PART 1 - GENERAL

1.1 DESCRIPTION
A. This section specifies electric or manually operated, top supported accordion-type folding partitions for wall to wall room division.

1.2 RELATED WORK
A. Steel Supporting Members or Hanger Rods: Section 05 50 00, METAL FABRICATIONS.
B. Wood Blocking, Rough Bucks, and Headers: Section 06 10 00, ROUGH CARPENTRY.
C. Wood Trim: Section 06 20 00, FINISH CARPENTRY.
D. Lock Cylinders: Section 08 71 00, DOOR HARDWARE.
E. Electrical Work: Division 26, ELECTRICAL.
F. Accordion Folding Doors: Section 08 35 13.13, ACCORDION FOLDING DOORS.
G. Color and Texture of Vinyl or Fabric and Color of Finish on Steel: Section 09 06 00, SCHEDULE FOR FINISHES.

1.3 QUALITY ASSURANCE
A. Manufacturer’s Qualifications: Obtain products from single manufacturer who has provided units as specified for a minimum of three (3) years.
B. Installers Qualifications: Work is to be performed by installer having three (3) years’ experience in work relating to this section and approved in writing by partition manufacturer.

1.4 PERFORMANCE REQUIREMENTS
A. The partitions are to provide a complete closure of opening when fully extended and latched.
   //B. Provide sound rated partitions with a sound transmission class (STC) of 40 or better when tested in accordance with ASTM E90. //
C. Provide fabric and lining with flame spread rating of 25 or less, fuel contribution rating of 15 or less, and smoke generation of 50 or less
when tested in accordance with ASTM E84. Complete assembly must also meet or surpass the requirements of NFPA 101 and UL 10B.

1.5 SUBMITTALS
A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
B. Shop Drawings:
   Folding partition, each type, including methods of installation
C. Samples: // Vinyl // // Fabric // covering, each different partition, 152 mm (6 inch) square.
D. Manufacturers' Literature and Data:
   1. Folding partition each type.
E. Test Reports:
   1. Fire test response characteristics.
   // 2. Sound resistant partitions STC rating. //
F. Manufacturer's Certificates:
   Certificate certifying that the partition referred to in the test reports conforms to specification requirements, and that the partitions to be provided for the project are the same in all characteristics as that tested in the laboratory.
G. Manufacturer’s qualifications.
H. Installer’s qualifications.
I. Manufacturer’s warranty.

1.6 WARRANTY
A. Construction Warranty: Comply with FAR clause 52.246-21, “Warranty of Construction”.
B. Manufacturer Warranty: Manufacturer shall warranty their accordion folding partitions for a minimum of two (2) years from date of installation and final acceptance by the Government. Submit manufacturer warranty.

1.7 APPLICABLE PUBLICATIONS
A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
B. ASTM International (ASTM):
   A1008/A1008M-13...........Steel, sheet, Cold Rolled, Structural, High Strength Carbon, Low Alloy with Improved Formability
B221-14..................Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes
B221M-13..................Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes (Metric)
D751-06(R2011)...........Test Methods for Coated Fabrics
E84-14..................Surface Burning Characteristics of Building Materials
E90-09..................Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
E413-10..................Rating Sound Insulation
E557-12..................Architectural Design and Installation Practices for Sound Isolation Between Spaces Separated by Operable Partitions
C. National Fire Protection Association (NFPA):
   70-14..................National Electrical Code
   286-15..................Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth
D. Underwriters Laboratories Inc. (UL):
   10B-10(R2009)..........Fire Tests of Door Assemblies

PART 2 - PRODUCTS

SPEC WRITER NOTES:
1. Update materials requirements to agree with applicable requirements (types, grades, classes) specified in the referenced Applicable Publications.
2. Provide color and type of fabric covering and metal color in Section 09 06 00, SCHEDULE FOR FINISHES.
3. Vinyl coated fabric Type II is medium duty and Type III is heavy duty.

2.1 MATERIALS

A. Facing Materials:

1. General: Provide facing materials with appropriate backing that comply with indicated fire-test response characteristics, and are factory attached to accordion folding partitions with concealed fasteners. Covering fabrics must conform to the requirements of ASTM D751 and NFPA 286.
2. Woven Fabric: Manufacturer’s standard // 100 percent polyolefin // woven fabric, from same dye lot, treated to resist stains. //
3. Vinyl Coated Fabric: Manufacturer’s standard mildew resistant, washable, vinyl coated fabric wall covering, complying with CFFA-W-101-D, for // Type II // // Type III //, Class A //.

B. Sheet Steel:
   1. ASTM A1008/A1008M, cold rolled, commercial quality for partition tracks, lead and jamb posts.
   2. The cast or heat analysis report mentioned in the ASTM is not required.

C. Aluminum Extrusions: ASTM B221M (B221), Alloy 3003.

D. Electrical Operators: Provide manufacturer’s recommended standard electrical operator. //

E. Sound Insulation: Provide sound insulation as necessary to achieve the specified sound transmission class, conforming to ASTM E413. //

2.2 FABRICATION

A. Track:
   1. Minimum 2 mm (0.0747 inch) thick sheet steel.
   2. Track depth and shape: In accordance with the manufacturer’s recommendations for the weight and size of the partition furnished.
   3. Steel track: Baked enamel finish.
   4. No floor track will be permitted.

B. Lead and Jamb Posts:
   1. 1.78 mm (0.0747 inch) thick sheet steel.
   2. Post depth and shape: In accordance with the manufacturer’s recommendations for the weight and size of the partition furnished.

C. Suspension System:
   1. Four (4) wheels for tandem carriers on lead posts and two (2) wheel for intermediate carriers.
   2. Wheels: Steel ball bearing with nylon or steel tread, 25 mm (1 inch) diameter for partitions up to 3962 mm (13 feet) high, and 38 mm (1-1/2 inch) diameter for partitions over 3962 mm (13 feet) high.
   3. Intermediate carriers: Placed at every other hinged pair.

D. Frame: Steel, zinc or cadmium coated, with interior bracing at top and bottom, and mechanism for producing pantograph action.

E. Covering:
1. Attach fabric to the framework with fasteners that permit easy removal of the cover but prevent sagging or separation.
2. Position vertical seams in the bottoms of valleys and reinforce.
3. Provide top and bottom edges of cover fabrics with 13 mm (1/2 inch) minimum turned hems.
4. Support vinyl covering over insulating core with outer ply of vinyl material.

/F. Seals:
1. Provide seals at floor, ceiling, jambs and abutting edges of sound rated partitions.
2. Insulating materials in sound resistant partition, perimeter sweep strips and jamb seals are to be the same as those used on laboratory tested models that obtained specified acoustical rating. // SPEC WRITER NOTE: Use following meeting post for partitions meeting at right angles.

/G. Meeting Posts: Two-way type attached to one (1) partition for joining two (2) partitions at right angles. //

H. Hardware:
1. Provide hardware of the heavy-duty type standard with the manufacturer.
2. Provide pulls and latches for all partitions.
3. Provide partitions with // keyed locks //, privacy latches //, magnetic contact latches //, foot bolts //.

I. Pivot Switch Assembly:
1. Where shown on construction documents, provide pivoted switch assembly to swing stacked section against wall.
2. Provide shop fabricated assembly of adequate strength to carry required load.
3. Provide roller at outer end of pivot arms, with retaining spring keepers to prevent partition from running off pivot arm and adjacent track where arm is not in alignment with track, and to hold tracks in alignment.
4. Entire assembly to be concealed and removable.

2.3 FINISHES

/A. Steel (Baked Enamel Finish):
1. Clean exposed metal surfaces free of foreign matter, oil and grease, and then give surfaces a prime coat of paint; then apply finish coat of baked-on enamel.

//B. Steel (Prime Finish):
   1. Provide light colored prime paint after fabrication.
   2. Paint all contact surfaces of assembled work (except welded contact surfaces and metal concealed in finished work) with an additional shop coat of similar paint.

PART 3 - EXECUTION

3.1 EXISTING CONDITIONS
Verify field dimensions prior to fabrication.

3.2 INSTALLATION
A. General: Comply with ASTM E557 except as otherwise required by accordion folding partition manufacturer’s written installation instructions. Install accordion folding partitions level and plumb, with tight joints and uniform appearance, and free of deformation and surface and finish irregularities.

B. Install accordion folding partitions and accessories after other finishing operations, including painting, have been completed.

//C. Recessed Type Installation: Install so that bottom of track is flush with ceiling.

//D. Flush Type Installation (Surface Mounted): Install ceiling track against underside of ceiling.

E. Anchorage:
   1. Secure ceiling tracks to structural steel supports or other support system as shown on construction documents with 13 mm (1/2 inch) through-bolts or anchor bolts as appropriate.
   2. Provide bolts near each end of track and at intermediate points not more than 609 mm (2 feet) on centers.

//F. Electrical Operators: Installation to conform to the requirements of NFPA 70.

G. Adjustment:
   1. Provide shims or other means as required to make partitions close openings fully and completely.
   2. Install partitions so that leading edges fit tight to jambs or opposing partition leading edge for full height of partition.
   3. Make all necessary adjustments to assure that hardware functions properly.