

Floor Details

A1

Rim Board

A1W

Rim Board

Web Stiffener Required

Fasten rim board to each floor I-Joist using one 8d nail or 10d box nail per flange

Web stiffener for Detail A1W only

Same depth as I-Joist

8d nails at 6" oc toe-nailed from outside of building

A2

Rim Joist

A2W

Rim Joist

Web Stiffener Required

Refer to Note 8

Web stiffener for Detail A2W only

Rim joists with flanges wider than 1-3/4" require a minimum 2 x 6 plate

Fasten rim joist to each floor I-Joist with one 10d nail into the end of each flange. Use 16d box nails for rim joists with flanges wider than 1-3/4".

8d nails at 6" oc (when used for shear transfer, nail to bearing plate with same nailing schedule for decking)

A3

Blocking at Exterior Wall

A3W

Blocking at Exterior Wall

Web Stiffener Required

8d nails at 6" oc (when used for shear transfer, nail to bearing plate with same nailing schedule for decking)

Web stiffener for Detail A3W only

A4

Solid Blocking at Exterior Wall

A4W

Solid Blocking at Exterior Wall

Web Stiffener Required

Web stiffener for Detail A4W only

LP LVL, LP LSL or LP Rim Board as blocking

Same depth as I-Joist

8d nails at 6" oc toe-nailed from outside of building

A5

Joist Support Nailing

Secure I-Joist to plate with two 8d or 10d box nails. Drive one nail from each side of I-Joist, angled inward.

Place nail 1-1/2" min. from end of I-Joist. If nails are close to edge of plate, drive at an angle to reduce splitting

B2

Squash Blocks

Use double squash blocks as specified. Squash blocks shall be cut 1/16" taller than I-Joist, 2 x 4 min.

Blocking panels may be required with shear wall

Stagger 8d or 10d box nails to avoid splitting

Toe-nail 8d or 10d box nail to plate

Bearing wall aligned under wall above

B3

Blocking at Interior Support

Blocking is not required if no wall above unless I-Joists end at support. Blocking may be required at interior supports by project designer or by code for seismic design.

LP Rim Board, LP LVL or LP LSL may be substituted for the LPI blocking

Bearing wall aligned under wall above

C1

Cantilever Detail

No Reinforcement

C1W

Cantilever Detail

Web Stiffener Required

No Reinforcement

APA Rated 23/32" OSB (or equal) closure, or as required by code

Web stiffener for Detail C1W only

LPI Blocking*

As Designed

* LP Rim Board, LP LVL or LP LSL may be substituted for the LPI blocking

C2

Cantilever Detail

Reinforcement One Side Only

C3

Cantilever Detail

Reinforcement Both Sides

APA Rated 23/32" OSB (or equal) reinforcement 4'-0" long min.

LPI blocking (LP Rim Board, LP LVL or LP LSL may be substituted for the LPI blocking)

Attach reinforcement to top and bottom flanges with 8d nails at 6" oc. Stagger nails from both sides in C3 to avoid splitting.

C8

Brick Ledge Cantilever

Full Depth Reinforcing

Max. 16" deep I-Joist

23/32" reinforcing - 12" min. 1" reinforcing - 18" min.

2" min. from I-Joist end

6" max.

Reinforcing must be same depth as I-Joist

Nail or screw reinforcing with three (3) 6d or 8d box nails or #6 x 1-1/2" wood screws into each flange*

Construction adhesive is recommended between surfaces. Blocking panels are required at the bearing, but are not shown for clarity. * Note: Pilot holes required when using screws.

D2

Post Loads

Squash blocks (cripples) required under all post loads

E5

Double I-Joist Connection

Floor sheathing to be glued and nailed to flanges of both plies

6" oc. 6" oc.

Filler block

See I-Joist Header Cross-Section for information on attaching filler blocks

Refer to I-Joist Filler Thickness table for filler block sizes

E4

I-Joist Header Cross Section

See Double I-Joist Connection detail

Web filler (as backer block)

Verify web filler/stiffener requirements for hangers

Filler block(s)

Verify all hanger connections (top-mount hanger shown)

Refer to I-Joist Filler Thickness table for web filler (backer block) and filler block sizes

Web Filler/Backer Block: Backer blocks shall be at least 12" long and located behind every supported hanger. For a single I-Joist header, install backer blocks to both sides of the web. Two pieces of 2 x 8 (min.) lumber, cut to the proper height (see notes 2 & 3), may be set vertically side-by-side to achieve the required minimum 12" length.

Attach backer blocks with 8d nails (use 10d nails for flanges wider than 2-1/2"). Use a minimum of 10 nails spaced to avoid splitting, with half the nails to each side of the center of the supported hanger.

Note: Backer blocks may be omitted for top-mount hangers supporting only downward loads not exceeding 250 lbs.

Filler Blocks: Install in minimum 4' long sections at each support, centered behind each supported hanger and at no more than 8" oc. Lumber fillers may be stacked to achieve the required depth (see notes 2 & 3). For example, two 4' long 2 x 8's may be stacked vertically to achieve the filler depth for an 18" deep I-Joist (minimum required depth is 18" - 3" - 1" = 14").

Attach filler blocks with 8d nails (10d for flanges wider than 2-1/2") nails spaced 6" oc per row. Use one row of nails in each row of stacked fillers, with a minimum of two rows of nails. Drive every other nail from opposite sides.

NOTES:

- Backer blocks and filler blocks shall consist of APA Rated wood structural panel (OSB or plywood), 2 x lumber (SPF or better), or LP SolidStart LVL, LSL or OSB Rim Board, with a net thickness equivalent to that shown in the I-Joist Filler Thickness table below.
- Except as noted in 3, backer blocks and filler blocks shall fit the clear distance between flanges with a gap of at least 1/8", but not more than 1", and shall be of sufficient depth to allow for all hanger nailing into the web. Do not force into place.
- Backer blocks and filler blocks for double I-Joists that are top-loaded only or side-loaded supporting top-mount hangers that do not require nailing into the web, shall be at least 5-1/2" deep for I-Joists to 11-7/8" deep, and shall be at least 7-1/4" deep for I-Joists 14" and deeper.
- Install backer blocks tight to top flange for top-loaded joists and for joists supporting top-mount hangers (shown). Install tight to bottom flange for joists supporting face-mount hangers.
- Clinch nails where possible.
- For double I-Joists, additional nailing may be required to transfer point loads. For additional information, contact your LP SolidStart Engineered Wood Products distributor.

W1

Web Stiffener Detail

Concentrated load

1/8" min., 1" max. gap

1/8" min., 1" max. gap

1/8" min., 1" max. gap

Nails to be equally spaced, staggered and driven alternately from each face

End support*

1/8" min., 1" max. gap

Interior or Cantilever support*

* Refer to framing plan for specific support conditions

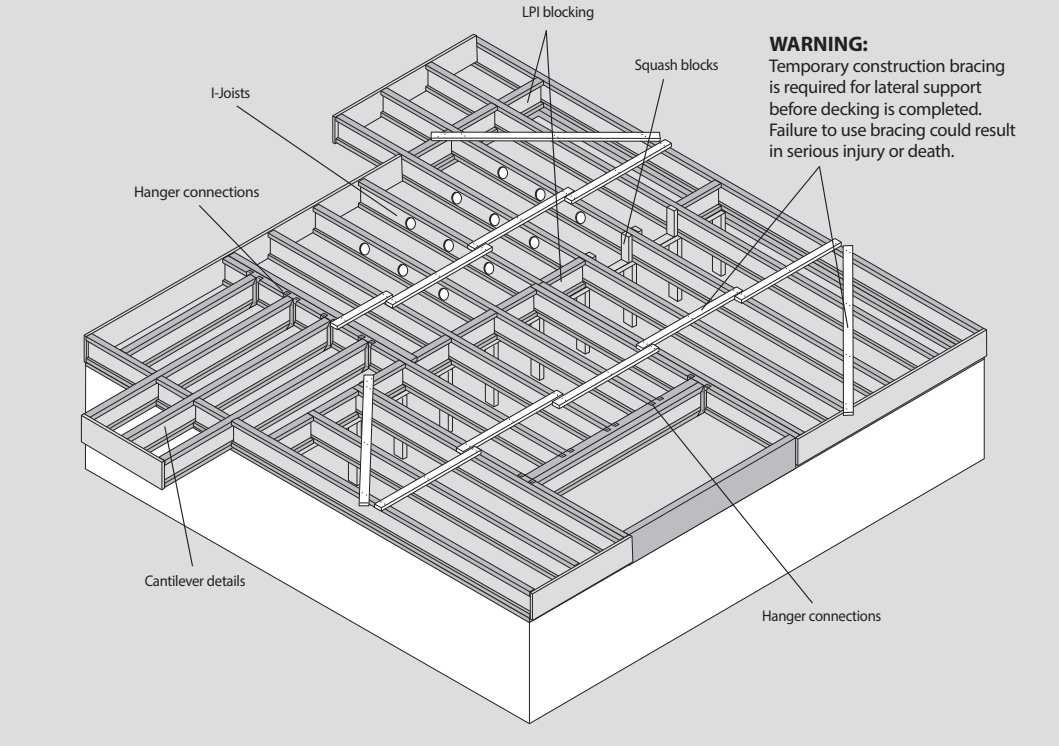
Floor Layout (typical)

TEMPORARY BRACING

- Use at least 1x4 temporary bracing members nailed to each I-Joist with two 8d nails.
- Keep the main runs parallel and no more than 8'-0" apart.
- Use long pieces, not short blocks; lap the ends to keep a continuous line of bracing.
- To prevent endwise movement of the continuous 1 x 4 lines of bracing, anchor them at the ends and at 25'-0" intervals into a stable end wall or an area braced by sheathing or diagonal bracing.
- Remember, the continuous 1 x 4 bracing is not effective unless attached to the braced area.
- Use particular care removing temporary bracing when applying sheathing. Remove the bracing as the sheathing is attached.

NOTES FOR FLOOR LAYOUT:

- I-Joists must be supported laterally at all bearings and the ends of cantilevers.
- Unless specified, bridging or mid-span blocking is not required; however, it may enhance floor performance if used properly.
- Verify capacity and fastening of hangers and connectors.
- Some wind or seismic loads may require different or additional details and connections.



I-JOIST FILLER THICKNESS		
SERIES	FILLER BLOCK	WEB FILLER/BACKER BLOCK
LPI 18, LPI 20Plus, LPI 32Plus	2-1/8"	1"
LPI 20FB	1-1/2"	23/32"
LPI 36	1-7/8"	7/8"
LPI 42FB	2-1/2"	1-1/4"
LPI 42Plus, LPI 52Plus, LPI 56	3"	1-1/2"
LPI 450	1-1/2"	23/32"
LPI 530	1-3/4"	7/8"

- NOTES:**
1. Backer blocks and filler blocks shall consist of APA Rated wood structural panel (OSB or plywood), or 2x lumber (SPF or better).
 2. LP LVL, LSL or OSB Rim Board may also be used.
 3. Refer to the Notes for the I-Joist Header Cross-Section to the left for details on the required height and length, and nailing of the backer blocks and filler blocks.

WEB STIFFENER REQUIREMENTS						
SERIES	MIN. THICKNESS	NAIL SIZE	NAIL QTY., MAX. STIFFENER HEIGHT FOR JOIST DEPTHS			
			9'-1/2"	11'-7/8"	14"	16"
LPI 18, LPI 20Plus, LPI 32Plus, LPI 450, LPI 530	23/32"	8d (2-1/2")	3, 6-3/8"	3, 8-3/4"	3, 10-7/8"	3, 12-7/8"
LPI 36	23/32"	8d (2-1/2")	-	4, 8-3/4"	5, 10-7/8"	6, 12-7/8"
LPI 42Plus, LPI 52Plus	1-1/2" (2 x)	10d (3")	3, 6-3/8"	3, 8-3/4"	3, 10-7/8"	3, 12-7/8"
LPI 56	1-1/2" (2 x)	10d (3")	-	4, 8-3/4"	5, 10-7/8"	6, 12-7/8"

NOTE: Web stiffeners are not applicable to the LPI 20FB and LPI 42FB series.

NOTES:

1. Web stiffeners shall be installed in pairs – one to each side of the web. Web stiffeners are always required for the "Bird's Mouth" roof joist bearing detail.
2. Web stiffeners shall be cut to fit between the flanges of the LP SolidStart I-Joist, leaving a minimum 1/8" gap (1" maximum). At bearing locations, the stiffeners shall be installed tight to the bottom flange. At locations of concentrated loads, the stiffeners shall be installed tight to the top flange.
3. Web stiffeners shall be cut from APA Rated OSB (or equal) or from LP SolidStart LVL, LSL or OSB Rim Board. 2x lumber is permissible. Do NOT use 1x lumber as it tends to split. Do NOT build up the required stiffener thickness from multiple pieces.
4. Web stiffeners shall be the same width as the bearing surface, with a minimum of 3-1/2".
5. See Web Stiffener Requirements for minimum stiffener thickness, maximum stiffener height and required nailing.