#### Part 1 General

# Section Includes

## Essential® Direct Glaze Round Top Window complete with glazing and grilles-between-the glass.

# Construction Specification Institute (CSI) MasterFormat Numbers and Titles

1. Section 01 33 00 – Submittal Procedures: Shop Drawings, Product Data, and Samples
2. Section 01 62 00 – Product Options
3. Section 01 25 15 – Product Substitution Procedures
4. Section 01 65 00 – Product Delivery
5. Section 01 66 00 – Product Storage and Handling Requirements
6. Section 01 71 00 – Examination and Preparation
7. Section 01 73 00 - Execution
8. Section 01 74 00 – Cleaning and Waste Management
9. Section 01 75 00 – Starting and Adjusting
10. Section 01 76 00 – Protecting Installed Construction
11. Section 06 22 00 – Millwork: Wood trim other than furnished by door and frame manufacturer
12. Section 07 92 00 – Joint Sealants: Sill sealant and perimeter caulking
13. Section 08 71 00 – Door Hardware: Hardware other than furnished by door and frame manufacturer
14. Section 09 90 00 – Paints and Coatings: Paint and stain other than finish

# References

1. ASTM, International:
2. E283: Standard Test Method for Determining Rate of Air Leakage through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen
3. E330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference
4. E547: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls, by Cyclic Air Pressure Difference
5. E2190: Standard Specification for Insulating Glass Unit Performance and Evaluation
6. C1036: Standard Specification for Flat Glass
7. E2112: Standard Practice for Installation of Exterior Windows, Doors, and Skylights
8. North American Fenestration Standard (NAFS) - American Architectural Manufacturer’s Association/Window and Door Manufacturer’s Association/Canadian Standards Association (AAMA/WDMA/CSA 101/I.S.2/A440):

### AAMA/WDMA/CSA 101/I.S.2/A440-17: NAFS: North American Fenestration, Standard/Specification for windows, doors, and skylights

1. Window and Door Manufacturers Association (WDMA)
2. WDMA I.S.4: Industry Standard for Water Repellent Preservative Treatment for Millwork
3. WDMA I.S.2: Hallmark Certification Program
4. Insulating Glass Certification Council (IGCC) and Fenestration Glazing Industry Alliance (FGIA) Glass Products Council (GPC)
5. Fenestration Glazing Industry Alliance (FGIA) – note: AAMA combined with IGMA and formed FGIA as of 08/01/2019
6. AAMA 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels
7. National Fenestration Rating Council (NFRC):
8. NFRC 101: Procedure for Determining Fenestration Product Thermal Properties
9. NFRC 200: Procedure for Determining Solar Heat Gain Coefficients at Normal Incidence
10. Window Covering

### WCMA A100.0: American National Standard for Safety of Window Covering Products

# Submittals

## Shop Drawings: Submit shop drawings under provision of CSI MasterFormat Section 01 33 00.

## Product Data: Submit product data for certified options under provision of CSI MasterFormat Section 01 33 00. Product performance rating information may be provided via quote, performance rating summary (NFRC Data), or certified performance grade summary (WDMA Hallmark data).

## Samples:

### Submit corner section under provision of CSI MasterFormat Section 01 33 00.

### Specified performance and design requirements under provisions of CSI MasterFormat Section 01 33 00.

# Quality Assurance

## Requirements: consult local code for IBC [International Building Code] and IRC [International Residential Code] adoption year and pertinent revisions.

# Delivery

## Comply with provisions of CSI MasterFormat Section 01 65 00

## Deliver in original packaging and protect from weather

# Storage and Handling

## Store window units in an upright position in a clean and dry storage area above ground to protect from weather under provision of Section 01 66 00

# Warranty

#### **The following limited warranty is subject to conditions and exclusions. There are certain conditions or applications over which Marvin has no control. Defect or problems as a result of such conditions or applications are not the responsibility of Marvin. For a more complete description of the Marvin limited warranty, refer to the Complete and current warranty information is available at marvin.com/warranty.**

## Clear insulating glass with stainless steel spacers is warranted against seal failure caused by manufacturing defects and resulting in visible obstruction through the glass for twenty (20) years from the original date of purchase. Glass is warranted against stress cracks caused by manufacturing defects from ten (10) years from the original date of purchase.

## Hardware another non-glass components are warranted to be free from manufacturing defects for ten (10) years from the original date of purchase.

#### Part 2 Products

# Manufactured Units

## Description: Essential® Series Direct Glaze units as manufactured by Marvin Windows and Doors, Roanoke, Virginia.

# Frame Description

## Interior: Extruded glass reinforced composite: 0.095-0.105 (2mm) thick

## Frame Thickness: 1 23/32” (44mm)

## Frame Width: 3 3/32” (79mm)

## Jamb Depth: 2” (51mm)

# Glazing

## Select quality complying with ASTM C 1036. Insulating glass IGMA/IGCC when tested in accordance with ASTM E 2190. STC/OITC ratings are tested to the stated performance level in accordance with ASTM E 90-09.

## Glazing Method: 7/8” (22mm) insulating glass

## Glass fill: Air with capillary tubes, Argon

## Glass Type: Low E1, E2, E3, or E3/ERS

## Glass Type Option: Obscure Glass or California Fire Glass (Annealed exterior and tempered interior glazing configuration), Rain Glass, Glue Chip, Narrow Reed, Reed, Frost, Bronze Tint, Gray Tint, Green Tint.

## Glazing Seal: Silicone bedding at exterior and foam tape at interior

## Perimeter Spacer: Default color is mill finish (stainless). An optional black perimeter spacer color is available for all interior color selections.

## Glazing Option: STC/OITC upgrade

# Mulling

## Standard Mulling

### Stacked mull limits: 1 unit wide by 2 units high: Rough Opening not to exceed 96” x 114” (2438mm x 2896mm)

### When mulled to Essential® Glider, 1 unit wide by 2 units high: Rough Opening not to exceed 72” x 78” (1829mm x 1981mm)

### Multi-Wide/Multi-High mull limits: 2 wide by 2 unit high; Rough Opening not to exceed 72” x 96” (1829mm x 2438mm)

### When mulled to Essential® Glider, 2 unit wide by 2 units high: Rough Opening not to exceed 72” x 78” (1829mm x 1981mm)

## Reinforced Mulling

### Stacked mull limits: 1 unit wide by 2 units high: Rough Opening not to exceed 96” x 114” (2438mm x 2896mm)

### When mulled to Essential® Glider, 1 unit wide by 2 units high: Rough Opening not to exceed 72” x 78” (1829mm x 1981mm)

### Multi-Wide/Multi-High mull limits: 2 wide by 2 unit high; Rough Opening not to exceed 96” x 96” (2438mm x 2438mm)

### When mulled to Essential® Glider, 2 unit wide by 2 units high: Rough Opening not to exceed 72” x 78” (1829mm x 1981mm)

# Finish

## Exterior: Extruded glass reinforced composite with co-excluded acrylic finish

## Interior: Extruded glass reinforced composite with co-extruded acrylic finish

## Color: Stone White exterior with Stone White interior, Pebble Gray exterior with Stone White interior, Bronze exterior with Stone White interior, Cashmere exterior with Stone White interior, Ebony exterior with Stone White interior, Gunmetal exterior with Stone White interior, Bronze exterior with Bronze interior, Gunmetal exterior with Gunmetal interior, Ebony exterior with Ebony interior. (Split finishes not available on Dark Interior options).

# Jamb

## Standard 2(51mm) inch jambs

# Grilles-Between-the–Glass (GBG)

## Manufactured from aluminum in a 23/32 inch (18mm) wide contoured profile placed between the two panes of glass.

## 1. Colors:

 a. Interior: White, Bronze, Gunmetal, or Ebony (Matches unit interior finish).

 1. Split finishes are not available for Ebony, Gunmetal and Bronze interior colors.

 b. Exterior: White, Pebble Gray, Bronze, Cashmere, Gunmetal, or Ebony

 1. Customer selectable exterior color on stone white interior units

### Patterns:

### Equal Rectangular Lite

1. Closed hub with 3 spokes
2. 4 lite sunburst patterns
3. Rectangular cuts below open hub with 3 spoke sunburst (RT2)

# Accessories and Trim

## Installation Accessories:

### Factory-installed vinyl nailing fin/drip cap at head, sill and side jambs.

### Through jamb installation

### Installation brackets for masonry applications

### Mullion kit: standard mullion kit for field assembly of related units available in horizontal, vertical and 2-wide and/or 2-high configurations. Kit includes instructions, interior and exterior mull covers, mull plugs, kerf weather strip, and brackets.

#### Part 3 Execution

# Examination

## Verification of Condition: Before installation, verify openings are plumb, square and of proper dimensions as required in CSI MasterFormat Section 01 71 00. Report frame defects or unsuitable conditions to the General Contractor before proceeding.

## Acceptance of Condition: Beginning on installation confirms acceptance of existing conditions.

# Installation

## Comply with CSI MasterFormat Section 01 73 00.

## Assemble and install window/door unit(s) according to manufacturer’s instruction and reviewed shop drawing.

## Install sealant and related backing materials at perimeter of unit or assembly in accordance with CSI MasterFormat Section 07 92 00 Joint Sealants. Do not use expansive foam sealant.

## Install accessory items as required.

## Use finish nails to apply wood trim and mouldings.

# Field Quality Control

## Remove visible labels and adhesive residue according to manufacturer’s instruction.

## Unless otherwise specified, air leakage resistance tests shall be conducted at a uniform static pressure of 75 Pa (~1.57 psf). The maximum allowable rate of air leakage shall not exceed 2.3 L/sm2 (~0.45 cfm/ft2).

## Unless otherwise specified, water penetration resistance testing shall be conducted per AAMA 502 and ASTM E1105 at 2/3 of the fenestration products design pressure (DP) rating using “Procedure B” – cyclic static air pressure difference. Water penetration shall be defined in accordance with the test method(s) applied.

# Cleaning

## Remove visible labels and adhesive residue according to manufacturer’s instruction.

## Leave windows and glass in a clean condition. Final cleaning as required in CSI MasterFormat Section 01 74 00.

# Protecting Installed Construction

## Comply with CSI MasterFormat Section 07 76 00.

## Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage.

End of Section