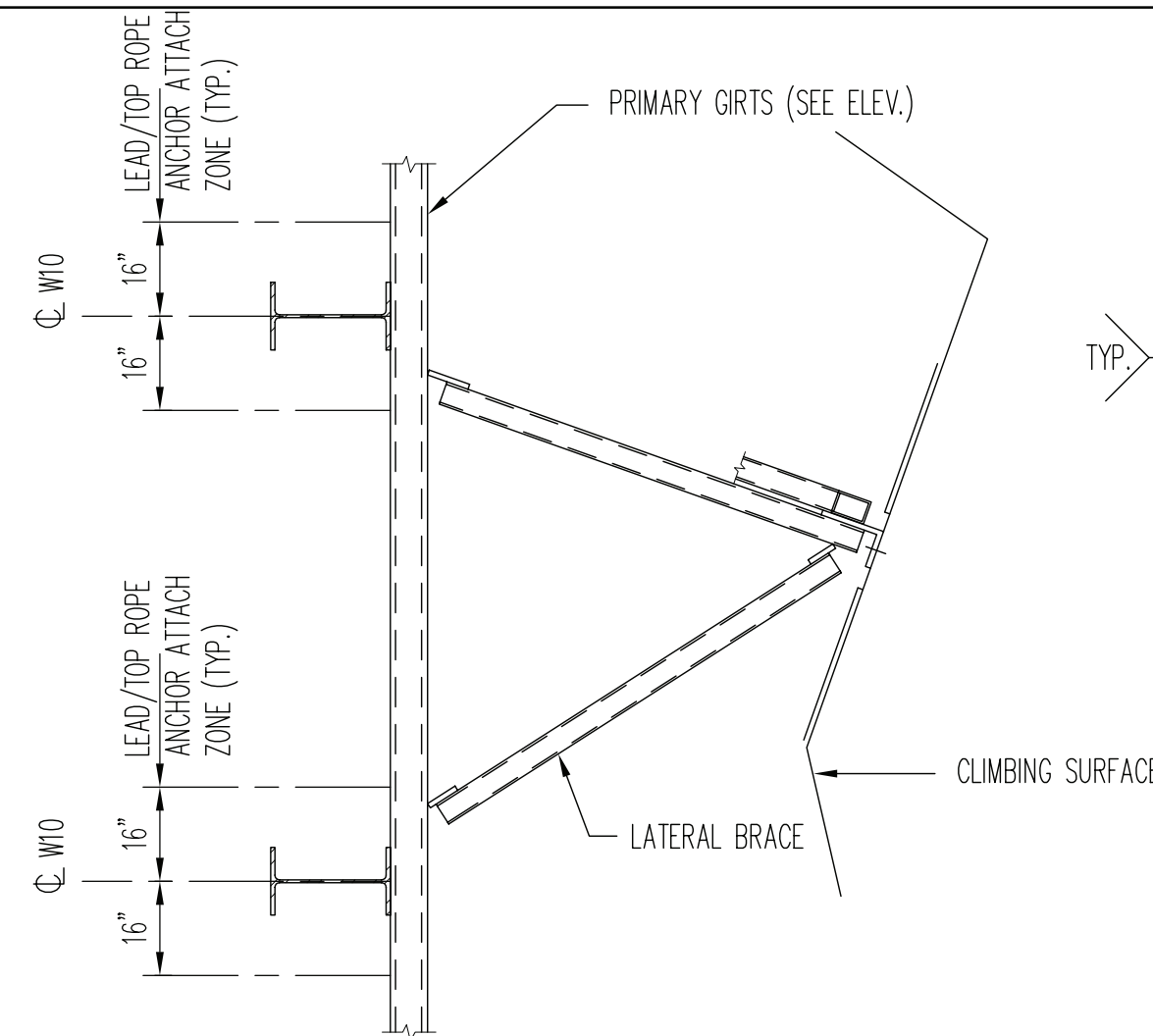


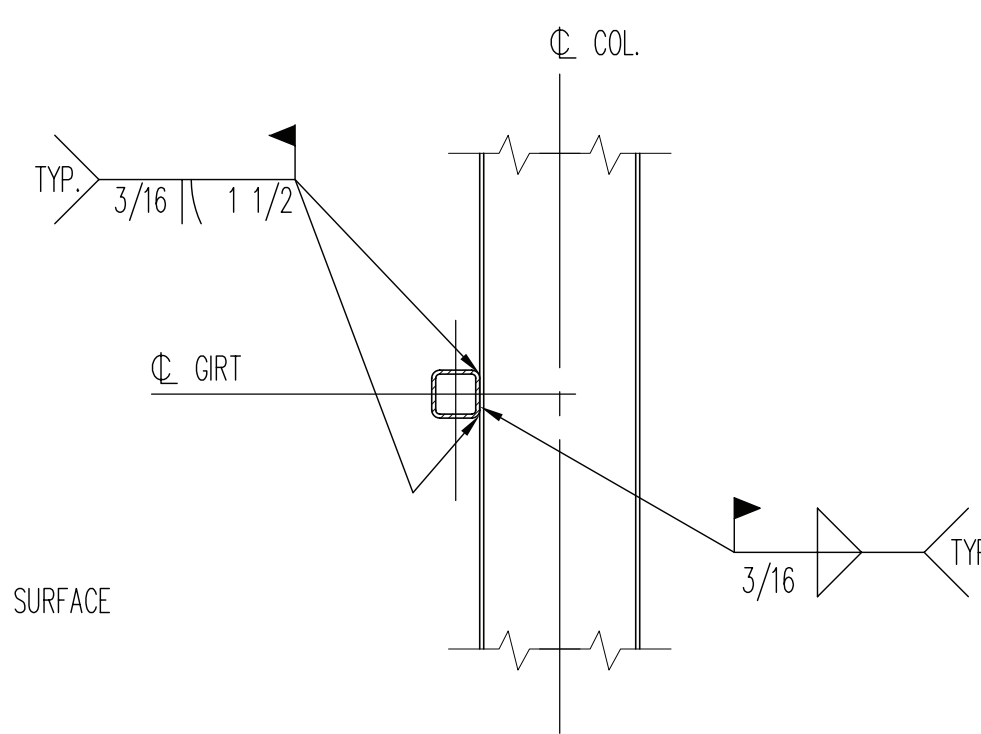
LEAD/TOP ROPE ANCHOR STRUTS SCHEDULE	SIZE
0 ≤ Lc ≤ 93"	HSS 2" x 2" x 1/8"
93" ≤ Lc ≤ 118"	HSS 2 1/2" x 2 1/2" x 1/8"
118" ≤ Lc ≤ 143"	HSS 3" x 3" x 1/8"
143" ≤ Lc ≤ 170"	HSS 3 1/2" x 3 1/2" x 1/8"

IN ADDITION TO THE VERTICAL STRUTS SHOWN, EACH ANCHOR REQUIRES (1) HORIZONTAL STRUT FOR LATERAL BRACING.

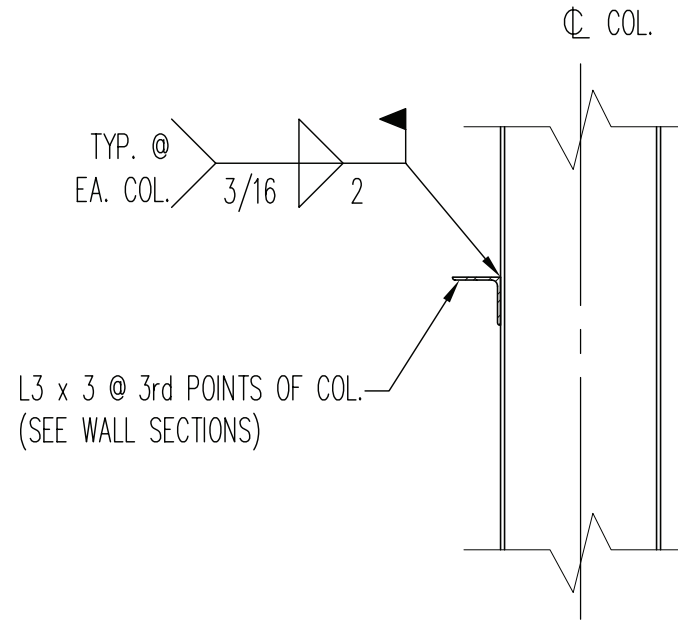
1 LEAD/TOP ROPE ANCHOR
1" = 1'-0" (NON-CWIG)



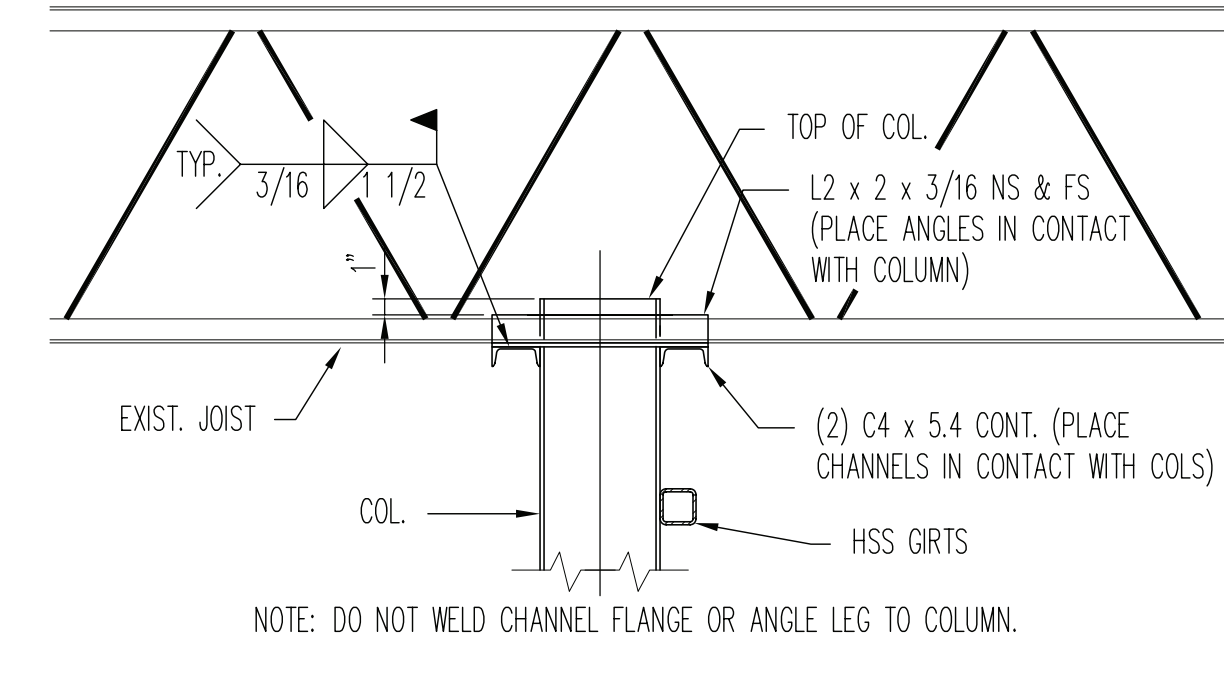
2 SECTION
3/4" = 1'-0"



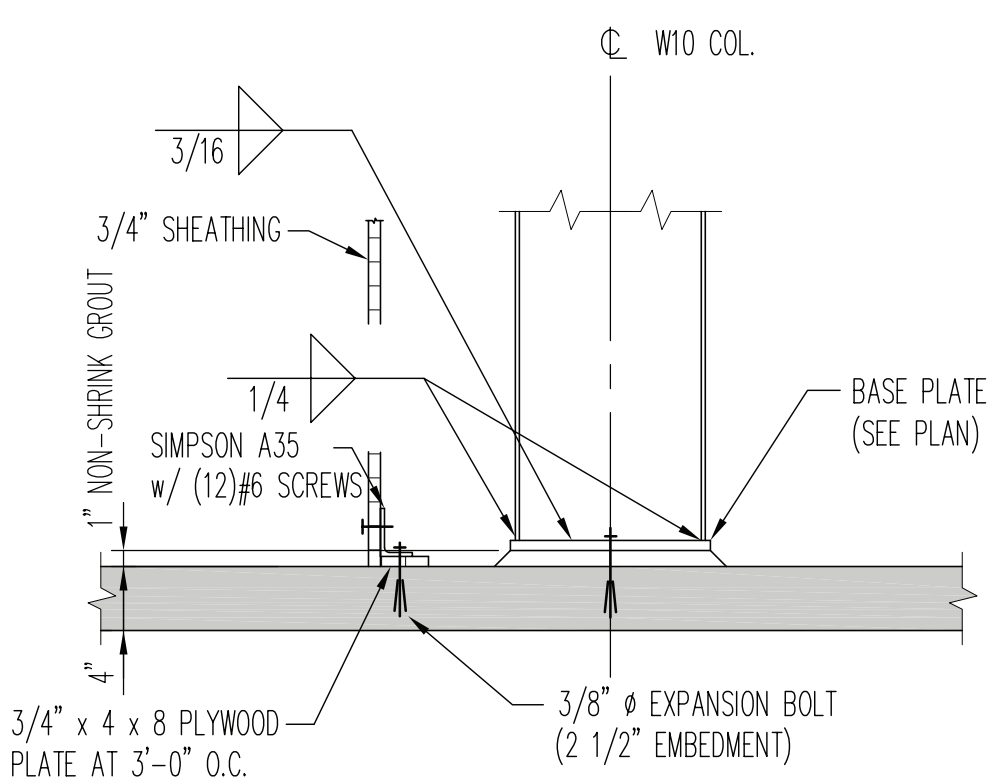
3 SECTION
1" = 1'-0"



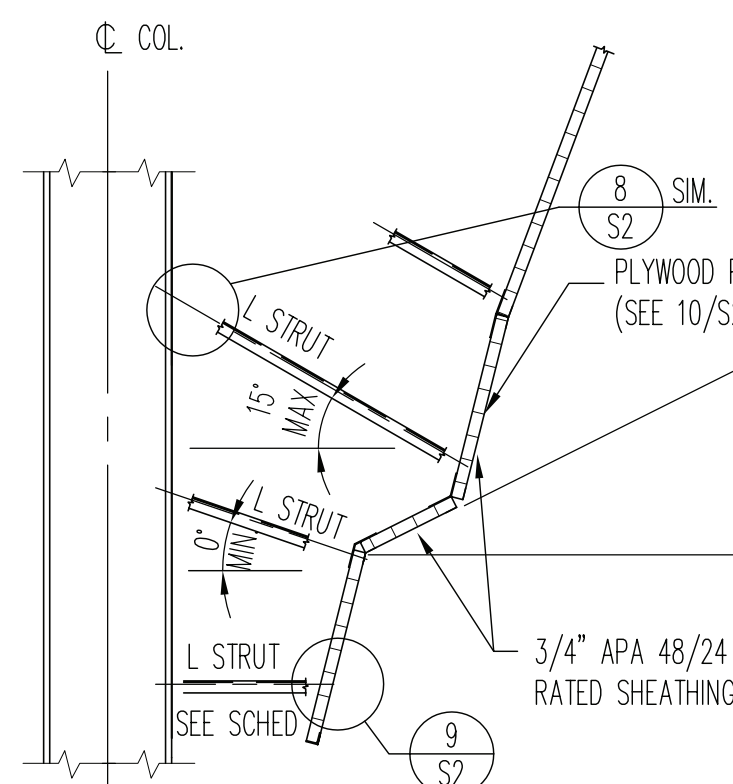
4 SECTION
1" = 1'-0"



5 SECTION
3/4" = 1'-0"



6 SECTION
1" = 1'-0"



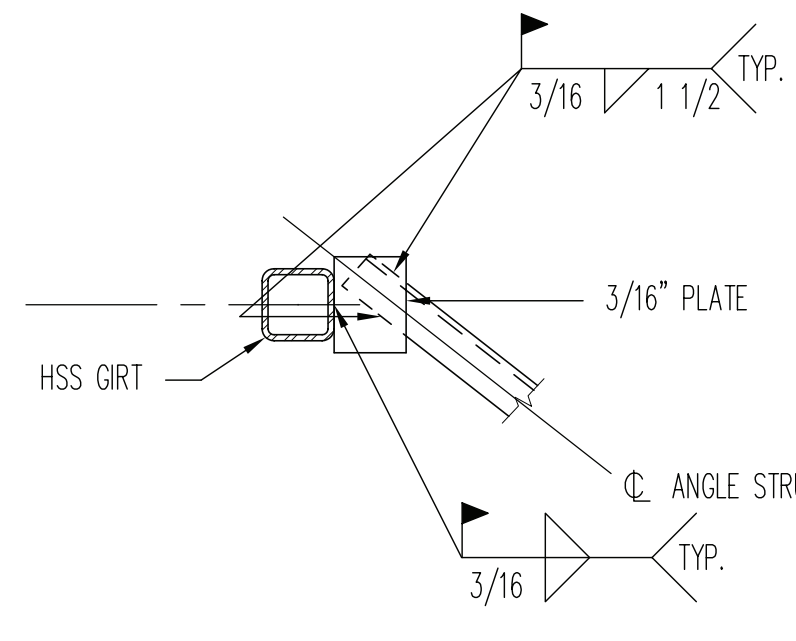
7 SECTION
1/2" = 1'-0"

ANGLE STRUT SCHEDULE *	SIZE (MIN.)
0" - 42"	L 1 1/4" x 1 1/4" x 3/16"
42" - 54"	L 1 1/2" x 1 1/2" x 3/16"
54" - 66"	L 1 3/4" x 1 3/4" x 3/16"
66" - 78"	L 2" x 2" x 3/16"
78" - 96"	L 2 1/2" x 2 1/2" x 3/16"
96" - 120"	L 3" x 3" x 3/16"
120" - 160"	L 4" x 4" x 1/4"

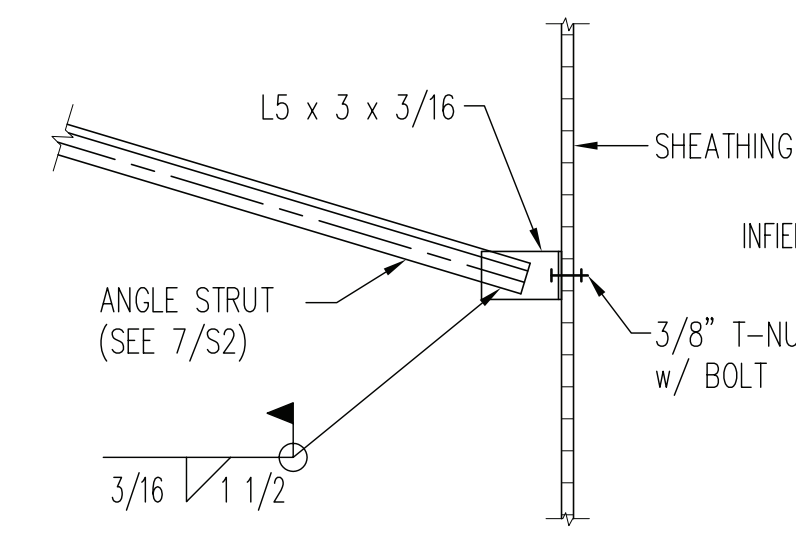
ANGLE STRUT PARAMETERS:
 1. FOR WALLS UP TO 30" OVERHANG
 2. (1) STRUT REQUIRED PER 9 SQUARE FEET OF VERTICAL WALL SURFACE
 3. NO STRUT SHALL BE LOCATED FARTHER THAN 3'-0" VERTICALLY OR HORIZONTALLY FROM THE NEAREST STRUT
 4. NO TWO ADJACENT PLYWOOD SHEETS SHALL BE WITHOUT AT LEAST (1) STRUT BETWEEN THE TWO OF THEM. IN OTHER WORDS: IF A PLYWOOD SHEET DOES NOT CONTAIN AT LEAST (1) STRUT, ALL ADJACENT PLYWOOD SHEETS SHALL HAVE AT LEAST (1) STRUT
 5. EACH PLYWOOD SHEET WITH A STRUT SHALL HAVE AT LEAST (1) STRUT WITHIN 12" OF ONE EDGE
 6. NO STRUT SHALL BE LOCATED CLOSER THAN 3" TO THE NEAREST PLYWOOD SHEET EDGE
 7. FOR LENGTHS LONGER THAN THOSE TABULATED CONSULT ENGINEER'S OFFICE

* NOTE: DO NOT USE FOR LEAD ANCHORS OR TOP ROPE ANCHORS.

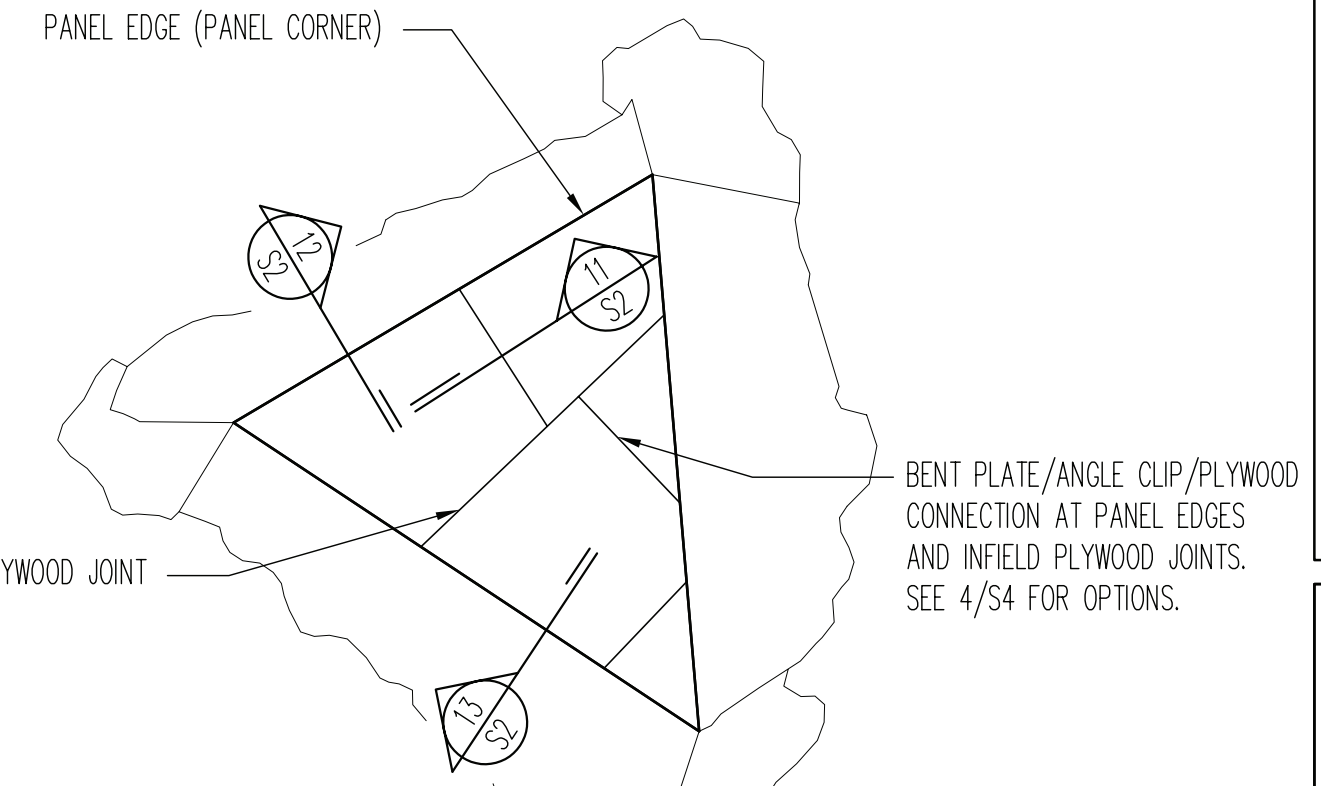
FOR PANEL SLOPES LESS THAN 60° FROM HORIZ. SEE DETAIL 14/S2



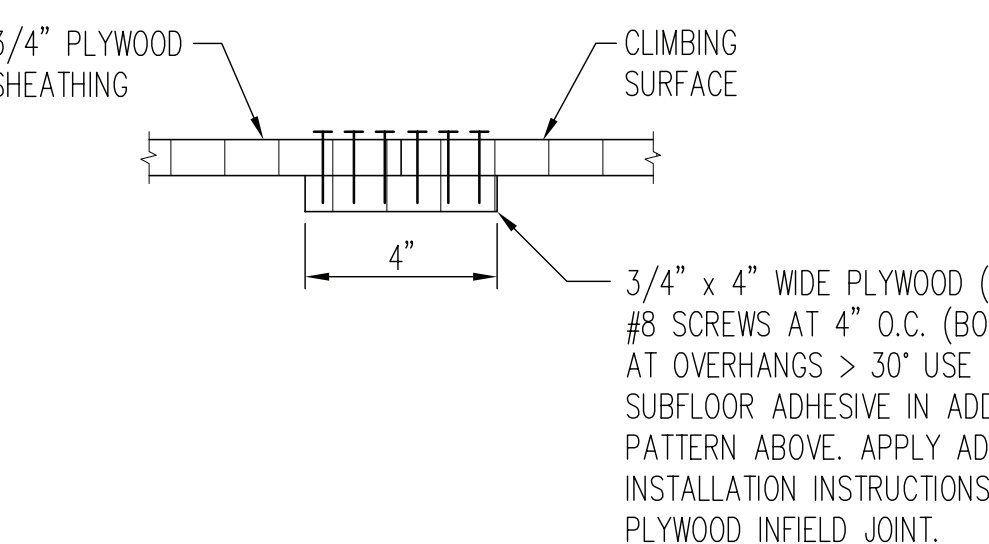
8 SECTION
1 1/2" = 1'-0"



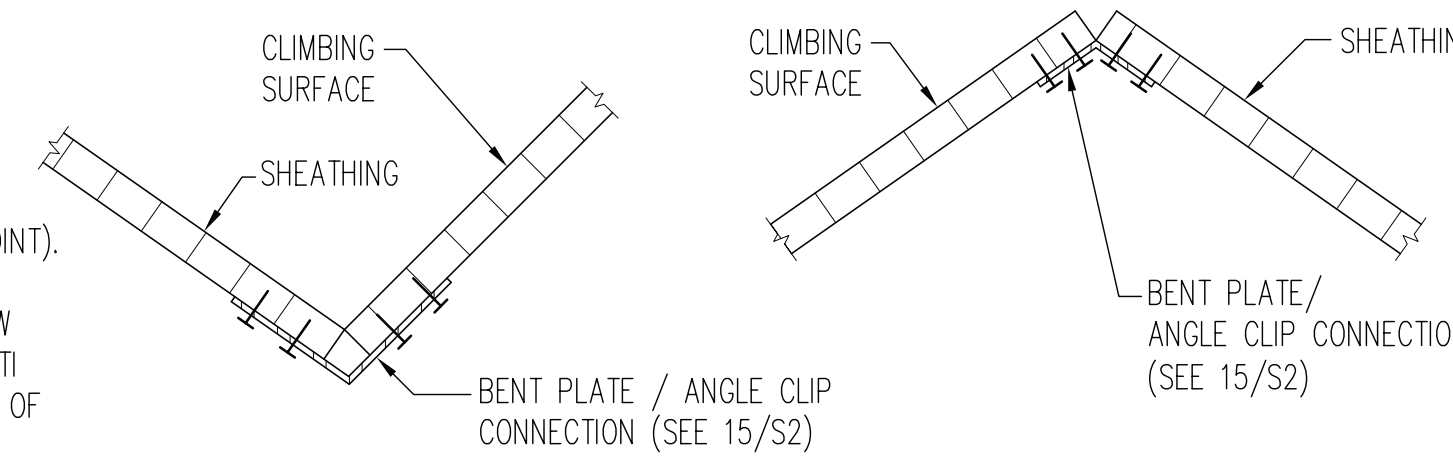
9 SECTION
1" = 1'-0"



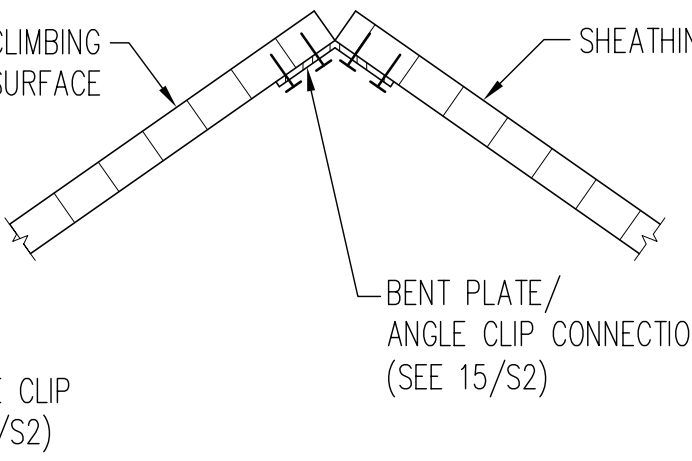
10 SECTION
3/4" = 1'-0"



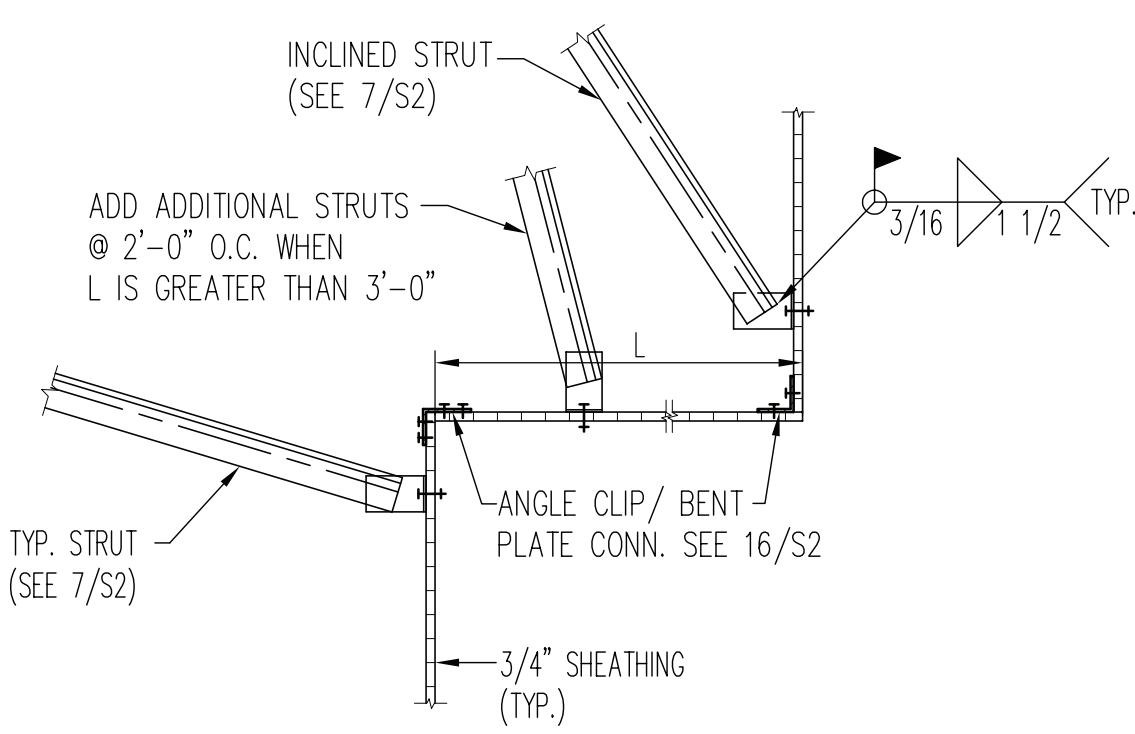
11 PANEL INFIELD JOINT SECTION
3" = 1'-0"



12 SECTION
3" = 1'-0"



13 SECTION
3" = 1'-0"



14 SECTION
3/4" = 1'-0"

Tie Plate/Angle Clip connection options for overhangs less than or equal to 30" from vertical (See 7/S2)

Infield Plywood Joints - Choose one of the following options:

- 3/4" x 4" continuous plywood centered on joint w/ #8 screws at 4" o.c. (staggered).
- 3"x5"x16GA plate at 12" o.c. w/ (12) #6 screws total - (6) screws at each plywood edge. Orientate 5" long plate edge parallel with plywood edge.
- 2) Simpson TP35 plates at 12" o.c. w/ (12) #6 screws total - (6) screws at each plywood edge. Orientate 5" long plate edge parallel with plywood edge.

Panel Edges (corners) - Choose one of the following options:

- Simpson A35 at 9" o.c. (Inside Face) w/ (6) #6 screws total - (3) screws at each plywood edge and Simpson TP35 at 12" o.c. (Outside Face) w/ (6) #6 screws total - (3) screws at each plywood edge. Orientate 3" long plate edge parallel with plywood edge.
- 3"x5"x16GA plate at 9" o.c. w/ (8) #6 screws total - (4) screws at each plywood edge. Orientate 3" long plate edge parallel with plywood edge.
- 2) Simpson TP35 plates at 12" o.c. w/ (12) #6 screws total - (6) screws at each plywood edge. Orientate 3" long plate edge parallel with plywood edge.

*Note: All screws shall have full thread embedment into plywood

Tie Plate/Angle Clip connection options for overhangs > 30" (roof conditions) (See 14/S2)

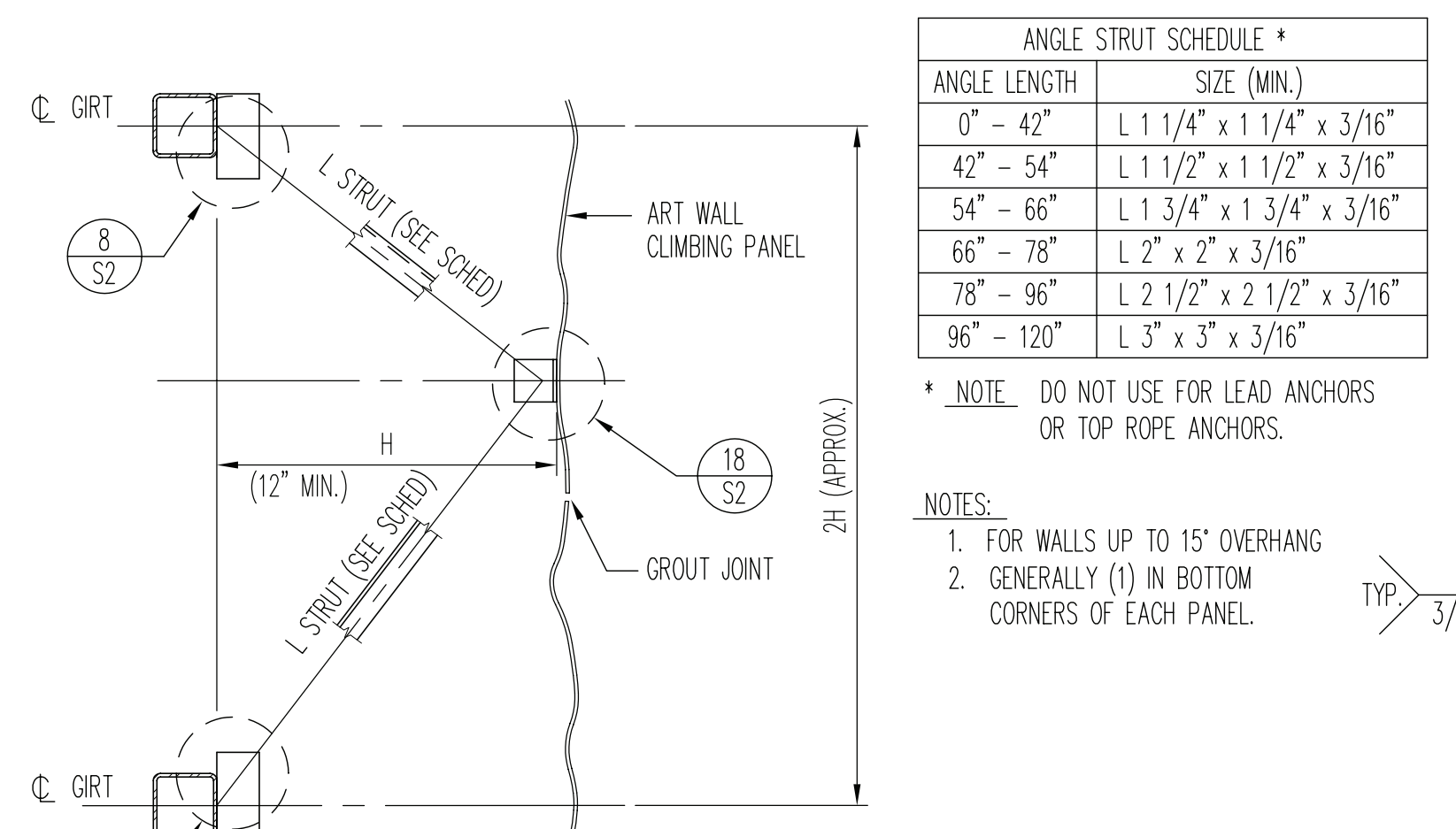
Infield Plywood Joints - Choose one of the following options:

- 3/4" x 4" continuous plywood centered on joint w/ #8 screws at 4" o.c. (staggered) and Hilti CA 3400 5" long plate edge parallel with plywood edge. adhesive applied evenly on each side of joint per manufacturer's specifications.
- 3"x5"x16GA plate at 6" o.c. w/ (12) #6 screws total - (6) screws at each plywood edge. Orientate 5" long plate edge parallel with plywood edge.

Panel Edges (corners) - Choose one of the following options:

- Simpson A35 at 4.5" o.c. (Inside Face) w/ (12) #6 screws total - (6) screws at each plywood edge and Simpson TP35 at 6" o.c. (Outside Face) w/ (8) #6 screws total - (4) screws at each plywood edge. Orientate 3" long plate edge parallel with plywood edge.
- 3"x5"x16GA plate at 4.5" o.c. w/ (12) #6 screws total - (6) screws at each plywood edge. Orientate 3" long plate edge parallel with plywood edge.
- 2) Simpson TP35 plates at 6" o.c. w/ (12) #6 screws total - (6) screws at each plywood edge. Orientate 3" long plate edge parallel with plywood edge.

*Note: All screws shall have full thread embedment into plywood

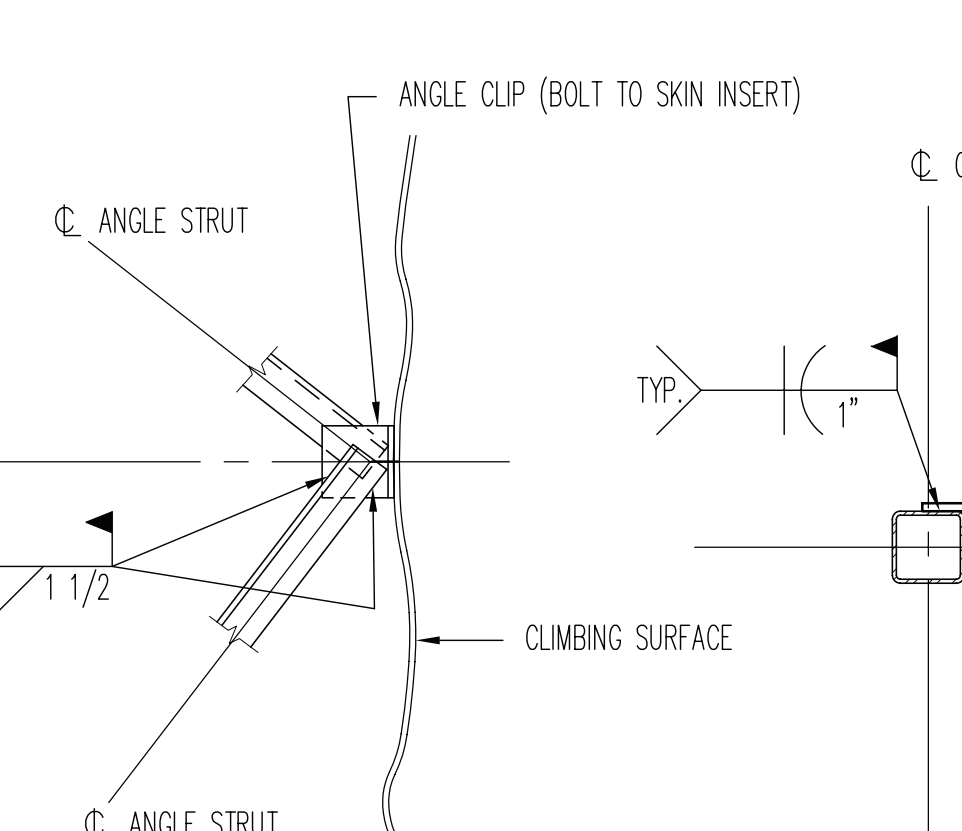


17 LOWER PANEL WALL BRACING DETAIL
SCALE: 1" = 1'-0"

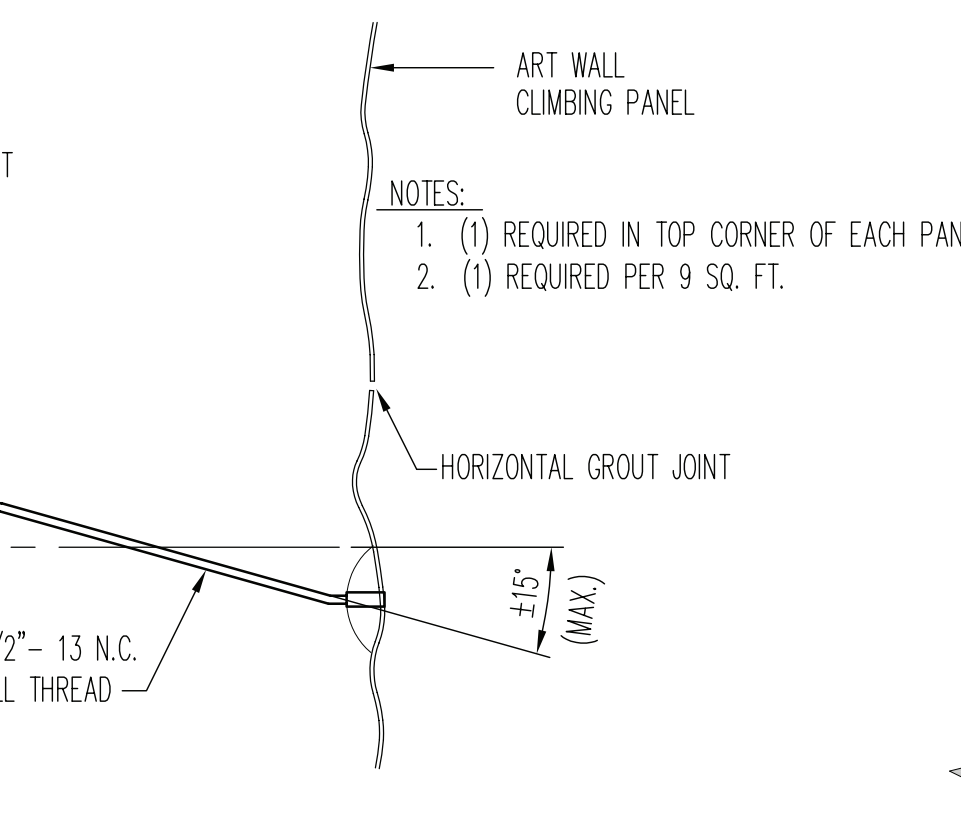
ANGLE STRUT SCHEDULE *	SIZE (MIN.)
0" - 42"	L 1 1/4" x 1 1/4" x 3/16"
42" - 54"	L 1 1/2" x 1 1/2" x 3/16"
54" - 66"	L 1 3/4" x 1 3/4" x 3/16"
66" - 78"	L 2" x 2" x 3/16"
78" - 96"	L 2 1/2" x 2 1/2" x 3/16"
96" - 120"	L 3" x 3" x 3/16"

* NOTE: DO NOT USE FOR LEAD ANCHORS OR TOP ROPE ANCHORS.

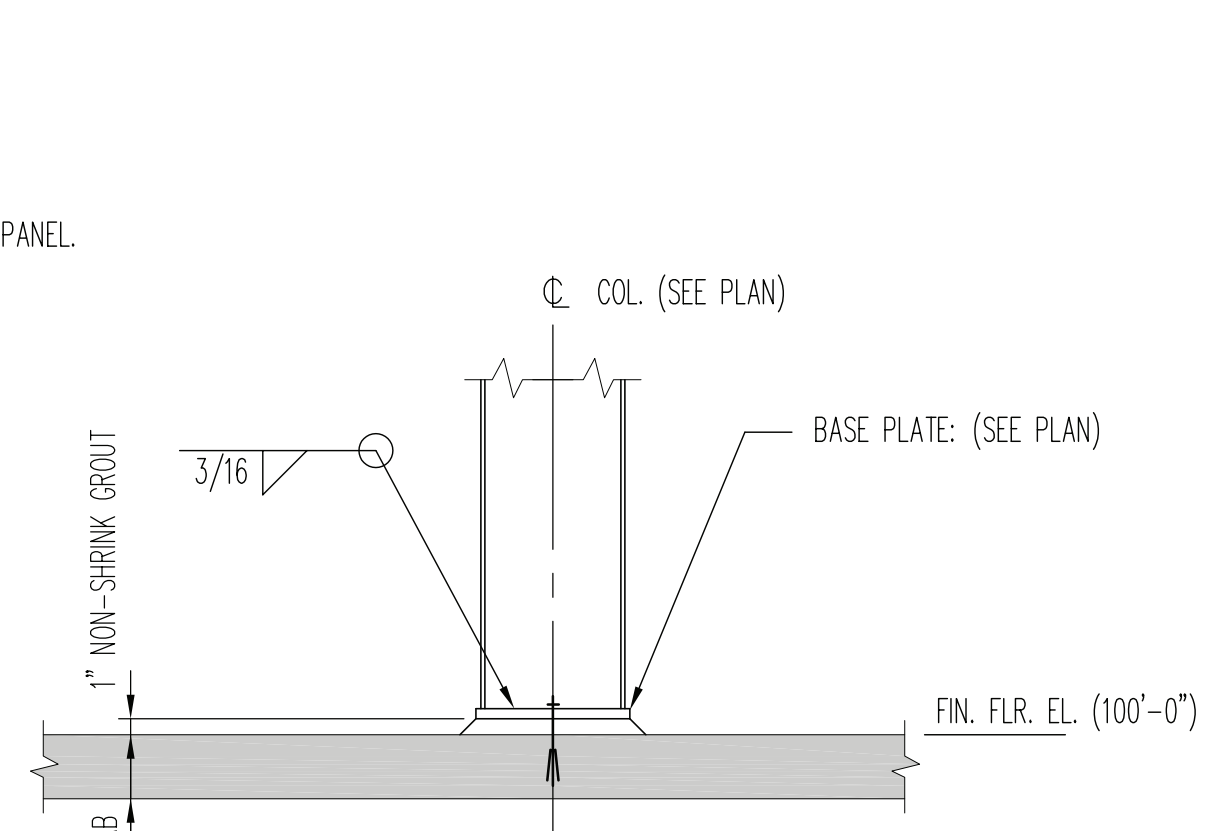
NOTES:
 1. FOR WALLS UP TO 15" OVERHANG
 2. GENERALLY (1) IN BOTTOM CORNERS OF EACH PANEL



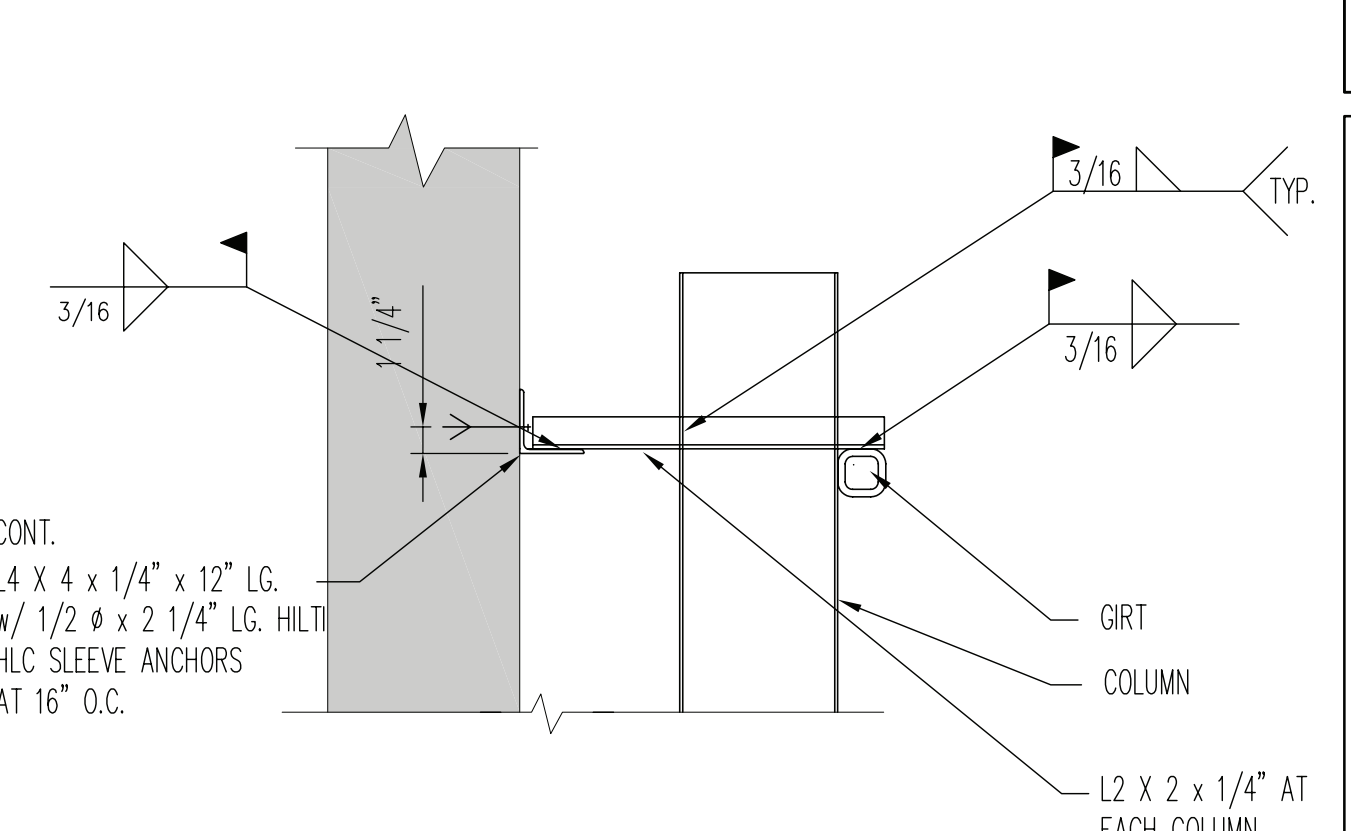
18 SECTION
3/4" = 1'-0"



19 UPPER PANEL WALL BRACING DETAIL
SCALE: 1" = 1'-0"



20 SECTION
1" = 1'-0"



21 SECTION
1" = 1'-0"

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845 PHALEN BLVD.
ST PAUL, MINNESOTA 55106

Larson Engineering of Minnesota
3524 Labore Road
White Bear Lake, MN 55110
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NO.	REVISION	DATE	NO.	REVISION	DATE

TYPICAL CLIMBING WALL PLANS AND DETAILS

11051049
S2