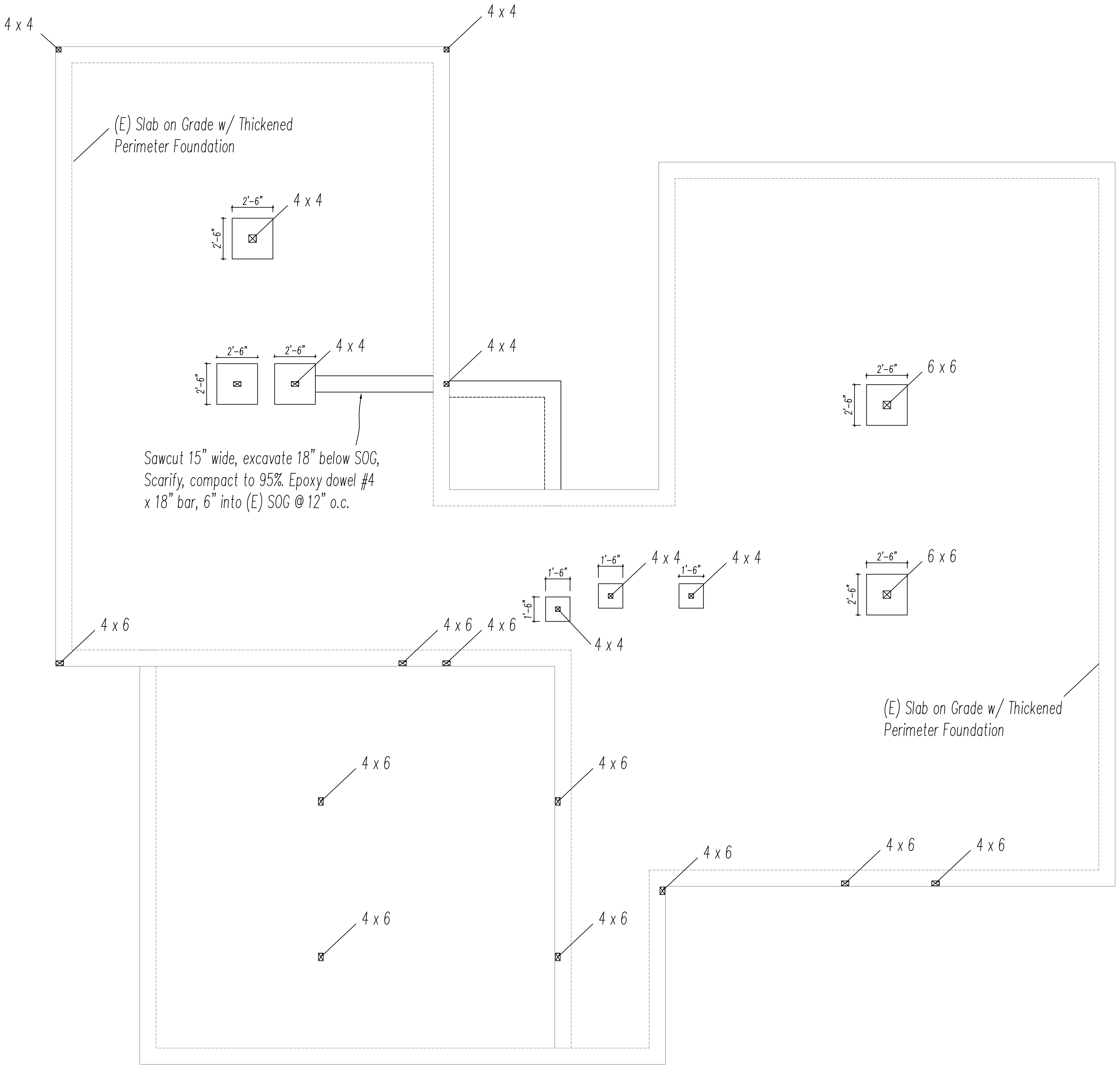
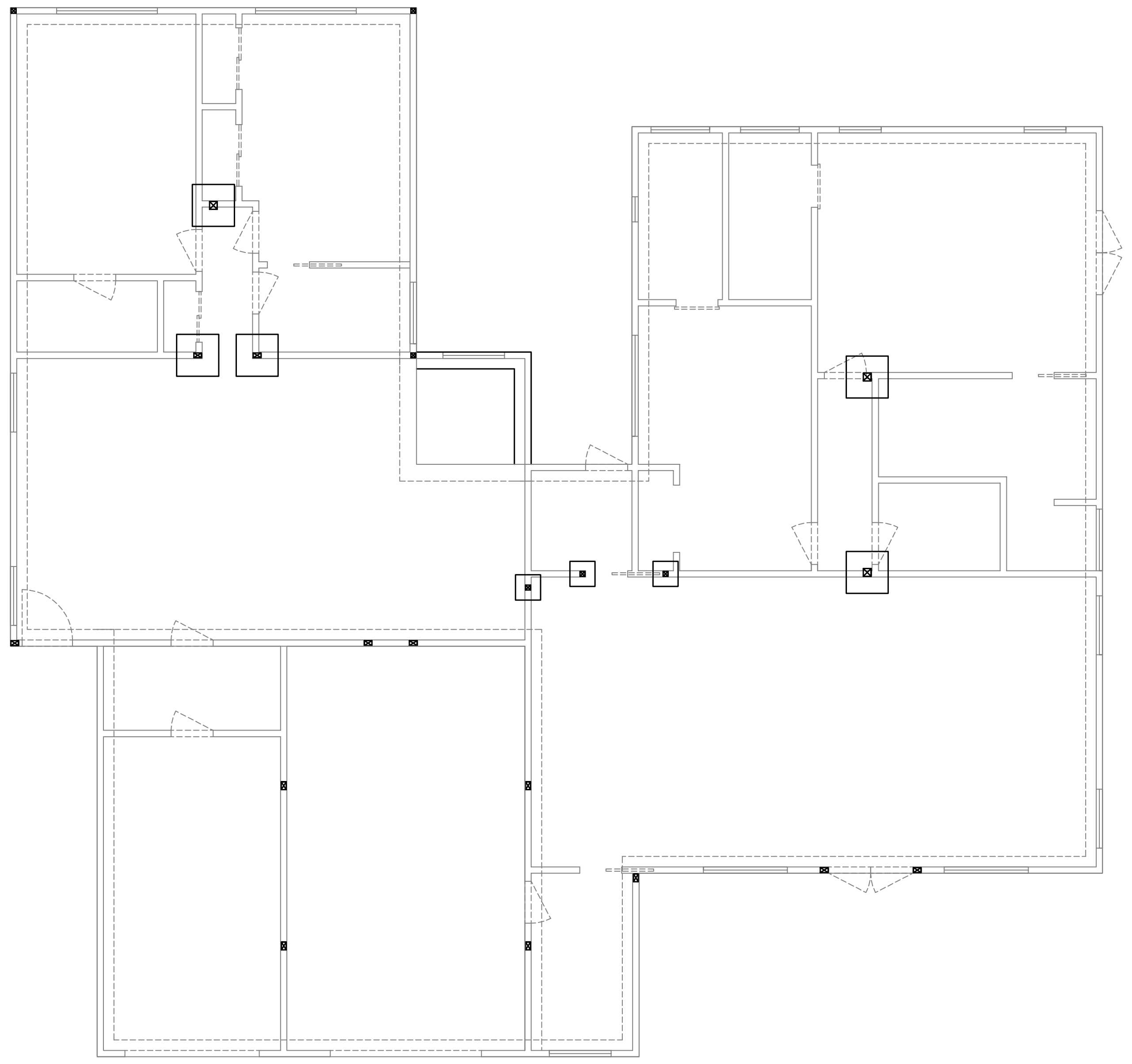


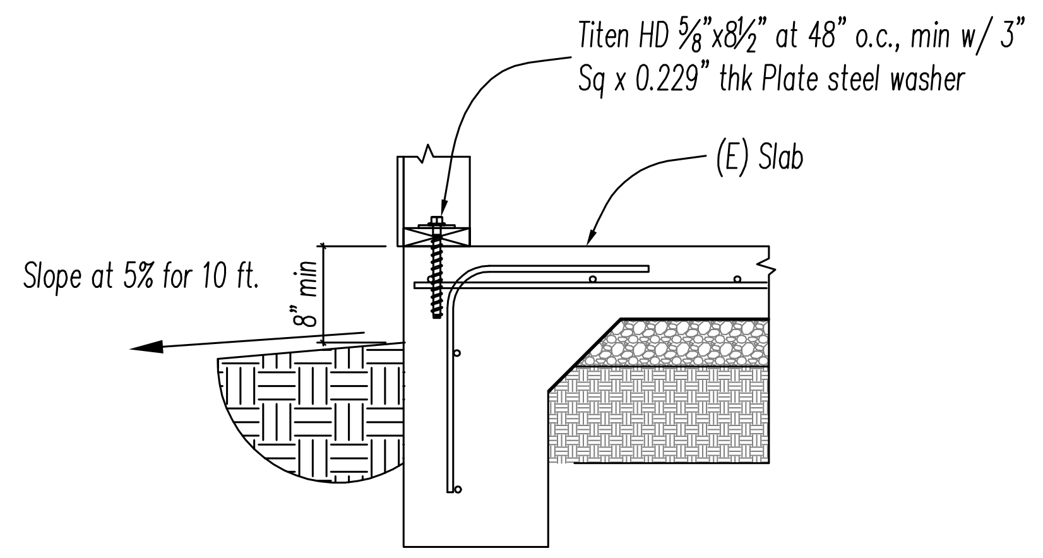
Foundation Plan

SCALE: 1/4" = 1'-0"



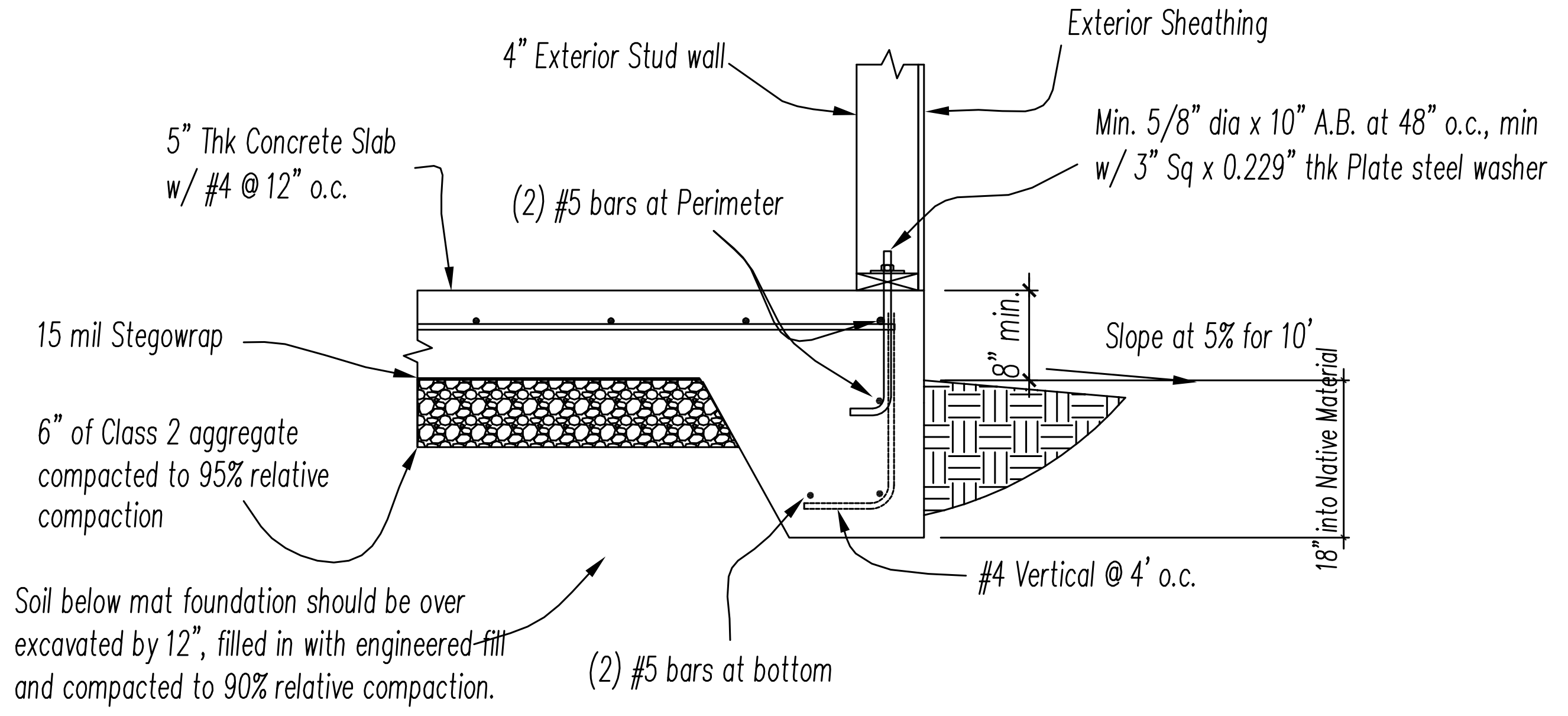
Foundation Plan w/ Floor Plan Supermimposed

SCALE: 1/8" = 1'-0"



1 Perimeter Foundation Detail

Scale: 3/4" = 1'-0"



2 Foundation at Perimeter

SCALE: 3/4" = 1'-0"

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No. S 3890
Exp. 3/31/24

Arch D Scale: 1/4" = 1'-0"

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Job # 403
4-3-2022

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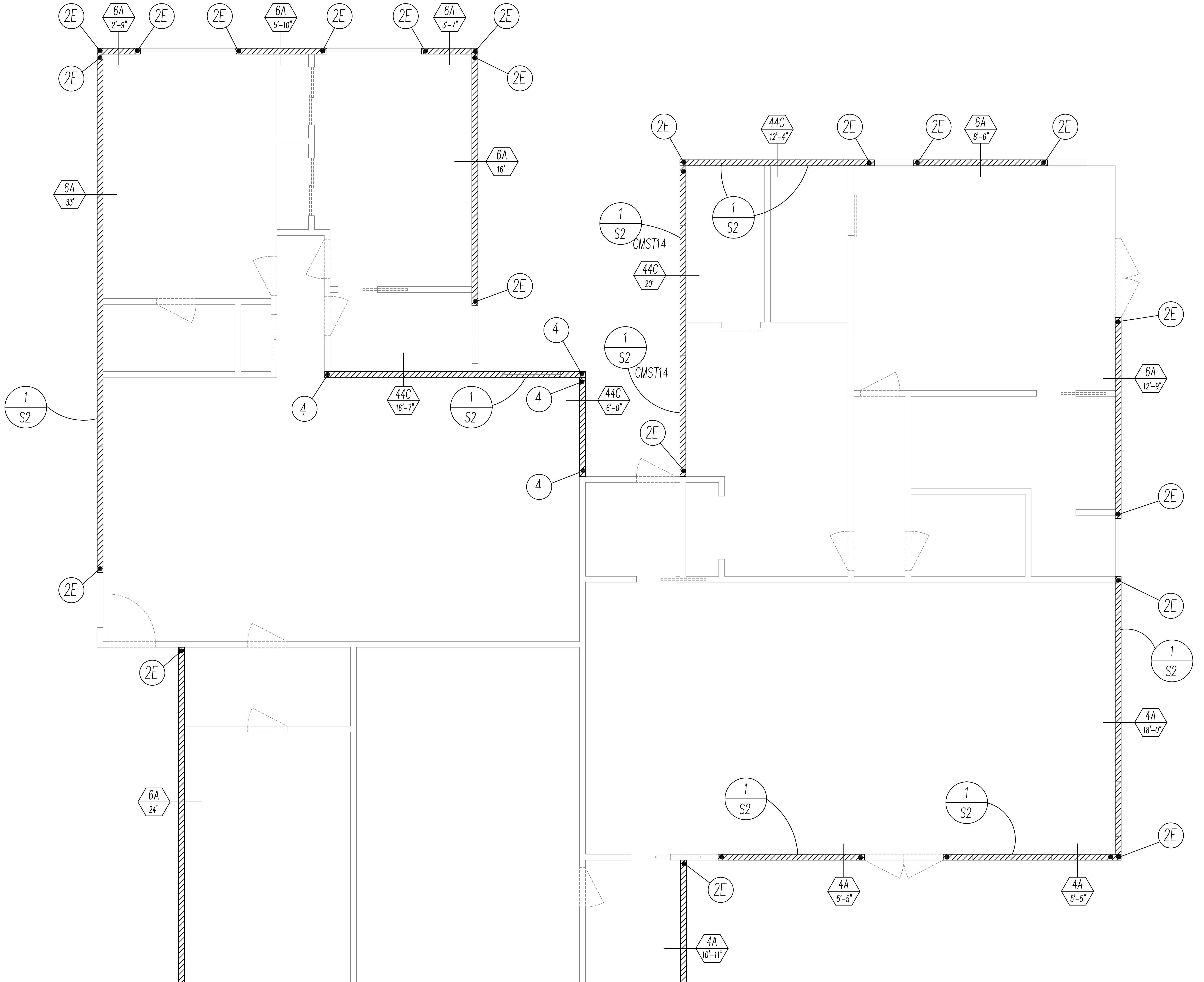
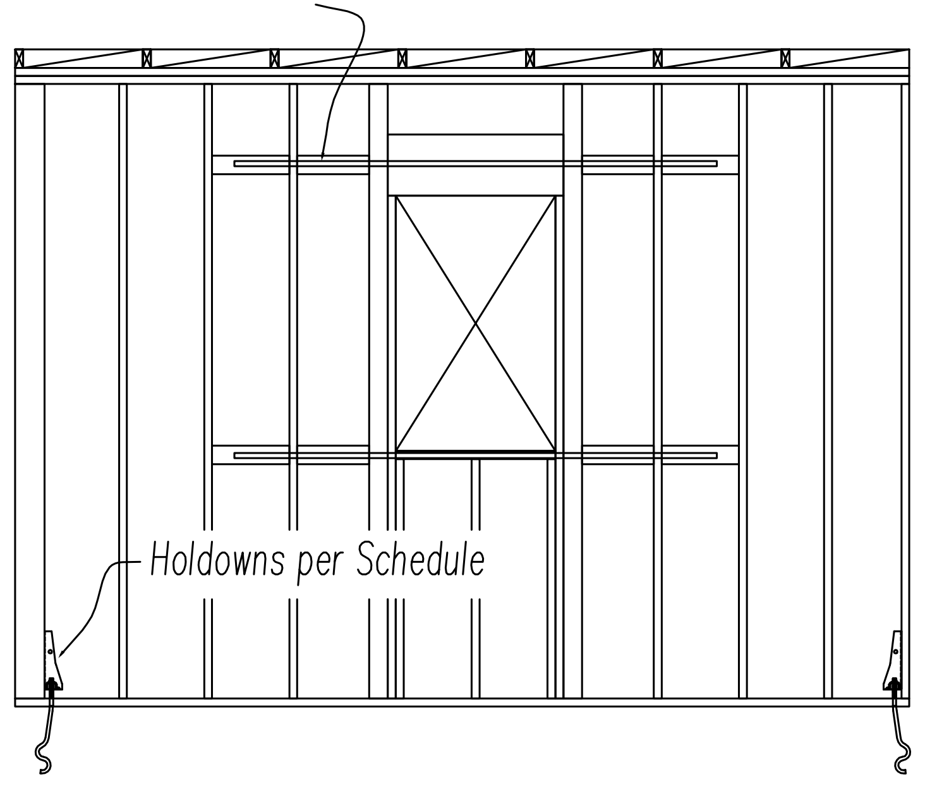
S1



Shear Wall Plan

SCALE: ¼" = 1'-0"

Use CS14 Straps (or CMST14 where called for), above and below opening, extending 20" beyond opening, where windows are within shear wall



1 Straps @ Window within Shear Wall

Scale: ¾" = 1'-0"

Shear Wall Sheathing Schedule

Symbol	Sheathing	Nailing		Sill Plate Bolting
		Edge	Field	
6A length	⅜" OSB, APA Rated Exp 1	8d @ 6" o.c.	8d @ 10" o.c.	⅝" dia x 8.5" Titen HD @ 48" o.c.
4A length	⅜" OSB, APA Rated Exp 1	8d @ 4" o.c.	8d @ 10" o.c.	⅝" dia x 8.5" Titen HD @ 48" o.c.
44C length	½" OSB, APA Rated Exp 1 2 sides	8d @ 4" o.c.	8d @ 10" o.c.	⅝" dia x 8.5" Titen HD @ 36" o.c.
44D length	½" OSB, APA Rated Exp 1 2 sides	10d @ 4" o.c.	10d @ 10" o.c.	⅝" dia x 8.5" Titen HD @ 36" o.c.

Holdown Schedule

Symbol	Holdown	Rod Size	Minimum Post Size	Holdown Anchor Bolt
2E	HDU2-SDS2.5	⅝"φ	(2) 2x Studs	⅝" dia threaded rod Epoxied 12" into (E) Fdn
4	HDU4-SDS2.5	⅝"φ	(2) 2x Studs	SSTB20

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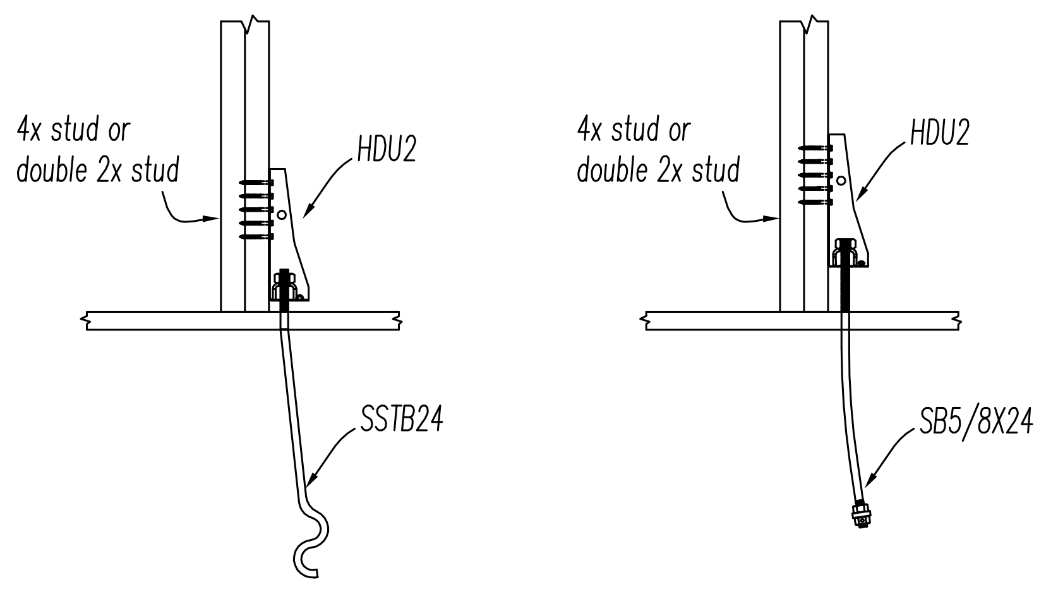
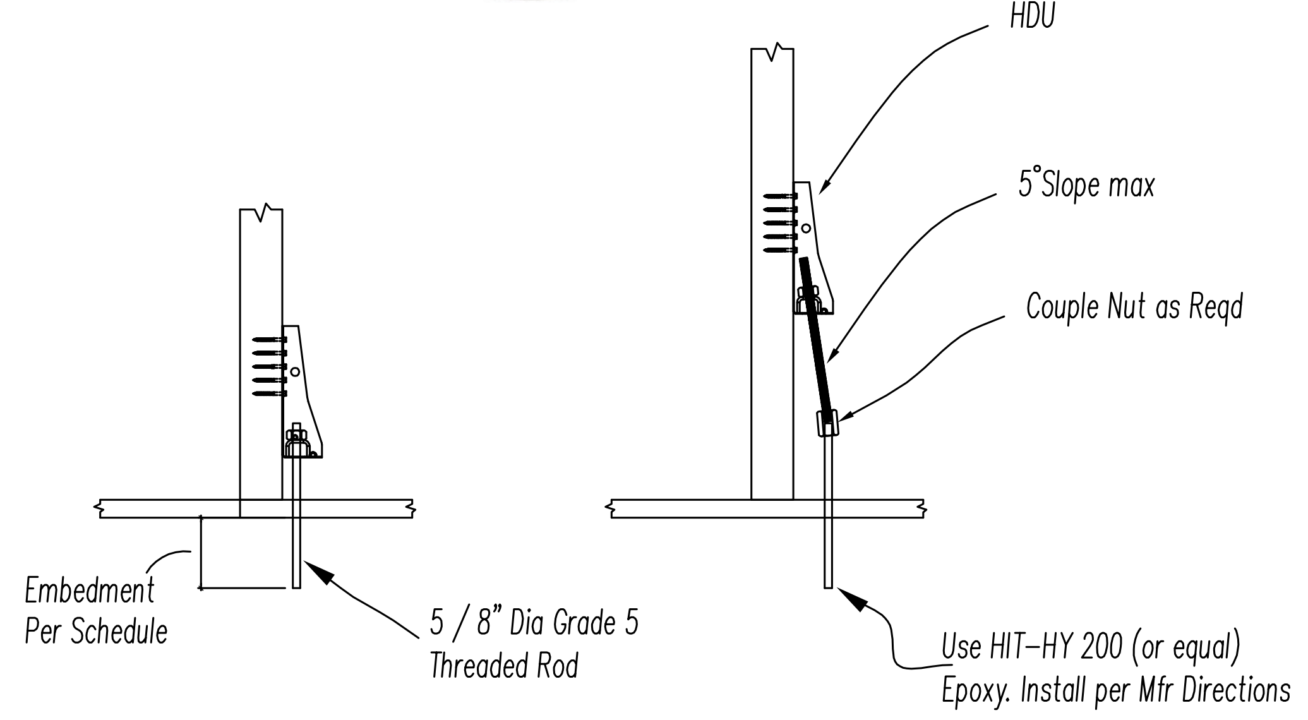


2 Holdown @ (N) Foundation

Scale: ¾" = 1'-0"



3 Holdown @ (E) Foundation

Scale: ¾" = 1'-0"

Arch D Scale: ¼" = 1'-0"

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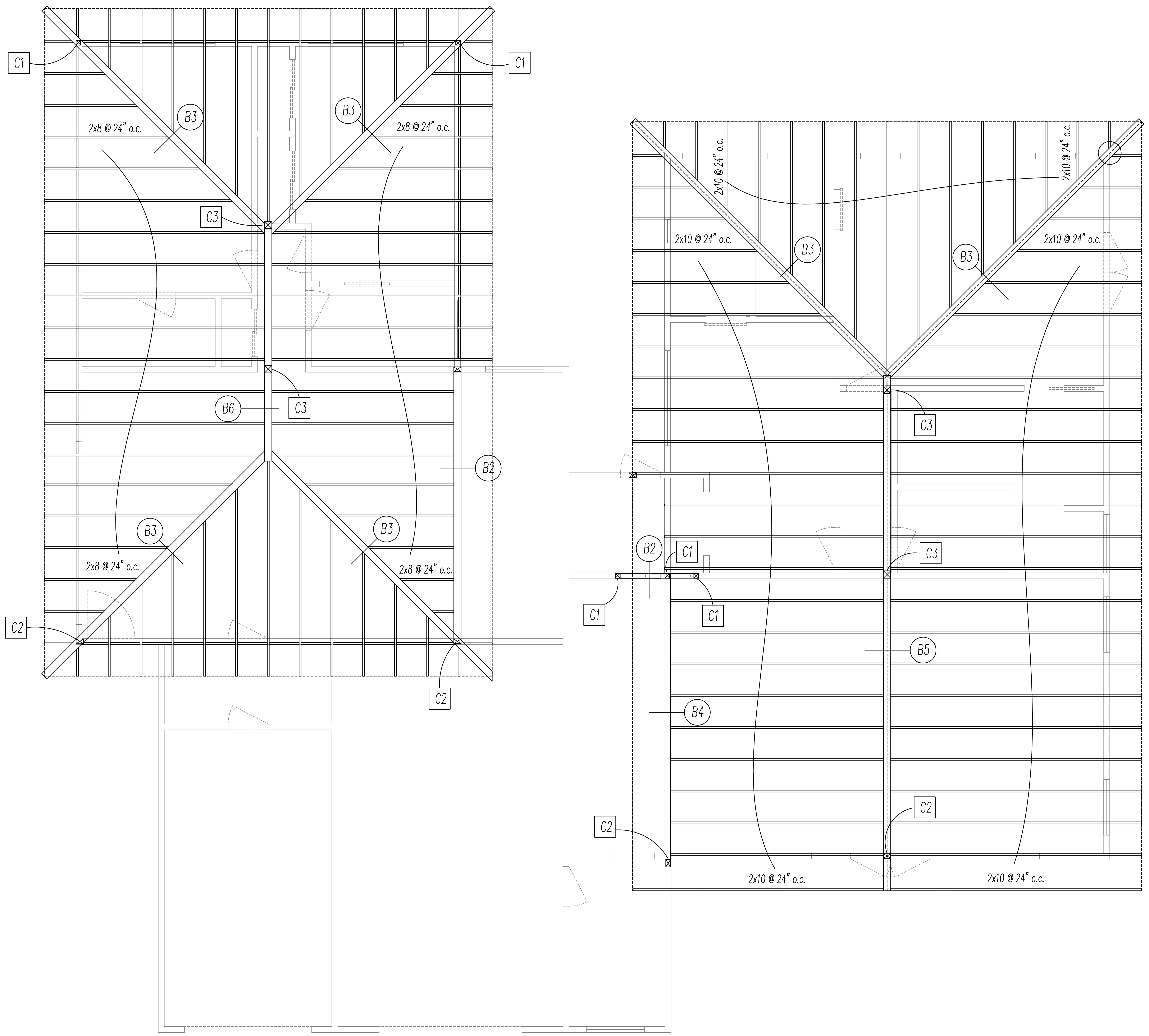
S2



BEAM LEGEND

B1 = 2 x 10
B2 = 4 x 12
B3 = LVL 1 ¾" x 11 ⅞"
B4 = PSL 3 ½" x 11 ⅞"
B5 = PSL 5 ¼" x 11 ¼"
B6 = PSL 5 ¼" x 14"

COLUMN LEGEND

C1 = 4 x 4
C2 = 4 x 6
C3 = 6 x 6

Design Criteria

DEAD LOADS:
- Roof Dead Load = 18.1 psf
- Interior Wall Dead Load = 7 psf
- Exterior Wall Dead Load = 16 psf
- Attic Dead Load = 10 psf

LIVE LOADS:
- Roof Live Load = 20 psf
- Attic Live Load = 20 psf

WIND:
- V ult = 92 mph
- Risk Category: II
- Wind Exposure: B
- Applicable internal pressure coefficient: Gcpi = 0.18

SEISMIC:
- Risk Category: II
- Seismic Importance Factor: Ie = 1.0
- Mapped spectral response acceleration parameter Ss = 2.236
- Mapped spectral response acceleration parameter S1 = 0.929
- Site Class: D
- Design spectral response acceleration parameter Sds = 1.789
- Design spectral response acceleration parameter Sd1 = null
- Seismic Design Category = E
- Basic seismic force resisting system: Light Frame (wood) walls sheared w/wood structural panels rated for shear resistance
- Design base shear: V = 0.275W
- Seismic response coefficient Ds (LRFD) – Not used
- Response modification factor R = 6½ (for wood shear walls)
- Analysis procedure used: Equivalent Lateral Force

Roof Framing Plan – Roof #1, Roof #2

SCALE: ¼" = 1'-0"

Arch D Scale: ¼" = 1'-0"

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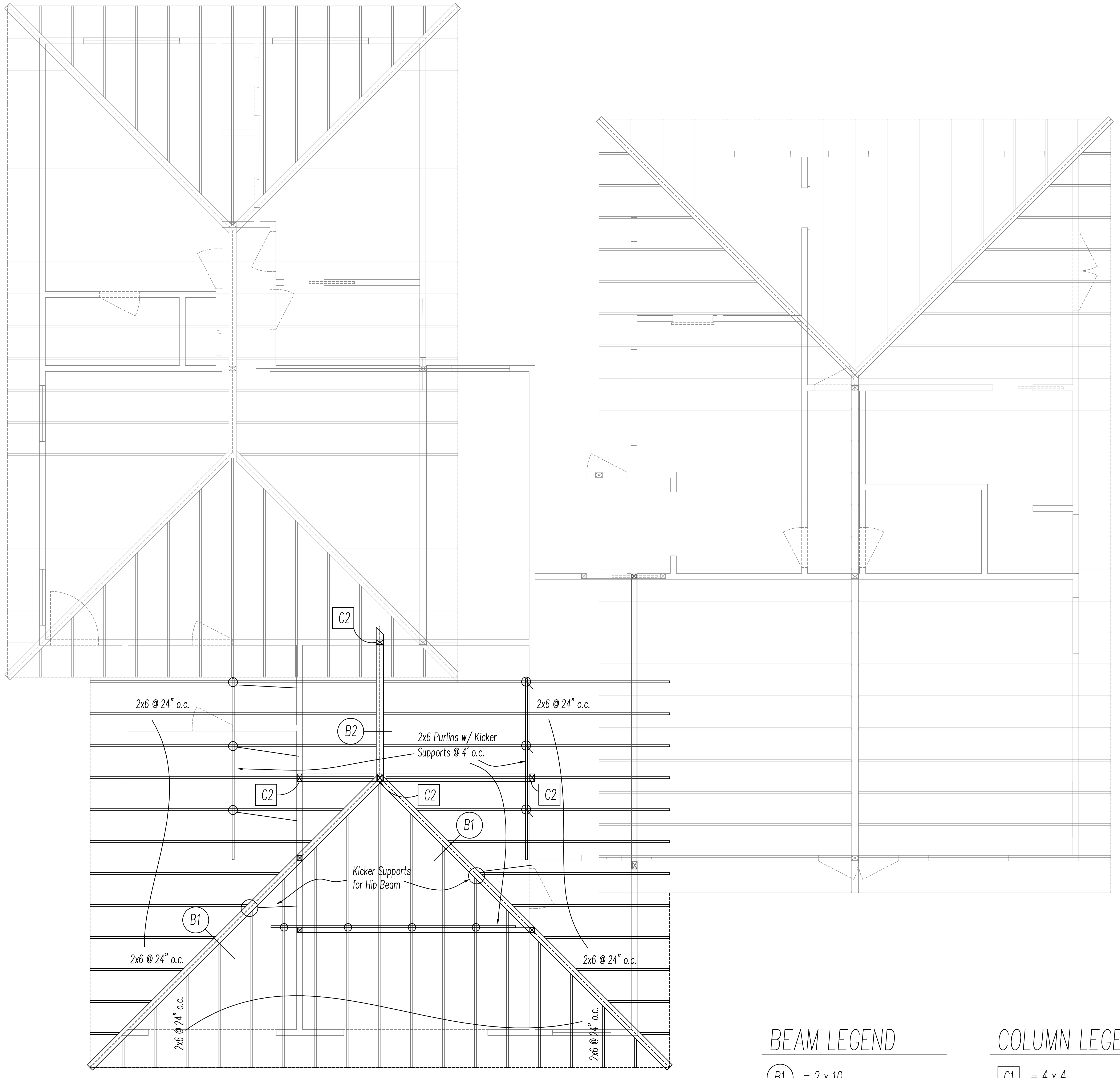
S3



Roof Framing Plan – Roof #3

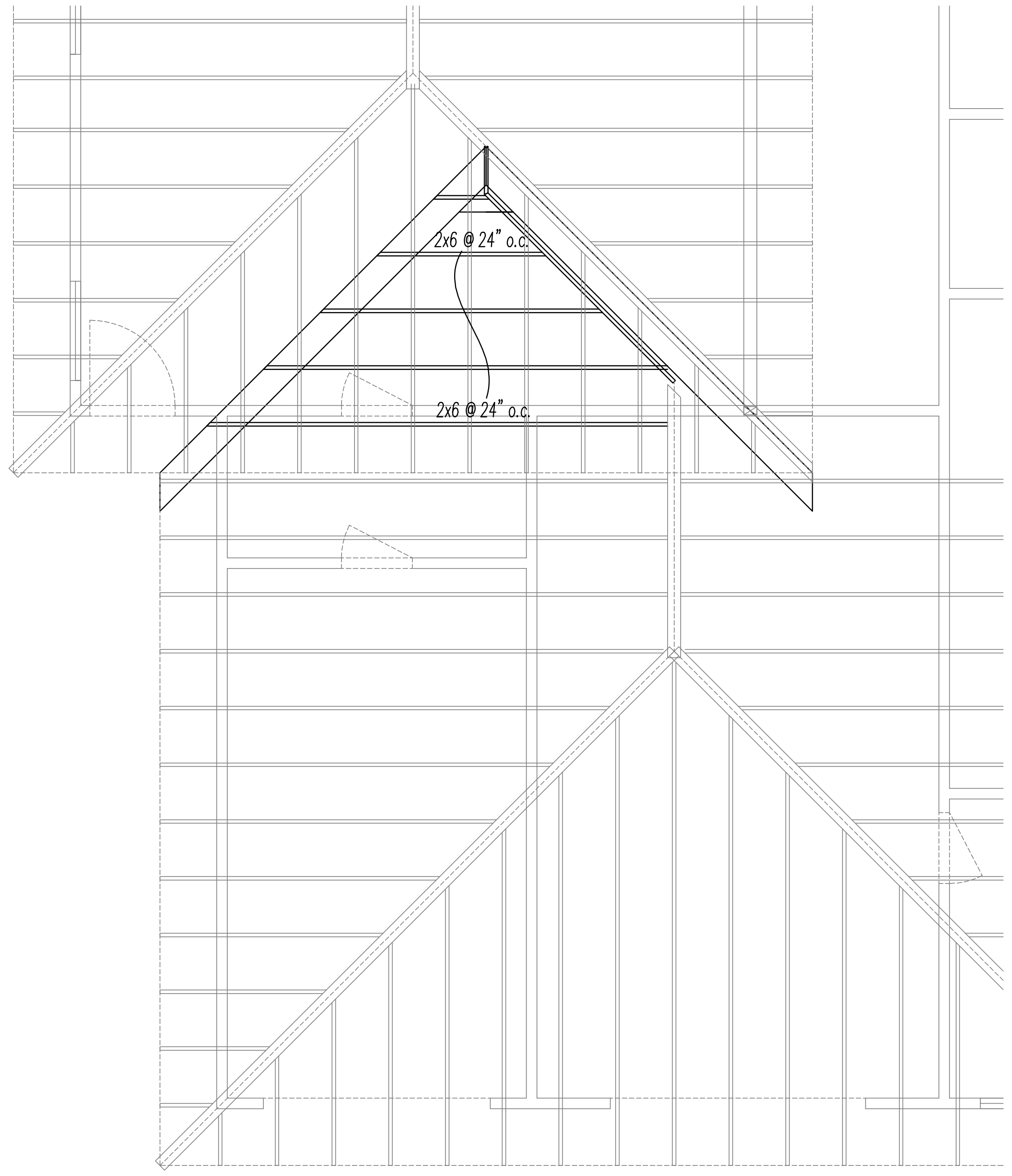
SCALE: $\frac{1}{4}$" = 1'-0"

BEAM LEGEND

(B1) = 2 x 10
(B2) = 4 x 12
(B3) = LVL 1 $\frac{3}{4}$" x 11 $\frac{7}{8}$"
(B4) = PSL 3 $\frac{1}{2}$" x 11 $\frac{7}{8}$"
(B5) = PSL 5 $\frac{1}{4}$" x 11 $\frac{1}{4}$"
(B6) = PSL 5 $\frac{1}{4}$" x 14"
(B7) = 6 x 12

COLUMN LEGEND

C1 = 4 x 4
C2 = 4 x 6
C3 = 6 x 6



Roof Framing Plan – Roof #4

SCALE: $\frac{1}{4}$" = 1'-0"

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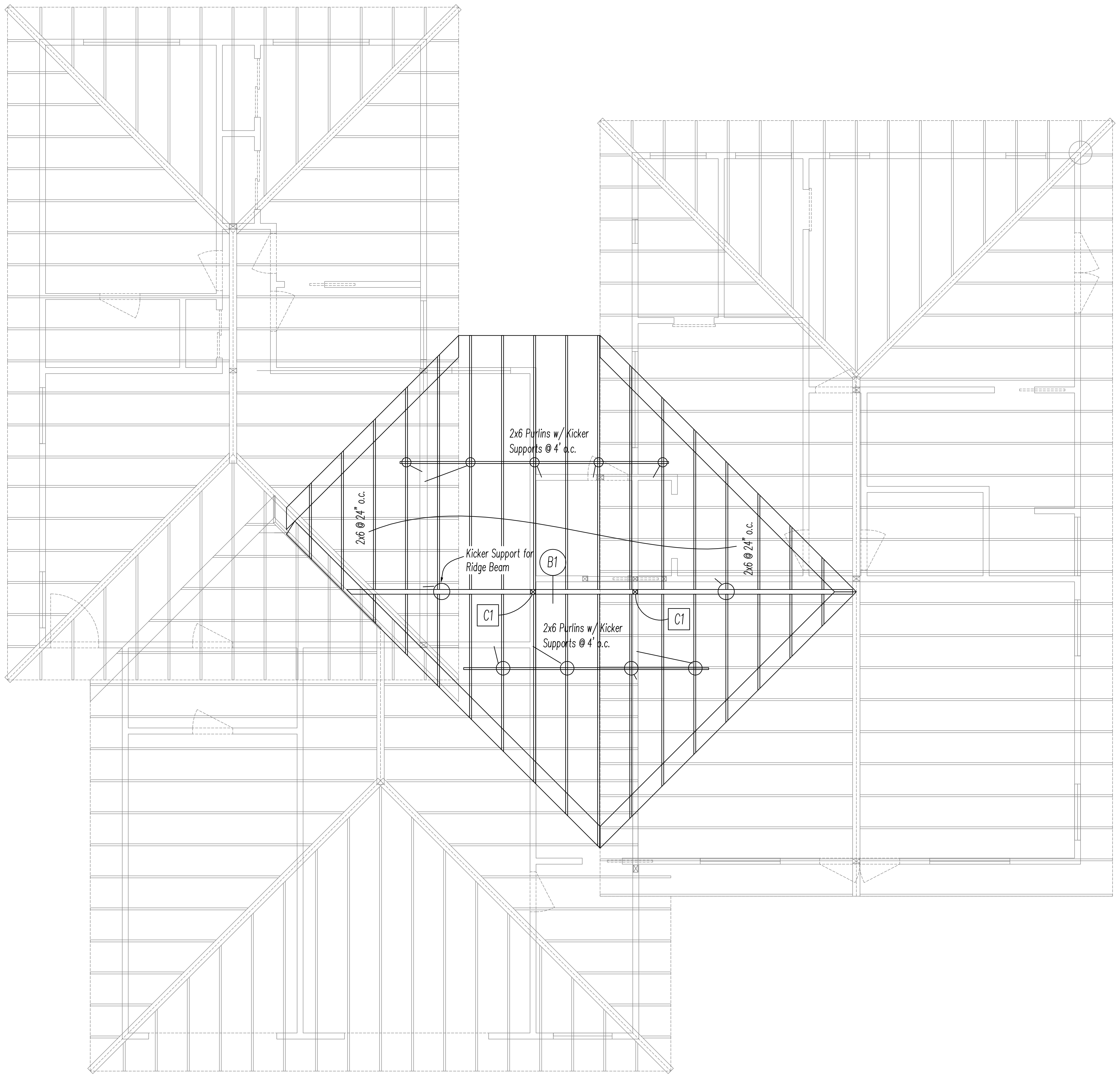
S4

Arch D Scale: $\frac{1}{4}$" = 1'-0"



Roof Framing Plan – Roof #5

SCALE: 1/4" = 1'-0"

BEAM LEGEND

B1 = 2 x 10
B2 = 4 x 12
B3 = LVL 1 3/4" x 11 7/8"
B4 = PSL 3 1/2" x 11 7/8"
B5 = PSL 5 1/4" x 11 1/4"
B6 = PSL 5 1/4" x 14"
B7 = 6 x 12

COLUMN LEGEND

C1 = 4 x 4
C2 = 4 x 6
C3 = 6 x 6

Arch D Scale: 1/4" = 1'-0"

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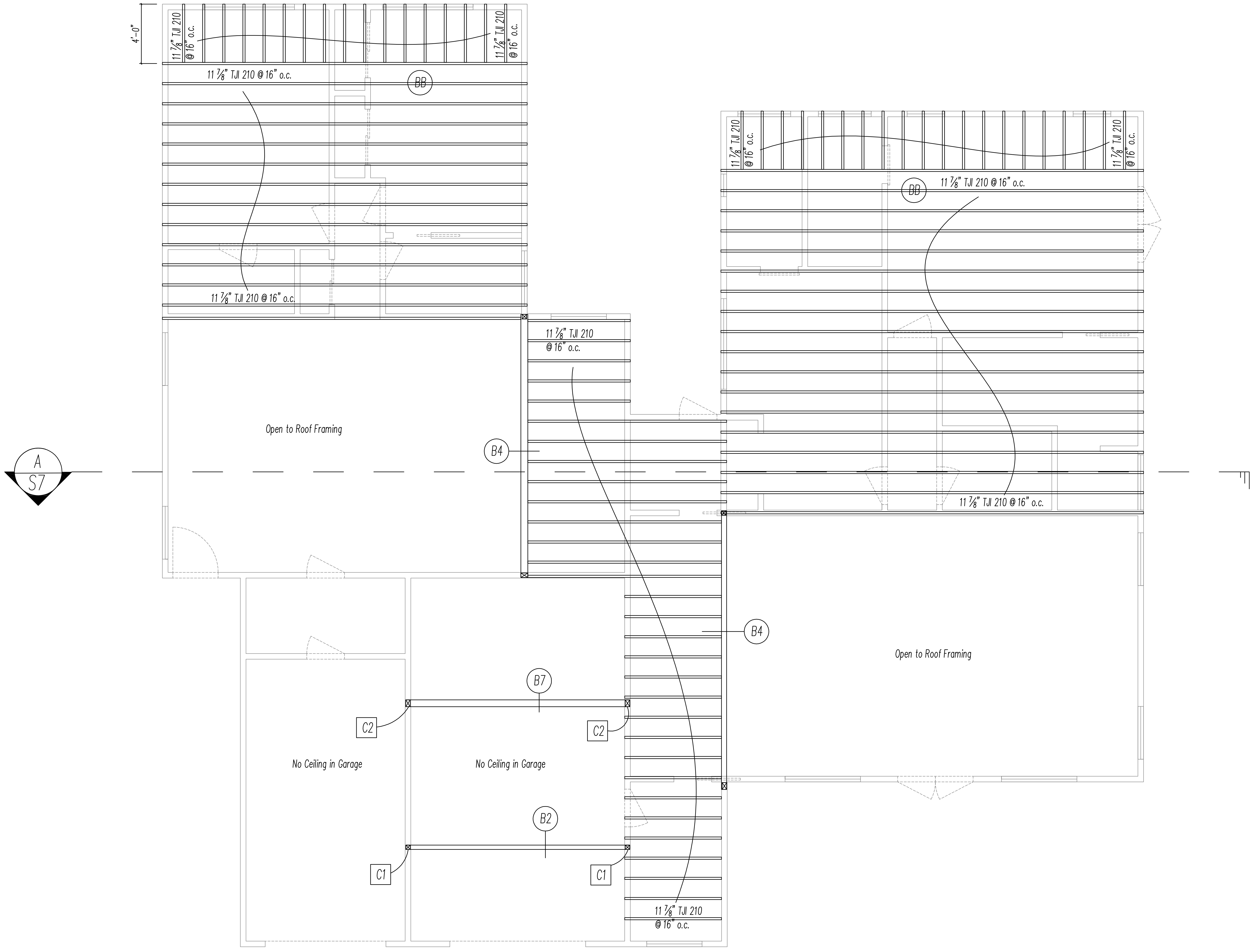
S5



Ceiling Framing Plan

SCALE: 1/4" = 1'-0"

BEAM LEGEND

B1 = 2 x 10
B2 = 4 x 12
B3 = LVL 1 3/4" x 11 7/8"
B4 = PSL 3 1/2" x 11 7/8"
B5 = PSL 5 1/4" x 11 1/4"
B6 = PSL 5 1/4" x 14"
B7 = 6 x 12

COLUMN LEGEND

C1 = 4 x 4
C2 = 4 x 6
C3 = 6 x 6

1. Materials: The following minimums shall apply to lumber grades unless shown otherwise on the drawings:

A) Vertical members:
2x4 Less than 10'-0" long .... Stud Grade, any species
2x4 8'-0" to < 10'-0" ....Standard Douglas Fir
2x4 10'-0" and longer............Douglas Fir #2
2x6 Any Length ....Douglas Fir #2
4" thick, 4" and wider ....Douglas Fir #2
6x6 and larger ....Douglas Fir #1

B) Horizontal Members:
2 to 4" thick 4" and wider ......Douglas Fir #2
6x6 and Larger........................Douglas Fir #1

C) Engineered Beams:
Grade: 2.2, 2900
Fb = 2900 psi
E = 2,200,000 psi

2) Beam Sizes, Post Sizes, Shear wall sheathng callouts are minimums. It may be to the contractors benefit to upsize for uniformity or fit.

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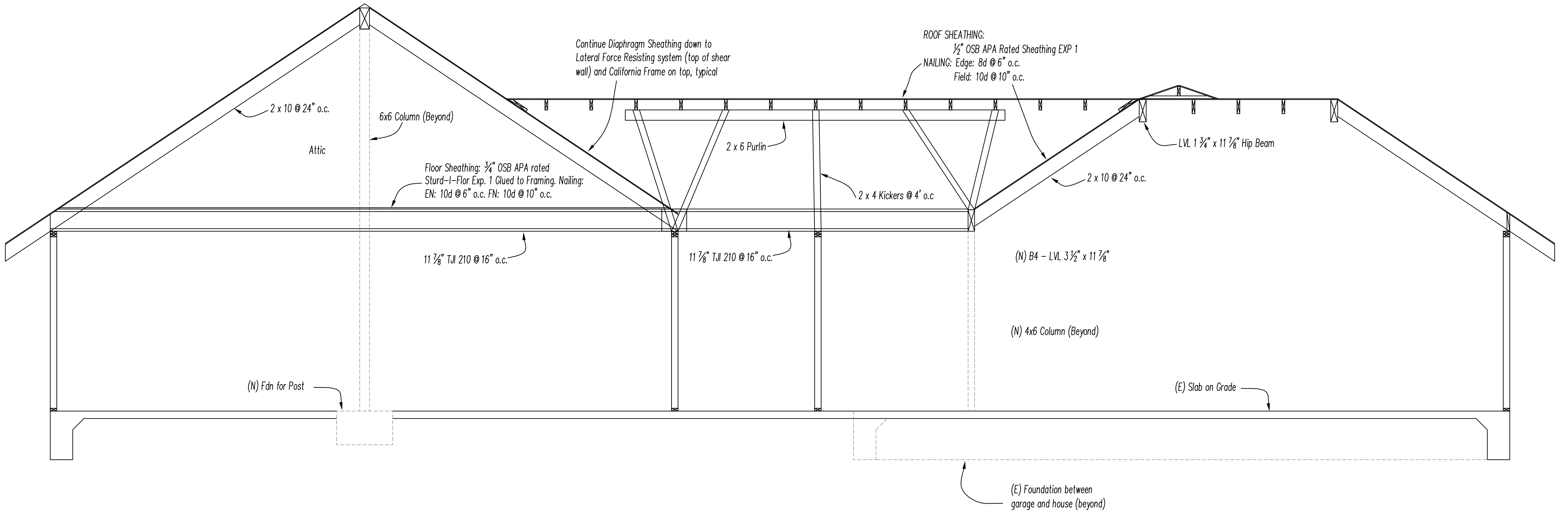
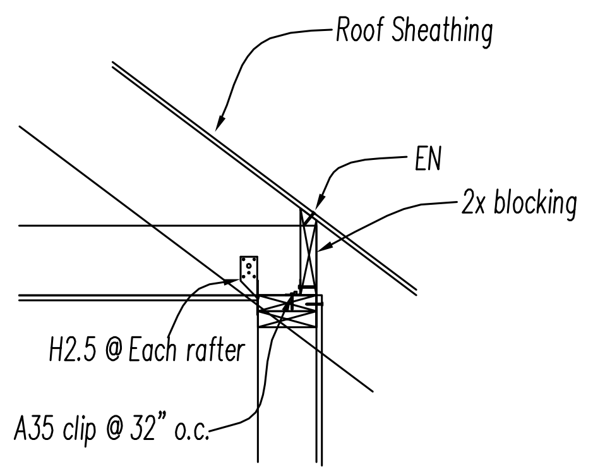
S6

Arch D Scale: 1/4" = 1'-0"



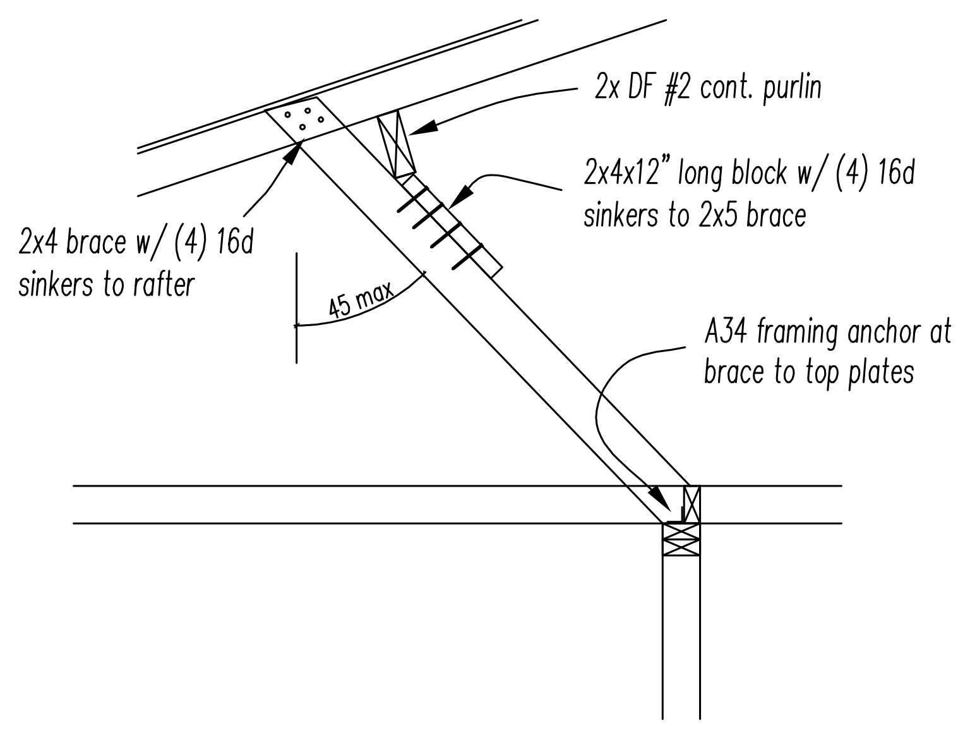
A Section

SCALE: ⅜" = 1'-0"



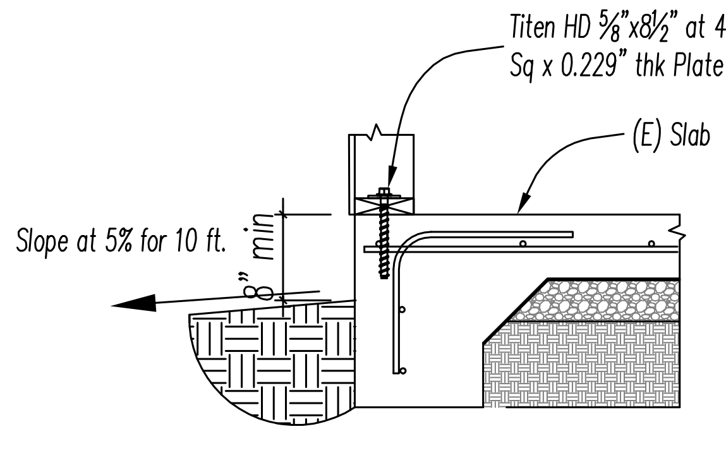
1 Rafters at Eave

SCALE: ¾" = 1'-0"



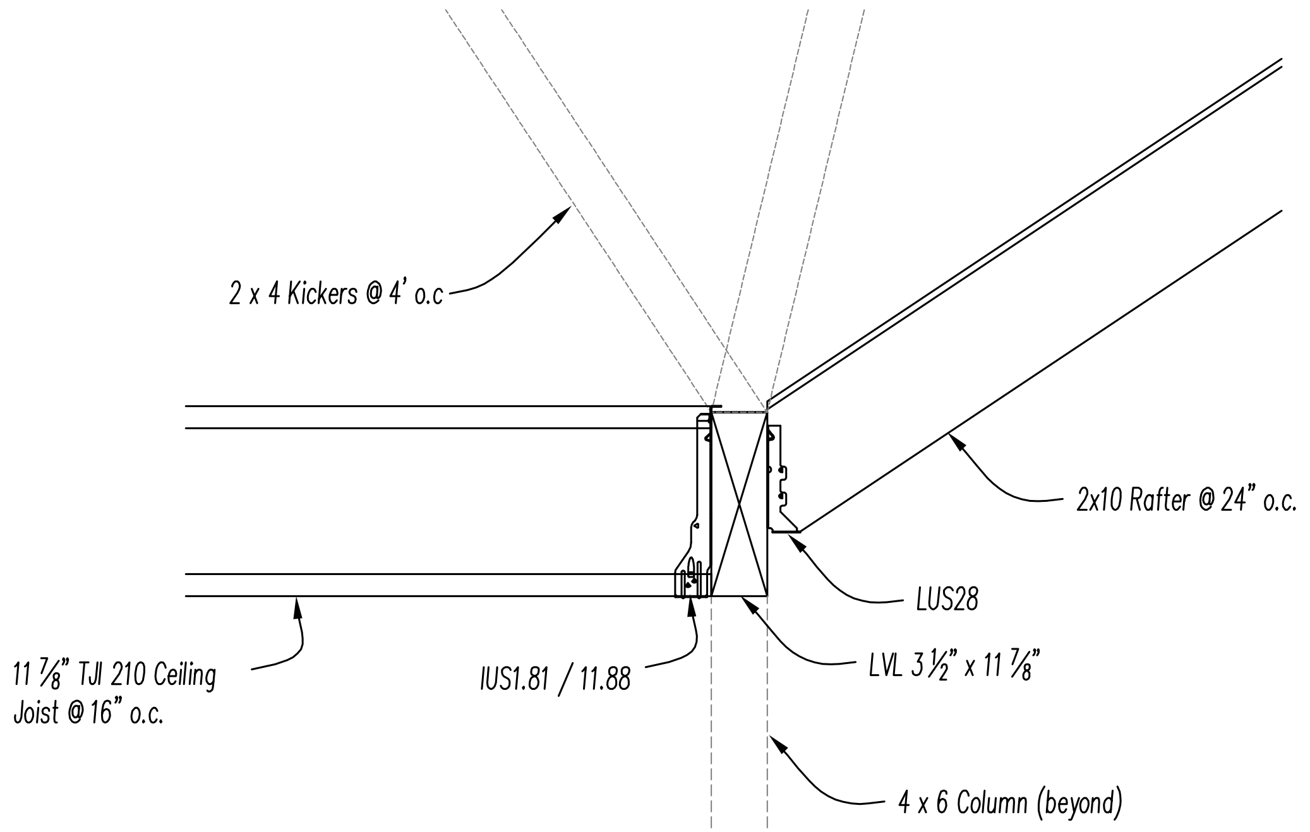
2 Brace Detail

Scale: ¾" = 1'-0"



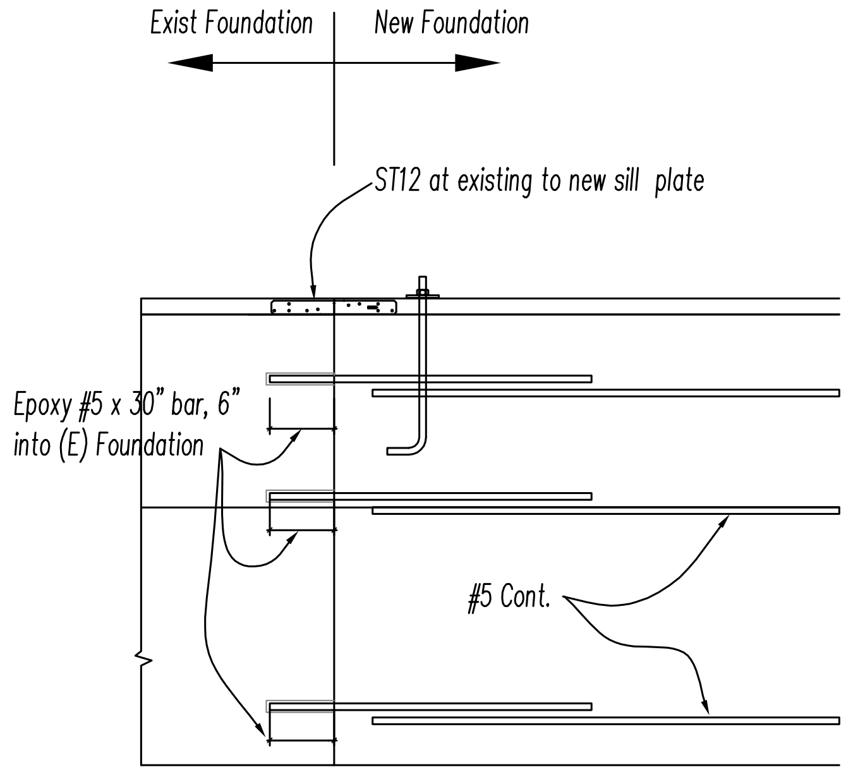
3 Perimeter Foundation Detail

Scale: ¾" = 1'-0"



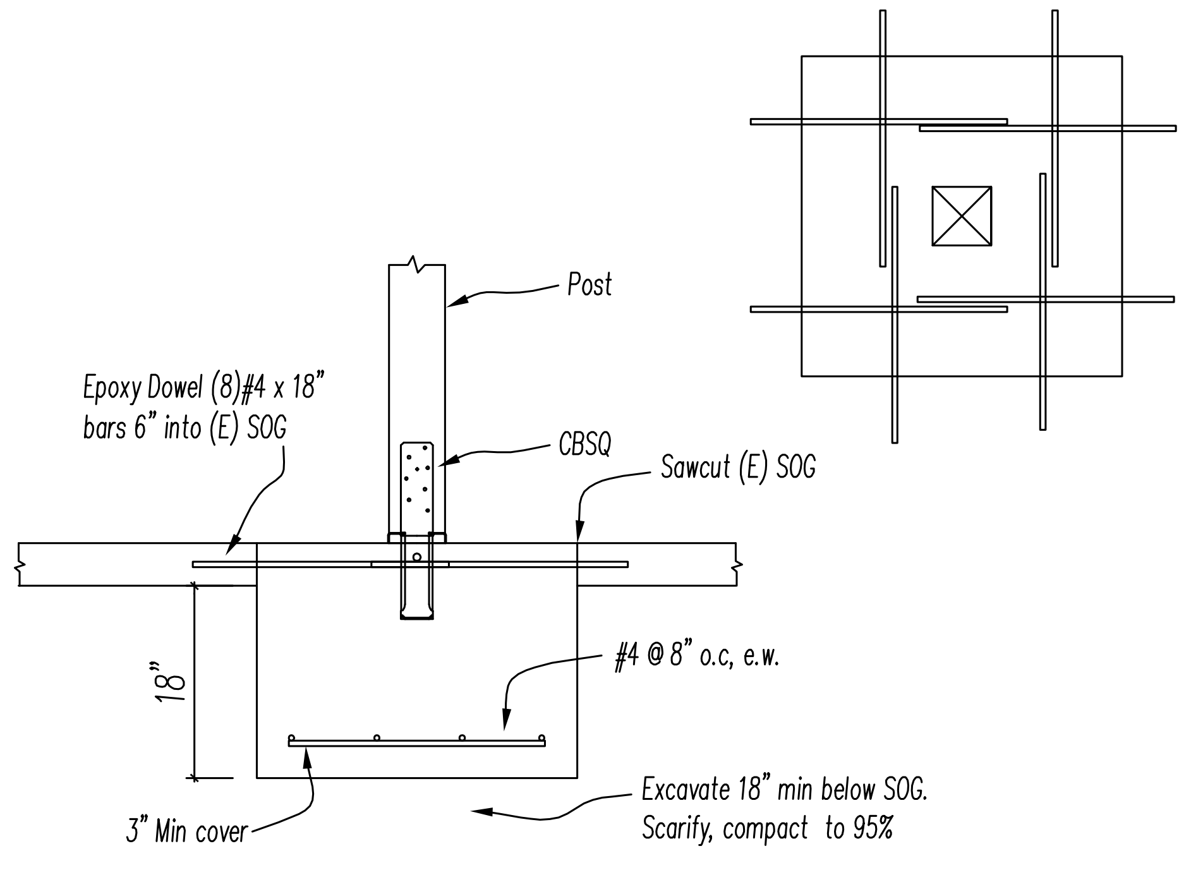
5 Connection at Beam / Rafter / Joist

Scale: ¾" = 1'-0"



5 Dowelling into (E) Fdn

Scale: ¾" = 1'-0"



4 Isolated Foundation Detail

Scale: ¾" = 1'-0"

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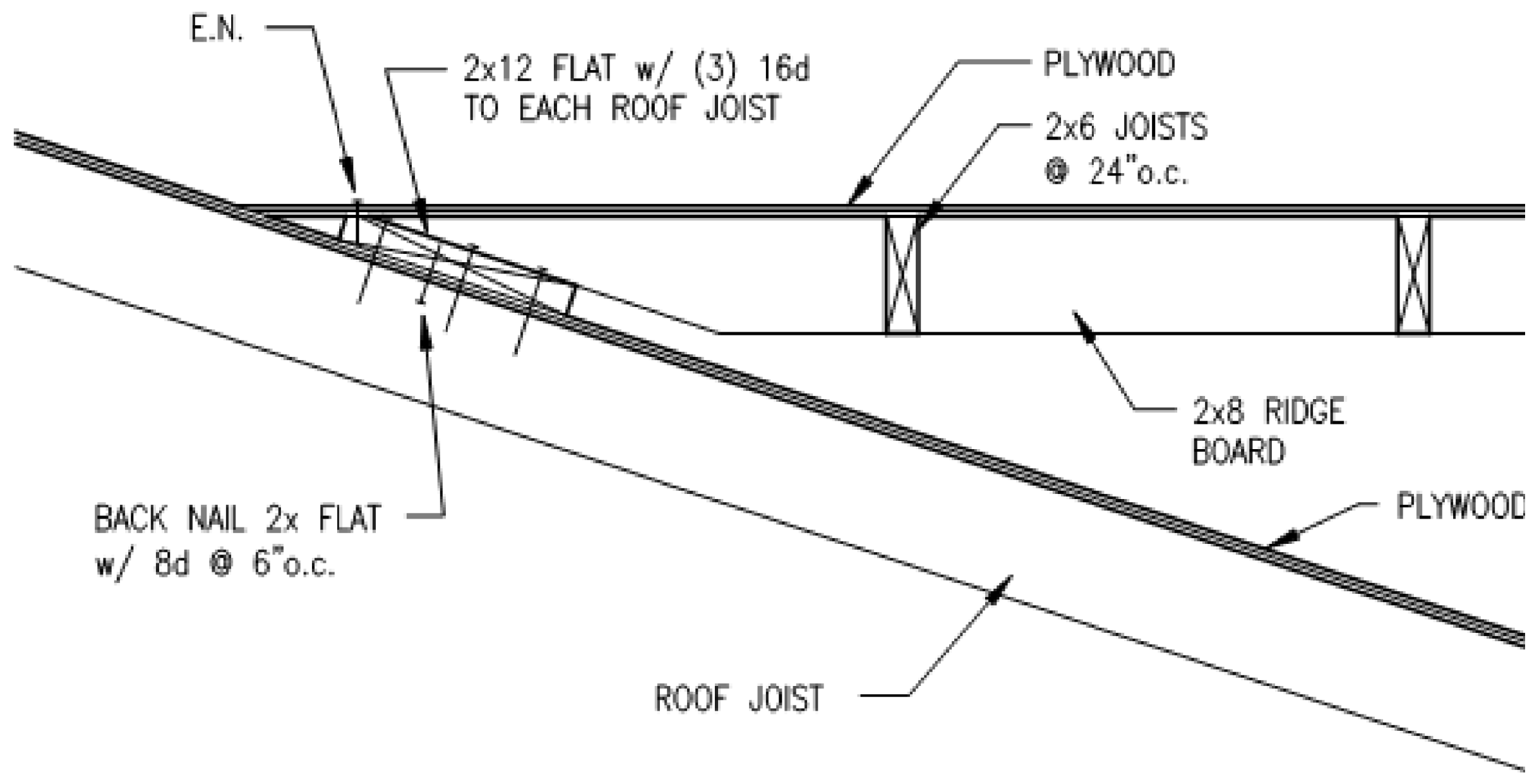
S7

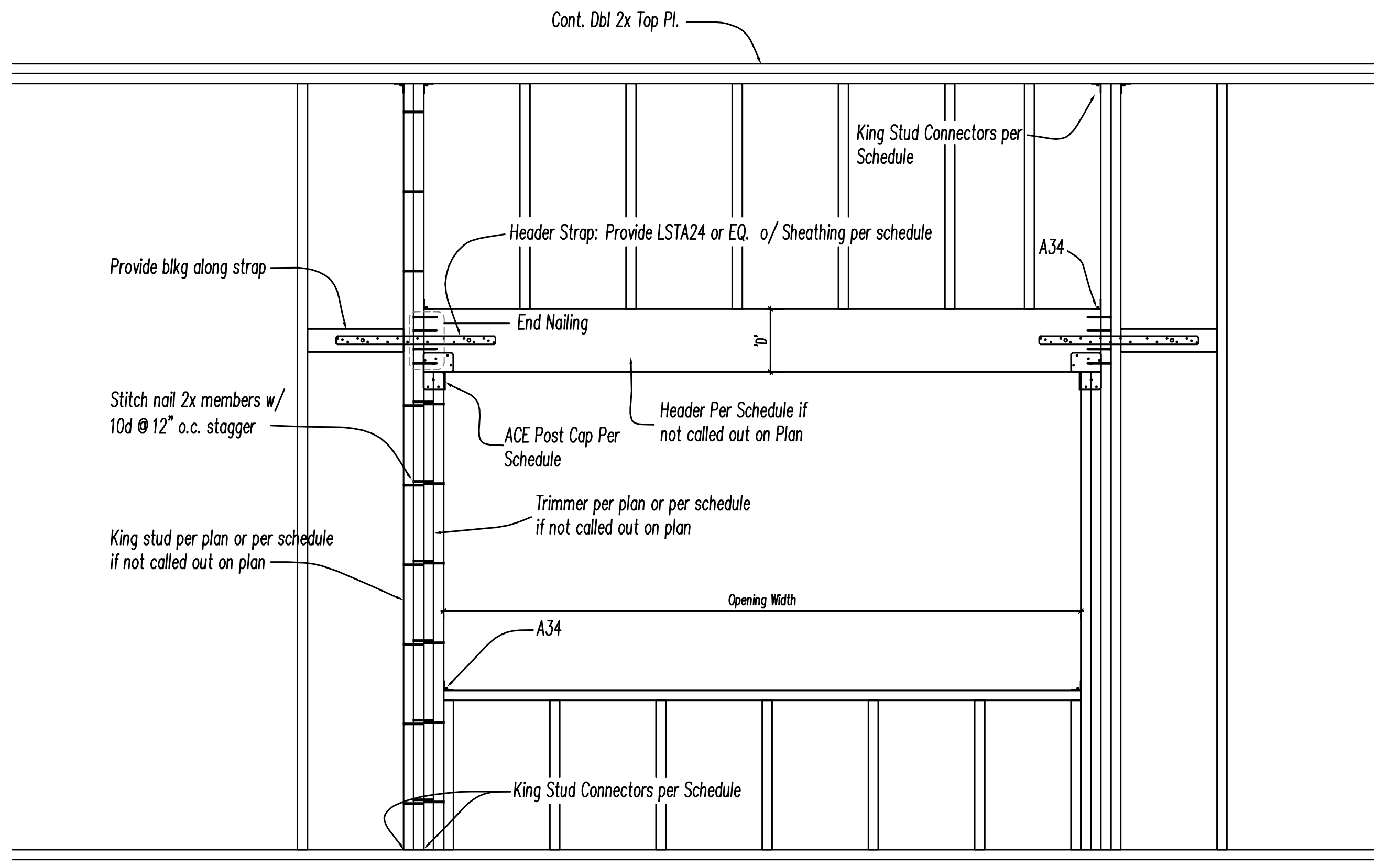
Arch D (24 x 36) Scale: ⅜" = 1'-0"

CA FRAME ROOF SHALL BE FRAMED WITH 2x6 JOISTS @ 24"o.c. PROVIDE 2x6 PURLIN @ 6'-0"o.c. AT JOISTS W/ 2x4 KICKER @ 4'-0"o.c. TO 2x FLAT BELOW.



2 TYP. CALIFORNIA FRAMING

SCALE: 1" = 1'-0"



Header / Framing Schedule

			2 x 4 STUDS				2 x 6 STUDS								
			Conditions at Windows		Conditions at Doors		Conditions at Windows		Conditions at Doors						
Opening Width	Min. Hdr. Size: 4x Nominal Depth	Min. Hdr. Size: 4x Nominal Depth	Trimmers	King Stud(s)	Trimmers	King Stud(s)	Trimmers	King Stud(s)	Trimmers	King Stud(s)	King Stud(s) Connector to Dbl Top Plate	King Stud(s) Connector to Sole/Sill Plate	'ACE' Cap	HDR Strap	End Nailing
3'-0"	'D' = 4"	'D' = 4"	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Not Reqd	Yes	4 – 16d
3'-6"	'D' = 4"	'D' = 4"	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Not Reqd	Yes	4 – 16d
4'-0"	'D' = 6"	'D' = 4"	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Not Reqd	Yes	4 – 16d
4'-6"	'D' = 6"	'D' = 6"	1 – 2x	2 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Not Reqd	Yes	6 – 16d
5'-0"	'D' = 6"	'D' = 6"	1 – 2x	2 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Not Reqd	Yes	6 – 16d
5'-6"	'D' = 6"	'D' = 6"	1 – 2x	2 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Not Reqd	Yes	6 – 16d
6'-0"	'D' = 8"	'D' = 6"	1 – 2x	2 – 2x	1 – 2x	1 – 2x	1 – 2x	2 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Yes	Yes	8 – 16d
6'-6"	'D' = 8"	'D' = 8"	1 – 2x	2 – 2x	1 – 2x	2 – 2x	1 – 2x	2 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Yes	Yes	8 – 16d
7'-0"	'D' = 8"	'D' = 8"	2 – 2x	2 – 2x	2 – 2x	2 – 2x	1 – 2x	2 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Yes	Yes	8 – 16d
7'-6"	'D' = 8"	'D' = 8"	2 – 2x	2 – 2x	2 – 2x	2 – 2x	1 – 2x	2 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Yes	Yes	8 – 16d
8'-0"	'D' = 10"	'D' = 10"	2 – 2x	2 – 2x	2 – 2x	2– 2x	2 – 2x	2 – 2x	1 – 2x	1 – 2x	3 – 16d Toe Nail per Stud	3 – 16d Toe Nail per Stud	Yes	Yes	10 – 16d
8'-6"	'D' = 10"	'D' = 10"	2 – 2x	3 – 2x	2 – 2x	3 – 2x	2 – 2x	2 – 2x	2 – 2x	2 – 2x	'BC' or 'A34' Ea side of stud	'BC' or 'A34' Ea side of stud	Yes	Yes	10 – 16d
9'-0"	'D' = 10"	'D' = 10"	2 – 2x	3 – 2x	2 – 2x	3 – 2x	2 – 2x	3 – 2x	2 – 2x	2 – 2x	'BC' or 'A34' Ea side of stud	'BC' or 'A34' Ea side of stud	Yes	Yes	10 – 16d
9'-6"	'D' = 12"	'D' = 12"	2 – 2x	3 – 2x	2 – 2x	3 – 2x	2 – 2x	3 – 2x	2 – 2x	2 – 2x	'BC' or 'A34' Ea side of stud	'BC' or 'A34' Ea side of stud	Yes	Yes	10 – 16d
10'-0"	'D' = 12"	'D' = 12"	2 – 2x	3 – 2x	2 – 2x	3 – 2x	2 – 2x	3 – 2x	2 – 2x	2 – 2x	'BC' or 'A34' Ea side of stud	'BC' or 'A34' Ea side of stud	Yes	Yes	10 – 16d
Over 10'	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan	Per Plan

1 Typical Wall Framing at Openings

FRAMING NOTES:

1. Roof Diaphragm: Provide ½" APA (SR 24 / 0) rated structural sheathing with 8d common ails at 6" o.c. panel edges, and 12" o.c. at intermediate supports. Provide sheeting at exposure 1 sheeting at exposed locations.

2. Provide ⅛" gap at all panel edges. Sheathing less than 15⁄32" must have ends and edges supported by blocking or edge clips.

3. Provide solid diaphragm under all roof fill framing at trussed roofs and provide min 12" x 30" attic access opening with all edges blocked.

4. Structural beams, dimensional joists and rafters shall not be notched, cut or bored unless specifically designed and detailed by the engineer or architect of record.

5. Floor Diaphragm: Provide ¾" APA (PSR 40 / 20)rated, tongue ad groove, structural sheathing with 10d common nails at 6" o.c. at panel edges and 12" o.c.at intermediate supports. Provide Exposure 1 Sheeting at exposed locations.

6. All beam to column hardware to be of the CCQ variety

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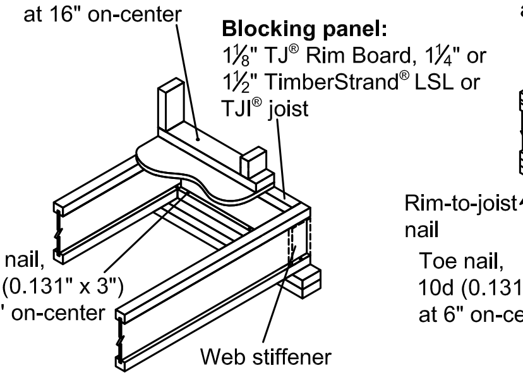
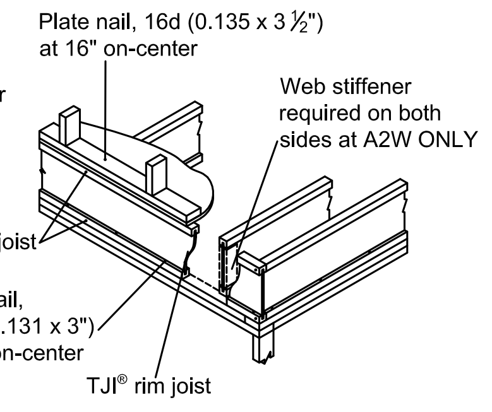
S8

THINK SAFETY, READ INSTALLATION INFORMATION BEFORE PROCEEDING

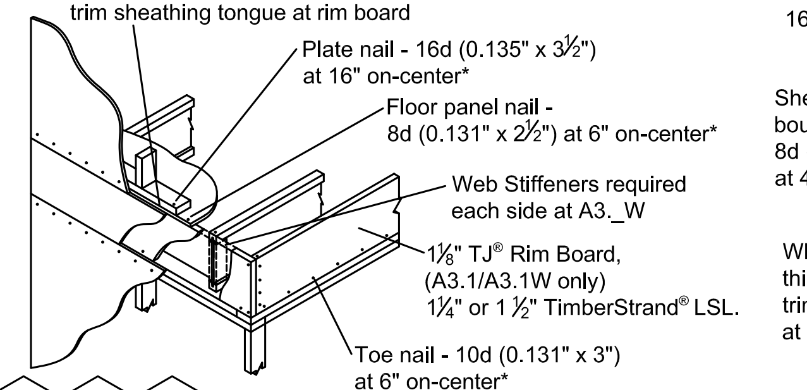
JOIST DETAILS

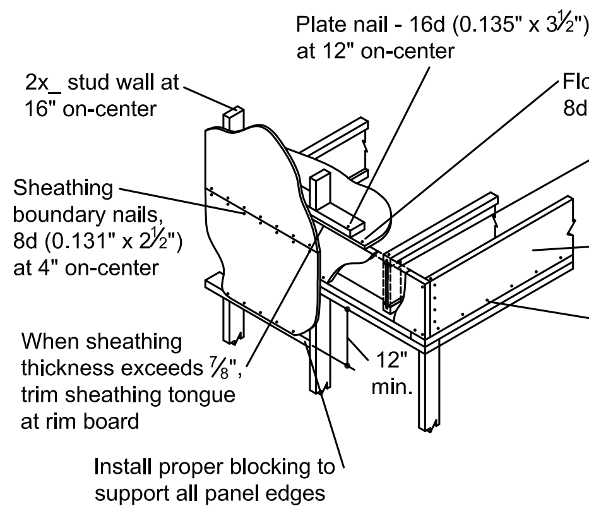




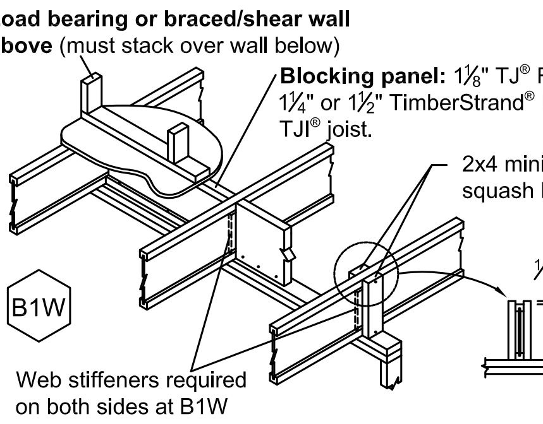
Must have 1¾" minimum joist bearing at ends. Attach rim joist per A3 detail.

* For additional installation specifications see Rim Board Details and Installation in *Weyerhaeuser Installation Guide for Floor and Roof Framing*, TJ-9001.

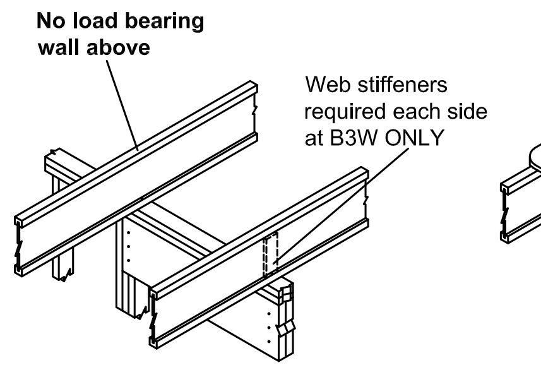




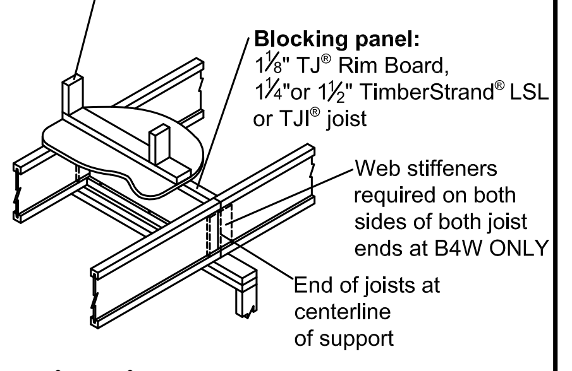
* For additional installation specifications see Rim Board Details and Installation in *Weyerhaeuser Installation Guide for Floor and Roof Framing*, TJ-9001.

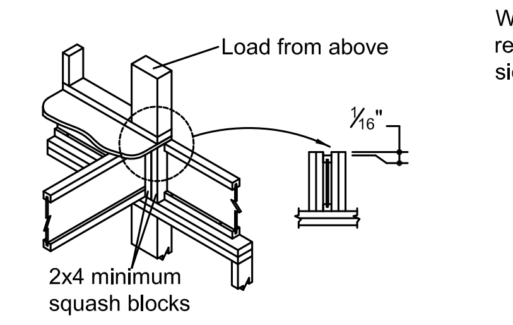


B2 B2W Blocking panels may be required with braced/shear walls above or below — see detail B1

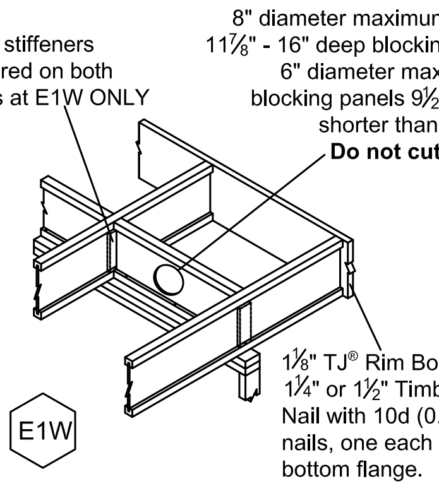


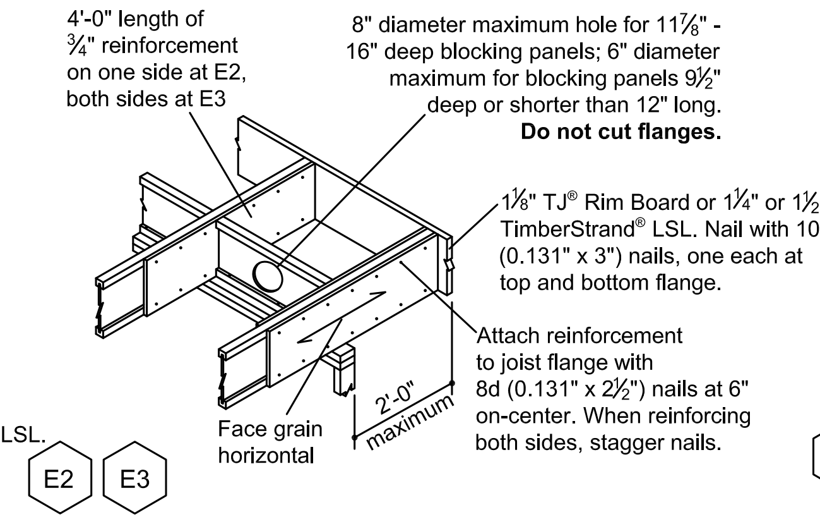
B3 B3W Blocking panels may be required with braced/shear walls above or below — see detail B1

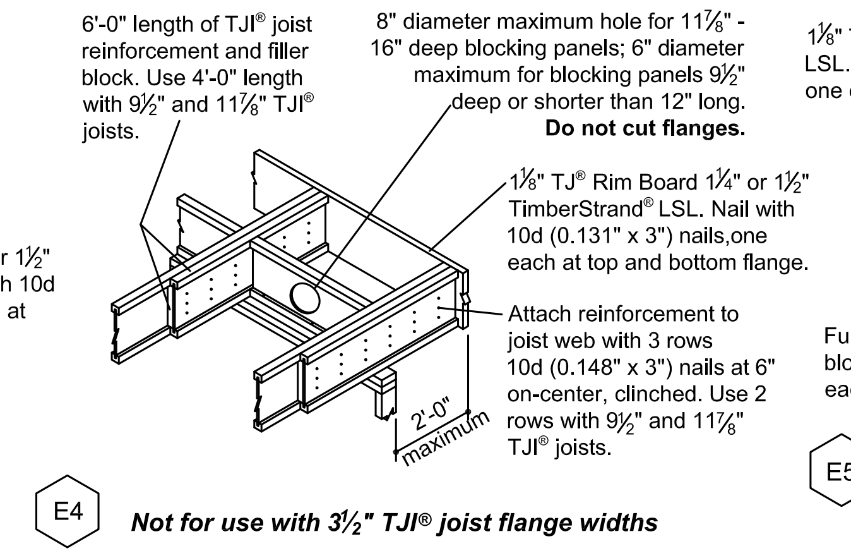




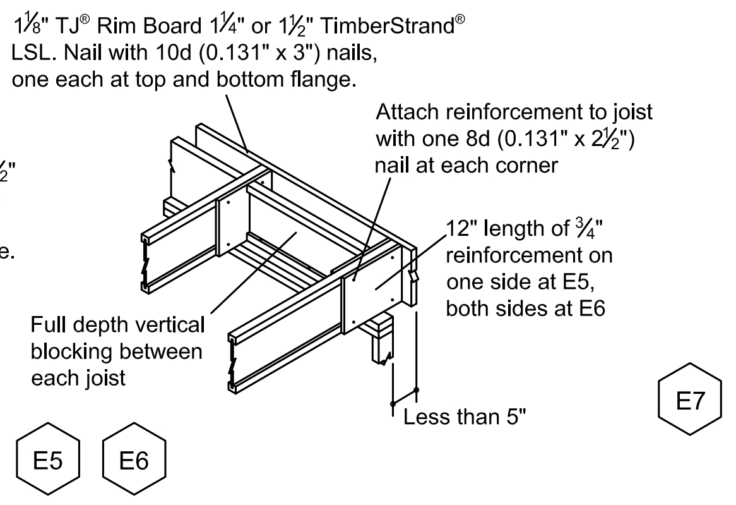
Use 2x4 minimum squash blocks to transfer load around TJI® joist

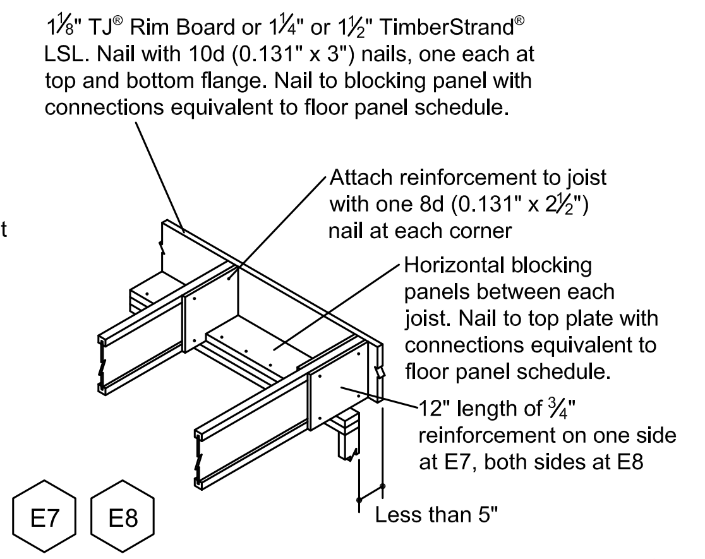


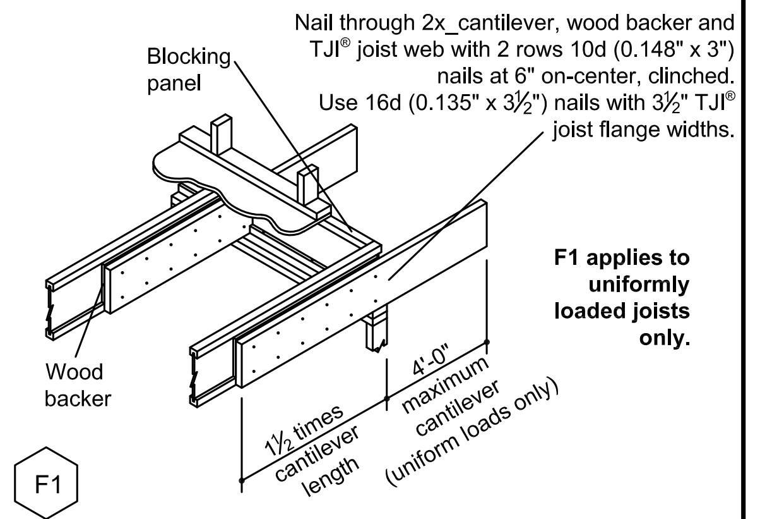




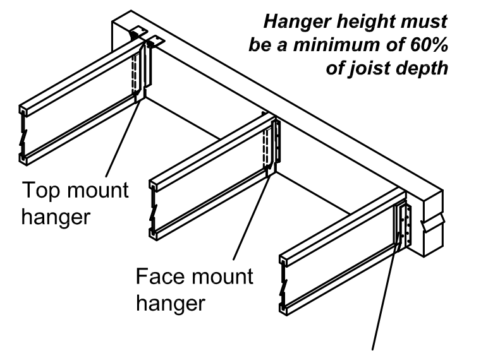
Not for use with 3½" TJI® joist flange widths

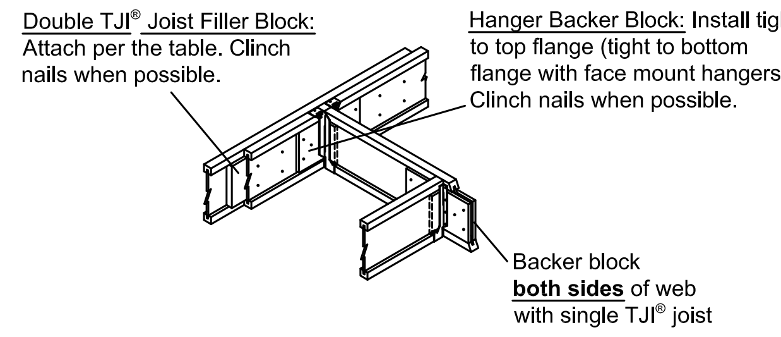




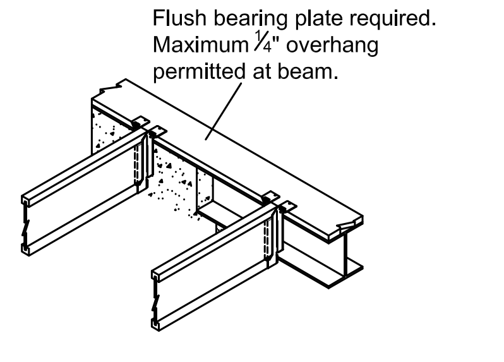


F1 applies to uniformly loaded joists only.

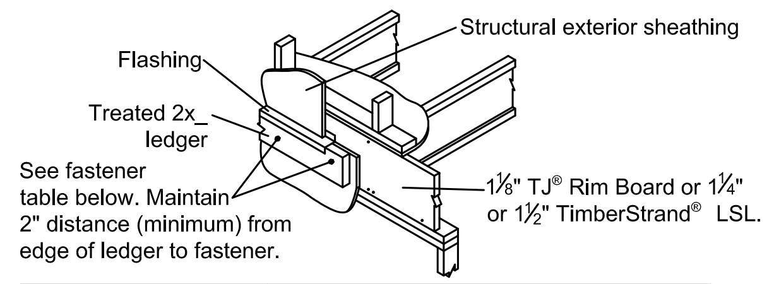




With top mount hangers, backer block required only for downward loads exceeding 250 lbs or for uplift conditions. For nailing requirements see page 5, TJ - 9001, *Weyerhaeuser installation Guide for Floor and Roof Framing, TJ-9001.*



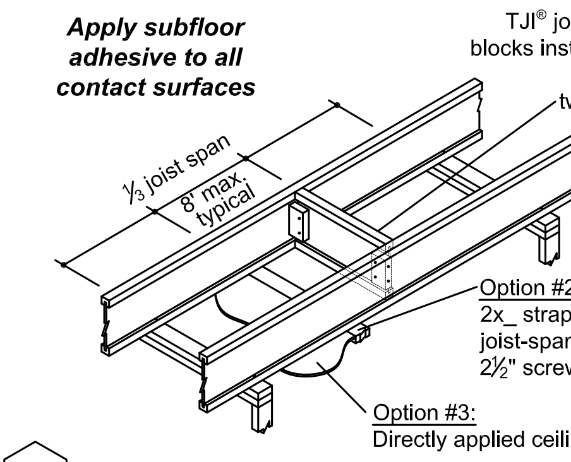
EXTERIOR DECK ATTACHMENT



Rim Board Material	Fastener Allowable Load⁽²⁾ (lbs/bolt)		
	½" lag bolt	½" Through bolt	½" Through bolt with Air Space
1⅛" TJ® Rim Board ⁽³⁾	480	695	615⁽⁴⁾
1¼" TimberStrand® LSL	610	725	
1½" TimberStrand® LSL	675	725	

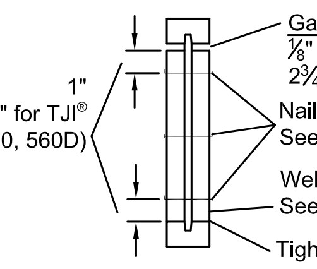
(1) Corrosion-resistant fasteners required for wet-service applications.
(2) Allowable load determined in accordance with ASTM D7672.
(3) 1⅛" TJ® Rim Board is allowed with joist depths ≤ 16" only.
(4) Maximum ½" shimmed air space.

Apply subfloor adhesive to all contact surfaces



When specified on the layout, one of the bracing options above is required

WEB STIFFENER ATTACHMENT



* With point load from above, and no support below, install web stiffener tight to top flange (gap at bottom flange)

TJI® Joist Series	Depth (in.)	Minimum Web Stiffener Size	Nailing Requirements		
			Type	Number Nails	
				End	Intermediate
110 210 230 & 360	All All All	⅝" x 2⁵⁄₁₆"⁽¹⁾ ¾" x 2⁵⁄₁₆"⁽¹⁾ ⅞" x 2⁵⁄₁₆"⁽¹⁾	8d (0.113" x 2½")	3	3
560	All	2x4 ⁽²⁾	16d (0.135" x 3½")		
560D	18" 20" 22"⁽³⁾ 24"⁽³⁾	2x4 ⁽²⁾	16d (0.135" x 3½")	4 5 6 6	4 5 11 13

(1) PS1 or PS2 sheathing, face grain vertical
(2) Construction grade or better
(3) Web stiffeners are always required for 22" and 24" TJI® 560D Joists

FASTENING of FLOOR PANELS

Guidelines for Closest On-Center Spacing per Row

Nail Size	TJI®⁽¹⁾⁽²⁾		Rim Board			1¾" TimberStrand® LSL or wider	Microllam® LVL	Parallam® PSL
	110, 210, and 230	360 and 560	1⅛" TJ® Rim Board	TimberStrand® LSL 1¼"	TimberStrand® LSL 1½"			
8d (0.113" x 2½"), 8d (0.131" x 2½")	4"	3"	6"	4"	3"	3"	4"	4"
10d (0.148"x 3"), 12d (0.148"x 3¼")	4"⁽³⁾	4"⁽³⁾	6"	4"	3"	3"	5"	4"
16d (0.162"x 3½")	6"	6"	16"⁽⁴⁾	6"⁽⁵⁾	6"⁽⁵⁾	6"⁽⁶⁾	8"⁽⁴⁾	6"

(1) Stagger nails when using 4" on-center spacing and maintain ⅜" joist and panel edge distance. One row of fasteners is permitted (two at abutting panel edges) for diaphragms. Fastener spacing for TJI® joists in diaphragm applications cannot be less than shown in table. When fastener spacing for blocking is less than spacing shown above, rectangular blocking must be used in lieu of TJI® joists.
(2) For non-diaphragm applications, multiple rows of fasteners are permitted if the rows are offset at least ½" and staggered.
(3) With 10d (0.148" x 1½") nails, spacing can be reduced to 3" on-center for light gauge steel straps.
(4) Can be reduced to 5" on-center if nail penetration into the narrow edge is no more than 1¼" (to minimize splitting).
(5) Can be reduced to 4" on-center if nail penetration into the narrow edge is no more than 1¼" (to minimize splitting).
(6) Can be reduced to 3½" on-center if nail penetration into the narrow edge is no more than 1¼" (to minimize splitting).

- Recommended nailing is 12" on-center in field and 6" on-center along panel edge. Fastening requirements on engineered drawings supersede recommendations listed above.
- Maximum nail spacing for TJI® joists is 18" on-center.
- 14 ga. staples may be substituted for 8d (0.113" x 2½") nails if minimum penetration of 1" into the TJI® joist or rim board is achieved.
- To minimize splitting, maintain edge distance and row spacing of 2½ x nail diameter or ⅜", whichever is greater.
- Nailing rows must be offset at least ½" and staggered.
- For recommended nailing and adhesives, see INSTALLATION RECOMMENDATIONS on page 2 of the *Weyerhaeuser Installation Guide for Floor and Roof Framing, TJ-9001.*

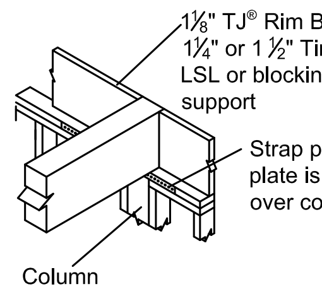
FILLER and BACKER BLOCK SIZES

TJI® Joists		110		210		230 or 360		360	560			560D
Depth		9½"-11⅞"	14"-16"	9½"-11⅞"	14"-16"	9½"-11⅞"	14"-16"	18"-20"	11⅞"	14"-16"	18"-20"	22"-24"
Filler Block ⁽¹⁾ (Detail H2)		2x6	2x8	2x6 + ⅜" sheathing	2x8 + ⅜" sheathing	2x6 + ½" sheathing	2x8 + ½" sheathing	2x12 + ½" sheathing	Two 2x6	Two 2x8	Two 2x12	Four ¾" x 15" sheathing
Cantilever Filler (Detail E4)		2x6 4'-0" long	2x10 6'-0" long	2x6 + ⅜" sheathing 4'-0" long	2x10 + ⅜" sheathing 6'-0" long	2x6 + ½" sheathing 4'-0" long	2x10 + ½" sheathing 6'-0" long	Not applicable	Not applicable			
Backer Block ⁽¹⁾ (Detail F1 or H2)		⅝" or ¾"		¾" or ⅞"		⅞" or 1" Net			2x6	2x8	2x12	Two ¾" x 15" sheathing
Nail Size	Filler	10d (0.128" x 3")							16d (0.135" x 3½")			
	Backer								10d (0.128" x 3")			
Nail Quantity⁽²⁾	Filler	10 (15 for multi-family applications)						15 one side	10 (15 for mulit-family) each side		15 each side	25 each side
	Backer							15	10 (15 for mulit-family)		15	15

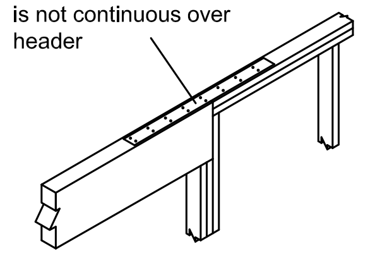
(1) If necessary, increase filler and backer block height for face mount hangers and maintain ⅛" gap at top of joist; see detail W. Filler and backer block dimensions should accomodate required nailing without splitting (12" minimum for backer blocks and 24" minimum for filler blocks).
(2) Clinch nails when possible.

BEAM DETAILS

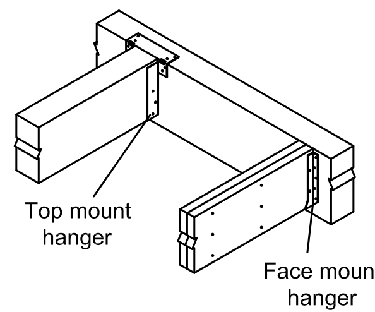
BEARING AT WALL



BEARING FOR DOOR OR WINDOW HEADER

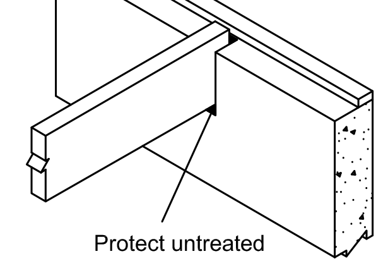


BEAM TO BEAM CONNECTION

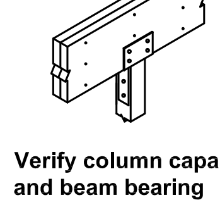


See current Weyerhaeuser literature for framing connectors

BEARING AT CONCRETE WALL



BEARING AT COLUMN



Verify column capacity and beam bearing length. See current Weyerhaeuser literature.

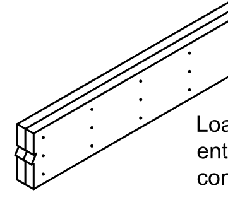
Multiple-Member Connections for Top-Loaded Beams

Fastener Installation Requirements

Piece Width	# of Plies	Fastener				
		Type⁽¹⁾	Min. Length	# Rows	O.C. Spacing	Location
1¾"	2	10d nails	3"	3⁽²⁾	12"	One side
		12d-16d nails	3¼"	2⁽²⁾		
		Screws	3⅜" or 3½"	2	24"	
	3	10d nails	3"	3⁽²⁾	12"	Both sides
		12d-16d nails	3¼"	2⁽²⁾		
		Screws	3⅜" or 3½"	2	24"	Both sides
			5"			One side
	4	10d nails⁽³⁾	3"	3⁽²⁾	12"	One side (per ply)
		12d-16d nails⁽³⁾	3¼"	2⁽²⁾		
		Screws	5" or 6"	2	24"	Both sides
			6¾"			One side
3½"	2	Screws	5" or 6"	2	24"	Both sides
			6¾"			One side
		½" bolts	8"	2	24"	-

(1) 10d nails are 0.128" diameter; 12d-16d nails are 0.148" - 0.162" diameter; screws are SDS, SDW, USP WS, or TrussLOK®
(2) An additional row of nails is required with depths of 14" or greater.
(3) When connecting 4-ply members, nail each ply to the other and offset nail rows by 2" from the rows in the ply below.

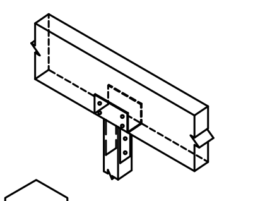
When fasteners are required on both sides, stagger fasteners on the second side so they fall halfway between fasteners on the first side.



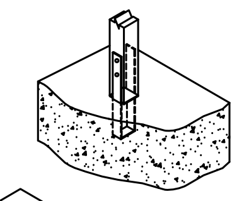
Multiple pieces can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 7"

COLUMN DETAILS

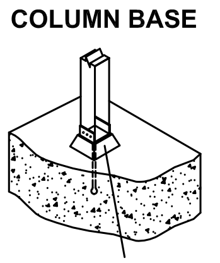
BEAM ON COLUMN CAP



COLUMN BASE

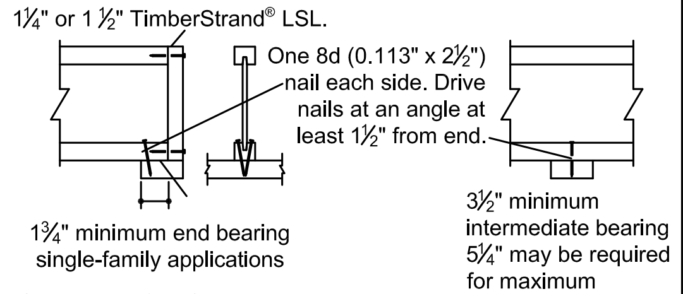


ELEVATED COLUMN BASE



NAILING AT BEARING (FLOOR)

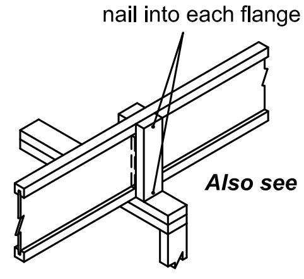
TJI® Joist to Bearing Plate



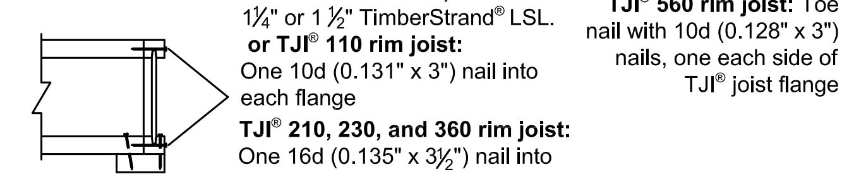
Shear transfer: Connections equivalent to floor panel nailing schedule

Squash Blocks to TJI® Joist

(Load bearing wall above)

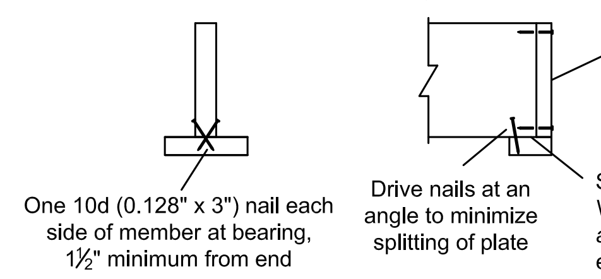


Rim to TJI® Joist

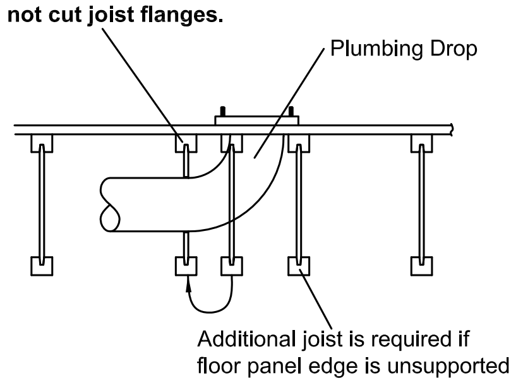


Locate rim board joint between joists.

BEAM ATTACHMENT at BEARING



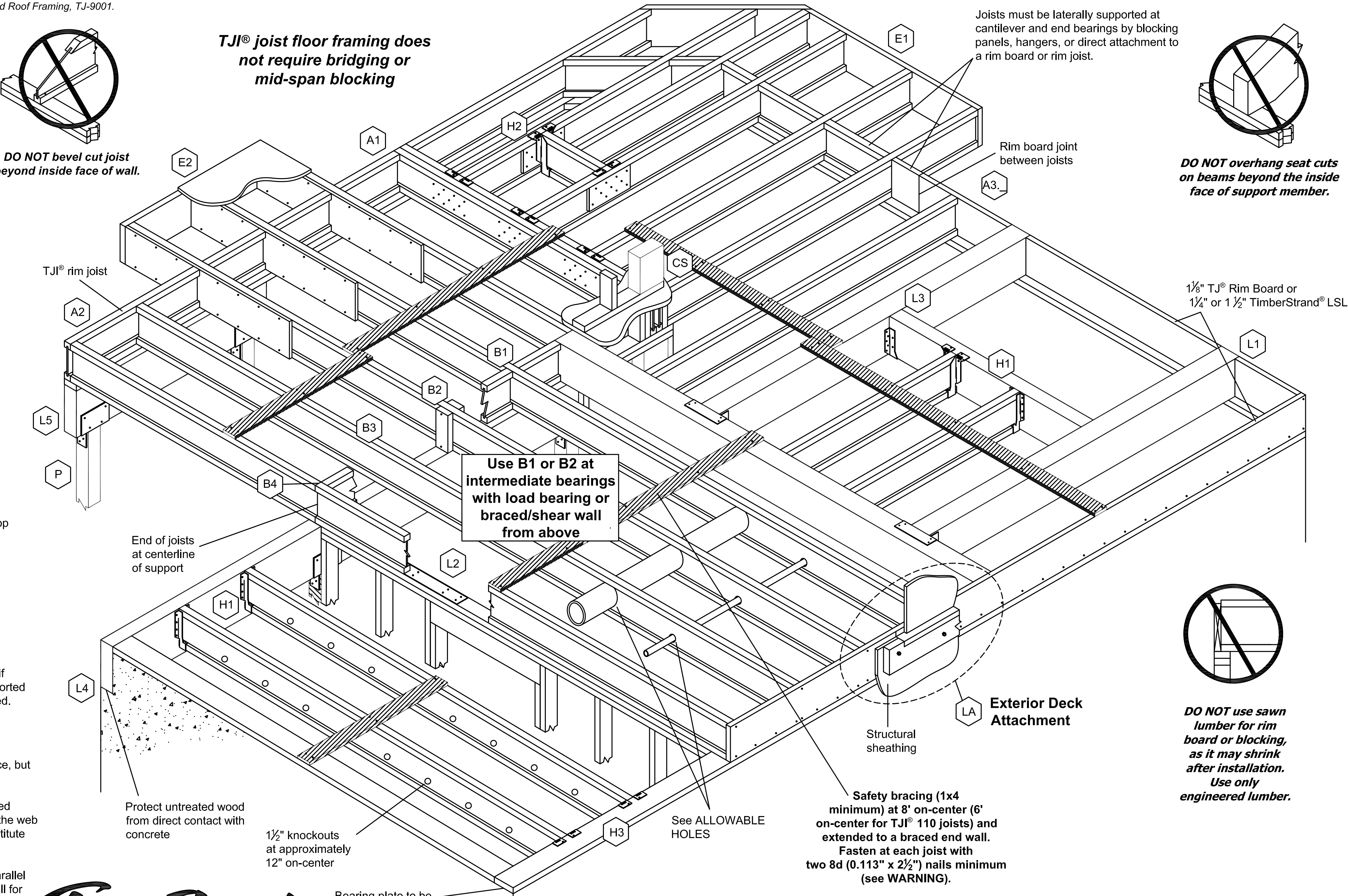
See framing plan (if applicable) or Weyerhaeuser *Installation Guide for Floor and Roof Framing, TJ-9000.* For minimum end and intermediate bearing lengths.



INSTALLATION TIPS

- Subfloor adhesive will improve floor performance, but may not be required.
- Squash blocks and blocking panels carry stacked vertical loads (details B1 and B2). Packing out the web of a TJI® joist (with web stiffeners) is not a substitute for squash blocks or blocking panels.
- When joists are doubled at non-load bearing parallel partitions, space joists apart the width of the wall for plumbing or HVAC.
- Additional joist at plumbing drop (see detail).

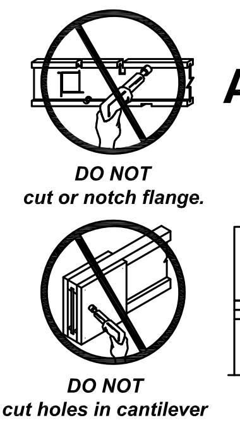
TJI® joist floor framing does not require bridging or mid-span blocking



Trus Joist™ Weyerhaeuser

Weyerhaeuser

ALLOWABLE HOLES - TJI® Joists



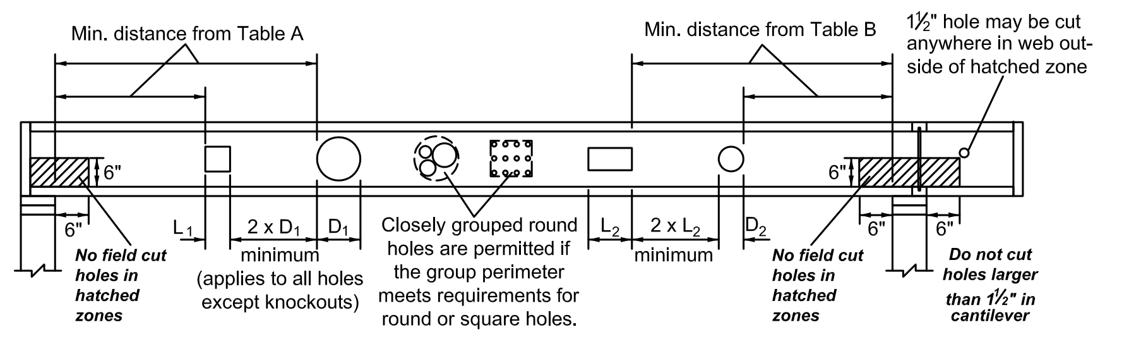


Table A - End Support

Minimum distance from edge of hole to inside face of nearest end support

JOIST DEPTH	TJI®	Round 2"	Round 3"	Round 4"	Round 5"	Round 6½"	Round 7"	Round 8⅞"	Round 11"	Round 13"	Sq./Rect. 2"	Sq./Rect. 3"	Sq./Rect. 4"	Sq./Rect. 5"	Sq./Rect. 6½"	Sq./Rect. 7"	Sq./Rect. 8⅞"	Sq./Rect. 11"	Sq./Rect. 13"
9½"	110	1'-0"	1'-6"	2'-0"	3'-0"	5'-0"					1'-0"	1'-6"	2'-6"	3'-6"	4'-6"				
	210	1'-0"	1'-6"	2'-6"	3'-0"	5'-6"					1'-0"	2'-0"	2'-6"	4'-0"	5'-0"				
	230	1'-6"	2'-0"	2'-6"	3'-6"	5'-6"					1'-0"	2'-0"	3'-0"	4'-6"	5'-0"				
	360	1'-6"	2'-0"	3'-0"	4'-0"	6'-0"					1'-6"	2'-6"	3'-6"	5'-0"	5'-6"				
	560	1'-6"	2'-6"	3'-6"	5'-0"	7'-0"					2'-0"	3'-0"	4'-0"	5'-6"	6'-0"				
11⅞"	110	1'-0"	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	5'-6"			1'-0"	1'-6"	2'-0"	2'-6"	4'-6"	5'-0"	6'-0"		
	210	1'-0"	1'-6"	2'-0"	2'-0"	3'-0"	3'-6"	6'-0"			1'-0"	1'-6"	2'-6"	3'-0"	5'-0"	5'-6"	6'-6"		
	230	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	6'-6"			1'-0"	2'-0"	2'-6"	3'-6"	5'-6"	5'-6"	7'-0"		
	360	1'-6"	2'-0"	3'-0"	3'-6"	4'-6"	5'-0"	7'-0"			1'-6"	2'-6"	3'-6"	4'-6"	6'-6"	6'-6"	7'-6"		
	560	1'-6"	2'-6"	3'-0"	4'-0"	5'-6"	6'-0"	8'-0"			2'-6"	3'-6"	4'-6"	5'-6"	7'-0"	7'-6"	8'-0"		
14"	110	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	3'-0"	5'-6"		1'-0"	1'-0"	1'-6"	2'-0"	3'-6"	4'-0"	6'-0"	8'-0"	
	210	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	2'-6"	3'-6"	6'-0"		1'-0"	1'-0"	2'-0"	2'-6"	4'-0"	4'-6"	6'-6"	8'-6"	
	230	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	2'-6"	4'-0"	7'-0"		1'-0"	1'-0"	2'-0"	3'-0"	4'-0"	5'-0"	7'-0"	9'-0"	
	360	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	4'-0"	5'-6"	8'-0"		1'-0"	1'-6"	2'-6"	4'-0"	6'-0"	6'-6"	8'-0"	9'-6"	
	560	1'-0"	1'-0"	2'-0"	3'-0"	4'-6"	5'-0"	6'-6"	9'-0"		1'-6"	3'-0"	4'-0"	5'-0"	7'-0"	7'-6"	9'-0"	10'-0"	
16"	110	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	3'-0"	5'-0"	1'-0"	1'-0"	1'-0"	1'-6"	3'-0"	3'-0"	5'-6"	7'-6"	10'-0"
	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	6'-0"	1'-0"	1'-0"	1'-0"	2'-0"	3'-0"	3'-6"	6'-6"	8'-0"	11'-0"
	230	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	1'-6"	3'-0"	4'-0"	7'-0"	1'-0"	1'-0"	1'-0"	2'-0"	3'-6"	4'-0"	7'-0"	9'-0"	11'-0"
	360	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	2'-6"	4'-6"	6'-6"	9'-0"	1'-0"	1'-0"	1'-6"	3'-0"	5'-0"	5'-6"	9'-0"	10'-0"	11'-6"
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-0"	5'-0"	7'-6"	10'-0"	1'-0"	2'-0"	3'-0"	4'-6"	6'-6"	7'-0"	10'-0"	11'-0"	12'-0"

JOIST DEPTH	TJI®	Round 4"	Round 6"	Round 7"	Round 8"	Round 10"	Round 12"	Round 14¾"	Round 16¾"		Sq./Rect. 4"	Sq./Rect. 6"	Sq./Rect. 7"	Sq./Rect. 8"	Sq./Rect. 10"	Sq./Rect. 12"	Sq./Rect. 14¾"	Sq./Rect. 16¾"	
18"	360	1'-0"	1'-0"	1'-0"	2'-0"	4'-0"	5'-6"	9'-6"			1'-0"	3'-0"	4'-6"	6'-0"	10'-0"	11'-0"	13'-6"		
	560	1'-0"	1'-0"	1'-0"	2'-0"	4'-6"	7'-0"	10'-6"			2'-0"	5'-0"	6'-6"	8'-0"	11'-0"	12'-0"	14'-0"		
20"	360	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	4'-0"	7'-0"	10'-0"		1'-0"	1'-6"	3'-0"	4'-6"	8'-0"	11'-6"	13'-6"	15'-6"	
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	4'-6"	8'-6"	11'-0"		1'-0"	3'-6"	5'-0"	7'-0"	10'-6"	13'-0'	14'-6"	15'-6"	

Table B - Intermediate or Cantilever Support

Minimum distance from edge of hole to inside face of nearest intermediate or cantilever support

JOIST DEPTH	TJI®	Round 2"	Round 3"	Round 4"	Round 5"	Round 6½"	Round 7"	Round 8⅞"	Round 11"	Round 13"	Sq./Rect. 2"	Sq./Rect. 3"	Sq./Rect. 4"	Sq./Rect. 5"	Sq./Rect. 6½"	Sq./Rect. 7"	Sq./Rect. 8⅞"	Sq./Rect. 11"	Sq./Rect. 13"
9½"	110	2'-0"	2'-6"	3'-6"	4'-6"	7'-6"					1'-6"	2'-6"	3'-6"	5'-6"	6'-6"				
	210	2'-0"	2'-6"	3'-6"	5'-0"	8'-0"					2'-0"	3'-0"	4'-0"	6'-6"	7'-6"				
	230	2'-6"	3'-0"	4'-0"	5'-6"	8'-6"					2'-0"	3'-6"	4'-6"	6'-6"	7'-6"				
	360	3'-0"	4'-0"	5'-6"	6'-6"	9'-0"					3'-0"	4'-6"	5'-6"	7'-6"	8'-0"				
	560	3'-6"	5'-0"	6'-0"	7'-6"	10'-0"					4'-0"	5'-6"	6'-6"	8'-0"	9'-0"				
11⅞"	110	1'-0"	1'-0"	1'-6"	2'-6"	4'-0"	4'-6"	8'-6"			1'-0"	1'-6"	2'-6"	4'-0"	7'-0"	7'-0"	9'-6"		
	210	1'-0"	1'-0"	2'-0"	3'-0"	4'-6"	5'-0"	9'-0"			1'-0"	2'-0"	3'-0"	4'-6"	8'-0"	8'-0"	10'-0"		
	230	1'-0"	2'-0"	2'-6"	3'-6"	5'-0"	5'-6"	10'-0"			1'-0"	2'-6"	3'-6"	5'-0"	8'-6"	9'-0"	10'-6"		
	360	2'-0"	3'-0"	4'-0"	5'-6"	7'-0"	7'-6"	11'-0"			2'-0"	3'-6"	5'-0"	7'-0"	9'-6"	9'-6"	11'-0"		
	560	1'-6"	3'-0"	4'-6"	5'-6"	8'-0"	8'-6"	12'-0"			3'-0"	4'-6"	6'-0"	8'-0"	10'-6"	11'-0"	12'-0"		
14"	110	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	2'-6"	4'-6"	8'-6"		1'-0"	1'-0"	1'-0"	2'-6"	5'-0"	6'-0"	9'-0"	12'-0"	
	210	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-0"	5'-6"	9'-6"		1'-0"	1'-0"	2'-0"	3'-6"	6'-0"	7'-0"	10'-0"	13'-0"	
	230	1'-0"	1'-0"	1'-0"	2'-0"	3'-6"	4'-0"	6'-0"	10'-6"		1'-0"	1'-0"	2'-6"	4'-0"	6'-6"	7'-6"	11'-0"	13'-6"	
	360	1'-0"	1'-0"	2'-0"	3'-6"	5'-6"	6'-0"	8'-6"	12'-6"		1'-0"	2'-0"	4'-0"	5'-6"	9'-0"	10'-0"	12'-0"	14'-0"	
	560	1'-0"	1'-0"	1'-6"	3'-6"	5'-6"	6'-6"	9'-6"	13'-6"		1'-0"	3'-0"	5'-0"	7'-0"	10'-0"	11'-0"	13'-6"	15'-0"	
16"	110	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	5'-0"	8'-6"	1'-0"	1'-0"	1'-0"	1'-0"	3'-6"	4-6"	8'-6"	11'-6"	15'-0"
	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	3'-6"	6'-0"	10'-0"	1'-0"	1'-0"	1'-0"	1'-6"	4'-6"	5'-6"	10'-0"	12'-6"	16'-0"
	230	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	4'-0"	6'-6"	11'-0"	1'-0"	1'-0"	1'-0"	2'-6"	5'-0"	6'-0"	10'-6"	13'-6"	16'-6"
	360	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	4'-0"	6'-6"	10'-0"	13'-6"	1'-0"	1'-0"	2'-0"	4'-0"	7'-6"	8'-6"	13'-0"	14'-6"	17'-0"
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	7'-0"	11'-0"	15'-0"	1'-0"	1'-0"	3'-6"	5'-6"	9'-0"	10'-0"	14'-6"	16'-0"	18'-0"

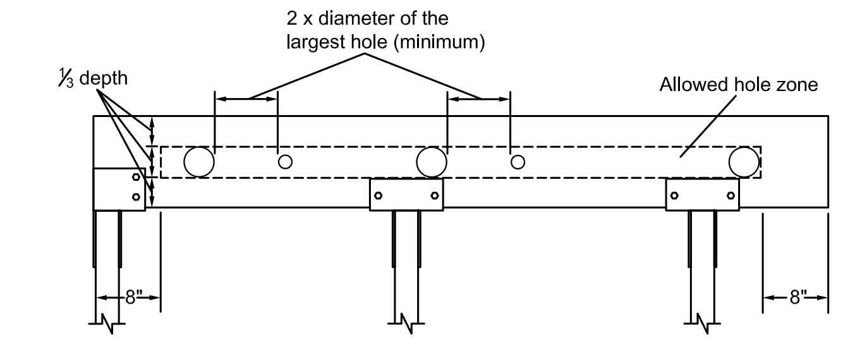
JOIST DEPTH	TJI®	Round 4"	Round 6"	Round 7"	Round 8"	Round 10"	Round 12"	Round 14¾"	Round 16¾"		Sq./Rect. 4"	Sq./Rect. 6"	Sq./Rect. 7"	Sq./Rect. 8"	Sq./Rect. 10"	Sq./Rect. 12"	Sq./Rect. 14¾"	Sq./Rect. 16¾"	
18"	360	1'-0"	1'-0"	1'-6"	3'-0"	6'-0"	9'-0"	14'-6"			1'-0"	4'-0"	6'-6"	9'-0"	14'-6"	16'-6"	19'-0"		
	560	1'-0"	1'-0"	1'-0"	2'-0"	6'-0"	10'-0"	15'-6"			1'-0"	6'-0"	8'-6"	11'-6"	16'-6"	18'-0"	19'-6"		
20"	360	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	6'-0"	11'-0"	15'-0"		1'-0"	1'-6"	4'-0"	7'-0"	12'-6"	16'-6"	19'-0"	20'-6"	
	560	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	5'-6"	11'-6"	15'-6"		1'-0"	3'-0"	6'-0"	8'-6"	14'-0"	17'-6'	19'-0"	20'-6"	

Rectangular holes based on measurement of longest side.

- Leave ⅛" of web (minimum) at top and bottom of hole. **DO NOT cut joist flanges.**
- Tables are based on uniform load tables in current design literature.
- For simple span (5' minimum), uniformly loaded joists used in residential applications, one maximum size round hole may be located at the center of the joist span **provided that no other holes occur in the joist.**

ALLOWABLE HOLES - Headers and Beams

1.55E TimberStrand® LSL Headers and Beams



1.55 E TimberStrand® LSL

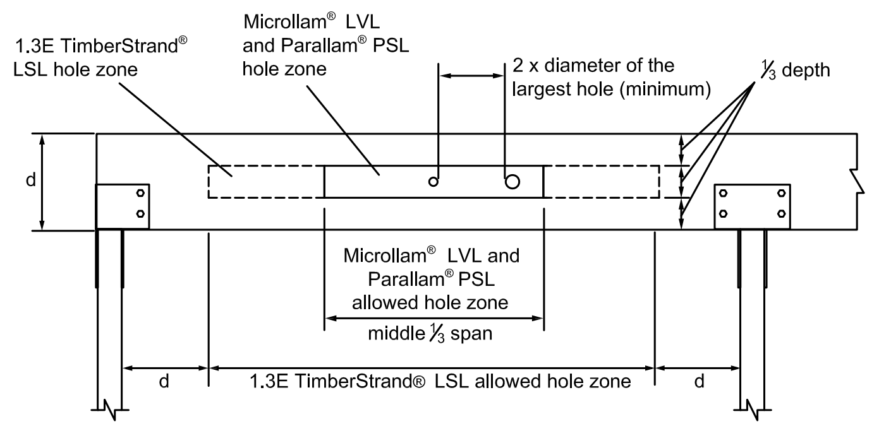
Header or Beam Depth	Maximum Round Hole Size
9¼"-9½"	3"
11¼"-11⅞"	3⅝"
14"-16"	4⅝"

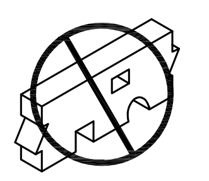
See illustration for allowed hole zone

General Notes

- Allowed hole zone suitable for headers and beams with **uniform and/or concentrated loads anywhere along the member**.
- Round holes only
- No holes in headers or beams in plank orientation.

Other Trus Joist® Headers and Beams





DO NOT cut, notch or drill holes in headers or beams except as indicated in illustrations and tables.

Other Trus Joist® Beams

Header or Beam Depth	Maximum Round Hole Size
4⅜"	1"
5½"	1¾"
7¼"- 20"	2"

See illustration for Allowed Hole Zone

General Notes

- Allowed hole zone suitable for headers and beams with **uniform loads only.**
- Round holes only
- No holes in cantilevers.
- No holes in headers or beams in plank orientation.

WARNING

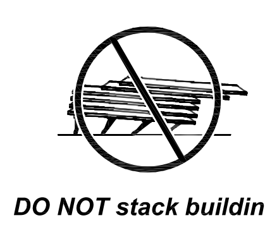
Joists are unstable until braced laterally

Bracing Includes:

- Blocking
- Hangers
- Sheathing
- Rim Board
- Strut Lines
- Rim Joist

DO NOT walk on joists until braced. INJURY MAY RESULT.

DO NOT walk on joists that are lying flat.



DO NOT stack building materials on unsheathed joists. Stack only over beams or walls.

WARNING NOTES:

Lack of proper bracing during construction can result in serious accidents. Observe the following guidelines:

1. All blocking, hangers, rim boards and rim joists at the end supports of the TJI® joists must be completely installed and properly nailed.
2. Laterial strength, like braced end wall or an existing deck, must be established at the ends of the bay. This can also be accomplished by a temporary or permanent deck (sheathing) fastened to the first 4 feet of joists at the end of the bay.
3. Safety bracing of 1x4 (minimum) must be nailed to a braced end wall or sheathed area (as in note 2) and to each joist. Without this bracing, buckling sideways or rollover is highly probable under light construction loads - such as a worker or one layer of unnailed sheathing.
4. Sheathing must be completely attached to each TJI® joist before additional loads can be placed on the system.
5. Ends of cantilevers require safety bracing on both the top and bottom flanges.
6. The flanges must remain straight within 1/2" from true alignment.

Warning: Drilling, sawing, sanding or machining wood products generates wood dust. The paint and/or coating on this product may contain titanium dioxide. Wood dust and titanium dioxide are substances known to the state of California to cause cancer. For more information on Proposition 65, visit wy.com/inform.

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This sheet is intended as a supplement to the Weyerhaeuser *Installation Guide for Floor and Roof Framing*, TJ-9001, and the *Deep Depth Trus Joist TJI Joist Installation Guide*, TJ-9006, which should be referenced for additional information.