Part 1 General

1.1 RELATED REQUIREMENTS

.1 Section 06 03 15 - Historic - Splicing of Wood Components.

.2 Section 06 10 00 – Rough Carpentry.

.3 Section 06 03 16 - Historic - Storage and Protection of Wood.

.4 Section 07 84 00 - Fire Stopping.

.5 Section 08 11 00 - Metal Doors and Frames.

1.2 REFERENCES

.1 ASTM International

.1 ASTM C1396/C1396M, Standard Specification for Gypsum Wallboard.

.2 ASTM C475/C475M, Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.

.3 ASTM C840, Standard Specification for Application and Finishing of Gypsum Board.

.4 ASTM C954, 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 0.122 in. (2.84 mm) in Thickness.

.5 ASTM C1002, Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.

.6 ASTM C1047, Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base.

.7 ASTM C1178/C1178M, Standard Specification for Glass Mat Water-Resistant Gypsum Backing Board.

.2 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards

.1 SCAQMD Rule 1168, Adhesives and Sealants Applications.

.3 Underwriters' Laboratories of Canada (ULC)

.1 CAN/ULC-S102, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

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

.2 Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets for gypsum, framing, sealants and include product characteristics, performance criteria, physical size, finish and limitations.

.3 Samples:

.1 Submit for review and acceptance of each unit.

.2 Samples will be returned for inclusion into work.

.3 Submit 300 x 300 mm size samples of:

.1 Gypsum board;

.2 Cement board.

1.4 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and 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 off ground, indoors, in dry location, and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

.2 Store materials inside, level, under cover. Protect from weather, damage from construction operations and other causes, in accordance with manufacturer's printed instructions.

.3 Handle materials to prevent damage to edges or surfaces. Protect metal accessories and trim from being bent or damaged.

.4 Store and protect partition materials from nicks, scratches, and blemishes.

.5 Replace defective or damaged materials with new.

.4 Packaging Waste Management: remove in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

Part 2 Products

2.1 MATERIALS

.1 Performance / Design Criteria:

.1 Partition assembly to be fire resistance rated: 2 hours (wall type no W15G, schedule A-9.10.3.1.A, National Building Code, 2010).

.2 Non-structural Wood Framing:

.1 Non-load bearing wood stud framing installed within the existing timber roof truss: double row of studs, 38 x 89 mm at 400 mm on centres, including sills and top plate, S.P.F. species No. 1 or No. 2. All wood to be dry (max. 15% of moisture content).

.3 Gypsum Board:

.1 Fire-rated board: to ASTM C1396/C1396M, Type X, 15.9 mm thick, 1220 mm wide x maximum practical length, ends square cut, edges tapered.

.2 Steel tapping screws: to ASTM C1002.

.3 Casing beads, corner beads, control joints and edge trim: to ASTM C1047, galvanized steel, 0.5 mm base thickness, perforated flanges, one piece length per location.

.4 Joint compound, tape and tape coating.

.4 Cement boards

.1 Panels: Portland cement and aggregates reinforced with glass mesh, 12.7 mm thick, 1220 mm wide, 2440 mm long, with reinforced edges.

.1 Physical properties :

.1 Water absorption (ASTM C473): 8 % by weight / 24 hours.

.2 Flexural strength (ASTM C947: 750 lb/po^2

.3 Freeze/thaw per ANSI A1 18,9 9ASTM C666, Procedure B: 100 cycles

.4 Flame spread / smoke development (CAN/ULC-S102): 5/0

.5 Compressive strength / indentation (ASTM D2394): 1250 lb/po^2

.6 Mold growth on surface (ASTM D3273): 10

.2 Screws: provided by the boards' manufacturer.

.3 Joints reinforcing: polymer coated (alkali resistant) mesh tape, 50 mm wide, provided by the boards' manufacturer.

.4 Joint compound: latex-Portland cement mortar or with dry-set (thin-set) mortar, in compliance with ANSI A118.1 or A118.4 standards.

.5 Warranty: 15 years.

.5 Stainless steel corner guards, cal. 16, 75 mm x 75 mm x opening height or width, rounded and polished edges.

.1 Screws: as recommended by the manufacturer.

2.2 ACCESSORIES

.1 Sealants: in accordance with Section 07 92 00 - Joint Sealants.

Part 3 Execution

3.1 EXAMINATION

.1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for product installation in accordance with manufacturer's written instructions prior to partition installation.

.1 Visually inspect substrate in presence of Departmental Representative.

.2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.

.3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 ERECTION OF FRAMING

.1 Install framing members to receive screw-attached gypsum board in accordance with ASTM C754 except where specified otherwise.

.2 Align partition tracks at floor and ceiling and secure at 600 mm on centre maximum.

.3 Place studs vertically at 400 mm on centre, and at each side of openings and corners. Position studs in tracks at floor and ceiling. Cross brace steel studs as required to provide rigid installation to manufacturer's instructions.

.4 Co-ordinate simultaneous erection of studs with installation of service lines. When erecting studs ensure web openings are aligned.

.5 Include two studs extending from floor to ceiling at each side of openings wider than stud centres specified. Secure studs together, 50 mm apart using column clips or other approved means of fastening placed alongside frame anchor clips.

.6 Erect track at head of door/window openings and sills of sidelight/window openings to accommodate intermediate studs. Secure track to studs at each end, in accordance with manufacturer's instructions. Install intermediate studs above and below openings in same manner and spacing as wall studs.

.7 Install wood studs or furring channel between studs for attaching electrical and other boxes.

.8 Extend partitions to ceiling height except where indicated.

3.3 ERECTION OF GYPSUM BOARD AND ACCESSORIES

.1 Do application and finishing of gypsum board in accordance with ASTM C840 except where specified otherwise.

.2 Install gypsum boards in direction that will minimize number of end-butt joints. Stagger end joints 250 mm minimum.

3.4 APPLICATION

.1 Apply gypsum board after bucks, anchors, blocking, sound attenuation, electrical and mechanical work are approved.

.2 Screw two (2) layers of gypsum boards onto the framing elements or furring.

.1 Screws for the first (base) layer of gypsum boards must be 32 mm long and be spaced at 600 mm on centre on both surface and perimeter.

.2 Screws for the second (visible surface) layer of gypsum boards must be 64 mm long and be spaced at 200 mm on centre on both surface and perimeter.

.3 Stagger joints of surface layer at least 406 mm from joints of the base layer.

3.5 INSTALLATION

.1 Erect accessories straight, plumb or level, rigid and at proper plane. Use full length pieces where practical. Make joints tight, accurately aligned and rigidly secured. Mitre and fit corners accurately, free from rough edges.

.2 Install casing beads where gypsum board butts against surfaces having no trim concealing junction and where indicated. Seal joints with sealant.

.3 Finish face panel joints (gypsum panels and cement boards) and internal angles with joint system consisting of joint compound, joint tape and taping compound installed according to manufacturer's directions and feathered out onto panel faces.

.4 Fill screw head depressions with joint and taping compounds to bring flush with adjacent surface of gypsum board so as to be invisible after surface finish is completed. The same applies for cement boards, but with materials recommended by the boards' manufacturer.

.5 Completed installation to be smooth, level or plumb, free from waves and other defects and ready for surface finish.

3.6 CLEANING

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

.1 Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

.3 Waste Management: separate waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

.1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.7 PROTECTION

.1 Protect installed products and components from damage during construction.

.2 Repair damage to adjacent materials caused by partition installation.

3.8 SCHEDULES

.1 Construct fire rated assemblies where indicated.

.1 2 hours fire rated partition assembly, (wall type no W15G, schedule A-9.10.3.1.A, National Building Code, 2010.

END OF SECTION