

## SECTION 07 72 10 – SKYLIGHT ROOF CURBS

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Prefabricated skylight roof curbs and roof curb accessories, for flat, low-slope and steep-slope roofing applications.

#### 1.2 RELATED REQUIREMENTS

- A. Division 07 roofing section for flashing and roofing terminations at skylight curbs.

#### 1.3 REFERENCE STANDARDS

- A. General: Applicable edition of references cited in this Section is current edition published on date of issue of Project specifications, unless otherwise required by building code in force.
- B. Code of Federal Regulations:
  - 1. 29 CFR 1910.23 (e) (8) - Occupational Safety and Health Standards for Walking-Working Surfaces to Guard Floor and Wall Openings and Holes

#### 1.4 COORDINATION

[Specifier: Retain option in paragraph below that corresponds to the type of curb used on Project.](#)

- A. Coordinate dimensions, locations, and details of skylight curbs [specified in Section 061053 "Miscellaneous Carpentry"] [specified in Section 077200 "Roof Accessories"] with skylight curb and curb accessories. Verify requirements for roofing system terminations.
- B. Coordinate skylight curb interior termination locations with structural layout, ceiling layouts, and other ceiling-mounted items.

#### 1.5 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site prior to delivery of skylight curbs and installation of roof deck.

#### 1.6 ACTION SUBMITTALS

- A. Shop Drawings: For skylight curb work and curb accessories. Include dimensions, elevations, sections, details, and connections to supporting structure and other adjoining work.

#### 1.7 WARRANTY

- A. Manufacturer's Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of skylights that fail in materials or workmanship under normal use within specified warranty period.
  - 1. Warranty Period:

- a. 5 Years: Aluminum curbs, internal safety screen accessory, internal security bars accessory, ventilation curb extension.
- b. 1 Year: Steel curbs

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide products of **VELUX America LLC**, Greenwood, SC 29648; [www.VELUXusa.com](http://www.VELUXusa.com); (800) 878-3589.

2.2 SKYLIGHT CURBS:

- A. Steel Curb: Curb width and length designation shall be [2448] [2496] [24120] [3636] [3660], [3672] [3696] [36120] [4848] [4860] [4872] [4896] [48120] [6060] [6072] [6096], [60120] [7272]. Curb height shall be [9] [12] [16] [18] inches and nominal curb thickness shall be 1.5 inches.

Specifier: VELUX recommends fall protection. All steel curbs provided with integral safety screen, unless indicated otherwise. Curbs are available without safety screens or security bars, but must be specified with no safety screen or security bars.

1. Factory Insulated Curb: Factory engineered steel curb fabricated from [18] [14] gauge galvanized steel with fully welded corners, all welds factory primed with galvanized paint, and continuous 2 inch by 2 inch nominal pressure treated wood nailer mounted to the top flange of the curb. Curb is factory insulated with 1.5 inch thick, 3 pound density fiberglass insulation. Interior liner of curb fabricated from 20 gauge steel and primed white. Curb roof mounting flange shall be a minimum of 3 inches in width. [Provide steel curb without safety screen or security bars.] [Steel insulated curb provided with integral [fall protection safety screen constructed from 0.1875 inch steel mesh with a 6 inch on center grid spacing] [security bars constructed from 0.5 inch cold rolled steel with a 8 inch on center grid spacing]]. Basis of Design: VELUX America LLC Model, CCA3.
2. Field insulated curb: Factory engineered steel curb fabricated from [18] [14] gauge galvanized steel with fully welded corners, all exterior welds factory primed with galvanized paint, and continuous 2 inch by 4 inch nominal pressure treated wood nailer mounted under the top flange of the curb. Space below nailer accepts 1.5 inch thick field installed insulation. Curb roof mounting flange shall be a minimum of 3 inches in width. [Provide steel curb without safety screen or security bars.] [Steel insulated curb provided with integral [fall protection safety screen constructed from 0.1875 inch steel mesh with a 6 inch on center grid spacing] [security bars constructed from 0.5 inch cold rolled steel with a 8 inch on center grid spacing]]. Basis of Design: VELUX America LLC, Model CCA6.

Specifier: Aluminum curb shipped separate from skylight or pre-attached to skylight. CCAM double wall insulated aluminum curbs can be made in custom sizes to a maximum of 102 inches by 150 inches. CCAM custom sizes manufactured in minimum increments of ¼ inch, such 0, ¼, ½, ¾.

- B. Aluminum Curbs:
  1. Factory insulated double wall aluminum curb, 1.5 inches in thickness with 20 gauge mill finished aluminum exterior and 22 gauge mill finished aluminum interior. Curb

factory insulated with 1.5 inches of polyisocyanurate board providing an R-value of 8.5. Width and length of curb shall be [2448] [2496] [24120] [3636] [3660] [3672] [3696] [36120] [4848] [4860] [4872] [4896] [48120] [6060] [6072] [6096] [60120] [7272] [as indicated on Drawings] with [9] [12] [16] inch curb height. Curb roof mounting flange shall be a minimum 2.75 inches in width. Basis of Design: VELUX America LLC, Model CCAM.

2. Factory insulated single wall aluminum curb, fabricated from 14 gauge mill finish aluminum with fully welded corners. Nominal 1 inch by 4 inch wood nailer mounted under the top flange of the curb. Curb wall insulated with  $\frac{3}{4}$  inch thick rigid polyisocyanurate insulation factory mounted to the curb exterior providing a R-Value of 4.2. Width and length of curb shall be [2448] [2496] [24120] [3636] [3660] [3672] [3696] [36120] [4848] [4860] [4872] [4896] [48120] [6060] [6072] [6096] [60120] [7272] with [9] [12] [16] inch curb height. Curb roof mounting flange shall be a minimum 2.75 inches in width. Basis of Design: VELUX America LLC, Model CCAN.

### 2.3 SKYLIGHT CURB ACCESSORIES

- A. Interior safety screen accessory: Fall protection safety screen constructed from 0.1875 inch steel mesh with a 6 inch on center grid spacing welded to 18 gauge steel z-bar support frame continuous on each side with welded corners. Interior safety screen frame mounts to top of 1.5 inches curb with safety screen mesh located not more than 1.5 inches below top of curb. Safety screen shall meet fall protection requirements by supporting a minimum static load of 400 pounds per square foot. Interior safety screen accessory width and length designation shall be [2448] [2496] [24120] [3636] [3660] [3672] [3696] [36120] [4848] [4860] [4872] [4896] [48120] [6060] [6072] [6096] [60120] [7272] [as indicated on drawing]. Basis of Design: VELUX America LLC, Model CRGA xxxx ICD.
- B. Interior security bars accessory: Security bars accessory constructed from 0.5 inch cold rolled steel with a 8 inch on center grid spacing welded to 18 gauge steel z-bar support frame continuous on each side with welded corners. Accessory frame mounts to top of 1.5 inches curb with security bars located less than 1 inch below top of curb. Internal security bars accessory shall meet fall protection requirements by supporting a minimum static load of 400 pounds per square foot. Size shall be [2448] [2496] [24120] [3636] [3660] [3672] [3696] [36120] [4848] [4860] [4872] [4896] [48120] [6060] [6072] [6096] [60120] [7272]. Basis of Design: VELUX America LLC, Model CRGA xxxx BB.
- C. Ventilated curb extender: Single wall curb extender constructed from 12 gauge mill finish aluminum with fully welded corners. Natural ventilation is provided by two 4 inch wide by 3.5 inch high aluminum louvered opening per foot of length along each side. The curb extender mounts on a standard 1.5 inch thick curb. Aluminum rain guard shall be provided preventing causal rain from reaching interior spaces. Width and length of curb extender shall be [4848] [4896] [6072] with 6.5 inch height. Basis of Design: VELUX America LLC, Model CAV xxxx.

### 2.4 PERFORMANCE REQUIREMENTS

- A. Fall Protection Standard Compliance: 29 CFR 1910.23: Skylight curb [with integral safety screen] [with integral security bars] [accessory safety screen] [accessory security bars] tested to support a minimum of 400 pounds over 1 square foot of the surface.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with skylight curb or curb accessory installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Install skylight curbs and curb accessories in accordance with manufacturer's written instructions and approved shop drawings. Coordinate installation of units with installation of substrates, air and vapor retarders, roof insulation, roofing membrane, and flashing as required to ensure that each element of the Work performs properly and that finished installation is weather tight.
  - 1. Anchor skylight curbs and curb accessories securely to supporting substrates.

END OF SECTION