

RELOCATABLE PARTITIONS - SECTION 10615

Use this guide specification to specify the ULTRAWALL Partition Systems by USG Interiors, Inc. Obtain copies of USG Publication SA-1020 and Technical Information Guide MP-517 before editing pecification. The versatile ULTRAWALL system includes many optional components and performance levels; edit Section carefully to avoid conflicting requirements.

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Partition framing system.
- B. [Prefinished] gypsum panels.
- C. [Partition insulation] [and] [acoustical sealant].
- D. Frames for [doors] [and] [glazing].
- E. Trim and accessories.

Doors, glass, and hardware are usually be specified in Division 8 but can be included in this Section if appropriate.

- F. [Doors,] [glass,] [and] [hardware] installed in partition.

1.02 RELATED SECTIONS

Include sections specifying work affecting relocatable partitions. Edit list according to Project requirements.

- A. Section 08100 - Metal Doors: Doors[.] [and fire-rated frames.]
- B. Section 08200 - [Wood] [and] [Plastic] Doors.
- C. Section 08700 - Hardware: Finish hardware for doors.
- D. Section 08800 - Glass and Glazing.
- E. [Section 09250 - Gypsum Board Systems: Non-relocatable partitions.]

Retain below if resilient base is used instead of standard ULTRAWALL base.

- F. Section [09650 - Resilient Flooring:] [09680 - Carpet:] Resilient base.
- G. [Section 09900 - Painting: Field painting of unfinished partitions.]
- H. [Section 09950 - Wall Coverings: Site installed wall covering.]
- I. Division 16 - Electrical: Electrical [and telephone] wiring and devices within and on relocatable partitions.
- J. [_____ - _____.]

1.03 REFERENCES

List only references that are included within the text of Section.

- A. AA - Aluminum Association.
- B. ASTM C36 - Gypsum Wallboard.
- C. ASTM C960 - Predecorated Gypsum Board.
- D. ASTM E72 - Conducting Strength Tests of Panels for Building Construction.
- E. ASTM E84 - Surface Burning Characteristics of Building Materials.
- F. ASTM E90 - Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
- G. ASTM E119 - Fire Tests of Building Materials.
- H. ASTM E413 - Determination of Sound Transmission Class.
- I. FS CC-W-408A - Wall Covering - Vinyl-Coated
- J. FS HH-I-521 - Insulation Blankets, Thermal (Mineral Fiber, for Ambient Temperatures).
- K. UL - Underwriters Laboratories, Inc. Fire Resistance Directory.
- L. WHI - Warnock Hersey International Certification Listings.
- M. Federal Test Method Standard No. 406, Method 1074.

1.04 SYSTEM DESCRIPTION

Partition is 3-3/8 inches wide, except two-hour fire-resistance-rated partition is 4-1/2 inches wide.

- A. Partition system shall have components which can be disassembled, relocated, and substantially reused. System shall consist of vertical gypsum board panels, floor runner, top rail, splice studs, trim, and accessories. Partition shall be [3-3/8] [4-1/2] inches thick and provide 1-7/8 inches wide cavity for distribution of utilities.

If including performance specifications, edit Section carefully to avoid conflict between descriptive and performance requirements. Refer to USG product literature and test reports for design requirements and limitations of each performance rating. Coordinate partition performance with specifications for doors, glazing, penetrations through partitions, and perimeter construction.

1.05 PERFORMANCE

UL U427 (One-Hour) requires "H" or "T" studs at 24 or 30 inches on center. UL U416 (Two-Hour) requires cavity insulation and an additional layer of gypsum on furring. Refer to UL publications for additional requirements.

- A. Fire-Resistance Rating: Test in accordance with ASTM E119. [Provide where fire-rated construction is indicated.]
 - 1. Partitions: [One hour-rated; UL U427.] [Two hour-rated; UL U416.] [_____.]
 - 2. Frames for [Doors] [and] [Glazing]: [20 minute-rated, WHI classified.] [_____.]

42 STC can be obtained with steel "H"-studs located 24 inches on center. Other studs or spacings may result in lower ratings. Cavity insulation can be used to obtain higher ratings. Partitions constructed according to UL U416 provide 50 STC. See test reports for additional requirements.

- B. Sound Transmission Classification: [42] [50] [_____] STC tested in accordance with ASTM E90 by an independent agency and classified in accordance with ASTM E413. [Provide where sound-rated

construction is indicated.]

C. Structural Performance: Test in accordance with ASTM E72.

1. Partitions shall withstand a uniformly distributed load of [5] [_____] psf applied perpendicular to the partition without exceeding deflection of 1/240 of the partition height.
2. System shall withstand five 30 ft. lb. impacts with no observable damage. Instantaneous deflection shall be one inch max., permanent deflection set shall be 0.10 inch max. Test in vertical position.

D. Surface Impact Resistance: Gypsum panels shall not fracture or break, and no indentation greater than 1/16 inch measured 24 hours after impact from an 8 oz., 1-1/2 inch diameter steel ball dropped from a height of 18 inches; Federal Test Method Standard No. 406, Method 1074.

 Where seismic design code requirements govern, consult USG Interiors representative or qualified structural engineer for bracing requirements. Include performance specification here, or provide details and descriptive specifications as required.

E. Seismic Resistance: [_____].]

F. Door Slamming: Test shall consist of 1,000 slam cycles. Door shall be opened 16 inches measured from lock edge of door to door frame and slammed shut with a force of 17 ft. lbs. applied perpendicular to the door opening at door midpoint vertically and within five inches of lock edge horizontally. Partition shall pass test if there is no irreparable damage to frame, door is fully operable, and fit is as originally installed.

1.06 SUBMITTALS

A. Submit under provisions of Section [01300.] [01340.]

B. Product Data: Submit manufacturer's product data indicating materials, components, [_____], and standard details to be used. Submit manufacturer's installation instructions.

 Shop drawings may not be necessary if required work can be adequately determined from Drawings, Specifications and manufacturer's product data.

- C. Installation Drawings: Indicate [partition layout,] [panel joint locations,] [connection to adjacent construction,] [_____] [and] special details necessary to supplement or modify manufacturer's standard drawings and instructions.
- D. Samples: Submit [two] [_____] of the following:
 - 1. Complete sets of [swatches] [and] [paint chips] indicating manufacturer's standard selection of specified finishes for selection.

 Retain above if finishes are specified "to be selected". Retain below to verify specified or selected finishes.

- 2. Samples 5 x 7 inches with [specified] [selected] finish[es].
- 3. Samples 4 inches long of [prefinished metal] [and] [vinyl] trim showing [specified] [selected] finishes.

- E. Test Data: Submit copies of laboratory tests indicating requirements for compliance with performance requirements.
- F. Installer Qualifications: Submit letter from manufacturer indicating acceptability of proposed installer.

1.07 QUALITY ASSURANCE

 Contact USG for names of licensed installers in Project area.

- A. Installer: Company specializing in relocatable partition system work and acceptable to manufacturer.

1.08 MOCKUP

 Use this Article for large projects where a full sized erected assembly is required for review of construction, coordination of work of several Sections, or testing.

- A. Provide mockup of partition system under provisions of Section [01400.] [01405.]
- B. [Construct mockup of corner with two [six] [_____] feet long walls [and one "T" intersection]. Include full range of components and

accessories required by project.]
[_____].]

- C. Locate mockup [on site] [in installer's shop.] [_____].]
- D. If accepted, mockup will demonstrate minimum standards for the Work. Mockup may [not] remain as part of the Work.

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section [01600.] [01610.]
- B. Deliver materials in their original, unopened packages. Support panels to ensure flatness. Protect from damage. Remove damaged or deteriorated materials.
- C. Deliver and install after building is enclosed; permanent heating, cooling, and ventilating equipment is in operation; and residual moisture from [plaster,] [concrete,] [_____,] [and other] construction has dissipated. Maintain 65-85 degrees F ambient temperature and 80 percent maximum relative humidity.

1.10 SCHEDULING

Retain the following if partitions must be relocatable without replacing floor or ceiling finishes.

- A. Install partitions after installation of finished [floor] [and] [ceiling].
[Install on top of finished floor.]

1.11 WARRANTY

- A. Provide one year manufacturer's limited warranty under provisions of Section [01700.] [01740.]

1.12 MAINTENANCE MATERIALS

Additional ULTRAWALL components are readily available from USG Interiors. However, additional materials can also be stored at designated location if extensive or frequent remodeling is anticipated.

- A. Provide additional partition system components to match installed materials.
 - 1. Wall Components: Provide sufficient components to construct

[] linear feet of two-sided partition. Provide trim for [] inside corners, [] outside corners, [and] [] "T" intersections.

2. [Door] [and] [Glazing] Frames: [].]

3. [].]

B. Furnish items in original packaging clearly labeled with part number and description. Store in location designated [on site.] [].]

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. ULTRAWALL Partition System by USG Interiors, Inc., 101 S. Wacker Drive, Chicago, IL 60606-4385.

Partition system substitutions require careful evaluation of performance, appearance, and coordination with affected work. Coordinate the following with Division One and bidding requirements.

B. Substitutions: Under provisions of Section [01600.] [01630.]

1. Submit proposed substitution to Architect in writing not less than 10 days before bid date. Acceptance will be by Addendum.
2. Submit product data, samples, proposed installation details, [test report submittals,] [and] [].]. Clearly indicate discrepancies between proposed products and specified product.
3. Construct full size mock-up showing proposed components and details.

2.02 FRAMING

A. Struts and Floor Runners: Roll-formed galvanized steel channel.

B. Ceiling Runners: [Steel] [Aluminum] rails with internal spacers to maintain position of panels.

"H"-STUDS provide the best economy and fire and sound performance in most applications. "T"-STUDS allow installation of panels on one side of partition at a time, providing versatility for tenant spaces, improved access to utilities in partition cavity, and staggered installation of panels. "H/R"-STUDS

provide access to cavity while maintaining separation between partition sides. ALUMINUM STUDS for wall mounted furniture systems are also available. Contact USG Interiors for additional information.

- C. Studs: Roll-formed galvanized steel; [.021 inch minimum uncoated steel thickness for partitions up to 9'-6" high] [and] [.027 inch minimum uncoated steel thickness for partitions over 9'-6" high].
 - 1. "H"-Studs: [Provide at all locations except where another type is required.] [Provide at [fire-rated] [and] [sound-rated] walls.]
 - 2. "T"-Studs: Provide where [one-sided construction] [or] [staggered gypsum panels] are required [and where shown on Drawings].
 - 3. "H/R"-Studs: Provide where removable panels for access to partition cavity are required [and where shown on Drawings].

Furring is required for two-hour fire-resistance rating.

- D. Wall Furring: Roll-formed galvanized steel; .021 inch minimum uncoated steel thickness.

2.03 PANELS

Maximum panel height is ten feet.

- A. Gypsum Panels: 3/4 inch thick x [24] [30] inches wide x height of partition; edges beveled and kerfed for installation on studs, square cut ends; comply with ASTM C36.

2.04 DOORS AND GLAZING

Select door frame type desired.

- B. Door Frames:
 - 1. Aluminum: SMR Delta Door Frames; self-mortising and reversible.
 - 2 Steel:
 - a. DONN Steel Door Frames; throated type, capable of installation without regard to panel module, non-handed and reversible,

and formed of galvanized steel.

- a. [At fire-rated partitions, provide one hour-rated [and WHI labelled] Class B frames.]
- c. Door Slamming: Frame shall withstand one million slam cycles. In each cycle, door shall be opened 16 inches and slammed shut with a force of 17 ft. lbs. applied perpendicular to the door opening at door midpoint vertically and within five inches of lock edge horizontally. There shall be no irreparable damage to frame and door shall fit as originally installed and remain operable.

3. Hollow Metal Frames: Specified in Section [08100.] [_____.]

 Hardware should usually be specified in Division 8, but can be added to this Section if appropriate. Standard hardware preparation for ULTRAWALL door frames is for 1-1/2 pair of 4-1/2 x 4-1/2 inch mortised butt hinges (2 pair for full-height doors) and a 4-7/8 x 1-1/4 inch strike per ANSI A115.1 and 115.2.

- C. Hardware: [Prepare frame for hardware specified in Section [08700.] [_____].] [Provide [_____].]

 Doors should usually be specified in Division 8, but can be added to this Section if appropriate. ULTRAWALL frames are sized for 1-3/4 inch thick doors. Specify fire-resistance-rated doors and frames in fire-resistance-rated partitions.

- D. Doors: [As specified in Section [08100.] [08200.] [_____].] [_____].]

- E. Window Frames: [Match specified trim group.] [_____].] Provide resilient glazing gaskets.

 Glass should usually be specified in Division 8, but can be added to this Section if appropriate. Specify glass and glazing with regard to fire-resistance, sound transmission coefficient, and safety glazing requirements.

- F. Glass: [[_____] type[.]] [specified in Section 08800.]] [_____].]

2.05 TRIM AND ACCESSORIES

 Specify steel and vinyl trim for economy, aluminum trim when required for

appearance.

- A. Trim: [Steel and vinyl.] [Extruded aluminum.]
- B. Base: [Vinyl base attached with base clips.] [Specified Section [09650.] [09680.] [_____].]

Coordinate insulation with fire-resistance rating and sound transmission classification.

- C. Insulation: THERMAFIBER Sound Attenuation Fire Blankets, paperless, semi-rigid mineral fiber mat, [[1 inch] [1-1/2 inches] thick] [thickness required to provide specified performance], cut to fit stud spacing; FS HH-I-521.
- D. Acoustical Gaskets and Sealant: Compressible foam gaskets and USG Acoustical Sealant.
- E. Fasteners:
 - 1. Floor Runner to Floor: [Type recommended by system manufacturer.] [Carpet gripper.] [Double-stick foam tape.] [Screws or anchors.] [_____].
 - 2. Ceiling Runner to Ceiling: [Type recommended by system manufacturer.] [_____].
 - 3. Gypsum Panels to Struts and Floor Runners: 1-1/4 inch type S bugle head screw.
 - 4. Other Conditions: Fasteners and adhesives recommended by system manufacturer.
- F. Posts: Extruded aluminum, [____ x ____] inches.
- G. Provide other materials [as required to achieve specified levels of performance and] in accordance with system manufacturer's instructions.

2.06 FACTORY FINISHES

Select required finishes. Vinyl wall coverings are available from USG Interiors in matching colors for field applied finishes. Refer to current catalog or swatch book for additional information.

- A. Vinyl Covered Gypsum Panels: Comply with ASTM C960.
 - 1. Color and Pattern: [[_____] color, [_____] pattern, [_____] average light reflectance.] [Color and pattern as selected from manufacturer's standards.] Within each wall area, vinyl shall be from the same product lot and pattern shall be installed in same direction to minimize variation in color or appearance.
 - 2. Surface Burning Characteristics: Maximum [_____] flame spread and [_____] smoke developed; ASTM E84.

 Following applies to materials which are fabric backed.

- 3. Comply with FS CC-W-408A, Type I (Light Duty).
- B. Fabric Covered Gypsum Panels: [[_____] color, [_____] pattern.] [Color and pattern as selected from manufacturer's standards.] Within each wall area, fabric shall be from the same product lot and pattern shall be installed in same direction to minimize variation in color or appearance.
 - 1. TEK-WALL 1000: Woven, solution-dyed polyolefin fibers, 22.0 oz.
 - 2. Donegal Tweeds: Woven polyester and polyester/wool, 19.0 oz.
 - 3. Wovens: Woven polyester and polyester/wool, 16.5 oz.
- C. Unfinished Panels: Paper faces for field finishing.
- D. Custom Finished Panels: [_____].]
- E. Aluminum Surfaces: [Dark bronze color-anodized to AA C22-A32.] [Clear anodized to AA C22-A21 satin finish.] [Painted [_____] color[.] [selected from manufacturer's standards.]]
- F. Steel Surfaces: [Shop applied baked enamel of [_____] color[.] [selected from manufacturer's standards.]]
- G. Vinyl Trim Surfaces: Color selected from manufacturer's standards.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that building conditions are ready to receive partitions. Take floor-to-ceiling measurements to ensure correct installation of full-height frames.

- B. Beginning of installation means acceptance of existing conditions.

3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions[.] [and in accordance with approved designs for performance-rated partitions.]
- B. Install rigid, plumb, with horizontal lines leveled, neat in appearance, and free from defects.

Partitions are usually installed to finished ceiling. Install to structure above if required for fire or sound control or security.

- C. Extend partitions from floor to [finished ceiling] [structure above] [[_____] inches above floor] [except where otherwise indicated].

Retain below if partition is installed after floor or ceiling finishes are installed. Note that certain fire-rated designs require anchor-bolts which may mar floor or ceiling finishes.

- D. [Secure partitions to [floor] [and] [ceiling] using fastening devices which will not excessively mar finished surfaces.]
- E. Use concealed fasteners except where otherwise shown in manufacturer's product data or required by conditions.
- F. Coordinate installation of [mechanical,] [electrical,] [and other] work placed on or within partition.
- G. Layout partition centerlines [on ceiling [for ceiling height partitions]] [and] [on floor [for partial height partitions]]. Install ceiling runner, then floor runner. Check for plumbness before fastening floor runner. Install strut studs at door openings and wall terminations.
- H. Panels: Install vertically with butt panel joints. [Space as shown on layout drawings.] [Space to minimize use of cut panels.] [To extent practical, space panels symmetrically on each wall; layout to avoid use of panels less than half width of full panel.]
- I. H/R Studs: Install with access panels [as shown on Drawings.] [on alternating sides of partitions to allow access to each partition cavity while maintaining separation of areas on opposite sides of partitions.] Mark location of access panels with a permanent red "X" located beneath base trim.

- H. Bracing: Provide concealed supports if required to assure lateral stability of partitions. [Install posts from floor to ceiling at ends of partial height partitions.] [Provide additional bracing or blocking where required to support partition mounted fixtures.]
- J. Partition Insulation: [Provide in [fire-rated] [and] [sound-rated] partitions.] Install tight within spaces, around openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions. Staple or adhere to back side of panels.
- K. Acoustical Gaskets and Sealant: Seal cut-outs in panels, penetrations through partitions, and intersections with adjacent construction. Use gaskets where practical; use sealant at other locations[.] [and in fire-rated partitions.]
- L. Vapor Retarder: [_____.]
- M. Doors and Hardware: Install as specified in Section [_____]. Adjust for proper operation.

3.03 CLEANING AND PROTECTION

- A. Clean partitions.
- B. Protect against damage. Repair or replace damaged components.

3.04 SCHEDULE

 When required, several types of ULTRAWALL partitions can be used to satisfy conditions which may occur at different locations on Project. If locations of different types of partitions are not shown on Drawings, include schedule as shown in following example.

- A. Partitions Adjacent to Corridor No. 118: Fire-rated; extend to underside of structure; fabric finish; "H"-Studs.
- B. Partitions in General Office No. 250: 7'-0" cornice height; vinyl finish; "H"-Studs.
- C. Other Partitions: Sound-rated; install from floor to ceiling; fabric finish; "T"-Studs.

END OF SECTION