Purpose and Applications: This guide specification covers Andersen 400 Series gliding and hinged patio doors. These patio doors are suitable for new construction, remodeling or replacement applications.

Product Features: 400 Series® rigid vinyl clad wood window and patio door products are made to exact specifications. They are available in four standard exterior colors, in various shapes and sizes to create dramatic window and patio door combinations.

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. The data contained within this document is accurate as of the noted publish date. Performance values expressed in this document may vary based on size, configuration and specified options.

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: [www.andersenwindows.com](http://www.andersenwindows.com)

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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 14 00 – WOOD DOORS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes: Vinyl-clad wood-framed [**hinged**] [**and**] [**gliding**] patio doors 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 615 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Plastic Profiles.

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

5. NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights.

C. Andersen Corporation: Andersen 400 Series Installation Guide.

D. ASTM International (ASTM):

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

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

3. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference.

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

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

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

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

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

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

I. 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.

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

K. 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: Retain paragraph below if compliance with a whole-building rating system (such as USGBC LEED, GBI Green Globes, 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, and indoor air quality.

B. 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’s 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 Green Globes, 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 the U.S. Green Building Council.

4. U.S. 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.

2. Warranty Period, Non-Glass Parts: 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 wood 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 PATIO DOORS

A. General: Provide wood 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 400 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. Frame: Finger-jointed or laminated veneer lumber capped with rigid vinyl, preservative treated WDMA I.S. 4.

2. Interior Exposed Frame: Solid lumber, kiln dried and suitable for stain or painted finish, preservative treated WDMA I.S. 4.

3. Stiles and Rails: Liquid-applied vinyl over finger-jointed lumber.

B. Wood Species: [**Clear pine**] [**Clear pine, FSC Certified – Mixed Credit**] [**Oak**] [**Maple**] <**Insert requirements**>.

C. Interior Finish:

Editor Note: Retain one of three sub-paragraphs below and edit to suit Project requirements.

1. Prefinished: Factory-applied before assembly, white <**Insert requirements**>.

2. Custom: Site-finished. <**Insert requirements**>.

3. Unfinished.

D. Exterior Finish:

Editor Note: AAMA 625 applies to color retention for all painted patio door frame colors.

1. Frame: AAMA 625 [**Color as selected from manufacturer’s standard colors**] [**White**] [**Canvas**] [**Sandtone**] [**Terratone**] [**Dark Bronze**] [**Black**] [**Forest Green**] [**Custom color as selected and approved by Architect**] <**Insert requirements**>.

Editor Note: AAMA 613 applies to White, Canvas, Sandtone and Terratone. AAMA 615 applies to Black, Dark Bronze and Forest Green on vinyl-clad products.

2. Frame: [**AAMA 613**] [**AAMA 615**] [**Color as selected from manufacturer’s standard colors**] [**White**] [**Canvas**] [**Sandtone**] [**Terratone**] [**Dark Bronze**] [**Black**] [**Forest Green**] [**Custom color as selected and approved by Architect**] <**Insert requirements**>.

3. Trim: [**AAMA 613**] [**AAMA 615**] [**Color as selected from manufacturer’s standard colors**] [**White**] [**Canvas**] [**Sandtone**] [**Terratone**] [**Dark Bronze**] [**Black**] [**Forest Green**] [**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, 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**] PATIO DOOR <**Insert patio door designation(s) used on Drawings**>.

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

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-panel Patio Door, Performance Class and Grade, Non-Impact-Resistant: LC-PG40 (50 x 95 inches).

2. Two-panel Patio Door, Performance Class and Grade, Non-Impact-Resistant: LC-PG40 (95 x 95 inches).

3. Four-panel Patio Door, Performance Class and Grade, Non-Impact-Resistant: [**LC-PG25 (189 X 82 inches)**] [**LC-PG35 (189 X 95 inches)**].

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

B. Patio 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 Hinged Patio Door, Performance Class and Grade, Non-Impact-Resistant: LC-PG40 (38 X 95 inches).

2. Inswing Double Panel Hinged Patio Door, Performance Class and Grade, Non-Impact-Resistant: LC-PG40 (71 X 95 inches).

3. Inswing Triple Panel Hinged Patio Door, Performance Class and Grade, Non-Impact-Resistant: LC-PG40 (107 X 95 inches).

4. Outswing Single Panel Hinged Patio Door, Performance Class and Grade, Non-impact-Resistant: LC-PG60 (38 X 95 inches).

5. Outswing Double Panel Hinged Patio Door, Performance Class and Grade, Non-impact-Resistant: **LC-PG40 (71 X 95 inches)**.

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

C. Environmental Certifications:

1. ENERGY STAR performance requirements.

2. Indoor air quality performance.

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

D. Gliding Patio Door Weatherstrip:

1. Type, Material and Location: Polypropylene pile with fin seal at head, jamb and sill of operating panels.

2. Type, Material and Location: Flexible vinyl at operating side jambs and stationary jambs.

3. Type, Material and Location: PVC scissors interlock with silicone bulb primary at meeting stiles.

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

E. Hinged Patio Door Weatherstrip:

1. Type, Material and Location: Continuous flexible compressible bulb with welded corners at panels.

F. Attachment Flange: [**Attached rigid vinyl**] [**None**].

G. Hardware:

1. Gliding Panel Latch Type and Material: Single actuation, single-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 one sub-paragraph below when patio door handle sets for gliding patio doors are required and edit to suit Project requirements. Yuma, Newbury, Covington, Encino, Anvers, and Whitmore are forged Brass. Albany and Tribeca are die cast zinc with powder coated finish.

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

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

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

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

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

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

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

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

Editor Note: Retain sub-paragraph below when auxiliary foot lock for gliding patio doors is required. Yuma, Newbury, Covington, Encino, Anvers, and Whitmore are forged Brass. Albany and Tribeca are die cast zinc with powder coated finish.

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

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

Editor Note: Retain one sub-paragraph below when door handle sets for hinged patio doors are required and edit to suit Project requirements. Yuma, Newbury, Covington, Encino, Anvers, and Whitmore are forged Brass. Albany and Tribeca are die cast zinc with powder coated finish.

13. Hinged Patio Door Lock Type and Finish: Three-point mechanism, [**keyed exterior**] [**unkeyed exterior**], finish to match handle.

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

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

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

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

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

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

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

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

22. Hinged Patio Door Escutcheon Style: [**Square**] [**Standard**], finish to match patio door handle.

23. Patio Door Hinge Type and Finish: Ball-bearing, fully adjustable, finish to match patio door hardware.

Editor Note: Retain paragraph below when divided lights are required. 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.

H. Divided Lights:

Editor Note: Retain sub-paragraph below when false muntin divided lights are required and edit to suit Project requirements. Removable interior wood grille is available in 3/4 inch, 7/8 inch and 1-1/8 inches width.

1. Type: False muntin.

a. Width: [**3/4 inch**] [**7/8 inch**] [**1-1/8 inches**].

b. Exterior Attachment: Permanently adhered to glass.

c. Glass Spacer Material: Stainless steel.

d. Interior Attachment: [**Permanently adhered to glass**] [**Removable**].

e. Pattern: As shown in Drawings.

f. Exterior Material and Color: Fibrex composite material, [**match patio door**] <**Insert requirements**>.

g. Interior Wood Species: [**Match patio door**] <**Insert requirements**>.

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

Editor Note: Retain sub-paragraph below when between-glass grilles are required.

2. Type: Contoured Finelight profile, factory installed between glass.

a. Pattern: As shown in Drawings.

b. Width, Shape and Color: [**3/4 inch**] [**1 inch**] contoured profile, [**exterior match patio door**] [**interior 2-tone**] <**insert requirements**>.

c. Material: Aluminum.

I. Insect Screens:

Editor Note: Retain sub-paragraphs below when bottom-gliding insect screens are required and edit to suit Project requirements. Applicable only to gliding and in-swing patio doors.

1. Type: Bottom-gliding insect screen.

a. Frame Material: Aluminum.

b. Painted Finish and Color: Factory-applied baked-on silicone polyester enamel [**Match patio door frame**] **<Insert color>** [**Stone**] [**White**] [**Color as selected by Architect from manufacturer’s available exterior colors**].

c. Veneered Finish and Species: Wood veneer to match patio door.

d. Insect Screen Material: [**Fiberglass cloth**] [**Aluminum wire cloth**].

Editor Note: Retain sub-paragraphs below when retractable insect screens are required and edit to suit Project requirements. Applicable only to gliding and out-swing patio doors.

2. Type: Retractable insect screen.

a. Frame Material: Aluminum.

b. Painted Finish and Color: Factory-applied baked-on silicone polyester enamel [**Match patio door frame**] **<Insert color>** [**Stone**] [**White**] [**Color as selected by Architect from manufacturer’s available exterior colors**].

c. Insect Screen Material: Fiberglass cloth.

Editor Note: Retain sub-paragraphs below when hinged insect screens are required and edit to suit Project requirements. Applicable only to in-swing patio doors.

3. Type: Hinged insect screen.

a. Frame Material: Aluminum.

b. Painted Finish and Color: Factory-applied baked-on silicone polyester enamel [**Match door frame**] **<Insert color>** [**Stone**] [**White**][**Color as selected by Architect from manufacturer’s available exterior colors**].

c. Insect Screen Material: [**Fiberglass cloth**] [**Aluminum wire cloth**].

J. Sills:

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

1. Type and Finish: Gliding three-piece, extruded aluminum interior and exterior piece with extruded Fibrex material thermal break, baked painted gray.

2. Type, Finish and Species: Inswing, extruded aluminum exterior piece with extruded Fibrex material thermal break, baked painted gray, [**with interior cap piece, oak**] [**with** **interior cap piece, maple**].

3. Type, Finish and Species: Outswing, extruded aluminum exterior piece with PVC thermal break, baked painted gray, [**with interior sill step, oak**] [**with** **interior sill step, maple**].

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

K. 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: 1-15/16 inch Sill Nose.

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

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

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

6. Material: [**Fibrex composite material**] [**High density polyurethane**].

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

Edioors 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.

L. Mullions: [**Laminated veneer lumber**] [**Structural steel**] configured to be structurally sound and designed in accordance with AAMA 450.

Editor Note: Retain article below when glazing using Andersen high-performance Low-E4 glass is required and edit to suit Project requirements. Glass type is a significant factor in determining overall patio door U-Factor. Specific performance values indicated below are based on 3.0 mm glass thickness, 1-inch FDL Grilles and Argon gas blend-filled insulated glazing units where applicable. STC/OITC values are for two-panel patio doors. 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 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-patio 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. Values for Grilles are for Full Divided lights. Simulated divided lights or interior grilles are same as no grilles. Go to [www.andersenwindows.com](http://www.andersenwindows.com) 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 in-swing patio doors.

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

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

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

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

3. 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 in-swing patio doors.

1. In-swing: [**0.24 without grilles**] [**0.18 with grilles**] <**Insert SHGC value**>.

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

2. Out-swing: [**0.24 without grilles**] [**0.18 with grilles**] <**Insert SHGC value**>.

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

3. Gliding: [**0.26 without grilles**] [**0.20 with grilles**] <**Insert SHGC value**>.

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

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

1. In-swing: [**0.41 without grilles**] [**0.29 with grilles**] <**Insert VLT value**>.

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

2. Out-swing: [**0.41 without grilles**] [**0.29 with grilles**] <**Insert VLT value**>.

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

3. Gliding: [**0.44 without grilles**] [**0.32 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 [www.andersenwindows.com](http://www.andersenwindows.com) to view performance values.

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

Editor Note: Retain sub-paragraph below for in-swing patio doors. The first value shown is STC. The second value shown is OITC.

1. In-swing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for out-swing patio doors. The first value shown is STC. The second value shown is OITC.

2. Out-swing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for gliding patio doors. The first value shown is STC. The second value shown is OITC.

3. 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.

3. Tint: 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: [**Obscure**] [**Rain**] [**Reed**] [**Glue chip**] [**None**].

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

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

Editor Note: Retain article below when glazing using Andersen high-performance Low-E4 Sun glass is requiredand edit to suit Project requirements. Glass type is a significant factor in determining overall patio door U-Factor. Specific performance values indicated below are based on 3.0 mm glass thickness, 1-inch FDL Grilles and Argon gas blend-filled insulated glazing units where applicable. STC/OITC values are for two-panel patio doors. 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 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-patio 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 www.andersenwindows.com 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 in-swing patio doors.

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

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

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

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

3. 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 in-swing patio doors.

1. In-swing: [**0.15 without grilles**] [**0.11 with grilles**] <**Insert SHGC value**>.

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

2. Out-swing: [**0.15 without grilles**] [**0.12 with grilles**] <**Insert SHGC value**>.

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

3. Gliding: [**0.16 without grilles**] [**0.13 with grilles**] <**Insert SHGC value**>.

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

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

1. In-swing: [**0.23 without grilles**] [**0.16 with grilles**] <**Insert VLT value**>.

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

2. Out-swing: [**0.23 without grilles**] [**0.16 with grilles**] <**Insert VLT value**>.

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

3. Gliding: [**0.25 without grilles**] [**0.18 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 [www.andersenwindows/for-professionals.com](http://www.andersenwindows/for-professionals.com).

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

Editor Note: Retain sub-paragraph below for in-swing patio doors. The first value shown is STC. The second value shown is OITC.

1. In-swing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for out-swing patio doors. The first value shown is STC. The second value shown is OITC.

2. Out-swing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for gliding patio doors. The first value shown is STC. The second value shown is OITC.

3. 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 Sun Glass.

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

3. Tint: Gray.

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: [**Obscure**] [**Rain**] [**Reed**] [**Glue chip**] [**None**].

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

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

Editor Note: Retain article below when glazing using Andersen high-performance Low-E4 SmartSun glass is requiredand edit to suit Project requirements. Glass type is a significant factor in determining overall patio door U-Factor. Specific performance values indicated below are based on 3.0 mm glass thickness, 1-inch FDL Grilles and Argon gas blend-filled insulated glazing units where applicable. STC/OITC values are for two-panel patio doors. 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 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-patio 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. Values for Grilles are for Full Divided lights. Simulated divided lights or interior grilles are same as no grilles. Go to [www.andersenwindows.com](http://www.andersenwindows.com) 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 in-swing patio doors.

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

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

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

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

3. 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 in-swing patio doors.

1. In-swing: [**0.16 without grilles**] [**0.12 with grilles**] <**Insert SHGC value**>.

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

2. Out-swing: [**0.16 without grilles**] [**0.13 with grilles**] <**Insert SHGC value**>.

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

3. Gliding: [**0.18 without grilles**] [**0.14 with grilles**] <**Insert SHGC value**>.

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

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

1. In-swing: [**0.37 without grilles**] [**0.26 with grilles**] <**Insert VLT value**>.

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

2. Out-swing: [**0.37 without grilles**] [**0.26 with grilles**] <**Insert VLT value**>.

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

3. Gliding: [**0.40 without grilles**] [**0.29 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 [www.andersenwindows.com](http://www.andersenwindows.com) to view performance values.

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

Editor Note: Retain sub-paragraph below for in-swing patio doors. The first value shown is STC. The second value shown is OITC.

1. In-swing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for out-swing patio doors. The first value shown is STC. The second value shown is OITC.

2. Out-swing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for gliding patio doors. The first value shown is STC. The second value shown is OITC.

3. 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 SmartSun Glass.

2. Glazing Configuration: Dual-pane.

3. Tint: 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: [**Obscure**] [**Rain**] [**Reed**] [**Glue chip**] [**None**].

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

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

Editor Note: Retain article below when glazing using Andersen high-performance Low-E4 PassiveSun glass is requiredand edit to suit Project requirements. Glass type is a significant factor in determining overall patio door U-Factor. Specific performance values indicated below are based on 3.0 mm glass thickness, 1-inch FDL Grilles and Argon gas blend-filled insulated glazing units where applicable. STC/OITC values are for two-panel patio doors. 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 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-patio 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. Values for Grilles are for Full Divided lights. Simulated divided lights or interior grilles are same as no grilles. Go to [www.andersenwindows.com](http://www.andersenwindows.com) 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 in-swing patio doors.

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

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

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

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

3. 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 in-swing patio doors.

1. In-swing: [**0.40 without grilles**] [**0.29 with grilles**] <**Insert SHGC value**>.

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

2. Out-swing: [**0.40 without grilles**] [**0.29 with grilles**] <**Insert SHGC value**>.

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

3. Gliding: [**0.43 without grilles**] [**0.32 with grilles**] <**Insert SHGC value**>.

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

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

1. In-swing: [**0.45 without grilles**] [**0.32 with grilles**] <**Insert VLT value**>.

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

2. Out-swing: [**0.45 without grilles**] [**0.32 with grilles**] <**Insert VLT value**>.

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

3. Gliding: [**0.49 without grilles**] [**0.36 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 [www.andersenwindows.com](http://www.andersenwindows.com) to view performance values.

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

Editor Note: Retain sub-paragraph below for in-swing patio doors. The first value shown is STC. The second value shown is OITC.

1. In-swing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for out-swing patio doors. The first value shown is STC. The second value shown is OITC.

2. Out-swing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for gliding patio doors. The first value shown is STC. The second value shown is OITC.

3. 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 PassiveSun Glass.

2. Glazing Configuration: Dual-pane.

3. Tint: 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: [**Obscure**] [**Rain**] [**Reed**] [**Glue chip**] [**None**].

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

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

Editor Note: Retain article below when glazing using Andersen high-performance Low-E4 glass with HeatLock technology is required and edit to suit Project requirements. Glass type is a significant factor in determining overall patio door U-Factor. Specific performance values indicated below are based on 3.0 mm glass thickness, 1-inch FDL Grilles and Argon gas blend-filled insulated glazing units where applicable. STC/OITC values are for two-panel patio doors. 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 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-patio 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. Values for Grilles are for Full Divided lights. Simulated divided lights or interior grilles are same as no grilles. Go to [www.andersenwindows.com](http://www.andersenwindows.com) 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 in-swing patio doors.

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

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

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

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

3. Gliding: [**0.27 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 in-swing patio doors.

1. In-swing: [**0.24 without grilles**] [**0.18 with grilles**] <**Insert SHGC value**>.

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

2. Out-swing: [**0.24 without grilles**] [**0.18 with grilles**] <**Insert SHGC value**>.

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

3. Gliding: [**0.26 without grilles**] [**0.20 with grilles**] <**Insert SHGC value**>.

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

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

1. In-swing: [**0.40 without grilles**] [**0.29 with grilles**] <**Insert VLT value**>.

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

2. Out-swing: [**0.40 without grilles**] [**0.29 with grilles**] <**Insert VLT value**>.

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

3. Gliding: [**0.43 without grilles**] [**0.32 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 [www.andersenwindows.com](http://www.andersenwindows.com) to view performance values.

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

Editor Note: Retain sub-paragraph below for in-swing patio doors. The first value shown is STC. The second value shown is OITC.

1. In-swing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for out-swing patio doors. The first value shown is STC. The second value shown is OITC.

2. Out-swing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for gliding patio doors. The first value shown is STC. The second value shown is OITC.

3. 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 with HeatLock Technology.

2. Glazing Configuration: Dual-pane.

3. Tint: 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: [**Obscure**] [**Rain**] [**Reed**] [**Glue chip**] [**None**].

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

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

Editor Note: Retain article below when glazing using Andersen high-performance Low-E4 SmartSun glass with HeatLock technology is required and edit to suit Project requirements. Glass type is a significant factor in determining overall patio door U-Factor. Specific performance values indicated below are based on 3.0 mm glass thickness, 1-inch FDL Grilles and Argon gas blend-filled insulated glazing units where applicable. STC/OITC values are for two-panel patio doors. 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 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-patio 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. Values for Grilles are for Full Divided lights. Simulated divided lights or interior grilles are same as no grilles. Go to [www.andersenwindows.com](http://www.andersenwindows.com) 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 in-swing patio doors.

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

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

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

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

3. 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 in-swing patio doors.

1. In-swing: [**0.16 without grilles**] [**0.12 with grilles**] <**Insert SHGC value**>.

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

2. Out-swing: [**0.16 without grilles**] [**0.12 with grilles**] <**Insert SHGC value**>.

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

3. Gliding: [**0.17 without grilles**] [**0.13 with grilles**] <**Insert SHGC value**>.

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

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

1. In-swing: [**0.36 without grilles**] [**0.26 with grilles**] <**Insert VLT value**>.

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

2. Out-swing: [**0.36 without grilles**] [**0.26 with grilles**] <**Insert VLT value**>.

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

3. Gliding: [**0.39 without grilles**] [**0.28 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 [www.andersenwindows.com](http://www.andersenwindows.com) to view performance values.

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

Editor Note: Retain sub-paragraph below for in-swing patio doors. The first value shown is STC. The second value shown is OITC.

1. In-swing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for out-swing patio doors. The first value shown is STC. The second value shown is OITC.

2. Out-swing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for gliding patio doors. The first value shown is STC. The second value shown is OITC.

3. 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 SmartSun Glass with HeatLock Technology.

2. Glazing Configuration: Dual-pane.

3. Tint: 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: [**Obscure**] [**Rain**] [**Reed**] [**Glue chip**] [**None**].

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

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

Editor Note: Retain article below when glazing using Andersen high-performance Low-E4 PassiveSun glass with HeatLock technology is required and edit to suit Project requirements. Glass type is a significant factor in determining overall patio door U-Factor. Specific performance values indicated below are based on 3.0 mm glass thickness, 1-inch FDL Grilles and Argon gas blend-filled insulated glazing units where applicable. STC/OITC values are for two-panel patio doors. 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 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-patio 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. Values for Grilles are for Full Divided lights. Simulated divided lights or interior grilles are same as no grilles. Go to [www.andersenwindows.com](http://www.andersenwindows.com) 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 in-swing patio doors.

1. In-swing: [**0.27 without grilles**] [**0.30 with grilles**] <**Insert U-Factor value**>.

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

2. Out-swing: [**0.27 without grilles**] [**0.30 with grilles**] <**Insert U-Factor value**>.

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

3. Gliding: [**0.27 without grilles**] [**0.30 with grilles**] <**Insert U-Factor value**>.

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

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

1. In-swing: [**0.36 without grilles**] [**0.27 with grilles**] <**Insert SHGC value**>.

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

2. Out-swing: [**0.36 without grilles**] [**0.27 with grilles**] <**Insert SHGC value**>.

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

3. Gliding: [**0.39 without grilles**] [**0.29 with grilles**] <**Insert SHGC value**>.

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

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

1. In-swing: [**0.44 without grilles**] [**0.31 with grilles**] <**Insert VLT value**>.

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

2. Out-swing: [**0.44 without grilles**] [**0.31 with grilles**] <**Insert VLT value**>.

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

3. Gliding: [**0.48 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 [www.andersenwindows.com](http://www.andersenwindows.com) to view performance values.

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

Editor Note: Retain sub-paragraph below for in-swing patio doors. The first value shown is STC. The second value shown is OITC.

1. In-swing: [**30/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for out-swing patio doors. The first value shown is STC. The second value shown is OITC.

2. Out-swing: [**31/25**] <**Insert STC/OITC value**>.

Editor Note: Retain sub-paragraph below for gliding patio doors. The first value shown is STC. The second value shown is OITC.

3. 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 PassiveSun Glass with HeatLock Technology.

2. Glazing Configuration: Dual-pane.

3. Tint: 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: [**Obscure**] [**Rain**] [**Reed**] [**Glue chip**] [**None**].

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

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

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 Unit Installation Guide, installation information 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 sliding patio door, insect screens, 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)