



## ICC-ES Evaluation Report ESR-5045

Issued April 2023

Revised September 2023

*This report is subject to renewal April 2024.*

### DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 46 16—Aluminum Siding

Section: 07 46 19—Steel Siding

### REPORT HOLDER:

TAYLOR METAL INC. (dba TAYLOR METAL PRODUCTS)

### EVALUATION SUBJECT:

**TMP METAL SIDING**

### 1.0 EVALUATION SCOPE

#### 1.1 Compliance with the following codes:

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

For evaluation for compliance with codes adopted by Los Angeles Department of Building Safety (LADBS), see [ESR-5045 LABC and LARC Supplement](#).

For evaluation for compliance with codes adopted by 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 [ESR-5045 CBC and CRC Supplement](#)

#### Properties evaluated:

- Structural
- Transverse wind load
- Air Leakage
- Water Resistance

#### 1.2 Evaluation of the following green code:

- 2019 California Green Building Standards Code (CALGreen), Title 24, Part 11

#### Attributes verified:

See Section 3.1.

### 2.0 USES

The TMP metal siding are used as an exterior veneer on exterior walls and soffits of all types of construction.

### 3.0 DESCRIPTION

**3.1 General:** The TMP metal siding (panels) are formed from cold-formed steel or aluminum conforming to the product specifications, galvalume or zinc coatings, and base-metal thicknesses noted in Table 1. The clips used to attach the siding to the supporting wall structure are made from materials conforming to the product specifications and base metal thicknesses noted in Table 2. See Figures 1-1 through 1-39 for metal siding. See Figures 2 and 3 for clip details.

The attributes of the metal siding 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. These codes or standards often provide supplemental information as guidance.

**3.2 Supporting Members:** The metal siding must be supported and attached to either cold-formed steel or wood supports as described in Section 3.2.1 and 3.2.2.

**3.2.1 Cold-formed Steel Framing:** The cold-formed steel framing members supporting the siding are C-shaped, Z-shaped or Hat-shaped, fabricated from a minimum 16 ga. [0.054-inch (1.372 mm) base-metal thickness] sheet steel, conforming to ASTM A653, minimum Grade 50 with a G90 zinc coating designation. The attachment of the siding to the steel support and the attachment of the steel support to the structure must be designed by registered design professional.

**3.2.2 Wood Support:** The wood members supporting the siding must be dimensional lumber or plywood sheathing. The plywood sheathing must have a minimum thickness of  $\frac{15}{32}$ -inch (11.9 mm) and a minimum span rating of 24/16, conforming to US DOC PS-1 in accordance with IBC Table 2303.1.5. The attachment of the siding to the wood support and the wood support to the structure must be designed by registered design professional.

**3.3 Fasteners:** The fasteners used to attach the metal siding to the supporting members must be corrosion resistant screws and sized as determined by the registered design professional. See Figures 1-1 through 1-40 and Table 3 for additional information.

## 4.0 DESIGN AND INSTALLATION

**4.1 Design:** The allowable wind pressures reported in Figures 1-1 through 1-39 must not be exceeded. The wall structure supporting the siding must be designed by a registered design professional to resist the applied forces resulting from the siding.

### 4.2 Installation:

**4.2.1 General:** Installation of the TMP metal siding must be in accordance with this report, IBC Section 1404.11 or IRC Section R703.3 and Table R703.3(1), and the manufacturer's published installation instructions. The manufacturer's installation instructions must be available at the jobsite at all times during installation.

The siding must be installed in accordance with the details provided in Figures 1-1 through 1-39 and Table 3 of this report. Siding panels may be installed vertically or horizontally.

**4.2.2 Water-resistive barrier:** Where required by code, a code-complying water-resistive barrier must be installed behind the siding.

**4.2.3 Air Leakage:** When tested in accordance with ASTM E283, the wall assembly constructed using the metal siding has an air leakage rate as indicated in Table 4 of this report. The siding must be installed in accordance with the provisions included in Table 3 of this report. The sidelap of the siding must be sealed with butyl tape or caulking sealant in accordance with manufacturer's installation instructions.

**4.2.4 Water Resistance:** When tested in accordance with ASTM E331, the wall assembly constructed using the metal siding show no water penetration as indicated in Table 3 of this report when subjected to a test period of 15 minutes. The siding must be installed in accordance with the provisions included in Table 3 of this report. The sidelap of the siding must be sealed with butyl tape or caulking sealant in accordance with manufacturer's installation instructions.

## 5.0 CONDITIONS OF USE

The Taylor Metal Products metal siding 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 the applicable code, this report and the manufacturer's published installation instructions. In the event of conflict between this report and the manufacturer's instructions, the most stringent governs.
- 5.2** A water-resistive barrier must be provided as required by the applicable code.
- 5.3** For the steel siding, 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 1402.5. For the aluminum siding, 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 2 of IBC Section 1402.5.

- 5.4** Design wind pressures must not exceed the allowable wind pressures listed in Figures 1-1 through 1-39.
- 5.5** The allowable wind pressures listed in Figures 1-1 through 1-39 are for the siding only. The wall structure to which the siding is attached must be designed by a registered design professional for the applicable components and cladding wind loads in accordance with the IBC or IRC, as applicable.
- 5.6** Calculations demonstrating that the required wind resistance is less than the allowable wind resistance must be submitted to the code official.
- 5.7** The metal siding are manufactured under an approved quality control program with inspections by ICC-ES.

## 6.0 EVIDENCE SUBMITTED

- 6.1** Manufacturer's product brochures and installation instructions.
- 6.2** Engineering calculations by a registered design professional.
- 6.3** Data in accordance with ASTM E136, ASTM E330, ASTM E1592, ASTM E283 and ASTM E331.
- 6.4** Quality documentation in accordance with the 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-5045) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- 7.2** In addition, the siding are identified with a label bearing the product name, the material type and the manufacturer's name (Taylor Metal, Inc.).
- 7.3** The report holder's contact information is the following:

**TAYLOR METAL, INC.  
(dba TAYLOR METAL PRODUCTS)  
4566 RIDGE DRIVE NE  
SALEM, OREGON 97301  
(503) 581-8338  
[www.taylormetal.com](http://www.taylormetal.com)**

TABLE 1—TAYLOR METAL SIDING SPECIFICATIONS

| PANEL                                     | MATERIAL               |   |   | MIN. BASE METAL THICKNESS (inch)   |
|---|------------------------|---|---|--|
|   | Specification          | Classification  | Coating                                 |  |
| PBR<br>36" width                          | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 80 (26 gauge only)                                | AZ50-Painted<br>AZ55-Unpainted<br>G90   | 0.018 (26 gauge)<br>0.0224 (24 gauge)<br>0.0281 (22 gauge)                       |
|   | ASTM B209              | 3003-H14  | N/A                                     | 0.032  |
| HR-34<br>34" width                        | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 80 (26 gauge only)<br>SS Grade 33 (20 gauge only) | AZ50- Painted<br>AZ55- Unpainted<br>G90 | 0.018 (26 gauge)<br>0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)  |
|   | ASTM B209              | 3003-H14  | N/A                                     | 0.032<br>0.040   |
| Classic 7/8 Corrugated<br>37.33" width    | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 80 (26 gauge only)                                | AZ50- Painted<br>AZ55- Unpainted<br>G90 | 0.018 (26 gauge)<br>0.0224 (24 gauge)<br>0.0281 (22 gauge)                       |
|   | ASTM B209              | 3003-H14  | N/A                                     | 0.032  |
| BR-36<br>36" width                        | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only)                         | AZ50- Painted<br>AZ55- Unpainted<br>G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
|   | ASTM B209              | 3003-H14  | N/A                                     | 0.032<br>0.040<br>0.050  |
| Contour Series<br>C-5<br>12" width        | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only)                         | AZ50- Painted<br>AZ55- Unpainted<br>G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0359 (20 gauge)<br>0.0451 (18 gauge) |
|   | ASTM B209              | 3003-H14  | N/A                                     | 0.032<br>0.040   |
| Contour Series<br>C-7/CR-A<br>12" width   | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only)                         | AZ50- Painted<br>AZ55- Unpainted<br>G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0359 (20 gauge)<br>0.0451 (18 gauge) |
|   | ASTM B209              | 3003-H14  | N/A                                     | 0.032<br>0.040   |
| Contour Series<br>C-8<br>12" width        | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only)                         | AZ50- Painted<br>AZ55- Unpainted<br>G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0359 (20 gauge)<br>0.0451 (18 gauge) |
|   | ASTM B209              | 3003-H14  | N/A                                     | 0.032<br>0.040   |
| Contour Series<br>C-1/CE-A<br>16" width   | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only)                         | AZ50- Painted<br>AZ55- Unpainted<br>G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0359 (20 gauge)<br>0.0451 (18 gauge) |
|   | ASTM B209              | 3003-H14  | N/A                                     | 0.032<br>0.040   |
| Contour Series<br>C-B (CE-B)<br>16" width | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only)                         | AZ50 Painted<br>AZ55- Unpainted<br>G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
|   | ASTM B209              | 3003-H14  | N/A                                     | 0.032<br>0.040   |
| Contour Series<br>C-C (CE-C)<br>16" width | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only)                         | AZ50 Painted<br>AZ55- Unpainted<br>G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |

| PANEL                                  | MATERIAL               |   |                                     | MIN. BASE METAL THICKNESS (inch)   |
|--|------------------------|---|-------------------------------------|--|
|  | Specification          | Classification                                    | Coating                             |  |
| Contour Series C-D (CE-D)<br>12" width | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series C-E (CE-E)<br>8" width  | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series C1-A<br>16" width       | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
|  | ASTM B209              | 3003-H14  | N/A                                 | 0.032<br>0.040   |
| Contour Series C1-B<br>12" width       | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
|  | ASTM B209              | 3003-H14  | N/A                                 | 0.032<br>0.040   |
| Contour Series C1-C<br>16" width       | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
|  | ASTM B209              | 3003-H14  | N/A                                 | 0.032<br>0.040   |
| Contour Series C1-D<br>12" width       | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series C-2<br>16" width        | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
|  | ASTM B209              | 3003-H14  | N/A                                 | 0.032<br>0.040   |
| Contour Series C2-A<br>12" width       | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series C2-B<br>12" width       | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series C2-C<br>12" width       | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series C-3<br>16" width        | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
|  | ASTM B209              | 3003-H14  | N/A                                 | 0.032<br>0.040   |
| Contour Series C-4<br>16" width        | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |

| PANEL  | MATERIAL               |   |                                      | MIN. BASE METAL THICKNESS (inch)   |
|--|------------------------|---|--------------------------------------|--|
|  | Specification          | Classification                                    | Coating                              |  |
| Contour Series C5-A<br>16" width                     | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series C-6<br>16" width                      | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
|  | ASTM B209              | 3003-H14  | N/A                                  | 0.032<br>0.040   |
| Contour Series C6-A<br>12" width                     | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series C8-A<br>12" width                     | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
|  | ASTM B209              | 3003-H14  | N/A                                  | 0.032<br>0.040   |
| Contour Series C8-B<br>16" width                     | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series CR-B<br>12" width                     | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series CR-C<br>12" width                     | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series CR-D<br>12" width                     | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| Contour Series CR-E<br>12" width                     | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50- Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0359 (20 gauge)<br>0.0451 (18 gauge) |
|  | ASTM B209              | 3003-H14  | N/A                                  | 0.032<br>0.040   |
| Contour Series CR-F<br>12" width                     | ASTM A792<br>ASTM A653 | SS Grade 50<br>SS Grade 33 (20 and 18 gauge only) | AZ50 Painted<br>AZ55- Unpainted G90  | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0341 (20 gauge)<br>0.0451 (18 gauge) |
| SmoothWall 100<br>12" and 12 <sup>5/8</sup> " widths | ASTM A792<br>ASTM A653 | SS Grade 50                                       | AZ50- Painted<br>AZ55- Unpainted G90 | 0.0224 (24 gauge)<br>0.0281 (22 gauge)<br>0.0359 (20 gauge)                      |
|  | ASTM B209              | 3003-H14  | N/A                                  | 0.032  |

For SI: 1 inch = 25.4 mm.

TABLE 2—TAYLOR METAL ROOF PANEL CLIP SPECIFICATIONS

| CLIP   | MATERIAL         |                                    |         | MIN. BASE STEEL THICKNESS (inch) |
|--|------------------|------------------------------------|---------|----------------------------------|
|  | Specification    | Classification                     | Coating |                                  |
| Standard Contour Clip                                    | Galvanized Steel | 18 ga. steel<br>ASTM A653 Grade 50 | G90     | 0.048                            |
| Standard Contour Express Clip                            | Galvanized Steel | 18 ga. steel<br>ASTM A653 Grade 50 | G90     | 0.048                            |
| High Wind Clips (SWC-12)<br>(SmoothWall/Lifetime Soffit) | Galvanized Steel | 16 ga. steel<br>ASTM A653 Grade 50 | G90     | 0.054                            |

For SI: 1 inch = 25.4 mm.

TABLE 3—AIR AND WATER LEAKAGE RESULTS FOR METAL SIDING PROFILES

| TAYLOR METAL SIDING PANEL   | SIDING SEAM INSTALLATION  | AIR LEAKAGE RESULTS PER ASTM E283   | WATER LEAKAGE RESULTS PER ASTM E331 |
|---|---|-------------------------------------|-------------------------------------|
| 36" wide PBR<br>Preparedtint 24 ga.<br>G-90 Galvanized  | No. 12 by 7/8-inch screws with nylon washers at 12 inches on center and continuous bead of butyl sealant installed per manufacturer's installation instructions           | <0.01 cfm/ft <sup>2</sup> at 25 psf | Pass at 50 psf for 15 minutes       |
| 36" wide BR-36<br>Preparedtint 24 ga.<br>G-90 Galvanized  | No. 12 by 7/8-inch screws with nylon washers and continuous bead of butyl sealant installed per manufacturer's installation instructions                                  | <0.01 cfm/ft <sup>2</sup> at 25 psf | Pass at 50 psf for 15 minutes       |
| 37.33" wide Classic 7/8 Corrugated<br>Preparedtint 24 ga.<br>G-90 Galvanized                            | No. 12 by 7/8-inch screws with nylon washers and continuous bead of butyl sealant installed per manufacturer's installation instructions                                  | 0.01 cfm/ft <sup>2</sup> at 25 psf  | Pass at 50 psf for 15 minutes       |
| 34" wide HR-34<br>Preparedtint 24 ga.<br>G-90 Galvanized  | No. 12 by 7/8-inch screws with nylon washers and continuous bead of butyl sealant installed per manufacturer's installation instructions                                  | <0.01 cfm/ft <sup>2</sup> at 25 psf | Pass at 50 psf for 15 minutes       |
| 16" wide Contour Series C-1/CE-A<br>(screw flange attachment)<br>Preparedtint 24 ga.<br>G-90 Galvanized | Installation of siding per manufacturer's installation instructions with continuous bead of butyl sealant installed at seams per manufacturer's installation instructions | <0.01 cfm/ft <sup>2</sup> at 12 psf | Pass at 20.5 psf for 15 minutes     |
| 16" wide Contour Series C-1/CE-A<br>(clip attachment)<br>Preparedtint 24 ga.<br>G-90 Galvanized         | Installation of siding per manufacturer's installation instructions with continuous bead of butyl sealant installed at seams per manufacturer's installation instructions | 0.07 cfm/ft <sup>2</sup> at 12 psf  | Pass at 20.5 psf for 15 minutes     |
| 12" wide SmoothWall<br>Preparedtint 24 ga.<br>G-90 Galvanized   | Installation of siding per manufacturer's installation instructions with continuous bead of butyl sealant installed per manufacturer's installation instructions          | 0.01 cfm/ft <sup>2</sup> at 25 psf  | Pass at 25 psf for 15 minutes       |

For SI: 1 inch= 25.4 mm, 1 cfm/ft<sup>2</sup>= 5.08 l/s\*m<sup>2</sup>, 1 psf= 47.9 Pa.

## **NOTES TO ALLOWABLE NEGATIVE AND POSITIVE LOAD TABLES SHOWN IN FIGURES 1-1 THROUGH 1-39**

### **ALLOWABLE NEGATIVE LOAD TABLES**

1. Theoretical section properties for steel panels have been calculated per AISI S100 Specification for the Design of Cold-Formed Steel Structural Members. Theoretical section properties for aluminum panels have been calculated per Aluminum Design Manual.
2. Tabulated allowable negative load values are based on ASTM E1592 testing divided by a factor of safety of 2.0.
3. Tabulated allowable negative loads do not consider panel connection to structural support. The fastener connection strength must be determined by registered design professional.
4. The panels must be supported in accordance with Section 3.2 of this report.
5. Panels must be installed with the fastener and/or clip configuration shown in the corresponding figures.
6. The panel span for the PBR, HR-34, Classic Corrugated 7/8 and BR-36 metal siding panels represent the maximum supporting structure spacing. The panel span for the Contour Series and SmoothWall metal siding panels represent the maximum spacing for attachment of the flange to supporting structure along the seam.

### **ALLOWABLE POSITIVE LOAD TABLES**

1. Theoretical section properties for Steel panels have been calculated per 2020 AISI S100 North American Specification for the Design of Cold-Formed Steel Structural Member.  $I_{xx}$  and  $S_{xx}$  are effective section properties for deflection and bending.
2. Theoretical section properties for Aluminum panels have been calculated per 2020 Aluminum Design Manual (ADM).  $I_{xx}$  and  $S_{xx}$  are effective section properties for deflection and bending.
3. Tabulated allowable loads for Steel panels are calculated in accordance with 2020 AISI S100 specifications considering bending, shear, combined bending and shear and deflection. Tabulated allowable load considers a 3 or more equal span condition.
4. Tabulated allowable load does not address panel weight, fasteners, connection strength of supporting member. The connection of the panels to structural supports must be designed by registered design professional.
5. Allowable load includes web crippling. The panels are assumed to bear on a minimum support width of 2.5 inches (63 mm).
6. Tabulated load values are based on deflection limit at  $L/60$  in accordance with IBC Table 1604.3.
7. Tabulated allowable load values are based on analysis in accordance with 2020 AISI S100 and 2020 ADM.
8. No further increases are permitted to tabulated load values.
9. When panels are installed over solid or closely fitted sheathing, the capacity is limited to the capacity of the underlying sheathing.
10. The panel span for the PBR, HR-34, Classic Corrugated 7/8 and BR-36 metal siding panels represent the maximum supporting structure spacing. The panel span for the Contour Series and SmoothWall metal siding panels represent the maximum spacing for attachment of the flange to supporting structure along the seam.







































## SmoothWall/Soffit with High Wind Clip

### Panel profile and Fastening Schedule

Fasten High Wind Clips to the support structure with two (2) #14 screws in each end of the two slots. Fasten each panel screw flange to the High Wind Clip and into support structure with one (1) #10 screw.

#### NEGATIVE LOAD

| Width, in. | Gauge  | Yield ksi | Weight psf | SECTION PROPERTIES                      |   |   |   | ALLOWABLE UNIFORM LOADS, psf<br>For various clip spacings (i.e. span values) |   |       |       |       |      |      |
|------------|--------|-----------|------------|---|---|---|---|--|---|-------|-------|-------|------|------|
|            |        |           |            | Top in Compression                      |   | Bottom in Compression                   |   | Negative Load  |   |       |       |       |      |      |
|            |        |           |            | I <sub>xx</sub><br>in <sup>4</sup> /ft. | I <sub>xx</sub> (eff)<br>in <sup>4</sup> /ft. | S <sub>xx</sub><br>in <sup>3</sup> /ft. | I <sub>xx</sub><br>in <sup>4</sup> /ft. | I <sub>xx</sub> (eff)<br>in <sup>4</sup> /ft.                                | S <sub>xx</sub><br>in <sup>3</sup> /ft. | 2'    | 2.5'  | 3'    | 3.5' | 4'   |
| 12         | 24     | 50        | 1.31       | 0.0204                                  | 0.0241  | 0.0354                                  | 0.0332                                  | 0.0295   | 0.0388                                  | 140.5 | 119.7 | 98.9  | 78.1 | 57.3 |
| 12         | 22     | 50        | 1.61       | 0.0279                                  | 0.0322  | 0.0507                                  | 0.0429                                  | 0.0385   | 0.0502                                  | 156.1 | 135.3 | 114.5 | 93.7 | 72.9 |
| 12         | 20     | 33        | 1.86       | 0.0372                                  | 0.0418  | 0.0742                                  | 0.0531                                  | 0.0485   | 0.0633                                  | 156.1 | 135.3 | 114.5 | 93.7 | 72.9 |
| 12         | 18     | 33        | 2.42       | 0.0540                                  | 0.0586  | 0.0957                                  | 0.0700                                  | 0.0653   | 0.0853                                  | 156.1 | 135.3 | 114.5 | 93.7 | 72.9 |
| 12         | 0.032" | 19        | 0.53       | 0.0640                                  | 0.0640  | 0.0310                                  | 0.0640                                  | 0.0640   | 0.0786                                  | 98.9  | 83.2  | 67.6  | 52.0 | 36.4 |
| 12         | 0.040" | 19        | 0.76       | 0.0790                                  | 0.0790  | 0.3788                                  | 0.0790                                  | 0.0790   | 0.0966                                  | 98.9  | 83.2  | 67.6  | 52.0 | 36.4 |

#### POSITIVE LOAD

| Width, in. | Gauge  | Yield ksi | Weight psf | SECTION PROPERTIES                      |   |   |   | ALLOWABLE UNIFORM LOADS, psf<br>For various clip spacings (i.e. span values) |   |       |        |        |       |       |       |       |       |      |      |
|------------|--------|-----------|------------|---|---|---|---|--|---|-------|--------|--------|-------|-------|-------|-------|-------|------|------|
|            |        |           |            | Top in Compression                      |   | Bottom in Compression                   |   | Positive Load  |   |       |        |        |       |       |       |       |       |      |      |
|            |        |           |            | I <sub>xx</sub><br>in <sup>4</sup> /ft. | I <sub>xx</sub> (eff)<br>in <sup>4</sup> /ft. | S <sub>xx</sub><br>in <sup>3</sup> /ft. | I <sub>xx</sub><br>in <sup>4</sup> /ft. | I <sub>xx</sub> (eff)<br>in <sup>4</sup> /ft.                                | S <sub>xx</sub><br>in <sup>3</sup> /ft. | 1'    | 2'     | 3'     | 4'    | 5'    | 6'    | 7'    | 8'    | 9'   | 10'  |
| 12         | 24     | 50        | 1.89       | 0.0204                                  | 0.0241  | 0.0354                                  | 0.0332                                  | 0.0295   | 0.0388                                  | 263.6 | 131.8  | 87.9   | 55.3  | 35.4  | 24.6  | 18.1  | 13.8  | 10.9 |      |
| 12         | 22     | 50        | 2.21       | 0.0279                                  | 0.0322  | 0.0507                                  | 0.0429                                  | 0.0385   | 0.0502                                  | 391.8 | 195.91 | 130.61 | 78.44 | 50.2  | 34.86 | 25.61 | 19.61 | 15.5 | 12.6 |
| 12         | 20     | 33        | 2.69       | 0.0372                                  | 0.0418  | 0.0742                                  | 0.0531                                  | 0.0485   | 0.0633                                  | 400.9 | 200.45 | 117.22 | 65.9  | 42.2  | 29.3  | 21.53 | 16.5  | 13.0 | 10.6 |
| 12         | 18     | 33        | 3.48       | 0.0540                                  | 0.0586  | 0.0957                                  | 0.0700                                  | 0.0653   | 0.0853                                  | 664.6 | 332.3  | 158.0  | 88.85 | 56.87 | 39.49 | 29.01 | 22.21 | 17.6 | 14.2 |
| 12         | 0.032" | 19        | 0.52       | 0.0640                                  | 0.0640  | 0.0310                                  | 0.0640                                  | 0.0640   | 0.0786                                  | 47.3  | 23.6   | 15.8   | 11.8  |       |       |       |       |      |      |
| 12         | 0.040" | 19        | 1.14       | 0.0790                                  | 0.0790  | 0.3788                                  | 0.0790                                  | 0.0790   | 0.0966                                  | 73.6  | 36.8   | 24.6   | 18.4  | 14.7  | 12.3  | 10.52 |       |      |      |

HIGH WIND CLIP

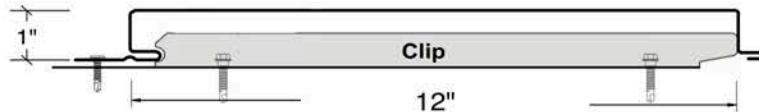
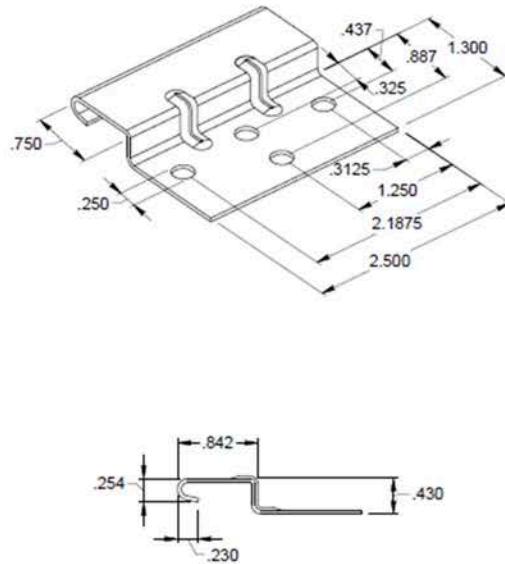


FIGURE 1-39 SMOOTHWALL/SOFFIT WITH HIGH WIND CLIP PANELS



## STANDARD CONTOUR CLIP

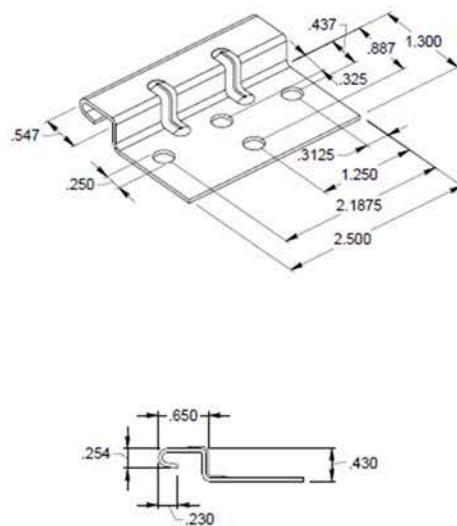
DIMENSIONS IN DECIMAL INCHES

TOLERANCE:  $\pm .010$ 

Manufactured for TMP by Clip Master

STANDARD CONTOUR  
EXPRESS CLIP

DIMENSIONS IN DECIMAL INCHES

TOLERANCE:  $\pm .010$ 

Manufactured for TMP by Clip Master

FIGURE 2- TMP CONTOUR SIDING CLIPS

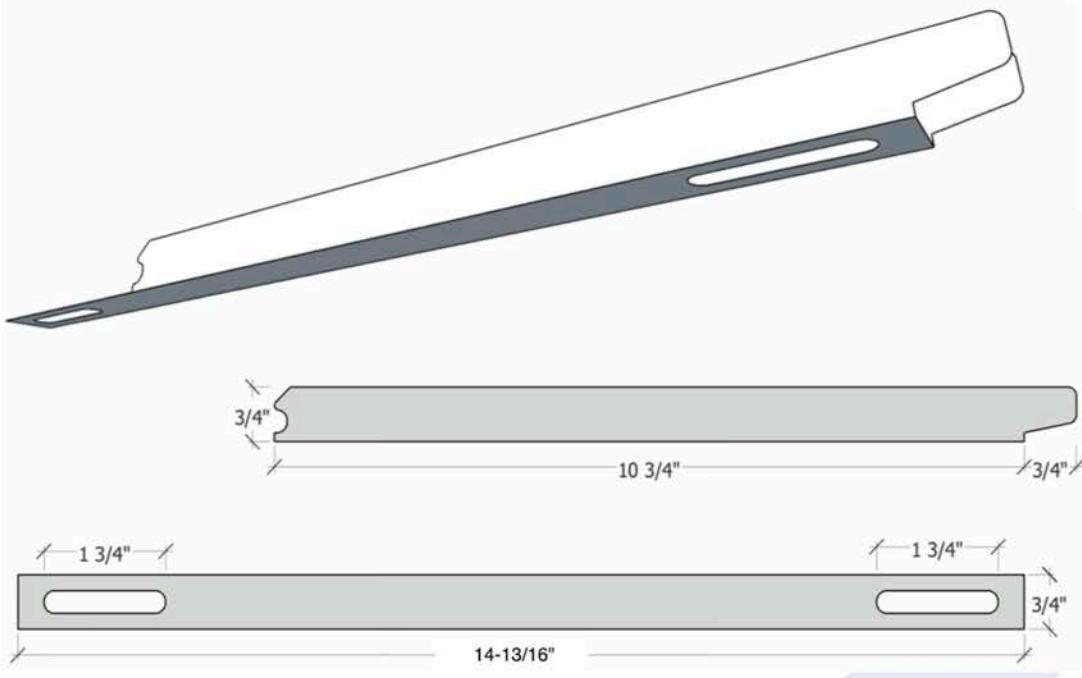


FIGURE 3- TMP SMOOTHWALL HIGH WIND CLIPS



ICC  
EVALUATION  
SERVICE®

## ICC-ES Evaluation Report

## ESR-5045 LABC and LARC Supplement

Issued April 2023

Revised September 2023

This report is subject to renewal April 2024.

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A Subsidiary of the International Code Council®

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 46 16—Aluminum Siding

Section: 07 46 19—Steel Siding

### REPORT HOLDER:

TAYLOR METAL, INC. (dba TAYLOR METAL PRODUCTS)

### EVALUATION SUBJECT:

TMP METAL SIDING

### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that TMP metal siding, described in ICC-ES evaluation report [ESR-5045](#), has 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 TMP metal siding, described in Sections 2.0 through 7.0 of the evaluation report [ESR-5045](#), complies with the LABC Chapter 14, and the LARC, and is subject to the conditions of use described in this supplement.

### 3.0 CONDITIONS OF USE

The TMP metal siding described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-5045](#).
- The design, installation, conditions of use and identification of the TMP metal siding are in accordance with the 2021 *International Building Code®* (IBC) provisions noted in the evaluation report [ESR-5045](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 14, 16 and 17, and LARC Section 703.3, as applicable.
- 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, issued April 2023 and revised September 2023.

Issued April 2023

Revised September 2023

This report is subject to renewal April 2024.

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A Subsidiary of the International Code Council®

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION****Section: 07 46 16—Aluminum Siding****Section: 07 46 19—Steel Siding****REPORT HOLDER:****TAYLOR METAL INC. (dba TAYLOR METAL PRODUCTS)****EVALUATION SUBJECT:****TMP METAL SIDING****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that TMP metal siding, described in ICC-ES evaluation report ESR-5045, has 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 TMP metal siding, described in Sections 2.0 through 7.0 of the evaluation report ESR-5045, complies 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 TMP metal siding, described in Sections 2.0 through 7.0 of the evaluation report ESR-5045, complies with CBC Chapter 14 with applicable amendments [OSHPD 1, 1R, 3, 4 and 5], 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, 16A, 17 and 17A, as applicable.

**2.1.2 DSA:**

The TMP metal siding, described in Sections 2.0 through 7.0 of the evaluation report ESR-5045, complies with CBC Chapter 14 with applicable amendments [DSA-SS, DSA-SS/CC], 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, 16A, and 17A, as applicable.

**2.2 CRC:**

The TMP metal siding, described in Sections 2.0 through 7.0 of the evaluation report ESR-5045, complies 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 additional requirements of CRC Chapter 3 and 7, as applicable.

This supplement expires concurrently with the evaluation report, issued April 2023 and revised September 2023.