Product Evaluation

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: WIN-875 **Effective Date:** October 1, 2015
Re-evaluation Date: July 2017

Product Name: Mulled Series 8200 Aluminum Single Hung Windows and Series 8310 Aluminum Fixed Windows, Non-impact Resistant

Manufacturer: Don Young Company
8181 Ambassador Row
Dallas, TX 75247
Telephone: (214) 630-0934

This evaluation report contains mulled windows using the following individual window products that are currently listed in Texas Department of Insurance (TDI) product evaluation reports:

Series 8200 Aluminum Single Hung Windows
Series 8310 Aluminum Fixed Windows

This product evaluation report is for the following mulled window assemblies:

General Description:

System	Description
1	Twin Series 8200 Single Hung Windows
2	Twin Series 8310 Fixed Windows
3	One Series 8200 Single Hung Window with a Series 8310 Transom
4	One Series 8310 Fixed Window with a Series 8310 Transom
5	One Series 8310 Fixed Window with a Series 8310 Transom
6	Twin Series 8200 Single Hung Windows with a Series 8310 Transom

Product Dimensions: (Dimensions of Individual Units in Mulled Assembly)

System	Maximum Width of Individual Units	Maximum Height of Individual Units
1	Single Hung Windows: 44"	Single Hung Windows: 80"
2	Fixed Windows: 44"	Fixed Window: 77"
3	Single Hung Window: 44" Fixed Window (Transom): 44"	Single Hung Window: 80" Fixed Window (Transom): 22"
4	Fixed Window: 44" Fixed Window (Transom): 44"	Fixed Window: 77" Fixed Window (Transom): 22"
5	Fixed Window: 60" Fixed Window (Transom): 60"	Fixed Window: 77" Fixed Window (Transom): 30"
6	Single Hung Windows: 36" Fixed Window (Transom): 72"	Single Hung Windows: 72" Fixed Window (Transom): 36"

Mullions:

System	Installation
1	System 1: The single hung frame side jambs are mulled together with an extruded 6063-T5 I-shaped member placed between the side jambs to form the mulled assembly. Each frame jamb is secured to each face of the mullion with No. 8 x 1/2" screws spaced 18" on center. The I-shaped aluminum member extends the length of the jambs.
2	The fixed window frame side jambs are mulled together with an extruded 6063-T5 I-shaped member placed between the side jambs to form the mulled assembly. Each frame jamb is secured to each face of the mullion with No. 8 x 1/2" screws spaced 18" on center. The I-shaped aluminum member extends the length of the jambs.
3	The frame sill of the transom is joined with the frame head of the single hung window to form the mullion. Each end of the frames are secured together with one line of No. 8 x 1/2" screws. The fasteners are spaced approximately 12" on center.
4	The frame sill of the transom is joined with the frame head of the fixed window to form the mullion. Each end of the frames are secured together with one line of No. 8 x 1/2" screws. The fasteners are spaced approximately 12" on center.
5	The frame sill of the transom is mulled together to the frame head of the fixed window with an extruded 6063-T5 I-shaped member placed between the frame members to form the mulled assembly. The frame sill of the transom is secured to the web of the I-shaped mullion with one line of No. 8 x 3/4" screws spaced 12" on center. The frame head of the fixed window is secured to the web of the I-shaped mullion with one line of No. 8 x 2-1/2" screws spaced 12" on center. The I-shaped aluminum member extends the length of the jambs.
6	The single hung frame side jambs are mulled together with an extruded 6063-T5 aluminum alloy I-shaped member placed between the side jambs to form the mulled assembly. Each frame jamb is secured to each face of the mullion with No. 8 x 1/2" screws spaced 18" on center. The I-shaped aluminum member extends the length of the side jambs. The frame sill of the transom is mulled to the frame head of the mulled single hung window assembly with an extruded 6063-T5 aluminum alloy I-shaped member placed between the frame members to form the mulled assembly. The transom frame sill is secured to I-shaped member with one line of No. 8 x 3/4" screws. The fasteners are spaced approximately 12" on center. The single hung frame head is secured to the I-shaped member with one line of No. 8 x 2-1/2" screws spaced 12" on center.

Product Identification: A certification program label (AAMA) will be affixed to each individual window of the mulled assembly. Refer to the certification program labels referenced in the specific TDI product evaluation report for the individual product). Note: The certification program label is for the performance characteristics of the individual window in the mulled assembly. The design pressure rating for the mulled assembly is as specified in the Limitations Section of this evaluation report.

Limitations:

Design Pressures:

System	Overall Maximum Width (in.)	Overall Maximum Height (in.)	Design Pressure
1	88	80	Maximum ± 35 psf See below
2	88	77	Maximum ± 35 psf See below
3	44	102	Maximum ± 35 psf See below
4	44	99	Maximum ± 35 psf See below
5	60	107	Maximum ± 35 psf See below
6	72	108	Maximum ± 35 psf See below

Impact Resistance:

Impact Resistant	Requirement
No	Impact protective system required when product is installed in areas where windborne debris protection is required.

Acceptance of Smaller Assemblies: Window assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

Mulled Assemblies: Each individual window unit in the mulled assembly shall bear a certification program label. The design pressure rating for the mulled assembly shall not exceed the values specified in the table above.

Determination of Design Pressure Rating for Mulled Assembly: The design pressure rating for the mulled assembly must be determined in the following manner.

1. The maximum design pressure rating for the mulled assembly is 35 psf.
2. Review the design pressure rating on the certification program label for each individual window of the mulled assembly.
3. If the design pressure rating for each individual window is greater than 35 psf, then the design pressure rating of the mulled assembly is 35 psf.
4. If the design pressure rating for any of the individual windows is less than 35 psf, then the design pressure rating of the mulled assembly shall be the design pressure rating of the lowest rated window in the assembly.

Installation:

New Construction:

System	
1 and 2	The wall framing must be minimum Southern Yellow Pine dimension lumber. The window assembly must be secured to the wall framing using the nailing fin with nails (minimum 0.120" smooth shank diameter). The fasteners must be spaced approximately 1" from each corner and approximately 12" on center along the perimeter of the window assembly. In proximity to the vertical mullion, at the head and the sill, two fasteners are required through the nailing fin and into the wall framing. All fasteners must be long enough to penetrate a minimum of 1" into the wall framing.
3, 4, 5	The wall framing shall be minimum Southern Yellow Pine dimension lumber. The window assembly must be secured to the wall framing using the nailing fin with nails (minimum 0.120" smooth shank diameter). The fasteners must be spaced approximately 1" from each corner and approximately 12" on center along the perimeter of the window assembly.
6	The wall framing must be minimum Southern Yellow Pine dimension lumber. The window assembly shall be secured to the wall framing using the nailing fin with nails (minimum 0.120" smooth shank diameter). The fasteners must be spaced approximately 1" from each corner and approximately 12" on center along the perimeter of the window assembly. In proximity to the vertical mullion, at the sill, two fasteners are required through the nailing fin and into the wall framing. All fasteners must be long enough to penetrate a minimum of 1" into the wall framing.

Replacement:

System	
1 and 2	The wall framing must be minimum Southern Yellow Pine dimension lumber. The window assembly must be secured to the wall framing using the window frame with minimum No. 10 x 2-1/2" screws. Along each side jamb, a minimum of six fasteners are required, evenly spaced. Along the head of each individual window of the mulled assembly, a minimum of two fasteners are required, evenly spaced (four total). In proximity to the vertical mullion, at the head and the sill, two fasteners, each located approximately 2" on either side of the mull. All fasteners shall be long enough to penetrate a minimum of 1" into the wall framing.
3	The wall framing shall be minimum Southern Yellow Pine dimension lumber. The window assembly shall be secured to the wall framing using the window frame with minimum No. 10 x 2" screws. Along each side jamb of the single hung, a minimum of four fasteners are required. One located close to the head, one close to the sill, one below the meeting rail, and one above the meeting rail. Along each side jamb of the transom, one fastener is required, located at the mid-span. Along the head of the mulled assembly, a minimum of three fasteners are required, evenly spaced. No fasteners are required along the sill. All fasteners shall be long enough to penetrate a minimum of 1" into the wall framing.
4	The wall framing shall be minimum Southern Yellow Pine dimension lumber. The window assembly shall be secured to the wall framing using the window frame with minimum No. 10 x 2" screws. Along each side jamb of the fixed window, a minimum of four fasteners are required, evenly spaced. Along each side jamb of the transom, one fastener is required, located at the mid-span. Along the head of the mulled assembly, a minimum of three fasteners are required, evenly spaced. No fasteners are required along the sill. All fasteners must be long enough to penetrate a minimum of 1" into the wall framing.

Installation (Replacement) – Continued:

5	The wall framing shall be minimum Southern Yellow Pine dimension lumber. The window assembly must be secured to the wall framing using the window frame with minimum No. 10 x 2" screws. Along each side jamb of the fixed window, a minimum of four fasteners are required, evenly spaced. Along each side jamb of the transom, two fasteners are required, evenly spaced. Along the head and sill of the mulled assembly, a minimum of three fasteners are required, evenly spaced. All fasteners must be long enough to penetrate a minimum of 1" into the wall framing.
6	The wall framing must be minimum Southern Yellow Pine dimension lumber. The window assembly must be secured to the wall framing using the window frame with minimum No. 10 x 2" screws. Along each side jamb of the single hung, a minimum of six fasteners are required. One located close to the head, one close to the sill, one below the meeting rail, and one above the meeting rail. Along each side jamb of the transom, one fastener is required, located at the mid-span. Along the head of the mulled assembly, a minimum of three fasteners are required, evenly spaced. No fasteners are required along the sill. All fasteners must be long enough to penetrate a minimum of 1" into the wall framing.

Note: Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.