SECTION 08 51 13

ALUMINUM WINDOWS

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* All Weather Architectural Aluminum; Aluminum windows and doors.  
This section is based on the products of All Weather Architectural Aluminum, which is located at:777 Aldridge Rd.Vacaville, CA 95688Toll Free Tel: 800-680-5800Tel: 707-452-1600Fax: 707-452-1616 Email: [request info (info@allweatheraa.com)](https://arcat.com/rfi?action=email&company=All%252BWeather%252BArchitectural%252BAluminum&message=RE%253A%2520Spec%2520Question%2520(08521waa)%253A%2520&coid=46213&spec=08521waa&rep=&fax=707-452-1616%2520)  
Web: <https://www.allweatheraa.com>   
 [ [Click Here](https://arcat.com/company/all-weather-architectural-aluminum-46213) ] for additional information.  
For over 50 years All Weather has hand crafted exceptional custom aluminum windows and doors. Utilizing the highest quality materials and applying the superior workmanship of true artisans, we have breathed life into thousands of building projects up and down the entire west coast and beyond.  
Over the decades, All Weather's ability to provide creative solutions to challenging projects has been the company's cornerstone and continues to set All Weather apart from our competition. In fact, that is our primary purpose . to offer custom products for our clientele, not to compete with mass quantity producers.  
We believe in service beyond expectation and achieve this by listening to you. We want you to understand that whether this is your first project with us, or your 100th, our pledge remains the same: We are here to support you by providing expert product knowledge, a world-class customer service experience and on-time delivery of the best aluminum windows and doors on the planet.  
Now under 3rd generation family ownership, our desire to foster deep and meaningful relationships in order to drive All Weather's growth and prosperity remains unwavering. We value you, your business and the opportunity to make each of your projects more amazing with our stunning windows and doors.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Aluminum Windows with integral glazing units and accessories. (Series 5000) (Series 6000) (Series 6100) (Series 6200)
       1. Fixed.
       2. Casement outswing.
       3. Awning.
       4. Hopper.
       5. Combination.
       6. Sliding
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 07 27 19 - Plastic Sheet Air Barriers .
    2. Section 07 27 00 - Air Barriers.
    3. Section 07 60 00 - Flashing and Sheet Metal.
    4. Section 07 91 23 - Backer Rods.
    5. Section 08 40 00 - Entrances, Storefronts, and Curtain Walls.
    6. Section 08 83 13 - Mirrored Glass Glazing.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. American Architectural Manufacturer's Association (AAMA).
       1. AAMA/WDMA/CSA101/I.S.2/A440, North American Fenestration Standard/Specification for Windows, Doors, and Skylights, Includes Update No. 1.
       2. AAMA 502-12 Voluntary Specification for Field Testing of Newly Installed Fenestration Products.
       3. AAMA 609 Cleaning and Maintenance Guide for Architecturally Finished Aluminum.
       4. AAMA 611 Voluntary Standards for Anodized Architectural Aluminum.
       5. AAMA 2605 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).
    2. ASTM International (ASTM).
       1. ASTM E283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
       2. ASTM E330 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
       3. ASTM E547 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference.
       4. ASTM F588 Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact.
    3. Glass Association of North America (GANA):
       1. GANA 01-0300 Proper Procedures for Cleaning Architectural Glass Products.
    4. National Fenestration Rating Council (NFRC).
       1. NFRC 100A Procedure for Determining Fenestration Attachment Product U-factors.
       2. NFRC 200A Procedure for Determining Fenestration Attachment Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
       3. NFRC 500 Procedure for Determining Fenestration Product Condensation Resistance Values.
    5. US Green Building Council (USGBC).
       1. LEED NC Version 2.2, LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Package For New Construction and Major Renovations.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's standard specifications and descriptive literature, including:
        1. Certified test laboratory reports to show compliance with requirements.
           1. Windows with sizes exceeding the gateway sizes do not qualify under these tests.
           2. Windows manufactured with configurations different than the tested configurations do not qualify under these tests; windows can be tested for performance outside the already tested gateway sizes.
           3. Windows with hardware different from what is referenced on the test reports do not qualify under these tests.
        2. Manufacturer's standard head, jamb, and sill details.
        3. Installation methods: Submit manufacturer's written installation instructions.
     3. Manufacturer's Certificates: Submit certified independent testing agency reports indicating window unit meets or exceeds specified performance requirements.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples:
       1. Window Section: 8 x 8 inch (203 x 203 mm) minimum corner section sample of frame for each glazing type specified used to verify construction, corner joint, frame finish, and color.
          1. Quantity: 5.
       2. Single or Insulated Glazing 12 x 12 inch (305 x 305 mm).
       3. Finish: AAMA 611 Anodized Architectural Coatings. Class 1 Anodized.
       4. Finish: AAMA 2605 for Organic Coatings on Aluminum Extrusions. Kynar.
    2. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.
       1. Details of construction and installation including, but not limited to, window location chart, window schedule, size, muntin type and design, sections and details of multiple window assemblies, hardware, glazing details, frame type, STC, glass types, screens and handing operation. Show locations.
    3. Manufacturer's written instructions, including:
       1. Delivery, storage, and handling recommendations.
       2. Preparation and installation recommendations.
    4. Installer's Experience: Submit verification of evidence of similar work of this section.
    5. Warranty: Fully executed, issued in Owner's name and registered with manufacturer, including:
       1. Manufacturer's 1 year warranty, from date of substantial completion, covering defects in materials.

\*\* NOTE TO SPECIFIER \*\* Delete if LEED is not required.

* + 1. Sustainable Design (LEED) Submittals:
       1. LEED Submittals: In accordance with the "LEED Requirements" specification in Division 1.
       2. Submit verification for items when appropriate as follows:
          1. MR 5 Regional Materials.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum ten years documented experience.
        1. Manufacturer must be certified through PPG Certified Window and Door Fabricator Program.
     2. Installer Qualifications: Company specializing in performing Work of this section with minimum three years documented experience with projects of similar scope and complexity.
     3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. 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. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
       2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
       3. Retain mock-up during construction as a standard for comparison with completed work.
       4. Do not alter or remove mock-up until work is completed or removal is authorized.
       5. Incorporation: Mock-up may be incorporated into final construction upon Owner's and Architect's approval.
  1. PRE-INSTALLATION CONFERENCE
     1. Convene a 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.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Delivery of Materials:
        1. In accordance with manufacturer's written instructions.
        2. In manufacturer's original, unopened, undamaged containers or packaging with identification labels intact, product name and manufacturer clearly visible.
        3. In sizes to suit project.
     2. Material Storage: Protect from exposure to harmful environmental conditions. Keep clean, dry, frost-free and at manufacturer's recommended temperature and humidity levels.
     3. Handling:
        1. Exercise care during off-loading and installation to avoid damage and marring of finishes.
        2. Handle in a manner to distribute material load evenly to prevent twisting, bending, and cracking of windows, and associated parts.
        3. Replace any products damaged during handling with new materials.
  3. PROJECT CONDITIONS
     1. 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.
  4. WARRANTY
     1. Manufacturer's Warranty:
        1. Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official.
        2. Manufacturer's warranty is in addition to and not intended to limit other rights.
        3. Replace any products damaged during handling.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: All Weather Architectural Aluminum, which is located at:777 Aldridge Rd.Vacaville, CA 95688Toll Free Tel: 800-680-5800Tel: 707-452-1600Fax: 707-452-1616 Email: [request info (info@allweatheraa.com)](https://arcat.com/rfi?action=email&company=All%252BWeather%252BArchitectural%252BAluminum&message=RE%253A%2520Spec%2520Question%2520(08521waa)%253A%2520&coid=46213&spec=08521waa&rep=&fax=707-452-1616%2520);Web: <https://www.allweatheraa.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Delete article not required.

* 1. ALUMINUM WINDOWS
     1. Basis for Design: Series 5000 by All Weather Architectural Aluminum.
        1. Performance Requirements:
           1. Design pressure, air infiltration and water penetration.

Comply with AAMA/WDMA/CSA 101/I.S.2/A440 (CW-PG35).

* + - * 1. Uniform Load Deflection and Uniform Load Structural to ASTM E330.
        2. ASTM E283, Air Leakage: 1.57 psf (75.2 Pa): 0.3 cfm/sq ft (0.091 cu m/min/sq m) maximum.
        3. ASTM E547, Water Penetration at 4.59 psf (219.8 Pa): No leakage.
        4. ASTM F588, Forced Entry Resistance: Type B Grade 10: Pass for no entry.
        5. DP Structural Rating: PG50
        6. NFRC Energy Rating: 0.41
        7. U-Value: \_\_\_\_.
        8. Solar Heat Gain Coefficient (SHGC): \_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* STC Acoustical Rating up to 39.

* + - * 1. Acoustical Performance: STC: \_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum frame type options not required.

* + - 1. Aluminum Frame Type: Fixed and accessories.
         1. Fixed Lite Size, Maximum: 50 sq ft (4.64 sq m).
      2. Aluminum Frame Type: Casement outswing and accessories.
         1. Casement Size: 36 x 60 inches (914 x 1524 mm) maximum.
      3. Aluminum Frame Type: Awning and accessories.
      4. Aluminum Frame Type: Hopper and accessories.
      5. Aluminum Frame Type: Combination and accessories.
      6. Aluminum Frame Type: As indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete glazing type option not required.

* + - 1. Glazing Type: Single pane and accessories.
         1. Glazing thickness: 1/2 inch (13 mm)
         2. Glazing: In accordance with Section 08 83 13 - Mirrored Glass Glazing
      2. Glazing Type: Insulating Glazing Units (IGU) and accessories.
         1. Glazing thickness: 1 inch (25 mm)
         2. Glazing: In accordance with Section 08 83 13 - Mirrored Glass Glazing
      3. Window Dimensions: See Drawings for dimensions and configurations
      4. Frames: 2-1/4 inches (57 mm) Pour and Debridge. Thermally broken extruded aluminum Type 6063 age hardened to T-6 rating for strength and durability.
         1. Integral Extrusion Wall Thickness: 0.094 inches (2.4 mm).
         2. Nominal Web Thickness: 1/8 inch (3 mm).
         3. Full perimeter exterior snap in glazing stops.
         4. Corners of Frame and Ventilators: Mitered and welded; muntin and intermediate bars attached to cross joints and abutting sash sections.
         5. Operating Sash: Mitered, corner keyed and crimped frames.

\*\* NOTE TO SPECIFIER \*\* Delete frame finish options not required.

* + - 1. Frame Finish: Aluminum to AA DAF-45. Class 1, clear anodized.
      2. Frame Finish: Aluminum to AA DAF-45. Class 1, bronze anodized.
      3. Frame Finish: Aluminum to AA DAF-45. Anodized Color: \_\_\_\_\_\_\_\_.
      4. Frame Finish: 70 percent Kynar Paint Color: \_\_\_\_\_\_\_\_.
      5. Frame Finish: 70 percent Kynar Paint Color: As selected by Architect from manufacturer's standard range.
      6. Frame Dual Finish: 70 percent Kynar.
         1. Inner Frame Paint Color: \_\_\_\_\_\_\_\_.
         2. Outer Frame Paint Color: \_\_\_\_\_\_\_\_.
      7. Fabrication:
         1. Frame Corner Joints: Miter and weld.
         2. Vents: Mitered, corner keyed, and crimped.
         3. Muntin and Intermediate Bars: Attach to cross joints and abutting sections.
         4. Weep Holes: In sill, vents, and intermediate bars. Slope items for positive drainage to exterior.
         5. Pre-drill and tap frames for screen attachment hardware as required.
         6. Surfaces to be glazed must include bead retaining notch.
         7. Operable Windows: Two rows of weather-stripping in extruded slot at perimeter of vent or opening.
         8. Install hardware specified.

\*\* NOTE TO SPECIFIER \*\* Delete hardware options not required. Delete all if only fixed windows are specified.

* + - 1. Hardware Casement Windows: 4 bar heavy duty stainless steel concealed hinges, die cast zinc cam handles with pole ring.
      2. Hardware Casement Windows: Worm gear rotary control operator with butt hinges and side mounted multi-locking handle.
      3. Hardware Hopper Windows: 4 bar heavy duty stainless steel hinges, cam handle with pawl.
      4. Hardware Hopper Windows: 4 bar heavy duty stainless steel hinges, Snaplock.
      5. Hardware Awning Windows: 4 bar heavy duty stainless steel concealed hinges, die cast zinc cam handles with pole ring.
      6. Hardware Awning Windows: Worm gear rotary hardware with loose pin concealed hinges and side mounted locking handles.

\*\* NOTE TO SPECIFIER \*\* Delete screens paragraph if only fixed windows are specified.

* + - 1. options not required. Otherwise, Delete screen types not required. Retain plastic wicket doors when cam handle hardware is selected for casements and awning windows.
      2. Screens: Painted roll formed aluminum frames. Finish: Match window frames. Factory drilled and tapped to receive screen attachment hardware.
         1. Screen Type: Charcoal fiberglass.
         2. Screen Type: Wire.
         3. Screen Type: Ultraview.
         4. Screen Type: Plastic wicket doors.
      3. Weatherstripping: 64A durometer back santoprene bulb insert.
      4. Source Quality Control:
         1. Use fabricators who have training and experience with similar work of this Section.
         2. All window framing materials to come from single manufacturer.
    1. Basis for Design: Series 6000 by All Weather Architectural Aluminum.
       1. Performance and Design Requirements:
          1. Design pressure, air infiltration and water penetration.

Comply with AAMA/WDMA/CSA 101/I.S.2/A440/AW-PG80.

* + - * 1. Uniform Load Deflection and Uniform Load Structural to ASTM E330.
        2. ASTM E283, Air Leakage: 6.27 psf (299.25 Pa): 0.1 cfm per sq ft (0.030 cu m/min/sq m) maximum.
        3. ASTM E547, Water Penetration at 12.11 psf (579.83 Pa): no leakage.
        4. ASTM F588, Forced Entry Resistance: Type B Grade 10: Pass for no entry.
        5. DP Structural Rating: PG80
        6. NFRC Energy Rating: 0.38
        7. U-Value: \_\_\_\_.
        8. Solar Heat Gain Coefficient (SHGC): \_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* STC Acoustical Rating up to 41.

* + - * 1. Acoustical Performance: STC: \_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum frame type options not required.

* + - 1. Aluminum Frame Type: Fixed and accessories.
         1. Fixed Lite Size, Maximum: 60 sq ft (5.6 sq m).
      2. Aluminum Frame Type: Casement outswing and accessories.
         1. Casement Size: 36 x 72 inches (914 x 1929 mm) maximum.
      3. Aluminum Frame Type: Awning and accessories.
      4. Aluminum Frame Type: Combination and accessories.
      5. Aluminum Frame Type: As indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete glazing type option not required.

* + - 1. Glazing Type: Single pane and accessories.
         1. Glazing thickness: 1/2 inch (13 mm)
         2. Glazing: In accordance with Section 08 83 13 - Mirrored Glass Glazing.
      2. Glazing Type: Insulating Glazing Units (IGU) and accessories.
         1. Glazing thickness: 1 inch (25 mm)
         2. Glazing: In accordance with Section 08 83 13 - Mirrored Glass Glazing
      3. Glazing Type: As indicated on the Drawings.
      4. Window Dimensions: See Drawings for dimensions and configurations
      5. Frames: 2-1/2 inches (64 mm) thermal strut, outside glazed, thermally broken extruded aluminum, Type 6063 age hardened to T-6 rating for strength and durability.
         1. Full perimeter exterior snap in glazing stops.
         2. Corners of Frame and Ventilators: Mitered and welded; muntin and intermediate bars attached to cross joints and abutting sash sections.
         3. Operating Sash: Mitered, corner keyed and crimped frames.

\*\* NOTE TO SPECIFIER \*\* Delete frame finish options not required.

* + - 1. Frame Finish: Aluminum to AA DAF-45. Class 1, clear anodized.
      2. Frame Finish: Aluminum to AA DAF-45. Class 1, bronze anodized.
      3. Frame Finish: Aluminum to AA DAF-45. Anodized Color: \_\_\_\_\_\_\_\_.
      4. Frame Finish: 70 percent Kynar Paint Color: \_\_\_\_\_\_\_\_.
      5. Frame Finish: 70 percent Kynar Paint Color: As selected by Architect from manufacturer's standard range.
      6. Frame Dual Finish: 70 percent Kynar.
         1. Inner Frame Paint Color: \_\_\_\_\_\_\_\_.
         2. Outer Frame Paint Color: \_\_\_\_\_\_\_\_.
      7. Fabrication:
         1. Frames and Ventilators: Mitered, corner keyed and crimped.
         2. Muntin and Intermediate Bars: Attach to cross joints and abutting sections.
         3. Weep Holes: In sill, vents, and intermediate bars. Slope items for positive drainage to exterior.
         4. Pre-drill and tap frames for screen attachment hardware as required.
         5. Surfaces to be glazed must include bead retaining notch.
         6. Operable Windows: Two rows of weather-stripping in extruded slot at perimeter of vent or opening.
         7. Install hardware specified.

\*\* NOTE TO SPECIFIER \*\* Delete hardware options not required. Delete all if only fixed windows are specified.

* + - 1. Hardware Casement Windows: 4 bar heavy duty stainless steel concealed hinges.
      2. Hardware Casement Windows: Die cast zinc cam handles with pole ring.
      3. Hardware Casement Windows: Worm gear rotary control operator with butt hinges and side mounted multi-locking handle.
      4. Hardware Hopper Windows: 4 bar heavy duty stainless steel hinges, cam handle with pawl.
      5. Hardware Hopper Windows: 4 bar heavy duty stainless steel hinges, Snaplock.
      6. Hardware Awning Windows: 4 bar heavy duty stainless steel concealed hinges, die cast zinc cam handles with pole ring.
      7. Hardware Awning Windows: Worm gear rotary hardware with loose pin concealed hinges and side mounted locking handles.

\*\* NOTE TO SPECIFIER \*\* Delete screens paragraph if only fixed windows are specified.

* + - 1. options not required. Otherwise, Delete screen types not required. Retain plastic wicket doors when cam handle hardware is selected for casements and awning windows.
      2. Screens: Painted roll formed aluminum frames. Finish: Match window frames. Factory drilled and tapped to receive screen attachment hardware.
         1. Screen Type: Charcoal fiberglass.
         2. Screen Type: Wire.
         3. Screen Type: Ultraview.
         4. Screen Type: Plastic wicket doors.
      3. Weatherstripping: 64A durometer back santoprene bulb insert.
      4. Source Quality Control:
         1. Use fabricators who have training and experience with similar work of this Section.
         2. All window framing materials to come from single manufacturer.
    1. Basis for Design: Series 6100 by All Weather Architectural Aluminum.
       1. Performance and Design Requirements:
          1. Design pressure, air infiltration and water penetration.

Comply with AAMA/WDMA/CSA 101/I.S.2/A440/AW-PG80.

* + - * 1. Uniform Load Deflection and Uniform Load Structural to ASTM E330.
        2. ASTM E283, Air Leakage: 6.27 psf (299.25 Pa): 0.1 cfm per sq ft (0.030 cu m/min/sq m) maximum.
        3. ASTM E547, Water Penetration at 12.11 psf (579.83 Pa): no leakage.
        4. ASTM F588, Forced Entry Resistance: Type B Grade 10: Pass for no entry.
        5. DP Structural Rating: PG80
        6. NFRC Energy Rating: 0.30
        7. U-Value: \_\_\_\_.
        8. Solar Heat Gain Coefficient (SHGC): \_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* STC Acoustical Rating up to 43.

* + - * 1. Acoustical Performance: STC: \_\_\_\_.
        2. Title 24 compliance using the Prescriptive Method.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum frame type options not required.

* + - 1. Aluminum Frame Type: Fixed and accessories.
         1. Fixed Lite Size: 60 sq ft (5.57 sq m) maximum.
      2. Aluminum Frame Type: Casement outswing and accessories.
         1. Casement Size: 48 x 96 inches (1219 x 2438 mm) maximum.
      3. Aluminum Frame Type: Awning and accessories.
      4. Aluminum Frame Type: Combination and accessories.
      5. Aluminum Frame Type: As indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete glazing type option not required and glazing thicknesses not required.

* + - 1. Glazing Type: Insulating Glazing Units (IGU) and accessories.
         1. Glazing Thickness: 1 inch (25 mm)
         2. Glazing Thickness: 1-1/4 inch (32 mm)
         3. Glazing Thickness: 1 inch (25 mm). Simulated Divided Lite (SDL) - Flat Bar.
         4. Glazing Thickness: 3-1/8 inch (80 mm). True Divided Lite (TDL).
         5. Glazing: In accordance with Section 08 83 13 - Mirrored Glass Glazing
      2. Glazing Type: As indicated on the Drawings.
      3. Window Dimensions: See Drawings for dimensions and configurations
      4. Frames: 3-3/4 inches (95 mm) thermal strut, outside glazed, thermally broken extruded aluminum, Type 6063 age hardened to T-6 rating for strength and durability.
         1. Full perimeter exterior snap in glazing stops.
         2. Corners of Frame and Ventilators: Mitered and welded; muntin and intermediate bars attached to cross joints and abutting sash sections.
         3. Operating Sash: Mitered, corner keyed and crimped frames.

\*\* NOTE TO SPECIFIER \*\* Delete frame finish options not required.

* + - 1. Frame Finish: Aluminum to AA DAF-45. Class 1, clear anodized.
      2. Frame Finish: Aluminum to AA DAF-45. Class 1, dark bronze anodized.
      3. Frame Finish: Aluminum to AA DAF-45. Anodized Color: \_\_\_\_\_\_\_\_.
      4. Frame Finish: 70 percent Kynar Paint Color: \_\_\_\_\_\_\_\_.
      5. Frame Finish: 70 percent Kynar Paint Color: As selected by Architect from manufacturer's standard range.
      6. Frame Dual Finish: 70 percent Kynar.
         1. Inner Frame Paint Color: \_\_\_\_\_\_\_\_.
         2. Outer Frame Paint Color: \_\_\_\_\_\_\_\_.
      7. Fabrication:
         1. Frames and Ventilators: Mitered, corner keyed and crimped.
         2. Muntin and Intermediate Bars: Attach to cross joints and abutting sections.
         3. Weep Holes: In sill, vents, and intermediate bars. Slope items for positive drainage to exterior.
         4. Pre-drill and tap frames for screen attachment hardware as required.
         5. Surfaces to be glazed must include bead retaining notch.
         6. Operable Windows: Two rows of weather-stripping in extruded slot at perimeter of vent or opening.
         7. Install hardware specified.

\*\* NOTE TO SPECIFIER \*\* Delete hardware options not required. Delete all if only fixed windows are specified.

* + - 1. Hardware Casement Windows: 4 bar heavy duty stainless steel concealed hinges.
      2. Hardware Casement Windows: Die cast zinc cam handles with pole ring.
      3. Hardware Casement Windows: Worm gear rotary control operator with butt hinges and side mounted multi-locking handle.
      4. Hardware Hopper Windows: 4 bar heavy duty stainless steel hinges, cam handle with pawl.
      5. Hardware Hopper Windows: 4 bar heavy duty stainless steel hinges, Snaplock.
      6. Hardware Awning Windows: 4 bar heavy duty stainless steel concealed hinges, die cast zinc cam handles with pole ring.
      7. Hardware Awning Windows: Worm gear rotary hardware with loose pin concealed hinges and side mounted locking handles.

\*\* NOTE TO SPECIFIER \*\* Delete screens paragraph if only fixed windows are specified.

* + - 1. options not required. Otherwise, Delete screen types not required. Retain plastic wicket doors when cam handle hardware is selected for casements and awning windows.
      2. Screens: Painted roll formed aluminum frames. Finish: Match window frames. Factory drilled and tapped to receive screen attachment hardware.
         1. Screen Type: Charcoal fiberglass.
         2. Screen Type: Wire.
         3. Screen Type: Ultraview.
         4. Screen Type: Plastic wicket doors.
      3. Weatherstripping: 64A durometer back santoprene bulb insert.
      4. Source Quality Control:
         1. Use fabricators who have training and experience with similar work of this Section.
         2. All window framing materials to come from single manufacturer.
    1. Basis of Design: Series 6200 Thermal Break Horizontal Sliding Window System as manufactured by All Weather's Architectural Aluminum. An energy efficient window design. Narrow sightlines and contemporary aesthetic. Commercially and acoustically rated. Meets Title 24 compliance using the Prescriptive Method. For residential, multi-family and commercial applications. for buildings 12 stories and under.
       1. Performance and Design Requirements:

\*\* NOTE TO SPECIFIER \*\* All Weather has comprehensive files containing all historical testing. Each of the tests in the proceeding list are current, however, our archived testing may be more specific for your particular project and will be provided upon request.

* + - * 1. Units ship with frame assembled and glazed panels installed.
        2. Panel Size Range (W x H): 18 to 48 x 18 to 84 inches (457 x 1219 to 457 x 2134 mm)
        3. Maximum Area: 28 sq ft (2.6 sq m). Maximum Weight: 180 lbs (81.64) kg.
        4. Maximum Casement: 96 x 84 inches (2438 x 2134 mm). Configuration: XO.
        5. Tested to AAMA/WDMA/CSA101/1.5.2/A440-05 standards as listed below:

Series 6200 Thermal Break Horizontal Sliding Window XO - CW35

Series 6200 Thermal Break Horizontal Sliding Window XOX- LC30

* + - * 1. Uniform Load Deflection and Uniform Load Structural to ASTM E330.
        2. ASTM E283, Air Leakage: 1.57 psf (0.075 kPa): 0.3 cfm per sq ft maximum.
        3. ASTM E547, Water Penetration: at 4.59 psf (0.22 kPa): No leakage.
        4. ASTM F842, Forced Entry Resistance:
        5. U-Value: \_\_\_\_.
        6. Solar Heat Gain Coefficient (SHGC): \_\_\_\_.
        7. Acoustical Performance: STC: \_\_\_\_.
        8. Acoustical Testing:

\*\* NOTE TO SPECIFIER \*\* Acoustical testing on several window configurations and glass make-ups have been performed beyond the configurations shown and can be provided upon request.

XO Configuration 1/4 inch (6.35 mm) over 3/16 inch (4.75 mm) with 1 inch (25.4 mm) OA:

STC 34 / OITC 28.

XO Configuration 1/4 inch (6.35 mm) over 5/16 inch (7.94 mm) Laminate with 1 inch (25 mm) OA:

STC 33 / OITC 29.

XO Configuration 3/16 inch (4.75 mm) over 5/16 inch (7.94 mm) Laminate with 1 inch (25.4 mm) OA:

STC 35 / OITC 30.

* + - * 1. Thermal Testing:

Series 6200 horizontal sliding window has been simulated and tested according to NFRC 100/200/500.

U-factor: As low as 0.26 with triple glaze; 1-1/4 inch (31.75 mm) OA.

U-Factor: As low as 0.32 with dual glaze; 1 inch (25.4 mm) OA.

* + - 1. Frame: 3-1/8 inch (79 mm) extruded aluminum. Frame Type: Nail on.

Aluminum Type: 6063 age hardened to T-6 rating.

\*\* NOTE TO SPECIFIER \*\* Delete frame finish option not required.

* + - * 1. Frame Finish: Aluminum to AA DAF-45. Class 1, Clear anodized.
        2. Frame Finish: Aluminum to AA DAF-45. Class 1, Dark Bronze anodized.
        3. Corners: Mitered.
      1. Thermal Break and Condensation Resistance: The frame and panels use the pour-and-debridge method.
         1. Profiles are extruded as a single extrusion with a cavity for the thermal break material.
         2. Cavity: Filled with two part polyurethane having a low coefficient of thermal conductivity.
         3. After Polyurethane Cures: A saw is used to debridge the profile by ripping the aluminum web of the cavity.
      2. Glazing: Insulated glass units and accessories to yield a wide range of energy performance as needed in accordance with the appropriate glazing specifications in Division 08.
         1. Glazing Thickness: 1 inch (25.4 mm) OA insulated glass.
         2. Glazing Thickness: 1-1/4 inch (31.7 mm) OA insulated glass.
         3. Dimensions: See Drawings for dimensions and configurations.
      3. Hardware:
         1. Lock: Amesbury Truth Positive Action Lock (PAL). Finish: Bronze.
         2. Lock: Amesbury Truth Positive Action Lock (PAL). Finish: Satin Nickel.
         3. Rollers: Fapim Hockey Rollers. Single or double configuration depending upon panel weight. Hockey Roller Weight Capacity: 180 lbs (86.65 kg).
         4. Recessed Finger Pull: Low profile. Modern aesthetic. Contemporary style. Finish: Silver.
         5. Recessed Finger Pull: Low profile. Modern aesthetic. Contemporary style. Finish: Dark Bronze.
      4. Screens: Extruded aluminum flat screen. Made with extruded screen channel, mitered corners, and an internal corner key. Factory drilled and tapped to receive screen attachment hardware.
         1. Finish: Match window frames.
      5. Weatherstripping:
         1. Pile weather-stripping.
         2. Triple fin and Quiet fin technology.
      6. Construction:
         1. Frame Corners: Vent and fixed panels are square cut and screwed together for structural integrity.
         2. Muntin and Other Intermediate Bars: Attach to their cross joints and abutting sash sections.
         3. Frame Sill: Contains weep provisions. All glazed surfaces to be marine glazed.

1. EXECUTION
   1. EXAMINATION
      1. Verification of Conditions: Verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for aluminum window installation in accordance with manufacturer's written recommendations.
         1. Visually inspect substrate.
         2. Verify openings are dimensionally correct and within allowable tolerances, and substrates are plumb, level, and clean.
         3. Verify in the presence of the Architect that anchoring surface is in accordance with approved shop drawings.
         4. Inform Architect of unacceptable conditions immediately upon discovery.
         5. Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Architect.
         6. Starting window installation implies substrate conditions are acceptable for Work of this Section.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
      3. Installers: Use only installers who have training and experience of similar work of this section.
   3. INSTALLATION
      1. Install aluminum windows in accordance with manufacturer's written recommendations, approved submittals, and in proper relationship with adjacent construction.
         1. Ensure operable windows are closed and locked during installation.
      2. Sealants: Apply sealant in accordance with manufacturer's written guidelines.
   4. FIELD QUALITY CONTROL
      1. Comply with AAMA 502-12.
      2. Field Testing Performance: To AAMA 502-12, Section 1.1.
      3. Proper Execution of Field Test:
         1. Ensure window is plumb, level, and square.
            1. If conditions fall outside the plus or minus 1/8 inch (3 mm) tolerance, do not test the product.
            2. Test at a pressure greater than 2/3 the fenestration product laboratory test pressure.
      4. Qualification of Agency Performing Test: Ensure AAMA accreditation by independent testing agency.

\*\* NOTE TO SPECIFIER \*\* Edit the following paragraph to meet project requirements. Coordinate site visits with manufacturer or delete the paragraph and all subparagraphs if site visits are not required.

* + 1. Site Visits: Schedule to review work at stages listed:
       1. After delivery and storage of aluminum windows and when preparatory work on which work of this section depends is complete, but before application begins.
       2. Twice during progress of work at 25 and 60 percent complete.
       3. Upon completion of work, after cleaning is carried out.
       4. Obtain reports within three days of review and submit immediately to Architect.
  1. CLEANING AND PROTECTION
     1. Clean sealants, caulking and other materials from surfaces, including adjacent work.
     2. Clean frames, casings and glass using materials and methods recommended by the manufacturer.
        1. Clean using methods which comply with AAMA 609.
        2. Clean glass using methods which comply with GANA 01-0300.
     3. Protect installed products until completion of project.
     4. Protect installed aluminum windows from damage during construction.
     5. Repair or replace adjacent materials damaged by installation of aluminum window.
     6. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION