

Part 1 General**1.1 RELATED REQUIREMENTS**

- .1 Section 08 44 13 – Glazed Aluminum Curtain Walls
- .2 Section 08 71 10 - Door Hardware
- .3 Section 09 22 16 - Non-structural Metal Framing.
- .4 Section 12 21 19 – Roller Blinds

1.2 REFERENCES

- .1 American National Standards Institute/National Particleboard Association (ANSI/NPA)
 - .1 ANSI/NPA A208.1-2009, Particleboard.
- .2 American Society for Testing and Materials (ASTM)
 - .1 ASTM A123/A123M-15, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - .2 ASTM A653/A653M-11, Standard Specification for Steel Sheet, Zinc (Hot-Dip Galvanized Coatings on Iron and Steel Products.
 - .3 ASTM D1761-12, Standard Test Methods for Mechanical Fasteners in Wood.
- .3 CSA International
 - .1 CSA-B111-1974 (R2003), Wire Nails, Spikes and Staples (Clous, fiches et cavaliers en fil d'acier).
 - .2 CSA-O112.9-10 (R2014) - Evaluation of adhesives for structural wood products (exterior exposure).
 - .3 CSA-O121-08 (R2013), Douglas fir plywood.
 - .4 CSA-O141-05 (R2014), Softwood lumber.
 - .5 CSA-O153-13, Poplar plywood.
 - .6 CSA-Z809-16, Sustainable forest management.
- .4 National Lumber Grade Authority (NLGA)
 - .1 Standard Grading Rules for Canadian Lumber, 2014.
- .5 Forest Stewardship Council (FSC)
 - .1 FSC-STD-01-001 V5-0-2012, FSC Principle and Criteria for Forest Stewardship (Principes et critères de gestion forestière).
- .6 Sustainable Forestry Initiative (SFI)
 - .1 SFI 2015-2019, Standards and rules.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
 - .1 Product Data:

1. Submit product data and instructions and the manufacturer's documentation for wood products and accessories. The technical data must include product characteristics, performance criteria, physical size, finish and limitations.

1.4 QUALITY ASSURANCE

- .1 Lumber by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.
- .2 Plywood, particleboard, OSB and wood based composite panels in accordance with CSA and ANSI standards.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labeled with the name and address of the manufacturer.
- .3 Storage and Handling
 - .1 Store materials so they do not rest on the floor in a clean, dry, well ventilated, according to the manufacturer's recommendations.
 - .2 Store wood in order to protect against marks, scratches and scrapes.
 - .3 Replace materials and damaged or defective materials with new materials and equipment.

1.6 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21, Management and disposal of construction / demolition waste.

Part 2 Products

2.1 LUMBER

- .1 Sawed lumber: softwood with S4S finish (bleached on all 4 sides).
 - .1 No more than 19% moisture.
 - .2 Complies to CSA O141.
 - .3 Complies with NLGA Standard Grading Rules for Canadian Lumber.
- .2 Anti-rot treatment, coloured pentachlorophenol base.
- .3 Hardware: nails, bolts, screws, nuts, screws, washers, lag screws and any other required item, to CSA B111 and ASTM D1761.
- .4 Furring, wedges, nailing strips, rough frames, battens and grounds, and sleepers:
 - .1 S4S finish.
 - .2 Boards of Standard or higher category.
 - .3 Dimensioned wood: light frame classification of Standard or higher category.
 - .4 Columns and square wood pieces: Standard or higher category.

- .5 Panels
 - .1 Outdoor use: immersion-treated Douglas fir plywood, water-resistant, marine-grade, to standards CSA-O121.
 - .2 Interior use: Douglas fir plywood, to standards CSA-O121, standard construction, appropriate thickness, humidity 8%, good both sides for carpentry and interior work. Plywood for indoor use must not contain any added urea-formaldehyde resin.
 - .3 Poplar plywood: to CSA-O153, fire retardant.
 - .1 Pressure treated to improve fire resistance.
 - .2 Labelled by certified test agency such as Underwriters Laboratories of Canada.
 - .4 Wood particle board for interior finishing: in accordance with standard NLGA.

2.2 ACCESSORIES

- .1 All-purpose glue: complies with CSA standards O112.9 series.
- .2 Nails, staples and horsemen conform to CSA-B111 and ASTM-D1761.
- .3 Bolts: with nuts and washers, with a diameter of 12.5 mm, unless otherwise stated.
- .4 Patented Attachments: toggle bolts, expandable pads with coach screws, screw with lead sleeves or inorganic fibers, explosive actuated devices recommended by the manufacturer.
- .5 H Staples for roof coverings: a thickness suitable for the panels, and approved by the Ministry Representative.
- .6 Finished fasteners
 - .1 Galvanized Metal: according to ASTM A123 / A123M and ASTM A653 for wood structures.

Part 3 Execution

3.1 EXAMINATION

- .1 Verification of Conditions: before proceeding with product installation, ensure that the state of surfaces / materials previously implemented under other sections or contracts is acceptable and can perform the work in accordance with instructions written by manufacturer.
- .2 A visual inspection of surfaces / materials in the presence of Ministry Representative.
- .3 Immediately notify the Ministry Representative of unacceptable conditions detected.
- .4 Start the installation work only after correcting the unacceptable conditions and written approval of the Ministry Representative.

3.2 PREPARATION

- .1 Treat surfaces of material with wood preservative, before installation.
- .2 Apply preservative by dipping, or by brush to completely saturate and maintain wet film on surface for minimum 3 minute soak on lumber and one minute soak on plywood.

- .3 Re-treat surfaces exposed by cutting, trimming or boring with liberal brush application of preservative before installation.

3.3 INSTALLATION

- .1 Install members true to line, levels and elevations, square and plumb.
- .2 Construct continuous members from pieces of longest practical length.
- .3 Install spanning members with "crown-edge" up.
- .4 Select exposed framing for appearance. Install lumber materials so that grade-marks and other defacing marks are concealed or are removed by sanding where materials are left exposed.
- .5 Install roof sheathing in accordance with requirements of NBC.
- .6 Install furring and blocking as required to space-out and support casework, cabinets, wall and ceiling finishes, facings, fascia, soffit, siding [electrical equipment mounting boards], and other work as required.
- .7 Install rough bucks, nailers and linings to rough openings as required to provide backing for frames and other work.
- .8 Install wood cants, fascia backing, nailers, curbs and other wood supports as required and secure using [galvanized] [steel] fasteners.
- .9 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.

3.4 ASSEMBLY

- .1 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.
- .2 Countersink bolts where necessary to provide clearance for other work.

3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.

3.6 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by rough carpentry installation.

END OF SECTION