

# STRUCTURAL SOLUTIONS, P.A.\*

Structural Engineering ■ Investigations ■ Consulting

## GARAGE DOOR EVALUATION REPORT

|                        |                                                                         |                 |                 |                               |                 |        |
|------------------------|-------------------------------------------------------------------------|-----------------|-----------------|-------------------------------|-----------------|--------|
| Garage Door No.:       | IRC-3109-130-15                                                         |                 | Test Date:      | 12/6/2018                     | Project No.:    | 18-153 |
| Design Pressures:      | +26.7 psf, -31.6 psf                                                    |                 | Report Date:    | 10/12/2020                    | Model #         | 3100   |
| Test Pressures:        | +40.1 psf, -47.4 psf                                                    |                 | Test Location:  | Entrematic, Winston-Salem, NC |                 |        |
| ASCE 7-16<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 |        |
|                        | 168 mph                                                                 | 152 mph         | 145 mph         | 138 mph                       | 133 mph         |        |

### Reference Test Report and Drawing:

- Structural Solutions, P.A.\* Garage Door Static Pressure Test Report for IRC-3109-130-15 dated 10/12/2020
- Entrematic Drawing number IRC-3109-130-15 dated 1/25/2019

### Description of Test Specimen:

9'-0"x7'-0" Model 3100, 27 ga steel garage door as shown in drawing IRC-3109-130-15.

### 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.

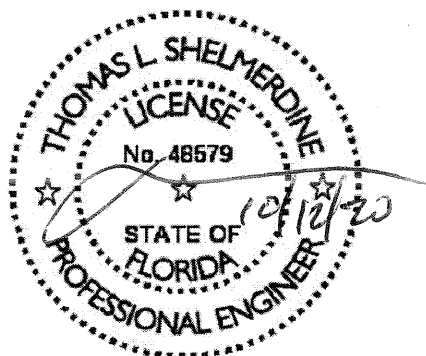
### Summary:

The 9'-0"x7'-0" Model 3100 as described on drawing IRC-3109-130-15 meets or exceeds the testing criteria as described above. By comparison to the construction of the 9'-0"x7'-0" Model 3100, the following doors also meet or exceed the above testing criteria, when constructed in accordance with drawing IRC-3109-130-15:

- 9' x 7' Model 3150 doors (which have different embossment patterns in the skin)
- 9' x 7' Model 1600 doors (which are 2" thick in lieu of 1 3/8" thick)
- 9' x 7' Model 1650 doors (which are 2" thick in lieu of 1 3/8" thick, and have different embossment patterns in the skin)
- 9' x 7' Amarr Lincoln 3138, Hillcrest 3138, Lincoln 3000, and Hillcrest 3000 doors, which are alternate model numbers for Models 3100, 3150, 1600 & 1650
- Model 3100, 3150, 1600, 1650, Amarr Lincoln 3138, Hillcrest 3138, Lincoln 3000, and Hillcrest 3000 doors with widths up to 9'-0" and heights up to 14'-0"
- 4 short panel (18-1/2" x 11") or 2 long panel (38-1/2" x 11") windows (3/32" SSB - meets ASTM E1300-04) may be installed in 1 section

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)

5921-G West Friendly Avenue ■ Greensboro, North Carolina 27410 ■ (336) 856-2686 ■ www.sspa.biz ■ NC Firm #C-1096