GENERAL NOTES TO SPECIFIER:

This Specification Section has been prepared to assist design professionals in properly specifying glass view panel inserts by ODL, Inc. for swinging Side-Hinged Exterior Doors (SHED). ODL also offers a similar specification for glass view panels only without the frame. Add text herein to project or office master Specifications. It follows guidelines established by the Construction Specifications Institute (CSI), and therefore may be used with most master Specification systems with minor editing.

Text below is not a complete Section but is rather intended to be added in the appropriate locations to the applicable, primary Div. 08 Door Sections for the Project in order to properly specify glass view panel inserts. ODL glass view panel inserts are appropriate for use in flush-face or embossed hollow metal, wood, and fiberglass doors.

Insert text in the Articles as indicated and select appropriate options to meet Project-specific requirements.

Edit carefully to suit project requirements. Modify as necessary and delete items that are not applicable. Verify that referenced Section titles are correct. (Titles referenced are based on CSI MasterFormat)

This Section assumes the Project Manual will contain complete Div. 01 documents. Close coordination with Div. 01 Sections is required. If the Project Manual does not contain the following topics or sections, additional information should be included under the appropriate articles.

• Product Substitution Procedures (if substitutions are to be allowed)
• Submittal Procedures
• Product Options
• Product Storage and Handling Requirements
• Cleaning And Waste Management
• Closeout Procedures
• Closeout Submittals

Verify Section title references below coordinate with Sections issued for the Project.

This Section is written as a closed proprietary specification using ODL, Inc. products.

Notes to the specifier are CMT style designation and appear as gray boxes and should be deleted from final copy or changed to non-printing text style.

Optional items requiring selection by the specifier are enclosed within brackets, e.g. [Exterior] [Interior]. Make appropriate selections and delete others including the brackets themselves.

Items requiring additional information are enclosed within bracketed single Guillemots, e.g. <Insert other manufacturers if desired>.

Revise header and footer to suit project/office requirements.

Electronic versions of this specification utilize automatic paragraph numbering based on Microsoft Word style formatting. To adjust levels of paragraphs, assign appropriate style and numbering will automatically adjust.

When editing is complete, delete all text on this cover page, including the page break, to remove this page from the document.
SECTION 08 10 13 - DOOR VIEW PANEL INSERTS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

Select door type in which view panel inserts will be installed from last three options in paragraph below. Doors are often embossed to appear like stile and rail doors.

1. Framed glass view panel inserts for installation in [insulated steel] [wood] [fiberglass] doors.[ Provide the following accessories:]

Retain the last option in paragraph above if retaining any of the accessories in following subparagraphs.

a. [External grille.]
b. [Between-glass grille.]
c. [Between-glass blinds.]

B. Related Requirements:

Retain paragraph below if specifying basic glass installation procedures and miscellaneous materials in Div. 08 Section “GLAZING.”

Retain option in paragraph below if specifying glass for view panel inserts in the same Section as the frames (preferred). Delete option in paragraph below if simply specifying general glass installation in Div. 08 Section “GLAZING.”

1. Div. 08 Section “GLAZING” for [installation requirements for] glass in view panel inserts in doors.

1.02 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate cutout requirements with manufacturers of doors and glass view panel inserts.

1.03 ACTION SUBMITTALS

Retain one of the following options, if desired.

A. Samples for Initial Selection: [Manufacturer’s charts] [Actual frame sections, 6 inches long,] showing available frame colors, textures, and profiles.

B. Samples for Verification:

Retain below for samples of frame members.

1. Frames for light openings, 6 inches long, for each material, type, and finish required.

Retain below for samples of frame corner construction. Retain option to include a sample of specified glass mounted in the corner sample.

2. Corner sections of frames for light openings, approximately 8 by 10 inches, [with specified glass] in specified frame finish.
1.04 WARRANTY
A. Standard Warranty: Furnish manufacturer's standard warranty as follows:
   1. Glass View Insert Frame: Lifetime.
   2. Glass View Insert Panel Seals: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 GLASS VIEW PANEL PERFORMANCE CRITERIA

Below is the NAFS - North American Fenestration Standard/Specification for windows, doors, and skylights.

A. Provide glass view panel inserts complying with AAMA/WDMA/CSA 101/I.S.2/A440.

Retain desired option from choices below. Minimum gateway Performance Classes with correlating Performance Grades in psf are:
- Grade 15 psf for R Class (commonly used in one- and two-family dwellings)
- Grade 25 psf for LC Class (commonly used for low- and mid-rise multifamily dwellings and other buildings where larger sizes and higher loading requirements are expected)
- Grade 30 psf for CW Class (commonly used in low- and mid-rise buildings where larger sizes, higher loading requirements, limits on deflection and heavier use are expected)
- Grade 40 psf for the AW Class (commonly used in high-rise and mid-rise buildings to meet increased loading requirements and limits on deflection and in buildings where frequent and extreme use of the fenestration products is expected)

1. Minimum Performance Class and Grade: [R] [LC] [CW] [AW].

Optional performance grades may be specified in each class (except AW) above the minimum gateway requirement in increments of 5 psf, up to a maximum of 100 psf. There is no maximum Performance Grade for AW products. Verify availability with ODL.

2. Optional Performance Grade: [50] [60] [<insert other>]

Retain below if specifying Severe Weather style frames with glass view panel inserts in hurricane prone coastal regions. Retain "basic" option for most buildings except those essential facilities required by code to have "enhanced" protection.

For Projects which must comply with Florida Building Code, retain last option below.

B. Windborne-Debris-Impact-Resistance Performance: Provide [exterior glazing] which complies with [basic] [enhanced]-protection testing requirements in ASTM E1996 for [Wind Zone 1] [Wind Zone 2] [Wind Zone 3] [Wind Zone 4] when tested per ASTM E1886[ and TAS 202 and 201/203].

Retain one or both of the following subparagraphs based on door location in the Project.

1. Large-Missile Impact: For glass view panel inserts in doors located within 30 feet of grade.
2. Small-Missile Impact: For glass view panel inserts in doors located more than 30 feet above grade.

C. Water Penetration: No water penetration through glass view panel inserts when tested as follows:

For water-penetration tests, AAMA 501 states that static-air-pressure differential of 20 percent of wind-load design pressure provides satisfactory performance in most parts of the U.S. Locations where high winds and heavy rains occur simultaneously require higher test-pressure differences. ASTM E 331 default pressure differential is 2.86 lbf/sq. ft.

Static-air-pressure differential of 1.57 lbf/sq. ft. in first option, equivalent to a 25-mph wind, is ASHRAE 90.1 minimum; 6.24 lbf/sq. ft. air-pressure differential in second option is equivalent to a 50-mph wind.
1. **Test Pressure Differential**: [1.57 lbf/sq. ft.] [6.24 lbf/sq. ft.]

Normally retain below (most common method). It involves applying water to the outdoor face of windows, storefronts, and doors simultaneously with a static air pressure at the outdoor face higher than the pressure at the indoor face.

2. **Static Pressure Test Method**: ASTM E 331.

The IECC and ASHRAE/IESNA 90.1 require that all fenestration be certified and labeled by manufacturer for energy performance, based on ratings established by NFRC. Verify requirements of authorities having jurisdiction.

D. **Energy Performance**: Certify and label energy performance for glass view panel inserts per NFRC as follows:

Select from options below based on Project's climate zone. Options below, in order, are for Climate Zones 5 & Marine 4 thru 8; 4 except Marine; 3; 2; and 1.

1. **Thermal Transmittance (U-Factor)**: U-factor of not more than [0.45] [0.50] [0.60] [0.75] [1.2] Btu/sq. ft. x h x deg F per NFRC 100.

Retain first option below for maximum allowable air-leakage rate based on ASHRAE 90.1 requirements. If selecting lesser leakage, verify specified systems comply. Doors are allowed 1.0 cfm/sq. ft.

Static-air-pressure differential of 1.57 lbf/sq. ft. in second option, equivalent to a 25-mph wind, is ASHRAE 90.1 minimum; 6.24 lbf/sq. ft. air-pressure differential in third option is equivalent to a 50-mph wind.

2. **Air Infiltration**: Maximum air leakage through glass view panel inserts of [1.0] [<insert value>] cfm/sq. ft. of fixed wall area as determined per ASTM E 283 at a static-air-pressure differential of [1.57 lbf/sq. ft.] [6.24 lbf/sq. ft.]

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2.02 **GLASS VIEW PANEL INSERT FRAMES**

Select desired frame series from options below.

A. **Basis-of-Design Product**: Subject to compliance with requirements, provide [Standard Traditional] [Evolve Traditional] [Severe Weather] Series Framed View Panel Inserts by ODL, Inc. or a comparable product by [, but not limited to,] one of the following:

Verify other manufacturers have a comparable product before retaining below.

1. <Insert other manufacturers if desired>

B. **Substitution Limitations**: [Not permitted.] [Comply with provisions of Div. 01 Section "SUBSTITUTION PROCEDURES."]

Chart below shows available textures and colors for each frame series. Select options in following subparagraphs to suit Project.

Select frame series from available options below.
DOOR VIEW PANEL INSERTS

Standard Traditional frames with a traditional profile are designed to meet basic market needs at an economical price.

C. Standard Traditional Frames: Injection-molded resin with texture to resemble wood, suitable for staining or painting.

Select frame material from available options below. See chart above for available options.

1. Material, Texture and Color: [FiberPRO Oak.] [HP White.]
2. Profile: Traditional.

Evolve Traditional frames with a traditional profile provide superior rigidity and eliminates bothersome squeeze out, and reduces scalloping, corner flare and warping.

D. Evolve Traditional Frames: Injection-molded resin with texture to resemble wood, suitable for staining or painting.

Select frame material from available options below. See chart above for available options.

1. Material, Texture and Color: [FiberPRO Oak.] [FiberPRO White.] [HP White.]
2. Profile: Traditional.

Severe Weather metal frames with a flat profile are designed for use in coastal areas where wind-borne debris and hurricanes are possible.

E. Severe Weather Frames: Extruded aluminum.

1. Material, Texture and Color: ASTM B 221 aluminum of alloy and temper recommended by manufacturer for type of use and finish indicated; smooth texture, powder-coat finish. white color.
2. Profile: Flat.

2.03 GLASS VIEW PANEL INSERT GLAZING

ODL offers the following typical IG unit sizes.

Full lites in 22 by 64 inch and 20 by 64 inch sizes.
Half lites in 22 by 36 inch and 20 by 36 inch sizes.

If fully specifying IG units in Div. 08 Section "GLAZING," retain paragraph below and move remaining paragraphs in this Article to that Section.

A. Insulating Glass Units: As specified in Div. 08 Section "GLAZING."

[* * * * * OR * * * * *

If fully specifying glass and frames in the same Section (preferred), delete paragraph above and retain appropriate paragraphs in the remainder of this Article.
B. Clear Annealed Float Glass: ASTM C 1036, Type I, Quality-Q3, Class 1.

C. Clear Heat-Treated Float Glass: ASTM C 1048; Type I; Quality-Q3; Class 1; Kind FT; Condition [A] [C].

D. Insulating Glass Unit (IGU): Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E 2190, and complying with other requirements specified.

1. Overall IGU Thickness: Nominal [1/2] [one] inch thick units constructed of inboard and outboard lites as follows.
2. Outboard Lite: 3 mm clear uncoated tempered glass.

Select and retain one desired coating from subparagraphs below; delete unused sub paragraphs.

<table>
<thead>
<tr>
<th>COMMODITY</th>
<th>IN ORDER BEST TO LEAST</th>
<th>0.289 INCH INTERSPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window 7.4</td>
<td>Interspace is Air unless otherwise indicated</td>
<td>U-Value</td>
</tr>
<tr>
<td>1047 15500</td>
<td>AGC CS40 (2) + Clear w/ 95% Argon</td>
<td>0.30</td>
</tr>
<tr>
<td>2026 2001</td>
<td>Cardinal 270 (2) + Clear</td>
<td>0.37</td>
</tr>
<tr>
<td>1032 15500</td>
<td>AGC CS73 (2) + Clear</td>
<td>0.41</td>
</tr>
<tr>
<td>2001 2001</td>
<td>Clear + Clear</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Chart below is for 0.75 inch spacer. Values for 0.758 inch spacer are virtually the same.

<table>
<thead>
<tr>
<th>COMMODITY</th>
<th>IN ORDER BEST TO LEAST</th>
<th>0.750 INCH INTERSPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window 7.4</td>
<td>Interspace is Air unless otherwise indicated</td>
<td>U-Value</td>
</tr>
<tr>
<td>1047 15500</td>
<td>AGC CS40 (2) + Clear w/ 95% Argon</td>
<td>0.26</td>
</tr>
<tr>
<td>2026 2001</td>
<td>Cardinal 270 (2) + Clear</td>
<td>0.31</td>
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<tr>
<td>1032 15500</td>
<td>AGC CS73 (2) + Clear</td>
<td>0.35</td>
</tr>
<tr>
<td>2001 2001</td>
<td>Clear + Clear</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Coating paragraphs below are listed in order from higher to lower performance.

Below performs better due to Argon gas in interspace. With Air in interspace (not available from ODL) it would immediately precede the other AGC product on the chart.

[* * * * * OR * * * * *]

b. Vacuum Deposition (Sputter) Coating: 270 by Cardinal IG Company.

[* * * * * OR * * * * *]

c. Pyrolytic Coating: ComfortSelect® 73 by AGC Glass North America.

4. IGU Spacer: Intercept® warm-edge U-channel spacer in [0.289] [0.758] inch thickness.

Retain paragraph above for rectangular frames. Retain first option in paragraph above for 1/2 inch IG units. Retain second option in paragraph above for 1 inch IG units.

[* * * * * OR * * * * *]

Retain paragraph below for round-top and oval frames. Retain first option in paragraph below for 1/2 inch IG units. Retain second option in paragraph below for 1 inch IG units.

5. IGU Spacer: Duraseal® laminated warm-edge spacer in [0.250] [0.750] inch thickness.

Retain first option below for most IGU types. Retain second option if selecting AGC ComfortSelect® 40 Low-E coating.

6. Interspace Gas: [Air.] [(5% Argon, 5 percent Air.)

7. Inboard Lite: 3 mm clear uncoated tempered glass.

Retain paragraph and subparagraphs below for 1-1/16 inch IG units WITH BETWEEN-GLASS BLINDS.

E. Insulating Glass Unit (IGU) With Internal Between-Glass Blinds: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace with adjustable blinds in interspace, qualified according to ASTM E 2190, and complying with other requirements specified.

1. Overall IGU Thickness: Nominal 1-1/16 inch thick units constructed of inboard and outboard lites as follows.

2. Outboard Lite: 3 mm clear uncoated tempered glass.

Retain paragraph above if uncoated IGU is desired.

[* * * * * OR * * * * *]

Retain paragraph below if Low-E coated IGU is desired and select desired coating subparagraph.

3. Outboard Lite: 3 mm clear tempered glass with the following ASTM C1376, passive solar Low-E coating[s].

Chart below is for 1-1/16 inch units with 0.8130 inch spacer.


d. Vacuum Deposition (Sputter) Coating: 270 by Cardinal IG Company.

4. IGU Spacer: Intercept® warm-edge U-channel spacer in 0.813 inch thickness.
5. Interspace Gas: Air.
6. Inboard Lite: 3 mm clear uncoated tempered glass.

Retain paragraph above if uncoated inboard lite is desired.

7. Inboard Lite: 3 mm clear tempered glass with the following Low-E coating.
   a. Vacuum Deposition (Sputter) Coating: ASTM C1376, passive solar Low-E reflective-coated vision glass; i89 by Cardinal IG Company on No. 4 surface.

Retain below for Severe Weather frames WITHOUT BETWEEN-Glass BLINDS.

F. Laminated Insulating Glass Unit (IGU): Factory-assembled units consisting of sealed lites of windborne-debris-impact-resistant glass separated by a dehydrated interspace, qualified according to ASTM E 2190, and complying with other requirements specified.
1. Overall IGU Thickness: Nominal 1.2 inch thick units constructed of inboard and outboard lites as follows.
2. Outboard Lite: 3 mm clear uncoated annealed glass laminated to 3 mm clear uncoated annealed glass with a clear 0.090 PVB interlayer.

Retain paragraph above if uncoated IGU is desired.

Retain paragraph below if Low-E coated IGU is desired.
3. Outboard Lite: 3 mm clear annealed glass with Cardinal 180 Low-E coating on the No. 2 surface laminated to 3 mm clear uncoated annealed glass with a clear 0.090 PVB interlayer.

4. IGU Spacer: Intercept® warm-edge U-channel spacer in 0.509 inch thickness.

5. Interspace Gas: Air.

6. Inboard Lite: 3 mm clear uncoated tempered glass.

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G. Laminated Insulating Glass Unit (IGU) With Internal Between-Glass Blinds: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace with adjustable blinds in interspace, qualified according to ASTM E 2190, and complying with other requirements specified.

1. Overall IGU Thickness: Nominal 1.5 inch thick units constructed of inboard and outboard lites as follows.

2. Outboard Lite: 3 mm clear uncoated annealed glass laminated to 3 mm clear uncoated annealed glass with a clear 0.090 PVB interlayer.

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3. Outboard Lite: 3 mm clear annealed glass with Cardinal 180 Low-E coating on the No. 2 surface laminated to 3 mm clear uncoated annealed glass with a clear 0.090 PVB interlayer.

4. IGU Spacer: Intercept® warm-edge U-channel spacer in 0.750 inch thickness.

5. Interspace Gas: Air.

6. Inboard Lite: 3 mm clear uncoated tempered glass.

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2.04 GLASS VIEW PANEL ACCESSORIES

A. External Grilles: Injection-molded resin with texture to resemble wood, suitable for staining or painting.

1. Linear Member Size: 5/8 inch wide in manufacturer's standard thickness.

2. Material, Texture and Color: [FiberPRO Oak.] [HP White.]

3. Profile: Traditional.

Several pattern options are available. Retain first option below if indicating pattern on door elevation drawings. Refer to manufacturer's literature for graphics of available patterns and insert selected pattern number below.

5. Pattern: [As indicated on Drawings.] <insert manufacturer's pattern number>

B. Between-Glass Grilles: Extruded aluminum.

Chart below shows available textures and colors for each grill series. Select options in following subparagraphs to suit Project.

<table>
<thead>
<tr>
<th>GRILLE OPTIONS</th>
<th>5/8&quot; Flat</th>
<th>7/8&quot; Flat</th>
<th>11/16&quot; Contoured</th>
<th>White</th>
<th>Tan</th>
<th>Champagne</th>
<th>Bronze</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard (GBG)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide (GBG78)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts &amp; Crafts (ACBG)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prairie Style (PIM)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contoured (CGBG)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Material and Texture: ASTM B 221 aluminum of alloy and temper recommended by manufacturer for type of use and finish indicated; smooth texture.
3. Profile: [Flat.] [Contoured.]

Several pattern options are available. Retain first option below if indicating pattern on door elevation drawings. Refer to manufacturer's literature for graphics of available patterns and insert selected pattern number below.

5. Pattern: [As indicated on Drawings.] <insert manufacturer's pattern number>

Retain below with appropriate glass thickness above if retaining between-glass blinds.

C. Between-Glass Blinds: Manufacturer's standard horizontal louver blinds with side edges captured in privacy channels.

1. Slats: Aluminum; alloy and temper recommended by producer for type of use and finish indicated; with crowned profile and radius corners.
   a. Width: 14.8 mm.
   b. Thickness: Not less than 0.008 inch.
   c. Spacing: 12 mm.
   d. Finish: Ionized antistatic, dust-repellent, baked polyester finish.
2. Lift Cords: Manufacturer's standard braided cord.
3. Ladders: Manufacturer's standard braided cord, evenly spaced to prevent long-term slat sag.
4. Manual Lift/Tilt Mechanism: Single-control mechanism with enclosed worm-gear mechanism and linkage rod that adjusts ladder tilt and raises blinds with variable-position cord lock allowing user-selected positioning within full operating range of blind.
5. Color: [White.] [Tan.]

D. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.

1. Provide matching [profiled] [auto-aligning] [flat] screw covers.

2.05 FABRICATION

A. Glass View Panel Inserts: Comply with manufacturer's written installation instructions and recommendations and approved submittals.
   1. Cut and trim openings for glass view panel inserts through doors in [factory] [field].
   2. [Factory] [Field] install glass view panel inserts in prepared openings. Trim openings with frames as indicated.
   3. Install glass to comply with applicable requirements in Div. 08 Section "GLAZING."
      a. Install using [sealant glazing (wet)] [tape glazing (dry)] method.
   4. Install perimeter joint sealants as specified in Div. 07 Section "JOINT SEALANTS" to produce weathertight installation.

2.06 SHOP FINISHING

Delete paragraph below if retaining field finishing option below.

A. Factory-Finished Doors: Finish glass view panel inserts indicated to receive [transparent] [opaque] finish in shop to match doors.

PART 3 - EXECUTION

3.01 GLASS VIEW PANEL INSERT INSTALLATION

A. Comply with panel and door manufacturer's written installation instructions and recommendations and approved submittals.

B. Field-Finished Doors: Field finish [doors and] glass view panel insert frames indicated to receive [transparent] [opaque] finish to match doors, unless otherwise indicated.
   1. Finish as specified in Div. 09 Section ["EXTERIOR PAINTING."] ["INTERIOR PAINTING."] ["STAINING AND TRANSPARENT FINISHING."]

3.02 ADJUSTING

A. After doors are installed, adjust horizontal louver blinds to operate free of binding or malfunction through full operating ranges.

END OF SECTION 08 10 13