ICC-ES Evaluation Report

ESR-4729

Reissued November 2024

Subject to renewal November 2025

This report also contains:

- **City of LA Supplement**
- **CA Supplement**
- **FL Supplement**

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION Section: 07 41 13—Metal Roof Panels	REPORT HOLDER: WESTERN STATES DECKING, INC. DBA WESTERN STATES METAL ROOFING	EVALUATION SUBJECT: WESTERN STATES METAL ROOFING – METAL ROOF PANELS	

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2024, 2021, 2018 and 2015 *International Building Code®* (IBC)
- 2024, 2021, 2018 and 2015 *International Residential Code®* (IRC)

Properties evaluated:

- Transverse wind load
- Fire classification
- Structural

1.2 Evaluation to the following green codes and/or standards:

- 2022 *California Green Building Standards Code (CALGreen)*, Title 24, Part 11

Attributes verified:

- See Section 3.1

2.0 USES

The Western States Metal Roofing metal roof panels are used as roof coverings over solid or closely-fitted decking and spaced supports.

3.0 DESCRIPTION

3.1 General:

The panels are cold-formed from steel, aluminum, or copper conforming to the product specifications, aluminum-zinc or zinc coatings, and base-metal thicknesses noted in Table 1. The clips used with the panels are made from steel conforming to the product specifications, zinc coatings and base-metal thicknesses noted in Table 2. See Figures 1 through 7 for panel and clip details.

The attributes of the metal roofing panels have been verified as conforming to the provisions of CALGreen Section A5.406.1.2 for reduced maintenance. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that maybe contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

3.2 Deck Material:

Solid or closely-fitted decking must be a minimum of $^{15}/_{32}$-inch-thick (11.9 mm) plywood or lumber sheathing, or non-veneer APA rated minimum $^{7}/_{16}$-inch-thick (11.1 mm) oriented-strand board (OSB) complying with IBC Section 2304.8.2, or IRC Section R803, or minimum No. 22 gauge [0.030-inch-thick (0.76 mm)] steel complying with IBC Section 2208.1 (Section 2210.1.1.2 of the 2021, 2018 and 2015 IBC).

3.3 Underlayment and Flashing:

Underlayment must be in accordance with IBC Section 1507.4.5 or IRC Section R905.10.6 (Section R905.10.5 of the 2021, 2018 and 2015 IRC), as applicable. Where specified in Table 5, the underlayment is Versashield® Fire-Resistant Roof Deck Protection (ESR-2053). Flashing must be in accordance with IBC Section 1503.2 or IRC Section R903.2, as applicable.

4.0 DESIGN AND INSTALLATION

4.1 Installation:

Installation of the roof panels must be in accordance with this report, IBC Section 1507.4 or IRC Section R905.10, and the manufacturer's published installation instructions. The manufacturer's installation instructions must be available at the jobsite at all times during installation.

The panels must be installed on roofs with a minimum slope of 2:12 (16.7-percent slope). Penetrations and terminations of the panels must be flashed and made weathertight in accordance with the manufacturer's published installation instructions and IBC Section 1503.2 or IRC Section R903.2, as applicable.

4.2 Live Loads:

The Thin Lock, MS2, Western Lock, Western Rib, PBR Panel and 7/8" Corrugated steel roof panels described in this report, when installed as a minimum three-span condition with spans of 3 feet (0.91 m) on center, are capable of withstanding the minimum uniform distributed live load of 20 psf (0.958 kPa) and the minimum concentrated live load of 300 lbf (1.33 kN) noted in Table 1607.1 of the IBC.

The Western Seam steel roof panels described in this report, when installed as a minimum three-span condition with spans of 1 feet (0.30 m) on center, are capable of withstanding the minimum uniform distributed live load of 0 psf (0.958 kPa) and the minimum concentrated live load of 300 lbf (1.33 kN) noted in Table 1607.1 of the IBC.

When the panels are installed over solid or closely fitted decking, the capacity is limited to the capacity of the decking.

4.3 Wind Load Resistance:

The allowable wind uplift pressures of the panels installed over solid decking are provided in Table 3. The allowable positive and negative (uplift) wind pressures for the panels installed over spaced supports are provided in Table 4.

When the panels are installed over solid or closely fitted decking, allowable positive wind load is limited to the capacity of the decking.

4.4 Fire Classification:

When installed as specified in Table 5, the metal roof panels are components of roof assemblies classified as Class A in accordance with ASTM E108 or UL790.

5.0 CONDITIONS OF USE:

The Western States Metal Roofing metal roof panels described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Installation must comply with this report, the manufacturer's published installation instructions, and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.

5.2 The metal roof panels must be installed only by applicators approved by Western States Metal Roofing.

5.3 Design wind pressures on any roof area, including edge and corner zones, must not exceed the allowable wind pressure for the system installed in that particular area. Refer to the allowable wind pressures for the metal panels as listed in Tables 3 and 4.

5.4 The allowable wind pressures listed in Tables 3 and 4 are for the roof covering only. The deck and framing to which the roof covering is attached must be designed for the applicable components and cladding wind loads in accordance with the IBC or IRC, as applicable.

5.5 Calculations demonstrating that the required wind resistance is less than the allowable wind resistance must be submitted to the code official.

5.6 The panels are manufactured under an approved quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Metal Roof Coverings (AC166), dated February 2021 (editorially revised June 2024).

7.0 IDENTIFICATION

7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-4729) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.

7.2 In addition, each bundle of roof panels is marked with the product name and material type.

7.3 The report holder's contact information is the following:

WESTERN STATES DECKING, INC.
DBA WESTERN STATES METAL ROOFING
901 WEST WATKINS STREET
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TABLE 1—WESTERN STATES METAL ROOFING METAL ROOF PANEL SPECIFICATIONS

PANEL	MATERIAL			MIN. THICKNESS (inch)
	Specification	Classification	Coating	
Thin Lock (12" to 16" width)	ASTM A792 (steel)	SS Grade 50 Class 1 or Class 2	AZ50 or AZ55	0.0236[1] (24 gauge)
Western Seam (12" to 16" width) **MS2** (12" to 18" width)	ASTM A653 (steel)	SS Grade 50 Class 1 or Class 2	G90	0.0236[1] (24 gauge)
Western Rib (36" coverage)	ASTM A792 (steel)	SS Grade 50 Class 1 or Class 2	AZ50 or AZ55	0.0236[1] (24 gauge)
	ASTM A653 (steel)	SS Grade 50 Class 1 or Class 2	G90	0.0236[1] (24 gauge)
PBR Panel (36" coverage)	ASTM B209 (aluminum)	3003-H14	NA	0.030[2] (nominal 0.032")
Western Lock (12" to 18" width)	ASTM A792 (steel)	SS Grade 50 Class 1 or Class 2	AZ50 or AZ55	0.0236[1] (24 gauge)
	ASTM A653 (steel)	SS Grade 50 Class 1 or Class 2	G90	0.0236[1] (24 gauge)
	ASTM B209 (aluminum)	3003-H14	NA	0.030[2] (nominal 0.032")
	ASTM B370 (copper)	3/4 Hard, 20 oz/ft^2	NA	0.0258[2]
7/8" Corrugated (34.67" coverage)	ASTM A792 (steel)	SS Grade 50 Class 1 or Class 2	AZ50 or AZ55	0.0236[1] (24 gauge)
	ASTM A653 (steel)	SS Grade 50 Class 1 or Class 2	G90	0.0236[1] (24 gauge)
	ASTM B209 (aluminum)	3003-H14	NA	0.030[2] (nominal 0.032")
7/8" Corrugated (26.7" coverage)	ASTM B370 (copper)	3/4 Hard, 20 oz/ft^2	NA	0.0258[2]

For **SI:** 1 inch = 25.4 mm; 1 oz/ft^2 = 0.305 kg/m^2.

[1] Value indicates the minimum coated steel thickness.
[2] Value indicates the minimum base metal thickness.

TABLE 2—WESTERN STATES METAL ROOFING CLIP SPECIFICATIONS

CLIP	MATERIAL			MIN. THICKNESS (inch)
	Specification	Classification	Coating	
MS2 Clip	ASTM A653	HSLAS Grade 50	G90	0.028[(1)] (22 gauge)
Thin Lock Clip	ASTM A653	Grade 50	G90	0.024[(2)] (24 gauge)
Western Lock Clip	ASTM A653	HSLAS-F Grade 50	G90	0.048[(1)] (18 gauge)

For **SI:** 1 inch = 25.4 mm.

[1] Value indicates the minimum base metal thickness.
[2] Value indicates the minimum coated steel thickness.

TABLE 3—ALLOWABLE WIND UPLIFT PRESSURE – PANELS OVER SOLID DECK

PANEL	DECK TYPE[2]	FASTENING PATTERN	Support Fastener Max. Spacing[1] (inch)	ALLOWABLE NEGATIVE (UPLIFT) WIND PRESSURE (psf)
Thin Lock (24 gauge steel, max. 16” width)	$^{15}/_{32}$” Plywood or $^{7}/_{16}$” OSB	Thin Lock Clips with two (2) #10-12 x 1” long pancake head wood screws	36	21
Western Seam (24 gauge steel, max. 16” width)	$^{15}/_{32}$” Plywood or $^{7}/_{16}$” OSB	#10-12 x 1” long pancake head wood screws along panel nail strip	12	41
MS2 with 90-degree mechanical seam (24 gauge steel, max. 18” width)	$^{15}/_{32}$” Plywood or $^{7}/_{16}$” OSB	MS2 Clips with two (2) #10-12 x 1” long pan head wood screws	36	52
Western Lock (24 gauge steel, max. 18” width)	$^{15}/_{32}$” Plywood	Western Lock Clips with two (2) #10-12 x 1” long pan head wood screws	36	52
Western Lock (24 gauge steel, max. 18” width)	$^{7}/_{16}$” OSB	Western Lock Clips with two (2) #10-12 x 1” long pan head wood screws	36	45
Western Lock (0.032” aluminum, max. 18” width)	$^{15}/_{32}$” Plywood	Western Lock Clips with two (2) #10-12 x 1” long pan head wood screws	36	45
Western Lock (20 oz. copper, max. 18” width)	$^{15}/_{32}$” Plywood	Western Lock Clips with two (2) #10-12 x 1” long pan head wood screws	36	52
Western Rib (24 gauge steel, 36“ coverage)	$^{15}/_{32}$” Plywood	#9-15 x 2” long hex head wood screws with $^{7}/_{16}$” diameter EPDM sealing washers @ 7.2” o.c. across panel width (every low cell). Sidelap fasteners are $^{1}/_{4}$”-14 x $^{7}/_{8}$” long self-drilling HWH screws with 0.45” diameter EPDM sealing washers @ 18” o.c along panel length. (see Figure 5)	36	70
Western Rib (24 gauge steel, 36“ coverage)	$^{7}/_{16}$” OSB	#9-15 x 2” long hex head wood screws with $^{7}/_{16}$” diameter EPDM sealing washers @ 7.2” o.c. across panel width (every low cell). Sidelap fasteners are $^{1}/_{4}$”-14 x $^{7}/_{8}$” long self-drilling HWH screws with 0.45” diameter EPDM sealing washers @ 18” o.c along panel length. (see Figure 5)	36	52
Western Rib (0.032” aluminum, 36“ coverage)	$^{15}/_{32}$” Plywood	#9-15 x 2” long hex head wood screws with $^{7}/_{16}$” diameter EPDM sealing washers @ 7.2” o.c. across panel width (every low cell). Sidelap fasteners are $^{1}/_{4}$”-14 x $^{7}/_{8}$” long self-drilling HWH screws with 0.45” diameter EPDM sealing washers @ 18” o.c along panel length. (see Figure 5)	36	60

TABLE 3—ALLOWABLE WIND UPLIFT PRESSURE – PANELS OVER SOLID DECK (continued)

PBR Panel (24 gauge steel, 36“ coverage)	$^{15}/_{32}$” Plywood	Minimum six (6) #9-15 x 2” long hex head wood screws with $^{7}/_{16}$” diameter EPDM sealing washers across panel width as shown in Figure 6. Sidelap fasteners are $^{1}/_{4}$”-14 x $^{7}/_{8}$” long self-drilling HWH screws with 0.45” diameter EPDM sealing washers @ 18” o.c along panel length. (see Figure 6)	36	67
PBR Panel (24 gauge steel, 36“ coverage)	$^{7}/_{16}$” OSB	Minimum six (6) #9-15 x 2” long hex head wood screws with $^{7}/_{16}$” diameter EPDM sealing washers across panel width as shown in Figure 6. Sidelap fasteners are $^{1}/_{4}$”-14 x $^{7}/_{8}$” long self-drilling HWH screws with 0.45” diameter EPDM sealing washers @ 18” o.c along panel length. (see Figure 6)	36	52
PBR Panel (0.032” aluminum, 36“ coverage)	$^{15}/_{32}$” Plywood	Minimum six (6) #9-15 x 2” long hex head wood screws with $^{7}/_{16}$” diameter EPDM sealing washers across panel width as shown in Figure 6. Sidelap fasteners are $^{1}/_{4}$”-14 x $^{7}/_{8}$” long self-drilling HWH screws with 0.45” diameter EPDM sealing washers @ 18” o.c along panel length. (see Figure 6)	36	52
7/8” Corrugated (24 gauge steel, 34.67” coverage)	$^{15}/_{32}$” Plywood	Minimum five (5) #9-15 x 2” long hex head wood screws with $^{7}/_{16}$” diameter EPDM sealing washers across panel width as shown in Figure 7A. Sidelap fasteners are $^{1}/_{4}$”-14 x $^{7}/_{8}$” long self-drilling HWH screws with 0.45” diameter EPDM sealing washers @ 18” o.c along panel length. (see Figure 7A)	36	60
7/8” Corrugated (24 gauge steel, 34.67” coverage)	$^{7}/_{16}$” OSB	Minimum five (5) #9-15 x 2” long hex head wood screws with $^{7}/_{16}$” diameter EPDM sealing washers across panel width as shown in Figure 7A. Sidelap fasteners are $^{1}/_{4}$”-14 x $^{7}/_{8}$” long self-drilling HWH screws with 0.45” diameter EPDM sealing washers @ 18” o.c along panel length. (see Figure 7A)	36	41
7/8” Corrugated (0.032” aluminum, 34.67” coverage)	$^{15}/_{32}$” Plywood	Minimum five (5) #9-15 x 2” long hex head wood screws with $^{7}/_{16}$” diameter EPDM sealing washers across panel width as shown in Figure 7A. Sidelap fasteners are $^{1}/_{4}$”-14 x $^{7}/_{8}$” long self-drilling HWH screws with 0.45” diameter EPDM sealing washers @ 18” o.c along panel length. (see Figure 7A)	36	60
7/8” Corrugated (20 oz. copper, 26.7” coverage)	$^{15}/_{32}$” Plywood	#9-15 x 2” long hex head wood screws with $^{7}/_{16}$” diameter EPDM sealing washers @ $5^{1}/_{3}$” o.c. across panel width (every other ridge). Sidelap fasteners are $^{1}/_{4}$”-14 x $^{7}/_{8}$” long self-drilling HWH screws with 0.45” diameter EPDM sealing washers @ 18” o.c along panel length. (see Figure 7B)	36	75

For **SI:** 1 inch = 25.4 mm, 1 psf = 0.0479 kPa.

[1]Indicates maxing spacing of panel support fasteners along the panel length for the Western Seam, Western Rib, PBR Panel and 7/8” Corrugated roof panels. Indicates the maximum clip spacing along the panel length for the Thin Lock, MS2 and Western Lock roof panels.
[2]For installation of the panels over a deck type other than those listed: the fasteners used to attach the panels and/or panel clips to the deck must be sized and designed by a registered design professional for the applicable loads; fastener and clip spacing must not exceed the spacing described in this table; the allowable uplift wind pressure of the panels must not exceed the values in this table.

TABLE 4—ALLOWABLE WIND PRESSURES – PANELS OVER SPACED SUPPORTS

PANEL	SUPPORT	FASTENING PATTERN[1]	Max. Span[2] (inch)	ALLOWABLE NEGATIVE (UPLIFT) WIND PRESSURE (psf)	ALLOWABLE POSITIVE WIND PRESSURE (psf)
Thin Lock (24 gauge steel, max. 16" width)	Min. 16 ga (0.060-inch) Steel Spaced Supports	Thin Lock Clips with two (2) #10-16 x 1" pancake head long self-drilling screws at each support	36	16	96
Western Seam (24 gauge steel, max. 16" width)	Min. 16 ga (0.060-inch) Steel Spaced Supports	One (1) #10-16 x 1" long pancake head self-drilling screw in panel nail strip at each support	12	31	65
MS2 with 90-degree mechanical seam (24 gauge steel, max. 18" width)	Min. 16 ga (0.060-inch) Steel Spaced Supports	MS2 Clips with two (2) #10-16 x 1" pan head self-drilling screws at each support	36	42	127
Western Lock (24 gauge steel, max. 18" width)	Min. 16 ga (0.060-inch) Steel Spaced Supports	Western Lock Clips with two (2) #10-16 x 1" pan head self-drilling screws at each support	36	21	101
Western Rib (24 gauge steel, 36" coverage)	Min. 16 ga (0.060-inch) Steel Spaced Supports	#12-14 x 1" long HWH self-drilling screws with $^5/_8$" diameter EPDM sealing washers @ 7.2" o.c. (every valley) across panel width at all supports. Sidelap fasteners are $^1/_4$-14 x $^7/_8$" long HWH self-drilling screws with 0.45" diameter EPDM sealing washers @ 18" o.c. along panel length. (See Figure 5)	36	101	169
PBR Panel (24 gauge steel, 36" coverage)	Min. 16 ga (0.060-inch) Steel Spaced Supports	Minimum six (6) #12-14 x 1" long HWH self-drilling screws with $^5/_8$" diameter EPDM sealing washers across panel width at all supports as shown in Figure 6. Sidelap fasteners are $^1/_4$-14 x $^7/_8$" long HWH self-drilling screws with 0.45" diameter EPDM sealing washers @ 18" o.c. along panel length. (See Figure 6)	36	122	143
7/8" Corrugated (24 gauge steel, 34.67" coverage)	Min. 16 ga (0.060-inch) Steel Spaced Supports	Minimum five (5) #12-14 x 1" long HWH self-drilling screws with $^5/_8$" diameter EPDM sealing washers across panel width at all supports as shown in Figure 7A. Sidelap fasteners are $^1/_4$-14 x $^7/_8$" long HWH self-drilling screws with 0.45" diameter EPDM sealing washers @ 18" o.c. along panel length. (See Figure 7A)	36	68	103

(See Footnotes for Table 4 at top of next page)

Table 4 Footnotes:

For **SI:** 1 inch = 25.4 mm, 1 psf = 0.0479 kPa.

[1]Fasteners must be of sufficient length to penetrate through the support with a minimum of three threads protruding past the back side of the support.

[2]Indicates the maximum center-to-center spacing of spaced supports.

TABLE 5—FIRE CLASSIFICATION ASSEMBLIES

SYSTEM NO.	ROOF CLASS	SUBSTRATE[1]	MAX. ROOF SLOPE	ASSEMBLY DETAIL[2, 3, 4]	
1	A	Combustible	Unlimited	**Barrier Board:**	1/4 in. thick min. G-P Products DensDeck, United States Gypsum Co. SECUROCK Glass-Mat Roof Board (Type SGMRX), or National Gypsum DEXcell Glass Mat Roof Board, mechanically fastened with all joints staggered a min. of 6 in. from the plywood joints.
				Ply Sheet (Optional):	Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15 or 30 felt
				Panels:	7/8" Corrugated, Western Rib, PBR Panel, MS2, Thin Lock, Western Lock or Western Seam steel panels
2	A	Noncombustible	Unlimited	**Barrier Board:**	1/4 in. thick min. G-P Products DensDeck, United States Gypsum Co. SECUROCK Glass-Mat Roof Board (Type SGMRX), or National Gypsum DEXcell Glass Mat Roof Board
				Ply Sheet (Optional):	Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15 or 30 felt
				Panels:	7/8" Corrugated, Western Rib, PBR Panel, MS2, Thin Lock, Western Lock or Western Seam steel panels
3	A	Noncombustible	Unlimited	**Barrier Board:**	Min. 7/16-inch oriented strand board or min. 5/8-inch plywood over min. 1-inch-thick polyisocyanurate insulation board or min. 1-inch-thick polyisocyanurate composite board
				Ply Sheet (Optional):	Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15 or 30 felt
				Panels:	7/8" Corrugated, Western Rib, PBR Panel, MS2, Thin Lock, Western Lock or Western Seam steel panels
4	A	Noncombustible	Unlimited	**Insulation:**	Any UL Classified min. 1-inch-thick polyisocyanurate, glass fiber, perlite or wood fiber.
				Ply Sheet (Optional):	Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15 or 30 felt
				Panels:	7/8" Corrugated, Western Rib, PBR Panel, MS2, Thin Lock, Western Lock or Western Seam steel panels
5[5]	A	Noncombustible	Unlimited	**Panels:**	7/8" Corrugated, Western Rib, PBR Panel, MS2, Thin Lock, Western Lock or Western Seam steel panels
6	A	Combustible	Unlimited	**Underlayment:**	One layer GAF Versashield Fire-Resistant Roof Deck Protection (ESR-2053)
				Panels:	7/8" Corrugated, Western Rib, PBR Panel, MS2, Thin Lock, Western Lock or Western Seam steel panels
7	A	Combustible	Unlimited	**Underlayment:**	One layer GAF Versashield Fire-Resistant Roof Deck Protection (ESR-2053) and one layer Type 30 asphalt saturated organic felt
				Panels:	7/8" Corrugated or Western Lock copper panels
8	A	Combustible	Unlimited	**Underlayment:**	Two layers of GAF Versashield Fire-Resistant Roof Deck Protection (ESR-2053)
				Panels:	7/8" Corrugated, PBR Panel, Western Rib or Western Lock aluminum panels

For **SI:** 1 inch = 25.4 mm.

[1]Combustible substrates: Wood deck must be a minimum of 15/32-inch-thick (11.9 mm) plywood or non-veneer APA-rated 7/16-inch-thick (11.1 mm) oriented-strand board (OSB). Noncombustible substrates: Steel deck must be a minimum of No. 22 gauge [0.030 inch (0.76 mm)] galvanized steel or concrete decks must be minimum 2500 psi compressive strength.

[2]All foam plastic insulation must be UL-classified foam plastic for roofing systems and must be limited to the minimum thickness noted and the maximum thickness for which the flame spread index (in accordance with ASTM E84 or UL 723) is 75 or less. Polyisocyanurate foam plastic insulation must comply with ASTM C1289 and wood fiber board must comply with ASTM C208.

[3]Barrier or cover boards, ply sheets, underlayments, and panels must be UL-classified for roofing systems.

[4]The optional ply sheet must be UL Classified and either G1, G2, or G3 complying with UL55 or ASTM D226 Type I (No. 15) or Type II (No. 30) asphalt saturated organic felt.

[5]System No. 5 may be installed without a roof deck on noncombustible framing.

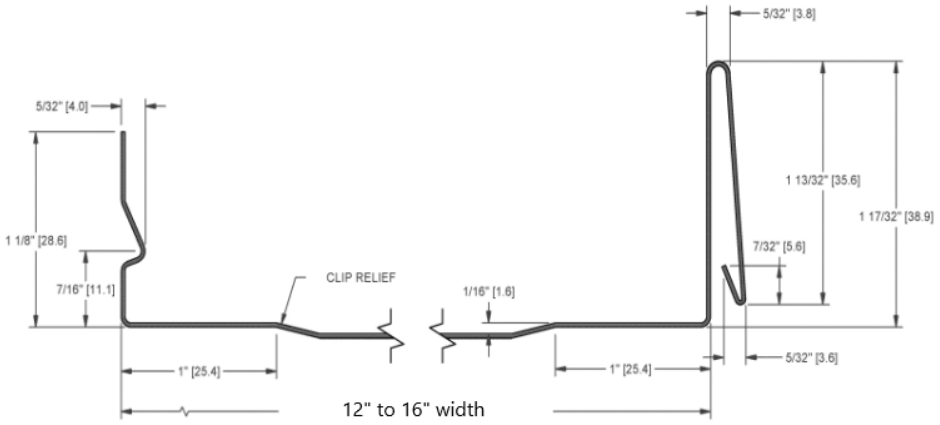

FIGURE 1A—THIN LOCK

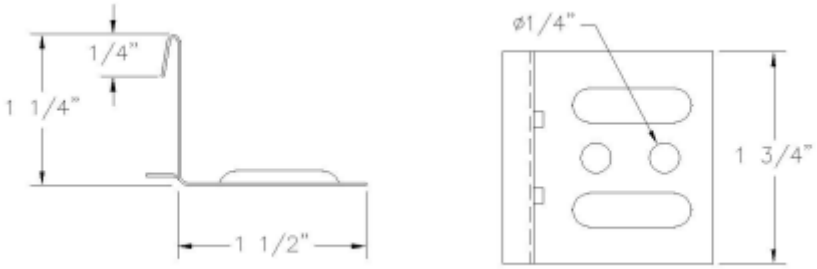

FIGURE 1B—THIN LOCK CLIP

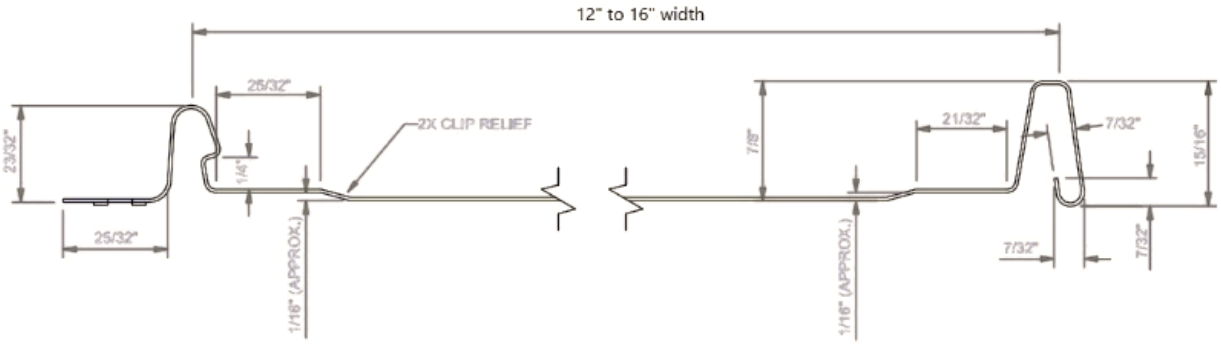

FIGURE 2—WESTERN SEAM

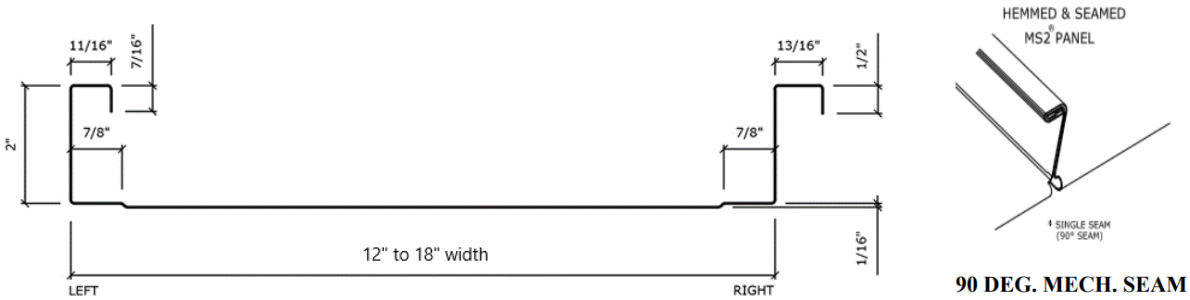

FIGURE 3A—MS2

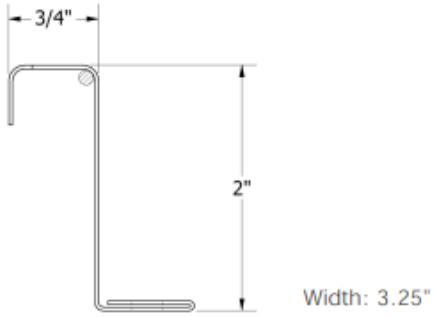

FIGURE 3B—MS2 CLIP

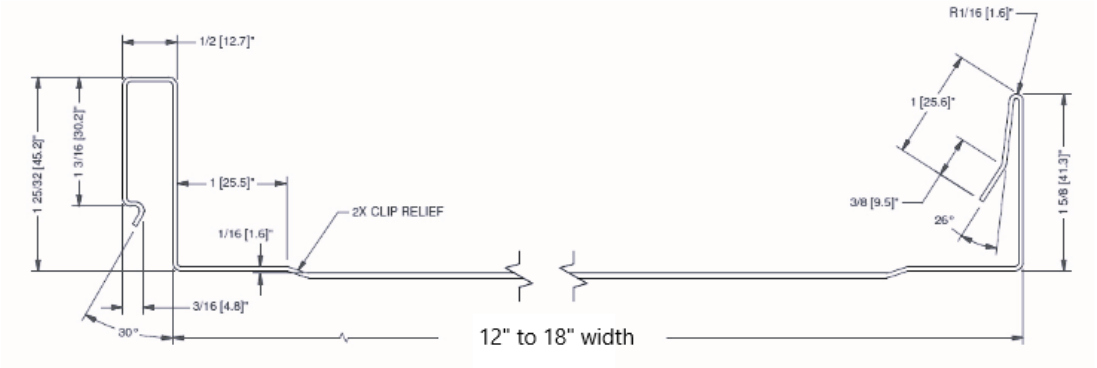

FIGURE 4A—WESTERN LOCK

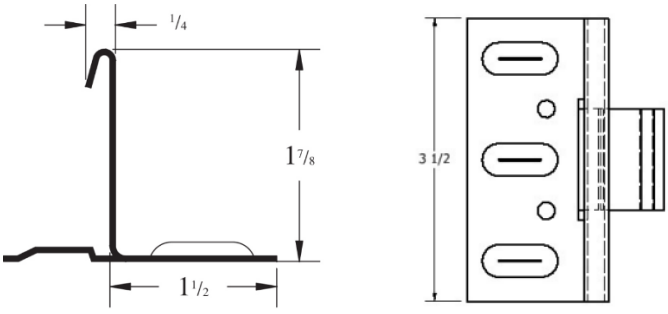

FIGURE 4B—WESTERN LOCK CLIP

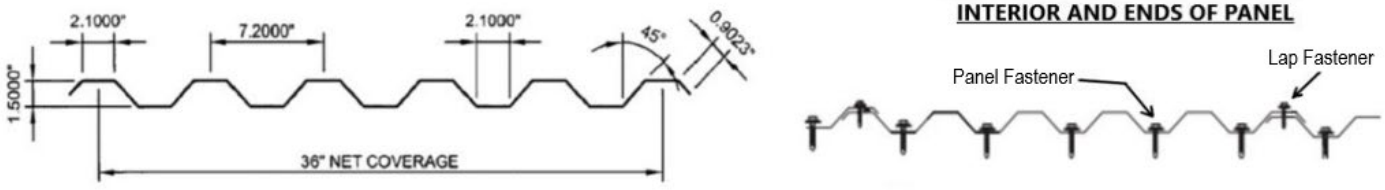

FIGURE 5—WESTERN RIB

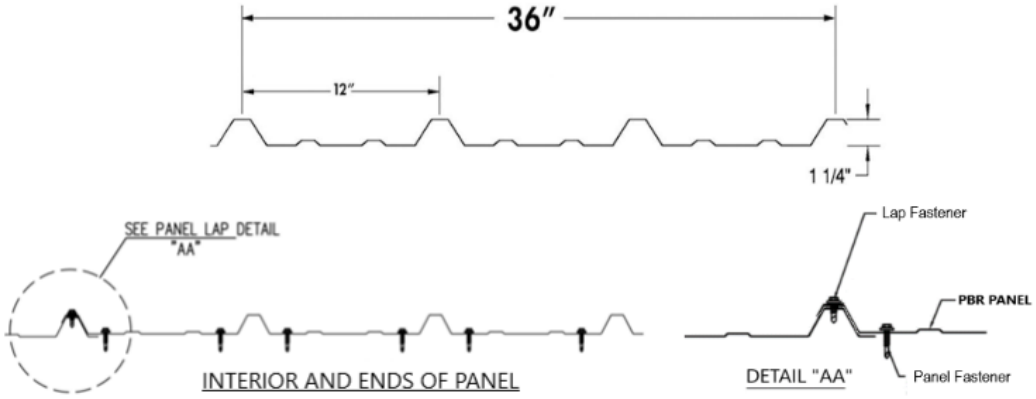

FIGURE 6—PBR PANEL

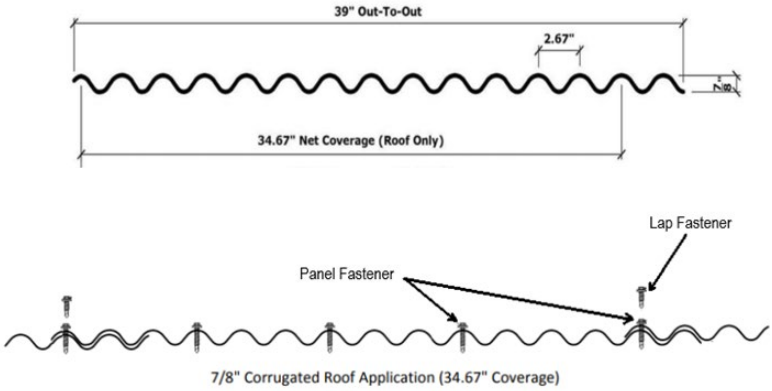

FIGURE 7A—7/8" CORRUGATED PANEL (34.67" COVERAGE)

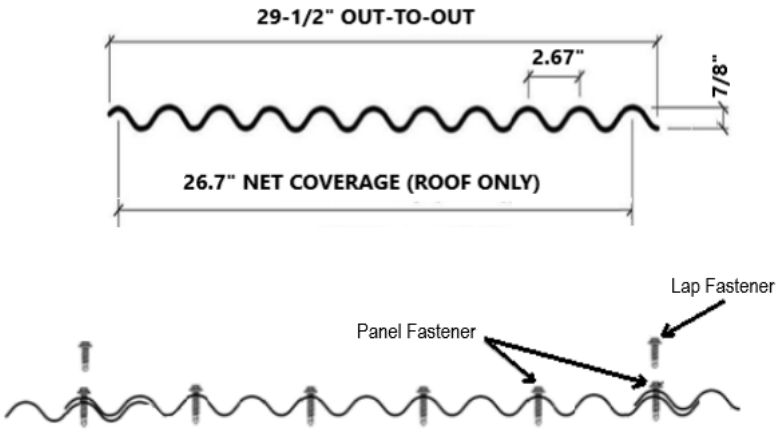

FIGURE 7B—7/8" CORRUGATED PANEL (26.7" COVERAGE)

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 41 13—Metal Roof Panels

REPORT HOLDER:

WESTERN STATES DECKING, INC. DBA WESTERN STATES METAL ROOFING

EVALUATION SUBJECT:

WESTERN STATES METAL ROOFING – METAL ROOF PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Western States Metal Roofing metal roof panels, described in ICC-ES evaluation report ESR-4729, have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2023 *City of Los Angeles Building Code (LABC)*
- 2023 *City of Los Angeles Residential Code (LARC)*

2.0 CONCLUSIONS

The Western States Metal Roofing metal roof panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-4729, comply with the LABC Chapter 15, and the LARC Chapter 9, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Western States Metal Roofing metal roof panels described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-4729.
- The design, installation, conditions of use and identification of the metal roof panels are in accordance with the 2021 *International Building Code®* (IBC) provisions noted in the evaluation report ESR-4729.
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.
- The Western States Metal Roofing metal roof panels must not be installed over existing wood shakes or wood shingles in accordance with LABC Section 1512.
- The installation of the Western States Metal Roofing metal roof panels must comply with City of Los Angeles Information Bulletin P/BC 2020-16, “Dwellings in High Wind Velocity Areas (HWA)”.

This supplement expires concurrently with the evaluation report, reissued November 2024.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 41 13—Metal Roof Panels

REPORT HOLDER:

WESTERN STATES DECKING, INC. DBA WESTERN STATES METAL ROOFING

EVALUATION SUBJECT:

WESTERN STATES METAL ROOFING – METAL ROOF PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Western States Metal Roofing metal roof panels, described in ICC-ES evaluation report ESR-4729, have also been evaluated for compliance with the codes noted below.

Applicable code edition*(s)*:

- 2022 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2022 *California Residential Code* (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Western States Metal Roofing metal roof panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-4729, may be used where the CBC requires a Class A roof covering complying with CBC Section 1505.1.1 or a Class C roof covering complying with CBC Section 1505.1.2, provided the design and installation are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 16 and 17, as applicable.

The products have not been evaluated under Chapter 7A for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Fire Area.

2.1.1 OSHPD: The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA: The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Western States Metal Roofing metal roof panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-4729, may be used where the CRC requires a Class A roof covering complying with CRC Section R902.1.1 or a Class C roof covering complying with CRC Section R902.1.2, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Section R905.4.

The products have not been evaluated under CRC Section R337 for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Fire Area.

The products included in this supplement have not been evaluated for compliance with the *International Wildland–Urban Interface Code*®.

This supplement expires concurrently with the evaluation report, reissued November 2024.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 41 13—Metal Roof Panels

REPORT HOLDER:

WESTERN STATES DECKING, INC. DBA WESTERN STATES METAL ROOFING

EVALUATION SUBJECT:

WESTERN STATES METAL ROOFING – METAL ROOF PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Western States Metal Roofing metal roof panels, described in ICC-ES evaluation report ESR-4729, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2023 *Florida Building Code—Building*
- 2023 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Western States Metal Roofing metal roof panels, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-4729, comply with the *Florida Building Code-Building* and *Florida Building Code-Residential*. The design requirements must be determined in accordance with the *Florida Building Code-Building* or the *Florida Building Code-Residential,* as applicable. The installation requirements noted in ICC-ES evaluation report ESR-4729 for the 2021 *International Building Code®* meet the requirements of the *Florida Building Code-Building* or the *Florida Building Code-Residential,* as applicable, with the following conditions:

1. Flashing must be in accordance with Section 1503.2 of the *Florida Building Code-Building* or Section R903.2 of the *Florida Building Code-Residential*, as applicable.
2. Gutters and roof downspouts must be installed in accordance with Section 1503.7 of the *Florida Building Code-Building* or Section R903.4.2 of the *Florida Building Code-Residential*, as applicable.
3. Fasteners must be in accordance with Section 1506.5, 1506.6 or 1506.7, as applicable, of the *Florida Building Code-Building* or Section R904.5 of the *Florida Building Code-Residential*, as applicable.
4. Underlayment and underlayment installation must be in accordance with Section 1507.1.1 of the *Florida Building Code-Building* or Section R905.1.1 of the *Florida Building Code-Residential*, as applicable.

Use of the Western States Metal Roofing metal roof panels for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code-Building* or the *Florida Building Code-Residential* has not been evaluated, and is outside the scope of this supplemental report.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued November 2024.