

## SECTION 06150

### WOOD DOCK PANELS AND DOCK DECKING

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Provide labor, materials and equipment necessary to complete the work of this Section, including the following:
  - 1. Wood deck panels
- B. Related Work: The following items are not included in this Section and will be performed under the designated Sections.
  - 1. Section 06150 – Wood Decking
- C. Reference Standards: Comply with applicable requirements of the following:
  - 1. ASTM D143 – Standard Test Methods for Small Clear Specimens of Timber.
  - 2. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
  - 3. ANSI B101.1 – Test method for Measuring Wet Static Coefficient of Friction (SCOF) of Common Hard-Surface Floor Materials.
  - 4. ANSI A137.1 section 9.6 – Testing Method for Wet Dynamic Coefficient of Friction (DCOF) of Common Hard Surface Floor Materials.
  - 5. U.S. Lacey Act.
  - 6. U.S. Buy American Act.
  - 7. U.S. Foreign Corrupt Practices Act
  - 8. FSC STD-01-001

##### 1.2 SUBMITTALS

- A. Submittals: Submit under provisions of Division 01.
- B. Product Literature: Manufacturer's product literature describing all components. Include installation recommendations and instructions.
- C. Verification Samples: For each type of deck panel.
- D. Shop Drawings: Detail panel assemblies.
- E. Certificates of Compliance: Submit documentation of certifications and agency approvals listed in Paragraphs 2.3G and 2.3H.

##### 1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Products covered under this Section shall be produced by a single manufacturer unless otherwise specified with a minimum of fifteen years proven production experience.

- B. Installer Qualifications: Installer shall have a minimum of three years proven construction experience and be capable of estimating and building from drawings and details, determining elevations, in addition to proper material handling.
- C. Special Consideration: The installer and or subcontractor must assume the responsibility for and take into consideration the structural capability and adequacy of the structure to carry the dead and live load weights involved.
- D. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect panels during shipment, storage and construction against damage.
- B. Store a minimum of 4 inches off the ground in a dry location and cover with polyethylene to protect from contact with materials which would cause staining or discoloration.

#### 1.5 WARRANTY

- A. Manufacturer's Warranty Panels: Provide manufacturer's standard 10-year limited warranty. Provide installer's 2-year warranty against defects in installation.

#### 1.6 EXTRA MATERIALS

- A. Extra Materials: Deliver supply of maintenance materials to the Owner. Furnish not less than 1 percent maintenance materials from same lot as materials installed, and enclosed in protective packaging with appropriate identifying labels.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURER

- A. Basis-of-Design: Iron Woods™ Dock Panels by Timber Holdings USA LLC, Tel 888-932-9663, [www.ironwoods.com](http://www.ironwoods.com).
- B. Panel systems equal in appearance and function and meeting these specifications, will be considered when the specified submittals are approved in writing by the Designer prior to bid.

#### 2.2 DECK PANELS/DECKING

- A. Deck Panels: IRON WOODS® Deck Panels manufactured of Naturally Durable Hardwood, Iron Woods® Ipe, Tabebuia spp. Lapacho Group / Non FSC Certified)and corrosion resistant fasteners.
  - 1. Moisture Content: KD, moisture content of 12 to 18%
  - 2. Surface: Deck Tiles/Decking to be manufactured from components which are S4S (surfaced four sides), E4E (eased four edges). Edges shall be eased to a radius of 1/8 inch.
  - 3. Dimensional Tolerance:

- a. Deck Tiles shall be specified in actual or net dimensions.
    - a.1 net 1.5 inch thick x 23-7/8 inches (600mm) wide x 23-7/8 inches (600mm) long.
    - a.2 net 1.5 inch thick x 23-7/8 inches (600mm) wide x 47-7/8" Inches (800mm) long.
    - a.3 net 1.5 inch thick x 23-7/8 inches (600mm) wide x 71 -7/8" (1200mm) long.
    - a.4 net 1.5 inch thick x 23-7/8 inches (600mm) wide x length as specified

Dimensions shall be plus or minus 0.125 inch in width and length and 0.0625 inch in thickness, measured at 12 to 18 percent moisture content.
  - b. Decking shall be specified in actual net dimensions
    - b.1 S4S E4E net 1inch thick x 3-1/2" wide measured at 18% moisture content with 2-1/4" T305 Heat Treated (Self Drilling) or T316 Stainless (pre-drilling) Finish Head Screws. \*Option of Wood Plugs.
4. End Coating: Deck Panels are to be supplied with the ends sealed with Anchorseal, Paraffin or approved wax end sealer. All lumber must be resealed after cutting to reduce end splits.
  5. Fabrication: Deck Panels shall be fabricated using Decay Resistant Screws as per fabrication shop drawing supplied by Timber Holdings USA.
- B. Mechanical Properties of Deck Panels/Decking: Meet or exceed the following when tested in accordance with ASTM D143:
1. Bending Strength: 22,445 psi
  2. Modulus of Elasticity: 3,145,000 psi/
  3. Compression Parallel to Grain: 13,140 psi.
  4. Compression Perpendicular to Grain: 3,595 psi.
  5. Average Air-Dry Density: Ranges from 56.7 to 59.3pcf.
  6. Basic Specific Gravity: Ranges from 0.85-0.97.
- C. Allowable Design Values For Wood Based On ASTM 245 - Dimension Lumber and Decking (.75" to 4" thick by 2" and wider): Meet or exceed the following when graded according to Iron Woods Grading Rules and Tested in Accordance with ASTM D-143
- D.1 Premium Select Architectural Grade:
1. Bending Strength: 6,750 psi
  2. Modulus of Elasticity: 3,300,000 psi/
  3. Compression Parallel to Grain: 3,800 psi.
  4. Compression Perpendicular to Grain: 2,205 psi.
  5. Shear Parallel To Grain: 995 psi.
  6. Average Air-Dry Density: Ranges from 56.7 to 59.3pcf.
  7. Basic Specific Gravity: Ranges from 0.85-0.97.
- D. Coefficient of Friction: Meet or exceed the Static Coefficient of Friction in accordance with ANSI B101.1 and Dynamic Coefficient of Friction in accordance with ANSI A137.1 section 9.6.

1. Dynamic: Wet .455 FP.
  2. Static: Wet .615 FP.
- E. Fire Rating Requirements: Meet or exceed the following.
1. Lumber supplied shall be naturally fire resistant without the use of any fire resistant treatments to meet NFPA Class A, 1989 -16 edition, NFPA Class A, 2007 edition.
  2. Lumber supplied shall be approved by CalFire Wildlife Urban Interface Areas – Materials and Construction Methods, Exterior Wildlife Exposure: Decking Code Section Chapter 7A (CSFM 12-7A-4).
- F. Grade Requirements: Iron Woods Premium Select Architectural Grade. Graded on 4 faces and 4 Edges. Source “Iron Woods Tropical Hardwood Decking - Grading Rules and Definitions”. Grading Face, Back Face, and Edges – Clear All Heart.
1. Include - Appearance characteristics.
  2. Include - Physical characteristics which can be removed using normal installation methods, tools, or sanding.
  3. Exclude - Sound defects.
  4. Exclude - Unsound defects.
  5. Exclude - Milling defects.
- G. Packaging Requirements: Units shall be individually strapped to wood pallets or blocking of a minimum thickness to allow the egress of lift forks using high strength strapping with a minimum of 4 straps per crate.
- H. Certificates of Compliance Deck Panels/Decking: Provide deck panels that comply with the following. Documentation shall be submitted with bid as verification of vendor ability to comply. Original submittals shall be supplied upon delivery.
1. Certificate of Compliance “Inspection” - A vendor certificate confirming product compliance with specified grade.
  2. Certificate of Compliance “Technical” – A vendor certificate confirming product compliance with minimum specified Mechanical, Fire Resistance, Coefficient of Friction Technical Performance requirements.
  3. MSDS (Material Safety Data Sheet) – Submit a Material Safety and Data Sheet for the wood products supplied on the project.
- I. Compliance with Environmental Requirements: Provide Deck Panels or Decking that comply with the following. Documentation shall be submitted with bid as verification of vendor ability to comply. Original submittals shall be supplied upon delivery.
1. Green by Nature Compliance: All lumber shall meet minimum environmental requirements as defined under Green By Nature...Build With Conscience™ Controlled Wood, Chain of Custody, Life Cycle Impact and Due Care – Environmental Compliance Standards, Policies and Procedures confirming that:
    - a. All Iron Woods products have been verified of legal origin and compliance as being, legally harvested, transported, exported, imported and documented in compliance with all country of origin, international and domestic laws, rules, regulations and treaties pertaining to the fair and legal trade of forest products including but not limited to the U.S. Department of Agriculture Lacey Act, ITTA (International Tropical Timber Trade Agreement), CITES (Convention On The International Trade of Endangered Species), and U.S. Buy American Act.

- b. All Iron Woods products are derived from forests which are naturally occurring, renewable and sustainable and are not harvested from forests or forest plantations where traditional or civil rights have been violated, forests having high conservation values which are threatened, forests that have been genetically modified or forests which have been converted to non-forest use. All Iron Woods and their packaging materials have been kiln dried and or fumigated and are free from live and or invasive insect, plant or animal species.
- c. All Iron Woods products are 100 percent organic and grown without the use of chemical fertilization and are regenerated naturally or by seeding and replanting. The natural service life of Iron Woods®, exceed their natural growth cycle, trap and store carbon and are able to be reclaimed, reused or recycled. Iron Woods® do not require for service any petroleum based or inorganic chemical treatments adhesives or coatings. Iron Woods® do not require for service any specialized handling storage or disposal procedures and generate zero post-industrial or post-consumer non-biodegradable waste. Iron Woods are also safe for human and animal contact, meet Low VOC emission standards and meet International Building Code and International Residential Code requirements for naturally durable wood.

END OF SECTION