

## DEFINITIONS

**Beams and Stringers (B&S)** Beams and stringers are primary longitudinal support members, usually rectangular pieces that are 5.0 or more in. thick, with a depth more than 2.0 in. greater than the thickness. B&S are graded primarily for use as beams, with loads applied to the narrow face.

**Bent.** A type of pier consisting of two or more columns or column-like components connected at their top ends by a cap, strut, or other component holding them in their correct positions.

**Camber.** The convex curvature of a beam, typically used in glulam beams.

**Cantilever.** A horizontal member fixed at one end and free at the other.

**Cap.** A sawn lumber or glulam component placed horizontally on an abutment or pier to distribute the live load and dead load of the superstructure.

**Clear Span.** Inside distance between the faces of support.

**Connector.** Synonym for fastener.

**Crib.** A structure consisting of a foundation grillage and a framework providing compartments that are filled with gravel, stones, or other material satisfactory for supporting the structure to be placed thereon.

**Check.** A lengthwise separation of the wood that usually extends across the rings of annual growth and commonly results from stresses set up in wood during seasoning.

**Creep.** Time dependent deformation of a wood member under sustained load.

**Dead Load.** The structure's self weight.

**Decay.** The decomposition of wood substance by fungi. Some people refer to it as "rot".

**Decking.** A subcategory of dimension lumber, graded primarily for use with the wide face placed flatwise.

**Delamination.** The separation of layers in laminated wood or plywood because of failure of the adhesive, either within the adhesive itself or at the interface between the adhesive and the adhered.

**Diaphragm.** Blocking between two main longitudinal beams consisting of solid lumber, glued laminated timber, or steel X-bracing.

**Dimension Lumber.** Lumber with a nominal thickness of from 2.0 up to but not including 5.0 in. and having a nominal width of 2.0 in. or more.

**Dressed Size.** The dimensions of lumber after being surfaced with a planing machine. The dressed size is usually 1/2 to 3/4 in. less than the nominal or rough size. A 2- by 4-in. stud, for example, actually measures about 1-1/2 by 3-1/2 in.

**Fastener.** Generic term for individual mechanical devices such as bolts, nails, etc., used in a connection.

**Glued Laminated Timber (glulam).** An engineered, stress-rated product of a timber laminating plant comprised of assemblies of specially selected and prepared wood laminations securely bonded together with adhesives.

**Grain.** The direction, size, arrangement, appearance, or quality of the fibers in wood or lumber.

**Green Wood.** A freshly sawn or undried wood. Wood that has become completely wet after immersion in water would not be considered green but may be said to be in the green condition.

**Incising.** A pretreatment process in which incisions, slits, or perforations are made in the wood surface to increase penetration of preservative treatments. Incising is often required to enhance durability of some difficult-to-treat species, but incising reduces strength slightly.

**Knot.** That portion of a branch or limb that has been surrounded by subsequent growth of the stem. The shape of the knot as it appears on a cut surface depends on the angle of the cut relative to the long axis of the knot.

**Live Load.** The weight of traffic passing over a bridge.

**Log Stringer.** Round logs that are used as beams or stringers that have been debarked.

**Lumber.** The product of the saw and planing mill for which manufacturing is limited to sawing, re-sawing, passing lengthwise through a standard planing machine, crosscutting to length, and matching. Lumber may be made from either softwood or hardwood

**Moisture Content (MC).** The amount of water contained in the wood, usually expressed as a percentage of the weight of the oven dry wood.

**NDS.** National Design Standards by the National Forest Products Association.

**Nominal Size.** As applied to timber or lumber, the size by which it is known and sold in the market (often differs from the actual size).

**Oil-Borne Preservative.** A preservative that is introduced into wood in the form of an oil-based solution.

**Pier.** The support between two bridge spans.

**Pile.** A long, heavy timber, round or square, that is driven deep into the ground to provide a secure foundation for structures built on soft, wet, or submerged sites.

**Plank.** A broad board, usually more than 1.0 in. thick, laid with its wide dimension horizontal and used as a bearing surface.

**Pole.** A round timber of any size or length, usually used with the large end in the ground.

**Posts.** Posts are round or square pieces with a cross-section, 5.0 by 5.0 in. and larger.

**Preservative.** Any substance that is effective in preventing the development and action of wood-decaying fungi, borers of various kinds, and harmful insects that deteriorate wood.

**Rough Lumber.** Lumber that has not been dressed but that has been sawn, edged, and trimmed.

**Sawn Lumber.** The product of a sawmill not further manufactured other than by sawing, re-sawing, passing lengthwise through a standard planing mill, and cross-cutting to length.

**Scour.** Erosion of soil at the abutments and piers due to water flow.

**Sill.** Timbers used as an abutment to support beams.

**Shake.** A separation along the grain, the greater part of which occurs between the rings of annual growth. Usually considered to have occurred in the standing tree or during felling.

**Surfaced Lumber.** Lumber that is dressed by running it through a planer.

**Timbers.** Lumber that is nominally 5.0 in. or more in least dimension. Timbers may be used as beams, stringers, posts, caps, sills, girders, or purlins.

**Timbers, Round.** Timbers used in the original round form, such as poles, piling, posts, and mine timbers.

**Twist.** A distortion caused by the turning or winding of the edges of a board so that the four corners of any face are no longer in the same plane. For logs, it is the rotating of the grain in the log.

**Wane.** Bark or lack of wood from any cause on edge or corner of a piece except for eased edges.

**Warp.** Any variation from a true or plane surface. Warp includes bow, crook, cup, and twist, or any combination thereof.

**Waterborne Preservative.** A preservative that is introduced into wood in the form of a water-based solution.

**Weathering.** The mechanical or chemical disintegration and discoloration of the surface of wood caused by exposure to light, the action of dust and sand carried by winds, and the alternate shrinking and swelling of the surface fibers with the continual variation in moisture content brought by changes in the weather. Weathering does not include decay.