ICC EVALUATION SERVICE

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# ICC-ES Evaluation Report
# ESR-2922

*Reissued February 2023*

*This report is subject to renewal February 2024.*

**DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES**
**Section: 06 50 00—Structural Plastics**

**REPORT HOLDER:**

**CERTAINTEED LLC**

**EVALUATION SUBJECT:**

**RESTORATION MILLWORK® EXTERIOR TRIM: TRIMBOARDS, SHEETS, BEADBOARD AND ONE-PIECE CORNERS**

## 1.0 EVALUATION SCOPE

### 1.1 Compliance with the following codes:

- 2021, 2018, 2015 and 2012 *International Building Code®* (IBC)
- 2021, 2018, 2015 and 2012 *International Residential Code®* (IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

**Properties evaluated:**

- Weather resistance
- Termite resistance
- Surface-burning characteristics
- Structural—negative transverse wind loads

### 1.2 Evaluation to the following green code(s) and/or standards:

- 2022 and 2019 California Green Building Standards Code (CALGreen), Title 24, Part 11
- 2020, 2015, 2012 and 2008 ICC 700 *National Green Building Standard™* (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

**Attributes verified:**

See Section 3.0

## 2.0 USES

Restoration Millwork® Exterior Trim Trimboards, Sheets, Beadboard and One-Piece Corners are used as nonload-bearing exterior trim for construction types in accordance with Section 5.2.

## 3.0 DESCRIPTION

Restoration Millwork® Exterior Trim Trimboards, Sheets, Beadboard and One-Piece Corners are rigid cellular PVC solid cross sections installed as corner boards, soffits, fascias, column wraps, door pilasters, frieze boards, nonload-bearing rake boards, architectural millwork, door trim and window trim.

The material is expanded rigid polyvinyl chloride with a small-cell micro-structure. Restoration Millwork® Trimboards, Sheets and One-Piece Corners are supplied in woodgrain and smooth surface textures. Restoration Millwork® Beadboard is supplied with a smooth surface. Restoration Millwork® Trimboards are available in nominal widths of 4 inches (102 mm) to 16 inches (406 mm) and nominal thicknesses of $^5/_8$ inch (16 mm), 1 inch (25 mm) and $^5/_4$ inches (32 mm). Restoration Millwork® Sheets are available in 4-foot (1.2 m) widths and in lengths of 8, 10, 12, 18 and 20 feet (2.4, 3.0, 3.7, 5.5 and 6.1 m), with actual thicknesses of $^3/_8$, $^1/_2$, $^5/_8$, $^3/_4$ and 1 inch (9.5, 12.7, 15.9, 19.1 and 25.4 mm). Restoration Millwork® Beadboard is available in $^1/_2$-inch-thick-by-5$^1/_8$-inch-wide-by-18-foot-long (12.7 mm by 130.1 mm by 5.4 m) segments, and 4-foot-by-8-foot wide (1.2 m by 2.4 m) sheets with a thickness of $^1/_2$ inch (12.7 mm). Restoration Millwork® One-Piece Corners are available in a nominal thickness of $^5/_4$ inches (31.8 mm) and nominal 4 inch (102 mm) and 6 inch (152 mm) outside corner sizes.

Restoration Millwork® Exterior Trim, at a maximum nominal thickness of 1 inch (25.4 mm), has a flame-spread index of not more than 200 when tested in accordance with ASTM E84.

Restoration Millwork® Exterior Trim has demonstrated equivalent termite resistance to that of an approved preservative-treated wood or naturally durable wood in accordance with the code.

The attributes of the Restoration Millwork® Exterior Trim have been verified as conforming to the provisions of (i) CALGreen Section A4.405.1(1) for prefinished building materials and Section A5.406.1.2 for reduced maintenance; (ii) ICC 700-2020, ICC 700-2015 and ICC 700-2012 Sections 602.1.6 and 11.602.1.6 for termite-resistant materials; (iii) ICC 700-2020 Sections 601.7 and 11.601.7 and ICC 700-2015 and ICC 700-2012 Sections 601.7, 11.601.7, and 12.1(A).601.7 for site-applied finishing

materials; and (iv) ICC 700-2008 Section 602.8 for termite-resistant materials and Section 601.7 for site-applied finishing materials. 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.

## 4.0 INSTALLATION

### 4.1 General:

Restoration Millwork® Exterior Trim Trimboards, Sheets, Beadboard and One-Piece Corners must be installed in accordance with the manufacturer's published installation instructions and this report. A copy of the instructions must be available at all times on the jobsite during installation. The instructions within this report must govern if there are any conflicts between the manufacturer's published installation instructions and this report.

### 4.2 Fasteners:

Nails must be stainless steel or hot-dipped galvanized. Fasteners must be approved 8d by $2^1/_2$-inch (63.5 mm) box nails or finish nails, and must be designed for wood trim and wood siding. Nails must have blunt points and full round heads. The nails must be long enough to penetrate the solid wood substrate a minimum $1^1/_2$ inches (38.1 mm). The nails located at board ends must be placed $^3/_4$ inch (19.1 mm) from the end of the board.

### 4.3 Wind Load Assemblies Using Restoration Millwork® Trimboards or Sheets:

**4.3.1 Assembly No. 1—Soffit:** Restoration Millwork® Trimboards or Sheets, with a minimum thickness of $^3/_4$ inch (19.1 mm), must be installed on minimum 2-by-4 wood framing, SPF stud grade (G = 0.42), spaced a maxi.

**4.3.2** mum of 24 inches (609 mm) on center. The Restoration Millwork® Trimboards or Sheets are placed with the long direction perpendicular to the wood framing and are fastened to the wood framing with 8d by $2^1/_2$-inch-long (63.5 mm) finish nails located 4 inches (101 mm) on center into each supporting framing member starting $^3/_4$ inch from the edge of the trim board. Trimboards or Sheets with a minimum thickness of $^3/_4$ inch (19.1 mm) have a maximum allowable design load of 21 psf (1.0 kN/m²) suction or negative pressure.

**4.3.3 Assembly No. 2—Sheet:** Restoration Millwork® Sheets, with a minimum thickness of $^3/_8$-inch (9.5 mm), must be installed on minimum 2-by-4 wood framing, SPF stud grade (G = 0.42), spaced 16 inches (406 mm) on center. The Restoration Millwork® Sheets are fastened to the wood framing with 8d by $2^1/_2$-inch-long (63.5 mm) finish nails located 4 inches (101 mm) on center around the perimeter and at each supporting framing member. Perimeter nailing must be located $^3/_4$ inch (19.1 mm) from the edge of the sheet. Sheets with a minimum thickness of $^3/_8$ inch (9.5 mm) have a maximum allowable design load of 55 psf (2.6 kN/m²) suction or negative pressure.

**4.3.4 Assembly No. 3—Trim:** Restoration Millwork®Trimboards, with a minimum thickness of $^5/_8$ inch (15.9 mm) and a maximum width of 12 inches (305 mm), must be installed on minimum $^7/_{16}$-inch-thick (11.1 mm) OSB sheathing over 2-by-4 wood framing, SPF stud grade (G = 0.42), spaced 16 inches (406 mm) on center. The Restoration Millwork® Trimboards are fastened through the OSB sheathing to the stud framing with 8d by $2^1/_2$-inch-long (63.5 mm) finish nails located 16 inches (406 mm) on center lengthwise. Three nails must be placed at each supporting stud member. Trimboards with a minimum thickness of $^5/_8$ inch (15.9 mm) have a maximum allowable design load of 26 psf (1.2 kN/m²) suction or negative pressure.

## 5.0 CONDITIONS OF USE

The Restoration Millwork® Exterior Trim Trimboards, Sheets, Beadboard, and One-Piece Corners 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** This evaluation report and the manufacturer's published installation instructions must be submitted at the time of permit application.

**5.2** The product is limited to the following construction types:

a. Nonload-bearing exterior trim on buildings of combustible nonfire-resistance-rated construction (Type VB) under the IBC.

b. All buildings permitted under the IRC.

**5.3** The product must be installed over solid backing material, such as approved exterior sheathing, which is covered with an approved water-resistive barrier or approved exterior wall covering, or as otherwise noted in Section 4.0 of this report.

**5.4** The products are manufactured under a quality control program with the inspections by ICC-ES.

## 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Rigid Cellular PVC Nonload-bearing Exterior Trim (AC227), dated December 2019 (Editorially revisedJuly 2021).

## 7.0 IDENTIFICATION

**7.1** Each package of Restoration Millwork® Exterior Trim Trimboards, Sheets, Beadboard, and One-Piece Corners described in this report must be labeled with the brand name (Restoration Millwork®), the CertainTeed LLC name, and the evaluation report number (ESR-2922).

**7.2** The report holder's contact information is the following:

**CERTAINTEED LLC**
**20 MOORES ROAD**
**MALVERN, PENNSYLVANIA 19355**
**(800) 233-8990**
**www.certainteed.com**

**DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES**
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**REPORT HOLDER:**

**CERTAINTEED LLC**

**EVALUATION SUBJECT:**

**RESTORATION MILLWORK® EXTERIOR TRIM: TRIMBOARDS, SHEETS, BEADBOARD AND ONE-PIECE CORNERS**

## 1.0 REPORT PURPOSE AND SCOPE

**Purpose:**

The purpose of this evaluation report supplement is to indicate that Restoration Millwork® Exterior Trim: Trimboards, Sheets, Beadboard and One-piece Corners, described in ICC-ES evaluation report ESR-2922, have also been evaluated for compliance with the codes noted below.

**Applicable code editions:**

- 2022 and 2019 *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 the State Architects (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2022 and 2019 *California Residential Code* (CRC)

## 2.0 CONCLUSIONS

### 2.1 CBC:

The Restoration Millwork® Exterior Trim: Trimboards, Sheets, Beadboard and One-piece Corners, described in Sections 2.0 through 7.0 of the evaluation report ESR-2922, comply with the CBC Chapter 14 provided the design and installation are in accordance with the 2021 and 2018 *International Building Code*® (IBC) provisions noted in the evaluation report.

**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 Restoration Millwork® Exterior Trim: Trimboards, Sheets, Beadboard and One-piece Corners, described in Sections 2.0 through 7.0 of the evaluation report ESR-2922, comply with the CRC Sections R701 and 703 provided the design and installation are in accordance with the 2021 and 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report.

This supplement expires concurrently with the evaluation report, reissued February 2023.

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## 1.0 REPORT PURPOSE AND SCOPE

**Purpose:**

The purpose of this evaluation report supplement is to indicate that Restoration Millwork® Exterior Trim, described in ICC-ES evaluation report ESR-2922, has also been evaluated for compliance with the codes noted below.

**Applicable code editions:**

- 2020 *Florida Building Code—Building*
- 2020 *Florida Building Code—Residential*

## 2.0 CONCLUSIONS

The Restoration Millwork® Exterior Trim, described in Sections 2.0 through 7.0 of the evaluation report ESR-2922, complies with the 2020 *Florida Building Code—Building* and 2020 *Florida Building Code—Residential*. The design requirements shall be determined in accordance with the *Florida Building Code—Building* and the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-2922 for the 2018 *International Building Code®* and 2018 *International Residential Code®* meet the requirements of the *Florida Building Code—Building* and the *Florida Building Code—Residential,* as applicable.

Use of the Restoration Millwork® Exterior Trim for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and *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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