

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Section 02 41 00: Selective Demolition.
- .2 Section 07 55 00: Modified Bituminous Membrane Roofing.
- .3 Section 07 61 00: Sheet Metal Roofing.
- .4 Section 07 62 00: Metal Flashing and Trim.

1.2 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM D1761, Standard Test Methods for Mechanical Fasteners in Wood.
- .2 Canadian Standards Association (CSA International)
 - .1 CSA B111, Wire Nails, Spikes and Staples.
 - .2 CSA O121, Douglas Fir Plywood.
 - .3 CSA O141, Softwood Lumber.
 - .4 CSA O151, Canadian Softwood Plywood.
 - .5 CSA 086, Engineered Design in Wood.
 - .6 CAN/CSA-O325.0, Construction Sheathing.
 - .7 CAN/CSA-O80 Series - Wood Preservation.
- .3 National Lumber Grades Authority (NLGA)
 - .1 Standard Grading Rules for Canadian Lumber.

1.3 SUBMITTALS

- .1 Submit Submittal submissions: in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Quality assurance submittals:
 - .1 Submit certificates in accordance with Section 01 33 00 - Submittal Procedures.

1.4 QUALITY ASSURANCE

- .1 All lumber shall be sound, straight, dressed and kiln dried, and moisture content at any time during shipment and storage shall not exceed 19%.
- .2 Lumber identification: by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.
- .3 Plywood identification: by grade mark 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.
- .2 Store materials on site to prevent deterioration, loss or impairment of their structural and other essential properties. Prevent excessive moisture gain of materials.

1.6 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 22 – Construction / Demolition Waste Management & Disposal.
- .2 Remove from Site and dispose of all packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper, plastic, polystyrene corrugated cardboard and packaging material in appropriate on site bins for recycling in accordance with Waste Management Plan.
- .4 Place materials defined as hazardous or toxic in designated containers.
- .5 Fold up metal banding, flatten and place in designated area for recycling.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Lumber: unless specified otherwise, softwood, S4S, moisture content 19% (S-dry) or less in accordance with following standards:
 - .1 CAN/CSA-O141.
 - .2 National Lumber Grading Authority (NLGA) Standard Grading Rules for Canadian Lumber.
 - .3 All lumber to be Grade S-P-F No. 1/No. 2 unless noted otherwise.
 - .4 Glue end-jointed (finger jointed) lumber is not acceptable.
 - .5 All lumber materials for wood truss and rafter reinforcing shall be S-P-F Grade No. 1 / No. 2 or better
- .2 Furring, blocking, nailing strips, grounds and rough bucks, cants, curbs and fascia backing.:
 - .1 S2S is acceptable for all work. "Standard" S-P-F.
 - .2 Board sizes: "Standard" or better grade.
 - .3 Dimension sizes: "Standard" light framing or better grade.

2.2 PANEL MATERIALS

- .1 Douglas fir plywood (DFP): Exterior grade to CSA 0121, standard construction, square edge, urea-formaldehyde free, thickness as indicated on drawings and details.
- .2 Plywood sheathing: Canadian Softwood Plywood (CSP) by grade mark to CSA O151, unsanded, sheathing grade, square edge and T & G, urea-formaldehyde free, thickness as indicated on drawings and details.

- .3 Panel materials for roof shall be 16 mm T&G exterior grade, softwood plywood.

2.3 ACCESSORIES

- .1 Fasteners and Connecting Hardware:
 - .1 Nails, Spikes & Staples: to CSA B111, hot dip galvanized steel. Unless otherwise indicated use common spiral flathead nails.
 - .2 Bolts: ASTM A307, stainless steel, 12.5 mm diameter unless indicated otherwise, complete with stainless steel nuts and washers.
 - .3 Connectors, anchors, brackets: Stainless steel Type 304 with No. 2D finish, except where harder temper is indicated. Fabricate from stainless steel shapes, plates and bars to ASTM A276 and stainless steel sheet and plate to ASTM A167.
 - .4 Proprietary fasteners: toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs, recommended for purposes by manufacturer and indicated on drawings. Fabricate from stainless steel.
 - .5 Concrete/masonry anchors: self tapping screw anchors: Tapcon.
 - .6 Screws: zinc, cadmium or chrome plated.

PART 3 - EXECUTION

3.1 GENERAL

- .1 Comply with the requirements of National Building Code 2005-Part 9 supplemented by the following paragraphs.
- .2 Install members true to line, levels and elevations, square and plumb. Ensure that materials are rigidly and securely attached to each other and to adjacent building elements and will not be loosened by work of other trades.
- .3 Where other materials and components are to be applied directly over wood members recess heads of fastening devices below wood surfaces.
- .4 Construct continuous members from pieces of longest practical length.
- .5 Install spanning members with "crown-edge" up.

3.2 INSTALLATION

- .1 Install wood blocking, wood cants, fascia backing, nailers, curbs and other rough carpentry components to sizes and in locations required and secure using hot dipped galvanized steel fasteners.
- .2 Unless otherwise indicated, provide minimum 38 mm thick material. Grounds may be 19 mm thick material unless otherwise indicated.
- .3 Install roof sheathing where indicated on Drawings.
- .4 Install rough bucks and nailers to rough openings as required to provide backing for frames and other work.

- .5 Install wood cants, fascia backing, nailers, curbs and other wood blocking and supports as required and as shown on drawings. Secure using galvanized steel fasteners or as required.

3.3 STRUCTURAL REINFORCING

- .1 Comply with the requirements of CSA 086 - "Engineering Design of Wood" and the National Building Code of Canada.
- .2 All members to be installed as shown and to be well fitted, secure and provided with proper bearing support.
- .3 All nails indicated are common wire nails not "pneumatic nails". Use of "pneumatic nails" only upon written approval of the Departmental Representative. Approval of pneumatic nails could mean an increase in nail requirements of up to 40% in approved areas.
- .4 Dimensions provided of existing structural components are not to be used for pre-cutting of required reinforcing members. All existing structural components are to be field measured and all reinforcing members are to be field cut to suit actual field dimensions. All field fittings shall be accurate with no undue gaps or misalignment.
- .5 Roof sheathing to be installed perpendicular to the structural framing with 64 mm nails (pneumatic nails acceptable) spaced at 150 mm along panel edges and 300 mm along interior panel supports.

3.4 ERECTION

- .1 Provide all anchors and fasteners including nails, screws, bolts, washers, brackets, hangers, and fastening devices of all types.
- .2 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.
- .3 Countersink bolts where necessary to provide clearance for other work.
- .4 Unless otherwise indicated, attach wood members at maximum 610 mm o.c. as follows:
 - .1 To concrete and solid masonry with expansion type anchor bolts or self tapping screw anchors.
 - .2 To hollow masonry with toggle bolts.
 - .3 To heavy gauge metal with bolts.
 - .4 To light gauge metal with screws or bolts.
 - .5 To wood with nails, screws or bolts as required to ensure stability.

END OF SECTION