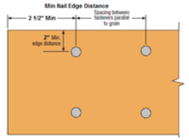
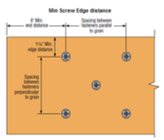
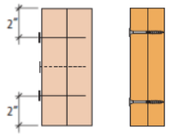
LVL Install Guide

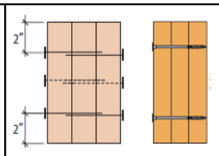




Top Loaded Connection Table

***Applied loads are to be framed in a manner to ensure the loading is distributed equally to each LVL ply**

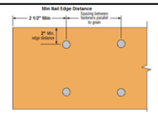


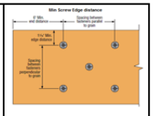


Depths	Detail #	2ply LVL	Detail #	3ply LVL	Detail #	- 1 1/4" x 6 3/4" SDW or FlatLok Screws from One Side
5 1/2" - 11 7/8 "	N2P212	2 Rows From one side 3 1/2" (16d) nails @ 12" o.c	N3P212	2 Rows from both sides 3 1/2" (16d) nails @ 12" o.c	S4P212	2 Rows from one side 1/4" x 6 3/4" @ 24" o.c
14" - 24"	N2P312	3 Rows From one side 3 1/2" (16d) nails @ 12" o.c	N3P312	3 Rows from both sides 3 1/2" (16d) nails @ 12" o.c	S4P312	3 Rows from one side 1/4" x 6 3/4" @ 24" o.c

- Lateral support of beam compression edges is required at intervals of 24" o/c or closer
- Lateral support of beams is required at bearing locations.

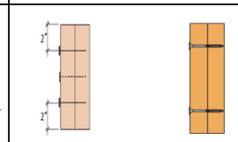
Side Loaded Connection Table

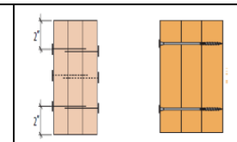


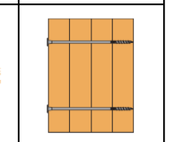


Maximum Factored
**** Uniform Load (PLF) ****
Applied to Either Outside Member

Please Refer to individual Beam Calculation sheets for concentrated load connection requirements







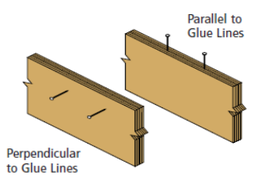
Connector	Detail #	Nail Spacing	Rows	2ply LVL: Nails From One Side, 1/4" x 3 1/2" SDW or FlatLok Screws from One Side — West Fraser 1 3/4 2.0E 3100Fb	2ply LVL — West Fraser 1 3/4 1.8E 3000Fb	3ply LVL: Nails From Both Sides, 1/4" x 5 1/4" SDW or FlatLok Screws from One Side — West Fraser 1 3/4 2.0E 3100Fb	3ply LVL — West Fraser 1 3/4 1.8E 3000Fb	4 ply LVL: 1/4" x 6 3/4" SDW or FlatLok Screws from One Side — West Fraser 1 3/4 2.0E 3100Fb
3 1/2" Common Wire Nails (16d) Min Ø = .160 (mm)	N212	12"	2 Rows	885	827	663	620	
	N312		3 Rows	1327	1241	995	930	
	N26	6"	2 Rows	1770	1654	1326	1240	
	N36		3 Rows	2654	2482	1990	1860	
	N24	4"	2 Rows	2655	2481	1989	1860	
	N34		3 Rows	3981	3723	2985	2790	
SDW or FlatLok SCREW	S224	24"	2 Rows	570		547		487
	S324		3 Rows	855		821		730
	S216	16"	2 Rows	855		821		730
	S316		3 Rows	1283		1231		1,095
	S212	12"	2 Rows	1140		1094		973
	S312		3 Rows	1710		1642		1,460

- Lateral support of beam compression edges is required at intervals of 24" o/c or closer
- Lateral support of beams is required at bearing locations.
- 4ply beams should only be side loaded when loads are applied to both sides of the member
- Values listed are for standard term loading
- SDW as per Simpson F-F- SDWCan13
  Each ply is assumed to carry same proportion of load
  Hangers face fasteners must be a minimum 3" long

MINIMUM NAIL SPACING

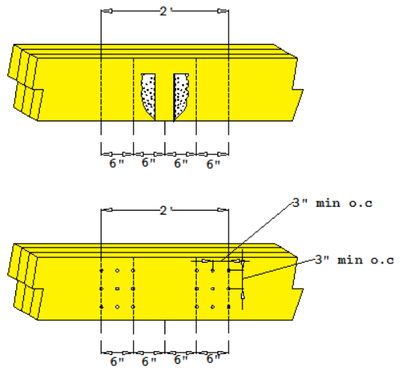
Connector	Nailing Parallel to Glue Line	Nailing Perpendicular to Glue Line
8d Box	3"	2"
8d Common	3"	2"
10d and 12d Box	4"	2"
10d and 12d Common	4"	3"
16d Common	8"*	3"

* Not allowed on product thickness less than 1⅛"



N1
N2
N3

3ply LVL
Required Connectors for Hanger load transfer into 3rd ply of LVL beam



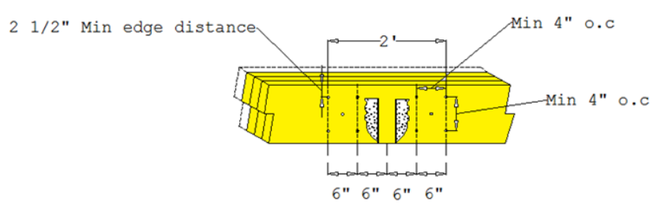
Nails to be applied from opposite side of hanger

Detail #	Nail Size	Total # Nails	Total # Nails Per Zone A	Maximum Factored Hanger Load (lbs)
N1	3 1/2" common (16d)	18	9	11,900
N2	3 1/2" common (16d)	12	6	7,900
N3	3 1/2" common (16d)	6	3	3,900

- Actual Hanger Capacity to be verified by others
- Lateral support of beam compression edges is required at intervals of 24" o/c or closer
- Lateral support of beams is required at bearing locations.
- Values listed are for standard term loading
  Hangers face fasteners must be a minimum 3" long
  Only applicable on depths greater than 9 1/2"

SD1
SD2

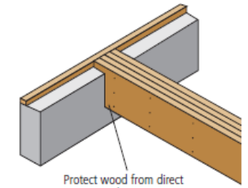
3ply and 4ply LVL Hanger Load Transfer
SDW and FlatLok Screws
(Load transfer into 3rd and 4th ply)



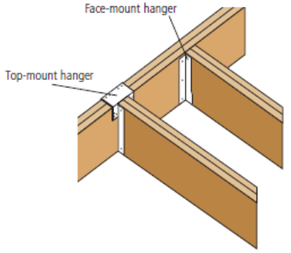
Detail #	# LVL Ply's	Total # SDW or FlatLok screws	Total # SDW or FlatLok Screws Per Zone A	SDW or FlatLok Screw Size	Maximum Factored Hanger Load (lbs)
SD1	3	10	5	1/4" x 5"	10,950
SD2	4	10	5	1/4" x 6 3/4"	10,950

- Actual Hanger Capacity to be verified by others
- Lateral support of beam compression edges is required at intervals of 24" o/c or closer
- Lateral support of beams is required at bearing locations.
- Values listed are for standard term loading
- SDW values as per Simpson F-F- SDWCan13
  Hangers face fasteners must be a minimum 3" long
  Only applicable on depths greater than 9 1/2"

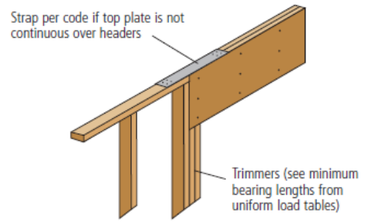
B4 BEARING AT CONCRETE WALL



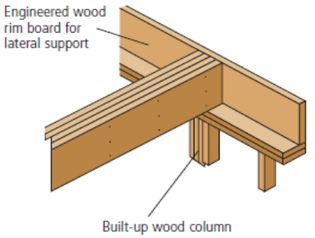
B3 BEAM-TO-BEAM CONNECTION



B2 BEARING FOR DOOR OR WINDOW HEADER

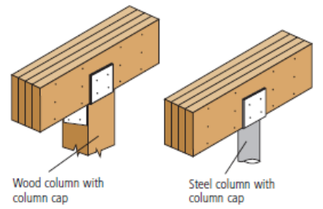


B1 BEARING AT WALL



B5 BEARING AT WOOD OR STEEL COLUMN

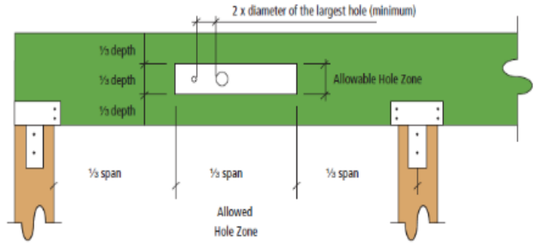
Verify column capacity and bearing length.



BEARING LENGTH IS EXTREMELY CRITICAL AND MUST BE CONSIDERED FOR EACH APPLICATION.

Multiple pieces of West Fraser™ LVL can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 5 inches for 1¼" wide pieces and 7 inches for 1¾" wide pieces. See pages 9, 15, 21 and 25 for details.

ALLOWABLE HOLES



GENERAL NOTES

- The Allowed Hole Zone in this chart is suitable for **Uniformly loaded beams** using maximum loads for any tables listed. For other load conditions or hole configurations, please contact West Fraser.
- If more than one hole is to be cut in the beam, the length of the uncut beam between holes must be a minimum of twice the diameter of the largest hole.
- Rectangular holes are not allowed.
- Holes in cantilevers require additional analysis.
- For beam depths of 3⅛", 5⅛" and 7¼", the maximum hole diameter is ⅞", 1⅛" and 1½" respectively. For deeper beams, the maximum hole diameter is 2". The maximum number of holes for each span is limited to 3.

Do not cut, notch or drill holes in West Fraser™ LVL except as indicated in illustration for allowable holes

Do not overhang seat cuts on West Fraser™ LVL beams from inside face of support member

Do not notch underside of beam at bearing location