

### TYPICAL PERFORMANCE RATED I-JOIST FLOOR FRAMING AND CONSTRUCTION

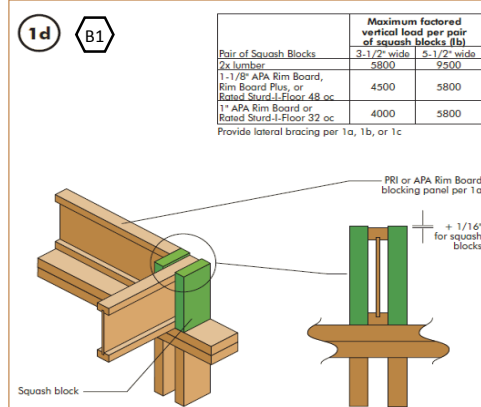
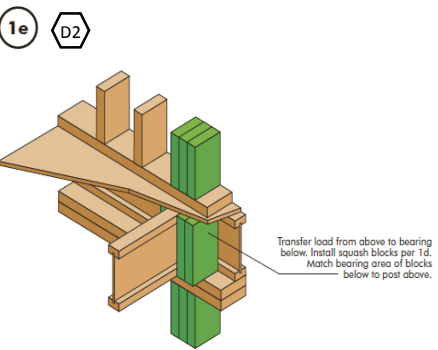
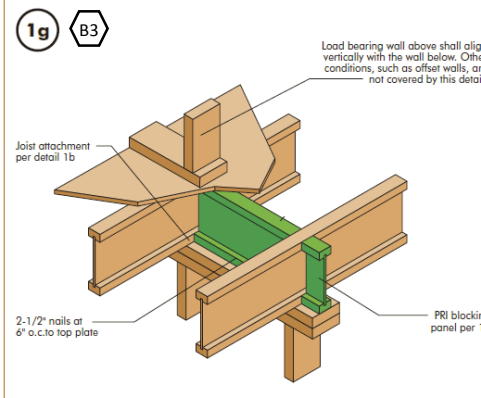
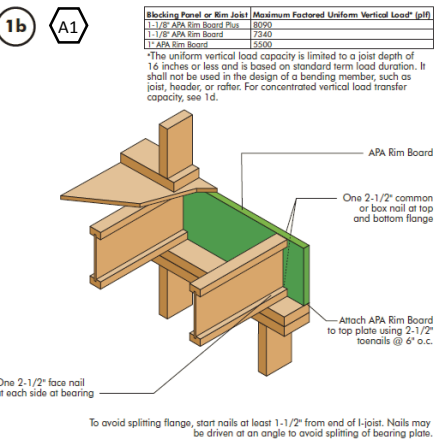
Diagram illustrating the components of a floor joist system, including labels for various parts and a note regarding cutting flanges.

Labels and Callouts:

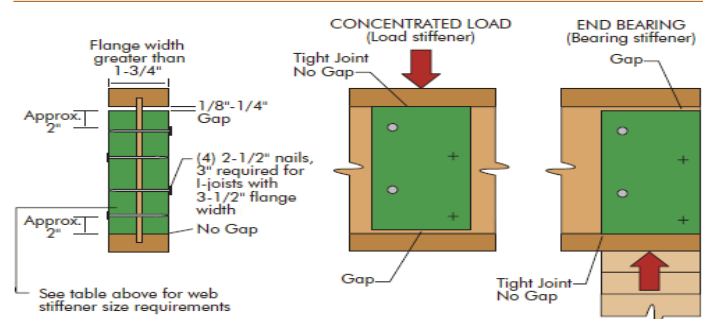
- 1p**: Label for the top edge of the joist system.
- 1d**: Label for the top edge of the joist system.
- 1e**: Label for the top edge of the joist system.
- 1g**: Label for the top edge of the joist system.
- 1b**: Label for the top edge of the joist system.
- 1c**: Label for the top edge of the joist system.
- 1j**: Label for the top edge of the joist system.
- 1a**: Label for the top edge of the joist system.
- 1n**: Label for the top edge of the joist system.
- 1f**: Label for the top edge of the joist system.
- 1h**: Label for the top edge of the joist system.
- 1k**: Label for the top edge of the joist system.
- 1m**: Label for the top edge of the joist system.

Textual Callouts:

- Glulam or Structural Composite Lumber (SCL) headers
- Holes may be cut in web for plumbing, wiring and duct work. See Table 3 and Figure 6.
- NOTE:** Never cut or notch flanges.
- Glulam or SCL headers
- Figures 3, 4 & 5a
- Use hangers recognized in current CCMC reports



### WEB STIFFENER INSTALLATION DETAILS



Flange Width	Web Stiffener Size Each Side of Web
2-1/2"	1" x 2-5/16" minimum width
3-1/2"	1-1/2" x 2-5/16" minimum width

### I-JOIST CANTILEVER DETAIL FOR BALCONIES

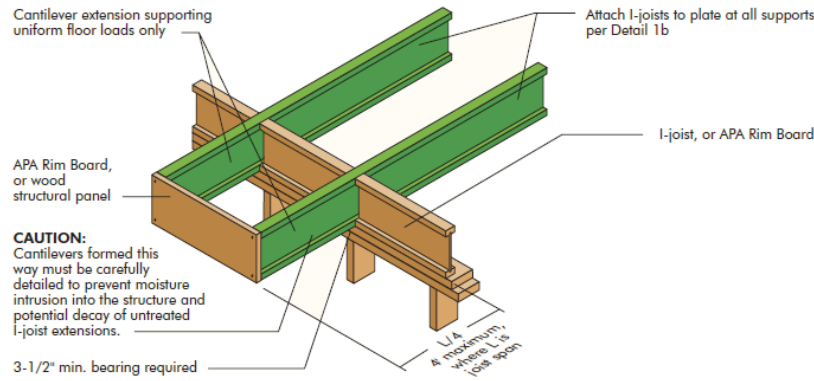
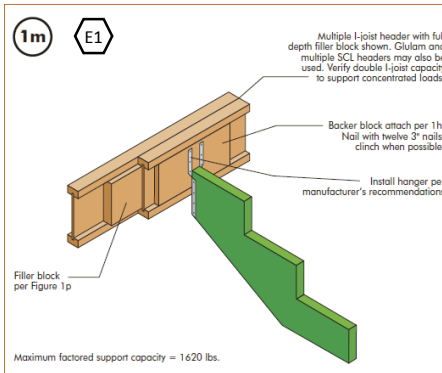
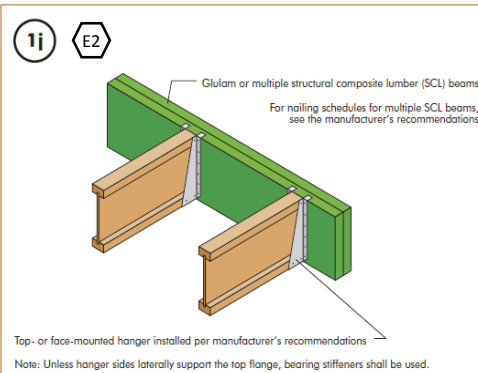
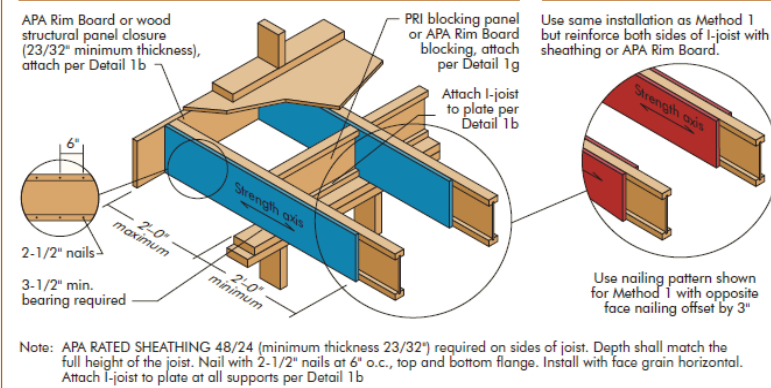


FIGURE 5a  SHEATHING REINFORCEMENT ONE SIDE



Max Loading - Live 40 psf , Dead 30 psf  
Max Spacing = 24" o.c

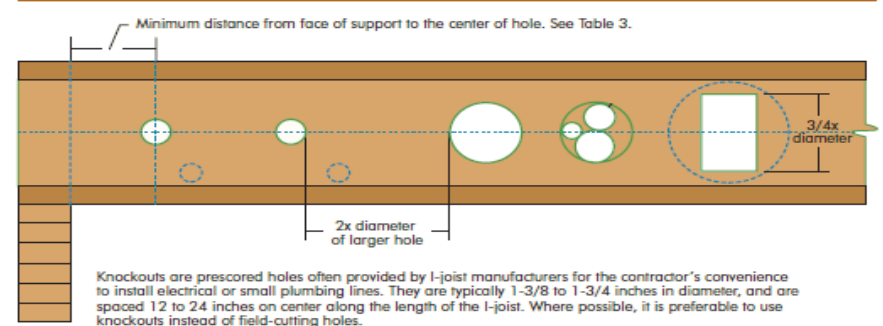
## Residential Install Guide

			Round Hole Diameter ( inches )								
			2"	3"	4"	5"	6"	6 1/4"	8 5/8"	10 3/4"	12 3/4"
Joist Depth	Joist Span										
PKI 10 & PKI 20	9 1/2	6	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"			
		10	1'-0"	1'-0"	1'-3"	2'-3"	3'-4"	3'-7"			
		14	1'-11"	2'-11"	3'-11"	5'-0"	6'-2"	6'-5"			
		18	4'-6"	5'-7"	6'-8"	7'-10"	9'-0"				
	11 7/8	8	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-5"		
		12	1'-0"	1'-0"	1'-0"	1'-7"	2'-6"	2'-9"	5'-3"		
		16	1'-5"	2'-4"	3'-3"	4'-3"	5'-3"	5'-6"			
		20	4'-0"	5'-0"	6'-0"	7'-0"	8'-1"	8'-4"			
	14	12	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-1"	3'-3"	5'-4"	
		16	1'-0"	1'-0"	1'-8"	2'-7"	3'-6"	3'-8"	6'-0"		
		20	2'-6"	3'-4"	4'-3"	5'-3"	6'-2"	6'-5"	8'-10"		
		24	5'-1"	6'-0"	7'-0"	8'-0"	9'-0"	9'-3"	11'-9"		
	16	14	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-11"	4'-10"	6'-11"
		18	1'-0"	1'-0"	1'-5"	2'-4"	3'-2"	3'-5"	5'-7"	7'-8"	
		22	2'-4"	3'-2"	4'-1"	4'-11"	5'-10"	6'-1"	8'-5"	10'-7"	
		26	4'-11"	5'-10"	6'-9"	7'-8"	8'-7"	8'-10"	11'-3"		

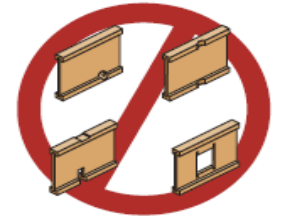
Max Loading - Live 40 psf , Dead 30 psf  
Max Spacing = 24" o.c

			Round Hole Diameter ( inches )								
			2"	3"	4"	5"	6"	6 1/4"	8 5/8"	10 3/4"	12 3/4"
PKI 35 , PKI 40 & PKI 50	9 1/2	8	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	2'-3"			
		12	1'-0"	1'-7"	2'-7"	3'-8"	4'-9"	5'-0"			
		16	3'-2"	4'-3"	5'-4"	6'-5"	7'-7"	7'-11"			
		20	5'-11"	7'-0"	8'-1"	9'-3"					
	11 7/8	12	1'-0"	1'-0"	1'-0"	1'-7"	2'-6"	2'-9"	5'-3"		
		16	1'-5"	2'-4"	3'-3"	4'-3"	5'-3"	5'-6"			
		20	4'-0"	5'-0"	6'-0"	7'-0"	8'-1"	8'-4"			
		24	6'-8"	7'-9"	8'-9"	9'-10"	10'-11"	11'-2"			
	14	14	1'-0"	1'-0"	1'-0"	1'-3"	2'-2"	2'-4"	4'-7"	6'-10"	
		18	1'-2"	2'-1"	2'-11"	3'-10"	4'-10"	5'-1"	7'-5"		
		22	3'-9"	4'-8"	5'-7"	6'-7"	7'-7"	7'-10"	10'-3"		
		26	6'-5"	7'-5"	8'-4"	9'-4"	10'-5"	10'-8"			
	16	16	1'-0"	1'-0"	1'-0"	1'-0"	1'-11"	2'-1"	4'-3"	6'-3"	
		20	1'-0"	1'-10"	2'-9"	3'-7"	4'-6"	4'-9"	7'-0"	9'-2"	
		24	3'-7"	4'-6"	5'-5"	6'-4"	7'-3"	7'-6"	9'-10"	12'-0"	
		28	6'-3"	7'-2"	8'-1"	9'-1"	10'-0"	10'-3"	12'-8"		

### PRI JOIST TYPICAL HOLES



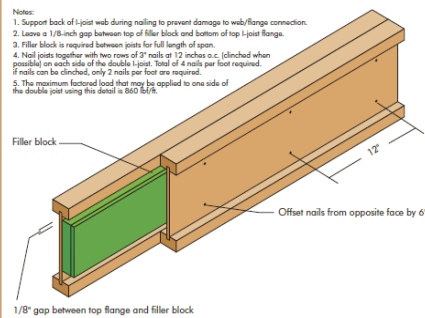
- Never drill, cut or notch the flange, or over-cut the web.
- Holes in webs should be cut with a sharp saw.
- For rectangular holes, avoid over cutting the corners, as this can cause unnecessary stress concentrations. Slightly rounding the corners is recommended. Starting the rectangular hole by drilling a 1" diameter hole in each of the 4 corners and then making the cuts between the holes is another good method to minimize damage to I-joist.



ES	1-1/2"	9-1/2" 11-7/8"	1-1/8" x 6" high 1-1/8" x 6" high
	1-3/4"	9-1/2" 11-7/8" 14" 16"	1-3/8" x 6" 1-3/8" x 8" 1-3/8" x 10" 1-3/8" x 12"
	2-5/16"	11-7/8" 14" 16"	2" x 8" 2" x 10" 2" x 12"
	2-1/2"	9-1/2" 11-7/8" 14" 16"	2-1/8" x 6" 2-1/8" x 8" 2-1/8" x 10" 2-1/8" x 12"
	3-1/2"	11-7/8" 14" 16"	2" x 8" 2" x 10" 2" x 12"

Notes:

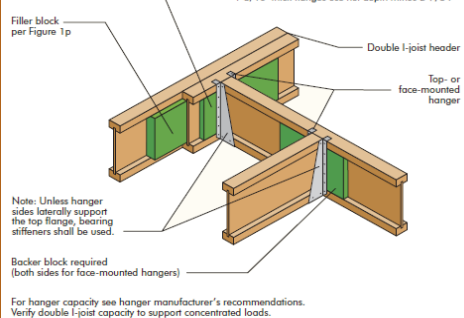
1. Support back of I-joint web during nailing to prevent damage to web/flange connection.
2. Leave a 1/8-inch gap between top of filler block and bottom of top I-joint flange.
3. Filler block is required between joints for full length of span.
4. Nail joints together with two rows of 3" nails at 12 inches o.c. (clinch when possible) on each side of the double I-joint. Total of 4 nails per foot required. If nails can be clinched, only 2 nails per foot are required.
5. The maximum factored load that may be applied to one side of the double joint using this detail is 860 lb/ft.



the backer block will fit. Clinch. Install backer right to top flange. Use twelve 3" nails, clinched when possible. Maximum factored resistance for hanger for this detail = 1620 lbs.

BACKER BLOCKS (Blocks must be long enough to permit required nailing without splicing)		
E3	Flange Width	Material Thickness Required* Minimum Depth**
	1-1/2"	19/32" 5-1/2"
	1-3/4"	23/32" 5-1/2"
	2-5/16"	1" 7-1/4"
	2-1/2"	1" 5-1/2"
	3-1/2"	1-1/2" 7-1/4"

\* Minimum grade for backer block material shall be Utility grade SPF (south) or better for solid sawn lumber and Rated Sheathing grade for wood structural panels.



### Equivalent LP Detail Callout

All nails shown in the detail above are assumed to be common nails unless otherwise noted. Framing lumber assumed to be Spruce-Pine-Fir. Individual components not shown to scale for clarity.



