

SCA Walls » CSI Specifications

MOVABLE WALLS

Division 10, Section 10615

1. RELATED DOCUMENTS

The drawings and general provisions of the contract, including GENERAL and SUPPLEMENTARY CONDITIONS, and all Specification Sections apply to the Work specified in this Section.

2. DESCRIPTION OF WORK

A. Movable walls as shown on the Drawings.

B. The work shall include:

1) Furnishing, delivering to the building, uncrating, setting in place and leveling all movable walls shown on the Drawings and listed in the Specifications.

2) Furnishing and installing raceway, boxes, connections and wiring for electrical power switches.

3) Furnishing and installing raceway and boxes for computer/data cabling and telecommunications.

4) Furnishing and installing doors, frames, hardware locksets and passage sets in movable walls.

5) Furnishing and installing glazing framing or pre-glazed panels in movable wall.

C. Work specified elsewhere in the general contract for construction of the project:

1) Furnishing and installing data/communications cable, cable wiring devices other than boxes, and coverplates.

2) Furnishing and installing electrical wiring devices other than boxes, and coverplates, and making connections of wiring in movable wall panels to building wiring systems.

3. QUALITY ASSURANCE

A. It is the intent of these Specifications and applicable Drawings to show and define the essential minimum requirements as to the quality of materials, construction, finish, and overall workmanship. Movable walls systems differing from that specified will not be considered unless ample proof is submitted in the form of drawings, descriptions, samples, and test results indicating all essential requirements of the Specifications are strictly adhered to.

B. The product warranty extends only to the original purchasers acquiring new products. Warranty shall cover all materials and labor for a period of twelve years.

C. The movable wall panel system shall be manufactured by a single firm specializing in the production of movable partitions and with a minimum of 5 years of successful experience in applications similar to the requirements of this project.

D. The movable wall panel system installer shall have a minimum of 5 years of successful experience in the installation of movable wall panel systems, shall have previous experience in projects of this approximate magnitude, and shall be authorized to do installation by the manufacturer of the movable wall system. Installation supervision shall be by an experienced supervisor trained in specialized methods of construction and approved by the movable wall system manufacturer.

E. The movable wall system and the hang-on and freestanding component furniture shall be from the same manufacturer and shall match in module and finish.

4. CODES AND STANDARDS

Comply with the provisions of the following to the extent referenced:

- 1) ASTM C 36, Gypsum Wallboard.
- 2) ASTM C 442, Gypsum Backing Board and Coreboard.
- 3) ASTM E 90, Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
- 4) ASTM E-72, Standard Methods of Conducting Strength Test of Panels for Building Construction.
- 5) ASTM E 84 Surface Burning Characteristics of Building Materials.
- 6) ASTM E 413, Classification for Determination of Sound Transmission Class.
- 7) Factory Mutual Publication, Specification Tested Building Materials Guide, 1985.
- 8) UL Publication, Fire Resistance Directory (January, 1985 with Quarterly Supplements.)

9) BIFMA Furniture Requirements.

5. SUBMITTALS

A. Submit product data, shop drawings, samples, fabrication specifications and installation instructions as specified in GENERAL REQUIREMENTS and as described herein.

B. Submit six (6) copies of manufacturer's data shop drawings and instructions. Two (2) copies will be retained by the Architect. Submit two sets of samples, both will be retained by the Architect.

C. Submit test data from independent testing agencies indicating that all performance characteristics specified in Paragraphs 9, 10, and 11 of this Section have been complied with.

D. Submit samples of each required finish and color. Prepare samples on same materials which will be used in wall assemblies.

6. DELIVERY, STORAGE AND HANDLING

A. Deliver movable wall system components boxed or crated to provide protection during transit and job storage.

B. Inspect wall components upon delivery for damage. Minor damages may be repaired provided finish items are equal to new work and acceptable to Architect. Remove and replace damaged items as directed.

C. Store materials in dry, protected areas in which it is possible to maintain a constant minimum temperature of 55°F.

7. GENERAL REQUIREMENTS

A. Floor to ceiling type with interchangeable standardized units which can be rearranged in any desired combination within a given wall space.

B. Extension in any direction without removing adjacent units (non-progressive).

C. Capable of relocation without unit disassembly (i.e., demountable products requiring complete disassembly for relocation or which suffer material damage to panels, framing or other components, are not acceptable).

D. Erected over finished floor materials including carpet.

E. Ability for leveling when installed over out-of-level floors.

F. Continuous installations with fasteners concealed.

8. MANUFACTURER

The movable wall system shall be V-Wall® System with and/or including M-Wall® panels.

9. PARTITION SYSTEMS

A. Provide movable walls of type, size, materials and finishes indicated, or if not indicated, provide units as recommended by the manufacturer for the type of service indicated.

B. Provide movable walls complete with finished floor and ceiling channels, vertical support framing, glazing framing and stops, anchorage and accessories for complete, stable installation.

Partition Construction

1) Movable walls shall consist of unitized movable panels, factory laminated and factory assembled by the manufacturer under controlled conditions. Panel assembly not to exceed 250# per unit.

2) Maximum panel width to be 48". Maximum allowable ceiling height shall be 10 feet. Installations with ceiling heights greater than 10 feet or widths greater than 48" shall require prior approval by Wall Service Center.

3) Panels shall be sized to be manufacturer's standard width as required to match furniture. Relative thickness of panels shall be 2¼", faced both sides with ½" thick, beveled edge, firecode gypsum wallboard on 1" x 4"- 6" core board studs spaced 12" apart. Optional M-Wall panel construction of 2¼" thick aluminum frame supported on two adjustable leveling feet, faced both sides with fire-retardant-treated-wood or tackable substrate with acoustical treatment interior.

4) Panels shall have been tested in an independent laboratory for screw holding ability and rated at an average resistance of not less than 190 pounds manual and 279 of shear for 1" R.H. No. 10 screw.

5) All panels shall be pre-finished with fabric-backed, 15 oz., Type I vinyl wallcovering, color and pattern to be selected by the Architect from the manufacturer's current color line. Painted surfaces are not acceptable.

6) The movable wall system shall have non-progressive capabilities without damage to panel surfaces. Double-sided tape, Velcro or other non-mechanical attachments are not acceptable.

D. Aluminum Frames

1) All exposed aluminum shall be extruded from a controlled alloy billet and shall have a four-stage treatment prior to the electrostatic application of paint-like coating, then baked and cured to a 2H minimum hardness, a one mil. minimum thickness, and a gloss of 25 (±5) smooth finish. The paint-like coating shall conform to the Aluminum Association Specification R-10. Anodized finish options shall equal Medium Bronze Anodized "MK" AA-C22A34 and Clear Anodized "AN" AA-C22A213

2) Aluminum door frames shall be assembled plum and square. Frames are to be prepared for hardware including proper reinforcing, drilling and tapping. Miters at corners of frames shall be anchored with concealed clips. Frames must include soft vinyl bulb-type light and sound seal.

3) Aluminum glazing sections shall be installed plumb and square with all connections securely clipped. Intersections with head conditions shall be mitered where possible. Sill sections shall have removable, flush snap-on stops. Surface applied glazing stops will not be acceptable. The wall system shall be such that glazing can be placed anywhere within the wall without supplemental internal construction bracing. Pre-glazed panel sections shall have 1" or less profile trims.

4) Glazing mullions and jambs shall be available which include slotted inserts for furniture integration where indicated on Drawings, and must be capable of carrying the same loading as required of panel wall construction.

E. Furniture Support

1) The movable wall shall be capable of supporting the furniture components shown without requiring bracing other than the normal attachment to ceiling and floor. The wall shall exceed the test criteria of the "Panel Mounted Components" Section of BIFMA Panel System Standard.

2) The movable wall system shall be capable of receiving furniture integration splines at each point between panels and at each full module intersecting panel condition.

3) Splines are required only where needed by the furniture integration and shall be capable of being added or deleted as furniture requirements change without defacing or replacing the wall panels. Splines are to be a part of a connecting condition and not part of the wall panels.

4) Furniture components shall engage splines directly without the use of interfacing clips or supplemental hanger brackets.

5) System shall be capable of supporting connection to partial height panel systems and surface or cabinet components in any panel intersection configurations including corner worksurfaces across any combination of full or partial height wall and system panels.

F. Snap-On Base

This system shall include a rigid vinyl base matching in height to the furniture system base color, style and height that engage positively to the floor track throughout the partition run. Glue-on base is not acceptable. Pre-formed base conditions for corners, starts, ends, etc., will maintain a flush appearance throughout.

10. EXECUTION

A. The movable wall system shall interface readily with varying building conditions as shown on Drawings without requiring the manufacture of special fittings or modules that may require the Owner to maintain special inventories.

B. Movable walls shall be installed over existing floors, anchored to suspended ceiling and shall connect with existing masonry walls and new gypsum board walls.

C. Ceiling runners shall be fastened to the suspended ceiling grid with No. 6SMS or other approved fastener. All splices and intersections shall be held tight and aligned by manufacturer supplied concealed installation clips. The runner shall be pre-punched to provide access to wall panels for electrical drops.

D. Provide floor runners with pre-punched ¼" long gripper teeth which secure it against lateral movement while preventing crushing or carpet pile. No additional attachments are required except at door frames.

E. Intersections of movable walls shall be structurally sound without defacing the intersected surface by drilling or cutting.

F. Install snap-on base on all walls, both fixed and movable, and columns in every space where movable walls are installed even if only a portion of the room's walls is movable. On movable walls the base assembly shall engage positively to the floor track throughout the entire run of the

partition. For fixed drywall, attach the base to the wall using a J-Clip which mechanically attaches to the wall, and accepts the snap-on base, similarly to the floor runner, allowing use of snap-on base throughout the facility.

G. Electrical

1) All movable wall panels shall have a vertical chase capable of accepting electrical outlets, switches, data/communication outlets, and the conduit serving the outlets.

2) Electrical receptacle boxes and switch boxes shall be UL labeled and meet all NEC codes for designated uses. All outlet and switch boxes shall be assembled into the panels at the point of manufacture with flexible steel conduit extending from the boxes up through the panel chaseway. Locations of outlets and switches are shown on the Drawings.

3) Electrical conduit for receptacles and switches shall contain 120 volt, 4 color coded #12 wire with an additional 12" of wire extending from the box, and 12" of conduit extending from the top of the panel and connected to a pre-manufactured UL listed component to accommodate hook-up to the building power system. The movable wall contractor shall furnish to the General Contractor a mating pre-manufactured UL listed component for each conduit, with a 6' length of flexible steel conduit and 4 color coded #12 wire for use by the electrical contractor.

4) Conduit for data/communication cable shall terminate at a point 12" above the top of the panel.

5) Receptacles, switches, data/communications outlets, and all coverplates will be furnished and installed by others in panel mounted electrical system.

6) A UL 183 listed 8-wire 4-circuit electrical system must be available standard. A power adapter connecting cable must be available to connect manufacturers UL listed furniture system electrical system with identical capacities and circuitry.

H. Wood Doors and Hardware

1) Install wood doors in all door openings in movable walls.

2) Doors shall be 1 $\frac{3}{4}$ " thick, solid core wood doors of size and design as shown on the Drawings. Doors shall be of stile and rail construction, manufactured according to the Architectural Woodwork Institute (AWI) Specification #1400, Custom Grade, for stile and rail wood doors. Exposed surfaces shall be plain sliced natural birch or other veneer suitable for painting or staining.

3) Each door shall be hung with two pair of 4 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " x 0.134" five knuckle non rising loose pin, button tipped, ball-bearing, full mortise, wrought steel hinges conforming to ANSI A156.1 and BHMA No. A8112.

4) Locksets and passage sets.

a. Lever Passage Set shall conform to ANSI A156.2 1976 Grade 1 requirements; brass $\frac{1}{2}$ " throw latch bolt projects to 1" throw with Delrin AF insert hardened steel insert; 4 \square " curved lip ASA strike; cast bronze and stainless steel trim with precision machined internal parts of hardened steel; 2 $\frac{3}{4}$ " back set; 1 \square " x 2 " brass front.

b. Lever or lockset shall conform to ANSI A156.2 1976 Grade 1 requirements, Fed. Spec. FF-H-00106B; brass $\frac{1}{2}$ " throw latch bolt projects to 1" throw with Delrin AF insert and hardened steel insert; 4 \square " curved lip ASA strike cast bronze and stainless steel trim with precision machined internal parts of hardened steel; 2 $\frac{3}{4}$ " back set; 1 \square " x 2 $\frac{1}{4}$ " brass front. Finishes to be manufacturer's standards.

5) Doors shall be pre-fit, pre-machined, sanded and finished at the factory. Bevel doors 1/8" in 2" at lock edge. Comply with hardware templates.

6) Install doors in accordance with NFPA No. 80 with $\frac{1}{2}$ " minimum latch throw. Clearances shall be \square " at jambs and heads and $\frac{1}{2}$ " from bottom of door to top of floor finish.

7) Install floor mounted door stops, 2" diameter, low rise, dome type, cast units, No. 10 finish, with molded rubber bumper insert. Unit shall be provided with a non-rotational positioning stud to penetrate into floor with screws.

11. PERFORMANCE CHARACTERISTICS

A. All movable wall panels shall be Class A fire rated as defined by ASTM Procedure C-36. All laminated gypsum panel surfacing materials shall have a Flame Spread Rating of 25 (or less) when tested in accordance with ASTM Procedure E 84.

B. Depending on configuration, standard movable wall panels shall provide an STC rating of 33-37 when tested in accordance with ASTM E 90 without aid of acoustical batting in conformance with "full-wall" tests as opposed to "point on panel" tests. An STC rating of 39 for V-Wall and 41 for M-Wall shall be achieved with sound batten option installed in panels.

C. Wall systems shall have been tested and certified as sustaining 5 pounds per square foot (minimum) transverse loading, with panel deflection no greater than 1/20th of the vertical span (in inches), in conformance with ASTM Procedure E-72

D. Movable wall panels shall be capable of supporting a hang-on component weight capacity of no less than 2,000 pounds per wall panel spline, single or double side loaded, regardless of its width.

12. PREPARATION FOR INSTALLATION

Do not begin erection of movable walls until building is suitably enclosed to provide complete protection from weather and until temperature within the building can be maintained at a constant minimum of 55° F.

13. INSTALLATION

A. Install partitions after permanent partitions, floor coverings, suspended ceiling panels, data/communications cable, and final electrical connections.

B. Install movable walls to be fully movable, rigid, level, plumb, and in alignment with components secured together in accordance with manufacturer's instructions. Partitions shall be clean and free from defects and ready for use.

C. Aluminum floor runners not over carpet shall be secured to the floor as required by the use of power driven pins or other approved fasteners. Where partitions are installed over carpeting and carpet teeth are used in the floor runner, fasteners shall only be required at door openings.

D. Where splines for furniture integration are shown to be installed on permanent partitions or on existing masonry walls, install plywood over the existing wall surface to receive the splines as detailed on Drawings. Then, fill space between splines with pre-finished gypsum wallboard with wallcovering to match the movable wall panels. On existing masonry walls edge plywood and gypsum wallboard assembly with wood trim as detailed on Drawings.

E. Where columns occur close to movable wall, provide fillers between the movable wall and the column. Where the space is greater than 4", a wall start shall be applied to the movable wall and the column. A pre-finished gypsum board panel shall then be attached, flush with the column.

F. Install continuous and positive seal to prevent light and sound transmissions at partition contacts with floor, ceiling, wall, and other abutting surfaces.

G. Repair damaged or defaced work or replace with new work, as acceptable to the Architect. Completely refinish defaced partition components with factory-finish materials or replace defaced components.

H. Adjust hardware and leave doors in proper operating condition.