

# STRUCTURAL SOLUTIONS, P.A.

Structural Engineering ■ Investigations ■ Consulting

## GARAGE DOOR EVALUATION REPORT

|                        |                                                                           |                 |                                            |                 |                    |
|------------------------|---------------------------------------------------------------------------|-----------------|--------------------------------------------|-----------------|--------------------|
| Garage Door No.:       | IBC-2009-104-11-R                                                         | Amarr           | 2002                                       | Report Date:    | 10/16/2023         |
| Design Pressures:      | +15.6 psf, -18.3 psf                                                      | Test Pressures: | +23.4 psf, -27.5 psf                       |                 | Project No. 18-036 |
| Test Date:             | 4/17/2018                                                                 | 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    |
|                        | 135 mph                                                                   | 122 mph         | 116 mph                                    | 111 mph         | 106 mph            |

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

- Amarr Drawing number IBC-2009-104-11-R dated 05/23/2018
- Structural Solutions, P.A. report for IBC-2009-104-11-R dated 10/16/2023
  - Static Air Pressure Test witnessed by Thomas L. Shelmerdine, PE

### Description of Test Specimen:

A 9'-4" wide x 8'-0" high x 2" thick sectional garage door, Amarr 2002. All sections were made of 20 ga galvanized steel sheet. The test unit is further described on Drawing IBC-2009-104-11-R.

### Test Standards and Report Conclusions:

The above referenced Test Report states the following:

- The tests were conducted in accordance with ANSI/DASMA 108-12; 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.

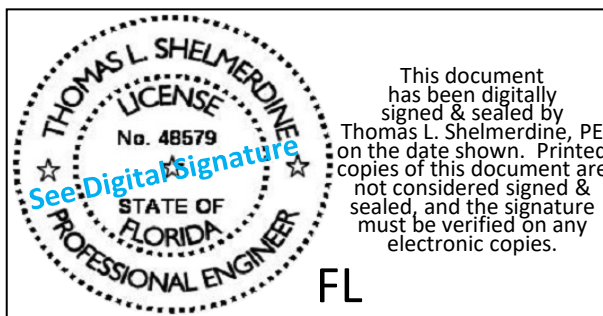
### Summary:

The 9'-4"x8'-0" Amarr 2002 door as described on drawing IBC-2009-104-11-R meets or exceeds the testing criteria as described above. By comparison to the construction of the 9'-4"x8'-0" Amarr 2002, the following doors also meet or exceed the above testing criteria, when constructed in accordance with drawing IBC-2009-104-11-R:

- 9'-4"x8'-0" Amarr 2012 doors, which is Amarr 2000 with drop-in insulation
- 9'-4"x8'-0" Amarr 2022 doors, which is Amarr 2000 with drop-in insulation and backer panels
- Amarr 2002, 2012, and 2022 doors, with widths up to 9'-4" and heights up to 24'-0"
- Up to 2 windows may be installed in 1 section (21 5/8" x 9 5/8" x 0.080" Plexiglas, or 21 3/8" x 3 1/4" x 0.080" Plexiglas)
- 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:



## 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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