

# SOLAR INNOVATIONS.

SECTION 08136 (08 13 16.13)

## ALUMINUM MODULAR TERRACE DOORS

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### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Modular Hinged Door System.

#### 1.2 RELATED SECTIONS

- A. Section 03 30 00 - Cast-in-Place Concrete.
- B. Section 03 41 16 - Precast Concrete Slabs.
- C. Section 04 22 00 - Concrete Unit Masonry.
- D. Section 05 12 00 - Structural Steel Framing
- E. Section 05 40 00 - Cold-Formed Metal Framing.
- F. Section 06 10 00 - Rough Carpentry.
- G. Section 06 20 00 - Finish Carpentry.
- H. Section 07 21 19 - Foamed-In-Place Insulation.
- I. Section 07 60 00 - Flashing and Sheet Metal.
- J. Section 07 90 00 - Joint Protection.
- K. Section 08 00 00 - Glazing.
- L. Section 08 70 00 - Hardware.
- M. Section 07 91 23 - Backer Rods.

#### 1.3 REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
  - 1. AAMA 611 - Voluntary specifications for anodized architectural aluminum (revised).
  - 2. AAMA 1503 - Voluntary test method for thermal transmittance and condensation resistance of windows, doors, and glazed wall sections.
- B. ASTM International (ASTM):
  - 1. ASTM A36/A36M - Standard specification for carbon structural steel.

2. ASTM B221/B221M - Standard specification for aluminum and aluminum-alloy extruded bars, rods, wire, profiles, and tubes.
3. ASTM B241/B241M - Standard specification for aluminum and aluminum-alloy seamless pipe and seamless tubes.
4. ASTM C1115 - Standard specification for dense elastomeric silicone rubber gaskets and accessories.
5. ASTM C864 - Standard specification for dense elastomeric compression seal gaskets, setting blocks, and spacers.
6. ASTM E283 - Standard test method for structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference.
7. ASTM E330 - Standard test method for structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference.
8. ASTM E331 - Standard test method for water penetration of exterior windows, curtain walls, and doors by uniform static air pressure difference.
9. ASTM E547 - Water penetration of exterior windows, curtain walls, and doors.
10. ASTM E1886 - Standard test method for performance of exterior windows, curtain walls, doors, and impact protective systems impacted by missiles and exposed to cyclic pressure differentials.
11. ASTM E1996 - Standard specification for performance of exterior windows, curtain walls, doors, and impact protective systems impacted by windborne debris in hurricanes.
12. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

C. American Welding Society (AWS): Structural Welding Code.

D. Texas Department of Insurance (TDI): Product Evaluations.

E. Flat Glass Marketing Association (FGMA):

1. Glazing manual.

F. Fenestration and Glazing Industry Alliance (FGIA):

1. AAMA 611 - Voluntary Specifications for Anodized Architectural Aluminum.
2. AAMA 1503 - Voluntary Test Method For Thermal Transmittance And Condensation Resistance Of Windows, Doors, And Glazed Wall Sections.

G. National Fenestration Rating Council (NFRC):

1. NFRC 100: Procedure for Determining Fenestration Product U-factors.
2. NFRC 102: Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems.
3. NFRC 200: Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence.
4. NFRC 400: Procedure for Determining Fenestration Product Air Leakage.
5. NFRC 500: Procedure for Determining Fenestration Product Condensation Index Ratings.

#### 1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data:

1. Manufacturer's data sheets on each product to be used.
2. Preparation instructions and recommendations.
3. Storage and handling requirements and recommendations.
4. Typical installation methods.

- C. Shop Drawings: Detailed drawings prepared specifically for the project by manufacturer. Include information not fully detailed in manufacturer's standard product data, including, but not limited to, wall elevations and detail sections of every typical composite member. Show opening dimensions, framed opening tolerances, profiles, product components, anchorages, and accessories.
  - 1. Indicate fastener locations, glazing, and hardware arrangements.
  - 2. Include schedule identifying each unit, with marks or numbers referencing drawings.
  - 3. Must show all surrounding substrates and relevant conditions.
  - 4. Must be drawn in the domestic USA, by the manufacturer of the system.
- D. Color Samples: Two complete color chip sets representing manufacturer's full range of stocked colors with a standard size of 2 x 3 inch (50 x 75 mm).
- E. Verification Samples: Required samples for verification of system.
  - 1. Aluminum Finish: Two samples, minimum size of 2 x 3 inches (50 x 75 mm), representing actual material and color.
  - 2. Glazing: Two samples, minimum size of 12 x 12 inches (300 x 300 mm), representing specified glass, including coatings and/or frit patterns.
  - 3. Assembly Sample: One sample illustration connection details with a maximum size of 12 x 12 x 12 inch (300 x 300 x 300 mm). Glazing included as offered by glass supplier. Sample developed to best represent the specified product.

## 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing of products specified in this section, including, but not limited to, greenhouses, doors, and operable vent systems. Manufacturer is to have twenty five (25) years of experience in fabrication and erection of exterior modular terrace door systems for projects of similar scope.
  - 1. Manufacturer must use an extruded aluminum system.
  - 2. Manufacturer must be recognized by NAMI.
  - 3. Manufacturer must be a member in good standing of the National Glass Association (NGA).
- B. Installer Qualifications: Experienced in performing work of this section that has specialized in installation of work similar to that required for this project for a minimum of five (5) years.
- C. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
- D. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
  - 1. Approximate size: \_\_\_ inches x (\_\_\_ mm).
  - 2. Finish areas designated by Architect
  - 3. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
  - 4. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
  - 5. Retain mock-up during construction as a standard for comparison with completed work.
  - 6. Do not alter or remove mock-up until work is completed or removal is authorized.
  - 7. Incorporate accepted mock-up as part of the Work.

## 1.6 PRE-INSTALLATION CONFERENCE

- A. Convene a phone conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to the jobsite freight prepaid.
- B. Store products in manufacturers original unopened packaging, covered to protect factory finishes from damage, precipitation, and construction dirt until ready for installation.
- C. Store materials off construction grounds in a secure location that is a dry, covered area and protected from weather conditions.
- D. Inspect and report any freight damages to the manufacturer immediately.

## 1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
- B. Perform structural silicone sealant work when air temperature is above 10 degrees F (minus 12 degrees C).

## 1.9 WARRANTY

- A. Provide manufacturer's limited warranty that all components are warranted for ten (10) years for cases of normal use.
- B. Warranty Addendum: Manufacturer offers extended warranties and service contracts on a per job basis.
- C. Frame Finish:
  - 1. Anodized Finishes: Warranty of ten (10) years.
  - 2. Stock Color:
    - AAMA 2605 finishes with 2-3 coats powder or liquid dependent on color and/or application. Ten (10) years from date of application.
    - a.
  - 3. Custom Color: Paint manufacturer's warranties for color and film integrity.
    - a. AAMA 2605 finishes with 2-3 coats powder or liquid dependent on color and/or application. Ten (10) years from date of application.
- D. Flat Glazing: Glazing Manufacturer's standard warranty against defective materials, delamination, seal failure, and defects in manufacturing for ten (10) years.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Solar Innovations Architectural Glazing Systems, which is located at: 31 Roberts Rd.; Pine Grove, PA 17963; Toll Free Tel: 800-618-0669; Tel: 570-915-1500; Fax: 800-618-0743; Email: [skylight@solarinnovations.com](mailto:skylight@solarinnovations.com); Web: <https://www.solarinnovations.com>

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

## 2.2 PERFORMANCE AND DESIGN REQUIREMENTS

- A. Air Performance: Design, fabricate, assemble, and erect aluminum glazed system to be permanently free of significant air leakage.
  - 1. Significant leakage to be defined as a differential test pressure amounting to 20 percent of specified strength performance pressure required with operable windows doors, or joints, if any, sealed to prevent crack leakage.
- B. Structural Performance: As tested in accordance with ASTM-E330. No glass breakage or permanent damage to fasteners, anchors, hardware, or actuating mechanisms.
  - 1. Normal Wall Deflection:
    - a. Span Lengths of 13 ft 6 inches (4.115 m) or Less: 1/175 of clear span or less.
    - b. All Other Spans: 1/240 + 1/4 inch (6 mm) for all others.
    - c. Restrict deflection to 3/4 inch (19 mm) maximum for individual glazing lites.
  - 2. Parallel to Wall Deflection:
    - a. Not to exceed 75 percent of glass edge clearance.
    - b. Restrict deflection to L/360 or 1/8 inch (3 mm) maximum.
    - c. Restrict deflection to 1/16 inch (1.5 mm) maximum above doors and windows.
      - 1) Deflection of 1/8 inches (3 mm) is acceptable if door operation is not affected.
- C. Thermal Performance: Tested values, certifications, and simulation protocols.
  - 1. Thermal Characteristics:
    - a. U-Value: \_\_\_\_\_.
    - b. SHGC \_\_\_\_\_.
    - c. VLT \_\_\_\_\_.
    - d. CRF: \_\_\_\_\_.
  - 2. U-Value: Comply with U-value NFRC rated, or simulated in accordance with NFRC 100 protocol, shown in manufacturers latest published data for the glazing and sill specified.
  - 3. Solar Heat Gain Coefficient: Comply with Solar Heat Gain Coefficient NFRC rated, or simulated in accordance with NFRC 200 protocol, shown in manufacturers latest published data for the glazing and sill specified.
  - 4. Visible Light Transmittance: Unit complies with Visible Light Transmittance, NFRC rating, or simulation in accordance with NFRC 200 protocol, shown in manufacturer's published data for glazing and sill specified.
  - 5. Condensation Resistance Factor: Unit to comply with the Condensation Resistance Factor, NFRC rated, or simulation in accordance with NFRC 500 protocol, shown in manufacturers published data for the glazing and sill specified.
- D. Compliance:
  - 1. G2 Terrace Doors:
    - a. Terrace Door: SI2000 Outswing single door with two sidelite unit as manufactured by Solar Innovations Architectural Glazing Systems;

when tested with a unit size (W x H) 113 7/8 x 108 3/8 inches (2892 x 2753 mm) and panel size (W x H) 32 11/16 x 93 inches (830 x 2375 mm); NCTL-110-15998-1.

- 1) Air Infiltration Test Per ASTM E283 when tested at 1.57 psf (75 Pa) pressure differential:
    - a) Outswing Standard Sill: 0.03 cfm/sq ft (0.15 L per sec per sq m).
  - 2) Air Infiltration Test Per ASTM E283 when tested at 6.2 psf (298 Pa) pressure differential:
    - a) Outswing Standard Sill: 0.08 cfm/sqft (0.41 L per sec per sq m).
  - 3) Water Penetration Test per ASTM E331:
    - a) Outswing Standard Sill: 6 psf (287 Pa).
  - 4) Uniform Structural Load Test per ASTM E330; Standard hardware:
    - a) Design Pressure: positive or negative 50 psf (2394 Pa).
  - 5) Florida Product Approvals Impact & Texas Department of Insurance:
    - a) Impact Missile D.
      - 1) FL No. 17582.2 (TDI).
- b. Terrace Door: SI2000 Outswing single door with two sidelite unit as manufactured by Solar Innovations Architectural Glazing Systems; when tested with a unit size (W x H) 108 x 96 inches (2743 x 2438 mm) and panel size (W x H) 36 5/16 x 103 3/4 inches (922 x 2635 mm); NCTL-110-18995-1.
- 1) Air Infiltration Test Per ASTM E283 when tested at 1.57 psf (75 Pa) pressure differential:
    - a) Outswing HP Sill: 0.04 cfm/sqft (.02 L per sec per sq m).
  - 2) Water Penetration Test per ASTM E331:
    - a) Outswing HP Sill: 12 psf (575 Pa).
  - 3) Uniform Structural Load Test per ASTM E330; Standard hardware:
    - a) Design Pressure: positive or negative 50 psf (2394 Pa).
  - 4) Florida Product Approvals Impact & Texas Department of Insurance:
    - a) Impact Missile D.
      - 1) FL No. 17582.1 (TDI).
- c. Terrace Door: SI2000 Outswing single door unit as manufactured by Solar Innovations Architectural Glazing Systems, when tested with a unit size (W x H) 40 x 83 inches (1016 x 2108 mm); NCTL-110-20077-1.
- 1) Manufacturer's certificates showing door system meets or exceeds CW-PG50 Product Designation conforming to AAMA/WDMA/CSA 101.I.S.2/A440 and/or testing indicated.
  - 2) Air Infiltration Test Per ASTM E283 when tested at 1.57 psf (75 Pa) pressure differential:
    - a) Outswing Standard sill:
      - 1) Air Infiltration: 0.06 cfm/sqft (0.3 L per sec per sq m).
      - 2) Air Exfiltration: 0.21 cfm/sqft (1.1 L per sec per sq m).
  - 3) Air Infiltration Test Per ASTM E283 when tested at 6.2 psf (300 Pa) pressure differential:
    - a) Outswing Standard Sill: Less than 0.01 cfm/sqft (0.1 L per sec per sq m).
  - 4) Water Penetration Test per ASTM E331 prior to and after

- cycling: 8 psf (383 Pa); outswing standards sill.
- 5) Uniform Structural Load Test per ASTM E330:
  - a) Design Pressure: Positive or negative 50 psf (2394 Pa).
- 6) Life Cycle Testing per AAMA 910: Tested and passed 250,000 total cycles at 20 CPM.
- 7) Forced Entry Resistance: AAMA 1304-02: Passed.
- 8) Force to Latch per ASTM E2068: 10 lb (44 N).
- d. Terrace Door: SI2000 Outswing single door with one sidelite unit as manufactured by Solar Innovations Architectural Glazing Systems, when tested with a unit size (W x H) 76 x 83 inches (1918 x 2102 mm); NCTL-110-20144-1.
  - 1) Manufacturer's certificates showing door system meets or exceeds CW-PG50 Product Designation conforming to AAMA/WDMA/CSA 101.I.S.2/A440 and/or testing indicated.
  - 2) Air Infiltration Test Per ASTM E283 when tested at 1.57 psf (75 Pa) pressure differential:
    - a) Outswing HP sill: Less than 0.01 cfm/sqft (0.1 L per sec per sq m).
  - 3) Air Infiltration Test Per ASTM E283 when tested at 6.2 psf (300 Pa) pressure differential:
    - a) Outswing HP sill: Less than 0.01 cfm/sqft (.1 L per sec per sq m).
  - 4) Water Penetration Test per ASTM E331 prior to and after cycling: 15 psf (720 Pa); outswing HP sill.
  - 5) Uniform Structural Load Test per ASTM E330:
    - a) Design Pressure: Positive or negative 50 psf (2400 Pa).
  - 6) Life Cycle Testing per AAMA 910: Tested and passed 250,000 total cycles at 20 CPM.
  - 7) Forced Entry Resistance: AAMA 1304-02: Passed.
  - 8) Force to Latch per ASTM E2068: 7 lb (31 N).
- e. Terrace Door: SI2000 Outswing French door unit as manufactured by Solar Innovations Architectural Glazing Systems; when tested with a unit size (W x H) 80 x 96 inches (2032 x 2438 mm); NCTL-110-19487-1.
  - 1) Manufacturer's certificates showing door system meets or exceeds CW-PG50 Product Designation conforming to AAMA/WDMA/CSA 101.I.S.2/A440 and/or testing indicated.
  - 2) Air Infiltration Test Per ASTM E283 when tested at 1.57 psf (75 Pa) pressure differential:
    - a) Outswing Standard Sill: 0.14 cfm/sqft (0.7 L per sec per sq m).
    - b) Outswing HP Sill: 0.14 cfm/sqft (0.7 L per sec per sq m).
  - 3) Water Penetration Test per ASTM E331 prior to and after cycling:
    - a) Outswing Standard Sill: 12 psf (580 Pa).
    - b) Outswing HP Sill: 12 psf (580 PA).
  - 4) Uniform Structural Load Test per ASTM E330:
    - a) Design Pressure: positive or negative 40 psf (1920 Pa).
  - 5) Life Cycle Testing per AAMA 910.
    - a) Tested and passed 250,000 total cycles at 20 CPM.
  - 6) Forced Entry Resistance: AAMA 1304-02: Passed.
  - 7) Force to Latch per ASTM E2068: 7 lb (31 N).
- f. Folding Glass Wall ASTM E90 Testing:
  - 1) Single Terrace Door W Sidelite; F3352.01.

- a) Outswing Standard Sill:
    - 1) Glass: 1 inch (25.4 mm) IG; 3/16 inch (4.76 mm) Tempered exterior, 9/16inch (14.29 mm) air space, 31/4 inch (196.85 mm) Tempered interior.
      - a) STC: 35.
      - b) OITC:28.
  - 2) Single Terrace Door:
    - a) Outswing Standard Sill, G3494.01.
      - 1) Glass: 1 1/16 inch (27 mm) IG; 3/16 inch (4.76 mm) Tempered exterior, 7/16 inch (11.11 mm) air space, 7/16 inch (11.11 mm) Laminated interior.
        - a) STC: 37.
        - b) OITC:31.
    - 3) French Terrace Door:
      - a) Outswing Standard Sill, G3495.01.
        - 1) Glass: 1 1/16 inch (27 mm) IG; 3/16 inch (4.76 mm) Tempered exterior, 7/16 inch (11.11 mm) air space, 7/16 (11.11 mm) Laminated interior.
          - a) STC: 38.
          - b) OITC:31.
- 2. G3 Terrace Doors:
  - a. Terrace Door: SI2000 G3 LT Narrow Thermal outswing Single door unit as manufactured by Solar Innovations Architectural Glazing Systems; when tested with a unit size (W x H) 47 x 95 inches (1200 x 2400 mm); NCTL-110-22508-1.
    - 1) Manufacturer's certificates showing door system meets or exceeds CW-PG60 Product Designation conforming to AAMA/WDMA/CSA 101.I.S.2/A440 and/or testing indicated.
    - 2) Air Infiltration Test Per ASTM E283 when tested at 1.57 psf (75 Pa) pressure differential:
      - a) Outswing Standard Sill: 0.16 cfm/sqft (0.8 L per sec per sq m).
    - 3) Air Infiltration Test Per ASTM E283 when tested at 6.2 psf (300 Pa) pressure differential:
      - a) Outswing Standard Sill: 0.23 cfm/sqft (1.2 L per sec per sq m).
    - 4) Water Penetration Test per ASTM E331 prior to and after cycling:
      - a) Outswing Standard Sill: 9 psf (440 Pa).
    - 5) Uniform Structural Load Test per ASTM E330:
      - a) Design Pressure: Positive or negative 70 psf (3360 Pa).
    - 6) Life Cycle Testing per AAMA 920.
      - a) Tested and passed 250,000 total cycles at 20 CPM.
    - 7) Forced Entry Resistance: AAMA 1304: Passed.
    - 8) Force to Latch per ASTM E2068: 6 lb (27 N).
  - b. Terrace Door: SI2000 G3 LT Thermal Outswing French door unit as manufactured by Solar Innovations Architectural Glazing Systems; when tested with a unit size (W x H) 95 x 108 inches (2413 x 2743 mm); NCTL-110-19489-2.
    - 1) Manufacturer's certificates showing door system meets or exceeds CW-PG40 Product Designation conforming to AAMA/WDMA/CSA 101.I.S.2/A440 and/or testing indicated.
    - 2) Air Infiltration Test Per ASTM E283 when tested at 1.57 psf (75 Pa) pressure differential:
      - a) Outswing Standard Sill:0.05 cfm/sqft (0.3 L per sec per sq

- m).
      - b) Outswing HP Sill: 0.09 cfm/sqft (0.5 L per sec per sq m).
    - 3) Water Penetration Test per ASTM E331 prior to and after cycling:
      - a) Outswing Standard Sill: 12 psf (580 Pa).
      - b) Outswing HP Sill: 12 psf (580 Pa).
    - 4) Uniform Structural Load Test per ASTM E330:
      - a) Design Pressure: Positive or negative 40 psf (1920 Pa).
    - 5) Life Cycle Testing per AAMA 920:
      - a) Tested and passed 250,000 total cycles at 20 CPM.
    - 6) Forced Entry Resistance: AAMA 1304: Passed.
    - 7) Force to Latch per ASTM E2068: 7 lb (31 N).
  - c. Terrace Door: SI2000 G3 LT Thermal Outswing French door sidelite unit as manufactured by Solar Innovations Architectural Glazing Systems; when tested with a unit size (W x H) 94 1/2 x 109 inches (2400 x 2769 mm); NCTL-110-19489-1.
    - 1) Air Infiltration Test Per ASTM E283 in accordance with TAS 202 when tested at 1.57 psf (75 Pa) pressure differential:
      - a) Outswing Standard Sill: 0.05 cfm/sqft.
      - b) Outswing HP Sill: 0.09 cfm/sqft.
    - 2) Water Penetration Test per ASTM E331 in accordance TAS 202:
      - a) Outswing Standard Sill: 12 psf.
      - b) Outswing HP Sill: 12 psf.
    - 3) Uniform Structural Load Test per ASTM E330 in accordance with TAS 201/202/203:
      - a) Design Pressure: Positive or negative 40 psf.
    - 4) Florida Product Approvals Impact & Texas Department of Insurance:
      - a) Large Missile Impact in accordance with TAS 201/2023:
        - 1) FL No. 17582.3 (TDI).
  - d. Terrace Door: SI2000 G3 LT Thermal single TD and French TD Outswing Door with or without sidelite and transom manufactured by Solar Innovations Architectural Glazing Systems; TEL 11093969 & TEL 11093970.
    - 1) Unit Sizes:
      - a) Frame Dimension (W x H) Single Door with or without sidelite:
        - 1) X - 47.97 x 99.88 inches (1218 x 2537 mm).
        - 2) OX or XO - 68.72 x 99.88 (1745 x 2537 mm).
        - 3) OXO - 89.47 x 99.88 (2272 x 2537 mm).
      - b) Frame Dimension (W x H) Double Door with or without sidelite:
        - 1) OXXO - 131.72 x 99.88 inches (3346 x 2537 mm).
        - 2) XX or XO - 90.22 x 99.88 (2291 x 2537 mm).
      - c) Frame Dimension (W x H) Single Door with or without sidelite and with or without Transom.
        - 1) O/X - 47.97 x 119.69 inches (1218 x 3040 mm).
        - 2) O/OX or O/XO - 68.72 x 119.69 (1745 x 3040 mm).
        - 3) O/OXO - 89.47 x 119.69 (2280 x 3040 mm).
      - d) Frame Dimension (W x H) Double Door w Transom:
        - 1) O/XX- 90.22 x 119.69 inches (2291 x 3040 mm).
    - 2) Uniform Structural Load Test per ASTM E330:
      - a) Design Pressure: Positive or negative 50 psf.
  - e. Folding Glass Wall ASTM E90 Testing:
    - 1) G3 LT Thermal Single Terrace Door; G5135.01.
      - a) Outswing Standard Sill:

- 1) Glass: 1 inch (25.4 mm) IG; 3/16 inch (4.76 mm) Tempered exterior, 9/16 inch (14.29 mm) air space, 3 1/4 inch (196.85 mm) Tempered interior.
  - a) STC: 37.
  - b) OITC: 31.
- 2) G3 LT Thermal French Terrace Door:
  - a) Outswing Standard Sill; G5134.01.
    - 1) Glass: 1 1/16 inch (27 mm) IG; 3/16 (4.76 mm) Tempered exterior, 7/16 inch (11.11 mm) air space, 7/16 inch (11.11 mm) Laminated interior.
      - a) STC: 37.
      - b) OITC: 30.

## 2.3 MODULAR HINGED TERRACE DOORS

- A. Panel Size (W x H): \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm).
- B. Panel Size: As indicated on the Drawings.
- C. Operation and Configuration:
  1. Out-swing system.
  2. In-swing system.
- D. Glazing:
  1. Single Pane Glazing: 3/16 inch (5 mm) float glass.
  2. Single Pane Glazing: 1/4 inch (7 mm) float glass.
  3. Single Pane Glazing: Polycarbonate.
  4. Custom, Single Pane Glazing: \_\_\_\_\_.
  5. Custom, Double Pane \_\_\_\_\_.
  6. Custom Triple Pane \_\_\_\_\_.
  7. Glazing: Double pane glazing, 1 inch (25 mm) insulated glass unit.
    - a. Exterior and Interior Glazing Lites: 3/16 inch (5 mm) tempered clear glass with LoE 272 low-emissivity coating on surface two.
      - 1) Visible Light Transmittance: 72 percent.
      - 2) Solar Heat Gain Coefficient: 0.41.
      - 3) U-Factor: 0.26.
    - b. Exterior and Interior Glazing Lites: 3/16 inch (5 mm) tempered clear glass with LoE 366 low-emissivity coating on surface two.
      - 1) Visible Light Transmittance: 65 percent.
      - 2) Solar Heat Gain Coefficient: 0.27.
      - 3) U-Factor: 0.25.
    - c. Exterior and Interior Glazing Lites: 3/16 inch (5 mm) tempered clear glass with LoE 340 low-emissivity coating on surface two.
      - 1) Visible Light Transmittance: 39 percent.
      - 2) Solar Heat Gain Coefficient: 0.18.
      - 3) U-Factor: 0.26.
    - d. Exterior and Interior Glazing Lites: 1/4 inch (6 mm) tempered clear glass with LoE 272 low-emissivity coating on surface two.
      - 1) Visible Light Transmittance: 70 percent
      - 2) Solar Heat Gain Coefficient: 0.40.
      - 3) U-Factor: 0.25.
    - e. Outboard Glazing Lites: As indicated on Drawings.
    - f. Air Spacers: Stainless steel spacer with dual seals of polyisobutylene/silicone and filled with argon gas.

8. Specialty Glazing Options:
    - a. Thermochromic Glass: Glazing system 'tinted' via natural heat.
    - b. Solera Glass: Solera light diffusion glazing system.
    - c. Lumira Polycarbonate: Lumira filled polycarbonate panels to control light diffusion and insulation characteristics.
  9. Decorative Glazing Options:
    - a. Custom \_\_\_\_\_.
    - b. Patter 62.
    - c. single glue chip.
    - d. glue chip.
    - e. English reeded.
    - f. satin/acid etch.
  10. Glazing Accessories:
    - a. Decorative mullions.
    - b. Interior Grids: 3/16 x 5/8 inch (5 x 16 mm).
    - c. Simulated Divided Lites: 3/8 x 5/8 inches (9.5 x 16 mm).
    - d. Applied Grids: 3/4 inch (19 mm) traditional grids.
    - e. Applied Grids: 1-1/4 inch (mm) traditional grids.
    - f. Applied Grids: 7/8 inch (mm) colonial grids.
    - g. Applied Grids: 7/8 inch (mm) ogee grid.
    - h. Applied Grids: 3/4 inch (19 mm) low profile grid.
    - i. Decorative raised panels.
- E. Framing Members: Minimum 0.125-inch (3 mm) wall thickness for structural members.
1. SI2000 or SI2100: G2 narrow thermal extruded aluminum frame with a thermal isolation separation 1.813 inch (46.08 mm) width.
  2. SI2000 or SI2100: G2 standard non-thermal extruded aluminum frame 2.75 inch (69.85 mm) width.
  3. SI2000 or SI2100: G2 standard thermal extruded aluminum frame with a thermal isolation separation 2.75 inch (69.85 mm) width.
  4. SI2000 or SI2100: G2 heavy thermal extruded aluminum frame with a thermal isolation separation 5.5 inch (139.7 mm) width.
  5. SI2000 or SI2100: G3 LT narrow thermal extruded aluminum frame with a thermal isolation separation 1.81 inch (45.97 mm) width.
  6. SI2000 or SI2100: G3 regular thermal extruded aluminum frame with a thermal isolation separation 2.75 inch (69.85 mm) width.
  7. SI2000 or SI2100: G3 lite thermal extruded aluminum frame with a thermal isolation separation 2.75 inch (69.85 mm) width
- F. Perimeter Weather Gaskets: EPDM.
- G. Sill:
1. Out-swing sill.
  2. In-swing sill.
  3. ADA sill.
- H. Hardware:
1. Handles: As scheduled and indicated on Drawings.
  2. Handles: Standard Toronto style.
    - a. Finish: As scheduled and indicated on Drawings.
    - b. Finish: Matte Black.
    - c. Finish: Satin Nickel.
    - d. Finish: Polished Brass.
    - e. Finish: Brushed Chrome.
    - f. Finish: Rustic Umber.

3. Handles: Standard Allegro style.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Black.
  - c. Finish: White.
  - d. Finish: Satin Chrome.
  - e. Finish: Polished Chrome.
  - f. Finish: Polished Brass.
  - g. Finish: Antique Brass.
  - h. Finish: Oil Rubbed Bronze.
  - i. Finish: Dark Bronze.
  - j. Finish: Satin Nickel.
  - k. Finish: Pewter.
4. Handles: Aluminum, Frankfurt style, for inland applications.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Painted Silver.
  - c. Finish: Pure White.
  - d. Finish: Chestnut.
5. Handles: Aluminum, London style, for inland applications.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Painted Silver.
6. Handles: Zamac/Brass, Venice style, for inland applications.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Satin Chrome.
  - c. Finish: Polished Chrome.
  - d. Finish: Polished Brass.
  - e. Finish: Antique Brass.
  - f. Finish: Oil Rubbed Bronze.
  - g. Finish: Dark Bronze.
  - h. Finish: Pewter.
  - i. Finish: Black.
  - j. Finish: White.
  - k. Finish: Stain Nickel.
7. Handles: Solid brass, Rodos style.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Brushed Chrome.
  - c. Finish: Rustic Umber.
  - d. Finish: Matte Black.
  - e. Finish: Satin Nickel.
  - f. Finish: Antique Brass.
  - g. Finish: Oil Rubbed Brass.
  - h. Finish: White.
8. Handles: Solid brass, Verona style.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Polished Chrome.
  - c. Finish: Brushed Chrome.
  - d. Finish: Rustic Umber.
  - e. Finish: White.
  - f. Finish: Matte Black.
  - g. Finish: Satin Nickel.
  - h. Finish: Antique Brass.
  - i. Finish: Polished Brass
  - j. Finish: Oil Rubbed Brass.
9. Handles: Solid brass, Munchen style.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Brushed Chrome.
  - c. Finish: Rustic umber.

- d. Finish: Matte Black.
  - e. Finish: Satin Nickel.
  - f. Finish: Antique Brass.
  - g. Finish: Polished Brass.
  - h. Finish: Dark Bronze Metallic.
  - i. Finish: Oil Rubbed Brass.
10. Handles: Solid brass, Dallas style.
- a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Rustic Umber.
  - c. Finish: Matte Black.
  - d. Finish: Satin Nickel.
  - e. Finish: Polished Brass.
11. Handles: AR2190.
- a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Bright Brass.
  - c. Finish: Satin Brass.
  - d. Finish: Dark Bronze.
  - e. Finish: Bright Stainless.
  - f. Finish: Satin Stainless.
12. Hinges: As scheduled and indicated on Drawings.
13. Hinges: Surface mount aluminum hinge with stainless steel bushings and security bolt end; 7-knuckle, aluminum and stainless steel, corrosion proof, Zinc-die-cast hinges not acceptable.
- a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Custom, \_\_\_\_\_.
  - c. Finish: White.
  - d. Finish: Bronze.
  - e. Finish: Class 1 clear anodized.
  - f. Finish: Dark bronze anodized.
14. Hinges: Semi-concealed aluminum hinge with stainless steel bushings and security bolt end; 7-knuckle, aluminum and stainless steel, corrosion proof, Zinc-die-cast hinges not acceptable.
- a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Custom, \_\_\_\_\_.
  - c. Finish: White.
  - d. Finish: Bronze.
  - e. Finish: Class 1 clear anodized.
  - f. Finish: Dark bronze anodized.
15. Pulls: Type and finish as scheduled and indicated on Drawings.
16. Pulls: Low profile handle.
- a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Custom, \_\_\_\_\_.
  - c. Finish: White.
  - d. Finish: Bronze.
  - e. Finish: Class 1 clear anodized.
17. Pulls: Recessed pulls.
- a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Custom, \_\_\_\_\_.
  - c. Finish: White.
  - d. Finish: Bronze.
  - e. Finish: Class 1 clear anodized.
  - f. Finish: Dark bronze anodized.
18. Pulls: Geometek.
- a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: White.
  - c. Finish: Bronze.

- d. Finish: Class 1 clear anodized.
- e. Finish: Dark bronze anodized.
- 19. Pulls: BandWidth.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: White.
  - c. Finish: Bronze.
  - d. Finish: Class 1 clear anodized.
  - e. Finish: Dark bronze anodized.
- 20. Pulls: MegaCurve.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: White.
  - c. Finish: Bronze.
  - d. Finish: Class 1 clear anodized.
  - e. Finish: Dark bronze anodized.
- 21. Locks: Type and finish as scheduled and indicated on Drawings.
- 22. Locks: Two point unkeyed locking handle.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Custom, \_\_\_\_\_.
  - c. Finish: White.
  - d. Finish: Bronze.
  - e. Finish: Class 1 clear anodized.
  - f. Finish: Dark bronze anodized.
- 23. Locks: Two point keyed locking handle.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Custom, \_\_\_\_\_.
  - c. Finish: White.
  - d. Finish: Bronze.
  - e. Finish: Class 1 clear anodized.
  - f. Finish: Dark bronze anodized.
- 24. Locks: Thumb turn lock.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Custom, \_\_\_\_\_.
  - c. Finish: White.
  - d. Finish: Bronze.
  - e. Finish: Class 1 clear anodized.
  - f. Finish: Dark bronze anodized.
- 25. Locks: Flush bolt.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Custom, \_\_\_\_\_.
  - c. Finish: White.
  - d. Finish: Bronze.
  - e. Finish: Class 1 clear anodized.
  - f. Finish: Dark bronze anodized.
- 26. Closers: As scheduled and indicated on Drawings.
- 27. Closers: D Series 7414 top mounted door closer.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Mill finish aluminum.
  - c. Finish: Painted black.
  - d. Finish: Painted bronze.
- 28. Closers: D Series TS93 top mounted door closer.
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: Mill finish aluminum.
  - c. Finish: Painted black.
  - d. Finish: Painted bronze.
- 29. Closers: C Series PR82 top mounted door closer.
  - a. Finish: As scheduled and indicated on Drawings.

- b. Finish: Mill finish aluminum.
- c. Finish: Painted black.
- d. Finish: Painted bronze.
- 30. Adjustable Door Catches:
  - a. Finish: As scheduled and indicated on Drawings.
  - b. Finish: White
  - c. Finish: Bronze
  - d. Finish: Class 1 clear anodized.
  - e. Finish: Dark bronze anodized.
- 31. Door Limiters: In locations as scheduled and indicated on Drawings.
- 32. Commercial Panic Hardware: As scheduled and indicated on Drawings.
- 33. Commercial Panic Hardware: None.
- 34. Commercial Panic Hardware: Mortise panic.
- 35. Commercial Panic Hardware: Impact panic
- 36. Commercial Panic Hardware: Push/pull.
- 37. Commercial Panic Hardware: Push only.
- 38. Passive Hardware: As scheduled and indicated on Drawings.
- 39. Passive Hardware: None.
- 40. Passive Hardware: Square style for commercial applications.
- 41. Passive Hardware: Toronto style.
- 42. Fasteners: For applications in locations as approved by manufacturer.
- 43. Corners:
  - a. Corner Lugs: Extruded aluminum, with thermal break.
  - b. Corner Connectors: With thermal break.
- 44. End Caps: Do not breach thermal break.

## 2.4 MATERIALS

- A. Aluminum: 6063-T5, 6063-T6 alloy and temper.
  - 1. Other alloys and tempers may be used for non-structural members, provided they do not void the required warranties.
  - 2. Framing Members: Thickness based on design loading, cross sectional configuration, and fabrication requirements.
  - 3. Aluminum Flashing and Closures: 0.040 inches thick, minimum.
  - 4. Snap-on Covers and Miscellaneous Non-structural trim: Minimum thickness as recommended by the manufacturer.
- B. Insulated Panels: Expanded polystyrene. Provide at filler panels and sheet metal members.
- C. Glazing: See product section.
- D. Flashings: Sheet aluminum.
  - 1. Finish: Same as system components.
  - 2. Secured with concealed fastening method or fastener with head finished to match.
  - 3. Thickness: As required for conditions encountered.
- E. Thermal Insulbar Separation: Manufacturer's standard system to provide thermal separation between exterior and interior components.
- F. Internal Reinforcing:
  - 1. Structural Aluminum: ASTM B221/B221M and ASTM B241/B241M.
  - 2. Shapes and Sizes: To suit installation.
- G. Glazing Gaskets Complying with ASTM C864: EPDM compression type Replaceable.

1. Compatible with glazing sealant used.
  2. Profile and Hardness: As necessary. Maintain uniform pressure for watertight seal.
  3. Color: Black.
  4. Factory molded corners required at interior.
- H. Setting Blocks, Edge Blocks, and Spacers: As required by manufacturer and compatible with insulated glass where required.
- I. Structural Glazing Sealant: Manufacturer's Standard. Color: Black.
- J. Perimeter Sealant: Manufacturer's standard.
1. Color: Match framing finish if available, otherwise as selected by Architect from manufacturer's standard range.
- K. Anchors and Fasteners:
1. Aluminum and stainless steel of type which will not cause electrolytic action or corrosion.
  2. Zinc cadmium-plated fasteners may be used if acceptable to manufacturer.
  3. Exposed Fasteners: Finish to match aluminum frame.

## 2.5 FRAME FINISH

1. Aluminum Wall Frames: As scheduled and indicated on Drawings.
2. Aluminum Wall Frames: Dual color, as indicated on Drawings.
3. Aluminum Wall Frames: Dual finish, as indicated on Drawings.
4. Aluminum Wall Frames: Mill finish, unfinished.
5. Aluminum Wall Frames: Manufacturer's standard clear anodized finish, Class I AAMA 611.
6. Aluminum Wall Frames: Manufacturer's standard dark bronze anodized, Class 1 AAMA 611.
7. Aluminum Wall Frames: Copper cladding.
8. Aluminum Wall Frames: 304 stainless steel cladding with No. 4 satin finish.
9. Aluminum Wall Frames: Brass cladding.
10. Aluminum Wall Frames: Bronze cladding.
11. Aluminum Wall Frames: Rheinzink Bright Rolled cladding.
12. Aluminum Wall Frames: Rheinzink Blue Gray cladding.
13. Aluminum Wall Frames: Rheinzink Graphite Gray cladding.
14. Aluminum Door Frames: Powder coating solids finish, white, AAMA 2605.
15. Aluminum Door Frames: Powder coating solids finish, black, AAMA 2605.
16. Aluminum Door Frames: Powder coating solids finish, sandstone, AAMA 2605.
17. Aluminum Door Frames: Powder coating solids finish, natural clay, AAMA 2605.
18. Aluminum Door Frames: Powder coating solids finish, bronze, AAMA 2605.
19. Aluminum Wall Frames: Powder coating solids finish, bone white, AAMA 2605.
20. Aluminum Wall Frames: Powder coating solids finish, fashion gray, AAMA 2605.
21. Aluminum Wall Frames: Powder coating solids finish, colonial gray, AAMA 2605.
22. Aluminum Wall Frames: Powder coating solids finish, military light blue, AAMA 2605.
23. Aluminum Wall Frames: Powder coating solids finish, burgundy, AAMA 2605.
24. Aluminum Wall Frames: Powder coating solids finish, charcoal, AAMA 2605.
25. Aluminum wall Frames: Powder coating solids finish, apollo white, AAMA 2605.
26. Aluminum Wall Frames: Powder coating solids finish, ivory, AAMA 2605.

27. Aluminum Wall Frames: Powder coating solids finish, seawolf, AAMA 2605.
28. Aluminum Wall Frames: Powder coating solids finish, Antique Bronze, AAMA 2605.
29. Aluminum Wall Frames: Acacia 1001, Light DS 716 textured faux wood finish.
30. Aluminum Wall Frames: Acacia 1001, Light DS 402 smooth faux wood finish.
31. Aluminum Wall Frames: Acacia 1001, Dark DS 733 textured faux wood finish.
32. Aluminum Wall Frames: Acacia 1001, Dark DS 403 smooth faux wood finish.
33. Aluminum Wall Frames: Douglas fir 1501 DS 716 textured faux wood finish.
34. Aluminum Wall Frames: Douglas fir 1501 DS 402 smooth faux wood finish.
35. Aluminum Wall Frames: Cherry 1402 DS 716 textured faux wood finish.
36. Aluminum Wall Frames: Cherry 1402 DS 402 smooth faux wood finish.
37. Aluminum Wall Frames: Knotty pine 2103 DS 716 textured faux wood finish.
38. Aluminum Wall Frames: Knotty pine 2103 DS 402 smooth faux wood finish.
39. Aluminum Wall Frames: Cherry 1402 DS 733 textured faux wood finish.
40. Aluminum Wall Frames: Cherry 1402 DS 403 smooth faux wood finish.
41. Aluminum Wall Frames: Oak assi 2501 DS 733 textured faux wood finish.
42. Aluminum Wall Frames: Oak assi 2501 DS 403 smooth faux wood finish.
43. Aluminum Wall Frames: Dark walnut 1802 DS 733 textured faux wood finish.
44. Aluminum Wall Frames: Dark walnut 1802 DS 403 smooth faux wood finish.
45. Aluminum Wall Frames: Teak 2601 DS 706 textured mahogany faux wood finish.
46. Aluminum Wall Frames: National walnut 1806 DS 706 textured mahogany faux wood finish.
47. Aluminum Wall Frames: White oak wood veneering.
48. Aluminum Wall Frames: Cherry wood veneering.
49. Aluminum Wall Frames: Walnut wood veneering.
50. Aluminum Wall Frames: Douglas fir wood veneering.
51. Aluminum Wall Frames: Maghogany wood veneering.
52. Aluminum wall Frames: Pecan Pine wood veneering.

## 2.6 FABRICATION

- A. Fabricate components in accordance with shop drawings approved by the Architect.
- B. All major fabrication to be done at the manufacturing location and not onsite.
- C. Manufacturer must remove burrs and rough edges prior to finish application.
- D. Install gaskets and tapes at factory, as reasonable.
- E. Disassemble only to extent necessary for shipping and handling limitations.
- F. Notify Manufacturer of any field modification prior to activity commencing.
- G. Welding shall comply with standards set forth by the American Welding Society.
  1. Grind exposed welds smooth and flush with adjacent surfaces before finishing.
  2. Restore mechanical finish.
- H. Perform all work in a method that will meet or exceed industry standards.
- I. Isolation membrane materials must be used to separate dissimilar metals to prevent galvanic corrosion action between materials.
- J. Fabricate components to allow accurate and rigid fit of joints and corners. Match

components carefully ensuring continuity of line and design. Ensure joints and connections are flush and weather tight. Ensure slip joints make full, tight contact and are weather tight.

- K. Fabricate components true to detail and free from defects impairing appearance, strength, or durability.
- L. Provide contoured exterior horizontal or purlin glazing retainers to minimize water, ice, and snow buildup.
- M. Reinforce components at anchorage and support points, joints, and attachment points for interfacing work.
- N. Accurately size glazing to fit openings allowing for clearances as set forth by the "Glazing Manual" published by the Flat Glass Marketing Association (FGMA).
- O. Cut glass clean and carefully. Nicks and damaged edges will not be accepted. Replace all glass with damaged edges.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly constructed and prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.

#### 3.2 PREPARATION

- A. General contractor shall direct, supervise, and inspect all site work related to the modular terrace door system.
- B. Clean surfaces thoroughly prior to installation.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

#### 3.3 INSTALLATION

- A. Installation of the modular terrace door system shall be done in accordance with approved shop drawings and manufacturer's instruction and installation manuals.
- B. Separate dissimilar materials using nonconductive tape, paint, or other material not visible in finished work.
- C. Provide attachments and shims to permanently fasten system to building structure.
- D. Maintain dimensional tolerances and alignment with adjacent work.
- E. Anchor securely in place, allowing for required movement, including expansion and contraction.
- F. Install glazing sealants in accordance with manufacturer's instructions without exception, including surface preparations.
- G. Set sill members in bed of sealant. Set other members with internal sealants to provide weather tight construction.

- H. Install flashings, bent metal closures, corners, gutters, and other accessories as required or detailed.
- I. Clean surfaces and install sealant in accordance with sealant manufacturer's instructions and guidelines.

#### 3.4 ADJUSTING AND CLEANING

- A. Adjust hinge set, locksets, and other hardware for proper operation. Lubricate using a suitable lubricant compatible with door and frame coatings.
- B. Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions before owner's acceptance.
- C. Any abraded surface of the finish shall be cleaned and touched up with air dry paint, as approved and furnished by the window manufacture, in a color to match factory applied finish.
- D. Remove from project site, and legally dispose of construction debris associated with this work.
- E. Removable sill and head stop provide for greater serviceability of hardware without the need to remove the other panels.

#### 3.5 HOUSEKEEPING

- A. Manufacturer shall deliver all related operating instructions, maintenance manuals, and warranty registration cards to the general contractor during the completion of the project.
- B. Installer shall protect installed products until completion of the installation from all construction debris and natural elements.
- C. Manufacturer is responsible for all touch-up repair or replace damaged products during the installation.
- D. Installer shall keep area tidy and safe at all times.
- E. Clean and dress all sealant prior to installation completion.
- F. Clean all glass prior to installation completion.
- G. Installer shall clean the entire enclosure one time at the completion of the installation. Cleaning shall include surface cleaning of aluminum framing and glass and cleanup of construction debris. All subsequent cleaning shall be the responsibility of the general contractor.

#### 3.6 FIELD QUALITY CONTROL

- A. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.
- B. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.

#### 3.7 CLEANING AND PROTECTION

- A. Clean products in accordance with the manufacturer's recommendations.
- B. Protect installed products until completion of project.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION