CREEK
TECHNICAL SERVICES, LLC

Registry No. 29824
17520 Edinburgh Dr
Tampa, FL 33647
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EVALUATION REPORT

FLORIDA BUILDING CODE, 8TH EDITION (2023)

Issued October 18, 2023

Manufacturer: ROSS ROOF GROUP USA, INC.
dba TILCOR NORTH AMERICA
915 S Great Southwest Parkway
Grand Prairie, TX 75051
916-838-1940
www.tilcorroofingusa.com

Manufacturing: Auckland, New Zealand

Quality Assurance: UL LLC (QUA9625)

SCOPE

Category: Roofing
Subcategory: Metal Roofing
Code Edition: Florida Building Code, 8th Edition (2023) including High-Velocity Hurricane Zones (HVHZ)
Code Sections: 1504.3.1, 1504.3.2, 1518.9, 1523.6.5.2.4
Properties: Wind Resistance, Physical Properties

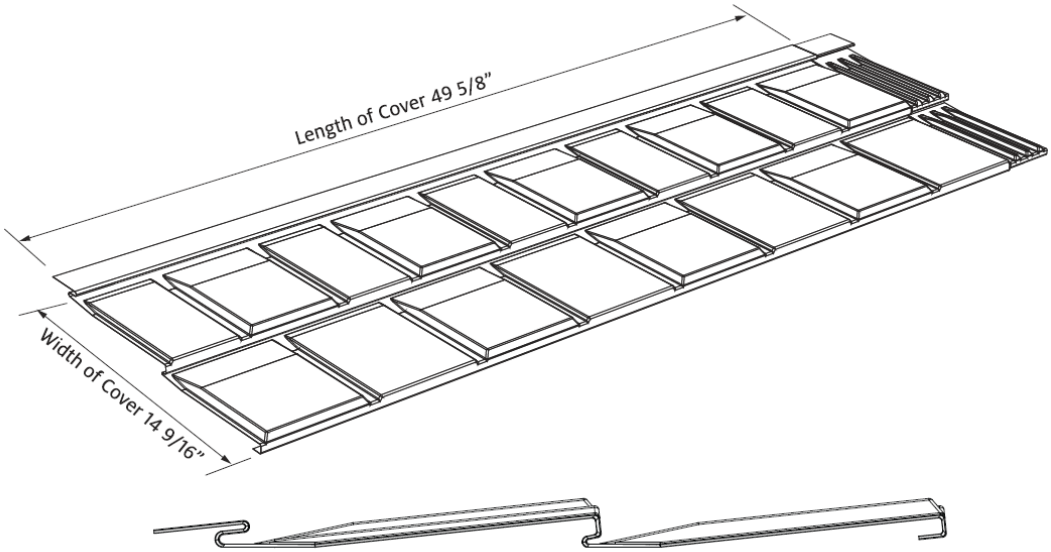
REFERENCES

Entity	Report No.	Standard	Year
PRI Construction Materials Technologies (TST5878)	TLRC-014-02-01	TAS 125	2003
		UL 580	2006
		UL 1897	2015
PRI Construction Materials Technologies (TST5878)	TLRC-015-02-01	UL 1897	2015
PRI Construction Materials Technologies (TST5878)	2042T0002	TAS 100	2023

PRODUCT DESCRIPTION

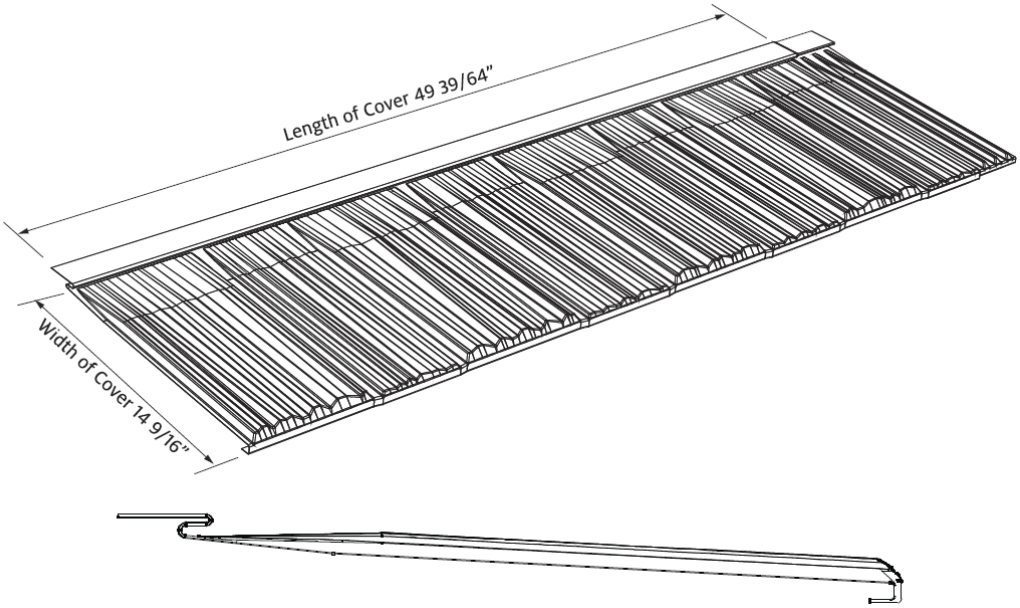
CF Shingle

Description: Preformed, fastened, stoned-coated steel panels; Coverage of 14-9/16 in. x 49-5/8 in.
Material: Min. 26 ga. ASTM A792 AZ50; F_y = min. 40 ksi; Shall conform with FBC Section 1507.4.3



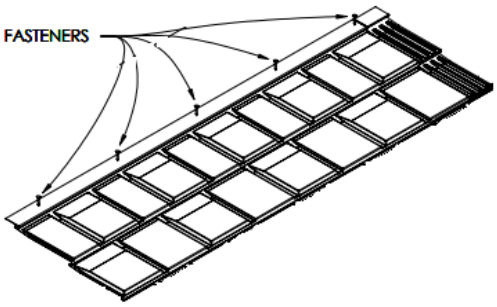
CF Shake

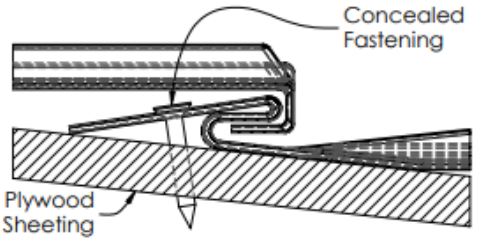
Description: Preformed, fastened, stoned-coated steel panels; Coverage of 14-9/16 in. x 49-39/64 in.
Material: Min. 26 ga. ASTM A792 AZ50; F_y = min. 40 ksi; Shall conform with FBC Section 1507.4.3



APPROVED ASSEMBLIES

System 1 – CF Shingle or CF Shake	
Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed in accordance with Sections 1518.2 and 1518.4 with nails and tin caps per 1517.5 followed by a self-adhered layer of Polyglass Polystick TU Plus. The underlayments shall be wrapped down the fascia at the eave and rake edges a minimum 3 in.
Thermal Barrier (Optional in non-HVHZ):	Sol-R-Skin Class A Thermal Underlayment installed with a 7 in. lap and in accordance with Sections 1518.2 and 1518.4 with nails and tin caps per 1517.5. The underlayment shall be wrapped down the fascia at the eave and rake edges a minimum 3 in.
Attachment:	**Five (5) #12-10 x min. 1-1/2 in. hex head screws with bonded washer** per panel secured into the headlap and sheathing beginning 2.5 in. from the panel end and 10 in. o.c. thereafter. Fasteners shall be of sufficient length to penetrate through the deck a min. 3/8 in. and shall be corrosion resistant in accordance with sections 1507.4.4 and 1506.6.
Maximum Design Pressures:	**-82.5 psf** *Pressure calculated using 2:1 margin of safety per 1504.9 and 1523.4*





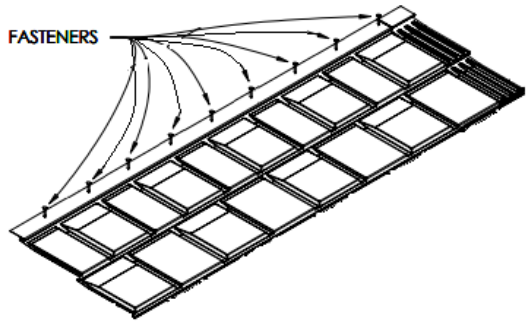
Maximum Mean Roof Heights
Slopes 3:12 – 12:12

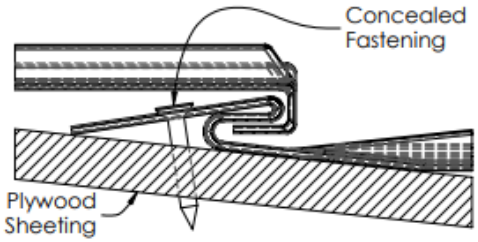
Exposure	Basic Wind Speed (mph)								
	120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	53 ft	36 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	33 ft	19 ft	NA	NA
D	60 ft	60 ft	60 ft	52 ft	25 ft	NA	NA	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	43 ft	28 ft	18 ft	NA
C	60 ft	60 ft	57 ft	29 ft	15 ft	NA	NA	NA	NA
D	60 ft	55 ft	23 ft	NA	NA	NA	NA	NA	NA
Zone 3 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	39 ft	24 ft	15 ft	NA	NA	NA
C	60 ft	31 ft	15 ft	NA	NA	NA	NA	NA	NA
D	29 ft	NA	NA	NA	NA	NA	NA	NA	NA

Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft^2 or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) K_d = 0.85 7) K_e = 1.0 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}\sqrt{0.6}$ per 1609.3.1.

System 2 – CF Shingle or CF Shake

Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed in accordance with Sections 1518.2 and 1518.4 with nails and tin caps per 1517.5 followed by a self-adhered layer of Polyglass Polystick TU Plus. The underlayments shall be wrapped down the fascia at the eave and rake edges a minimum 3 in.
Thermal Barrier (Optional in non-HVHZ):	Sol-R-Skin Class A Thermal Underlayment installed with a 7 in. lap and in accordance with Sections 1518.2 and 1518.4 with nails and tin caps per 1517.5. The underlayment shall be wrapped down the fascia at the eave and rake edges a minimum 3 in.
Attachment:	**Nine (9) #12-10 x min. 1-1/2 in. hex head screws with bonded washer** per panel secured into the headlap and sheathing beginning 2.5 in. from the panel end and 5.5 in. o.c. thereafter. Fasteners shall be of sufficient length to penetrate through the deck a min. 3/8 in. and shall be corrosion resistant in accordance with sections 1507.4.4 and 1506.6.
Maximum Design Pressures:	**-120 psf** *Pressure calculated using 2:1 margin of safety per 1504.9 and 1523.4*





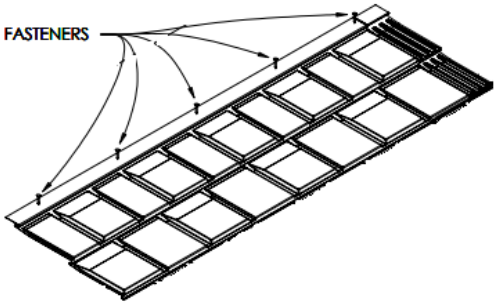
Maximum Mean Roof Heights
Slopes 3:12 – 12:12

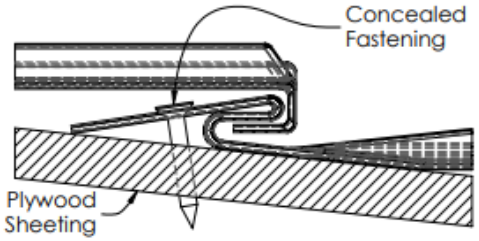
Exposure	Basic Wind Speed (mph)								
	120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	41 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	57 ft	30 ft	17 ft
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	47 ft	33 ft
C	60 ft	60 ft	60 ft	60 ft	58 ft	32 ft	19 ft	NA	NA
D	60 ft	60 ft	60 ft	53 ft	25 ft	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	56 ft	38 ft	26 ft	18 ft
C	60 ft	60 ft	60 ft	47 ft	25 ft	NA	NA	NA	NA
D	60 ft	60 ft	43 ft	19 ft	NA	NA	NA	NA	NA

Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft^2 or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) K_d = 0.85 7) K_e = 1.0 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}\sqrt{0.6}$ per 1609.3.1.

System 3 – CF Shingle or CF Shake (Non-HVHZ only)

Roof Deck:	Solid or closely fitted min. 15/32 in. plywood sheathing for new and existing construction at max. 24 in. span; Designed by others in accordance with FBC requirements.
Underlayment:	Installed in accordance with FBC requirements.
Attachment:	**Five (5) 0.113 x 2-3/8 in. ring shank nails** per panel secured into the headlap and sheathing beginning 2.5 in. from the panel end and 10 in. o.c. thereafter. Fasteners shall be of sufficient length to penetrate through the deck a min. 3/4 in. and shall be corrosion resistant in accordance with section 1506.5.
Maximum Design Pressures:	**-37.5 psf** *Pressure calculated using 2:1 margin of safety per 1504.9*

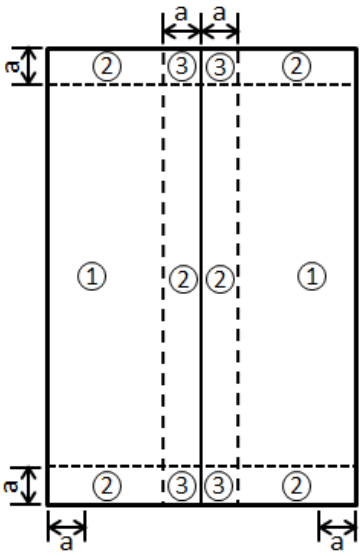
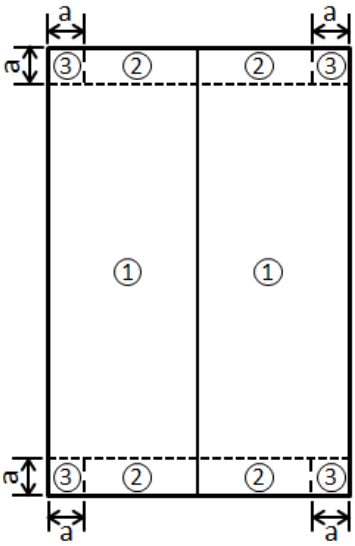
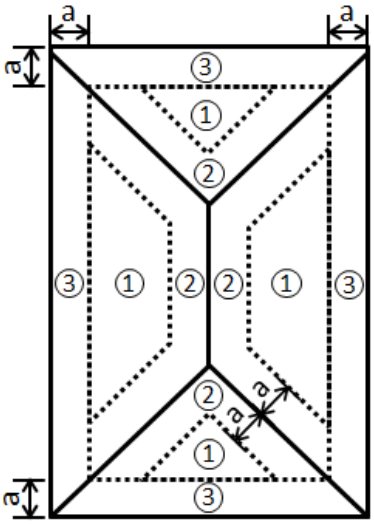




Maximum Mean Roof Heights
Slopes 3:12 – 12:12

Exposure	Basic Wind Speed (mph)								
	120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	43 ft	26 ft	16 ft	NA	NA	NA	NA	NA
C	21 ft	NA	NA	NA	NA	NA	NA	NA	NA
D	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	20 ft	NA	NA	NA	NA	NA	NA	NA	NA
C	NA	NA	NA	NA	NA	NA	NA	NA	NA
D	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	NA	NA	NA	NA	NA	NA	NA	NA	NA
C	NA	NA	NA	NA	NA	NA	NA	NA	NA
D	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft2 or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) Kd = 0.85 7) Ke = 1.0 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 10) Vult is shown in the tables above. Design wind loads are calculated using Vasd = Vult$\sqrt{0.6}$ per 1609.3.1.

Gable Roofs		Hip Roofs
Slopes 2:12 to 6.1:12	Slopes >6.1:12 to 12:12	Slopes 2:12 to 12:12
		

Dimension “a” shall be 10% of the least horizontal dimension or (0.4 x *Mean Roof Height)*, whichever is smaller, but not less than either 4% of the least horizontal dimension or 3ft.

LIMITATIONS

1. Fire classification is not within the scope of this evaluation.
2. The roof deck and the roof deck attachment information are provided based on testing. FBC requirements for the rational design of the roof deck, including the attachment, are not within the scope of this evaluation.
3. The minimum roof slope shall be 3:12 or greater.
4. Reroofing shall be in accordance with FBC Section 1511 outside the HVHZ and FBC Section 1521 inside the HVHZ.
5. Installation of the evaluated products shall comply with this report, the FBC and RAS 133 in the HVHZ, and the manufacturer’s published application instructions. Where discrepancies exist between these sources, the more restrictive and FBC compliant installation detail shall prevail.
6. All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

COMPLIANCE STATEMENT

The products evaluated herein by Zachary R. Priest, P.E. have demonstrated compliance with the Florida Building Code, 8th Edition (2023) including High-Velocity Hurricane Zones (HVHZ) as evidenced in the referenced documents submitted by the named manufacturer.

This item has been digitally signed and sealed by Zachary R. Priest, PE, on 10/18/2023.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by Zachary R. Priest
2023.10.18 12:16:51 -04'00'

Zachary R. Priest, P.E.
Florida Registration No. 74021
Organization No. ANE9641

CERTIFICATION OF INDEPENDENCE

CREEK Technical Services, LLC does not have, nor will it acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

CREEK Technical Services, LLC is not owned, operated, or controlled by any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

END OF REPORT