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SECTION 08325 (08 32 25)

ALUMINUM-FRAMED GLASS BIFOLD DOORS

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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 95688

Toll Free: 800-680-5800

Phone: 707-452-1600

Email: info@allweatheraa.com.

Web: https://www.allweatheraa.com/

[[Click Here](https://www.arcat.com/arcatcos/cos9546/arc46213.html)] 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. Our primary purpose is 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 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 in the market.

Now under 3rd generation family ownership, All Weather values 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
      1. Aluminum bifold doors.
   2. RELATED SECTIONS

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

* + 1. Section 07260 – Vapor Retarders.
    2. Section 07270 – Air Barriers.
    3. Section 07600 – Flashing and Sheet Metal.
    4. Section 07920 – Joint Sealants.
    5. Section 08400 – Entrances, Storefronts, and Curtain Walls.
    6. Section 08800 – 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.
       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 611-98 Anodized Architectural Coatings: Class 1 Anodized.
       5. AAMA 2605 for Organic Coatings on Aluminum Extrusions: Kynar.
    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 E547 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference.
       3. 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 01300.
     2. 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. Manufacturer’s standard head, jamb, and sill details.
        5. Installation methods.
           1. Submit manufacturer’s written installation instructions.
        6. Certified test laboratory reports to show compliance with requirements.
           1. Doors with sizes exceeding gateway sizes do not qualify under these tests.
           2. Doors manufactured with configurations different from the tested configurations do not qualify under these tests.
           3. Doors can be tested for performance outside the already tested gateway sizes.
           4. Doors with hardware not referenced on the test reports do not qualify under these tests.

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

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color.
       1. Door Corner Section: Submit 8 x 8 inch (203 x 203 mm) minimum sample of frame for each glazing type specified sed 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 611-98 Anodized Architectural Coatings: Class 1 Anodized.
       4. Finish: AAMA 2605 for Organic Coatings on Aluminum Extrusions: Kynar.
    2. Shop Drawings: 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 door location chart, door schedule, size, muntin type and design, sections and details of multiple door 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, doors, 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 95688; Toll Free: 800-680-5800; Phone: 707-452-1600; Email: info@allweatheraa.com; 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 01600.

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

* 1. ALUMINUM BIFOLD DOORS (SERIES 9200)
     1. Basis for Design: Series 9200 Aluminum Bifold Doors by All Weather Architectural Aluminum. Thermally broken aluminum frame-thermal strut system. Glazed doors with integral glazing units and accessories.
     2. Performance Requirements:
        1. Pinch proof, child safe.
        2. Concealed security throw pins at top and bottom track.
        3. Daily door allows for easy entry.
        4. Design pressure, air infiltration and water penetration.
           1. Comply with AAMA/WDMA/CSA 101/I.S.2/A440/AW-PG45.
        5. NFRC Certified Product.
        6. Uniform Load Deflection and Uniform Load Structural to ASTM E330.
        7. ASTM E283, Air Leakage: 6.27 psf (0.30 kPa): 0.1 cfm per sq ft maximum.
        8. ASTM E547, Water Penetration: at 4.59 psf (0.220 kPa): No leakage.
        9. ASTM F588, Forced Entry Resistance: Type B Grade 10.
        10. U-Value: \_\_\_\_.
        11. Solar Heat Gain Coefficient (SHGC): \_\_\_\_.
        12. Acoustical Performance: STC: \_\_\_\_.
     3. Configurations:

\*\* NOTE TO SPECIFIER \*\* Delete the following options not required.

* + - 1. Swing Type: Inswing.
      2. Swing Type: Outswing.
      3. Corner Doors: 90 degrees.
      4. Number of Panels: up to 8 panels in each direction.
         1. Left Direction: \_\_\_\_.
         2. Right Direction: \_\_\_\_.
    1. Aluminum Frames: Thermally broken, thermal strut, extruded aluminum Type 6063 age hardened to T-6 rating for strength and durability with integral glazing units (IGU).
       1. Aluminum Frame Type: Block frame.

\*\* NOTE TO SPECIFIER \*\* Delete sill type options not required. Delete kick rail if not required.

* + - 1. Sill Type: 2-3/16 inch sill. Weep drainage.
      2. Sill Type: 1-1/2 inch recessed sill. Weep drainage.
      3. Sill Type: 3/4 inch (19 mm) recessed sill.
      4. Kick Rail: 10 inch (254 mm).
      5. Full perimeter exterior snap in glazing stops.
      6. Corners of Frame and Ventilators: Mitered, corner keyed and crimped; muntin and intermediate bars attached to cross joints and abutting sash sections.
      7. Operating Sash: Mitered, corner keyed and crimped frames.
    1. Glazing Type: Insulating Glazing Units (IGU) and accessories In accordance with Section 08800 – Glazing.

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

* + - 1. Glazing Thickness: 1 inch (25 mm) OA insulating units.
      2. Glazing Thickness: 5/8 inch (16 mm) Simulated Divided Lite (SDL); square or putty.
      3. Glazing Thickness: 7/8 inch (22 mm) Simulated Divided Lite (SDL); square or putty.
      4. Glazing Thickness: 1 inch (25 mm) Simulated Divided Lite (SDL); square or putty.
      5. Glazing Thickness: 2-15/16 inch (75 mm) True Divided Lite (TDL) Based on profile.
    1. Door Dimensions: See Drawings for dimensions and configurations.
       1. Panel Width Range: 29 to 42 inches (734 to 1067 mm).
       2. Panel Height Range: 60 to 144 inches (1016 to 3658 mm).
       3. Maximize Panel Size: 42 x 144 inches (734 x 3658 mm).
       4. Panel Thickness: 2-3/8 inches (60 mm).

\*\* 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. Class 1, black anodized.
      4. Frame Finish: Aluminum to AA DAF-45. Anodized Color: \_\_\_\_\_\_\_\_.
      5. Frame Finish: 70 percent Kynar Paint Color: \_\_\_\_\_\_\_\_.
      6. Frame Finish: 70 percent Kynar Paint Color: As selected by Architect from manufacturer’s standard range.
      7. Frame Dual Finish: 70 percent Kynar.
         1. Inner Frame Paint Color: \_\_\_\_\_\_\_\_.
         2. Outer Frame Paint Color: \_\_\_\_\_\_\_\_.
    1. Fabrication:
       1. Fabricator: Use fabricators who have training and three years minimum experience of work similar to work of this Section.
       2. Fabricate door frame, stile, rails, and sill from extruded aluminum sections to sizes and profiles indicated.
       3. Assemble corners of frame, sash, sidelites, and transoms using a die-cast aluminum corner key for structural integrity.
       4. Fill corners with silicone for additional reinforcement.
       5. Fit by snap bead surfaces to be glazed.
          1. Using an EPDM gasket, fit into the channels of the aluminum profiles.
       6. Install hardware specified.
    2. Hardware: Top hung design.
       1. European hardware. Delrin rollers
       2. Pivots: Top and bottom of door frame.
       3. Concealed Self Closure: In subfloor or header.
       4. Cylinder Lock: Mortise type with 11 stainless steel pins and cylinder key profile designed to prevent use of lock picks and break-in tools.
          1. High torsion resistance.
          2. Operation Rating: 50,000 cycles.
       5. Lock: Reversible, corrosion resistant, multipoint type with adjustable rolling pins, dead bolt and latch, mortise-construction with reinforced lever spring system.
       6. Handles: Aria. Aluminum. Painted black.
       7. Handles: Aria. Aluminum. Painted gray.
       8. Handles: Acacia. Aluminum. Painted black.
       9. Handles: Acacia. Aluminum. Painted gray.
       10. Handles: Summit. Aluminum. Painted black.
       11. Handles: Summit. Aluminum. Painted gray.
       12. Handles: Verona. Aluminum. Painted black.
       13. Handles: Verona. Aluminum. Painted gray.
    3. Weather-Stripping:
       1. Pile weather-stripping.
       2. Triple fin and Quiet fin technology.
    4. Source Quality Control:
       1. Use fabricators who have training and experience similar to work of this Section.
       2. All door framing materials to come from single manufacturer.

1. EXECUTION
   1. EXAMINATION
      1. Verification of Conditions: Verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for aluminum door 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 door 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 doors in accordance with manufacturer’s written recommendations, approved submittals, and in proper relationship with adjacent construction.
      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 door 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 doors 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 doors from damage during construction.
     5. Repair or replace adjacent materials damaged by installation of aluminum door.
     6. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION