

# STRUCTURAL SOLUTIONS, P.A.\*

Structural Engineering ■ Investigations ■ Consulting

## GARAGE DOOR EVALUATION REPORT

|                        |                                                                           |  |                 |                               |                 |              |                 |  |                 |  |
|------------------------|---------------------------------------------------------------------------|--|-----------------|-------------------------------|-----------------|--------------|-----------------|--|-----------------|--|
| Garage Door No.:       | IBC-2414-150-24                                                           |  | Test Date:      | 6/27/2018                     |                 | Project No.: | 18-078          |  |                 |  |
| Design Pressures:      | +31.5 psf, -35.9 psf                                                      |  | Report Date:    | 10/21/2020                    |                 | Model #      | 2400            |  |                 |  |
| Test Pressures:        | +47.3 psf, -53.9 psf                                                      |  | Test Location:  | Entrematic, Winston-Salem, NC |                 |              |                 |  |                 |  |
| ASCE 7-16<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 |  |
|                        | 194 mph                                                                   |  | 176 mph         |                               | 168 mph         |              | 160 mph         |  | 154 mph         |  |

### Reference Test Report and Drawing:

- Structural Solutions, P.A.\* Garage Door Static Pressure Test Report for IBC-2414-150-24 dated 10/21/2020
- Entrematic Drawing number IBC-2414-150-24 dated 10/4/2018

### Description of Test Specimen:

14'-2"x8'-0" Model 2400, 24 ga steel garage door as shown in drawing IBC-2414-150-24.

### Test Standards and Report Conclusion:

The above referenced Test Report states the following:

- The tests were conducted in accordance with ASTM E330-14 and DASMA 108-12.
- The test was witnessed and certified by Thomas L. Shelmerdine, PE (FL PE# 48579)
- The test facility at Entrematic is accredited by the American Association for Laboratory Accreditation, Certificate #2595.01.

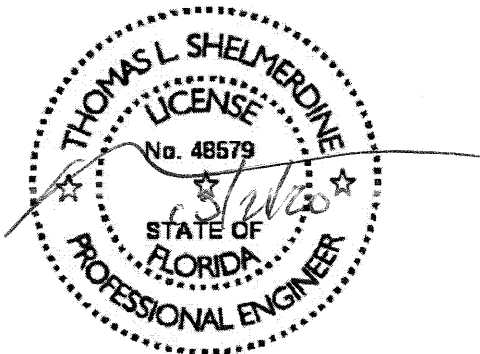
### Summary:

The 14'-2"x8'-0" Model 2400 as described on drawing IBC-2414-150-24 meets or exceeds the testing criteria as described above. By comparison to the construction of the 14'-2"x8'-0" Model 2400, the following doors also meet or exceed the above testing criteria, when constructed in accordance with drawing IBC-2414-150-24:

- 14'-2" x 8' Model 2000 doors (which are constructed of thicker 20 ga steel in lieu of 24 ga steel)
- 14'-2" x 8' Amarr # 2402 and 2002 doors which are alternate model numbers for Models 2400 and 2000 respectively
- 14'-2" x 8' Amarr # 2412 and 2012 doors which are Models 2400 and 2000 with drop-in insulation
- 14'-2" x 8' Amarr # 2422 and 2022 doors which are Models 2400 and 2000 with drop-in insulation & steel backing inserts
- Model 2400, 2000, Amarr # 2402, 2412, 2422, 2002, 2012, 2022 doors with widths up to 14'-2" and heights up to 24'-0"
- 4 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, or 21 3/8" x 3 1/4" x 1/8" DSB)

To the best of my knowledge, the above garage door conforms to the requirements of the Florida Building Code 7th Edition (2020).

Submitted By:



**STRUCTURAL SOLUTIONS, P.A.\*** (\*Florida: dba Structural Solutions of North Carolina, Inc., Firm #29412)

Thomas L. Shelmerdine, PE (NC PE #14654; Florida PE #0048579)

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