

# Construction Specification 483—Timber Fabrication and Installation

## 1. Scope

The work shall consist of the construction of timber structures and timber parts of composite structures.

## 2. Material

All material shall be sound wood free from decay and disease damage. The sizes specified are nominal sizes. Unless otherwise specified, the material shall be furnished in American Standard dressed sizes. Full dimension lumber may be used with engineer's approval.

Plywood and OSB shall conform to the grade, species or group, and type specified. Engineered lumber shall meet the requirements specified in the drawings.

Treated timber and lumber shall be impregnated with the specified type and quantity of preservative and in the manner specified in ASTM D 1760. Treating practices and sampling, inspection, and test procedures shall conform to the requirements of ASTM D 1760. Treated lumber shall be free from heat checks, water bursts, excessive checking, results of chafing, or from any other damage or defects that would impair their usefulness or durability for the purpose intended.

Hardware, except cast iron, shall be galvanized as specified for iron and steel hardware in ASTM A 123 or ASTM A 153. Unless otherwise specified, structural steel shapes, plates, and rods shall not be galvanized. Nuts, driftbolts, dowels, and screws shall be either wrought iron or steel.

Steel bolts shall conform to the requirements of ASTM A 307.

Washers shall be ogee gray iron castings or malleable iron castings unless washers cut from medium steel or wrought iron plate are specified on the drawings. Split ring connectors, tooth ring connectors, and pressed steel shear plate connectors shall be manufactured from hot-rolled, low carbon steel conforming to the requirements of ASTM A 711, Grade 1015. Malleable iron shear plate connectors and spike grid connectors shall be manufactured in conformance with the requirements of ASTM A 47, Grade No. 35018. All connectors shall be of approved design and the type and size specified.

Structural shapes, rods, and plates shall be structural steel. No welds are permitted in truss rods or other main members of trusses or girders.

## 3. Workmanship

All framing shall be true and exact. Timber and lumber shall be accurately cut and assembled to a close fit and shall have even bearing over the entire contact surface. No open or shimmed joints will be accepted. Nails and spikes shall be driven with just sufficient force to set the heads flush with the surface of the wood. Deep hammer marks in wood surfaces shall be considered evidence of poor workmanship and may be sufficient cause for rejection of the work.

Holes for round driftpins and dowels shall be bored with a bit 1/16 inch smaller in diameter than

that of the driftpin or dowel to be installed. The diameter of holes for square driftpins or dowels shall be equal to one side of the driftpin or dowel. Holes for lag screws shall be bored with a bit not larger than the body of the screw at the base of the thread.

Washers shall be used in contact with all bolt heads and nuts that would otherwise be in contact with wood.

#### **4. Handling and storing material**

All timber and lumber stored at the site of the work shall be neatly stacked on supports a minimum of 12 inches above the ground surface and protected from the weather by suitable covering(s). Untreated material shall be staked and stripped to permit free circulation of air between the tiers and courses. Treated timber may be close-staked. The ground surface for the stockpile of timber and lumber shall be free of weeds and rubbish. The use of cant hooks, peavies, or other pointed tools except end hooks is not permitted in the handling of structural timber and/or lumber. Treated timber shall be handled with rope slings or by other methods that prevent the breaking or bruising of outer fibers or penetration of the surface in any manner.

#### **5. Painting**

Surfaces shall be painted as designated in the drawings

#### **6. Items of work and construction details**