

PRODUCT EVALUATION REPORT
OSTRO STEEL STRUCTURES

R or PBR Through Fastened Wall Panel over Open Framing

Florida Product Approval Number FL

Category: Structural Components

Sub-Category: Structural Wall

Compliance Method: 61G20-3.005 (1)(D)

NON-HVHZ

Product Manufacturer

CSBS Manufacturing, LLC
(Ostro Steel Structures)
7821 Clarks Mill Road
Louisville, GA 30434

Manufacturing Location

Ostro Steel Structures
7821 Clarks Mill Road
Louisville, GA 30434

Engineer Evaluator

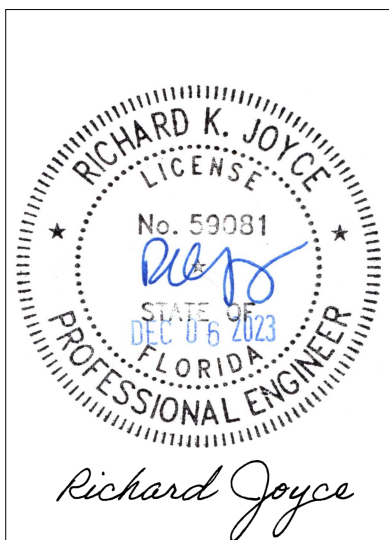
R. Keith Joyce, P.E. Florida 59081

Validator

Dennis L. Johnson, P.E., Florida 54340
Florida C.O.A. 30308

Contents

Evaluation Report Pages 1-5 Dated 11-25-2023



Compliance Statement

The product described in this report has demonstrated compliance with the 2023 (8th Edition) Florida Building Code Sections 1404.5

Product Description

R or PBR Through Fastened structural panels applied over open framing:

1. PBR 26 Gauge
(0.0173 Sheet Thickness) with a minimum $F_y = 80$ ksi and $F_u = 82$ ksi 12-12 Fastener Spacing
2. PBR 26 Gauge
(0.0173 Sheet Thickness) with a minimum $F_y = 80$ ksi and $F_u = 82$ ksi 5-7-5 Fastener Spacing
3. PBR 24 Gauge
(0.0220 Sheet Thickness) with a minimum $F_y = 50$ ksi and $F_u = 60$ ksi 12-12 Fastener Spacing
4. PBR 24 Gauge
(0.0220 Sheet Thickness) with a minimum $F_y = 50$ ksi and $F_u = 60$ ksi 5-7-5 Fastener Spacing

Panel Material Standard

Formed steel in compliance with the 2023 (8th Edition) Florida Building Code Section 1405.2 with optional painted finish.

Panel Fastener

Corrosion Resistant #12 – 14 HWH SD as indicated in the **Load Tables** of this Evaluation Report

Substrate Description

Minimum 16 gauge (0.0596 steel thickness) open framing.
Framing must be designed in accordance with the 2023 (8th Edition) Florida Building Code

Quality Assurance Entity

The manufacturer has established compliance of products in accordance with the 2023 (8th Edition) Florida Building Code as relates to Rule 61G20-3.005(3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.

Insulation

Manufacturer's approved products (optional)

Fire Classification

Fire Classification is outside the scope of this evaluation

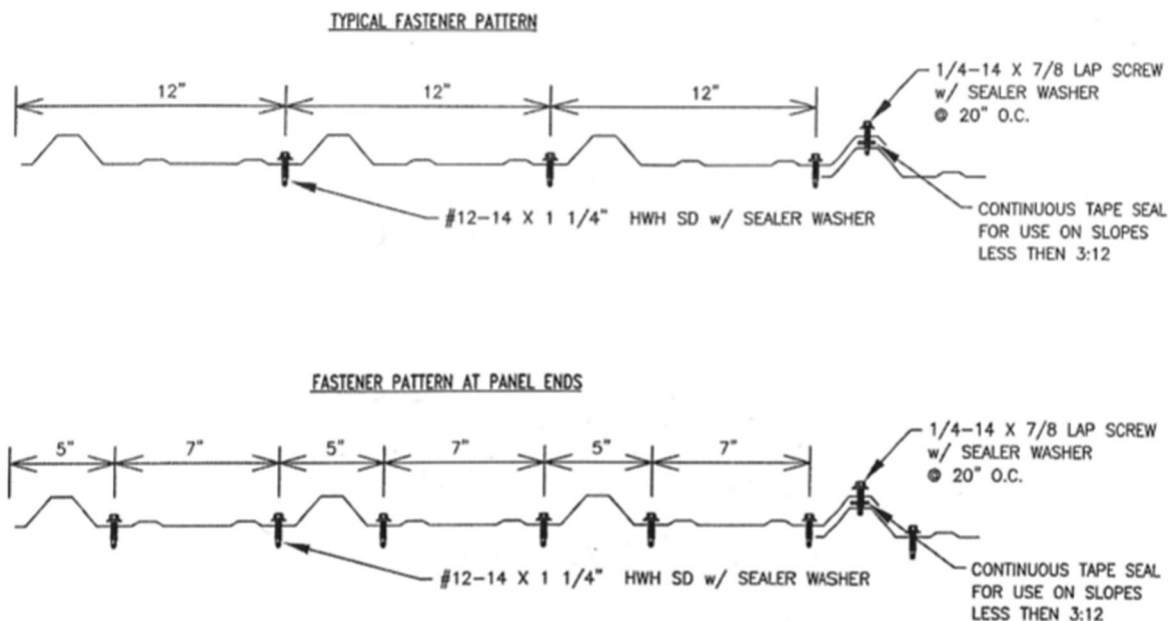
Shear Diaphragm

Shear Diaphragm is outside the scope of this evaluation

Design Procedure

Based on dimensions of the structure, appropriate wind loads are determined using chapter 16 of the 2023 (8th Edition) Florida Building Code for component loading of roof cladding. These component wind loads are compared to the allowable load listed in the **Load Tables** of this evaluation report. The design professional shall select appropriate fastener pattern and panel gauge to reference in the construction documents for proper installation. Design of support framing must be in compliance with the 2023 (8th Edition) Florida Building Code.

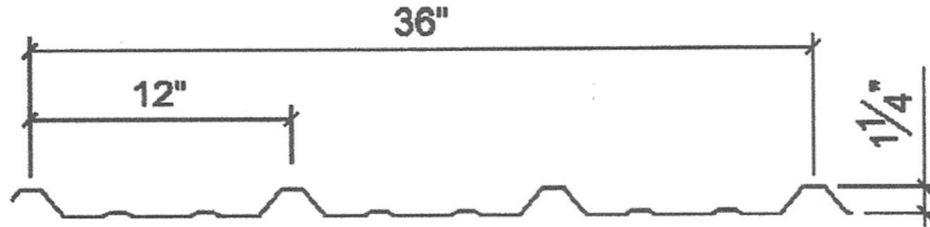
R or PBR Panel Fastener Diagram



Notes:

1. Fastener Pattern 5-7-5 is to be used at the ends of all panels
2. Fastener Pattern 12-12 and 5-7-5 are to be used at the intermediate supports as indicated in the span load tables to achieve the required uplift load capacity.

OSTRO STEEL STRUCTURES (PBR)



Ostro Steel Structures (PBR) Panel (26 Gauge)							Section Properties		
Panel Gauge	Fy	Fu	Weight	Negative Bending			Positive Bending		
				Ixe	Sxe	Maxo	Ixe	Sxe	Maxo
	ksi	Ksi	Psf	In ⁴	In ³	Kip-in	In ⁴	In ³	Kip-in
26	60*	61.5*	0.87	0.0275	0.0496	1.783	0.0407	0.0405	1.216
24	50	60	1.07	0.0483	0.0622	1.863	0.0577	0.0593	1.777

*= Fy is 80 ksi, Fu is 82 ksi reduced to Fy = 60 ksi and Fu = 61.5 ksi in accordance with the 2016 North American Specification for Cold-Formed Steel Structural Members with Supplement 2 (2020), Section A2.3.2.

OSTRO STEEL STRUCTURES

PRODUCT INFORMATION

PBR PANEL

26 gauge (Fy = 60 ksi) #12-14 Fasteners on 12" centers for attachment to supporting members (16 gauge supporting members minimum) **								
Span Type	Load Type	Span (FT)						
		2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
Single Span	Positive Load	156	91.7	51.6	33.0	22.9	16.8	12.9
	Negative Load	300	133	75.2	48.1	33.4	24.5	18.8
2-Span	Positive Load	209	120	70.7	46.2	32.5	24.0	18.5
	Negative Load	185	87.1	50.1	32.4	22.6	16.7	12.8
3-Span	Positive Load	195	130	80.6	51.6	35.8	26.3	20.2
	Negative Load	221	106	61.8	40.2	28.1	20.8	15.9

26 gauge (Fy = 60 ksi) #12-14 Fasteners on 6" centers for attachment to supporting members (16 gauge supporting members minimum) **								
Span Type	Load Type	Span (FT)						
		2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
Single Span	Positive Load	156	91.7	51.6	33.0	22.9	16.8	12.9
	Negative Load	300	133	75.2	48.1	33.4	24.5	18.8
2-Span	Positive Load	209	120	70.7	46.2	32.5	24.0	18.5
	Negative Load	185	87.1	50.1	32.4	22.6	16.7	12.8
3-Span	Positive Load	195	130	80.6	51.6	35.8	26.3	20.2
	Negative Load	221	106	61.8	40.2	28.1	20.8	15.9

24 gauge (Fy = 50 ksi) #12-14 Fasteners on 12" centers for attachment to supporting members (16 gauge supporting members minimum) **								
Span Type	Load Type	Span (FT)						
		2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
Single Span	Positive Load	188	125	74.0	47.4	32.9	24.2	18.5
	Negative Load	257	138	77.6	49.7	34.5	25.4	19.4
2-Span	Positive Load	251	131	75.4	48.8	34.1	25.1	19.3
	Negative Load	102	68.5	51.4	41.1	32.5	24.0	18.4
3-Span	Positive Load	235	157	93.2	60.5	42.3	31.3	24.0
	Negative Load	116	77.9	58.4	46.7	38.9	29.8	22.9

24 gauge (Fy = 50 ksi) #12-14 Fasteners on 6" centers for attachment to supporting members (16 gauge supporting members minimum) **								
Span Type	Load Type	Span (FT)						
		2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
Single Span	Positive Load	188	125	74.0	47.4	32.9	24.2	18.5
	Negative Load	310	138	77.6	49.7	34.5	25.4	19.4
2-Span	Positive Load	251	131	75.4	48.8	34.1	25.1	19.3
	Negative Load	205	125	72.1	46.6	32.5	24.0	18.4
3-Span	Positive Load	235	157	93.2	60.5	42.3	31.3	24.0
	Negative Load	233	154	89.1	57.8	40.4	29.8	22.9

** = Fastener Diameter shall be ½" Minimum

Notes:

1. Allowable loads are based on uniform span length and uniformly distributed load.
2. Allowable gravity load is limited by bending, shear or deflection.
3. Allowable gravity loads are computed for a maximum total load deflection of L/60.
4. Weight of the panel must be included with gravity load combinations as appropriate.
5. This material is subject to change without notice
6. This material has been developed in accordance with the 2016 North American Specification for Cold-Formed Structural Steel Members with Supplement 2 (2020).

The engineering data contained herein is for the express use of the customers of Ostro Steel Structures and qualified design professionals.