SECTION 10651
ACCORDION FOLDING PARTITIONS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes: Accordion folding partitions.
   1. Types: Types of accordion folding partitions include:
      a. Laminated accordion partitions.
      b. Laminated folding partitions.
      c. Soft covered accordion partitions.

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI MasterFormat and specifier's practice.

B. Related Sections: Section(s) related to this section include:

Specifier Note: Edit paragraph below to suit project requirements. Consult manufacturer for recommendations on required structural framing and operational suitability for the intended application.

   1. Concrete: Division 3 Concrete Sections.
   2. Masonry: Division 4 Masonry Sections.
   3. Metal Framing: Division 5 Metal Framing Sections.
   5. Sealants: Division 7 Joint Sealers Section.
   6. Gypsum Board: Division 9 Gypsum Board Assemblies Section.
   7. Ceilings: Division 9 Ceilings Sections.
   8. Carpet: Division 9 Carpet Sections.
   9. Paint: Division 9 Paint Section.
   10. Wallcoverings: Division 9 Wallcovering Section.
   11. Electrical: Division 16 Electrical Sections.
   12. Keys and Keying: Division 8 Finished Hardware Section.

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standards referenced. Conditions of the Contract or Division 1 References Section may establish the edition date of standards. This Article does not require compliance with standards, but is merely a listing of references used. Article below should list only those industry standards referenced in this section.

1.02 REFERENCES

A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.

B. American Society for Testing and Materials (ASTM):

Specifier Note: Article below should be restricted to statements describing design or performance requirements and functional (not dimensional) tolerances of a complete system. Limit descriptions to composite and operational properties to extent necessary to link multiple components of a system and to interface with other systems.
1.03  **SYSTEM DESCRIPTION**

A.  **Performance Requirements:** Provide accordion folding partitions which have been manufactured, fabricated and installed to maintain performance criteria stated by manufacturer without defects, damage or failure.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor either before, during or after construction. Coordinate this Article with Architect’s and Contractor’s duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

1.04  **SUBMITTALS**

A.  **General:** Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.

B.  **Product Data:** Submit product data, including manufacturer’s SPEC-DATA product sheet, for specified products. Include copies of properly identified manufacturer’s literature with proposed catalog numbers identified.

C.  **Shop Drawings:** Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors, patterns and textures.
   1.  Complete shop drawings showing elevations of units, locations in the buildings, conditions at openings with wall thickness and materials, typical and special details of construction, location and installation requirements for hardware and operators, shape and thickness of materials, joints and connections and material finishes.
   2.  Typical head, jamb and sill details as well as indication of operable features of the wall system and pocket doors.

D.  **Samples:** Submit selection and verification samples for finishes, colors and textures.
   1.  **Color Sample:** One sample of each color material to be used on the project.

E.  **Quality Assurance Submittals:** Submit the following:
   1.  **Test Reports:** Certified test reports showing compliance with specified performance characteristics and physical properties.
   2.  **Certificates:** Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria, and physical requirements.
   3.  **Manufacturer’s Instructions:** Manufacturer’s installation instructions.

Specifier Note: Coordinate paragraph below with Part 3 Field Quality Requirements Article herein. Retain or delete as applicable.

   4.  **Manufacturer’s Field Reports:** Manufacturer’s field reports specified herein.

F.  **Closeout Submittals:** Submit the following:
   1.  **Operation and Maintenance Data:** Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.
   2.  **Warranty:** Warranty documents specified herein.

Specifier Note: Article below should include prerequisites, standards, limitations and criteria which establish an overall level of quality for products and workmanship for this section. Coordinate below Article with Division 1 Quality Assurance Section.

1.05  **QUALITY ASSURANCE**

A.  **Installer Qualifications:** Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.

Specifier Note: Retain paragraph below to suit project requirements; otherwise delete paragraph below.

   1.  **Certificate:** When requested, submit certificate indicating qualifications.

Specifier Note: Retain paragraph below for erected assemblies (either onsite or offsite) required for review of construction, coordination of work of several sections, testing or observation of operation. Mock-ups, when accepted or approved, establish standards by which work will be judged. Coordinate below with Division 1 Quality Control (Mock-Up Requirements) Section.

B.  **Mock-Ups:** Install at project site a job mock-up using acceptable products and manufacturer approved installation methods. Obtain Owner’s and Architect’s acceptance of finish color, texture, pattern and workmanship standards. Comply with Division 1 Quality Control (Mock-Up Requirements) Section.

Specifier Note: Edit paragraph below to specifying mock-up size.

   1.  **Mock-Up Size:** [Specify mock-up size.]
   2.  **Maintenance:** Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.
   3.  **Incorporation:** Mock-up may be incorporated into final construction upon Owner’s approval.
1.06 DELIVERY, STORAGE & HANDLING
   A. General: Comply with Division 1 Product Requirements Sections.
   B. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
   C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
      1. Deliver materials to jobsite and protect unsealed materials from abrasions.
      2. Identify each container with material name and identification number.
   D. Storage and Protection: Store materials protected from exposure to harmful weather conditions, at temperature and humidity conditions recommended by manufacturer.
      1. Store materials under cover, protected from weather and construction activities. Provide safe and secure storage of materials prior to installation.

1.07 PROJECT CONDITIONS
   A. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

Specifier Note: Coordinate Article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty) Section.

1.08 WARRANTY
   A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
   B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

Specifier Note: Coordinate paragraph below with manufacturer's warranty requirements. Manufacturer offers the following: ANC warrants each new ANC folding door, folding partition, operable wall, relocatable wall and accessory to be free from defects in material and workmanship under normal use and service. ANC assumes no obligation to correct defects caused by improper installation or unreasonable use including physical abuse or lack of maintenance. ANC’s obligations under this warranty are limited to the repair, free of charge, of any defective part which within 1 year of shipment from ANC is returned prepaid to the factory. Obtain further information from the manufacturer.
   1. Warranty Period: [Specify term.] years commencing on Date of Substantial Completion.

PART 2 PRODUCTS

Specifier Note: Retain Article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as “or equal” or “or approved equal,” or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining “or equal” products.

2.01 ACCORDION FOLDING PARTITIONS

Specifier Note: ANC has long been recognized as a leader in the folding door, acoustical accordion folding partition and the operable and relocatable wall industry. ANC acoustical accordion folding partitions are designed to offer total flexibility for space planning and acoustical performance in commercial, residential and institutional interiors. ANC offers 4 distinctive models, each with its own unique functions and advantages.

   A. Manufacturer: ANC, Inc.

Specifier Note: Paragraph below is an addition to CSI Section Format and a supplement to MANU-SPEC. Retain or delete paragraph below per project requirements and specifier’s practice.
   1. Contact: P.O. Box 680130, Miami, FL 33168; Telephone: (305) 688-3501; Fax: (305) 688-0185 E-mail: sales@ANC.com; website: www.ANC.com.

Specifier Note: ANC acoustical accordion folding partitions feature panels joined and sealed with dual walled Memory Action vinyl hinge design. The extra heavy steel ball bearing wheels support alternate panels. End posts are fitted with deep nesting structural extruded aluminum end post nose and jamb molding in Bronze or natural finishes. Curved tracks, curved or crossover switches, and 2, 3 and 4 way meeting posts are available for multiple room arrangements. Constructed of high density particle board, Sonicwal, Scale/12 and Scale/8 panels can be machine laminated with select wood veneers, decorative laminates and textured or wood grain vinyls. Also available with heavy duty vinyl fabric or luxurious wall carpet. Fabricwal partitions feature bottom sweep seals with mechanical fasteners and can be field adjusted to fit irregular floors.
B. Proprietary Product(s)/System(s): ANC accordion folding partitions, complete with hardware, jambs and the necessary mechanisms to provide complete operation.

Specifier Note: ANC is designed especially to create quiet spaces. The ANC line offers the highest acoustical ratings of any partition, made STC 38 - 50, with sound absorption to NRC 0.7.

1. ANC laminated accordion folding partitions.

Specifier Note: ANC Models Scale/8 and Scale/12 single panel wall partitions are ideal for tough commercial and institutional use. They feature a range of sound ratings from STC 25 - 30. Like Sonicwal, the Scale models can be manually or electrically operated. They are available in heights to 18’ (5 m).

2. ANC Scale/8 and Scale/12 series laminated accordion folding partitions.

Specifier Note: ANC Fabricwal is available in a variety of beautiful covers. Fabricwal partitions are suited to any commercial or residential application where function and design are equally important. Sight dividing models, as well as acoustically rated STC 39 and STC 40 models, are optional. Fabricwal is manufactured with a single frame size for storage in minimal width pockets.

3. ANC Fabricwal soft covered acoustical accordion partitions.

Specifier Note: Edit Article below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Division 1 Project Requirements (Product Substitutions Procedures) Section.

2.02 PRODUCT SUBSTITUTIONS

A. Substitutions: No substitutions permitted.

Specifier Note: Add Articles below for allowances and unit prices if required for project. If added, state work covered. Coordinate with Part 1 General Summary Article, Division 1 Sections and other bid and contract documents.

2.03 ANC LAMINATED ACCORDION FOLDING PARTITIONS

Specifier Note: is available in heights to 18’ (5 m).

A. Acoustical Accordion Folding Partitions:

1. Partition Type: Sonicwal/1212 STC 50 or STC 45 Type; Sonicwal/88 STC 44 or STC 42 Type; Sonicwal/66 STC 44, STC 42 or STC 38 Type.

2. Operation: Manually or electrically operated.

B. Twin Wall Partition Panels: Bolted to 16 gauge steel panel support brackets and suspended from steel yoke hinged at brackets. Multi-fingered extruded vinyl Sonicsweep seals should be installed top and bottom, both sides of partition, and be field adjustable.

C. End Posts: Deep nesting aluminum nose with dual vertical sound seals and equipped with Gripulls, latches and aluminum jamb molds with Bronze ESP or natural anodized finish.

D. Track and Hangers: Extruded aluminum. Four ball bearing wheels installed on each volute; a minimum of 6 installed on each end post.

Specifier Note: Edit paragraph below. Finishes: A wide range of surfacing materials is available: Wood veneers, Woodtex wood grain vinyls, Startex textured vinyls, Sandtex multicolor vinyls, Fabrictex textured vinyls, Hightex highly textured vinyl, Ropetex textured vinyls, Ribtex wall carpeting, Woventex panel fabrics, Tek-Wall 1000 panel fabrics. Colors: A wide variety of colors and textures is possible depending on the type and source of panel finishing material. See samples or manufacturer literature.

E. Panel Surfaces: Specially laminated engineered wood core, bonded with water resistant plastic glue and surfaced with architectural wood veneer, wood grain vinyl, textured vinyl, high pressure decorative laminate, Owner provided material, Ribtex wall carpet, Woventex or Maharam Tekwall 1000 panel fabric. Genuine woods, wood grains and colors shall be selected from manufacturer's selection. Optional carved design shall be provided on 1 or both sides.

F. Connector Hinges: Panels should be hinged and edge sealed to reduce sound, light and air transmission with heavy duty dual wall, flame-resistant, extruded vinyl. Hinges should protect panel edges and be securely locked. They shall provide manufacturer's Memory Action causing panels to extend and stack equally, smoothly and quietly. Colors selected from manufacturer's selection.

Specifier Note: Edit paragraph below (optional) to suit project requirements.

G. Trim: Provide Ceilinguard head trim as indicated.

H. Hardware: Security units shall be as specified: Provide privacy lock 1 side only; cylinder lock 1 side only; cylinder lock 1 side, privacy lock other side; cylinder lock 2 sides.

Specifier Note: Retain paragraph below to suit project requirements. Coordinate paragraph below with Division 8 Hardware Section.
1. Cylinders: Master keyed cylinder lock by hardware section installed in lieu of regularly furnished cylinder.

I. Curved Track, Switches and Multiple Meeting Posts: Furnish to effect room division as indicated on drawings, minimum radius 3’ (914 mm).

K. Stack Formula: (Approximately) Sonicwal/12, 1 1/8”/ft (94 mm/m) plus 5” (127 mm) for each end post.

L. Hanging Weight: (Approximately) STC 50 and STC 44, 7.3 lbs/sf (36 kg/m²); STC 45 and STC 42, 6.7 lbs/sf (33 kg/m²); and STC 38, 4.5 lbs/sf (22 kg/m²).

2.04 ANC SCALE SERIES LAMINATED ACCORDION FOLDING PARTITIONS

A. Scale Series Folding Partitions:

Specifier Note: Scale/8 and Scale/12 are available in heights to 18’ (5.5 m).

1. Partition Series Type: Scale/12, STC 50 or Scale 8, STC 25.

2. Acoustical Rating Type: Acoustical or nonacoustical.

3. Operation: Manually or electrically operated.

B. Acoustical Treatment (Optional): Extruded vinyl Sonicsweep seals installed top and bottom; Ceilinguard head trim; extruded vinyl Trackseal track closure; vertical end post seals; positive latch.

C. Track and Hangers: Track heavy duty extruded aluminum; 2 ball bearing wheels suspended on alternate panels with 4 on each end post.

Specifier Note: Edit paragraph below. Finishes: A wide range of surfacing materials is available: Wood veneers, Woodtex wood grain vinyls, Startex textured vinyls, Sandtex multicolor vinyls, Fabrictex textured vinyls, Hightex highly textured vinyl, Ropetex textured vinyls, Ribtex wall carpeting and Woventex I panel fabrics. Colors: A wide variety of colors and textures is possible depending on the type and source of panel finishing material. See samples or manufacturer literature.

D. Panel Surfaces: Panels shall be specially laminated engineered wood core, bonded with water resistant plastic glue and surfaced with architectural wood veneer, wood grain vinyl, textured vinyl, high pressure decorative laminate, Ribtex wall carpet, Woventex I panel fabrics. Genuine woods, wood grains and colors selected from manufacturer’s selection. Optional carved design provided on 1 or both sides.

E. Connector Hinges: Panels hinged and edge sealed to reduce sound, light and air transmission with heavy duty dual wall, flame resistant, extruded vinyl. Hinges securely locked to protect panel edges. Provide manufacturer’s Memory Action hinges which cause panels to extend and stack equally, smoothly and quietly. Colors should be selected from manufacturer’s selection.

F. Trim: Nonacoustical partitions shall be supplied with track mold to conceal track or extruded aluminum subchannel for recess track. Acoustical partitions shall be supplied with acoustical treatment seals specified herein.

G. Hardware: Partitions shall have deluxe Gripull handles and automatic latches as well as jamb mold for jamb closure with Bronze ESP natural anodized finish. Security units shall be as specified.

Specifier Note: Retain paragraph below to suit project requirements. Coordinate paragraph below with Division 8 Hardware Section.

1. Cylinders: Master keyed cylinder lock by hardware section shall be installed in lieu of regularly furnished cylinder.

Specifier Note: Edit paragraph below to suit project requirements. Below paragraph is optional with manufacturer.

H. Fire Retardancy: Where specified, panels shall be made up of fire retardant cores (ASTM E84 laboratory tunnel tested with flamespread, 20; fuel contributed, 15; smoke developed, 15.).

I. Curved Track, Switches and Multiple Meeting Posts: Furnish to effect room division as indicated on drawings. Minimum radius 3’ (914 mm).

J. Stack Formula (Approximately):
   1. Scale/12 Partitions: 1 1/16”/ft (27 mm/m) plus 5” (127 mm) for each end post.
   2. Scale/8 Partitions: 1”/ft (25.4 mm/m) plus 5” (127 mm), manually operated. Add 4” (102 mm) for electrical operation.

K. Hanging Weight (Approximately): 3 lbs/sf (15 kg/m²).

2.05 ANC SOFT COVERED ACCORDION PARTITIONS

A. Soft Covered Accordion Partitions:

1. Partition Series Type: Fabricwal nonacoustical, STC 39 or STC 30.

2. Operation: Manually or electrically operated.
B. Acoustical Treatment: Continuous vinyl sweep seals installed both sides, fixed at top and adjustable at bottom; formed steel insulating panels, continuously lined with acoustical membrane; deep nesting end posts with sound seals and positive latch. Partitions independently tested in accordance with ASTM E90.

C. Framework: Form from 16 gauge steel pantograph hinge plates welded to 3/16” (4.8 mm) diameter steel rods. Install a single row top and bottom at 42” (1067 mm) intervals of height. Install double row at top if over 12’1” (3683 mm) high. Steel alloy carrier pendant should be suspended from reinforced hinge channel.

D. Covers: Heavy duty, Class A flamespread rated vinyl with 100% polyester backing or covers of wall carpet or panel fabrics steel leaf fastened to frame and connected with invisible fasteners. Colors shall be selected from manufacturer’s standard colors. Track: Track is of heavy duty extruded aluminum with integral Ceilinguard for recess track application. Two ball bearing wheels installed at every other volute with 4 wheels at each end post.

E. End Posts: Fabric or carpet covered 16 gauge (1.6 mm) formed steel deep nesting; natural anodized ESP Bronze aluminum nose with 3/8” (9.5 mm) diameter holes to release trapped air; Gripull handles, automatic latches and jamb mold.

F. Stack Formula: (Approximately) 2”/ft (167 mm/m) plus 4” (102 mm) at each end post.

G. Hanging Weight: (Approximately) Nonacoustical 2 lbs/sf (10 kg/m²); STC 39, 5 lbs/sf (24 kg/m²); STC 40, 5.5 lbs/sf (27 kg/m²).

2.06 RELATED PRODUCTS
A. Related Products: Refer to other sections listed in Related Sections paragraph herein for related products.

2.07 SOURCE QUALITY
A. Source Quality: Obtain accordion folding partition products from a single manufacturer.

PART 3 EXECUTION
Specifier Note: Article below is an addition to the CSI SectionFormat and a supplement to MANU-SPEC. Revise Article below to suit project requirements and specifier’s practice.

3.01 MANUFACTURER’S INSTRUCTIONS
A. Compliance: Comply with manufacturer’s product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

3.02 EXAMINATION
A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer’s instructions.
   1. Inspect the opening before installation is begun. Surfaces should be clean and dry. Concrete surfaces should be free of excess mortar and lumps. Wood surfaces should be well nailed and/or glued, nailed heads driven flush and wood free of voids. Metal surfaces to be free of grease, oil, dirt, rust, corrosion and welding slag, without sharp edges.

3.03 PREPARATION
A. Surface Preparation: Open containers and verify that required parts are available and undamaged before disposing of containers. Arrange materials in proper sequence to conform to manufacturer’s information and installation instructions.
   1. Before installation, inspect the door opening. Surfaces must be clean and dry, concrete surfaces must be free of excess mortar and lumps, and wood surfaces must be well nailed and/or glued, nail heads driven flush and wood free of voids. Metal surfaces must be free of grease, oil, dirt, rust, corrosion and welding slag, without sharp edges. Verify that rough opening is correct and has been prepared in conformance with the ASTM E557 standard.

Specifier Note: Coordinate Article below with manufacturer’s recommended installation details and requirements.

3.04 INSTALLATION
A. Accordion Folding Partition Installation:
   1. Installer to conform to the manufacturer’s installation instruction sheets.
   2. Apply perimeter caulking and trim as required.
   3. Adjust locking hardware for accurate fit.
C. Interface with Other Work: [Specify applicable requirements for interface with other work.]
D. Site Tolerances: [Specify applicable site tolerances for specified product(s) installation.]
E. Related Products Installation: Refer to other sections listed in Related Sections paragraph herein for related products installation.

3.05 FIELD QUALITY REQUIREMENTS
Specifier Note: Edit paragraph below. Establish number and duration of periodic site visits with Owner and manufacturer, and specify below. Consult with manufacturer for services required. Coordinate paragraph below with Division 1 Quality Assurance Section and Part 1 Quality Assurance Submittals herein. Delete if manufacturer’s field service is not required.
A. Manufacturer's Field Services: Upon Owner's request, provide manufacturer's field service consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

1. Site Visits: [Specify number and duration of periodic site visits.]

Specifier Note: Coordinate Article below with Division 1 Execution Requirements (Starting and Adjusting, Cleaning, and Protecting Installed Construction) Section.

3.06 ADJUSTING

A. Adjusting: Adjust locking hardware for accurate fit. Clean all wood, vinyl, wall carpet, panel fabric and plastic laminate surfaces to remove soil without using abrasive cleaners or solutions containing corrosive solvents. After all adjustments, lubrication and clean up, the installer should verify proper operation, function and communicate maintenance procedures for the walls to the Owner.

1. Lubrication: Lubricate accordion folding partitions in accordance with manufacturer’s instructions for efficient operation.

Specifier Note: Coordinate Article below with Division 1 Execution Requirements (Cleaning) Section.

3.07 CLEANING

A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to Owner’s acceptance. Remove construction debris from project site and legally dispose of debris.

1. Clean wood, vinyl, wall carpet, panel fabric and plastic laminate surfaces to remove soil without using abrasive cleaners or solutions containing corrosive solvents.

Specifier Note: Coordinate Article below with Division 1 Facility Operation (Demonstration and Training) Section.

3.08 DEMONSTRATION

A. Demonstration: After adjustments, lubrications and clean up, demonstrate and instruct Owner’s personnel on proper operation, function and maintenance procedures for accordion folding partitions.

1. Deliver keys, operation and maintenance manuals to the Owner.

Specifier Note: Coordinate Article below with Division 1 Execution Requirements Section.

3.09 PROTECTION

A. Protection: Protect installed product and finish surfaces from damage during construction.

END OF SECTION