

# STRUCTURAL SOLUTIONS, P.A.

Structural Engineering ■ Investigations ■ Consulting

## GARAGE DOOR EVALUATION REPORT

|                        |                                                                           |                 |                 |                                            |                 |                    |
|------------------------|---------------------------------------------------------------------------|-----------------|-----------------|--------------------------------------------|-----------------|--------------------|
| Garage Door No.:       | IBC-1309-150-15                                                           |                 | Amarr           | 2741                                       | Report Date:    | 10/5/2023          |
| Design Pressures:      | +32.6 psf, -38.2 psf                                                      |                 | Test Pressures: | +48.9 psf, -57.3 psf                       |                 | Project No. 18-029 |
| Test Date:             | 3/30/2018                                                                 | Test Location:  |                 | Amarr, 165 Carriage Ct., Winston-Salem, NC |                 |                    |
| ASCE 7-22<br>Criteria: | Up to 5 Feet of Door Width in Zone 5; Roof Slope ≤ 10°; Enclosed Building |                 |                 |                                            |                 |                    |
|                        | Exp. B, 30' MRH                                                           | Exp. C, 15' MRH | Exp. C, 25' MRH |                                            | Exp. D, 15' MRH | Exp. D, 25' MRH    |
|                        | 195 mph                                                                   | 177 mph         | 168 mph         |                                            | 160 mph         | 154 mph            |

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

- Amarr Drawing number IBC-1309-150-15 dated 04/19/2018
- Structural Solutions, P.A. report for IBC-1309-150-15 dated 10/05/2023
  - Static Air Pressure Test witnessed by Thomas L. Shelmerdine, PE

### Description of Test Specimen:

A 9'-2" wide x 8'-0" high x 1 3/8" thick sectional garage door, Amarr 2741. All sections were made of 27 ga exterior / 27 ga interior galvanized steel sheet. The test unit is further described on Drawing IBC-1309-150-15.

### Test Standards and Report Conclusions:

The above referenced Test Report states the following:

- The tests were conducted in accordance with ANSI/DASMA 108-17; ASTM E330-14
- The tests were witnessed and certified by: Thomas L. Shelmerdine, PE
- All tests passed the referenced Test Standards.
- The Amarr test facility is accredited by the American Association for Laboratory Accreditation, Cert. #2595.01.

### Summary:

The 9'-2"x8'-0" Amarr 2741 door as described on drawing IBC-1309-150-15 meets or exceeds the testing criteria as described above. By comparison to the construction of the 9'-2"x8'-0" Amarr 2741, the following doors also meet or exceed the above testing criteria, when constructed in accordance with drawing IBC-1309-150-15:

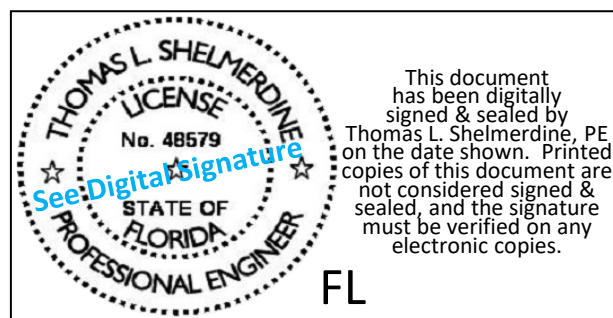
- 9'-2" x 8' Amarr 2742 doors (which are 2" thick in lieu of 1-3/8" thick)
- 9'-2" x 8' Amarr 2042 doors (which are 2" thick in lieu of 1-3/8" thick and have thicker 20ga exterior skin in lieu of 27ga steel)
- 9'-2" x 8' Amarr 2442 doors (which are 2" thick in lieu of 1-3/8" thick and have thicker 24ga exterior skin in lieu of 27ga steel)
- Amarr # 2741, 2742, 2042 and 2442 doors with widths up to 9'-2" and heights up to 24'-0"
- Up to 2 windows may be installed in 1 section (3-1/4" x 21-3/8" x 0.080 insulated plexiglass, or 10-3/16" x 23-3/8" x 0.080 insulated plexiglass, or 9-5/8" x 21-5/8" x 1/8" DSB)
- 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=North Carolina,  
dnQualifier=A01410D000001856487A7B1  
00125CE2, cn=Thomas L Shelmerdine  
Date: 2023.10.05 11:03:42 -04'00'



**STRUCTURAL SOLUTIONS, P.A.**

Thomas L. Shelmerdine, PE (Florida PE #0048579) (dba Structural Solutions of North Carolina, Inc., Florida Firm #29412)

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