

John E. Scates, Professional Engineer

October 3, 2023

Windsor Door
5800 Scott Hamilton Rd
Little Rock, AR 72119

Re: FL 15080
Evaluation Report for Residential Pan Doors Model 724/730 family

To Whom It May Concern:

At the request of Windsor Door, I have reviewed the drawings and tests listed below. The pressures listed on the drawings are either direct results of the tests, or results obtained through rational engineering analysis based on the actual tests. I have concluded that the construction shown on these drawings comply with the wind load requirements of the 8th Edition (2023) of the Florida Building Code. I certify that I meet the requirements of "independence" as detailed in Florida Statutes.

Drawings

These products were tested to DASMA 108 (static):

99-B-079 Sheet 1, Rev D,	9' wide x 7' tall	for +22.9 / -26.4 psf
99-B-079 Sheet 1, Rev D,	9' wide x 8' tall	for +19.2 / -22.2 psf
99-B-079 Sheet 2, Rev D,	16' wide x 7' tall	for +18.7 / -20.8 psf
99-B-079 Sheet 2, Rev D,	16' wide x 8' tall	for +18.7 / -20.8 psf
99-B-079 Sheet 3, Rev D,	18' wide x 7' tall	for +18.7 / -20.8 psf
99-B-079 Sheet 3, Rev D,	18' wide x 8' tall	for +18.7 / -20.8 psf
99-B-080 Sheet 1, Rev E,	9' wide x 7' tall	for +22.9 / -26.4 psf
99-B-080 Sheet 2, Rev E,	9' wide x 8' tall	for +22.9 / -26.4 psf
99-B-080 Sheet 3, Rev E,	10' wide x 7' tall	for +27.0 / -30.5 psf
99-B-080 Sheet 3, Rev E,	10' wide x 8' tall	for +27.0 / -30.5 psf
99-B-080 Sheet 4, Rev E,	16' wide x 7' tall	for +22.2 / -25.0 psf
99-B-080 Sheet 5, Rev E,	16' wide x 8' tall	for +22.2 / -25.0 psf
99-B-080 Sheet 6, Rev E,	18' wide x 7' tall	for +26.0 / -29.1 psf
99-B-080 Sheet 6, Rev E,	18' wide x 8' tall	for +26.0 / -29.1 psf
99-B-081 Sheet 1, Rev E,	9' wide x 7' tall	for +27.0 / -31.2 psf
99-B-081 Sheet 1, Rev E,	9' wide x 8' tall	for +27.0 / -30.4 psf
99-B-081 Sheet 2, Rev E,	10' wide x 7' tall	for +27.0 / -30.5 psf
99-B-081 Sheet 2, Rev E,	10' wide x 8' tall	for +27.0 / -30.5 psf

99-B-081 Sheet 3, Rev E,	16' wide x 7' tall	for +26.0 / -29.1 psf
99-B-081 Sheet 4, Rev E,	16' wide x 8' tall	for +26.0 / -29.0 psf
99-B-081 Sheet 5, Rev E,	18' wide x 7' tall	for +26.0 / -29.1 psf
99-B-081 Sheet 5, Rev E,	18' wide x 8' tall	for +26.0 / -29.1 psf
99-B-082 Sheet 1, Rev E,	9' wide x 7' tall	for +31.2 / -35.8 psf
99-B-082 Sheet 1, Rev E,	9' wide x 8' tall	for +31.2 / -35.4 psf
99-B-082 Sheet 2, Rev E,	10' wide x 7' tall	for +31.2 / -35.4 psf
99-B-082 Sheet 2, Rev E,	10' wide x 8' tall	for +31.2 / -35.4 psf
99-B-082 Sheet 3, Rev E,	16' wide x 7' tall	for +31.2 / -34.0 psf
99-B-082 Sheet 4, Rev E,	16' wide x 8' tall	for +31.2 / -34.0 psf
99-B-082 Sheet 5, Rev E,	18' wide x 7' tall	for +31.2 / -34.0 psf
99-B-082 Sheet 6, Rev E,	18' wide x 8' tall	for +31.2 / -34.0 psf
99-B-083 Sheet 1, Rev E,	9' wide x 7' tall	for +42.6 / -48.9 psf
99-B-083 Sheet 2, Rev E,	9' wide x 8' tall	for +42.6 / -48.9 psf
99-B-083 Sheet 3, Rev E,	16' wide x 7' tall	for +35.3 / -38.9 psf
99-B-083 Sheet 4, Rev E,	16' wide x 8' tall	for +35.3 / -38.9 psf
99-B-084 Sheet 1, Rev D,	9' wide x 7' tall	for +42.6 / -48.9 psf
99-B-084 Sheet 2, Rev D,	9' wide x 8' tall	for +42.6 / -48.9 psf
99-B-095 Rev C	20' wide x 7' tall	for +25.5 / -28.5 psf
99-B-095 Rev C	18' wide x 7' tall	for +31.5 / -35.2 psf
99-B-095 Rev C	16' wide x 7' tall	for +39.9 / -44.5 psf
99-B-095 Rev C	14' wide x 7' tall	for +45.6 / -50.9 psf
99-B-095 Rev C	12' wide x 7' tall	for +53.2 / -59.3 psf

These drawing are windborne debris and static pressure

99-B-096 Rev C	8' wide up to 8' tall	for +37.8 / -42.9 psf, 21" tall sections max.
99-B-096 Rev C	9' wide up to 8' tall	for +37.8 / -42.9 psf, 21" tall sections max.
99-B-096 Rev C	10' wide up to 8' tall	for +37.8 / -42.9 psf, 21" tall sections max.
99-B-096 Rev C	16' wide up to 8' tall	for +30.8 / -37.66 psf, 21" tall sections max.
99-B-096 Rev C	18' wide up to 8' tall	for +30.8 / -37.66 psf, 21" tall sections max.

Additional Drawings

99-A-075 Rev -, Sheets 1 thru 2, Lock installation
 99-A-061 Rev H, Sheets 1 thru 1, Jamb Attachment Schedule

Test Reports

Static testing was conducted in accordance with ANSI/DASMA 108-05. **The static test method complied with ANSI/DASMA 108-2017.**

The Model 730 was tested, understood to be the minimum or equivalent of all models listed herein.

The tested doors were the widest size with tallest section height, being 10x7 and 18x7. These sizes therefore also demonstrated smaller sizes of 16', 9, and 8', along with shorter section heights of 19.25" to create 8' tall, 5-section stacks. No extrapolation of the impact/windborne debris pressures was used.

Impact & cycle testing was conducted in accordance with ANSI/DASMA 115-05, and per TAS 201/203-94. **The impact test methods complied with ANSI/DASMA 115-2017.**

The Windsor test reports were:

ETR-0194, ETR-0195, ETR-0196, ETR-0197, ETR-0198, ETR-0199,
ETR-0200, ETR-0205, ETR-0206, ETR-0207, ETR-0208, ETR-0209,
ETR-0210, ETR-0213, ETR-0216, ETR-0217, ETR-0218, ETR-0219,
ETR-0221, ETR-0222, ETR-0240, ETR-0241, ETR-2009-12-01A

The ATI test reports were:

ATI A0679.01-801-44 dated 6/24/10
ATI A0679.02-801-44 dated 6/24/10
ATI A0679.03-801-44 dated 6/24/10
ATI A0679.04-801-44 dated 6/24/10

Test Lab

Static tests were conducted at Windsor Test Lab in Little Rock, AR. This facility was A2LA accredited to conduct the DASMA 108 test procedure at the time of testing.

For the Wind-borne Debris model, tests were conducted at Architectural Testing in Southlake, Texas.

The test reports were signed by a Florida P.E.

Installation

The drawings illustrate the relevant windload details for installation of the doors.

Jamb Attachment:

It is recommended that the door opening be framed on the inside face with 2x6 lumber secured to the building as a mounting surface for the door itself. Spruce-Pine-Fir (SPF) was used in the testing. Various means of fastening the 2x6 to the building are illustrated on Windsor drawing 99-A-061.

Mounting the door directly to the building without the 2x6 has not been evaluated.

The direct mounting of door track on top of drywall or other non-structural material is outside of the scope of this wind load evaluation. (A 2x6 may be mounted on drywall, but track brackets must rest on wood.)

The location of the track brackets as shown on these drawings may vary by plus or minus 1.5 inches.

This Evaluation Report does not address design of the wall/jambs themselves. These drawings only illustrate common means to attach the door to the jambs. Walls and Jambs should be designed (by others) to withstand the loads imposed by door onto the building.

Model Descriptions

These door models are included in this approval for all drawings:

Models 730, 724, 426, 735, 750, 755

These doors are 2-inch nominal thickness:

Model 730 is a 25 gage pan door with plain emboss panels.

Model 724 is a 25 gage pan door with pattern inside the embossed panels.

Model 426 is a 25 gage pan door with horizontal ribs in lieu of rectangular embosses.

Model 735 is a 25 gage insulated pan door with ½ inch of polystyrene insulation.

Model 750 is a 24 gage pan door with plain emboss panels.

Model 755 is a 24 gage pan door with striped emboss panels.

The addition of "smart trim" and other decorative additions to the exterior face of the door, up to 1.5" overall thickness, is permitted by this approval.

Additional Limitations

The drawings cited above are an explicit part of this evaluation report. The text of this report does not attempt to address all design details but relies upon the illustrations and text of these drawings and instructions as well.

Each door should be chosen based on the "psf" requirement determined for a specific installation or locale.

The maximum door width approved with this report is 20' wide.
The maximum door height approved with this report is 7-sections.

Low Headroom track may be used in lieu of Standard Lift track.

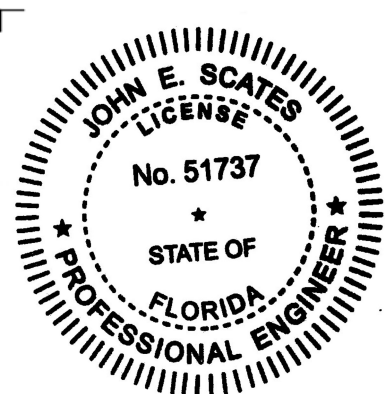
The horizontal track may be reinforced with an angle as needed to support the door weight. The construction of the horizontal track, including the track thickness, is determined by Windsor Door and does not affect this windload evaluation.

Stop molding must be installed along the vertical jambs and across the header of the opening so that the size of the opening is reduced sufficiently to provide at least 1/2 inch of overlap with each edge of the door. Stop molding is to be secured with "6D" or larger nails, or screws on spacing not to exceed the spacing noted on the drawings. "Finishing nails" may not be used: The larger head of the 6D or screw is a requirement.

The rated pressures may not be achieved unless the door is held closed during the wind event. Locks must be engaged into both tracks for 2-car widths, and into at least one track for 1-car widths. The lock instructions of 99-A-075 apply to all drawings except 99-B-095 and 99-B-096. Alternately, an electric operator attached to the door (drawbar-type) prior to the wind event may be used.

No glazing (windows) is approved for drawing 99-B-096 due to the impact requirements. Glazing on other doors are as shown on the respective drawings.

These door construction on drawing 99-B-096 has been demonstrated to comply with both Static and Wind-borne Debris locales of the Code. However, they have not been fully evaluated for use in the High Velocity Hurricane Zone (HVHZ).



Digitally signed by John E Scates
Date: 2023.10.03 11:41:56 -05'00'

John E. Scates, P.E.
Florida PE # 51737

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