# John E. Scates, Professional Engineer

October 12, 2022

Janus International 135 Janus International Blvd Temple, GA 30179

Re: FL 21450-R8 (3652)

**Evaluation Report for Janus Series 3652 Rolling Doors** 

To Whom It May Concern:

At the request of Janus International, I have reviewed the drawing and test listed below. The pressures listed on the drawing are the direct result of this test or conservative engineering rational analysis from the actual test. I have concluded that the construction shown on these drawings comply with the structural requirements of the 7th Edition (2020) Florida Building Code. I certify that I meet the requirements of "independence" as detailed in Florida Statutes.

### **Drawings**

#### **Static Only**

T1014-RevC Series 3652 Door Assembly up to 18'-0" wide.

# **Test Reports**

DrawingCTLA Test ReportTest DateT1014CTLA 2058W02-17-2011

The CTLA test facility was located at: Certified Testing Laboratories 7252 Narcoossee Rd Orlando, FL

The CTLA test reports were signed by a Florida P.E.

Static pressure testing was conducted in accordance with ANSI/DASMA 108-05 and ASTM E330-02. The testing also complied with the requirements of ANSI/DASMA 108-2017. These standards are equivalent test procedures to meet the requirements of the FBC for garage doors.

#### **Calculations**

The tested door was 12'-0" width and achieved +36.0/-40.0 psf design. One jamb was 3/16" thick steel while the other was filled CMU block.

The tested design load was extended to other widths using comparative rational analysis. The loads applied to the jambs by the door via direct pressure and end-tension catenary forces were computed using industry standard methods. Results for a variety of width are tabulated on sheet 1 of the drawing. In addition, the computed jamb loads are shown as "Vx" and "Vy" on sheet 2 of the drawing.

The guide fastener spacing for additional steel jamb thicknesses were computed using data from ICC-ES ESR-1976 and ESR-3223 (ITW TEKS screws).

#### **Installation Instructions**

#### **Anchorage Requirements:**

The door drawing includes means to attach the door to the building structure as detailed on Sheet 2.

This Evaluation Report does not address design of the wall/jambs themselves, but provides the anticipated jamb loads that will be generated by this product, Vx and Vy, also illustrated on Sheet 2.

This Evaluation is for Series 3652 Rolling Doors by Janus International.

All doors consist of a corrugated steel sheet curtain suspended from a drum roller. The sides of the curtain are constrained from lateral movement along their vertical edges by steel guides that are attached to the door jambs. This constraint provides resistance to wind forces. The wind forces are transferred from the curtain to the guides and then through the attachment elements to the door jamb.

#### Series 3652

Door curtains have a thickness of 26 gage (min. 0.017 in.) and are made of ASTM A653 structural steel, grade 80, pre-painted, galvanized steel with a full coat of primer and baked siliconized polyester finish coat. The corrugated sheets are interlocked mechanically to form the curtain. Lap splices are at approximately 20 inches on center vertically in the installed door. The corrugation height is approximately 5/8 inches and the corrugation pitch is 3.25 inches. Style variations include door width, windlocks, and wind load rating.

Two black Nylon windlocks are attached to the curtain at every other corrugation. The windlocks are secured with two 3/16" diameter zinc plated steel blind rivets.

## **Additional Limitations**

The drawing cited above is an explicit part of this evaluation report. The text of this report does not attempt to address all windload details but relies upon the illustrations and text of the drawing and instructions as well.

Each door should be chosen based on the "psf" requirement determined for a specific installation or locale.

The maximum opening width approved with this report is 18 feet.

The maximum door height for is 20'-0" nominal.

Doors narrower than tabulated width are allowed but carry the same psf as the next greater width in the table.

The user of this product is reminded that rolling doors can generate substantial catenary forces at the jambs ("Vx"). The building jambs must be designed to withstand these loads in combinations of Vx with Vy(+), and Vx with Vy(-) shown on sheet 2 of the drawings.

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This product is not for use in the Florida High Velocity Hurricane Zone (HVHZ).

John E. Scates, P.E. Florida PE # 51737

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