

John E. Scates, Professional Engineer

November 30, 2025

Haas Door Company
320 Sycamore St.
Wauseon, OH 43567

Re: Evaluation Report for FL 16660-R19

To Whom It May Concern:

At the request of Haas Door Company, I have reviewed the drawings and tests listed below. These tests were conducted at Haas Door Company Test Lab according to ANSI/DASMA 108 and ANSI/DASMA 115 test procedures. The pressures listed on the drawings are direct results of these tests or conservative engineering rational analysis from the actual tests, except that no extrapolation of impact pressures were used. I have concluded that the construction shown on these drawings comply with the structural requirements of the 8th edition (2023) of the Florida Building Code, and IBC/IRC 2018/2021/2024 (Texas). I certify that I meet the requirements of "independence" as detailed in Florida Statutes.

Drawings

These products were tested to DASMA 108 (static):

WL-0600-0110-08-21-24L	RevP	HT 600 Series 9'-2" wide, +21.3/-24.1 PSF
WL-0600-0110-08-25-28L	RevP	HT 600 Series 9'-2" wide, +24.8/-28.0 PSF
WL-0600-0122-08-21-24L1	RevI	HT 600 Series 10'-2" wide, +21.3/-24.1 PSF
WL-0600-0122-08-21-24LSV	Rev(new)	HT 600 Series 10'-2" wide, +21.3/-24.1 PSF
WL-0600-0194-08-22-24	RevI	HT 600 Series 16'-2" wide, +21.8/-24.3 PSF
WL-0600-0194-08-22-24L	RevL	HT 600 Series 16'-2" wide, +21.8/-24.3 PSF
WL-0600-0194-08-22-24L1	RevI	HT 600 Series 16'-2" wide, +21.8/-24.3 PSF
WL-0600-0194-08-24-27L	RevP	HT 600 Series 16'-2" wide, +23.9/-26.7 PSF
WL-0600-0194-08-24-27LSV	Rev(new)	HT 600 Series 16'-2" wide, +23.9/-26.7 PSF
WL-0600-0218-08-20-23L	RevO	HT 600 Series 18'-2" wide, +20.4/-22.7 PSF
WL-0600-0218-08-20-23L1	RevI	HT 600 Series 18'-2" wide, +20.4/-22.7 PSF
WL-0600-0218-08-24-27L	RevQ	HT 600 Series 18'-2" wide, +23.9/-26.7 PSF
WL-0600-0218-08-24-27LSV	Rev(new)	HT 600 Series 18'-2" wide, +23.9/-26.7 PSF

These products were tested to DASMA 108 (static) and DASMA 115 (impact):

WL-0600-0110-33-37	RevJ	HT 600 Series 9'-2" wide, +33.2/-37.0 PSF
WL-0600-0110-08-41-46	RevK	HT 600 Series 9'-2" wide, +41.1/-46.4 PSF
WL-0600-0110-08-41-46L	RevN	HT 600 Series 9'-2" wide, +41.1/-46.4 PSF
WL-0600-0122-08-48-52	RevH	HT 600 Series 10'-2" wide, +48.0/-52.0 PSF
WL-0600-0122-08-48-52L	RevH	HT 600 Series 10'-2" wide, +48.0/-52.0 PSF
WL-0600-0122-08-48-52L	RevH	HT 600 Series 10'-2" wide, +48.0/-52.0 PSF
WL-0600-0122-08-48-52L1	RevE	HT 600 Series 10'-2" wide, +48.0/-52.0 PSF
WL-0600-0122-08-48-52LSV	Rev(new)	HT 600 Series 10'-2" wide, +48.0/-52.0 PSF
WL-0600-0194-30-33	RevJ	HT 600 Series 16'-2" wide, +30.0/-33.9 PSF
WL-0600-0194-08-31-35	RevJ	HT 600 Series 16'-2" wide, +31.3/-34.9 PSF
WL-0600-0194-08-31-35L	RevP	HT 600 Series 16'-2" wide, +31.3/-34.9 PSF
WL-0600-0194-08-31-35L1	RevA	HT 600 Series 16'-2" wide, +31.3/-34.9 PSF
WL-0600-0194-08-31-35LSV	Rev(new)	HT 600 Series 16'-2" wide, +31.3/-34.9 PSF
WL-0600-0194-08-37-42	RevK	HT 600 Series 16'-2" wide, +37.4/-41.7 PSF
WL-0600-0194-08-38-42L	RevH	HT 600 Series 16'-2" wide, +38.0/-42.0 PSF
WL-0600-0194-08-38-42L1	RevF	HT 600 Series 16'-2" wide, +38.0/-42.0 PSF
WL-0600-0194-08-38-42LSV	Rev(new)	HT 600 Series 16'-2" wide, +38.0/-42.0 PSF
WL-0600-0218-08-30-34	RevL	HT 600 Series 18'-2" wide, +30.0/-33.9 PSF
WL-0600-0218-08-30-34L	RevL	HT 600 Series 18'-2" wide, +30.0/-33.9 PSF
WL-0600-0218-08-30-34L1	RevF	HT 600 Series 18'-2" wide, +30.0/-33.9 PSF
WL-0600-0218-08-30-34LSV	Rev(new)	HT 600 Series 18'-2" wide, +30.0/-33.9 PSF

Note: The drawing titles above are simply descriptive, and do not represent any limitation on the sizes and pressures.

Test Reports

<u>Drawing</u>	<u>HAAS Report #</u>
WL-0600-0110-08-21-24L	Test 052714006 (DASMA 108)
WL-0600-0110-08-25-28L	Test 080717002 (DASMA 108)
	Test 012523001 (DASMA 108)
WL-0600-0110-08-41-46	Test 033114001 (DASMA 108) 033114002 (DASMA 115)
WL-0600-0110-08-41-46L	Test 033114003 (DASMA 108) 033114004 (DASMA 115)
WL-0600-0122-08-21-24L1	Test 061316015 (DASMA 108)
WL-0600-0122-08-21-24LSV	Test*091825003 (DASMA 108)
WL-0600-0122-08-48-52	Test 061316009 (DASMA 108) 061316010 (DASMA 115)
WL-0600-0122-08-48-52L	Test 030518013 (DASMA 108) 030518014 (DASMA 115)
	Test 070918001 (DASMA 108) 070918002 (DASMA 115)
	Test 012523002 (DASMA 108) 012523003 (DASMA 115)
	Test 050225013 (DASMA 108) 050225014 (DASMA 115)

WL-0600-0122-08-48-52L1	Test 070918003 (DASMA 108)	070918004 (DASMA 115)
	Test 050225015 (DASMA 108)	050225016 (DASMA 115)
WL-0600-0122-08-48-52LSV	Test*091825001 (DASMA 108)	*091825002 (DASMA 115)
WL-0600-0194-08-22-24	Test 070615019 (DASMA 108)	
WL-0600-0194-08-22-24L	Test 070615011 (DASMA 108)	
	Test 070615013 (DASMA 108)	
WL-0600-0194-08-22-24L1	Test 051319007 (DASMA 108)	
WL-0600-0194-08-24-27L	Test 020314008 (DASMA 108)	
	Test 012523006 (DASMA 108)	
WL-0600-0194-08-24-27LSV	Test*091825-009b (DASMA108)	
WL-0600-0194-08-31-35	Test 033114009 (DASMA 108)	033114010 (DASMA 115)
WL-0600-0194-08-31-35L	Test 033114011 (DASMA 108)	033114012 (DASMA 115)
	Test 070918009 (DASMA 108)	070918010 (DASMA 115)
	Test 012523007 (DASMA 108)	012523008 (DASMA 115)
	Test 050225001 (DASMA 108)	050225002 (DASMA 115)
WL-0600-0194-08-31-35L1	Test 050225003 (DASMA 108)	050225004 (DASMA 115)
WL-0600-0194-08-31-35LSV	Test*091825004 (DASMA 108)	*091825005 (DASMA 115)
WL-0600-0194-08-37-42	Test 052714014 (DASMA 108)	052714015 (DASMA 115)
WL-0600-0194-08-38-42L	Test 030518015 (DASMA 108)	030518016 (DASMA 115)
	Test 012523009 (DASMA 108)	012523010 (DASMA 115)
	Test 050225005 (DASMA 108)	050225006 (DASMA 115)
WL-0600-0194-08-38-42L1	Test 070918011 (DASMA 108)	070918012 (DASMA 115)
	Test 050225007 (DASMA 108)	050225008 (DASMA 115)
WL-0600-0194-08-38-42LSV	Test*091825006 (DASMA 108)	*091825007 (DASMA 115)
		091825008 (DASMA 115)
WL-0600-0218-08-20-23L	Test 070615002 (DASMA 108)	
	Test 070615003 (DASMA 108)	
WL-0600-0218-08-20-23L1	Test 061316001 (DASMA 108)	
WL-0600-0218-08-24-27L	Test 080717014 (DASMA 108)	
	Test 012523015 (DASMA 108)	
WL-0600-0218-08-24-27LSV	Test 091825012 (DASMA 108)	

WL-0600-0218-08-30-34	Test 020314011 (DASMA 108)	020314018 (DASMA 115)
WL-0600-0218-08-30-34L	Test 030518001 (DASMA 108)	030518002 (DASMA 115)
	Test 070615004 (DASMA 108)	040615005 (DASMA 115)
	Test 070615006 (DASMA 108)	040615007 (DASMA 115)
	Test 012523016 (DASMA 108)	012523017 (DASMA 115)
	Test 050225009 (DASMA 108)	050225010 (DASMA 115)
WL-0600-0218-08-30-34L1	Test 070918015 (DASMA 108)	070918016 (DASMA 115)
	Test 050225011 (DASMA 108)	050225012 (DASMA 115)
WL-0600-0218-08-30-34LSV	Test*091825010 (DASMA 108)	*091825011 (DASMA 115)

Note: Test Numbers preceded by an “*” indicate that the test was an Aluminum(5000) door that was used to prove the Steel(600) doors of the approval.

<u>Drawing</u>	<u>Architectural Testing#</u>
WL-0600-0110-33-37	Test D2427.02-550-18 (TAS 202 and DASMA 108) (TAS 201/203 and DASMA 115)
WL-0600-0194-30-33	Test D2427.01-550-18 (TAS 202 and DASMA 108) (TAS 201/203 and DASMA 115)

Test Facility & Procedures

All testing was conducted in a manner that complied with **DASMA 108-2017** and/or **115-2017**.

The test labs were accredited for these procedures at the time of testing.

The test reports were signed by a licensed PE of Florida.

Haas Tests were conducted at Haas Door Company Test Lab in Wauseon, OH. This facility was independently accredited per ISO/IEC 17025:2017 by ANAB (Certificate L2378) to perform these test procedures at the time of testing. I personally witnessed the testing.

Architectural Testing was conducted at 1701 Westfork Dr, Lithia Springs, GA.

Static pressure testing was conducted in a manner that complied with ANSI/DASMA 108-2005 (and -2012, and -2017).

Large Missile Impact and Cycling tests were conducted in a manner that complied with ANSI/DASMA 115-05 (and -2012, and -2017).

ATI testing additionally complied with TAS 201/202/203 (-94).

Installation Instructions

The drawings provide installation instructions peculiar to windload reinforcement.

Jamb attachment:

The door drawings include means to attach the doors to the building structure as detailed on Sheet 3 of each drawing using an added 2x6 to the face of the garage wall.

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.

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 the door onto the building.

Model Descriptions

In each family of doors, the weakest or thinnest skin product was tested to prove the entire family line. Thus, all of these door model variations are approved for each family of the drawings:

The HT 600, HT 700, HT 900/9000, HT 2000, HT 800 family are steel polyurethane sandwich doors.

These variations are included in this approval:

1-3/8" overall thickness:	610 (tested), 612, 614, 616, 632, 633, 660 (tested), 661, 663, 664, 668, 678, 669, 679, 667, 687, 670, 671, 672, 673, 674, 680 (tested), 681, 682, 690. 9xxx American Tradition Series (exterior overlays) (tested)
1-3/4" overall thickness:	710, 712, 714, 716, 732, 733, 760, 761, 763, 764, 768, 778, 769, 779, 767, 787, 770, 771, 772, 773, 774, 780, 781, 782, 790.
2" overall thickness:	2010, 2012, 2014, 2016, 2032, 2033, 2060, 2061, 2063, 2064, 2068, 2078, 2069, 2079, 2067, 2087, 2070, 2071, 2072, 2073, 2074, 2080, 2081, 2082, 2090 9xxx American Tradition Series (exterior overlays)
3" overall thickness:	810, 812, 814, 816, 832, 833, 860, 861, 863, 864, 870, 871, 872, 873, 874, 880, 881, 882, 890

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 listed on each drawing.
The maximum door height approved with this report is 16' nominal.

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 Haas Door Company and does not affect this windload evaluation.

The rated pressures may not be achieved unless the door is held closed during the wind event. Both tracks must be engaged with a lock (right and left side).

Some of these doors have been tested to Large Missile Impact requirements per ANSI/DASMA 115. However, they have not been fully evaluated for use in the Florida High Velocity Hurricane Zone (HVHZ).

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John E. Scates, P.E.

Florida PE # 51737

TX PE # 56308 / F2203

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