PART 1 - GENERAL

1.1 RELATED SECTIONS

.1 Section 06 20 00 - Finished Carpentry.

.2 Section 06 17 53 - Shop Fabricated Wood Truss.

1.2 REFERENCES

.1 American National Standards Institute (ANSI)
- .1 ANSI/NPA A208.1-2009, Particleboard, Mat Formed Wood.

.2 American Society for Testing and Materials International (ASTM)
- .1 ASTM A 653/A 653M-11, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvanealled) by the Hot-Dip Process.
- .2 ASTM D 1761-06, Standard Test Methods for Mechanical Fasteners in Wood.
- .3 ASTM D 5456-11, Standard Specification for Evaluation of Structural Composite Lumber Products.

.3 Canadian General Standards Board (CGSB)
- .1 CAN/CGSB-11.3-M87, Hardboard.
- .2 CAN/CGSB-51.32-M77, Sheathing, Membrane, Breather Type.
- .3 CAN/CGSB-51.34-M86, Vapour Barrier, Polyethylene Sheet for Use in Building Construction.

.4 Canadian Standards Association (CSA International)
- .1 CSA A123.2-03(R2008), Asphalt Coated Roofing Sheets.
- .2 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.
- .3 CSA O112 9-10, CSA Standards for Wood Adhesives.
- .4 CSA O121-08, Douglas Fir Plywood.
- .5 CSA O141-05(2009), Softwood Lumber.
- .6 CSA O151-09, Canadian Softwood Plywood.
- .7 CSA O153-M1980(R2008), Poplar Plywood.
- .8 CAN/CSA-O325.0-92(R2003), Construction Sheathing.
- .9 CSA O437 Series-93(R2011), Standards on OSB and Waferboard.

.5 National Lumber Grades Authority (NLGA)
- .1 Standard Grading Rules for Canadian Lumber 2010.

1.2 REFERENCES (Cont'd)

.6 Truss Design and Procedures for Light Metal Connected Wood Trusses, Truss Plate Institute of Canada.

.7 ASTM E 2112: Standard Practice for Installation of Exterior Windows, Doors and Skylights.

.8 AAMA 711-05: Specification for Self Adhering Flashing Used for Installation of Exterior Wall Fenestration Products.

1.3 SUBMITTALS

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

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 Waste Management and Disposal:
.1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

.2 Protect materials from weather while in transit to the job site. Store materials on site in such a way as to prevent deterioration or the loss or impairment of their structural and other essential properties. Ensure that the wood is kept dry, ventilated and free from wrapping, bending and surface damage.

.3 Keep all materials inside, on site and as directed by current product MSDS for proper storage and handling.

PART 2 - PRODUCTS

2.1 FRAMING AND STRUCTURAL MATERIALS

.1 Lumber: unless specified otherwise, softwood, S4S, moisture content 19% (S-dry) or less in accordance with following standards:
.1 CSA 0141.

2.1 FRAMING AND STRUCTURAL MATERIALS (Cont'd)

.1 (Cont'd)
.2 NLGA Standard Grading Rules for Canadian Lumber.
.3 Forestry Stewardship Council (FSC) certified.

.2 Light-frame trusses in accordance with "Truss Design and Procedures for Light Metal Connected Wood Trusses", Truss Plate Institute of Canada.

.3 Wood shall be sound and free from shakes, loose or dead knots and warping.

.4 Spruce: Eastern Spruce No. 2 or better. Use for general framing, rough carpentry where wood type is not indicated and for sheathing where indicated on drawings and/or scope of work.

.5 Plywood: Spruce plywood sheathing grade conforming to CSA 0121M. Use waterproof bonded type for exterior work.

.6 Wood Preservative: Pigmented Pentox, or approved equal. Colour to be selected by Engineer.

.7 All wood below grade: Preserved wood meeting or exceeding CSA -3022 requirements.

.8 All rough hardware such as nails, screws, bolts, dowels and straps of exterior application shall be hot dipped galvanized alumina or stainless steel.

.9 Nails: Zinc coated steel and annular ring to CSA B111-1974, sized as required.

.10 Screws: Cadminum plated steel, purpose made to CSA B35.4.

.11 Sill gasket: expanded polystyrene.

.12 18-gauge galvanized hurricane ties approved by Departmental Representative.

2.2 PANEL MATERIALS

.1 Plywood, OSB and wood based composite panels: to CAN/CSA-O325.0.
.1 Forest Stewardship Council (FSC) certified.

.2 Douglas fir plywood (DFP): to CSA O121, standard construction.
.1 Forest Stewardship Council (FSC) certified.

2.2 PANEL MATERIALS (Cont'd)

.3 Canadian softwood plywood (CSP): to CSA O151, standard construction.
.1 Forest Stewardship Council (FSC) certified.

2.3 ACCESSORIES

.1 Polyethylene film: to CAN/CGSB-51.34, Type 1, 0.15 mm thick.

.2 Roll roofing: to CSA A123.2, Type S.

.3 Air seal: closed cell polyurethane or polyethylene.

.4 Air Barrier: self-adhering reinforced modified polyolefin tri-laminate sheet air barrier membrane for wall construction, specifically designed to be water resistant and vapour permeable..
.1 Physical properties:
.1 Thickness: 1.0 mm (40 mils).
.2 Film thickness: 0.1 mm (4.0 mils).
.3 Flow (ASTM D5147): pass @ 110°C.
.4 Puncture Resistant: 180N to ASTM E154.
.5 Tensile Strength: 5723 psi ASTM D882.
.6 Tear Resistant: 200N to ASTM D1004.
.7 Low Temp. Flexibility: -30°C to CGSB37-GP-561.
.2 Adhesive primer as required by air barrier supplier.
.3 Install to manufacturer's instructions.

.5 Sealants: in accordance with Section 07 92 10 - Joint Sealing SCAQMD Rule 1168- Adhesives and Sealants Applications.

.6 General purpose adhesive: to CSA O112 Series.
.1 Maximum allowable VOC limit 140 g/L.

.7 Nails, spikes and staples: to CSA B111.

.8 Bolts: 12.5 mm diameter unless indicated otherwise, complete with nuts and washers.

.9 Proprietary fasteners: toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs.

.10 Nailing discs: flat caps, minimum 25 mm diameter, minimum 0.4 mm thick, sheet metal, fibre, formed to prevent dishing. Bell or cup shapes not acceptable.

2.3 ACCESSORIES (Cont'd)

.11 Roof sheathing H-Clips: formed "H" shape, thickness to suit panel material, extruded 6063-T6 aluminum alloy type approved by Departmental Representative Engineer Consultant.

2.4 FASTENER FINISHES

.1 Galvanizing: to CAN/CSA-G164, use galvanized fasteners for exterior work interior highly humid areas pressure-preservative fire-retardant treated lumber.

.2 Hurricane Tie: 18-gauged galvanized as approved.

PART 3 - EXECUTION

3.1 PREPARATION

.1 Store wood products.

3.2 INSTALLATION

.1 Comply with requirements of NBC 2015 Part 9 supplemented by following paragraphs.

.2 Install members true to line, levels and elevations, square and plumb.

.3 Construct continuous members from pieces of longest practical length.

.4 Install spanning members with "crown-edge" up.

.5 Select exposed framing for appearance. Install lumber and panel materials so that grade-marks and other defacing marks are concealed or are removed by sanding where materials are left exposed.

.6 Install wall sheathing in accordance with manufacturer's printed instructions.

.7 Install self-adhered water resistant air barrier membrane to manufacturer's instructions.

.8 Install roof sheathing in accordance with requirements of NBC.

.9 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.

3.2 INSTALLATION (Cont'd)

.10 Install furring to support siding applied vertically where there is no blocking and where sheathing is not suitable for direct nailing.
.1 Align and plumb faces of furring and blocking to tolerance of 1:600.

.11 Install rough bucks, nailers and linings to rough openings as required to provide backing for frames and other work.

.12 Install hurricane ties to manufacturer's instructions.

.13 Use dust collectors and high quality respirator masks when cutting or sanding wood panels.

3.3 ERECTION

.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 Use nailing disks for soft sheathing as recommended by sheathing manufacturer.

3.4 SCHEDULES

.1 Roof sheathing:
.1 Plywood, standard sheathing grade, T&G edge, 15 mm thick.
.2 Construction sheathing product: end use mark.

.2 Exterior wall sheathing:
.1 Plywood, CSP sheathing standard sheathing grade, 12 mm thick.

.3 Electrical equipment mounting boards:
.1 Plywood, CSP grade, square edge 19 mm thick.

END OF SECTION