MANUFACTURER

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CSI PRODUCT SPECIFICATION

Specifier note: This CSI product specification is written using the Construction Specifications Institute (CSI) *Manual of Practice (Fifth Edition)*, including *MasterFormat™, SectionFormat™* and *PageFormat™.*

Specifier note: Information contained in this CSI product specification is accurate as of November 2018. Due to ongoing product changes, this information is subject to change. Consult manufacturer for complete product details.

PART 1 GENERAL

* 1. SECTION INCLUDES
1. Wood French Sliding Patio Doors with Hardware.
2. Glazing.
3. Accessories.
	1. RELATED SECTIONS
4. Section 01 33 00 – Submittal Procedures.
5. Section 01 65 00 – Product Delivery Requirements.
6. Section 01 66 00 – Product Storage and Handling Requirements.
7. Section 06 10 00 – Rough Carpentry.
8. Section 06 20 00 – Finish Carpentry.
9. Section 07 90 00 – Joint Protection.
10. Section 08 71 00 – Door Hardware.
11. Section 08 80 00 – Glazing.
12. Section 09 90 00 – Painting and Coating.
	1. REFERENCES
13. American Society for Testing and Materials (ASTM):
	* + 1. ASTM C1036 – Standard Specification for Flat Glass.
			2. ASTM C1048 – Standard Specification for Heat-Treated Flat Glass – Kind HS, Kind FT Coated and Uncoated Glass.
			3. 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.
			4. ASTM E330 – Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
			5. ASTM E547 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Cyclic Static Air Pressure Difference.
			6. ASTM E2190 – Standard Specification for Insulating Glass Unit Performance and Evaluation.
14. American Architectural Manufacturers Association/Window and Door Manufacturers Association/Canadian Standards Association (AAMA/WDMA/CSA):
	1. AAMA/WDMA/CSA 101/I.S.2/A440-08/NAFS – North American Fenestration Standard/Specification for Windows, Doors and Skylights
15. Window and Door Manufacturers Association (WDMA):
	* + 1. WDMA I.S.2 – Hallmark Certification Program.
			2. WDMA I.S. 4-05 – Industry Standard for Water Repellent Preservative Non-Pressure Treatment for Millwork.
16. National Fenestration Rating Council (NFRC):

 1. NFRC 102 – Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems.

* 1. NFRC 200 – Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.
	2. ENERGY STAR® Compliant Models available.
1. Insulating Glass Certification Council (IGCC).
2. Safety glass tested in accordance with ANSI Z97.1.
3. Federal Specification (FS):

 1. FS L-S-125B – Screen, Insect Non-Metallic.

* 1. PERFORMANCE REQUIREMENTS

Specifier note: Higher test results may be achieved using high performance options and/or smaller sizes. Specific testing is dependent upon size and options. For further information contact your Weather Shield territory manager.

 A. Design and Performance Requirements:

* + - 1. French Sliding patio door units shall be Hallmark certified in compliance with AAMA/WDMA/CSA 101/I.S.2/A440-08:

[LC-PG45-SD (95-9/16”x98” jamb size tested)]

* + - 1. Air infiltration shall not exceed 0.30 cfm/ft2 (0.142 L/s•m2) when tested according to ASTM E283.
			2. No water penetration when tested at the following pressure according to ASTM E547:

[LC-PG45-SD – 6.75 psf (324 Pa)]

* + - 1. French Sliding patio door must withstand the following positive/negative structural test pressure without damage when tested according to ASTM E330:

[LC-PG45-SD – +67.5/-67.5 psf (+3240/-3240 Pa)]

* + - 1. French Sliding patio doors must pass a forced entry resistance test of at least Level 10 to meet requirements set forth in ASTM F842.
	1. SUBMITTAL PROCEDURES
1. Shop drawings: submit shop drawings according to Section 01 33 23 – Shop Drawings, Product Data and Samples.
2. Product data: submit manufacturer's product catalog data and installation guides.
3. Samples: submit samples including the following:
	* + 1. Corner cutaway: submit corner cutaway, including glazing system, quality of construction and specified exterior/interior finishes.
			2. Exterior: submit color samples of exterior color finishes.
			3. Hardware: submit samples indicating typical hardware finishes.
	1. QUALITY ASSURANCE

A. Single Source Responsibility: Except for hardware mechanisms, aluminum extrusions, fiberglass sill and most weather stripping, the door manufacturer is responsible for fabrication of all components and materials including treatment of wood with acceptable wood preservatives, millwork of door panel and frame members, assembly of insulating glass and manufacture of all panels and frames.

* 1. PRODUCT DELIVERY REQUIREMENTS

 A. Comply with the product delivery requirements specified in Section 01 65 00 - Product Delivery Requirements.

* 1. PRODUCT STORAGE AND HANDLING REQUIREMENTS
		1. Comply with the requirements for storage and handling of products as specified in Section 01 66 00 – Product Storage and Handling Requirements.
		2. Store doors in a dry location, off the ground, under cover, protected from weather and construction activities.
	2. WARRANTIES
1. Workmanship and materials: 20-year limited warranty.
2. Wood rot: 10-year warranty.
3. Insulating glass: 20-year warranty.

PART 2 PRODUCTS

2.1 MANUFACTURED UNITS

 A. Premium Wood 6715 Wood French Sliding Patio Doors as manufactured by Weather Shield Mfg., Inc. of Medford, Wisconsin.

2.2 WOOD FRENCH SLIDING PATIO DOOR MATERIALS

 A. Frame:

1. Exterior frame members milled from pine, kiln dried to a moisture content of 6-12% at the time of fabrication and treated with a water-repellent preservative. Frame corners shall be rabbetted, butted, chemically and mechanically fastened. The frame includes solid one-piece head and side jambs with applied inside stops at head and side jambs, and mechanically fastened.
2. Interior frame materials to be milled from [pine (standard)] [oak] [cherry] [maple] [mahogany] [mixed grain fir] [vertical grain fir] [character alder], kiln dried to a moisture content of 6-12% at the time of fabrication and treated with a water-repellent preservative.
3. One-piece, bronze pultruded fiberglass sill with interior clear sealed hardwood sill riser; sill height of 2-7/16” [62mm] and stainless steel roller track cap.
4. Head and side jamb thickness 1-1/16” [27mm].
5. Frame shall have standard jamb depth of 4-9/16” [116mm].
6. Frame shall have 2” [51mm] brick mould applied to head and side jambs.
7. Option: Frame provided with jamb extensions up to and including 12” [305mm] overall jamb depth [shipped loose (standard)] [factory applied]. Jamb extensions match interior frame finish.

 B. Door Panel:

1. Exterior door panel members shall be milled from wood substrate with fiber resin skin, kiln dried to a moisture content of 6-12% at the time of fabrication and treated with a water-repellent preservative.
2. Interior door panel materials shall be milled from [pine (standard)] [oak] [cherry] [maple] [mahogany] [mixed grain fir] [vertical grain fir] [character alder] veneer over wood substrate, kiln dried to a moisture content of 6-12% at the time of fabrication and treated with a water-repellent preservative.
3. Block core stiles and rails shall be chemically and mechanically fastened at joints with hardwood dowels.
4. Top rail is 5” [127mm] wide; stiles are 5-1/4” [133mm] wide; bottom rail on doors up to and including 8-2 callout heights [7-1/2” (191mm) standard] [10” (254mm)] [12” (305mm)]; bottom rail on doors over 8-2 callout heights [10” (254mm) standard] [12” (305mm)]. Option: 5-3/16” [132mm] center rail.
5. Door panel shall be 1-3/4” [44mm] thick.
6. Available in one, two, three and four-panel configurations.

C. Finish:

Exterior finish: [primed (standard)] [no prime/no fingerjoint] [poly, shall be low gloss, two-component acrylic polyurethane: [white] [cameo] [desert tan] [adobe] [hartford green] [obsidian] [craftsman bronze] [brick red] [47 designer colors] [custom color as selected by the Architect]].

1. Interior finish: [clear treated wood: [pine (standard)] [oak] [cherry] [maple] [mahogany] [mixed grain fir] [vertical grain fir] [character alder] [knotty pine]] [primed] [prefinished white] [prefinished black] [poly prefinished: [white] [adobe] [desert tan] [Hartford green] [brick red] [cameo] [obsidian] [craftsman bronze] [47 designer colors]] [stained/sealed: [clear satin] [golden oak] [fruitwood] [chestnut]].

1. Glazing: select quality complying with ASTM C1036. Insulating glass IGCC certified to performance level CBA when tested in accordance with ASTM E2190.
	1. Glazing method: Insulated glass consisting of two lites of clear tempered glass
	2. Glass type:

 [Clear]

[Low E 272 sputter coat applied on number two surface]

[High-performance Low E: insulated glass consisting of one lite sputter coat Low E 366 applied on the number two surface and one lite clear glass with warm-edge spacer system and argon gas in airspace]. Optional: [EasyCare coating applied on number one surface] [pyrolytic Low E applied on number four surface].

[High-performance Low E laminated: insulated glass consisting of one lite sputter coat Low E 366 applied on the number two surface and one lite of clear laminated glass with .030” polyvinyl butyral interlayer with warm-edge spacer system and argon gas in airspace]. Optional: [EasyCare coating applied on number one surface] [Safeguard] [Safeguard Certified].

[High-performance triple insl Low E: triple insulated glass consisting of one lite sputter coat Low E 366 applied on the number two surface, one lite of sputter coat Low E 272 applied on the number five surface and one center lite of clear glass with warm-edge spacer system and argon gas in two airspaces]. Optional: [EasyCare coating applied on number one surface].

 [Specialty glass: [obscure] [rain glass] [bronze] [gray]]

* 1. Insulated glass airspace:

[Air (standard)]

[Argon gas]

[Altitude adjusted (not available with argon gas)]

* 1. Insulated glass shall be sealed with a
	2. [black (standard)] [gray] [charcoal shadowline] warm-edge spacer system with integrated edge seal and foil laminate moisture vapor barrier.
	3. [black] [silver] stainless steel spacer system with polyisobutylene edge seal.
1. Glass shall be silicone glazed at panel exterior to allow reglazing from the interior with [colonial profile (standard)] [putty profile] wood glazing bead.
2. Hardware:
3. Handle sets: High-pressure die-cast zinc interior and exterior handle set with interior thumb latch.
	* + - 1. Finish: [bright brass pvd (standard)] [white] [chrome] [antique brass] [black chrome pvd] [black] [oil-rubbed bronze] [brushed nickel pvd].
				2. Option: [no keyed lock (standard)] [key lock keyed random] [key lock keyed alike].
			1. Lock system shall be two-point [steel (standard)] [stainless steel] locking mechanism.
			2. Active door panel shall have two sets of 1-1/2” [38mm] tandem [zinc/yellow dichromate (standard)] [stainless] steel rollers adjustable to 1/4” [6mm].
			3. Option: foot-activated security lock shipped loose [white] [bronze].
			4. All provisions of this section shall conform to requirements of Section 08 71 00 – Door Hardware.

 F. Weather Stripping:

1. Flexible tan leaf weather strip at head and active panel inside stop.
2. White pile weather strip with mylar fin at head and side tan vinyl parting stops.
3. Rigid tan vinyl interlocks with tan vinyl bulb weather strip on inactive panel interlock and beige pile weather strip on active panel interlock.
4. Black pile weather strip on sill for active panel.

G. Sliding Screen Doors:

 1. [Premium (standard)] sliding screen consisting of .040” [1.0mm] thick formed aluminum frames, mitered frame corners and [20x20 high-visibility charcoal fiberglass (standard)] [18x16 black aluminum non-glare] mesh.

 a. As viewed from exterior, rails shall be 3” [76mm]; stiles shall be 3” [76mm].

 b. Heavy-duty screen latch system.

 c. Adjustable nylon rollers at head and sill.

 d. Frame finish: matches exterior door frame.

2. Option: [sliding] screen consisting of .040” [1.0mm] thick formed aluminum frames, mitered

 frame corners and [20x20 high-visibility charcoal fiberglass (standard)] [18x16 black

 aluminum non-glare] mesh.

 a. Adjustable ball-bearing [steel (standard)] [stainless steel] rollers at head and sill.

 b. Frame finish: matches exterior door frame.

 3. Option: [no screen].

Optional accessories. Edit as required.

H. Grilles-Between-The-Glass:

 1. Aluminum grilles in sealed airspace: [5/8" (16mm) flat] [11/16" (17mm) sculptured].

 2. Pattern: [rectangular] [prairie] [custom configuration as noted on drawings (lite cut subject to approval of Weather Shield)].

 3. Color: [white] [adobe] [cameo] [desert tan] [tan] [hartford green] [jet black] [craftsman bronze] [brick red] [heritage brown] [obsidian] [gray matters] [45 designer colors].

 4. Optional finishes: two-tone [5/8” (16mm) flat] [11/16” (17mm) sculptured]. Color:

 [adobe/white interior] [cameo/white interior] [desert tan/white interior] [tan/white interior]

 [hartford green/white interior] [jet black/white interior] [craftsman bronze/white interior]

 [brick red/white interior] [heritage brown/white interior] [obsidian/white interior]

I. Simulated divided lites:

1. Exterior and interior wood muntins adhered to glass with double-coated acrylic foam tape:

a. Colonial profile exterior simulated divided lite bar options: [5/8” (16mm)] [7/8” (22mm)]

 [1-3/8” (35mm)] [2” (51mm)].

b. [Colonial (standard)] [putty] profile interior simulated divided lite bar options: [5/8” (16mm)] [7/8” (22mm)] [1-3/8” (35mm)] [2” (51mm)].

 2. [Adobe aluminum grilles-between-the-glass] [no grilles-between-the-glass].

 3. Pattern: [rectangular] [prairie] [custom configuration as noted on drawings (lite cut subject to approval of Weather Shield)].

 4. Finish: matches exterior/interior door panel finish.

* 1. ACCESSORIES AND TRIM
1. Interior installation clips [shipped loose (standard)] [factory applied]: [5-1/2” (140mm)] [11” (279mm)].
2. Exterior wood casings [factory applied (standard)] [shipped loose]: [2” (51mm) brick mould (standard)] [2” (51mm) stucco mould] [3-1/2” (89mm) franklin casing] [3-7/16” (87mm) Washington casing] [flat casing up to 8” (203mm)] [custom profile (subject to approval of Weather Shield)]. Color to match exterior frame.
3. Interior trim styles: [WM327 – 2-1/4”x11/16” (57mm x17mm)] [WM356 – 2-1/4”x11/16” (57mm x17mm)] [WM366 – 2-1/4”x11/16” (57mm x17mm)] [WM376 – 2-1/4”x5/8” (57mm x16mm)] [WM351 – 2-1/4”x11/16” (64mmx17mm)] [WM444 – 3-1/4”x11/16” (89mm x17mm)] [WM445 – 3-1/4”x11/16” (89mm x17mm)] [Windsor – 3-1/2”x1-1/16” (89x27mm)] [flat – 3-1/2”x1-1/16” (89x27mm)] [flat – 2-1/4”x1-11/16” (58x27mm)]. Finish: [clear pine] [primed] [prefinished white latex] [stained/sealed: [clear satin] [golden oak] [fruitwood] [chestnut]].
4. Wood rosettes: [2-1/2”x2-1/2” (64mmx64mm)] [3-5/8”x3-5/8” (92mmx92mm)]. Wood species: [clear pine] [primed] [prefinished white latex] [stained/sealed: [clear satin] [golden oak] [fruitwood] [chestnut]].

PART 3 EXECUTION

* 1. INSTALLATION

 A. Install doors according to manufacturer's instructions and reviewed shop drawings to ensure proper installation and operation.

* + 1. Install door unit plumb, level and square with no distortion of frame members.
		2. Fill perimeter frame to wall opening cavity with batt insulation. Do not use expansive foam insulation.
		3. Apply approved sealant in accordance with Section 07 90 00 - Joint Protection.
		4. Do not puncture prefinished exterior. Refer to installation instructions for complete installation recommendations.
	1. ADJUSTING AND CLEANING

 A. Adjust operating panel and hardware to provide tight fit at contact points and at the weather stripping for smooth operation.

 B. Remove excess sealant materials and visible labels from glass. Clean glass surfaces promptly after installation.

 C. Initiate and maintain all protection and other precautions required to ensure doors are in acceptable condition at time of substantial completion.

END OF SECTION