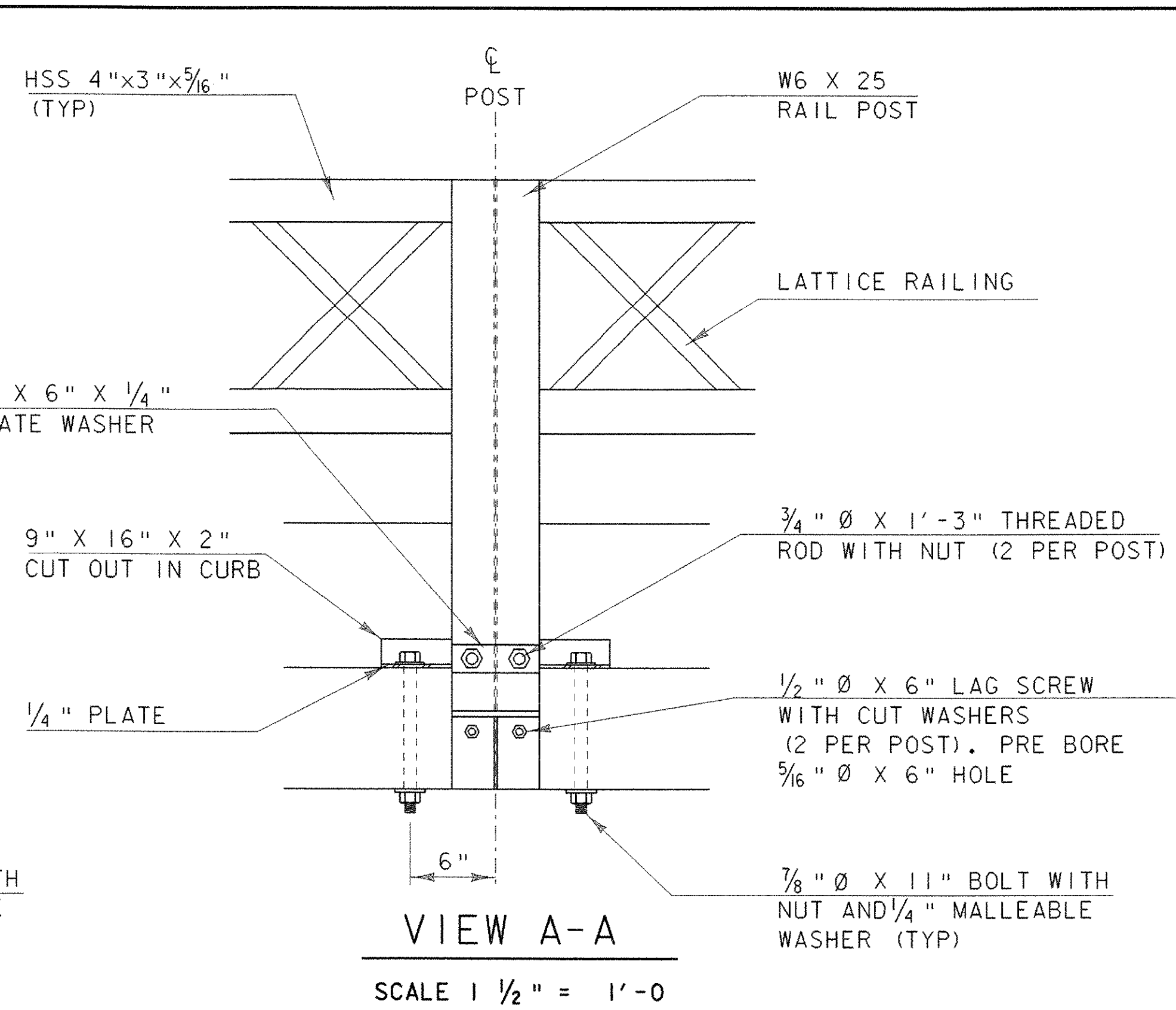
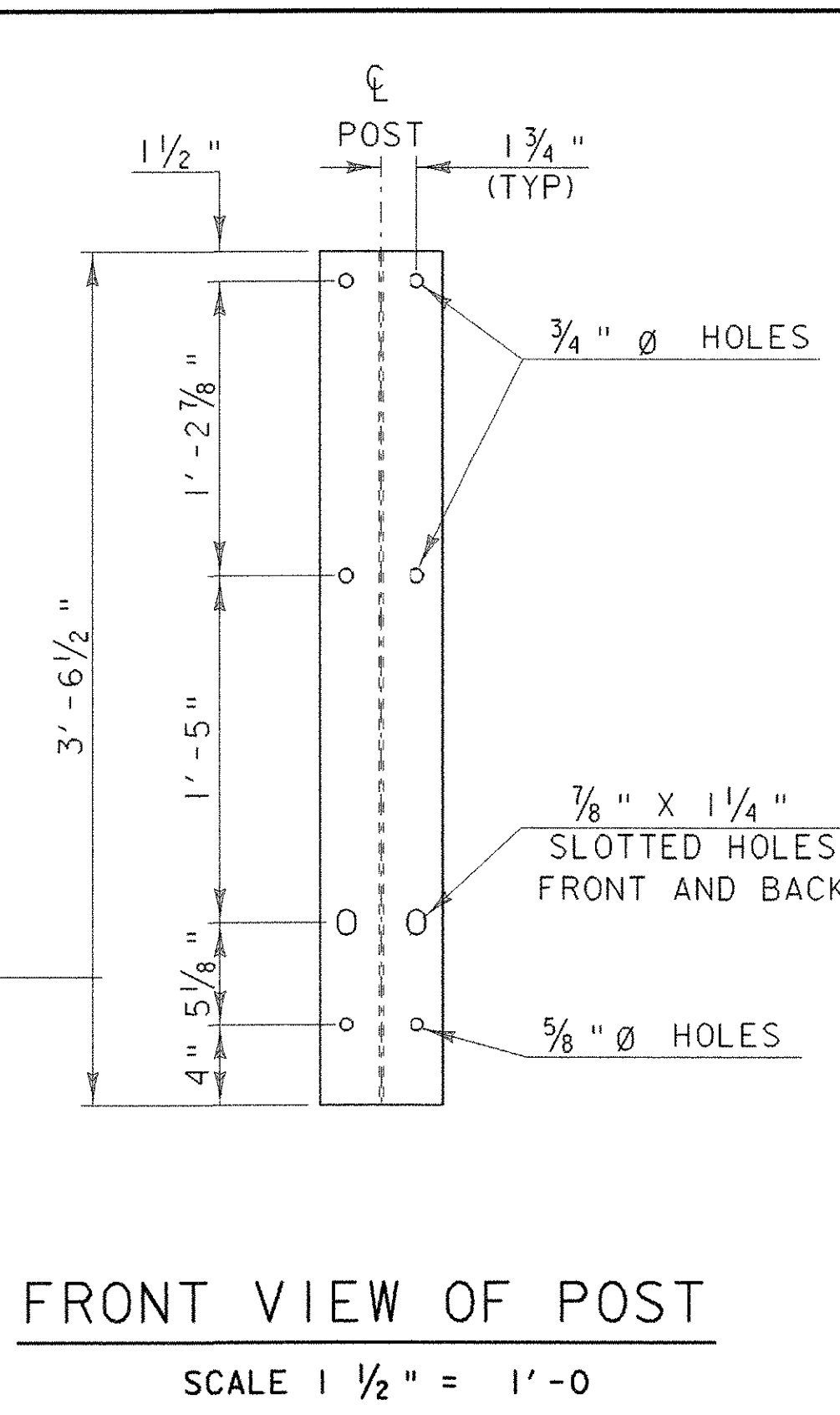


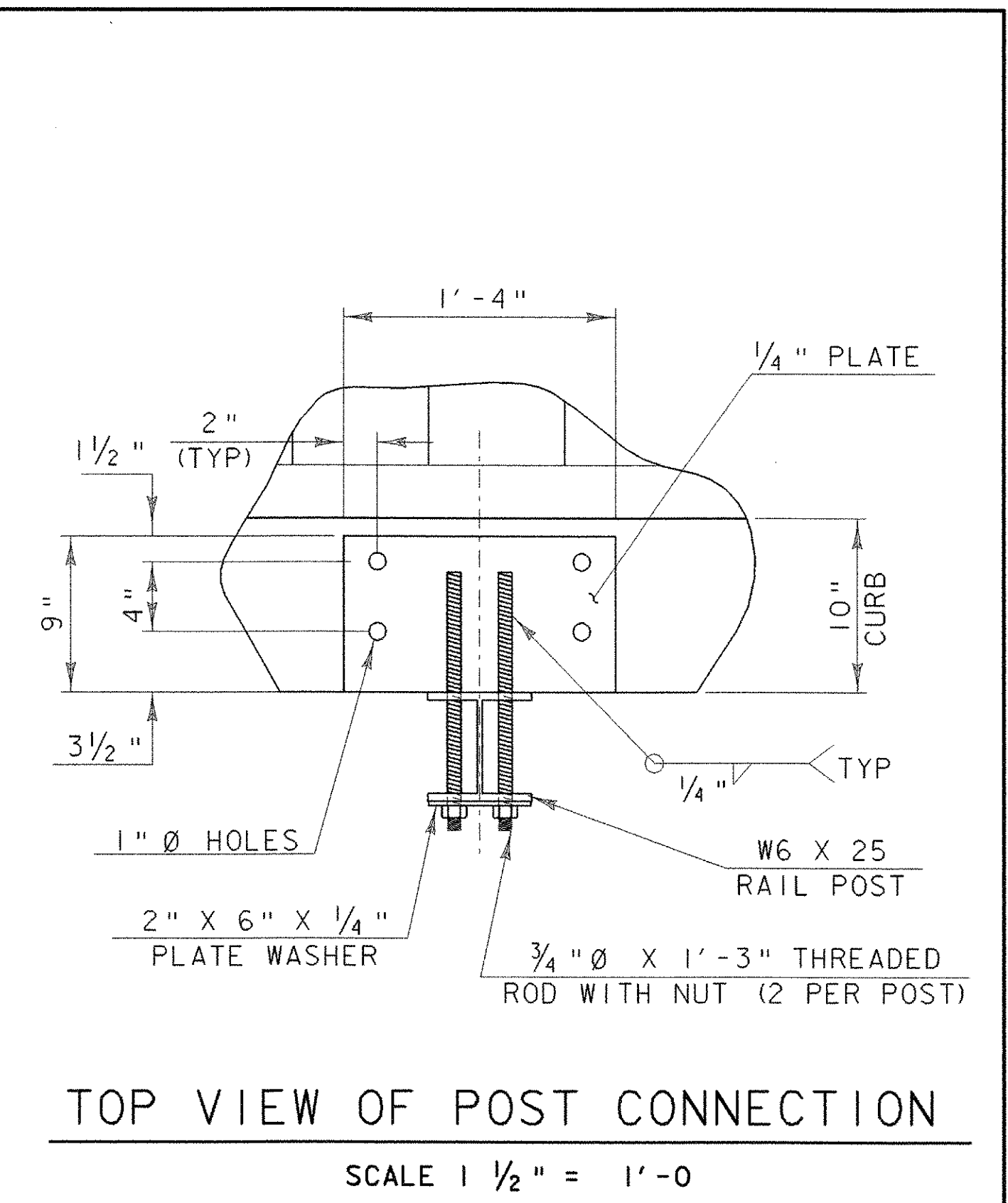
RAILING TYPICAL SECTION
SCALE 1 1/2" = 1'-0"



VIEW A-A
SCALE 1 1/2" = 1'-0"



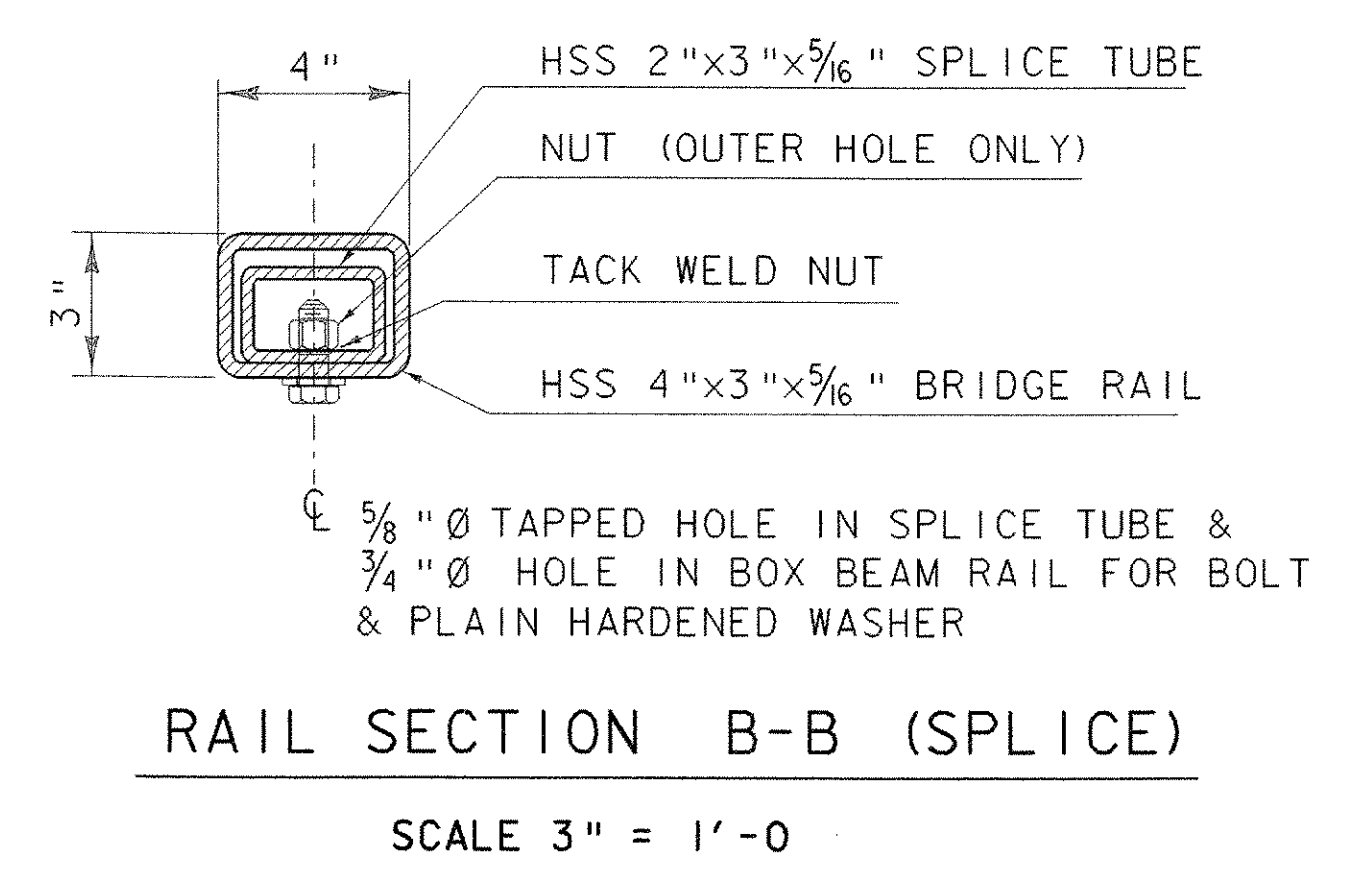
FRONT VIEW OF POST
SCALE 1 1/2" = 1'-0"



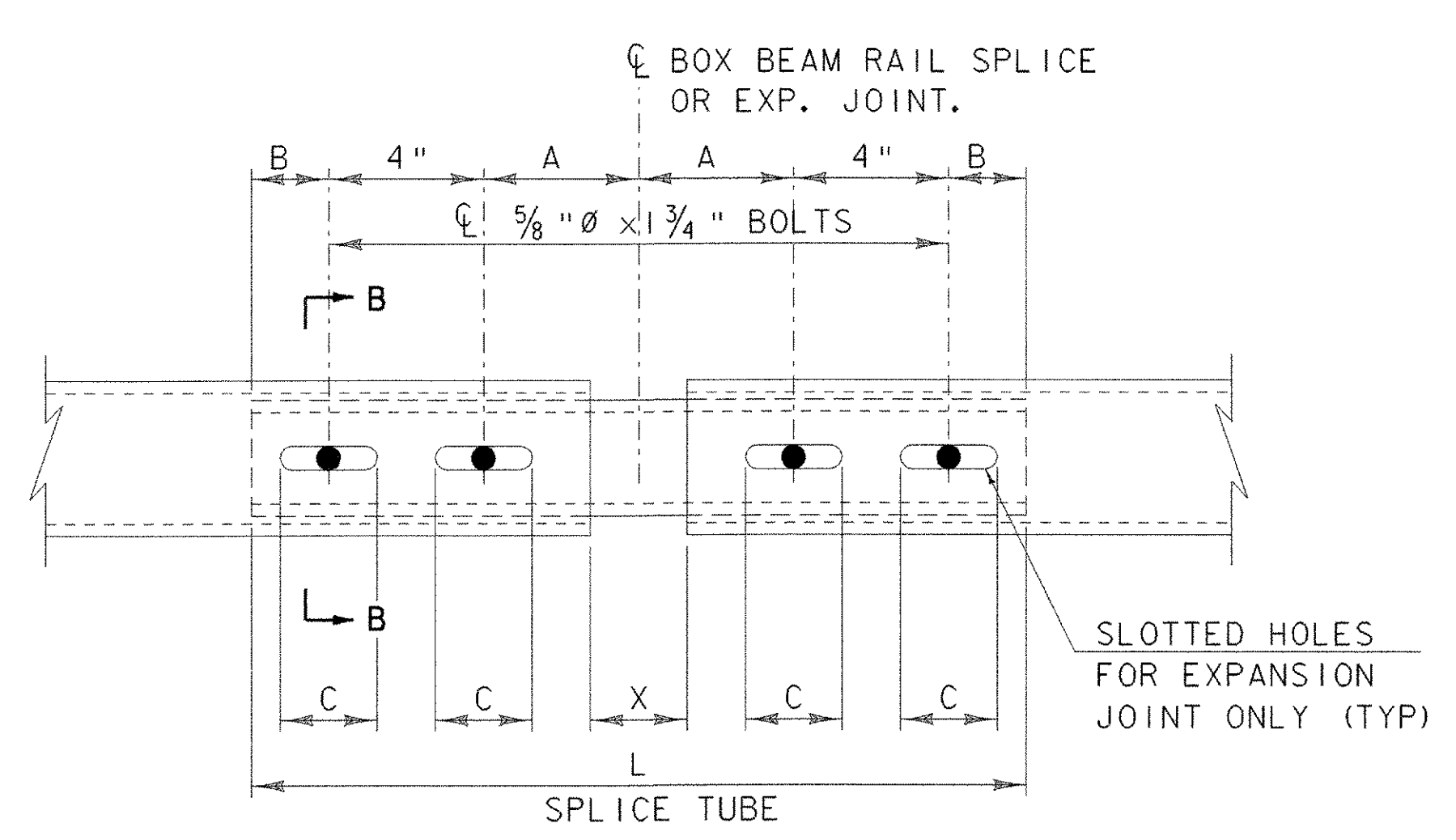
TOP VIEW OF POST CONNECTION
SCALE 1 1/2" = 1'-0"

RAILING NOTES :

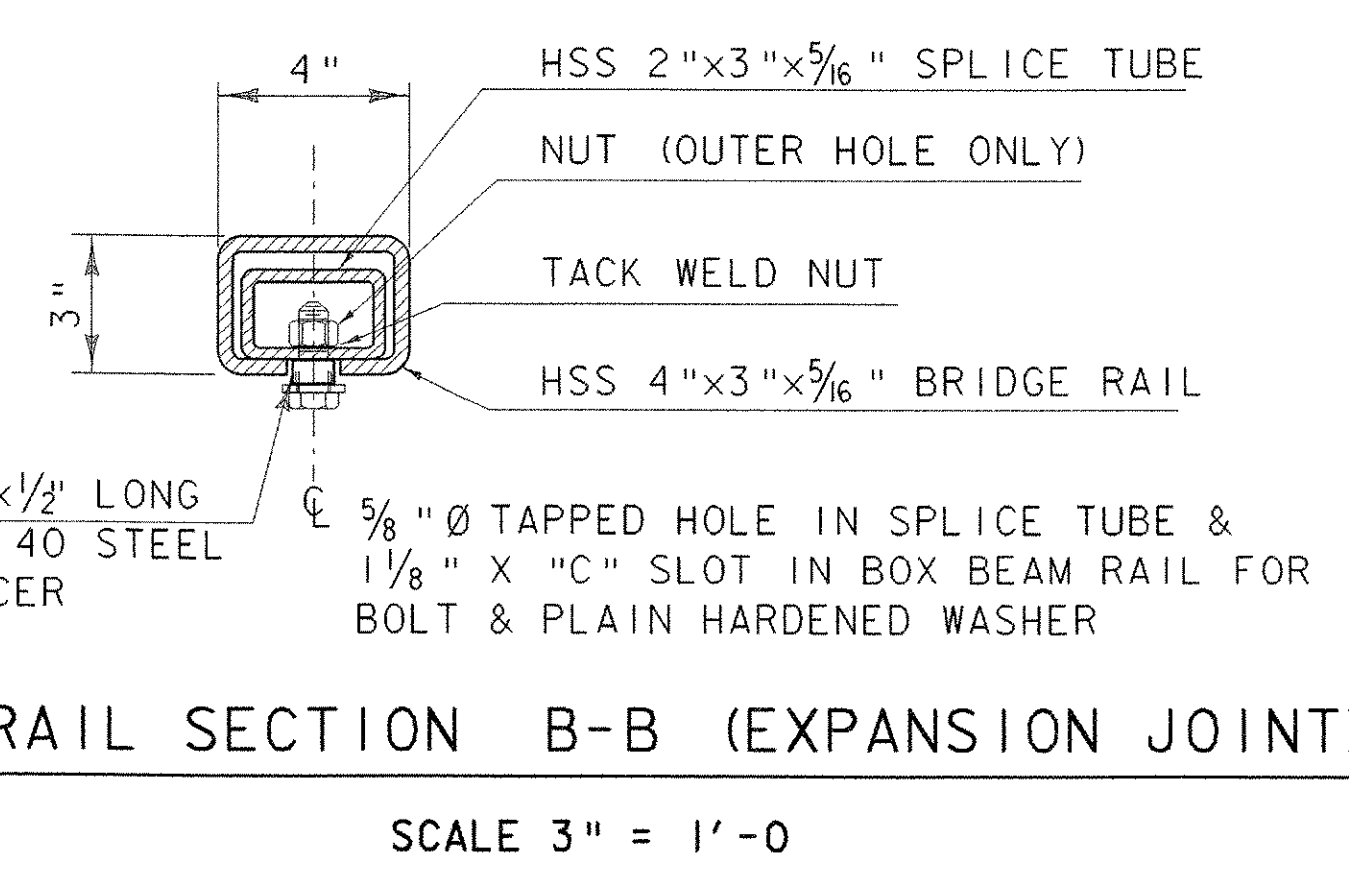
1. STEEL PLATES AND POSTS SHALL COMPLY WITH THE REQUIREMENTS OF ASTM A709, GRADE 50 STEEL. BOX BEAM RAIL SHALL BE ASTM A 500, GRADE B.
2. BOLTS AND LAG SCREWS SHALL COMPLY WITH THE REQUIREMENTS OF ASTM A307, EXCEPT FOR ROUND HEADED BOLTS IN RAILING SHALL BE 5/8" Ø ASTM A325. THREADED RODS SHALL BE ASTM A572, GRADE 50.
3. ALL HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232. BOX BEAM RAILING AND POSTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
4. HOLES IN RAILING MAY BE FIELD DRILLED.
5. NUTS FOR ASTM A307 AND A325 BOLTS SHALL COMPLY WITH ASTM A563.
6. BOX BEAM RAIL MAY ALTERNATIVELY BE ATTACHED USING 5/8" Ø AASHTO M164 (TYPE 1) OR 3/4" Ø ASTM F568, CLASS 4.6 ROUND HEAD BOLTS INSERTED THROUGH THE FACE OF THE RAIL. HOLES IN POSTS SHALL BE 1/16" LARGER THAN THE BOLT SIZE.
7. ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED TO A 1/16" RADIUS AND BE FREE OF BURRS.
8. RAIL POSTS SHALL BE NORMAL TO GRADE
9. BOX BEAM RAIL EXPANSION JOINTS SHALL BE PROVIDED OVER THE SUPERSTRUCTURE EXPANSION JOINT.
10. THE HOLLOW STRUCTURAL STEEL, POSTS, PLATES, RODS, LAG SCREWS, AND BOLTS, SHALL BE INCLUDED UNDER ITEM 525.31 "BRIDGE RAILING - GALVANIZED 2 RAIL BOX BEAM."
11. DRILLING AND TAPPING HOLES FOR LATTICE RAILING ATTACHMENT SHALL BE INCLUDED UNDER ITEM 525.31 "BRIDGE RAILING, GALVANIZED 2 RAIL BOX BEAM".
12. RAIL SPACING SHALL BE AS SHOWN ON SHEET 11



RAIL SECTION B-B (SPLICE)
SCALE 3" = 1'-0"



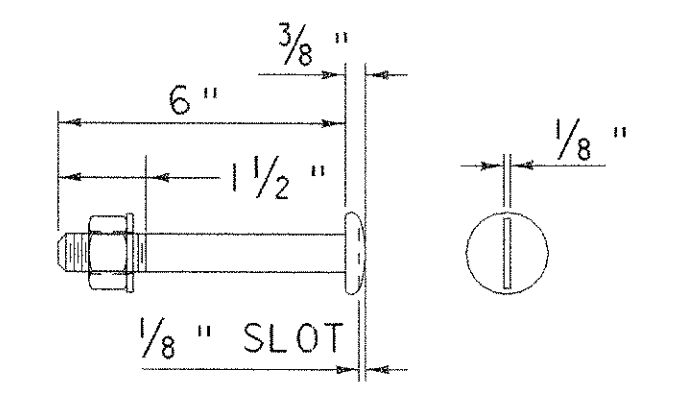
BOX BEAM RAIL SPLICE JOINT DETAIL
SCALE 3" = 1'-0"



RAIL SECTION B-B (EXPANSION JOINT)
SCALE 3" = 1'-0"

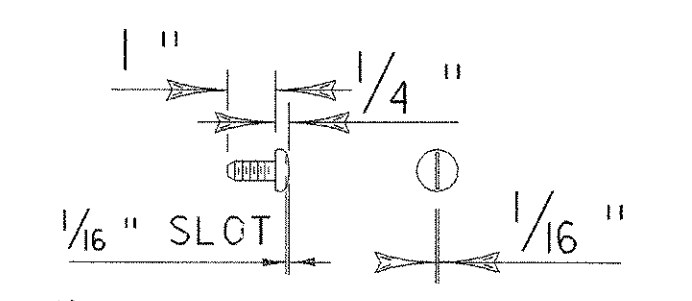
SPLICE & EXPANSION JOINT TABLE					
T	A	T	C	L	X
SPLICE	4"	2"	--	20"	3/4"
≤	4"	2"	2 1/2"	20"	2 1/2"

T = TOTAL REQUIRED MOVEMENT

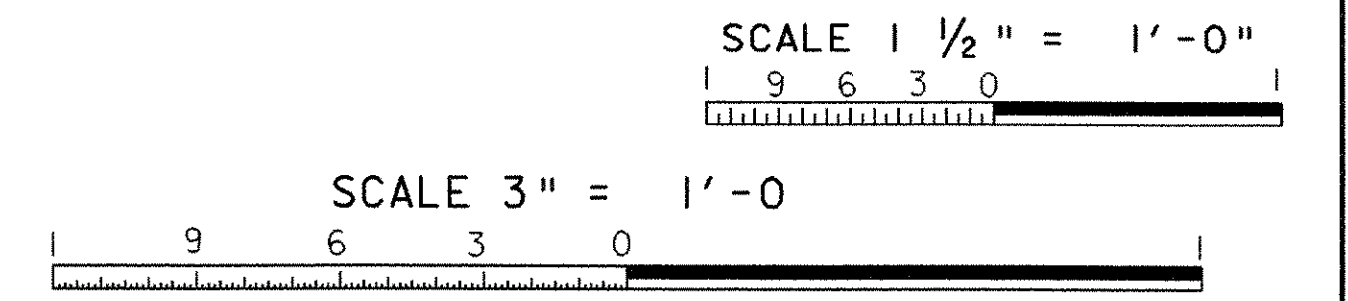


5/8" Ø M164 (TYPE 1) ROUND HEAD BOLT
SCALE 3" = 1'-0"

[WITH WASHER & LOCK NUT]
[SEE NOTE NO. 6]
NOTE: 3/4" Ø BOLT DETAIL SIMILAR TO 5/8" Ø BOLT.



3/8" Ø A307 (GRADE A) ROUND HEAD BOLT
SCALE 3" = 1'-0"



PROJECT: NEW HAVEN - WEYBRIDGE	PROJECT NO. : BHO-BTN 2005 (1)
DESIGN FILE NAME: 89j081/structures/sj081rail.dgn	PLOT DATE: 28-FEB-2007
IPARM FILE NAME: sj081rail.i	DRAWN BY: R.S. YOUNG
DESIGNED BY: R.S. YOUNG	CHECKED BY: R.S. YOUNG
SQUAD LEADER: C.P. WILLIAMS	SHEET: 28 OF 53
BRIDGE RAIL DETAILS	