



EVALUATION REPORT

FLORIDA BUILDING CODE, 8TH EDITION (2023)

Manufacturer: BLACHOTRAPEZ SP. Z O.O. *Issued December 12, 2023*
 ul. Kilinskiego 49a
 34-700 Rabka-Zdroj, Poland
 +48797004056
www.blachotrapez.eu/en

Manufacturing: Rabka-Zdroj, Poland
 Bochnia, Poland
 Raszyn, Poland

Quality Assurance: PRI Construction Materials Technologies, LLC (QUA9110)

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

<u>Entity</u>	<u>Report No.</u>	<u>Standard</u>	<u>Year</u>
PRI Construction Materials Technologies (TST5878)	2307T0013	UL 580	2006
		UL1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	2307T0014	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	2307T0015	UL 580	2006
		UL1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	2307T0016	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	2307T0017	UL 580	2006
		UL1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	2307T0018	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	2307T0020	ASTM B 117	2016
PRI Construction Materials Technologies (TST5878)	2307T0021	ASTM G 155	2013



PRODUCT DESCRIPTION

Blizzard

Profile: Max. 14.57 in. x 44.92 in. coverage
Description: Non-structural, preformed, through fastened panels
Material: Min. 26 ga. stone coated, ASTM A792 AZ50 steel; $F_y = \text{min. } 50 \text{ ksi}$; Shall conform with FBC Section 1507.4.3



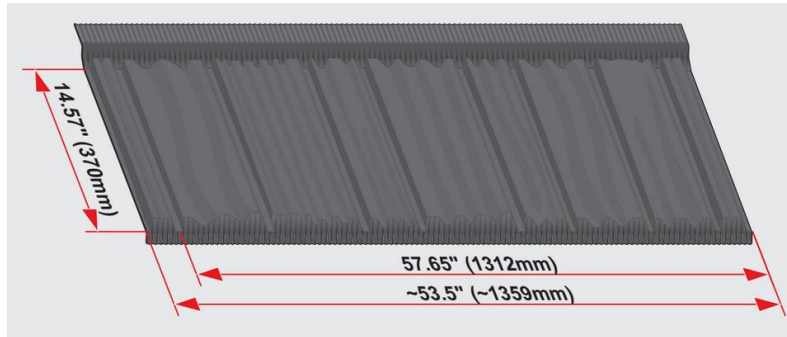
Mistral

Profile: Max. 14.57 in. x 49.96 in. coverage
Description: Non-structural, preformed, through fastened panels
Material: Min. 26 ga. stone coated, ASTM A792 AZ50 steel; $F_y = \text{min. } 50 \text{ ksi}$; Shall conform with FBC Section 1507.4.3



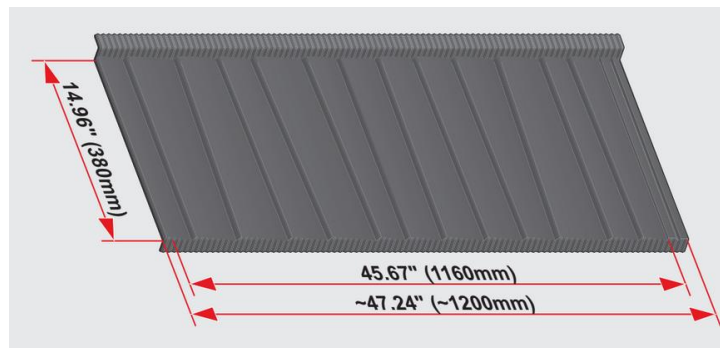
Storm

Profile: Max. 14.57 in. x 51.65 in. coverage
Description: Non-structural, preformed, through fastened panels
Material: Min. 26 ga. stone coated, ASTM A792 AZ50 steel; $F_y = \text{min. } 50 \text{ ksi}$; Shall conform with FBC Section 1507.4.3




Thunder

Profile: Max. 14.96 in. x 45.67 in. coverage
Description: Non-structural, preformed, through fastened panels
Material: Min. 26 ga. stone coated, ASTM A792 AZ50 steel; $F_y = \text{min. } 50 \text{ ksi}$; Shall conform with FBC Section 1507.4.3

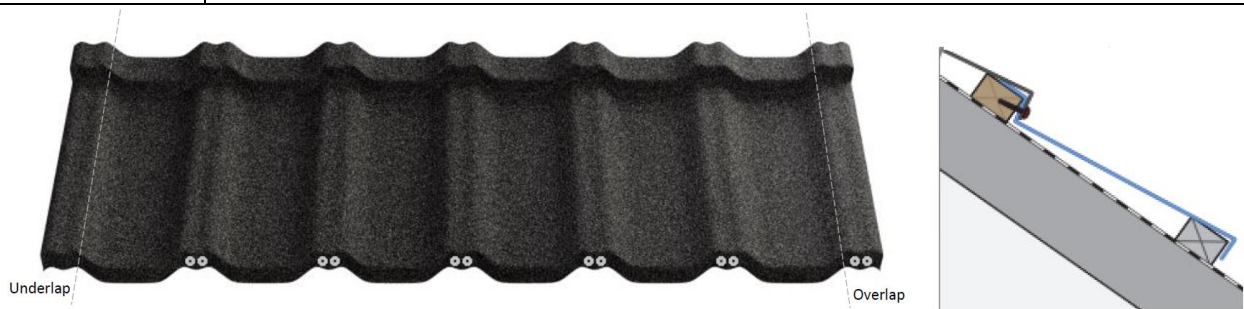


APPROVED ASSEMBLIES

System 1 – Blizzard (over Battens)									
Roof Deck:	Solid or closely fitted min. 15/32-inch, 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32-inch, 40/20 span rated, CDX plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements.								
Battens:	Nominal 2x3, No. 2 SYP dimensional lumber installed under the headlap, approx. 14.5-inch o.c., parallel to the eave using two (2) #10 x min. 3.5-inch bugle head wood screws fastened at each truss/rafter intersection.								
Attachment:	Six (6) #12 x min. 1.5-inch WoodZIP SCAMP screws attached through the headlap at the vertical leg into the batten starting at the lap and continuing 7.5-inches o.c; Fasteners shall penetrate the deck a minimum 3/8-inch and shall be corrosion resistant in accordance with section 1507.4.4 and 1506.6.								
									
Maximum Design Pressures:	-131 psf <i>Pressure calculated using 2:1 margin of safety</i>								
Maximum Mean Roof Heights for Slopes 2:12 – 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	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	49 ft	27 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	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	47 ft	27 ft	16 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	36 ft	18 ft	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	57 ft	38 ft	26 ft
C	60 ft	60 ft	60 ft	60 ft	39 ft	21 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	31 ft	15 ft	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 12 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 – Blizzard (over Battens)

Roof Deck:	Solid or closely fitted min. 15/32-inch, 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32-inch, 40/20 span rated, CDX plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.
Underlayment:	Installed in accordance with FBC requirements.
Battens:	Nominal 2x3, No. 2 SYP dimensional lumber installed under the headlap, approx. 14.5-inch o.c., parallel to the eave using two (2) #10 x min. 3.5-inch bugle head wood screws fastened at each truss/rafter intersection.
Attachment:	Twelve (12) #12 x min. 1.5 in. WoodZIP SCAMP screws were attached in pairs, 1.25-inches apart, through the headlap at the vertical leg into the batten starting at the lap and continuing 7.5-inches o.c; Fasteners shall penetrate the deck a minimum 3/8-inch and shall be corrosion resistant in accordance with section 1507.4.4 and 1506.6.





Maximum Design Pressures:	-146 psf <i>Pressure calculated using 2:1 margin of safety</i>
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Maximum Mean Roof Heights for Slopes 2:12 – 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	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	51 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	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	47 ft	28 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	34 ft	18 ft	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	57 ft	39 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	37 ft	21 ft	NA	NA
D	60 ft	60 ft	60 ft	59 ft	28 ft	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) $K_d = 0.85$ 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 12 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 – Mistral (Direct to Deck)									
Roof Deck:	Solid or closely fitted min. 15/32-inch, 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32-inch, 40/20 span rated, CDX plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Underlayment:	Installed in accordance with FBC requirements.								
Attachment:	Five (5) #12 x min. 1.5-inch WoodZIP SCAMP screws attached through the back shelf at the panel low point and fastened 10-inches o.c.; Additionally, five (5) #12 x min. 1.5-inch WoodZIP SCAMP screws stitched at the nose of the panel at the head lap at the high point of the panel and fastened 10-inches o.c.; Fasteners shall penetrate the deck a minimum 3/8-inch and shall be corrosion resistant in accordance with section 1507.4.4 and 1506.6.								
									
Maximum Design Pressures:	-74.75 psf <i>Pressure calculated using 2:1 margin of safety</i>								
Maximum Mean Roof Heights for Slopes 2:12 – 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	55 ft	36 ft	24 ft
C	60 ft	60 ft	60 ft	60 ft	37 ft	20 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	29 ft	NA	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	46 ft	29 ft	19 ft	NA	NA
C	60 ft	60 ft	35 ft	17 ft	NA	NA	NA	NA	NA
D	60 ft	31 ft	NA	NA	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	46 ft	27 ft	16 ft	NA	NA	NA	NA
C	42 ft	19 ft	NA	NA	NA	NA	NA	NA	NA
D	16 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 12 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 4 – Mistral (Direct to Deck)										
Roof Deck:	Solid or closely fitted min. 15/32-inch, 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32-inch, 40/20 span rated, CDX plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.									
Underlayment:	Installed in accordance with FBC requirements.									
Attachment:	#12 x min. 1.5-inch WoodZIP SCAMP screws attached through the back shelf at the panel low point and fastened in a 6-inch, 4-inch o.c. alternating pattern; Additionally, ten (10) #12 x min. 1.5-inch WoodZIP SCAMP screws stitched at the nose of the panel at the head lap starting 3-inches from the edge of the panel and continuing 5-inches o.c.; Fasteners shall penetrate the deck a minimum 3/8-inch and shall be corrosion resistant in accordance with section 1507.4.4 and 1506.6.									
										
Maximum Design Pressures:	-161 psf <i>Pressure calculated using 2:1 margin of safety</i>									
Maximum Mean Roof Heights for Slopes 2:12 – 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	60 ft	
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 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	60 ft	60 ft	
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	46 ft	
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	32 ft	18 ft	
Zone 3 for Gable Roofs										
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	56 ft	
C	60 ft	60 ft	60 ft	60 ft	60 ft	59 ft	34 ft	20 ft	NA	
D	60 ft	60 ft	60 ft	60 ft	49 ft	24 ft	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 12 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 5 – Storm (over Battens)										
Roof Deck:	Solid or closely fitted min. 15/32-inch, 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32-inch, 40/20 span rated, CDX plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.									
Underlayment:	Installed in accordance with FBC requirements.									
Battens:	Nominal 2x3, No. 2 SYP dimensional lumber installed under the headlap, approx. 14.5-inch o.c., parallel to the eave using two (2) #10 x min. 3.5-inch bugle head wood screws fastened at each truss/rafter intersection.									
Attachment:	Four (4) #12 x min. 1.5-inch WoodZIP SCAMP screws attached through the headlap at the vertical leg into the batten starting at the lap and continuing 12 7/8-inches o.c.; Fasteners shall penetrate the deck a minimum 3/8-inch and shall be corrosion resistant in accordance with section 1507.4.4 and 1506.6.									
										
Maximum Design Pressures:	-112.25 psf <i>Pressure calculated using 2:1 margin of safety</i>									
Maximum Mean Roof Heights for Slopes 2:12 – 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	50 ft	30 ft	
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	38 ft	20 ft	NA	
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	59 ft	40 ft	
C	60 ft	60 ft	60 ft	60 ft	60 ft	38 ft	22 ft	NA	NA	
D	60 ft	60 ft	60 ft	60 ft	29 ft	15 ft	NA	NA	NA	
Zone 3 for Gable Roofs										
B	60 ft	60 ft	60 ft	60 ft	60 ft	49 ft	32 ft	21 ft	NA	
C	60 ft	60 ft	60 ft	34 ft	18 ft	NA	NA	NA	NA	
D	60 ft	60 ft	28 ft	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 12 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 6 – Storm (over Battens)										
Roof Deck:	Solid or closely fitted min. 15/32-inch, 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32-inch, 40/20 span rated, CDX plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.									
Underlayment:	Installed in accordance with FBC requirements.									
Battens:	Nominal 2x3, No. 2 SYP dimensional lumber installed under the headlap, approx. 14.5-inch o.c., parallel to the eave using two (2) #10 x min. 3.5-inch bugle head wood screws fastened at each truss/rafter intersection.									
Attachment:	Eight (8) #12 x min. 1.5-inch WoodZIP SCAMP screws attached through the headlap at the vertical leg into the batten starting at the lap and continuing 6 7/16-inches o.c.; Fasteners shall penetrate the deck a minimum 3/8-inch and shall be corrosion resistant in accordance with section 1507.4.4 and 1506.6.									
										
Maximum Design Pressures:	-161 psf for Storm <i>Pressure calculated using 2:1 margin of safety</i>									
Maximum Mean Roof Heights for Slopes 2:12 – 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	60 ft	
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 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	60 ft	60 ft	
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	46 ft	
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	32 ft	18 ft	
Zone 3 for Gable Roofs										
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	56 ft	
C	60 ft	60 ft	60 ft	60 ft	60 ft	59 ft	34 ft	20 ft	NA	
D	60 ft	60 ft	60 ft	60 ft	49 ft	24 ft	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 12 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 7 – Thunder (over Battens)										
Roof Deck:	Solid or closely fitted min. 15/32-inch, 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32-inch, 40/20 span rated, CDX plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.									
Underlayment:	Installed in accordance with FBC requirements.									
Battens:	Nominal 2x3, No. 2 SYP dimensional lumber installed under the headlap, approx. 14.9-inch o.c., parallel to the eave using two (2) #10 x min. 3.5-inch bugle head wood screws fastened at each truss/rafter intersection.									
Attachment:	Four (4) #12 x min. 1.5-inch WoodZIP SCAMP screws attached through the headlap at the vertical leg into the batten starting at the lap and continuing 11 3/8-inches o.c.; Fasteners shall penetrate the deck a minimum 3/8-inch and shall be corrosion resistant in accordance with section 1507.4.4 and 1506.6.									
										
Maximum Design Pressures:	-112.25 psf <i>Pressure calculated using 2:1 margin of safety</i>									
Maximum Mean Roof Heights for Slopes 2:12 – 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	50 ft	30 ft	
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	38 ft	20 ft	NA	
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	59 ft	40 ft	
C	60 ft	60 ft	60 ft	60 ft	60 ft	38 ft	22 ft	NA	NA	
D	60 ft	60 ft	60 ft	60 ft	29 ft	15 ft	NA	NA	NA	
Zone 3 for Gable Roofs										
B	60 ft	60 ft	60 ft	60 ft	60 ft	49 ft	32 ft	21 ft	NA	
C	60 ft	60 ft	60 ft	34 ft	18 ft	NA	NA	NA	NA	
D	60 ft	60 ft	28 ft	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 12 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 8 – Thunder (over Battens)

Roof Deck:	Solid or closely fitted min. 15/32-inch, 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32-inch, 40/20 span rated, CDX plywood at max. 24 in. span; Designed by others in accordance with FBC requirements.
Underlayment:	Installed in accordance with FBC requirements.
Battens:	Nominal 2x3, No. 2 SYP dimensional lumber installed under the headlap, approx. 14.9-inch o.c., parallel to the eave using two (2) #10 x min. 3.5-inch bugle head wood screws fastened at each truss/rafter intersection.
Attachment:	Eight (8) #12 x min. 1.5-inch WoodZIP SCAMP screws attached through the headlap at the vertical leg into the batten starting at the lap and continuing 5 11/16-inches o.c.; Fasteners shall penetrate the deck a minimum 3/8-inch and shall be corrosion resistant in accordance with section 1507.4.4 and 1506.6.

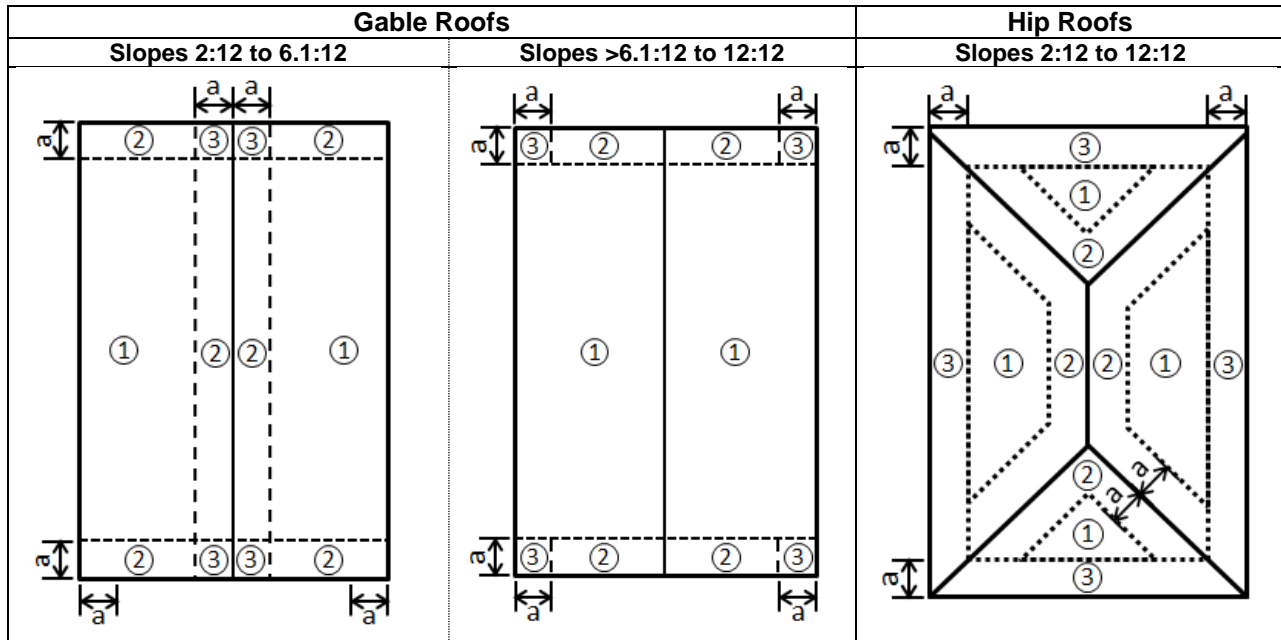


Maximum Design Pressures:	-153.5 psf <i>Pressure calculated using 2:1 margin of safety</i>
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Maximum Mean Roof Heights for Slopes 2:12 – 12:12

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	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 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	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	36 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	46 ft	25 ft	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	47 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	47 ft	27 ft	15 ft	NA
D	60 ft	60 ft	60 ft	60 ft	37 ft	18 ft	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) $K_d = 0.85$ 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 12 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.



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 shall be designed by others to meet the minimum design loads established for components and cladding and in accordance with FBC requirements.
3. Roof slope shall be in accordance with FBC.
4. Reroofing shall be in accordance with FBC Section 1511 outside the HVHZ and Section 1521 inside the HVHZ.
5. Installation of the evaluated products shall comply with this report, the FBC 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 12/12/2023.

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

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