

**Part 1        General**

**1.1            RELATED REQUIREMENTS**

- .1        Section 03 30 00 – Cast-in-Place Concrete.
- .2        Section 05 50 00 – Metal Fabrications.
- .3        Section 06 10 10 – Rough Carpentry.
- .4        Section 07 62 00 – Sheet Metal Flashing and Trim.

**1.2            REFERENCES**

- .1        American Society for Testing and Materials International (ASTM)
  - .1        ASTM D2394-05(2011), Standard Test Methods for Simulated Service Testing of Wood and Wood-Base Finish Flooring.
  - .2        ASTM F593-13a, Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
  - .3        ASTM F594-09e1, Standard Specification for Stainless Steel Nuts.
- .2        Canadian Standards Association (CSA International)
  - .1        CAN/CSA-G164-M92(R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.
  - .2        CSA O86-09, Engineering Design in Wood, Includes Update No. 1 (2010), Update No. 2 (2011), Update No. 4 (2012).

**1.3            ACTION AND INFORMATIONAL SUBMITTALS**

- .1        Submit manufacturer's printed product literature, specifications, installation instructions, and data sheets in accordance with Section 01 11 10 – Project General Requirements: Submittal Procedures.
- .2        Submit warranties.
- .3        Submit engineered shop drawings in accordance with Section 01 11 10 – Project General Requirements: Submittal Procedures.
  - .1        Provide shop drawings signed and sealed by professional engineer registered in Province of Work responsible for design.
  - .2        Indicate details of construction, profiles, jointing, fastening, and other related details.
  - .3        Indicate materials, thicknesses, finishes, and hardware.
- .4        Closeout Submittals: submit operations and maintenance data in accordance with in accordance with Section 01 11 10 – Project General Requirements: Closeout Submittals.

## **1.4 QUALITY ASSURANCE**

- .1 Comply with the requirements of Section 01 11 10 – Project General Requirements: Quality Control.
- .2 Wood deck system shall be designed by a professional engineer licenced to practice in the Province of the Work.
- .3 Manufacturer's qualifications: manufacturer shall have been established for a minimum of 20 years, manufacturing composite board products similar to those specified in this Section.
- .4 Installer: shall be certified and approved in writing by the decking manufacturer for installation of their products.

## **1.5 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with Section 01 11 10 – Project General Requirements: Common Product Requirements.
- .2 Deliver, store, and handle materials in accordance with the manufacturer's guidelines.
- .3 Protect materials from weather upon delivery to job site.
- .4 Store materials on raised supports. Cover materials with waterproof covering. Provide adequate air circulation and ventilation.

## **1.6 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 11 10 – Project General Requirements: Waste Management and Disposal.

## **1.7 WARRANTIES**

- .1 Correct any deficiencies and labour or material found in the work performed for a period of 2 years from the date of Substantial Performance.
- .2 Submit composite deck manufacturer's 20-year limited warranty.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Deck Boards: to CSA 0118.2, Eastern White Cedar, graded to meet NLGA Grading Standards and WRCLA, and as follows:
  - .1 Grade: WRCLA Custom Clear.
  - .2 Square edges, S4S.
  - .3 Texture: finely machined.
  - .4 Moisture Content: seasoned.
- .2 Deck board thickness and width (nominal), to NLGA: 32 mm (1-¼ inch) thick x 152 mm (6-inch) wide, or as otherwise indicated on Drawings.
- .3 Deck board length: 10% of quantity supplied shall be approximately 2 metres in length; 45% of quantity supplied shall be approximately 3 metres.

- .4 Trim boards, balusters and miscellaneous lumber as required for a complete installation:
  - .1 Eastern White Cedar: solid wood lumber, graded to meet NLGA Grading Standards and WRCLA, S4S.
  - .2 Grade: WRCLA Custom Clear.
  - .3 Texture: finely machined.
  - .4 Moisture Content: seasoned.
  - .5 Edges: square.

## 2.2 ACCESSORIES

- .1 Miscellaneous rough carpentry: Eastern White Cedar lumber, to Section 06 10 10 – Rough Carpentry.
- .2 Adhesives: exterior grade, recommended by manufacturer.
- .3 Asphaltic coating or EPDM Gasket to separate dissimilar metals (e.g., stainless steel in contact with galvanized steel) and other dissimilar materials in contact (e.g., treated wood.)
- .4 Fasteners, Connectors and Rough Hardware: Type 304 stainless steel, sized as required.
  - .1 Steel blind fastening system, as required to create a fastener-free deck surface.
  - .2 Steel splitless ring-shanked flooring nails.
  - .3 Screws, to ASTM F593: 2-¼" #7 trim head steel screws.
  - .4 Bolts, to ASTM F593.
  - .5 Nuts and Washers, to ASTM F594: 12.5 mm diameter unless indicated otherwise, complete with nuts and washers, lengths as required.
  - .6 Carriage Bolts, to ASTM F593.
  - .7 Proprietary steel fasteners: toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs, recommended for purpose by manufacturer.
  - .8 Steel joist hangers: minimum 1 mm thick sheet steel.
  - .9 Steel saddle posts: to create positive connection between piles and beams. Provide to other trades as required for embedment in concrete in accordance with Construction Schedule.
  - .10 Heavy-duty, commercial-quality, steel ties, hangers and connectors to provide positive connection between members, and capable of resisting wind and seismic forces.
    - .1 Provide manufacturer's specified fasteners, stainless steel.
    - .2 Gauges as required to withstand loads as calculated in accordance with National Building Code of Canada, 2010.

### **Part 3 Execution**

#### **3.1 COMPLIANCE**

- .1 Minimum Requirements: Part 9 of the National Building Code of Canada, 2010, and Amendments, and CSA O86-14, Engineering Design in Wood.
- .2 Comply with the deck board manufacturer's printed installation instructions, technical datasheets, specifications and details.
- .3 Deck, balustrades and railings shall be engineered, with shop drawings stamped and signed by a professional structural engineer licenced to practice in the province of Newfoundland and Labrador.

#### **3.2 INSPECTION**

- .1 Verify condition and dimensions of previously installed work upon which this Section depends. Report defects to Departmental Representative. Commencement of Work means acceptance of existing conditions.

#### **3.3 PREPARATION**

- .1 Obtain measurements from site.
- .2 Protect finished surfaces and materials of other trades from damage.

#### **3.4 PATTERN**

- .1 Multiple Span: Every piece shall bear on at least one support and every third piece shall bear on two supports. Stagger end joints at least 750 mm.
- .2 Single and double spans: End joints shall be over support.

#### **3.5 CONSTRUCTION**

- .1 Separate dissimilar metals with asphaltic coating at contact surfaces, or install EPDM gaskets as required.
- .2 Deck beams and joists and other rough carpentry: Eastern White Cedar, to Section 06 10 10 – Rough Carpentry; sizes as required and indicated.
- .3 Cut and trim boards to suite design and layout, and to fit around other elements as required. Finish sand as required.
- .4 Cut and trim balustrades, pickets, and trim board as required for a complete installation to meet design intent. Finish sand as required.
- .5 Racking the Boards: Mix bundles, and mix shades, colors, and lengths, using the natural variety in the wood to create a random pattern. Lay out the boards in the order of planned installation.
- .6 Fasten deck board to joists using stainless steel hidden fastener system. Where face-nailing is required, and to prevent splitting face-nailed boards, drill 1/16-inch (1.6 mm) diameter holes for the nails, 1-inch (2.54 cm) from edges. Space the holes so the nails hit a joist.
- .7 Nail first board into place along side perimeter trim. Install deck boards level, square, true and parallel. Drill pilot holes where face-nailed, and drive nails at a 45-degree angle through wood (toe-nail decking in place), spaced at 12" centres.

- .8 To keep the courses parallel, use steel spacer for aligning boards when nailing. Offset neighboring joints by 2 inches.
- .9 Measure before cutting the last piece in each course, and cut with a power miter saw or a circular saw. Every six courses, stretch a string line to check for straightness.
- .10 Cut casings at the bottom, using a scrap of flooring as a guide. To fit around other irregularities, scribe with a compass and cut with a saber saw.
- .11 Measure and cut last course to fit. Allow space for expansion. Drill pilot holes and drive finishing nails through the face of the boards perimeter boards. Set the nails and fill with wood putty.
- .12 Install trim and moulding to cover the expansion gap against building wall. Secure to wall, not floor. Nail threshold or transition strips in place where the edge of the floor is exposed.
- .13 Double joists at butt joints to ensure adequate purchase of fasteners.
- .14 Stagger butt joints for best overall appearance; confirm layout with Departmental Representative prior to cutting.
- .15 Allow overhang and install trim as indicated.
- .16 Finish materials on all sides and ends.

### **3.6 CLEANING**

- .1 Clean surfaces, free of dirt, dust, or stains.
- .2 Repair any marks, scratches or marring.
- .3 Remove and replace damaged, marked, or stained finish work.
- .4 Remove construction debris and leave area clean, to Division 01 requirements.

### **3.7 MAINTENANCE**

- .1 Explain proper maintenance procedures to Owner or Owner's representative at project closeout.
- .2 Inspect decking for loose fasteners and finish condition prior to Certificate of Substantial Performance and 2 months before end of 12-month warranty period. Re-apply coating as necessary.

**END OF SECTION**