

# STRUCTURAL SOLUTIONS, P.A.

Structural Engineering ■ Investigations ■ Consulting

## GARAGE DOOR EVALUATION REPORT

|                        |                                                                           |  |                 |      |                                            |              |                 |                    |                 |  |
|------------------------|---------------------------------------------------------------------------|--|-----------------|------|--------------------------------------------|--------------|-----------------|--------------------|-----------------|--|
| Garage Door No.:       | IBC-4710-133-11                                                           |  | Amarr           | 2747 |                                            | Report Date: | 10/5/2023       |                    |                 |  |
| Design Pressures:      | +25.3 psf, -29.4 psf                                                      |  | Test Pressures: |      | +38 psf, -44.1 psf                         |              |                 | Project No. 22-065 |                 |  |
| Test Date:             | 9/21/2022                                                                 |  | 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 |  |
|                        | 172 mph                                                                   |  | 156 mph         |      | 149 mph                                    |              | 142 mph         |                    | 136 mph         |  |

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

- Amarr Drawing number IBC-4710-133-11 dated 10/12/2022
- Structural Solutions, P.A. report for IBC-4710-133-11 dated 10/05/2023
  - Static Air Pressure Test witnessed by Thomas L. Shelmerdine, PE

### Description of Test Specimen:

A 10'-4" wide x 8'-0" high x 1 5/8" thick sectional garage door, Amarr 2747. All sections were made of 27 ga exterior / 30 ga interior galvanized steel sheet. The test unit is further described on Drawing IBC-4710-133-11.

### 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 10'-4"x8'-0" Amarr 2747 door as described on drawing IBC-4710-133-11 meets or exceeds the testing criteria as described above. By comparison to the construction of the 10'-4"x8'-0" Amarr 2747, the following doors also meet or exceed the above testing criteria, when constructed in accordance with drawing IBC-4710-133-11:

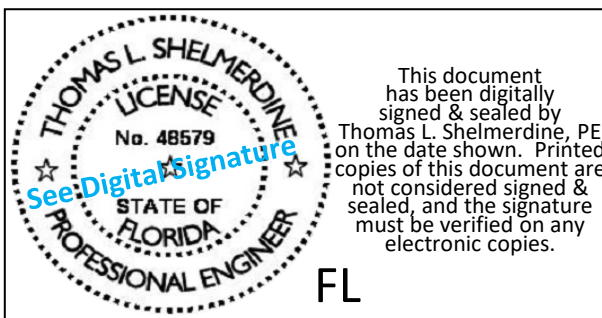
- Amarr 2747 doors with widths up to 10'-4" and heights up to 24'-0"
- Up to 3 windows may be installed in 1 section (21-3/8" x 5-3/8" x 1/8" DSB insulated glass, or 23-3/8" x 10-3/16" x 0.080" insulated plexi-glass)
- Windows are not required to be installed in any section.

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=A01410D00000185648  
7A7B100125CE2, cn=Thomas L  
Shelmerdine  
Date: 2023.10.05 07:35:32 -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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