Purpose and Applications: This guide specification covers Andersen® A-Series patio doors. These architecturally inspired patio doors are suitable for new construction, remodeling or replacement applications.

Product Features:

A-Series patio door products include wood interiors and a fiberglass sash, frame and trim. There are 11 standard exterior colors, wood interiors in 6 species, 6 factory applied stain options and 7 interior finish options available. These finishes are offered in hundreds of combinations for sash, frame and trim colors and designed to make stunning window combinations easy to create. They are available in pine, oak or maple interiors and may be ordered unfinished, factory-stained, painted or primed. Exceptional energy efficiency and weather resistance are characteristics of A-Series windows and patio doors. VeriLock® security sensors can be integrated with professionally installed security systems and/or self-monitoring systems compatible with Honeywell 5800 transmitters.  Yale Assure Lock® is available on A-Series hinged patio doors and allows remote lock and unlocking of this door when properly configured with Z-Wave® compatible systems.

This Document: This guide specification document is provided by Andersen Corporation as a technical support tool incident to the sale of its products. Andersen Corporation is solely responsible for its content. This document should be reviewed and edited to suit Project requirements by a qualified design professional. Performance values expressed in this document may vary based on size, configuration and specified options. Product data contained in this guide specification is accurate as of the date of issue indicated above. Due to ongoing product changes, this data may change over time. Consult manufacturer for complete product information.

Contact Information: Contact manufacturer for more information on this or other products made by Andersen Corporation: Andersen Windows, Inc., Andersen Service Center, 100 Fourth Ave North, Bayport, MN 55003-1096. Telephone: (800) 299-9029.

Website: <http://www.andersenwindows.com/for-professionals>

Trademarks: This document contains product designations and trademarks owned by their respective owners. Andersen, Fibrex, Low-E4, SmartSun, Frenchwood, and Finelight are trademarks owned by Andersen Corporation. Santoprene is a trademark of ExxonMobil. ENERGY STAR is a registered trademark of the U.S. Environmental Protection Agency.

Editor Note: Edit document to suit Project requirements and specifier practice. Specifier notes are shown in blue text like this. Optional text [**is shown in bold with brackets like this**]. Locations where language for Project-specific requirements is to be inserted are shown like this: <**insert language**>. Remove specifier notes and unused optional text in final version of the specification document.

Editor Note: The Construction Specifications Institute (CSI) recommends and supports use of its current MasterFormat section title and numbering system, shown below.

SECTION 08 52 00 – WOOD DOORS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes: Fiberglass-clad wood frame [**hinged**] [**and**] [**gliding**] patio doors, with engineered LVL panel components [**with one stationary panel and one sliding panel on adjustable rollers**] [**with**] [**transoms**] [**and**] [**sidelights**].

Editor Note: Revise paragraph below to suit Project requirements. Add section numbers and titles according to CSI MasterFormat and specifier practice. This paragraph is intended for use only when a reader might reasonably expect to find work requirements in this Section, but those requirements are actually located in another, related section.

B. Related Sections: Section(s) related to this section include:

1. <**Insert Work Title**>: <**Insert Division number**> Section <**Insert Section title**>.

Editor Note: Standards numbers and titles in the article below are provided for specifier information and reference. The purpose of this Article is to fully identify standards that are referenced elsewhere using abbreviated nomenclature. Retain, edit or delete article to suit specifier practice and Project requirements.

1.2 REFERENCES

A. General: Standards listed by reference form a part of this specification section. Standards listed are identified by issuing authority, abbreviation, designation number, title or other designation. Standards subsequently referenced in this Section are referred to by issuing authority abbreviation and standard designation.

B. American Architectural Manufacturers Association (AAMA):

1. AAMA 450 - Voluntary Performance Rating Method for Mulled Fenestration Assemblies.

2. AAMA 502 - Voluntary Specification for Field Testing of Newly Installed Fenestration Products.

3. AAMA 614 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Plastic Profiles.

4. AAMA 615 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Plastic Profiles.

5. AAMA 624 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Fiber Reinforced Thermoset Profiles.

6. AAMA 625 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performance Organic Coatings on Fiber Reinforced Thermoset Profiles.

7. NAFS - North American Fenestration Standard/Specification for windows, doors and skylights.

C. Andersen A-Series Product Installation Guides.

D. ASTM International (ASTM):

1. ASTM C1036 - Standard Specification for Flat Glass.

2. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass.

3. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

4. ASTM E1886 - Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials.

5. ASTM E1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes.

6. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation.

E. Building Code Compliance Office of Miami-Dade, Florida. Florida Building Code Test Protocol for High-Velocity Hurricane Zones:

1. TAS 201 - Impact Test.

2. TAS 202 - Uniform Static Air Pressure Test.

3. TAS 203 - Cyclic Wind Pressure Loading Test.

Editor Note: Retain paragraph below when pine, FSC Certified – Mixed Credit certification is required and coordinate with Part 2 - Products.

F. Forest Stewardship Council (FSC): FSC Chain-of-Custody Certification.

G. Insulating Glass Certification Council (IGCC): Insulating Glass Unit Certification.

H. Insulating Glass Manufacturers Alliance of Canada (IGMAC) and Canadian General Standards Board (CGSB): Insulating Glass Units Standard CAN/CGSB 12.8-97.

I. International Standards Organization (ISO): ISO 14021 - Environmental Labels and Declarations -- Self-Declared Environmental Claims (Type II Environmental Labeling).

J. National Fenestration Rating Council (NFRC):

1. NFRC 100 - Procedure for Determining Fenestration Product U-factors.

2. NFRC 200 - Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.

K. Texas Department of Insurance: Product Evaluation WIN-1875 for compliance with wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

L. U.S. Environmental Protection Agency (EPA): ENERGY STAR.

M. Window and Door Manufacturers Association (WDMA):

1. WDMA Hallmark Certification Program for Manufacturers.

2. WDMA I.S.4 - Industry Specification for Preservative Treatment for Millwork.

1.3 ADMINISTRATIVE REQUIREMENTS

Editor Note: Retain paragraph below if pre-installation meetings are required and edit to suit Project requirements.

A. Pre-installation Meetings: Conduct pre-installation meeting to clarify Project requirements, substrate conditions, manufacturer’s installation instructions and manufacturer’s warranty requirements.

1.4 PERFORMANCE REQUIREMENTS

Editor Note: Project requirements in paragraph below might include but not be limited to design wind load, wind speed, maximum design deflection, importance factor, exposure category, performance class and grade.

A. Structural Performance Requirements:

1. Comply with requirements of NAFS.

2. <**Insert requirements**>.

Editor Note: Project requirements in paragraph below might include but not be limited to criteria from authority having jurisdiction. Edit to suit Project requirements. Select sub-paragraph 1 or 2 or 3, or alternatively sub-paragraphs 2 and 3.

B. Windborne Debris Performance Requirements:

1. Florida Building Code Test Protocol: TAS 201, TAS 202 and TAS 203.

2. ASTM E1886 and ASTM E1996.

3. Texas Department of Insurance: Comply with requirements of Texas Department of Insurance, Product Evaluation WIN-1875.

Editor Note: Retain paragraph below if compliance with a whole-building rating system (such as USGBC LEED, GBI GreenGlobes, or other) or specific sustainability-related design and construction aspects is required. Edit to suit Project requirements. Project requirements might include but not be limited to energy performance, recycled material content, regional materials or indoor air quality.

C. Environmental Performance Requirements: <**Insert requirements**>.

1.5 SUBMITTALS

A. Product Data: For each type of product required.

B. Shop Drawings: Showing methods of installation, plans, sections, elevations and details of walls, specified loads, flashings, vents, sealants, and interfaces with all materials not supplied by the patio door manufacturer, and identification of proposed component parts and finishes.

C. Samples: Selection and verification samples for finishes, colors and textures. Submit two complete sample sets of each type of material required.

D. Certificates: Signed by manufacturer certifying materials comply with specified performance characteristics, criteria and physical requirements.

E. Test and Evaluation Reports: Showing compliance with specified performance characteristics and physical properties.

F. Manufacturer Instructions: Manufacturer installation, storage, and other instructions.

Editor Note: Retain paragraph below if compliance with a whole-building rating system (such as USGBC LEED, GBI GreenGlobes, or other) or specific sustainability-related design and construction aspects is required. Edit to suit Project requirements.

G. Sustainable Design Submittals in Compliance with ISO 14021.

H. Qualification Statements: For manufacturer and installer.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Member in good standing of The Insulating Glass Certification Council (IGCC).

2. Hallmark Certified Manufacturer and member in good standing of the Window and Door Manufacturers Association (WDMA).

3. Member in good standing of U.S. Green Building Council.

4. ENERGY STAR Partner.

5. Capable of demonstrating an extended history of window and door design, production and innovation.

Editor Note: Retain when a separate installer warranty is required.

B. Installer Qualifications:

1. Minimum five years’ experience in the commercial installation of products required for the Project.

2. Experience on at least five projects of similar size, type and complexity as the Project.

3. An entity utilizing workers competent in techniques required by manufacturer for product types and applications indicated.

1.7 DELIVERY, STORAGE AND HANDLING

A. Comply with manufacturer’s ordering instructions and lead time requirements to avoid construction delays.

B. Deliver materials to Project in manufacturer’s original unopened, undamaged containers with identification labels intact.

C. Storage and Protection: Store materials and accessories protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by manufacturer off ground, under cover and not exposed to weather and construction activities.

1.8 WARRANTY

Editor Note: Coordinate article below with Conditions of the Contract and with Division 01 Closeout Submittals (Warranty) Section.

A. Special Warranty: Manufacturer's transferrable, non-prorated limited warranty.

1. Warranty Period, Glass: 20 years, non-impact.

2. Warranty Period, Non-Glass Parts: 10 years.

3. Warranty Period, Exterior Coating, Fading and Hardware Corrosion:

a. Exterior Coating: Limited lifetime of the original structure

b. Fading: 20 years

c. Hardware Corrosion: 10 years

Editor Note: Retain paragraph below if a separate installation warranty, not provided by the manufacturer, is required and edit to suit Project requirements.

B. Special Warranty: Installer's standard form in which installer agrees to repair or replace patio doors that fail due to poor workmanship or faulty installation within the specified warranty period.

1. Warranty Period: <**Insert number of years**> years from date of Substantial Completion.

PART 2 PRODUCT

Editor Note: Add product features, performance characteristics, material standards, and descriptions as applicable. Use of terms such as "or equal" or "approved equal" or similar may cause ambiguity in specifications, requiring verification (procedural, legal and regulatory) and assignment of responsibility for the determination of "equal" products. Therefore, it is recommended that terms such as these be avoided.

2.1 WOOD DOORS

A. General: Provide patio doors complying with the performance requirements indicated and tested according to NAFS.

B. Basis-of-Design Product: Subject to compliance with requirements provide Andersen Corporation: Andersen A-Series patio doors.

C. Substitution Limitations: [**No substitutions**] [**All other manufacturers: Submit substitution request in accordance with Section 01 25 00 - "Substitution Procedures"**] <**Insert substitution limitations**>.

2.2 MATERIALS

A. Construction:

1. Exterior Frame: Extruded composite profile consisting of 40 percent reclaimed pre-consumer wood fiber and 60 percent thermoplastic polymer, by weight.

2. Exterior Sash: Pultruded fiberglass.

3. Interior Exposed Frame: Preservative treated solid lumber (WDMA I.S.4), kiln dried and suitable for stain or painted finish.

4. Interior Exposed Sash: Preservative treated solid lumber, kiln dried and suitable for stain or painted finish.

B. Wood Species: [**Cherry**] [**Douglas Fir**] [**Mahogany**] [**Pine**] [**Pine, FSC Certified – Mixed Credit**] [**Maple**] [**Oak**] <**Insert requirements**>.

Editor Note: If factory-applied interior finish is required, retain and edit paragraph below to suit Project requirements. If unfinished interior is required retain only the “Unfinished” option.

C. Interior Finish:

1. Stained: Factory-applied before assembly, water-based, [**Clear Coat**] [**Honey**] [**Cinnamon**] [**Russet**] [**Mocha**] [**Espresso**] <**Insert requirements**>.

2. Painted: Factory-applied before assembly, [**White**] [**Birch Bark**] <**Insert requirements**>.

3. Primed: Factory-applied before assembly. <**Insert requirements**>.

4. Custom Finished: Factory-applied, [**custom finish as selected and approved by Architect**] <**Insert requirements**>.

Editor Note: If no factory-applied finish is required, retain sub-paragraph below and coordinate finish requirements in related section.

5. Unfinished.

Editor Note: Andersen A-Series products are available in factory electrostatically-applied acrylic enamel in 11 colors, in 2-, 3-, or 4-tone combinations of those colors. Visit web site for more information: <http://www.andersenwindows.com/for-professionals>

D. Exterior Finish:

Editor Note: Retain sub-paragraphs below for painted frame and sash. Edit to suit Project requirements. Substrate material and finish color category determine the applicable AAMA standard. AAMA 614 and AAMA 624 apply to the following colors: White, Sandtone, Canvas and Dove Gray.

1. Painted Frame: Factory electrostatically-applied acrylic enamel, in compliance with AAMA 614/AAMA 624, [**White**] [**Sandtone**] [**Canvas**] [**Dove Gray**] [**color as selected from manufacturer’s standard colors**] [**custom color as selected and approved by Architect**] <**Insert requirements**>.

2. Painted Sash: Factory electrostatically-applied acrylic enamel, in compliance with AAMA 614/ AAMA 624, [**White**] [**Sandtone**] [**Canvas**] [**Dove Gray**] [**color as selected from manufacturer’s standard colors**] [**custom color as selected and approved by Architect**] <**Insert requirements**>.

Editor Note: Retain sub-paragraphs below for painted frame and sash. Edit to suit Project requirements. Substrate material and finish color category determine the applicable AAMA standard. AAMA 615 and AAMA 625 apply to the following colors: Prairie Grass, Terratone, Forest Green, Dark Bronze, Cocoa Bean, Red Rock and Black.

3. Painted Frame: Factory electrostatically-applied acrylic enamel, in compliance with AAMA 615/AAMA 625, [**Prairie Grass**] [**Terratone**] [**Forest Green**] [**Dark Bronze**] [**Cocoa Bean**] [**Red Rock**] [**Black**] [**color as selected from manufacturer’s standard colors**] [**custom color as selected and approved by Architect**] <**Insert requirements**>.

4. Painted Sash: Factory electrostatically-applied acrylic enamel, in compliance with AAMA 615/AAMA 625, [**Prairie Grass**] [**Terratone**] [**Forest Green**] [**Dark Bronze**] [**Cocoa Bean**] [**Red Rock**] [**Black**] [**color as selected from manufacturer’s standard colors**] [**custom color as selected and approved by Architect**] <**Insert requirements**>.

Editor Note: Andersen Corporation employs manufacturing strategies to optimize recycled content. Efficient use of materials reduces overall resource consumption and demand for additional materials. Recycling materials and content in construction and building components help reduce the demand for natural resources. Pre-consumer recycled content varies by product. Contact Andersen Corporation for more information.

E. Pre-consumer Recycled Content: <**Insert percentage**> percent minimum, third-party certified.

Editor Note: Copy article below for each patio door type required, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional patio door types.

Editor Note: The performance values and ratings indicated within this guide specification representative a variety of typical Andersen product configurations based on testing according to applicable industry standards. The performance of any specific product depends on unit size, glass type and other configuration and material variables. The values indicated may or may not be applicable to Project requirements. Many other product configuration and materials options are available. Consult with an Andersen Product Representative for more information.

2.3 [**GLIDING**] [**AND**] [**HINGED**] DOORS <**Insert patio door designation(s) used on Drawings**>.

A. Patio Door Type and Performance Requirements: Gliding patio door with stationary panel(s) and sliding panel(s) on adjustable rollers [**with**] [**transoms**] [**and**] [**sidelights**] <**Insert manufacturer model or part number designation**>.

Editor Note: Retain one or more sub-paragraphs below to suit Project requirements.

1. Single Stationary-Panel Frenchwood Gliding Patio Door, Performance Class and Grade, Non-Impact-Resistant: [**LC-PG45 (50 x 95 inches)**] [**LC-PG65 (50 x 95 inches)**].

2. Two-Panel Frenchwood Gliding Patio Door, Performance Class and Grade, Non-Impact-Resistant: [**LC-PG50 (95 x 95 inches)**] [**LC-PG70 (95 x 82 inches)**] [**LC-PG70 (95 x 95 inches)**].

3. Three-Panel Frenchwood Gliding Patio Door, Performance Class and Grade, Non-Impact-Resistant: [**LC-PG50 (141 X 82 inches)**] [**LC-PG65 (141 X 82 inches)**] [**LC-PG40 (141 X 95 inches)**] [**LC-PG50 (141 X 95 inches)**].

4. Four-Panel Frenchwood Gliding Patio Door, Performance Class and Grade, Non-Impact-Resistant: [**LC-PG50 (189 X 82 inches)**] [**LC-PG65 (189 X 82 inches)**] [**LC-PG40 (189 X 95 inches)**] [**LC-PG50 (189 X 95 inches)**].

Editor Note: Retain paragraph below when hinged patio doors are required.

B. Door Type and Performance Requirements: Hinged patio door [**with**] [**transoms**] [**and**] [**sidelights**] <**Insert patio door type**> <**Insert manufacturer model or part number designation**>.

Editor Note: Retain one or more sub-paragraphs below to suit Project requirements.

1. Inswing Single-Panel Frenchwood Hinged Patio Door, Performance Class and Grade, Non-Impact-Resistant: [**LC-PG45 (38 X 95 inches)**] [**LC-PG65 (38 X 82 inches)**] [**LC-PG65 (38 X 95 inches)**].

2. Inswing Two-Panel Frenchwood Hinged Patio Door, Performance Class and Grade, Non-Impact-Resistant: AP/PA [**LC-PG45 (75 X 95 inches)**] [**LC-PG65 (75 X 82 inches**)] [**LC-PG65 (75 X 95 inches)**] AS/SA/SS [**LC-PG45 (71 X 95 inches)**] [**LC-PG65 (75 X 82 inches)**] [**LC-PG65 (75 X 95 inches)**].

3. Inswing Three-Panel Frenchwood Hinged Patio Door, Performance Class and Grade, Non-Impact-Resistant: LC-PG45 (106 X 95 inches).

4. Outswing Single-Panel Frenchwood Hinged Patio Door, Performance Class and Grade, Non-Impact-Resistant:

[**Stationary** **LC-PG45 (38 X 95 inches)**]

[**Stationary** **LC-PG65 (38 X 82 inches)**]

[**Active** **LC-PG45 (38 X 95 inches)**].

[**Active** **LC-PG65 (38 X 82 inches)**]

5. Outswing Two-Panel Frenchwood Hinged Patio Door, Performance Class and Grade, Non-Impact-Resistant: [**LC-PG45 (75 X 95 inches)**] [**LC-PG65 (75 X 82 inches)**] [**LC-PG65 (75 X 95 inches)**]

Editor Note: WDMA standard is < 0.3 cfm/ft². Retain sub-paragraph below for commercial buildings.

C. Air Infiltration Requirements:

1. Air Infiltration Rate: **< 0.2 cfm/sf²**.

Editor Note: Some Andersen products are ENERGY STAR certified with select glass options. Contact manufacturer for more information. Retain when ENERGY STAR certification is required.

D. Environmental Certifications:

1. ENERGY STAR performance requirements.

2. Indoor air quality performance.

Editor Note: Retain paragraph below when French gliding patio doors are required.

E. Frenchwood Gliding Patio Door Weatherstrip Type and Material:

1. Frame: HR urethane foam core with polyethylene liner.

2. Panel: HR urethane foam core with polyethylene liner.

Editor Note: Retain paragraph below when hinged inswing patio doors are required.

F. Hinged Frenchwood Patio Door Weatherstrip Type and Material:

1. Frame: Santoprene thermoplastic elastomer.

2. Panel: Santoprene thermoplastic elastomer.

G. Installation Flange Type: [**Extruded vinyl**] [**None**].

H. Hardware:

Editor Note: Retain sub-paragraphs below when French gliding patio doors are required and edit to suit Project requirements.

1. Frenchwood Gliding Panel Latch Type and Material: Single-actuation, two-point locking system, galvanized steel and engineered polymer components.

2. Rollers and Guides Type and Material: Dual [**corrosion-resistant**] [**stainless steel**] ball bearing rollers and roller track with stainless steel cap.

Editor Note: Retain sub-paragraph below when Yuma patio door handle sets are required.

3. Patio Door Handle Designation and Finish: Yuma, [**Distressed Bronze**] [**Distressed Nickel**].

Editor Note: Retain sub-paragraph below when Encino patio door handle sets are required.

4. Patio Door Handle Designation and Finish: Encino, [**Distressed Bronze**] [**Distressed Nickel**].

Editor Note: Retain sub-paragraph below when Anvers patio door handle sets are required.

5. Patio Door Handle Designation and Finish: Anvers, [**Bright Brass**] [**Oil-Rubbed Bronze**] [**Satin Nickel**].

Editor Note: Retain sub-paragraph below when Newbury patio door handle sets are required.

6. Patio Door Handle Designation and Finish: Newbury, [**Antique Brass**] [**Bright Brass**] [**Brushed Chrome**] [**Oil-Rubbed Bronze**] [**Polished Chrome**] [**Satin Nickel**].

Editor Note: Retain sub-paragraph below when Covington patio door handle sets are required.

7. Patio Door Handle Designation and Finish: Covington, [**Antique Brass**] [**Bright Brass**] [**Oil-Rubbed Bronze**].

Editor Note: Retain sub-paragraph below when Whitmore patio door handle sets are required.

8. Patio Door Handle Designation and Finish: Whitmore, [**Antique Brass**] [**Bright Brass**] [**Oil-Rubbed Bronze**] [**Satin Nickel**].

Editor Note: Retain sub-paragraph below when Albany patio door handle sets are required.

9. Patio Door Handle Designation and Finish: Albany, [**Black**] [**Gold Dust**] [**Stone**] [**White**].

Editor Note: Retain sub-paragraph below when Tribeca patio door handle sets are required.

10. Patio Door Handle Designation and Finish: Tribeca, [**Stone**] [**White**].

Editor Note: Retain sub-paragraph below when FSB patio door handle sets are required.

11. Patio Door Handle Designation and Finish: FSB, [**1035**][**1075**][**1076**][**1102**]**]**, Satin Stainless Steel.

Editor Note: Retain sub-paragraphs below when French gliding patio doors are required and edit to suit Project requirements.

12. Gliding Patio Door Auxiliary Foot Lock Type and Finish: Foot-operated device designed to secure sliding panel in track, finish to match door handle.

13. Gliding Patio Door Lock Type and Finish: [**Keyed exterior**] [**Unkeyed exterior**], finish to match handle.

Editor Note: Retain sub-paragraphs below when hinged patio doors are required and edit to suit Project requirements.

14. Hinged Patio Door Escutcheon Finish: Match handle.

15. Inswing Patio Door Hinge Type and Finish: Heavy-duty, commercial grade ball bearing, with corrosion-resistant finish to match door handle.

16. Outswing Patio Door Hinge Type and Finish: Heavy-duty, commercial grade ball bearing, with corrosion-resistant finish in color to match exterior.

17. Hinged Inswing Patio Door Center Post Door Depth and Material: [**None**] [**Adjustable 4-9/16 inches**] [**Adjustable 6-9/16 inches**] [**Structural fiberglass with wood core insert**].

Editor Note: Verilock® Security Sensors and Wireless Open/Closed Sensors are optional. Retain paragraph below when Verilock® Security Sensors and Wireless Open/Closed Sensors are required. Sold as an option; not applied in the factory.

18. Security Sensors, Designation: Configured and maintained with professionally installed building security system and/or self-monitoring system compatible with Honeywell 5800 transmitters and capable of detecting whether window or door is open or closed, and locked or unlocked, VeriLock® Security sensors: [**White**] [**Taupe Gray**][**Stone**][**Black**].

19. Wireless Open/Closed Sensors: Configured and maintained with professionally installed building security system and/or self-monitoring system compatible with Honeywell 5800 transmitters and capable of detecting whether window or door is open or closed: [**White**] [**Sandtone**] [**Canvas**][**Dark Bronze**].

Editor Note: Yale Assure Lock® power patio door lock is optional. Retain paragraph below when Yale Assure Lock® is required. For use with hinge patio doors, includes Anvers handle and sold as an option; not applied in the factory.

20. Yale Assure Lock®: **Satin Nickel**.

Editor Note: Retain paragraph below when divided lights are required and edit to suit Project requirements. Grille type and location are a determining factor in overall patio door thermal performance. Coordinate with required U-Factor in GLAZING Article and with manufacturer’s information on product availability.

I. Divided Lights:

Editor Note: Retain sub-paragraph below when Full Divided Light Grilles are required and edit to suit Project requirements.

1. Full Divided Light: Permanent exterior and interior attachment, spacer between glass panes.

a. Style: Contoured profile.

b. Width: [**3/4 inch (19 mm)**] [**7/8 inch (22 mm)**] [**1-1/8 inches (29 mm)**] [**2-1/4 inches (57 mm)**].

c. Pattern: [**As shown in Drawings**] <**Insert pattern designation**>.

d. Exterior Color: [**Match patio door**] <**Insert requirements**>.

e. Interior Wood Finish: [**Match patio door**] <**Insert requirements**>.

Editor Note: Retain sub-paragraph below when Simulated Divided Light Grilles are required and edit to suit Project requirements.

2. Simulated Divided Light: [**Permanent exterior and interior attachment, no spacer between glass panes**] [**Permanent exterior attachment, removable interior, no spacer between glass panes**].

a. Style: Contoured profile.

b. Width: [**3/4 inch (19 mm)**] [**7/8 inch (22 mm)**] [**1-1/8 inches (29 mm)**] [**2-1/4 inches (57 mm)**].

c. Pattern: [**As shown in Drawings**] <**Insert pattern designation**>.

d. Exterior Color: [**Match patio door**] <**Insert requirements**>.

e. Interior Wood Finish: [**Match patio door**] <**Insert requirements**>.

Editor Note: Retain sub-paragraph below when Finelight Grilles-Between-the-Glass are required and edit to suit Project requirements. Available in 3/4 inch (19 mm) or 1 inch (25 mm) widths only.

3. Finelight Grille: Permanently installed between glass panes.

a. Style: Contoured profile.

b. Width: [**3/4 inch (19 mm)**] [**1 inch (25 mm)**].

c. Pattern: [**As shown in Drawings**] <**Insert pattern designation**>.

d. Exterior Color: [**Match patio door**] <**Insert requirements**>.

e. Interior Wood Finish: [**Match patio door**] <**Insert requirements**>.

J. Insect Screens:

Editor Note: Retain sub-paragraph below when top-hung gliding insect screens for gliding and hinged inswing patio doors are required and edit to suit Project requirements.

1. Type: Top-hung gliding insect screen for gliding and hinged inswing patio doors.

a. Frame Material: Aluminum.

b. Painted Finish and Color: [**Factory-applied baked-on silicone polyester enamel**] [**match patio door frame**] **<Insert color>**.

c. Insect Screen Material: Fiberglass mesh.

Editor Note: Retain sub-paragraph below when retractable insect screens for French gliding patio doors are required and edit to suit Project requirements.

2. Type: Retractable insect screen for French gliding patio doors.

a. Frame Material: Aluminum.

b. Painted Finish and Color: [**Factory-applied baked-on silicone polyester enamel**] [**match door frame**] **<Insert color>**.

c. Insect Screen Material: Fiberglass mesh.

Editor Note: Retain sub-paragraph below when retractable insect screens for hinged outswing patio doors are required and edit to suit Project requirements.

3. Type: Retractable insect screen for hinged outswing patio doors.

a. Frame Material: Aluminum.

b. Painted Finish and Color: [**Factory-applied baked-on silicone polyester enamel**] [**match patio door frame**] **<Insert color>**.

c. Insect Screen Material: Fiberglass mesh.

Editor Note: Retain sub-paragraph below when hinged insect screens for hinged inswing patio doors are required and edit to suit Project requirements.

4. Type: Hinged insect screen for hinged inswing patio doors.

a. Frame Material: Aluminum.

b. Painted Finish and Color: [**Factory-applied baked-on silicone polyester enamel**] [**match patio door frame**] **<Insert color>**.

c. Insect Screen Material: Fiberglass mesh.

Editor Note: Retain sub-paragraph below when double-hinged insect screens for hinged inswing patio doors are required and edit to suit Project requirements.

5. Type: Double-hinged insect screen for hinged inswing patio doors.

a. Frame Material: Aluminum.

b. Painted Finish and Color: [**Factory-applied baked-on silicone polyester enamel**] [**match patio door frame**] **<Insert color>**.

c. Insect Screen Material: Fiberglass mesh.

K. Sills:

Editor Note: Retain sub-paragraph below when fiberglass sills for French gliding patio doors are required and edit to suit Project requirements. Drop-nose channel is for use with PG upgrade.

1. Material, Finish and Type: Fiberglass, with stainless-steel capped roller track [**and factory-applied drop-nose channel**] with [**neutral gray**] [**dark bronze**] poly-bead finish, for French gliding patio doors.

Editor Note: Retain sub-paragraph below when fiberglass sills for hinged inswing or hinged outswing patio doors are required and edit to suit Project requirements.

2. Material, Finish and Type: Fiberglass, [**with factory-applied drop-nose channel**] with [**neutral gray**] [**dark bronze**] poly-bead finish, for [**hinged inswing**] [**and**] [**hinged outswing**] patio doors.

Editor Note: Retain paragraph below when exterior trim or accessories are required and edit to suit Project requirements.

L. Exterior Trim and Accessories:

1. Type: 2 inch Brick Mould.

2. Type: [**3-1/2 inch Flat Casing**] [**4-1/2 inch Flat Casing**].

3. Type: [**Decorative Drip Cap**] [**2 inch Cornice**] [**3-5/8 inch Cornice**].

4. Type: [**As indicated**] <**Insert requirements**>.

Editor Note: Linear trim components are made of Fibrex material. Curved trim components are made of polyurethane.

5. Material: [**Fibrex material wood-polymer composite**] [**High density polyurethane**].

6. Finish and Color: Painted, [**White**] [**Sandtone**] [**Canvas**] [**Prairie Grass**] [**Terratone**] [**Forest Green**] [**Dove Gray**] [**Dark Bronze**] [**Cocoa Bean**] [**Red Rock**] [**Black**] [**Match doors**] <**Insert requirements**>.

Editor Note: Doors installed in combination must be designed and installed so as to attain a level of structural performance meeting requirements of the authority having jurisdiction. Refer to product literature or consult with an Andersen product representative,

M. Mullions: Laminated veneer lumber configured to be structurally sound and designed in accordance with AAMA 450.

Editor Note: Retain article below when non-impact-resistant glazing using Andersen Low-E4 glass is required. Glass type is a significant factor in determining overall patio door U-Factor. Copy article below for each patio door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional patio door types.

2.4 NON-IMPACT-RESISTANT GLAZING <**Insert patio door designation(s) used on Drawings**>.

Editor Note: Select required U-Factor in paragraph below and coordinate with required glazing type. U-Factors provided are based on whole-door performance, not on center-of-glass. Coordinate selection below with manufacturer’s product information. Actual unit performance values will vary depending upon Performance Grade (PG) rating, glass options, accessories such as grilles, unit size and type. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.30 without grilles**] [**0.31 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.30 without grilles**] [**0.31 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.30 without grilles**] [**0.31 with grilles**] <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.24 without grilles**] [**0.21 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for outswing patio doors.

2. Frenchwood Outswing: [**0.24 without grilles**] [**0.21 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.27 without grilles**] [**0.23 with grilles**] <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.41 without grilles**] [**0.35 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.41 without grilles**] [**0.35 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.45 without grilles**] [**0.39 with grilles**] <**Insert VLT value**>.

Editor Note: Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC) performance varies depending on patio door type and features. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

D. Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC), ASTM E90:

Editor Note: Retain sub-paragraph below for single-panel French inswing patio doors.

1. Single-Panel Frenchwood Inswing: [**30/26**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French inswing patio doors.

2. Two-Panel Frenchwood Inswing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for single French outswing patio doors.

3. Single-Panel Frenchwood Outswing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French outswing patio doors.

4. Two-Panel Frenchwood Outswing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

5. Frenchwood Gliding: [**30/25**] <**Insert STC/OITC value**>.

E. Glass Units: Provide insulating glass units certified through [**Insulating Glass Certification Council as conforming to the requirements of IGCC and ASTM E2190**] [**Insulating Glass Manufacturers Alliance of Canada (IGMAC) conforming to the requirements of Canadian General Standards Board CAN/CGSB 12.8**].

1. Manufacturer Designation: Andersen High-Performance Low-E4 Glass.

2. Glazing Configuration: [**Dual-pane**] [**Triple-pane**].

3. Tint: [**Bronze**] [**Gray**] [**Green**] [**None**].

4. Seal and Spacer Type: Dual sealed insulating glass units with polyisobutylene primary seal, silicone secondary seal and stainless steel spacers.

5. Glass Type: Fully tempered glass, ASTM C1048.

6. Opacity: [**Cascade**] [**Fern**] [**Obscure**] [**Reed**] [**None**].

Editor Note: Retain sub-paragraph below when laminated glass is required and edit to suit Project.

7. Laminate Interlayer Thickness: [**0.030**] [**0.060**] [**0.090**] inch.

Editor Note: Retain sub-paragraph below when between-the-glass art glass is required and edit to suit Project requirements.

8. Between-the-Glass Art Glass:

a. Pattern Designation, Historic and Classic Series: [**Lotus**] [**Regency**] [**Victoria**] [**Diamond Lights**] [**Arts & Crafts**] [**Amber**] [**Queen Anne**] [**Rectangular Grid**] [**Diamond Grid**].

b. Color Designation: [**Amber**] [**Caramel**] [**Cobalt**] [**Copper**] [**Dark Blue**] [**Deep Green**] [**Deep Rose**] [**Deep Teal**] [**Iridized Green**] [**Light Blue**] [**Light Green**] [**Lilac**] [**Marbled Green**] [**Marbled White**] [**Marbled Yellow-Green**] [**Moss Green**] [**Navy Blue**] [**Olive Green**] [**Opal**] [**Pale Blue**] [**Rose**] [**Sand**] [**Teal**] [**Topaz**] [**Violet**].

c. Accent Jewel Designation: [**Amber**] [**Lilac**] [**Pink**] [**Green**] [**Opal Amber**] [**Smoke**].

d. Iridescent Accent Tile Designation: [**Avocado Glimmer**] [**Kiwi Glimmer**] [**Tamarind Glimmer**] [**Tangerine Glimmer**].

Editor Note: Retain article below when non-impact-resistant glazing using Andersen Low-E4 Sun glass is required. Glass type is a significant factor in determining overall patio door U-Factor. Copy article below for each patio door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional patio door types.

2.5 NON-IMPACT-RESISTANT GLAZING <**Insert patio door designation(s) used on Drawings**>.

Editor Note: Select required U-Factor in paragraph below and coordinate with required glazing type. U-Factors provided are based on whole-door performance, not on center-of-glass. Coordinate selection below with manufacturer’s product information. Actual unit performance values will vary depending upon Performance Grade (PG) rating, glass options, accessories such as grilles, unit size and type. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.30 without grilles**] [**0.32 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.30 without grilles**] [**0.31 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.30 without grilles**] [**0.32 with grilles**] <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.15 without grilles**] [**0.13 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.15 without grilles**] [**0.13 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.16 without grilles**] [**0.14 with grilles**] <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.23 without grilles**] [**0.19 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.23 without grilles**] [**0.19 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.25 without grilles**] [**0.22 with grilles**] <**Insert VLT value**>.

Editor Note: Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC) performance varies depending on patio door type and features. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

D. Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC), ASTM E90:

Editor Note: Retain sub-paragraph below for single-panel French inswing patio doors.

1. Single-Panel Frenchwood Inswing: [**30/26**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French inswing patio doors.

2. Two-Panel Frenchwood Inswing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for single French outswing patio doors.

3. Single-Panel Frenchwood Outswing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French outswing patio doors.

4. Two-Panel Frenchwood Outswing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

5. Frenchwood Gliding: [**30/25**] <**Insert STC/OITC value**>.

E. Glass Units: Provide insulating glass units certified through [**Insulating Glass Certification Council as conforming to the requirements of IGCC and ASTM E2190**] [**Insulating Glass Manufacturers Alliance of Canada (IGMAC) conforming to the requirements of Canadian General Standards Board CAN/CGSB 12.8**].

1. Manufacturer Designation: Andersen Low-E4 Sun Glass.

2. Glazing Configuration: [**Dual-pane**] [**Triple-pane**].

3. Tint: [**Bronze**] [**Gray**] [**Green**] [**None**].

4. Seal and Spacer Type: Dual sealed insulating glass units with polyisobutylene primary seal, silicone secondary seal and stainless steel spacers.

5. Glass Type: Fully tempered glass, ASTM C1048.

6. Opacity: [**Cascade**] [**Fern**] [**Obscure**] [**Reed**] [**None**].

Editor Note: Retain sub-paragraph below when laminated glass is required and edit to suit Project.

7. Laminate Interlayer Thickness: [**0.030**] [**0.060**] [**0.090**] inch.

Editor Note: Retain sub-paragraph below when between-the-glass art glass is required and edit to suit Project requirements.

8. Between-the-Glass Art Glass:

a. Pattern Designation, Historic and Classic Series: [**Lotus**] [**Regency**] [**Victoria**] [**Diamond Lights**] [**Arts & Crafts**] [**Amber**] [**Queen Anne**] [**Rectangular Grid**] [**Diamond Grid**].

b. Color Designation: [**Amber**] [**Caramel**] [**Cobalt**] [**Copper**] [**Dark Blue**] [**Deep Green**] [**Deep Rose**] [**Deep Teal**] [**Iridized Green**] [**Light Blue**] [**Light Green**] [**Lilac**] [**Marbled Green**] [**Marbled White**] [**Marbled Yellow-Green**] [**Moss Green**] [**Navy Blue**] [**Olive Green**] [**Opal**] [**Pale Blue**] [**Rose**] [**Sand**] [**Teal**] [**Topaz**] [**Violet**].

c. Accent Jewel Designation: [**Amber**] [**Lilac**] [**Pink**] [**Green**] [**Opal Amber**] [**Smoke**].

d. Iridescent Accent Tile Designation: [**Avocado Glimmer**] [**Kiwi Glimmer**] [**Tamarind Glimmer**] [**Tangerine Glimmer**].

Editor Note: Retain article below when non-impact-resistant glazing using Andersen Low-E4 SmartSun glass is required. Glass type is a significant factor in determining overall patio door U-Factor. Copy article below for each patio door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional patio door types.

2.6 NON-IMPACT-RESISTANT GLAZING <**Insert patio door designation(s) used on Drawings**>.

Editor Note: Select required U-Factor in paragraph below and coordinate with required glazing type. U-Factors provided are based on whole-door performance, not on center-of-glass. Coordinate selection below with manufacturer’s product information. Actual unit performance values will vary depending upon Performance Grade (PG) rating, glass options, accessories such as grilles, unit size and type. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.30 without grilles**] [**0.31 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.29 without grilles**] [**0.30 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.29 without grilles**] [**0.31 with grilles**] <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.16 without grilles**] [**0.14 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.16 without grilles**] [**0.14 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.18 without grilles**] [**0.16 with grilles**] <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.37 without grilles**] [**0.31 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.37 without grilles**] [**0.31 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.40 without grilles**] [**0.35 with grilles**] <**Insert VLT value**>.

Editor Note: Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC) performance varies depending on patio door type and features. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

D. Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC), ASTM E90:

Editor Note: Retain sub-paragraph below for single-panel French inswing patio doors.

1. Single-Panel Frenchwood Inswing: [**30/26**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French inswing patio doors.

2. Two-Panel Frenchwood Inswing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for single French outswing patio doors.

3. Single-Panel Frenchwood Outswing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French outswing patio doors.

4. Two-Panel Frenchwood Outswing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

5. Frenchwood Gliding: [**30/25**] <**Insert STC/OITC value**>.

E. Glass Units: Provide insulating glass units certified through [**Insulating Glass Certification Council as conforming to the requirements of IGCC and ASTM E2190**] [**Insulating Glass Manufacturers Alliance of Canada (IGMAC) conforming to the requirements of Canadian General Standards Board CAN/CGSB 12.8**].

1. Manufacturer Designation: Andersen Low-E4 SmartSun Glass.

2. Glazing Configuration: [**Dual-pane**] [**Triple-pane**].

3. Tint: [**Bronze**] [**Gray**] [**Green**] [**None**].

4. Seal and Spacer Type: Dual sealed insulating glass units with polyisobutylene primary seal, silicone secondary seal and stainless steel spacers.

5. Glass Type: Fully tempered glass, ASTM C1048.

6. Opacity: [**Cascade**] [**Fern**] [**Obscure**] [**Reed**] [**None**].

Editor Note: Retain sub-paragraph below when laminated glass is required and edit to suit Project.

7. Laminate Interlayer Thickness: [**0.030**] [**0.060**] [**0.090**] inch.

Editor Note: Retain sub-paragraph below when between-the-glass art glass is required and edit to suit Project requirements.

8. Between-the-Glass Art Glass:

a. Pattern Designation, Historic and Classic Series: [**Lotus**] [**Regency**] [**Victoria**] [**Diamond Lights**] [**Arts & Crafts**] [**Amber**] [**Queen Anne**] [**Rectangular Grid**] [**Diamond Grid**].

b. Color Designation: [**Amber**] [**Caramel**] [**Cobalt**] [**Copper**] [**Dark Blue**] [**Deep Green**] [**Deep Rose**] [**Deep Teal**] [**Iridized Green**] [**Light Blue**] [**Light Green**] [**Lilac**] [**Marbled Green**] [**Marbled White**] [**Marbled Yellow-Green**] [**Moss Green**] [**Navy Blue**] [**Olive Green**] [**Opal**] [**Pale Blue**] [**Rose**] [**Sand**] [**Teal**] [**Topaz**] [**Violet**].

c. Accent Jewel Designation: [**Amber**] [**Lilac**] [**Pink**] [**Green**] [**Opal Amber**] [**Smoke**].

d. Iridescent Accent Tile Designation: [**Avocado Glimmer**] [**Kiwi Glimmer**] [**Tamarind Glimmer**] [**Tangerine Glimmer**].

Editor Note: Retain article below when non-impact-resistant glazing using Andersen Low-E4 PassiveSun glass is required. Glass type is a significant factor in determining overall patio door U-Factor. Copy article below for each patio door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional patio door types.

2.7 NON-IMPACT-RESISTANT GLAZING <**Insert patio door designation(s) used on Drawings**>.

Editor Note: Select required U-Factor in paragraph below and coordinate with required glazing type. U-Factors provided are based on whole-door performance, not on center-of-glass. Coordinate selection below with manufacturer’s product information. Actual unit performance values will vary depending upon Performance Grade (PG) rating, glass options, accessories such as grilles, unit size and type. Go to <http://www.andersenwindows.com/for-professionals> to view the performance values. Consult Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.31 without grilles**] [**0.32 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.30 without grilles**] [**0.31 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.30 without grilles**] [**0.32 with grilles**] <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.40 without grilles**] [**0.34 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.40 without grilles**] [**0.35 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.44 without grilles**] [**0.38 with grilles**] <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.45 without grilles**] [**0.39 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.45 without grilles**] [**0.39 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.49 without grilles**] [**0.43 with grilles**] <**Insert VLT value**>.

Editor Note: Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC) performance varies depending on patio door type and features. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

D. Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC), ASTM E90:

Editor Note: Retain sub-paragraph below for single-panel French inswing patio doors.

1. Single-Panel Frenchwood Inswing: [**30/26**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French inswing patio oors.

2. Two-Panel Frenchwood Inswing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for single French outswing patio doors.

3. Single-Panel Frenchwood Outswing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French outswing patio doors.

4. Two-Panel Frenchwood Outswing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

5. Frenchwood Gliding: [**30/25**] <**Insert STC/OITC value**>.

E. Glass Units: Provide insulating glass units certified through [**Insulating Glass Certification Council as conforming to the requirements of IGCC and ASTM E2190**] [**Insulating Glass Manufacturers Alliance of Canada (IGMAC) conforming to the requirements of Canadian General Standards Board CAN/CGSB 12.8**].

1. Manufacturer Designation: Andersen Low-E4 PassiveSun Glass.

2. Glazing Configuration: [**Dual-pane**] [**Triple-pane**].

3. Tint: [**Bronze**] [**Gray**] [**Green**] [**None**].

4. Seal and Spacer Type: Dual sealed insulating glass units with polyisobutylene primary seal, silicone secondary seal and stainless steel spacers.

5. Glass Type: Fully tempered glass, ASTM C1048.

6. Opacity: [**Cascade**] [**Fern**] [**Obscure**] [**Reed**] [**None**].

Editor Note: Retain sub-paragraph below when laminated glass is required and edit to suit Project.

7. Laminate Interlayer Thickness: [**0.030**] [**0.060**] [**0.090**] inch.

Editor Note: Retain sub-paragraph below when between-the-glass art glass is required and edit to suit Project requirements.

8. Between-the-Glass Art Glass:

a. Pattern Designation, Historic and Classic Series: [**Lotus**] [**Regency**] [**Victoria**] [**Diamond Lights**] [**Arts & Crafts**] [**Amber**] [**Queen Anne**] [**Rectangular Grid**] [**Diamond Grid**].

b. Color Designation: [**Amber**] [**Caramel**] [**Cobalt**] [**Copper**] [**Dark Blue**] [**Deep Green**] [**Deep Rose**] [**Deep Teal**] [**Iridized Green**] [**Light Blue**] [**Light Green**] [**Lilac**] [**Marbled Green**] [**Marbled White**] [**Marbled Yellow-Green**] [**Moss Green**] [**Navy Blue**] [**Olive Green**] [**Opal**] [**Pale Blue**] [**Rose**] [**Sand**] [**Teal**] [**Topaz**] [**Violet**].

c. Accent Jewel Designation: [**Amber**] [**Lilac**] [**Pink**] [**Green**] [**Opal Amber**] [**Smoke**].

d. Iridescent Accent Tile Designation: [**Avocado Glimmer**] [**Kiwi Glimmer**] [**Tamarind Glimmer**] [**Tangerine Glimmer**].

Editor Note: Retain article below when non-impact-resistant glazing using Andersen Low-E4 glass with HeatLock technology is required. Glass type is a significant factor in determining overall patio door U-Factor. Copy article below for each patio door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional patio door types.

2.8 NON-IMPACT-RESISTANT GLAZING <**Insert patio door designation(s) used on Drawings**>.

Editor Note: Select required U-Factor in paragraph below and coordinate with required glazing type. U-Factors provided are based on whole-door performance, not on center-of-glass. Coordinate selection below with manufacturer’s product information. Actual unit performance values will vary depending upon Performance Grade (PG) rating, glass options, accessories such as grilles, unit size and type. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.27 without grilles**] [**0.29 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.27 without grilles**] [**0.29 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.26 without grilles**] [**0.29 with grilles**] <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.24 without grilles**] [**0.21 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.24 without grilles**] [**0.21 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.26 without grilles**] [**0.23 with grilles**] <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.40 without grilles**] [**0.34 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.40 without grilles**] [**0.34 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.44 without grilles**] [**0.38 with grilles**] <**Insert VLT value**>.

Editor Note: Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC) performance varies depending on patio door type and features. Go to <http://www.andersenwindows.com/for-professionals> to view the performance values. Consult Andersen Product Representative for more information.

D. Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC), ASTM E90:

Editor Note: Retain sub-paragraph below for single-panel French inswing patio doors.

1. Single-Panel Frenchwood Inswing: [**30/26**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French inswing patio doors.

2. Two-Panel Frenchwood Inswing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for single French outswing patio doors.

3. Single-Panel Frenchwood Outswing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French outswing patio doors.

4. Two-Panel Frenchwood Outswing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

5. Frenchwood Gliding: [**30/25**] <**Insert STC/OITC value**>.

E. Glass Units: Provide insulating glass units certified through [**Insulating Glass Certification Council as conforming to the requirements of IGCC and ASTM E2190**] [**Insulating Glass Manufacturers Alliance of Canada (IGMAC) conforming to the requirements of Canadian General Standards Board CAN/CGSB 12.8**].

1. Manufacturer Designation: Andersen Low-E4 Glass with HeatLock Technology.

2. Glazing Configuration: [**Dual-pane**] [**Triple-pane**].

3. Tint: [**Bronze**] [**Gray**] [**Green**] [**None**].

4. Seal and Spacer Type: Dual sealed insulating glass units with polyisobutylene primary seal, silicone secondary seal and stainless steel spacers.

5. Glass Type: Fully tempered glass, ASTM C1048.

6. Opacity: [**Cascade**] [**Fern**] [**Obscure**] [**Reed**] [**None**].

Editor Note: Retain sub-paragraph below when laminated glass is required and edit to suit Project.

7. Laminate Interlayer Thickness: [**0.030**] [**0.060**] [**0.090**] inch.

Editor Note: Retain sub-paragraph below when between-the-glass art glass is required and edit to suit Project requirements.

8. Between-the-Glass Art Glass:

a. Pattern Designation, Historic and Classic Series: [**Lotus**] [**Regency**] [**Victoria**] [**Diamond Lights**] [**Arts & Crafts**] [**Amber**] [**Queen Anne**] [**Rectangular Grid**] [**Diamond Grid**].

b. Color Designation: [**Amber**] [**Caramel**] [**Cobalt**] [**Copper**] [**Dark Blue**] [**Deep Green**] [**Deep Rose**] [**Deep Teal**] [**Iridized Green**] [**Light Blue**] [**Light Green**] [**Lilac**] [**Marbled Green**] [**Marbled White**] [**Marbled Yellow-Green**] [**Moss Green**] [**Navy Blue**] [**Olive Green**] [**Opal**] [**Pale Blue**] [**Rose**] [**Sand**] [**Teal**] [**Topaz**] [**Violet**].

c. Accent Jewel Designation: [**Amber**] [**Lilac**] [**Pink**] [**Green**] [**Opal Amber**] [**Smoke**].

d. Iridescent Accent Tile Designation: [**Avocado Glimmer**] [**Kiwi Glimmer**] [**Tamarind Glimmer**] [**Tangerine Glimmer**].

Editor Note: Retain article below when impact-resistant glazing using Andersen Low-E4 impact resistant glass is required. Glass type is a significant factor in determining overall patio door U-Factor. Copy article below for each patio door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional patio door types.

2.9 IMPACT-RESISTANT GLAZING <**Insert patio door designation(s) used on Drawings**>.

Editor Note: Select required U-Factor in paragraph below and coordinate with required glazing type. U-Factors provided are based on whole-door performance, not on center-of-glass. Coordinate selection below with manufacturer’s product information. Actual unit performance values will vary depending upon Performance Grade (PG) rating, glass options, accessories such as grilles, unit size and type. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.32 without grilles**] [**0.33 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.31 without grilles**] [**0.32 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.32 without grilles**] [**0.33 with grilles**] <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.24 without grilles**] [**0.21 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.24 without grilles**] [**0.21 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.26 without grilles**] [**0.23 with grilles**] <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.40 without grilles**] [**0.34 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.40 without grilles**] [**0.34 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.44 without grilles**] [**0.38 with grilles**] <**Insert VLT value**>.

Editor Note: Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC) performance varies depending on patio door type and features. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

D. Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC), ASTM E90:

Editor Note: Retain sub-paragraph below for single-panel French inswing patio doors.

1. Single-Panel Frenchwood Inswing: [**34/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French inswing patio doors.

2. Two-Panel Frenchwood Inswing: [**33/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for single French outswing patio doors.

3. Single-Panel Frenchwood Outswing: [**35/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French outswing patio doors.

4. Two-Panel Frenchwood Outswing: [**34/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

5. Frenchwood Gliding: [**31/29**] <**Insert STC/OITC value**>.

E. Glass Units: Provide insulating glass units certified through [**Insulating Glass Certification Council as conforming to the requirements of IGCC and ASTM E2190**] [**Insulating Glass Manufacturers Alliance of Canada (IGMAC) conforming to the requirements of Canadian General Standards Board CAN/CGSB 12.8**].

1. Manufacturer Designation: Andersen Low-E4 Impact-Resistant Glass.

2. Glazing Configuration: Dual-pane.

3. Tint: [**Bronze**] [**Gray**] [**Green**] [**None**].

4. Seal and Spacer Type: Dual sealed insulating glass units with polyisobutylene primary seal, silicone secondary seal and stainless steel spacers.

5. Glass Type: [**Annealed glass, ASTM C1036**] [**Fully tempered glass, ASTM C1048**].

6. Opacity: [**Obscure**] [**None**].

Editor Note: Retain sub-paragraph below when laminated glass is required and edit to suit Project.

7. Laminate Interlayer Thickness: 0.090 inch.

Editor Note: Retain sub-paragraph below when between-the-glass art glass is required and edit to suit Project requirements.

8. Between-the-Glass Art Glass:

a. Pattern Designation, Historic and Classic Series: [**Lotus**] [**Regency**] [**Victoria**] [**Diamond Lights**] [**Arts & Crafts**] [**Amber**] [**Queen Anne**] [**Rectangular Grid**] [**Diamond Grid**].

b. Color Designation: [**Amber**] [**Caramel**] [**Cobalt**] [**Copper**] [**Dark Blue**] [**Deep Green**] [**Deep Rose**] [**Deep Teal**] [**Iridized Green**] [**Light Blue**] [**Light Green**] [**Lilac**] [**Marbled Green**] [**Marbled White**] [**Marbled Yellow-Green**] [**Moss Green**] [**Navy Blue**] [**Olive Green**] [**Opal**] [**Pale Blue**] [**Rose**] [**Sand**] [**Teal**] [**Topaz**] [**Violet**].

c. Accent Jewel Designation: [**Amber**] [**Lilac**] [**Pink**] [**Green**] [**Opal Amber**] [**Smoke**].

d. Iridescent Accent Tile Designation: [**Avocado Glimmer**] [**Kiwi Glimmer**] [**Tamarind Glimmer**] [**Tangerine Glimmer**].

Editor Note: Retain article below when impact-resistant glazing using Andersen Low-E4 Sun impact resistant glass is required. Glass type is a significant factor in determining overall patio door U-Factor. Copy article below for each patio door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional patio door types.

2.10 IMPACT-RESISTANT GLAZING <**Insert patio door designation(s) used on Drawings**>.

Editor Note: Select required U-Factor in paragraph below and coordinate with required glazing type. U-Factors provided are based on whole-door performance, not on center-of-glass. Coordinate selection below with manufacturer’s product information. Actual unit performance values will vary depending upon Performance Grade (PG) rating, glass options, accessories such as grilles, unit size and type. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.32 without grilles**] [**0.33 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.32 without grilles**] [**0.33 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.32 without grilles**] [**0.33 with grilles**] <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.15 without grilles**] [**0.13 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.15 without grilles**] [**0.13 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.17 without grilles**] [**0.15 with grilles**] <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.22 without grilles**] [**0.19 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.22 without grilles**] [**0.19 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.25 without grilles**] [**0.21 with grilles**] <**Insert VLT value**>.

Editor Note: Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC) performance varies depending on patio door type and features. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

D. Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC), ASTM E90:

Editor Note: Retain sub-paragraph below for single-panel French inswing patio doors.

1. Single-Panel Frenchwood Inswing: [**34/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French inswing patio doors.

2. Two-Panel Frenchwood Inswing: [**33/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for single French outswing patio doors.

3. Single-Panel Frenchwood Outswing: [**35/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French outswing patio doors.

4. Two-Panel Frenchwood Outswing: [**34/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

5. Frenchwood Gliding: [**31/29**] <**Insert STC/OITC value**>.

E. Glass Units: Provide insulating glass units certified through [**Insulating Glass Certification Council as conforming to the requirements of IGCC and ASTM E2190**] [**Insulating Glass Manufacturers Alliance of Canada (IGMAC) conforming to the requirements of Canadian General Standards Board CAN/CGSB 12.8**].

1. Manufacturer Designation: Andersen Low-E4 Sun Impact-Resistant Glass.

2. Glazing Configuration: Dual-pane.

3. Tint: [**Bronze**] [**Gray**] [**Green**] [**None**].

4. Seal and Spacer Type: Dual sealed insulating glass units with polyisobutylene primary seal, silicone secondary seal and stainless steel spacers.

5. Glass Type: [**Annealed glass, ASTM C1036**] [**Fully tempered glass, ASTM C1048**].

6. Opacity: [**Obscure**] [**None**].

Editor Note: Retain sub-paragraph below when laminated glass is required and edit to suit Project.

7. Laminate Interlayer Thickness: [**0.030**] [**0.060**] [**0.090**] inch.

Editor Note: Retain sub-paragraph below when between-the-glass art glass is required and edit to suit Project requirements.

8. Between-the-Glass Art Glass:

a. Pattern Designation, Historic and Classic Series: [**Lotus**] [**Regency**] [**Victoria**] [**Diamond Lights**] [**Arts & Crafts**] [**Amber**] [**Queen Anne**] [**Rectangular Grid**] [**Diamond Grid**].

b. Color Designation: [**Amber**] [**Caramel**] [**Cobalt**] [**Copper**] [**Dark Blue**] [**Deep Green**] [**Deep Rose**] [**Deep Teal**] [**Iridized Green**] [**Light Blue**] [**Light Green**] [**Lilac**] [**Marbled Green**] [**Marbled White**] [**Marbled Yellow-Green**] [**Moss Green**] [**Navy Blue**] [**Olive Green**] [**Opal**] [**Pale Blue**] [**Rose**] [**Sand**] [**Teal**] [**Topaz**] [**Violet**].

c. Accent Jewel Designation: [**Amber**] [**Lilac**] [**Pink**] [**Green**] [**Opal Amber**] [**Smoke**].

d. Iridescent Accent Tile Designation: [**Avocado Glimmer**] [**Kiwi Glimmer**] [**Tamarind Glimmer**] [**Tangerine Glimmer**].

Editor Note: Retain article below when impact-resistant glazing using Andersen Low-E4 SmartSun impact resistant glass is required. Glass type is a significant factor in determining overall patio door U-Factor. Copy article below for each patio door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional patio door types.

2.11 IMPACT-RESISTANT GLAZING <**Insert patio door designation(s) used on Drawings**>.

Editor Note: Select required U-Factor in paragraph below and coordinate with required glazing type. U-Factors provided are based on whole-door performance, not on center-of-glass. Coordinate selection below with manufacturer’s product information. Actual unit performance values will vary depending upon Performance Grade (PG) rating, glass options, accessories such as grilles, unit size and type. Go to <http://www.andersenwindows.com/for-professionals> to view the performance values. Consult Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.31 without grilles**] [**0.32 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.31 without grilles**] [**0.32 with grilles**] <**Insert U-Factor value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.31 without grilles**] [**0.32 with grilles**] <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.16 without grilles**] [**0.14 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.17 without grilles**] [**0.15 with grilles**] <**Insert SHGC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.18 without grilles**] [**0.16 with grilles**] <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200:

Editor Note: Retain sub-paragraph below for French inswing patio doors.

1. Frenchwood Inswing: [**0.36 without grilles**] [**0.31 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French outswing patio doors.

2. Frenchwood Outswing: [**0.36 without grilles**] [**0.31 with grilles**] <**Insert VLT value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

3. Frenchwood Gliding: [**0.40 without grilles**] [**0.34 with grilles**] <**Insert VLT value**>.

Editor Note: Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC) performance varies depending on patio door type and features. Go to <http://www.andersenwindows.com/for-professionals> to view performance values. Consult Andersen Product Representative for more information.

D. Sound Transmission Class (STC)/Outdoor Indoor Transmission Classification (OITC), ASTM E90:

Editor Note: Retain sub-paragraph below for single-panel French inswing patio doors.

1. Single-Panel Frenchwood Inswing: [**34/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French inswing patio doors.

2. Two-Panel Frenchwood Inswing: [**33/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for single French outswing patio doors.

3. Single-Panel Frenchwood Outswing: [**35/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for two-panel French outswing patio doors.

4. Two-Panel Frenchwood Outswing: [**34/30**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for French gliding patio doors.

5. Frenchwood Gliding: [**31/29**] <**Insert STC/OITC value**>.

E. Glass Units: Provide insulating glass units certified through [**Insulating Glass Certification Council as conforming to the requirements of IGCC and ASTM E2190**] [**Insulating Glass Manufacturers Alliance of Canada (IGMAC) conforming to the requirements of Canadian General Standards Board CAN/CGSB 12.8**].

1. Manufacturer Designation: Andersen Low-E4 SmartSun Impact-Resistant Glass.

2. Glazing Configuration: Dual-pane.

3. Tint: [**Bronze**] [**Gray**] [**Green**] [**None**].

4. Seal and Spacer Type: Dual sealed insulating glass units with polyisobutylene primary seal, silicone secondary seal and stainless steel spacers.

5. Glass Type: [**Annealed glass, ASTM C1036**] [**Fully tempered glass, ASTM C1048**].

6. Opacity: [**Obscure**] [**None**].

Editor Note: Retain sub-paragraph below when laminated glass is required and edit to suit Project.

7. Laminate Interlayer Thickness: [**0.030**] [**0.060**] [**0.090**] inch.

Editor Note: Retain sub-paragraph below when between-the-glass art glass is required and edit to suit Project requirements.

8. Between-the-Glass Art Glass:

a. Pattern Designation, Historic and Classic Series: [**Lotus**] [**Regency**] [**Victoria**] [**Diamond Lights**] [**Arts & Crafts**] [**Amber**] [**Queen Anne**] [**Rectangular Grid**] [**Diamond Grid**].

b. Color Designation: [**Amber**] [**Caramel**] [**Cobalt**] [**Copper**] [**Dark Blue**] [**Deep Green**] [**Deep Rose**] [**Deep Teal**] [**Iridized Green**] [**Light Blue**] [**Light Green**] [**Lilac**] [**Marbled Green**] [**Marbled White**] [**Marbled Yellow-Green**] [**Moss Green**] [**Navy Blue**] [**Olive Green**] [**Opal**] [**Pale Blue**] [**Rose**] [**Sand**] [**Teal**] [**Topaz**] [**Violet**].

c. Accent Jewel Designation: [**Amber**] [**Lilac**] [**Pink**] [**Green**] [**Opal Amber**] [**Smoke**].

d. Iridescent Accent Tile Designation: [**Avocado Glimmer**] [**Kiwi Glimmer**] [**Tamarind Glimmer**] [**Tangerine Glimmer**].

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that all substrate conditions are suitable for installation in compliance with manufacturer’s recommendations.

B. Do not begin installation until substrates have been properly prepared and any conditions not in compliance with manufacturer’s recommendations have been corrected.

3.2 INSTALLATION

A. General: Comply with manufacturer’s product recommendations, including but not limited to the Andersen A-Series Installation Guide, technical bulletins, and installation instructions in product literature and on product packaging. Comply with Drawings [**and Shop Drawings**] for installing patio doors, hardware, accessories, and other components.

B. Install patio doors plumb, level and square. Anchor patio doors securely to structure in correct orientation to flashing and adjacent construction as indicated. Comply with product installation instructions for proper flashing integration into wall system. Install patio doors so as to drain water penetration to the exterior.

C. Adjust sashes, insect screens, ventilators, hardware and accessories as applicable for correct fit. Adjust weatherstrip for smooth operation and weather-tight closure.

3.3 FIELD QUALITY CONTROL

A. Manufacturer’s Field Services: If requested by Owner, provide manufacturer’s field service consisting of product use recommendations and periodic site visits for observation of product installation in accordance with manufacturer’s recommendations.

1. Site Visits: <**Insert site visit requirements**>.

Editor Note: Retain article below if field tests for air and water leakage are required. Edit to suit Project requirements including testing services and methodology.

B. Field Testing: Provide field testing of installed units.

1. Test units in compliance with AAMA 502.

2. Use test equipment calibrated according to ASTM E1105.

3.4 CLEANING

A. Remove protective films and non-permanent labels prior to 90 days after installation.

B. Remove excess sealant, soiling, dirt and other substances. Clean patio door frame and glass surfaces. Avoid damaging coatings and finishes.

C. Touch-up, repair or replace glass or other patio door components broken, scratched or damaged during construction prior to Substantial Completion.

D. Remove and lawfully dispose of construction debris from Project site.

3.5 PROTECTION

A. Protect installed patio doors and finish surfaces from damage during construction until completion of Project and acceptance by Owner.

END OF SECTION 08 14 00 – WOOD DOORS