

## SECTION 08 32 13 SLIDING ALUMINUM FRAMED GLASS DOOR SYSTEM

### PART 1 GENERAL

#### 1.01 SUMMARY

- A. Section includes furnishing and installing a floor track supported, thermally broken aluminum-framed sliding glass panel / wall system that includes:
1. Aluminum framed panels.
  2. Threshold.
  3. Sliding and locking hardware.
  4. Weather stripping.
  5. Bionic Turtle® thermal break.
  6. Multipurpose frame insert.
  7. Anti-lift and rattle-resistant feature.
  8. Glass and glazing.
  9. Insect screen (optional by others).
  10. Accessories as required for a complete working installation.

**NOTE:** As part of the manufacturer's Generation 4 comprehensive product line, NW MultiSlide 630 offers uniform glass lines to match the aluminum framed folding systems, tilt turn and fixed windows, and the individual swing door.

- B. Related Documents and Sections: Contractor to examine Contract Documents for requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to, the following:
1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, Specification Sections, apply to this Section.
  2. Section 06 10 00, Rough Carpentry: Wood framing R.O. and blocking.
  3. Section 06 20 00, Finish Carpentry.
  4. Section 07 27 00, Air Barriers: Building paper and buildingwrap.
  5. Section 07 62 00, Sheet Metal Flashing and Trim: Flashing gutters, and other sheet metal work.
  6. Section 07 90 00, Joint Protection.
  7. Section 08 32 13, Minimal Sliding Aluminum-Framed Glass Doors: NanaWall cero.
  8. Section 08 43 33, Thermally Broken Aluminum Framed Folding Partitions: NanaWall NW Aluminum 640.
  9. Section 08 43 33, Thermally Broken Aluminum Framed Partition: Individual Swing Door.
  10. Section 08 51 13, Aluminum Windows: NanaWall NW TiltTurn 620 and NW Fixed 610, tilt-turn and fixed casement window.
  11. Section 09 22 16, Non-Structural Metal Framing: Metal framing R.O. and reinforcement.

12. Section 10 22 39, Thermally Broken, Acoustically Rated, Aluminum Framed Folding Glass Partitions: NanaWall NW Acoustical 645.
13. Individual swing door.

## 1.02 REFERENCES

- A. Reference Standards in accordance with Division 01 and current editions from the following:
1. AAMA. American Architectural Manufacturers Association; [www.aamanet.org](http://www.aamanet.org)
    - a. AAMA 205-15, In-Plant Testing Guidelines for Manufacturers and Independent Laboratories.
    - b. AAMA 502, Voluntary Specification for Field Testing of Newly Installed Fenestration Products.
    - c. AAMA 611, Voluntary Specification for Anodized Architectural Aluminum.
    - d. AAMA 2604, Voluntary Specifications, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
    - e. AAMA/WDMA/CSA 101/I.S.2/A440-22, NAFS, North American Fenestration Standard Specification for Windows, Doors, and Skylights.
  2. ANSI. American National Standards Institute; [www.ansi.org](http://www.ansi.org)
    - a. ANSI Z97.1, Safety Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings.
  3. ASTM. ASTM International; [www.astm.org](http://www.astm.org)
    - a. ASTM C1036, Standard Specification for Flat Glass.
    - b. ASTM C1048, Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass.
    - c. ASTM E90, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
    - d. ASTM E283-04 (2012), Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
    - e. ASTM E330-00 (2016), Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
    - f. ASTM E331-00 (2016) Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
    - g. ASTM E547-00 (2016), Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference.
    - h. ASTM E2068-00 (2016) Standard Test Method for Determination of Operating Force of Sliding Windows and Doors.
    - i. ASTM E413, Classification for Rating Sound Insulation.
    - j. ASTM E1332, Standard Classification for Rating Outdoor-Indoor Sound Attenuation.
    - k. ASTM F842, Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact.
  4. Construction Products Directive (CPD), a legal mandate of the European Commission; [http://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/construction-products/index\\_en.htm](http://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/construction-products/index_en.htm)
    - a. CE Mark; [http://ec.europa.eu/growth/single-market/ce-marking/index\\_en.htm](http://ec.europa.eu/growth/single-market/ce-marking/index_en.htm)
  5. CPSC. Consumer Product Safety Commission; [www.cpsc.gov](http://www.cpsc.gov)
    - a. CPSC 16CFR-1201, Safety Standard for Architectural Glazing Materials
  6. CSA Group (Canadian Standards Association); [www.csagroup.org/global/en/home](http://www.csagroup.org/global/en/home)

- a. CSA A440S1-17 - The Canadian supplement to North American (NAFS) standards
7. DIN. "Deutsches Institut für Normung" (German institute for standardization); [www.en-standard.eu/din-standards](http://www.en-standard.eu/din-standards)
  - a. DIN EN ISO 9001, 2015 quality management system registration.
  - b. DIN EN ISO 10140-1, 2, 3, 4, & 5, Airborne sound measurement.
  - c. DIN EN ISO 12400, Windows and pedestrian doors - Mechanical durability - Requirements and classification.
  - d. DIN EN ISO 14001, 2015 environmental management system registration.
8. Energy Star, U.S. Environmental Protection Agency (EPA) Program; [www.energystar.gov](http://www.energystar.gov)
9. EN Standards – Construction Materials and Building (European Standards); [www.en-standard.eu/din-standards](http://www.en-standard.eu/din-standards)
  - a. CSN EN 1191, Windows and Pedestrian Doors – Mechanical Durability.
10. EPD. Environmental Product Declaration; <https://www.ift-rosenheim.de/>
  - a. DIN EN ISO 14025, Environmental Labels and Declarations – Type III Environmental Declarations – Principles and Procedures.
  - b. DIN EN ISO 14040, Environmental Management – Life Cycle Assessment – Principles and Framework.
  - c. DIN EN ISO 14044, Environmental Management – Life Cycle Assessment – Requirement and Guidelines.
  - d. DIN EN ISO 15804 + A2, Sustainability of Construction Works – Environment Product Declarations – Core Rules for the Product Category of Construction Products.
11. HPD. Health Product Declaration v2.3; <https://www.hpd-collaborative.org/>

### 1.03 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate Sliding Glass Door system and framing R.O.
- B. Pre-installation Meetings: See Section 01 30 00.

### 1.04 SUBMITTALS

- A. For Contractor submittal procedures see Section 01 30 00.
- B. Product Data: Submit manufacturer's printed product literature for each Sliding Glass Door system to be incorporated into the Work. Show performance test results and details of construction relative to materials, dimensions of individual components, profiles, and colors.
- C. Product Drawings: Indicate Sliding Glass Door system component sizes, dimensions and framing R.O., configuration, sliding panels, stacking layout, typical head jamb, side jambs and sill details, type of glazing material, handle heights and field measurements.
- D. Certificates: Submit CE Mark Certificate.
- E. Manufacturers' Instructions: Submit Owner's Manual from manufacturer which includes installation instructions, operation, and maintenance data: Identify with project name, location and completion date, and type and size of unit installed.

**NOTE:** Delete the following Article if LEED is not applicable; edit to meet project LEED requirements.

- F. Sustainable Design Submittals (USGBC [LEED](https://www.usgbc.org/)®): Refer to Section 01 81 15, LEED Design Requirements.
  1. **LEED 2009** (v3) Credits. Complete online LEED forms and submit other required materials as follows:
    - a. Energy and Atmosphere (EA) Credits:
      - 1). EA Credit 1 (EA1): Optimize Energy Performance: System.

- b. Materials and Resources (MR) Credits:
  - 1). MR Credit 1.1 (MRc1.1): Building Reuse - Maintain Existing Exterior Walls, Floors and Roof.
  - 2). MR Credit 1.2 (MRc1.2): Building Reuse - Maintain Existing Interior Nonstructural Elements.
  - 3). MR Credit 2 (MRc2): Construction Waste Management.

**NOTE:** MR Credit 3 below can apply to reusing salvaged Sliding Glass Door.

- 4). MR Credit 3: Materials Reuse - 5% (MRc3.1) or 10% (MRc3.2).
- c. Indoor Environmental Quality (EQ) Credits:
  - 1). IEQ Credit 2 (IEQc2): Increased Ventilation - Case 2 - Naturally Ventilated Spaces.
  - 2). IEQ Credit 8.1 (IEQc8.1): Daylight & Views - Daylight 75% of Spaces.
  - 3). IEQ Credit 8.2 (IEQc8.2): Daylight & Views - Views for 90% of Spaces.
  - 4). IEQ Credit 9 (LEED for Schools - IEQc9): Enhanced Acoustical Performance.
- 2. **LEED v4 for Building Design and Construction (BD&C) Credits.** Complete online LEED forms and submit other required materials as follows:
  - a. Energy and Atmosphere (EA) Credits:
    - 1). EA Credit 2 (EAc2): Optimize Energy Performance.
  - b. Materials and Resources (MR) Credits:

**NOTE:** MR Credit 1 below can apply to reusing salvaged Sliding Glass Door.

- 1). MR Credit 1 (MRc1): Building Life-Cycle Impact Reduction; Option 3 - Building and Material Reuse.
- c. Indoor Environmental Quality (EQ) Credits:
  - 1). EQ Credit 7 (EQc7): Daylight
  - 2). EQ Credit 8 (EQc8): Quality Views
  - 3). EQ Credit 9 (EQc9): Acoustic Performance
    - a). Submit calculations or measurements for occupant spaces to meet sound transmission class ratings between adjacent spaces and reverberation time requirements within a room.

G. LEED Closeout Documentation:

**NOTE:** Edit below to meet project LEED requirements.

- 1. **LEED 2009 (v3).** Submit completed LEED™ submittal Worksheet Templates for the following credits:
  - a. EAc1, MRc1.1, MRc1.2, MRc2, MRc3, MRc6, IEQc2, IEQc8.1, IEQc8.2, IEQc9
- 2. **LEED v4 (BD&C).** Submit information and documentation to complete LEED™ Worksheet Templates for the following credits:
  - a. EAc2, MRc1, EQc7, EQc8, EQc9

1.05 QUALITY ASSURANCE

A. Regulatory Requirements: Sliding Glass Door to be CE Mark certified.

**NOTE:** The CE mark serves as verification that the product conforms with the essential requirements of the Construction Products Directive (CPD), a legal mandate of the European Commission. CE certified windows and doors provide building professionals with a uniform set of technical standards to evaluate and specify product performance with added assurance that NanaWall products are safe and fit for purpose.

- B. **Manufacturer Qualifications:** Manufacturer capable of providing complete, precision built, engineered, pre-fitted units with a thirty five (35) years' experience in the sale of folding-sliding door systems for large openings in the North American market.
  - 1. Manufacturer to have DIN EN ISO 9001: 2015 quality management system registration.
  - 2. Manufacturer to have DIN EN ISO 14001: 2015 environmental management system registration.
- C. **Installer Qualifications:** Installer experienced in the installation of manufacturer's products or other similar products for large openings. Installer to provide reference list of at least three (3) projects of similar scale and complexity successfully completed in the last three (3) years.
  - 1. Installer to be trained and certified by manufacturer.
- D. **Single Source Responsibility:** Furnish Sliding Glass Door system materials from one manufacturer for entire Project.

#### 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Comply with manufacturer's instructions and recommendations, Section 01 60 00 requirements, and as follows:
  - 1. Deliver materials to job site in sealed, unopened cartons or crates.
    - a. Upon receipt, inspect the shipment to ensure it is complete, in good condition and meets project requirements.
  - 2. Store material under cover in a clean and dry location, protecting units against weather and defacement or damage from construction activities, especially to the edges of panels.

#### 1.07 FIELD CONDITIONS

- A. **Field Measurements:** Contractor to field verify dimensions of rough openings (R.O.) and threshold depressions to receive sill. Mark field measurements on product drawing submittal.

#### 1.08 WARRANTY

- A. **Manufacturer Warranty:** Provide Sliding Glass Door system manufacturer's standard limited warranty as per manufacturer's published warranty document in force at time of purchase, subject to change, against defects in materials and workmanship.
  - 1. **Warranty Period** beginning with the earliest of 120 days from Date of Delivery or Date of Substantial Completion:
    - a. **Rollers and Insulated Glass Seal Failure:** Ten (10) years
    - b. **All Other Components Except Screens:** Ten (10) years
      - 1). **Exception:** Five (5) years if NOT installed by manufacturer's specific system approved or certified trained installer.

### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

- A. **Basis-of-Design Product by Manufacturer:** **Generation 4 Comprehensive Product Line by NanaWall NW MultiSlide 630** ([www.nanawall.com](http://www.nanawall.com)).

**NANA WALL SYSTEMS, INC.**  
100 Meadow Creek Drive, Corte Madera, CA 94925  
Toll Free (800) 873-5673  
Telephone: (415) 383-3148  
Fax: (415) 383-0312  
Email: [info@nanawall.com](mailto:info@nanawall.com)

1. Substitution Procedures: See Section 01 20 00; Submit completed and signed:
  - a. Document 00 43 25, Substitution Request Form (During Procurement)
  - b. Document 00 63 25, Substitution Request Form (During Construction)

## 2.02 PERFORMANCE / DESIGN CRITERIA

**NOTE:** Weeps are pre-drilled in the factory as per the manufacturer's requirements.

Air infiltration and water penetration testing results are only applicable if the unit matches the tested panel and unit size, and type of sill.

Structural load testing results are only applicable for the test unit size and type of locking and rods. Comparative analysis charts published by the manufacturer shows which panel sizes, if any, meets the structural loading design pressures specifically required for the project. Check for limitations on the use of these charts in the jurisdiction of the project.

Forced entry testing results are only applicable for the test unit type of locking.

Check for requirements in the jurisdiction of the project.

See manufacturer's latest published data regarding performance.

It is expected that the installed system's performance should be no less than 2/3<sup>rd</sup> of the following certified laboratory test data in accordance with AAMA 502.

- A. Performance Criteria (Lab Tested): **Low Profile Saddle Sill and Flush Sill**
1. Sliding Glass Door Units tested to AAMA/WDMA/CSA 101/I.S.2/A440-22:
    - a. Class LC-PG50; 8' 11" x 8' 6" (2710 mm x 2600 mm) and Class CW-PG30; 8' 11" x 8' 6" (2710 mm x 2600 mm).
  2. Structural Load Deflection (ASTM E330):
    - a. Design Pressure - Positive: 50 psf (2400 Pa)
    - b. Design Pressure - Negative: 50 psf (2400 Pa)
    - c. Uniform Load deflection, L/175: Pass 30 psf (1440 Pa)
  3. Air Infiltration/Exfiltration (ASTM E283):
    - a. @ 1.57 psf (75 Pa) / 0.14 cfm/ft<sup>2</sup> / 0.13 cfm/ft<sup>2</sup>
    - b. Canadian Air Infiltration/Exfiltration Level: A2
  4. Water Penetration (ASTM E331, ASTM E547):
    - a. No uncontrolled water leakage at a static test pressure of 5.43 psf (260 Pa). (Not applicable for even-even configurations)

**NOTE:** Items below are common for all sill types, except as noted.

- B. Performance Criteria (Lab Tested):
1. Acoustic Performance: **STC(Rw)**

**NOTE:** Acoustical system STC and Rw ratings per ASTM E413 and DIN EN ISO 717-1 are from testing of full panel systems by an independent and accredited acoustical laboratory in accordance with DIN EN ISO 10140-1, 2, 4, & 5 test procedure and in general accordance with ASTM E90-09. A complete and unedited written test report is available upon request.

See manufacturer's latest published data regarding performance.

- a. [ System STC (Rw) 43 (43) and OITC 36 with 1-1/2 inch (38 mm) double IGU, 12 mm + 10 mm STC 51 enhanced laminated glass ]
- b. [ System STC (Rw) 38 (38) and OITC 31 with 1-3/16 inch (30 mm) double IGU, 6 mm annealed + 8 mm laminated STC 39 glass ]
- c. [ System STC (Rw) 36 (36) and OITC 30 with 1-1/8 inch (28 mm) double IGU, 6 mm + 6 mm STC 33 annealed glass ]

**NOTE:** Acoustical system STC (Rw) ratings below are engineer-calculated interpolations based on the full panel systems testing with low profile saddle sill and flush sill. Calculations of system STC (Rw) from other glazing STC is available on request.

- d. [ System STC (Rw) 42 (42) with 1-9/16 inch (40 mm) double IGU, 10 mm + 8 mm STC 48 enhanced laminated glass ]
  - e. [ System STC (Rw) 41 (41) with 1-5/8 inch (42 mm) double IGU, 8 mm + 8 mm STC 47 enhanced laminated glass ]
  - f. [ System STC (Rw) 40 (40) with 1-7/16 inch (36 mm) double IGU, 6 mm + 6 mm STC 45 enhanced laminated glass ]
  - g. [ System STC (Rw) 38 (38) with 1-1/8 inch (28 mm) double IGU, 6 mm + 6 mm STC 40 laminated glass ]
  - h. [ System STC (Rw) 36 (36) with 1-1/8 inch (28 mm) double IGU, 6 mm + 6 mm STC 33 tempered glass ]
2. System – Life Cycle Performance (DIN EN 1191/12400): 40,000 cycles
3. Operating Force (ASTM E2068):
- a. Initiate Motion: 10.3 lbf (47 N)
  - b. Maintain Motion: 7.6 lbf (33 N)
4. Forced Entry Resistance (ASTM F842): Type: A - Grade: 25 Pass

**NOTE:** Forced entry testing results are only applicable for the test unit type of locking. See manufacturer's latest published data regarding performance.

5. EPA Energy Star: Meets requirements

**NOTE:** **Energy Star** values for DOORS with > 50% glass can be achieved by specific glass units meeting the following requirements:

Northern & North-Central Region:	≤ 0.30 U-factor	0.40 SHGC
South-Central & Southern Region:	≤ 0.30 U-factor	0.25 SHGC

**Energy Star** Air Leakage Rating Requirements (ASTM E283 in accordance with NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440-11):

Swinging Door: ≤ 0.5 cfm/ft<sup>2</sup> (2.56 L/s/m<sup>2</sup>)

For guidance only as Nana Wall Systems is not a participant of the Energy Star Program.

6. Environmental Product Declaration (EPD): Meets requirements

**NOTE:** Environmental Product Declaration (EPD) conducted Life Cycle Assessment (LCA) in accordance with DIN EN 15804, DIN EN ISO 14040, DIN EN ISO 14044, and ISO 14025. Life cycle tested from supply of raw material to end-of-life stage of the system. Environmental Impact results as per 1 m<sup>2</sup> of the product system.

Declaration is based on PCR documents EN 17213 “PCR for windows and doors”, “PCR Part A” PCR-A-1.0:2023 and “Doors and gates” PCR-TT-3.0:2023.

Environmental Product Declaration EPD-SGS-GB-63.0 is valid until 16 April 2029. Contact NanaWall for more information.

7. Health Product Declaration (HPD): Meets requirements

**NOTE:** Health Product Declaration (HPD) in accordance with HPD Standard v2.3 tested with threshold level of hazards from substances present at or above 1000 parts per million (ppm). No residual or impurities were present above the threshold level from the system components.

No VOC emission as per LEED requirements. Contact NanaWall for more information.

C. LEED Characteristics:

1. LEED 2009 (v3)
  - a. EAc1: *NanaWall* systems using low U-Value designed double or triple IGU and thermally broken frames can provide significant energy performance.
  - b. MRc1.1: *NanaWall* exterior glass wall systems, not demolished in a renovation project, are reused in the same location.
  - c. MRc2: *NanaWall* cardboard shipping crates are made of 60% recycled material and are 100% recyclable.
  - d. MRc3: *NanaWall's* components easily disassemble and reassemble to "*Use as salvaged... or reused materials.*"
  - e. IEQc2: *NanaWall* systems provide natural ventilation in the open position, assisting in the 90% required natural ventilation of occupied spaces of ASHRAE 62.1.
  - f. EQc8.1: *NanaWall* glass wall assembly borrowed light brings daylight deeper into the floor plate.
  - g. EQc8.2: *NanaWall* glass wall assemblies provide direct outdoor lines of sight.
2. LEED v4 for Building Design and Construction (BD&C)
  - a. EAc2: *NanaWall* systems using low U-Value designed double IGU or triple IGU and thermally broken frames can provide significant energy performance.
  - b. MRc1: *NanaWall* can be easily disassembled for salvage and reuse.
  - c. EQc7: *NanaWall* glass wall assembly borrowed light brings daylight deeper into the floor plate.
  - d. EQc8: *NanaWall* glass wall assemblies provide direct outdoor lines of sight.

D. Design Criteria:

1. Sizes and Configurations: As indicated by the Drawings for selected number and size of panels, stacking, and location of track.
2. Unit Operation: Sliding hardware with top and bottom tracks.

**NOTE:** NW MultiSlide 630 is available in numerous configurations with combinations of sliding and fixed panels. Systems are available with up to 3 tracks and 6 panels with pocketed configurations possible. Contact NanaWall for additional options.

3. Mounting Type: Floor track supported.
4. Panel Configuration: See drawings.
  - a. [ Straight with equal panels ]
  - b. [ Straight with asymmetrical panels ]
5. Stack Storage Configuration:
  - a. [ Stack to the side ]
  - b. [ Stack into a pocket ]
  - c. [ Stack either side with multidirectional configuration ]

**NOTE:** See manufacturer's drawings for selected custom dimensions within maximum frame sizes possible as indicated in manufacturer's literature.  
See drawings for selected number of panels and configuration.

2.03 MATERIALS

- A. Thermally Broken Aluminum Framed Sliding Glass Door Description: 2-1/8 inch (55 mm) junction for two adjacent sliding vertical stile interlock, floor track supported system. Sliding and fixed, large-area glass panels in an extruded aluminum frame.



Manufacturer's standard thermally broken panels and frame profiles, with head track, side jambs, sill, and panels with dimensions as shown on Drawings. Panels slide on bottom rollers with unique Gothic arch design supported by double row of self-lubricating ball bearing.

1. Panels and Frame:

a. Panels

1). Single lite.

**NOTE:** Single lite above is standard; other options below may require an upcharge.  
Refer to manufacturer's size chart for glass panel sizes requiring the use of horizontal mullions.

2). [ Multiple lites with horizontal mullion(s) at height(s) indicated from the bottom of the panel. ]

3). [ Single lite with simulated divided lites in pattern as shown on Drawings. ]

4). Panel Size (W x H): As indicated.

**NOTE:** Maximum panel width is 6' 6" (1980 mm) with a maximum unit height of 10' 2" (3100 mm).  
Maximum unit panel weight is 880 lbs. (400 kg).  
Refer to NanaWall size chart.

5). Typical Stile Width: 2-1/8 inch (55 mm) for two adjacent sliding panels.

**NOTE:** Proprietary patent pending anti-lift and rattle-free feature located in the vertical stile at the top of the panel. These built-in features provides additional security and secures the panel within the frame.

6). Panel Depth: 2-5/8 inch (67 mm)

**NOTE:** As part of the manufacturer's Generation 4 comprehensive product line, NW MultiSlide 630 offers uniform glass lines to match the aluminum framed folding systems, tilt turn and fixed windows, and the individual swing door.

7). Top Rail Width: 1 3/4 inch (45 mm)

8). Bottom Rail Width:

a). [ 3 inch (76 mm) ]

b). [ Manufacturer's standard kick-plate of 10 inches (254 mm) ]

b. Frame:

1). Thermally broken top track and side jambs with multipurpose frame insert to hide anchoring frame connections and conceal cable routing to security system by others.

**NOTE:** Frame fasteners, attachment points and screw heads should be concealed by the multipurpose frame insert for enhanced aesthetics.

2). Head Track Height:

a). [ 3 inch (76 mm) standard ]

b). [ 4-1/8 inch (104 mm) to match FourFold or SixFold panel sets of NW Aluminum 640 ]

3). Side Jamb Width: 3 inches (76 mm)

**NOTE:** Select from the following Sill types, edit to suit, and delete those not meeting project requirements.

4). Sill Type - Extruded Aluminum:

a). [ Low Profile Saddle Sill - ADA compliant (thermally broken) ]

- b). [ Flush Sill - ADA compliant (thermally broken) ]
- 5). Sill Finish:
  - a). [ Clear anodized ]
  - b). [ Black anodized ]
- 2. Aluminum Extrusion: AlMgSi0.5 alloy, 6063-T5 (F-22 - European standard)
  - a. Thickness: 0.078 inch (2.0 mm) nominal
  - b. Thermal Break: 1-15/16 inch (49 mm) wide specially designed and patented (Patent Number: US10550625B2) glass fiber reinforced (GFR) polyamide "Bionic Turtle®" for panels. Standard thermal break elsewhere.
- 3. Aluminum Finish:
  - a. Inside and Outside: Same (one-color)

**NOTE:** Select finish type below, edit to requirements and delete items not used.  
SE (Steel Effect) colors are available for a fine matte texture.

- b. Anodized (AAMA 611):
    - 1). [ Clear ]
    - 2). [ Dark Bronze ]
    - 3). [ Black ]
  - c. Powder Coat (AAMA 2604):
    - 1). Color as chosen from manufacturer's powder coating finish chart from
      - a). [ Manufacturer's standard selection of 50 colors - matte. ]
      - b). [ Manufacturer's full RAL selection - high gloss. ]
      - c). [ Custom finish. ]
  - d. SE (Steel Effect):
    - 1). Color as chosen from manufacturer's finish chart
      - a). [ SE Black ]
      - b). [ SE Classic Bronze ]
      - c). [ SE 702 ]
      - d). [ SE 703 ]
- B. Glass and Glazing:
- 1. Safety Glazing: In compliance with ASTM C1036, ASTM C1048, ANSI Z97.1 and CPSC 16CFR 1201.

**NOTE:** Unlike wet glazing, NanaWall's standard dry glazing method helps reduce instances of seal failure.

- 2. Manufacturer's [ **tempered** ] [ **and** ] [ **laminated** ] glass lites in [ **double** ] [ **triple** ] insulated glazing units, dry glazed with glass stops on the inside.

**NOTE:** Select and edit glass type(s) to meet building code, wind load design, acoustic, bullet resistant and/or security, and other project requirements with other glass available from manufacturer.  
Glass thickness from 1/4" (6 mm) to 1-3/4" (45 mm) possible. Note that heavier glass may limit the maximum sizes possible.  
Custom layouts with horizontal mullions, simulated divided lites, inserts, and high bottom rails are possible.  
Contact NanaWall for the availability of other commercial glass types.

**NOTE:** Pocket stacking is possible for triple glazed units.  
For interior glazing options, refer to 2.02 B acoustic performance criteria.

- a. Insulated Glass Unit (IGU) Lites:
  - 1). Double IGU: 15/16 inch (24 mm) thick.
  - 2). Triple IGU: 1-3/8 inch (35 mm) thick.
- b. IGU Fill:
  - 1). Air filled
  - 2). [ Argon filled ]
- c. Glass Lite Type:
  - 1). Standard reduced iron (Light Transmission LT 89%)

**NOTE:** Items below are options and may require an upcharge.

- 2). [ Low iron (Light Transmission LT 91%) ]
  - 3). [ Solar bronze ]
  - 4). [ Solar gray ]
  - 5). [ Bird safe ]
  - d. Glass Spacers: Manufacturer's standard
    - 1). [ silver gray finish with capillary tubes ]
    - 2). [ black finish with capillary tubes ]
    - 3). [ silver gray finish without capillary tubes ]
    - 4). [ black finish without capillary tubes ]
  - e. IGU Surface:
    - 1). Clear
    - 2). [ Low-E coating on # 2 surface of double IGU ]
    - 3). [ Low-E coating on # 2 and # 4 surface of double IGU ]
    - 4). [ Low-E coating on # 2 and # 5 surface of triple IGU ]
- C. Sliding and Locking Hardware and Handles:
- 1. Sliding Hardware: Stainless steel carriers on dual ball-bearings rolling and gothic arch shaped wheels per panel on single stainless steel rail covers over the full length of the sill track.
    - a. Two (2) carrier rollers attached to each sliding panel. Stainless steel roller with 'gothic arch design' concealed in the bottom rail of the sliding panel with manufacturer's drip edge, not bridging the thermal break. Integrated, replaceable brushes on both ends and in front of the panel lower rail to ensure clean, smooth wheel/roller operation.

**NOTE:** For enhanced weather protection, the bottom rail of each panel provides manufacturer's proprietary profile drip edge feature that extends into the sill and creates an optimal seal.

- b. Roller ball bearings of encapsulated self-lubricating steel balls.
- c. Replaceable rollers.

**NOTE:** Weight of panels borne by the bottom of the guide channel in the sill is NOT acceptable.

- d. Rollers located in the sill profile are not acceptable.
- e. Gothic arch wheel bearing design with 2-point contact to stainless steel bottom track.
- f. Rollers run above floor plane and can operate smoothly over debris obstructions.

- g. Bottom Rollers Carrying Capacity: 880 lb. (400 kg).
- 2. Locking Hardware: Concealed highly secure two-point locking operated by 180° turn of handle. Steel locking rods with a 1" (24 mm) throw drive into both the head track and the sill. The locking rods, along with an anti-lift component in the head track, provide built-in additional security.
  - a. Cranked Handle with Thumb Turn - Finish:
    - 1). Brushed satin stainless steel
    - 2). [ Black titanium stainless steel ]

**NOTE:** Cranked Handles designed for additional thumb turn locking along with escutcheon plates.

- b. Two-Point Locking Handle - Finish:
  - 1). Brushed satin stainless steel
  - 2). [ Black Titanium stainless steel ]

**NOTE:** A key cylinder is available for key locking on the outside.

- 3). Locking:
  - a). [ With key cylinder ]
  - b). [ Without key cylinder ]
- c. Flush Push Handle: For exterior operation, an optional flush installed pull handle is available.
  - 1). Brushed satin stainless steel
  - 2). [ Black titanium stainless steel ]
- d. Handle Height: 41-3/8 inch (105 cm) centered from bottom of panel or as otherwise indicated.
- e. Additional profile cylinders to be [ **Keyed alike.** ] [ **Keyed differently.** ]

**NOTE:** An optional lock monitoring system with Reed contacts is available located within the head track. A special concealed locking mechanism end cap, in combination with the concealed Reed contact, creates an open or closed loop for the home security system supplied by others.

- 3. Weather stripping: Manufacturer's double layer brush seals with a two-layer fiberglass reinforced polyamide fin between sliding panel and vertical and top horizontal frame. Brush seals with a two-layer fiberglass reinforced polyamide fin attached at both inner edges of bottom of sliding panels to bottom track. Q-Ion gasket and brush seal between panel to panel interlock, or brush seals with a two-layer fiberglass reinforced polyamide fin.
- D. Fasteners: Installation plates for connecting frame components made of stainless steel with sealing cushion to avoid thermal conductivity.

## 2.04 FABRICATION

- A. Sliding Glass Wall: Extruded aluminum frame and panel profiles, corner connectors, sliding hardware, locking hardware and handles, glass and glazing and weather stripping.
  - 1. Each unit factory pre-assembled and shipped with complete system components, installation mounting plates, and installation instructions.
  - 2. Exposed work to be carefully matched to produce continuity of line and design with all joints.
  - 3. No raw edges visible at joints.

## 2.05 ACCESSORIES

- A. **Insect Screen by Others:** Fully retractable non-pleated screen made of ultra-strong, polyester / PVC mesh riding on a single track.

1. Basis-of-Design Product by Manufacturer: **S4 Screen & Shade System by Centor.**

**CENTOR NORTH AMERICA INC.**

966-130 Corporate Boulevard, Aurora, IL 60502

Toll Free: (866) 255-0008

Telephone: (630) 957-1000

Fax: (630) 957-1001

Email: [mail.us@centor.com](mailto:mail.us@centor.com)

<https://centor.com/us/screens/centor-s4-insect-screen-and-shade>

### PART 3 EXECUTION

#### 3.01 EXAMINATION

- A. Examination and Acceptance of Conditions per Section 01 70 00 and as follows:

1. Carefully examine rough openings with Installer present, for compliance with requirements affecting Work performance.
  - a. Examine surfaces of openings and verify dimensions; verify rough openings are level, plumb, and square with no unevenness, bowing, or bumps on the floor; and other conditions as required by the manufacturer for readiness to receive Work.
  - b. Verify structural integrity of the header for deflection with live and dead loads should be 1/4 inch (6 mm). Provide structural support for lateral loads, and both wind load and eccentric load when the panels are stacked open.

**NOTE:** Prior to installing NanaWall, it is recommended that all building dead loads be applied to the header. Allow a reasonable amount of time for the dead load's effect on the header; only then can the building's live load be used to meet the above requirement of 1/4 inch (6 mm). If this is not done, both dead and live loads need to be considered.

2. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.02 INSTALLATION

- A. General: Install Sliding Glass Door system in accordance with the Drawings, approved submittals, manufacturer's recommendations, and installation instructions, and as follows:
  1. Properly flash, waterproof, and seal around opening perimeter.
  2. Securely attach anchorage devices to rigidly fit frame in place, level, straight, plumb, and square. Install frame in proper elevation, plane, and location, and in proper alignment with other work.
  3. When lower track is designed to drain, provide connections to allow for drainage.
  4. Install panels, handles, lockset, screens, and other accessories in accordance with manufacturer's recommendations and instructions.

#### 3.03 FIELD QUALITY CONTROL

- A. Field Tests and Inspections per Section 01 40 00 of the following:
  1. Verify the Sliding Glass Door system operates and functions properly. Adjust hardware for proper operation.
- B. Non-Conforming Work: Repair or replace non-conforming work as directed by the Architect; see General and Supplementary Conditions, and Division 01, General Requirements.

### 3.04 CLEANING AND PROTECTION

- A. Keep units closed and protect Sliding Glass Door installation against damage from construction activities.
- B. Remove protective coatings and use manufacturer recommended methods to clean exposed surfaces.

END OF SECTION

**DISCLAIMER:**

Nana Wall Systems, Inc. takes no responsibility for product selection or application, including, but not limited to, compliance with building codes, safety codes, laws, or fitness for a particular purpose. This guide specification is not intended to be verbatim as a project specification without appropriate modifications for the specific use intended and the requirements of a specific construction project.

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