Purpose and Applications: This guide specification covers Andersen® Aluminum Thermally Controlled Liftslide (ALS-C)Sliding Doors, as main components of a sliding glass wall system. These sliding door systems are suitable for new construction, remodeling or replacement applications. These glass door system components are ingredients for a simple indoor/outdoor lifestyle.

Product Features: Andersen Liftslide doors blend interior and exterior architectural spaces. They are well suited to high-end residential and commercial applications. Many configurations are available including 90°corner, stackingand pocketing systems with panels that stack flush. Cost and material efficiencies are gained with large openings. The doors utilize a high-performance flush drainage track, 3/16 inch above the finish floor, creating a seamless transition between the indoors and outdoors. Doors are available to meet many performance requirements, with up to 20-year paint and glass warranty. Andersen can custom-match most any color finish and can provide many energy efficient glass options to meet necessary performance requirements. These doors use the highest quality European hardware for dependability and security.

This Document: This guide specification document is provided by Andersen Windows, Inc. as a technical support tool incident to the sale of its products. Andersen Windows, Inc. 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. 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 Andersen Corporation: Andersen Windows, Inc., 100 Fourth Ave North, Bayport, MN 55003-1096.

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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. Change Section number and title as needed to suite Project requirements.

SECTION 08 32 00 – SLIDING GLASS DOORS (LIFTSLIDE SLIDING DOORS)

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes: Lifting, sliding, glass doors and walls of aluminum construction, for [**interior**] [**and**] [**exterior**] use.

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 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.

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

C. ASTM International (ASTM):

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

2. ASTM E330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.

3. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.

4. ASTM E547 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference.

5. 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.

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

7. ASTM E2068 - Standard Test Method for Determination of Operating Force of Sliding Windows and Doors.

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

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

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

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

H. 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.

I. Window and Door Manufacturers Association (WDMA):

1. WDMA Hallmark Certification Program for Manufacturers.

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 the Authority Having Jurisdiction. Edit to suit Project requirements.

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, indoor air quality or other attributes.

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 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 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. Single manufacturer capable of demonstrating an extended history of at least thirty years of window and door design, production and innovation.

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

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

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

5. ENERGY STAR Partner.

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

B. Installer Qualifications:

1. Trained and qualified by the door manufacturer to install the products required in this Section.

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

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

4. Entity utilizing workers competent in techniques required by manufacturer for product types and applications indicated.

Editor Note: Retain paragraph below when assembly and testing of door assemblies at manufacturer production facility before shipment to Project is required, and edit to suit Project requirements.

C. Operational Performance Qualification:

1. All sliding doors shall be fully assembled and tested for proper operation in compliance with manufacturer’s warranty requirements, at manufacturer’s facility, prior to packaging and shipment to Project site.

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. Mark each door on packing material with the panel and door unit identification number used on Shop Drawings.

C. Storage and Protection: Store materials and accessories in an upright position, protected from exposure to harmful environmental conditions, at temperature and humidity conditions recommended by manufacturer, off the 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: [**10**] [**20**] years.

2. Warranty Period, Liftslide Hardware: 15 years.

3. Warranty Period, Accessory Hardware (including bumpers, gaskets and weatherstrip): 10 years.

Editor Note: Retain subparagraph below to require a specific warranty period for exterior finishes and edit to suit Project requirements. Finish warranty periods are as follows: Kynar PVDF 2605 liquid finish 20 years; finish 5 years.

4. Warranty Period, Exterior Finish: [**20 years, Kynar PVDF liquid**] [**5 years, anodized**].

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 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: Articles below apply to Andersen Aluminum Thermally Controlled Liftslide (ALS-C)Sliding Doors. Copy article below for each door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional door types.

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.

Editor Note: The performance values and ratings indicated within this guide specification represent 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 Product an Andersen Representative for more information.

Editor Note: Retain article below when aluminum thermally controlled Liftslide (ALS-T) sliding doors are required. Andersen aluminum Liftslide doors (ALS-C) utilize the strength of aluminum and feature openings of up to 14 feet in height. Sightlines are some of the narrowest in the industry at 3-1/2 inches at sash and panel overlaps. Doors are available to meet tested performance requirements up to NAFS PG40.

2.1 ALUMINUM THERMALLY CONTROLLEDLIFTSLIDE (ALS-C) SLIDING DOORS <**Insert door designation(s) used on Drawings**>.

A. General: Provide sliding glass doors complying with the performance requirements indicated and tested according to NAFS and operable as follows:

1. When opened, a geared hardware system shall lift the door panels off a runner track integral to the finish floor substrate.

2. During operation, door panels shall glide smoothly on wheels providing secure contact with the runner track, with an initiating force of no more than 19 pound feet and a maintaining force of no more than 7 pound feet, when tested according to ASTM E2068.

3. When closed, the wheels shall retract, lowering the door panels onto the floor finish substrate, creating a weather seal.

B. Basis-of-Design Product: Subject to compliance with requirements provide Weiland Sliding Doors and Windows, Inc.: Aluminum Liftslide (ALS) Sliding Doors.

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

Editor Note: Retain paragraph below when sliding glass doors are required and edit to suit Project requirements. Not all door configurations have been subjected to specific performance criteria testing. Coordinate with language in “Tested Performance Requirements” paragraph below. Contact manufacturer for more information.

D. Door Configuration: [**Stacked at jamb, center-meeting or single-sided**] [**Pocketed, center-meeting or single-sided**] [**Meeting at corner with no post (stacked)**] [**Meeting at corner with no post (pocketed)**] [**Stacked to interior of wall, center-meeting or single-sided**] <**Insert manufacturer model or part number designation**>.

Editor Note: Retain paragraph below when specific performance criteria and tested results are required, and edit to suit Project requirements. Not all door configurations have been subjected to specific performance criteria testing. Coordinate with language in “Door Configuration” paragraph above. Contact manufacturer for more information.

E. Tested Performance Requirements:

1. Degree Outward Corner: Class LC-PG40, 124.4/121.4 x 118.5 inches (3159.76/3083.56 x 3009.9 mm) NAFS, plus or minus 45 psf design pressure (ASTM E330), water 360 Pa (7.52 psf) (ASTM E331 and ASTM E547) Canada Air Infiltration/Exfiltration Level A2
2. Pocket/Jamb: Class LC PG30, 422 x 149 inches (10718.8 x 3784.6 mm) NAFS, plus or minus 30 psf design pressure (ASTM E330), water 360 Pa (7.52 psf) (ASTM E331 and ASTM E547) Canada Air Infiltration/Exfiltration Level A2

Editor Note: Andersen Windows and Door 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 for more information.

F. Recycled Content:

1. Pre-Consumer: Glass, 20 percent minimum. Aluminum profiles, 50 percent.

2. Post-Consumer: Glass, 15 percent minimum. Aluminum profiles, 100 percent.

G. Base Track Type and Material:

Editor Note: Retain one sub-paragraph below and edit to suit Project requirements. Water drainage performance is different for each track type. All air, water and structural performance certifications are based on use of the staggered in-floor drainage track with full length drainage system and transverse drains, as described in sub-paragraph 2. below. Coordinate these requirements with corresponding selections for base track, head track and door frame. Contact manufacturer for more information.

1. Single-rail in-floor track, [**staggered**] [**continuous**], with transverse drains, aluminum alloy, ASTM B221, 6005-T5, marine grade, anodized Architectural Class I.

2. In-floor drainage track, [**staggered**] [**continuous**], with full length drainage system and transverse drains, aluminum alloy, ASTM B221, 6005-T5, marine grade, anodized Architectural Class I.

3. Short track with drain, [**staggered**] [**continuous**], aluminum alloy, ASTM B221, 6005-T5, marine grade, anodized Architectural Class I.

Editor Note: Edit paragraph below to suit Project.

H. Head Track Type and Material: [**Continuous**] modular design with clip-together sections, aluminum alloy, ASTM B221, 6063-T5, anodized Architectural Class I.

I. Frame Type and Material: [**Staggered**] [**Continuous**] modular design with clip-together sections, aluminum alloy, ASTM B221, 6063-T5, anodized Architectural Class I.

J. Sash Type and Material: Aluminum alloy, ASTM B221, 6063-T5.

Editor Note: Weiland products are available with factory-applied Kynar PVDF (polyvinylidene fluoride) liquid coating, powder coating, or with anodized finish. Contact manufacturer for more information and available colors.

K. Frame and Sash Finish:

Editor Note: Retain sub-paragraph below when painted door frames and panels are required. Edit to suit Project requirements.

1. Painted Frame and Sash: Factory-applied 70 percent Kynar PVDF (polyvinylidene fluoride) liquid coating in compliance with AAMA 2605 [**color as selected from manufacturer’s standard colors**] [**custom color as selected and approved by Architect**] <**Insert requirements**>.

Editor Note: Retain sub-paragraph below when anodized door frames and panels are required. Edit to suit Project requirements.

3. Anodized Frame and Sash: Architectural quality, in compliance with AAMA 611 Class I [**Black**] [**Clear**] [**Dark Bronze**] <**Insert color**>.

L. Weatherstrip Type and Material: Full-perimeter for each operable or stationary panel unless noted otherwise, PVC.

M. Hardware:

1. Sliding Panel Type and Material: Single actuation, multi-point locking system, aluminum, brass, galvanized steel and engineered polymer components, with patented FERGUARD anti-corrosion finish.

2. Rollers and Guides Type and Material: Corrosion-resistant ball bearing rollers with Delrin wheels.

Editor Note: Retain sub-paragraph below when “Florence”door handle sets for sliding doors are required.

3. Lift Slide Door Handle Designation, Finish: **Florence**,**[Satin Silver] [Rustic Umber] [Matte Black]**

Editor Note: Retain sub-paragraph below when “**Oslo”** door handle sets for sliding doors are required.

4. Lift Slide Door Handle Designation, Finish: **Oslo****[Satin Silver] [Rustic Umber] [Bright White]**

Editor Note: Retain sub-paragraph below when “Telluride Flush” door handle sets for sliding doors are required.

5. Lift Slide Door Handle Designation, Finish: **Telluride Flush**, [**Dark Bronze**] [**Medium Bronze**] [**Oil-Rubbed Bronze**] [**White Bronze Brushed**] [**White Bronze Rustic**].

6. Lift Slide Door Lock Type, Finish: [**Full cylinder, keyed exterior, thumb turn interior interior/exterior handles**] [**Full cylinder, interior/exterior keyed, interior/exterior handles**] [**Half cylinder, interior thumb turn, interior handle**] [**Half cylinder, interior key, interior handle**], finish to match handle.

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

N. Divided Lights:

Editor Note: Retain sub-paragraph below when full divided lights (FDL) are required and edit to suit Project requirements. Full divided light components create the visual appearance of divided glass units using interior and exterior grilles and a spacer bar between glass panes.

1. Type: Full divided light (FDL bar).

a. Profile: [**Colonial**] [**Flat**] [**Contemporary**].

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

c. Exterior Attachment: Permanently adhered to glass.

d. Glass Spacer Color and Material: [**Bronze**] [**Black**] [**Mill finish**], stainless steel.

e. Interior Attachment: Permanently adhered to glass.

f. Pattern: As shown in Drawings.

g. Exterior Aluminum Color: [**Match door**] <**Insert requirements**>.

h. Interior Aluminum Color: [**Match door**] <**Insert requirements**>.

Editor Note: Retain sub-paragraph below when true divided lights (TDL) are required and edit to suit Project requirements. True divided light components are used to divide glass units into actual smaller glazed component sections.

2. Type: True divided light (TDL Lock rail).

a. Profile: Structural component providing a true separation between glazing units and finished to match door.

b. Width: 2-7/8 inches for aluminum.

c. Pattern: As shown in Drawings.

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

e. Interior Aluminum Color: [**Match door**] <**Insert requirements**>.

O. Insect Screens:

Editor Note: Retain sub-paragraph below when standard-profile aluminum insect screens are required and edit to suit Project requirements.

1. Type and Material: Standard-profile, aluminum.

a. Depth: 1-5/8 inches (41.3 mm).

b. Finish and Color: [**Factory-applied Kynar PVDF coating to match door**] [**Factory-applied powder coat to match door**] [**Anodized to match door**].

Editor Note: Retain “heavy duty” designation in sub-paragraph below for panels greater than 7 feet in height.

c. Insect Screen Material and Color: Fiberglass mesh, [**heavy duty,**] dark bronze.

Editor Note: Retain sub-paragraph below when sash-profile aluminum insect screens are required and edit to suit Project requirements.

2. Type and Material: Sash-profile aluminum.

a. Depth: Match door sash profile.

b. Finish and Color: [**Factory-applied Kynar PVDF coating to match door**] [**Factory-applied powder coat to match door**] [**Anodized to match door**].

Editor Note: Retain “heavy duty” designation in sub-paragraph below for panels greater than 7 feet in height.

c. Insect Screen Material and Color: Fiberglass mesh, [**heavy duty,**] dark bronze.

Editor Note: Retain sub-paragraph below when sash-profile aluminum insect screens are required and edit to suit Project requirements.

3. Type and Material: Sash-profile, aluminum.

a. Depth: Match door sash profile.

b. Finish and Color: [**Factory-applied Kynar PVDF coating to match door**] [**Factory-applied powder coat to match door**] [**Anodized to match door**].

Editor Note: Retain “heavy duty” designation in sub-paragraph below for panels greater than 7 feet in height.

c. Insect Screen Material and Color: Fiberglass mesh, [**heavy duty,**] dark bronze.

Editor Note: Retain article below when non-impact-resistant glazing using Andersen Low-E4 272 glass in a dual-pane configuration, argon-filled cavity, clear glass is required. Glass type is a significant factor in determining overall door U-Factor. Copy article below for each door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional door types.

2.4 NON-IMPACT-RESISTANT GLAZING <**Insert 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. Data below assumes no grilles. Consult an Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100: **[0.39]** <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200~~:~~ **[0.30]** <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200: **[0.49]** <**Insert VLT value**>.

D. 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 272 Glass**

2. Glazing Configuration: Dual-pane, 1 inch overall, argon-filled cavity.

3. Tint: Clear.

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, ASTM C1048.

Editor Note: Retain article below when non-impact-resistant glazing using Andersen SmartSun/366 glass in a dual-pane configuration, argon-filled cavity, clear glass is required. Glass type is a significant factor in determining overall door U-Factor. Copy article below for each door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional door types.

2.5 NON-IMPACT-RESISTANT GLAZING <**Insert 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. Data below assumes no grilles. Consult **an Andersen** Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100: **[0.38]** <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200: **[0.20]** <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200: **[0.45]** <**Insert VLT value**>.

D. 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 SmartSun/366 Glass**

2. Glazing Configuration: Dual-pane, 1 inch overall argon-filled cavity.

3. Tint: Clear.

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, ASTM C1048.

Editor Note: Retain article below when non-impact-resistant glazing using Andersen SmartSun/366 with Heatlock/i89 in a dual-pane configuration, argon-filled cavity, clear glass is required. Glass type is a significant factor in determining overall door U-Factor. Copy article below for each door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional door types.

2.6 NON-IMPACT-RESISTANT GLAZING <**Insert 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. Data below assumes no grilles. Consult an Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100: **[0.35]** <**Insert U-Factor value**>.

B. Solar Heat Gain Coefficient (SHGC), NFRC 200: **[0.20]** <**Insert SHGC value**>.

C. Visible Light Transmittance (VLT), NFRC 200: **[0.44]** <**Insert VLT value**>.

D. 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 SmartSun/366 with Heatlock/i89**

2. Glazing Configuration: Dual-pane, 1 inch overall, argon-filled cavity.

3. Tint: Clear.

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, ASTM C1048.

Editor Note: Retain article below when non-impact-resistant glazing using Andersen Low-E4 272 glass in a triple-pane configuration, argon-filled cavity, clear glass is required. Glass type is a significant factor in determining overall door U-Factor. Copy article below for each door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional door types.

2.2 NON-IMPACT-RESISTANT GLAZING <Insert 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. Data below assumes no grilles. Consult an Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100: **[0.30] <Insert U-Factor value>.**

B. Solar Heat Gain Coefficient (SHGC), NFRC 200: **[0.24] <Insert SHGC value>.**

C. Visible Light Transmittance (VLT), NFRC 200: **[0.40] <Insert VLT value>.**

D. 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 272 Glass**

2. Glazing Configuration: Triple-pane, 1-1/4 inches overall, argon-filled cavity.

3. Tint: Clear.

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, ASTM C1048.

Editor Note: Retain article below when non-impact-resistant glazing using Andersen SmartSun/366 glass in a triple-pane configuration, argon-filled cavity, clear glass is required. Glass type is a significant factor in determining overall door U-Factor. Copy article below for each door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional door types.

2.3 NON-IMPACT-RESISTANT GLAZING **<Insert 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. Data below assumes no grilles. Consult an Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100: **[0.30] <Insert U-Factor value>.**

B. Solar Heat Gain Coefficient (SHGC), NFRC 200: **[0.16] <Insert SHGC value>.**

C. Visible Light Transmittance (VLT), NFRC 200: **[0.32] <Insert VLT value>.**

D. 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 SmartSun/366 Glass

2. Glazing Configuration: Triple-pane, 1-1/4 inches overall, argon-filled cavity.

3. Tint: Clear.

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, ASTM C1048.

Editor Note: Retain article below when non-impact-resistant glazing using Andersen Smartsun/366 with Heatlock/i89 coating, argon-filled cavity, clear glass is required. Glass type is a significant factor in determining overall door U-Factor. Copy article below for each door type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional door types.

2.4 NON-IMPACT-RESISTANT GLAZING **<Insert 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. Data below assumes no grilles. Consult an Andersen Product Representative for more information.

A: Thermal Transmission (U-Factor), NFRC 100: **[0.29] <Insert U-Factor value>.**

B. Solar Heat Gain Coefficient (SHGC), NFRC 200: **[0.16] <Insert SHGC value>.**

C. Visible Light Transmittance (VLT), NFRC 200: **[0.32] <Insert VLT value>.**

D. 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 Smartsun/366 with Heatlock/i89**

2. Glazing Configuration: Triple-pane, 1-1/4 inches overall, argon-filled cavity.

3. Tint: Clear.

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, ASTM C1048.

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

Editor Note: The ALS-C installation guide is available from the manufacturer. It contains specific and detailed information with which the Specifier may wish to be familiar, including information about handling and installation of the Bottom Track, Head Track, Side Jamb, Pocket Interlock and Panels. Edit installation language herein to suit Project requirements, and dependent upon installer’s level of experience and general familiarity with Andersen Liftslide Doors.

A. General: Comply with manufacturer’s product recommendations, including but not limited to theinstallation guide, technical bulletins, and installation instructions in product literature and on product packaging. Comply with Drawings [**and Shop Drawings**] for installing runner tracks, doors, hardware, accessories, and other components.

B. Install doors plumb, level and square. Anchor 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 doors so as to drain condensation and moisture penetration to the exterior.

C. Adjust sliding doors, 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**>.

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 door frame and glass surfaces. Avoid damaging coatings and finishes.

C. Touch-up, repair or replace glass or other 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 doors and finish surfaces from damage during construction until completion of Project and acceptance by Owner.

(END OF SECTION 08 32 00 – SLIDING GLASS DOORS)