

SECTION 061810
SHELTER CONSTRUCTION (S-102)

1. DESCRIPTION

This specification shall govern all work necessary for furnishing and constructing the shelter as required to complete the project.

2. MATERIALS

Reinforced Concrete: All concrete shall be Class A as described in Specification Section 030020. Rebar shall be Grade 40 as described in Specification Section 032020.

Laminated Beam: Laminated beams shall be of a size as indicated on the construction drawings. The beams shall be capable of supporting a 120 lb/linear foot dead load and a 240 lb/linear foot live load when connected as indicated in the construction drawings. Laminating lumber shall be kiln-dried southern pine, stress graded to meet the requirements of Standard Specifications for Structural Glued Laminated Timber AITC 117. The beams shall be manufactured in accordance with The American Institute of Timber construction Standards AITC 100, and Standard Specification of Structural Glue Laminated Timber, AITC 117. Adhesives shall be waterproof conforming to ASTM D2559-70. Quality control shall be provided in accordance with PS-56-73 Voluntary Products Standard for Structural Glued Laminated Timber and The American Institute of Timber Construction Manual, AITC 200. A certificate of conformance to these requirements shall be furnished and the AITC quality marks shall appear on all beams.

Decking: Shall be 2 x 6 or 2 x 8, nominal, single tongue and groove with V joint bottom. Lumber shall be #2 Grade of better kiln dried southern pine.

Facer & Drip Cap: Facer and drip cap shall be 1 inch (nominal) #1 Grade southern pine and shall be treated with PENTA or CCA to a minimum retention of .6 lbs. per cubic foot.

Roof: The roof shall consist of a minimum 235 lb. per square asphalt shingle with a U.L. rating of Class C or better. One layer of 15 lbs. per square felt conforming to ASTM D226 shall be placed under shingles.

Nails, Fasteners and Metal Connectors: All nails, fasteners, metal connectors and flashing shall be galvanized or corrosion resistant.

3. CONSTRUCTION METHODS

General: The Contractor shall provide all temporary bracers, supports, etc., as required during construction. The Contractor shall obtain all the necessary permits and pay all fees required for construction. Contractor shall meet requirements set forth in the southern building code as adopted by the City with amendments, unless indicated otherwise on the drawings.

Wood Treatment: All exposed ends of decking at overhangs, ends of beams, and ends of facers and drip cap shall be treated with a brushed-on PENTA wood preservative after ends are cut.

Reinforced Concrete: Concrete shall be placed in accordance with Section

038000. Concrete columns shall be allowed to cure a minimum of 3 days prior to placement in the foundation; and 7 days prior to connecting the timber beam. Placement of deck and roof shall not begin until the concrete column has cured for a minimum of 14 days. No heavy equipment shall be allowed on the concrete slab.

Laminated Beam: The laminated beams shall be protected by the Contractor. If temporary storage is required, the beams shall be blocked off ground and separated with spacers. Non-marring slings shall be used when handling. The holes for the column connection shall be made with the beam resting in place on top of column with treated wood spacers set.

Decking: Decking shall be placed with all joints at alternate beams as indicated in plans. The deck shall be secured to beam with 16d nails. 2 x 6 decking shall require 2 nails at each beam. 2 x 8 decking shall require 3 nails at beams without joint (or at center) and 2 nails at each end or at the joints.

Roof: Saturated felt shall be applied shingle fashion parallel to and starting from the eave and lapped six inches, fastened only as necessary to hold in place. Asphalt shingles shall be installed in accordance with manufacturer's requirements. Nails shall not extend through the bottom of decking.

Facer and Drip Cap: Facer, drip cap and flashing shall be placed around the structurer. Flashing and nails for flashing shall be of like metals. Facer shall be secured to beams with three 8d nails at each beam.

4. CERTIFICATION OF QUALITY

The Contractor shall provide the Engineer with the evidence of tests conducted which verify that the materials meet the requirements set forth under Section 061810.2.

5. MEASUREMENT AND PAYMENT

Unless indicated otherwise in the proposal, Shelter Construction shall be subsidiary and not measured for pay.