

SECTION 06 15 00 - WOOD DECKING

PART 1 GENERAL

1.1 SECTION INCLUDES

- (A) SOFTWOOD LUMBER STRUCTURAL WOOD DECKING.
- (B) PLYWOOD STRUCTURAL WOOD DECKING.
- (C) GLUED LAMINATED STRUCTURAL WOOD DECKING.
- (D) FIRE RETARDANT TREATMENT OF WOOD.
- (E) PRESERVATIVE TREATMENT OF WOOD.

1.2 RELATED REQUIREMENTS

- (A) SECTION 09 91 00 - PAINTING

1.3 REFERENCE STANDARDS

- (A) AITC 109 - STANDARD FOR PRESERVATIVE TREATMENT OF STRUCTURAL GLUED LAMINATED TIMBER; 2007.
- (B) AITC 110 - STANDARD APPEARANCE GRADES FOR STRUCTURAL GLUED LAMINATED TIMBER; 2001.
- (C) AITC 111 - RECOMMENDED PRACTICE FOR PROTECTION OF STRUCTURAL GLUED LAMINATED TIMBER DURING TRANSIT, STORAGE AND ERECTION; 2005.
- (D) AITC 112 - STANDARD FOR TONGUE-AND-GROOVE HEAVY TIMBER ROOF DECKING; 1993 AND ERRATA.
- (E) AITC 113 - STANDARD FOR DIMENSIONS OF STRUCTURAL GLUED LAMINATED TIMBER; 2010.
- (F) AITC A190.1 - AMERICAN NATIONAL STANDARD FOR WOOD PRODUCTS - STRUCTURAL GLUED LAMINATED TIMBER; 2007.
- (G) ANSI A208.1 - AMERICAN NATIONAL STANDARD FOR PARTICLEBOARD; 2009.
- (H) ASTM D143 - STANDARD TEST METHODS FOR SMALL CLEAR SPECIMENS OF TIMBER; 2014.
- (I) ASTM D198 - STANDARD TEST METHODS OF STATIC TESTS OF LUMBER IN STRUCTURAL SIZES; 2015.
- (J) ASTM D1761 - STANDARD TEST METHODS FOR MECHANICAL FASTENERS IN WOOD; 2012.
- (K) ASTM D2559 - STANDARD SPECIFICATION FOR ADHESIVES FOR BONDED STRUCTURAL WOOD PRODUCTS FOR USE UNDER EXTERIOR EXPOSURE CONDITIONS; 2012A, WITH EDITORIAL REVISION (2016).
- (L) ASTM D2898 - STANDARD TEST METHODS FOR ACCELERATED WEATHERING OF FIRE-RETARDANT-TREATED WOOD FOR FIRE TESTING; 2010 (REAPPROVED 2017).

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- (M) ASTM E84 - STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS; 2017.
- (N) AWPA U1 - USE CATEGORY SYSTEM: USER SPECIFICATION FOR TREATED WOOD; 2017.
- (O) NELMA (SGR) - STANDARD GRADING RULES FOR NORTHEASTERN LUMBER; 2013.
- (P) NLGA (SGRNL) - STANDARD GRADING RULES FOR CANADIAN LUMBER; 2014.
- (Q) PS 1 - STRUCTURAL PLYWOOD; 2009.
- (R) PS 20 - AMERICAN SOFTWOOD LUMBER STANDARD; 2015.
- (S) RIS (GR) - STANDARD SPECIFICATIONS FOR GRADES OF CALIFORNIA REDWOOD LUMBER; 2000.
- (T) SPIB (GR) - GRADING RULES; 2014.
- (U) WCLIB (GR) - STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17; 2004, AND SUPPLEMENTS.
- (V) WWPA G-5 - WESTERN LUMBER GRADING RULES; 2011.
- (W) UL (FRD) - FIRE RESISTANCE DIRECTORY; CURRENT EDITION.

1.4 SYSTEM DESCRIPTION

- (A) DESIGN FLOOR LIVE AND DEAD LOAD: AS INDICATED ON DRAWINGS
- (B) DESIGN ROOF LIVE AND DEAD LOAD: AS INDICATED ON DRAWINGS.

1.5 SUBMITTALS

- (A) SEE SECTION 01 00 00 - GENERAL REQUIREMENTS, FOR SUBMITTAL PROCEDURES.
- (B) PRODUCT DATA: PROVIDE TECHNICAL DATA ON WOOD PRESERVATIVE MATERIALS.
- (C) SHOP DRAWINGS: INDICATE DECK FRAMING SYSTEM, LOADS AND CAMBERS, BEARING DETAILS, AND FRAMED OPENINGS.
 - 1. INCLUDE THE DESIGN ENGINEER'S SEAL AND SIGNATURE ON EACH SHEET OF SHOP DRAWINGS.
- (D) SAMPLES OF WOOD DECK EXPOSED TO VIEW: SUBMIT TWO SAMPLES, 6 INCH IN SIZE ILLUSTRATING WOOD GRAIN, STAIN, AND FINISH.
- (E) DESIGNER'S QUALIFICATION STATEMENT.
- (F) MANUFACTURER'S QUALIFICATION STATEMENT.
- (G) INSTALLER'S QUALIFICATION STATEMENT.

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1.6 QUALITY ASSURANCE

- (A) DESIGNER QUALIFICATIONS: PERFORM DESIGN UNDER DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER EXPERIENCED IN DESIGN OF THIS TYPE OF WORK AND LICENSED IN MONTANA.
- (B) MANUFACTURER QUALIFICATIONS: COMPANY SPECIALIZING IN MANUFACTURING THE PRODUCTS SPECIFIED IN THIS SECTION WITH AT LEAST THREE YEARS OF DOCUMENTED EXPERIENCE AND CERTIFIED BY AITC.
- (C) INSTALLER QUALIFICATIONS: COMPANY SPECIALIZING IN PERFORMING WORK OF THE TYPE SPECIFIED IN THIS SECTION, WITH AT LEAST THREE YEARS OF DOCUMENTED EXPERIENCE.

1.7 DELIVERY, STORAGE, AND HANDLING

- (A) PROTECT GLUE LAMINATED MEMBERS IN ACCORDANCE WITH AITC 111 REQUIREMENTS FOR UNWRAPPED MATERIAL.
- (B) FIRE RETARDANT TREATED WOOD: PREVENT EXPOSURE TO PRECIPITATION DURING SHIPPING, STORAGE, OR INSTALLATION.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- (A) PLYWOOD DECKING:
 - 1. BOISE CASCADE COMPANY: WWW.BC.COM/#SLE.
 - 2. GEORGIA-PACIFIC LLC: WWW.BUILDGP.COM/#SLE.
 - 3. WEYERHAEUSER COMPANY: WWW.WEYERHAEUSER.COM/#SLE.
 - 4. SUBSTITUTIONS: OR APPROVED EQUAL
 - 5. SUBSTITUTIONS: SEE SECTION 01 00 00 - GENERAL REQUIREMENTS.
- (B) GLUED LAMINATED DECKING:
 - 1. DISDERO LUMBER COMPANY: WWW.LOCKDECK.COM
 - 2. SUBSTITUTIONS: OR APPROVED EQUAL
 - 3. SUBSTITUTIONS: SEE SECTION 01 00 00 - GENERAL REQUIREMENTS.

2.2 WOOD MATERIALS

- (A) WOOD FABRICATED FROM OLD GROWTH TIMBER IS NOT PERMITTED.
- (B) PROVIDE SUSTAINABLY HARVESTED WOOD; SEE SECTION 01 60 00 - PRODUCT REQUIREMENTS FOR REQUIREMENTS.

2.3 REGULATORY REQUIREMENTS:

- (A) COMPLY WITH APPLICABLE CODE FOR FIRE RETARDANT REQUIREMENTS.
- (B) MARKING: MARK EACH PIECE WITH PRODUCER'S STAMP INDICATING COMPLIANCE WITH SPECIFIED REQUIREMENTS; FOR PIECES EXPOSED TO VIEW IN COMPLETED CONSTRUCTION, SUBMIT MANUFACTURER'S CERTIFICATE CERTIFYING THAT PRODUCTS COMPLY WITH SPECIFIED REQUIREMENTS IN LIEU OF GRADE STAMPING.
- (C) LUMBER DECKING: FABRICATED TO AITC 112.
 - 1. SPECIES: DOUGLAS FIR
 - 2. SIZE: BY 6 INCHES, NOMINAL.
 - 3. PATTERN: AITC STANDARD BEVELED V-JOINT WITH SINGLE TONGUE AND GROOVE.
 - 4. MOISTURE CONTENT: 19 PERCENT, MAXIMUM.
- (D) PLYWOOD DECKING: PS 1 VENEER PLYWOOD; APA RATED SHEATHING, SPAN RATING 48/24; EXTERIOR GRADE; 1 A INTERIOR VENEER APPEARANCE GRADE; SANDED.
- (E) GLUED LAMINATED DECKING: SOFTWOOD LUMBER OF ANY SPECIES FABRICATED TO COMPLY WITH AITC A190.1 AND AITC 113, LAMINATED WITH ADHESIVE TESTED ACCORDING TO ASTM D2559 FOR WET SERVICE; BEVELED EDGES, SINGLE TONGUE.
 - 1. APPEARANCE: FABRICATE TO AITC 110 INDUSTRIAL GRADE.
 - 2. DESIGNED FOR THE FOLLOWING MINIMUM VALUES:
 - a. BENDING (FB): 1500 PSI
 - b. HORIZONTAL SHEAR (FV): 150 PSI
 - c. MODULUS OF ELASTICITY (E): 1,800,000 PSI
 - 3. AFTER END TRIMMING, SEAL WITH PENETRATING SEALER.

2.4 ACCESSORIES

- (A) FASTENERS AND ANCHORS:
 - 1. FASTENER TYPE AND FINISH: HOT-DIPPED GALVANIZED STEEL FOR HIGH HUMIDITY AND PRESERVATIVE-TREATED WOOD LOCATIONS, UNFINISHED STEEL ELSEWHERE.
 - 2. SCREWS: BUGLE HEAD, HARDENED STEEL, POWER DRIVEN TYPE, LENGTH THREE TIMES THICKNESS OF DECKING.
- (B) ADHESIVE: WATERPROOF, AIR CURE TYPE, CARTRIDGE DISPENSED.
- (C) SEALER: MANUFACTURER'S STANDARD, FACTORY-APPLIED SEALER, TRANSPARENT WOOD SEALER

2.5 WOOD TREATMENT

- (A) FACTORY-TREATED LUMBER AND PLYWOOD: COMPLY WITH REQUIREMENTS OF AWPA U1 - USE CATEGORY SYSTEM FOR WOOD TREATMENTS DETERMINED BY USE CATEGORIES, EXPECTED SERVICE CONDITIONS, AND SPECIFIC APPLICATIONS.
- (B) PRESERVATIVE PRESSURE TREATMENT:
 - 1. FOR USE AT EXTERIOR APPLICATIONS.
 - 2. MANUFACTURERS:
 - a. LONZA GROUP; WWW.WOLMANIZEDWOOD.COM/#SLE.
 - b. OSMOSE UTILITIES SERVICES, INC; WWW.OSMOSE.COM/#SLE.
 - c. VIANCE, LLC; ECOLIFE: WWW.TREATEDWOOD.COM/#SLE.
 - d. SUBSTITUTIONS: OR APPROVED EQUAL
 - e. SUBSTITUTIONS: SEE SECTION 01 60 00 - PRODUCT REQUIREMENTS.
 - 3. PRESERVATIVE PRESSURE TREATMENT OF LUMBER DECKING: AWPA U1, USE CATEGORY UC3B, COMMODITY SPECIFICATION A USING WATERBORNE PRESERVATIVE TO 0.25 LB/CU FT RETENTION.
 - a. KILN DRY LUMBER AFTER TREATMENT TO MAXIMUM MOISTURE CONTENT OF 19 PERCENT.
 - 4. PRESERVATIVE PRESSURE TREATMENT OF GLUED LAMINATED DECKING: AITC 109 USING WATERBORNE PRESERVATIVE TO 0.25 LB/CU FT RETENTION.
 - a. KILN DRY LUMBER AFTER TREATMENT AND BEFORE LAMINATION TO MAXIMUM MOISTURE CONTENT OF 19 PERCENT.
 - 5. PRESERVATIVE PRESSURE TREATMENT OF PLYWOOD DECKING: AWPA U1, USE CATEGORY UC2 AND UC3B, COMMODITY SPECIFICATION F USING WATERBORNE PRESERVATIVE TO 0.25 LB/CU FT RETENTION.
 - a. KILN DRY PLYWOOD AFTER TREATMENT TO MAXIMUM MOISTURE CONTENT OF 18 PERCENT.
 - 6. MARKING: MARK EACH PIECE WITH STAMP OF AN ALSC-ACCREDITED TESTING AGENCY, CERTIFYING LEVEL AND TYPE OF TREATMENT IN ACCORDANCE WITH AWPA STANDARDS.

PART 3 EXECUTION

3.1 EXAMINATION

- (A) VERIFY THAT SUPPORT FRAMING IS READY TO RECEIVE DECKING.

3.2 PREPARATION

- (A) COORDINATE PLACEMENT OF BEARING ITEMS.

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3.3 SITE APPLIED WOOD TREATMENT

- (A) APPLY PRESERVATIVE TREATMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- (B) BRUSH APPLY ONE COATS OF PRESERVATIVE TREATMENT ON WOOD IN CONTACT WITH CEMENTITIOUS MATERIALS. TREAT SITE-SAWN CUTS.
- (C) ALLOW PRESERVATIVE TO DRY PRIOR TO ERECTING MEMBERS.

3.4 INSTALLATION - PLYWOOD DECKING

- (A) INSTALL DECKING PERPENDICULAR TO FRAMING MEMBERS WITH ENDS STAGGERED OVER FIRM BEARING. ON SLOPED SURFACES, LAY DECKING WITH TONGUE UPWARD.
- (B) ENGAGE PLYWOOD TONGUE AND GROOVE EDGES.
- (C) ALLOW EXPANSION SPACE AT EDGES AND ENDS.
- (D) ATTACH DECKING WITH ADHESIVE AND SCREWS.
- (E) USE SHEATHING CLIPS AT UNSUPPORTED EDGES OF PLYWOOD BETWEEN SUPPORTING FRAMING MEMBERS.
- (F) CUT DECKING TO ACCOMMODATE ROOF DRAIN AND FLANGE.

3.5 INSTALLATION - BOARD DECKING

- (A) INSTALL DECKING PERPENDICULAR TO FRAMING MEMBERS, WITH ENDS STAGGERED OVER FIRM BEARING. ON SLOPED SURFACES, LAY DECKING WITH TONGUE UPWARD.
- (B) FIT BUTT END DECK JOINTS OCCURRING BETWEEN SUPPORT MEMBERS WITH METAL SPLINES TO MAINTAIN TIGHT, ALIGNED JOINTS.
- (C) ENGAGE DECKING TONGUE AND GROOVE EDGES.
- (D) SECURE WITH FASTENERS. SIDE SPIKE PLANKS TOGETHER, THROUGH PRE-DRILLED HOLES.
- (E) SECURE WITH MANUFACTURER'S PROPRIETARY FASTENER SYSTEM.
- (F) MAINTAIN DECKING JOINT SPACE OF 1/16 INCH MAXIMUM.
- (G) CUT DECKING TO ACCOMMODATE ROOF DRAIN AND FLANGE.

3.6 TOLERANCES

- (A) SURFACE FLATNESS OF DECKING WITHOUT LOAD: 1/4 INCH IN 10 FEET MAXIMUM, AND 1/2 INCH IN 30 FEET MAXIMUM.

END OF SECTION