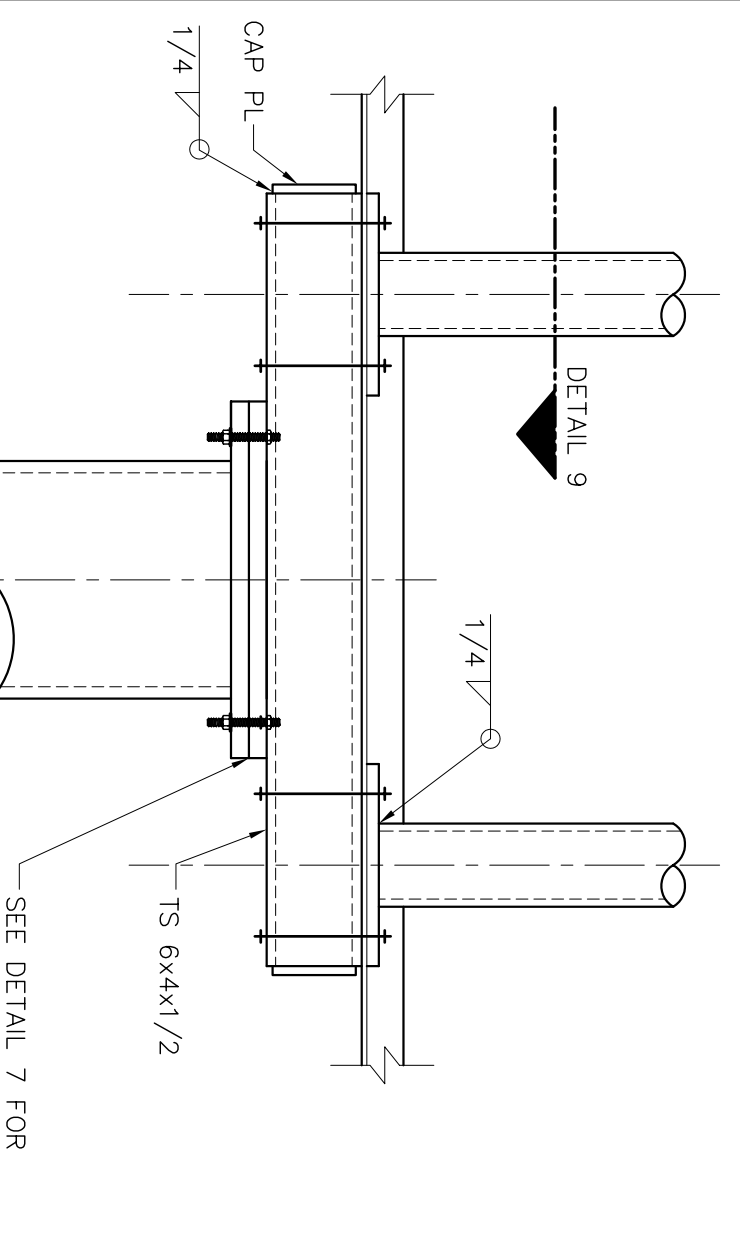
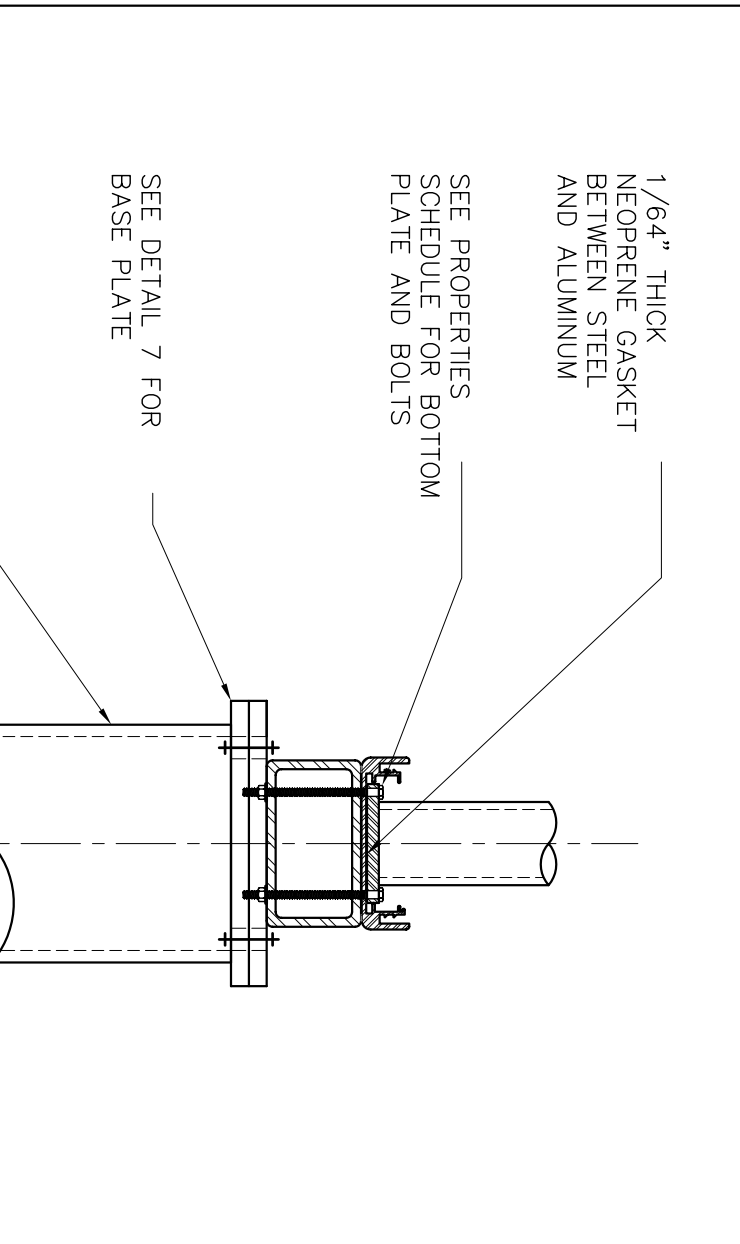


PROPERTIES SCHEDULE			
HEAD-LINER (Hs x Ws)	SIGN EXTRUSION	PIPE SIZE	TOP PLATE
10'-0"	E	---	---
5x10'	C	(2)-3/8" Ø XS	PL 7/8" x 5" x 8 1/2" W/ (4)-3/4" Ø BOLTS
12'-0"	E	---	---
4x12'	C	(2)-3/8" Ø XS	SEE DETAIL 6
6x12'	C	(2)-4" Ø XXS	SEE DETAIL 6



**SIGN ELEVATION**

**GENERAL NOTES & SPECIFICATIONS**

- GOVERNING CODES:**  
SOUTH FLORIDA BUILDING CODE (ASCE 7-98) 120 MPH, EXP. C  
SOUTHERN STANDARD BUILDING CODE 138 MPH  
UNIFORM BUILDING CODE, 1997 124 MPH, EXP. C
- DESIGN LOADS:**  
DEAD LOAD 6 LBS. PER SQ. FT.  
WIND LOAD 66 LBS. PER SQ. FT.
- RESTRICTIONS:**  
A. THE DESIGN LOADS ABOVE ARE BASED ON A HEIGHT ABOVE GROUND OF 25 FEET MAXIMUM.
- LIMITATIONS:**  
THE DESIGN AND CONSTRUCTION OF THE SIGN SHOWN HEREON CONFORMS TO THE ABOVE GOVERNING CODES WHEN INSTALLED AS SPECIFIED ON THIS DRAWING. NO OTHER WARRANTY IS EXPRESSED OR IMPLIED. ANY ALTERATIONS OF THIS DRAWING WILL VOID THE SHEET. THIS SHEET IS VALID ONLY IF SIGNED IN INK BY THE ENGINEER. THE METHOD OF ATTACHMENT TO SUPPORTS (POLES, WALLS, ETC.) IS NOT A PART OF THIS WORK AND MUST BE DESIGNED AND DETAILED BY OTHERS.
- MATERIALS:**  
A. ALUMINUM - ALLOW 6061-T6 OR 6005-T5  
BOLTS - TENSILE STRENGTH > 90KSI, ASTM F993  
SIGN PANELS - TO BE UNDERWRITERS LABORATORY APPROVED  
PIPE - USE ONLY APPROVED ASTM A572  
PLATE STEEL - ASTM A53, GRADE B  
TUBE - ASTM A500, GRADE B  
B. PROVIDE ISOLATION OF DISSIMILAR MATERIALS.
- WORKMANSHIP:**  
ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE GOVERNING CODE (LATEST EDITION) AND THE LOCAL BUILDING OFFICIAL. WELDING SHALL CONFORM TO ALL APPLICABLE CODES. CERTIFIED WELDERS ARE REQUIRED.
- WELD SPECIFICATIONS:**  
STEEL WELDING: ALL WELDING SHOULD BE PERFORMED BY CERTIFIED WELDERS. WELDS USING E70 ELECTRODES ON ALUMINUM AND APPROVED SYSTEMS AND INSPECTION FOR FIELD WELDING IN ACCORDANCE WITH USC SECTION 1701.5.  
ALUMINUM WELDING: ALL WELDING SHALL BE DONE IN ACCORDANCE WITH LATEST EDITION OF THE AMERICAN WELDING SOCIETY D1.2 STRUCTURAL WELDING CODE ALUMINUM.

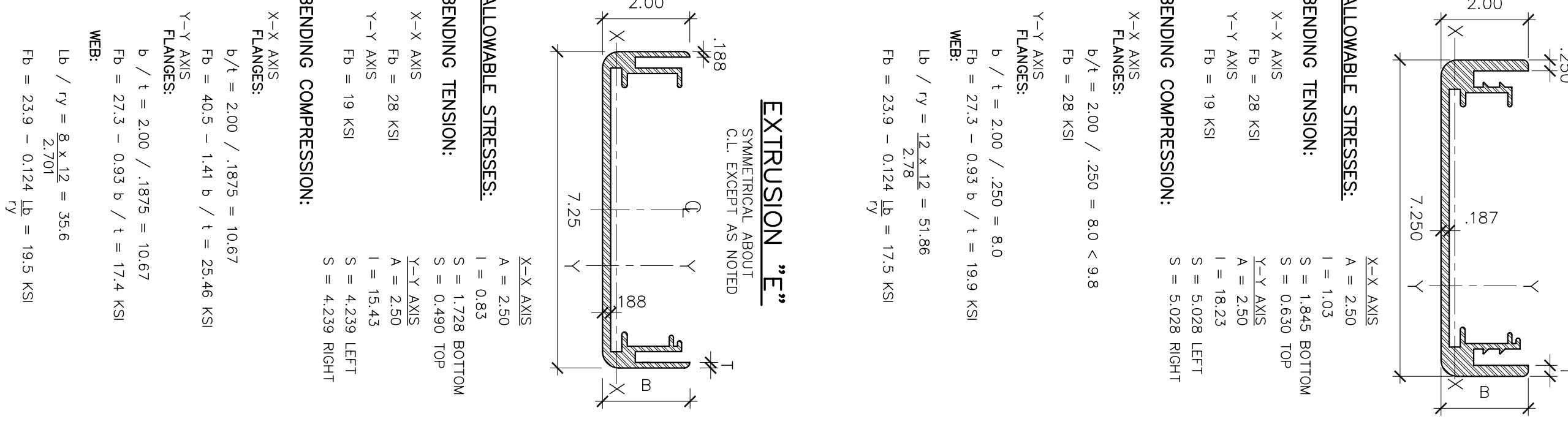
**6x12' SIGN w/ 12' HEADLINER**

- POLE:**  
FORCE (SIGN) = 66 x 6 x 12 = 4752 LB  
FORCE (HL) = 66 x 1.33 x 12 = 1056 LB  
FORCE (TOTAL) = 5808 LB  
M = 4752 x 6/2 + 1056 x 6 = 1.33(2) = 21296 FT-LB  
S = 21296 x 12 / (1.33 x 6 x 36000) = 8.90 IN<sup>2</sup>
- TOP PLATE (1 OF 2 PLATES):**  
USE (2) - 4" DOUBLE EXTRA STRONG PIPES
- BOTTOM PLATE (1 OF 2 PLATES):**  
PLATE 3/8" x 5" x 8 1/2"
- BOLTS:**  
BOLTS (4) - 3/4" S.S.
- BASE PLATE:**  
PLATE 1" x 5" x 10"
- BOLT TENSION:**  
T = 352 x 12 / (.99 x 3.5) = 1220 LB (4 BOLTS)  
BOLT AREA: A = 1220 / (1.33 x 30000 x 2) = 0.016 IN<sup>2</sup>
- CHECK TORSION:**  
M = 7.33 x 12 x 66 x 4 = 23222 FT-LB  
CHECK TS 6k4k1/2: I<sub>w</sub> = 23222 x 12 / (2 x 5.5 x 3.5 x 5) = 14477 PSF  
F<sub>b</sub> = 46000 x 1.33 x 0.4 = 24472 > 14477 O.K.
- BASE PLATE:**  
SEE 7/S1

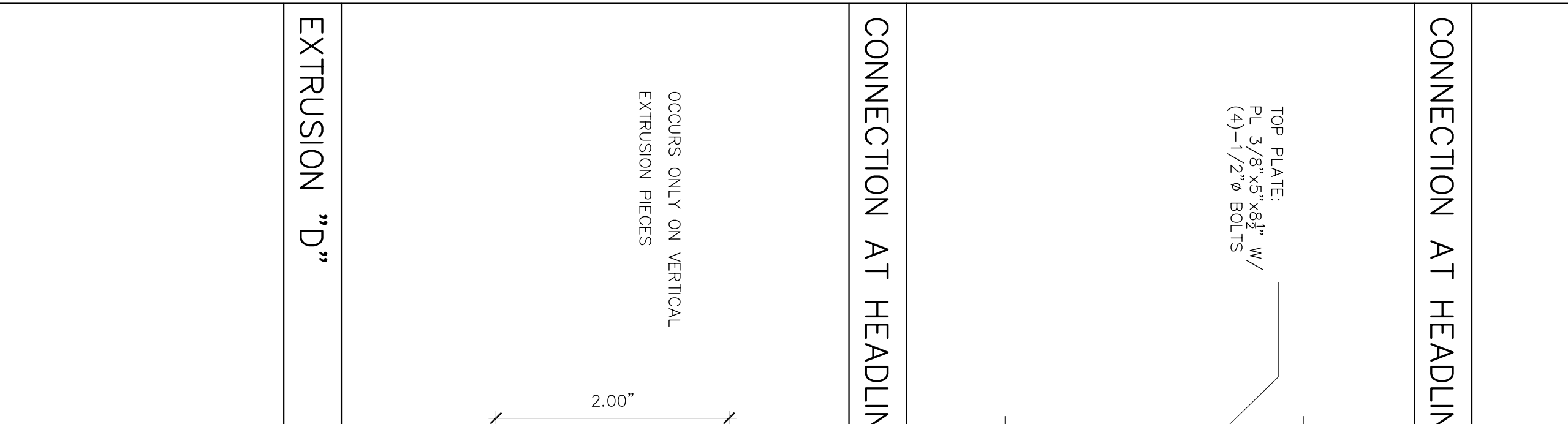
**5x10' SIGN w/ 10' HEADLINER**

- POLE:**  
FORCE (TOTAL) = 4180 LB  
M = 12337 FT-LB  
S = 5.53 IN<sup>2</sup>
- TOP PLATE:**  
USE (2) - 3 1/2" EXTRA STRONG PIPES
- BOTTOM PLATE:**  
PLATE 3/8" x 5" x 8 1/2"
- BOLTS:**  
BOLTS (4) - 3/4" S.S.
- CHECK TORSION:**  
M = 6.33 x 12 x 66 x 3.5 = 17547 FT-LB  
CHECK TS 6k4k1/2: I<sub>w</sub> = 17547 x 12 / (2 x 5.5 x 3.5 x 5) = 10939 PSF  
F<sub>b</sub> = 46000 x 1.33 x 0.4 = 24472 > 10939 O.K.
- BASE PLATE:**  
PLATE 3/4" x 15" x 1'-0"

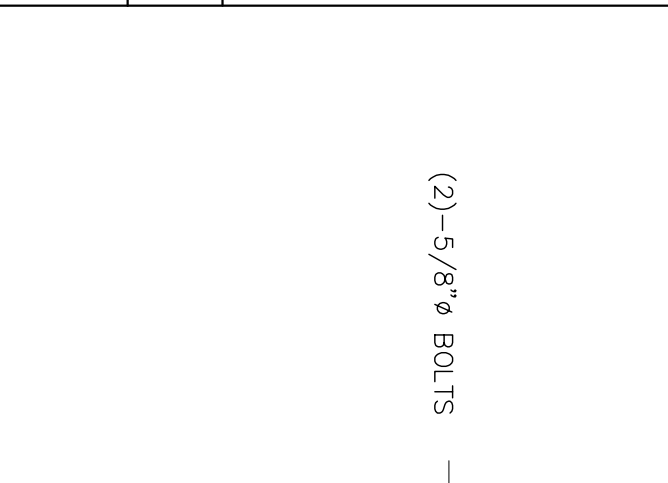
**EXTRUSION "C"**



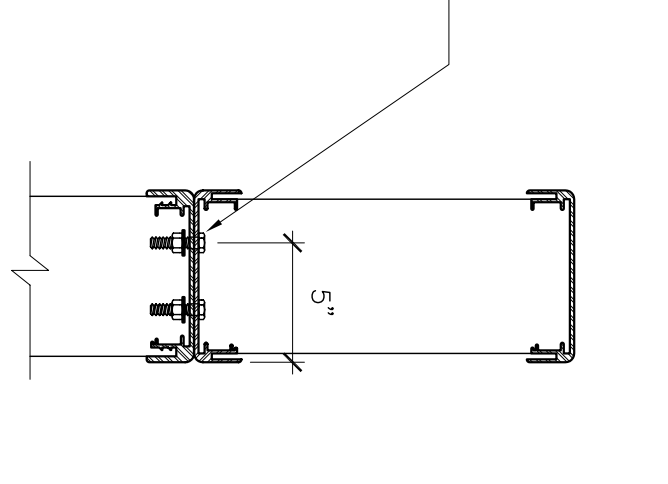
**EXTRUSION "E"**



**SECTION AT SIGN BOTTOM**



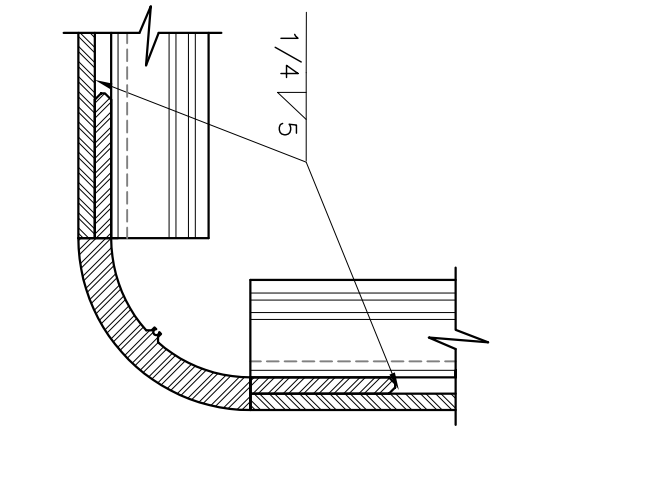
**CONNECTION AT HEADLINER**



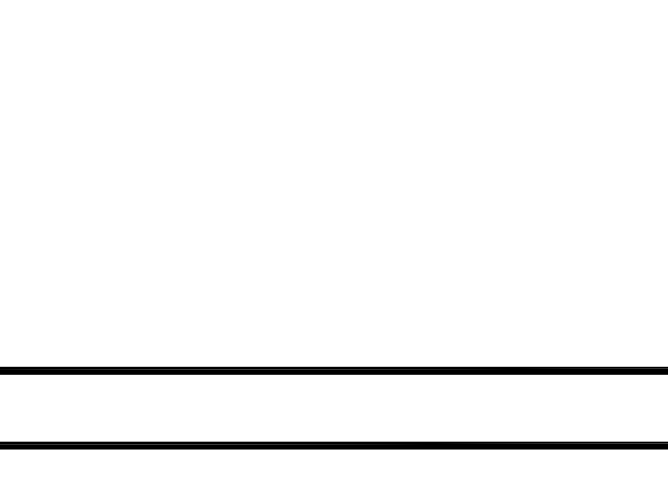
**CONNECTION AT SIGN BOTTOM**



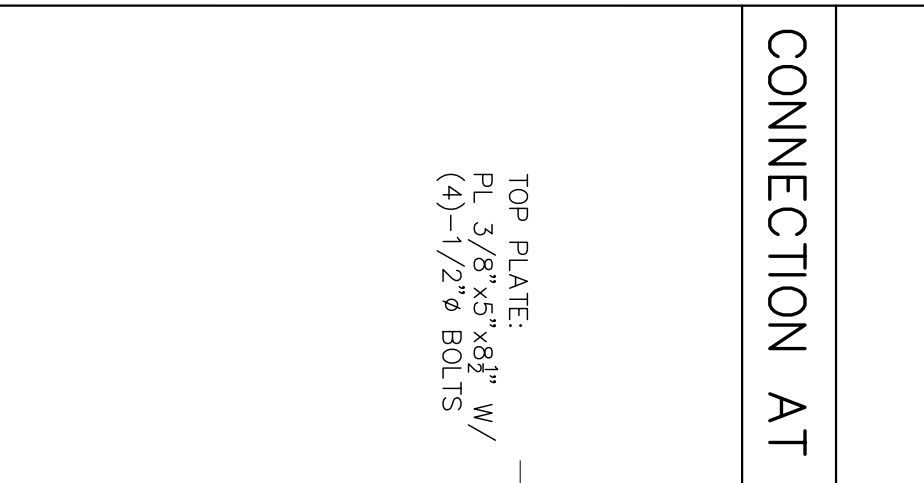
**CORNER DETAIL**



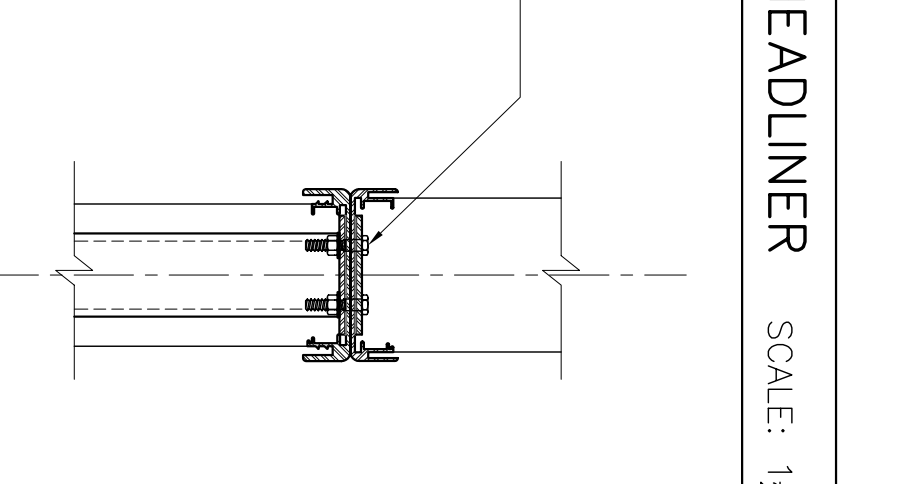
**CONNECTION AT HEADLINER**



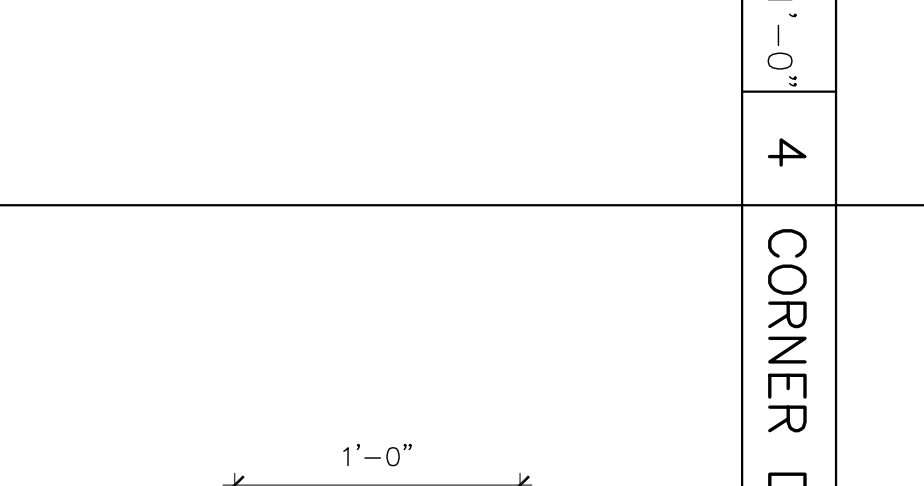
**CONNECTION AT HEADLINER**



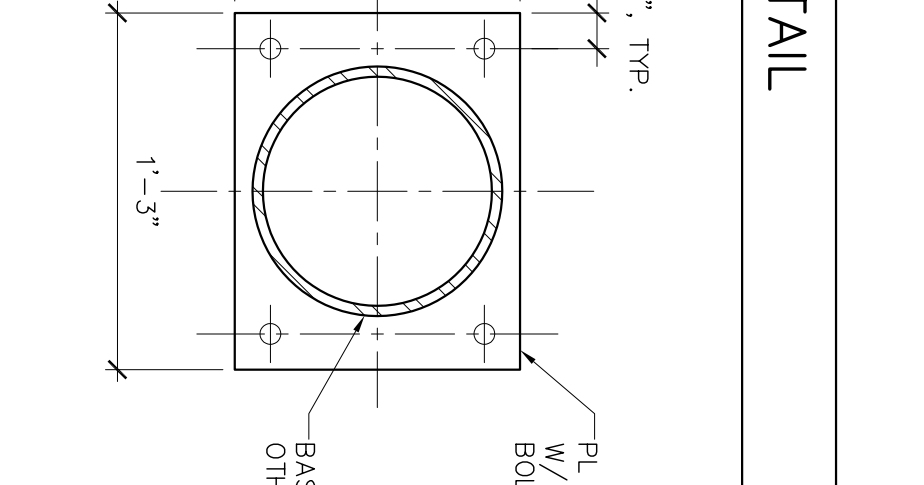
**BASE PLATE, TYP.**



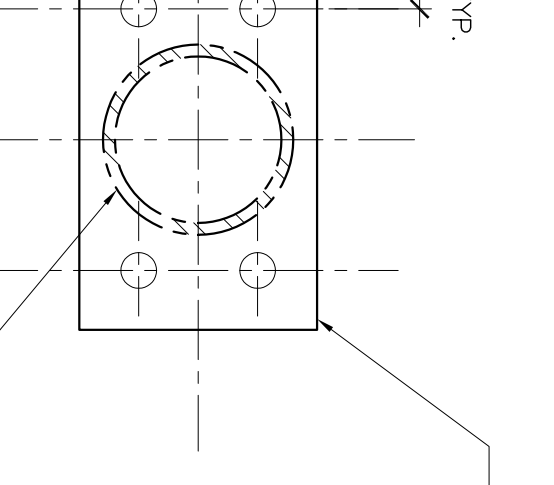
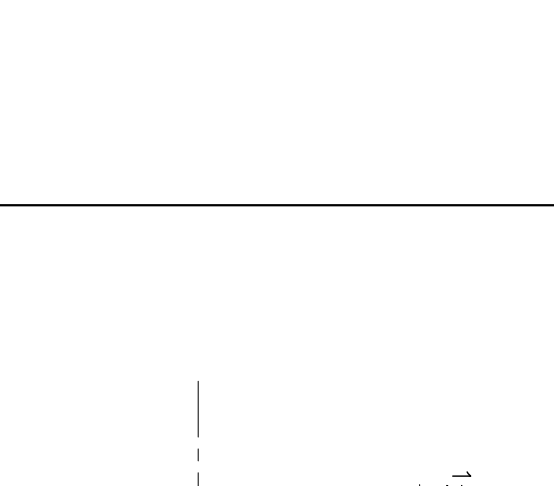
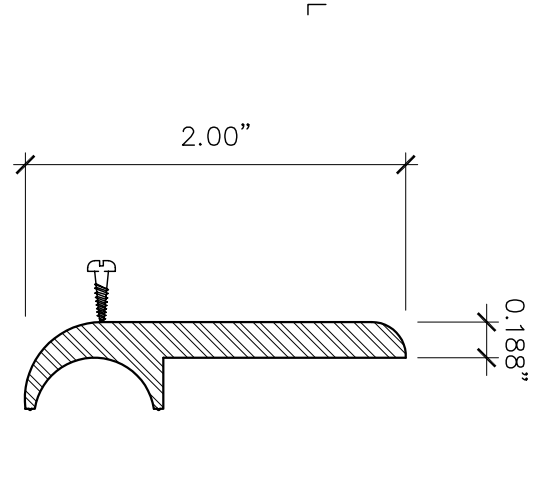
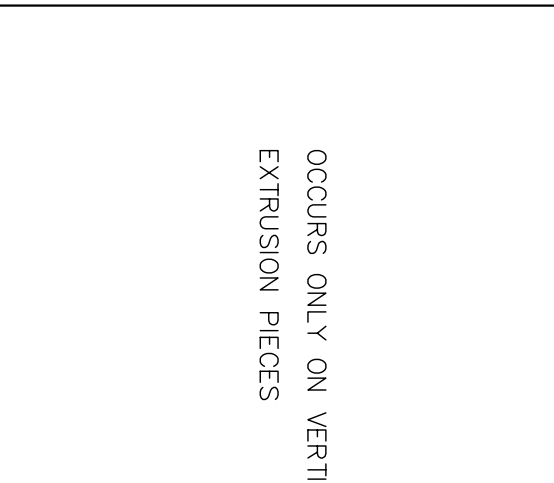
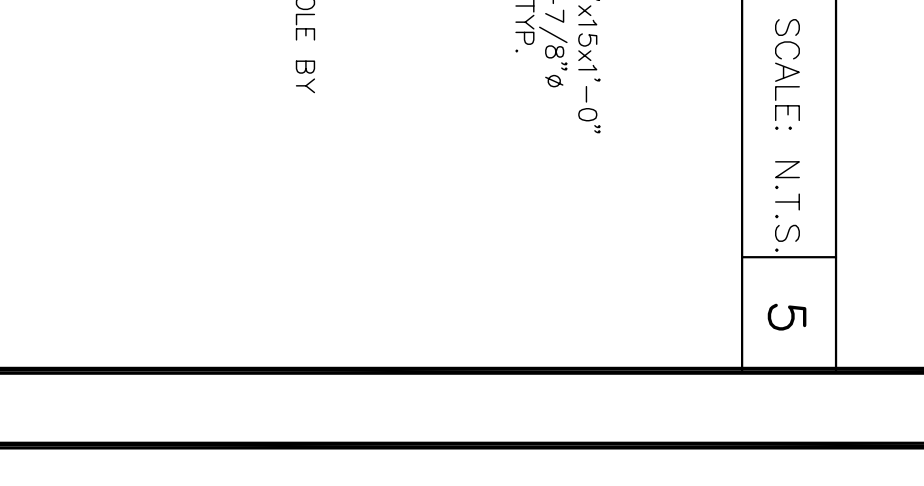
**EXTRUSION "D"**



**CONNECTION AT SIGN BOTTOM**



**CONNECTION AT SIGN BOTTOM**



OCCURS ONLY ON VERTICAL EXTRUSION PIECES

SCALE: 1 1/2" = 1'-0"

SCALE: 1" = 1'-0"

SCALE: 3" = 1'-0"

SCALE: 1 1/2" = 1'-0"

DATE:	12/18/14
DESIGNED:	489
DRAWN BY:	WLN
APPROVED BY:	
WLN	