

SECTION 102219 – DEMOUNTABLE PARTITIONS

PART 1 - GENERAL

1.1 SUMMARY

A . Section Includes:

1. Delegated design of interior aluminum framed storefronts.
2. Structure.
3. Glass infill.
4. Doors and frames.
5. Door hardware.
6. Site integrated components.

B . Related Requirements:

1. 08 71 00 - Door Hardware for site integrated components.

1.2 SUBMITTALS

A . Sample: Submit two samples for verification of selected finish as scheduled upon request unless noted otherwise. All wood veneer and non-standard custom finishes must be reviewed and approved by the Architect.

1. Anodized: 3 x 6 inch (76mm x 153mm) on metal.
2. Chroma coat:
 - a. Standard Color: 2 x 2 inch (51mm x 51mm) paint chip.
 - b. Custom Color: 4 x 6 (102mm x 153mm) inch on MDF.
3. Powder Coat: 2 x 4 inch (51mm x 102mm) on metal.
4. Glass: 4 x 4 inch (102mm x 102mm).

B . Product Data: Provide manufacturers standard tech sheets as applicable to the project for the following: Structure, Glass Infill, Doors and Frames, and Door Hardware.

C . Pre-Manufacture Submittals: Provide the following information to the manufacturer prior to development of shop drawings.

1. Field measurements of existing construction, future construction, finished width and height of walls and associated components, as well as design team provided plans and elevations.
 - a. Where field measurements are not possible, hold-to and control dimensions must be coordinated and agreed upon by all parties who interface with the interior aluminum framed storefronts through the Shop Drawing process before manufacturing begins.

2. Structure: Include selected types.
 3. Glass Infill: Include finishes and configurations.
 4. Doors and Frames: Include cores, finishes, frames, and operations.
 5. Door Hardware: Include manufacturers standard hardware and site integrated component hardware.
 - a. One sample of each type of Site Integrated Door Hardware that is to be installed in doors included in this section shall be sent to manufacturer for review and approval.
 6. Site Integrated Components: Provide make, model, size, configuration and any additional pertinent product data for site installation.
- D . Shop Drawings: Submit shop drawings for review prior to commencing any fabrication of the interior aluminum framed storefronts. Coordinate as required until scope is confirmed by all affected stakeholders. Include manufacturer provided plans, elevations, sections, schedules and applicable notes per the following:
1. Indicate material descriptions, dimensions and profiles of adjacent components and assemblies interfacing with the interior aluminum framed storefronts.
 2. Indicate field measurements of existing construction, future construction, finished width and height of assemblies and associated components.
 3. Structure: Indicate profile type, finishes and attachment to base building.
 4. Glass Infill: Indicate finishes and configurations.
 5. Doors, Frames and Hardware: Include elevations indicating glazing and finishes, schedules indicating door tags, styles, dimensions, handing, hardware and finishes.
 6. Site Integrated Components: Indicate device type and location.
- E . Delegated Design Submittals: Provide structural analysis data and calculations for installed products to demonstrate code compliance with design loads, signed and sealed by licensed professional engineer registered in the jurisdiction of the project.
1. Include engineering calculations for grid connections, bulkhead connections, and seismic conditions.
- F . Manufacturer's Installation Instructions: Indicate any special preparation of base building conditions, installation and attachment methods.
- G . Operation and Maintenance Data: Provide maintenance data for incorporation into operation and maintenance manuals.
- H . Warranty Documentation: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.3 QUALITY ASSURANCE

A . Qualifications:

1. Manufacturer Qualifications: Company specializing in the manufacture of work specified in this section, of the quality and complexity required for this project. Show production facilities capable of meeting contract requirements for single-source responsibilities and warranty.
2. Installer Qualifications: Company trained and certified by manufacturer and specializing in performing the work of this section.

B . Source Limitations: Obtain products specified herein from a single source.

1.4 DELIVERY, STORAGE, AND HANDLING

A . Do not deliver or install interior aluminum framed storefronts until spaces are enclosed and weather-tight, wet work is complete and dry, work above ceilings is substantially complete, and HVAC system is operational and able to maintain ambient temperature and humidity conditions between 60 and 90 degrees Fahrenheit (15.5 and 32.2 Celsius) with Relative Humidity maintained between 25 and 60 percent.

B . Do not allow packaging to get wet or develop condensation.

C . Comply with the manufacturer's requirements for a warrantable installation of the installed products to meet the Performance and Design Criteria.

1.5 WARRANTY

A . Manufacturer Warranty: Provide 10 year warranty on interior aluminum framed storefronts, doors and door frames for failures in materials or workmanship as indicated by the manufacturer standard warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A . Specification is based on "Inspire" interior aluminum framed storefront listed below by DIRT Environmental Solutions.

B . Or approved equivalent.

2.2 DESCRIPTION

A . Factory assembled, site installed, interior aluminum framed storefronts, including Structure, Glass Infill, Doors and Frames, Door Hardware and Site Integrated components.

2.3 PERFORMANCE AND DESIGN CRITERIA

- A . Assembly shall be comprised of components which can be disassembled, relocated and field cut and substantially reused for future reconfigurations allowing for adaptability and retrofitting of the Structure, Doors and Frames, Door Hardware and Site Integrated components.
- B . Interior storefront shall include acoustic fillers within the extrusions where vertical frame modules connect to enhance the acoustic performance of the assembly.
- C . Provide interior aluminum framed storefront capable of enclosing space with mitered aluminum extrusions corners and butt glazed glass infill.
- D . Provide interior aluminum framed storefront capable of accommodating up to a 1-inch (25 mm) gap between the top, bottom and side edges of the assembly and base building elements.
- E . Interior aluminum framed storefront shall be capable of leveling to accommodate base building slab variations, and also be capable of seating tight to the floor slab fastening directly to the slab with shimming for a shorter overall height at the base extrusions.
- F . Provide interior aluminum framed storefront capable of accepting pressure fit extrusions and co-extrusions to fill voids between structural reveals, at ceiling connections, and other base building connections.
- G . Provide interior aluminum framed storefront capable of providing inline 2-way, 3-way and 4-way connections.
- H . Structural Performance:
 - 1. Capable of withstanding the effects of gravity loads, dead loads, and the following loads and stresses within limits and under conditions indicated:
 - a. Transverse Load: Lateral deflection of the overall span when tested under a uniformly distributed load of 5 psf (0.24 kN/m²) in accordance with ASTM E72 where (L) equals interior storefront height:
 - 1. Interior Storefront: not more than L/175 or 3/4 inch (19 mm) whichever is more stringent.
 - b. Mechanical Strength: Capable of withstanding static loads in accordance with ANSI/BIFMA X5.6.
 - c. Seismic Performance: Provide interior aluminum framed storefronts capable of withstanding effects of seismic motions determined according to the Authority Having Jurisdiction.
- I . Acoustic Attenuation:

1. Sound Transmission Class (STC) rating of integrated interior assemblies shall be calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.
2. Interior Storefronts Indicated as Acoustic: Provide completed assemblies with the following characteristics:
 - a. Two inch (51mm) single glazed interior storefront: 38 STC.

2.4 STRUCTURE

- A. Interior Storefront Framing: [Fully assembled non-bearing structural frame module with glass infill] [and] [Site assembled non-bearing structural frame module with glass infill.]
1. Extrusion Profile: Rectilinear “Inspire”
 2. Material: Aluminum extrusions, 6063-T6 aluminum alloy classified as noncombustible in accordance with ASTM E136 per 2018 IBC 703.5.1.
 - a. Thickness: As required to meet performance requirements.
 3. Storefront Thickness: Actual 2 inch (51mm).
 4. Top Track: Continuous, with intermittent breaks for structural components.
 5. Bracing: as required to meet structural performance requirements
 6. Bottom Track: Integral with modular frames.
 - a. Provide frame bases with continuous adjustment mechanism capable of height adjustment leveling of 1/2 inch (12mm) down and 5/8 inch (15mm) up to accommodate floor slab variances.
 - b. Accessories: [non-seismic carpet grippers] [non-seismic smooth floor tape] [seismic floor anchor attachment].
 7. Vertical Element Spacing: As required to meet performance requirements within a minimum of 5-1/2 inches (140mm). Maximum module width determined by glass infill specified and height of interior storefront.
 8. Horizontal Element Spacing: As required to meet performance requirements within a maximum of 12 feet (3.66m). Maximum module height determined by glass infill specified and vertical element spacing.
 9. Glazing Gasket Color: [black][charcoal][silver].
- B. Structure Exposed Finishes:
1. Clear Anodized Aluminum: AAMA 611, AAM12C22A31, Class I
 2. Powder coat:
 - a. Finish: Per Finish Schedule below.

2.5 GLASS INFILL

- A. Glazing Material:

- a. Tempered glass (GLS-#): Architectural flat glass per ASTM C1048, Kind FT (fully tempered), Condition A (uncoated), Type 1, Class 1 (transparent), Quality q3. Complies with CPSC-16 CFR Part 1201 Category II per IBC 2018.2406.2.
 1. Features: Meets ANSI Z97.1 Safety Glazing Material standards.
 2. Thickness: [1/4 inch (6mm)] [3/8 inch (10mm)] [1/2 inch (12mm)].
 3. Finish: Per Finish Schedule below.
 - b. Specialty Glass (GLS-#): approved by manufacturer prior to procurement or fabrication.
 - c. Finish and Features: Per Finish Schedule below.
2. Mounting: Center Mounted for interior storefronts and doors

2.6 DOORS AND FRAMES

- A. Coordinate ADA, ANSI, Access Control and Fire Life Safety requirements with drawings and schedules prior to the development of shop drawings per Pre-Manufacture Submittal requirements.
- B. Hardware Preparation and Reinforcement: Factory milled, reinforced, drilled and taped doors and frames by manufacturer to receive Integrated Hardware Components as scheduled.
 1. Factory milled doors and frames with hinge locations and sizes as determined by interior aluminum framed storefronts manufacturer; including factory installed steel backer plates.
 2. Access Control Components: Factory provided rough in for Site Integrated Components and interior storefront manufacturer provided hardware.
- C. Aluminum Framed Glass Doors:
 1. Operation: [sliding].
 2. Door Thickness: 1-11/16 inch (43mm) thick.
 3. Door Size: 3 x 8
 4. Stile Width: [4 inch (102mm)]
 5. Top Rail Height: [4 inch (102mm)]
 6. Bottom Rail Height: [6 inch (152mm)]
 7. Glazing: [Tempered] [3/8 inch (10mm)].
 8. Finish:
 - a. Clear Anodized Aluminum: AAMA 611, AAM12C22A31, Class I
 9. Adjustability: Provide door skirt to accommodate varying floor levels.

D . Door Frames:

1. Architectural grade structural aluminum factory finished and integrated with storefront structure.
2. Door frames capable of reconfiguration without part replacement or damage to storefront components.
3. Frames are shipped knocked down and assembled on site.
4. Jambs shipped over length by 2 inches (51 mm) in height, for field cutting to suit opening height for proper alignment with adjacent frames.
5. Extrusion Profile: Rectilinear
6. Configuration: As required by door operation or function.
7. Size: As required for doors sizes indicated on Door Schedule.
8. Standard Frame Depth: 2 inches (51mm)
9. Finish:
 - a. Clear Anodized Aluminum: AAMA 611, AAM12C22A31, Class I
 - b. Powder coat grade [1] [2] [3].
 1. Color: Per Finish Schedule below.

2.7 DOOR HARDWARE

- A . All Hardware indicated in this section to be provided by the manufacturer or the manufacturers distribution partner and installed on site unless indicated otherwise.**
- a. Features:
 1. Locking Bar Pull: Height determined by Door Height
- B . Sliding Door Hardware: Site installed manufacturer's standard sliding door track, track cover and door roller assembly with alignment pin on floor. Anti-rack and Anti-lift hardware included in track assembly.**
1. Floor Track: None; Trackless
 2. Positive Latch: Manufacturer's standard non-keyed, spring loaded, latch and strike that can secure sliding door panels to adjacent panels or jambs. Strike shall mount flush to surface of framing. Latch shall engage by closing action of door.
 3. Operation:
 - a. Manufacturer's standard soft close mechanism for door weights up to 165 pounds (75 kg) or 8 roller soft close for door weights up to 200 lbs (90 kg).
 - b. Pneumatic slow down mechanism for door weight of 165 to 200 pounds (75 to 90 kg).
- C . Hardware Finishes: BHMA Standard finishes provided as follows unless indicated otherwise:**

1. 626 - Satin Chrome: lever sets, flush bolt, dead bolt, metal roller catch, bolt, strike plate, dome floor stop and peg floor stop.
2. 628 - Satin Aluminum: electromagnetic locks,
3. 630 - Satin Stainless Steel: pulls.
4. CR Lawrence (CRL) Satin Anodized: Pivot Sets, Pivot Lock Sets.

2.8 SITE INTEGRATED COMPONENTS

- A . Door Hardware – per division 08 and 28

2.9 ACCESSORIES

- A . All accessory materials required by the manufacturer for a warrantable installation of the installed products in a manner that meets the Performance and Design Criteria.
- B . Manufacturer's accessories required by the project:
1. Manufacturer Standard Base Trim: Mechanically fastened recessed and adjustable Santoprene base.
 - a. Color: [Silver] [Black]
 2. Manufacturer Standard Ceiling Trim: Mechanically fastened recessed and adjustable to accommodate up to a 1/2 inch (13 mm) gap between integrated interior assembly and base building elements
 - a. Color: [Silver] [Black] [Charcoal]
 3. Opti-filler Pressure Fit Gaskets:
 - a. Storefront seal at frame to frame connections: Provide extrusions and co-extrusions to fill voids between extrusions, at ceiling connections, and at base building connections as required. (both horizontal and vertical gaskets). Coordinate final locations of gaskets with manufacturer through the shop drawing process prior to procurement of fabrication.

PART 3 - EXECUTION

3.1 EXAMINATION

- A . Verify existing conditions meet the manufacturer's requirements before starting work.
1. Floor Levelness:
 - a. Contiguous storefront lengths less than 40 feet: Base building sub-floor shall be level within 3/8 inch over 10 feet.
 - b. Contiguous storefront lengths greater than 40 feet: Base building sub-floor shall not exceed a maximum total floor flatness deviation greater than 1-1/8 inches.

2. Vertical leading edge of assembly structure to base building: Where storefront attaches to adjacent walls, the finish face shall be plum within 1/2 inch over 10 feet.
 3. Top of assembly structure to base building: Where storefront attaches to bulkhead or soffit, the finish face shall be level within 1/2 inch over 10 feet.
 4. Lay in Ceilings: Where storefront attaches to lay-in ceiling grid, the grid shall be level within 1/4 inch over 10 feet.
- B . Verify field or hold-to control dimensions before fabrication of interior storefronts. Coordinate fabrication schedule with construction schedule and progress to avoid delay in the work.
- C . Examine all adjoining work including work by others.
- D . Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A . Prepare surfaces to receive work in accordance with manufacturer's instructions.
- B . Locations to receive interior aluminum framed storefronts shall be inspected for compliance with manufacturers requirements.
- C . Survey floor to determine the nature of floor level and determine where special conditions exist beyond manufacturer's standard leveling capabilities of 1-1/8 inch (38mm) total variation in floor level. Prepare sub-floor per section 03 54 ## - [cast underlayment section].
- D . Field conditions and pre-existing installations by others which may adversely affect installation or exceed the manufacturers limitations shall be corrected before installing interior storefronts.

3.3 INSTALLATION

- A . General: Install all materials in accordance with manufacturer's instructions based on conditions present, pre-installation meeting and shop drawings.
- B . Doors and frames
1. Install sliding doors plumb, level, square, and in proper alignment.
 2. Install doors to close against interior storefronts without gaps
 3. Install doors to open and close smoothly.
 4. Anchor sliding doors securely to supports.

3.4 ADJUSTING

- A . Adjust and lubricate hardware for proper operation in accordance with manufacturer's instructions.

B . Doors and Frames

1. Adjust for smooth and balanced door movement in accordance with manufacturer's instructions.
2. Adjust and lubricate hardware for proper operation.

3.5 CLEANING

- A . Dispose of all waste material in accordance with Section 01 ## ## - [construction waste management section] and project's Waste Management Plan.
- B . Upon completion of installation clean finishes in accordance with the manufacturer's instructions. Avoid alkaline or abrasive agents. Avoid scratching or marring finishes.

3.6 PROTECTION

- A . Protect installed work as required by the manufacturer to maintain product performance, design criteria and warranty.

3.7 DEMONSTRATION

- A . Manufacturer's representative will be responsible to provide general product training to the Owner or their outsourced operations team at time of installation as well as conduct a comprehensive training session(s) to convey the methodology, and assembly of the interior aluminum framed storefronts to sustain general operational maintenance by the Owner's personnel with clearance over the facilities lifetime.

3.8 FINISH SCHEDULE

- A . (ANO-1) Anodized:
1. Type: Manufacturer Standard
 2. Color: Clear.
- B . (GLS-#) Glass:
1. Type: [Tempered]
 2. Color/Finish: [Manufacturer Standard Clear] and [Manufacturer Standard Etched]
 3. Thickness: [10mm]
 4. Color/Finish Name: from manufacturer full range.
 5. Notes: [Magnetic Backplate/ Custom Graphics] shall be budgeted.

3.9 DOOR HARDWARE SCHEDULE

Include manufacturers standard door pulls for sliding door configuration.

END OF SECTION