

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Basic systems to be non-progressive, moveable, ceiling height, reconfigurable component based partition system, from single manufacturer, where components can be assembled, disassembled, relocated, and reassembled in different layouts, with all parts reusable.

1.02 RELATED REQUIREMENTS

- .1 Section 01 00 06 - General Requirements
- .2 Section 01 33 00 - Submittal Procedures
- .3 Section 01 74 21 - Construction Waste Management and Disposal
- .4 Section 08 14 10 - Flush Wood Doors
- .5 Section 08 71 00 - Door Hardware
- .6 Section 08 81 00 - Glazing
- .7 Section 09 21 16 - Gypsum Board Assemblies
- .8 Section 09 68 13 - Tile Carpeting.
- .9 Division 26 - Electrical

1.03 REFERENCES

- .1 Aluminum Association (AA):
 - .1 AA DAF45-R03, Designation System for Aluminum Finishes, 9th Edition.
- .2 American National Standards Institute (ANSI):
 - .1 ANSI A208.1-2009, Particleboard.
 - .2 ANSI HP-1-2016, Standard for hardwood and Decorative Plywood.
 - .3 ANSI LD-3-2005, High Pressure Decorative Laminates.
- .3 American National Standards Institute (ANSI)/ Business and International Furniture Manufacturers Association (BIFMA International):
 - .1 ANSI/BIFMA X5.6-2016, American National Standard for Office Furnishing - panel systems
- .4 American Society for Testing and Materials International (ASTM);
 - .1 ASTM B221-14 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
 - .2 ASTM E90-09(2016), Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

- .3 American Woodwork Manufacturer's Association of Canada (AWMAC)
and Architectural Woodwork Institute (AWI):
 - .1 Architectural Wood Standards, 2009 Edition 1.
- .5 Underwriters Laboratories of Canada (ULC):
 - .1 CAN/ULC-S102-10, Surface Burning Characteristics of Building Materials and Assemblies.
- .6 Health Canada/ Workplace Hazardous Materials Information System (WHMIS):
 - .1 Material Safety Data Sheets (MSDS).

1.04 DESIGN CRITERIA

- .1 Sound transmission rating of installed solid panel partitions to be a minimum STC 45 with insulation when tested to ASTM E90.
 - .1 STC rating to be without scribing system to floor.
- .2 Noise Isolation Class (NIC): minimum rating of 42.
- .3 Maximum Class C/Type III fire rating when tested to CAN/ULC-S102.
- .4 Structural Performance:
 - .1 Design and size Moveable Partition System and components to withstand dead and live loads as calculated in accordance with NBC.
 - .2 Design and size Moveable Partition System and components to withstand seismic loads and sway displacement as calculated in accordance with NBC and OBC.
 - .3 Load-bearing capacity of Moveable Partition System: not less than 136kg concentrated load.
 - .4 Design moveable partition system and components to allow any furniture manufacturer's upper storage units and work surfaces to be hung off of and supported by moveable partition system in closed offices. See Furniture drawings for locations.
 - .5 Moveable partition system to be able to support upper millwork cabinets - refer to Architectural Drawings.
 - .6 Moveable partition system and components must be installed without any drilling or screwing into floors or gypsum board partitions.
- .5 Modular:
 - .1 Panels to be based on same module width as 1067 mm wide door and frame, wherever possible, unless indicated otherwise on drawings.
 - .2 Sidelights to be based on same module as indicated above.
- .6 Partition Thickness: 100 mm Minimum.
- .7 All Partitions to contain acoustic insulation unless otherwise indicated.
- .8 Electrical and Communications:
 - .1 See Division 26 for Electrical Specifications.
 - .2 Moveable Partition system to come with all electrical outlets, back boxes, conduit and flex as required. All junction boxes to

- be commercial grade.
- .3 Moveable Partition electrical (and lighting switches) system to stub up into ceiling plenum no less than 100mm, and provide whip for Electrical connection to junction box (by others).
 - .1 Whip to be minimum 3048 mm long.
 - .2 All electrical, conduit and components to be run vertically in wall and never horizontally in base.
 - .3 All power outlets (unless otherwise noted) to be mounted at 400 mm A.F.F.).
 - .4 All light switches (unless otherwise noted) to be mounted at 1170 mm A.F.F.
- .4 Moveable Partition system to come with chase for communication wiring if required (by others).
- .5 Moveable Partition system to be prepped to receive card readers, keypads and any other hardware provided by others as outlined in Door Hardware Schedule. See Architectural Drawings for locations, coordinate with Departmental Representative.
- .6 Refer to Electrical Drawings for electrical and communication outlet requirements and locations.
- .7 Hardware:
 - .1 Sliding door handles must be exposed and useable from both sides.
 - .2 Sliding doors must operate with a maximum force of 22 newtons.
 - .3 Sliding door handles must be provided with a passage function ladder pull. Refer to the hardware schedule in the drawings for locations.
 - .4 Provide lever passage sets or locksets as indicated, along with hinges and door silencers for regular swing doors as indicated on the drawings and in compliance with Section 08 71 00 - Door Hardware.

1.05 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Action Submittals: Provide the following submittals before starting any work of this Section.
- .3 Product Data: Submit manufacturer's printed product literature, Specifications and datasheets including product characteristics, performance criteria, physical size, finish and limitations.
- .4 Shop Drawings: Submit drawings stamped and signed by professional Engineer registered or licensed in the Province of Ontario, Canada. Indicate location and extent of partitions including; but not limited to, the following:
 - .1 Plans, elevations, sections, details, and attachments to other construction.
 - .2 Indicate system dimensions, material descriptions, profiles of all components and finishes.
 - .3 Submit wiring diagrams and installation details of equipment

indicating proposed location, layout and arrangement, control panels, accessories, piping, ductwork, and other items that must be shown to ensure coordinated installation.

- .1 Submit factory test results of installed electrical systems and instrumentation.
 - .4 The review is for the sole purpose of ascertaining conformance with the general design concept, and does not mean approval of the design details inherent in the shop drawings, responsibility for which shall remain with the Contractor. Such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents.
 - .5 Do not commence manufacture or order materials before shop drawings are reviewed and accepted.
- .3 Samples:
- .1 Submit 300 mm x 300 mm samples of specified panel materials and 300 mm long sections of frame and trim items to Departmental Representative for confirmation of material selection. Submit full sample card showing complete range of colour pattern and texture finish options available for selection by the Consultant.
 - .2 Partition sample to show basic construction, connections methods, glazed sections, frames, trim and finishes.
 - .3 Submit sample of floor and ceiling fixing device.
 - .4 Submit test reports from approved independent testing laboratory, certifying moveable partition system complies with non-combustible construction and sound transmission rating as specified.
 - .5 Submit copies of WHMIS MSDS - Material Data Sheets.
- .4 Sustainable Design Submittals: Coordinate project sustainable design requirements with the following Sections:
- .1 Section 01 74 21- Construction/Demolition Waste Management and Disposal.

1.06 PROJECT CLOSEOUT SUBMITTALS

- .1 Operation and Maintenance Data: Submit manufacturer's written instructions for operations and maintenance procedures include name of original installer and contact information in accordance with Section 01 78 00 - Closeout Submittals.

1.07 QUALITY ASSURANCE

- .1 Qualifications: Provide proof of qualifications when requested by Consultant:
 - .1 Supplier: Obtain materials from a supplier capable of maintaining a stock of parts and components necessary to repair and maintain installed materials and products, and able to respond within a two (2) hour time period.
 - .2 Installer: Use installers that are trained and approved by manufacturer of installed materials. Provide proof of approval by the manufacturer upon request by the Departmental Representative.

1.08 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 moveable partition system with protective wrapping on perimeters of panels, doors, glass and exposed framing components designed to prevent damage to materials during transit and on site storage.
- .2 Storage and Handling Requirements:
 - .1 Inventory moveable partition system components when delivered to project site and confirm that materials required for installation are accounted for on the delivery manifest.
 - .2 Deliver keys to Design Builder.

1.09 SITE CONDITIONS

- .1 Site Measurements: Verify dimensions by site measurements before fabrication and indicate measurements on shop drawings where moveable partitions are indicated to fit between or around other construction; coordinate fabrication schedule with construction progress to avoid delaying the Work.
- .2 Established Dimensions: Establish dimensions and proceed with fabricating moveable partitions without site measurements where site measurements cannot be made without delaying the Work; coordinate construction to ensure that actual site dimensions correspond to established dimensions; allow for trimming and fitting.

1.10 WARRANTY

- .1 Refer to Section 01 61 00 - Common Product Requirements.

2 PRODUCTS

2.01 DESIGN REQUIREMENTS

- .1 Basic systems to be non-progressive, moveable, ceiling height, reconfigurable component based partition system, from single manufacturer, where components can be assembled, disassembled, relocated, and reassembled in different layouts, with all parts reusable, equivalent to Teknion "Altos", Haworth "Enclose", Steelcase "Via" or DIRT "Wall".
- .2 Sound Transmission:
 - .1 Rating of installed solid panel partitions to be a minimum STC 45 with insulation when tested to ASTM E90.
 - .1 STC rating to be without scribing system to floor.
 - .2 Insulate all partitions.
 - .2 Glass partitions to achieve a minimum STC rating of:
 - .1 Single glass pane partition to achieve a minimum of 31 STD.
 - .2 Double glass pane partition to achieve a minimum of 38 STD.

- .3 Structural Performance:
 - .1 Design and size Moveable Partition System and components to withstand dead and live loads as calculated in accordance with all Federal, Provincial, municipal and local Codes, Laws, by-laws, guidelines and in accordance with the local Authority Having Jurisdiction.
 - .2 Design and size Moveable Partition System and components to withstand seismic loads and sway displacement as calculated in accordance with Federal, Provincial, municipal and local Codes, Laws, by-laws, guidelines and in accordance with the local Authority Having Jurisdiction.
 - .3 Load-bearing capacity of Moveable Partition System: not less than 136kg concentrated load.
 - .4 Design moveable partition system and components to allow any furniture manufacturer's upper storage units and work surfaces to be hung off of and supported by moveable partition system in closed offices. See Furniture drawings for locations.
 - .5 Moveable partition system to be able to support upper millwork cabinets in equipment rooms, in Coat closets and as required.
 - .6 Moveable partition system and components must be installed without any drilling or screwing into floors or gypsum board partitions.
- .4 Electrical and Communication:
 - .1 Refer to Division 26 for Electrical requirements
 - .2 Provide Moveable Partition systems as a complete system including but not necessarily limited to the following:
 - .1 Electrical outlets,
 - .2 Back boxes,
 - .3 Conduit: Rigid and flexible as required and as acceptable by the applicable Codes, Laws, by-laws, recommendations and guidelines.
 - .4 Moveable Partition electrical (and lighting switches) system to stub up into ceiling plenum no less than 100mm, provide whip for Electrical connection to junction box and as follows:
 - .1 Minimum Whip Length: 4572 mm and as follows:
 - .1 Where two (2) separate circuits are indicated for a single wall panel provide two (2) separate whips, coordinate requirements with Electrical Drawings.
 - .2 All electrical, conduit and components to be run vertically in wall and never horizontally in base; except as indicated otherwise on the Drawings.
 - .3 All power outlets to be mounted at 400 mm A.F.F. unless otherwise noted.
 - .4 All light switch boxes to be mounted at 1170 mm A.F.F. unless otherwise noted. Switches and Cover plates will be provided and installed by the Electrical Sub Contractor.
 - .5 Provide prefabricated wire management chase for data and communication wirings for all Moveable Partition systems.
 - .6 Coordinate location of and Prepare Moveable Partition system components to receive card readers and keypads. Refer to Drawings for locations, coordinate with the Design Builder.

- .7 Refer to Electrical Drawings for electrical and communication outlet requirements and locations.

2.02 MATERIALS

- .1 Pre-manufactured, component based, non-progressive wall system consisting of framing members, wall panels and glazing, floor, wall and ceiling mounting materials, acoustic fillers, doors and hardware; fully moveable and reusable in reconfigured layouts and spaces, and as follows:
 - .1 Floor Tracks: Manufacturer's standard continuous track with carpet grippers or non-slip pads; fabricated to meet project requirements; fill adjustment space with acoustic insulation.
 - .2 Wood Composite Panels: factory finished NAUF wood composite with low pressure laminate. Laminate will be selected from the manufacturers full range of standard finishes. Pattern, colour, texture and finish to be selected by the Consultant, from manufacturers full range.
 - .3 Panel Sizes:
 - .1 Design Panel width to accommodate partition layout shown on Drawings. Base panels on the same module width as a 1067 mm wide door & frame for ease of reconfiguring.
 - .2 Panel height: adjustable to account for floor variations, using manufacturer's standard materials for solid and glazed panel configurations indicated.
 - .3 Panels to be one section full height monolithic unless otherwise shown on Architectural drawings to accommodate whiteboards and other accessories.
 - .4 Whiteboards:
 - .1 Facing:
 - .1 Non-magnetic: 6mm glass, back painted to manufacturer's standard colour and finish to later selection by Consultant.
 - .2 Size: Refer to Drawings
 - .5 Panel Connections: Manufacturer's standard for panel and framing attachments.
 - .6 Trim and Base: Manufacturer's standard for complete installed system.
 - .7 Acoustic Insulation: Glass fibre, containing post-consumer and post- industrial recycle content.
 - .8 Door Frames: Extruded aluminum; Door configuration using manufacturer's standard attachment hardware. Include continuous vinyl seal on door stop.
 - .9 Wood Doors:
 - .1 Solid core wood as specified in Section 08 14 00 - Flush Wood Doors, and as indicated on Drawings using manufacturer's standard components.
 - .2 Wood Door Hardware: Provided by Moveable Partition Supplier and as specified in Section 08 71 00 - Door Hardware. Hardware consultant to provide locksets that match others.

- .10 Sliding Glass Doors:
 - .1 Glass: Fully tempered, single pane glass 10mm.
 - .2 Door Seals: to include brush and foam receiver at closer side for light and sound seal.
 - .3 Glass Door Hardware: provided by Moveable Partition Supplier and as selected by the consultant from the manufacturer's complete range.
 - .4 Track Assembly: Manufacturers standard assembly with slow down mechanism.
- .11 Glass Windows:
 - .1 Fully tempered glass in single pane.
 - .2 Where indicated: Fully Tempered glass in double pane.

.2 Performance:

- .1 Structural: Fabricated as a self-supporting, structurally stable and vibration free system when subject to impact loads occurring as a result of normal usage.
- .2 Fire: Provide exposed panel finishes and surfaces meeting fire hazard classification requirements in accordance with CAN/ULC S102 as follows:
 - .1 Flame Spread: Class C Flame spread 150 or less as tested to ASTM E-84.
 - .2 Fuel Contributed: 10 maximum.
 - .3 Smoke Developed: 80 maximum.
- .3 Acoustical: Provide system assembly components having a minimum STC 45 when tested in accordance with ASTM E90.

.3 Components:

- .1 Aluminum Extrusions: 6061-T6 anodizing quality aluminum meeting the requirements of ASTM B429, and ANSI H35.1.
- .2 Steel Components:
 - .1 Lightweight Framing: 0.455 minimum base steel thickness in accordance with CSA S136, Z180 galvanized in accordance with ASTM A653M.
 - .2 Reinforcing: 0.866 mm minimum base steel thickness in accordance with CSA S136, Z180 galvanized in accordance with ASTM A653M.
- .3 Flexible Plastic Components: Manufacturer's standard PVC Free components including; but not limited to, zipper connections, ceiling and wall trims and glass retainers; colour black and custom coloured as selected by the Consultant from the manufacturer's complete range of colours.
- .4 Shop Fabrication:
 - .1 Fabricate moveable partition components at manufacturer's shop facilities to the greatest extent possible using components of sizes not less than those specified and in modules as recommended by moveable partition manufacturer.

.4 Accessories:

- .1 Acoustical Insulation and Sealant:

- .1 Types as recommended by partition manufacturer to achieve STC 45 unless otherwise specified, and in accordance with Section 01 35 21 - LEED Requirements.
- .2 Sound and Light Seal:
 - .1 PVC and neoprene free, available in not less than three (3) colours from the manufacturers complete range of colours.
- .3 Miscellaneous Trim:
 - .1 Aluminum extrusions or flexible plastic in compliance with Sections 01 35 21 and 01 35 22 for miscellaneous trim, battens, fasteners, clips, runners or tracks, leveling devices, and other accessories required for installation as recommended by partition manufacturer.
- .4 Blocking:
 - .1 Provide plywood or metal blocking in locations indicated on drawings. Blocking must be able to support monitors and mounting brackets up to 158 kg.
 - .2 Blocking must be sufficient to mount display screens at height determined by the consultant.
 - .3 Blocking must be wide sufficient to support a bracket minimum 1200 long with 200 from top to bottom and allow for a 75mm variation in the location of the bracket.
 - .4 Coordinate exact location of blocking with Audio-Visual supplier.
 - .5 Indicate exact location of blocking on face of panel with removable non marking tape.
- .5 Finishes: To be selected by the Consultant from the Manufacturers full range of finishes and colours.

3 EXECUTION

3.01 EXAMINATION

- .1 Verification of Conditions: Verify that substrates and services required for moveable partition systems are in place, and that installation tolerances are acceptable before beginning of installation of products specified in this Section.
- .2 Installation of products specified in this Section will denote acceptance of site conditions.
- .3 Refer to Section 09 68 13 - Tile Carpeting, for information pertaining to floor levelling.

3.02 INSTALLATION

- .1 Manufacturer's Instructions: Install moveable partitions in accordance

with manufacturer's written instructions and shop drawing requirements; braced and supported to meet requirements of local Authority Having Jurisdiction using fasteners and anchorages that will not permanently damage ceiling, wall and floor materials installed by other Sections.

- .2 Erect partitions plumb, square and level; accurately fitted and fastened to adjacent construction; adjust for floor irregularities and maintain level lines relative to ceiling construction.
- .3 Erect partition systems conforming to acoustical requirements for the project; do not modify wall systems that have an effect on acoustical performance of installed system; install closed cell foam tape at perimeter of each partition; excluding carpeted floor, as a continuous strip compressed between partition materials and adjacent construction.

3.03 CLEANING

- .1 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment and perform cleaning as required 01 74 11 - Cleaning.
- .2 Perform cleaning after installation to remove construction and accumulated environmental dirt.
- .3 Clean surfaces after installation using manufacturer's written recommended cleaning procedures.

3.04 CLOSEOUT ACTIVITIES

- .1 Adjusting:
 - .1 Adjust doors and operating hardware to operate easily without binding; leave work in complete proper operating condition; remove and replace defective work including doors and framing that are warped, bowed or otherwise unacceptable.
 - .2 Adjust misaligned trim and base materials.
- .2 Touch-Up Finishing: Repair or replace abraded or damaged finishes to match adjacent materials; remove and replace panels and other components that are damaged, improperly installed or soiled beyond satisfactory cleaning.

END OF SECTION