

INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS FOR ZF/ZJ/ZR/ZY/XP 036-072 UNITS WIND LOAD "HINGE" ROOF CURB

This Roof Curb is NRCA approved and is constructed of 14 gauge galvanized steel with a full perimeter 2" x 4" wood nailer strip. The curb is designed to be used with the Cooling, Gas Electric, and Heat Pump Models. The curb is shipped with the following parts, as shown in Figure 2:

- 1) 2 ea. Curb Short Sides - 37 1/4" Long (A)
- 2) 2 ea. Curb Long Sides - 73" Long (B)
- 3) 1 ea. Horizontal Duct Support - 43 5/8" Long (C)
- 4) 1 ea. Vertical Duct Support - 33 3/8" Long (D)
- 5) 1 ea. Vertical Duct Support - 19 5/8" Long (E)
- 6) 1 ea. Hardware Package Includes:
 - 4 ea. "Hinge" Pins
 - 8 ea. Hex Washers screws #10 x 1/2"
- 7) 2 ea. Gasket 3/4" x 1 1/4" x 14' (28 ft. total)

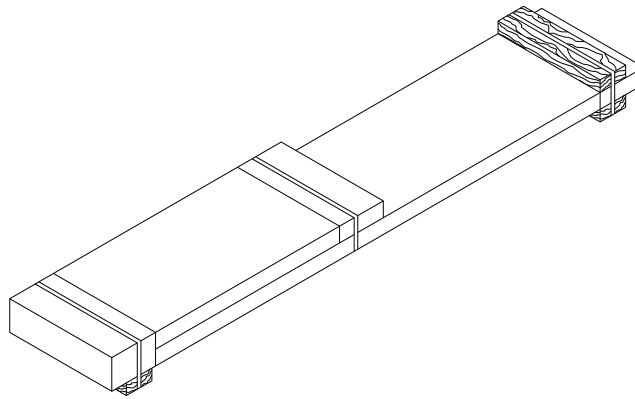


Figure 1

Step 1:

Curb Package is shown as shipped with easy to identify part numbers on all sides. Cut shipping bands and remove Hardware, Gasketing, and 3 Duct Supports.

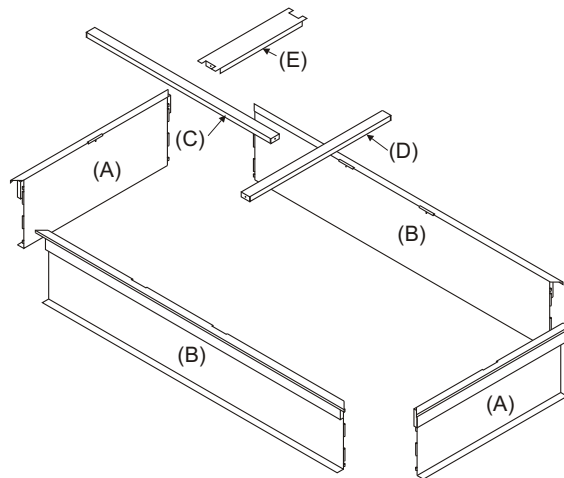


Figure 2

Step 2:

Layout the curb pieces before assembly to insure that all the necessary pieces are included.

U.S. PATENT 5148647

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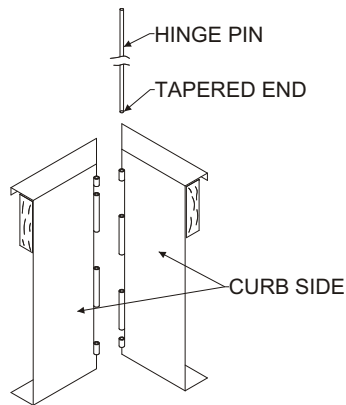


Figure 3

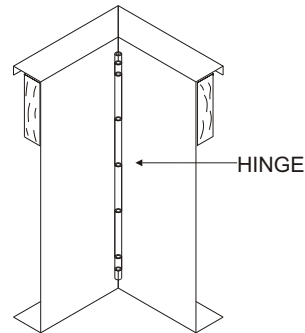


Figure 4

Step 3:

Corner Assembly: Align each curb side as shown in Figure 3. Using a hammer, drive the curb "hinge" pin down until the top of the pin is below the top of the curb as shown in Figure 4.

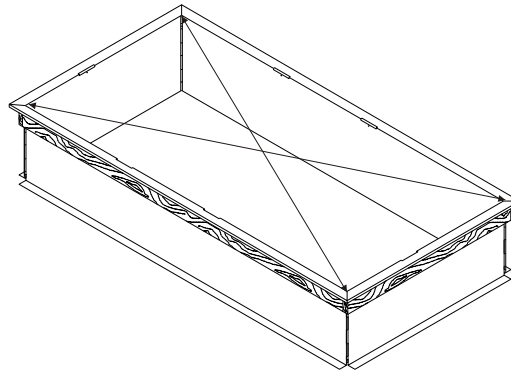


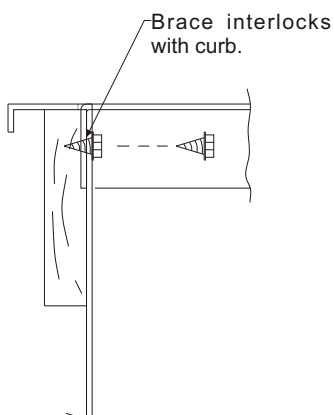
Figure 5

Step 4:

After the four corners are assembled; the curb should be checked to be sure it is in "square". Do this by measuring diagonally from each opposite corner as shown in Figure 5. The two measurements should be the same for each direction.

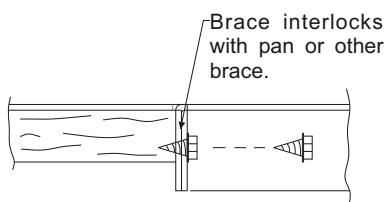
DETAILS

1.



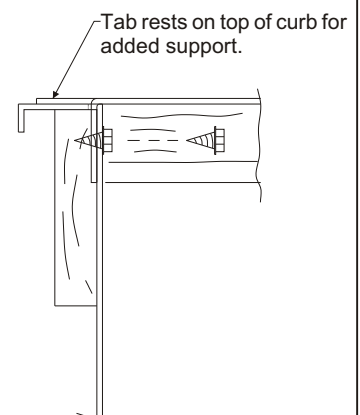
Duct Support flange goes in slot on curb. Screw Brace to curb.

2.



Duct Support flange goes in slot on pan or other brace. Screw brace together.

3.



Duct Support is supported by "tabs". Screw pan to curb.

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Note:

Duct Supports can be located on either end depending on individual applications.

Step 5:

Install the vertical duct support (D) as shown in Figure 6 with opening over the desired duct location.

Step 6:

Install the horizontal duct support (C) as shown in Figure 6.

Step 7:

Install the vertical duct support (E) as shown in Figure 6.

Step 8:

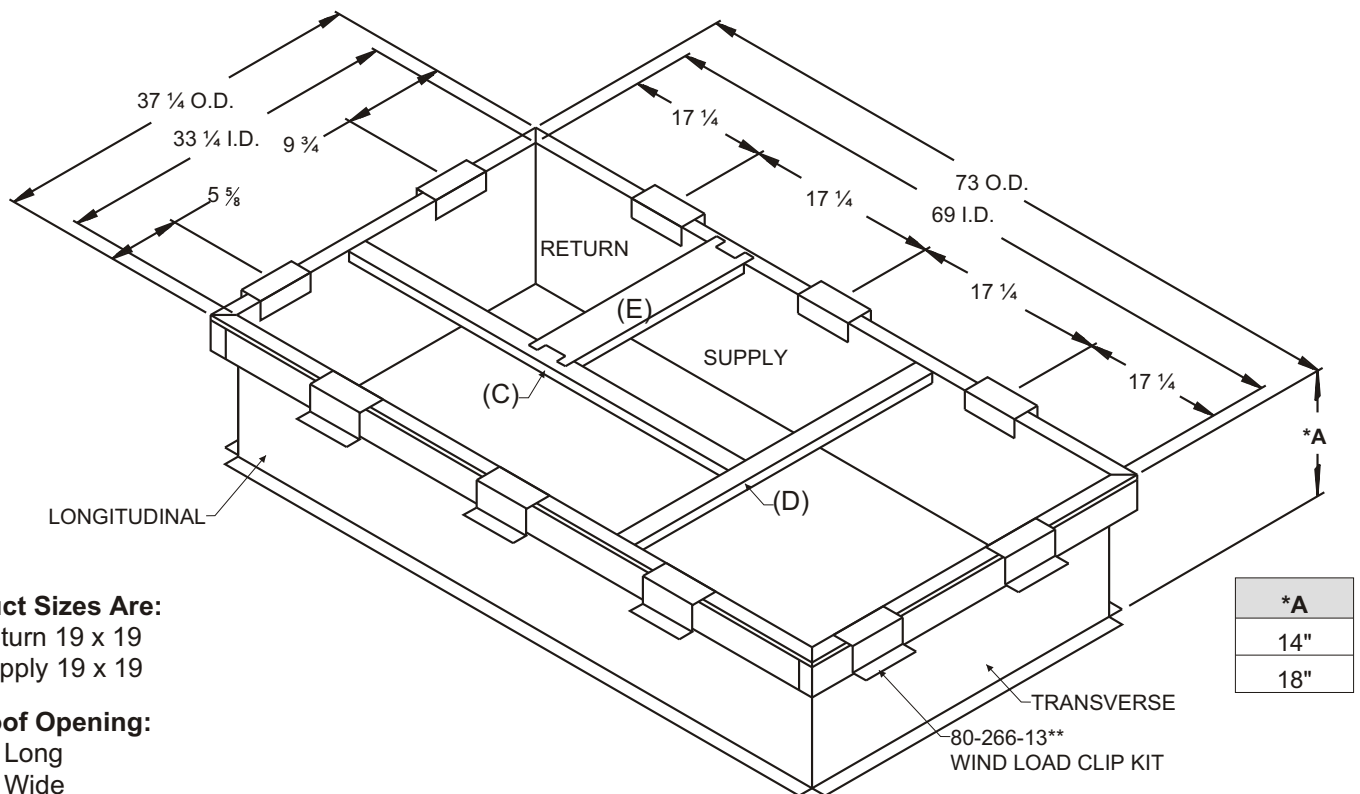
If the curb is being assembled and moved to another location, attach the duct supports as shown in "Details".

Step 9:

Place the $\frac{3}{4}$ " x $1\frac{1}{4}$ " Gasket on all of the top edges of the Roof Curb, including the duct supports.

Step 10:

If using wind load clip use Figure 6 for placement in roof curb. See Details on back page for securing clips to curb and curb to roof.



Duct Sizes Are:

Return 19 x 19

Supply 19 x 19

Roof Opening:

45 Long

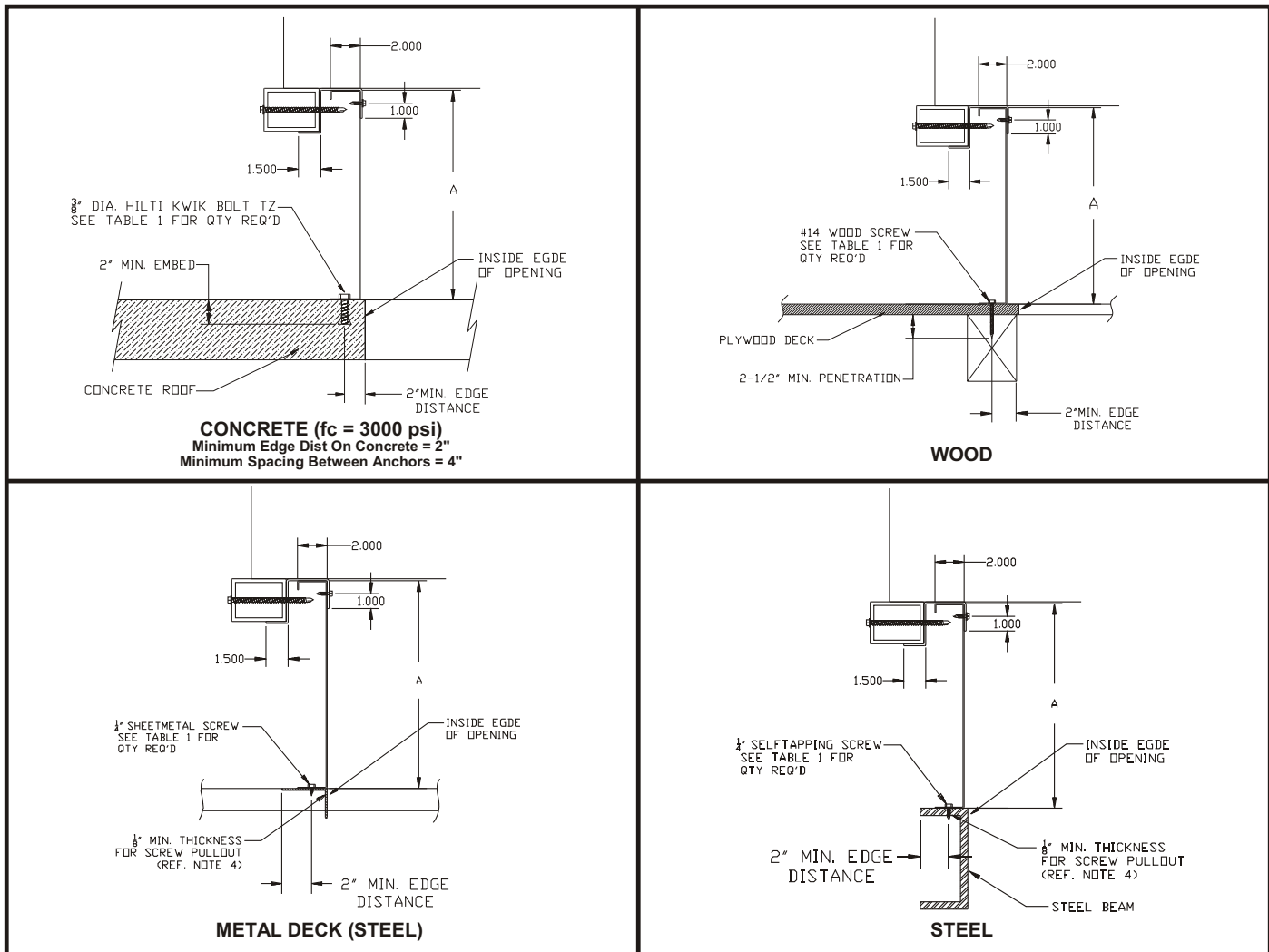
33 Wide

Figure 6

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Roof Curb Attachment Detail



Seismic Restraints & Curb Design Criteria

1. The curb design has been reviewed for the ZF/ZJ/ZR/ZY/XP 036-072 for a wind load of 100 PSF per the requirements of the 2007 FBC including the 1.5 overturning moment factor. To determine if this loading is adequate for the actual site conditions consult the structural drawing notes for roof wind pressure notes in the structural drawings package. If this information is not available please consult engineering for guidance.
2. Cold-formed curb framing members shall conform to the material and identification requirements of the latest "Specifications for the Design of Cold-Formed Steel Structural Members" of the American Iron and Steel Institute with a minimum $F_y = 33$ ksi and a minimum $F_u = 38$ ksi.
3. This review and approval for the requirements of the FBC is limited to Model# 80-265-13**PV.
4. When installing curbs on a metal roof deck, attachment screws must enter bar joists or other structure with a minimum thickness of 1/8". If curb cannot be placed under the roof deck additional support framing must be placed over the roof metal with a minimum metal thickness of 1/8". The additional support and its anchors shall be designed by an engineer qualified in the installation jurisdiction.

Wind Load Kit Model#	Curb Height (A)	Internal Curb Dimensions		Material	Fasteners Spacing	No. of Fasteners on Each Side of Curb	
		Length	Width			Long Side	Short Side
80-266-13**	14" or 18"	69.00	33.25	Wood	4.5"	16	8
				Concrete	10"	7	4
				Steel	7"	10	5