Roof Curb Specification / Structural HVAC Curbs

SECTION 07721 PREFABRICATED HVAC STRUCTURAL ROOF CURBS

PART 1 - GENERAL

1.01 SUMMARY

A. The General Contractor shall provide all labor, material and equipment to completely install the Prefabricated HVAC Roof Curbs.

1.03 INSTALLATION

- **A.** The Prefabricated HVAC Roof Curbs must be installed in accordance with instructions and as detailed on drawings.
- **B.** Stack roof curbs at site to prevent twisting, bending, or permanent deformation.

1.05 COORDINATION

- **A.** The Prefabricated HVAC Roof Curb sizes and options must be coordinated by AES Industries and the General and/or Mechanical Contractor prior to fabrication.
- **B.** Shop drawing approval required prior to fabrication.

PART 2 - PRODUCTS

2.01 SUMMARY

- **A.** Subject to compliance with requirements, provide Prefabricated HVAC Roof Curbs as manufactured by the following:
 - 1. Model ASRC by AES Industries, Inc., Tallassee, Alabama 36078, Phone 800-786-0402.

2.03 FABRICATION

- **A. Structural Curbs:** Coated 14 gauge steel sheet curb sections, corners mitered or enclosed and fully welded; 2 inch by 4 inch (nominal dimension) pressure treated continuous wood nailers mechanically fastened with corrosion resistant fasteners at 12 inches on center to exterior face of curb. Shop prime welded connections with zinc-rich paint complying with SSPC-Paint 20.
- **B. Web Height:** Comply with local code requirements for minimum curb height, but in no case shall curb height be less than 18 inches, as measured from top of bar joist to top of curb, nor shall curb height be less than 8 inches as measured from top of roof membrane to top of curb.
- **C. Profile:** Bottom Flange, Top Flange, and Drip: As shown.
- **D.** Reinforce curb sections as required for design loads indicated on Drawings.
- E. Welding: AWS D1.1.
- **F.HVAC unit curbs:** Label curbs with "FRONT" designating the curb orientation to the front of store prior to shipment. Provide curb types as follows:
- **1.** Roof Top Unit (RTU) Curbs: Provide 14 gauge minimum steel sheet curb sections. Frame duct openings with 18 gauge curb sections level with perimeter curb sections, minimum height 18".

2.05 OPTIONAL MATERIALS AND FEATURES

- 1. Sloped to match roof
- 2. Height as required
- 3. Extended flanges
- 4. Security bars
- 5. Temporary covers
- 6. Engineered calculations
- 7. Isolation rails
- 8. Seismic / wind restraint brackets

Roof Curb Specification / Structural Skylight Curb

SECTION 07721 PREFABRICATED HVAC STRUCTURAL ROOF CURBS

PART 1 - GENERAL

1.01 SUMMARY

A. The General Contractor shall provide all labor, material and equipment to completely install the Prefabricated HVAC Roof Curbs.

1.03 INSTALLATION

- **A.** The Prefabricated HVAC Roof Curbs must be installed in accordance with instructions and as detailed on drawings.
- **B.** Stack roof curbs at site to prevent twisting, bending, or permanent deformation.

1.05 COORDINATION

- **A.** The Prefabricated HVAC Roof Curb sizes and options must be coordinated by AES Industries and the General and/or Mechanical Contractor prior to fabrication.
- **B.** Shop drawing approval required prior to fabrication.

PART 2 - PRODUCTS

2.01 SUMMARY

- **A.** Subject to compliance with requirements, provide Prefabricated HVAC Roof Curbs as manufactured by the following:
 - 1. Model ASRC by AES Industries, Inc., Tallassee, Alabama 36078, Phone 800-786-0402.

2.03 FABRICATION

- **A. Structural Skylight Curbs:** Coated 14 gauge steel sheet curb sections, corners mitered or enclosed and fully welded; 2 inch by 4 inch (nominal dimension) pressure treated continuous wood nailers mechanically fastened with corrosion resistant fasteners at 12 inches on center to exterior face of curb. Shop prime welded connections with zinc-rich paint complying with SSPC-Paint 20.
- **B. Web Height:** Comply with local code requirements for minimum curb height, but in no case shall curb height be less than 18 inches, as measured from top of bar joist to top of curb, nor shall curb height be less than 8 inches as measured from top of roof membrane to top of curb.
- C. Profile: Bottom Flange, Top Flange, and Drip: As shown.
- **D. Internal Support Frame (Safety Screen):** Provide 14 gauge, 3/4"x 3/4" maximum galvanized steel support angle to interior perimeter walls of curb, recessed from top flange 3/4" minimum. Internal support frame for safety screen to be welded to curb at 6" on center with minimum 1" welds. Support frame may be roll formed into the curb wall for a maximum 3/4"x 3/4" surface area for grid attachment.
- **E. Safety Screen:** Shop fabricated 3/16 inch cold rolled galvanized steel rods welded in 6 inch by 6 inch grid pattern. Screen to be welded to the internal support frame at each grid point (min. 6" on center). Safety screen shall not be mounted on top of curb, or attached to curb wall without the internal support frame. For venting skylights when used, allow room at top inside face of curb for smoke vent installation. Internal support frame and Screen shall have been tested to withstand impact of 245 pound lead weight, 10-3/4 inch diameter, dropped from height of 3 feet and support concentrated load of 600 pounds after impact.
- **F. Shop Painting:** Shop finish interior surfaces of curbs, including safety screen; PPG-6-157 dry fog coating as specified; color to match Sherwin-Williams #SW2537 "Blossom White".

Structural Roof Curbs / HVAC Units

Customer	Project	Model ASRC	
Ship To	Architect		
	Engineer	Structural curb for insulated roof decks.	
P.O. Number	Approved By	No steel framing required. P.E. certified	

Standard Construction

Galvanized Steel Construction (Ga. determined by Equipment Weight)

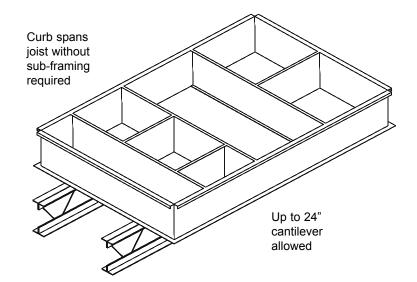
Full Height Welded Corners

Factory installed 2x4 Pressure Treated Wood Nailer

14" Min. Height

No Sub-framing Required

Cantilever joists up to 24" (depending on unit size)

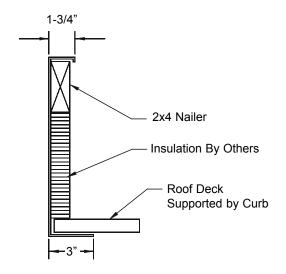


Optional Construction

Exterior Isoboard Insulation
☐ Interior Duct Liner Insulation
☐ Height or Slope as required

Noise Control System

check all that apply



TYPICAL SECTION

QTY	RTU Type	COMMENTS

Structural Roof Curbs / Skylights

Customer	Project
Ship To	Architect
	Engineer
P.O. Number	Approved By

Model **ASRC**

Structural curb for insulated roof decks. No steel framing required. P.E. certified test data available.

Standard Construction

14 Ga. Galvanized Steel Construction Full Height Welded Corners

Factory installed 2x4 Pressure Treated Wood Nailer

14" Min. Height

No Sub-framing Required

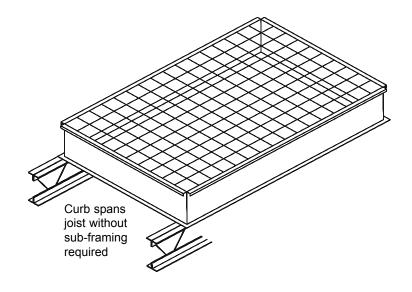
6"x6" Security/Safety Grid Installed

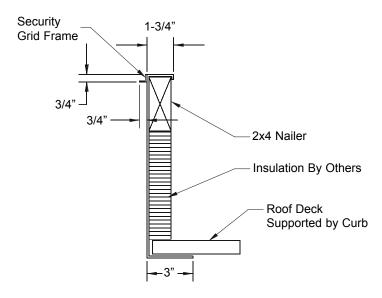
Optional Construction

1/2" Burglar Bars

Height or Slope as required

check all that apply





TYPICAL SECTION

QTY	Skylight Model/Size (OD)	COMMENTS