

## **SECTION 06176 - METAL PLATE CONNECTED WOOD TRUSSES**

### **PART 1 GENERAL**

#### **1.01 SECTION REQUIREMENTS**

- A. Engineer, fabricate, and erect metal-plate-connected wood trusses to withstand design loads without exceeding deflection limits of ANSI/TPI 1, "National Design Standard for Metal-Plate-Connected Wood Truss Construction" and local Building Code.
- B. In addition to Product Data, submit Shop Drawings and structural analysis data, signed and sealed by a qualified professional engineer engaged by the fabricator who is registered in the state where Project is located.
- C. Truss design drawings shall be provided with the shipment of trusses delivered to the job site and shall be provided to the building official at the time of inspection. Truss design drawings shall include at a minimum the information specified in Section R802.10 of the International Residential Code.
- D. Engage a fabricator who participates in a recognized quality-assurance program that involves inspection by an independent inspecting and testing agency acceptable to authorities having jurisdiction.
- E. Comply with ANSI/TPI 1; TPI HIB, "Commentary and Recommendations for Handling Installing & Bracing Metal Plate Connected Wood Trusses"; and AFPA's "National Design Specification for Wood Construction" and its "Supplement."
- F. Unit Prices: Replacement of Fire, water, and insect damaged metal-plate-connected wood trusses are described in Division 1 Section "Unit Prices."

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS**

- A. Dimension Lumber: Comply with DOC PS 20, "American Softwood Lumber Standard," any species, graded visually or mechanically.
- B. Connector Plates: Structural-quality steel sheet, zinc coated, complying with ASTM A 653, Grade 33, G60 (ASTM A 653M, Grade 230, Z180) coating designation; at least 0.0359 inch (0.91 mm) thick.
- C. Fasteners: Hot-dip galvanized per ASTM A 153 or stainless steel, Type 304 or 316, where exposed to weather or to high relative humidities.
- D. Metal Framing Anchors: Manufactured from hot-dip, zinc-coated steel sheet complying with ASTM A 653, G60 (ASTM A 653M, Z180) coating designation; structural, commercial, or lock-forming quality, as standard with manufacturer for type of anchor indicated.

#### **2.02 FABRICATION**

- A. Fabricate wood trusses within manufacturing tolerances of ANSI/TPI 1 and connect truss members by metal connector plates.

### **PART 3 EXECUTION**

#### **3.01 INSTALLATION**

- A. Install and brace trusses according to recommendations of TPI. Space trusses as indicated on shop drawings; install plumb, square, and true to line; and securely fasten to supporting construction.
- B. Anchor trusses securely at all bearing points using metal framing anchors and fasten securely.
- C. Securely connect each truss ply required for forming built-up girder trusses. Anchor trusses to girder trusses.
- D. Install and fasten permanent bracing during truss erection. Anchor ends of permanent bracing where terminating at walls or beams.
- E. Install wood trusses within installation tolerances of ANSI/TPI 1.
- F. Do not alter, cut, or remove truss members.
- G. Remove and replace wood trusses that are damaged or deficient.

**END OF SECTION 06176**

2019