SECTION 09 77 00

NON-PROGRESSIVE INTERIOR GLASS WALL & CEILING SYSTEM

PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Interior glass wall and ceiling panel system application.

B. Trim and accessories for attaching wall and ceiling panels, including fastenings, accessory features, connections to the building structure, and other items not mentioned specifically herein, and which are necessary to make a complete installation.

1.02 RELATED SECTIONS

A. Documents affecting work in this section includes but is not limited to the General Conditions, Supplementary Conditions and Sections in Division 1 – General Requirements of these Specifications.

B. 054000 – Cold Formed Metal Framing (for structural steel studs)

C. 062000 - Finish Carpentry.

D. 079200 - Caulking and Sealants.

E. 088000 - Glazing

F. 092600 - Gypsum Board Systems.

G. 099000 - Painting

1.03 QUALITY ASSURANCE

A. Work Quality: All work of this Section to be manufactured and constructed, assembled and installed by skilled craft persons in finish carpentry. All such work to be accurately fabricated, assembled, joined and expertly finished in accordance with measurements taken on the jobsite.

B. Defective Work: All work, work not true to line, not in satisfactory operating condition, improperly installed, damaged or marred will not be accepted. Remedy, remove or replace defective work as directed by the Architect.

C. Standards: All applicable Sections of the "Manual of Millwork" and current supplements published by the Woodwork Institute for the construction types and grades hereinafter specified. All modifications to such standards shown on the Contract Drawings and approved Shop Drawings or specified shall govern.

D. Manufacturer: Provide wall panels produced by Skyline Design whose published product literature clearly indicates compliance with specifications.

1.04 SUBMITTALS

A. Submit in accordance with Division 1 Submittal Procedures.

B. Submit four samples, 6”x 6”, of each type of glass panel and subassembly components specified.

C. Submit the following Quality Assurance Submittals:
1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties.
2. Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver and store materials in the manufacturer’s original protective packaging. Store materials in an enclosed shelter providing protection from damage and exposure to the elements.

1.06 COORDINATION

A. Do work of this Section in a fully coordinated and cooperative manner with work of other trades to provide complete and proper installation and to expedite the job without delays.

B. Secure field measurements before preparation of shop drawings and fabrication where possible, for proper and adequate fabrication and installation of the work.

C. Priming and back-painting of all carpentry and millwork is specified in Section 09900 - Painting. Do not set items until priming and back-painting have been completed.

D. Where Interior wall panels are clad around outside corners of a room, the drywall installer should avoid installing drywall corner beads, as this makes shimming the interior wall panels very difficult. (See Section 09260).

E. Protect all work against damage of any kind until final acceptance of the building. Repair or replace damaged work to the satisfaction of the Architect without additional cost to the Owner.

1.07 WARRANTY

A. Wall panel attachment system to be warranted against delamination for (10 Years). The factory authorized fabricator, product installer and material manufacturer must sign and date the Warranty documents and submit a copy to the Contractor for the warranty to be valid.
B. Glass panels to be warranted for (10 years) from date of receipt.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

A. These specifications for Vector Interior Glass Cladding System are based on interior wall panels by Skyline Design and the wall panel trim, sub-assembly and connectors manufactured by Wall Panel Systems, represented nationally by Chris J. Allen

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B. All panel products specified in this section shall be provided by Skyline Design. Wall Panel Systems (WPS) to factory apply mounting clips on the back of each panel, coordinate field dimensions with contractor/installer, provide panel sub-assembly and frame support as indicated on WPS engineering shop drawings for architect review and installation purposes.

2.02 MATERIALS

A. Basis of design: Vector Interior Glass Cladding System comprised of (select):

Vector Shadowline System
Vector Reveal System
Vector Concealed System
Vector Illuminate System
Vector Glow System

Manufactured by Wall Panel Systems, Inc. to include monolithic or laminated glass panels fabricated by Skyline Design as per engineering shop drawings and details.

B. Glass Thickness: A thickness of ¼”(6mm) up to 9/16”(8mm) for monolithic or laminated glass panels by Skyline Design is approved for interior walls or ceilings with the WPS concealed clips, sub-assembly and non-progressive installation system.

C. Glass Panels: All panel material to be provided by Skyline Design + WPS as part of complete Vector Interior Glass Cladding System for interior wall and ceilings panels:

a. Flat Wall Applications
b. Flat Ceiling Applications (customer specified glass type per local code)

2.03 FABRICATION

A. Interior glass panels cannot be modified after fabrication by Skyline Design. Wall Panel Systems to fabricate all sub-assembly framing materials and attach clips to back of panels.

2.04 GLASS PANEL PROPERTIES

A. Panels shall be of material specifically designed for wall cladding. Fabricated panels shall comply with all current codes and regulations. Panels specified to code compliance by customer. Monolithic panels shall have uniform thickness (+0.04" per ASTM C1036) and flatness (per ASTM C 1048 0.59" 8mm FT-0.75" 6mm FT) for 10-foot span. Laminated per ASTM C 1172

B. Flame spread (ASTM E-84): Exempt

C. Performance requirements:
1. Fully Tempered (FT) monolithic and laminated glass panels in conformance with ANSI z91.1 / CPSC CFR 1201
2. Laminated per ASTM C1172

D. Panel Tolerance:
1. Monolithic-Length and Width-6mm(1/4" +/- 1/16") per ASTM C 1048
2. Monolithic-Length and Width-8mm(1/4" +/- 5/64") per ASTM C 1048
3. Laminated per ASTM C 1172

E. Physical Properties:
1. 6mm(1/4")=3.1 lbs / ft2
2. 8mm(5/16")=4.1 lbs / ft2
3. Fully Tempered=69 MPa (10,000 psi), or an edge compression of not less than 67 MPa (9,700 psi)

F. Optical Properties:
1. Visible Light Transmittance (VLT)2%=91
2. Visible Light Reflectance2%=8

H. Substrate Preparation:
a. All surfaces behind decorated glass shall be fully sealed with a PVA primer

2.05 SUB-FRAMING ASSEMBLY

A. Non-progressive system clips and trim to be manufactured specifically to meet the following requirements:

1. Handle the weight of Interior wall and ceiling panels.
2. Fasteners for panel assembly to be designed to keep panels consistantly flat at each joint.
3. Capable of holding panels up to 6' x 12' or 5'x10' for graphic printed glass.

4. Allow maximum 3/8" ventilation gap between the wall and the back side of the panel clip to prevent condensation behind the panels. (Reasonable shimming is permitted to keep wall panels straight and flush)
5. Horizontal and Vertical joints between panels to be 3/16" maximum.
6. System to allow interchanging of components at a later date, with a dry-fit installation. No liquid adhesives to be used.

B. Trim and Clip Material
   1. Where not seen: Al 6061-T6.
   2. Where visible: Al 6063-T5.
   3. Thickness: not less than 0.62".

C. Fasteners to be self-tapping Type F, 8/32" x 3/8" plated steel.

D. Panel trim for joints, edges and corners for the Vector Interior Glass Cladding System shall be Shadowline, Reveal or Capture trim options as shown on the drawings.
   1. Profile Finish: (select)
      a. Mill Finish
      b. Clear Satin Anodized
      c. Black Anodized
      d. Light Bronze Anodized
      e. Medium Bronze Anodized
      f. Dark Bronze Anodized
      g. Brass Anodized
      h. Stainless Steel Anodized
      i. Custom Color Anodized
      j. Powder Coated to match "color code"

PART 3 – EXECUTION

3.01 INSTALLATION

A. Install panels and fixing system as per approved shop drawings and specification.

B. Install aluminum sub-frame to support the (FMS) clip sub-frame assembly.

C. Maximum fixing distances:
   a. 2 fixing points in one direction using:
      i. 8 mm panel is 27”.
      ii. 10 mm panel is 33”.
   b. 3 or more fixing points in one direction:
      i. 8 mm panel is 31”
      ii. 10mm panel is 37”.

D. The installation of the panel clip system shall be true and plumb.

E. Face of the panels are to sit out from the face of the wall ¾” +/- shimming as required.

F. Installed panels shall have vertical joints with splines routed directly in the center of the panel edge to ensure that all four intersecting panels are kept in the same plane.

G. Exact sizes and dimensions of the trim to be coordinated with the drawings, field conditions and approved shop drawings.

3.02 PROTECTION

A. After installation, the General Contractor shall protect the panels from damage. The panels shall be kept free from paint, plaster, cement scratches, or any other destructive forces.

3.03 CLEANING

A. Glass panels to be cleaned with glass cleaners free from ammonia, coloring and solvents. Cleaning solutions are to be applied to the face of glass panels only. Surface #2 of glass should not be exposed to moisture.

B. Repair or replace all damaged material to the satisfaction of the Architect and/or Contractor.

C. Installed areas or portions of the work shall be inspected by Architect or General Contractor and approved immediately following completion of such areas.

END OF SECTION