



DIVISION: 04 00 00—MASONRY

Section: 04 73 00—Manufactured Stone Masonry

REPORT HOLDER:

SILVERMINE STONE OPERATING CO LLC

EVALUATION SUBJECT:

SILVERMINE STONE® VENEER

1.0 EVALUATION SCOPE

Compliance with the following codes:

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

Properties evaluated:

- Veneer unit strength and durability
- Transverse load resistance of the installed system
- Water penetration
- Interior finish classification

2.0 USES

Silvermine Stone® Veneer is a mortarless, mechanically attached, manufactured stone veneer used for installation over wood sheathing and framing on interior and exterior walls. The veneer system may also be used on structures regulated under the IRC, when an engineered design of the supporting structure is performed in accordance with IRC Section R301.1.3.

3.0 DESCRIPTION

3.1 General:

Silvermine Stone Veneer® consists of standard panels of precast concrete with aluminum flashing which is embedded in the concrete at the manufacturing facility. The concrete panels are each 6 inches (152 mm) high, 24 inches (610 mm) wide and nominally 1³/₄ inches (44 mm) thick. The flashing extends 8 inches (203 mm) above the concrete panel and is screwed to the supporting wall. Corners and other accessories are also available. The average saturated weight of the installed veneer does not exceed 15 pounds per square foot (73.2 kg/m²). The veneer is available in two architectural styles, designated Belterra and Mid-century Modern. See Figure 1 for a depiction of a typical veneer panel.

3.2 Manufactured Stone Panels:

Each panel is contoured to have the look of several pieces of stone. The material is concrete consisting of cement,

water, fine aggregate and admixtures as specified in the manufacturer's quality documentation. Pigment is applied to the surface of the manufactured stone panel.

3.3 Aluminum Flashing:

The aluminum flashing is cut from aluminum sheet complying with ASTM B209 Alloy 3105 H26 Temper and having a thickness of 0.016 inch (0.41 mm). The aluminum is bent and tabs are punched in the portion which is embedded into the back of the manufactured stone panel while the concrete is wet.

3.4 Screws:

Screws used to install veneer panels must be fully-threaded, No. 10 Pancake Head, Modified Truss Wafer Head, or Washer Head screws with major diameter of 0.188 inch (4.8 mm) and a minimum head diameter of 0.44 inch (11.2 mm). The screw length must be a minimum of 1.5 inches (38.1 mm). The screws must be corrosion resistant carbon steel screws or stainless steel screws, which are not supplied with the veneer panels. The screws must be capable of self-drilling through the aluminum flashing and into the wood without pilot holes.

3.5 Supporting Wall Construction:

The veneer has been evaluated for installation over 7/16-inch-thick or 1/2-inch-thick (11.1 or 12.7 mm) wood structural panel sheathing complying with DOC PS1 or PS2, fastened to wood studs spaced a maximum of 16 inches (406 mm) on center. If thicker panels are used the required fastener length will be increased accordingly.

4.0 DESIGN AND INSTALLATION

4.1 Design:

Silvermine Stone® Veneer without the use of construction adhesive has an allowable negative uniform transverse pressure of 65 psf (3,112 Pa). The wall sheathing must be designed to transfer the positive and negative pressure to the supporting studs. The wall framing must be designed to resist transverse loads and to limit out-of-plane wall deflection to L/240.

Silvermine Stone® Veneer has a flame spread index less than 10 and a smoke-developed index of 450 or less when tested in accordance with ASTM E84; therefore, the veneer meets all requirements for Class A interior finishes in accordance with IBC Section 803.1.

4.2 Installation:

Silvermine Stone® Veneer must be installed in accordance with this report and the report holder's published installation instructions. A copy of these instructions must be available on the jobsite at all times during installation.

A weather-resistive barrier complying with IBC Section 1403.2 must be installed prior to installation of the Silvermine Stone® Veneer in accordance with the report holder's published installation instructions.

Each full veneer unit must be fastened to the supporting wall with a minimum of three screws described in Section 3.4. The screws must be installed a minimum of 2 inches (51 mm) from each edge of the flashing, at roughly 1 inch (25 mm) above the concrete. At least one of the screws must be installed through the sheathing into the center of a stud.

Each course of veneer panels must be staggered a minimum of 4 inches (102 mm) relative to the course below. Veneer panels may be cut in the field in accordance with the manufacturer's published installation instructions.

Silvermine Stone® Veneer must be installed not less than 4 inches (102 mm) above the earth, not less than 2 inches (51 mm) above paved areas, and not less than 1/2 inch (12.7 mm) above exterior walking surfaces that are supported by the same foundation that supports the exterior wall.

Flashing must be installed around wall openings in accordance with the code and the manufacturer's installation instructions. Self-adhering flashing must be applied over the nailing flange on the vertical edges of the wall openings. Step flashing must be used for all vertical transitions and corners of the structure. Supplemental flashing must be installed behind each initial course in accordance with report holder's published installation instructions.

Construction adhesive recommended by the manufacturer must be supplied by others and should be installed as recommended by the manufacturer.

5.0 CONDITIONS OF USE

The Silvermine Stone® Veneer 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, this report governs.
- 5.2 The use of the manufactured stone veneer has been evaluated for use over wood sheathing and framing on interior and exterior walls.

5.3 The expected negative transverse pressure on the veneer system, determined in accordance with the IBC, must not exceed the allowable negative pressure described in Section 4.1.

5.4 Construction documents and calculations demonstrating that the design loads do not exceed the available strengths must be submitted to the code official. The calculations must be prepared by a registered design professional when required by statutes of the jurisdiction in which the project is to be constructed.

5.5 The veneer panels are manufactured under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1 Manufacturer's descriptive literature.
- 6.2 Data in accordance with applicable sections of the ICC-ES Acceptance Criteria for Adhered Manufactured Stone Veneer (AC51), dated June 2018 (editorially revised January 2021).
- 6.3 Reports of testing in accordance with ASTM C1354, ASTM E330, ASTM E331, and ASTM E84.
- 6.4 Calculations in accordance with NDS-2018 and ADM-2020.
- 6.5 Quality documentation in accordance with the ICC-ES Acceptance Criteria for Quality Documentation (AC10) dated January 2019.

7.0 IDENTIFICATION

- 7.1 Boxes of the manufactured stone veneer panels are identified with the manufacturer's name (Silvermine Stone Operating CO LLC), the product name (Belterra or Mid-century Modern) the manufacturing date and location, and the evaluation report number (ESR-4787).
- 7.2 The report holder's contact information is the following:

SILVERMINE STONE OPERATING CO LLC
2728 DAVEY STREET
EAU CLAIRE, WISCONSIN 54703
(715) 835-7595
www.silverminestone.com
info@silverminestone.com

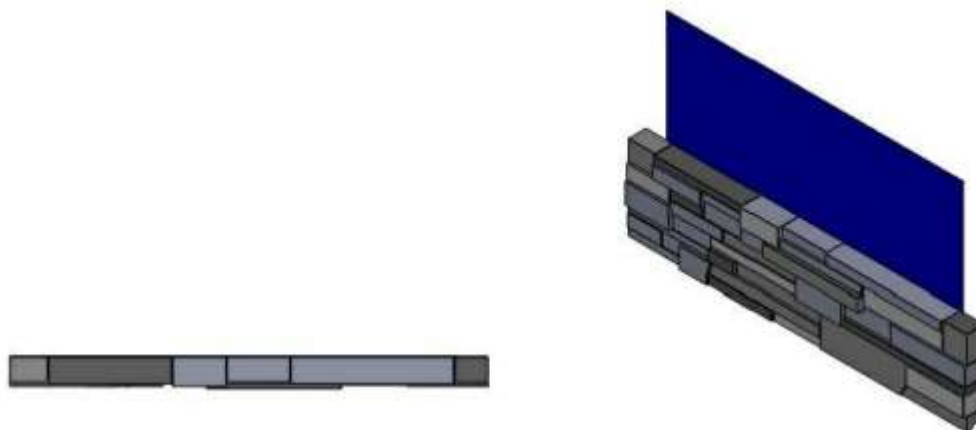


FIGURE 1—SILVERMINE STONE® VENEER PANEL AND ALUMINUM FLASHING

ICC-ES Evaluation Report

ESR-4787 CBC and CRC Supplement

Issued April 2022

This report is subject to renewal April 2023.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 04 00 00—MASONRY

Section: 04 73 00—Manufactured Stone Masonry

REPORT HOLDER:

SILVERMINE STONE OPERATING CO LLC

EVALUATION SUBJECT:

SILVERMINE STONE® VENEER

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Silvermine Stone® Veneer, described in ICC-ES evaluation report ESR-4787, has also been evaluated for compliance with the code(s) noted below.

Applicable code edition(s):

- 2019 *California Building Code* (CBC)

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

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Silvermine Stone® Veneer, described in Sections 2.0 through 7.0 of the evaluation report ESR-4787, complies with CBC Chapters 8, 14 and 21, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapter 8, 14, and 21, 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 Silvermine Stone® Veneer, described in Sections 2.0 through 7.0 of the evaluation report ESR-4787, complies with CRC Sections R301, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Chapter 3.

This supplement expires concurrently with the evaluation report, reissued April 2022.

DIVISION: 04 00 00—MASONRY

Section: 04 73 00—Manufactured Stone Masonry

REPORT HOLDER:

SILVERMINE STONE OPERATING CO LLC

EVALUATION SUBJECT:

SILVERMINE STONE® VENEER

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Silvermine Stone® Veneer, described in ICC-ES evaluation report [ESR-4787](#), has also been evaluated for compliance with the Chicago Construction Codes (Title 14 of the Chicago Municipal Code) as noted below.

Applicable code edition:

- 2019 *Chicago Building Code* (Title 14B)

2.0 CONCLUSIONS

The Silvermine Stone® Veneer, described in Sections 2.0 through 7.0 of evaluation report [ESR-4787](#), complies with Title 14B. It is subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Silvermine Stone® Veneer described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in evaluation report [ESR-4787](#).
- The design, installation, conditions of use and identification of the Silvermine Stone® Veneer must be in accordance with the 2018 *International Building Code*® (IBC) provisions noted in evaluation report [ESR-4787](#).
- The design, installation and inspection are in accordance with additional requirements of Chapters 14, 16 and 17 of Title 14B, as applicable.

This supplement expires concurrently with the evaluation report, reissued April 2022.

ICC-ES Evaluation Report

ESR-4787 FBC Supplement

Reissued April 2022

This report is subject to renewal April 2023.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 04 00 00—MASONRY

Section: 04 73 00—Manufactured Stone Masonry

REPORT HOLDER:

SILVERMINE STONE OPERATING CO LLC

EVALUATION SUBJECT:

SILVERMINE STONE® VENEER

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Silvermine Stone® Veneer, described in ICC-ES evaluation report ESR-4787, have 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 Silvermine Stone® Veneer, described in Sections 2.0 through 7.0 of the evaluation report ESR-4787, complies with the *Florida Building Code—Building* and the *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-4787 for the 2018 *International Building Code*® (IBC) meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable, provided the veneer has a clearance to the final earth grade on the exterior of the building as required by Section 1403.8 of the *Florida Building Code—Building* or Section R318.7 of the *Florida Building Code—Residential*, as applicable.

Use of the Silvermine Stone® Veneer for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential* has not been evaluated, and is outside the scope of this supplement report.

For products falling under Florida Rule G1G20-3, 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 April 2022.