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Metal Building Supplies  
 800 E. Donegan Ave  
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FL 8954

**Quality Assurance Program:** Keystone Certifications **Category:** Structural Components **Sub-Category:** Roof Deck  
 Method 1-D

**Code:** FBC 2014 5<sup>th</sup> ed.; **Sections:** 1504.3.2, 1507.4.3, 1506.6, 1507.4.4, 1504.7, 1515.2, 1518.2, 1518.3, 1518.4, 1518.9, 1523.6.5.2.4

Description	Substrate	Design Uplift Pressure*	Fasteners
.1 <b>PBR 24GA</b> open framing 36" width 50.0 ksi Structural Application HVHZ	Min. 16GA Steel Framing Must be designed in compliance with FBC 2014.	-60.Opsf fastening pattern 12"-12"-12" @5'-0" o.c.  -150.Opsf fastening pattern 12"-12"-12" @2'-0" o.c.	1 1/4" tall rib @12" o.c. thru fastened  Corrosion Resistance: #12-14 x 1-1/4" HWH SD w/ sealing washing or approved equal @ 12"-12"-12" fastener pattern. Panel sides fastened together w/ 1/4-14 x 1/8" HWH SD w/ sealer washer @18" o.c. Valspar Fluropon paint coating (optional) Installation: Per manufacturer's recommended details and RAS 133. Fire Barrier: 1/4" "Dens Deck." 1/2:12 min. slope shall comply w/ FBC 2010. For slopes less than 3:12, lap sealant must be used in panel side laps. Use RAS 133
.2 <b>PBR 26GA</b> Open framing 36" width 80.0 ksi Structural Application NON HVHZ	Min. 16GA Steel Framing Must be designed in compliance with FBC 2014.	47.5psf fastening pattern 12"-12"-12" @5'-0" o.c.  +60.Opsf fastening pattern 12"-12"-12" @5'-0" o.c.	1 1/4" tall rib @12" o.c. thru fastened  Corrosion Resistant: #12-14 x 1 1/4" HWH SD w/ sealing washing or approved equal @12"-12"-12" fastener pattern. Panel side laps fastened together w/ 1/4-14 x 7/8 HWH SD w/ sealer washer @20" o.c. Installation per manufacturer's recommended details. Insulation: Install per manufacturer's approved product (optional) Min. slope shall comply w/ FBC 2014. For slopes less than 3:12, lap sealant must be used in panel side laps.

\*Design Pressures includes safety factor=2.0

**Panel Allowable Uplift Pressures Chart 1\*\***

The Following are Panel Allowable for Uplift Pressures Based on ASTM E 1592

Testing:

Maximum Bending Moment of the panel at Support: 119.6 lbs-ft  
 Maximum Bending Moment of the panel at Mid Span: 86.2 lbs-ft

Maximum Panel Interior Support Reaction: 207.2 lbs  
 Maximum Panel Exterior Support Reaction: 87.7 lbs

Maximum Allowable Deflection of Roof Panel = L/240

Panel EI Value: 1,253,772 lbs-in<sup>2</sup>

**References**

Entity	Report #	Standard	Year
Force Engineering & Testing (TST-5328)	#84-0320T-06A-D	TAS 125-03	ASTM E 1592-01 (2005 <sup>1</sup> )
Farabaugh Engineering & Testing (TST-1654)	#T202-07	TAS 201-94	
Farabaugh Engineering & Testing (TST-1654)	#T203-07	TAS 114	(FM 4471 appendix G-1995)
PRI Construction Material Technologies (TST-5878)	#VLS-004-02-01	TAS 110-00	
	#VLS-005-02-01	TAS 110-00	
		(ASTM G 155 and ASTM B 117)	

Force Engineering & Testing (TST-5328)

#84-0248T-08

ASTM E 1592-01 (2005<sup>1</sup>)

Force Engineering & Testing (TST-5328)

#84-0237T-09A

FM 4471-95 (1992<sup>2</sup>)

Chart 1-Provided by Force Engineering and Testing (TST-5328) Terrence Wolfe, P.E. #44923

1. The ASTM E 1592-01 test standards are equivalent to ASTM E 1592-2005.
2. The FM 4471-95 test standards are equivalent to FM 4471-1992 test standard

**Limitations:**

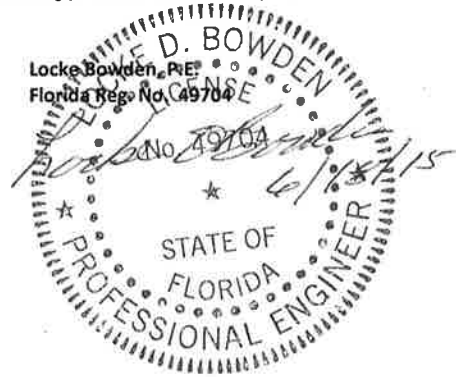
1. Underlayment to be compliance with current Florida Building Code.
2. Minimum slope to be in compliance with Florida Building Code 2014, and in accordance with Manufacturer's installation reference.

3. Products are compliant for State of Florida product approval per Rule 61G20-3
4. Compliance Method: 1-D
5. Fire classification is not part of this acceptance.
6. Shear diaphragm values are outside this report.
7. All support framing to be in compliance with Florida Building Code 2014, Chapter 22 Steel, Chapter 23 Wood and Chapter 16 Structural Loading.
8. This report does not imply warranty, installation, recommended product use outside of this report.

**Compliance Statement:** These products herein evaluated by Locke Bowden, P.E. have demonstrated compliance with the Florida Building Code 2014 with referenced documents submitted.

**Certificate of Independence**

Locke Bowden, P.E. does not have, not will acquire a financial interest in any company manufacturing or distributing products under this evaluation.  
Locke Bowden, P.E. is not owned, operated or controlled by any company manufacturing or distributing products under this report.

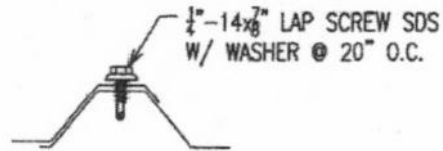


26 Ga. PBR Roof Panel over open framing

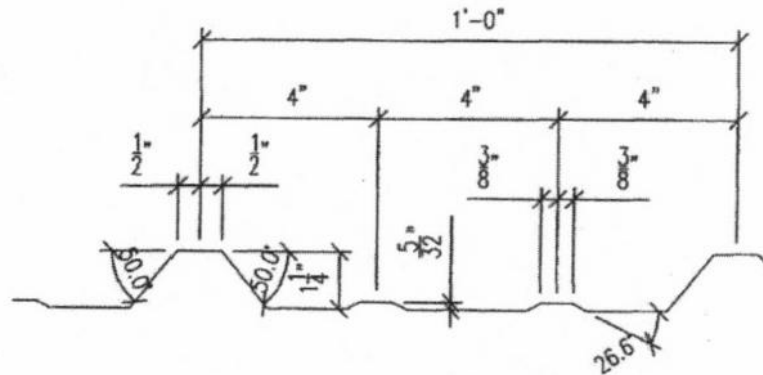
# PBR 26 GA FASTENER PATTERN OVER METAL PURLINS

NOTES:

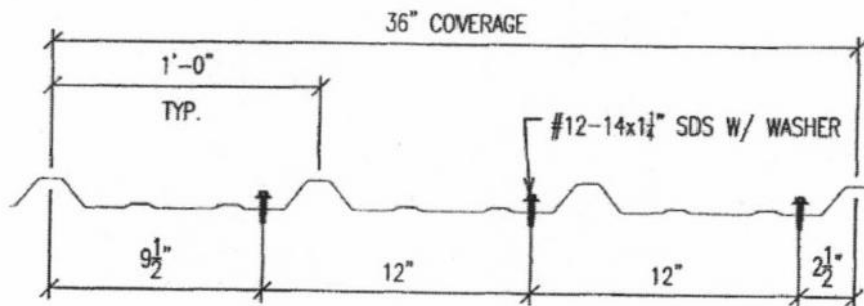
- 1) MATERIAL IS 26 GA. (MIN. 0.0185" COATED THICKNESS,  $F_y=80$  KSI).
- 2) ALL RADII ARE 0.125".



LAP DETAIL  
SCALE: 3":1'



RIB DETAIL  
SCALE: 3":1'



\*Drawing provided by Force Engineering and Testing