

INDIAN METAL BUILDING FORUM

IMBF

Connecting India's Metal Building Ecosystem

5C FRAMEWORK: CONNECT • COLLABORATE • CREATE • CONSTRUCT • CERTIFY+

RESOURCE CENTRE

Technical Knowledge Series

TECHNICAL GUIDE

Glossary of Metal Building Terms

Plain-language definitions of 45 common terms for pre-engineered and steel buildings

Know the System
Follow the Load Path
Specify with Clarity

DOCUMENT NO:	IMBF-DO-003
SERIES:	Series E: Design Optimization (IMBF-DO)
COVERS:	Structural and general building terms
FOR:	Owners, students, new engineers and site staff

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Rev 00 | 06 October 2026 | Educational / Technical Reference (Draft for technical review)

Vendor-neutral guide. Values are typical industry practice; the project design and the governing codes decide.

About this guide. Plain definitions of the terms most often used when ordering, designing and building a steel building. Wording is IMBF's own; suppliers may use some terms differently, so confirm meanings on project drawings. Status: draft for IMBF technical review.

1 TERMS A TO Z

Term	Meaning
Anchor bolt (anchor rod)	Bolt cast into the foundation to hold a column base plate.
Base plate	Plate welded to the foot of a column, bearing on the foundation.
Bay	Space between two adjacent main frames, measured along the building length.
Bearing endwall	Light endwall frame of rafter and wind columns, without rigid-frame action.
Bracing	Rods, cables, angles or frames that carry longitudinal forces and keep the building square.
Built-up member	Member welded from plates, usually an I-shape with web and flanges; often tapered.
Canopy	Roof projecting beyond a wall or standing free on cantilever frames.
Clear height	Free height from finished floor to the lowest part of the structure, such as the haunch.
Clear span	Frame that crosses the building width with no interior columns.
Cold-formed section	Member shaped from steel coil at room temperature, such as Z and C purlins.
Collateral load	Weight of items hung from or fixed to the structure other than the building itself: services, ceilings, lights, solar panels.
Crane beam (runway beam)	Beam that carries the crane rail along the length of the building.
Crane bracket (corbel)	Short cantilever welded to a column to support a crane beam.
Dead load	Self-weight of the structure and permanently attached materials.
Diaphragm action	Resistance of fastened roof or wall sheeting to in-plane shear, used as bracing.
Eave	Line where the roof meets the sidewall.
Eave height	Height from column base to the top of the eave strut.
Eave strut	Member along the eave that carries roof and wall cladding and acts as a longitudinal strut.
End frame	Frame at the end of the building: either a bearing endwall or a full main frame.
Endwall	Wall at the gable end, parallel to the main frames.
Expansion joint	Break in the structure that lets parts move with temperature without building up force.
Fascia	Decorative or parapet framing that hides the roof edge or gutter.
Flange brace	Small angle from a purlin or girt to the inner flange of a frame, restraining it against buckling.
Framed opening	Framing around a door, window or other opening in the cladding.
Gable	Triangular part of the endwall under a double-slope roof.
Girt	Horizontal wall member that supports wall cladding and spans between columns.
Haunch (knee)	Deepened joint between column and rafter in a rigid frame.
Jack beam	Beam that supports a rafter where a column has been left out.
Lean-to	Single-slope structure that depends on another building for support along its high side.
Live load	Temporary load from use, maintenance or occupancy.
Main frame (rigid frame)	Primary transverse frame of columns and rafters joined rigidly at the knee.
Mezzanine	Intermediate floor inside the building, on its own beams, joists and columns.
Multi-span frame	Main frame with one or more interior columns.
Portal frame (portal brace)	Rigid frame placed in a sidewall bay to give longitudinal bracing where diagonals are not possible.
Primary framing	Main frames, interior columns, end frames and wind columns.
Purlin	Roof member that supports roof cladding and spans between rafters.

Term	Meaning
Rafter	Sloping roof member of a main frame.
Ridge	Highest line of a double-slope roof.
Roof slope	Rise of the roof for a given horizontal run, for example 1 in 10.
Sag rod	Rod that supports purlins or girts about their weak axis between frames.
Secondary framing	Purlins, girts, eave struts and similar members that carry cladding loads to the frames.
Sidewall	Wall along the length of the building, at the eave.
Tapered member	Built-up member whose depth varies along its length to follow the bending moment.
Valley gutter	Gutter between two roof slopes in a multi-gable or multi-span building.
Wind column	Endwall column that carries wind on the endwall to the foundation and the roof bracing.

Basis and disclaimer. Definitions written by IMBF in its own words. The list of terms was checked against the glossary of a metal building manufacturer's published technical handbook and against general industry usage; no definitions are copied. This is an educational aid, not a contractual definition.