



ATLNC 1215.01-25

Report Date: 02/07/26

Dade Certification # 22-1214-01
FBC Organizational # TST 1555
IAS Certification # TL-423

Test Dates: 12/15/25 – 12/18/25

Test Requested By: Carriage House Door Company
1571 E. Main St.
Old Fort, N.C. 28762
Phone: 828-668-1600 Fax: 828-668-1805

Test Standards: FBC TAS 201-94, 202-94, 203-94, HVHZ
ASTM E330-00, ANSI / DASMA 108-2017
ANSI / DASMA 115-2017

Note: All tests were conducted without deviation. Being wood the samples did not require Salt Spray Test.

Test Conditions: 70-75 degrees F

Design Pressures: +40 psf, -45 psf

Description of product tested: Specimens A, B, C, Carriage House Door 18' x 8' Model 1000 (4) section Wood Garage Door as shown in drawing # Carriage-18-8-40-45 Rev A. Drawing is an integral part of the test report and must accompany the report.

Description of Unit:

Component	Number	Description	Location
Sections	4	216" x 24" wood sections consisting of 1-3/8" thick wood frame sheathed on the interior by 1/4" luan and exterior 3/8" plywood attached with 1/4" x 3/4" crown staple. The space between the plywood sheathing was filled with foam insulation. Exterior faced with 1/2" x 6" Tongue and grooved boards glued (expanding urethane glue) and blind nailed with 1/4" x 3/4" crown staple and faced nailed under trim with (2" 18 ga brad nails) to 3/8" plywood. Trim was 5/8" x 6" boards blind nailed with (2" 18 ga brad nails).	As shown in drawing.
End stiles	2 per section	5" wide x 1-3/8" x section height minus rails height.	End of each section
Windows	4	DO 43-3/4" x 7-3/4", 9/16" thick laminated glass 1/4" annealed glass, 0.090" vinyl interlayer, 1/4" annealed glass, Glass bite – 7/8" Sealed all 4 sides with Dow 995 sealant.	1 each section as shown in drawing
Intermediate Stiles	7 per section	2-1/4" wide x (section height - rail height) x 1-3/8" thick wood style.	As shown in drawing
Rails	2 per section	Bottom rail on bottom section and top rail on top section 5" wide x 1-3/8" thick x 216" long. All other rails 2-1/4" wide x 1-3/8" thick x 216" long	Top and bottom of each section.
Steel Roller Hinges	4 per section joint	Double 11 ga galvanized steel hinges one side of door with outer hinge attached with (4) 1/4" x 1-1/4" lag screws and inner hinge attached with (4) 1/4" x 1-1/4" lag screws, other side of door both hinges attached with (4) 1/4" x 1-1/4" lag screws each.	Each end stile
Intermediate Hinges	7 per section joint	11 ga steel hinges (7) attached with (4) 1/4" x 1-1/4" lag screws each,	Each intermediate stile as shown in drawing.
3" Hat Struts	2 Each section	20 ga 80 KSI 3-1/2" x 1-7/8" hat struts attached with 1-1/4" lags at each stile / hinge location.	2 on each section as shown in drawing

2" Nylon precision bearing roller,	5 per side	1-13/16" diameter nylon precision bearing rollers with 7/16" x 9 1/2" wind load hardened stem with a 7/16" push nut. No push nut on bottom roller.	Side of door in bottom and top brackets and end hinges
Bottom Brackets	2	11 ga x 3" x 8" One side attached with (3) 1/4" x 1-1/4" lag screws. Other side attached with (3) 1/4" x 1-1/4" lags	Bottom left and right corners of bottom section.
Top Fixtures	4	12 ga (.101") fixtures, attached with (6) 1/4" x 1-1/4" lag screws each fixture.	2 each top corner of door
2" Vertical Track	2	2" x .083" thick vertical track attached to (7) 12 ga track brackets with (1) 1/4" x 5/8" track bolt and nut and attached to frame located 2" from bottom then above and below the cut lines" with (1) 5/16 x 1-5/8" lag screw each, flag bracket attached to jamb with (3) 5/16" x 1-5/8" lag screws as shown in drawing.	Each side of door
2" Horizontal Track	2	Attached to 2" vertical track with (2) 1/4" x 5/8" track bolts and nuts and to the Flag bracket with (1) 3/8"x 5/8" carriage bolt.	Attached to top of vertical track.
Counter balance System	1	Each side of the door balanced with a 5/32" metal cable. Each cable was attached to the bottom bracket and a drum on each side. Drums attached to a shaft and springs	Above the door

STATIC AIR PRESSURE
TAS 202-94, ASTM E 330-14

Specimen A
Design Loads +40 psf, - 45 psf

Range of
tests

**Positive
loads**

½ Test
Design
Test

Time Seconds	Load psf	Max.	Perm.	Recovery
30	30	1-7/16"	1/16"	96%
30	40	2-1/8"	3/16"	92%
30	60	3-9/16"	9/16"	84%

Range of
tests

**Negative
loads**

½ Test
Design
Test

Time Seconds	Load psf	Max.	Perm.	Recovery
30	33.8	1-7/16"	1/16"	96%
30	45	2-1/16"	3/16"	91%
30	67.5	3-1/4"	5/16"	90%

Forced Entry Test

Forced entry test was conducted in accordance with TAS 202-94 with no deviation.
Specimen Passed.

Impact
Large Missile
TAS 201-94, DASMA 115-17

Type and weight of missile: Missile level D - #2 Southern Pine 2 x 4, Length 96" and 9lbs. All corner shots were impacted away from structural supports.

Note:

X measurement from left edge of specimen.

Y measurement from bottom edge of specimen

* Note: Window shots measurements from window frame.

Specimen A

		3
2	1	
4		

Impact No.	Speed Ft. / Sec.	X Meas.	Y Meas.	Degree of Orientation
1	50.0	108-1/4"	49-1/4"	10
2	50.0	96"	36-1/4"	15
3	49.9	186-1/4"	84"	10
4	50.0	9-1/4"	10-1/2"	0

Note: Shot # 3 had a 1/16" x 3" tear.

Specimen B

		3
2	1	
4		

Impact No.	Speed Ft. / Sec.	X Meas.	Y Meas.	Degree of Orientation
1	49.5	107-1/4"	49"	15
2	50.0	76-1/2"	36-1/4"	0
3	49.9	186-3/4"	64-3/4"	15
4	50.0	8-1/4"	11-1/4"	10

Note: No penetration or ruptures occurred.

Specimen C

	1	
2		3
4		

Impact No.	Speed Ft. / Sec.	X Meas.	Y Meas.	Degree of Orientation
1	50.0	107-1/2"	49-3/4"	15
2	50.0	77-1/4"	36-1/2"	0
3	50.0	185-3/4"	39-3/4"	15
4	49.7	8"	11"	5

Note: No penetration or ruptures occurred.

Cyclical Test
FBC TAS 203-94, DASMA 115-17

Specimens: A, B, C

Design Loads: + 40.0 psf, - 45.0 psf

Range of test Positive loads	Actual Load psf	# of cycles	Cycles per minutes	A		B		C	
				max def	perm set	max def	perm set	max def	perm set
.2 - .5	8 – 20	3500	29	1-5/8"		1-3/8"		1-5/16"	
0 - .6	0 – 24	300	27	2"		1-3/4"		1-5/8"	
.5 - .8	20 – 32	600	25	2-1/2"		2-3/8"		2-3/8"	
.3 - 1.0	12 - 40	100	25	3-3/16"	1/2"	3-1/4"	7/8"	3-1/8"	5/8"

Range of test Negative loads	Actual Load psf	# of cycles	Cycles per minutes	A		B		C	
				Max def	perm set	max def	perm set	max def	perm set
.3 - 1.0	14 – 45	50	25	2-3/4"		3"		2-3/4"	
.5 - .8	23 – 36	1050	28	2-1/4"		2-11/16"		2-5/16"	
0 - .6	0 – 27	50	40	1-3/4"		2-3/16"		2"	
.2 - .5	9 - 23	3350	34	1-1/2"	1/4"	2"	9/16"	1-3/4"	1/2"

Cycles Completed 9000

Description of specimens after test:

Specimens showed no resultant failure or distress after cyclical test. All doors were operable before and after all tests.

Note: 2 mil polyethylene film was used for the Static Air Pressure Test, it is the opinion of the undersigned that it had no influence on the results of the test.

Technicians: Keith Owen
Samuel Poplin
Keith Owen Jr.

Observers-

Keith Owen, Ashley Poplin / ATL
Keith Owen Jr., Samuel Poplin/ ATL
David W. Johnson, P.E.
Shawn Guthrie / Carriage House Doors

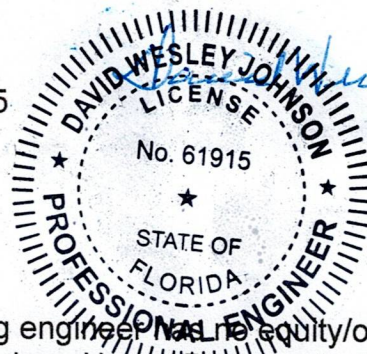
Keith Owen, Lab Director
American Test Lab, Inc.

Keith Owen
2/4/26

All Tests Witnessed and Certified by:

David Johnson P. E.
1122 Calvert Rd.
Brevard, NC 28712
Florida P.E. # 61915

Engineer Seal and Signature



David Johnson
2/4/26

Certificate of Independence: The witnessing engineer has no equity/ownership interest in American Test Lab of North Carolina, Carriage House Doors or their parts vendors. Witnessing engineer is in complete compliance of Florida Statue 9B-72, Section 72.110

Disclaimer:

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AMERICAN TEST LAB NORTH
DATE 02/04/26
REPORT NO. ATLNC 1215.01-25

Keith Owen
ATL INSPECTOR

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

