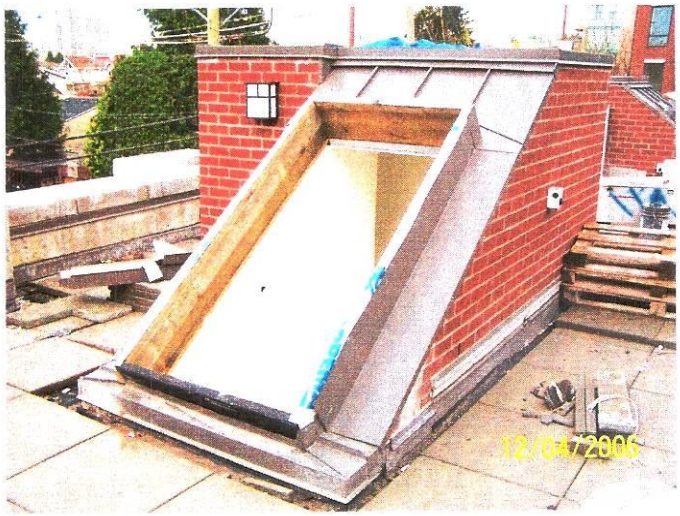
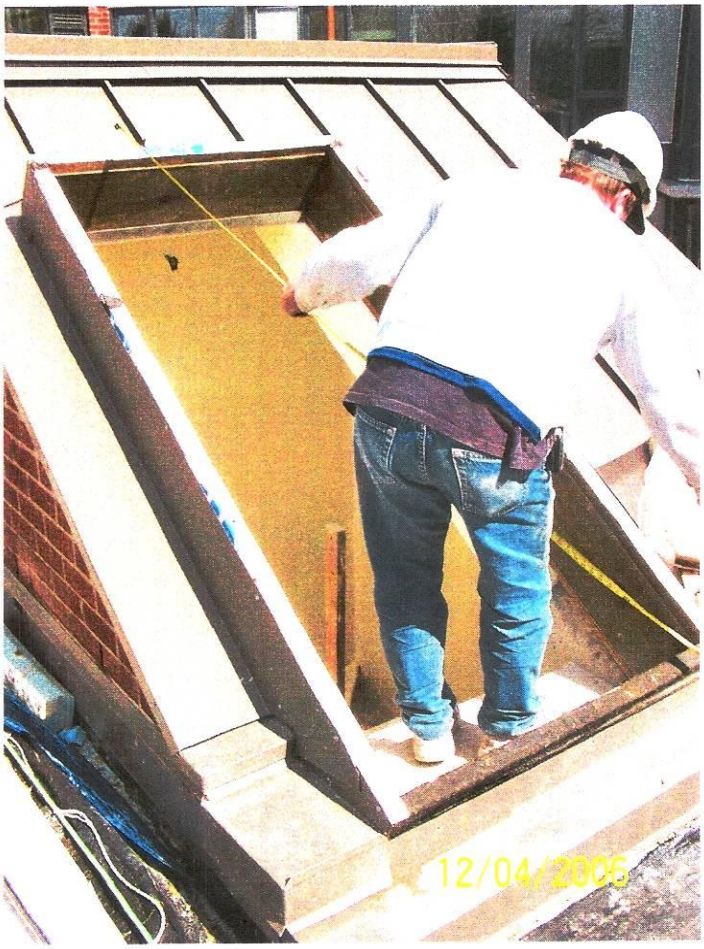
Roof Door Site Preparation:



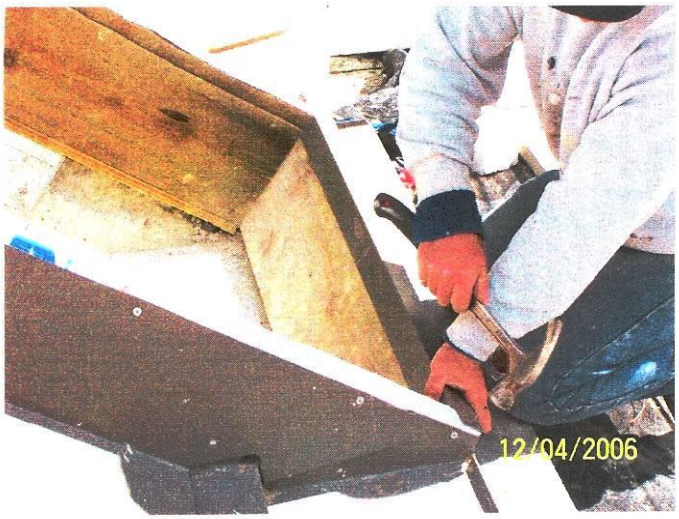
#1-View of curb mount rough opening ready to accept roof door installation. Note – site flashing and peal and stick membrane installed to create 'rain screen' water drainage.

#2- Close-up of rough opening head/jamb area.

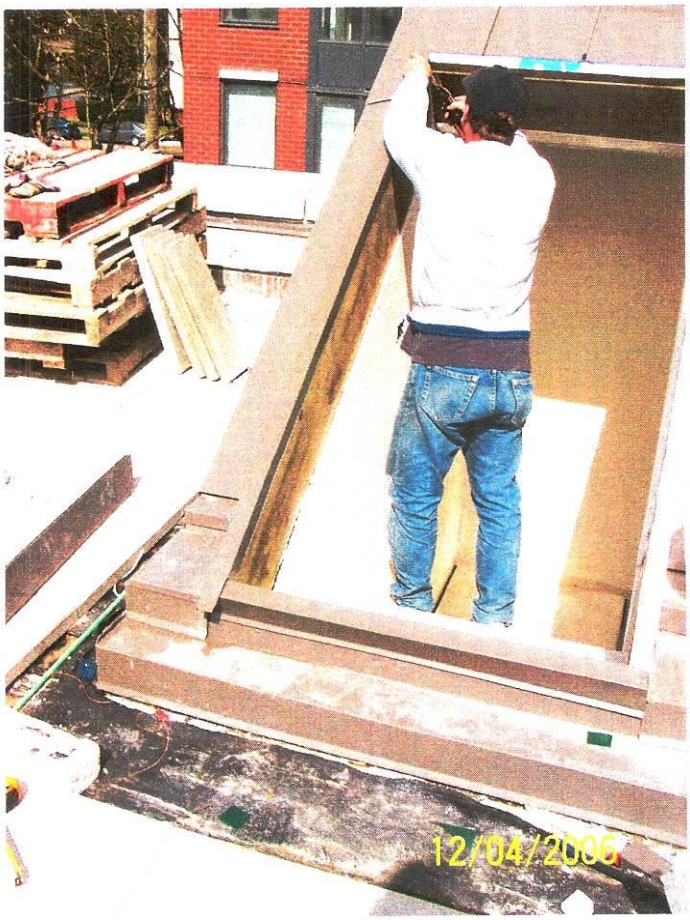
#3- Close-up of rough opening at sill/jamb area.



#4- Installer is in the process of measuring a rough opening for squareness.



#5- Installation of sill curb flashing; Installer is nailing the flashing in place. Note – the flashing is notched to fit the curb details. The jamb flashing will 'shingle' over the sill flashing.



#6 Installation of left jamb flashing. The installer is trimming and notching the flashing to fit the curb details. Note – the excess flashing at the sill overlap area. This excess will be folder over the sill flashing to create a 'shingle water deflection seal.

#7- Close-up view of excess jamb flashing at sill area for overlap of sill flashing. Note – view also shows sill flashing kick-out detail to deflect rain water from the curb area.

#8- Installation of head flashing. Installer has notched the head flashing and is punching a hole in the end for the fastener.. Note – the excess flashing on the end will be cut and folded to create a 'shingle' water deflection seal. Also note the jamb flashing 'kick-out' detail for deflection of rain water away form the curb.

#9- Close-up view of finished jamb/sill area flashing overlap details.

#10 – Another close-up view of the sill jamb flashing overlap details. Note- the fastener location.

Dayliter Roof Door Installation Sequence

General:

This document is a general set of instructions for installing the Dayliter Roof Door. There may be other rough opening details that are different to those shown in these instructions. Please contact Dayliter Industries for further instructions for installations that are different than those shown in the photographs that follow.

Installation Sequence:

1- Measure the Rough Opening – Attached photograph #1, below, shows a typical rough opening prepared for the installation of the Roof Door. This is a typical sloped curb. The curb acts as the frame for the Roof Door. The photo # and #2 and # 3 show several views of the rough opening. The building curb has been prepared with a peel and stick membrane on the exterior of the curb, with an exterior flashing covering most of the peel and stick membrane. It is recommended that that the building envelope details allow for a 'rain screen' water penetration control. The typical curb thickness required to support the door is a minimum of 2 inches (1 ½ inches finished).

The rough opening must be true in both length and with to within +/- 1/8 inches (3.2mm), the two diagonal measurements of the opening must be within ¼ inches of each other. Also, the top and bottom curb must be perfectly level. The reasons for these tolerances is to ensure that the door operates correctly and that the air/water seal is continuous and effective. Photo #4 shows the installer measuring the rough opening for squareness.

2- Curb flashing Installation – the curb flashing is installed as four pieces starting with the bottom horizontal piece, then the two side/jamb pieces and finally the top horizontal piece. This order of installation is to ensure that the flashing is shingled to ensure that water penetration does not occur. The photos #5, through #10 show the details of the individual pieces being cut to fit the curb. Also, note the pieces are cut and folded at the ends to create a 'shingle' overlap.

3- Door Frame Installation – the door frame (without the glass and flashing cap) is lower onto the flashed curb with the hinges at the top. Prop the door open to access the door hinges and allow the fasteners to be installed. The door is to be centered into the opening. Install two fasteners in each hinge and lower the door frame onto the curb. Inspect the door to curb alignment to ensure that it is true and that the door sealed is centered on the curb periphery. If the door isn't squarely centered onto the curb then reposition the hinge location on the top horizontal curb until it is centered onto the curb.

See photographs # 11 through #16 for details. Ensure that the correct fasteners are used and that the threads are not stripped when the screws are installed.

4- Gas Shock Installation – *The gas shocks are a key component in the opening and* closing of the door. They are sized in stroke to allow the door to have a minimum of 6'-8" clearance between the door frame push bar and the frame sill/horizontal and the stairs when the door is fully open. Attach to rod end of the gas shock to the door frame pivot ball lug.

With the gas shocks fully extended, locate the base of gas such that the gas shock makes a 90 degree with the sloped curb sides/jambs. Some adjustment in the propping of the door frame in the open position may be required. Mark this location and install the temporary 4" X 4" wood blocks at this location. Next, screw the gas shock bases to the marked locations on the temporary blocks. Open and close the door to ensure it operates without binding. Note, without the glass and top cap in place the door with be difficult to close.

See photos #17, #18 and #19 for details.

5 Glass and Cap Installation – With the door frame in the closed position, lower the glass and aluminum cap assembly onto the door frame. Ensure the glass and cap assembly are firmly seated onto the frame to ensure thath the glass is seals to the frame. Install the cap screws, at the predrilled cap screw hole locations, into the door frame. See photo #20 for details.

Open and close the door several times to ensure it is operating correctly. There should be approximately 20lbs (XX newtons) of force to start the door to open. This force is necessary to ensure that the door to curb seal door not leak air. When the door is fully open, it should require minimal force to close it.

6 Install the latch Assembly – see photos ..... for details.

7 Other Issues

-Curb Squareness - curb squareness is an important issue in terms of sealing of the roof door to the curb and in visual appeal. See photos #21, #22, and #23 for an example of marginal alignment due to a poorly constructed curb.

-Rough Opening Flashing Details – the rough opening flashing details are very important in ensuring that the building envelope is weather tight. Good fabrication practices can be see in photos #24, and 25.