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**Part 1            GENERAL**

**1.1            RELATED REQUIREMENTS**

- .1       Division 01 – General Requirements.
- .2       Section 07 92 00 - Joint Sealants.
- .3       Section 09 29 00 - Gypsum Board
- .4       Section 09 91 23 - Interior Painting

**1.2            REFERENCES**

- .1       ASTM International
  - .1       ASTM A123/A123M-09, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
  - .2       ASTM A153/A153M-09, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
  - .3       ASTM C954-15, Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness
- .2       CSA International
  - .1       CSA/O80, Wood Preservation
  - .2       CSA B111-1974(R2003), Wire Nails, Spikes and Staples.
  - .3       CSA O121-08, Douglas Fir Plywood.
  - .4       CSA O141-05(R2009), Softwood Lumber.
  - .5       CSA O151-09, Canadian Softwood Plywood.
- .3       National Lumber Grades Authority (NLGA)
  - .1       Standard Grading Rules for Canadian Lumber 2010.

**1.3            DEFINITIONS**

- .1       Dimension Lumber: Lumber of 38 mm actual or greater but less than 114 mm actual in least dimension.
- .2       Lumber grading agencies, and the abbreviations used to reference them, include the following:
  - .1       NLGA: National Lumber Grades Authority.

**1.4            DELIVERY, STORAGE AND HANDLING**

- .1       Deliver, store and handle materials in accordance with Section with manufacturer's written instructions.
- .2       Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3       Storage and Handling Requirements:

- .1 Store materials indoors and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
- .2 Store and protect wood from nicks, scratches, and blemishes.
- .3 Replace defective or damaged materials with new.

## **Part 2 PRODUCTS**

### **2.1 WOOD PRODUCTS, GENERAL**

- .1 Lumber: In accordance with:
  - .1 CAN/CSA-O141.
  - .2 NLGA Standard Grading Rules for Canadian Lumber.
- .2 Provide dressed lumber, S4S, unless otherwise indicated. S2S is permitted for furring and blocking.
- .3 Maximum Moisture Content of Lumber: 19 percent for 38 mm actual thickness or less, no limit for more than 38 mm actual thickness unless otherwise indicated.

### **2.2 WOOD-PRESERVATIVE-TREATED MATERIALS**

- .1 Preservative Treatment by Pressure Process: to CSA O80 Series 8, except that lumber that is not in contact with the ground and is continuously protected from liquid water may be treated with inorganic boron (SBX).
  - .1 Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Acceptable Preservative Treatments are Alkaline Copper Quaternary (ACQ) and/or Copper Azole (CA).
- .2 Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.
- .3 Mark lumber with treatment quality mark of an inspection agency approved by the Canadian Lumber Standards Accreditation Board.
- .4 Application: Treat items indicated on Drawings, and the following, unless otherwise noted.
  - .1 Wood nailers, rough bucks, blocking and similar materials in contact with vapour barriers and flashing.
  - .2 Wood sills, blocking, rough bucks, and similar concealed members in contact with masonry or concrete.
  - .3 Furring and framing attached directly to the interior of below-grade exterior masonry or concrete walls.

### **2.3 MISCELLANEOUS LUMBER**

- .1 General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
  - .1 Blocking.

- .1 Items requiring blocking include framing for window, curtainwall, and door openings.
- .2 Nailers.
- .3 Furring.
- .2 For items of dimension lumber size, provide Construction or No. 2 grade lumber and any of the following species: and the following species:
  - .1 Spruce-pine-fir; NLGA.
- .3 For concealed boards, provide lumber with 19 percent maximum moisture content and any of the following species and grades:
  - .1 Spruce-pine-fir, Construction or No. 2 Common grade; NLGA.
- .4 For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.
- .5 For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

## **2.4 FASTENERS**

- .1 General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
  - .1 Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- .2 Nails, Brads, and Staples: CSA B111.
- .3 Power-Driven Fasteners: NES NER-272.
- .4 Wood Screws: ASME B18.6.1.
- .5 Screws for Fastening to Metal Framing: ASTM C 954, length as recommended by screw manufacturer for material being fastened.

## **2.5 MISCELLANEOUS MATERIALS**

- .1 Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber or rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.6 mm.

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**Part 3 EXECUTION**

**3.1 INSTALLATION, GENERAL**

- .1 Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- .2 Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.
- .3 Framing Standard: Comply with more stringent of NBCC latest edition Part 9 and these specifications.
- .4 Provide blocking and framing as indicated and as required to support window and door components, and trim.
  - .1 Provide metal clips for fastening gypsum board at corners and intersections where framing or blocking does not provide a surface for fastening edges of panels. Space clips not more than 406 mm o.c.
- .5 Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- .6 Comply with manufacturer's instructions for applying field treatment to cut surfaces of preservative-treated lumber.
  - .1 Use inorganic boron for items that are continuously protected from liquid water.
  - .2 Use copper naphthenate for items not continuously protected from liquid water.
- .7 Securely attach rough carpentry work to substrate by anchoring and fastening.
- .8 Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

**3.2 WOOD BUCKS, BLOCKING, AND INSTALLATION**

- .1 Install where indicated and where required to provide framing for windows and doors. Form to shapes required and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- .2 Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

**3.3 WOOD FURRING INSTALLATION**

- .1 Install level and plumb with closure strips at edges and openings. Shim with wood as required for tolerance of finish work.

**3.4 PROTECTION**

- .1 Protect miscellaneous rough carpentry from weather. If, despite protection, miscellaneous rough carpentry becomes wet, apply borate treatment. Apply borate solution by spraying.

**END OF SECTION**



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**Part 1            GENERAL**

**1.1            RELATED REQUIREMENTS**

- .1    Division 01 – General Requirements.
- .2    Section 06 10 53 - Miscellaneous Rough Carpentry.
- .3    Section 07 92 10 - Joint Sealants

**1.2            SUMMARY**

- .1    Work includes fabrication and installation of new wood sills with plastic laminate finish to replace existing sills.

**1.3            REFERENCES**

- .1    Architectural Woodwork Manufacturers Association of Canada (AWMAC)
  - .1    Architectural Woodwork Standards, 2<sup>nd</sup> Edition.
- .2    Canadian Standards Association (CSA)
  - .1    CSA B111-74(R1998), Wire Nails, Spikes and Staples.
- .3    National Electrical Manufacturers Association (NEMA)
  - .1    NEMA LD3-2005 - High Pressure Decorative Laminates.
- .4    National Particleboard Association
  - .1    NPA A208.1 – 2009, Particleboard.

**1.4            SUBMITTALS**

- .1    Product Data: For each type of product, including high-pressure decorative laminate, and adhesive for bonding plastic laminate.
- .2    Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
  - .1    Show details at 1:5.
- .3    Samples for Verification:
  - .1    Plastic laminates 100 by 100 mm, for each type, colour, pattern, and surface finish, with one sample applied to core material and specified edge material applied to one edge.

**1.5            QUALITY ASSURANCE**

- .1    Perform work to AWMAC Custom grade.
- .2    Manufacturer Qualifications: company specializing in manufacturing Products specified in this section.

- .3 Mock-ups: construct mock-up of one sill to demonstrate standard of materials and execution.
  - .1 Location of mock-up to be advised by Departmental Representative.
  - .2 If approved by Departmental Representative, mock-up may remain as part of Work.

## **1.6 WASTE MANAGEMENT AND DISPOSAL**

- .1 In accordance with Section 01 74 21 – Construction/Demolition Waste Management and Disposal.

## **1.7 COORDINATION**

- .1 Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that sills can be supported and installed as required.

## **Part 2 PRODUCTS**

### **2.1 SHEET MATERIALS**

- .1 Industrial Particleboard: NPA A208.1, composed of wood particles reduced to fibres, medium density, made with water-resistant resin, grade to suit application, sanded faces.

### **2.2 PLASTIC LAMINATE MATERIALS**

- .1 Plastic Laminate: NEMA LD3, type HGS, matte surface.
  - .1 Colour to be selected by Departmental Representative.
- .2 Laminate Backing Sheet: NEMA LD3, type BK.
  - .1 Colour to be selected by Departmental Representative.
- .3 Nails and staples: to CSA B111, hot dip galvanized.
- .4 Wood screws: stainless steel or steel, parallel core type.
- .5 Splines: wood or type recommended by manufacturer.
- .6 Sealant: See Section 07 92 00 - Joint Sealants.
- .7 Laminated plastic adhesive: as recommended by laminate manufacturer.

### **2.3 FABRICATION**

- .1 Fabricate to AWMAC Custom Standards.
- .2 Verify dimensions on site.
- .3 Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings.
- .4 Fit exposed material edges with plastic edging. Use one (1) piece for full length only.
- .5 Cap exposed plastic laminate finish edges with plastic laminate.



- .6 Ensure adjacent parts of continuous laminate work match in colour and pattern.
- .7 Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
- .8 Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Ensure core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths.
- .9 When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

### **Part 3 EXECUTION**

#### **3.1 INSTALLATION**

- .1 Install to AWMAC Custom standards.
- .2 Scribe and cut as required to fit abutting walls and to fit properly into recesses and to accommodate piping, columns, fixtures, outlets or other projecting, intersecting or penetrating objects.
- .3 At junction of plastic laminate sill and adjacent wall finish, apply small bead of sealant.

#### **3.2 CLEANING**

- .1 Clean sills.

#### **3.3 PROTECTION**

- .1 Protect sills from damage until final inspection.

**END OF SECTION**

