

SECTION 08 53 13

SANFORD HILLS VINYL WINDOWS



**PART 1: GENERAL**

**1.1 – SECTION INCLUDES**

- A. Vinyl New Construction Double Hung Windows complete with hardware, glazing, weatherstrip, insect screen, grilles between the glass (GBG), Simulated Divided Lites (SDL) and jamb extensions.

**1.2 – RELATED SECTIONS**

- A. Section 01 33 23 – Submittal Procedures; Shop Drawings, Product Data, Samples
- B. Section 01 62 00 – Product Options
- C. Section 01 65 00 – Product Delivery
- D. Section 01 66 00 – Storage and Handling Requirements
- E. Section 01 71 00 – Examination and Preparation
- F. Section 01 73 00 – Execution
- G. Section 01 74 00 – Cleaning and Waste Management
- H. Section 01 76 00 – Protecting Installed Construction
- I. Section 06 22 00 – Millwork; Wood trim other than furnished by the window manufacturer
- J. Section 07 92 00 – Joint Sealants; Sill sealant and perimeter caulking
- K. Section 09 90 00 – Paint other than factory applied finish

**1.3 – REFERENCES**

- A. AAMA/WDMA/CSA 101/I.S. 2/A440-17 - Voluntary Specification for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.
- B. AAMA 701/702; 2011 - Combined Voluntary Specifications for Pile Weather strip and Replaceable Fenestration Weather seals
- C. ASTM E 283; 2012 - Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen.

- D. ASTM E 330; 2014 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
- E. ASTM E 547; 2016 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Cyclic Static Air Pressure Difference.
- F. ASTM F 588; 2017 - Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact.
- G. ANSI/NFRC 100-2023 - Procedure for Determining Fenestration Product U-Factors
- H. ANSI/NFRC 200-2023 – Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
- I. NFRC 500-2017 – Procedure for Determining Fenestration Product Condensation Resistance Values.
- J. ASTM E2190; 2010 – Standard Specification for Insulating Glass Unit Performance and Evaluation.

#### **1.4 – SUBMITTALS**

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer’s data sheets on each product to be used, including:
  - 1. Manufacturer’s technical data, product descriptions and installation guides.
  - 2. Manufacturer’s head, jamb and sill details for each window specified.
  - 3. Storage and handling requirements and recommendations.
- C. Shop Drawings: Provide detailed elevations indicating size, glazing type, muntin type, and design of each window type; showing multiple window unit connection details and installation.

#### **1.5 – QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Minimum One Hundred and Seventy (170) years producing windows, minimum Twenty (20) years producing vinyl (PVC) windows.
- B. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size.
- C. Source Limitations: Obtain window units from one manufacturer through a single source.
- D. Provide window units independently tested and found to be in compliance with AAMA/WDMA/CSA 101/I.S. 2/A440-17 and performance standards listed above.

#### **1.6 – DELIVERY, STORAGE, AND HANDLING**

- A. Deliver windows to project site in undamaged condition; handle windows to prevent damage to components and to finishes.
- B. Store products out of direct sunlight or high temperature locations, until ready for installation.

## **1.7 – PROJECT CONDITIONS**

- A. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

## **1.8 – WARRANTY**

- A. Submit manufacturer's standard warranty against defects in workmanship and materials.
  - 1. Limited Twenty (20) Year Transferable residential warranty on extruded solid vinyl member and component parts. Insulated glass is warranted against material obstruction of transparency resulting from film formation or dust collection on the interior glass surfaces for a period of twenty (20) years in Residential Construction. Consult warranty for complete details.
  - 2. The warranty period for commercial project work such as apartments, housing authorities and other buildings not used by individual homeowners is 20 years, covering all vinyl, glass and component parts. Consult warranty for complete details.

## **PART 2 – PRODUCTS**

### **2.1 – MANUFACTURERS**

- A. Acceptable manufacturer: Mathews Brothers Company, 22 Perkins Rd, Belfast, ME 04915. Toll Free: (800) 615-2004 | Tel: (207) 338-6490 | Fax: (207) 338-6300 Email: info@mathewsbrothers.com | Web: <http://www.mathewsbrothers.com>
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

### **2.2 - NEW CONSTRUCTION SANFORD HILLS DOUBLE HUNG WINDOWS**

- A. Construction.
  - 1. Frame and Sash: Hollow vinyl sash and frame with mitered cut and fusion welded corners.
  - 2. Sash Balances: Block and Tackle
  - 3. Sash Locks: Cam type locks anchored with screws. Double locks standard for all widths.
  - 4. Tilt Latches: [Standard] [Hidden]
  - 5. Weather Stripping: In compliance with AAMA 701.2.
  - 6. Extrusion Color: [White] [Adobe]
  - 7. Interior Finish: [Extruded] [Wood-Based] [Black]
  - 8. Optional Exterior Painted Finishes: [Spruce Green] [Pearl White] [Cream White] [Earth Brown] [Bronze] [Black] [Barn Red] [Gray]

9. Screens: Extruded aluminum frame with 18x16 charcoal finished fiberglass mesh
10. Optional Grids Between Glass (GBG): [Contoured] [Flat]
11. Optional Simulated Divided Lite (SDL): [5/8" Historic] [1-1/8" Historic] [5/8" Trapezoid]
12. Optional Exterior Casing: [None] [3-1/2" Flat] [Brickmould/Staff Bead] [4-1/2" Banded]
13. Optional Sill Nosing: [Standard] [Historic]
14. Optional Interior Jamb: [None] [Primed Finger Jointed Jamb Extensions] [Clear Pine Jamb Extensions] [Applied 1/2" Drywall Return] [Applied 5/8" Drywall Return] [Applied 3/4" Drywall Return]
15. Glazing: [3/4" Dual Pane] [1-1/8" Tripane]
16. Low-E Coatings: [Standard]

**B. Performance**

1. Structural Rating: LC-PG50 in accordance with AAMA/WDMA/CSA 101/I.S. 2/A440-17
2. Test Size [40 x 63] [36 x 72] [44 x 75] [42 x 78]
3. Forced Entry: Type A, Grade 10 in accordance with ASTM F588
4. Thermal Transmittance: The following Values are in accordance with ANSI/NFRC 100-2023, ANSI/NFRC 200-2023 and NFRC 500-2017
  - a. Dual Pane – Low-E with Argon
    - 1) U-Value:  $\leq 0.27$
    - 2) SHGC:  $\geq 0.27$
    - 3) CR:  $\geq 58$
  - b. Triple Pane – Low-E with Argon (Surface 2)
    - 1) U-Value:  $\leq 0.23$
    - 2) SHGC:  $\geq 0.25$
    - 3) CR:  $\geq 67$
  - c. Triple Pane – Low-E with Argon (Surfaces 2 and 5)
    - 1) U-Value:  $\leq 0.20$
    - 2) SHGC:  $\geq 0.23$
    - 3) CR:  $\geq 71$
5. Sanford Hills windows will perform to the EnergyStar Version 7.0 requirements when using "Dual Pane E7" or "Triple Pane E7" glass options that utilize Low-E coatings and argon filling. Performance shall be reported using whole unit numbers, not center of glass. Low-E not allowable on the exterior of the glazing.

**PART 3 EXECUTION**

**3.1 - EXAMINATION**

- A. Verify rough opening size is of sufficient size to receive window unit and complies with manufacturer's requirements for opening clearances.
- B. Verify that sill plate is level.
- C. Notify Architect of unacceptable conditions before proceeding with installation.

### **3.2 – INSTALLATION**

- A. Install window unit in accordance with manufacturer's printed instructions.
- B. Apply sealant around perimeter of window unit between nail fin and exterior sheathing of wall. Refer to Division 7 Section "Joint Sealants".
- C. Install window unit level, plumb and square. Center window unit in opening and secure window unit by nailing through nail fin and screw through jambs as indicated in manufacturer's instructions.
- D. Flash window in accordance with AAMA's "Standard Practice for Installation of Windows with a Mounting Flange in Stud Frame Construction".
- E. Insulate between window frame and rough opening with insulation. Refer to Division 7 Section "Building Insulation".

### **3.3 – ADJUSTING**

- A. Adjust units for smooth operation without binding or racking.
- B. Adjust sash locks and screens for smooth operation

### **3.4 – CLEANING**

- A. Clean soiled surfaces and glass prior to substantial completion

### **3.5 – PROTECTION**

- A. Protect window unit from damage until substantial completion. Repair or replace damaged units.

*END OF SECTION*