SECTION 10 22 39 – folding panel partitions

1. General
   1. summary
      1. Section includes:
         1. Folding panel partitions, complete with track, pocket doors and pass through doors.
   2. REFERENCE STANDARDS
      1. American Society for Testing and Materials (ASTM):
         1. ASTM E90-09, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
         2. ASTM E557-12, Standard Guide for Architectural Design, and Installation Practices for Sound Isolation between Spaces Separated by Operable Partitions.
         3. ASTM E413-10, Classification for Rating Sound Insulation.
      2. Underwriters Laboratories of Canada (ULC):
         1. CAN/ULC S102-18, Standard Method of Test for Surface Burning Characteristics of building Materials and Assemblies
         2. CAN/ULC S109-14(R2019), Standard Method for Flame tests of Flame-Resistant Fabrics and Films
   3. QUALITY ASSURANCE
      1. Erect the folding panel partitions by competent, experienced, factory trained installers who are familiar with the products used and are authorized representatives of the manufacturer.

SPEC NOTE: Standard STC Level for a folding panel partition is STC 52. Revise if a different level of STC is required on the Project.

SPEC NOTE: If a higher STC rating is required, review what the proposed product can provide to ensure that the panel Specified on the Project can meet the desired STC Rating.

* + 1. Acoustical performance of the folding panel partitions shall have attained an STC rating of 52 when tested in accordance with ASTM E90-09.
  1. SUBMITTALS
     1. Provide required information in accordance with Section 01 33 00 – Submittal Procedures.
     2. Shop Drawings:
        1. Submit shop drawings showing fabrication, materials, installation, and operation details. Indicate method of stacking and imposed loading on supporting structure. Show all anchorage, accessory items, caulking and finishes.
     3. STC Rating Certificate:
        1. Submit a duly authorized and dated certificate by an independent acoustical testing laboratory that the folding panel partitions achieve the STC rating specified in this Section, when tested in accordance with ASTM E90. NSSEA 'Class' ratings are not acceptable.
     4. Maintenance Data:
        1. On completion of work of this Section, provide three (3) copies of maintenance instructions for incorporation into the Operation and Maintenance Manual.

1. Products
   1. MANUFACTURERS
      1. Basis‑of‑Design products are named in this Section; additional manufacturers offering similar setting systems may be incorporated into the work provided they meet the performance requirements established by the named products.
      2. Additional manufacturers offering similar Products may be incorporated into the work provided they meet the performance requirements established by the named products and provided they submit requests for substitution a minimum of five (5) days in advance of Bid Closing.
      3. Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
         1. Modernfold Inc.
         2. Moderco Inc.
         3. Corflex
   2. MATERIALS
      1. Folding Panel Partitions:

SPEC NOTE: The following panel type is written for a manual partition, but automatic partitions are also available. Consult the Spec Leader if you require automatic partitions.

* + - 1. Manually operated folding panel type partition operating in single panel groupings with final closure completed by hinged closure panel, and consisting of the following:

SPEC NOTE: Standard STC Level for a folding panel partition is STC 52.

SPEC NOTE: If a higher STC rating is required, review what the proposed product can provide to ensure that the panel Specified on the Project can meet the desired STC Rating.

* + - * 1. Minimum STC rating of 52.
        2. Complete with pocket doors.
        3. Suspension system.
        4. Pass thru doors, as indicated on the Drawings.
        5. Jambs, sound seals and hardware.
        6. Panel Weight: 11 lbs/square foot.

SPEC NOTE: Modify the Basis of Design Material depending on the STC and what was Specified.

* + - * 1. Basis of Design Material: Acousti-Seal Model 932 by Modernfold Inc.
    1. Panel Skin and Framing:
       1. Nominal 75mm (3”) thick panels in manufacturers standard 1220mm (48”) widths.
       2. Framing members: 18 gauge formed steel with overlapped and welded corners.
       3. Panel Skin:
          1. Roll-formed steel wrapping around the panel edge.
          2. Lock formed and welded directly to frame for unitized construction.

SPEC NOTE: Modify the panel finish as required.

* + 1. Panel Finish:
       1. Non-Working Surface: Stain resistant treated, reinforced vinyl with woven backing weighing not less than 21 ounces per liner yard.
       2. Working Surface: Marker Board: White enamel on steel, bonded to the face of the panel with horizontal trim, without exposed fasteners.

SPEC NOTE: Modify the colour and pattern below to reflect what is required on the Project.

* + - 1. Colour / Pattern: [As selected by the Consultant from the manufacturers standard product line.][As indicated in Section 09 06 05 Product and Finish Schedule.]
    1. Panel Insulation: Manufacturer's standard.

SPEC NOTE: Pass Doors allow for access through the folding panel door for safety. Don’t delete unless it’s not a requirement on the Project.

* + 1. Pass Doors:
       1. Provide one 2029mm (6'-8") high pass door per folding panel partition.
       2. Fabricate pass doors of same construction, thickness and finish as panel construction.
       3. Equip each pass door with hinges, friction latch and flush pulls for panic operation and fixed extruded vinyl floor seals. Trim finish shall be selected later by Consultant from manufacturer's full available finish range.
    2. Suspension System:

SPEC NOTE: Modify the suspension system to work with the Specified partition indicated above.

* + - 1. Track: Minimum 11-gauge roll-formed steel track.
      2. Brackets: Steel, adjustable type.
      3. Hanger Rods: Threaded steel, minimum 10mm (3/8”) diameter.
      4. Carriers: Two all-steel trolleys with steel-tired ball bearing wheels.
      5. Jambs: Manufacturer's standard.
      6. Sound Seals: Manufacturer's standard.
      7. Hardware: Hinges, astragals, and seal trim shall be satin black finish. Operating hardware shall be brushed chrome and satin black.
      8. Basis of Design Materials: Model #17 Suspension System by Modernfold Inc.

SPEC NOTE: Pocket Doors hide the partition when the partition is located within the storage pocket, when the partition is not in use.

* + 1. Pocket Doors:
       1. Acoustically rated, double, equal width doors hinged at jambs and closing in centre:
          1. Basis of Design Model: Stowaway Model Type II by Modernfold Inc.
       2. Face Material: Steel with gypsum board laminate.
       3. Door Face Finish: As indicated on the Drawings.
       4. Sound Seals: Casketed astragals and jambs with fixed sweeps at heads and door bottoms.
       5. Hardware: Manufacturer's standard hinges, friction latch, flush pulls, keyed cylinder and footbolts as required.
  1. FABRICATION AND MANUFACTURE
     1. Operation:

SPEC NOTE: Single panels or hinged paired panels are available. This Section is based on a single panel system.

* + - 1. Folding panel partitions shall consist of a series of top supported, manually operated single panels. No floor track is required.
    1. Fabricate:
       1. Partitions in accordance with shop drawings, rigid, without waves or imperfections. Components shall not swell, shrink, warp or crack.
       2. Provide pocket doors to suit dimensions on site and completely seal pocket to ensure that no sound transmission occurs.
    2. Suspension System Support:
       1. Support brackets using pairs of threaded hanger rods. Fasten trolley assembly to panels with adjustable pendant bolts. Sizes to each type of partition.
    3. Sound Seals:
       1. Vertical: Interlocking sound seals between panels, roll-formed steel astragals with reversible tongue and groove configuration in each panel edge.
    4. Horizontal Seals:

SPEC NOTE: Modify if required. These options listed are standard. Review the Panel manufacturers options if different selections are needed.

* + - 1. Top Seals: Continuous contact extruded vinyl bulb shape with pairs of non-contacting vinyl fingers.
      2. Bottom Seals: Automatic operable seals providing nominal 2” operating clearance, which automatically drops as panels as in position.
         1. Basis of Design Material: Modernfold IA2 Bottom Seal by Modernfold Inc.

1. Execution
   1. EXAMINATION
      1. Examine flooring, structural support, and opening, with installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of operable partitions.
      2. Proceed with installation only after unsatisfactory conditions have been corrected.
   2. INSTALLATION
      1. Install folding panel partitions and pocket doors in locations shown on drawings, in accordance with approved shop drawings, in accordance with ASTM E557 installation procedures, and in accordance with manufacturer's written recommendations.
      2. Install operable partitions and accessories after other finishing operations, including painting have been completed.
      3. Match Operable partitions by installing panels from marked packages in numbered sequence indicated on Shop Drawings.
      4. Broken, cracked, chipped, deformed or unmatched panels are not acceptable.
   3. CLEANING, PROTECTION AND ADJUSTING
      1. Clean partition surfaces upon completing installation of operable partitions to remove dust, dirt, adhesives, and other foreign materials according to manufacturer’s written instructions.
      2. Adjust and lubricate folding panel partitions, pocket doors and accessories as required for smooth and efficient operation.
   4. DEMONSTRATION
      1. Demonstrate proper operation and maintenance procedures to Owner’s representative.
      2. Provide Operation and Maintenance Manual to Owner’s representative, as indicated in   
         Section 01 33 00 – Submittal Procedures.

END OF SECTION