

ZONE	LTR	REVISION	BY	DATE	APP	DATE
-	A	REVISED AS PER MARK UP	BNM	5/27/98		

FIND NO.	PART NUMBER	DESCRIPTION	QTY	MATERIAL SIZE	MATERIAL	SPECIFICATION/MPN	CALC. WT. (LBS)	SHEET
71	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
70	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
69	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
68	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
67	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
66	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
65	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
64	-	NUT	90	3/4"-10UNC	STEEL	A325 GALVANIZED	-	-
63	-	JAM NUT	90	3/4"-10UNC	STEEL	A325 GALVANIZED	-	-
62	-	WASHER	-	1/2"	-	-	-	4
61	-	'A' BOLT	-	1/2"-13 x 1"	-	-	-	4
60	-	'B' BOLT	-	1/2"-13 x 7/8"	-	-	-	4
59	-	BARRIER SPLICE (BENT)	2	3'-0"	ALUMINUM	6061-T6	-	-
58	-	BARRIER SPLICE (BENT)	2	3'-0"	ALUMINUM	6061-T6	-	-
57	-	HAND SPLICE (BENT)	2	2'-0"	ALUMINUM	6061-T6	-	-
56	-	BARRIER SPLICE (BENT)	2	3'-0"	ALUMINUM	6061-T6	-	-
55	-	BARRIER SPLICE (BENT)	2	3'-0"	ALUMINUM	6061-T6	-	-
54	-	HAND SPLICE (BENT)	2	2'-0"	ALUMINUM	6061-T6	-	-
53	-	BARRIER SPLICE	8	3'-0"	ALUMINUM	6061-T6	-	-
52	-	HAND SPLICE	4	2'-0"	ALUMINUM	6061-T6	-	-
51	-	BARRIER RAIL*	1	25'-4 25/32"	ALUMINUM	6061-T6	-	-
50	-	BARRIER RAIL*	1	25'-4 31/32"	ALUMINUM	6061-T6	-	-
49	-	HAND RAIL*	1	11'-10 25/32"	ALUMINUM	6061-T6	-	-
48	-	BARRIER RAIL*	1	25'-2 21/32"	ALUMINUM	6061-T6	-	-
47	-	BARRIER RAIL*	2	25'-2 29/32"	ALUMINUM	6061-T6	-	-
46	-	BARRIER RAIL*	1	25'-2 27/32"	ALUMINUM	6061-T6	-	-
45	-	BARRIER RAIL*	2	25'-3 3/32"	ALUMINUM	6061-T6	-	-
44	-	BARRIER RAIL	12	21'-0"	ALUMINUM	6061-T6	-	-
43	-	HAND RAIL	2	11'-7 21/32"	ALUMINUM	6061-T6	-	-
42	-	HAND RAIL*	1	11'-8 27/32"	ALUMINUM	6061-T6	-	-
41	-	HAND RAIL	6	21'-0"	ALUMINUM	6061-T6	-	-
40	-	BALUSTER	88	1 1/2" O.D. x 3'-1 1/2"	ALUMINUM	6061-T6	-	-
39	-	BALUSTER BOTTOM PANEL	8	6'-6 15/16"	ALUMINIUM	6061-T6	-	-
38	-	SPRING PIN	8	1/4" DIA. x 3/4"	STAINLESS	18-8	-	-
37	-	BALUSTER TOP PANEL	8	6'-6 15/16"	ALUMINUM	6061-T6	-	-
36	-	REFLECTOR	5	5" x 3" x 2 3/4"	ALUMINUM	6061-T6	-	4
35	-	ANCHOR STUD	90	3/4"-10UNC x 10"	STEEL	A325 GALVANIZED	-	3
34	-	WASHER	90	3/4"	STEEL	GALVANIZED	-	3
33	-	HEAVY HEX NUT	90	3/4"-10UNC	STEEL	A325 GALVANIZED	-	3
32	-	BARRIER RAIL END CAP	8	-	ALUMINUM	6061-T6	-	3
31	-	HAND RAIL END CAP	4	-	ALUMINUM	6061-T6	-	3
30	-	ANCHOR PLATE	18	10 1/8" x 8 5/8" x 1/8"	-	-	-	3
29	-	POST PAD	18	10 3/4" x 10 3/4" x 1/8"	RUBBER	-	-	3
28	-	# CLAMP BAR	68	1 13/32" x 7 1/8"	ALUMINUM	6061-T6	-	3
27	-	# CLAMP BAR	184	1 21/32" x 7 1/8"	ALUMINUM	6061-T6	-	3
26	-	POST BASE	18	-	ALUMINUM	6061-T6	-	3
25	-	'B' POST ASSEMBLY	9	-	ALUMINUM	6061-T6	-	4
24	-	'A' POST ASSEMBLY	9	-	ALUMINUM	6061-T6	-	4
23	-	POST STEM	18	7 1/4" x 3'-5 3/16"	ALUMINUM	6061-T6	-	3
22	-	BRIDGE OFFSET BLOCK	9	7 1/4" x 2'-11"	ALUMINUM	6061-T6	-	3
21	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
20	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
19	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
18	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
17	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
16	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
15	-	APPROACH OFFSET BLOCK	2	-	ALUMINUM	6061-T6	-	5
14	-	APPROACH POST #14	2	7 1/4" x 6'-0"	ALUMINUM	6061-T6	-	5
13	-	APPROACH POST #13	2	7 1/4" x 6'-0"	ALUMINUM	6061-T6	-	5
12	-	APPROACH POST #12	2	7 1/4" x 6'-0"	ALUMINUM	6061-T6	-	5
11	-	APPROACH POST #11	2	7 1/4" x 6'-6"	ALUMINUM	6061-T6	-	5
10	-	APPROACH POST #10	2	7 1/4" x 6'-6"	ALUMINUM	6061-T6	-	5
9	-	APPROACH POST #9	2	7 1/4" x 6'-6"	ALUMINUM	6061-T6	-	5
8	-	APPROACH POST #8	2	7 1/4" x 6'-6"	ALUMINUM	6061-T6	-	5
7	-	APPROACH POST #7	2	7 1/4" x 6'-0"	ALUMINUM	6061-T6	-	5
6	-	APPROACH POST #6	2	7 1/4" x 6'-0"	ALUMINUM	6061-T6	-	5
5	-	APPROACH POST #5	2	7 1/4" x 6'-0"	ALUMINUM	6061-T6	-	5
4	-	APPROACH POST #4	2	7 1/4" x 6'-6"	ALUMINUM	6061-T6	-	5
3	-	APPROACH POST #3	2	7 1/4" x 6'-6"	ALUMINUM	6061-T6	-	5
2	-	APPROACH POST #2	2	7 1/4" x 6'-6"	ALUMINUM	6061-T6	-	5
1	-	APPROACH POST #1	2	7 1/4" x 6'-6"	ALUMINUM	6061-T6	-	5

FIND NO.	PART NUMBER	DESCRIPTION	QTY	MATERIAL SIZE	MATERIAL	SPECIFICATION/MPN	CALC. WT. (LBS)	SHEET
36	-	REFLECTOR	5	5" x 3" x 2 3/4"	ALUMINUM	6061-T6	-	4

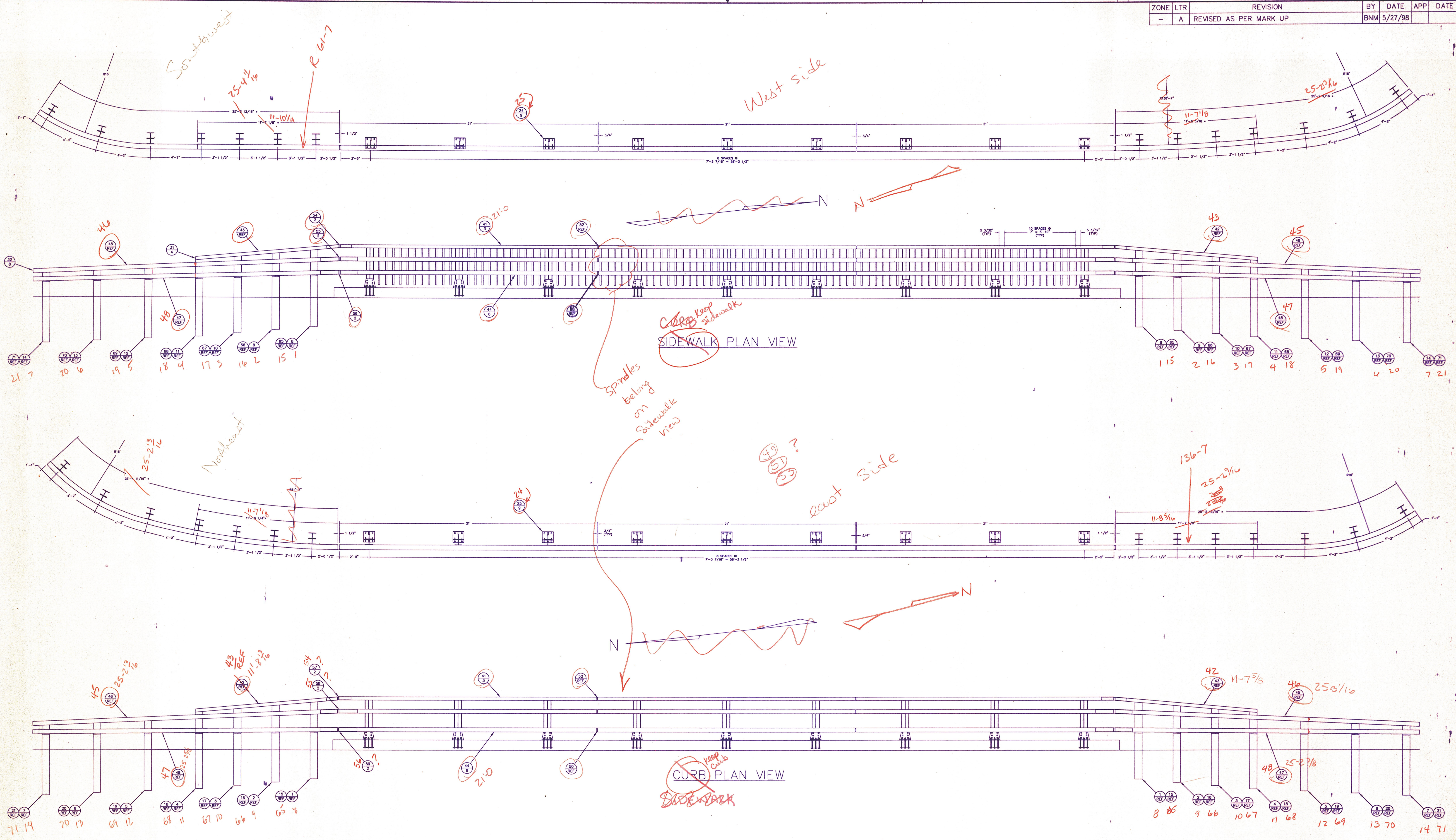
GENERAL NOTES:	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:
1. REMOVE BURRS AND BREAK SHARP EDGES ON FABRICATED PARTS.	FRACTION ±1/16"
2. TOLERANCES ON DIMENSIONS LOCATING BOLT HOLES AND FINISHED SURFACES SHALL NOT BE CUMULATIVE.	DECIMAL .X = ± .1 .XX = ± .06 .XXX = ± .010
3. STRAIGHTNESS, FLATNESS, SURFACE FINISH, CONDITION, ETC. OF FABRICATED PARTS SHALL BE MILL OR SHOP STANDARD UNLESS OTHERWISE INDICATED.	ANGLE ±1/2"
4. DETAILS WHICH INDICATE PERPENDICULARITY OF FABRICATED PARTS (WELDED PIECES, HOLES, CUTOFFS, ETC.) WITHOUT SPECIFICITY ARE TO BE INTERPRETED AS 90°±1/2°.	
5. ALUMINUM ASSOCIATION STANDARDS ARE APPLICABLE UNLESS OTHERWISE SPECIFIED.	

PROJECT	BRIDGE NUMBER	JOB NUMBER
MONTGOMERY	15	97291
LOCATION	PROJECT NUMBER	PREPARED
VT 118 OVER THE TROUT RIVER	MVT-037	BRIAN MANN
CUSTOMER	CONTRACT NUMBER	CHECKED
VERMONT A.O.T.	-	
	TOTAL WEIGHT	ENGINEER
	-	
		CUSTOMER

TITLE		SIZE	CAGE	DRAWING NO.	REV
VT 118 MONTGOMERY		D	3P323	VTBR97291	A
SCALE		SHEET		1 OF 7	
N/A					

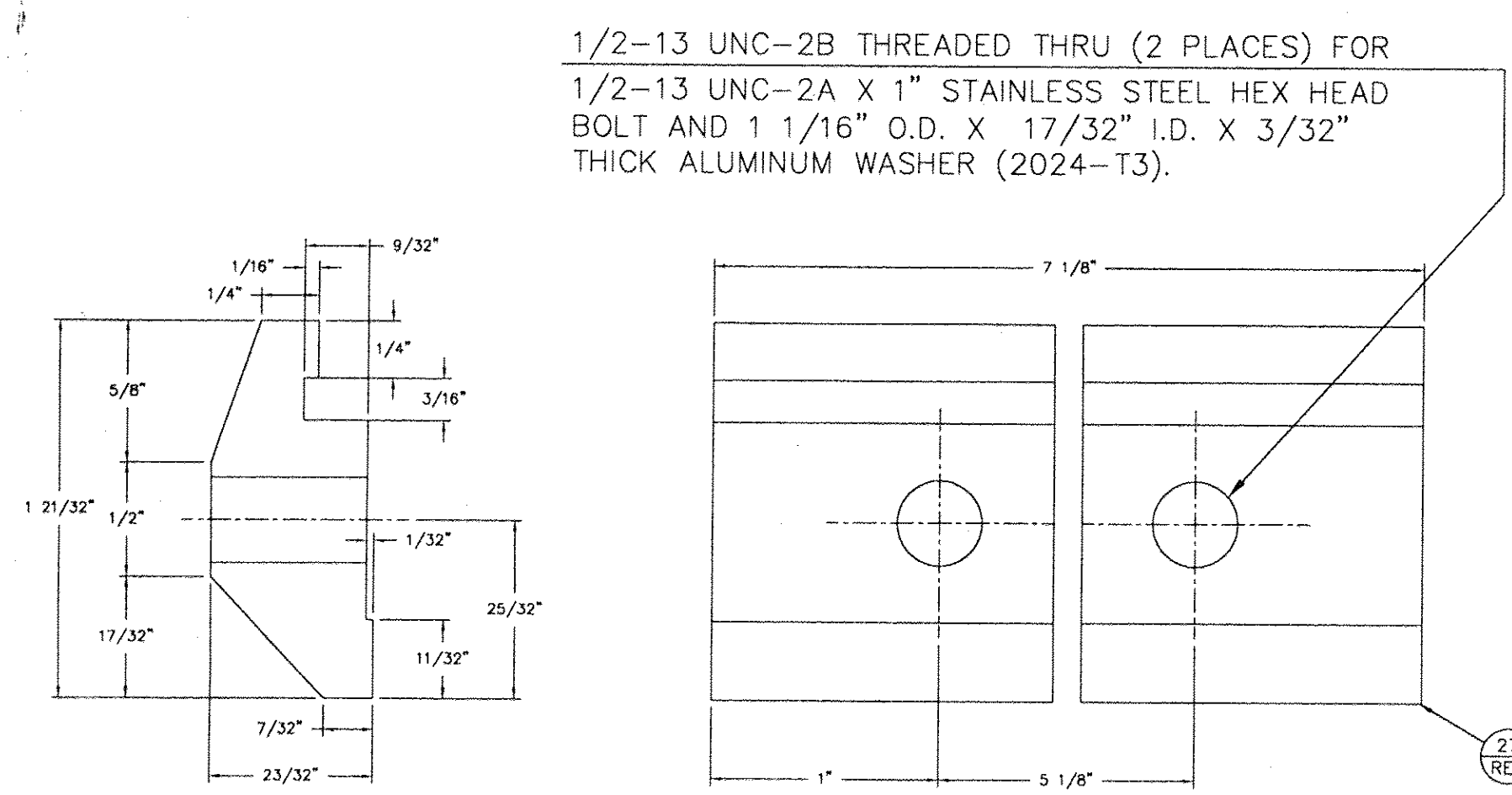
Ward Weller Co.
17 BRENT DRIVE, HUDSON, MA 01749
(508)562-3444 FAX (508)562-9717

BRIDGE PAIR

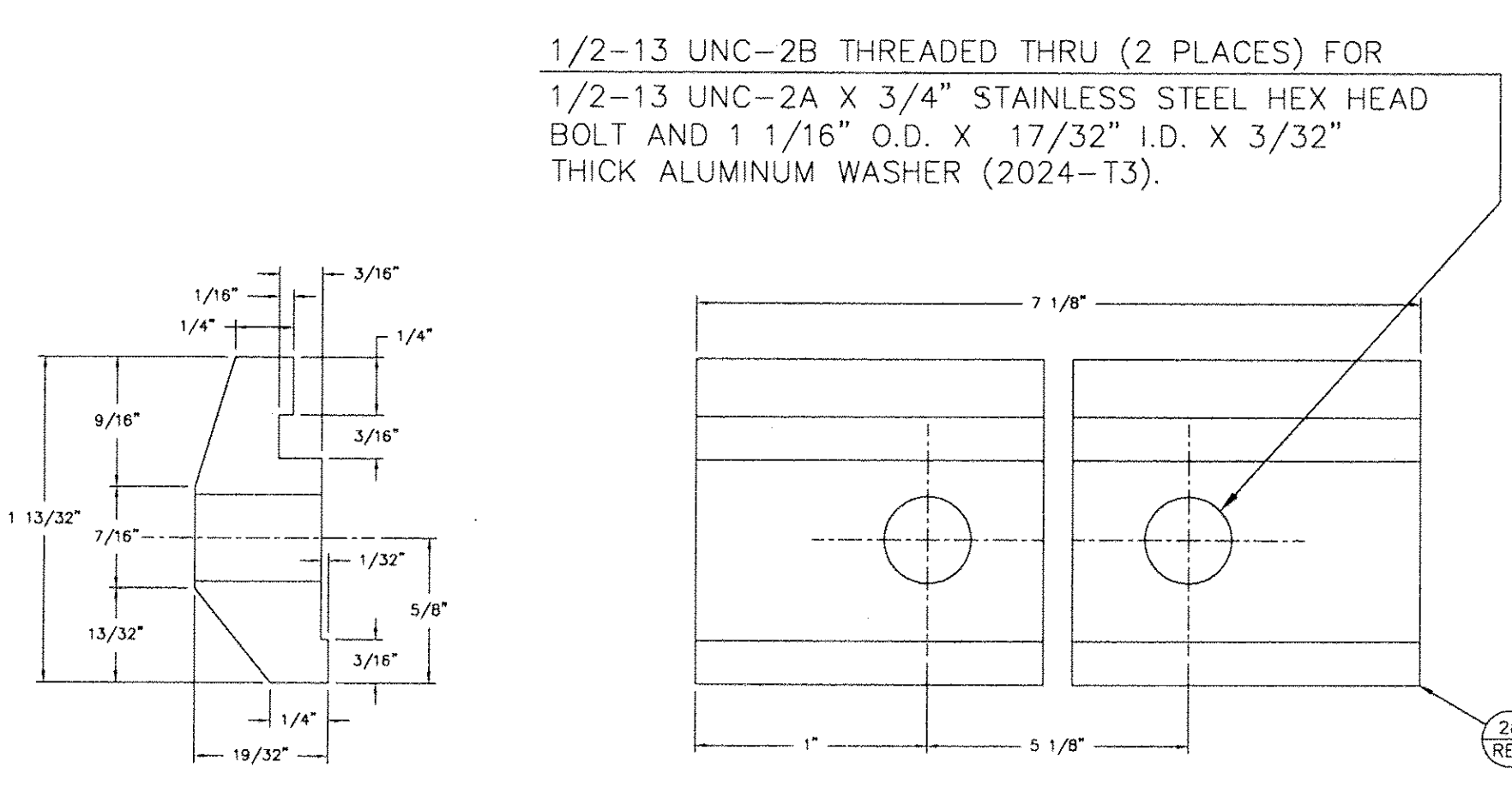


NOTES
 1. * INDICATES RAIL IS MEASURED ALONG FACE OF RAIL

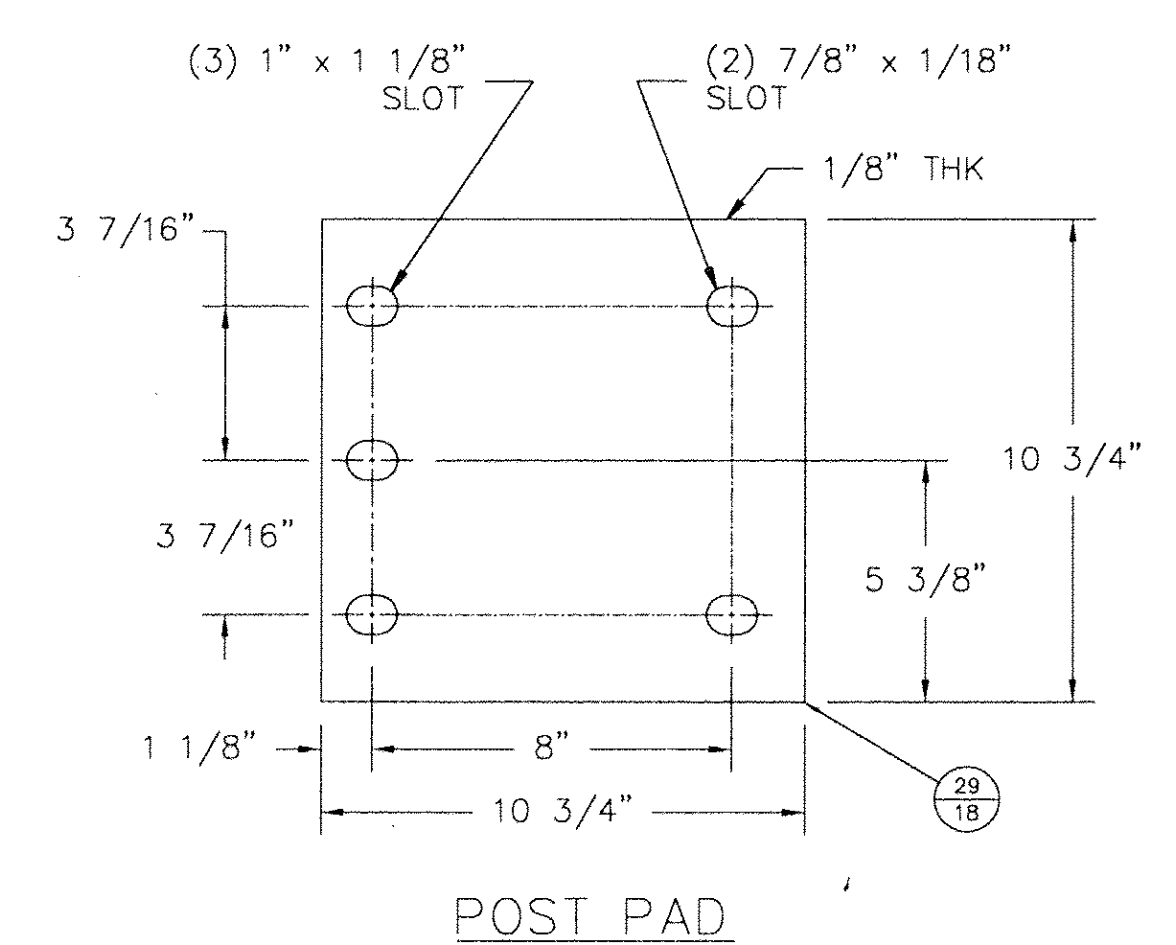
SIZE	CAGE	DRAWING NO.	REV
D	3P323	VTBR97291	A
SCALE	N/A	CALC WT	- LBS. SHEET 2 OF 7



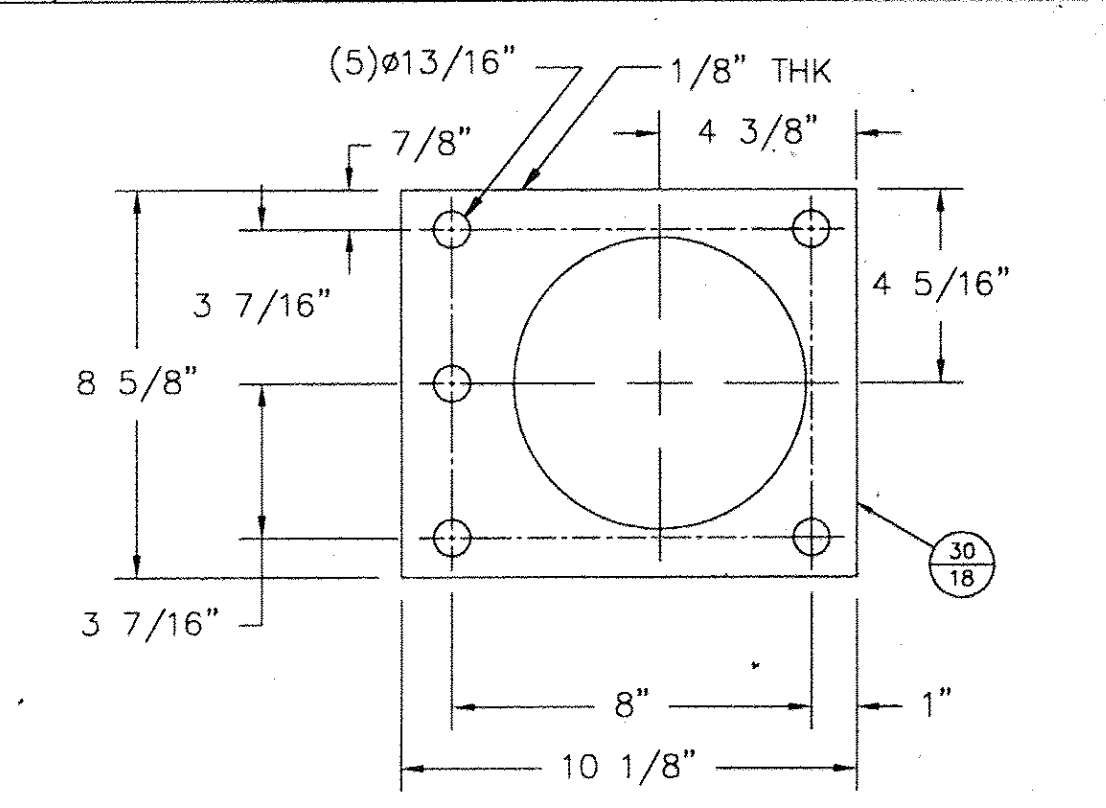
BARRIER RAIL CLAMP BAR



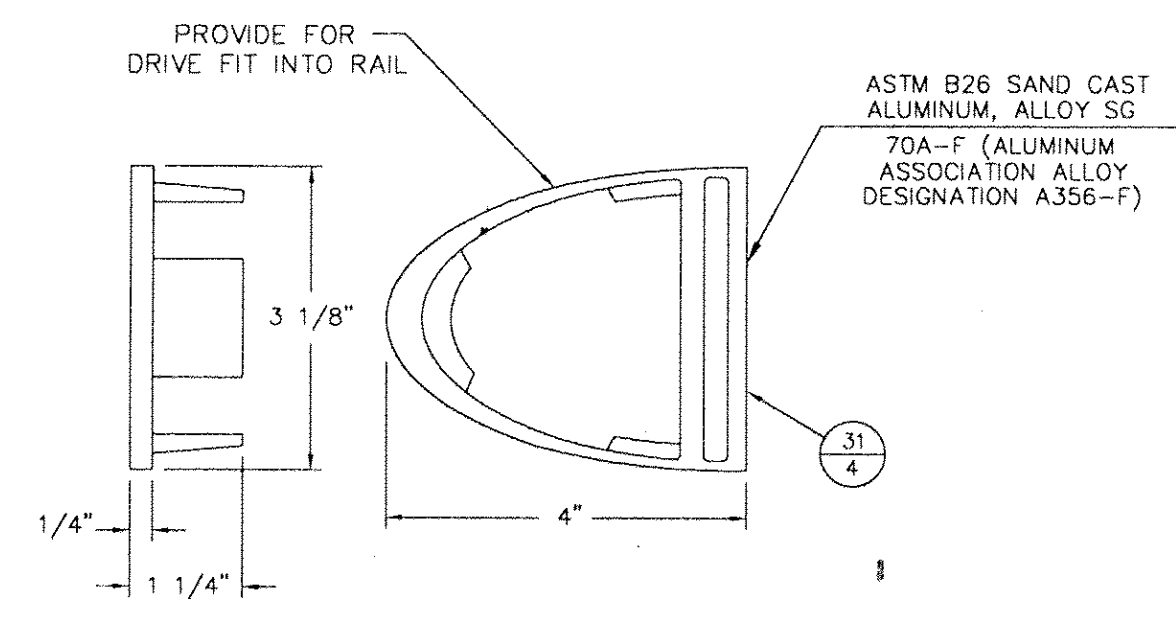
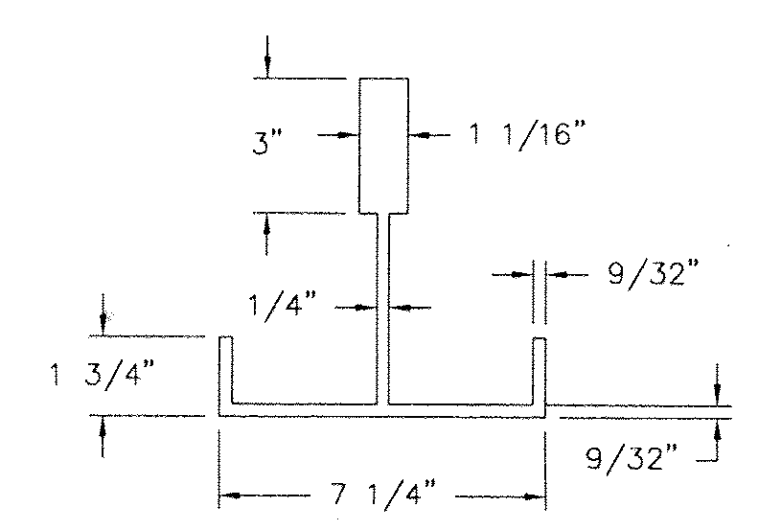
HAND RAIL CLAMP BAR



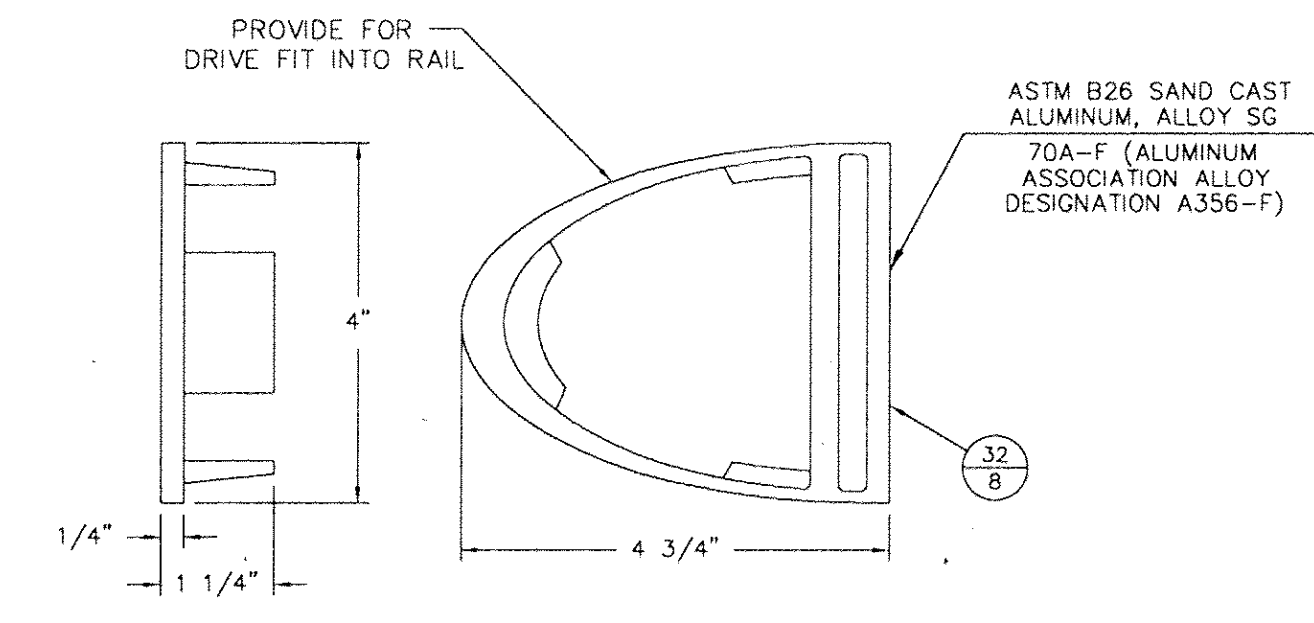
POST PAD



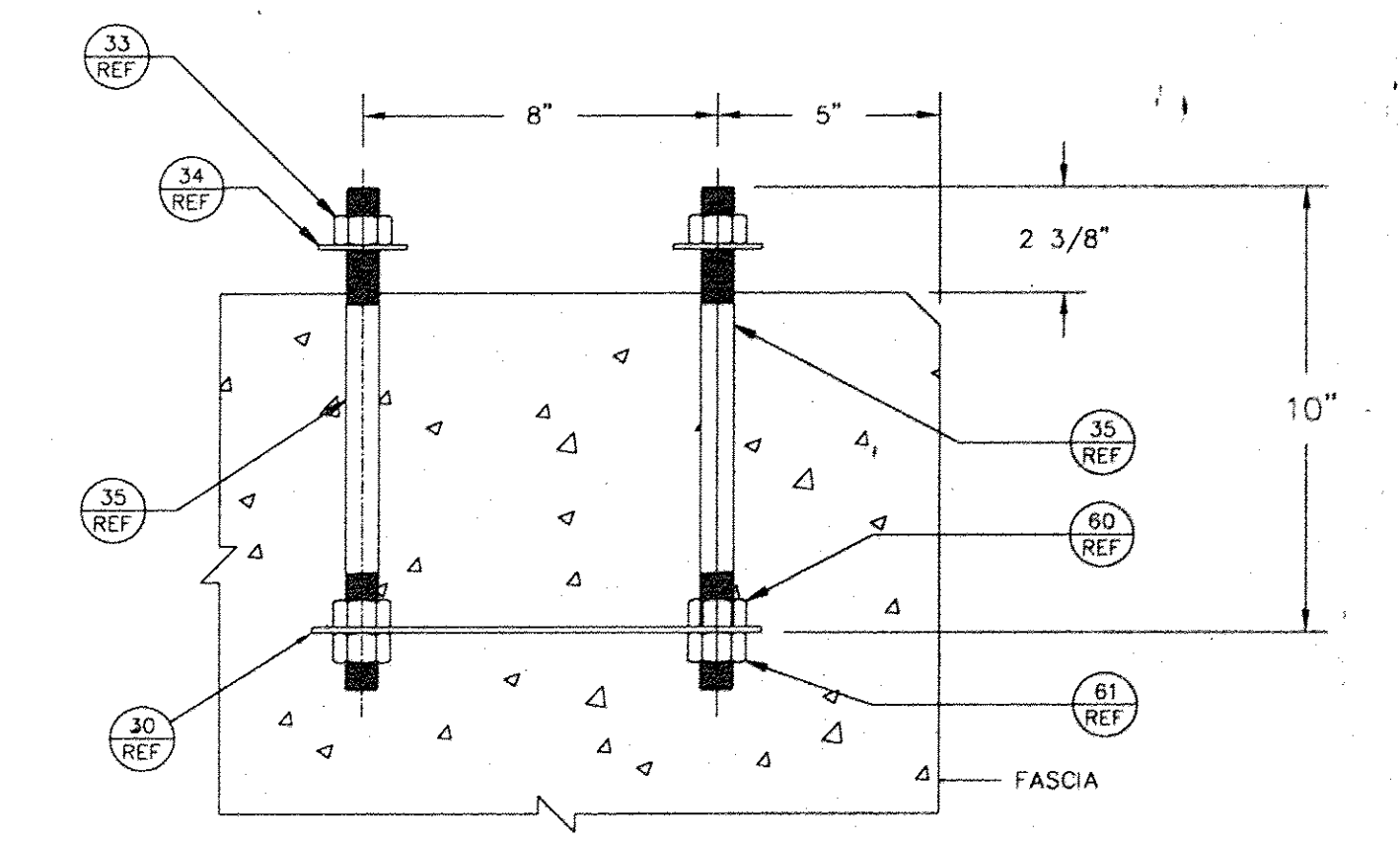
ANCHOR PLATE DETAIL



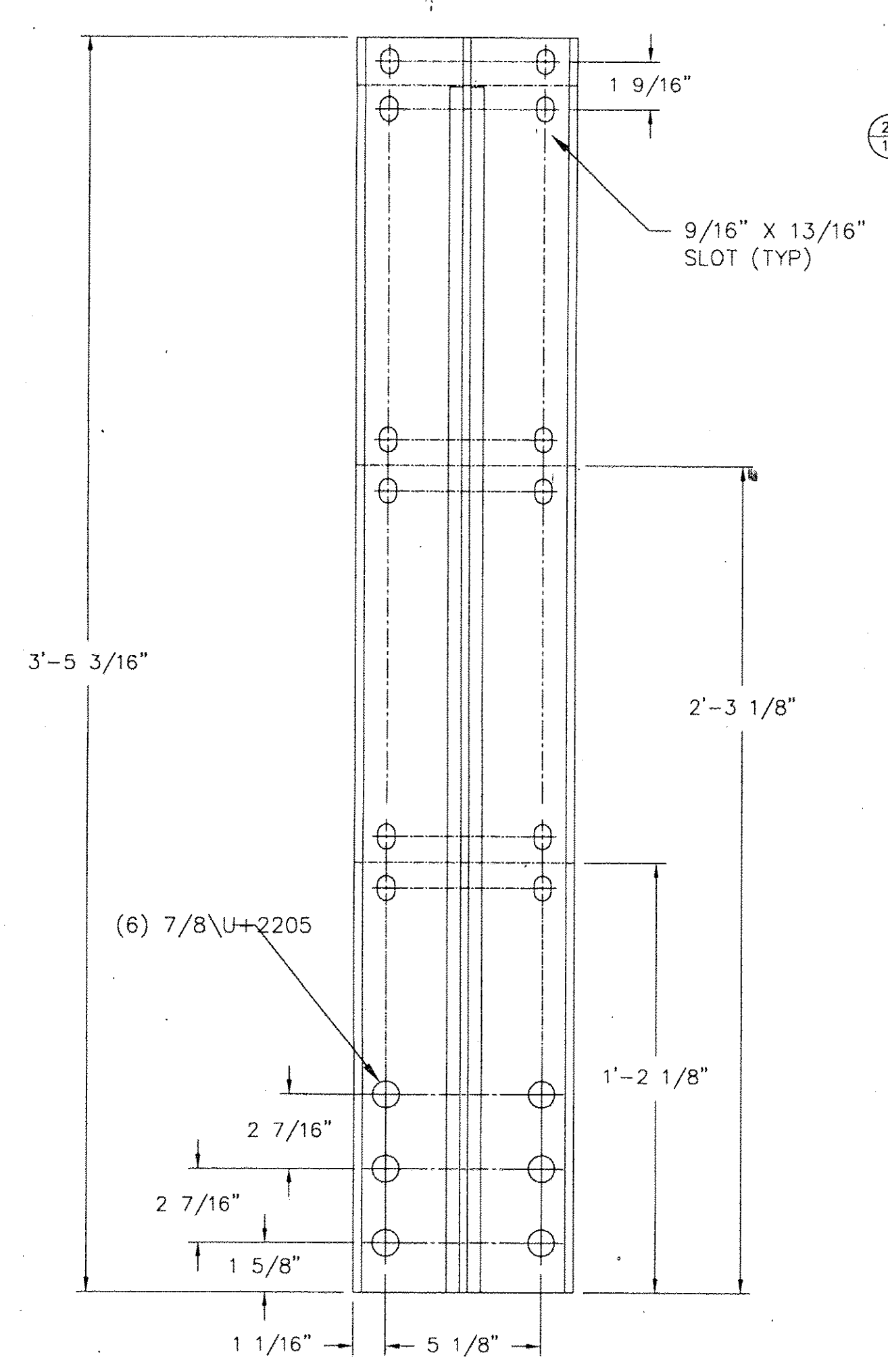
HAND RAIL END CAP



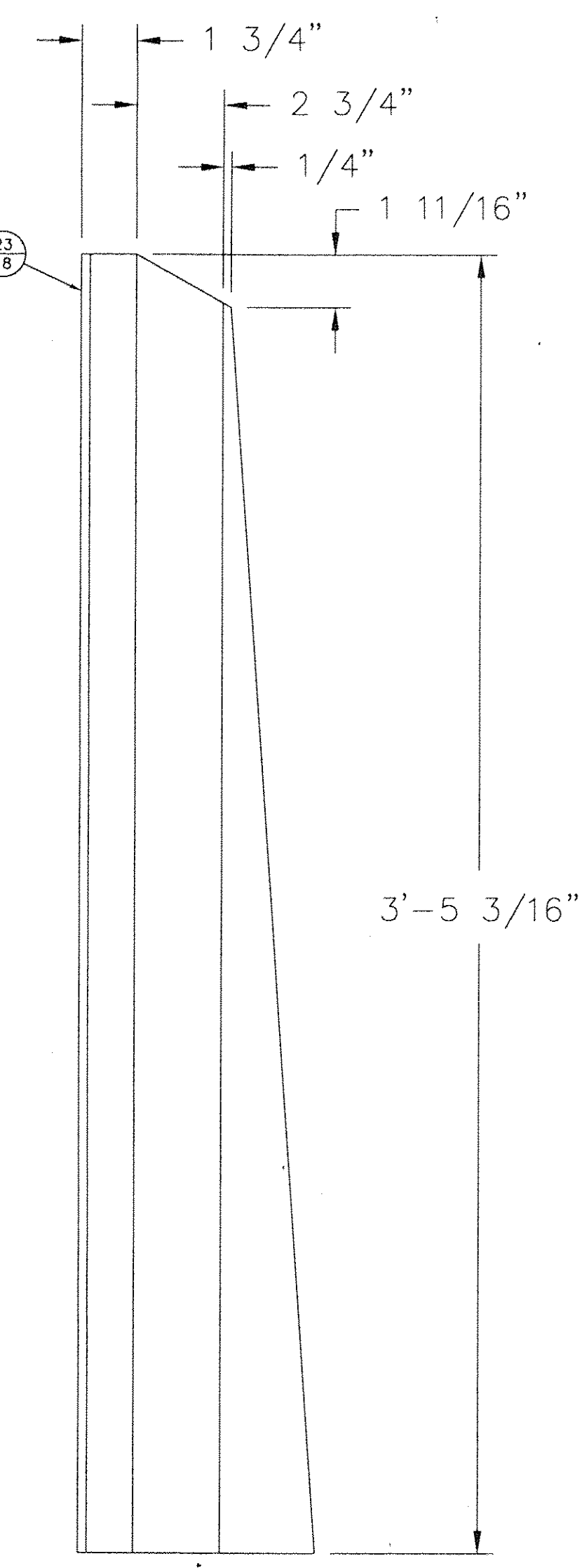
BARRIER RAIL END CAP



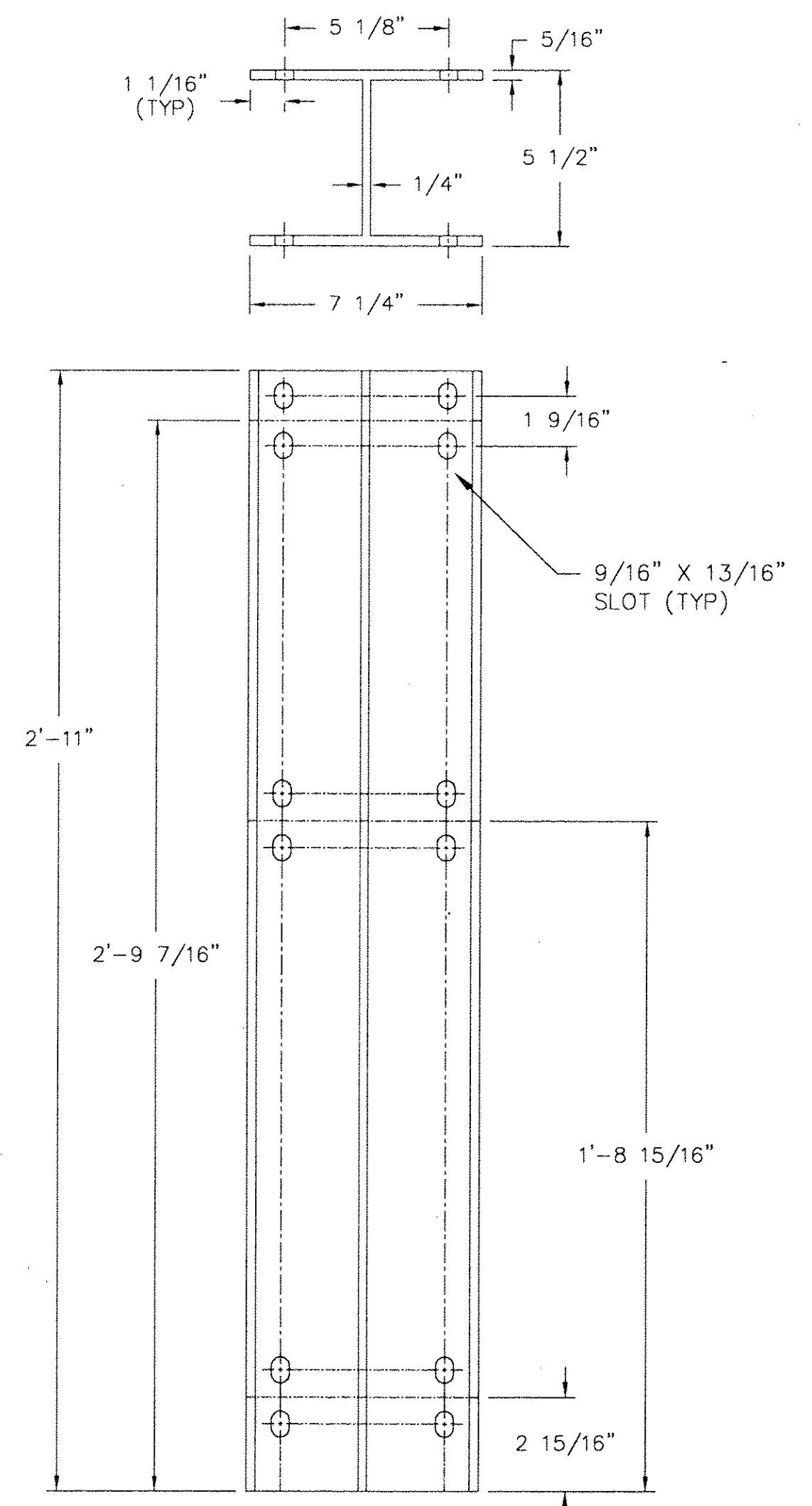
POST ANCHOR ASSEMBLY



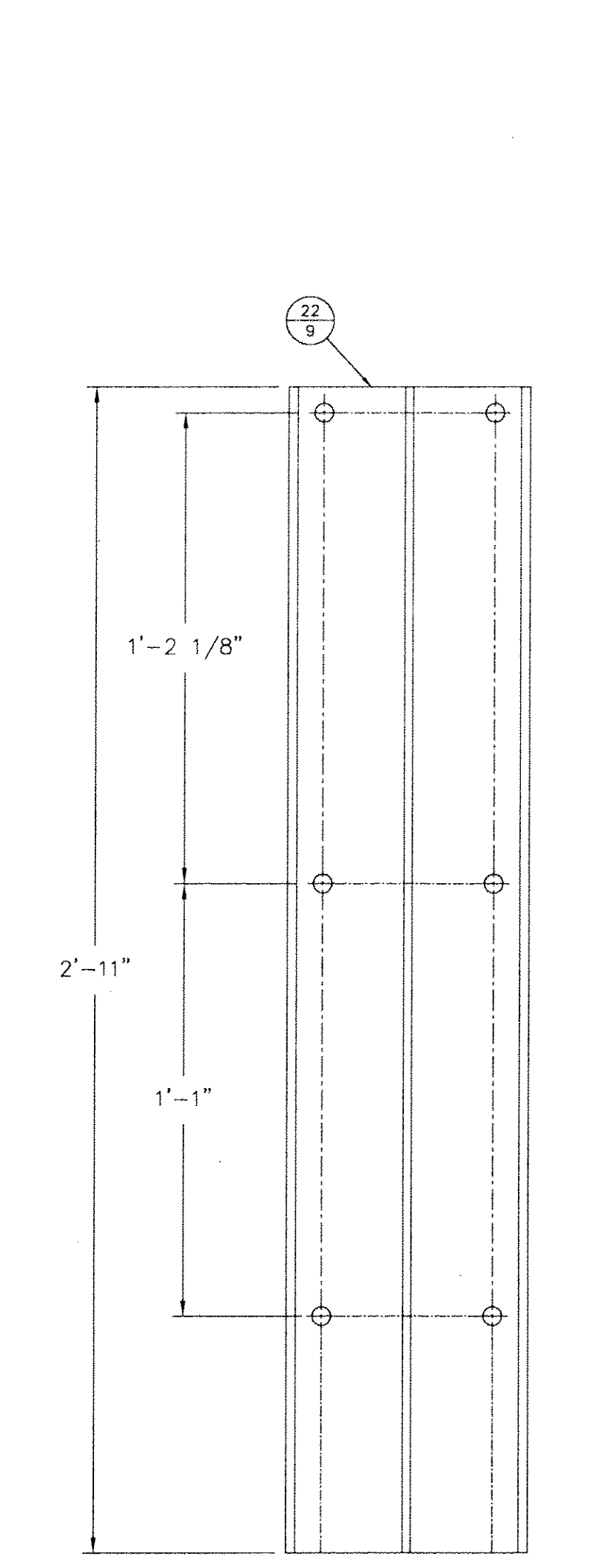
BRIDGE RAIL POST STEM



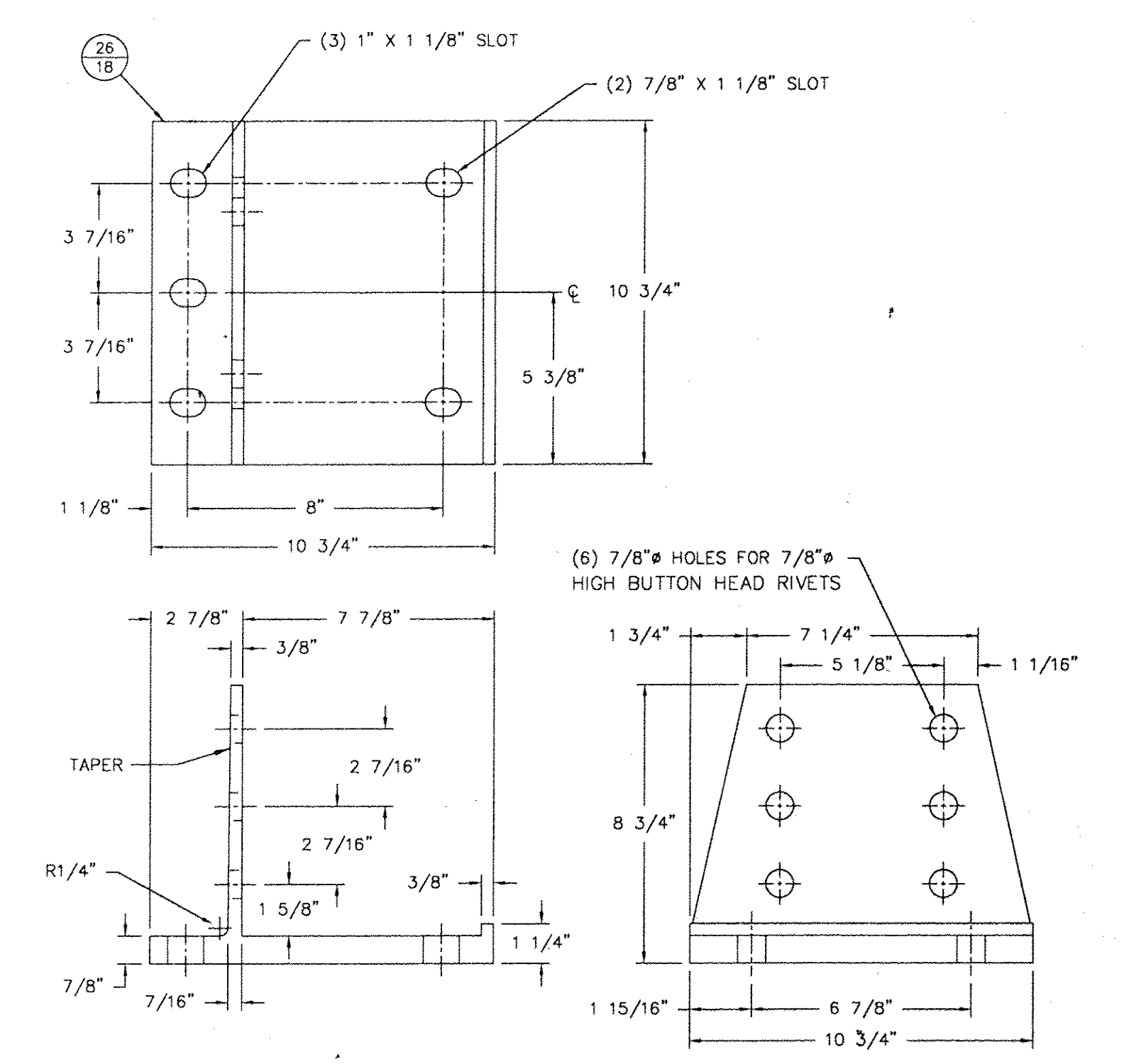
SIDE VIEW



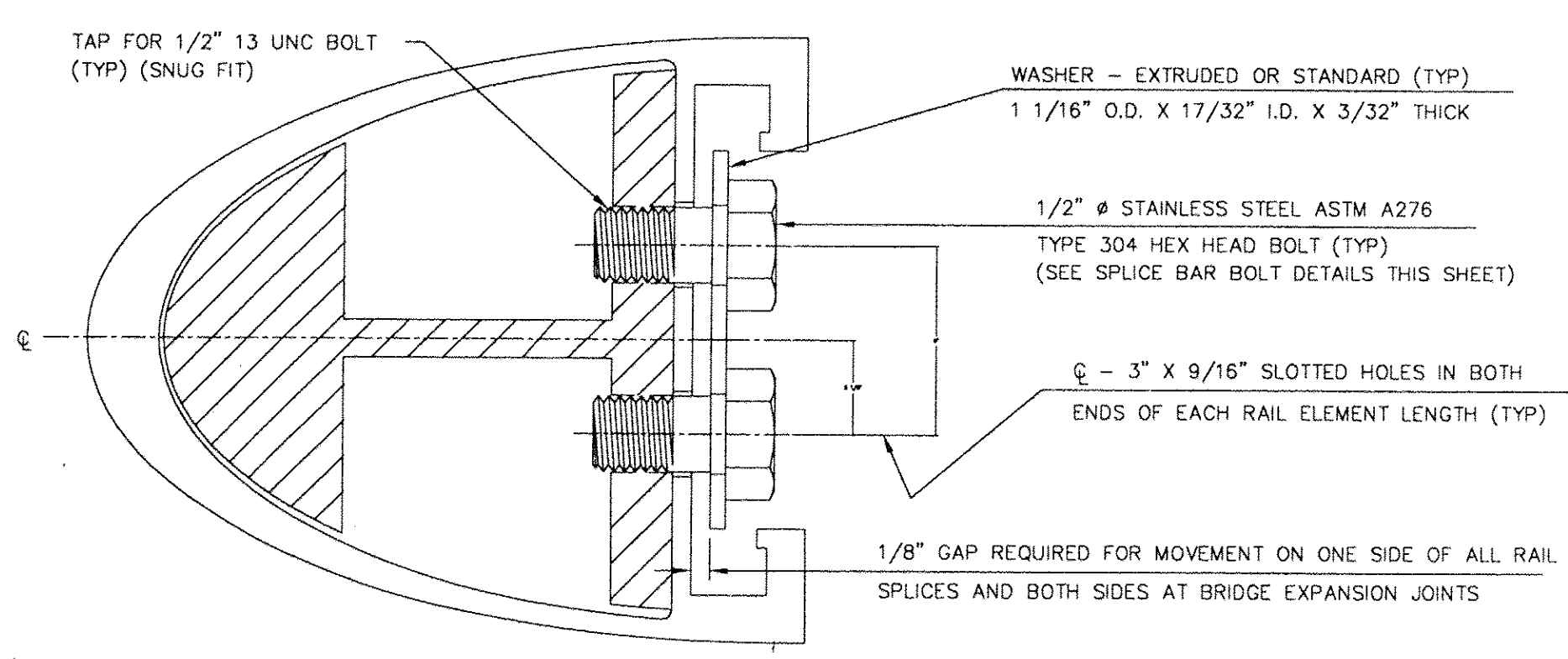
OFFSET BLOCK RAIL SIDE



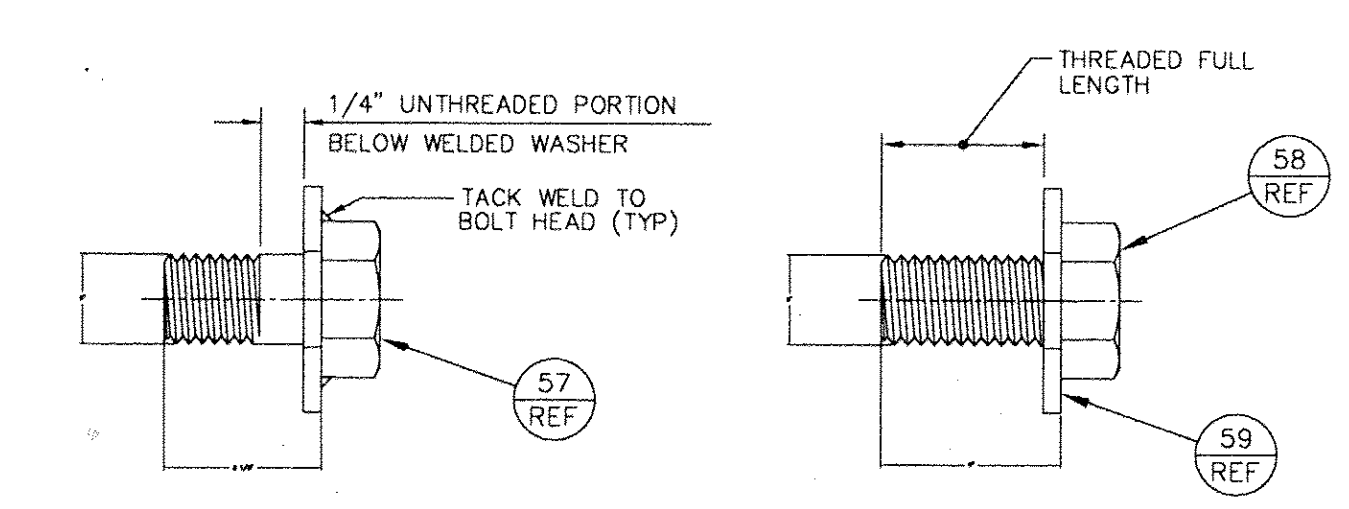
OFFSET BLOCK POST SIDE



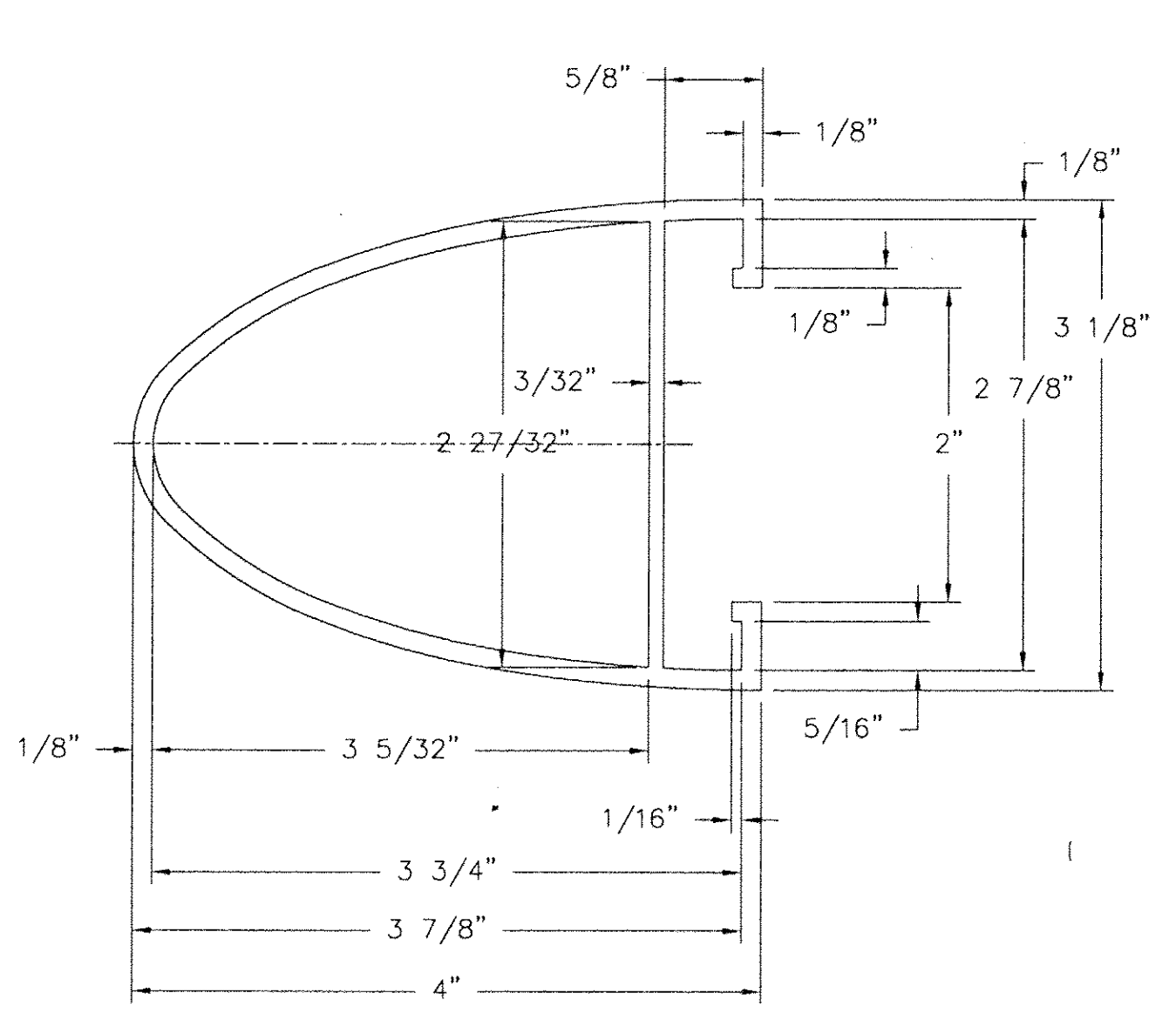
POST BASE DETAILS



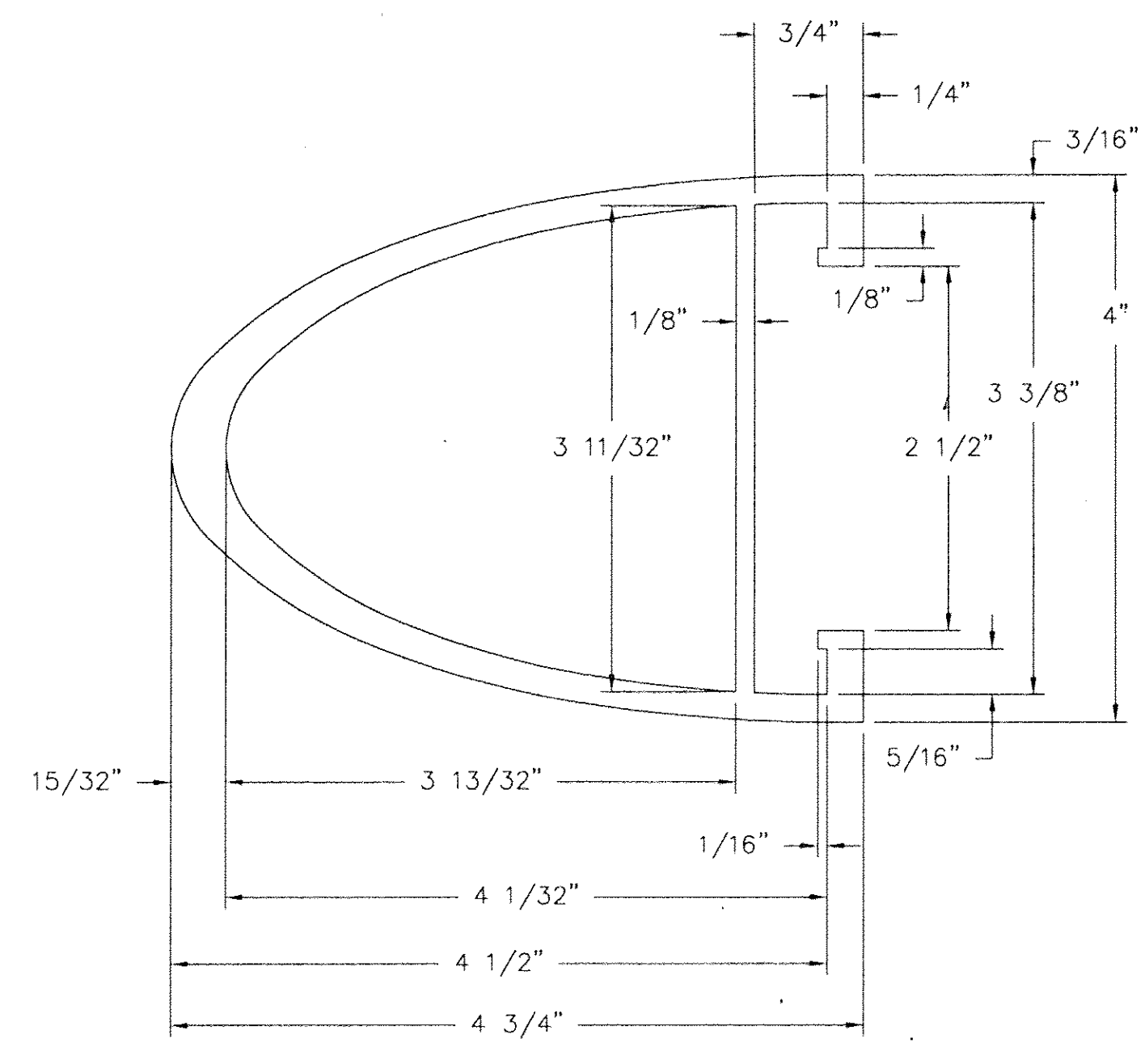
BRIDGE RAIL & SPLICE BAR - ASSEMBLY DETAIL



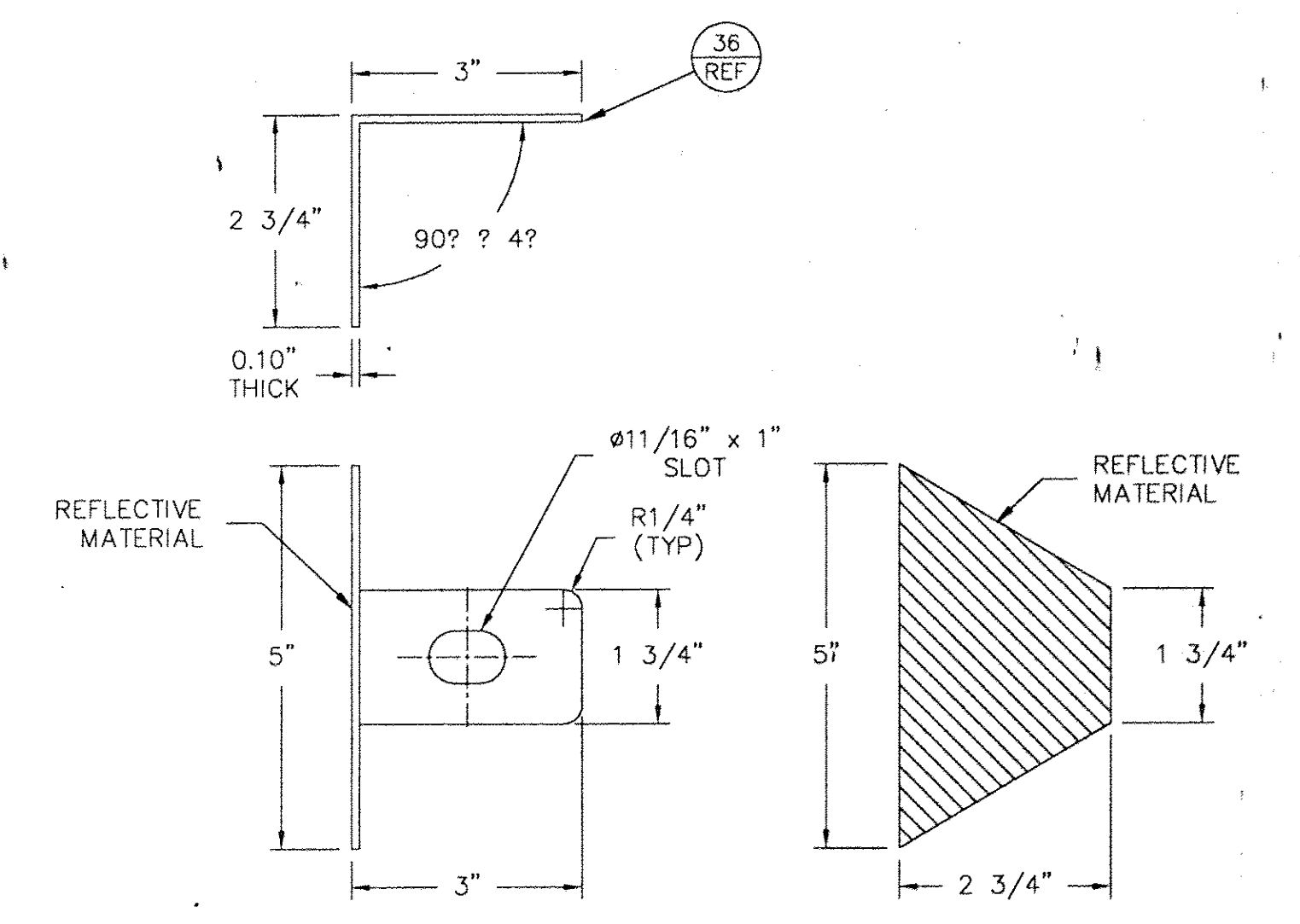
SPLICE BAR BOLT DETAILS



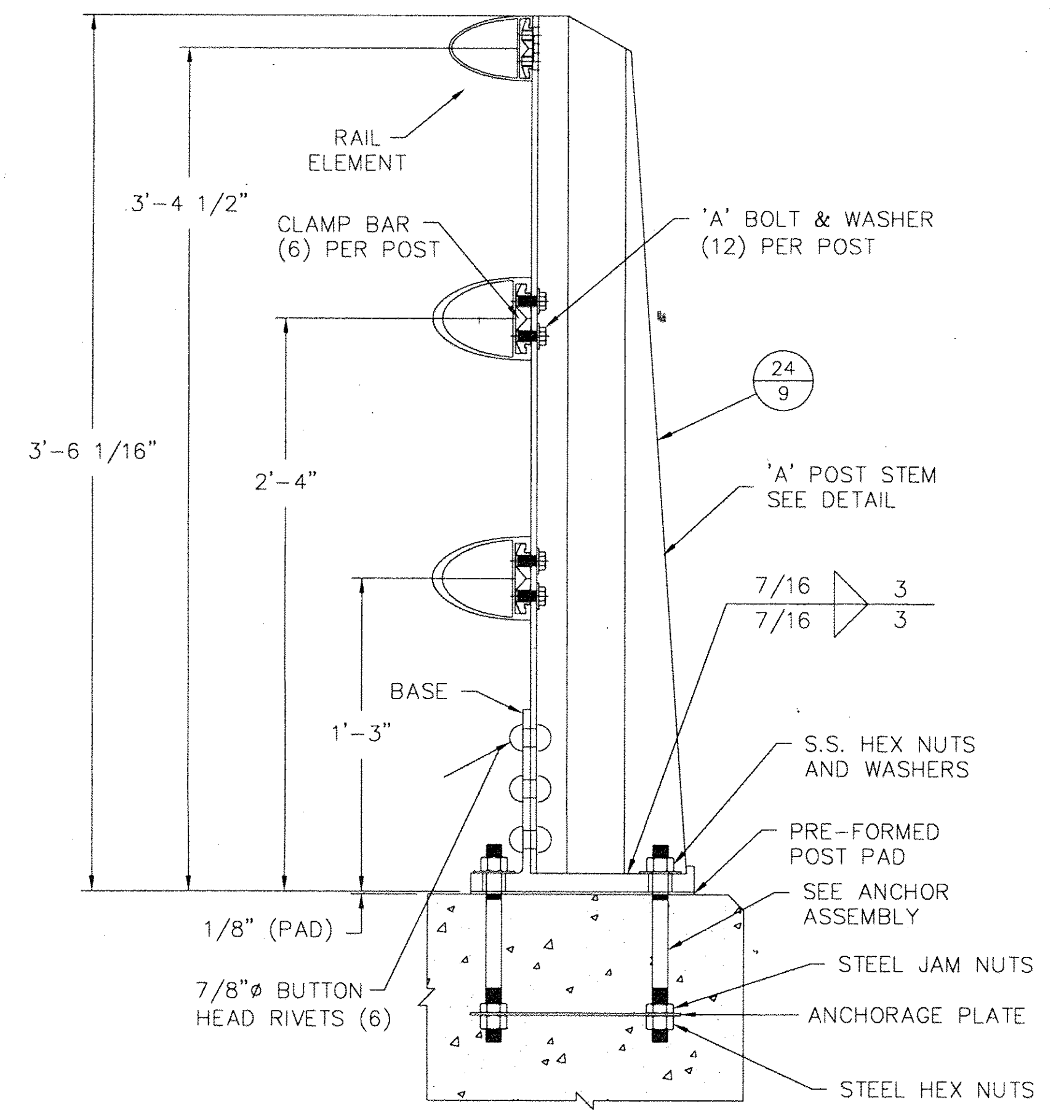
HAND RAIL SECTION



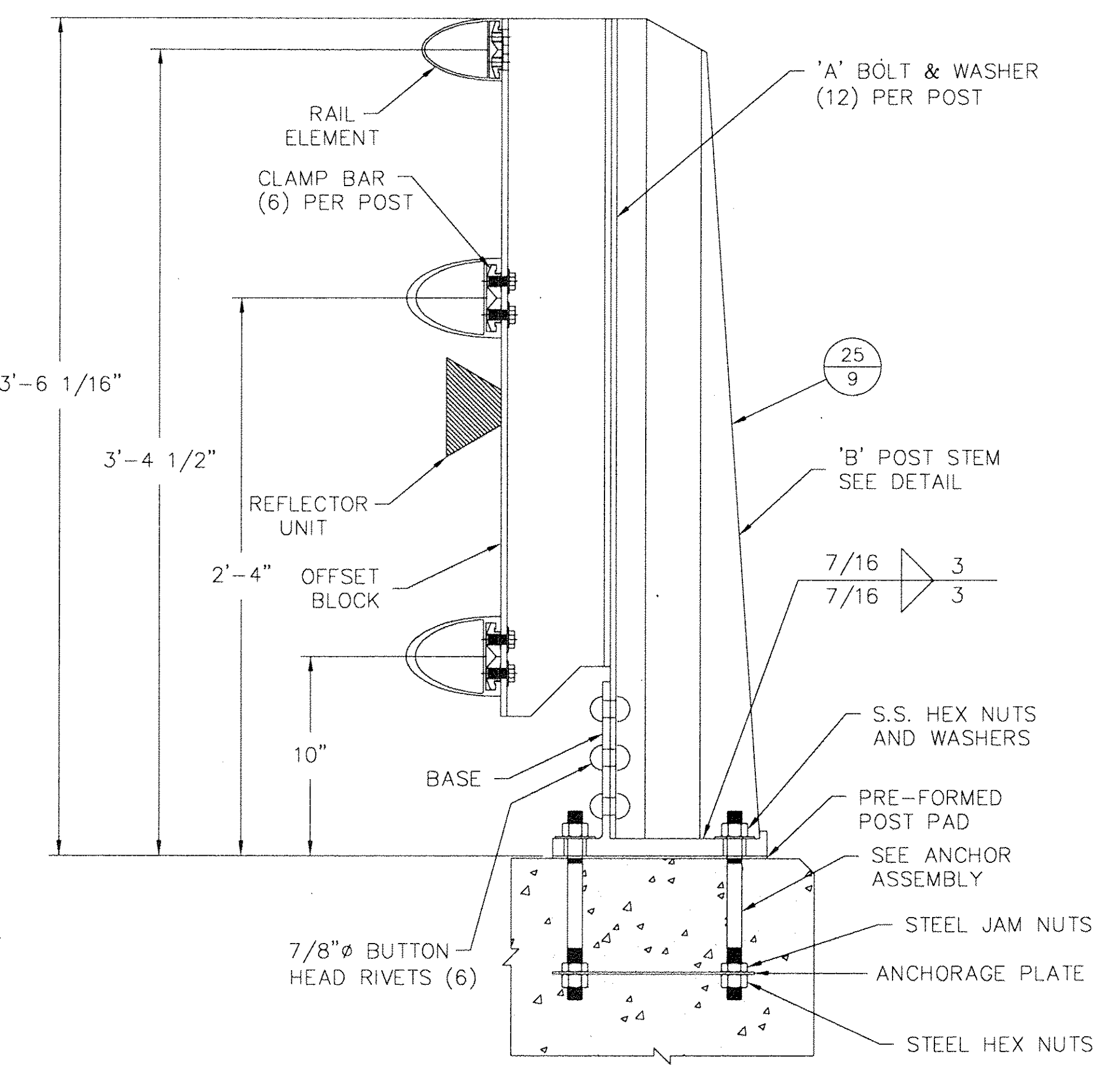
BARRIER RAIL SECTION



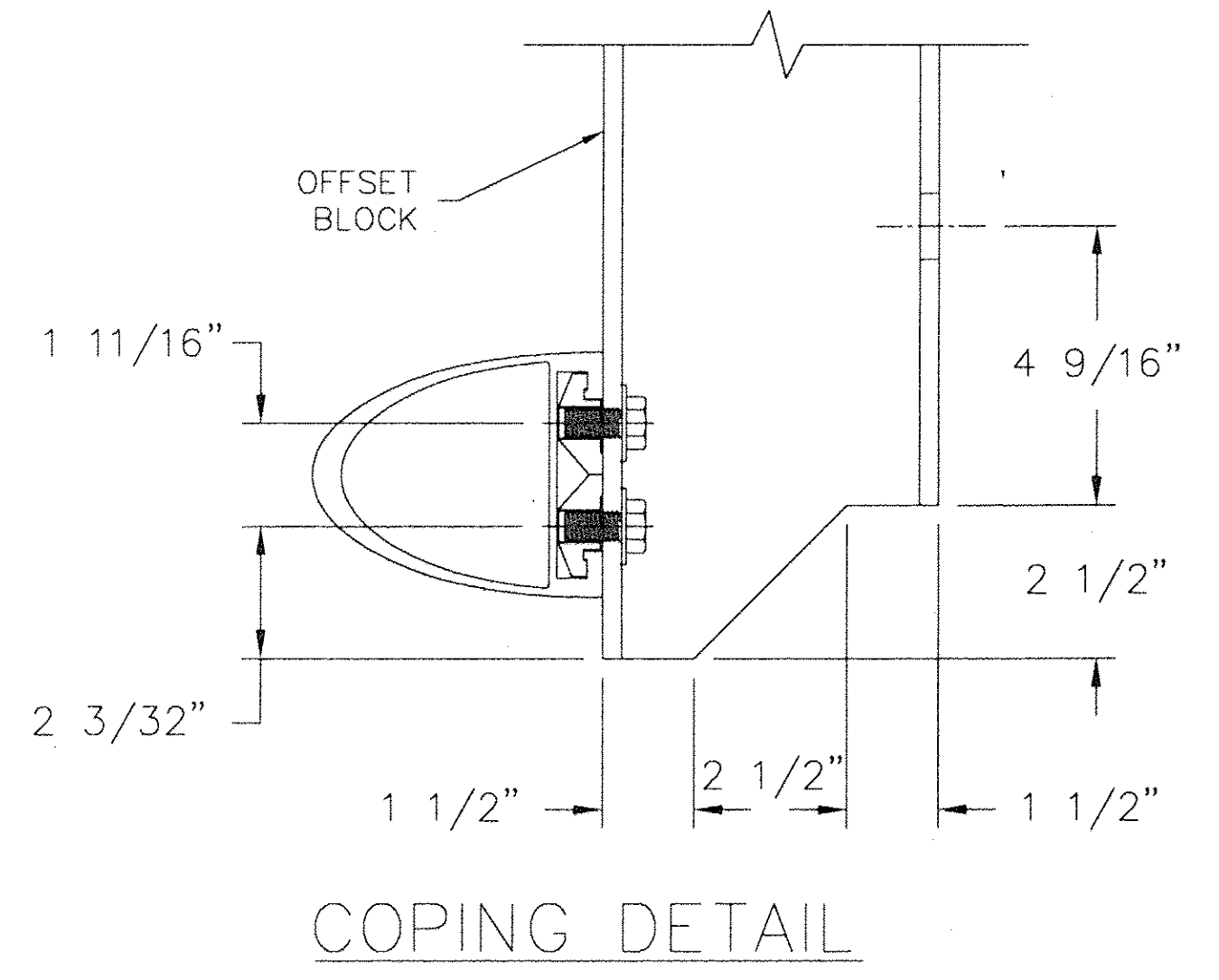
REFLECTOR DETAILS



'A' POST ASSEMBLY SIDEWALK SIDE



'B' POST ASSEMBLY BRUSH CURB SIDE



COPING DETAIL

RAIL NOTES:

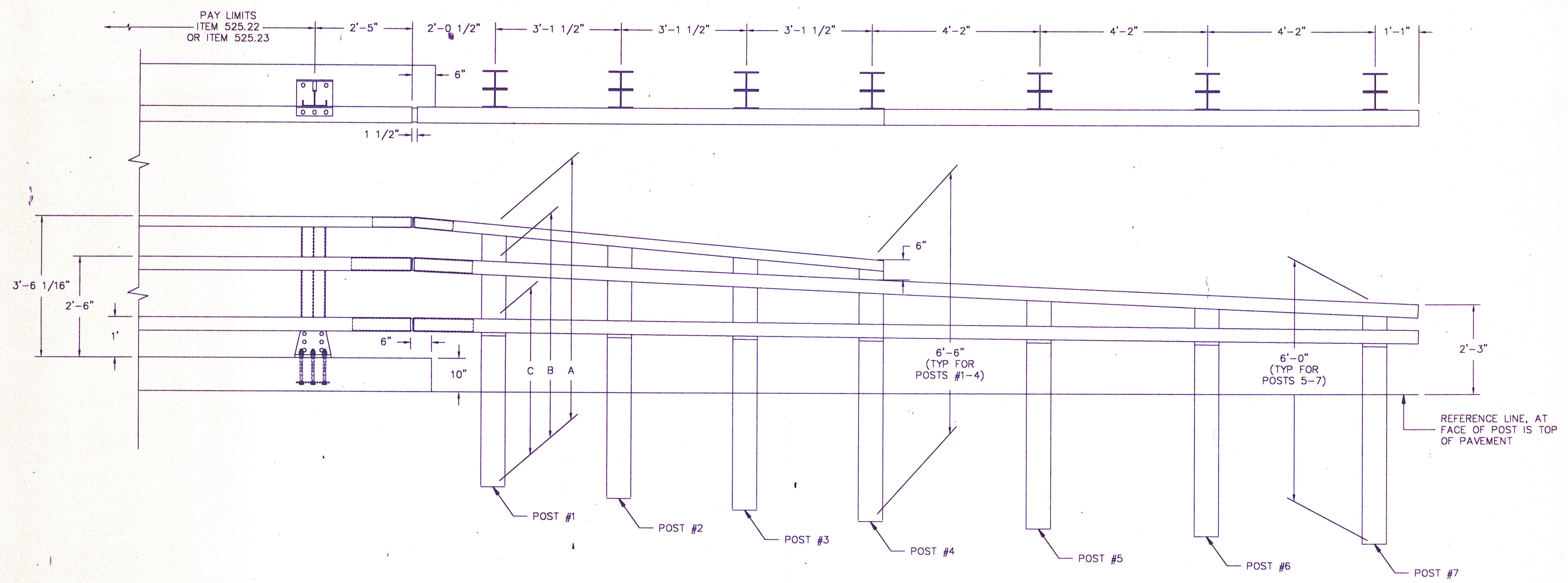
1. POSTS SHALL BE NORMAL TO FINISHED GRADE.
2. THREADS FOR ANCHOR BOLTS MAY BE ROLLED OR CUT. IF CUT THREADS ARE USED BOLT DIAMETER SHALL NOT BE LESS THAN NOMINAL DIAMETER. IF ROLLED THREADS ARE USED, BOLT DIAMETER SHALL NOT BE LESS THAN ROOT DIAMETER OF THREADS.
3. JOINTS IN RAIL LENGTH SHALL BE SPLICED AS DETAILED.
4. ENDS OF TUBE SECTIONS SHALL BE SAWED OR MILLED.
5. CUT ENDS SHALL BE TRUE AND SMOOTH.
6. EACH RAIL SECTION SHALL BE ATTACHED TO A MINIMUM OF FOUR (4) POSTS.
7. GRIND ALL EDGES SMOOTH.

MATERIAL:

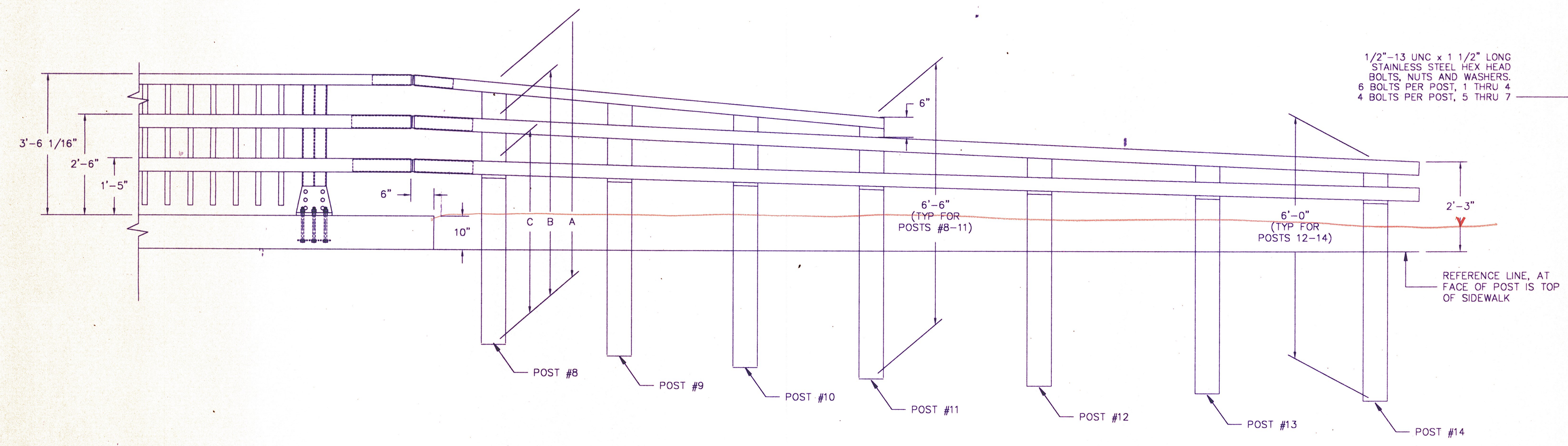
1. ALUMINUM EXTRUSIONS (POSTS, BASES, RAILS, SPLICE BARS, PINS AND CLAMP BARS) SHALL BE ASTM B221, ALLOY 6061-T6 OR ALLOY 6351-T5 (MIN. 10% ELONGATION).
2. STAINLESS STEEL ANCHOR STUDS, HEX HEAD BOLTS AND HEX NUTS (TYPE 302) SHALL BE ASTM A276, (TYPE 430 MOD) OR (TYPE 304 MOD), (100,000 PSI AND 15% ELONGATION).
3. STEEL EMBEDDED JAM AND HEX NUTS SHALL BE ASTM A563 GRADE A OR BETTER.
4. ALUMINUM WASHERS SHALL BE ASTM B209, ALLOY 2024-T3 ALCLAD.
5. PREFORMED ELASTOMERIC BEARING PAD SHALL MEET REQUIREMENTS OF AASHHTO M251.

ANCHOR ASSEMBLY NOTES:

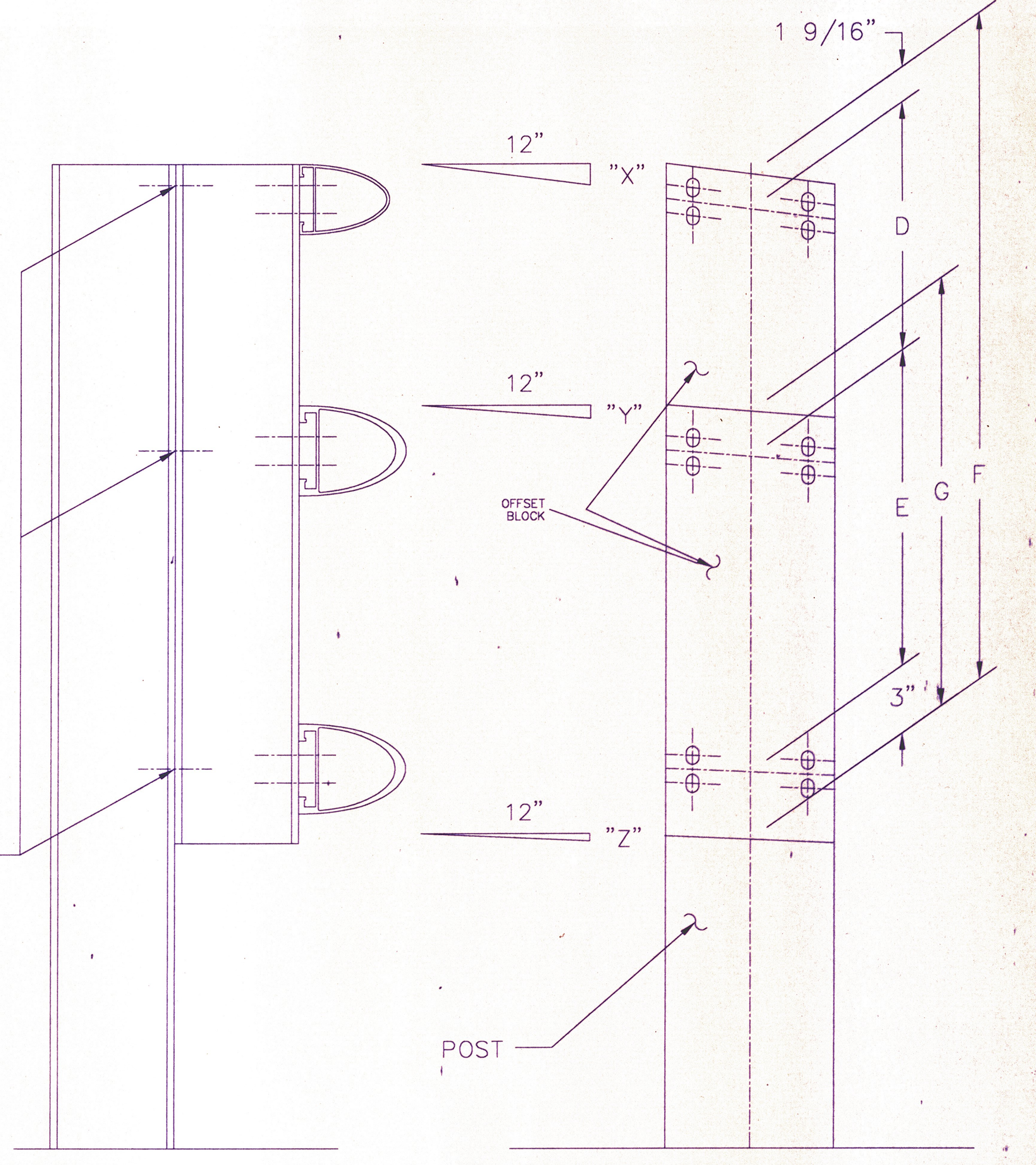
1. 3/4\"/>
2. 3/4\"/>



CURB ELEVATION

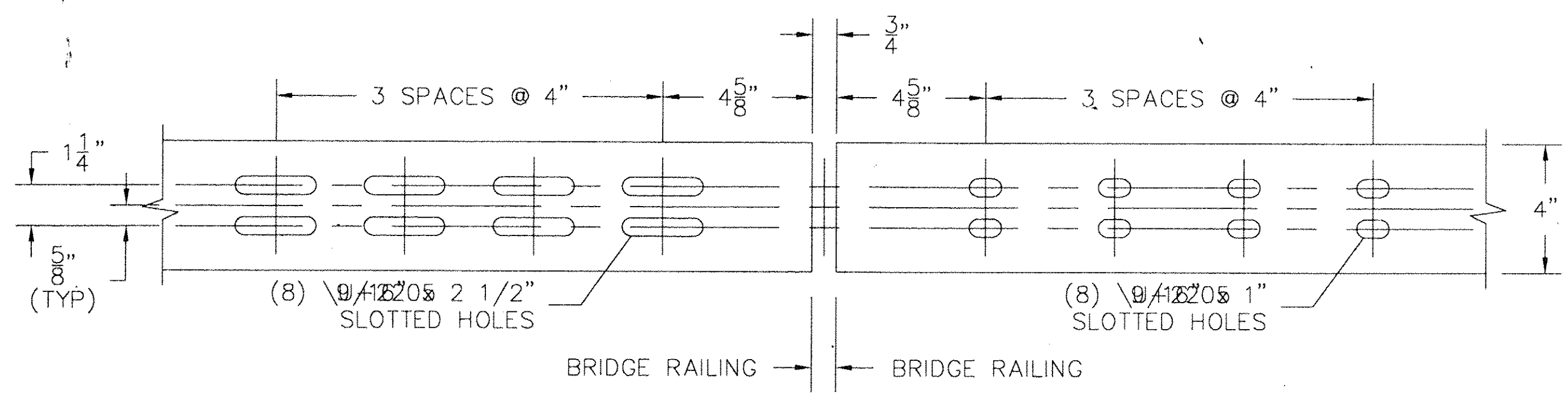
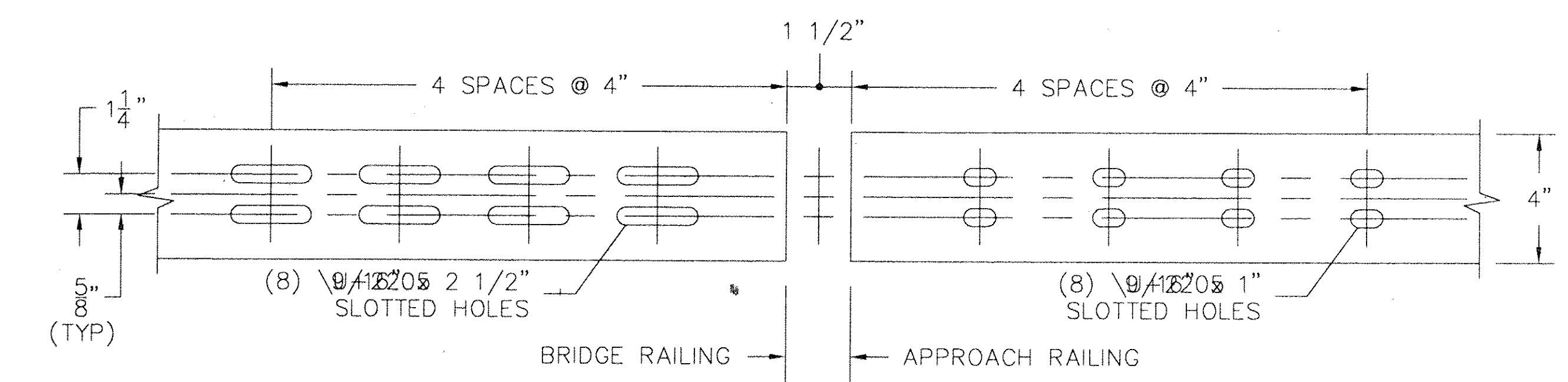


SIDEWALK ELEVATION

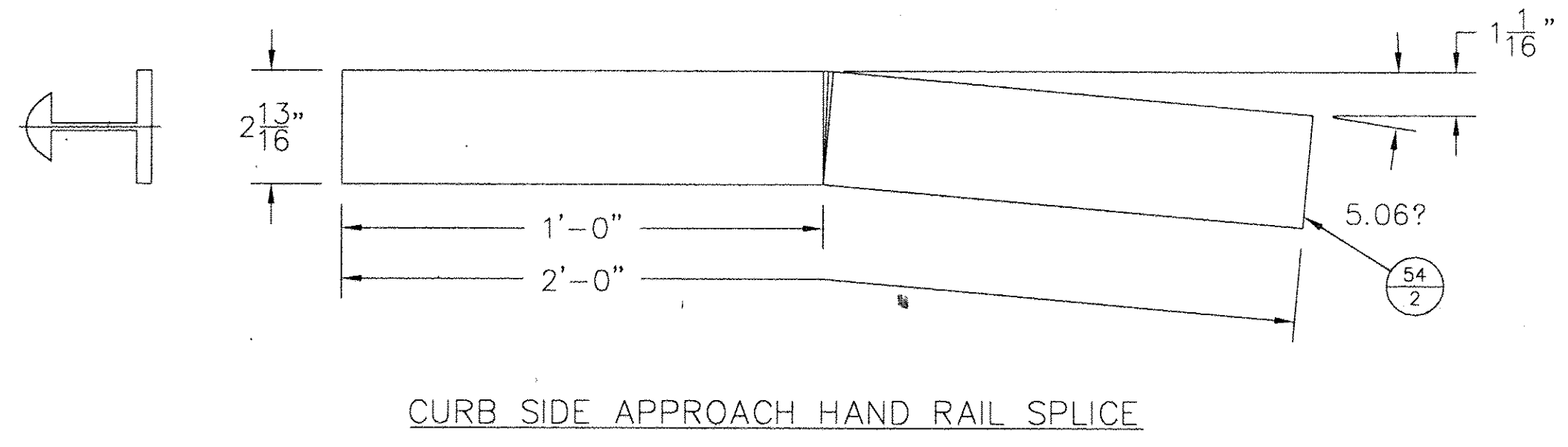
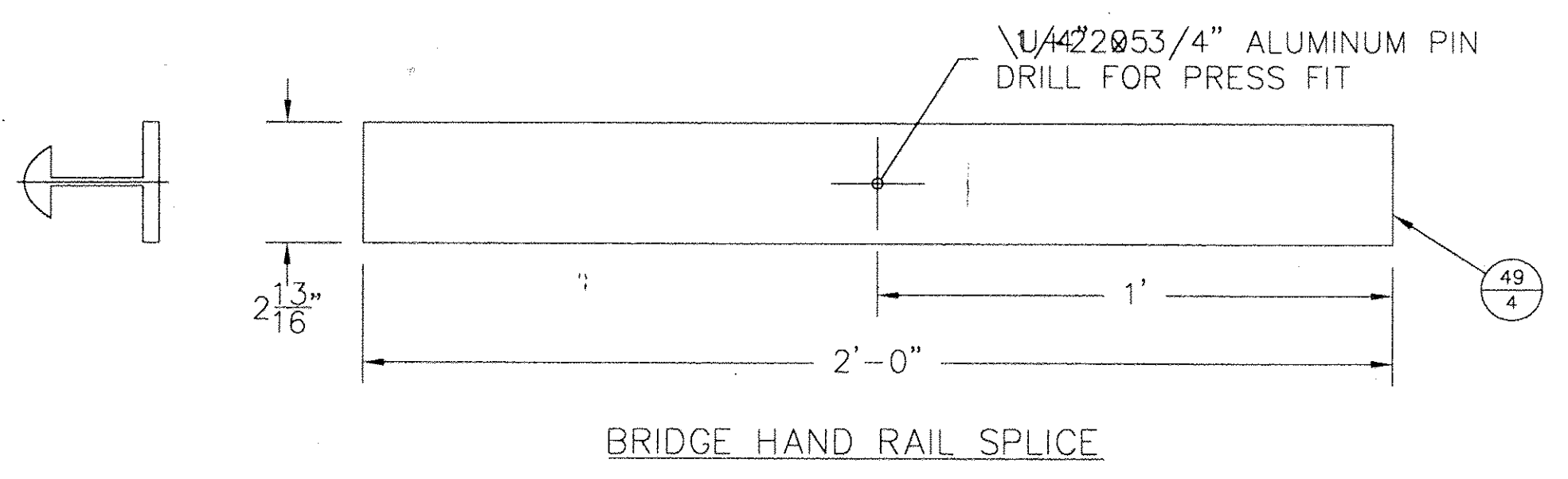
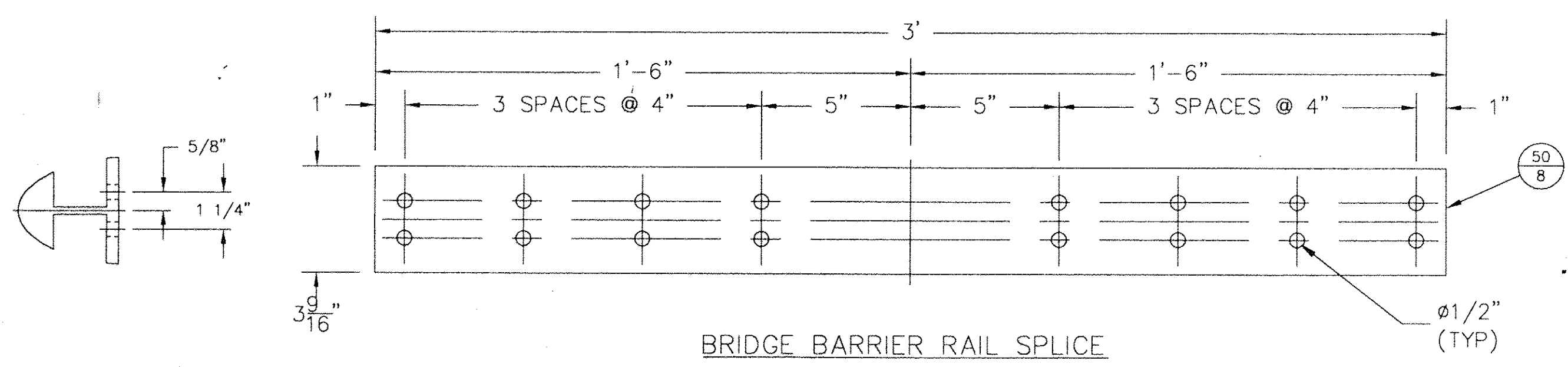


POST	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	6'-6"	6'-6"	6'-6"	6'-6"	-	-	-	6'-6"	6'-6"	6'-6"	6'-6"	-	-	-
B	5'-7 1/16"	5'-8 3/4"	5'-10 3/8"	6'-0"	6'-0"	6'-0"	6'-0"	5'-7 1/16"	5'-8 3/4"	5'-10 3/8"	6'-0"	6'-0"	6'-0"	6'-0"
C	4'-1 13/16"	4'-4 13/16"	4'-7 3/4"	4'-10 3/4"	5'-0 7/16"	5'-2 3/16"	5'-3 15/16"	4'-6 7/16"	4'-8 3/4"	4'-11 1/8"	5'-1 7/16"	5'-2 3/8"	5'-3 1/4"	5'-4 1/8"
D	11 7/16"	9 3/4"	8 1/8"	6 7/16"	-	-	-	11 7/16"	9 3/4"	8 1/8"	6 7/16"	-	-	-
E	1'-5 3/16"	1'-3 7/8"	1'-2 9/16"	1'-1 1/4"	11 9/16"	9 13/16"	8 1/16"	1'-0 9/16"	11 15/16"	11 3/16"	10 9/16"	9 5/8"	8 3/4"	7 7/8"
F	2'-9 3/16"	2'-6 3/16"	2'-3 1/4"	2'-0 1/4"	-	-	-	2'-4 9/16"	2'-2 1/4"	1'-11 7/8"	1'-9 9/16"	-	-	-
G	1'-10 3/16"	1'-8 7/8"	1'-7 9/16"	1'-6 1/4"	1'-4 9/16"	1'-2 7/8"	1'-1 1/16"	1'-5 9/16"	1'-4 7/8"	1'-4 1/4"	1'-3 9/16"	1'-2 5/8"	1'-1 3/4"	1'-0 7/8"

	SIDEWALK SIDE	CURB SIDE
"X"	1 1/16"	1 1/16"
"Y"	1/2"	1/2"
"Z"	5/16"	1/8"

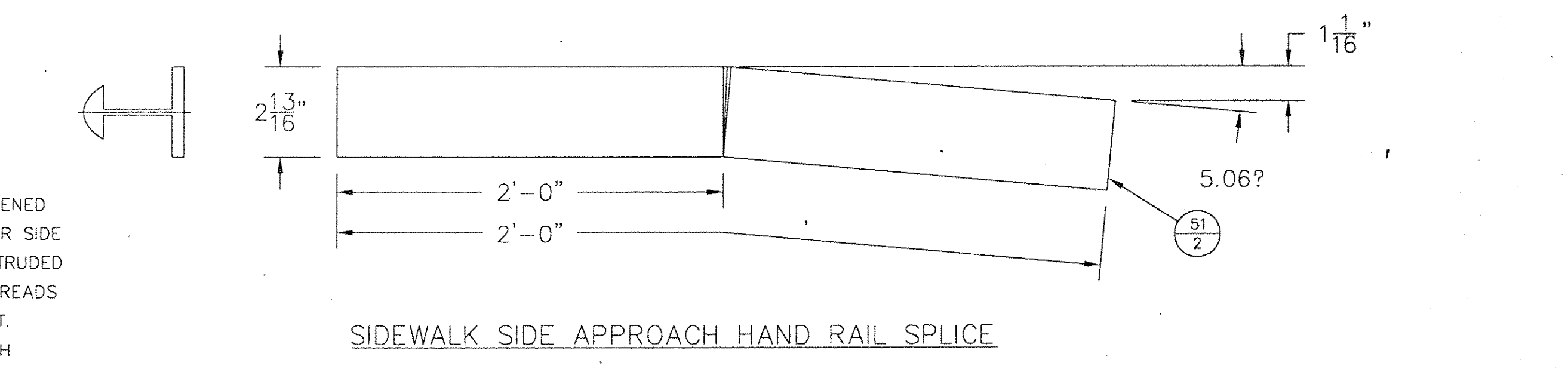
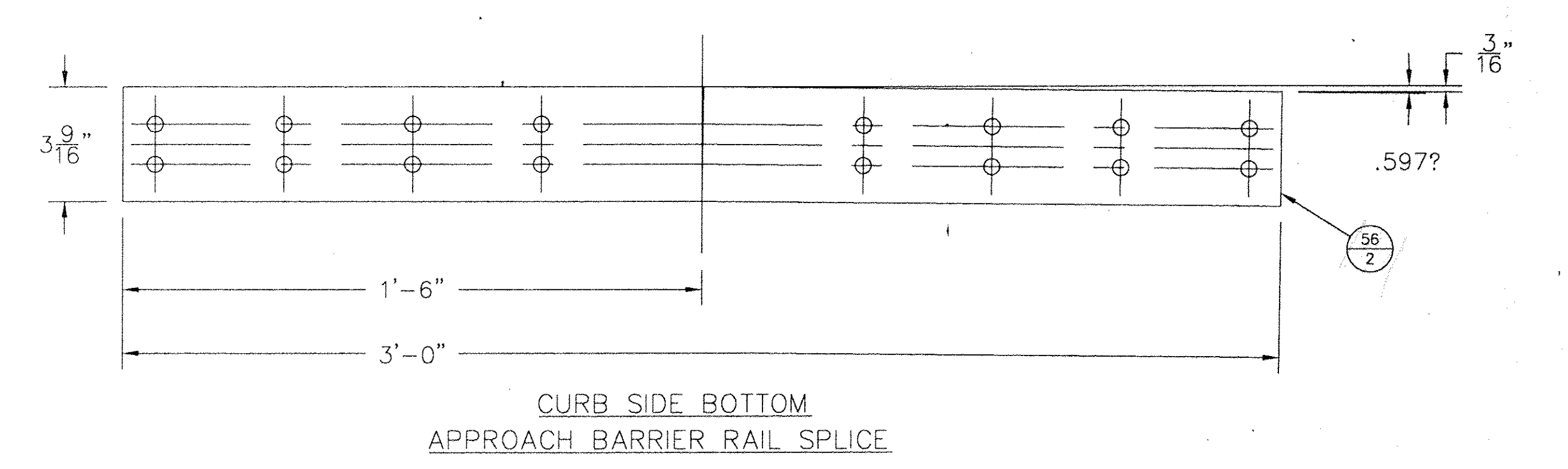
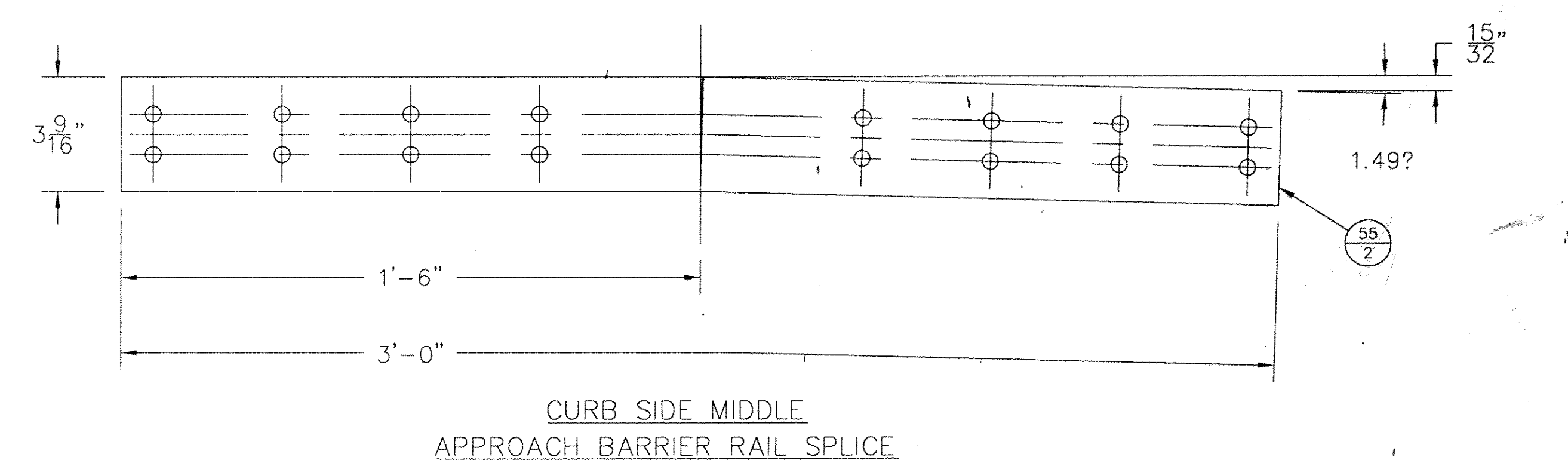
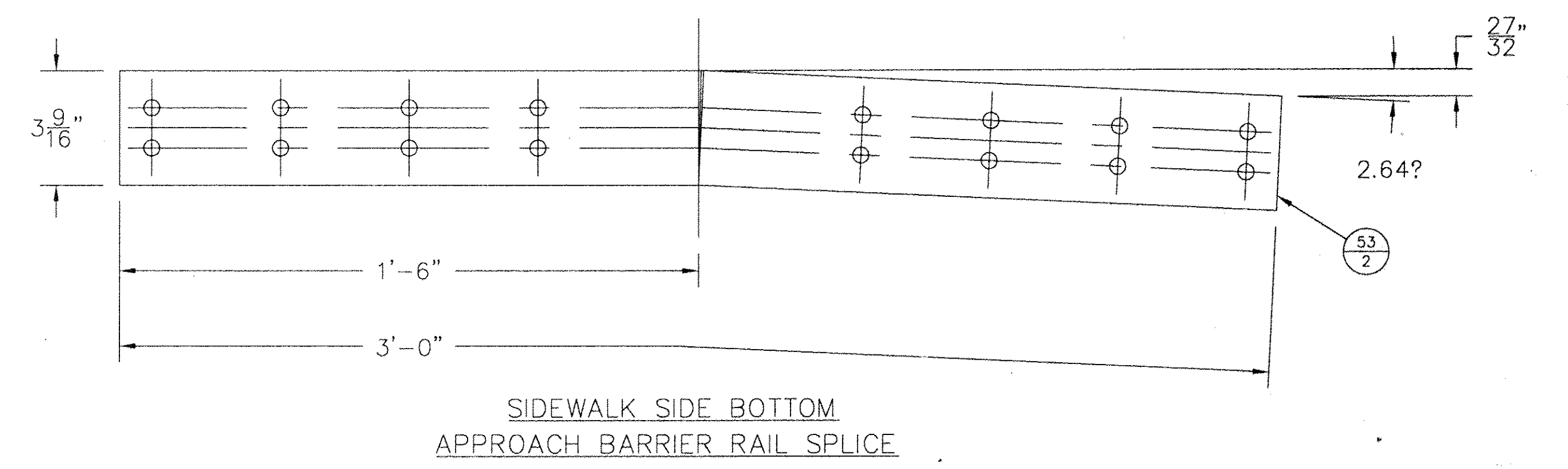
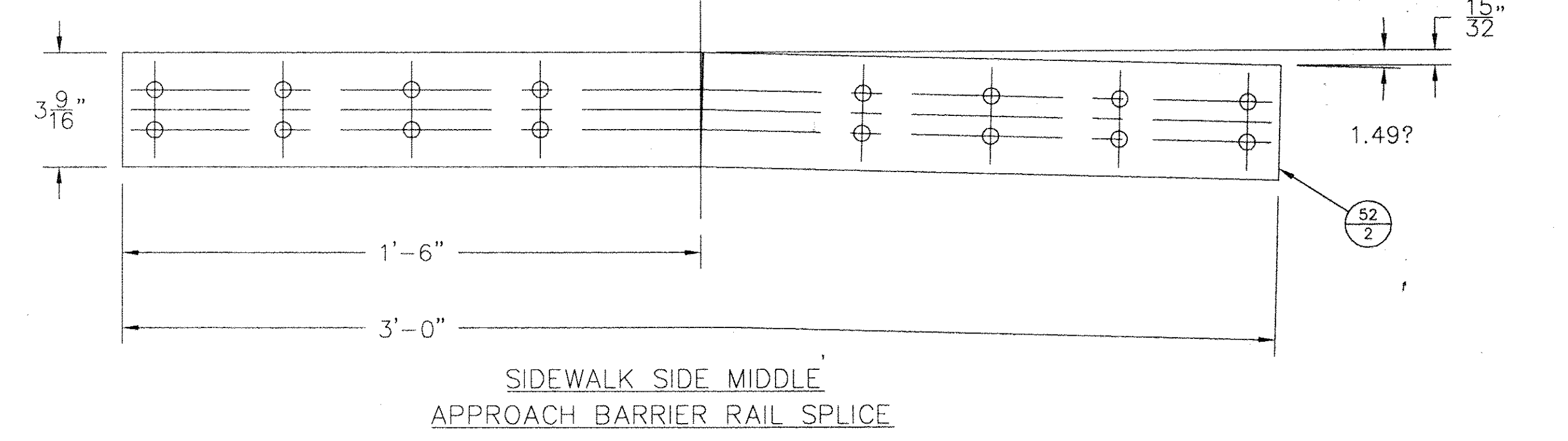
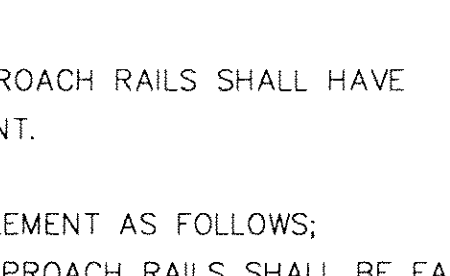
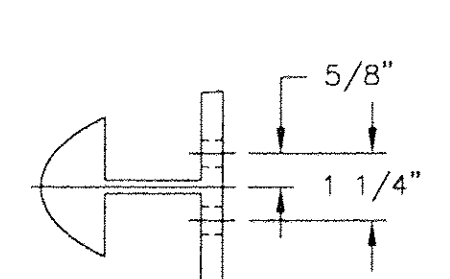
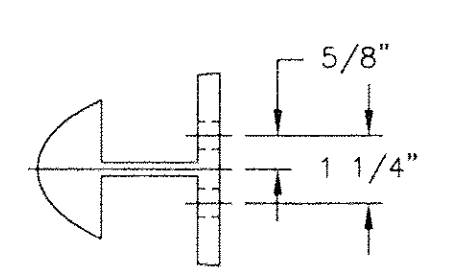
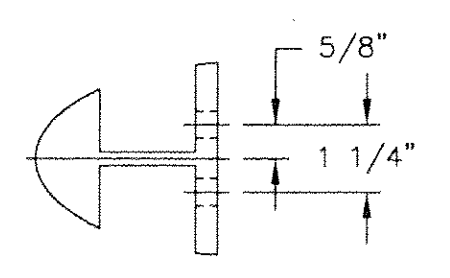
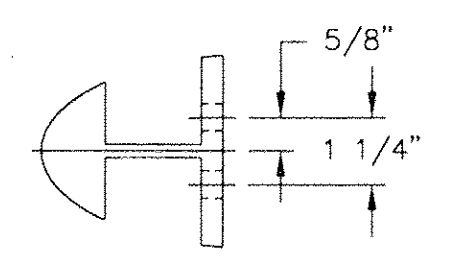


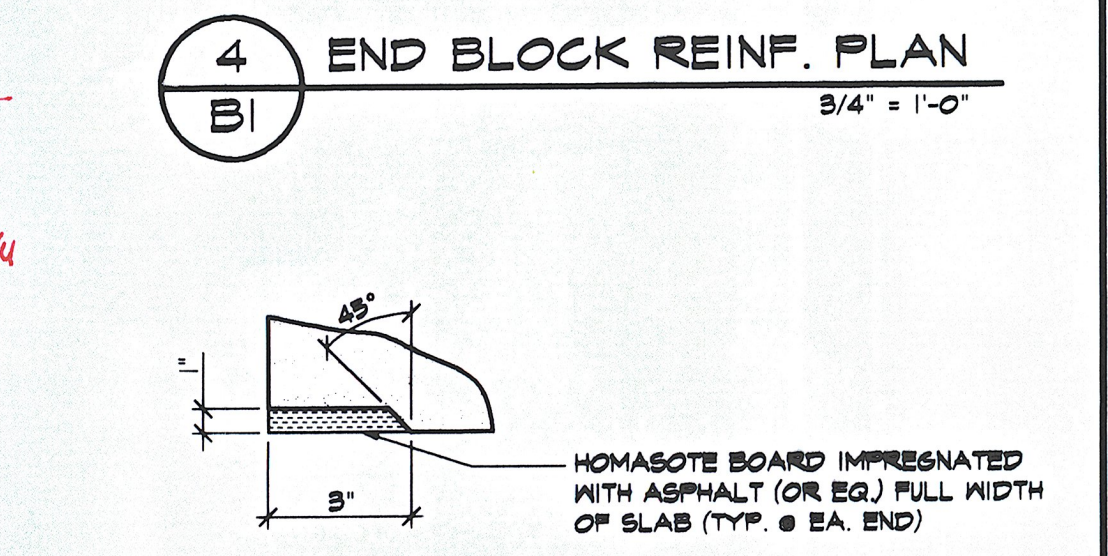
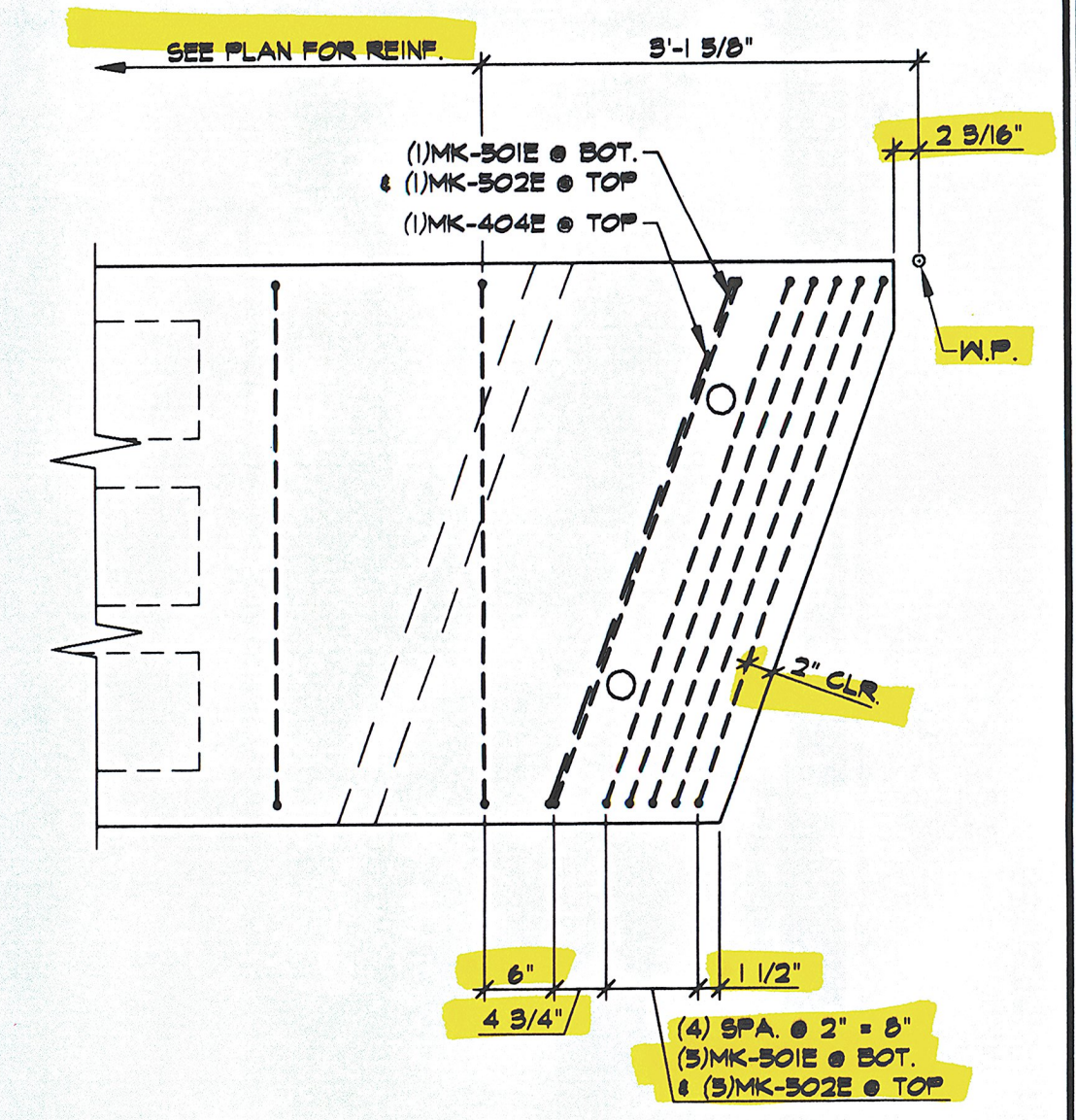
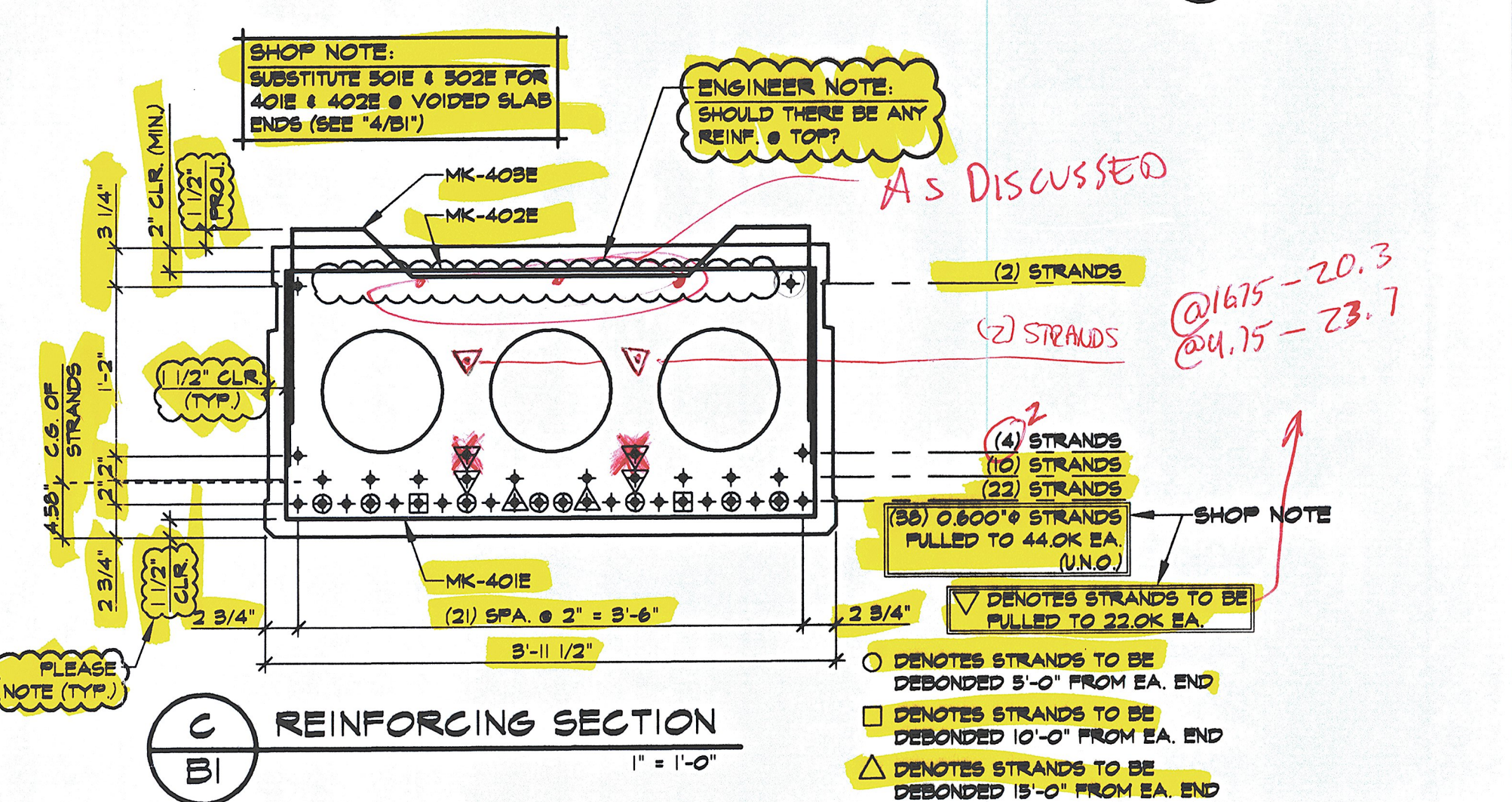
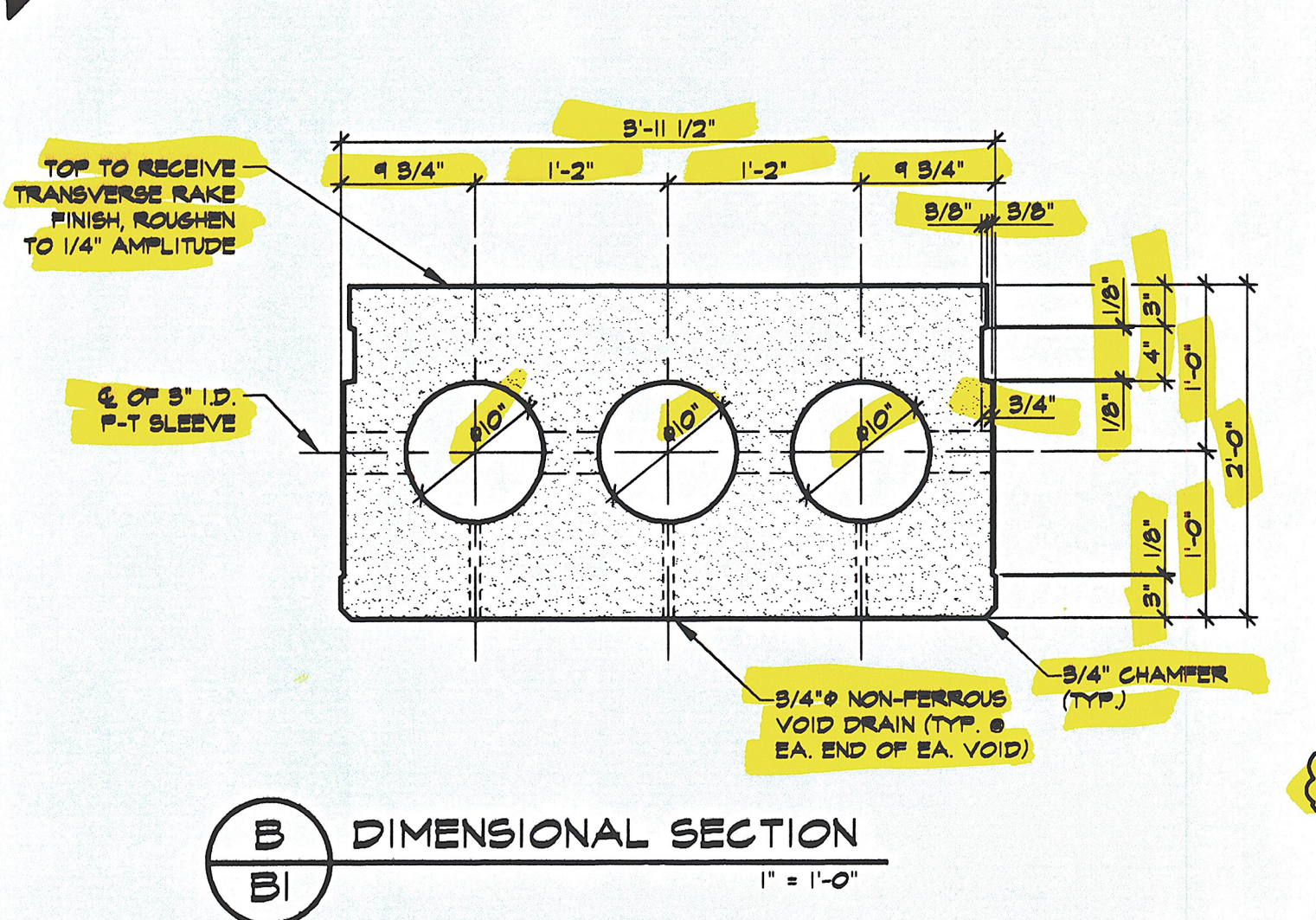
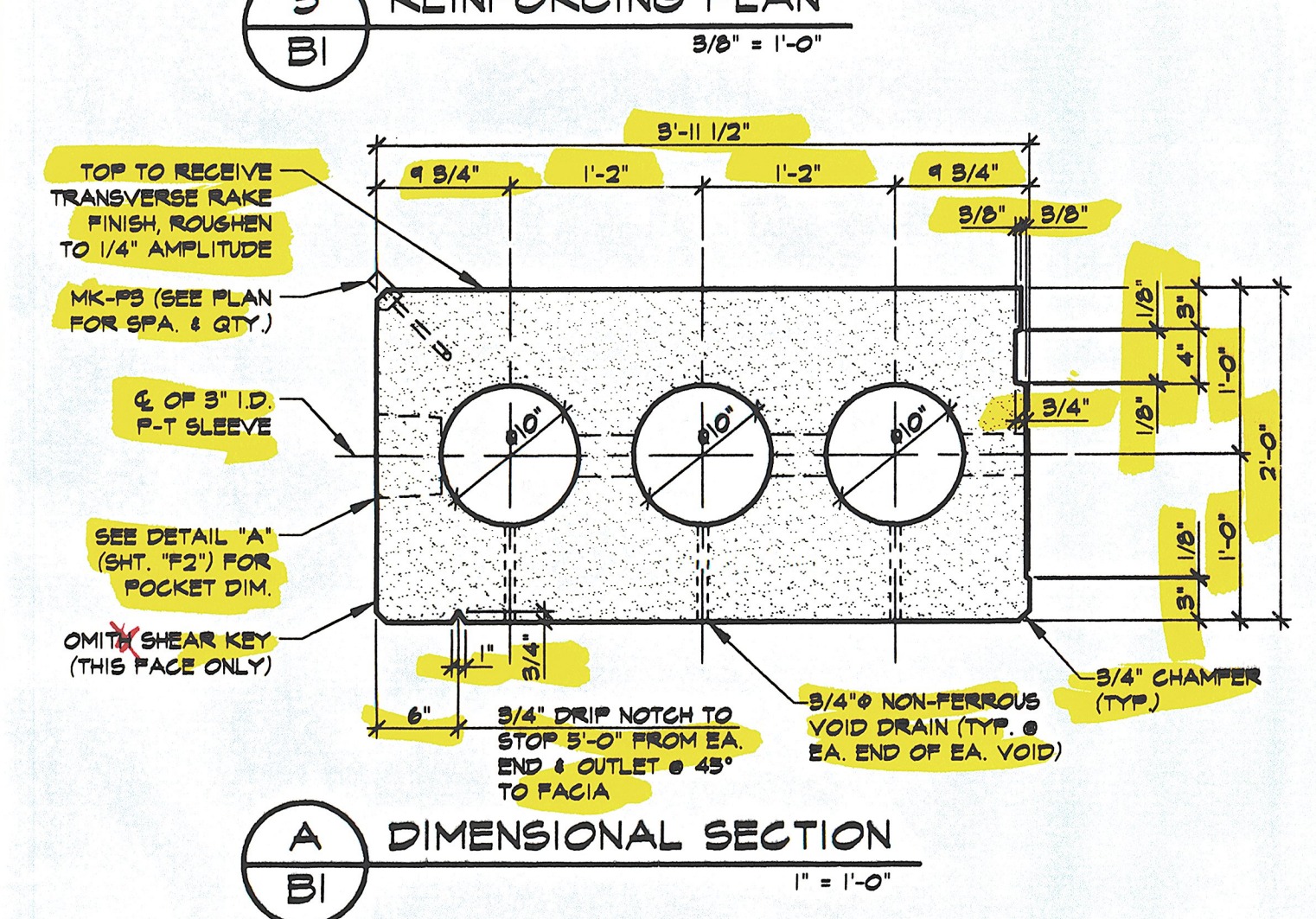
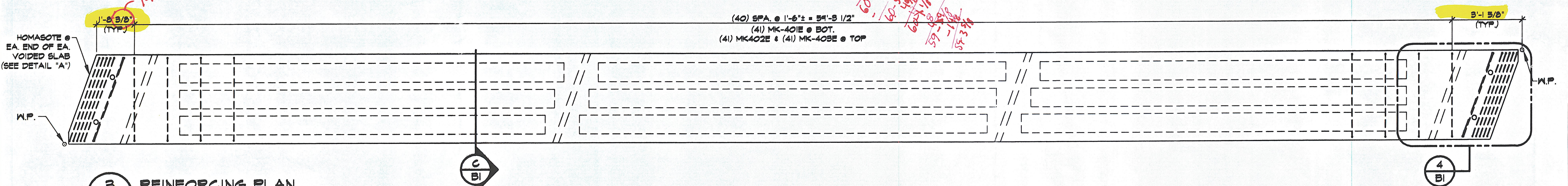
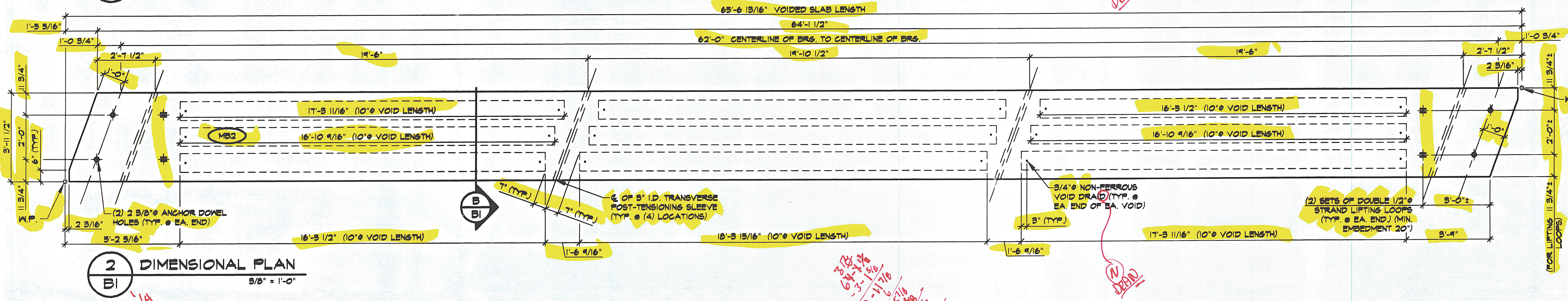
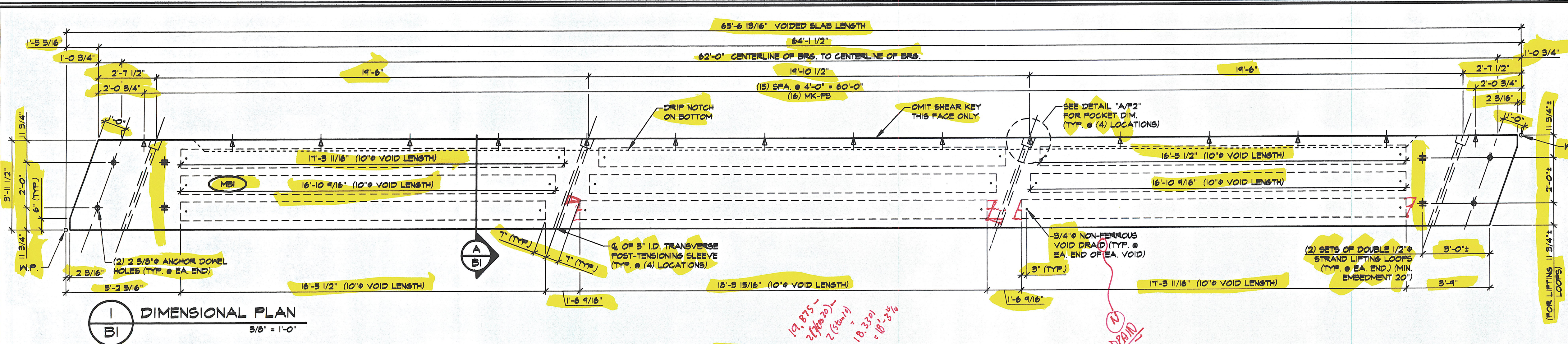
ELEVATION OF BARRIER RAIL (FROM BACK)



SPLICE BAR NOTES

- (1) FOR MATERIALS SPECIFICATIONS AND ADDITIONAL DETAILS, SEE THE BRIDGE RAIL AND BRIDGE APPROACH RAIL SHEETS.
- (2) ALL BARRIER BRIDGE RAILS AND BARRIER BRIDGE APPROACH RAILS SHALL HAVE SLOTTED HOLES AT BOTH ENDS OF EACH RAIL ELEMENT.
- (3) THE SPLICE BAR SHALL BE ATTACHED TO THE RAIL ELEMENT AS FOLLOWS:
 - (a) THE STANDARD SPLICE FOR BOTH BRIDGE AND APPROACH RAILS SHALL BE FASTENED ONE SIDE USING STANDARD BOLTS & WASHERS TIGHTENED SECURELY. THE OTHER SIDE OF THE SPLICE SHALL USE THE PARTIALLY THREADED BOLT WITH EITHER THE EXTRUDED WASHER OR THE WELDED WASHER, TIGHTENED SECURELY TO THE END OF THE THREADS AND LEAVING A 1/8" GAP. THIS ALLOWS EXPANSION ON ONE SIDE OF THE JOINT.
 - (b) THE RAIL SPLICE AT THE BRIDGE EXPANSION JOINT SHALL BE FASTENED ON BOTH SIDES OF THE RAIL SPLICE USING THE PARTIALLY THREADED BOLTS, WITH EITHER THE EXTRUDED WASHER OR THE WELDED WASHER, TIGHTENED SECURELY TO THE END OF THE THREADS, AND LEAVING A 1/8" GAP. THIS ALLOWS EXPANSION ON BOTH SIDES OF THE JOINT.





RECEIVED
SEP 15 1997
RESUBMIT APPROVED
BY DATE 9/13/97

DETENSING SCHEDULE
N.T.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----

MARK:	MB1	QTY:	2	WT./TONS	31.93	CU. YDS.	15.77
MARK:	MB2	QTY:	7	WT./TONS	31.82	CU. YDS.	15.71

MATERIAL LIST / BEAM

ITEM	MARK	DESCRIPTION	QTY. / PC.	
			MB1	MB2
1	401E	#4 BENT BAR (EPOXY COATED)	41	41
2	402E	#4 BENT BAR (EPOXY COATED)	41	41
3	403E	#4 BENT BAR (EPOXY COATED)	41	41
4	404E	#4 BENT BAR (EPOXY COATED)	2	2
5				
6	501E	#5 BENT BAR (EPOXY COATED)	12	12
7	502E	#5 BENT BAR (EPOXY COATED)	12	12
8				
9				
10				
11	MK-PB	RICHMOND ANGLE HANGER 45° HFR-HFA INSERT	16	
12				
13		10" VOID x 16'-5 1/2"	2	2
14		10" VOID x 16'-10 9/16"	2	2
15		10" VOID x 17'-5 11/16"	2	2
16		10" VOID x 18'-5 13/16"	3	3
17				
18		3/4" VOID DRAIN	18	18
19		1/2" STRAND LIFTING LOOP (SET OF (2) LOOPS)	4	4
20				
21				

NO.	DATE	REVISION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAWN: B.M. LOPEZ
DESIGNED: _____
CHECKED: _____
APPROVED: _____

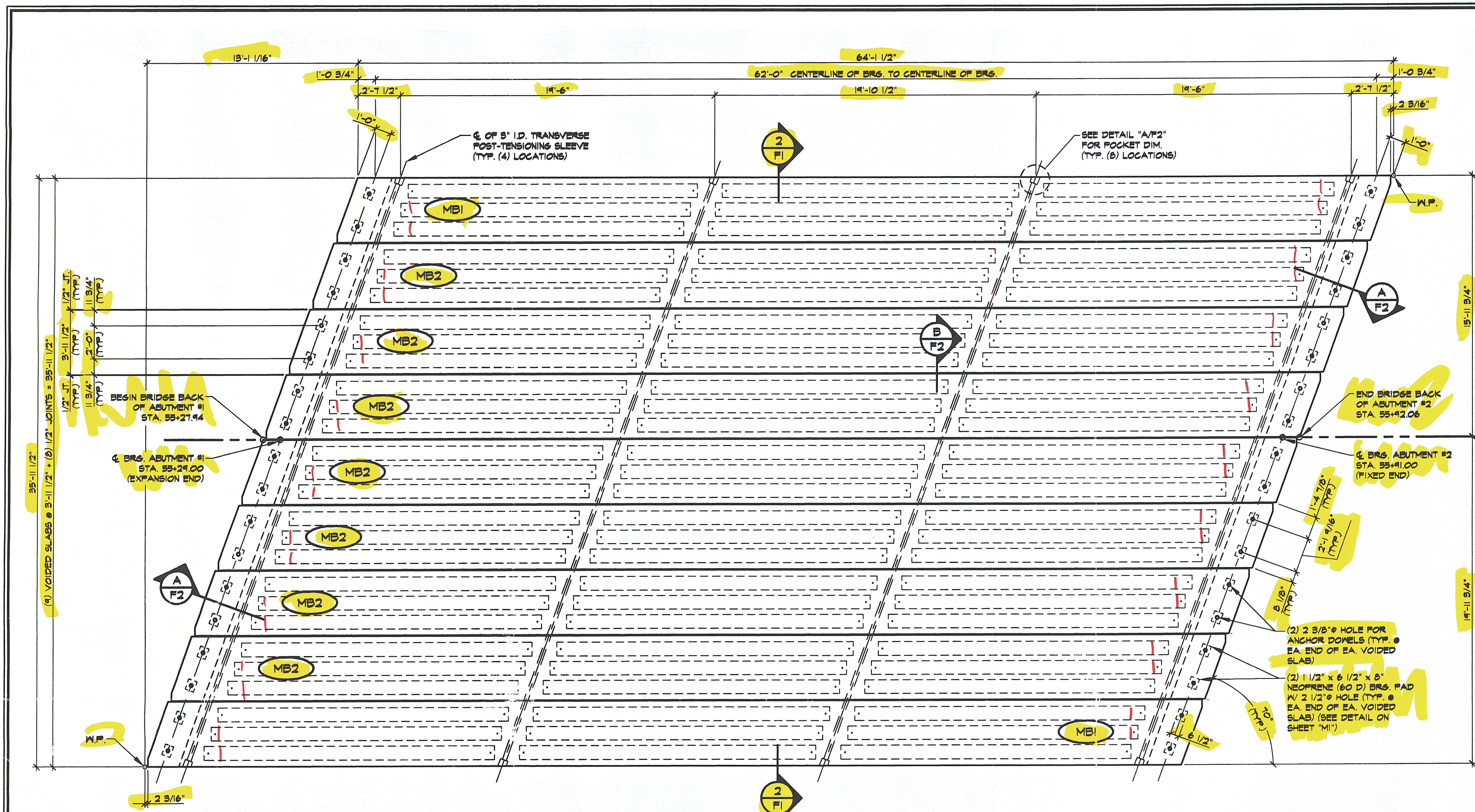
J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
RTE. 116, WOODSBURY, VERMONT 05753
Phone: (802) 388-8361 Fax: (802) 388-9010

WINCO, INC.
P.O. BOX 339
SWANTON, VT 05488

Project Name: TOWN OF MONTGOMERY
BRIDGE #15
VT 118 OVER THE TROUT RIVER
P/C VOIDED SLAB DETAILS

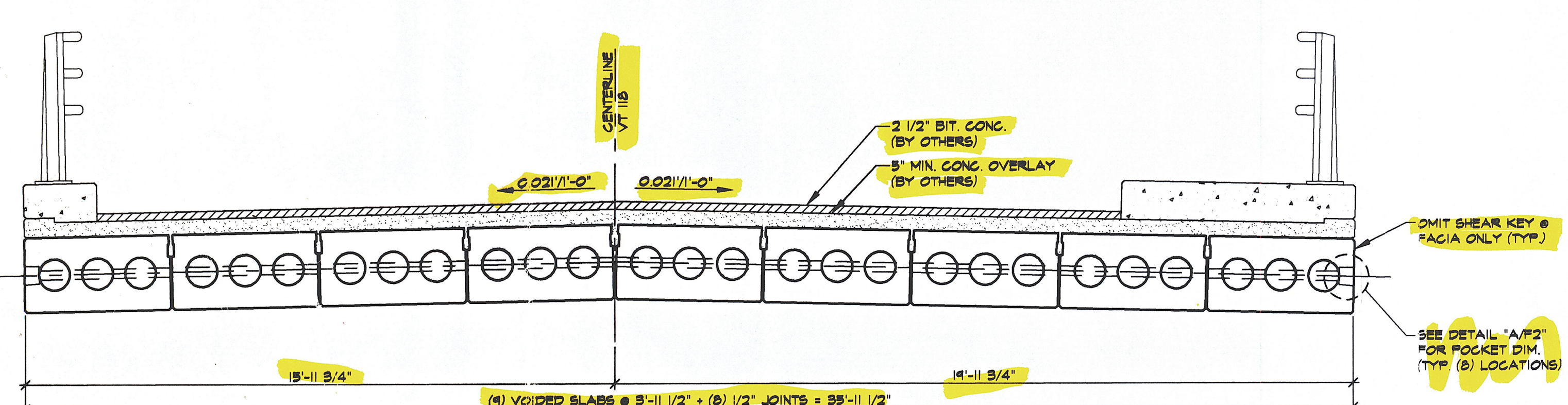
SCALE: NOTED
JOB #: 23050-97
DATE: 9-5-97
SHEET #: B1

DECK B1



1 BRIDGE BEAM LAYOUT
1/4" = 1'-0"

DESIGN LOAD: HS-25



2 TRANSVERSE SECTION
3/8" = 1'-0"

GENERAL NOTES

- MIN. CONCRETE STRENGTH AT 28 DAYS SHALL BE 6500 PSI
 - MIN CONCRETE STRENGTH AT STRESS TRANSFER SHALL BE 5000 PSI.
 - REINFORCING STEEL SHALL BE GR-60, ASTM A-615 (AASHTO M61) AND SHALL BE EPOXY COATED.
 - PRESTRESSING STRANDS SHALL CONFORM TO ASTM A-416 (AASHTO M208) AND SHALL CONSIST OF 270 KSI (0.600") 7 WIRE LOW RELAXATION STRANDS.
 - PRESTRESSING STRANDS SHALL EACH BE PULLED TO HAVE A NET TENSION OF 44.0K OR 22.0K (AS SHOWN ON DRAWINGS) AFTER ACCOUNTING FOR CHUCK SLIPPAGE. TENSION SHALL BE VERIFIED BY MEASURING STRAND ELONGATION. SEE EXAMPLE ELONGATION CALCULATION AND TENSIONING PROCEDURE, THIS SHEET.
 - ENDS OF PRESTRESSING STRANDS SHALL BE RECESSED AND GROUTED FLUSH.
 - BEARINGS PADS SHALL CONFORM TO VERMONT SPEC. TS1.05.
 - ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
 - THE TOPS OF THE BEAMS SHALL RECEIVE A TRANSVERSE RAKE FINISH ROUGHEN TO 1/4" AMPLITUDE.
 - BEAMS SHALL BE HANDLED AND ERECTED USING THE LIFTING LOOPS ONLY. THE MINIMUM SLING ANGLE FROM THE HORIZONTAL SHALL BE 60°. BEAMS SHALL BE STORED AND TRANSPORTED WITH TIMBER SUPPORTS WITHIN 6'-0" OF THE BEAM ENDS, UNLESS APPROVED BY J.P. CARRARA & SONS INC.
 - MATERIAL SPECIFICATION AND MIX DESIGN SHALL CONFORM TO VERMONT SPEC. PS10.02 AND PS10.05 RESPECTIVELY.
- DESIGN MIX:
 165 LBS. TYPE III CEMENT - GLENS FALLS CEMENT
 1245 LBS. FINE AGGREGATE
 1675 LBS. COARSE AGGREGATE
 55 GAL. WATER - 242 LBS.
 6% (1%) AIR CONTENT (5.5 OZ. DAREX II) ADJUST AS REQUIRED
 26 OZ. WEDA-14 PER 100 LBS. CEMENT, MAX. 7' SLUMP
 2 OZ. DERACEM 65 PER 100 LBS. CEMENT
- QUALITY CONTROL PROCEDURES ARE IN ACCORDANCE WITH PCI REQUIREMENTS. J.P. CARRARA & SONS INC. IS A PCI CERTIFIED PLANT.
 - THE VERMONT AGENCY OF TRANSPORTATION WILL BE NOTIFIED IN A TIMELY MANNER SO THAT ALL PRECAST OPERATIONS MAY BE WITNESSED (IF APPLICABLE).
 - THE VOIDS MUST BE VENTED DURING CURING PERIOD.
 - CURING METHOD: AS SOON AS THE TOP OF THE BEAM IS FINISHED, A COVER OF POLY AND A LAYER OF HOMOSOTE (OR BLUE BOARD) WILL BE PLACED OVER THE BEAM. THE DESIRED CURING TEMPERATURE RANGE SHALL NOT DROP BELOW TO DEGREES F. THE TEMPERATURE SHALL BE RECORDED BY AUTOMATIC SENSOR AFFAIRY AND WILL CONTINUE UNTIL RELEASE STRENGTH IS ACHIEVED (NATURAL CURE WITH NO EXTERNAL HEAT APPLIED). EACH CHART SHALL BE MARKED.

EXAMPLE STRAND ELONGATION CALCULATION AND TENSIONING
(NOT TO BE USED FOR CONSTRUCTION)

SIZE & GRADE: 0.600" 270 KSI
 AREA: 0.215 IN²
 TENSION: 44,000 LB EACH STRAND
 GRIP TO GRIP: 142'-4 3/4" = 142.813'
 E_s = 28,600,000 PSI (ASSUMED FOR THESE CALCULATIONS. VALUE TO BE OBTAINED FOR STRAND SPOOL ACTUALLY USED).

EXAMPLE:

$$\Delta = \frac{PL}{AE} = \frac{(44,000 - 3,000) \times 142.813 \times 12}{0.215 \times 28,600,000} = 15.48"$$
 TOLERANCES: ± 5%
 THEREFORE Δ UPPER LIMIT = 1.05 x 15.48" = 16.20" = 16 9/16"
 Δ LOWER LIMIT = 0.95 x 15.48" = 14.69" = 14 5/8"

EXTRA FORCE REQUIRED TO COMPENSATE FOR 1/2" CHUCK SLIPPAGE

$$\Delta P = \frac{0.5 \times 41,000}{15.48} = 1350 \text{ LB}$$

TOTAL TENSIONING FORCE = 44,000 + 1350 = 45,350 LB

STRAND TENSIONING PROCEDURE:

- FULL EACH STRAND INITIALLY TO 3000* LB AND MARK STRAND.
 - THEN PULL EACH STRAND TO A TOTAL TENSION OF 45,350* LB AND MEASURE ELONGATION AFTER SEATING. IT MUST BE BETWEEN 14 5/8" & 16 9/16"
- *NOTE: FORCES READ ON STRESSING JACK GAUGES MUST BE MADE TO CORRESPOND TO ABOVE VALUES BASED ON CALIBRATION DATA FOR SPECIFIC JACK USED.

STRUCTURES COPY.

RECEIVED
 OK'D BY: *[Signature]* OK'D BY: _____
 SEP 15 1997
 RESUBMITTED BY: *[Signature]* AS NOTED
 BY: *[Signature]* 9/23/97

F:\vt-brn-dwg\mont-f1 Thu Sep 11 15:05:10 1997

NO.	DATE	REVISION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAWN: B.M. LOPEZ
 DESIGNED: _____
 CHECKED: _____
 APPROVED: _____

J.P. CARRARA & SONS INC.
 Precast & Prestress Manufacturer
 RT. 116, WOODSBURY, VERMONT 05753
 Phone: (802) 388-8361
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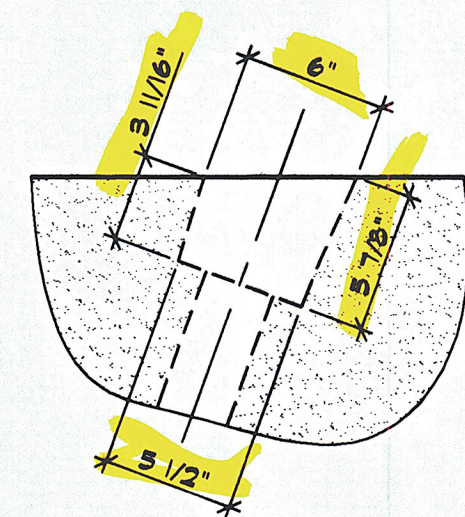
Double-Tees Hollow-Core Plank Flat Panels

WINCO, INC.
 P.O. BOX 339
 SWANTON, VT 05488

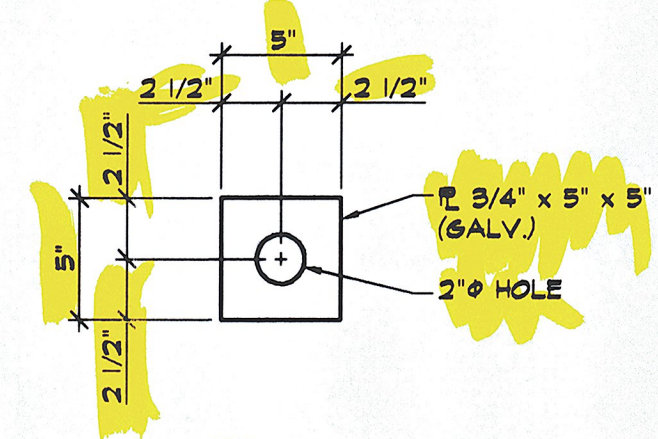
Project Name:
TOWN OF MONTGOMERY
BRIDGE #15
VT 118 OVER THE TROUT RIVER
SUPPERSTRUCTURE DETAILS

SCALE: NOTED
 JOB #: 23050-97
 DATE: 9-5-97
 SHEET #: F1

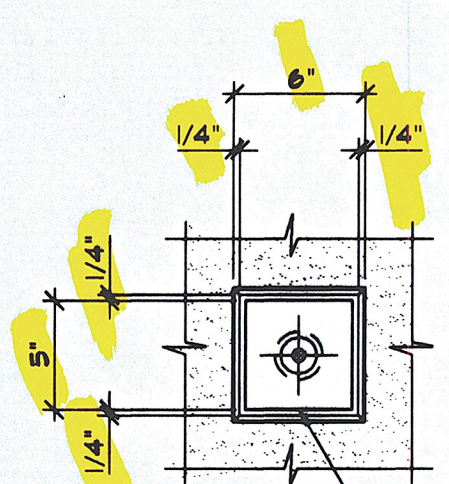
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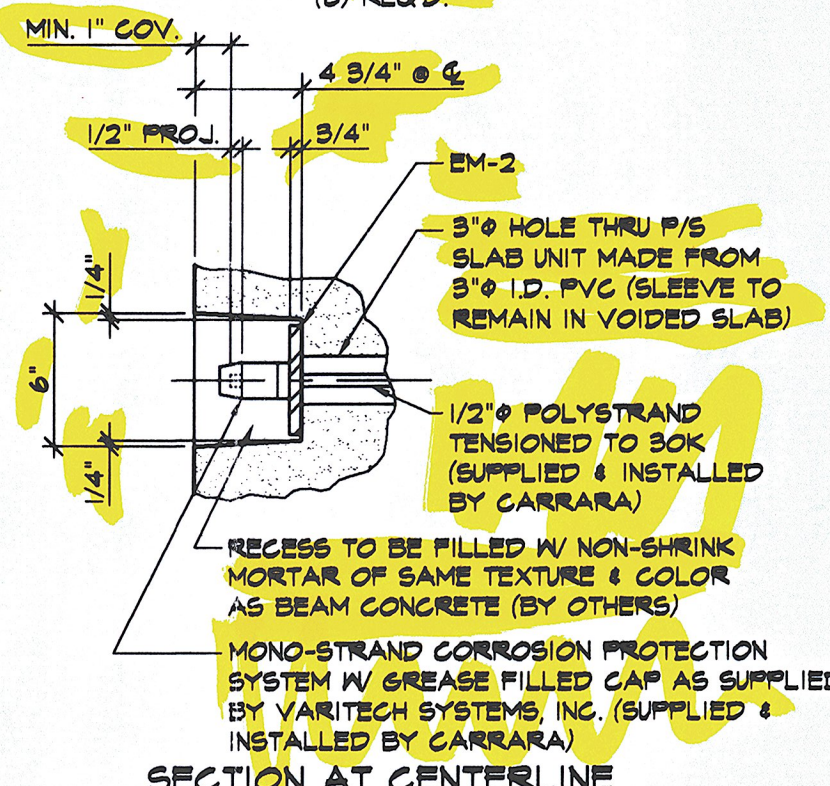
PLAN OF POCKET



EM-2
(b) REGRD.

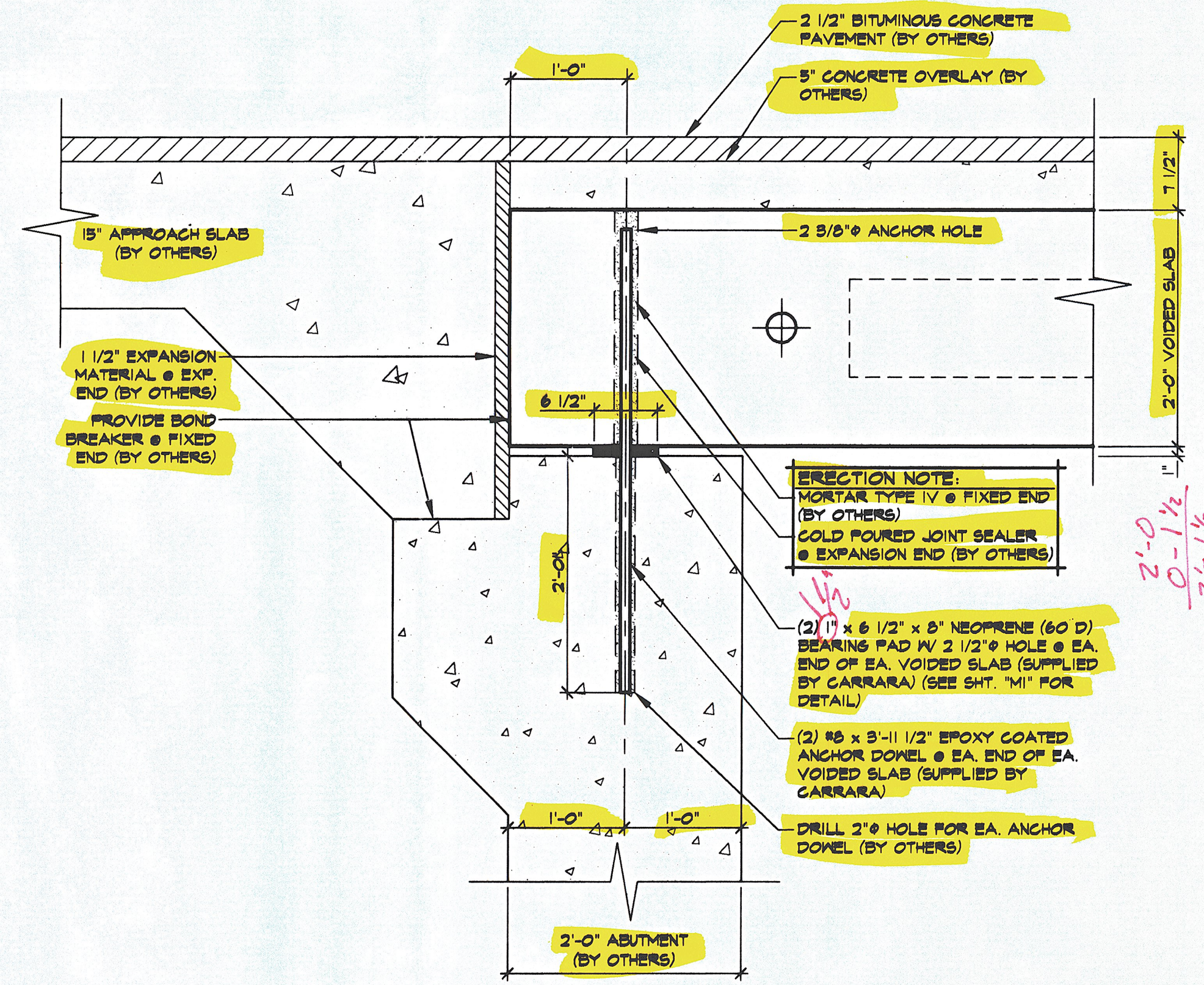


FASCIA ELEVATION



SECTION AT CENTERLINE

DETAIL - "A"
1/2" = 1'-0"



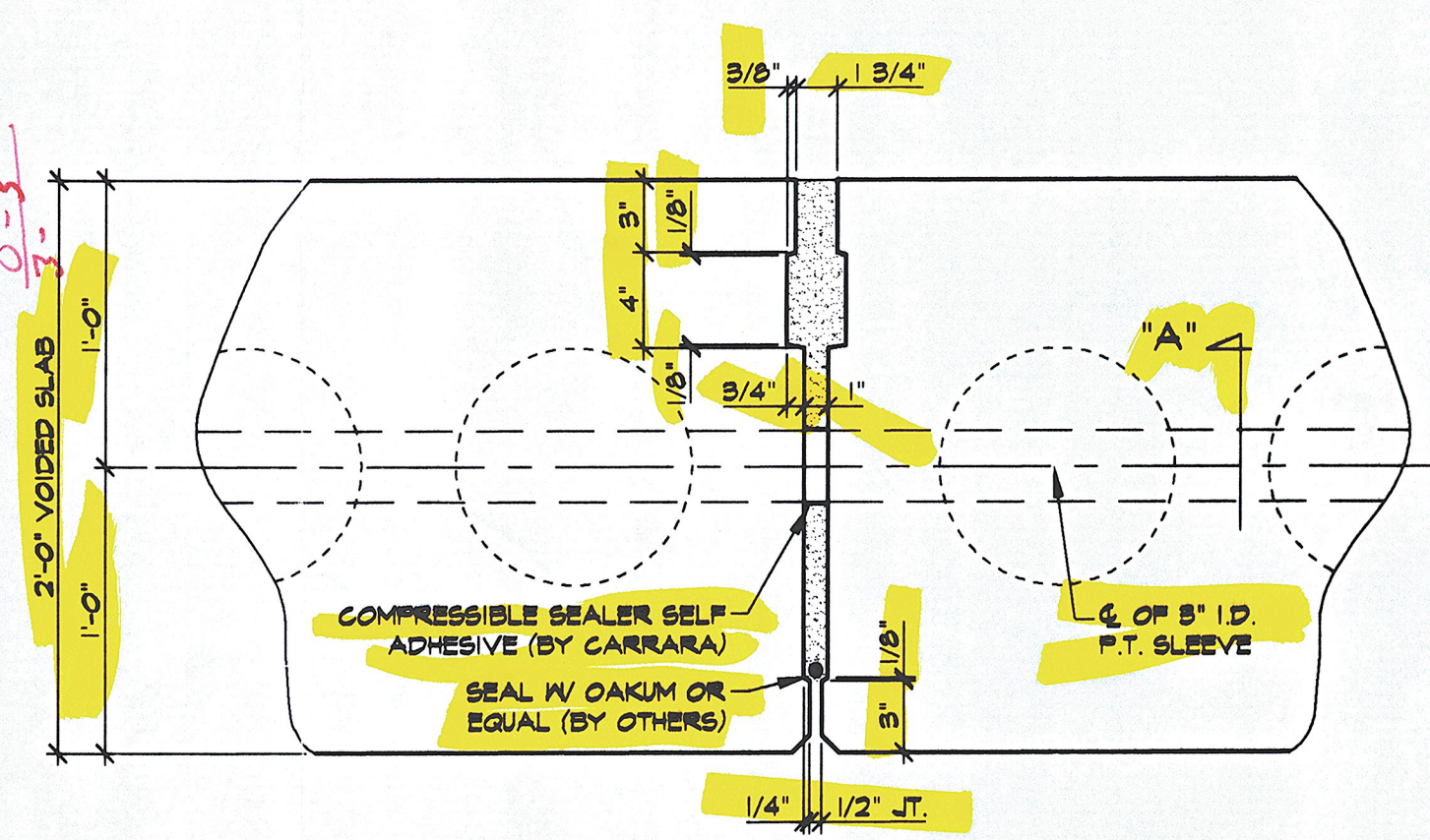
A SECTION AT BEARING
F2
1" = 1'-0"

ERECTION NOTE:
MORTAR TYPE IV @ FIXED END (BY OTHERS)
COLD POURED JOINT SEALER @ EXPANSION END (BY OTHERS)

(2) 1 1/2 x 6 1/2 x 8" NEOPRENE (60 D) BEARING PAD W/ 2 1/2" HOLE @ EA. END OF EA. VOIDED SLAB (SUPPLIED BY CARRARA) (SEE SHT. "M" FOR DETAIL)

(2) 16 x 3-1/2" EPOXY COATED ANCHOR DOVEL @ EA. END OF EA. VOIDED SLAB (SUPPLIED BY CARRARA)

DRILL 2" HOLE FOR EA. ANCHOR DOVEL (BY OTHERS)



B SECTION - "A"
F2
1/2" = 1'-0"

GROUT MATERIAL (TYP) (BY OTHERS)
COMPRESSIBLE SEALER SELF ADHESIVE TO BE PLACED PRIOR TO THE ERECTION OF THE BRIDGE BEAMS (BY CARRARA)
3" TENDON HOLE MADE FROM 3" I.D. PVC (SLEEVE TO REMAIN IN BEAM) (TYP)

SECTION - "A"
1/2" = 1'-0"

RECEIVED
CND BY *CWC* OK'D BY _____
SEP 15 1997
RESUBMIT _____ APPROVED *As Noted*
BY *GSZ* DATE *9/23/97*

NO.	DATE	REVISION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAWN: B.M. LOPEZ
DESIGNED: _____
CHECKED: _____
APPROVED: _____

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
RTE. 116, MIDDLEBURY, VERMONT 05753
Phone: (802) 388-8361 Fax: (802) 388-9010
Double-Tees Hollow-Core Plank Flat Panels

WINCO, INC.
P.O. BOX 334
SWANTON, VT 05488

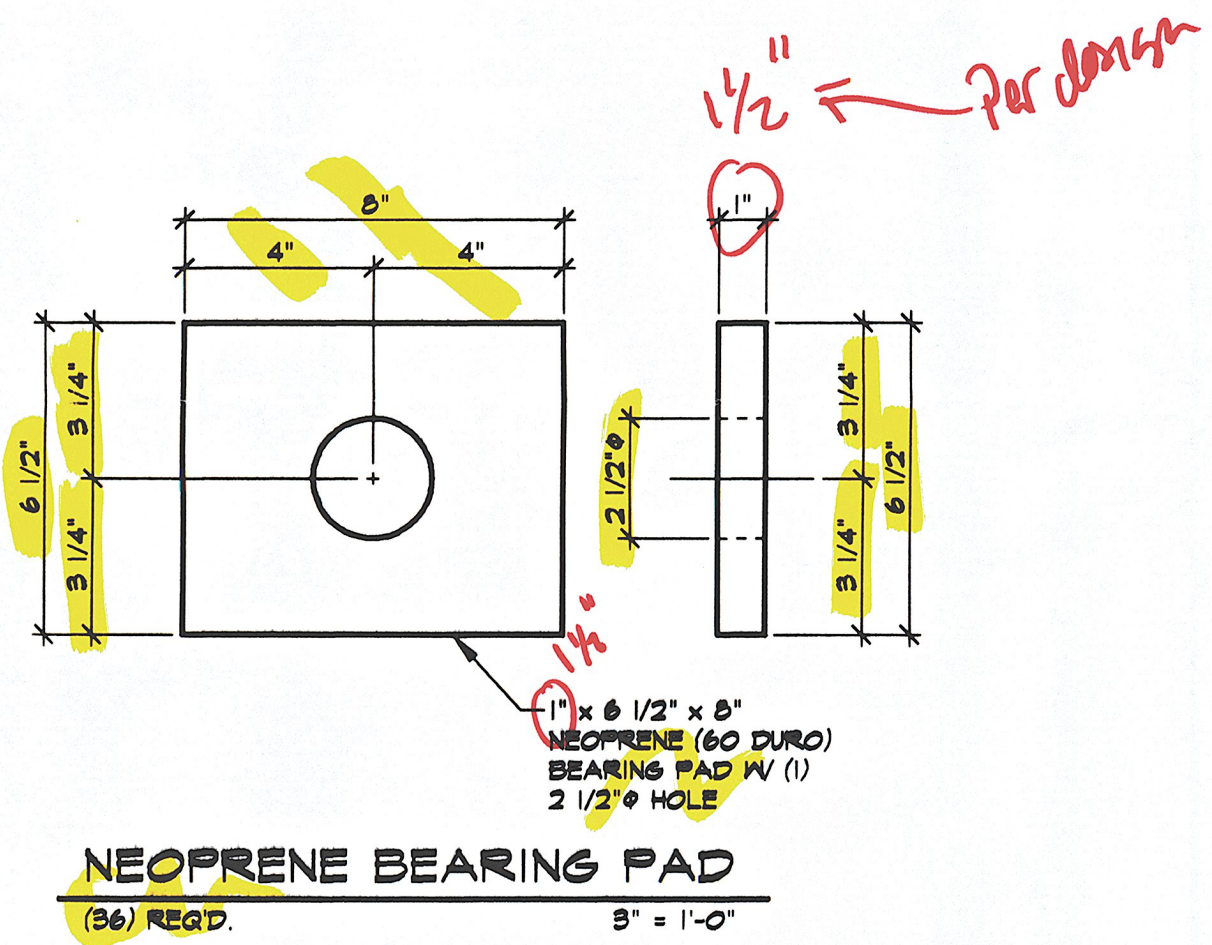
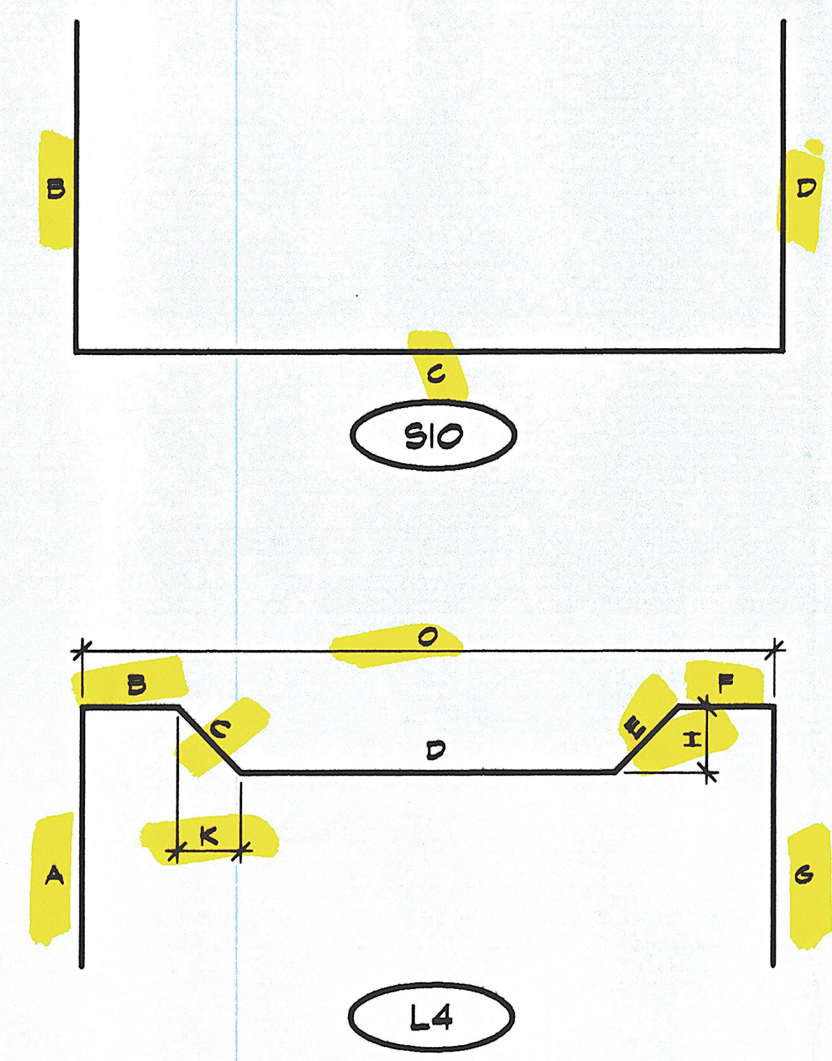
Project Name:
**TOWN OF MONTGOMERY
BRIDGE #15
VT 118 OVER THE TROUT RIVER**
SUPPERSTRUCTURE DETAILS

SCALE: JOB #:
NOTED 23050-97
DATE: SHEET #:
9-5-97 F2

BENT BARS, TIES, & STIRRUPS																		
ITEM	MARK	QTY.	SIZE	LENGTH	TYPE	A	B	C	D	E	F/R	G	H	J	K	O	GRADE	REMARKS
1	401E	36#	4	6'-11"	S10		1'-8 1/2"	5'-8"	1'-8 1/2"								60	EPOXY COATED
2	402E	36#	4	6'-2"	S10		1'-4"	5'-8"	1'-4"								60	EPOXY COATED
3	403E	36#	4	6'-2 3/4"	L4	1'-4"	6"	5 3/8"	1'-11 1/2"	3 3/8"	6"	1'-4"	4"		4"	5'-8"	60	EPOXY COATED
4	404E	18	4	6'-5 3/8"	L4	1'-4"	6"	5 3/8"	2'-2 3/8"	3 3/8"	6"	1'-4"	4"		4"	5'-10 1/8"	60	EPOXY COATED
5																		
6	501E	108	5	1'-4 3/8"	S10		1'-8 1/2"	3'-10 1/8"	1'-8 1/2"								60	EPOXY COATED
7	502E	108	5	6'-4 3/8"	S10		1'-4"	3'-10 1/8"	1'-4"								60	EPOXY COATED
8																		
9																		
10																		
11																		
12																		
13																		
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24																		
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26																		
27																		
28																		
29																		

Check

MISCELLANEOUS MATERIAL				
ITEM	MARK	QTY.	DESCRIPTION	REMARKS
1				
2				
3				
4		162	3/4" NON-FERROUS VOID DRAIN	
5		36	DOUBLE 1/2" STRAND LIFT LOOPS	
6				
7				
8				
9				
10				
11				
12				
13		4	1/2" POLYSTRAND x 44'-0"	FOR TRANS. TENSIONING
14	EM-2	8	E 3/4"x5"x5" W/ 2" HOLE	GALV.
15				
16				
17				
18				
19				
20	MK-PS	32	RICHMOND ANGLE HANGER 45° HFR-HFA INSERT	
21		36	1" x 6 1/2" x 8" NEOPRENE (60 DURO) BEARING PAD	
22				
23		18	10" x 16'-5 1/2" VOIDS	
24		18	10" x 16'-10 4/16" VOIDS	
25		18	10" x 17'-3 11/16" VOIDS	
26		27	10" x 18'-3 15/16" VOIDS	
27				



NEOPRENE BEARING PAD
(36) REQD. 8" x 1'-0"

NOTE:
THICKNESS HAS CHANGED
DUE TO AVAILABILITY.

RECEIVED
CK'D BY *CSR* CK'D BY _____
SEP 15 1997
RESUBMIT _____ APPROVED *AS NOTED*
BY *CSR* DATE *9/13/97*

NO.	DATE	REVISION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAWN: B.M. LOPEZ
DESIGNED: _____
CHECKED: _____
APPROVED: _____

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Project Name:
**TOWN OF MONTGOMERY
BRIDGE #15
VT 118 OVER THE TROUT RIVER**
MATERIALS LIST

SCALE: **NOTED** JOB #: **23050-97**
DATE: **9-5-97** SHEET #: **MI**