**SECTION 08 11 16**

**Interior Aluminum Framing**

**PART 1 GENERAL**

1. **SECTION INCLUDES**
   1. LiteSpace™ Interior Aluminum Framing.
   2. SLI-12 Narrow Stile Interior Aluminum Door installed in LiteSpace™ Interior Aluminum Framing.
   3. SLI-14 Medium Stile Interior Aluminum Door installed in LiteSpace™ Interior Aluminum Framing.
   4. SLI-15 Wide Stile Interior Aluminum Door installed in LiteSpace™ Interior Aluminum Framing.
   5. Frameless Glass Door installed in LiteSpace™ Interior Aluminum Framing.
2. **RELATED SECTIONS**
   1. Section 08 01 17 – Operation and Maintenance of Integrated Door Opening Assemblies.
   2. Section 08 06 71 – Door Hardware Schedule.
   3. Section 08 06 80 – Glazing Schedule.
   4. Section 08 10 00 – Doors and Frames.
   5. Section 08 12 16 – Aluminum Frames.
   6. Section 08 71 00 – Door Hardware.
3. **REFRENCES**
   1. AAMA 607.1 – Voluntary Guide Specification and Inspection Methods for Clear Anodic Finishes for Architectural Aluminum.
   2. AAMA 608.1 – Voluntary Guide Specification and Inspection Methods for Electrolytically deposited Color Anodic Finishes for Architectural Aluminum.
   3. AAMA 2604 – Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix).
   4. [ASTM-B209](#ASTM_B_209) – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
   5. [ASTM-B221](#ASTM_B_221) – Standard Specification for Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
   6. [ASTM-C518](#ASTM_C_518) – Standard test Method for Steady-State Thermal Transmission Properties by Means of Heat Flow Meter Apparatus.
   7. [ASTM-D5116](#ASTM_D_5116) – Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/ Products.
   8. [ASTM-D6670](#ASTM_D_6607) – Standard Practice for Full-Scale Chamber Determination of Volatile Organic Emissions from Indoor Materials/ Products.
   9. [ASTM-E90](#ASTM_E_90) – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
4. **SUBMITTALS**
   1. Must comply with Section 01 33 00 – Submittal Procedures.
   2. Action Submittals/ Informational Submittals.
      1. Product Data.
         1. Submit manufacturer’s product data sheets, catalog pages illustrating the products, description of materials, components, fabrication, finishes, installation instructions, and applicable test reports.
      2. Shop Drawings.
         1. Submit manufacturer’s shop drawings, including elevations, sections, and details indicating dimensions, tolerances, materials, fabrication, doors, panels, framing, hardware schedule, and finish.
      3. Samples.
         1. Submit manufacturer’s door sample composed of door and finish.
         2. Submit manufacturer’s sample of standard colors for door and frame.
         3. Provide two samples of each type of framing member required, not less than 10” long in Clear 204 R1 finish.
      4. Testing and Evaluation Reports.
         1. Submit testing reports and evaluations provided by manufacturer conducted by and accredited independent testing agency certifying doors and frames comply with specified performance requirements listed in Section 2.04.
      5. Manufacturer Reports.
         1. Manufacturer’s Project References.
            1. Submit list of successfully completed projects including project name, location, name of architect, type, and quantity of doors manufactured.
   3. Closeout Submittals.
      1. Operation and Maintenance Manual.
         1. Submit manufacturer’s maintenance and cleaning instructions for doors and frames, including maintenance and operating instructions for hardware.
      2. Warranty Documentation.
         1. Submit manufacturer’s standard warranty.
5. **QUALITY ASSURANCE**
   1. Manufacturer’s Qualifications.
      1. Continuously engaged in manufacturing of doors of similar type to that specified, with a minimum of 25 years concurrent successful experience.
      2. Door and frame components must be fabricated by same manufacturer.
      3. Evidence of a documented complaint resolution quality management system.
6. **DELIVERY, STORAGE, AND HANDLING**
   1. Delivery.
      1. Deliver materials to site in manufacturer’s original, unopened, containers and packaging.
      2. Labels clearly identifying elevations.
      3. Inspect frames upon delivery for damage.
         1. Repair minor damage to polyester finish by using air drying spray enamel of matching color.
         2. Replace frames that cannot be satisfactorily repaired.
   2. Storage.
      1. Store materials in a clean, dry area, indoors in accordance with manufacturer’s instructions.
   3. Handling.
      1. Protect materials and finish from damage during handling and installation.
7. **WARRANTY** 
   1. Omega and LiteSpace Interior Aluminum Framing.
      1. Special-Lite, Inc. warrants its LiteSpace interior aluminum framing products to be manufactured free from defective material and faulty workmanship for a period of 5 years from the date of shipment, when the product is installed and used in accordance with the company’s published instructions. This warranty is extended to Special-Lite’s dealers and or authorized distributors, who are acquiring the product directly from Special-Lite. Special-Lite’s only obligation to this warranty is limited to repair or replacement of material, at the sole discretion of Special-Lite, Inc. All material replacement shall be F.O.B. Special-Lite’s current manufacturing location. This warranty will not apply to any of the supplied product that has been subject to abuse, neglect or damage during shipment or at time of installation. This warranty is limited to manufacturing of the product and does not include any such warranty on installation performed by its dealers, distributors or other contractors. No warranty is made for any non-standard materials requested, selected and used at the request of the customer. Special-Lite, Inc. makes no other warranties or representations, either expressed or implied, concerning a product’s fitness for a purpose. In no event will Special-Lite, Inc. be liable for direct, indirect, special or consequential damages including but not limited to loss of profits or use.
   2. Other Manufacturer’s Products & Hardware used within an Installation.
      1. Special-Lite warrants any hardware or mechanisms that are installed at the plant or in the field by Special-Lite personnel is installed in accordance with the hardware manufacturer’s specifications and instructions. The hardware or mechanism is securely mounted and, in normal usage will not separate from the door. Special-Lite makes no warranties of any kind as to the other manufacturer’s hardware, mechanisms, or other products that are installed at Special-Lite or in the field by non-Special-Lite personnel. Any such warranty shall be covered by these product manufacturer’s warranty which shall run concurrently with this warranty.
   3. Standard Period.
      1. Five years starting on date of shipment.
   4. Finish
      1. Special-Lite makes the following finish warranties: Natural variations that fall within die lot range variances that may occur in aluminum and vinyl, of which the manufacturer has no control, shall not be considered defects. While the standard anodized finish is covered under this warranty, all special finishes; painted, anodized or other, are covered by the finish manufacturer’s warranty and Special-Lite warrants that the finish has been applied in accordance with the finish manufacturer’s application specifications. This warranty runs concurrently with the same period as the finish manufacturer’s warranty. The warranties on finish in this section do not cover normal wear and aging of the finish.
   5. Use of Special-Lite SL-Series Doors.
      1. All Special-Lite’s SL- and AF- Series doors are covered in accordance within Special-Lite’s Limited 10-year Warranty. SLI Series must be interior installation.

**PART 2 PRODUCTS**

1. **LITESPACE™ INTERIOR ALUMINUM FRAMING**
   1. Manufacturer.
      1. Special-Lite, Inc.
         1. PO Box 6, Decatur, Michigan 49045.
         2. Toll Free (800) 821-6531, Phone (269) 423-7068, Fax (800) 423-7610.
         3. Web Site [www.special-lite.com](http://www.special-lite.com).
         4. E-Mail [info@special-lite.com](mailto:info@special-lite.com).
2. **DESCRIPTION**
   1. Model.
      1. LiteSpace Interior Aluminum Framing.
   2. Materials.
      1. [See 2.05. A.](#Aluminum_Members)
   3. Perimeter Frame Members.
      1. Rectilinear design with 1-3/4” face.
      2. Overall depth of 2-3/8”.
      3. Accommodates framed aluminum doors, sliding frameless glass doors 3/8” or ½” thick.
      4. Vertical aluminum mullions.
   4. Integrated Door Stops.
      1. Mohair door gasket black or grey coordinated with framing finish color.
   5. Frame Member to Member Connections.
      1. Secure joints with fasteners.
      2. Provide hairline butt joint appearance.
      3. No exposed clips for member to member connections.
   6. Hardware
      1. Pre-machine and reinforce frame members for hardware in accordance with manufacturer's standards and door hardware schedule.
      2. Surface mounted closures will be reinforced for but not prepped or installed at factory.
   7. Glazing.
      1. Thickness.
         1. Choose an item.
      2. Able to accept multiple glazing thicknesses.
      3. Vinyl glazing bulb grey, white, or black to match extrusions.
      4. Glazing system designed to allow replacement of glass.
      5. Glazing vinyl internal to extrusion to provide clean sight line.
      6. Glass butt joints with polycarbonate glazing channel with integral glazing tape that provides a minimum 120 oz/ inch peel strength.
   8. Anchors:
      1. Anchors appropriate for wall conditions to anchor framing to wall materials.
   9. Sustainability Characteristics.
      1. LEED Declaration.
         1. Entrance Products contribute to point calculations for the following credits:
            1. MR Credit 4.1 Recycled Content 10% (post-consumer = ½ pre-consumer) 1 point.
            2. MR Credit 4.2 Recycled Content 20% (post-consumer = ½ pre-consumer) 1 point.
         2. All aluminum extrusions are produced using prime-equivalent billet produced from 100% reprocessed 6063-T6 alloy recovered from industrial processes. The USGBC classifies these extrusions as pre-consumer recycled material.
         3. Manufacturing facility located within 500 miles of major components and materials, including aluminum extrusions.
         4. The point of recovery and smelting of pre-consumer recycled material within 500 miles of the manufacturing facility.
3. **DOORS**
   1. [SLI-12](http://special-lite.com/product/interior-aluminum-framed-doors/)
      1. Door Opening Size.
         1. Click or tap here to enter text.
      2. Configuration.
         1. Choose an item.
      3. Construction.
         1. Door Thickness.
            1. 1-3/4”.
         2. Stiles.
            1. 2-3/4” wide with integral glass stop snap channel on both interior and exterior sides.
            2. Allow for multiple glazing options including single pane ¼” glazing, single pane 1” glazing, and double pane ¼” glazing.
            3. Aluminum extrusions made from 6063 aluminum alloys with a minimum temper of T5.
            4. Screw or snap in place applied edge caps are not acceptable.
         3. Rails.
            1. Top Rail Height.

Choose an item.

* + - * 1. Bottom Rail Height.

Choose an item.

* + - * 1. Allow for multiple glazing options including single pane ¼” glazing, single pane 1” glazing, and double pane ¼” glazing.
        2. Aluminum extrusions made from 6063 aluminum alloys with a minimum temper of T5.
        3. Screw or snap in place applied caps are not acceptable.
      1. Corners.
         1. True mortise and tenon joints.
         2. Secured with 3/8” diameter full-width steel tie rod.
         3. Weld, glue, or other methods of corner joinery are not acceptable.
      2. Hardware.
         1. Pre-machine doors in accordance with templates from specified hardware manufacturers.
         2. Surface mounted closures will be reinforced for but not prepped or installed at factory.
         3. Factory install door hardware.
      3. Glazing.
         1. Thickness.

Choose an item.

* + - 1. Reinforcements.
         1. Aluminum extrusions made from 6061 or 6063 aluminum alloys.
         2. Sheet and plate to conform to ASTM-B209.
         3. Alloy and temper to be selected by manufacturer for strength, corrosion resistance, and application of required finish, and control of color.
         4. Bars and tubes to meet ASTM-B221.
    1. Sustainability Characteristics.
       1. LEED Declaration.
          1. Entrance Products contribute to point calculations for the following credits:

MR Credit 4.1 Recycled Content 10% (post-consumer = ½ pre-consumer) 1 point.

MR Credit 4.2 Recycled Content 20% (post-consumer = ½ pre-consumer) 1 point.

* + - * 1. All aluminum extrusions are produced using prime-equivalent billet produced from 100% reprocessed 6063-T6 alloy recovered from industrial processes. The USGBC classifies these extrusions as pre-consumer recycled material.
        2. Manufacturing facility located within 500 miles of major components and materials, including aluminum extrusions.
        3. The point of recovery and smelting of pre-consumer recycled material within 500 miles of the manufacturing facility.
  1. [SLI-14](http://special-lite.com/product/interior-aluminum-framed-doors/)
     1. Door Opening Size.
        1. Click or tap here to enter text.
     2. Configuration.
        1. Choose an item.
     3. Construction.
        1. Door Thickness.
           1. 1-3/4”.
        2. Stiles.
           1. 4-1/4” wide with integral glass stop snap channel on both interior and exterior sides.
           2. Allow for multiple glazing options including single pane ¼” glazing, single pane 1” glazing, and double pane ¼” glazing.
           3. Aluminum extrusions made from 6063 aluminum alloys with a minimum temper of T5.
           4. Screw or snap in place applied edge caps are not acceptable.
        3. Rails.
           1. Top Rail Height.

Choose an item.

* + - * 1. Bottom Rail Height.

Choose an item.

* + - * 1. Allow for multiple glazing options including single pane ¼” glazing, single pane 1” glazing, and double pane ¼” glazing.
        2. Aluminum extrusions made from 6063 aluminum alloys with a minimum temper of T5.
        3. Screw or snap in place applied caps are not acceptable.
      1. Corners.
         1. True mortise and tenon joints.
         2. Secured with 3/8” diameter full-width steel tie rod.
         3. Weld, glue, or other methods of corner joinery are not acceptable.
      2. Hardware.
         1. Pre-machine doors in accordance with templates from specified hardware manufacturers.
         2. Surface mounted closures will be reinforced for but not prepped or installed at factory.
         3. Factory install door hardware.
      3. Glazing.
         1. Thickness.

Choose an item.

* + - 1. Reinforcements.
         1. Aluminum extrusions made from 6061 or 6063 aluminum alloys.
         2. Sheet and plate to conform to ASTM-B209.
         3. Alloy and temper to be selected by manufacturer for strength, corrosion resistance, and application of required finish, and control of color.
         4. Bars and tubes to meet ASTM-B221.
    1. Sustainability Characteristics.
       1. LEED Declaration.
          1. Entrance Products contribute to point calculations for the following credits:

MR Credit 4.1 Recycled Content 10% (post-consumer = ½ pre-consumer) 1 point.

MR Credit 4.2 Recycled Content 20% (post-consumer = ½ pre-consumer) 1 point.

* + - * 1. All aluminum extrusions are produced using prime-equivalent billet produced from 100% reprocessed 6063-T6 alloy recovered from industrial processes. The USGBC classifies these extrusions as pre-consumer recycled material.
        2. Manufacturing facility located within 500 miles of major components and materials, including aluminum extrusions.
        3. The point of recovery and smelting of pre-consumer recycled material within 500 miles of the manufacturing facility.
  1. [SLI-15](http://special-lite.com/product/interior-aluminum-framed-doors/)
     1. Door Opening Size.
        1. Click or tap here to enter text.
     2. Configuration.
        1. Choose an item.
     3. Construction.
        1. Door Thickness.
           1. 1-3/4”.
        2. Stiles.
           1. 5-1/2” wide with integral glass stop snap channel on both interior and exterior sides.
           2. Allow for multiple glazing options including single pane ¼” glazing, single pane 1” glazing, and double pane ¼” glazing.
           3. Aluminum extrusions made from 6063 aluminum alloys with a minimum temper of T5.
           4. Screw or snap in place applied edge caps are not acceptable.
        3. Rails.
           1. Top Rail Height.

Choose an item.

* + - * 1. Bottom Rail Height.

Choose an item.

* + - * 1. Allow for multiple glazing options including single pane ¼” glazing, single pane 1” glazing, and double pane ¼” glazing.
        2. Aluminum extrusions made from 6063 aluminum alloys with a minimum temper of T5.
        3. Screw or snap in place applied caps are not acceptable.
      1. Corners.
         1. True mortise and tenon joints.
         2. Secured with 3/8” diameter full-width steel tie rod.
         3. Weld, glue, or other methods of corner joinery are not acceptable.
      2. Hardware.
         1. Pre-machine doors in accordance with templates from specified hardware manufacturers.
         2. Surface mounted closures will be reinforced for but not prepped or installed at factory.
         3. Factory install door hardware.
      3. Glazing.
         1. Thickness.

Choose an item.

* + - 1. Reinforcements.
         1. Aluminum extrusions made from 6061 or 6063 aluminum alloys.
         2. Sheet and plate to conform to ASTM-B209.
         3. Alloy and temper to be selected by manufacturer for strength, corrosion resistance, and application of required finish, and control of color.
         4. Bars and tubes to meet ASTM-B221.
    1. Sustainability Characteristics.
       1. LEED Declaration.
          1. Entrance Products contribute to point calculations for the following credits:

MR Credit 4.1 Recycled Content 10% (post-consumer = ½ pre-consumer) 1 point.

MR Credit 4.2 Recycled Content 20% (post-consumer = ½ pre-consumer) 1 point.

* + - * 1. All aluminum extrusions are produced using prime-equivalent billet produced from 100% reprocessed 6063-T6 alloy recovered from industrial processes. The USGBC classifies these extrusions as pre-consumer recycled material.
        2. Manufacturing facility located within 500 miles of major components and materials, including aluminum extrusions.
        3. The point of recovery and smelting of pre-consumer recycled material within 500 miles of the manufacturing facility.
  1. Frameless Glass Door.
     1. Thickness.
        1. Choose an item.
     2. Configuration.
        1. Choose an item.

1. **PERFORMANCE**
   1. SLI Door Panel.
      1. Indoor Air Quality, ASTM-D5116, ASTM-D6607: GreenGuard, GreenGuard Gold.
      2. Sound Transmission, ASTM-E90: STC = 38, OITC = 30.
   2. SLI Door Panel installed in LiteSpace Interior Aluminum Framing.
      1. Sound Transmission, ASTM-E90: STC = 31, OITC = 28.
2. **MATERIALS**
   1. Aluminum Members.
      1. Aluminum extrusions made 6061 or 6063 aluminum alloys.
      2. Sheet and plate to conform to ASTM-B209.
      3. Alloy and temper to be selected by manufacturer for strength, corrosion resistance, and application of required finish, and control of color.
   2. Fasteners.
      1. All exposed fasteners will have a finish to match material being fastened.
      2. 410 stainless steel or other non-corrosive metal.
      3. Must be compatible with items being fastened.
3. **FABRICATION**
   1. Factory Assembly.
      1. Door and frame components from the same manufacturer.
      2. Required size for door and frame units, shall be as indicated on the drawings.
      3. All cut edges to be free of burs.
      4. Welding of doors or frames is not acceptable.
      5. Maintain continuity of line and accurate relation of planes and angles.
   2. Shop Fabrication
      1. All shop fabrication to be completed in accordance with manufactures process work instructions.
      2. Quality control to be performed before leaving each department.
4. **FINISHES**
   1. Frame
      1. Aluminum.
         1. Anodizing.
            1. Class 2 Anodizing, minimum 0.4 to 0.7 mils thick.

Color.

Choose an item.

* + - 1. Paint.
         1. Aluminum.

KYNAR®.

Topcoat.

70% KYNAR® or HYLAR® 5000 Coating, meets or exceeds all AAMA 2605 specifications, 2.5 to 4.0 wet mils, 1.00 to 1.20 dry mils.

Color.

Consult manufacturer.

* + - 1. Powder Coat.
         1. Special-Lite’s® Wood Expressions™.

Color.

Choose an item.

Durability against humidity, warping and cracking.

Resists fading from UV rays.

Natural, high-definition grains with the look and feel of real wood.

Durable powder coat protects against scratching.

* + - * 1. AAMA 2603 Powder Coat.

Color.

Choose an item.

Minimum dry film thickness of 2 to 4 mils.

H-2H Hardness.

Meets AAMA 800.

* 1. Door.
     1. Aluminum.
        1. Anodizing.
           1. Class 2 Anodizing, minimum 0.4 to 0.7 mils thick.

Color.

Choose an item.

* + - 1. Paint.
         1. Aluminum.

KYNAR®.

Topcoat.

70% KYNAR® or HYLAR® 5000 Coating, meets or exceeds all AAMA 2605 specifications, 2.5 to 4.0 wet mils,1.00 to 1.20 dry mils.

Color.

Consult manufacturer.

* + - 1. Powder Coat.
         1. Special-Lite’s® Wood Expressions™.

Color.

Choose an item.

Durability against humidity, warping and cracking.

Resists fading from UV rays.

Natural, high-definition grains with the look and feel of real wood.

Durable powder coat protects against scratching.

* + - * 1. AAMA 2603 Powder Coat.

Color.

Choose an item.

Minimum dry film thickness of 2 to 4 mils.

H-2H Hardness.

Meets AAMA 800.

1. **ACCESSORIES**
   1. Hardware.
      1. Pre-machine doors in accordance with templates from specified hardware manufactures and hardware schedule.
      2. Factory install hardware.
      3. Hardware Schedule.
         1. Choose an item.
            1. Interior Aluminum Door Hinges.

Choose an item.

* + - * 1. Frameless Glass Door Hinges.

Choose an item.

* + - * 1. Interior Aluminum Door Locking Hardware.

Click or tap here to enter text.

* + - * 1. Frameless Glass Door Locking Hardware.

Choose an item.

* + - * 1. Interior Aluminum Door Pull.

Choose an item.

* + - * 1. Frameless Glass Door Pulls.

Choose an item.

* + - * 1. [Interior Aluminum Door Push Bars.](http://special-lite.com/product/door-pulls-pushbars/)

Choose an item.

* 1. Glazing Materials.
     1. Vinyl Glazing Bulb.
        1. Color
           1. Choose an item.
     2. Polycarbonate Gasket.
        1. Thickness.
           1. Choose an item.
        2. Glazing Tape.
           1. Choose an item.

**PART 3 EXECUTION**

1. **EXAMINATION**
   1. Examine areas to receive doors.
   2. Notify architect of conditions that would adversely affect installation or subsequent use.
   3. Do no proceed with installation until unsatisfactory conditions are corrected.
2. **PREPARATION**
   1. Ensure openings to receive frames are plumb, level, square, and in tolerance.
3. **ERECTION**
   1. Install doors in accordance with manufacturer’s instructions.
   2. Install doors plumb, level, square, true to line, and without warp or rack.
   3. Anchor frames securely in place.
   4. Separate aluminum from other metal surfaces with bituminous coatings or other means approved by architect.
   5. Repair minor damages to finish in accordance with manufacturer’s instructions and as approved by architect.
   6. Remove and replace damaged components that cannot be successfully repaired as determined by architect.
4. **FIELD QUALITY CONTROL**
   1. Manufacture’s Field Services.
      1. Manufacturer’s representative shall provide technical assistance and guidance for installation of doors.
5. **ADJUSTING**
   1. Adjust doors, hinges, and locksets for smooth operation without binding.
6. **CLEANING**
   1. Clean doors promptly after installation in accordance with manufacturer’s instructions.
   2. Do not use harsh cleaning materials or methods that would damage finish.
   3. Clean once a year or as needed with a non-acidic or alkaline cleaning product.
   4. Light scratches may be removed with a light abrasive, such as ground pumice.
7. **PROTECTION**
   1. Protect installed doors to ensure that doors will be without damage or deterioration at time of substantial completion.

**END OF SECTION**