



ICC-ES Evaluation Report ESR-5273

Issued January 2025

Revised February 2024

This report is subject to renewal December 2026

DIVISION: 08 00 00—OPENINGS
Section: 08 62 00—Unit Skylights

REPORT HOLDER:

TAYLON SKYLIGHTS INC.

EVALUATION SUBJECT:

4896-ISP DOMED SKYLIGHTS

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)
- 2021, 2018 and 2015 *International Energy Conservation Code*® (IECC)

Properties evaluated:

- Structural
- Air infiltration
- Water penetration resistance
- Durability

2.0 USES

The 4896-ISP domed skylights are plastic-glazed non-openable unit skylights complying with IBC Section 2405 and 2610 and IRC Section R308.6.

3.0 DESCRIPTION

The 4896-ISP domed skylights are glazed using parabolic-shaped domes formed from 0.098-inch-thick (2.5 mm) flat sheets of Class CC1 polycarbonate plastic described in ICC-ES report [ESR-1893](#). The domes are factory-attached to a 6063-T5 aluminum extruded frame with a 6063-T5 aluminum extruded retainer cap. The connection is a mechanically fastened design between the frame and retainer cap using corrosion resistant #10-16 x ½ inch (12.7 mm) long hex head self-drilling screws 2½ inches (64 mm) from the corners and 12 inches (305 mm) on center equally spaced around the perimeter of the frame. The plastic dome is factory-adhered to the retainer cap with a high-performance silicone sealant. The unit skylight may have a 0.098-inch-thick (2.5 mm) Class CC2 acrylic inner

dome, as described in ICC-ES report [ESR-1260](#), when applicable. The unit skylight can be either a curb-mounted unit or self-flashing base unit, produced to fit 48-inch-wide-by-96-inch-long (1219 mm by 2438 mm) inside curb dimensions only. Details for skylights are noted in Figures 1 through 4.

4.0 DESIGN AND INSTALLATION

4.1 Design:

4.1.1 Allowable Loads: The allowable loads are expressed as performance grade rating values, PG. Under the IBC, the PG rating values must be equal to, or greater than, the maximum loads required by IBC Section 2405.5.2. Under the IRC, the PG rating values must be equal to, or greater than, the maximum loads determined in accordance with IBC Section 2405.5.2, except the design wind forces must be as specified for skylights in IRC Section R301.2.1. See Table 1 for allowable positive and negative PG rating values.

4.1.2 Air Infiltration: When tested at an air pressure differential of 1.57 psf (75 Pa), the skylights have an air leakage rate of less than 0.30 cfm/ft² (1.5 L/s·m²) as required in IECC Section C402.5.4 and Table C402.5.4 and IECC Section R402.4.3.

4.2 Installation: Installation must be in accordance with the manufacturer's published installation instructions, this report, and Sections 2405 and 2610 of the IBC and Section R308.6 of the IRC, as applicable. In the event of conflict between this report and the manufacturer's published installation instructions, this report governs.

The curb-mounted skylights must be installed on a wood curb of minimum nominally 2-by-6 lumber with a minimum specific gravity of 0.42, of a height sufficient so that the installation of the plastic dome is a minimum 4 inches (102 mm) above the plane of the finished roof. The wood curb and attachment to the roof structure must be designed to resist the appropriate code-prescribed loads. The self-flashing base unit is designed to mount directly to the roof deck assembly.

The curbs and/or roof deck must have a square and level mounting surface. A ½-inch-diameter (12.7 mm) of butyl sealant, silicone sealant, or an equivalent, must be applied to the top surface of the curb or deck before the skylight is set in place.

The skylight must be attached to the wood curb with either a 8d common nail, a #8-18 wood screw, or equivalent, must be used in each mounting hole, with the fastener length being sufficient to penetrate the wood curb or wood deck framing member a minimum of 1½ inches (38mm). When the skylight must be attached to a venting curb or a self-flashing base, a #10-16 corrosion-resistant hex washer head self-drilling screw, or equivalent, must be used in each mounting hole, with the screw length being sufficient to penetrate the self-flashing base or wood deck framing member a minimum of 1½ inches (38 mm).

Wood curb-mounted units must have the gap between the skylight frame and the wood curb fully shimmed. Flashing must comply with, and be installed in accordance with, IBC Section 1507 or IRC Section R905, as applicable.

Additional installation details for wood curb-mounted units are provided in Figures 1 and 2; for self-flashing base unit installation details, see Figure 3, and for venting curb unit installation details, See Figure 4.

5.0 CONDITIONS OF USE

The 4896-ISP domed skylights 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 The manufacturer's installation instructions must be available at the jobsite during installation.
- 5.2 The use of the skylights as components of fire-resistance-rated assemblies is outside the scope of this report.

5.3 Allowable loads do not exceed those noted in Table 1 of this report. Snow loads are outside the scope of this report.

5.4 The skylights are manufactured in Santa Ana, California under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Plastic Glazed Skylights (AC16), dated April 2020 (editorially revised August 2020).

7.0 IDENTIFICATION

7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5273) 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 skylight is identified by a label noting the Taylon Skylights Inc.'s name and address, the plastic classification (Class CC1), the plastic thickness before thermoforming, model designation, and date of manufacture. In addition to the identification label, a warning label complying with Class 1, ANSI Standard Z35.1 (warning of risk of fall) is applied to each skylight.

7.3 The report holder's contact information is the following:

TAYLON SKYLIGHTS INC.
2111 SOUTH ANNE STREET,
SANTA ANA, CALIFORNIA 92704
(949) 550-1010
<http://www.TaylonSkylights.com>

TABLE 1—DIMENSIONAL DETAILS AND PERFORMANCE GRADE FOR 4896-ISP DOMED SKYLIGHTS¹

MODEL NO.	PRODUCT DESIGNATION	INSIDE CURB DIMENSIONS (in. x in.)	DOME THICKNESS (in.)	DOME RISE (in.)	PERFORMANCE GRADE, PG, AND ALLOWABLE LOADS (PSF)		NUMBER OF RETAINER FASTENERS ²	NUMBER OF SKYLIGHT MOUNTING FASTENERS ³
					PG _{pos} (inward forces)	PG _{neg} (outward forces)		
4896-ISP	SKP-PG40 2546 mm x 1334 mm	48 x 96	0.108	15.702	40	40	32	28

For SI: 1 inch = 25.4 mm, 1 psf = 0.0479 kN/m²

¹Installation must comply with Section 4.0 and Figure 1.

²Retainer fasteners are #10-16 x 3/4-inch-long corrosion resistant hex washer head self-drilling sheet metal screws.

³Fasteners to attach skylights to wood curbs or wood roof framing members, with a specific gravity of 0.42, are either 8d common nails, #8-18 wood screws or equivalent, having sufficient length to penetrate the wood member curb or wood roof framing member a minimum of 1½-inches.

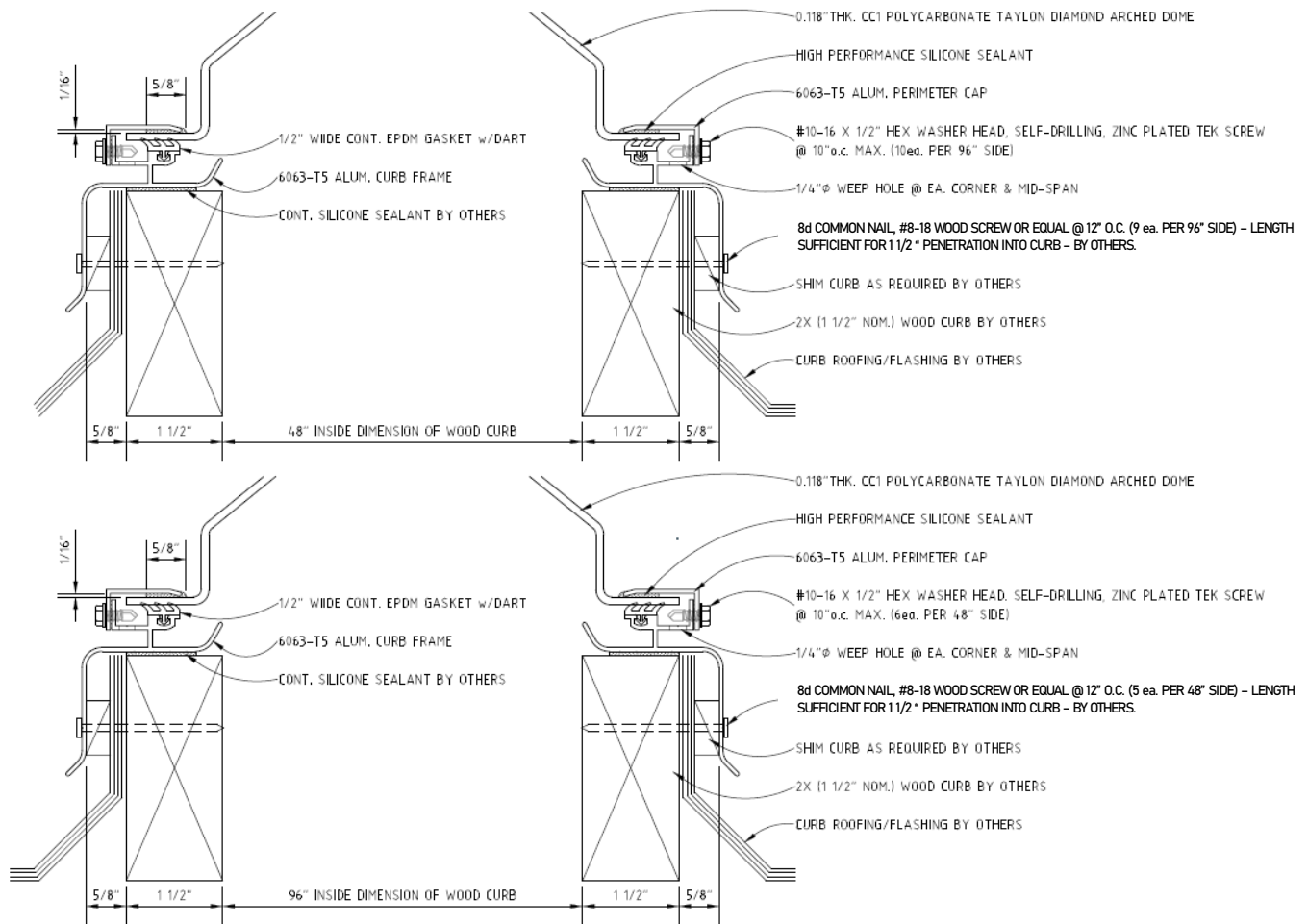


FIGURE 1 – SKYLIGHT INSTALLATION DETAILS FOR MODEL 4896-ISP

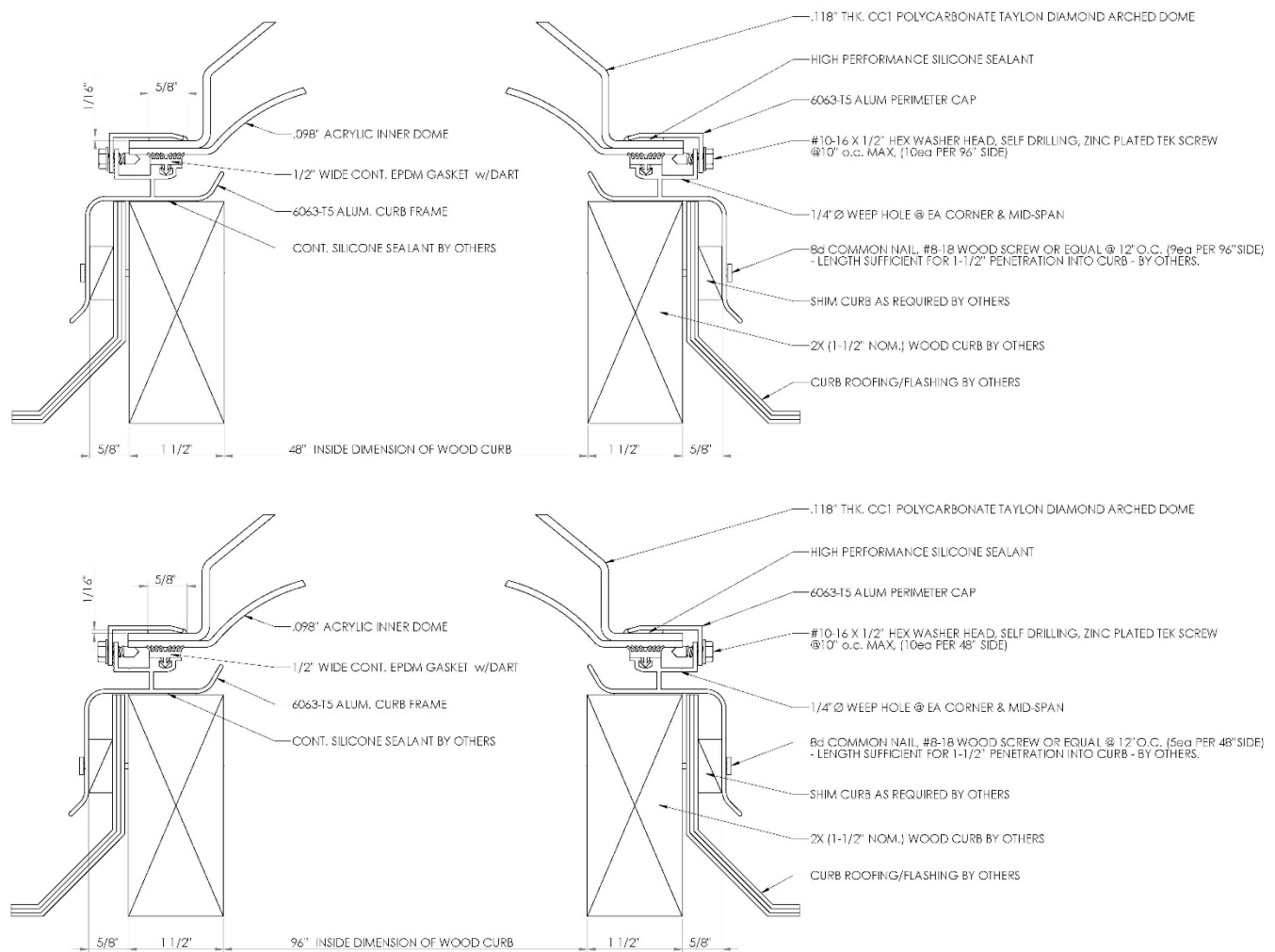


FIGURE 2 - SKYLIGHT INSTALLATION DETAIL FOR MODEL ISP2

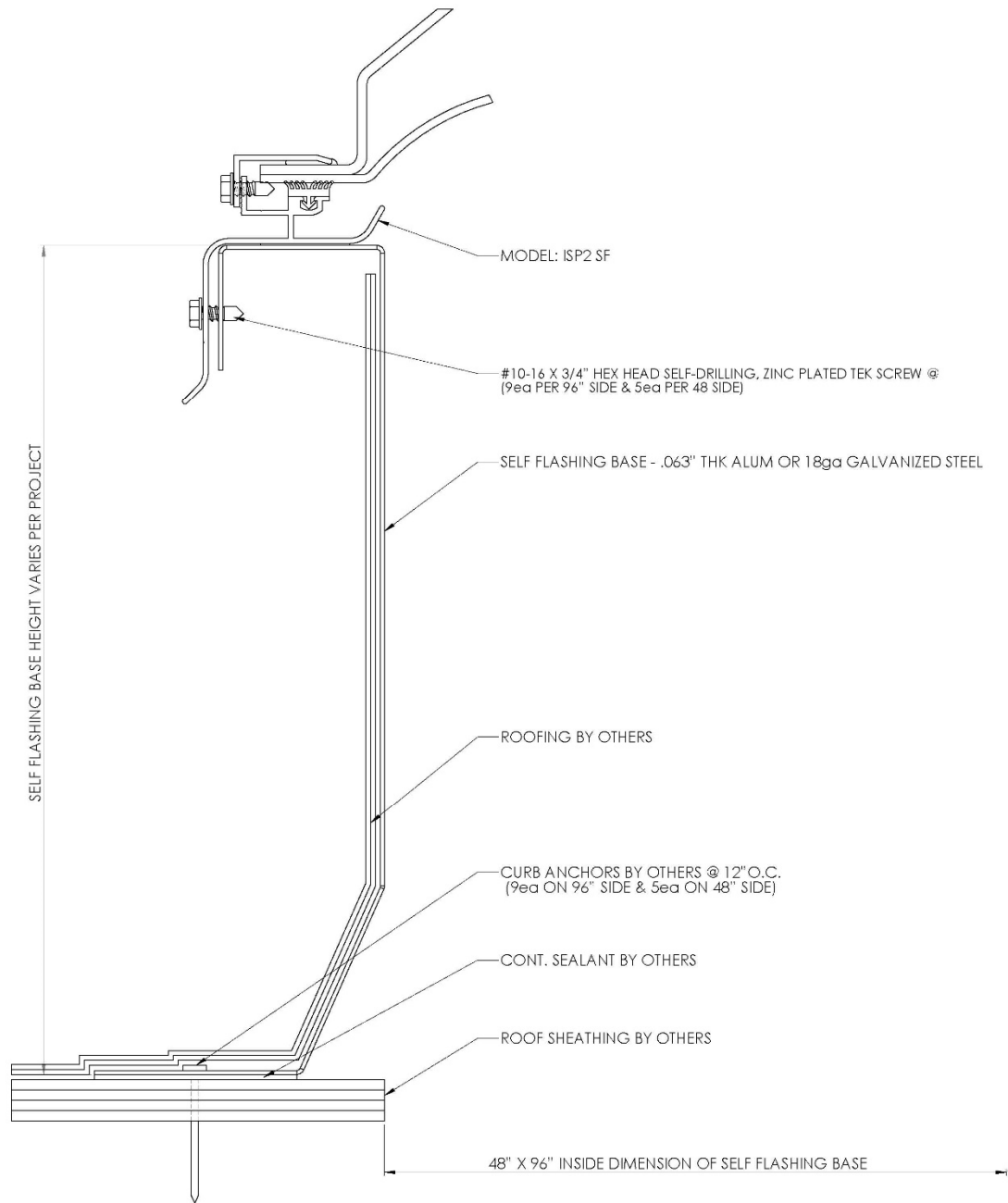


FIGURE 3 - SKYLIGHT INSTALLATION DETAILS FOR MODEL ISP SF / ISP2 SF

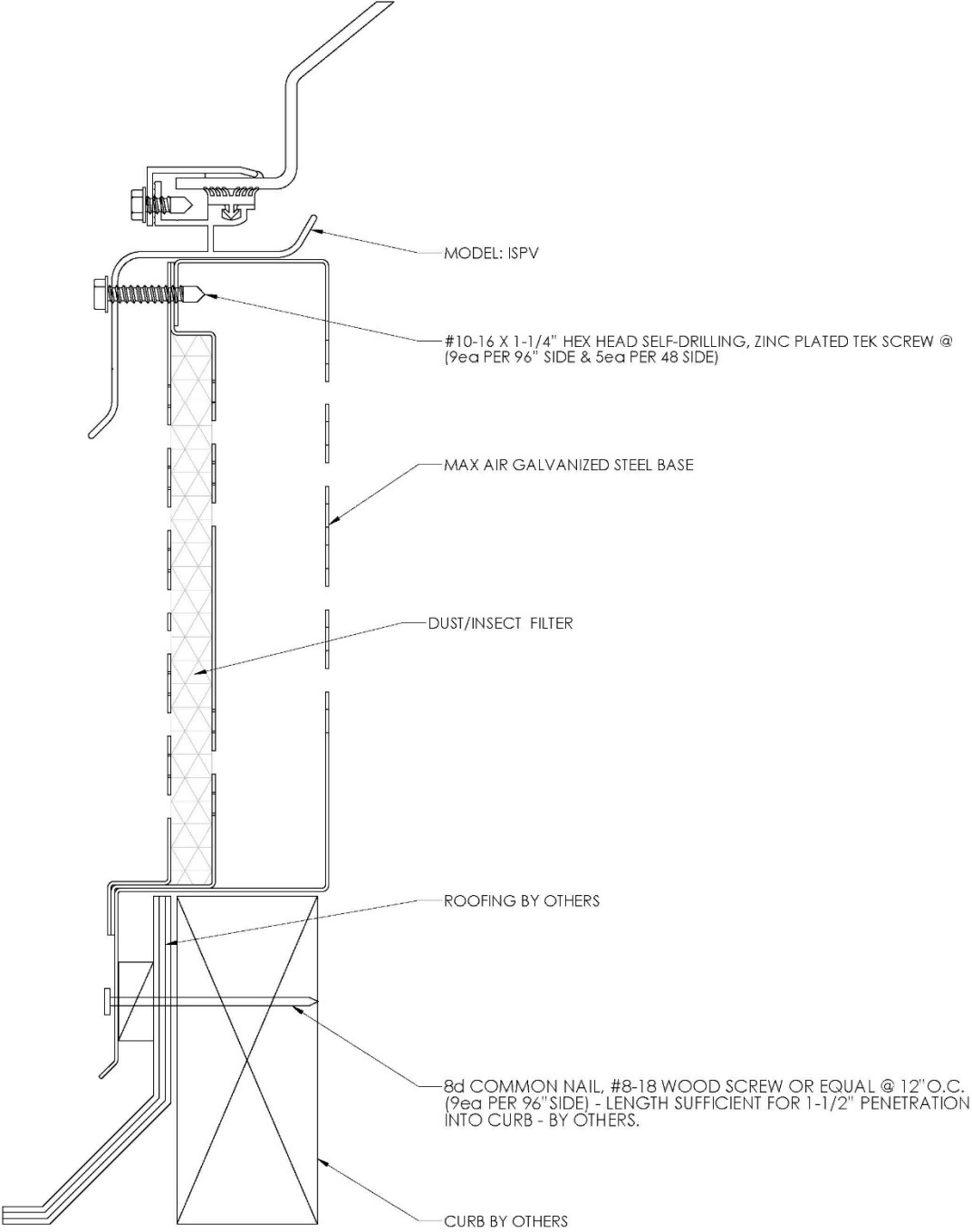


FIGURE 4 - SKYLIGHT INSTALLATION DETAILS FOR MODEL ISPV ON VENTING CURB