

EVALUATION REPORT

FLORIDA PRODUCT APPROVAL – FL#44102.1

BAHAMA SHUTTERS

REPORT

Q5764.01-122-34-R0

RENDERED TO:

NEW HORIZON SHUTTERS
7259 SPA ROAD
NORTH CHARLESTON, SOUTH CAROLINA 29418

PREPARED BY:

TANYA A. DOLBY, P.E.
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ORIGINAL ISSUE DATE

10/23/23

LAST REVISED DATE

ORIGINAL

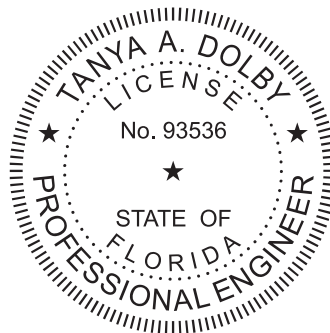
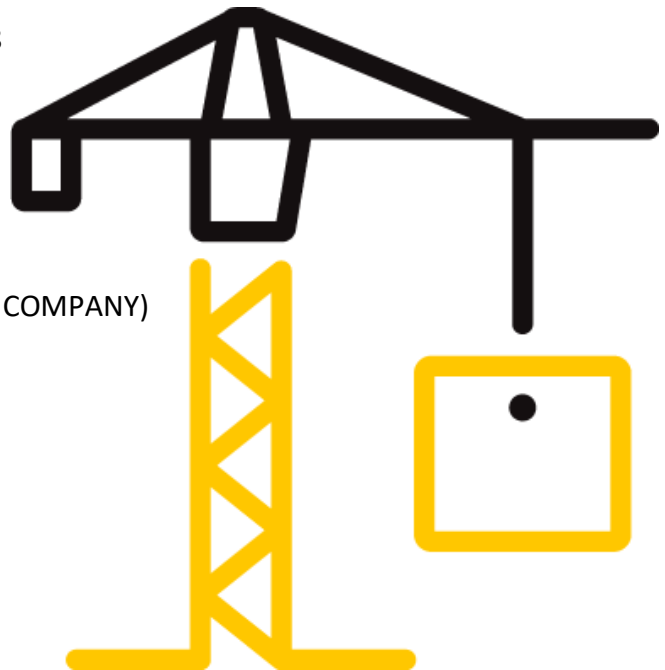
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Digitally Signed by: Tanya Dolby

Tanya A. Dolby, P.E.
Manager, Engineering Services



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RENDERED TO:

Company Name:	New Horizon Shutter
Address:	7259 Spa Road
	North Charleston, South Carolina 29418

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1 PRODUCT OVERVIEW

Product Name:	Bahama Shutters
Product Category:	Shutter
Product Subcategory:	Bahama
Product Approval Method:	Method 2, Option B
Compliance Method:	State Product Approval Rule 61G20-3.005 (1)(d)
Product Description:	Bahama 1 VM and Bahama 2 VM
Evaluated:	Shutter Stile and Anchor Fasteners
Connection Description:	Wood CMU Brick (Substrate design not included in this evaluation)
Performance:	Bahama 1 VM +/- 60 psf (Wood) and +/- 50 psf (CMU/Brick) Bahama 2 VM +/- 34 psf (Wood) and +/- 28 psf (CMU/Brick)
Missile Level:	N/A

2 PURPOSE OF EVALUATION

This Product Evaluation Report issued by Tanya A. Dolby, P.E. to New Horizon Shutter is based on State Product Approval Rule 61G20-3.005 (1)(d) of the Florida Department of Business and Professional Regulation.

The product is being issued an Evaluation Report as described herein and has been verified for compliance in accordance with the 2023 Florida Building Code, 8th Edition.

This Product Evaluation Report shall be subject to review and revision if building code changes affect the limitations and conditions.

3 EVIDENCE SUBMITTED

- **Test Reports – N/A**
- **Structural Engineering Calculations**
 - Engineering Analysis Q5764.01-122-34 Calculations prepared in accordance with section 1604 of the Florida Building Code. Calculations prepared by Architectural Testing, Inc. (an Intertek Company), signed and sealed by Tanya A. Dolby, P.E.

4 MISSILE IMPACT RATING

- Bahama 1 VM and Bahama 2 VM Shutters are non-impact rated.

5 WIND LOADS RESISTANCE

- Bahama 1 VM Shutters have been determined to resist wind pressures of maximum +/- 60 psf (Wood) and +/- 50 psf (CMU/Brick). Bahama 2 VM Shutters have been determined to resist wind pressures of maximum +/- 34 psf (Wood) and +/- 28 psf (CMU/Brick).

6 INSTALLATION NOTES

- Installation shall be performed strictly in accordance with the instructions as follows unless otherwise noted:
 - a. Install #10 x 2.5" long 304 Stainless Steel or Carbon Steel coated with Stalgard® anchors through the top continuous hinge, located 1" from each end and 12" maximum on center, into the substrate.
 - b. Install two (2) #10 x 2.5" long 304 Stainless Steel or Carbon Steel coated with Stalgard® anchors through the bottom bracket, located at the lower outside corners of the Bahama shutter, into the substrate.
 - c. Install one (1) #10 x 2.5" long 304 Stainless Steel or Carbon Steel coated with Stalgard® anchor connecting each bottom bracket attached to the shutter to the corresponding bracket anchored into the substrate. The anchor will extend through both brackets. The Bahama shutters will be in the closed position.
 - d. To existing Wood: #10 wood screws, 1 ½" minimum penetration, into minimum G = 55 (Southern Yellow Pine)
 - e. To existing CMU: 3/16" Ultracon+®, 1 ¼" minimum penetration, into hollow concrete masonry.
 - f. To existing Brick: 3/16" Ultracon+®, 1 ½" minimum penetration, into clay brick masonry.
- All anchors shall be installed following all recommendations and specifications of the anchor manufacturer.

7 LIMITATIONS AND CONDITIONS OF USE

- Shall be in compliance with Installation Notes indicated in Section 6 of this report.
- Product shall not be installed within High Velocity Hurricane Zones nor within Wind Borne Debris Regions, as defined in Chapter 2 of the Florida Building Code.
- Product shall be installed into wood, CMU or brick substrate.
- Bahama Shutters were analyzed in the closed and secured position.

8 GENERAL NOTES

- Bahama 1 VM and Bahama 2 VM Shutters shown on this product evaluation document have been verified for compliance in accordance with the 2023 Florida Building Code, 8th Edition. Decorative Panel & Louver shutters shall not be installed in High Velocity Hurricane Zones or within wind-borne debris regions as defined by the 2023 Florida Building Code.

Bahama 1 VM and Bahama 2 VM Shutters are non-structural building elements.

Design wind loads shall be determined as per section 1609 of the Florida Building Code. Wind loads determined by ASCE 7 shall not exceed the maximum Allowable Stress Design (A.S.D.) pressure rating indicated.

Ultimate design wind loads shall be factored by 0.6 to convert to A.S.D. pressure ratings.

Applicable safety factors were utilized for each fastener substrate calculations.

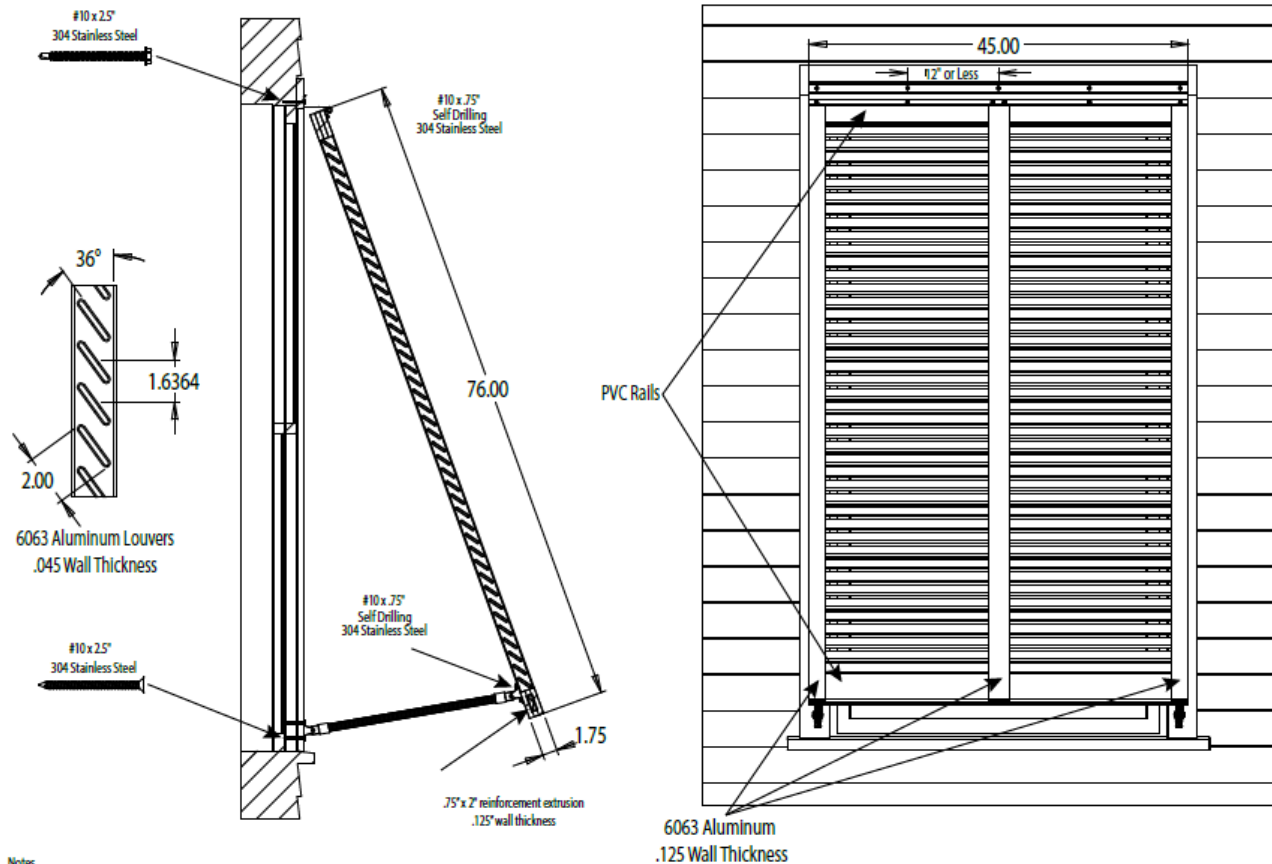
- All aluminum extrusions shall be minimum 6063-T6 alloy and temper, $F_y = 25$ ksi unless noted otherwise. All aluminum extrusions in contact with dissimilar materials shall comply with Section III-6 of the 2020 Aluminum Design Manual.
- All screws to be stainless steel 304, 316 AISI series or coated with Stalgard® and shall comply with Florida Building Code.
- Anchors to be as follows unless otherwise noted:
 - a. To existing Wood: #10 wood screws, 1 ½" minimum penetration, into minimum $G = 55$ (Southern Yellow Pine)
 - b. To existing CMU: 3/16" Ultracon+®, 1 ¼" minimum penetration, into hollow concrete masonry.
 - c. To existing Brick: 3/16" Ultracon+®, 1 ½" minimum penetration, into clay brick masonry.
 - d. All anchors shall be installed following all recommendations and specifications of the anchor manufacturer.

- It shall be the responsibility of the contractor to verify the soundness and the structure to which the shutter is to be attached. Contractor to seal and caulk all edges in continuous contact with the building to prevent air and water intrusion.
- Design of the support system is outside the scope of this report.

Product Evaluation Report prepared by Tanya A. Dolby, P.E. (Florida License No. 93536), Architectural Testing, Inc. (an Intertek Company).

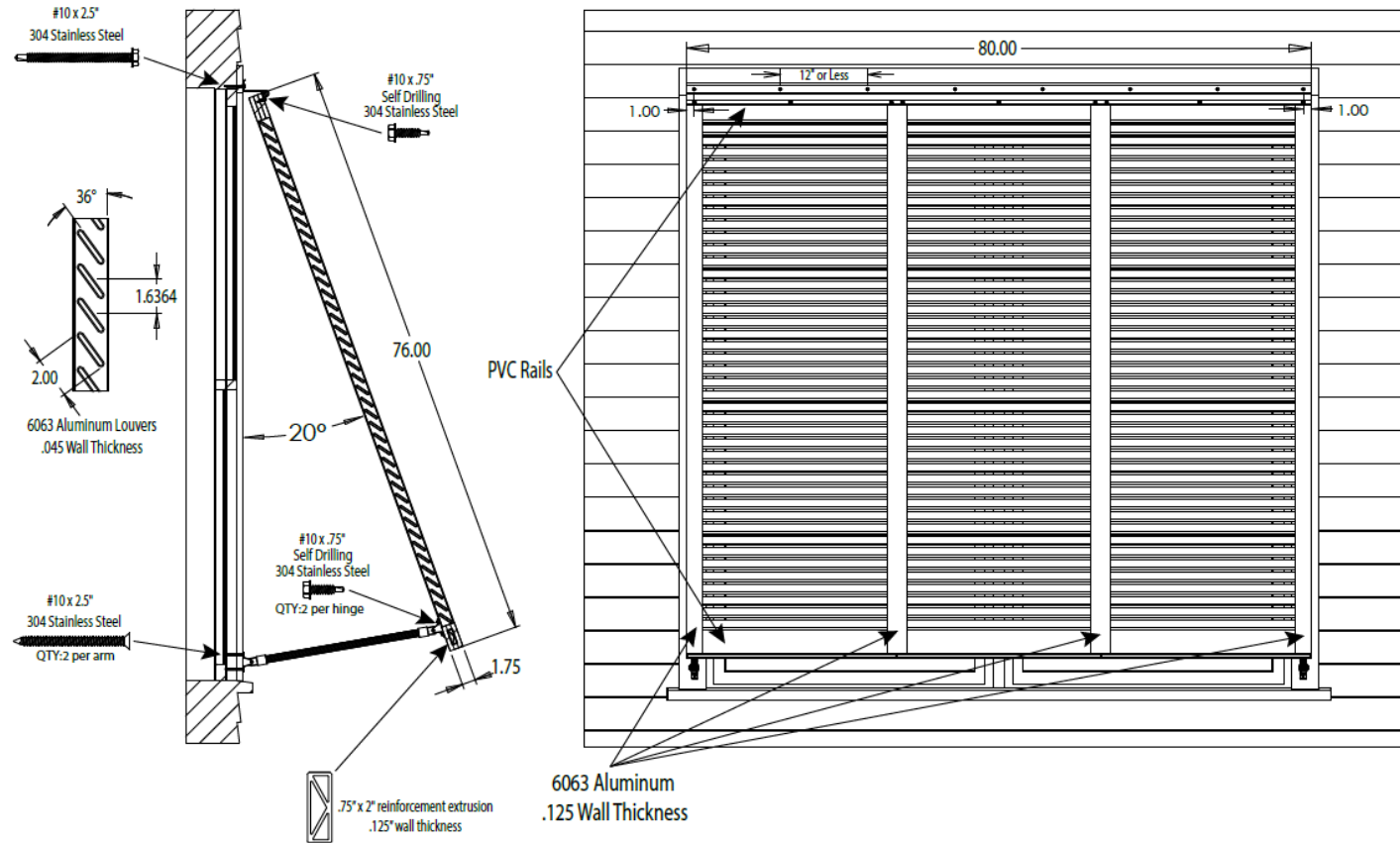
9 DRAWINGS

Bahama	Wood	CMU	Brick
1 VM	60 psf	50 psf	50 psf
2 VM	34 psf	28 psf	28 psf



Notes
Width: 45"
Height: 76"
Weight: 50 lbs
Louver Size: 2"
Louver Angle: 36°
Louver Spacing: 1.6364"

Bahama 1VM			Drawn: DF	Date: 9/14/22
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843-797-7762			Approved:	



Notes
Width: 80"
Height: 76"
Weight: 80 lbs
Louder Size: 2"
Louder Angle: 36
Louder Spacing: 1.6364"



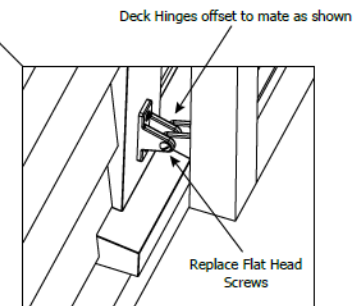
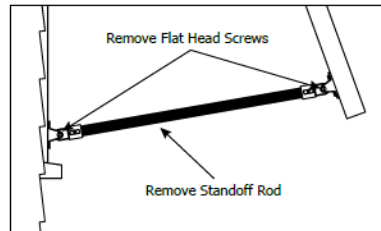
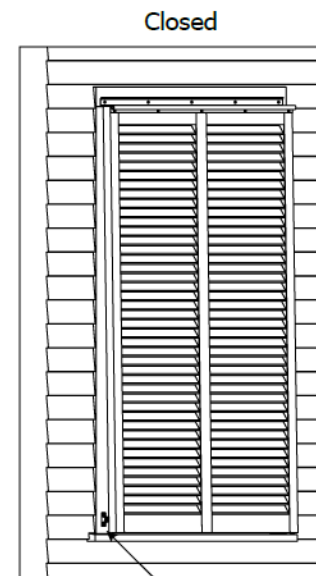
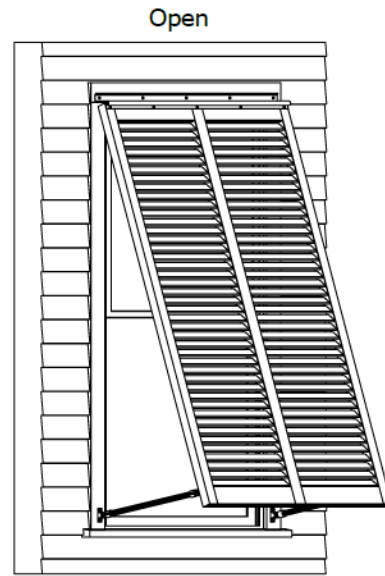
Bahama 2 VM

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All units 95

Drawn	DF	Date	9/14/22
Checked		Sheet	1 of 1
Approved			



	Decorative Bahama Open/Closed Detail			DRAWN	DF	DATE	10/2/23
				CHECKED		SHEET 1 OF 1	
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Note: This Evaluation Report covers the Bahama Shutters in the closed and secured position.