

# STRUCTURAL SOLUTIONS, P.A.

Structural Engineering ■ Investigations ■ Consulting

## GARAGE DOOR EVALUATION REPORT

|                        |                                                                         |                 |                 |                                      |                        |                    |
|------------------------|-------------------------------------------------------------------------|-----------------|-----------------|--------------------------------------|------------------------|--------------------|
| Garage Door No.:       | IRC-9516-156-26-I                                                       |                 | Model # 950     |                                      | Report Date: 2/11/2025 |                    |
| Design Pressures:      | +38 psf, -45 psf                                                        |                 | Test Pressures: | +57 psf, -67.5 psf                   |                        | Project No. 20-008 |
| Test Date:             | 7/23-7/25/2024                                                          | Test Location:  |                 | American Test Lab, Inc., Brevard, NC |                        |                    |
| ASCE 7-22<br>Criteria: | Up to 5 Feet of Door Width in Zone 5; Any Roof Slope; Enclosed Building |                 |                 |                                      |                        |                    |
|                        | Exp. B, 30' MRH                                                         | Exp. C, 15' MRH | Exp. C, 25' MRH | Exp. D, 15' MRH                      | Exp. D, 25' MRH        |                    |
|                        | 204 mph                                                                 | 186 mph         | 176 mph         | 169 mph                              | 162 mph                |                    |

### Reference Drawing and Test Report(s):

- Amarr Drawing number IRC-9516-156-26-I dated 09/22/2022
- American Test Lab, Inc. report number ATLNC 0723.02-24 dated 02/11/2025
  - Tests witnessed and certified by David Johnson, PE (FL PE #61915) for:
  - Static Air Pressure Test • Large Missile Impact Test • Forced Entry Test • Cyclical Test • Tensile Test

### Description of Test Specimen:

A 16'-0" wide x 7'-0" high x 2" thick sectional garage door, Model # 950. All sections were made of 24 ga galvanized steel sheet. The test unit is further described on Drawing IRC-9516-156-26-I.

### Test Standards and Report Conclusions:

The above referenced Test Reports state the following:

- The tests were conducted in accordance with ANSI/DASMA 108-17; ASTM E330-14; FBC TAS 201 202 203; ASTM E8 E330-14 F588-07; ANSI/DASMA 108-17 115-17
- The tests were witnessed and certified by: David Johnson, PE (FL PE #61915)
- The weight of the missile used for the Large Missile Impact Test was 9.3 lbs.
- The maximum cycle time noted in the report is less than the maximum permitted based on the formula:  
(area of specimen -75) x (F) + 3, where F= 0.06 for sectional doors.
- All tests passed the referenced Test Standards.
- The test facility at American Test Lab, Inc. is accredited by IAS, Certification #TL-423.

### Summary:

The 16'-0"x7'-0" Model # 950 door as described on drawing IRC-9516-156-26-I meets or exceeds the testing criteria as described above. By comparison to the construction of the 16'-0"x7'-0" Model # 950, the following doors also meet or exceed the above testing criteria, when constructed in accordance with drawing IRC-9516-156-26-I:

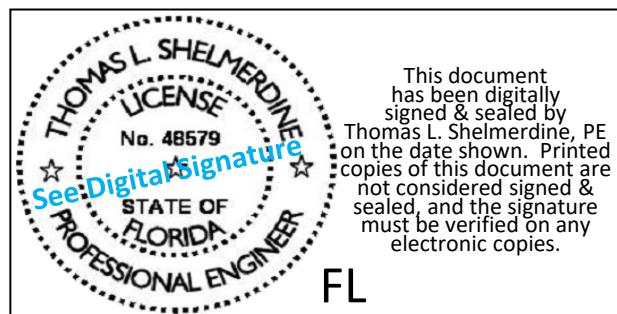
- 16' x 7' Amarr Heritage 1000 doors (which is an alternate name for the Model 950)
- 16' x 7' Amarr Heritage 2000 doors (which is the Model 950 with drop-in insulation)
- Short, Long, and Bead Board panels, which are alternate embossment patterns
- Model 950 and Amarr Heritage 1000 & 2000 doors with widths of up to 16' and heights of up to 14'.
- 8 short panel windows (5/16" x 18-1/8" x 10-5/8" annealed laminated glass with 0.090" PVB interlayer - meets ASTM E1300-04) may be installed in 1 section.
- Windows are not required to be installed in any section.

To the best of my knowledge, the above garage door conforms to the requirements of the Florida Building Code 8th Edition (2023). I certify that I have no financial interest in the testing lab(s) that performed the tests, nor in Amarr Garage Doors.

Submitted By:

Thomas L  
Shelmerdine

Digitally signed by Thomas L Shelmerdine  
DN: c=US, o=Unaffiliated,  
dnQualifier=A01410D000001938E1ECCEA  
0007AC7B, cn=Thomas L Shelmerdine  
Date: 2025.02.11 16:29:04 -05'00'



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