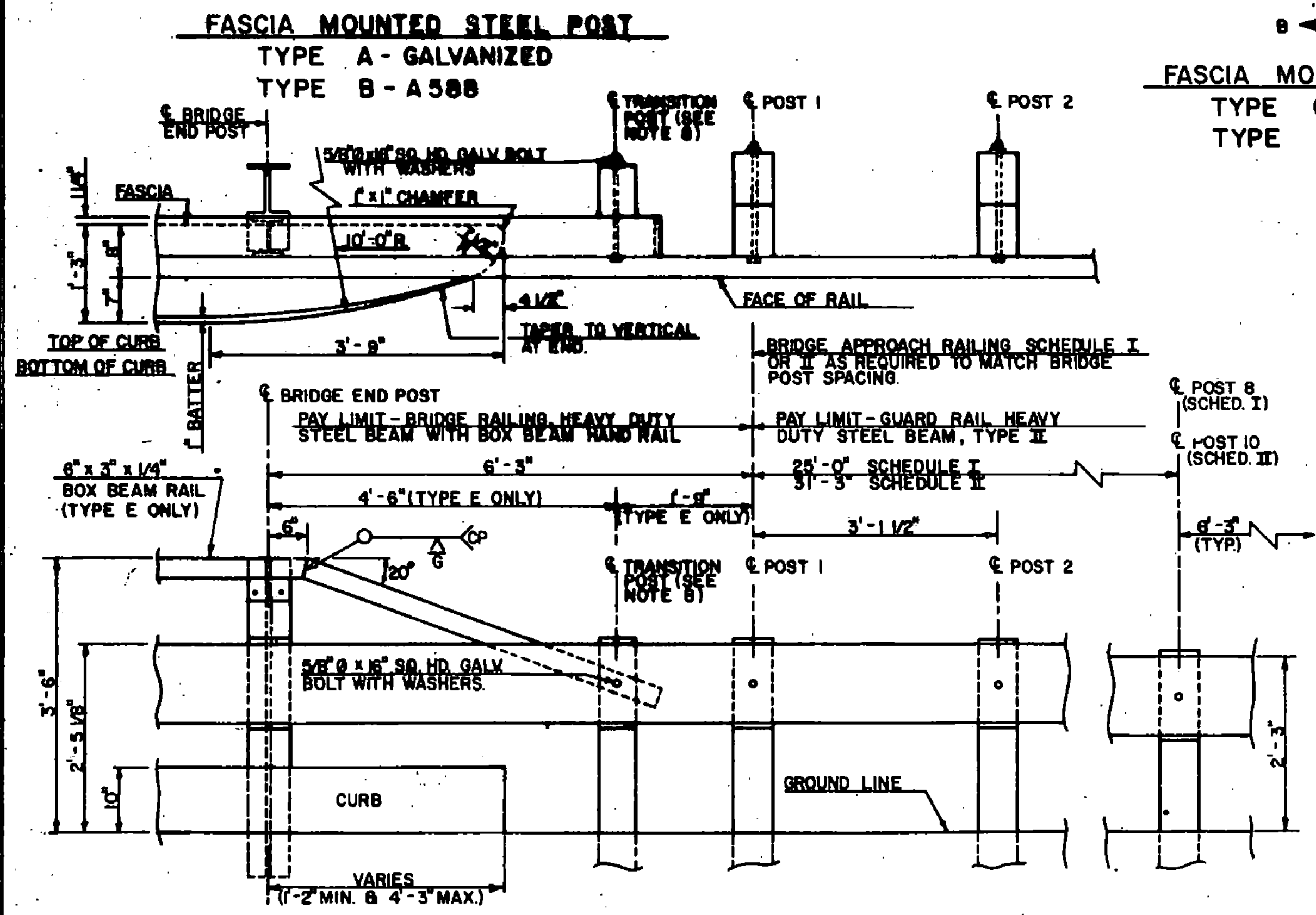




- NOTES**
- SEE STANDARD DRAWING G-1 & G-1d FOR ADDITIONAL DETAILS OF STEEL BEAM GUARD RAIL AND STANDARD SB-R4a-82 FOR ADDITIONAL DETAILS OF BOX BEAM RAIL.
 - ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND CONFORM WITH SECTION 714.16.
 - BRIDGE RAIL TYPES A, C, & E: HEAVY DUTY STEEL BEAM RAIL SHALL BE AASHTO M 180, CLASS B - TYPE 2. POSTS, BRACKETS AND PLATE WASHER SHALL BE ASTM A 36 STEEL. BOLTS SHALL BE ASTM A 307. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION TO ASTM A 123.
 - BRIDGE RAIL TYPE B & D: HEAVY DUTY STEEL BEAM RAIL SHALL BE AASHTO M 180, CLASS B - TYPE 4. POSTS, BRACKETS & PLATE WASHER SHALL BE ASTM A 588 STEEL. BOLTS SHALL BE ASTM A 325 TYPE III.
 - ALL POSTS SHALL BE SET NORMAL TO GRADE.
 - BRIDGE APPROACH RAIL HEIGHT SHALL BE TRANSITIONED TO NORMAL ROADWAY RAIL HEIGHT IN 25 FEET.
 - APPROACH RAILING SHALL BE HEAVY DUTY STEEL BEAM FOR 50 FEET FROM THE END OF THE BRIDGE.
 - FOR THE TYPE A, B, C, OR D BRIDGE RAILING, THE TRANSITION POST SHALL HAVE AN OFFSET BLOCK AND BE LOCATED AS CLOSE AS PRACTICAL TO THE MID-POINT BETWEEN THE BRIDGE END POST AND APPROACH RAIL POST 1.
 - SPLICES SHALL LAP IN DIRECTION OF TRAFFIC FLOW.
 - SEE STANDARD SHEET G-1 FOR DELINEATOR DETAILS AND PLACEMENT.
 - ERECT DELINEATOR ON EVERY FIFTH POST OR APPROXIMATELY 30 FEET APART. PAYMENT SHALL BE SUBSIDIARY TO OTHER ITEMS.



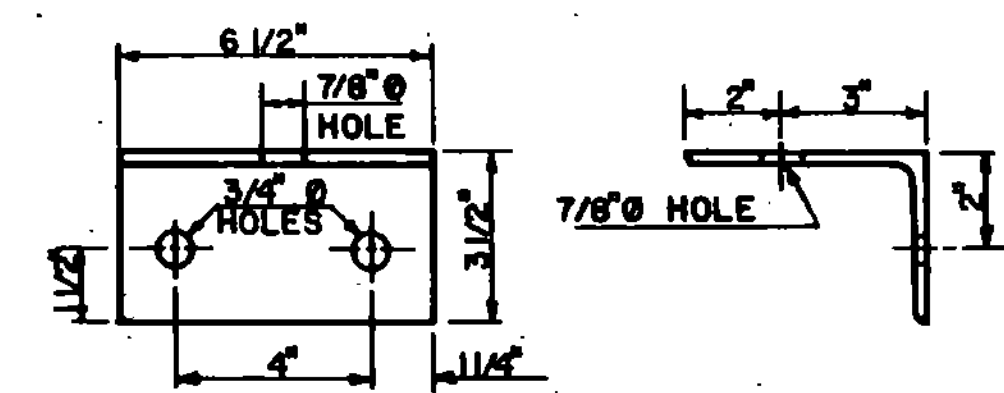
FASCIA MOUNTED STEEL POST
TYPE C - GALVANIZED
TYPE D - A588

FASCIA MOUNTED STEEL POST
WITH BOX BEAM HAND RAIL
TYPE E - GALVANIZED

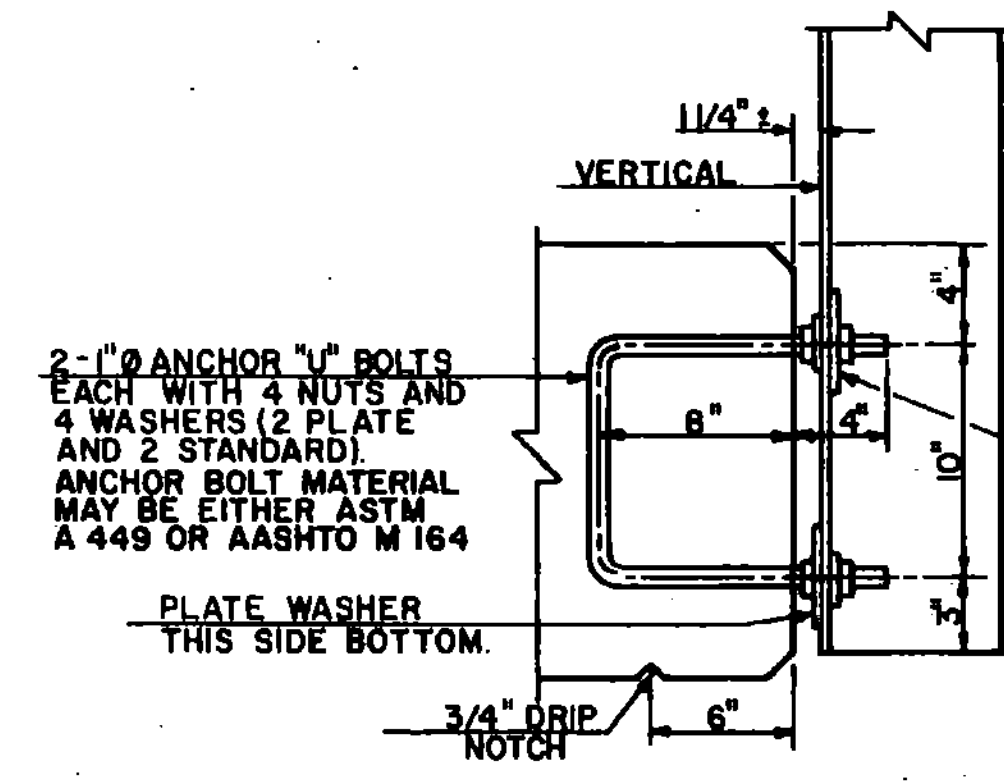
BRIDGE APPROACH RAILING
WHEN A RAIL PANEL SPLICE OCCURS AT POST NO. 1 USE SCHEDULE I FOR APPROACH RAILING.
WHEN A RAIL PANEL SPLICE OCCURS AT BRIDGE END POST USE SCHEDULE II FOR APPROACH RAILING.

SCHEDULE I		
POST NO.	SPACING	PAYMENT FACTOR
1	3'-1 1/2"	1.4 x 12'-6"
2	3'-1 1/2"	
3	3'-1 1/2"	
4	3'-1 1/2"	
5	4'-2"	1.2 x 12'-6"
6	4'-2"	
7	4'-2"	
8	4'-2"	
9	6'-3" (TYP)	1.0 (TYP)

SCHEDULE II		
POST NO.	SPACING	PAYMENT FACTOR
1	3'-1 1/2"	1.4 x 18'-9"
2	3'-1 1/2"	
3	3'-1 1/2"	
4	3'-1 1/2"	
5	3'-1 1/2"	1.2 x 12'-6"
6	3'-1 1/2"	
7	4'-2"	
8	4'-2"	
9	4'-2"	1.0 (TYP)
10	6'-3" (TYP)	
11	6'-3" (TYP)	



DETAIL A - SHELF BRACKET



ANCHORAGE DETAIL

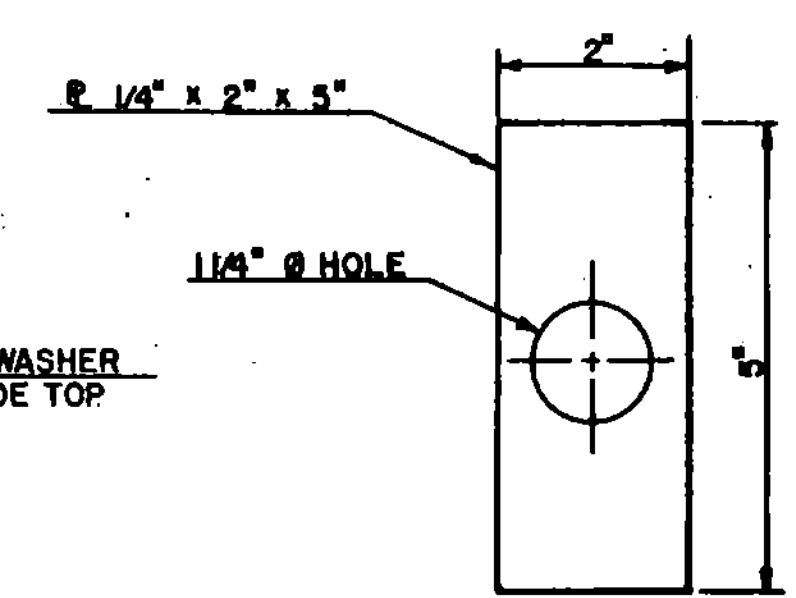


PLATE WASHER DETAIL

REVISIONS AND CORRECTIONS
REVISION DELINEATORS ADDED D.A.R. 6-18-82
REVISION, BOLTS THRU BOX BEAM RAIL R.S.H. 12-13-84
REVISION, CHANGED BOLT HOLE THROUGH SHELF BRACKET R.S.H. 12-13-84

APPROVED:
DECEMBER 28, 1981
DATE
Arthur J. Goss
CHIEF OF DESIGN
W. M. Smith
STRUCTURES ENGINEER
S. 10
DIRECTOR OF ENGINEERING AND CONSTRUCTION

BRIDGE RAILING HEAVY DUTY STEEL BEAM (TYPE A, TYPE B, TYPE C, AND TYPE D) **BRIDGE RAILING HEAVY DUTY STEEL BEAM** WITH BOX BEAM HAND RAIL (TYPE E)



STANDARD
SB-R6-82