

## Product Guide Specification

“Tranquil Acoustic Walls” with “Seclusion” panels specified below:

### SECTION 10 22 19

#### DEMOUNTABLE PARTITIONS

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Floor-to-ceiling, “Seclusion” vinyl and steel-covered, demountable partitions.

##### 1.2 RELATED REQUIREMENTS

- A. Division 8 – Openings: Doors, door frames, and clerestory.
- B. Division 22 – Plumbing: Piping for plumbing and medical gases in internal panel cavities.
- C. Division 26 – Electrical: Raceway and boxes for electrical systems in internal panel cavities.
- D. Division 27 – Communications: Pathways for communications systems in internal panel cavities.

##### 1.3 REFERENCE STANDARDS

- A. American Society of Testing and Materials International (ASTM)
  - 1. ASTM A 653 / A 653M – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - 2. ASTM C 1396 – Standard Specification for Gypsum Board
  - 3. ASTM E 119 – Standard Test Method for Fire Tests of Building Construction and Materials.

4. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
5. ASTM E 90 – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
6. ASTM E 413 – Classification for Rating Sound Insulation.

B. International Building Code (IBC)

1. IBC 2002 1607.14 – Structural Design, Live Loads, Interior walls and partitions

C. American Society of Civil Engineers (ASCE)

1. ASCE 7 – Minimum Design Loads for Buildings and Other Structures

#### 1.4 PERFORMANCE REQUIREMENTS

A. 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. Transverse-Load Capacity: Lateral deflection of not more than 1/120 (“Seclusion” or “Access” walls) and 1/175 (“Adapt” glass walls) of the overall span when tested using a uniformly distributed load of 5 psf (0.240 kN/m<sup>2</sup>) in accordance with IBC 2002 1607.14 or calculated by a registered engineer.

B. 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.

1. Soil Type, Ground Motion Response Acceleration, and Structure Risk Category determine Seismic Design Category: Site specific.
2. “Tranquil Walls” internal X-bracing and wall kicker placement in accordance with calculations by a registered engineer.

C. Fire Performance:

1. “Seclusion” vinyl and steel-covered, demountable partitions rated 1 hour when tested in accordance with ASTM E 119.
2. Surface Burning Characteristics of gypsum board in “Access” and “Seclusion” partitions when tested in accordance with ASTM E 84: Flame Spread, 15; Smoke Developed, 0.

D. Acoustic Performance: Provide demountable partitions with Sound Transmission Class (STC) ratings tested in accordance with ASTM E 90.

1. “Seclusion” vinyl and steel-covered, demountable partitions: [two layers of 1” “SoniCor” insulation, 51 STC].

## **1.5 PREINSTALLATION MEETINGS**

- A. Convene preinstallation meeting: [2 weeks] before start of installation of demountable partitions.
- B. Require attendance of parties directly affecting work of this section, including Contractor, Architect, installer, and manufacturer's representative.
- C. Review materials, installation, cleaning, protection, and coordination with other work.

## **1.6 SUBMITTALS**

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Shop Drawings: Submit manufacturer's shop drawings, including plans, elevations, sections, and details, indicating dimensions, tolerances, materials, components, fabrication, fasteners, hardware, finish, options, and accessories.
  - 1. Indicate locations and sizes of doors and door frames.
  - 2. Indicate locations and sizes of internal panel cavities for plumbing, electrical, and communications systems.
- D. Samples: Submit manufacturer's sample of demountable partition panels.
  - 1. Sample Size: Minimum 6 inches by 6 inches.
- E. Installer's Project References: Submit installer's list of successfully completed demountable partition projects, including project name and location, name of architect, and type and quantity of partitions installed.
- F. Care and Maintenance Instructions: Submit manufacturer's care and maintenance instructions, including:
  - 1. Installing, removing, and relocating demountable partitions without damage.
  - 2. Cleaning demountable partitions.
- G. Warranty Documentation: Submit manufacturer's standard warranty.
- H. Record Documentation: Submit annotated shop drawings and specifications marked up to indicate actual products used and locations of work of this section.

## **1.7 SCHEDULING**

- A. Floor Coverings: [Install Tranquil wall system before installation of finished floor]
- B. Suspended Ceilings: [Install Tranquil wall system before installation of suspended ceiling]

## **1.8 QUALITY ASSURANCE**

### **A. Installer's Qualifications:**

1. Installer regularly engaged in installation of demountable partitions of similar type to that specified.
2. Employ persons trained for installation of demountable partitions.
3. Certified by manufacturer.

## **1.9 DELIVERY, STORAGE, AND HANDLING**

### **A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.**

### **B. Storage and Handling Requirements:**

1. Store and handle materials in accordance with manufacturer's instructions.
2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
3. Store materials in clean, dry area indoors.
4. Do not store materials directly on floor.
5. Store materials on flat, level surface, raised above floor, with adequate support to prevent sagging.
6. Store materials out of direct sunlight.
7. Protect materials and finish during storage, handling, and installation to prevent damage.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURER**

- A. Manufacturer: Tranquil Systems International, 528 Pioneer Parkway, Clare, Michigan 48617. Toll Free 800-631-0212. Website [www.tranquilsystems.com](http://www.tranquilsystems.com). E-mail [sales@tranquilsystems.com](mailto:sales@tranquilsystems.com).

### **2.2 SOLID DEMOUNTABLE PARTITIONS**

#### **A. "Tranquil Acoustic Walls" Framing**

1. Description:
  - a. Steel studs and starter track designed for interlocking panels and trim.
  - b. Ability to be easily cut in the field and fit into building conditions.
  - c. Ability to be stacked to accommodate ceiling heights to a maximum of 20 feet.
  - d. Non-progressive demountable wall panels facilitate installation of plumbing, electrical, and communications hardware.

- e. “Tranquil Walls” seismic x-bracing mounts internally and satisfies seismic design requirements.
  - f. Standard internal wall thickness of 3-3/4-inches allows space for plumbing, electrical, and insulation.
2. Materials:
- a. Studs and Starter Track: 24-gauge galvanized steel; ASTM A 653, Designation A30; Alloy 1018-1020.
  - b. Stud Length: Same as panel height.
  - c. Stud Extender: 90 Degree formed steel bracket secures studs to top and bottom starter track.
  - d. Square Post, 5-1/4-inch, Extruded Aluminum: Horizontal and vertical posts used in wall design for freestanding or custom room configurations.

B. “Tranquil **Seclusion**” Panels

1. Description:
- a. Vinyl and *steel*-wrapped gypsum panels.
  - b. “Seclusion” panels interlock with galvanized steel framework.
  - c. Panels can be removed/installed independent of adjacent panels.
2. Panel Dimensions:
- a. Height: [96 inches].
  - b. Width: [24 inches], plus or minus 0.005 inch.
3. Panel Surface: 6-mil vinyl wrap with high-definition pattern.
- a. Vinyl Pattern and Color: [Designer White].
4. Panel Substrate: 24-gauge galvanized steel; ASTM A 653, Designation A30; Alloy 1018-1020.
5. Panel Backer: 5/8-inch gypsum panel, Type X.
6. Trim: Extruded aluminum.
- a. Finish: [Rocket White Paint].

C. Doors and Hardware

1. Doors:
- a. Manufacturer: Marshfield Door Systems.
  - b. Model: Signature Series.
  - c. Type: [Solid core].
  - d. Finish: [Wood: Enviroclad UV] Plain Sliced Red Oak, Espresso 42-95.
2. Door Frames:

- a. Type: [3-piece knock down steel].
- b. Finish: Rocket White Paint.
- 3. Door Hardware:
  - a. Lock Type: Cylindrical locking.
  - b. Locking Functions: [Passage latch, non-keyed].
  - c. Knob and Lever Design: [Saturn, lever].
  - d. Finish: [Satin Chrome].
  - e. Hinges: [Ball bearing, Non-handed, Mortise].
- D. Accessories
  - 1. Electrical System:
    - a. Modular: Provide 3-inch or 5-1/4-inch square posts for wiring and receptacles. 8 wires, 4 circuits, plug-and-play connections. Provided and installed by Tranquil Systems International and/or authorized installer.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine areas to receive demountable partitions and verify field dimensions.
- B. Verify surfaces to support demountable partitions are clean, dry, flat, level, plumb, square, stable, rigid, and capable of supporting the weight.
- C. Notify Architect of conditions that would adversely affect installation or subsequent use.
- D. Do not begin installation until unacceptable conditions are corrected.

### **3.2 INSTALLATION**

- A. Install demountable partitions in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install demountable partitions level, plumb, square, and straight.
- C. Attach demountable partitions securely in place to supports.
- D. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.
- E. Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by Architect.

### **3.3 ADJUSTING**

- A. Adjust doors for proper operation in accordance with manufacturer's instructions.
- B. Adjust door hardware to operate smoothly without binding.

### **3.4 CLEANING**

- A. Clean demountable partitions promptly after installation in accordance with manufacturer's instructions.
- B. Do not use harsh cleaning materials or methods that could damage panels or finish.
- C. Remove debris associated with installation of demountable partitions and leave area in "broom clean" condition.

### **3.5 PROTECTION**

- A. Protect installed demountable partitions from damage during construction.

### **3.6 WARRANTY**

- A. 10 Year Limited Warranty: We warrant each new Tranquil Systems International product of our manufacture to be free from defects in material and workmanship for ten (10) full years under normal use and service to the original buyers through one of our authorized Distribution partners. Restrictions apply. Please reference TSI Warranty for more detail.

**END OF SECTION**