SECTION 08 52 00.10

WOOD AND ALUMINUM-CLAD-WOOD WINDOWS AND PATIO DOORS

JELD-WEN Custom Epic Series

Display hidden notes to specifier. (Don't know how? [Click Here](http://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* JELD-WEN, Inc.; Aluminum-Clad-Wood and Wood Windows and Patio Doors.  
This section is based on the products of JELD-WEN, Inc., which is located at:  
2645 Silver Crescent Dr.  
Charlotte, NC 28273   
Toll Free Tel: 800-535-3936  
Tel: 541-850-2606  
Fax: 541-851-4333  
Email: [request info (Architectural\_Inquiries@jeld-wen.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=JELD-WEN,+Inc.&coid=33445&rep=&fax=541-851-4333&message=RE:%20Spec%20Question%20(08551jwe):%20%20&mf=)  
Web: <http://www.jeld-wen.com/en-us>   
 [ [Click Here](http://www.arcat.com/arcatcos/cos33/arc33445.html) ] for additional information.  
As a JELD-WEN customer, you can count on us to provide reliable products and service. We are a comprehensive source for dependable wood, vinyl and aluminum windows; wood and wood composite interior doors; and wood, steel, engineered wood and fiberglass exterior doors.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project. Specialty glazing such as patterned and textured glass is not detailed in this specification. For more information on specialty glazing please contact the manufacturer.

* + 1. Clad Wood Windows and Patio Doors:
       1. Awning windows.
       2. Casement.
       3. Double-hung windows.
       4. Fixed Double-hung windows.
       5. Fixed Casement windows.
       6. Insash Casement/Awning Radius and geometric windows.
       7. In-swing patio doors.
       8. Out-swing patio doors.
    2. Wood Windows and Patio Doors:
       1. Awning windows.
       2. Casement.
       3. Double-hung windows.
       4. Radius and geometric windows.
       5. In-swing patio doors.
       6. Out-swing patio doors.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. Window and Door Manufacturers Association (WDMA):
       1. AAMA/WDMA/CSA 101/I.S.2/A440 North American Fenestration Standard / Specification for windows, doors, and skylights (NAFS).
       2. WDMA I.S.4; Industry Specification for Preservative Treatment for Millwork.
    2. ASTM International (ASTM):

\*\* NOTE TO SPECIFIER \*\* In applications where hurricane resistance is not required, Delete ASTM E 1886 and E 1996 references.

* + - 1. ASTM E 1886 - 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.
      2. ASTM E 1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Impact Protective Systems Impacted by Windborne Debris in Hurricanes.
    1. 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.

\*\* NOTE TO SPECIFIER \*\* Delete Florida TAS information if project is not within the high velocity hurricane zone.

* + 1. South Florida Building Code Impact Test Procedures (Miami-Dade TAS):
       1. TAS 201 - Impact Test Procedures.
       2. TAS 202 - Criteria for testing Impact and Non-Impact Resistant Building Envelope Components using Uniform Static Air Pressure.
       3. TAS 203 - Criteria for testing Products Subject to Cyclic Wind Pressure Loading.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Installation methods.
     3. Shop Drawings: Submit shop drawings indicating details of construction, flashings and relationship with adjacent construction.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each factory-finished product specified, two complete sets of color chips representing manufacturer's full range of available finishes.
    2. Verification Samples: For each factory-finished product specified, two samples, minimum size 6 inches (150 mm) square, representing actual finishes.
    3. Quality Assurance Submittals:

\*\* NOTE TO SPECIFIER \*\* Delete Design Data, Test Reports submittal requirements when a propriety specification is used and can be held. Retain Design Data, Test Reports submittal requirement when other products may be submitted as substitution.

* + - 1. Design Data, Test Reports: Provide manufacturer test reports indicating product compliance with indicated requirements.
      2. WDMA Hallmark certification.
    1. Closeout Submittals: Refer to Section 01 70 00 - Execution and Closeout Requirements.
  1. QUALITY ASSURANCE
     1. Installer Qualifications: Minimum \_\_ years installing similar assemblies.
     2. Certifications: WDMA Hallmark certification label indicating assemblies meet the design requirements.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of installation techniques and workmanship.
       1. Mock-ups shall incorporate surrounding construction, including wall assembly fasteners, flashing, and other related accessories installed in accordance with manufacturer's approved installation methods.
       2. Do not proceed with remaining work until workmanship is approved by Architect.
       3. Modify mock-up as required to produce acceptable work.

\*\* NOTE TO SPECIFIER \*\* Delete one of the two following subparagraphs.

* + - 1. At Substantial Completion, approved mockups may become part of completed Work.
      2. Demolish mockups and remove from site.
    1. Pre-installation Meeting: Conduct pre-installation meeting on-site two weeks prior to commencement of installation.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations and industry standards.
     2. Deliver and store assembly materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact. Protect from damage.
  2. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
  3. WARRANTY
     1. Manufacturer's Standard Warranty: Assemblies will be free from defects in materials and workmanship from the date of manufacture for the time periods indicated below:

\*\* NOTE TO SPECIFIER \*\* Delete options for products not required.

* + - 1. Basic Product Coverage - Patio Door Units: 20 years.
      2. Basic Product Coverage - Window Units: 20 years.
      3. Clad Finishes: 20 years against peeling, checking, cracking caulk or color change.
      4. AuraLast Protection for Wood Products:
         1. Owner-Occupied Single-Family Residence: as long as you own and occupy your residence.
         2. Commercial: 20 years.
         3. Coverage is for wood decay and/or termite damage in pine wood components.

\*\* NOTE TO SPECIFIER \*\* Insulated glass that incorporates a specialty glazing may be eligible for an extended warranty but requires input from the manufacturer. Contact a JELD-WEN representative to discuss design options and their effect on the warranty. Delete options for products not required.

* + - 1. Glazing:
         1. Insulated Glass: 20 years.
         2. Laminated Glass: 5 years.
         3. Hurricane Glass: 5 years.
         4. Specialty Glazing: 5 years.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: JELD-WEN, Inc., which is located at: 2645 Silver Crescent Dr.; Charlotte, NC 28273 ; Toll Free Tel: 800-535-3936; Tel: 541-850-2606; Fax: 541-851-4333; Email: [request info (Architectural\_Inquiries@jeld-wen.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=JELD-WEN,+Inc.&coid=33445&rep=&fax=541-851-4333&message=RE:%20Spec%20Question%20(08551jwe):%20%20&mf=); Web: <http://www.jeld-wen.com/en-us>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. ALUMINUM-CLAD WINDOWS AND PATIO DOORS - GENERAL
     1. Design Requirements:
        1. Compliance: Provide assemblies capable of complying with requirements indicated, based on testing manufacturer's patio doors that are representative of those specified.
        2. Test Size: In compliance with requirements of AAMA/WDMA/CSA 101/ I.S.2/A440.

\*\* NOTE TO SPECIFIER \*\* Include patio door design pressure (DP) ratings as part of the performance requirements. Required DP will vary dependent on project site, the location in the building and door size. Coordinate DP with the Structural Engineer. DP ratings and related patio door size and style are available at www.jeld-wen.com or by contacting a JELD-WEN representative. Insert value or refer to drawing information. Delete structural requirement options not required.

* + - 1. Structural Requirements: Provide assemblies complying with requirements indicated:
         1. Design Pressure Rating; Patio Doors: \_\_\_\_\_\_\_\_.
         2. Design Pressure Rating; Patio Doors: As indicated on the Drawings.
         3. Design Pressure Rating; Windows: \_\_\_\_\_\_\_\_.
         4. Design Pressure Rating; Windows: As indicated on the Drawings.
         5. Performance Class: As indicated on drawings.
         6. Performance Class: \_\_\_\_\_\_\_\_.
         7. Performance Grade: As indicated on drawings.
         8. Performance Grade: \_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete Impact Resistance requirement if products will not be used in a high velocity hurricane zone or will be used in conjunction with another type of approved hurricane protection device.

* + - 1. Impact (Windborne-Debris) Resistance:
         1. Provide windows and patio doors capable of resisting impact from windborne debris, when tested in accordance with ASTM E 1886, ASTM E 1996.

\*\* NOTE TO SPECIFIER \*\* Notice of Authorization (NOA) from Miami-Dade Code Officials is type and size specific. Information is available at www.jeld-wen.com or by contacting a JELD-WEN representative.

* + - * 1. Provide windows and patio doors that have been tested in accordance with TAS 201, TAS 202, and TAS 203.

\*\* NOTE TO SPECIFIER \*\* Include NFRC ratings as part of the performance requirements. NFRC ratings qualifying for the Energy Star program are based on the performance of whole assembly. Qualifying assemblies vary to fit the needs of different regions throughout the country. NFRC ratings and related JELD-WEN size and styles are available at www.jeld-wen.com or by contacting a JELD-WEN representative. Insert values or the phrase ' As scheduled and indicated on Drawings' as applicable.

* + - 1. NFRC Requirements: Provide assemblies complying with the following total window ratings:
         1. U-Factor: \_\_\_\_\_\_\_\_ in accordance with NFRC 100.
         2. Solar Heat Gain Coefficient (SHGC): \_\_\_\_\_\_\_\_ in accordance with NFRC 200.
         3. Visible Transmittance (VT): \_\_\_\_\_\_\_\_ in accordance with NFRC 200.
    1. Materials:
       1. Exterior Cladding: Extruded Aluminum.
       2. Interior Wood:

\*\* NOTE TO SPECIFIER \*\* Delete material options not required. AuraLast® is a trademark preservative treatment by JELD-WEN and is distinguished from traditional preservation methods by its minimum treatment penetration of 92 percent.

* + - * 1. Material: As selected by Architect.
        2. Material: AuraLast Pine; Standard.
        3. Material: Knotty Alder.
        4. Material: Mahogany.
        5. Material: Vertical Grain Douglas Fir.
        6. Material: Reclaimed Fir.
        7. Material: Red Oak.
        8. Material: Walnut.
        9. Material: White Oak.
        10. Material: Alder.
    1. Installation Accessories:

\*\* NOTE TO SPECIFIER \*\* Accessories compatible with windows, patio doors and required installation may be specified in this section or in related sections. Coordinate with related sections so as not to duplicate information.

* + - 1. Flashing: Refer to Section 07 60 00 - Flashing and Sheet Metal.

\*\* NOTE TO SPECIFIER \*\* Delete sealants options not required.

* + - 1. Sealants: OSI Sealants by Henkel Corporation.
      2. Sealants: Refer to Section 07 92 00 (07920) - Joint Sealants.
      3. Sealants: Provide manufacturer recommended sealants maintain watertight conditions.

\*\* NOTE TO SPECIFIER \*\* Interior wood is left unfinished for field finishing unless indicated otherwise. Delete options not required.

* + 1. Interior Finishes for Windows:

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - 1. Finish: Natural; Standard.
      2. Finish: Primed.
      3. Finish: Pre-finished paint.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Brilliant White.
        3. Color: Desert Sand.
        4. Color: Ivory.
        5. Color: Black.
        6. Color: Dove.
        7. Color: Gunmetal.
        8. Color: Black Frame and Brilliant White Sash.
        9. Color: Brilliant White Frame and Black Sash.
      1. Finish: Pre-finished stain finish.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Cordovan.
        3. Color: Fruitwood.
        4. Color: Walnut.
        5. Color: Americano.
        6. Color: Charcoal.
        7. Color: Kodiak.
      1. Finish: Pre-finished clear lacquer finish.
    1. Exterior Finishes for Windows:
       1. Finish: AAMA 2605 PVDF.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Brilliant White.
        3. Color: Desert Sand.
        4. Color: Chestnut Bronze.
        5. Color: Black.
        6. Color: French Vanilla.
        7. Color: Hartford Green.
        8. Color: Mesa Red.
        9. Color: Silver.
        10. Color: Steele Gray.
        11. Color: Dark Chocolate.
        12. Color: Hunter Green.
        13. Color: Heirloom White.
        14. Color: Smoke.
        15. Color: Bone White.
        16. Color: Ivory.
        17. Color: Luxury Bronze.
        18. Color: Mocha Cream.
        19. Color: Sea Foam.
        20. Color: Stone.
        21. Color: Flagstone.
        22. Color: Cocoa.
        23. Color: Cranberry.
        24. Color: Surf.
        25. Color: Moss.
        26. Color: Stormy.
        27. Color: Admiral.
        28. Color: Navy.
    1. Interior Finishes for Patio Doors:

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - 1. Finish: Natural; Standard.
      2. Finish: Primed.
      3. Finish: Pre-finished paint.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Brilliant White.
        3. Color: Desert Sand.
        4. Color: Ivory.
        5. Color: Black.
        6. Color: Dove.
        7. Color: Gunmetal.
        8. Color: Black Frame and Brilliant White Sash.
        9. Color: Brilliant White Frame and Black Sash.
      1. Finish: Pre-finished stain finish.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Cordovan.
        3. Color: Fruitwood.
        4. Color: Walnut
        5. Color: Americano.
        6. Color: Charcoal.
        7. Color: Kodiak.
      1. Finish: Pre-finished clear lacquer finish.
    1. Exterior Finishes for Patio Doors:
       1. Finish: AAMA 2605 PVDF.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Brilliant White.
        3. Color: Desert Sand.
        4. Color: Chestnut Bronze.
        5. Color: Black.
        6. Color: French Vanilla.
        7. Color: Hartford Green.
        8. Color: Mesa Red.
        9. Color: Silver.
        10. Color: Steele Gray.
        11. Color: Dark Chocolate.
        12. Color: Hunter Green.
        13. Color: Heirloom White.
        14. Color: Smoke.
        15. Color: Bone White.
        16. Color: Ivory.
        17. Color: Luxury Bronze.
        18. Color: Mocha Cream.
        19. Color: Sea Foam.
        20. Color: Stone.
        21. Color: Flagstone.
        22. Color: Cocoa.
        23. Color: Cranberry.
        24. Color: Surf.
        25. Color: Moss.
        26. Color: Stormy.
        27. Color: Admiral.
        28. Color: Navy.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required. Also delete options in Part 1 and 3 of this section corresponding to products selected.

* 1. ALUMINUM-CLAD WINDOW ASSEMBLlES
     1. Basis of Design: Custom EPIC Series window assemblies as manufactured by JELD-WEN, Inc.
     2. Window Fabrication:

\*\* NOTE TO SPECIFIER \*\* Delete window types options not required.

* + - 1. Awning windows.
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead option not required.

Glazing Bead: Traditional Beveled.

Glazing Bead: Contemporary Square.

* + - 1. Casement windows.
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead option not required.

Glazing Bead: Traditional Beveled.

Glazing Bead: Contemporary Square.

* + - 1. Double-hung windows.
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead option not required.

Glazing Bead: Traditional Beveled.

Glazing Bead: Contemporary Square.

* + - 1. Fixed Casement/Awning:
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead option not required.

Glazing Bead: Traditional Beveled.

Glazing Bead: Contemporary Square.

* + - 1. Fixed Double-Hung
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead options not required.

Glazing Bead: Traditional Beveled.

Glazing Bead: Contemporary Square.

Glazing Bead: Flush.

* + - 1. Insash Radius and geometric Casement/Awning windows.
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead option not required.

Glazing Bead: Traditional Beveled.

Glazing Bead: Contemporary Square.

* + 1. Frames:
       1. Material: Select kiln-dried pine AuraLast treated wood.
       2. Casement, Awning and Picture Windows Base Frame: 3-3/8 inches (85.7 mm).
       3. Double-Hung Window Base Frame: 5-9/16 inches (141 mm).
       4. Cladding: 0.050 inch (1.27mm) extruded aluminum.
    2. Sash:
       1. Material: Select kiln-dried pine AuraLast treated wood.
       2. Cladding: 0.019 inch (0.438 mm) Roll-Formed Aluminum.
       3. Cladding: 0.060 inch (1.5 mm) Extruded Aluminum.
       4. Sash Thickness: Double-Hung Windows. 1-3/4 inches (44 mm).
    3. Exterior Trim:

\*\* NOTE TO SPECIFIER \*\* Select optional casing when construction conditions or aesthetics require inclusion. Utilize the following trims for indicated applications: Brickmould with masonry veneers; Flat Casing for narrow, Adams Casing for medium aesthetic conditions. Delete casing options not required.

* + - 1. Casing: As selected from Manufacturer's standard offering.
      2. Casing: Nail Fin; Standard.
      3. Casing: Nail Flange.
      4. Casing: No Drip Cap/No Nail Fin.
      5. Casing: Brickmould.
      6. Casing: Adams Casing.
      7. Casing: 3-1/2 inch (88.9 mm) Flat Casing.
      8. Casing: 2 inch (50.8 mm) Flat Casing.
      9. Casing: Manchester Casing.
      10. Casing: No Exterior Trim.
      11. Casing: Aluminum Pendleton Casing.
      12. Casing: Aluminum Kenison Casing.

\*\* NOTE TO SPECIFIER \*\* Delete sill options not required.

* + - 1. Sill Nosing: Sill Nose, 19/32 inch (15.1 mm); Standard.
      2. Sill Nosing: Extended Sill Nose, 2-1/16 inch (52.4 mm).
      3. Sill Horns: No Sill Horn; Standard.
      4. Sill Horns: Extended Sill Horns.
    1. Factory Applied Extension Jambs: Provide on four sides of frame interior 5/4 up to 7-1/2 inches (190.5 mm).
    2. Weatherstripping: Foam lined jamb liners forming a compression seal against sash stiles, dual durometer bulb seal between top and bottom rails of sash and frame, and bulb seal between top rail and header, and between sash meeting rails.

\*\* NOTE TO SPECIFIER \*\* In applications where both operable and non-operable casement or awning windows are desired, to maintain the aesthetic profile specify "stationary" awning or casement units.

* + 1. Window Hardware:
       1. Awning Windows:
          1. Hinges: Sliding steel reinforced nylon shoe in stainless steel track.

\*\* NOTE TO SPECIFIER \*\* Delete operator option not required.

* + - * 1. Operator: Single pull scissor arm with track; Standard.
        2. Operator: Dual pull scissor arm with bracket
        3. Operator/Hinge Finish: Stainless Steel; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete handle profile not required.

* + - * 1. Handle Profile: Nesting Crank Handle; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Matte Black.

Finish: Satin Nickel.

* + - * 1. Handle Profile: Round Handle.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Satin Nickel.

* + - * 1. Handle Profile: No Handle.
      1. Casement Windows:

\*\* NOTE TO SPECIFIER \*\* Delete hinges options not required.

* + - * 1. Hinges: Sliding steel reinforced nylon shoe in stainless steel track; Standard.
        2. Hinges: Butt Hinge, Single Arm Operator.
        3. Hinges: Egress Hinge.

\*\* NOTE TO SPECIFIER \*\* Delete operator option not required.

* + - * 1. Operator: Single pull scissor arm with track; Standard.
        2. Operator: Dual pull scissor arm with bracket.
        3. Operator/Hinge Finish: Stainless Steel.

\*\* NOTE TO SPECIFIER \*\* Delete handle profile not required.

* + - * 1. Handle Profile: Nesting Crank Handle; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Matte Black.

Finish: Satin Nickel.

* + - * 1. Handle Profile: Round Handle.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Satin Nickel.

* + - * 1. Handle Profile: No Handle.
      1. Double-Hung Windows:
         1. Balance: Compression type block and tackle.

\*\* NOTE TO SPECIFIER \*\* Delete lock option not required.

* + - * 1. Lock: Cam Locks; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Matte Black.

Finish: Satin Nickel.

* + - * 1. Lock: Keyed Cam Locks.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Chestnut Bronze.

\*\* NOTE TO SPECIFIER \*\* Delete finger lift option not required.

* + - * 1. Finger Lifts: No Finger Lifts.
        2. Finger Lifts: With Finger Lifts.
        3. Sash retainer: Recessed top and bottom.

\*\* NOTE TO SPECIFIER \*\* Delete jamb liner finish option not required.

* + - * 1. Jamb Liner Finish: Beige.
        2. Jamb Liner Finish: White.
      1. Fixed Windows: None.

\*\* NOTE TO SPECIFIER \*\* Various types of glass are available. The most common types have been included here. Contact a JELD-WEN representative when other options are required. Reflective glare from glazing has been found to affect the beach nesting of turtles in coastal environments. Some governing authorities require the use of turtle glass which uses tinted glass to achieve an industry-approved, inside-to-outside visible light transmittance value of 45 percent or less (visible spectrum is 400 to 700 nanometers). Verify the requirements for turtle glass with local authorities in coastal environments. Laminated glass uses a vinyl interlayer to provide added security against impact, comfort with higher STC ratings and energy savings by blocking UV energy.

* + 1. Glazing for Windows:

\*\* NOTE TO SPECIFIER \*\* Delete options for glazing type and associated subparagraphs not required.

* + - 1. Glazing Type: Insulated glass.
         1. Description: Two panes of glass utilizing continuous roll formed stainless steel spacer and dual seal sealants.

\*\* NOTE TO SPECIFIER \*\* Delete options for strength not required.

* + - * 1. Strength: Annealed; Standard.
        2. Strength: Tempered; meets CA Urban Fire Code.
        3. Strength: Tempered In/Annealed Out; meets CA Urban Fire Code.
        4. Overall Nominal Thickness: 3/4 inch (19 mm).

\*\* NOTE TO SPECIFIER \*\* Delete glass coating options not required.

* + - * 1. Glass Coating: As selected by Architect.
        2. Glass Coating: Low-E 366; Standard.
        3. Glass Coating: Low-E.
        4. Glass Coating: Low-E 180.
        5. Glass Coating: Low-E EC.
        6. Glass Coating: Low-E EC 366; i89 in/366 Out.
        7. Glass Protection: Plastic preserve film on interior and exterior of glass.

\*\* NOTE TO SPECIFIER \*\* Argon option is only available with Low E coating and cannot be used with capillary tubes. Delete air space gas option not required. Installations at elevations above 4,000 feet Mean Sea Level require glazing known as High Altitude glazing with capillary tubes to equalize environmental stress.

* + - * 1. Air Space: Argon; Standard.
        2. Air Space: High Altitude; above 4000 ft (1219.2 m) elevation.
      1. Glazing Type: Triple Glazing.
         1. Description: Three panes of glass utilizing continuous roll formed stainless steel spacer and dual seal sealants.

\*\* NOTE TO SPECIFIER \*\* Delete strength option not required.

* + - * 1. Strength: Annealed; Standard.
        2. Strength: Tempered; meets CA Urban Fire Code.
        3. Overall Nominal Thickness: 1-1/4 inches (31.75 mm).

\*\* NOTE TO SPECIFIER \*\* Delete glass coating options not required.

* + - * 1. Glass Coating: As selected by Architect.
        2. Glass Coating: Low-E; Standard.
        3. Glass Coating: Dual Low-E; 270 Out/180 In.
        4. Glass Coating: Dual Low-E 180.

\*\* NOTE TO SPECIFIER \*\* Argon option is only available with Low E coating and cannot be used with capillary tubes. Delete air space gas option not required. Installations at elevations above 4,000 feet Mean Sea Level require glazing known as High Altitude glazing with capillary tubes to equalize environmental stress.

* + - * 1. Air Space: Argon; Standard.
        2. Air Space: High Altitude; above 4000 ft (1219.2 m) elevation.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Exterior Insect Screens:

\*\* NOTE TO SPECIFIER \*\* Exterior insect screens are available for double-hung and horizontal sliding windows. Delete if not required.

* + - 1. Material: Black UltraVue fiberglass screen cloth (19 x 19 mesh) set in a painted roll formed aluminum frame

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: Black.
        6. Finish: French Vanilla.
        7. Finish: Hartford Green.
        8. Finish: Mesa Red.
        9. Finish: Silver.
        10. Finish: Steele Gray.
        11. Finish: Dark Chocolate.
        12. Finish: Hunter Green.
        13. Finish: Heirloom White.
        14. Finish: Smoke.
        15. Finish: Bone White.
        16. Finish: Ivory.
        17. Finish: Luxury Bronze.
        18. Finish: Mocha Cream.
        19. Finish: Sea Foam.
        20. Finish: Stone.
        21. Finish: Flagstone.
        22. Finish: Cocoa.
        23. Finish: Cranberry.
        24. Finish: Surf.
        25. Finish: Moss.
        26. Finish: Stormy.
        27. Finish: Admiral.
        28. Finish: Navy.
      1. Material: Charcoal aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: Black.
        6. Finish: French Vanilla.
        7. Finish: Hartford Green.
        8. Finish: Mesa Red.
        9. Finish: Silver.
        10. Finish: Steele Gray.
        11. Finish: Dark Chocolate.
        12. Finish: Hunter Green.
        13. Finish: Heirloom White.
        14. Finish: Smoke.
        15. Finish: Bone White.
        16. Finish: Ivory.
        17. Finish: Luxury Bronze.
        18. Finish: Mocha Cream.
        19. Finish: Sea Foam.
        20. Finish: Stone.
        21. Finish: Flagstone.
        22. Finish: Cocoa.
        23. Finish: Cranberry.
        24. Finish: Surf.
        25. Finish: Moss.
        26. Finish: Stormy.
        27. Finish: Admiral.
        28. Finish: Navy.
      1. Material: Silver Aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: Black.
        6. Finish: French Vanilla.
        7. Finish: Hartford Green.
        8. Finish: Mesa Red.
        9. Finish: Silver.
        10. Finish: Steele Gray.
        11. Finish: Dark Chocolate.
        12. Finish: Hunter Green.
        13. Finish: Heirloom White.
        14. Finish: Smoke.
        15. Finish: Bone White.
        16. Finish: Ivory.
        17. Finish: Luxury Bronze.
        18. Finish: Mocha Cream.
        19. Finish: Sea Foam.
        20. Finish: Stone.
        21. Finish: Flagstone.
        22. Finish: Cocoa.
        23. Finish: Cranberry.
        24. Finish: Surf.
        25. Finish: Moss.
        26. Finish: Stormy.
        27. Finish: Admiral.
        28. Finish: Navy.
      1. Material: Bronze Aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: Black.
        6. Finish: French Vanilla.
        7. Finish: Hartford Green.
        8. Finish: Mesa Red.
        9. Finish: Silver.
        10. Finish: Steele Gray.
        11. Finish: Dark Chocolate.
        12. Finish: Hunter Green.
        13. Finish: Heirloom White.
        14. Finish: Smoke.
        15. Finish: Bone White.
        16. Finish: Ivory.
        17. Finish: Luxury Bronze.
        18. Finish: Mocha Cream.
        19. Finish: Sea Foam.
        20. Finish: Stone.
        21. Finish: Flagstone.
        22. Finish: Cocoa.
        23. Finish: Cranberry.
        24. Finish: Surf.
        25. Finish: Moss.
        26. Finish: Stormy.
        27. Finish: Admiral.
        28. Finish: Navy.

\*\* NOTE TO SPECIFIER \*\* Interior insect screens are available for awning, casement and radius and geometric windows. Delete if not required.

* + 1. Interior Insect Screens:
       1. Material: Black UltraVue fiberglass screen cloth (19 x 19 mesh) set in a painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Silver.
        7. Finish: Steele Gray.
        8. Finish: Dark Chocolate.
        9. Finish: Black.
      1. Material: Black UltraVue fiberglass screen cloth (19 x 19 mesh) set in a wood veneer roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Pine.
        3. Finish: Knotty Alder.
        4. Finish: Mahogany.
        5. Finish: Vertical Grain Douglas Fir.
        6. Finish: Reclaimed Fir.
        7. Finish: Red Oak.
        8. Finish: Walnut.
        9. Finish: Cherry.
        10. Finish: White Oak.
        11. Finish: Alder.
      1. Material: Charcoal aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Silver.
        7. Finish: Steele Gray.
        8. Finish: Dark Chocolate.
        9. Finish: Black.
      1. Material: Silver aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Silver.
        7. Finish: Steele Gray.
        8. Finish: Dark Chocolate.
        9. Finish: Black.
      1. Material: Bronze aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Silver.
        7. Finish: Steele Gray.
        8. Finish: Dark Chocolate.
        9. Finish: Black.
      1. Material: Charcoal aluminum screen cloth (18 by 16 mesh) set in wood veneer roll formed aluminum frame; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Pine.
        3. Finish: Knotty Alder.
        4. Finish: Mahogany.
        5. Finish: Vertical Grain Douglas Fir.
        6. Finish: Reclaimed Fir.
        7. Finish: Red Oak.
        8. Finish: Walnut.
        9. Finish: Cherry.
        10. Finish: White Oak.
        11. Finish: Alder.
      1. Material: Silver aluminum screen cloth (18 by 16 mesh) set in wood veneer roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Pine.
        3. Finish: Knotty Alder.
        4. Finish: Mahogany.
        5. Finish: Vertical Grain Douglas Fir.
        6. Finish: Reclaimed Fir.
        7. Finish: Red Oak.
        8. Finish: Walnut.
        9. Finish: Cherry.
        10. Finish: White Oak.
        11. Finish: Alder.
      1. Material: Bronze aluminum screen cloth (18 by 16 mesh) set in wood veneer roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Pine.
        3. Finish: Knotty Alder.
        4. Finish: Mahogany.
        5. Finish: Vertical Grain Douglas Fir.
        6. Finish: Reclaimed Fir.
        7. Finish: Red Oak.
        8. Finish: Walnut.
        9. Finish: Cherry.
        10. Finish: White Oak.
        11. Finish: Alder.

\*\* NOTE TO SPECIFIER \*\* SDL Grilles are not available for textured glass. Grilles between the glass are not available on monolithic (single pane) glass. Select grilles, profiles and widths based on the desired aesthetic appearance of the window. Delete if not required.

* + 1. Grilles:

\*\* NOTE TO SPECIFIER \*\* Delete type options not required.

* + - 1. Type: Simulated Divided Lites (SDL).
         1. Exterior Muntins:

Material: Extruded aluminum permanently applied to exterior of insulating glass unit.

\*\* NOTE TO SPECIFIER \*\* Select profile based on desired aesthetics. Utilize bead stop for a flattened curve aesthetic and a putty profile for a deeper angular aesthetic. Delete profile options not required.

Profiles: Beaded.

\*\* NOTE TO SPECIFIER \*\* Delete widths options not required.

Width: 5/8 inch (15.9 mm)

Width: 7/8 inch (22 mm).

Width: 1-1/8 inch (28.5 mm).

Width: 1-3/8 inch (34.9 mm).

Width: 2-5/16 inch (58.7 mm).

Profiles: Putty.

\*\* NOTE TO SPECIFIER \*\* Delete widths options not required.

Width: 5/8 inch (15.9 mm)

Width: 7/8 inch (22 mm).

Width: 1-1/8 inch (28.5 mm).

Width: 1-3/8 inch (34.9 mm).

Width: 2-5/16 inch (58.7 mm).

Profiles: Contemporary.

\*\* NOTE TO SPECIFIER \*\* Delete widths options not required.

Width: 5/8 inch (15.9 mm)

Width: 7/8 inch (22 mm).

Width: 1-1/8 inch (28.5 mm).

Width: 1-3/8 inch (34.9 mm).

Width: 2-5/16 inch (58.7 mm).

Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Black.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Silver.

Finish: Steele Gray.

Finish: Dark Chocolate.

Finish: Hunter Green.

Finish: Heirloom White.

Finish: Smoke.

Finish: Bone White.

Finish: Ivory.

Finish: Luxury Bronze.

Finish: Mocha Cream.

Finish: Sea Foam.

Finish: Stone.

Finish: Flagstone.

Finish: Cocoa.

Finish: Cranberry.

Finish: Surf.

Finish: Moss.

Finish: Stormy.

Finish: Admiral.

Finish: Navy.

\*\* NOTE TO SPECIFIER \*\* Internal shadow bar will give the appearance of a true divided lite and is standard on all SDL units. Internal shadow bar may be deleted at the design professional's option. Delete internal shadow bar if not required.

* + - * 1. Internal Shadow Bar:

\*\* NOTE TO SPECIFIER \*\* Delete finish option not required.

Finish: Light Bronze finish; Standard.

Finish: Silver finish.

* + - * 1. Internal Spacer Bar:

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: Black; Standard.

Finish: Silver.

Finish: Gray.

* + - * 1. Interior Muntins:

Material: Clear pine permanently bonded to interior of insulating glass unit.

\*\* NOTE TO SPECIFIER \*\* Delete profile options not required.

Profile: Traditional Bar; Standard.

Profile: High Profile Bead.

Profile: Contemporary.

Profile: Putty.

* + - 1. Type: Full Surround Wood Grilles.
         1. Material: Unfinished clear pine.
         2. Profile: Modified OGEE.
         3. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

* + - * 1. Width: 7/8 inch (22 mm).
        2. Width: 1-1/8 inches (28.5 mm).
        3. Width: 1-3/8 inches (34.9 mm).
      1. Type: Grilles Between the Glass (GBG).
         1. Material: Made of roll formed aluminum suspended within the air cavity.

\*\* NOTE TO SPECIFIER \*\* Utilize flat for a narrow aesthetic and a contour profile for a wider aesthetic. Delete profile not required.

* + - * 1. Profile: Flat.

Width: 5/8 inch (15.9 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Dark Chocolate.

Finish: Black.

* + - * 1. Profile: Contour.

\*\* NOTE TO SPECIFIER \*\* Delete width option not required.

Width: 23/32 inch (18.25 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Black.

Finish: White Ext./Desert Sand Int.

Finish: Desert Sand Ext./White Int.

Finish: White Ext./Chestnut Bronze Int.

Finish: Chestnut Bronze Ext./White Int.

Finish: White Ext./Black Int.

Finish: Black Ext./White Int.

Finish: White Ext./French Vanilla Int.

Finish: French Vanilla Ext./White Int.

Finish: White Ext./Hartford Green Int.

Finish: Hartford Green Ext./White Int.

Finish: White Ext./Mesa Red Int.

Finish: Mesa Red Ext./White Int.

Width: 1 inch (25.4 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Dark Chocolate.

Finish: Black.

Finish: White Ext./Desert Sand Int.

Finish: Desert Sand Ext./White Int.

* + - * 1. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required. Also delete options in Part 1 and 3 of this section corresponding to products selected.

* 1. ALUMINUM-CLAD PATIO DOOR ASSEMBLlES
     1. Basis of Design: Custom EPIC Series patio door assemblies as manufactured by JELD-WEN, Inc.

\*\* NOTE TO SPECIFIER \*\* Delete options for patio door type not required. Also delete options in the following paragraphs corresponding to patio door type selection, as described in the notes to specifier.

* + - 1. Patio Door Type: In-swing patio doors, wood construction.
      2. Patio Door Type: Out-swing patio doors, wood construction.
    1. Patio Door Fabrication:
       1. Glass: Mounted using silicone glazing compound.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead options not required.

* + - 1. Glazing Bead: Traditional Beveled.
      2. Glazing Bead: Contemporary Square.
      3. Glazing Bead: Flush.
    1. Frames:
       1. Material: Select kiln-dried pine AuraLast treated wood.
       2. Jamb Width: 4-9/16 inches (116 mm).
       3. Cladding: 0.050 inch (1.27 mm) extruded aluminum.
    2. Swinging Door Panels:

\*\* NOTE TO SPECIFIER \*\* Number of panels per patio door unit varies by door size. Include number of panels under "Size" in Part 3 Schedule Article.

* + - 1. Material: Select kiln-dried pine AuraLast treated wood and engineered wood substrate core.
      2. Cladding: 0.050 inch (1.27 mm) extruded aluminum.
      3. Thickness: 1-23/32 inch (43.7 mm).
      4. Layout: 6-5/8 inch (168.3 mm) top rail and stiles.

\*\* NOTE TO SPECIFIER \*\* Delete stiles option not required.

* + - 1. Stiles: Wide: 6-5/8 inch (168.3 mm)
      2. Stiles: Narrow: 4-5/8 inch (117.8 mm)

\*\* NOTE TO SPECIFIER \*\* Delete bottom rail option not required.

* + - 1. Bottom Rail: 11 inch (279.4 mm).
      2. Bottom Rail: 11 inch with Craftsman Options (279.4 mm).

\*\* NOTE TO SPECIFIER \*\* Delete radius top rail option not required.

* + - 1. Radius Top Rail: Not required.
      2. Radius Top Rail: Required.
    1. Exterior Trim:

\*\* NOTE TO SPECIFIER \*\* Select optional casing when construction conditions or aesthetics require inclusion. Utilize the following trims for indicated applications: Brickmould with masonry veneers; Flat Casing for narrow, Adams Casing for medium aesthetic conditions. Delete casing options not required.

* + - 1. Casing: Folding Nail Flange; Standard.
      2. Casing: Nail Flange.
      3. Casing: Brickmould.
      4. Casing: Adams Casing.
      5. Casing: 3-1/2 inch (88.9 mm) Flat Casing.
      6. Casing: 2 inch (50.8 mm) Flat Casing.
      7. Casing: Manchester Casing.
      8. Casing: No Exterior Trim.
      9. Casing: Aluminum Pendleton Casing.
      10. Casing: Aluminum Kenison Casing.
    1. Extension Jambs: Factory applied on three sides of frame interior, in wall depths up to 6-9/16 inches (166.7 mm).
    2. Weatherstripping: Continuous dual foam filled bulb seal compressed between exterior of panel and three sides of frame. Manufacturer's standard two-piece adjustable astragal on double door units.
    3. Sills:

\*\* NOTE TO SPECIFIER \*\* Delete sill option not required.

* + - 1. ADA Accessible Sill: 1/2 inch (12.7 mm) high, dark bronze anodized aluminum with kick plate and integral door sweep at panel; Standard.
      2. No sill required.

\*\* NOTE TO SPECIFIER \*\* Custom EPIC patio doors come standard with no handle set or bore.

* + 1. Hardware:
       1. Swinging Doors:

\*\* NOTE TO SPECIFIER \*\* Delete hinges option not required.

* + - * 1. Hinges: Ball Bearing Hinge; Standard.
        2. Hinges: 4-1/2 inches (114.3 mm) Ball Bearing Hinges; square corners.

\*\* NOTE TO SPECIFIER \*\* Delete hinge finish options not required.

* + - * 1. Hinge Finish: As selected by Architect.
        2. Hinge Finish: Brushed Chrome.
        3. Hinge Finish: Polished Brass.
        4. Hinge Finish: Authentic Oil-Rubbed Bronze.
        5. Hinge Finish: Satin Nickel.

\*\*NOTE TO SPECIFIER \*\* Delete locks and handle sets options not required.

* + - * 1. Locks: No Lock; Standard.
        2. Locks: 3-5/8 Lock and Deadbolt.
        3. Locks: 5-1/2 Lock and Deadbolt.
        4. Handle Set: No Handle; Standard.
        5. Handle Set: Dane Lever.
        6. Handle Set: Quantum Lever.
        7. Handle Set: Von Duprin 996L Rhodes with Escutch and Lock (1 per act).
        8. Handle Set: Von Duprin 996L Sparta with Escutch and Lock (1 per act).
        9. Handle Set: Donjo 4 x16 inch (102 x 406 mm) Pull Plate; no cylinder lock.

\*\* NOTE TO SPECIFIER \*\* Delete handle set finish options not required.

* + - * 1. Handle Set Finish: As Selected by Architect
        2. Handle Set Finish: Bronze; Standard.
        3. Handle Set Finish: Satin.

\*\* NOTE TO SPECIFIER \*\* Delete exit device options not required.

* + - * 1. Exit Device: None; Standard.
        2. Exit Device: Von Duprin - Exit Device; 1 per active panel.
        3. Exit Device: Falcon - Exit Device with Crossbar.

\*\* NOTE TO SPECIFIER \*\* Delete closer and closer finish options not required.

* + - * 1. Closer: None; Standard.
        2. Closer: LCN1461 Closer - 1 per active panel.
        3. Closer Finish: Powder Coat Dark Bronze finish; Standard.
        4. Closer Finish: Powder Coat Aluminum

\*\* NOTE TO SPECIFIER \*\* Delete Kickplate options not required.

* + - * 1. Kickplate: None; Standard.
        2. Kickplate: Donjo Interior Only.
        3. Kickplate Finish: Authentic Oil Rubbed Bronze.
        4. Kickplate Finish: Stainless Steel.

\*\* NOTE TO SPECIFIER \*\* Various types of glass are available. The most common types have been included here. Contact a JELD-WEN representative when other options are required. Reflective glare from glazing has been found to affect the beach nesting of turtles in coastal environments. Some governing authorities require the use of turtle glass which uses tinted glass to achieve an industry-approved, inside-to-outside visible light transmittance value of 45 percent or less (visible spectrum is 400 to 700 nanometers). Verify the requirements for turtle glass with local authorities in coastal environments. Laminated glass uses a vinyl interlayer to provide added security against impact, comfort with higher STC ratings and energy savings by blocking UV energy.

* + 1. Glazing for Patio Doors:

\*\* NOTE TO SPECIFIER \*\* Delete options for glazing type and associated subparagraphs not required.

* + - 1. Glazing Type: Insulated Wet Interior Glaze.
         1. Description: Two panes of glass utilizing continuous roll formed stainless steel spacer and dual seal sealants.
         2. Overall Nominal Thickness: 3/4 inch (19 mm).

\*\* NOTE TO SPECIFIER \*\* Delete glass coating options not required.

* + - * 1. Glass Coating: Low-E 366 Tempered; Standard.
        2. Glass Coating: Low-E Tempered.
        3. Glass Coating: Low-E 180 Tempered.
        4. Glass Coating: Low-E EC Tempered.
        5. Glass Coating: Low E EC 366 Tempered; i89 In/366 Out.
        6. Glass Protection: Plastic preserve film on interior and exterior of glass.

\*\* NOTE TO SPECIFIER \*\* Argon option is only available with Low E coating and cannot be used with capillary tubes. Delete air space gas option not required. Installations at elevations above 4,000 feet Mean Sea Level require glazing known as High Altitude glazing with capillary tubes to equalize environmental stress.

* + - * 1. Air Space: Argon; Standard.
        2. Air Space: High Altitude; above 4000 ft (1219.2 m) elevation.
      1. Glazing Type: Single Wet Interior Glaze.

\*\* NOTE TO SPECIFIER \*\* Delete glass coating options not required.

* + - * 1. Glass Coating: As selected by Architect.
        2. Glass Coating: Clear Tempered; Standard.
        3. Glass Coating: Bronze Tempered.
        4. Glass Coating: Gray Tempered.
        5. Glass Coating: Obscure Tempered.
        6. Glass Coating: Clear Tempered plus Laminated; meets CA Urban Fire Code.
        7. Glass Protection: No Protective Film.
    1. Exterior Sliding Insect Screens: None.

\*\* NOTE TO SPECIFIER \*\* SDL Grilles are not available for textured glass. Grilles between the glass are not available on monolithic (single pane) glass. Select grilles, profiles and widths based on the desired aesthetic appearance of the window. Delete if not required.

* + 1. Grilles:

\*\* NOTE TO SPECIFIER \*\* Delete types not required.

* + - 1. Type: Simulated Divided Lites (SDL).
         1. Exterior Muntins:

Material: Extruded aluminum permanently applied to exterior of insulating glass unit.

\*\* NOTE TO SPECIFIER \*\* Select profile based on desired aesthetics. Utilize bead stop for a flattened curve aesthetic and a putty profile for a deeper angular aesthetic. Delete profiles not required.

Profiles: Beaded.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

Width: 5/8 inch (16 mm).

Width: 7/8 inch (22 mm).

Width: 1-1/8 inch (28.5 mm).

Width: 1-3/8 inch (34.9 mm).

Width: 2-5/16 inch (58.7 mm).

Profiles: Putty.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

Width: 5/8 inch (16 mm).

Width: 7/8 inch (22 mm).

Width: 1-1/8 inches (28.5 mm).

Width: 1-3/8 inches (34.9 mm).

Width: 2-5/16 inches (58.7 mm).

Profiles: Contemporary.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

Width: 5/8 inch (16 mm).

Width: 7/8 inch (22 mm).

Width: 1-1/8 inches (28.5 mm).

Width: 1-3/8 inches (34.9 mm).

Width: 2-5/16 inches (58.7 mm).

Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Black.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Silver.

Finish: Steele Gray.

Finish: Dark Chocolate.

Finish: Hunter Green.

Finish: Heirloom White.

Finish: Smoke.

Finish: Bone White.

Finish: Ivory.

Finish: Luxury Bronze.

Finish: Mocha Cream.

Finish: Sea Foam.

Finish: Stone.

Finish: Flagstone.

Finish: Cocoa.

Finish: Cranberry.

Finish: Surf.

Finish: Moss.

Finish: Stormy.

Finish: Admiral.

Finish: Navy.

\*\* NOTE TO SPECIFIER \*\* Internal shadow bar will give the appearance of a true divided lite and is standard on all SDL units. Internal shadow bar may be deleted at the design professional's option. Delete internal shadow bar if not required.

* + - * 1. Internal Shadow Bar:

\*\* NOTE TO SPECIFIER \*\* Delete finish option not required.

Finish: Light Bronze finish; Standard.

Finish: Silver finish.

* + - * 1. Internal Spacer Bar:

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

Colors: Black; Standard.

Colors: Silver.

Colors: Gray.

* + - * 1. Interior Muntins:

Material: Clear pine permanently bonded to interior of insulating glass unit.

Profile: Match exterior muntin.

* + - 1. Type: Full Surround Wood Grilles.
         1. Material: Unfinished clear pine.
         2. Profile: Rectangular.
         3. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete width options required.

* + - * 1. Width: 7/8 inch (22 mm).
        2. Width: 1-1/8 inches (28.5 mm).
        3. Width: 1-3/8 inches (34.9 mm).
      1. Type: Grilles Between the Glass (GBG).
         1. Material: Made of roll formed aluminum suspended within the air cavity.

\*\* NOTE TO SPECIFIER \*\* Utilize flat for a narrow aesthetic and a contour profile for a wider aesthetic. Delete profile not required.

* + - * 1. Profile: Flat.

Width: 5/8 inch (15.9 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Dark Chocolate.

Finish: Black.

* + - * 1. Profile: Contour.

\*\* NOTE TO SPECIFIER \*\* Delete width not required.

Width: 23/32 inch (18.25 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Black.

Finish: White Ext./Desert Sand Int.

Finish: Desert Sand Ext./White Int.

Finish: White Ext./Chestnut Bronze Int.

Finish: Chestnut Bronze Ext./White Int.

Finish: White Ext./Black Int.

Finish: Black Ext./White Int.

Finish: White Ext./French Vanilla Int.

Finish: French Vanilla Ext./White Int.

Finish: White Ext./Hartford Green Int.

Finish: Hartford Green Ext./White Int.

Finish: White Ext./Mesa Red Int.

Finish: Mesa Red Ext./White Int.

Width: 1 inch (25.4 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Dark Chocolate.

Finish: Black.

Finish: White Ext./Desert Sand Int.

Finish: Desert Sand Ext./White Int.

* + - * 1. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. WOOD WINDOWS AND PATIO DOORS - GENERAL
     1. Design Requirements:
        1. Compliance: Provide assemblies capable of complying with requirements indicated, based on testing manufacturer's patio doors that are representative of those specified.
        2. Test Size: In compliance with requirements of AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS).

\*\* NOTE TO SPECIFIER \*\* Include patio door design pressure (DP) ratings as part of the performance requirements. Required DP will vary dependent on project site, the location in the building and door size. Coordinate DP with the Structural Engineer. DP ratings and related patio door size and style are available at www.jeld-wen.com or by contacting a JELD-WEN representative. Insert value or refer to drawing information.

* + - 1. Structural Requirements: Provide assemblies complying with requirements indicated:
         1. Performance Class: As indicated on drawings.
         2. Performance Class: \_\_\_\_\_\_\_\_.
         3. Performance Grade: As indicated on drawings.
         4. Performance Grade: \_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Include NFRC ratings as part of the performance requirements. NFRC ratings qualifying for the Energy Star program are based on the performance of whole assembly. Qualifying assemblies vary to fit the needs of different regions throughout the country. NFRC ratings and related JELD-WEN size and styles are available at www.jeld-wen.com or by contacting a JELD-WEN representative. Insert values or the phrase ' As scheduled and indicated on Drawings' as applicable.

* + - 1. NFRC Requirements: Provide assemblies complying with the following total window ratings:
         1. U-Factor: \_\_\_\_\_\_\_\_ in accordance with NFRC 100.
         2. Solar Heat Gain Coefficient (SHGC): \_\_\_\_\_\_\_\_ in accordance with NFRC 200.
         3. Visible Transmittance (VT): \_\_\_\_\_\_\_\_ in accordance with NFRC 200.
    1. Materials:

\*\* NOTE TO SPECIFIER \*\* AuraLast® is a trademark preservative treatment by JELD-WEN and is distinguished from traditional preservation methods by its minimum treatment penetration of 92 percent. Delete species options not required.

* + - 1. Species: As selected by Architect.
      2. Species: AuraLast Pine; Standard.
      3. Species: Mahogany.
      4. Species: Vertical Grain Douglas Fir.
    1. Installation Accessories:

\*\* NOTE TO SPECIFIER \*\* Accessories compatible with windows, patio doors and required installation may be specified in this section or in related sections. Coordinate with related sections so as not to duplicate information.

* + - 1. Flashing: Refer to Section 07 60 00 - Flashing and Sheet Metal.

\*\* NOTE TO SPECIFIER \*\* Insert product and manufacturer in blank below or delete line as applicable. Delete options for sealants not required.

* + - 1. Sealants: OSI Sealants by Henkel Corporation.
      2. Sealants: Refer to Section 07 92 00 (07920) - Joint Sealants.
      3. Sealants: Manufacturer recommended sealants maintain watertight conditions.

\*\* NOTE TO SPECIFIER \*\* Interior wood is left unfinished for field finishing unless indicated otherwise.

* + 1. Interior Finishes for windows:

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - 1. Finish: Natural; Standard.
      2. Finish: Primed.
      3. Finish: Pre-finished paint.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Brilliant White.
        3. Color: Desert Sand.
        4. Color: Ivory.
        5. Color: Black.
        6. Color: Dove.
        7. Color: Gunmetal.
        8. Color: Black Frame and Brilliant White Sash.
        9. Color: Brilliant White and Black Sash.
      1. Finish: Pre-finished stain finish.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Cordovan.
        3. Color: Fruitwood.
        4. Color: Walnut.
        5. Color: Americano.
        6. Color: Charcoal.
        7. Color: Kodiak.
      1. Finish: Pre-finished clear lacquer finish.
    1. Exterior Finishes for Windows:

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - 1. Finish: Primed; Standard.
      2. Finish: Natural.

\*\* NOTE TO SPECIFIER \*\* Prefinished sash only colors not available for windows. Delete if not required.

* + 1. Interior Finishes for Patio Doors:
       1. Finish: Natural; Standard.
       2. Finish: Primed.
       3. Finish: Pre-finished paint.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Brilliant White.
        3. Color: Desert Sand.
        4. Color: Ivory.
        5. Color: Black.
        6. Color: Dove.
        7. Color: Gunmetal.
        8. Color: Black Frame and Brilliant White Sash.
        9. Color: Brilliant White and Black Sash.
      1. Finish: Pre-finished stain finish.

\*\* NOTE TO SPECIFIER \*\* Delete color options not required.

* + - * 1. Color: As selected by Architect.
        2. Color: Cordovan.
        3. Color: Fruitwood.
        4. Color: Walnut.
        5. Color: Americano.
        6. Color: Charcoal.
        7. Color: Kodiak.
      1. Finish: Pre-finished clear lacquer finish
    1. Exterior Finishes for Patio Doors:

\*\* NOTE TO SPECIFIER \*\* Delete finish not required.

* + - 1. Finish: Primed; Standard.
      2. Finish: Natural.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required. Also delete options in Part 1 and 3 of this section corresponding to products selected.

* 1. WOOD WINDOW ASSEMBLlES
     1. Basis of Design: Custom EPIC Series wood window assemblies as manufactured by JELD-WEN, Inc.
     2. Window Fabrication:
        1. Awning Windows:
           1. Frame: Corner joints mechanically fastened.
           2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
           3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead option not required.

Glazing Bead: Traditional Beveled.

Glazing Bead: Contemporary Square.

* + - 1. Casement Windows:
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead option not required.

Glazing Bead: Traditional Beveled.

Glazing Bead: Contemporary Square.

* + - 1. Double-Hung Windows:
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

Glazing Bead: Traditional Beveled.

* + - 1. Fixed Double-Hung Windows:
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

Glazing Bead: Traditional Beveled.

* + - 1. Fixed Casement Windows:
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead option not required.

Glazing Bead: Traditional Beveled.

Glazing Bead: Contemporary Square.

* + - 1. Insash Casement/Awning Radius and Geometric Windows:
         1. Frame: Corner joints mechanically fastened.
         2. Sash: Corner joints mortised and tenoned, glued and nailed from interior.
         3. Glass: Mounted using silicone glazing compound on exterior, secured with interior applied profiled wood stops.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead option not required.

Glazing Bead: Traditional Beveled.

Glazing Bead: Contemporary Square.

* + 1. Frames:
       1. Material: Select kiln-dried pine AuraLast treated wood.
       2. Casement, Awning and Picture Windows Base Frame: 3-3/16 inches (80.96 mm).
       3. Double-Hung Window Base Frame: 5-1/2 inches (140 mm).
    2. Sash:

\*\* NOTE TO SPECIFIER \*\* Delete options for sashes corresponding to window types not required.

* + - 1. Material: Select kiln-dried pine AuraLast treated wood.
      2. Sash Thickness: Double-Hung Windows. 1-3/4 inches (44 mm).

\*\* NOTE TO SPECIFIER \*\* Upper Sash Options apply only to Double-Hung Windows. Delete upper sash options not required or delete all options if double hung windows are not required.

* + - * 1. Double-Hung Windows Upper Sash: Standard Double-Hung.
        2. Double-Hung Windows Upper Sash: Single-Hung - Fixed Top Sash.
        3. Double-Hung Windows Upper Sash: Fixed Upper/Fixed Lower.
    1. Exterior Trim:

\*\* NOTE TO SPECIFIER \*\* Select optional casing when construction conditions or aesthetics require inclusion. Utilize the following trims for indicated applications: Brickmould with masonry veneers; Flat Casing for narrow, Adams Casing for medium aesthetic conditions. Delete casing options not required.

* + - 1. Casing: Brickmould; Standard.
      2. Casing: No Exterior Trim.
      3. Casing: 2 inch (50.8 mm) Flat Casing.
      4. Casing: 3-1/2 inch (88.9 mm) Flat Casing.
      5. Casing: 4-1/2 inch (114.3 mm) Flat Casing.
      6. Casing: 5-1/2 inch (139.7 mm) Flat Casing.
      7. Casing: Adams Casing.
      8. Casing: Stucco Brickmould.
      9. Casing: Heritage Brickmould.
      10. Casing: 1x4 with Backband Casing.
      11. Casing: Bullnose Casing.
      12. Casing: Wood Pendleton Casing.
      13. Casing: Subsill/Sillnose Only.
      14. Casing: 3-1/2 inch (88.9 mm) Side/5-1/2 inch (139.7 mm) Head Casing.

\*\* NOTE TO SPECIFIER \*\* Delete sill options not required.

* + - 1. Sill Nosing: Standard Sill Nosing; Standard.
      2. Sill Nosing: Extended Sill Nosing.
      3. Sill Horn: No Sill Horn.
      4. Sill Horn: Extended Sill Horn.

\*\* NOTE TO SPECIFIER \*\* Delete all mull caps options when window layout does not require units to be joined (mulled) together at the factory. Otherwise delete mull caps options not required.

* + - 1. Mull Caps: 1/2 inch (12.7 mm) width; Standard.
      2. Mull Caps: 1 inch (25.4 mm) width.
      3. Mull Caps: 2 inches (50.8 mm) width.
      4. Mull Caps: 3-1/2 inches (88.9 mm) width.
      5. Mull Caps: 6 inches (152.4 mm) width.
    1. Factory Applied Extension Jambs: Provide on four sides of frame interior 5/4 up to 7-1/2 inches (190.5 mm).
    2. Weatherstripping: Foam lined jamb liners forming a compression seal against sash stiles, dual durometer bulb seal between top and bottom rails of sash and frame, and bulb seal between top rail and header, and between sash meeting rails.

\*\* NOTE TO SPECIFIER \*\* In applications where both operable and non-operable casement or awning windows are desired, to maintain the aesthetic profile specify "stationary" awning or casement units.

* + 1. Window Hardware:
       1. Awning Windows:
          1. Hinges: Sliding steel reinforced nylon shoe in stainless steel track.

\*\* NOTE TO SPECIFIER \*\* Delete operator option not required.

* + - * 1. Operator: Single pull scissor arm with track; Standard.
        2. Operator: Dual pull scissor arm with bracket
        3. Operator/Hinge Finish: Stainless Steel; Standard.
        4. Handle Profile: Nesting Crank Handle; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Matte Black.

Finish: Satin Nickel.

* + - * 1. Handle Profile: Round Handle.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Satin Nickel.

* + - * 1. Handle Profile: No Handle.
      1. Casement Windows:

\*\* NOTE TO SPECIFIER \*\* Delete hinges options not required.

* + - * 1. Hinges: Sliding steel reinforced nylon shoe in stainless steel track; Standard.
        2. Hinges: Butt Hinge, Single Arm Operator.
        3. Hinges: Egress Hinge.

\*\* NOTE TO SPECIFIER \*\* Delete operator not required.

* + - * 1. Operator: Single pull scissor arm with track; Standard.
        2. Operator: Dual pull scissor arm with bracket.
        3. Operator/Hinge Finish: Stainless Steel; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete handle not required.

* + - * 1. Handle Profile: Nesting Crank Handle; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Matte Black.

Finish: Satin Nickel.

* + - * 1. Handle Profile: Round Handle.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Satin Nickel.

* + - * 1. Handle Profile: No Handle.
      1. Double-Hung Windows:
         1. Balance: Compression type block and tackle.

\*\* NOTE TO SPECIFIER \*\* Delete lock options not required.

* + - * 1. Lock: Cam Locks; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Matte Black.

Finish: Satin Nickel.

* + - * 1. Lock: Keyed Cam Locks.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by architect

Finish: White; Standard.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Polished Brass.

Finish: Antique Brass.

Finish: Brushed Chrome.

Finish: Polished Chrome.

Finish: Authentic Oil-Rubbed Bronze.

Finish: Gloss Black.

Finish: Matte Black.

Finish: Satin Nickel.

* + - * 1. Sash Retainer: Recessed top and bottom.

\*\* NOTE TO SPECIFIER \*\* Delete finger lifts option not required.

* + - * 1. Finger Lifts: No Finger Lifts.
        2. Finger Lifts: With Finger Lifts.

\*\* NOTE TO SPECIFIER \*\* Delete jamb liner finish option not required.

* + - * 1. Jamb Liner Finish: Beige.
        2. Jamb Liner Finish: White.
      1. Fixed Windows: None.
      2. Insash Casement/Awning Geometric windows: None.

\*\* NOTE TO SPECIFIER \*\* Various types of glass are available. The most common types have been included here. Contact a JELD-WEN representative when other options are required. Reflective glare from glazing has been found to affect the beach nesting of turtles in coastal environments. Some governing authorities require the use of turtle glass which uses tinted glass to achieve an industry-approved, inside-to-outside visible light transmittance value of 45 percent or less (visible spectrum = 400 to 700 nanometers). Verify the requirements for turtle glass with local authorities in coastal environments. Laminated glass uses a vinyl interlayer to provide added security against impact, comfort with higher STC ratings and energy savings by blocking UV energy.

* + 1. Glazing for Windows:

\*\* NOTE TO SPECIFIER \*\* Delete options for glazing type and associated subparagraphs not required.

* + - 1. Glazing Type: Insulated glass.
         1. Description: Two panes of glass utilizing continuous roll formed stainless steel spacer and dual seal sealants.

\*\* NOTE TO SPECIFIER \*\* Delete strength options not required.

* + - * 1. Strength: Annealed; Standard.
        2. Strength: Tempered; meets CA Urban Fire Code.
        3. Strength: Tempered In/Annealed Out; meets CA Urban Fire Code.
        4. Overall Nominal Thickness: 3/4 inch (19 mm).

\*\* NOTE TO SPECIFIER \*\* Delete glass coating options not required.

* + - * 1. Glass Coating: As selected by Architect.
        2. Glass Coating: Low-E 366; Standard.
        3. Glass Coating: Low-E.
        4. Glass Coating: Low-E 180.
        5. Glass Coating: Low-E EC.
        6. Glass Coating: Low-E EC 366; i89 In/366 Out.
        7. Glass Protection: Plastic preserve film on interior and exterior of glass.

\*\* NOTE TO SPECIFIER \*\* Argon option is only available with Low E coating and cannot be used with capillary tubes. Delete air space gas option not required. Installations at elevations above 4,000 feet Mean Sea Level require glazing known as High Altitude glazing with capillary tubes to equalize environmental stress.

* + - * 1. Air Space: Argon; Standard.
        2. Air Space: High Altitude; above 4000 ft (1219.2 m) elevation.
      1. Glazing Type: Triple Glazing.
         1. Description: Three panes of glass utilizing continuous roll formed stainless steel spacer and dual seal sealants.
         2. Overall Nominal Thickness: 1-1/4 inches (31.75 mm).

\*\* NOTE TO SPECIFIER \*\* Delete glass coating options not required.

* + - * 1. Glass Coating: As selected by Architect.
        2. Glass Coating: Low-E; Standard.
        3. Glass Coating: Low-E Obscure.
        4. Glass Coating: Low-E Glue Chip.
        5. Glass Coating: Low-E Delta Frost.

\*\* NOTE TO SPECIFIER \*\* Exterior insect screens are available for double-hung windows. Delete if not required.

* + 1. Exterior Insect Screens:

\*\* NOTE TO SPECIFIER \*\* Delete materials not required.

* + - 1. Material: Black UltraVue fiberglass screen cloth (19 x 19 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Hartford Green.
        7. Finish: Mesa Red.
        8. Finish: Silver.
        9. Finish: Steele Gray.
        10. Finish: Dark Chocolate.
        11. Finish: Hunter Green.
        12. Finish: Bone White.
        13. Finish: Heirloom White.
        14. Finish: Smoke.
        15. Finish: Ivory.
        16. Finish: Luxury Bronze.
        17. Finish: Mocha Cream.
        18. Finish: Sea Foam.
        19. Finish: Stone.
        20. Finish: Flagstone.
        21. Finish: Cocoa.
        22. Finish: Cranberry.
        23. Finish: Surf.
        24. Finish: Moss.
        25. Finish: Stormy.
        26. Finish: Admiral.
        27. Finish: Navy.
        28. Finish: Black.
      1. Material: Charcoal aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Hartford Green.
        7. Finish: Mesa Red.
        8. Finish: Silver.
        9. Finish: Steele Gray.
        10. Finish: Dark Chocolate.
        11. Finish: Hunter Green.
        12. Finish: Bone White.
        13. Finish: Heirloom White.
        14. Finish: Smoke.
        15. Finish: Ivory.
        16. Finish: Luxury Bronze.
        17. Finish: Mocha Cream.
        18. Finish: Sea Foam.
        19. Finish: Stone.
        20. Finish: Flagstone.
        21. Finish: Cocoa.
        22. Finish: Cranberry.
        23. Finish: Surf.
        24. Finish: Moss.
        25. Finish: Stormy.
        26. Finish: Admiral.
        27. Finish: Navy.
        28. Finish: Black.
      1. Material: Silver aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Hartford Green.
        7. Finish: Mesa Red.
        8. Finish: Silver.
        9. Finish: Steele Gray.
        10. Finish: Dark Chocolate.
        11. Finish: Hunter Green.
        12. Finish: Bone White.
        13. Finish: Heirloom White.
        14. Finish: Smoke.
        15. Finish: Ivory.
        16. Finish: Luxury Bronze.
        17. Finish: Mocha Cream.
        18. Finish: Sea Foam.
        19. Finish: Stone.
        20. Finish: Flagstone.
        21. Finish: Cocoa.
        22. Finish: Cranberry.
        23. Finish: Surf.
        24. Finish: Moss.
        25. Finish: Stormy.
        26. Finish: Admiral.
        27. Finish: Navy.
        28. Finish: Black.
      1. Material: Bronze aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Hartford Green.
        7. Finish: Mesa Red.
        8. Finish: Silver.
        9. Finish: Steele Gray.
        10. Finish: Dark Chocolate.
        11. Finish: Hunter Green.
        12. Finish: Bone White.
        13. Finish: Heirloom White.
        14. Finish: Smoke.
        15. Finish: Ivory.
        16. Finish: Luxury Bronze.
        17. Finish: Mocha Cream.
        18. Finish: Sea Foam.
        19. Finish: Stone.
        20. Finish: Flagstone.
        21. Finish: Cocoa.
        22. Finish: Cranberry.
        23. Finish: Surf.
        24. Finish: Moss.
        25. Finish: Stormy.
        26. Finish: Admiral.
        27. Finish: Navy.
        28. Finish: Black.

\*\* NOTE TO SPECIFIER \*\* Delete screen style option not required.

* + - 1. Screen Style: Full Screen.
      2. Screen Style: Half Screen.

\*\* NOTE TO SPECIFIER \*\* Interior insect screens are available for awning, casement and radius and geometric windows. Delete if not required.

* + 1. Interior Insect Screens:

\*\* NOTE TO SPECIFIER \*\* Delete material options not required.

* + - 1. Material: Black UltraVue fiberglass screen cloth (19 x 19 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Silver.
        7. Finish: Steele Gray.
        8. Finish: Dark Chocolate.
        9. Finish: Black.
      1. Material Black UltraVue fiberglass screen cloth (19 x 19 mesh) set in a wood veneer roll formed aluminum screen.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Pine.
        3. Finish: Knotty Alder.
        4. Finish: Mahogany.
        5. Finish: Fir.
        6. Finish: Red Oak.
        7. Finish: Walnut.
        8. Finish: Cherry.
        9. Finish: White Oak.
        10. Finish: Alder.
      1. Material: Charcoal aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Silver.
        7. Finish: Steele Gray.
        8. Finish: Dark Chocolate.
        9. Finish: Black.
      1. Material: Silver aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Silver.
        7. Finish: Steele Gray.
        8. Finish: Dark Chocolate.
        9. Finish: Black.
      1. Material: Bronze aluminum screen cloth (18 by 16 mesh) set in painted roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Brilliant White.
        3. Finish: Desert Sand.
        4. Finish: Chestnut Bronze.
        5. Finish: French Vanilla.
        6. Finish: Silver.
        7. Finish: Steele Gray.
        8. Finish: Dark Chocolate.
        9. Finish: Black.
      1. Material: Charcoal aluminum screen cloth (18 by 16 mesh) set in wood veneer roll formed aluminum frame; Standard.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Pine.
        3. Finish: Knotty Alder.
        4. Finish: Mahogany.
        5. Finish: Fir.
        6. Finish: Red Oak.
        7. Finish: Walnut.
        8. Finish: Cherry.
        9. Finish: White Oak.
        10. Finish: Alder.
      1. Material: Silver aluminum screen cloth (18 by 16 mesh) set in wood veneer roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Pine.
        3. Finish: Knotty Alder.
        4. Finish: Mahogany.
        5. Finish: Fir.
        6. Finish: Red Oak.
        7. Finish: Walnut.
        8. Finish: Cherry.
        9. Finish: White Oak.
        10. Finish: Alder.
      1. Material: Bronze aluminum screen cloth (18 by 16 mesh) set in wood veneer roll formed aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - * 1. Finish: As selected by Architect.
        2. Finish: Pine.
        3. Finish: Knotty Alder.
        4. Finish: Mahogany.
        5. Finish: Fir.
        6. Finish: Red Oak.
        7. Finish: Walnut.
        8. Finish: Cherry.
        9. Finish: White Oak.
        10. Finish: Alder.

\*\* NOTE TO SPECIFIER \*\* SDL Grilles are not available for textured glass. Grilles between the glass are not available on monolithic (single pane) glass. Select grilles, profiles and widths based on the desired aesthetic appearance of the window. Delete if not required.

* + 1. Grilles:

\*\* NOTE TO SPECIFIER \*\* Delete type options not required.

* + - 1. Type: Simulated Divided Lites (SDL).
         1. Exterior Muntins:

Material: Extruded aluminum permanently applied to exterior of insulating glass unit.

\*\* NOTE TO SPECIFIER \*\* Select profile based on desired aesthetics. Utilize bead stop for a flattened curve aesthetic and a putty profile for a deeper angular aesthetic. Delete profile options not required.

Profiles: Beaded.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

Width: 5/8 inch (15.9 mm).

Width: 7/8 inch (22 mm).

Width: 1-1/8 inch (28.5 mm).

Width: 1-3/8 inch (34.9 mm).

Width: 2-5/16 inch (58.7 mm).

Profiles: Putty.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

Width: 5/8 inch (15.9 mm).

Width: 7/8 inch (22 mm).

Width: 1-1/8 inch (28.5 mm).

Width: 1-3/8 inch (34.9 mm).

Width: 2-5/16 inch (58.7 mm).

Profiles: Contemporary.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

Width: 5/8 inch (15.9 mm).

Width: 7/8 inch (22 mm).

Width: 1-1/8 inch (28.5 mm).

Width: 1-3/8 inch (34.9 mm).

Width: 2-5/16 inch (58.7 mm).

Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Primed Aluminum.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: Black.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Silver.

Finish: Steele Gray.

Finish: Dark Chocolate.

Finish: Hunter Green.

Finish: Bone White.

Finish: Heirloom White.

Finish: Smoke.

Finish: Ivory.

Finish: Luxury Bronze.

Finish: Mocha Cream.

Finish: Sea Foam.

Finish: Stone.

Finish: Flagstone.

Finish: Cocoa.

Finish: Cranberry.

Finish: Surf.

Finish: Moss.

Finish: Stormy.

Finish: Admiral.

Finish: Navy.

\*\* NOTE TO SPECIFIER \*\* Internal shadow bar will give the appearance of a true divided lite and is standard on all SDL units. Internal shadow bar may be deleted at the design professional's option. Delete internal shadow bar if not required.

* + - * 1. Internal Shadow Bar:

\*\* NOTE TO SPECIFIER \*\* Delete finish option not required.

Finish: Light Bronze; Standard.

Finish: Silver.

* + - * 1. Interior Spacer Bars:

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: Black; Standard.

Finish: Silver.

Finish: Gray.

* + - * 1. Interior Muntins:

Material: Clear pine permanently bonded to interior of insulating glass unit.

\*\* NOTE TO SPECIFIER \*\* Delete profile options not required.

Profile: Traditional Bar; Standard.

Profile: High Profile Bead.

Profile: Contemporary.

Profile: Putty.

* + - 1. Type: Full Surround Wood Grilles.
         1. Material: Unfinished clear pine.

\*\* NOTE TO SPECIFIER \*\* Delete profile options not required.

* + - * 1. Profile: Traditional Bar; Standard.
        2. Profile: High Profile Bead.
        3. Profile: Contemporary.
        4. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

* + - * 1. Width: 7/8 inch (22 mm).
        2. Width: 1-1/8 inches (28.5 mm).
        3. Width: 1-3/8 inches (34.9 mm).
      1. Type: Grilles Between the Glass (GBG).
         1. Material: Made of roll formed aluminum suspended within the air cavity.

\*\* NOTE TO SPECIFIER \*\* Utilize flat for a narrow aesthetic and a contour profile for a wider aesthetic. Delete profile option not required.

* + - * 1. Profile: Flat.

Width: 5/8 inch (15.9 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Dark Chocolate.

Finish: Black.

* + - * 1. Profile: Contour.

\*\* NOTE TO SPECIFIER \*\* Delete width option not required.

Width: 23/32 inch (18.25 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Black.

Finish: White Ext./Desert Sand Int.

Finish: Desert Sand Ext./White Int.

Finish: White Ext./Chestnut Bronze Int.

Finish: Chestnut Bronze Ext./White Int.

Finish: White Ext./Black Int.

Finish: Black Ext./White Int.

Finish: White Ext./French Vanilla Int.

Finish: French Vanilla Ext./White Int.

Finish: White Ext./Hartford Green Int.

Finish: Hartford Green Ext./White Int.

Finish: White Ext./Mesa Red Int.

Finish: Mesa Red Ext./White Int.

Width: 1 inch (25.4 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Dark Chocolate.

Finish: Black.

Finish: White Ext./Desert Sand Int.

Finish: Desert Sand Ext./White Int.

* + - * 1. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required. Also delete options in Part 1 and 3 of this section corresponding to products selected.

* 1. WOOD PATIO DOOR ASSEMBLIES
     1. Basis of Design: Custom EPIC Series patio door assemblies as manufactured by JELD-WEN, Inc.

\*\* NOTE TO SPECIFIER \*\* Delete patio door type option not required. Also delete options in the following paragraphs corresponding to patio door type selection, as described in the notes to specifier.

* + - 1. Patio Door Type: In-swing patio doors, wood construction.
      2. Patio Door Type: Out-swing patio doors, wood construction.
    1. Patio Door Fabrication:
       1. Glass: Mounted using silicone glazing compound on exterior and acrylic sealant on interior.

\*\* NOTE TO SPECIFIER \*\* Delete glazing bead options not required.

* + - 1. Glazing Bead: Traditional Beveled.
      2. Glazing Bead: Contemporary Square.
      3. Glazing Bead: Flush.
    1. Frames:
       1. Material: Select kiln-dried pine AuraLast treated wood.
       2. Jamb Width: 4-9/16 inches (116 mm).
    2. Swinging Door Panels:

\*\* NOTE TO SPECIFIER \*\* Number of panels per patio door unit varies by door size. Include number of panels under "Size" in Part 3 Schedule Article.

* + - 1. Material: Select kiln-dried pine AuraLast treated wood and Timberstrand engineered wood substrate.
      2. Thickness: 1-23/32 inches (43.7 mm).
      3. Layout: 6-5/8 inches (168.3 mm) top rail and stiles.

\*\* NOTE TO SPECIFIER \*\* Delete stile option not required.

* + - 1. Stiles: Wide: 6-5/8 inches (168.3 mm).
      2. Stiles: Narrow: 4-5/8 inches (117.8 mm).

\*\* NOTE TO SPECIFIER \*\* Delete bottom rail option not required.

* + - 1. Bottom Rail: 11 inch (279.4 mm).
      2. Bottom Rail: 11 inch with Craftsman Options (279.4 mm).

\*\* NOTE TO SPECIFIER \*\* Delete radius top rail option not required.

* + - 1. Radius Top Rail: Not required.
      2. Radius Top Rail: Required.
    1. Exterior Trim:

\*\* NOTE TO SPECIFIER \*\* Select optional casing when construction conditions or aesthetics require inclusion. Utilize the following trims for indicated applications: Brickmould with masonry veneers; Flat Casing for narrow, Adams Casing for medium aesthetic conditions. Delete casing options not required.

* + - 1. Casing: Brickmould; Standard.
      2. Casing: No Exterior Trim.
      3. Casing: 2 inch (50.8 mm) Flat Casing.
      4. Casing: 3-1/2 inch (88.9 mm) Flat Casing.
      5. Casing: 4-1/2 inch (114.3 mm) Flat Casing.
      6. Casing: 5-1/2 inch (139.7 mm) Flat Casing.
      7. Casing: Adams Casing.
      8. Casing: Stucco Brickmould.
      9. Casing: Heritage Brickmould.
      10. Casing: 1 x 4 with Backband Casing.
      11. Casing: Bullnose Casing.
      12. Casing: Wood Pendleton Casing.
      13. Casing: Subsill/Sillnose Only.
      14. Casing: 3-1/2 inch (88.9 mm) Side/5-1/2 inch (139.7 mm) Head Casing.

\*\* NOTE TO SPECIFIER \*\* Delete Mull Cap when patio door layout does not require units to be joined (mulled) together at the factory. Otherwise delete mull caps options not required.

* + - 1. Mull Caps: 1/2 inch (12.7 mm) width; Standard.
      2. Mull Caps: 1 inch (25.4 mm) width.
      3. Mull Caps: 2 inches (50.8 mm) width.
      4. Mull Caps: 3-1/2 inches (88.9 mm) width.
      5. Mull Caps: 6 inches (152.4 mm) width.
    1. Extension Jambs: Factory applied on three sides of frame interior, in wall depths up to 6-9/16 inch (166.7 mm).
    2. Weatherstripping: Continuous dual foam filled bulb seal compressed between exterior of panel and three sides of frame. Manufacturer's standard two-piece adjustable astragal on double door units.
    3. Sills:

\*\* NOTE TO SPECIFIER \*\* Delete sill option not required.

* + - 1. ADA Accessible Sill: 1/2 inch (12.7 mm) high, dark bronze anodized aluminum with kick plate and integral door sweep at panel; Standard.
      2. No sill required.

\*\* NOTE TO SPECIFIER \*\* Custom EPIC patio doors come standard with no handle set or bore.

* + 1. Hardware:
       1. Swinging Doors:

\*\* NOTE TO SPECIFIER \*\* Delete hinges option not required.

* + - * 1. Hinges: Ball Bearing Hinge; Standard.
        2. Hinges: 4-1/2 inches (114.3 mm) Ball Bearing Hinges; square corners.

\*\* NOTE TO SPECIFIER \*\* Delete hinge finish options not required.

* + - * 1. Hinge Finish: Brushed Chrome.
        2. Hinge Finish: Polished Brass.
        3. Hinge Finish: Authentic Oil-Rubbed Bronze.
        4. Hinge Finish: Satin Nickel.

\*\*NOTE TO SPECIFIER \*\* Delete locks and handle set options not required.

* + - * 1. Locks: No Lock; Standard.
        2. Locks: 3-5/8 Lock and Deadbolt.
        3. Locks: 5-1/2 Lock and Deadbolt.
        4. Handle Set: No Handle; Standard.
        5. Handle Set: Dane Lever.
        6. Handle Set: Quantum Lever.
        7. Handle Set: Von Duprin 996L Rhodes with Escutch and Lock; 1 per act.
        8. Handle Set: Von Duprin 996L Sparta with Escutch and Lock; 1 per act.
        9. Handle Set: Donjo 4 x 16 inch (102 x 406 mm) Pull Plate; no cylinder lock.

\*\* NOTE TO SPECIFIER \*\* Delete handle set finish options not required.

* + - * 1. Handle Set Finish: As Selected by Architect
        2. Handle Set Finish: Bronze; Standard.
        3. Handle Set Finish: Satin.

\*\* NOTE TO SPECIFIER \*\* Delete exit device options not required.

* + - * 1. Exit Device: None; Standard.
        2. Exit Device: Von Duprin - Exit Device; 1 per active panel.
        3. Exit Device: Falcon - Exit Device with Crossbar.

\*\* NOTE TO SPECIFIER \*\* Delete closer and closer finish options not required.

* + - * 1. Closer: None; Standard.
        2. Closer: LCN1461 Closer - 1 per active panel.
        3. Closer Finish: Powder Coat Dark Bronze; Standard.
        4. Closer Finish: Powder Coat Aluminum

\*\* NOTE TO SPECIFIER \*\* Delete kickplate options not required.

* + - * 1. Kickplate: None; Standard.
        2. Kickplate: Donjo Interior Only.
        3. Kickplate: Donjo Exterior Only.
        4. Kickplate: Donjo Interior/Exterior Only.
        5. Kickplate Finish: Authentic Oil Rubbed Bronze.
        6. Kickplate Finish: Stainless Steel.

\*\* NOTE TO SPECIFIER \*\* Various types of glass are available. The most common types have been included here. Contact a JELD-WEN representative when other options are required. Reflective glare from glazing has been found to affect the beach nesting of turtles in coastal environments. Some governing authorities require the use of turtle glass which uses tinted glass to achieve an industry-approved, inside-to-outside visible light transmittance value of 45 percent or less (visible spectrum = 400 to 700 nanometers). Verify the requirements for turtle glass with local authorities in coastal environments. Laminated glass uses a vinyl interlayer to provide added security against impact, comfort with higher STC ratings and energy savings by blocking UV energy.

* + 1. Glazing for Patio Doors:

\*\* NOTE TO SPECIFIER \*\* Delete options for glazing type and associated subparagraphs not required.

* + - 1. Glazing Type: Insulated Wet Interior Glaze.
         1. Description: Two panes of glass utilizing continuous roll formed stainless steel spacer and dual seal sealants.
         2. Overall Nominal Thickness: 3/4 inch (19 mm).

\*\* NOTE TO SPECIFIER \*\* Delete glass coating options not required.

* + - * 1. Glass Coating: As selected by Architect.
        2. Glass Coating: Low-E 366 Tempered; Standard.
        3. Glass Coating: Low-E Tempered.
        4. Glass Coating: Low-E 180 Tempered.
        5. Glass Coating: Low-E EC Tempered.
        6. Glass Coating: Low-E 340 Tempered.
        7. Glass Coating: Low E EC 366 Tempered plus Laminated.
        8. Glass Protection: Plastic preserve film on interior and exterior of glass.

\*\* NOTE TO SPECIFIER \*\* Argon option is only available with Low E coating and cannot be used with capillary tubes. Delete air space gas option not required. Installations at elevations above 4,000 feet Mean Sea Level require glazing known as High Altitude glazing with capillary tubes to equalize environmental stress.

* + - * 1. Air Space: Argon; Standard.
        2. Air Space: High Altitude; above 4000 ft (1219.2 elevation).
      1. Glazing Type: Single Wet Interior Glaze.

\*\* NOTE TO SPECIFIER \*\* Delete glass coating options not required.

* + - * 1. Glass Coating: As selected by Architect.
        2. Glass Coating: Clear Tempered; Standard.
        3. Glass Coating: Bronze Tempered.
        4. Glass Coating: Gray Tempered.
        5. Glass Coating: Obscure Tempered.
        6. Glass Coating: Glue Chip Tempered.
        7. Glass Coating: Seedy Reamy Tempered.
        8. Glass Coating: Rain Tempered.
        9. Glass Coating: Narrow Reed Tempered.
        10. Glass Coating: Green Tint Tempered.
        11. Glass Coating: Clear Tempered plus Laminated; meets CA Urban Fire Code.
        12. Glass Protection: No Protective Film.
    1. Exterior Sliding Insect Screens: None.

\*\* NOTE TO SPECIFIER \*\* SDL and Grilles are not available for textured glass. Grilles between the glass are not available on monolithic (single Pane) glass. Select grilles, profiles and widths based on the desired aesthetic appearance of the window. Delete if not required.

* + 1. Grilles:

\*\* NOTE TO SPECIFIER \*\* Delete types not required.

* + - 1. Type: Simulated Divided Lites (SDL).
         1. Exterior Muntins:

Material: Extruded aluminum permanently applied to exterior of insulating glass unit.

\*\* NOTE TO SPECIFIER \*\* Select profile based on desired aesthetics. Utilize bead stop for a flattened curve aesthetic and a putty profile for a deeper angular aesthetic. Delete profile options not required.

Profiles: Beaded.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

Width: 5/8 inch (16 mm).

Width: 7/8 inch (22 mm).

Width: 1-1/8 inches (28.5 mm).

Width: 1-3/8 inches (34.9 mm).

Width: 2-5/16 inches (59 mm).

Profiles: Putty.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

Width: 5/8 inch (16 mm).

Width: 7/8 inch (22 mm).

Width: 1-1/8 inches (28.5 mm).

Width: 1-3/8 inches (34.9 mm).

Width: 2-5/16 inches (59 mm).

Profiles: Contemporary.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

Width: 5/8 inch (16 mm).

Width: 7/8 inch (22 mm).

Width: 1-1/8 inches (28.5 mm).

Width: 1-3/8 inches (34.9 mm).

Width: 2-5/16 inches (59 mm).

Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Chestnut Bronze.

Finish: Desert Sand.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Hunter Green.

Finish: Black.

Finish: Silver.

Finish: Steele Gray.

Finish: Heirloom White.

Finish: Smoke.

Finish: Dark Chocolate.

Finish: Primed Wood.

Finish: Primed Aluminum.

Finish: Stone.

Finish: Flagstone.

Finish: Cocoa.

Finish: Cranberry.

Finish: Surf.

Finish: Moss.

Finish: Stormy.

Finish: Admiral.

Finish: Navy.

Finish: Luxury Bronze.

Finish: Bone White.

Finish: Ivory.

Finish: Mocha Cream.

Finish: Sea Foam.

\*\* NOTE TO SPECIFIER \*\* Internal shadow bar will give the appearance of a true divided lite and is standard on all SDL units. Internal shadow bar may be deleted at the design professional's option. Delete internal shadow bar if not required.

* + - * 1. Internal Shadow Bar:

\*\* NOTE TO SPECIFIER \*\* Delete finish option not required.

Finish: Light Bronze; Standard.

Finish: Silver.

* + - * 1. Internal Spacer Bar:

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: Black; Standard.

Finish: Silver.

Finish: Gray.

* + - * 1. Interior Muntins:

Material: Clear pine permanently bonded to interior of insulating glass unit.

\*\* NOTE TO SPECIFIER \*\* Delete profile options not required.

Profile: Bead.

Profile: Contemporary.

Profile: Putty.

* + - 1. Type: Full Surround Wood Grilles.
         1. Material: Unfinished clear pine.
         2. Exterior Profile: Rectangular.

\*\* NOTE TO SPECIFIER \*\* Delete interior profile option not required.

* + - * 1. Interior Profile: Bead.
        2. Interior Profile: Contemporary.
        3. Pattern: As scheduled and indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete width options not required.

* + - * 1. Width: 7/8 inch (22 mm).
        2. Width: 1-1/8 inches (28.5 mm).
        3. Width: 1-3/8 inches (34.9 mm).
      1. Type: Grilles Between the Glass (GBG).
         1. Material: Made of roll formed aluminum suspended within the air cavity.

\*\* NOTE TO SPECIFIER \*\* Utilize flat for a narrow aesthetic and a contour profile for a wider aesthetic. Delete profile not required.

* + - * 1. Profile: Flat.

Width: 5/8 inch (15.9 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Dark Chocolate.

Finish: Black.

* + - * 1. Profile: Contour.

\*\* NOTE TO SPECIFIER \*\* Delete width option not required.

Width: 23/32 inch (18.25 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Black.

Finish: White Ext./Desert Sand Int.

Finish: Desert Sand Ext./White Int.

Finish: White Ext./Chestnut Bronze Int.

Finish: Chestnut Bronze Ext./White Int.

Finish: White Ext./Black Int.

Finish: Black Ext./White Int.

Finish: White Ext./French Vanilla Int.

Finish: French Vanilla Ext./White Int.

Finish: White Ext./Hartford Green Int.

Finish: Hartford Green Ext./White Int.

Finish: White Ext./Mesa Red Int.

Finish: Mesa Red Ext./White Int.

Width: 1 inch (25.4 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

Finish: As selected by Architect.

Finish: Brilliant White.

Finish: Desert Sand.

Finish: Chestnut Bronze.

Finish: French Vanilla.

Finish: Hartford Green.

Finish: Mesa Red.

Finish: Dark Chocolate.

Finish: Black.

Finish: White Ext./Desert Sand Int.

Finish: Desert Sand Ext./White Int.

* + - * 1. Pattern: As scheduled and indicated on Drawings.

1. EXECUTION
   1. EXAMINATION AND PREPARATION
      1. Inspect and prepare openings and substrates using the methods recommended by the manufacturer for achieving best result for the substrates under project conditions.
         1. Inspect assembly components prior to installation.
         2. Verify rough opening conditions are within recommended tolerances.
         3. Form sheet metal sill pan in accordance with manufacturer's recommendations.
         4. Prepare assembly components for installation in accordance with manufacturer's recommendations.
      2. Do not proceed with installation until openings and substrates have been prepared using the methods recommended by the manufacturer and deviations from manufacturer's recommended tolerances are corrected. Commencement of installation constitutes acceptance of conditions.
      3. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
   2. INSTALLATION
      1. Install assemblies in accordance with manufacturer's installation guidelines and recommendations including the following.

\*\* NOTE TO SPECIFIER \*\* The following paragraph is for use with window units with exterior trim. Delete if not required.

* + 1. Installation of Windows with Exterior Trim: Insert windows into rough opening.
       1. Shim side jambs straight.
       2. Inspect window for square, level and plumb.
       3. Fasten window through exterior trim around entire window.
       4. Test and adjust for smooth operation of window.
       5. Set all nails below wood surface.

\*\* NOTE TO SPECIFIER \*\* The following paragraph is for use without window units with exterior trim. Delete if not required.

* + 1. Installation of Windows Without Exterior Trim: Insert windows into rough opening.
       1. Inspect window for square, level and plumb.
       2. Fasten window through jamb, shim and into rough opening jamb.
       3. Test and adjust for smooth operation of window.
       4. Set all nails below wood surface.
       5. Ensure seal between sill pan and inside face of windowsill.
       6. Install backer rod and sealant at exterior jambs and head.
       7. Apply backer rod and sealant on exterior below sill. Leave gaps for drainage.
       8. Seal interior joints between rough opening and jambs with backer rod and sealant.

\*\* NOTE TO SPECIFIER \*\* The following paragraph is for use with patio door units with exterior trim Delete if not required.

* + 1. Installation of Patio Doors with Exterior Trim: Insert patio doors into rough opening.
       1. Shim side jambs straight.
       2. Inspect patio door for square, level and plumb.
       3. Fasten patio door through exterior trim around entire patio door.
       4. Test and adjust for smooth operation of patio door.
       5. Set all nails below wood surface.
       6. Structurally secure head and side jambs through shims with mechanical fasteners.
       7. Structurally secure sill with mechanical fasteners.
       8. Apply flashing to sill, jambs and header.
       9. Apply sealant to upper corners and at sill.
       10. Install backer rod and sealant at rough opening and door jamb gap.
       11. Ensure seal between sill pan and inside face of patio door sill.
       12. Install lock set hardware per manufacturer's instructions.

\*\* NOTE TO SPECIFIER \*\* The following paragraph is for use with patio door units without exterior trim Delete if not required.

* + 1. Installation of Patio Doors without Exterior Trim: Insert patio doors into rough opening.
       1. Shim side jambs straight.
       2. Inspect patio door for square, level and plumb.
       3. Fasten patio door through jamb, shim and into rough opening jamb.
       4. Test and adjust for smooth operation of patio door.
       5. Structurally secure head and side jambs through shims with mechanical fasteners.
       6. Structurally secure sill with mechanical fasteners.
       7. Install backer rod and sealant at exterior jambs and head.
       8. Seal interior joints between rough opening and jambs with backer rod and sealant.
       9. Ensure seal between sill pan and inside face of patio door sill.
       10. Install lock set hardware per manufacturer's instructions.
  1. FIELD QUALITY CONTROL
     1. Manufacturers' Field Services: Field inspections.
  2. CLEANING AND PROTECTION
     1. Clean the exterior surface and glass with mild soap and water.
     2. Protect installed windows from damage.
     3. Remove and dispose of protective film from glass; touch-up, repair or replace damaged components and assemblies before Substantial Completion.

END OF SECTION