

ICC-ES Evaluation Report

ESR-4730

Reissued September 2024


This report also contains:

- LABC and LARC Supplement
- CBC and CRC Supplement
- FBC Supplement

Subject to renewal September 2025

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<p>DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION</p> <p>Section: 07 46 00— Siding</p>	<p>REPORT HOLDER:</p> <p>WESTERN STATES DECKING, INC.</p> <p>DBA – WESTERN STATES METAL ROOFING</p>	<p>EVALUATION SUBJECT:</p> <p>WESTERN STATES METAL ROOFING – METAL WALL PANELS</p>	
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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
- Physical Properties

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 steel and aluminum wall panels are used as an exterior veneer on exterior walls of Types I through V construction. The copper wall panels are used as an exterior veneer on exterior walls of Type V construction.

3.0 DESCRIPTION

3.1 General:

The Western States Metal Roofing metal wall panels are cold-formed from steel, aluminum or copper conforming to the product specifications, aluminum-zinc or zinc coatings, and thicknesses shown in [Table 1](#). See [Figures 1](#) through [8](#) for panel profile details.

The clips used to attach the Western Lock panels to the wall substrate are made from No. 18 gauge steel [minimum base-metal thickness of 0.048 inch (1.14 mm)] conforming to ASTM A653 HSLAS-F Grade 50 with a G90 coating in accordance with ASTM A653. See [Figure 8B](#) for the Western Lock clip details.

The attributes of the wall 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 may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. The code may provide supplemental information as guidance.

4.0 DESIGN AND INSTALLATION

4.1 Installation:

Installation of the wall panels must comply with the prescriptive requirements of IBC Section 1404.12 [Section 1404.11 of the 2021 and 2018 IBC (Section 1405.11 of the 2015 IBC)]; or Section R703.3 and Table R703.3(1) of the IRC; this report; and the manufacturer's published installation instructions.

4.2 Wind Resistance:

The Western States Metal Roofing metal wall panels must be backed by a solid substrate capable of withstanding the imposed positive and negative design wind loads. The substrate must be covered with an approved water-resistive barrier where required by the code. The allowable negative wind pressures for the metal wall panels are provided in [Table 2](#). Positive wind loads are limited to the capacity of the supporting substrate and framing.

The fasteners used to attach the metal wall panels to the wall substrate must be corrosion resistant screws and must be designed by a registered design professional. See [Table 2](#) for panel fastening pattern and maximum spacing details.

Panel side-lap fasteners used with the 7/8" Corrugated, PBR Panel and Western Rib wall panels must be corrosion resistant 1/4-14 x 7/8-inch-long self-drilling hex-washer-head screws with 0.45" diameter EPDM sealing washers. See [Table 2](#) for additional details.

5.0 CONDITIONS OF USE:

The Western States Metal Roofing metal wall panels described in this report complies with, or is a suitable alternative 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, the most stringent governs.
- 5.2 The Western States Metal Roofing metal wall panels must be backed by a solid substrate.
- 5.3 A water-resistive barrier must be provided as required by the applicable code.
- 5.4 For the steel wall panels, where installed on noncombustible substrate (such as steel, concrete or masonry) of exterior walls greater than 40 feet in Types I, II, III or IV construction and the only combustible material is the water-resistive barrier, the water-resistive barrier must comply with Exception 1 of IBC Section 1402.6 [2021 and 2018 IBC Section 1402.5 Exception 1 (2015 IBC Section 1403.5 Exception 1)]. For the aluminum wall panels, where installed on a noncombustible substrate (such as steel, concrete or masonry) of exterior walls greater than 40 feet in Types I, II, III or IV construction and the only combustible material is the water-resistive barrier, the water-resistive barrier must comply with Exception 2 of IBC Section 1402.6 [2021 and 2018 IBC Section 1402.5 Exception 2 (2015 IBC Section 1403.5 Exception 2)].
- 5.5 Design wind pressures must not exceed the allowable wind pressures listed in [Table 2](#).
- 5.6 The allowable wind pressures in [Table 2](#) are for the wall panels only. The substrate and framing to which the Western States Metal Roofing metal wall panels are attached must be designed for the applicable components and cladding wind loads in accordance with the IBC or IRC, as applicable.
- 5.7 Calculations demonstrating that the design wind pressures are less than the allowable wind pressures must be submitted to the code official.
- 5.8 The fasteners by which the Western States Metal Roofing metal wall panels are attached to the wall substrate must be designed for the applicable positive and negative wind loads.
- 5.9 The metal wall panels are manufactured under an approved quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1 Manufacturer's descriptive literature and installation instructions.

- 6.2 Documentation in accordance with the American Architectural Manufacturer’s Association Standard Specifications for Aluminum Siding, Soffit and Fascia (AAMA 1402).
- 6.3 Data in accordance with ASTM E330.
- 6.4 Data in accordance with ASTM E136.
- 6.5 Quality documentation in accordance with [ICC-ES Acceptance Criteria for Quality Documentation \(AC10\)](#).

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-4730) 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 wall 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
PHOENIX, ARIZONA 85007
(877) 787-5467
www.westernstatesmetalroofing.com
sales@westernstatesmetalroofing.com

TABLE 1—WESTERN STATES METAL ROOFING METAL WALL PANEL SPECIFICATIONS

PANEL	MATERIAL			MIN. THICKNESS (inch)
	Specification	Classification	Coating	
7/8" Corrugated, PBR Panel, Western Rib, Western Lock, Western Wave, T-8 Plankwall, Western Reveal-NR	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)
Narrow Groove	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	N/A	0.030 ⁽²⁾ (nominal 0.032")
	ASTM B370 (copper)	3/4 Hard, 20 oz/ft ²	N/A	0.0258 ⁽²⁾

For SI: 1 inch = 25.4 mm; 1 oz/ft² = 0.305 kg/m².

¹Value indicates the minimum coated steel thickness.

²Value indicates the minimum base metal thickness.

TABLE 2—ALLOWABLE NEGATIVE WIND PRESSURES

PANEL	FASTENING PATTERN ^{1,2}	Support Fastener Max. Spacing ³ (inch)	ALLOWABLE NEGATIVE PRESSURE (psf)
7/8" Corrugated (24 gauge steel, 37" coverage)	Minimum five (5) support fasteners with 7/16" diameter EPDM sealing washer spaced across panel width as shown in Fig. 1. Sidelap fasteners are 1/4-14 x 7/8-inch-long self-drilling HWH screws with 0.45" diameter EPDM sealing washer @ 18" max. along panel length. (See Fig. 1)	36	69
PBR Panel (24 gauge steel, 36" coverage)	Minimum six (6) support fasteners with 7/16" diameter EPDM sealing washer spaced across panel width as shown in Fig. 2. Sidelap fasteners are 1/4-14 x 7/8-inch-long self-drilling HWH screws with 0.45" diameter EPDM sealing washer @ 18" max. along panel length. (See Fig. 2)	36	83
Western Rib (24 gauge steel, 36" coverage)	Minimum five (5) support fasteners with 7/16" diameter EPDM sealing washer spaced across panel width as shown in Fig. 3. Sidelap fasteners are 1/4-14 x 7/8-inch-long self-drilling HWH screws with 0.45" diameter EPDM sealing washer @ 18" max. along panel length. (See Fig. 3)	36	69
Western Lock (24 gauge steel, max. 18" width)	Western Lock Clip with two (2) support fasteners per clip.	36	76
Western Wave (24 gauge steel, 16" width)	Support fastener at panel fastening flange.	12	76
Western Reveal-NR (24 gauge steel, max. 16" width)	Support fastener at panel fastening flange.	12	28
T-8 Plankwall (24 gauge steel, 8" width)	Support fastener at panel fastening flange.	12	48
Narrow Groove (24 gauge steel, max. 18" width)	Support fastener at panel fastening flange.	12	21
Narrow Groove (0.032" aluminum, max. 16" width)	Support fastener at panel fastening flange.	12	10
Narrow Groove (20 oz/ft ² copper, max. 16" width)	Support fastener at panel fastening flange.	12	17

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

¹Support fasteners used to attach the metal wall panels to the wall substrate must be designed by a registered design professional.

²HWH screw designation denotes hex washer head.

³Indicates maximum spacing of panel support fasteners or clips (for Western Lock panel) along panel length.

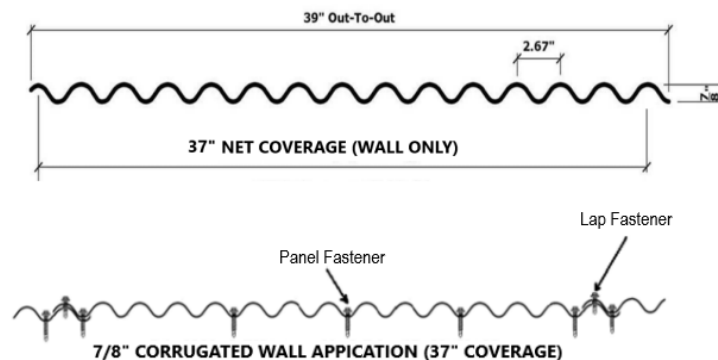


FIGURE 1—7/8" CORRUGATED PANEL

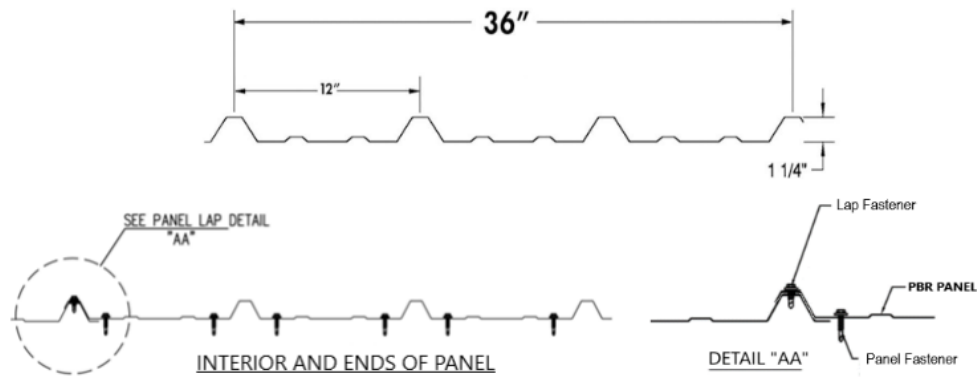


FIGURE 2—PBR PANEL

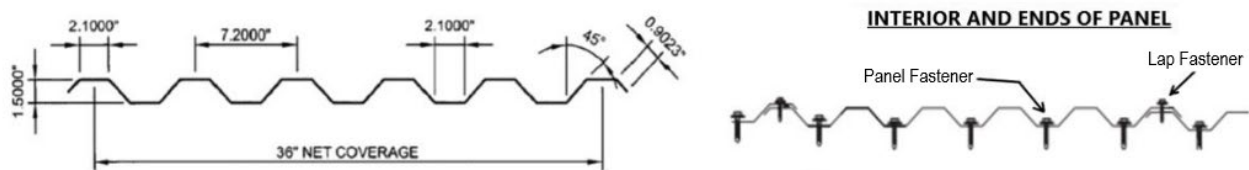


FIGURE 3—WESTERN RIB

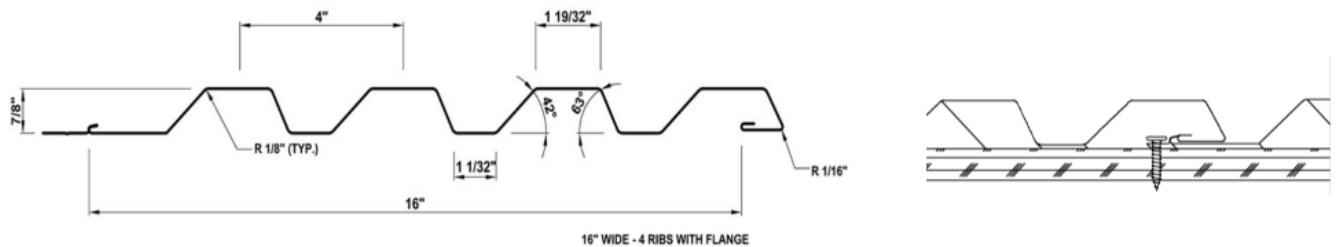


FIGURE 4—WESTERN WAVE

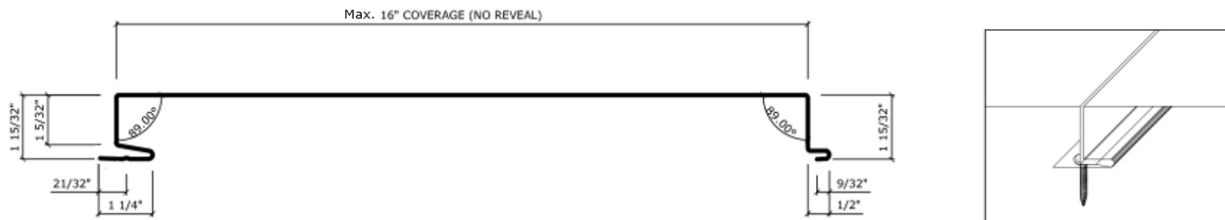


FIGURE 5—WESTERN REVEAL-NR

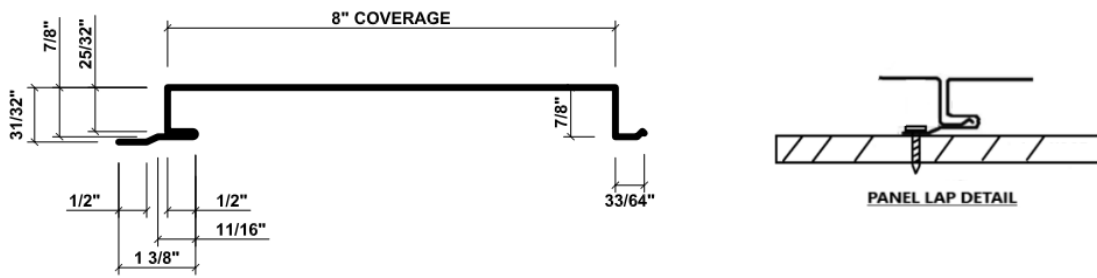


FIGURE 6—T-8 PLANKWALL

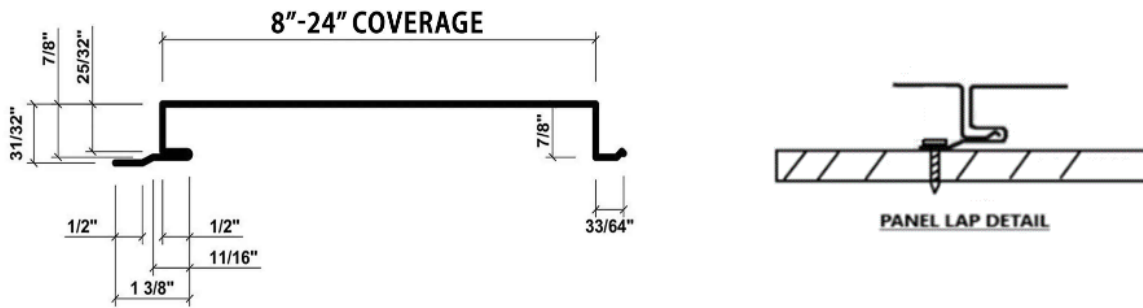


FIGURE 7—NARROW GROOVE



Also available are custom panel widths of: 12", 14", 16", 18", 20" and 24"

FIGURE 8A—WESTERN LOCK

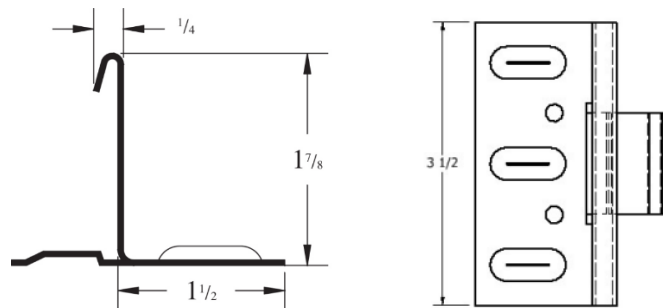


FIGURE 8B—WESTERN LOCK CLIP

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 46 00—Siding

REPORT HOLDER:

WESTERN STATES DECKING, INC. DBA – WESTERN STATES METAL ROOFING

EVALUATION SUBJECT:

WESTERN STATES METAL ROOFING – METAL WALL 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 wall panels, described in ICC-ES evaluation report [ESR-4730](#), 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 wall panels, described in Sections 2.0 through 7.0 of the evaluation report [ESR-4730](#), comply with the LABC Chapter 14, and the LARC, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

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

- All applicable sections in the evaluation report [ESR-4730](#).
- The design, installation, conditions of use and identification of the Western States Metal Roofing metal wall panels are in accordance with the 2021 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-4730](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.
- When determining required thickness, calculating strength or deflection, the exterior wall panels must not be considered as part of the backing in accordance with Section 1402.3 of the LABC.
- Under the LARC, an engineered design in accordance with LARC Section R301.1.3 must be submitted.

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

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 46 00—Siding

REPORT HOLDER:

WESTERN STATES DECKING, INC. DBA – WESTERN STATES METAL ROOFING

EVALUATION SUBJECT:

WESTERN STATES METAL ROOFING – METAL WALL 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 wall panels, described in ICC-ES evaluation report ESR-4730, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 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 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 wall panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-4730, comply with CBC Chapter 14, 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 14, 16 and 17, as applicable.

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 wall panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-4730, comply with CRC Chapter 7, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report and the applicable requirements of the CRC.

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

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 46 00—Siding

REPORT HOLDER:

WESTERN STATES DECKING, INC. DBA – WESTERN STATES METAL ROOFING

EVALUATION SUBJECT:

WESTERN STATES METAL ROOFING – METAL WALL 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 wall panels, described in ICC-ES evaluation report ESR-4730, 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 wall panels, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-4730, 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-4730 for the 2021 *International Building Code*® meet the requirements of the *Florida Building Code-Building* or the *Florida Building Code-Residential*, as applicable.

Use of the Western States Metal Roofing metal wall 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).

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