

COMPONENTS OF HEAVY & MASS TIMBER CONSTRUCTION?

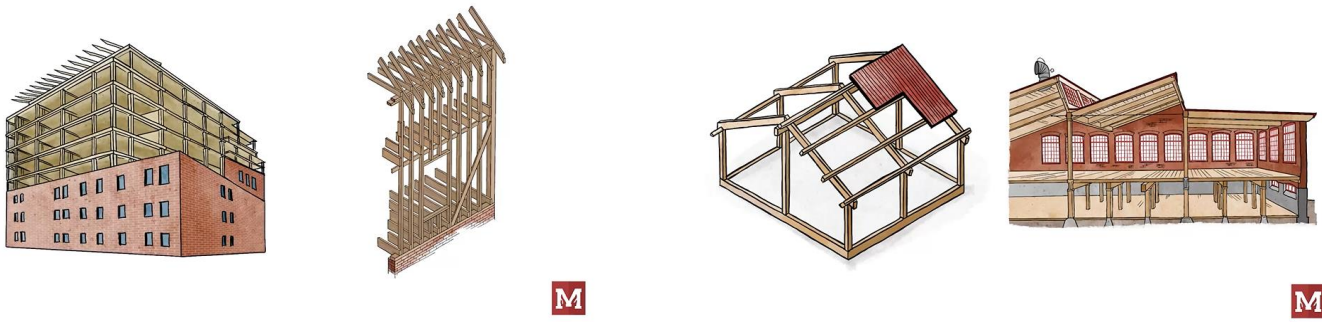


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LRM Resources

Tables From Chapter 7

2021 NFPA 909 | Chapter 7 – Construction Types and Height and Area Requirements

7.2.5 Type IV (2H) Allowable Dimensions.
All dimensions in 7.2.5.3 for solid sawn members shall be considered nominal.

7.2.5.5.1
The net finished dimensions of glued laminated members shall be equivalent to the nominal dimensions of solid sawn timbers.

7.2.5.5.2
Cross laminated timber dimensions shall be actual dimensions.

7.2.5.5.3 Columns.

7.2.5.5.3.1
Wood columns supporting floor loads shall be not less than 8 in. (203 mm) in any dimension.

7.2.5.5.3.2
Wood columns supporting only roof loads shall be not less than 6 in. (150 mm) in width and not less than 8 in. (203 mm) in depth.

7.2.5.5.4 Beams.

7.2.5.5.4.1
Wood beams and girders supporting floor loads shall be not less than 6 in. (150 mm) in width and not less than 10 in. (250 mm) in depth.

7.2.5.5.4.2
Wood beams and girders and other roof framing supporting roof loads only shall be not less than 6 in. (150 mm) in width and not less than 6 in. (150 mm) in depth.



2021 International Building Code (IBC) | Upgrade to Provisions

2021 Heavy Timber Construction

When a structure, portion thereof or individual structural elements are required by provisions of this code to be of heavy timber, the building elements therein shall comply with the applicable provisions of Sections 2304.11.1 through 2304.11.4. Minimum dimensions of heavy timber shall comply with the applicable requirements in Table 2304.11.1 based on loads or forces supported and the configuration of each structural member, or in Sections 2304.11.2 through 2304.11.4. Lumber drying shall be in accordance with Section 2304.9.

TABLE 2304.11 MINIMUM DIMENSIONS OF HEAVY TIMBER STRUCTURAL MEMBERS

SUPPORTING	HEAVY TIMBER STRUCTURAL ELEMENTS	MINIMUM NOMINAL SIZE		MINIMUM GLEUED LAMINATED MEMBER NET SIZE		MINIMUM STRUCTURAL COMPOSITE MEMBER NET SIZE	
		Width, inch	Depth, inch	Width, inch	Depth, inch	Width, inch	Depth, inch
Floor loads only or combined floor and roof loads	Columns: Framed sawn or glued laminated timber arches that spring from the floor line	8	8	6 1/2	6 1/2	7	7 1/2
	Other: Framed sawn or glued laminated timber arches that spring from the floor line	6	10	5	10 1/2	5 1/2	10 1/2
Roof loads only	Columns: Framed sawn or glued laminated timber arches that spring from the floor line or from grade	6	8	5	8 1/2	5 1/2	8 1/2
	Other: Framed sawn or glued laminated timber arches that spring from the floor line or from grade	6	6	5	6	5 1/2	6 1/2
	Framed timber trusses and other roof framing: Framed or glued laminated arches that spring from the floor line or from grade	6	6	5	6 1/2	5 1/2	6 1/2

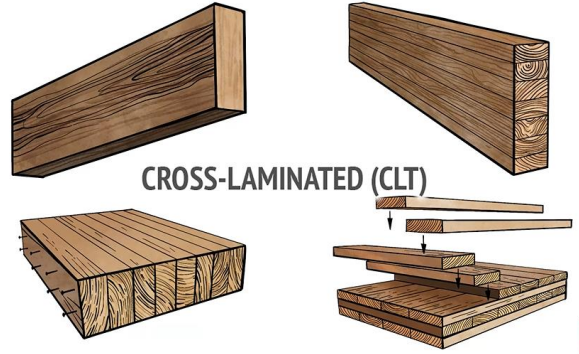
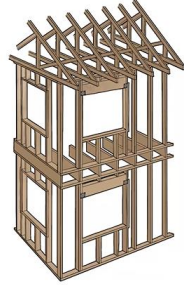
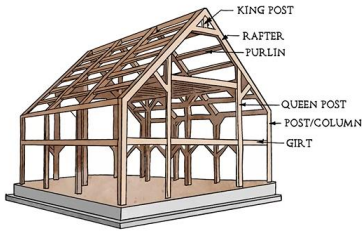
7.2.5.11.1 Columns.
Minimum dimensions of columns shall be in accordance with Table 2304.11.1. Columns shall be continuous or uninterrupted throughout all stories and connected in an approved manner. Columns and beams at column connections shall be closely fitted around columns and adjoining masonry shall be cross braced in each story or section by caps or ties, by anchor horizontal steel across joints. Wood beams shall not be placed on tops of columns unless the columns support and loads only. Where horizontal heavy timber framing is used, connections shall have the benefit of embedded concrete or metal caps with brackets, by properly designed steel or cast caps, with plates and heavy plates, by timber slip plates affixed to the columns by metal connectors housed within the contact faces, or by other approved methods.

7.2.5.11.2 Floor framing.
Heavy timber structural members shall be detailed and constructed in accordance with Sections 2304.11.1 through 2304.11.3.



NOTES

Grid of dots for notes.



NOTES

A large area of dotted lines for taking notes.