
USACE / NAVFAC / AFCEA / NASA UFGS-10 22 19 (April 2006)

Preparing Activity: USACE Replacing without change
UFGS-10615 (April 2005)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated 9 October 2006

Latest change indicated by CHG tags

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SECTION 10 22 19

DEMOUNTABLE MOVABLE PARTITIONS 04/06

NOTE: This guide specification covers the requirements for demountable and movable partitions.

Comments and suggestions on this guide specification are welcome and should be directed to the technical proponent of the specification. A listing of technical proponents, including their organization designation and telephone number, is on the Internet.

Recommended changes to a UFGS should be submitted as a Criteria Change Request (CCR).

Use of electronic communication is encouraged.

Brackets are used in the text to indicate designer choices or locations where text must be supplied by the designer.

PART 1 GENERAL

NOTE: Demountable and movable partitions should be used in areas susceptible to future partition rearrangement. Compared to traditional drywall construction, installation of these partitions are faster and eliminate the cost and mess of cutting and fitting carpet and ceilings around fixed walls. They offer maximum flexibility and reusability to accommodate frequent and quick relocation of work without loss of materials, damage or modification to panels or to adjoining structures such as ceilings, fixed walls and floors. Movable partitions and some demountable partitions are non-progressive allowing the removal of individual panels from any location without disturbing adjoining units. The partitions are point accessible meaning instant access of panels allows for electrical, telephone and

communication lines to be installed quickly and easily. Furniture support is an optional added feature that makes these partition systems similar to furniture systems panels.

Partition layouts on the drawings must show partition dimensions, nominal sizes for doors, glazing panels, sound-resistance and fire-resistance when required, details and any other information pertinent to partition layouts. Partition layout should be based on module configuration to allow for maximum reusability.

Designer should require materials, products, and innovative construction methods and techniques which are environmentally sensitive, take advantage of recycling and conserve natural resources. Many manufacturer's panels and components are 95% to 100% recyclable and reusable.

1.1 REFERENCES

NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a RID outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM C 36/C 36M	(2003e1) Gypsum Wallboard
ASTM C 442/C 442M	(2004e1) Gypsum Backing Board, Gypsum Coreboard, and Gypsum Shaftliner Board
ASTM E 119	(2000a) Fire Tests of Building Construction and Materials
ASTM E 413	(2004) Rating Sound Insulation

ASTM E 72	(2004) Conducting Strength Tests of Panels for Building Construction
ASTM E 84	(2006a) Standard Test Method for Surface Burning Characteristics of Building Materials
ASTM E 90	(2004) Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
BIFMA INTERNATIONAL (BIFMA)	
BIFMA X5.6	(2003) Panel Systems
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)	
NFPA 70	(2005) National Electrical Code
UNDERWRITERS LABORATORIES (UL)	
UL 1286	(1999; Rev thru Oct 2002) Office Furnishings

1.2 SUBMITTALS

NOTE: Review submittal description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list to reflect only the submittals required for the project. Submittals should be kept to the minimum required for adequate quality control.

A "G" following a submittal item indicates that the submittal requires Government approval. Some submittals are already marked with a "G". Only delete an existing "G" if the submittal item is not complex and can be reviewed through the Contractor's Quality Control system. Only add a "G" if the submittal is sufficiently important or complex in context of the project.

For submittals requiring Government approval on Army projects, a code of up to three characters within the submittal tags may be used following the "G" designation to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy, Air Force, and NASA projects.

Choose the first bracketed item for Navy, Air Force and NASA projects, or choose the second bracketed item for Army projects.

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for [Contractor Quality Control approval.] [information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.] The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Installation

Drawings indicating plans and elevations of partitions, details of required supports, adjacent construction and finish trim, finish of miscellaneous components and accessories, and type of partition finish. Drawings shall include dimensions verifying conformance to life safety code and electrical switch, outlet, infeed and jumper placements.

SD-03 Product Data

Partition System

Manufacturer's product and installation specifications which provide technical data for panel system and components. Literature shall include adequate information to verify that the proposed product meets the specification. Product manufacturer and style shall be included.

Warranty

Two copies of the warranty.

SD-04 Samples

Partition System

[Three] [_____] 200 x 200 mm 8 x 8 inch samples of partition [showing partition construction] and indication of materials proposed and method of attaching partition to walls, floor, and ceiling.

[Three] [_____] color samples of all exposed finishes of panels and components.

Mock-ups. After finish samples are approved, and prior to installation of panels, a minimum 2430 x 2430 mm 8 x 8 foot mock-up shall be provided for each color and type of panel. Once approved, the mock-up samples shall be used as a standard of workmanship within the facility. Remove mock-ups when directed. Approved mock-ups may become part of the completed work if approved by the Contracting Officer's Representative.

SD-07 Certificates

Fire-Resistance Rating and Burning Characteristics
Acoustical Performance
Structural Performance

Test reports from an independent laboratory certifying that the partitions meet the specified [[fire-resistance rating] [and] [acoustical performance]] [and] [structural performance].

1.3 PERFORMANCE REQUIREMENTS

NOTE: Performance requirements listed below are
optional choices for designer; edit accordingly.

1.3.1 Fire-Resistance Rating and Burning Characteristics

Fire-resistance rating for partitions shall be [one-hour] [_____] and in conformance with ASTM E 119. Partition system shall have a Class A (under 25) Flame Spread Rating in conformance with ASTM E 84.

1.3.2 Acoustical Performance

Sound-rated partition assemblies shall have a minimum Sound Transmission Coefficient (STC) of [36] [42] [_____] . STC range shall be determined in accordance with Sound Transmission Test by Two-Room Method and reported in accordance with ASTM E 90 and ASTM E 413 for frequency data. Tested assembly shall have been assembled in the same manner that the partitions will be installed on the project.

1.3.3 Structural Performance

1.3.3.1 Transverse-Load Capacity

Demountable partitions shall be able to [sustain a 1200 Pa 5 psf minimum transverse loading] [support the furniture systems components] with panel deflection no greater than 1/120th of the vertical span when tested in accordance with ASTM E 72.

1.3.3.2 Load-Bearing Capability

Not less than [136 kg concentrated 300 lb] [0.041 kg/linear mm 3.2 lb/linear inch distributed] [_____] proof load when tested according to BIFMA X5.6.

1.3.3.3 Non-Load Bearing Capability

[Wall system is designed for non-load bearing capability.]

1.3.4 Electrical and Communication Capability

Electrical components, devices, and accessories shall meet requirements of UL 1286 and NFPA 70. The label or listing of Underwriter's Laboratories, Inc. will be accepted as evidence that the material or equipment conforms to the applicable standards of that agency. In lieu of this label or listing, a statement from a nationally recognized, adequately equipped testing agency shall be submitted indicating that the items have been tested in accordance with the required procedures of UL and that the material and equipment comply with contract requirements. Electrical work shall conform to the requirements of Section 26 20 00 INTERIOR DISTRIBUTION SYSTEM.

1.4 QUALIFICATIONS

Manufacturer shall specialize in designing and manufacturing the type of partition specified in this section, and shall have a minimum of [5] [_____] years of documented successful experience. Manufacturer shall have the facilities capable of meeting contract requirements, single-source responsibilities and warranty. Partition installer shall have a minimum of [5] [_____] years of documented successful experience in the installation of partitions similar to the requirements of this section.

1.5 DELIVERY, STORAGE AND HANDLING

Materials shall be delivered to project site in accordance with manufacturer's instructions in original unopened and undamaged packages and stored in a clean, dry, and secure place free from damage during construction activities. Packages shall contain labels which indicate manufacturer's name, brand name, size, finish and placement location.

1.6 PROJECT/SITE CONDITIONS

Before fabrication of partitions, field dimensions shall be verified and recorded on shop drawings. Fabrication schedule shall be coordinated with construction schedule and progress to avoid delay in the work. Temperature and humidity conditions within the area to receive partitions shall be maintained as close as possible to the final occupancy standards. A minimum of 16 degrees C 60 degrees F shall be maintained continuously. Installation shall not begin until the building envelope provides complete protection from the weather.

1.7 CERTIFIED INSTALLERS

When required by the manufacturer, panels shall be installed by an authorized dealer with a certified installation crew.

1.8 WARRANTY

NOTE: When site assembled demountable partitions are specified, the following warranty paragraph may be deleted in lieu of being covered under the one year standard construction warranty.

The Contractor shall warrant the partition system for a period of [10] [_____] years, excluding fabrics and other covering materials that shall be guaranteed for 3 years. Warranties shall be signed by the authorized representative of the manufacturer. Warranties accompanied by document authenticating the signer as an authorized representative of the guarantor shall be presented to the Contracting Officer upon the completion of the project. The Contractor shall guarantee that the panel system and installation are free from any defects in material and workmanship from the date of delivery.

PART 2 PRODUCTS

NOTE: Site assembled demountable partitions are constructed of studs and panels that are cut to fit into existing building elements. Factory assembled

movable walls are unitized and fully modular.

2.1 PARTITION TYPE

The partition system shall consist of a series of individual, floor-supported, floor-to-ceiling [site constructed] [factory constructed/pre-fabricated] panels as shown. Top channel shall hold panels in place and shall accommodate a floor-to-ceiling variation. The partition system shall be complete with accessories to meet performance requirements.

Partition system shall provide accommodations for electrical switches and outlets [at multiple heights in the panel]. Panels shall include light switches, receptacles, and double gang outlet boxes for data/voice jacks at mounting heights and locations as indicated on the electrical drawings. Building electrical power shall be [ceiling] [wall] [base] [_____] feed and shall be in accordance with Section 26 20 00 INTERIOR DISTRIBUTION SYSTEM.

2.2 MATERIALS AND COMPONENTS

2.2.1 Panels

Panels shall be [gypsum board [minimum 13 mm 1/2 inch] [_____] thick conforming to ASTM C 36/C 36M. Gypsum backing board shall conform to ASTM C 442/C 442M]. [Wood composite] [Fiber composite] [steel-sheet-faced gypsum board conforming to ASTM C 36/C 36M] [steel-sheet-faced mineral fiber board]. Panels shall be complete with [tongue-and-groove] [panel clips] [panel connectors] at joints to align panels. Panels shall be complete with concealed slots for hang-on brackets and accessories. Maximum total load for bracket supports on one or both wall surfaces shall not exceed 5500 N 1240 lb. Panels shall be manufacturer's standard construction with fillers and bracing as required. [Face panel thickness shall be [minimum 38 mm 1/2 inch] [_____] .] [Panel thickness shall be [minimum 51 mm 2 inch] [_____] .]

2.2.2 Framing System

Framing system shall consist of extruded anodized aluminum or roll-formed steel components which include ceiling runners, floor track, [studs or posts,] bracing, and suitable treated fasteners to prevent corrosion. Post covers shall be provided if applicable. When assembled, framing system with panels shall form a rigid, stable partition.

2.2.3 Glass and Glazing

NOTE: Coordinate glass requirements with Section 08
81 00 GLAZING.

The glass and glazing for partitions shall be provided where shown on the drawings. Glass shall be [clear] [patterned] [door glass] and shall comply with Section 08 81 00 GLAZING. [Provide [wood] [metal] mullions (muntins).] [All glass shall be factory installed using extruded clear vinyl glazing beads.] No protruding glazing beads or removable stops will be visible.

2.2.4 Doors and Frames

NOTE: Single doors are normally available 0.91 m wide x 1.93 m or 2.13 m high (3 feet wide x 6 feet 8 inches or 7 feet high). Some manufacturers offer other sizes.

Demountable partitions shall be complete with doors and frames as shown which are fully contained with the panels. Doors shall be [unfinished] [prefinished] 45 mm 1-3/4 inch thick flush type [hollow metal] [solid core] [wood veneered] [plastic laminate]] of manufacturer's standard construction. Door frames shall provide a compatible appearance with other trim components and shall allow for variations in floor level. Fire-Protection rating of rated door assemblies shall be labeled [20] [45] minutes.

2.2.5 Door Hardware

Hardware for doors shall be in accordance with Section 08 71 00 DOOR HARDWARE. Hardware cutouts and reinforcement shall be provided as required in doors and frames for hardware furnished.

2.2.6 Windows

Demountable partitions shall be complete with windows which are fully contained within the panel system. Window frames shall be sized as shown and assembled from minimum 1.7 mm 0.065 inch thick extruded anodized aluminum parts or minimum 1.2 mm 0.0478 inch cold-rolled steel and vinyl components. Window openings shall be glazed in accordance with Section 08 81 00 GLAZING.

2.2.7 Base Trim

Base trim shall be nominal 100 mm 4 inch high without exposed fasteners. Base shall be [recessed] [projected] [flush] [_____].

2.3 FINISHES

NOTE: Editing of color reference sentence(s) shall be coordinated with the Government. Generally the 09915 COLOR SCHEDULE or drawing is used when the project is designed by an Architect or Interior designer. Color shall be selected from manufacturers standard colors or identified as a manufacturers color in this specification only when the project is very simple and has minimal finishes.

When the Government directs that color be located in the drawings a note shall be added that states:
"Where color is shown as being specific to one manufacturer, an equivalent color by another manufacturer may be submitted for approval. Manufacturers and materials specified are not intended to limit the selection of equal colors from other manufacturers. The word "color" as used herein includes surface color and pattern."

Prior to specifying a custom color finish, research to determine if additional cost and lead time is

acceptable. Note there is often a minimum order
requirement which will affect future orders.

Finish of panels shall be [painted gypsum board panels finished in accordance with Section 09 90 00 PAINTS AND COATINGS] [factory-applied paint finish] [pre-applied vinyl wallcovering finish, Type II (Medium Duty), UL Class A conforming to ASTM E 84] [fabric] [high pressure laminate] [wood veneer] [tackable wallboard] [marker board] [_____]. Finish of exposed trim shall be [aluminum [satin clear] [light] [medium] [dark] bronze] [factory-applied paint] [prime coat finish ready for field paint] [steel] [_____]. Base trim shall [match other exposed trim] [_____]. Color of all partition component finishes shall be [in accordance with Section 09 06 90 COLOR SCHEDULE.] [as indicated on the drawings] [_____].

PART 3 EXECUTION

3.1 PREPARATION

Locations scheduled to receive partitions shall be inspected for compliance with manufacturer's requirements. Floor and ceiling dimensions shall be verified in accordance with approved shop drawings prior to starting the work. Floor under partitions shall be level to within 3 mm in 3048 mm 1/8 inch in 10 feet, non-accumulative. Conditions which may adversely affect the partition installation shall be corrected before installing partitions.

Floor construction and carpeting shall be completed, the suspended ceiling grid shall be installed, and other finishing operations such as painting completed prior to partition installation.

3.2 INSTALLATION

Partitions shall be installed in accordance with details in the drawings, approved shop drawings, and manufacturer's published instructions. The system shall be assembled and erected with the least possible drilling and cutting of existing construction and shall be capable of disassembly by means of ordinary tools. The partition installation shall be complete with accessories to meet specified requirements. Installation shall include concealed fastening devices and pressure-fit components that will not mar the floor, wall and ceiling surfaces and shall be free of exposed screws, nuts, rivets or bolts. Panels shall be installed in a rigid manner, straight and plumb, with horizontal lines level. Seals shall be installed to prevent light and sound transmission at connections to ceilings, floors, fixed walls and abutting surfaces.

3.2.1 Doors and Windows

Doors shall be hung to [swing] [slide] freely and hardware shall be carefully fitted. Glass for glazed openings shall be installed on shims in a vinyl or polyurethane foam gasket. Glass stops shall be installed without exposed fastenings.

3.2.2 Wall Base

[For site assembled partitions wall base shall be installed in the longest lengths possible. Joints shall be fitted tight. Internal corners shall be mitered. Base shall be scribed to fit to door frames and other obstructions]. [Partition base covers shall snap on.] Base shall tightly adhere to wall surfaces.

3.3 ADJUSTMENTS

Damaged partition finish and components and damaged floor, wall and ceiling finishes shall be repaired to the original conditions or replaced.

3.4 CLEANING

Upon completion of installation, partition components and finishes shall be cleaned in accordance with partition manufacturer's recommendations. Alkaline or abrasive agents shall not be used. Precautions to avoid scratching or marring partition finish surfaces shall be exercised.

3.5 PROTECTION

Partitions shall be protected from damage through the duration of construction activities.

-- End of Section --