

ATTACHMENT

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SECTION 10651 - OPERABLE PANEL PARTITIONS**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Electrically-operated, continuously-hinged operable partitions.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Section 03300 - Cast-in-Place Concrete for concrete floor tolerances.
 - 2. Section 05500 - Metal Fabrications for metal framing and supports.
 - 3. Section 09111 – Non-Structural Metal Framing.
 - 4. Section 09250 – Gypsum Board.
 - 5. Electrical power supply wiring and motor connections are specified in a Division 16 Section.

1.3 SYSTEM PERFORMANCE REQUIREMENTS

- A. Acoustical Performance: Provide operable panel partitions tested by a qualified independent testing agency for the following acoustic properties according to following test method:
- B. Sound Transmission Requirements: Operable panel partition assembly tested in a full-scale opening (168 by 108 inches) for laboratory sound transmission loss performance according to ASTM E 90, determined by ASTM E 413 and rated for an STC plus or minus 1 as follows:
 - 1. Sound Transmission Class (STC): 52.

1.4 SUBMITTALS

- A. Submit the following in accordance with Contract Conditions and Division 1 Requirements.
 - 1. Product data on physical characteristics, durability, and surface-burning characteristics for each type of operable panel partition and accessory specified.
- B. Shop drawings showing location and extent of operable panel partitions. Include plans, elevations, large-scale details of anchorages, and accessory items. Indicate unit conditions at openings, location and installation requirements for hardware, and direction of travel.
 - 1. Include location and installation requirements for electric operators.
- C. Template drawings prepared by manufacturer showing location of items supported or anchored by permanent construction.

1. Wiring diagrams detailing power and control wiring. Differentiate between manufacturer-installed and field-installed wiring. Include motor size and voltage.

D. Samples

1. Samples for initial selection purposes in the form of manufacturer's color charts showing a full range of colors, textures, and patterns available for each type panel finish face indicated.
2. Samples for verification purposes of each type of panel finish face indicated; in sets for each color, texture, and pattern specified, showing a full range of variations expected in these characteristics.
 - a. Panel Finish Face: Manufacturer's standard size unit, not less than 6 inches square. Show complete pattern repeat for face fabrics.
 - b. Panel Edge Material: Manufacturer's standard size unit, not less than 6 inches square.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer who is certified in writing by the operable panel partition manufacturer as qualified to install the manufacturer's partition systems.
- B. Surface-Burning Characteristics: Provide panel finish face with the following surface-burning characteristics as determined by testing identical products per ASTM E 84 by UL or other testing and inspecting agencies acceptable to authorities having jurisdiction.
 1. Flame Spread: 25 or less.
 2. Smoke Developed: 450 or less.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by Modernfold as described below or comparable products of one of the following:
 1. Advanced Equipment Corp.
 2. Kwik-Wall Company.

2.2 OPERABLE PANEL PARTITIONS

1. Modernfold (Basis of Design) Acousti-Seal #933E electrically operated, continuously-hinged panel operable partition. Include 30# Track Suspension System configured as follows:
 2. Panel Construction: Top reinforcing as required to support suspension components and as follows:
 - a. Steel Frame: Steel face sheets.
 - b. Face Sheets for Steel Frame: Tension-leveled steel welded to frame.
 - c. Steel Channel Frame: Not less than 16 ga.
 - d. Panel Thickness: 3 inches minimum.
 - e. Panel Weight: 11 lbs. per square foot.
- B. Hardware: Manufacturer's standard, finished to match exposed hardware on partition.

2.3 SUSPENSION SYSTEMS

A. Modernfold #30 Smart Track Suspension System

1. Suspension Tracks: Track shall be structural aluminum. Static loading of track with brackets at 48-inch (1220 mm) centers shall show no failure of track or brackets at 5,000 pounds (2250 kg) point loading at mid-span. Track shall be supported by adjustable steel hanger brackets connected to structural support by pairs of 3/8-inch (9.5 mm) diameter threaded rods. Spacing of bracket/paired rod assembly to limit deflection of track to 1/360 span between supports.
2. Exposed track soffit: Track soffit to be integral to track shape and shall be powder-coated off white paint finish. Track must accommodate termination of plenum sound barriers on both sides of track for maximum sound control.
3. Carriers: One trolley in alternating panels with 3-inch (76.2 mm) diameter glass reinforced nylon, all steel precision-ground ball-bearing wheels. Steel wheeled or reinforced polymer trolleys on aluminum track not permitted. Trolleys shall attach to panels with 1/2-inch (12.7 mm) diameter pendent bolt mounted to welded steel mounting plate.

2.4 FINISH FACING

A. General: Provide finish facings for panels that comply with indicated fire-test-response characteristics and that are factory applied to operable panel partitions with appropriate backing, using mildew-resistant nonstaining adhesive as recommended by facing manufacturer's written instructions.

1. Panel Finish Class: Class 'A' as per ASTM E84.
2. Apply one-piece, seamless facings free of air bubbles, wrinkles, blisters, and other defects, with edges tightly butted, and with no gaps or overlaps. Horizontal butted edges and seams are not permitted. Tightly secure and conceal raw and selvage edges of facing for finished appearance.
3. Where facings with directional or repeating patterns or directional weave, or directional, repeating, or matching grain are indicated, mark facing top and attach facing in same direction.
4. Color/Pattern: As selected by Architect.

2.5 ELECTRICAL OPERATORS

A. Operators: Factory-assembled electric operation system, electric motor, speed reducer, chain drive, controls, and other accessories required for operation. Include wiring from motor control to motor.

1. Motors: High-starting torque, reversible, constant-duty, NEMA Class A insulated electric motor with thermal overload protection. Manufacturer's standard motor size and voltage for specified operable partition size and type indicated. Include Speed Reducer Drive Unit by partition manufacturer. 1 HP, 115 volts, single-phase, 60 Hz.
2. Remote Control Switches: Two key-operated, constant-pressure control stations located remotely from each other on opposite sides and opposite ends of partition run. Wire in series to require simultaneous activation of both key stations to operate partition. Factory-assembled electric operation system including control box, key switch, motor drive unit, and accessories are required for operation. Include wiring from motor control to motor and two keys per station.
3. Operator shall be located at the opposite end of the stack area off center to the side of the partition.
4. Photo Cell: At leading edge or wall jamb with automatic motor shut off when travel path is obstructed.

2.6 SEALS

A. Vertical Interlocking Sound Seals between panels: Roll-formed steel astragals, with reversible tongue and groove configuration in each panel edge for universal panel operation. Rigid plastic astragals or astragals in only one panel edge are not acceptable.

- B. Horizontal Top Seals: Continuous contact extruded vinyl bulb shape with pairs of non-contacting vinyl fingers to prevent distortion without the need for mechanically operated parts.
- C. Horizontal bottom floor seals:
- D. Final Closure: Positive lever activated mechanical closure expanding from panel edge to create a positive acoustical seal.

2.7 ACCESSORIES

- A. Storage Pocket Door: Full height at end of partition runs to conceal stacked partition; of same materials, finish, construction, thickness, and acoustical qualities as panels; complete with operating hardware and acoustical seals at soffit, floor, and jambs. Hinges in finish to match other exposed hardware.
 - 1. Manufacturer's standard method to secure storage pocket door in closed position.
 - 2. Rim Lock: Key-operated lock cylinder, keyed to master key system, to secure storage pocket door in closed position. Include two keys per lock.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine flooring, structural support, and opening for compliance with requirements for installation tolerances and other conditions affecting performance of operable panel partitions. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install operable panel partitions and accessories complying with ASTM E 557 after other finishing operations including painting, have been completed.
- B. Install operable panel partitions that conform to Drawings and approved shop drawings and in strict compliance with manufacturer's written installation instructions.
- C. Match operable panel partitions for color and pattern by installing partitions from cartons in same sequence as manufactured and packaged, if so numbered. Broken, cracked, chipped, or deformed panels are not acceptable.

3.3 ADJUSTING

- A. Lubricate bearings and sliding parts; adjust to ensure smooth, easy operation.

3.4 DEMONSTRATION

- A. Provide the services of a factory-authorized service representative to provide operation and maintenance instruction, and to demonstrate and train Owner's representative.
 - 1. Test and adjust controls and safeties. Replace damaged or malfunctioning controls and equipment.
 - 2. Train Owner's representative on procedures and schedules related to startup and shutdown, troubleshooting, servicing, and preventative maintenance.
 - 3. Review data in the "Operating and Maintenance Manual."

END OF SECTION