

# ICC-ES Evaluation Report

**ESR-3088\***

Issued February 1, 2011

*This report is subject to renewal in one year.*
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**DIVISION: 04 00 00—MASONRY**  
**Section: 04 73 00—Manufactured Stone Masonry**

**REPORT HOLDER:**

**SUNCREST STONE, INC.**  
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**EVALUATION SUBJECT:**
**SUNCREST STONE VENEER**
**1.0 EVALUATION SCOPE**
**Compliance with the following codes:**

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)

**Properties evaluated:**

- Veneer strength and durability
- Surface burning characteristics

**2.0 USES**

Suncrest Stone Veneer is used as an adhered, non-load-bearing exterior veneer or interior finish on non-fire-resistance-rated wood-framed or light gage steel stud walls, concrete walls, concrete masonry walls, and clay brick masonry walls.

**3.0 DESCRIPTION**

Suncrest Stone Veneer is a precast concrete product made to resemble natural stone in color and in texture. The concrete is composed of cement, aggregate, water, admixtures and coloring. The veneer units are molded and cured at the plant. The average saturated weight of the installed veneer units does not exceed 15 pounds per square foot (73.2 kg/m<sup>2</sup>). Recognized patterns of the veneer are listed in Table 1.

The precast veneer has a Class A finish rating in accordance with IBC Section 803.1, and complies with the flame-spread and smoke-development requirements of IRC Section R315.

**4.0 INSTALLATION**
**4.1 General:**

Installation of Suncrest Stone Veneer must comply with this report, the manufacturer's published installation instructions, and the applicable code. The manufacturer's published installation instructions must be available at the

jobsite at all times during installation. The veneer may be applied over backings of cement plaster or concrete masonry.

**4.2 Preparation of Backing:**

**4.2.1 Cement Plaster Backings:** Cement plaster backings may be applied over plywood, OSB or gypsum sheathing, supported by wood or steel studs; over open wood or steel studs; over concrete walls; over concrete masonry unit (CMU) walls; and over clay brick masonry walls, when installed as described in Sections 4.2.1.1 through 4.2.1.3.

**4.2.1.1 Installation over Open Studs:** For exterior installations, the cement plaster backing must be installed over a water-resistive barrier, flashing and weep screeds as described in Section 4.2.1.1. Studs must be spaced no more than 16 inches (406 mm) on center. Lath must be a corrosion-resistant, 3.4 lb/yd<sup>2</sup> (1.8 kg/m<sup>2</sup>), 3/8-inch (9.5 mm) rib lath complying with ASTM C 847. The lath must be fastened to wall framing and the scratch coat applied as described in Section 4.2.1.1.

**4.2.1.2 Installation over Concrete and Masonry:** The veneer units may be applied directly to CMU backing without lath, provided the concrete masonry surface is clean. Lath is required for concrete walls (poured) and clay brick masonry walls. Where lath is used, it must be a corrosion-resistant, self-furred, 2.5 lb/yd<sup>2</sup> (1.4 kg/m<sup>2</sup>), diamond mesh metal lath complying with ASTM C 847. The lath must be fastened to the wall in accordance with Section 7.10 of ASTM C 1063, and IRC Section R703.6.1, as applicable. The fasteners must be spaced a maximum of 6 inches (152 mm) on center vertically and 16 inches (406 mm) on center horizontally. The gravity load (shear) capacity and negative wind load (pull-out) capacity of the proprietary fasteners must be justified to the satisfaction of the code official. The scratch coat must be applied as described in Section 4.2.1.1.

**4.2.2 Concrete Masonry Backing:** CMU wall surfaces must be prepared in accordance with Section 5.2 of ASTM C 926, and IBC Section 2510.7, as applicable. Alternatively, a cement plaster backing may be installed as described in Section 4.2.1.

**4.3 Application of Veneer Units:**

Prior to the application of the veneer units, the scratch coat or other backing and the back of the veneer units must be moistened in accordance with the manufacturer's instructions. A minimum 1/2-inch-thick (12.7 mm) setting bed of Type N or S mortar must be applied to the back of the veneer units, and the veneer units must be pressed firmly in place, squeezing the mortar out around all veneer

\*Revised March 2011

unit edges. Joints between veneer units must be grouted and tooled in accordance with the veneer manufacturer’s published installation instructions, if applicable.

**5.0 CONDITIONS OF USE**

The precast 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 precast stone veneer is limited to installation on walls with cement plaster or concrete masonry backings.
- 5.3 Expansion or control joints, used to limit the effect of differential movement of supports on the veneer system, are to be specified by the architect, designer or veneer manufacturer, in that order. Consideration must also be given to movement caused by temperature change, shrinkage, creep and deflection.
- 5.4 In jurisdictions adopting the IBC, the supporting wall must be designed to support the installed weight of the veneer system, including veneer, setting bed and cement plaster backing, as applicable. At wall

openings, the supporting members must be designed to limit deflection to  $1/600$  of the span of the supporting members.

- 5.5 In jurisdictions adopting the IRC, where the seismic provisions of IRC Section R301.2.2 apply, the average weight of the wall supporting the precast stone veneer, including the weight of the veneer system, must be determined. When this weight exceeds the applicable limits of IRC Section R301.2.2.2.1, an engineered design of the wall construction must be performed in accordance with IRC Section R301.1.3.

**6.0 EVIDENCE SUBMITTED**

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Precast Stone Veneer (AC51), dated February 2008.
- 6.2 Data in accordance with ASTM E 84.

**7.0 IDENTIFICATION**

Boxes of precast stone veneer units are identified with the manufacturer’s name (Suncrest Stone, Inc.), the pattern name, the manufacturing date and location, and the evaluation report number (ESR-3088).

**TABLE 1—RECOGNIZED PATTERNS**

PRODUCT	PATTERNS
Suncrest Stone Veneer	Ledge, Country Ledge, Rubble, River Rock, Splitface, Olde-Castle, Stack, Ashlar, Multi-Stone Trim Stone, Corners, Light Block, Hydrant Block, and Outlet Block