EVALUATION SUBJECT:
CERTAINTEED MATTERHORN AND PRESIDIO METAL ROOFING

REPORT HOLDER:
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CSI Division: 07 THERMAL AND MOISTURE PROTECTION
CSI Section: 07 41 13 Metal Roof Panels

1.0 SCOPE OF EVALUATION

1.1 Compliance to the following codes & regulations:

- 2015 International Building Code® (IBC)
- 2015 International Residential Code® (IRC)
- 2012 International Building Code® (IBC)
- 2012 International Residential Code® (IRC)
- 2009 International Building Code® (IBC)
- 2009 International Residential Code® (IRC)
- 2017 and 2014 Florida Building Code, Building and Residential – See supplement on page 12 of this report for additional compliance statements

1.2 Evaluated in accordance with:

- ICC-ES AC166 approved October 2012, editorially revised June 2015, with modified wind uplift resistance determination

1.3 Properties assessed:

- Weather Protection
- Fire Classification
- Wind Uplift Resistance

2.0 PRODUCT USE

The CertainTeed Matterhorn and Presidio Metal Roofing - Spanish Tile, Slate, and Shake profiles described in this report are used as metal roof panels in accordance with IBC Sections 1503 and 1507.4 and IRC Section R905.10. The roof coverings are used on new roofs and over existing roofs, when installed in accordance with this report.

3.0 PRODUCT DESCRIPTION

3.1 Spanish Tile Profile: The Spanish Tile profile roof panels are pressure-formed from DDS (Type A or C) sheet steel complying with ASTM A653, with a minimum G90 galvanized coating. The panel nominal painted thickness, post production, is 0.020 ± 0.002 inch (0.508 ± 0.051 mm).

The Spanish Tile profile simulates barrel tile shapes. The overall panel size of the Spanish Tile panel is 20.89 inches (531 mm) wide by 49.12 inches (1248 mm) high, and has single course tile heights of 11.81 inches (300 mm). Figure 1 of this report provides illustrative details. The installed weight is approximately 0.9 lbf/ft^2 (43 N/m^2).

3.2 Slate and Shake Profiles: Slate and Shake profile roof panels are pressure-formed from DDS (Type A or C) sheet steel complying with ASTM A653, with a minimum G90 galvanized coating. The Slate panel nominal painted thickness, post production, is 0.019 ± 0.002 inch (0.483 ± 0.051 mm). The Shake panel nominal painted thickness, post production, is 0.020 ± 0.002 inch (0.508 ± 0.051 mm). The Slate and Shake profiles simulate, respectively, slate roof tiles and wooden shakes with nominal 7-inch (178 mm) exposure. The overall panel size of the Slate and Shake panels is 48 inches (1219 mm) wide by 22 inches (559 mm) high, each simulating 3 course heights. Figures 2 and 3 of this report provide illustrative details. The installed weight is approximately 0.9 lbf/ft^2 (43 N/m^2).

4.0 DESIGN AND INSTALLATION

4.1 Design: The allowable wind uplift resistance loads for the CertainTeed Matterhorn and Presidio Metal Roofing - Spanish Tile, Slate, and Shake profile panels, installed in accordance with the manufacturer's installation instructions, are shown in Table 1 of this report. The panels and accessories may be used on roofs where the design uplift pressures determined in accordance with the codes and referenced standards Tables 2A, 2B, and 2C of this report correspond to design pressures determined using ASCE 7-05; Tables 2D, 2E, and 2F of this report correspond to design pressures determined using ASCE 7-10. The tabulated allowable uplift wind loads in Table 1 of this report shall exceed the design pressures in Tables 2A through 2F of this report. The allowable positive (downward) wind loads are limited to the capacity of the roof framing and sheathing of the roof on which the CertainTeed Matterhorn and Presidio Metal Roofing panels are installed.

The allowable gravity loads are limited to the capacity of the roof framing and sheathing of the roof on which the CertainTeed Matterhorn and Presidio Metal Roofing panels are installed.

4.2 Installation: The CertainTeed Matterhorn and Presidio Metal Roofing Spanish Tile, Slate, and Shake profile metal roofing panels shall be installed in accordance with the

manufacturer's published installation instructions. The panels shall be installed on solid decking of minimum $^{15}/_{32}$-inch-thick wood structural panels and at a minimum slope of 2 units vertical in 12 units horizontal (16.67 percent). When CertainTeed Matterhorn and Presidio Metal Roofing is used in reroofing, the existing roof coverings shall be removed to expose the roof sheathing, which shall be undamaged $^{15}/_{32}$-inch-thick wood structural panels, or equivalent. Reroofing shall comply with Section 1511 of the 2015 IBC Section 1510 of the 2012 or 2009 IBC, or Section R908 of the 2015 IRC or Section R907 of the 2012 or 2009 IRC, as applicable. Flashing shall comply with IBC Sections 1503.2 and 1503.3.

4.2.1 Roof Slope and Underlayment: Underlayment shall be used under the CertainTeed Matterhorn and Presidio Metal Roofing - Spanish Tile, Slate, and Shake profile panels when installed on roof slopes between 2:12 (17 percent) and 3:12 (25 percent). Underlayment shall comply with Section 1507.4.5 of the IBC or Section R905.10.5 of the IRC, as applicable.

4.2.2 Fasteners: The fasteners used to fasten the CertainTeed Matterhorn and Presidio Metal Roofing panels shall be No. 10 by $1^1/_4$-inch or $1^1/_2$-inch zinc-coated panhead screws (see Table 1). The Spanish Tile profile shall be installed using a fastener in each of the 5 holes along the fastening edge of the panels. The Spanish Tile, Slate, and Shake profiles shall be installed as described in Table 1 of this report to achieve the tabulated loads.

4.3 Fire Classification: CertainTeed Matterhorn and Presidio Metal Roofing - Spanish Tile, Slate, and Shake panels may be used as Class A or Class B roof coverings, depending on the assembly, when listed in accordance with IBC Section 1505.2 and installed in accordance with the assembly specifications described in Sections 4.3.1, 4.3.2, and 4.3.3, of this report. The panels shall be installed in accordance with the manufacturer's installation instructions using the fasteners and spacing described in Section 4.2.3 of this report.

4.3.1 Assembly No.1 - Class A: The roof shall be sheathed with minimum $^{15}/_{32}$-inch-thick wood structural panels fastened as prescribed by the code. The sheathing shall be covered with ¼ or $^1/_2$-inch-thick Georgia Pacific DensDeck Roof Boards fastened in accordance with the DensDeck installation instructions. CertainTeed DiamondDeck, MetaLayment, or WinterGuard HT Underlayment shall be installed in accordance with the underlayment manufacturer's instructions over the DensDeck panels.

4.3.2 Assembly No.2 - Class A: The roof shall be sheathed with minimum $^{15}/_{32}$-inch-thick wood structural panels fastened as prescribed by the code. Underlayment as described in the following table shall be installed over the sheathing and fastened in accordance with the underlayment manufacturer's installation instructions.

ASSEMBLY No. 2 UNDERLAYMENT	
BOTTOM LAYER	GAF VersaShield
TOP LAYER (use one of the following)	CertainTeed MetaLayment™
	CertainTeed WinterGuard® HT
	CertainTeed DiamondDeck®

4.3.3 Assembly No.3 - Class B: The roof shall be sheathed with minimum $^{15}/_{32}$-inch-thick wood structural panels fastened as prescribed by the code. Underlayment as described in the following table shall be installed over the sheathing and fastened in accordance with the underlayment manufacturer's installation instructions.

ASSEMBLY No. 3 UNDERLAYMENT	
(use one of the following)	CertainTeed DiamondDeck
	CertainTeed MetaLayment™
	CertainTeed WinterGuard HT
	All Weather/Empire Base
	GAF VersaShield

5.0 LIMITATIONS

The CertainTeed Matterhorn and Presidio Metal Roofing panels described in this report are in compliance with, or are an acceptable alternative to what is specified in those codes listed in Section 1.0 of this report subject to the following limitations:

5.1 Use of CertainTeed Matterhorn and Presidio Metal Roofing shall comply with this report and the applicable code.

5.2 Calculations demonstrating compliance with this report shall be submitted to the code official for approval. The calculations shall be prepared by a licensed design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

5.3 CertainTeed Matterhorn and Presidio Metal Roofing shall not be used on roof slopes less than 2:12 (16.67 percent).

5.4 Use of CertainTeed Matterhorn and Presidio Metal Roofing as a substitute for roof sheathing diaphragms to resist lateral loads in main wind force resisting systems has not been investigated.

5.5 The CertainTeed Matterhorn and Presidio Metal Roofing panels are manufactured in Walker, Michigan,

under a quality control program with inspections by Quality Control Consultants (QCC).

6.0 SUBSTANTIATING DATA

Data in accordance with the ICC-ES Acceptance Criteria for Metal Roof Coverings (AC166), dated October 2012, editorially revised June 2015, including reports of testing in accordance with ASTM E108 for roof covering classification and test reports of modified wind uplift resistance testing.

7.0 IDENTIFICATION

The CertainTeed Matterhorn and Presidio Metal Roofing products are identified with a label on the carton or box identifying the company name (CertainTeed), the profile name and model number, the name of the inspection agency (QCC), the IAPMO UES Mark of Conformity and the Evaluation Report Number (ER-375).

or

IAPMO ER #375

Brian Gerber, P.E., S.E.
Vice President, Technical Operations
Uniform Evaluation Service

Richard Beck, PE, CBO, MCP
Vice President, Uniform Evaluation Service

GP Russ Chaney
CEO, The IAPMO Group

For additional information about this evaluation report please visit www.uniform-es.org or email at info@uniform-es.org

TABLE 1 – WIND RESISTANCE OF CERTAINTEED MATTERHORN AND PRESIDIO METAL ROOF PANELS[1]

METAL PANEL PROFILE	FASTENING [2]	MAXIMUM ALLOWABLE UPLIFT LOADS, psf
Spanish Tile	No. 10 by 1 ¼-inch zinc-coated panhead screws one in each of the 5 holes along the panel fastening edge	87 psf
Slate and Shake	No. 10 by 1 $^1/_2$-inch zinc-coated panhead screws one in each of the 4 holes along the panel fastening edge - 4 fasteners/panel	33 psf
	No. 10 by 1 ¼-inch zinc-coated panhead screws 7 inches on center along the top fastening edge	42 psf

For SI: 1 inch = 25.4 mm, 1 psf (lbf/ft^2) = 47.9 N/m^2

1. The allowable positive wind loads are limited to the capacity of the roof framing and sheathing of the roof on which the CertainTeed Matterhorn and Presidio Metal Roofing panels are installed.
2. No. 10 by 1 ¼-inch zinc-coated painted hex-head screws are used where fasteners are exposed.

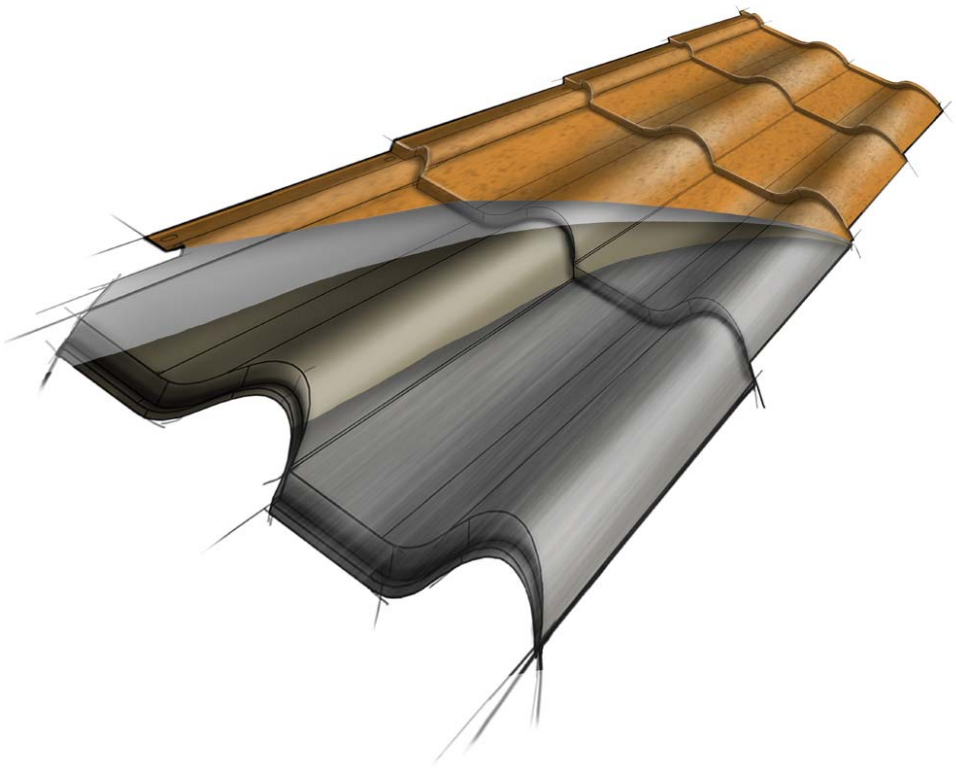

FIGURE 1 –SPANISH TILE PROFILE DETAIL

FIGURE 2 –SLATE PROFILE DETAIL

FIGURE 3 –SHAKE PROFILE DETAIL

TABLE 2A - DESIGN WIND UPLIFT PRESSURES IN ACCORDANCE WITH ASCE 7-05 (EXPOSURE B)

Required Wind Uplift Resistance, p (psf) [1] Exposure B												
MEAN ROOF HEIGHT (ft)	BASIC WIND SPEED, V (mph)											
	85		90		100		110		120		130	
	Roof Zones[2]											
	1	2&3	1	2&3	1	2&3	1	2&3	1	2&3	1	2&3
	Gable/Hip Roof $7^\circ < \theta \leq 27^\circ$ (~ 1½ :12 < θ ≤ ~ 6:12)											
	Importance Factor, I = 1.00											
0-30	9.9[3]	28.6[3]	11.1[3]	32.1[3]	13.7[3]	39.6[3]	16.6	47.9	19.7	57.0	23.2	66.9
40	10.8[3]	31.1[3]	12.1[3]	34.8[3]	14.9[3]	43.0[3]	18.0	52.0	21.4	61.9	25.2	72.7
	Importance Factor, I = 1.15											
0-30	11.4[3]	32.9[3]	12.8[3]	36.9[3]	15.8[3]	45.5[3]	19.1	55.1	22.7	65.6	26.6	77.0
40	12.4[3]	35.7[3]	13.9[3]	40.1[3]	17.1[3]	49.4[3]	20.7	59.8	24.6	71.2	28.9	83.6
	Hip Roof $7^\circ < \theta \leq 25^\circ$ (~ 1½:12 < θ ≤ ~ 6:12)											
	Importance Factor, I = 1.00											
0-30	9.9[3]	18.7[3]	11.1[3]	21.0[3]	13.7[3]	25.9[3]	16.6	31.3	19.7	37.3	23.2	43.8
40	10.8[3]	20.3[3]	12.1[3]	22.8[3]	14.9[3]	28.1[3]	18.0	34.0	21.4	40.5	25.2	47.5
	Importance Factor, I = 1.15											
0-30	11.4[3]	21.5[3]	12.8[3]	24.1[3]	15.8[3]	29.8[3]	19.1	36.0	22.7	42.9	26.6	50.3
40	12.4[3]	23.4[3]	13.9[3]	26.2[3]	17.1[3]	32.3[3]	20.7	39.1	24.6	46.6	28.9	54.6
	Gable Roof $27^\circ < \theta \leq 45^\circ$ (6:12 < θ ≤ 12:12)											
	Importance Factor, I = 1.00											
0-30	11.0[3]	13.2[3]	12.3[3]	14.8[3]	15.2[3]	18.3[3]	18.4	22.1	21.9	26.3	25.7	30.9
40	11.9[3]	14.3[3]	13.4[3]	16.1[3]	16.5[3]	19.8[3]	20.0	24.0	23.8	28.6	27.9	33.5
	Importance Factor, I = 1.15											
0-30	12.7[3]	15.2[3]	14.2[3]	17.0[3]	17.5[3]	21.0[3]	21.2	25.4	25.2	30.3	29.6	35.5
40	13.7[3]	16.5[3]	15.4[3]	18.5[3]	19.0[3]	22.8[3]	23.0	27.6	27.4	32.9	32.1	38.6
	Monoslope Roof $10^\circ < \theta \leq 30^\circ$ (~ 2¼:12 < θ ≤ ~ 7:12)											
	Importance Factor, I = 1.00											
0-30	14.3[3]	31.9[3]	16.0[3]	35.8[3]	19.8[3]	44.2[3]	24.0	53.4	28.5	63.6	33.5	74.7
40	15.5[3]	34.7[3]	17.4[3]	38.8[3]	21.5[3]	48.0[3]	26.0	58.0	31.0	69.1	36.3	81.1
	Importance Factor, I = 1.15											
0-30	16.5[3]	36.7[3]	18.4[3]	41.1[3]	22.8[3]	50.8[3]	27.6	61.5	32.8	73.2	38.5	85.8
40	17.9[3]	39.8[3]	20.0[3]	44.7[3]	24.7[3]	55.2[3]	29.9	66.7	35.6	79.4	41.8	93.2

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 1.6 km/h, 1 psf (lbf/ft^2) = 47.9 N/m^2

[1] For use in locations where the Topographic Factor, K_{zt} = 1.0. For locations where K_{zt} is greater than 1.0, the tabulated pressures shall be increased to account for topographic effects.

[2] ASCE 7 describes Roof Zone definitions.

[3] Under the 2009 IBC, 2009 IRC, and 2012 IRC, CertainTeed Matterhorn and Presidio Metal Roofing is prescriptively recognized for use at locations where the maximum nominal design Basic Wind Speed, 3-second gust, as described on the Basic Wind Speed maps contained in those codes, is 100 mph (161 km/h), in Exposure B areas, on structures a maximum of 40 feet (12 192 mm) in height.

TABLE 2B - DESIGN WIND UPLIFT PRESSURES IN ACCORDANCE WITH ASCE 7-05 (EXPOSURE C)

Required Wind Uplift Resistance, p (psf) [1] Exposure C												
MEAN ROOF HEIGHT (ft)	BASIC WIND SPEED, V (mph)											
	85		90		100		110		120		130	
	Roof Zones[2]											
	1	2&3	1	2&3	1	2&3	1	2&3	1	2&3	1	2&3
	Gable/Hip Roof 7° < θ ≤ 27° (~ 1½ :12 < θ ≤ ~ 6:12)											
	Importance Factor, I = 1.00											
0-30	13.9	40.1	15.5	44.9	19.2	55.4	23.2	67.1	27.6	79.8	32.4	93.7
40	14.7	42.5	16.5	47.7	20.4	58.8	24.6	71.2	29.3	84.7	34.4	99.4
	Importance Factor, I = 1.15											
0-30	15.9	46.1	17.9	51.6	22.1	63.8	26.7	77.2	31.8	91.8	37.3	107.8
40	16.9	48.9	19.0	54.8	23.4	67.7	28.3	81.9	33.7	97.4	39.6	114.4
	Hip Roof 7° < θ ≤ 25° (~ 1½:12 < θ ≤ ~ 6:12)											
	Importance Factor, I = 1.00											
0-30	13.9	26.2	15.5	29.4	19.2	36.3	23.2	43.9	27.6	52.2	32.4	61.3
40	14.7	27.8	16.5	31.2	20.4	38.5	24.6	46.6	29.3	55.4	34.4	65.0
	Importance Factor, I = 1.15											
0-30	15.9	30.1	17.9	33.8	22.1	41.7	26.7	50.4	31.8	60.0	37.3	70.5
40	16.9	32.0	19.0	35.8	23.4	44.2	28.3	53.5	33.7	63.7	39.6	74.8
	Gable Roof 27° < θ ≤ 45° (6:12 < θ ≤ 12:12)											
	Importance Factor, I = 1.00											
0-30	15.4	18.5	17.3	20.7	21.3	25.6	25.8	31.0	30.7	36.8	36.0	43.2
40	16.4	19.6	18.3	22.0	22.6	27.2	27.4	32.9	32.6	39.1	38.2	45.9
	Importance Factor, I = 1.15											
0-30	17.7	21.3	19.9	23.8	24.5	29.4	29.7	35.6	35.3	42.4	41.4	49.7
40	18.8	22.6	21.1	25.3	26.0	31.2	31.5	37.8	37.5	45.0	44.0	52.8
	Monoslope Roof 10° < θ ≤ 30° (~ 2¼:12 < θ ≤ ~ 7:12)											
	Importance Factor, I = 1.00											
0-30	20.0	44.7	22.5	50.1	27.7	61.8	33.5	74.8	39.9	89.1	46.9	104.5
40	21.3	47.4	23.8	53.2	29.4	65.6	35.6	79.4	42.4	94.5	49.7	110.9
	Importance Factor, I = 1.15											
0-30	23.0	51.4	25.8	57.6	31.9	71.1	38.6	86.1	45.9	102.4	53.9	120.2
40	24.4	54.5	27.4	61.1	33.8	75.5	40.9	91.3	48.7	108.7	57.2	127.5

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 1.6 km/h, 1 psf (lbf/ft^2) = 47.9 N/m^2

[1] For use in locations where the Topographic Factor, K_{zt} = 1.0. For locations where K_{zt} is greater than 1.0, the tabulated pressures shall be increased to account for topographic effects.

[2] ASCE 7 describes Roof Zone definitions.

TABLE 2C - DESIGN WIND UPLIFT PRESSURES IN ACCORDANCE WITH ASCE 7-05 (EXPOSURE D)

Required Wind Uplift Resistance, p (psf) [1] Exposure D												
MEAN ROOF HEIGHT (ft)	BASIC WIND SPEED, V (mph)											
	85		90		100		110		120		130	
	Roof Zones[2]											
	1	2&3	1	2&3	1	2&3	1	2&3	1	2&3	1	2&3
	Gable/Hip Roof 7° < θ ≤ 27° (~ 1½ :12 < θ ≤ ~ 6:12)											
	Importance Factor, I = 1.00											
0-30	16.4	47.4	18.4	53.2	22.7	65.6	27.5	79.4	32.7	94.5	38.4	110.9
40	17.3	49.9	19.4	55.9	23.9	69.0	28.9	83.5	34.4	99.4	40.4	116.6
	Importance Factor, I = 1.15											
0-30	18.9	54.5	21.2	61.1	26.1	75.5	31.6	91.3	37.6	108.7	44.2	127.5
40	19.9	57.3	22.3	64.3	27.5	79.4	33.2	96.0	39.6	114.3	46.4	134.1
	Hip Roof 7° < θ ≤ 25° (~ 1½:12 < θ ≤ ~ 6:12)											
	Importance Factor, I = 1.00											
0-30	16.4	31.0	18.4	34.8	22.7	42.9	27.5	51.9	32.7	61.8	38.4	72.5
40	17.3	32.6	19.4	36.6	23.9	45.1	28.9	54.6	34.4	65.0	40.4	76.3
	Importance Factor, I = 1.15											
0-30	18.9	35.7	21.2	40.0	26.1	49.3	31.6	59.7	37.6	71.1	44.2	83.4
40	19.9	37.5	22.3	42.0	27.5	51.9	33.2	62.8	39.6	74.7	46.4	87.7
	Gable Roof 27° < θ ≤ 45° (6:12 < θ ≤ 12:12)											
	Importance Factor, I = 1.00											
0-30	18.2	21.9	20.4	24.5	25.2	30.3	30.5	36.7	36.3	43.6	42.7	51.2
40	19.2	23.0	21.5	25.8	26.5	31.9	32.1	38.5	38.2	45.9	44.9	53.8
	Importance Factor, I = 1.15											
0-30	21.0	25.2	23.5	28.2	29.0	34.8	35.1	42.1	41.8	50.2	49.1	58.9
40	22.1	26.5	24.7	29.7	30.5	36.6	36.9	44.3	44.0	52.8	51.6	61.9
	Monoslope Roof 10° < θ ≤ 30° (~ 2¼:12 < θ ≤ ~ 7:12)											
	Importance Factor, I = 1.00											
0-30	23.7	52.9	26.6	59.3	32.8	73.2	39.7	88.6	47.3	105.4	55.5	123.7
40	24.9	55.6	28.0	62.4	34.5	77.0	41.8	93.2	49.7	110.9	58.3	130.1
	Importance Factor, I = 1.15											
0-30	27.3	60.8	30.6	68.2	37.7	84.2	45.7	101.9	54.3	121.2	63.8	142.3
40	28.7	64.0	32.1	71.7	39.7	88.5	48.0	107.1	57.2	127.5	67.1	149.6

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 1.6 km/h, 1 psf (lbf/ft^2) = 47.9 N/m^2

[1] For use in locations where the Topographic Factor, K_{zt} = 1.0. For locations where K_{zt} is greater than 1.0, the tabulated pressures shall be increased to account for topographic effects.

[2] ASCE 7 describes Roof Zone definitions.

TABLE 2D - DESIGN WIND UPLIFT PRESSURES IN ACCORDANCE WITH ASCE 7-10 (EXPOSURE B)

REQUIRED WIND UPLIFT RESISTANCE, p (psf) [1] EXPOSURE B										
CATEGORY II BUILDINGS										
MEAN ROOF HEIGHT (ft)	**BASIC WIND SPEED, V (mph)**									
	110		**115**		**120**		**130**		**140**	
	Roof Zones[2]									
	1	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**
	Gable/Hip Roof 7° < θ ≤ 27° (~ 1½ :12 < θ ≤ ~ 6:12)									
0-30	16.6[3]	48.0[3]	18.1[3]	52.4[3]	19.8[3]	57.1[3]	23.2[3]	67.0[3]	26.9	77.7
40	18.0[3]	52.1[3]	19.7[3]	56.9[3]	21.4[3]	62.0[3]	25.2[3]	72.7[3]	29.2	84.3
	Hip Roof 7° < θ ≤ 25° (~ 1½:12 < θ ≤ ~ 6:12)									
0-30	16.6[3]	31.4[3]	18.1[3]	34.3[3]	19.8[3]	37.3[3]	23.2[3]	43.8[3]	26.9	50.8
40	18.0[3]	34.0[3]	19.7[3]	37.2[3]	21.4[3]	40.5[3]	25.2[3]	47.6[3]	29.2	55.1
	Gable Roof 27° < θ ≤ 45° (6:12 < θ ≤ 12:12)									
0-30	18.4[3]	22.1[3]	20.2[3]	24.2[3]	22.0[3]	26.3[3]	25.8[3]	30.9[3]	29.9	35.9
40	20.0[3]	24.0[3]	21.9[3]	26.3[3]	23.8[3]	28.6[3]	28.0[3]	33.6[3]	32.4	38.9
	Monoslope Roof 10° < θ ≤ 30° (~ 2¼:12 < θ ≤ ~ 7:12)									
0-30	24.0[3]	53.5[3]	26.2[3]	58.5[3]	28.5[3]	63.7[3]	33.5[3]	74.7[3]	38.8	86.7
40	26.0[3]	58.1[3]	28.5[3]	63.5[3]	31.0[3]	69.1[3]	36.4[3]	81.1[3]	42.2	94.1
CATEGORY III & IV BUILDINGS										
MEAN ROOF HEIGHT (ft)	**BASIC WIND SPEED, V (mph)**									
	115		**120**		**130**		**140**		**145**	
	Roof Zones[2]									
	1	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**
	Gable/Hip Roof 7° < θ ≤ 27° (~ 1½ :12 < θ ≤ ~ 6:12)									
0-30	18.1[3]	52.4[3]	19.8[3]	57.1[3]	23.2[3]	67.0[3]	26.9	77.7	28.8	83.3
40	19.7[3]	56.9[3]	21.4[3]	62.0[3]	25.2[3]	72.7[3]	29.2	84.3	31.3	90.5
	Hip Roof 7° < θ ≤ 25° (~ 1½:12 < θ ≤ ~ 6:12)									
0-30	18.1[3]	34.3[3]	19.8[3]	37.3[3]	23.2[3]	43.8[3]	26.9	50.8	28.8	54.5
40	19.7[3]	37.2[3]	21.4[3]	40.5[3]	25.2[3]	47.6[3]	29.2	55.1	31.3	59.2
	Gable Roof 27° < θ ≤ 45° (6:12 < θ ≤ 12:12)									
0-30	20.2[3]	24.2[3]	22.0[3]	26.3[3]	25.8[3]	30.9[3]	29.9	35.9	32.1	38.5
40	21.9[3]	26.3[3]	23.8[3]	28.6[3]	28.0[3]	33.6[3]	32.4	38.9	34.8	41.8
	Monoslope Roof 10° < θ ≤ 30° (~ 2¼:12 < θ ≤ ~ 7:12)									
0-30	26.2[3]	58.5[3]	28.5[3]	63.7[3]	33.5[3]	74.7[3]	38.8	86.7	41.7	93.0
40	28.5[3]	63.5[3]	31.0[3]	69.1[3]	36.4[3]	81.1[3]	42.2	94.1	45.2	100.9

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 1.6 km/h, 1 psf (lbf/ft^2) = 47.9 N/m^2

[1] For use in locations where the Topographic Factor, K_{zt} = 1.0. For locations where K_{zt} is greater than 1.0, the tabulated pressures shall be increased to account for topographic effects.

[2] ASCE 7 describes Roof Zone definitions.

[3] Under the 2012 IBC, 2015 IBC, and 2015 IRC, CertainTeed Matterhorn and Presidio Metal Roofing is prescriptively recognized for use at locations where the maximum Ultimate Design Wind Speed, V_{ULT}, 3-second gust, as described on the Ultimate Design Wind Speed maps contained in those codes, is 130 mph (209 km/h), in Exposure B areas, on structures a maximum of 40 feet (12 192 mm) in height.

TABLE 2E - DESIGN WIND UPLIFT PRESSURES IN ACCORDANCE WITH ASCE 7-10 (EXPOSURE C)

REQUIRED WIND UPLIFT RESISTANCE, p (psf) [1] EXPOSURE C										
CATEGORY II BUILDINGS										
MEAN ROOF HEIGHT (ft)	**BASIC WIND SPEED, V (mph)**									
	110		**115**		**120**		**130**		**140**	
	Roof Zones[2]									
	1	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**
	Gable/Hip Roof 7° < θ ≤ 27° (~ 1½ :12 < θ ≤ ~ 6:12)									
0-30	23.3	67.2	25.4	73.5	27.7	80.0	32.5	93.9	37.7	108.9
40	24.7	71.4	27.0	78.1	29.4	85.0	34.5	99.8	40.1	115.7
	Hip Roof 7° < θ ≤ 25° (~ 1½:12 < θ ≤ ~ 6:12)									
0-30	23.3	44.0	25.4	48.1	27.7	52.3	32.5	61.4	37.7	71.2
40	24.7	46.7	27.0	51.1	29.4	55.6	34.5	65.2	40.1	75.7
	Gable Roof 27° < θ ≤ 45° (6:12 < θ ≤ 12:12)									
0-30	25.9	31.0	28.3	33.9	30.8	36.9	36.1	43.3	41.9	50.3
40	27.5	33.0	30.0	36.0	32.7	39.2	38.4	46.1	44.5	53.4
	Monoslope Roof 10° < θ ≤ 30° (~ 2¼:12 < θ ≤ ~ 7:12)									
0-30	33.6	75.0	36.7	82.0	40.0	89.3	47.0	104.8	54.5	121.5
40	35.7	79.7	39.0	87.1	42.5	94.8	49.9	111.3	57.9	129.1
CATEGORY III & IV BUILDINGS										
MEAN ROOF HEIGHT (ft)	**BASIC WIND SPEED, V (mph)**									
	115		**120**		**130**		**140**		**145**	
	Roof Zones[2]									
	1	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**
	Gable/Hip Roof 7° < θ ≤ 27° (~ 1½ :12 < θ ≤ ~ 6:12)									
0-30	25.4	73.5	27.7	80.0	32.5	93.9	37.7	108.9	40.4	116.8
40	27.0	78.1	29.4	85.0	34.5	99.8	40.1	115.7	43.0	124.1
	Hip Roof 7° < θ ≤ 25° (~ 1½:12 < θ ≤ ~ 6:12)									
0-30	25.4	48.1	27.7	52.3	32.5	61.4	37.7	71.2	40.4	76.4
40	27.0	51.1	29.4	55.6	34.5	65.2	40.1	75.7	43.0	81.2
	Gable Roof 27° < θ ≤ 45° (6:12 < θ ≤ 12:12)									
0-30	28.3	33.9	30.8	36.9	36.1	43.3	41.9	50.3	44.9	53.9
40	30.0	36.0	32.7	39.2	38.4	46.1	44.5	53.4	47.7	57.3
	Monoslope Roof 10° < θ ≤ 30° (~ 2¼:12 < θ ≤ ~ 7:12)									
0-30	36.7	82.0	40.0	89.3	47.0	104.8	54.5	121.5	58.4	130.3
40	39.0	87.1	42.5	94.8	49.9	111.3	57.9	129.1	62.1	138.5

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 1.6 km/h, 1 psf (lbf/ft^2) = 47.9 N/m^2

[1] For use in locations where the Topographic Factor, K_{zt} = 1.0. For locations where K_{zt} is greater than 1.0, the tabulated pressures shall be increased to account for topographic effects.

[2] ASCE 7 describes Roof Zone definitions.

TABLE 2F - DESIGN WIND UPLIFT PRESSURES IN ACCORDANCE WITH ASCE 7-10 (EXPOSURE D)

REQUIRED WIND UPLIFT RESISTANCE, p (psf) [1] EXPOSURE D										
CATEGORY II BUILDINGS										
MEAN ROOF HEIGHT (ft)	**BASIC WIND SPEED, V (mph)**									
	110		**115**		**120**		**130**		**140**	
	Roof Zones[2]									
	1	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**
	Gable/Hip Roof 7° < θ ≤ 27° (~ 1½ :12 < θ ≤ ~ 6:12)									
0-30	27.5	79.6	30.1	87.0	32.8	94.7	38.5	111.1	44.6	128.9
40	29.0	83.6	31.6	91.4	34.5	99.5	40.4	116.8	46.9	135.5
	Hip Roof 7° < θ ≤ 25° (~ 1½:12 < θ ≤ ~ 6:12)									
0-30	27.5	52.0	30.1	56.9	32.8	61.9	38.5	72.7	44.6	84.3
40	29.0	54.7	31.6	59.8	34.5	65.1	40.4	76.4	46.9	88.6
	Gable Roof 27° < θ ≤ 45° (6:12 < θ ≤ 12:12)									
0-30	30.6	36.7	33.4	40.1	36.4	43.7	42.7	51.3	49.6	59.5
40	32.2	38.6	35.2	42.2	38.3	45.9	44.9	53.9	52.1	62.5
	Monoslope Roof 10° < θ ≤ 30° (~ 2¼:12 < θ ≤ ~ 7:12)									
0-30	39.8	88.7	43.5	97.0	47.3	105.6	55.6	123.9	64.4	143.7
40	41.8	93.3	45.7	102.0	49.8	111.0	58.4	130.3	67.7	151.1
CATEGORY III & IV BUILDINGS										
MEAN ROOF HEIGHT (ft)	**BASIC WIND SPEED, V (mph)**									
	115		**120**		**130**		**140**		**145**	
	Roof Zones[2]									
	1	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**	**1**	**2&3**
	Gable/Hip Roof 7° < θ ≤ 27° (~ 1½ :12 < θ ≤ ~ 6:12)									
0-30	30.1	87.0	32.8	94.7	38.5	111.1	44.6	128.9	47.9	138.2
40	31.6	91.4	34.5	99.5	40.4	116.8	46.9	135.5	50.3	145.3
	Hip Roof 7° < θ ≤ 25° (~ 1½:12 < θ ≤ ~ 6:12)									
0-30	30.1	56.9	32.8	61.9	38.5	72.7	44.6	84.3	47.9	90.4
40	31.6	59.8	34.5	65.1	40.4	76.4	46.9	88.6	50.3	95.0
	Gable Roof 27° < θ ≤ 45° (6:12 < θ ≤ 12:12)									
0-30	33.4	40.1	36.4	43.7	42.7	51.3	49.6	59.5	53.2	63.8
40	35.2	42.2	38.3	45.9	44.9	53.9	52.1	62.5	55.9	67.1
	Monoslope Roof 10° < θ ≤ 30° (~ 2¼:12 < θ ≤ ~ 7:12)									
0-30	43.5	97.0	47.3	105.6	55.6	123.9	64.4	143.7	69.1	154.2
40	45.7	102.0	49.8	111.0	58.4	130.3	67.7	151.1	72.7	162.1

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 1.6 km/h, 1 psf (lbf/ft^2) = 47.9 N/m^2

[1] For use in locations where the Topographic Factor, K_{zt} = 1.0. For locations where K_{zt} is greater than 1.0, the tabulated pressures shall be increased to account for topographic effects.

[2] ASCE 7 describes Roof Zone definitions.

FLORIDA SUPPLEMENT

EVALUATION SUBJECT:
CERTAINTEED MATTERHORN AND PRESIDIO METAL ROOFING

REPORT HOLDER:
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Malvern, PA 19355
(610) 893-6096
www.certainteed.com

CSI Division: 07 THERMAL AND MOISTURE PROTECTION
CSI Section: 07 41 13 Metal Roof Panels

1.0 SCOPE OF EVALUATION

1.1 Compliance to the following codes & regulations:

- 2017 and 2014 Florida Building Code, Building (FBC, Building)
- 2017 and 2014 Florida Building Code, Residential (FBC, Residential)

2.0 FINDINGS

The CertainTeed Matterhorn and Presidio Metal Roofing panels described in IAPMO UES Evaluation Report ER-375 comply with the 2017 and 2014 FBC, Building and the 2017 and 2014 FBC, Residential.

Installation shall be in accordance with ER-375 and Section 1507.5 of the FBC, Building or Section R905.10 of the FBC, Residential, as applicable. Flashing shall comply with Section 1503.2 of the FBC, Building. Underlayment shall comply with Section 1507.5.3 of the 2017 FBC, Building or Section1507.4.5 of the 2014 FBC, Building or Section R905.10.5 of the 2017 FBC, Residential or Section R905.10.2.1 of the 2014 FBC, Residential, as applicable.

For buildings built in accordance with the FBC, Residential, design wind loads for roof coverings shall be determined in accordance with Tables R301.2(2) and R301.2(3), as required by Section R301.2.1 of the FBC, Residential; when required, conversion between V_{ult} (Ultimate Design Wind Speed) and V_{asd} (Nominal Design Wind Speed) shall be in accordance with R301.2.1.3 of the FBC, Residential. For buildings built in accordance with the FBC, Building, design wind loads for roof coverings shall be determined in accordance ASCE 7-10, as required by Section 1609.5 of the FBC, Building; when required, conversion between V_{ult} and V_{asd} shall be in accordance with 1609.3.1 of the FBC, Building. Design pressures determined in accordance with the FBC shall not exceed those in Table 1 of ER-375 for use of CertainTeed Matterhorn and Presidio Metal Roofing profiles - Spanish Tile, Slate, and Shake panels, as applicable.

Use of the CertainTeed Matterhorn and Presidio Metal Roofing panels for compliance with the high-velocity hurricane zone provisions of the FBC, Building and FBC, Residential has not been evaluated and is outside the scope of this evaluation report.

For products falling under Florida Rule 61G20-3.008, verification that the report holder's quality assurance program is audited by a quality assurance entity, approved by the Florida Building Commission (or the building official when the report holder does not possess an approval by the Commission), to provide oversight and determine that the products are being manufactured as described in this evaluation report to establish continual product performance is required.

For additional information about this evaluation report please visit www.uniform-es.org or email at info@uniform-es.org