

Testing 21053 4831 SW 168 Ave Southwest

4831 SW 168th Ave, Southwest Ranches, FL 33331, USA

F+E | LC#18-0524.01 - ASTM E1105 Field Water Infiltration Test

Description Test Report Number S001-T001

Status Test Report

Assignee Jude Sosa (JSO)

Date 07-27-2021

Attention:

Client Ms. Sylvia Lino
4831 sw 168 ave,
SouthWest Ranches , FL 33331
linofam@aol.com

Project Number 21053

Scheduled Test Date/Time 29 Jul 09:30 AM

Notification Facade + Envelope has performed the ASTM E1105 Standard Test Method for Field Determination of Water Penetration at the subject building.

Test Specimen Information

Specimen #	Re-Test	Product Type	Design Pressure (PSF)	Test Pressure (PSF)	Inches of Water (in H2O)	Report #
S001	<input type="checkbox"/>	Triple Horizontal Window	0.0	0.0	0.0	T001A
S001	<input type="checkbox"/>	Triple Horizontal Window	25.2	3.78	0.72	T001B
S001	<input type="checkbox"/>	Triple Horizontal Window	37.8	5.61	1.08	T001C

Test Description

Testing Standard ASTM E1105 Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference

Description of Test Method As indicated on ASTM E1105: "This test method consists of sealing a chamber to the interior or exterior face of specimen to be tested, supplying air to a chamber mounted on the exterior or exhausting air from a chamber mounted on the interior, at the rate required to maintain the test pressure difference across the specimen while spraying water onto the outdoor face of the specimen at the required rate and observing any water penetration." For this test a wooden chamber with clear vinyl was sealed to the specimen on the interior and air was exhausted from the chamber through the test specimen at a constant rate using an electric vacuum/blower (uniform air pressure difference). Simultaneously a spray-rack assembly consisting of 3/4" PVC pipes with evenly spaced plastic nozzles delivered water uniformly against the exterior surface of the test specimen at a minimum rate of 5 U.S. gal/ft²·h. Pressure differential across specimen was measured using a Magnehelic differential pressure gauge graduated in inches of water manufactured by Dwyer Instruments.

Pass or Fail Criteria Per ASTM E-1105 Water Penetration is defined as "penetration of water beyond a plane parallel to the glazing (the vertical plane) intersecting the innermost projection of the test specimen, not including interior trim and hardware, under the specified conditions of air pressure difference across the specimen. For products with non-planer surfaces (domes, vaults, pyramids, etc.) the plane defining water penetration is the plane defined by the innermost edges of the unit frame."

General Notes

General Note 1 All observations are viewed from interior unless noted otherwise.

General Note 2 Testing pressures are to be as follows:

- T001A: 0 psf - no pressure in chamber only spray rack. Five (5) minutes
- T001B: 3.78 psf - 2/3 of the 15% of the required opening design positive pressure 37.8 psf- Fifteen (15) minutes
- T001C: 5.61 psf - 15% of the required opening design positive pressure 37.8 psf - Fifteen (15) minutes

Floor Plan (See Attachment 1)

Test Specimen Drawing (See Attachment 2)

Test Specimen Description

Specimen Name	S001-T001
Product Description	Series "Barcelona" Model "TSL30I" Triple Horizontal Window
Product Manufacturer	Soft-Lite Windows
Configuration	X/O/X
Overall Dimensions	73" L x 49" H
Location Within Building	1st Floor East Elevation , Living Room
Approximate Age of Specimen	New
General Physical Conditions	Good

Test Conditions

Weatherflow Weather-meter WFANO-02	
Exterior Air Pressure (in)	30.05
Outside Air Temperature (°F)	85.0
Wind Speed/Direction (mph)	1 NNE
Other Observation	Sunny

Remedial Work

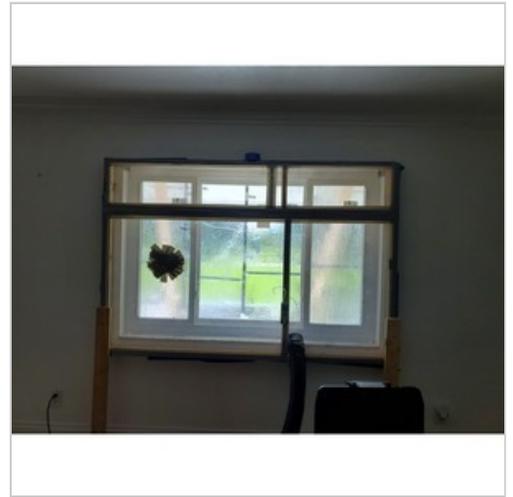
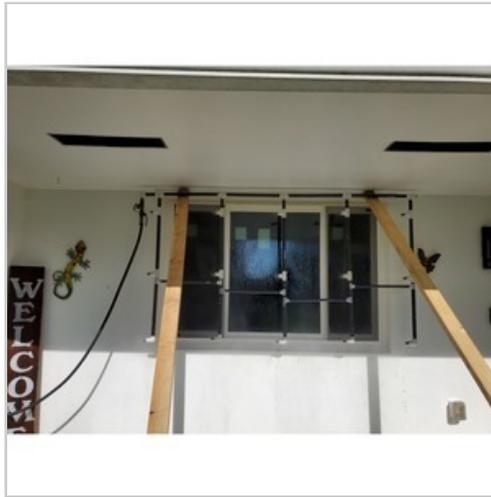
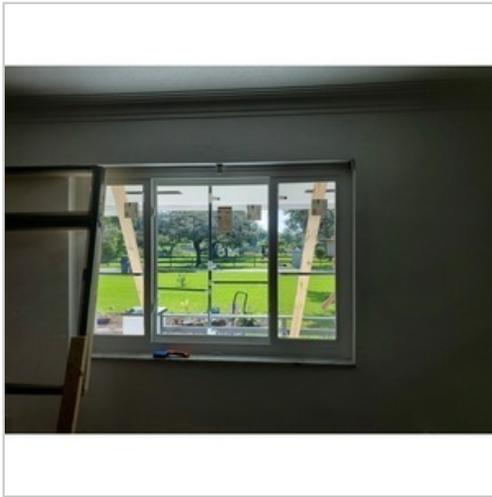
Item #	Description
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Remedial Work Photos

Pre-Test Observations

Item #	Description
01	Interior finish was not removed prior to the water test.

Test Specimen Photos



Test Results

Test Start Time 9:15 am

Test End Time 9:45 am

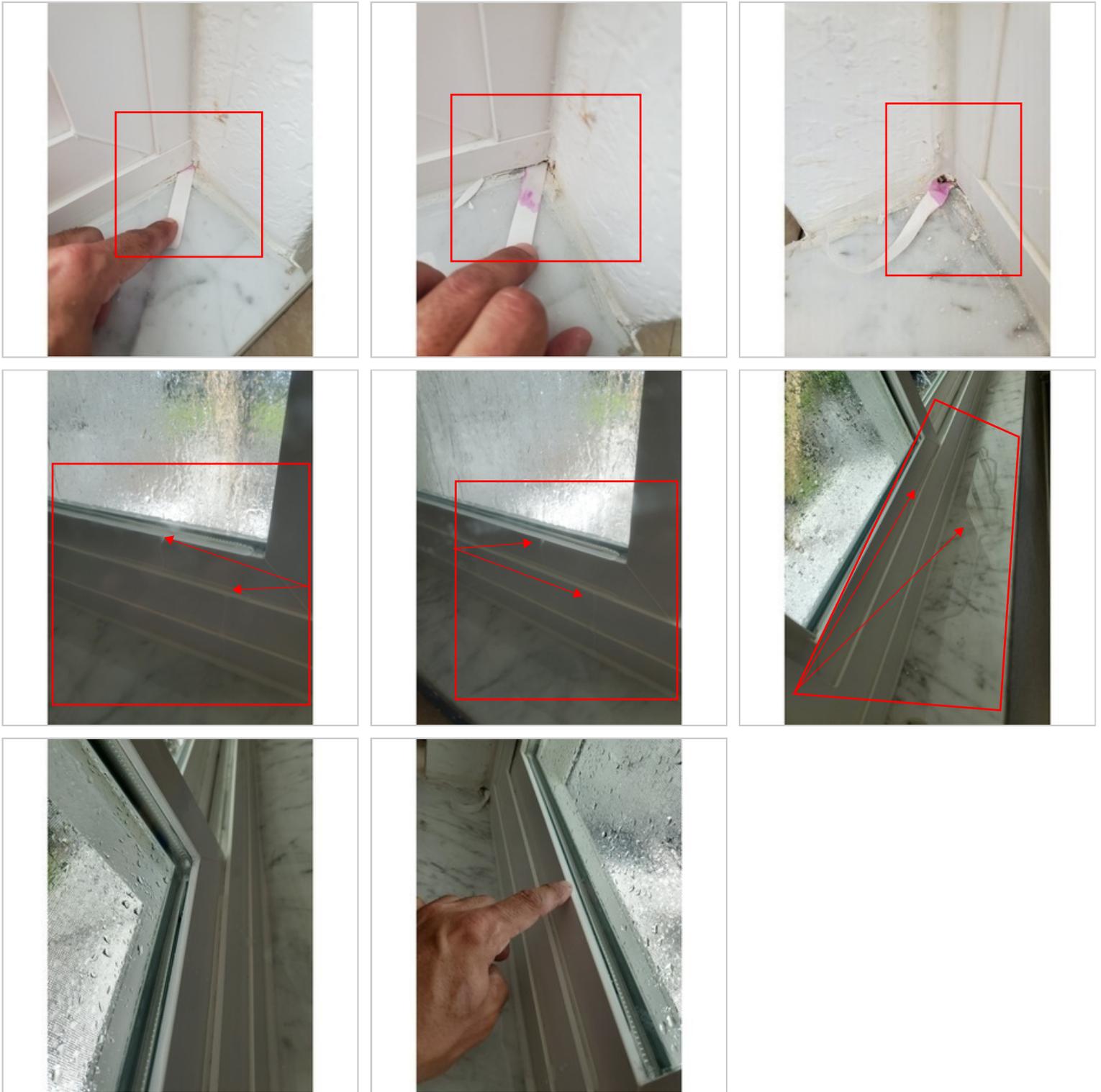
FAIL

PASS

Test Observations

Item	Description
A	During test T001A, water infiltration was observed entering under the frame sill bottom right corner approximately one (1) minute into test.
B	During test T001B, water infiltration was observed entering under the frame sill bottom right and left corners approximately three (3) minutes into test
C	During test T001C, water infiltration was observed entering through the glazing pocket of the left operable vent approximately one (1) minute into test.
D	During test T001C, water infiltration was observed overflowing the frame sill at the bottom left corner approximately two (2) minutes into test.

Test Photos



Post-Test Observations

Item #	Description
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Post-Test Photos

Witnesses to Test

Sylvia Lino - Home Owner

Test Conducted by

Name/s Jude Sosa and Harold Duarte

Company F+E

Report Reviewed By

Name Manuel Morales, P.E.

Fl. Reg # 71643

Signature _____

Test Specimen Drawing (Attachment 2)

