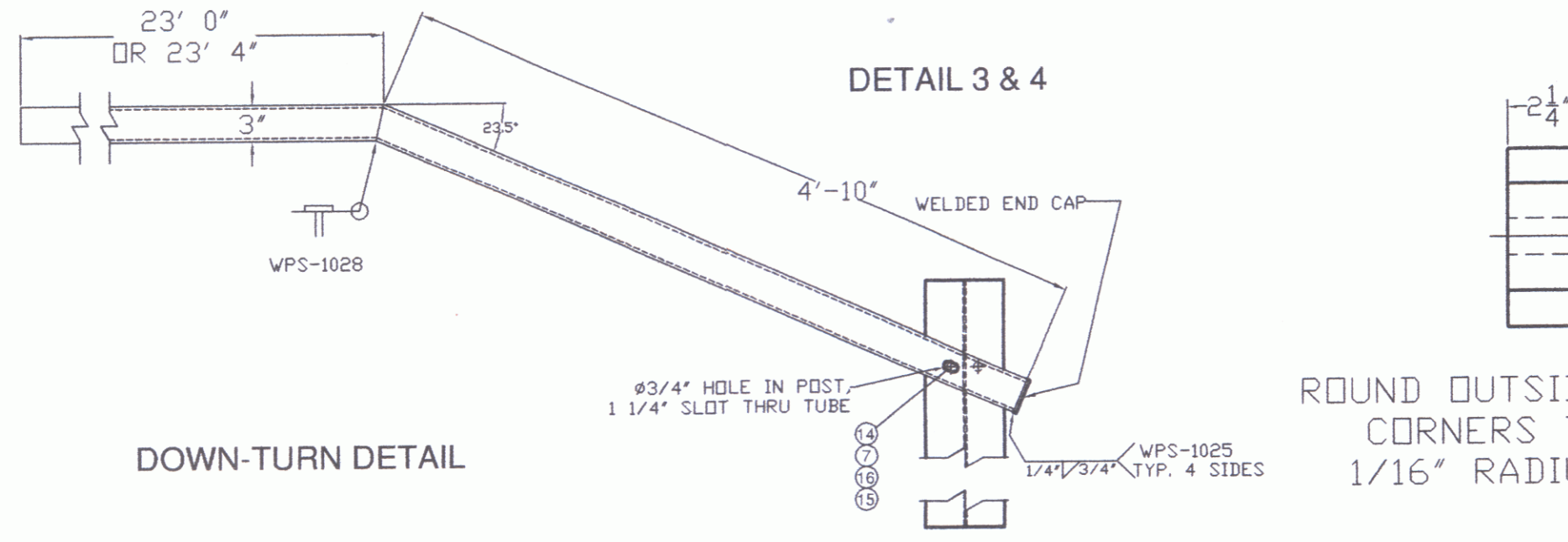
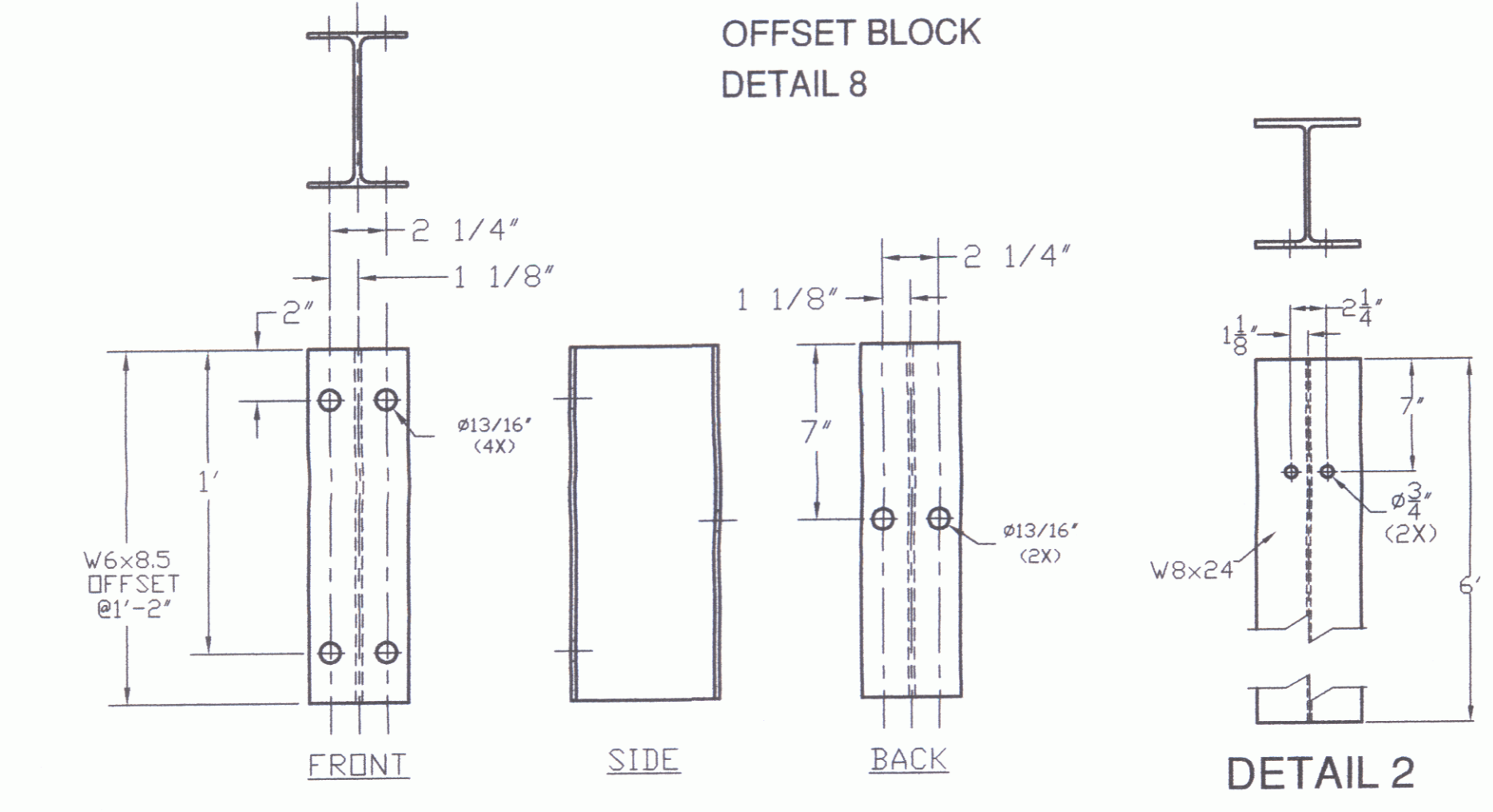
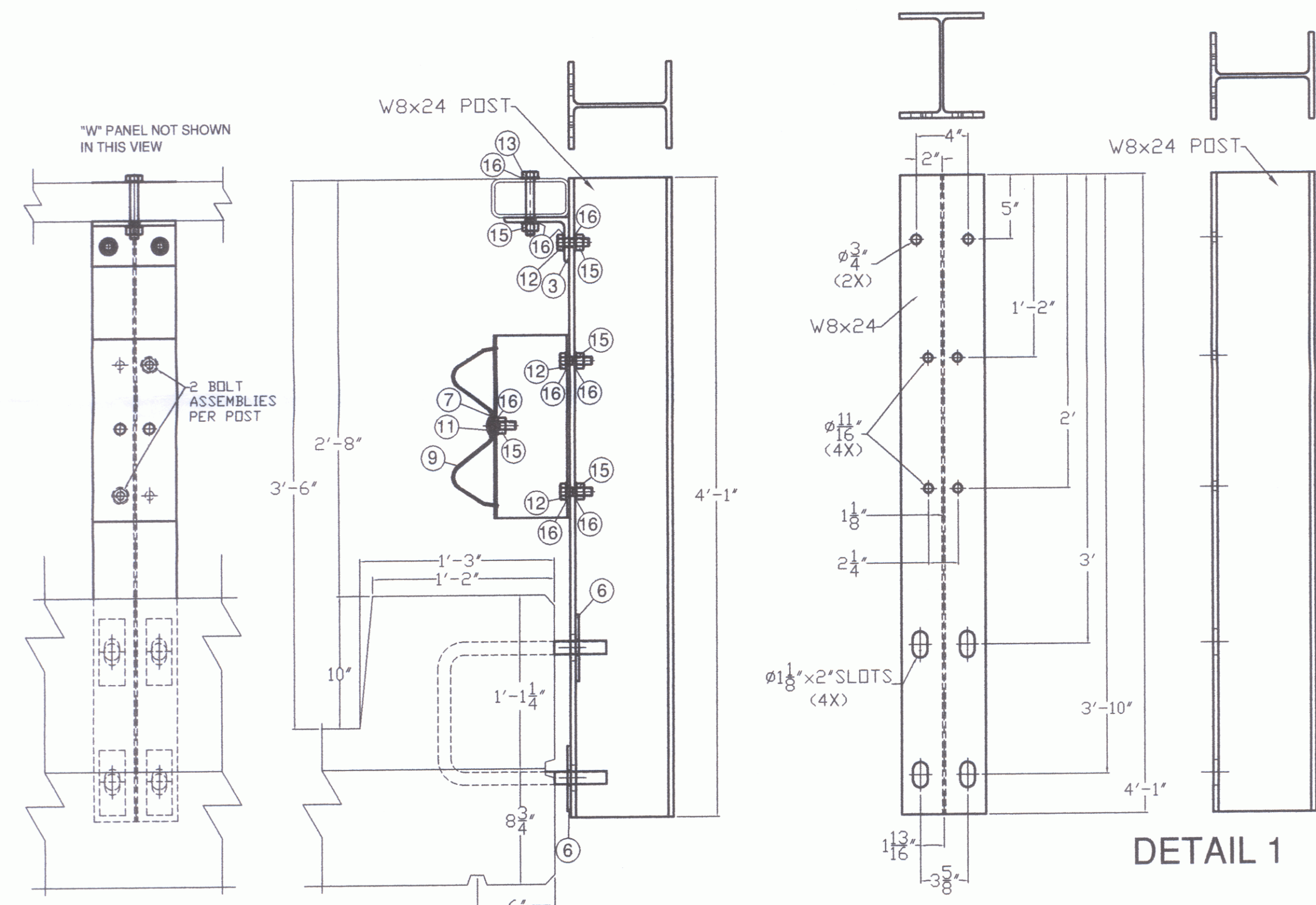
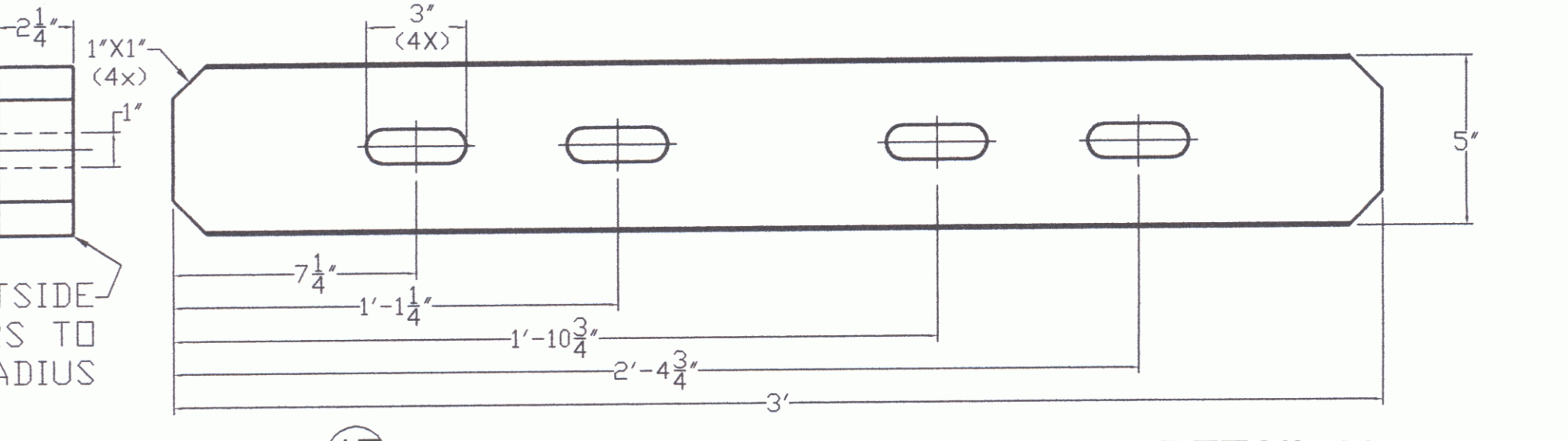


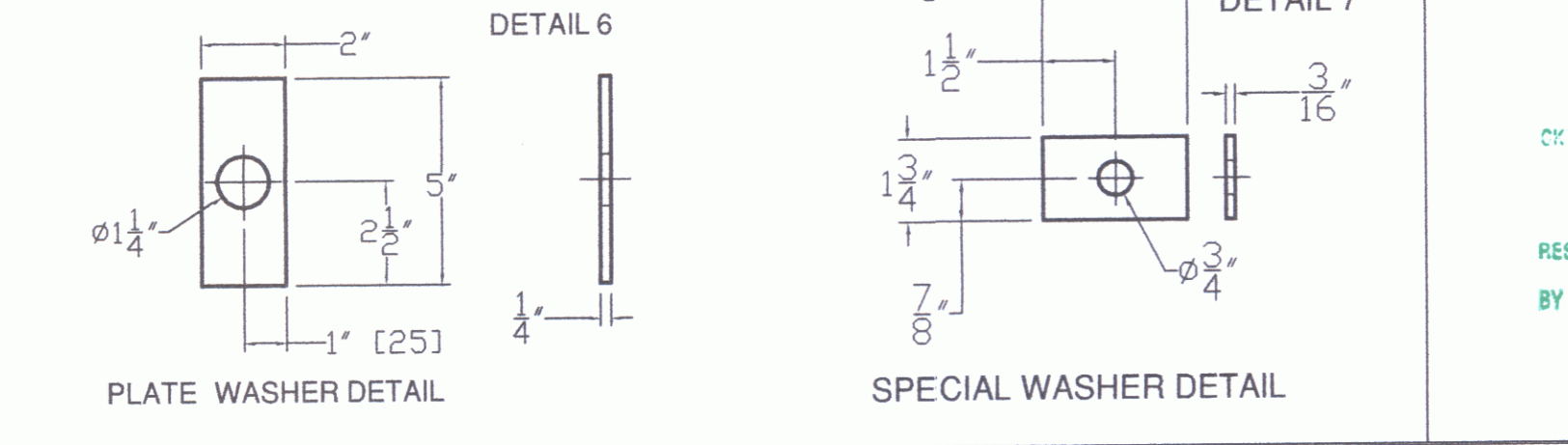
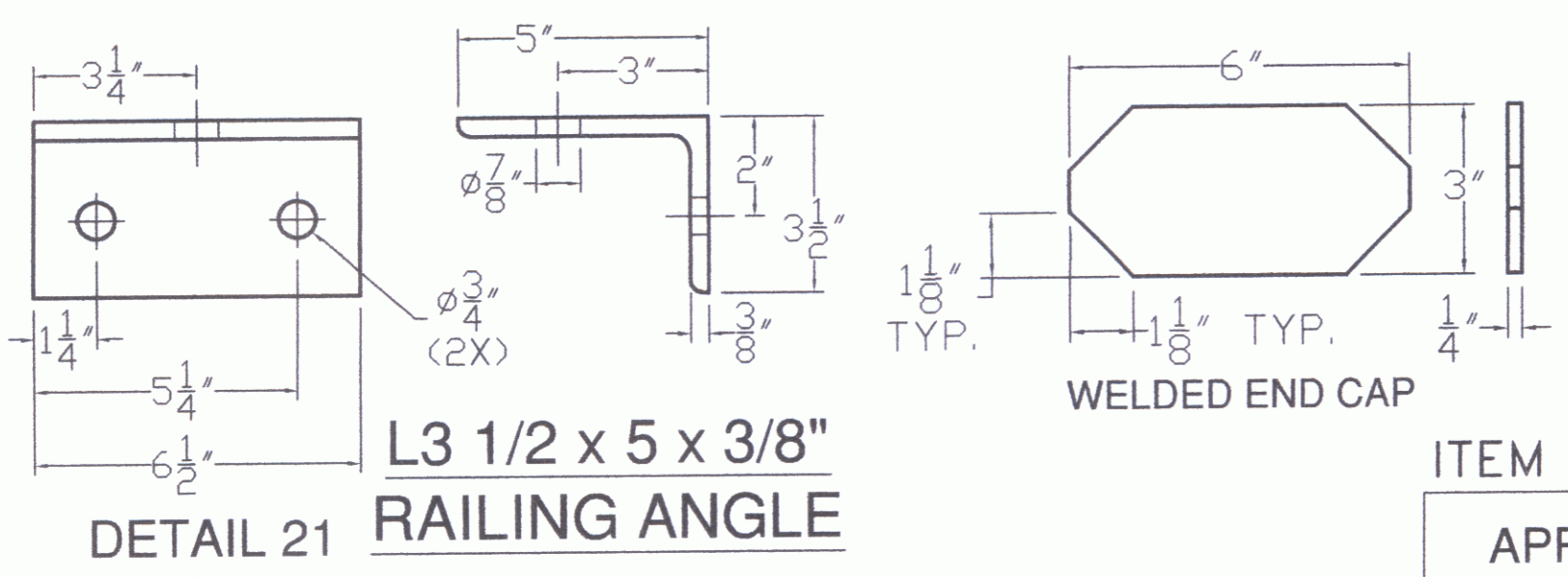
**NORTH RAILING FACING NORTH SHOWN
(SOUTH RAILING SIMILAR)**



- NOTES:
- RAILING IS DESIGNED IN ACCORDANCE WITH THE 1989 AASHTO SPECIFICATIONS.
 - ALL PLATES, BARS, AND ANGLES SHALL BE ASTM A 36 STEEL. UNLESS OTHERWISE SPECIFIED, ALL BOLTS SHALL BE ASTM A 307. STRUCTURAL STEEL TUBING SHALL BE ASTM A 500 COLD-FORMED GRADE B AS MODIFIED IN SECTION 732.03 (a).
 - ALL BOX BEAM BRIDGE RAILING, COMPONENTS, ANCHOR BOLTS AND ATTACHMENT HARDWARE SHALL BE GALVANIZED TO ASTM A123 AFTER FABRICATION.
 - THE FABRICATOR SHALL SUBMIT SHOP DRAWINGS, INCLUDING WELDING PROCEDURES, TO THE STRUCTURES DIVISION FOR APPROVAL IN ACCORDANCE WITH THE PROVISIONS OF SECTION 506.04 - SHOP DRAWINGS. ALL WELDING SHALL CONFORM WITH SECTION 506.10.
 - THE RAIL SYSTEM SHALL BE CONTINUOUS WITH EACH TUBE SECTION ATTACHED TO A MINIMUM OF TWO POST. ALL JOINTS SHALL BE SPLICED AS DETAILED, WITH ALL SPLICE CONNECTIONS IN THE SAME PANEL, LOCATED ONE DIRECTLY ABOVE THE OTHER.
 - RAILING JOINT SPLICES SHALL BE PROVIDED FOR ALL SUPERSTRUCTURE JOINTS. THE RAIL JOINT OPENING SHALL BE 1 INCH OR CAPABLE OF PROVIDING THE MOVEMENT SPECIFIED. SPLICE PLATE DETAILS SHALL BE MODIFIED AS REQUIRED FOR JOINTS REQUIRING MORE THAN 2 INCHES OF TOTAL MOVEMENT.
 - ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED AND CONFORM TO SECTION 714.07.
 - BOLTS SHALL BE ASTM A307. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION TO AASHTO M111 OR M232 (HARDWARE)
 - ALL POST SHALL BE SET NORMAL TO GRADE.
 - BRIDGE APPROACH RAIL HEIGHT SHALL BE TRANSITIONED TO NORMAL ROADWAY HEIGHT IN 25 FEET.
 - SPLICES SHALL LAP IN THE DIRECTION OF TRAFFIC FLOW.
 - THE DROP-WEIGHT TEAR TEST IN SECTION 732 SHALL NOT APPLY TO THE STRUCTURAL TUBING ON THIS STANDARD.
 - PRIOR TO GALVANIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ETC., SHALL BE GROUND TO A 1/16" RADIUS.



BILL OF MATERIALS			
DET. #	QTY	DESCRIPTION	MATERIAL
1	22	W8x24 FASCIA POST @ 4'-1"	ASTM A36
2	4	W8x24 POST @ 6'-0"	ASTM A36
3	2	6"x3"x1/4" END SECTION @ 23' 0" W/ WELDED END CAP	ASTM A500 Gr B
4	2	6"x3"x1/4" END SECTION @ 23' 4" W/ WELDED END CAP	ASTM A500 Gr B
5	2	6"x3"x1/4" RAIL @ 17' 0"	ASTM A500 Gr B
6	88	1/4"x2" PLATE WASHER @ 5"	ASTM A36
7	26	1/4"x1-3/4" SPECIAL WASHER @ 3"	ASTM A36
8	22	W6x8.5 OFFSET BLOCK @ 14"	ASTM A36
9	12	10 GAUGE "W" BEAM @ 12' 6"	ASTM A36
10	96	5/8"x1-1/4" SPLICE BOLT / RECESSED NUT (PANEL ASS'Y)	ASTM A307
11	22	5/8"x2" SPLICE BOLT / RECESSED NUT (PANEL POST BOLT)	ASTM A307
12	66	5/8"x2" HEX BOLT	ASTM A307
13	22	5/8"x4-1/2" HEX BOLT	ASTM A307
14	4	5/8"x10" HEX BOLT	ASTM A307
15	114	5/8" HEX NUT	ASTM A307
16	202	5/8" FLAT WASHER	ASTM A307
17	16	3/4"x4" HEX BOLT	ASTM A325
18	16	3/4" HEAVY HEX NUT	ASTM A563
19	32	3/4" FLAT WASHER	ASTM F436
20	4	2 1/4"x5"x3/16" EXP. SPLICE BAR	ASTM A36 OR ASTM A572
21	22	3/8"x3-1/2"x5" SHELF BRACKET @ 6-1/2"	ASTM A36
22	44	U BOLTS, NUTS, F.W. - SUPPLIED BY OTHERS	ASTM A449 OR AASHTO M164
23	6	DELINEATOR'S	ALUMINUM



ITEM #: 525.43-BRIDGE RAIL, GALV. HDSB-150 LF GEN CONTR: F R LaFayette SHEET 1 OF 1

APPROVED BY:

RECEIVED
11/27 2 4 2009
RESUBMITTED BY APPROVED BY
DATE 12/10/09

BRIDGE RAIL DETAILS SHEET
CLARENDON, PROJECT # BHO 1443 (39), BRIDGE #15, HWY #3
TOWN OF CLARENDON, RUTLAND COUNTY, STATE OF VERMONT

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
1	11/13/09	CHANGES PER MARTHA EVANS-MONGEON	E.P.				

ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14518
E-Mail: dlong@elderlee.com
Tel: 315-789-6670 Fax: 315-789-6615

DRAWN	E.P.	DATE
9/28/09		

CHECKED	D.L.	DATE
9/28/09		

SCALE: SCHEMATIC
DRAWING NO. EM09-171