

**EVALUATION REPORT OF
BUTLER MANUFACTURING COMPANY
'STYLWALL II WALL PANEL'**

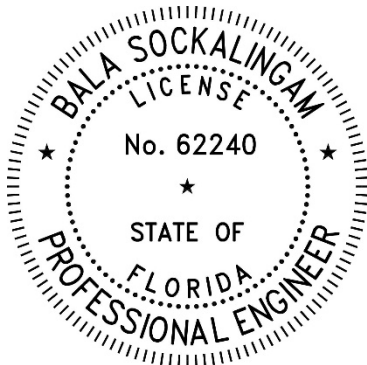
**FLORIDA BUILDING CODE 9TH EDITION (2026)
FLORIDA PRODUCT APPROVAL
FL 12493.3-R7
PANEL WALLS
SIDING**

**Prepared For:
Butler Manufacturing Company
A Division of BlueScope Buildings North America, Inc.
1540 Genessee Street
Kansas City, MO 64102
Telephone: (816) 968-3000**

**Prepared By:
Bala Sockalingam, Ph.D., P.E.
Florida Professional Engineer #62240
1216 N Lansing Ave., Suite C
Tulsa, OK 74106
Telephone: (918) 492-5992**

**This report consists of
Evaluation Report (2 Pages including cover)
Design Procedure (5 Pages)
Installation Details (3 Pages)**

**Report No. C3050-7
Date: 9.25.2026**



This item has been digitally signed and sealed by Bala Sockalingam, PE, on the date indicated.

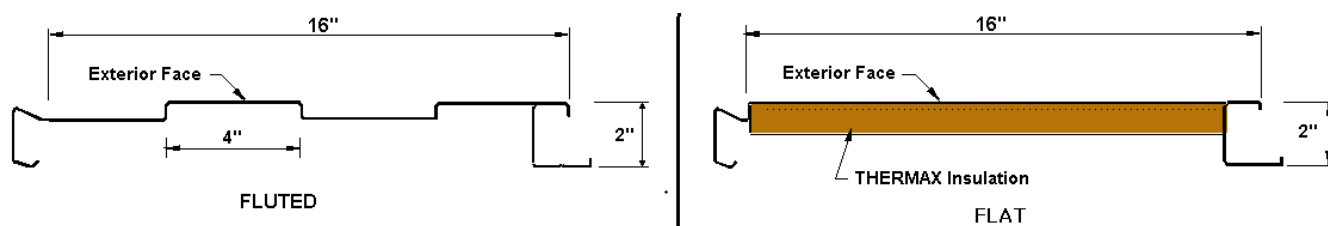
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Manufacturer:	Butler Manufacturing Company
Product Name:	StylWall II
Panel Description:	16" wide coverage with flat or fluted profile with (2) 2" deep inverted corrugation.
Materials:	Min. 26 ga., 50 ksi steel Galvanized coated steel (ASTM A653) or Galvalume coated steel (ASTM A792) as per FBC 2026 Section 1405.2.
Support Description:	Min. 16 ga., 55 ksi steel section.
Design Uplift Pressure:	The allowable uniform loads shown on Pages 4 and 5 of the Design Procedure were determined in accordance with FBC 2026 Section 1404.5 and 2210.1 and AISI S100-16(2020) w/S2-20. Panel fasteners, supports, frames and support connections must be designed to resist all loads.
Panel Attachment:	Reinforcement clip (3" long, 18 ga.) with (1) #12-14 x 3/4" or 1-1/4" long corrosion resistant self-drilling screws with washer at each support. For installation in areas within 3000 ft. of a saltwater coastline, clips and fasteners are corrosion resistant as per FBC 2026 Section 1711.
Sidelap Attachment:	Along with clip fastening, for design suction load greater than 23 psf, the panel sidelap will be stitched with 1/4"-14 x 7/8" long corrosion resistant self-drilling screws at each support. For design suction load greater than 36 psf for 26 ga. panel and 41 psf for 24 ga. panel, the panel sidelap will be stitched with stitch fasteners at each support along with intermediate stitch fastener spaced at max. 30" o.c. For installation in areas within 3000 ft. of a saltwater coastline, clips and fasteners are corrosion resistant as per FBC 2026 Section 1711.
Code Compliance:	The product described herein has demonstrated compliance with FBC 2026 Section 1404.5.
Product Limitations:	Design wind loads shall be determined for each project in accordance with FBC 2026 Section 1609 or ASCE 7-22 using allowable stress design. The maximum support spacing listed herein shall not be exceeded. The design pressure for reduced support spacing may be computed using rational analysis prepared by a Florida Professional Engineer or based on Butler load span table. This evaluation report is not applicable in High Velocity Hurricane Zone.

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A. PANEL CROSS SECTION



Panels are rolled using ASTM A 653 or A 792 material, for Grade see Table B1. For complete material specifications and material weights refer to Material Specifications Document MS-05-01.

B. PANEL DESIGN

All applicable panel design procedures and references are explained in [DP 10.1](#). For panel ratings and approvals, see Product Description [BMC-STYLWALL II](#). For panel's ability to brace girts, see [DP 4.1](#). Design data contained herein are applicable to the eStylWall® II products.

B1. Panel Section Properties

ref. AISI Section B

Panel Material	Design ¹ Thickness (in)	Weight (psf)	E (ksi)	F _y (ksi)	F _u (ksi)	Compression on Outside		Compression on Inside	
						S _x (in ³)	I (in ⁴)	S _x (in ³)	I (in ⁴)
26 Ga. (Flat)	0.018	1.16	29500	50	65	0.078	0.078	0.060	0.103
24 Ga (Fluted)	0.023	1.51	29500	50	65	0.112	0.147	0.083	0.128

Notes:

- Design thicknesses are base metal, exclusive of Galvanized or Galvalume coatings and paint finishes.

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B2. Flexural Strength (Resistance) kip-in./ ft. width of panel

ref. AISI F1, F3.1, F2.4.1

Nominal Gage	Outside of Panel in Compression, S_{xe} (+)				Inside of Panel in Compression, S_{xe} (-)			
	Nominal Strength	Allowable Strength	Design Strength	Design Resistance	Nominal Strength	Allowable Strength	Design Strength	Design Resistance
		(ASD)	(LRFD)	(LSD)		(ASD)	(LRFD)	(LSD)
26 Ga. (Flat)	3.89	1.94	3.11	2.91	2.99	1.79	2.70	2.70
24 Ga (Fluted)	5.60	3.35	5.04	5.04	4.17	2.50	3.75	3.75

Notes:

- Tabulated values are for Allowable and Design Bending Strengths (Resistances) where:
 - Allowable Strength = M_n / Ω_b (ASD), kip-in.
 - Design Strength = $\phi_b M_n$ (LRFD & LSD), kip-in.
 - $\Omega_b = 1.67$ (ASD); $\phi_b = 0.90$ (LRFD); $\phi_b = 0.90$ (LSD-Canada) (typ u.n.o.)
 - $\Omega_b = 2.00$ (ASD); $\phi_b = 0.80$ (LRFD); $\phi_b = 0.70$ (LSD-Canada) (26 ga, outside in compression)
- Nominal Bending Strength: $M_n = S_{xe} F_y$, kip-in.
- Load reductions or strength (resistance) increases for wind have not been included.

B3. Shear Strength (Resistance) kips / ft. width of panel

ref. AISI Section G

Panel Nominal Gage	Nominal Strength V_n	Allowable Strength	Design Strength	Design Resistance
		(ASD)	(LRFD)	(LSD)
26 Ga. (Flat)	0.76	0.47	0.72	0.60
24 Ga (Fluted)	1.34	0.84	1.27	1.07

Notes:

- Tabulated values are for Allowable and Design Shear Strengths (Resistances) where:
 - Allowable Strength = V_n / Ω_v (ASD), kips per ft. width of panel
 - Design Strength (Resistance) = $\phi_v V_n$ (LRFD & LSD), kips per ft. width of panel
 - $\Omega_v = 1.6$ (ASD); $\phi_v = 0.95$ (LRFD); $\phi_v = 0.80$ (LSD-Canada)
- Nominal Shear Strength: V_n per AISI Section G, kips per ft. width of panel.
- Load reductions or strength (resistance) increases for wind have not been included

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B4. Web Crippling Strength kips / ft. width of panel

ref. AISI Section G

Panel Nominal Gage	End – One Flange Loading				Interior – One Flange Loading			
	Nominal Strength P_n	Allowable Strength	Design Strength	Design Resistance	Nominal Strength P_n	Allowable Strength	Design Strength	Design Resistance
		(ASD)	(LRFD)	(LSD)		(ASD)	(LRFD)	(LSD)
26 Ga. (Flat)	0.252	0.148	0.227	0.202	0.427	0.244	0.363	0.320
24 Ga (Fluted)	0.393	0.231	0.354	0.315	0.666	0.381	0.566	0.499

Notes:

- Tabulated values are for Allowable and Design Web Crippling Strengths (Resistances) where:
 - Allowable Strength = P_n / Ω_w (ASD), kips per ft. width of panel
 - Design Strength (Resistance) = $\phi_w P_n$ (LRFD & LSD), kips per ft. width of panel
 - End Loading: $\Omega_w = 1.7$ (ASD); $\phi_w = 0.90$ (LRFD); $\phi_w = 0.80$ (LSD-Canada)
 - Interior Loading: $\Omega_w = 1.75$ (ASD); $\phi_w = 0.85$ (LRFD); $\phi_w = 0.75$ (LSD-Canada)
- Nominal Web Crippling Strength: P_n per AISI Section G, kips per ft. width of panel.
- Minimum bearing length = 2.25"
- Load reductions or strength (resistance) increases for wind have not been included.

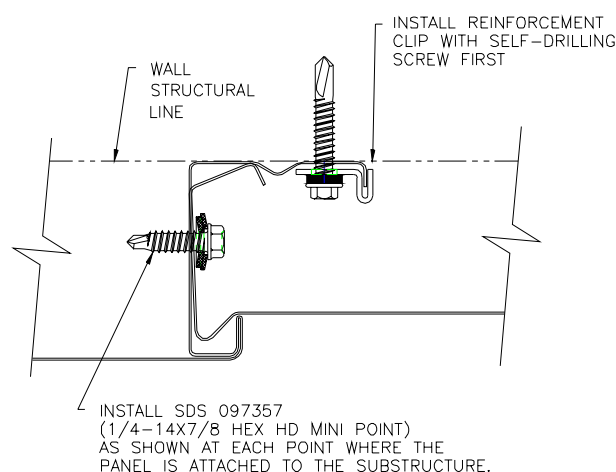
C. PANEL-TO-SECONDARY SUPPORT CONNECTIONS

REF. [DP 3.7.BM](#)

Standard panel-to-secondary support connections are made with #12-14 self-drilling structural fasteners located at each return leg as shown below.

C1. Additional Panel Fasteners

As can be seen below, the panel reinforcing clip connects only one panel to the supporting member. The second panel is hooked into position. When suction loads cause enough transverse deflection, the panel joint will unlatch. To prevent the panels from unlatching, additional fasteners (a.k.a. stitch fasteners) can be installed. There are two levels of stitch fastener spacing available. The first level (Level 1) requires a panel-to-panel stitch fastener at every structural support location (i.e., base, eave, and every girt). The second level (Level 2) is an enhancement to the first level. In addition to providing a



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stitch fastener at every structural support, stitch fasteners are added between each support. The spacing of these intermediate stitch fasteners should be at midway between supports when the supports are 5 feet on center or less and shall not exceed 30" center-to-center when the supports are greater than 5 feet on center. When the structural support spacing is less than 2'-6" on center, intermediate stitch fasteners are not required.

C1.1 Level 1 Stitch Fasteners

Level 1 stitch fasteners are required for the following building conditions:

- When the panel suction loads are equal to or greater than the values listed in Table C1.
- When any span or girt spacing exceeds 7'-6".

Table C1 - Suction Load at which Level 1 stitch fasteners are required

Panel	Nominal psf	ASD	LRFD	LSD
		($\Omega=1.6$)	($\Phi=0.95$)	($\Phi=0.8$)
26 Ga. (Flat)	36.8	23	35	29
24 Ga (Fluted)	36.8	23	35	29

C1.2 Level 2 Stitch Fasteners

Level 1 stitch fasteners will only provide a limited amount of panel capacity. When the panel suction load exceeds the values listed in Table C2, Level 2 fastening is required. This level of fastening will be limited by the calculated panel capacities listed previously in this document.

Table C2 - Suction Load above which Level 2 stitch fasteners are required

Panel	Nominal psf	ASD	LRFD	LSD
		($\Omega=1.6$)	($\Phi=0.95$)	($\Phi=0.8$)
26 Ga. (Flat)	57.6	36	55	46
24 Ga (Fluted)	65.6	41	62	52

NOTE: Vision does not process Level 1 and Level 2 Stitch Fasteners. These fasteners must be manually added.

D. PANEL DEFLECTIONS

REF. [DP 6.2](#)

For pressure loading, panel deflections are obtained by using l_{xd} (+). For suction loading, panel deflections are obtained by using l_{xd} (-).

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E. Load Table

Panel Material	Allowable Uniform Load (psf)									
	Span = 3.0'		Span = 4.0'		Span = 5.0'		Span = 6.0'		Span = 7.5'	
	P	S	P	S	P	S	P	S	P	S
26 Ga	74	23	55	23	44	23	36	23	26	23
24 Ga	115	23	86	23	69	23	52	23	36	23

Notes:

1. P = Pressure on outside of panel, S = Suction on outside of panel
2. Values excludes stitch fastener increase from Sections C1.1 and C1.2.
3. Tabulated values are Allowable Strength Design (ASD) format in accordance with the 2016 AISI Specification considering bending, shear, web crippling, combined bending and shear, and fastener pullover from panel. Panel pullover based on hex-head self-drilling screw.
4. Panel allowable loads are limited by L/60 deflection.
5. All values shown are for 3 or more spans.

Document and Revision History

REV. #	DATE	DESCRIPTION
0	12/8/2017	For Florida Product Approval, Removed section E
1	5/25/2018	Added minimum bearing length for web crippling values
2	09/2020	Renumbered document to align with DP. Updated for 2020 FBC and product approvals