# Part 1 General

# Section Includes

## Ultimate Inswing / Outswing French Door 2 ¼” G2 and Frame complete with glazing, weather strip, hardware, simulated divided lites, screens, jamb extension, and standard or specified anchors, trim, and accessories.

# Construction Specification Institute (CSI) MasterFormat Numbers and Titles

## Section 01 33 00 – Submittal Procedures: Shop Drawings, Product Data, and Samples

## Section 01 62 00 – Product Options

## Section 01 25 15 – Product Substitution Procedures

## Section 01 65 00 – Product Delivery Requirements

## Section 01 66 00 – Product Storage and Handling Requirements

## Section 01 71 00 – Examination and Preparation

## Section 01 73 00 - Execution

## Section 01 74 00 – Cleaning and Waste Management

## Section 01 75 00 – Starting and Adjusting

## Section 01 76 00 – Protecting Installed Construction

## Section 06 22 00 – Millwork: Wood trim other than furnished by door and frame manufacturer

## Section 07 92 00 – Joint Sealants: Sill sealant and perimeter caulking

## Section 08 71 00 – Door Hardware: Hardware other than furnished by door and frame manufacturer

## Section 09 90 00 – Paints and Coatings: Paint and stain other than factory applied finish

# References

## ASTM, International:

### 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

### E330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls, and Doors by Uniform Static Air Pressure Difference

### E547: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference

### E2190: Standard Specification for Insulating Glass Unit Performance and Evaluation

### C1036: Standard Specification for Flat Glass

### E 2112: Standard Practice for Installation of Exterior Windows, Doors, and Skylights

## North American Fenestration Standards (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/A440-11: NAFS - North American Fenestration, Standard/Specification for windows, doors, and skylights

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

## Window and Door Manufacturers Association (WDMA)

### WDMA I.S.4: Industry Standard for Water Repellant Preservative Treatment for Millwork

###  WDMA I.S.2 Hallmark Certification Program

## Insulating Glass Certification Council (IGCC) and Fenestration Glazing Industry Alliance (FGIA) Glass Products Council (GPC)

## Fenestration Glazing Industry Alliance (FGIA) – note: AAMA combined with IGMA and formed FGIA as of 08/01/2019

### AAMA 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels

## National Fenestration Rating Council (NFRC):

### NFRC 101: Procedure for Determining Fenestration Product Thermal Properties

### NFRC 200: Procedure for Determining Solar Heat Gain Coefficients at Normal Incidence

# 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:

* 1. Submit corner section under provision of CSI MasterFormat Section 01 33 00.
	2. 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

## Prime and seal wood surfaces, including to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation. Seal unfinished top and bottom edges of door if doors are stored at the job site more than one (1) week.

## Store door panels flat on a level surface in a clean and dry storage area above ground to protect from weather under provision of CSI MasterFormat Section 01660

## Condition doors to local average humidity before hanging

# Warranty

# **Complete and current warranty information is available at marvin.com/warranty. The following summary is subject to the terms, condition, limitations and exclusions set forth in the Marvin Windows and Door Limited Warranty and Products in Coastal Environments Limited Warranty Supplement:**

## 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.

## Standard exterior aluminum cladding finish is warranted against manufacturing defects resulting in chalk, fade and loss of adhesion (peel) per the American Architectural Manufacturer’s Association (AAMA) Specification 2605-11 Section 8.4 and 8.9 for twenty (20) years from the original date of purchase.

## Factory applied interior finish is warranted to be free from finish defects for a period of five (5) years from the original date of purchase.

## Hardware and other 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: Factory assembled and Knocked Down Ultimate Inswing/Outswing French Door 2 ¼” and related stationary units as manufactured by Marvin, Ripley, Tennessee.

# Frame Description

## Interior: Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; optional non finger-jointed Mixed Grain Douglas Fir or finger-jointed core with non finger-jointed Mixed Grain Douglas Fir veneer; optional non finger-jointed White Oak or finger-jointed with non finger-jointed Oak veneer; non finger-jointed Cherry or finger-jointed core with Cherry veneer; non finger-jointed Mahogany or finger-jointed core with non finger-jointed Mahogany veneer; non finger-jointed Vertical Grain Douglas Fir or finger-jointed with non finger-jointed Vertical Grain Douglas Fir veneer

### Kiln-dried to moisture content no greater than twelve (12) percent at time of fabrication

### Water repellant, preservative treated in accordance with WDMA I.S.4.

## Frame exterior aluminum clad with 0.050” (1.3mm) thick extruded aluminum

## Frame width: Outswing - 4 9/16” (116mm); Inswing - 6 9/16” (167mm)

## Frame thickness: 1 1/16” (27mm)

## Inswing French Door Sill: A single pultrusion of Fiber Reinforced Plastic (FRP), also known as Ultrex®, provides superior thermal performance

### An integral weep system is part of a water management system that directs any incidental moisture to the exterior

### Jamb depth: 6 9/16” only. Sill depth is 7 5/8” (194mm)

### Standard finish is ebony

## Outswing French Door Sill: A single pultrusion of Fiber Reinforced Plastic (FRP), also known as Ultrex®, provides superior thermal performance

### Jamb depth: 4 9/16” only. Sill depth is 5 21/32” (144mm)

### Standard finish is ebony

## Optional: Accessibility Sill

### Fiberglass reinforced pultruded sill with water shed wand weep system.

### Reduced resistance to air and water infiltration, relative to the standard performance sills.

### Reduces standard CN height by ½"

### Color: Ebony

### Not ADA compliant as delivered

# 2.3 Panel Description

## Interior for rectangular panels: Stiles, top, and bottom rails constructed of a laminated veneer core (LVL) with non finger-jointed Pine, Douglas Fir, White Oak, Cherry, Mahogany, and Vertical Grain Douglas Fir veneers.

### Kiln-dried to moisture content no greater than twelve (12) percent at time of fabrication.

### Water repellant and preservative treated in accordance with WDMA I.S.4.

## Sash exterior aluminum clad with 0.055” (1.4mm) thick extruded aluminum

## Panel thickness: 2 ¼” (57mm)

## Top rail and stile width: 4 3/4” (121mm)

## Bottom rail height: 8 1/8” (206mm)

## All rails and stiles utilize LVL material. Intermediate rail is solid face laminate.

## Panel corners glued and fastened with 5/8 inch x 4 inch (16mm by 102mm) fluted hardwood dowels. No visible fasteners.

## Interior Glazing Profile: Ogee, Optional: Square.

## Exterior Glazing Profile: Simulated Putty.

# Glazing

## Select quality complying with ASTM C 1036. Shall comply with 16 CFR 1201 Safety Standard for Architectural Glazing Materials.

## Glazing Method: Tempered Insulating glass

## Dual-pane thickness: 15/16”; Tri-pane thickness: 1 1/4"

## Glass fill: Air with capillary tubes, Argon

## Glass Type: Clear, Bronze, Gray, Reflective Bronze, Tempered, Obscure, Laminated, Low E2, Low E3, Low E1, Low E2/ERS, Low E3/ERS

## Tri-pane glass (TG): Low E3/E1/ERS, E2/E1/ERS, Low E1, Low E2, Low E3.

## This glass type is dependent on sash thickness and availability. Consult ADM or OMS for availability

## Glazing seal: Silicone bedding at interior and exterior

## **Finish**

## Exterior: Aluminum Clad. Fluoropolymer modified acrylic topcoat applied over primer. Meets AAMA 2605 requirements.

### Aluminum clad color options: Bahama Brown, Bronze, Cadet Gray, Cascade Blue, Cashmere, Clay, Coconut Cream, Ebony, Evergreen, Gunmetal, Hampton Sage, Pebble Gray, Sierra White, Stone White, Suede, Wineberry, Bright Silver (pearlescent), Copper (pearlescent), Liberty Bronze (pearlescent)

### Custom colors: Contact your Marvin representative

## Interior Finish Options:

### Prime: Factory-applied enamel primer. Available on Pine product only.

### Painted Interior Finish. Available on Pine product only. Available in White and Designer Black.

### Factory-applied water-borne acrylic enamel clear coat. Applied in two separate coats with light sanding between coats. Available on Pine, Mahogany, Vertical Grain Douglas Fir, Mixed Grain Douglas Fir, Cherry, White Oak, Walnut.

### Factory-applied water-borne stain. Stain applied over a wood (stain) conditioner. A water-borne acrylic enamel clear coat applied in two separate coats, with light sanding between coats, applied over the stain. Available on Pine, Mahogany, Vertical Grain Douglas Fir, Mixed Grain Douglas Fir, Cherry, White Oak, Walnut. Colors available: Wheat, Honey, Hazelnut, Leather, Cabernet, or Espresso.

# Hardware

## Adjustable Hinges:

1. 4 ¼” x 3 ¾” with 3/8” radius corners. Adjustment is 3/16” for horizontal and vertical of panels in frame.
2. Rectangular doors have three adjustable hinges on 6-6, 6-8, 7-0 and 8-0 heights; optional four hinges on 7-0 and 8-0 heights
3. Finish: Satin Taupe with steel substrate
	1. Optional powder coat finish: Gold tone, Dark Bronze, Silver Frost, White
	2. Optional metal finish: Antique Brass, Satin Chrome, Oil Rubbed Bronze, or Polished Chrome.
	3. Optional PVD finishes: Brass PVD, Oil Rubbed Bronze PVD, or Satin Nickel PVD.
4. Traditional Handle Set: Active, Inactive
5. Powder Coat finishes: Satin Taupe, White, and Dark Bronze (zinc die cast substrate)
6. Metal finishes: Antique Brass, Satin Chrome, Oil Rubbed Bronze, or Polished Chrome (brass substrate)
7. PVD finishes: Brass PVD, Oil Rubbed Bronze PVD, Satin Nickel PVD,
8. Contemporary Handle Set: Active, Inactive
9. Painted finishes: Matte Black or Dark Bronze (aluminum substrate)
10. PVD finishes: Oil rubbed Bronze or Satin Nickel
11. Minimalist Handle Set option
12. Painted finishes: Matte Black or Dark Bronze (aluminum substrate)
13. Nanotech finishes: Oil rubbed Bronze or Satin Nickel
14. Active and Inactive panel: Marvin exclusive concealed multi-point locking system. Stainless steel head and shoot bolts operated from lever set. One inch dead bolt.

### Optional: no lock/no bore up to a 7/0 height

#  Lock Status Sensor (Optional)

## Lock Status Sensor

### Unit is factory-prepared for an integrated lock status sensor system. Contact sensor mounted inside the boundaries of the operating panel. Refer to Lock Status Sensor Installation Instructions.

1. Lock Status Sensor wireless only.
	1. Only wireless option available. Requires purchase of secondary transmitter for operation. Marvin will prep for this option.
2. The **actuator** (keyed or thumb turn) is integrated into the locking hardware system.

# Weather Strip

## Inswing: Head jamb and side jambs to have 2 rows of bulb weather strip maintaining contact with door panels

### Color: Black

## Outswing: Head jamb and side jambs to have single bulb weather strip maintaining contact with door panels

### Color: Black

## Inswing and Outswing: Threshold to have bulb weather strip maintaining contact with bottom of panel

### Color: Black

# Jamb Extension

## Factory-applied, for wall thickness indicated or required (shipped loose)

## Finish: Matches interior frame finish

# Insect Screen

## Ultimate Sliding Screen

### Extruded aluminum sliding frame, top hung roller assembly with stainless steel ball bearings in nylon wheels, top rollers adjustable up to ¼” (6mm). Frame to have edge mounted wool pile bug strip.

### Sliding screen for XO, OX, OOX, XOO, OXXO operation

### Ultimate Sliding Screen comes with a roller bar. Screen will match exterior aluminum clad color.

### Standard screen mesh: Charcoal fiberglass, or High Trans fiberglass

### Ultimate screen mesh: Charcoal fiberglass, Charcoal Aluminum Wire, Black Aluminum Wire, Bright Aluminum Wire, Bright Bronze Wire

## Ultimate Swinging Screen

### Extruded aluminum swinging frame. Screen will match exterior aluminum clad color.

### Screen mesh: Charcoal fiberglass, Bronze, Charcoal Aluminum, Silver Aluminum, Black Aluminum, or High Transparency screen mesh (CH Hi-Tran) fiberglass

### For standard swinging screen: black hinges: 2 for doors under 90” and 3 hinges for doors over 90”. Ultimate swinging screen has 4 hinges per panel and a factory installed Z-bar.

### Handle includes latch with exterior handle and internal locking mechanism. Available in Bronze, Satin Nickel, Brass, or Satin Taupe.

# Simulated Divided Lites (SDL)

## 5/8” (16mm) wide, 7/8” (22mm) wide, 1 1/8” (29mm) wide, 1 15/16” (49mm), 2 13/32” (61mm) wide with or w/out internal spacer bar

1. Muntins: Pine, Mixed Grain Douglas Fir, White Oak, Cherry, Mahogany, Vertical Grain Douglas Fir
2. Muntins adhere to glass with double coated acrylic foam tape
3. Profile:

### Interior: Ogee

### Exterior: Simulated Putty

## Pattern: Rectangular, Cottage, Custom lite layout

## Finish: Match panel finish

# Raised or Flat Panels

## Stamped Rained Panel: 0.080” aluminum to the exterior with foam backing and laminated veneer to interior. Interior available bare wood or selected interior finish. Available in all aluminum clad colors for exterior. Aluminum clad colors meeting AAMA 2605 requirements.

## Flat Panel: 0.125” aluminum to the exterior with foam backing and laminated veneer to interior. Available bare wood or selected interior finish. Available in all aluminum clad colors for exterior. Aluminum clad colors meeting AAMA 2605 requirements.

## Utilizes 4 ¾” intermediate rail. Visible panel height is 12 1/64” (305mm).

# Accessories and Trim

## Installation and Hardware Accessories:

### Factory installed vinyl nailing/drip cap

### Installation brackets: 6 3/8” (162mm), 9 3/8” (238mm), 15 3/8” (390mm)

### Masonry brackets: 6” (152mm), 10” (254mm)

## Aluminum Extrusions:

### Profile: brick mould casing, flat casing, stucco brick mould, stucco flat casing; frame expander, jamb extender, mullion cover, mullion expander, as indicated on drawings.

### Finish: Match exterior frame finish.

# 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