

# PRODUCT SPECIFICATIONS

Genius® Architectural Wall

August 2024

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Specifications throughout all Divisions of the Project Manual are directly applicable to this Section, and this Section is directly applicable to them.

### 1.2 SUMMARY

- A. Section Includes:
  - 1. Non-Progressive, movable and reconfigurable system of unitized or pre-assembled panels, from a single manufacturer.
  - 2. Trim, Sealants, Hardware and Accessories.
- B. Products supplied but not installed under this Section: Voice/data cabling, devices, faceplates for thermostats and other devices.

### 1.3 RELATED SECTIONS

- 1. Wood Doors - Section 08 14 00
- 2. Door Hardware - Section 08 71 00
- 3. Glass and Glazing - Section 08 81 00
- 4. Acoustical Ceilings - 09 51 00
- 5. Wall Finishes - Section 09 70 00
- 6. Electrical and Lighting- Division 26
- 7. Communications - Division 27

### 1.4 PERFORMANCE REQUIREMENTS

- A. Installer Qualifications: Engage an experienced installer who has successfully completed demountable partition installations similar in material, design, and extent to that indicated for this Project and is mutually accepted by the manufacturer and the customer.
- B. Performance Bond: The successful demountable manufacturer should have the ability to provide a performance bond to insure Project completion.
- C. Structural Performance: Provide demountable partitions capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
  - 1. Load-Bearing Capacity of Panel System: Two shelving units loaded with 300 lb each (180 lb inside - 120 lb on top) and 1 worksurface with 270 lb meeting the distributed functional load requirement when tested according to BIFMA X 5.6-2003, Section 6, Table 1.
  - 2. Transverse-Load Capacity of Panel System:
    - a. Interior wall panel deflections cannot exceed 1/120 of the span for flexible facing material or 1/240 of the span for brittle facing materials under 5 psf (0.240 kN/m<sup>2</sup>) uniform transverse design load per the 2018 IBC Table 1604.3. Interior wall panel deflections for glass panel frames cannot exceed 1/175 of the span or 0.75 inches, whichever is less under a 5 psf (0.240 kN/m<sup>2</sup>) uniform transverse design load per the 2018 IBC Table 2403.3.



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- b. 2018 IBC Section 1607.15: Interior demountable partition or butt-glazed entrances/storefronts wall products that exceed 6 feet (1829 mm) in height, including their finish materials, have adequate strength to resist the loads which they are subjected but not less than a horizontal load of 5 psf (0.240 kN/m<sup>2</sup>).
  - c. Seismic Performance: Provide demountable partitions capable of withstanding the effects of earthquake motions determined according to ASCE 7 - Minimum Design Loads for Buildings and Other Structures.
  - d. Office of Statewide Health Planning and Development Anchorage pre-approval number is OPA-2608-10 and conforms to the 2010 California Building Code.
- D. Sound Control: Solid panels provide an overall sound transmission class of not less than 44 STC rating in accordance with ASTM E-90, ASTM E412 when recessed ceiling channel, recessed panel connectors and wallposts are used. Solid panels provide an overall sound transmission class of not less than 48 STC rating in accordance with ASTM E90, ASTM E412 when flush ceiling channel, flush panel connectors and U-channels are used.
- E. Fire Retardancy: No flammable materials are used in the manufacture of the wall system. Provide independent laboratory tests for surface-burning characteristics of panel finishes in accordance with ASTM E-84 (UL 723). Flame Spread/Smoke Development: Class A for powder-coat finish and steel, and 100% Polyester or Recycled Polyester fabric per IBC, Section 803.1.2.
- F. Electrical Components, Devices and Accessories: UL listed and labeled as defined in NFPA 70, Article 110, by a testing agency acceptable to authorities have jurisdiction, and marked for intended use.
- G. Indoor Air Quality: Demountable partition wall manufacturer's non-wood products must meet the SCS Indoor Advantage™ Gold Certification or equivalent. Conforms to indoor air concentrations meeting ANSI/BIFMA Furniture Emissions Standard (M7.1/X7.1-2011 R2016), CDPH/EHLB Standard Method (CA 01350) v1.2-2017 AND ANSI/BIFMA e3-2019 (Credit 7.6.1, 7.6.2, 7.6.3) conducted in an independent third-party air quality testing laboratory.
- H. FSC is available by request. FSC Chain of Custody Certification number is SCS-COC-002476.
- I. Clean Room Approval: Demountable wall manufacturer must be approved for use in cleanrooms. According to CSI Testing, the selected manufacturer met or exceeded the 10,000 clean area class conditions in accordance with Federal Standard 209E and ISO 14644 Part 1: Institute of Environmental Sciences RP-006.2 and/or the National Environmental Balancing Bureau Procedural Standards for Cleanrooms.
- J. Combustibility Performance: Products have finishes and construction acceptable for use in Non-Combustible buildings, in accordance with Chapters 6 and 8 of the International Building Code, 2018 Edition.
- K. 2010 ADA:
  - Doors Clear Width (ADA 404.2.3) Suggested Specification. Doorways have a minimum clear opening of 32" (815 mm) with the door open 90°, measured between the face of the door and the opposite stop, and have 80" (2030 mm) minimum clear headroom.
  - Doors Opening Force (ADA 404.2.9) Suggested Specification. Interior hinged, sliding or folding doors require no more than five pounds of force to open.
  - Doors Door Hardware (ADA 404.2.7) Suggested Specification. Door handles are levers that can be operated with a closed fist. Hardware is mounted no higher than 48" (1220 mm) above finished floor and a minimum of 34" above finished floor.
- L. Certification: Include supporting certified laboratory testing data indicating that material meets specified test requirements.

- M. Mock up for Verification Purposes: In a location designated by the Architect, install a full scale installation incorporating at least one of each type of panel, and accessory required, illustrating each installation condition. Retain mock up installation until completion of total installation or dismantle earlier at the direction of the Architect. Materials used for the mock up installation will not be considered part of either the base contract materials or the attic stock materials. If life cycle costs of the product are important decision criteria, the mock up installation and reconfiguration should be timed, and the reuse of components should be evaluated.

## 1.5 DESIGN REQUIREMENTS

- A. The extent of the demountable partition work as shown on the drawings, and as specified herein.
- B. Provide all materials, labor, and equipment to install demountable partitions. The demountable wall system offers maximum flexibility and reusability to accommodate frequent and quick relocation work without loss of materials, damage or modification to assembled system must be unitized or pre-assembled (not stick built), non-progressive and modular allowing the removal of individual panels from any location without disturbing adjoining units and providing interchangeability of panels and door units on the same module.
- C. The system can offer a single center reveal design with optional concealed vertical slotting for wall-hung furniture components utilizing a pliable recessed panel connector. A shallow panel connector between panels provides a single center reveal design which matches the finish of the panel face, or a flush connector finished to match the panel to provide a monolithic aesthetic.
- D. The head detail is either recessed or flush.
- E. The base assembly with an integrated leveling system is permanently attached to the panel. Detached loosely shipped floor tracks and leveling components are not be permitted.
- F. The solid panels are available in a choice of finishes and substrates to include markerboard steel, wood veneer, powder-coated steel, vinyl-covered steel fabric-covered steel, fabric-covered tackboard. (For acoustic purposes, no gypsum or melamine type product will be used.)
- G. Panels are stackable (top or bottom) to accommodate ceiling height changes and panel type changes (i.e., solid/glass or glass/solid configurations).
- H. Factory installed panel shells or faces are removable and interchangeable in the field without dismantling as complete units.
- I. The factory assembled demountable walls are very flexible to accommodate the building conditions. The demountable wall should have flexible vertical adjustability. An adjustable, u-channel head assembly provides a  $\pm 1/2"$  adjustment at the ceiling. At the floor, a self-contained leveling glide system and a flush 4"-, or 5"-high base cover allows for an adjustment of  $\pm 1"$  for a 4" base and  $\pm 1 1/2"$  for a 5" base. Combined, the components provide an overall vertical adjustment of  $\pm 1 1/2"$  for 4" and  $\pm 2"$  for 5" to compensate for ceiling and floor irregularities. Where the wall system meets the building core walls, columns for window mullions, a telescopic, spring-loaded wall post or u-channel allows for a  $\pm 1"$  horizontal adjustment. All products are able to accommodate incremental sizes to  $1/16"$  increments.
- J. Compatible modular power is available and can terminate within the solid wall panel and base areas of both glass and solid panels (overlapping 5" base only). All modular power connections within solid walls cavities and base areas are accessible and inspectable before, during and after installation. Owner will require open accessibility to power and data cabling disconnection and reconnection and pathways to accommodate wall disassembly + relocation. Walls are able to be field retrofitted to accept additional modular power outlets and conventional hardwired electrical outlets, fire + life safety, ADA strobes + devices, thermostats, and access security hardware and devices without complete wall section removal.

## 1.6 SUBMITTALS

- A. Product Data: Product data on physical characteristics, durability, resistance to fading, and flame spread characteristics for each type of partition and accessory.
- B. Shop Drawings: Shop drawings showing location and extent of partitions. Include plans, elevations, sections, details, and attachments to other work.
- C. Samples:
  - 1. Samples for Initial Selection: Samples for initial selection purposes in form of manufacturer's standard color charts showing full range of colors, textures, and patterns available for each type of material exposed to view.
  - 2. Samples for verification: For each type of exposed finish required, prepared on Samples of size indicated below.
    - a. Panel Finish Face: Manufacturer's standard-size unit, but not less than 3 inches (75 mm) square.
    - b. Base Trim: 12-inch- (300-mm-) long Samples.
    - c. Door Finish Face: Manufacturer's standard-size unit, but not less than 3 inches (75 mm) square.
    - d. Glazing: Manufacturer's standard-size unit, but not less than 3 inches (75 mm) square.
- D. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each type of demountable partition.
- E. Contract Closeout Information:
  - 1. Warranty.
  - 2. Maintenance Data: For demountable partitions to include in maintenance manuals.
    - a. Recommended cleaning materials and warning about cleaning methods that could be detrimental to finishes and performance.
    - b. Installation manual detailing methods to move reuse and adjust demountable product.
- F. Sustainability Information (LEED):
  - 1. EQ CREDIT: LOW-EMITTING MATERIALS
    - a. Product has been tested according to California Department of Public Health (CDPH) Standard Method v1.2-2017.
    - b. Formaldehyde Emissions Evaluation.
    - c. Product meets EPA TSCA Title VI and California Air Resources Board (CARB) ATCM for formaldehyde requirements.
  - 2. MR CREDIT: BUILDING PRODUCT DISCLOSURE AND OPTIMIZATION - ENVIRONMENTAL PRODUCT DECLARATIONS: Environmental Product Declarations are available.
  - 3. MR CREDIT: BUILDING PRODUCT DISCLOSURE AND OPTIMIZATION - SOURCING OF RAW MATERIALS
    - a. Recycled Content.
    - b. FSC wood products are certified by the Forest Stewardship Council (by request).
    - c. Materials reuse options.
  - 4. MR CREDIT: BUILDING PRODUCT DISCLOSURE AND OPTIMIZATION - MATERIAL INGREDIENTS:
    - a. HPD Available: Compliant with the Health Product Declarations open Standard.
    - b. ANSI/BIFMA e3 Furniture Sustainability Standard.
  - 5. RP CREDIT: REGIONAL PRIORITY.

## 1.7 PROJECT CONDITIONS

- A. Delivery, Storage, and Handling: Deliver materials to Project Site in original factory wrappings and containers/skids, clearly labeled with identification of manufacturer, brand name, model number and order number. Store materials in original undamaged packages and containers, inside well ventilated area protected from weather, moisture, soiling, extreme temperatures, humidity; store product according to installation manual and away from other trades.

- B. Environmental Limitations: Do not deliver or install demountable partition components until building is enclosed and finishing operations, including ceiling and floor-covering installation and painting, are complete.
- C. Field Measurements: Indicate measurements on Shop Drawings.
- D. Coordination of Work: Coordinate layout and installation of demountable partition components with other units of Work. Installation of ceilings, floor coverings, lighting fixtures, HVAC equipment, and fire-suppression systems should be completed before demountable partitions are installed.
- E. Special Requirements: Comply with instructions and recommendations of manufacture for special delivery, storage, and handling requirements.

## 1.8 EXTRA MATERIALS

Deliver to the Owner, not less than three percent of the Project total for each component panel and accessory of each type, color, and finish of demountable partition system exclusive of material required to properly complete installation. Furnish accessory components and installation tools as indicated on schedule. Furnish extra materials from same production run as materials installed. Package extra materials with protective covering, identified with appropriate labels.

## 1.9 WARRANTY

Demountable system glazed units, door frames, and related components to be without defects in material or workmanship for a period of ten (10) years from the date of delivery. Wood doors are warranted for ten (10) years from the date of delivery, subject to the manufacturer's terms and conditions. Third party supplied product such as door hardware and film applied to glass will be warranted based on their own warranty terms.

This warranty does not cover defects or damage resulting from accidents, misuse, improper relocation methods or transfer to storage. Plastic laminates, and wood veneer finishes are not warranted against fading or wearing, or if improperly cleaned or treated by the Owner or by others.

## 1.10 NON-OBSOLESCENCE

Demountable system components and parts, with exception of third party supplied product (such as door hardware, glass, film applied to glass) are guaranteed to be compatible and available for purchase for ten years from the date of the original order.

# PART 2 - PRODUCTS

## 2.1 DEMOUNTABLE PANEL PARTITIONS

- A. Products: Subject to compliance with requirements, provide the Basis-of-Design Product, or one of the following:
  - 1. TBD
  - 2. Other manufacturers desiring approval comply with Section 00440
- B. Basis-of-Design Product: Subject to compliance with requirements, provide KI "Genius Wall"

C. Solid Panels With Steel Substrate: 8.89 cm (3½") thick and consisting of an aluminum extruded frame construction, two removable panel shell assemblies each composed of one sheet of 22-gauge steel glued to vertical / horizontal stiffeners and intermediate horizontal stiffeners, non-toxic fiberglass insulation, and the base assembly. Top of panel engages the ceiling channel. Aluminum frames (including glass panels) as a standard will have cavities on each side to accommodate cabling. Field notching the horizontal frame members will also allow easy cable access from the ceiling or the floor. As standard, solid panel vertical frame posts can be slotted for hang-on furniture and the slots concealed by a dual durometer PVC gasket which is 1" wide and recessed from panel face or by a flush-to-panel face connector. Component bracketry is optional. Panels to contain integral, adjustable bottom connectors, and the panel shells to be equipped with a mushroom-shaped extrusion that forms a compression fit with the vertical frame for easy removal from the frame structure.

1. Type: Factory finished
2. Panel Thickness: Manufacturer's standard, 3½" thickness.
3. Panel Width: As indicated on drawings.
4. Panel Finish: [ Powder-coat finish ][ Wallcovering ][ Steel Markerboard ]
5. Panel Color and Pattern: [ As selected by Architect from manufacturer's full range ]
6. Magnetic Accessory

D. Solid Panels With Project Specific Substrate: 8.89 cm (3½") thick and consisting of an aluminum extruded frame construction, two removable panel shell assemblies each composed of [ Veneer ][ Plastic Laminate ][ Corkboard ][ Other ] face laminated MDF, non-toxic fiberglass insulation, and the base assembly. Top of panel engages the ceiling channel. Aluminum frames (including glass panels) as a standard will have cavities on each side to accommodate cabling. Field notching the horizontal frame members will also allow easy cable access from the ceiling or the floor. As standard, solid panel vertical frame posts can be slotted for hang-on furniture and the slots concealed by a dual durometer PVC gasket which is 1" wide and recessed from panel face or by a flush-to-panel face connectors, and the panel shells to be equipped with a mushroom-shaped extrusion that forms a compression fit with the vertical frame for easy removal from the frame structure.

1. Type: Factory finished.
2. Panel Thickness: Manufacturer's standard, 3½" thickness.
3. Panel Width: As indicated on drawings.
4. Panel Color and Pattern: [ As selected by Architect from manufacturer's full range ]

E. Aluminum Glass Framing:

1. Frame Finishes: [ Factory-applied powder-coat paint ][ Clear Anodized ] [ Paper-backed Veneer ].
2. Frame Color: [ As selected by Architect from manufacturer's full range ].
3. Glass frame Vertical Dimensions: [ 1.9" ][ 3.5" ]
4. Glass Panel Configuration: [ Single Center mounted ][ Edge mounted double glazed ][ 2 Glass Panel Faces ]

F. Panel Connector or Joint Closure:

1. Connector Type: [ Pliable PVC recessed ][ Shallow ][ Flush ][ Seamless ]
2. Finish: [ As selected by Architect from manufacturer's full range ]

G. Trim: Base trim is continuous, factory-finished, snap-on type or recessed; adjustable for variations in floor. Ceiling trim is continuous and compensates for ceiling irregularities.

1. Base Trim Profile: [ Flush ][ Recessed ]
2. Flush Base Trim Height: [ 4" ][ 5" for base electrical ]
3. Ceiling Trim Profile: [ Flush ][ Recessed ][ Cornice ]
4. Exposed-Metal Trim Finish: [ Factory-applied powder-coat paint ][ Clear Anodized ][ Paper-backed Veneer ]
5. Trim Color: [ As selected by Architect from manufacturer's full range ]

H. Wood Door Leaves: Manufacturer's standard 5-ply construction for veneer, 3-ply for painted MDF and 1¾ inches (45 mm) thick. Leaves should be constructed with no visible stop. Veneer and painted MDF doors utilize standard core material of particle board and Timberstrand which is considered a rapidly renewable material. Wood door finish substrate shall be either veneer or painted MDF.

1. Door Veneer Type: <Insert veneer type>
  2. Door Veneer Finish: <Insert color and pattern>
  3. Painted Door Type: MDF
  4. Painted Door Finish: Factory-applied wet spray
  5. Painted Door Color: [As selected by Architect from manufacturer's full range]
  6. Door Leaf Type: [Solid Core] [Fully-Glazed] [View-Lite Glazed] [1/2 glazed]
  7. Glass Insert (if applicable): <Insert glass type>
  8. Glass Insert Thickness (if applicable): [1/4"] [3/8"]
  9. FSC Veneer and/or Painted Door: [Yes] [No]
- I. Aluminum Door Leaves: Manufacturer's standard aluminum extrusion and fully glazed.
1. Door Finish: [Factory-applied powdercoat] [Clear Anodized] [Paper-backed Veneer].
- J. Door Frames: Manufacturer's standard aluminum extrusion, factory-machined to receive hardware, for 13/4" (45 mm) doors.
1. Frame Finishes: [Factory-applied powder-coat paint] [Clear Anodized] [Paper-backed Veneer].
  2. Frame Color: [As selected by Architect from manufacturer's full range]
  3. Frame Height: [Ceiling height] [Transom-height]
  4. Transom Height Finish (if applicable): <Insert solid or glass>
  5. Frame Type: [Single Sliding] [Double Sliding] [Single Reversible Pivot] [Single butt-hung] [Double butt-hung]
- K. Door Hardware: As specified in Hardware Section 08 71 00
- L. Glass and Glazing: Safety glazing in compliance with Glass and Glazing - Section 08 81 00.
1. Single Glazed Thickness: [1/4" to 3/8"].
  2. Double Glazed Thickness: [1/4"]
  3. Glass Type: [Tempered] [Laminate]
- M. Electrical and Communications: As specified in Electrical - Division 26 and Communications - Division 27. All electrical components are UL listed and approved.
- N. Solid Panel Acoustical Rating: [STC 48 - Flush Ceiling Channel, No Slotting] [STC 44]
- O. Seals: Manufacturer's standard.

## 2.2 FABRICATION

- A. Demountable Panels: Factory-assembled, flush, hollow unit construction; with faces smooth and free buckles, oil canning, and seam; and insulated with solidly packed, formaldehyde free insulation. Fabricate panels for installation with concealed fastening devices and pressure-fit components that will not damage ceiling or floor coverings. Fabricate panels with continuous light-and-sound seals at floor, ceiling, and other locations where panels abut fixed construction.
1. Factory glaze panels to the greatest extent possible.
- B. Components: Fabricate components for installation with concealed fastening devices and pressure-fit members that will not damage ceiling or floor coverings. Fabricate for installation with continuous seals at floor, ceiling, and other locations where partition assemblies abut fixed construction and for installation and for installation of sound attenuation insulation in partition cavities.

## 2.3 FINISHES, GENERAL

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved samples and are assembled or installed to minimize contrast.



## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Prior to installation of demountable partition system, clean floor to remove dust, debris, and loose particles.
- B. Illuminate areas of installation to provide an ambient light level of at least 100 foot candles measured in the area where partitions are to be installed.
- C. Maintain temperature in the area of installation at a constant minimum of 65 degrees F with relative humidity less than 70 percent for a period of 48 hours prior to installation and during installation process.
- D. General Contractor will deliver all GWB construction interfacing with the demountable partition system in true and plumb condition.
- E. For manufacturer to accept responsibility of dimensional compatibility between demountable partition wall system and GWB construction, manufacturers have access to the completed GWB for accurate field measuring eight weeks prior to requiring product on site to commence installation. If time line does not permit the eight weeks lead time, demountable manufacturers provide "hold-to" dimensions for the General Contractor. General Contractor then assumes responsibility that GWB construction delivers on "hold-to" dimensions.
- F. Demountable manufacturer determines that conditions are acceptable to receive the work of this section. Do not proceed with the work until satisfactory conditions have been corrected in a manner acceptable to installer. Starting of work shall be construed as acceptance of conditions.

### 3.2 INSTALLATION

- A. Install demountable partition systems rigid, level, plumb, and aligned. Install seals to prevent light and sound transmission at connections to floors. Ceilings, fixed walls, and abutting surfaces.
  - 1. Installation Tolerance: Install each demountable partition so surfaces vary not more than  $\frac{1}{8}$  inch (3 mm) from the plane formed by the faces of adjacent partitions.
- B. Do not alter ceiling suspension system.
- C. Install door-and-frame, solid panel and frame, and glazing-and-glazing-frame assemblies securely anchored to partitions and with doors aligned and fitted. Install and adjust door hardware for proper operation.

### 3.3 DEMONSTRATION

- A. Engage a factory-authorized service representative to demonstrate and train Owner's maintenance personnel to adjust, operate, and maintain demountable partitions. Refer to Division 01 Section "Demonstration and Training."

