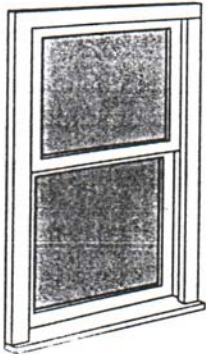
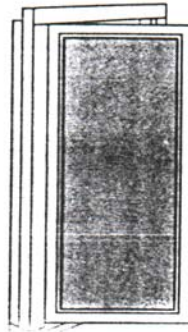


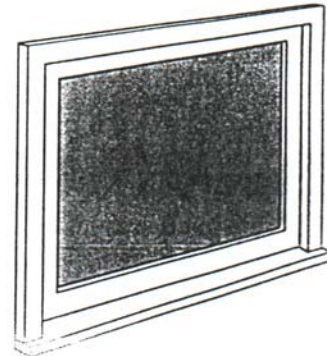
Residential Window Unit Types



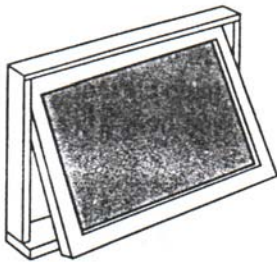
DOUBLE-HUNG



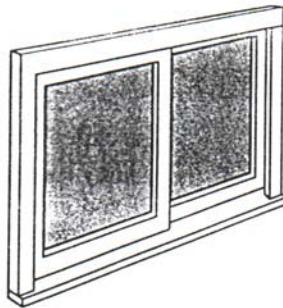
CASEMENT



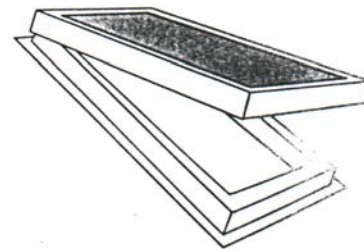
FIXED



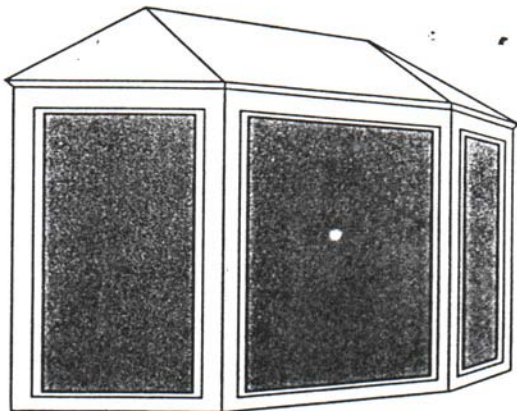
AWNING



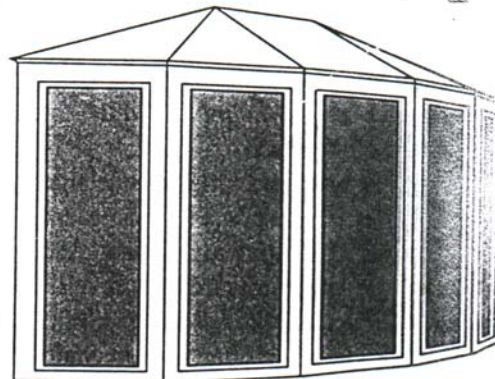
SLIDING



SKYLIGHT

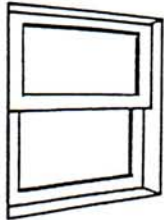


BAY

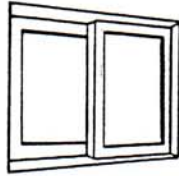


BOW

Fig. 8-16 Window types.



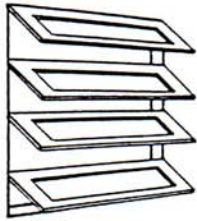
DOUBLE HUNG



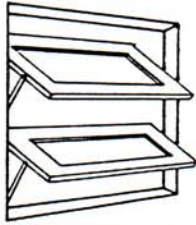
HORIZONTAL SLIDING



CASEMENT



AWNING



ARCHITECTURAL PROJECTED



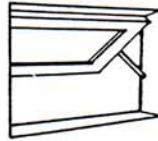
FIXED GLASS WITH WOOD STOPS



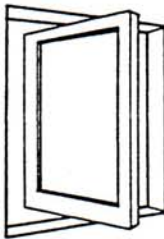
LOUVER OR JALOUSIE



HOPPER



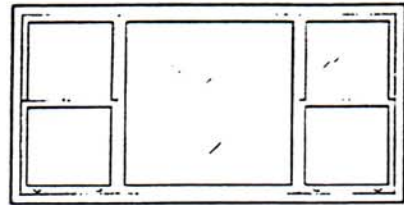
BASEMENT



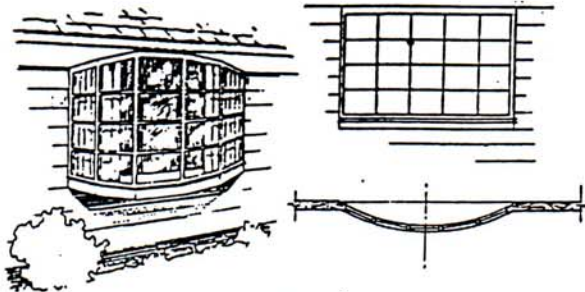
PIVOTED



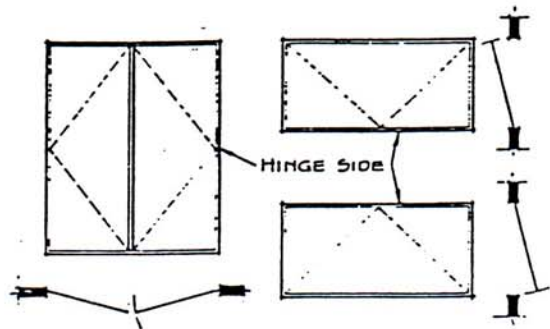
COMBINATION PROJECTED AND HOPPER



TYPICAL USE IN COMBINATION WITH OTHER TYPES

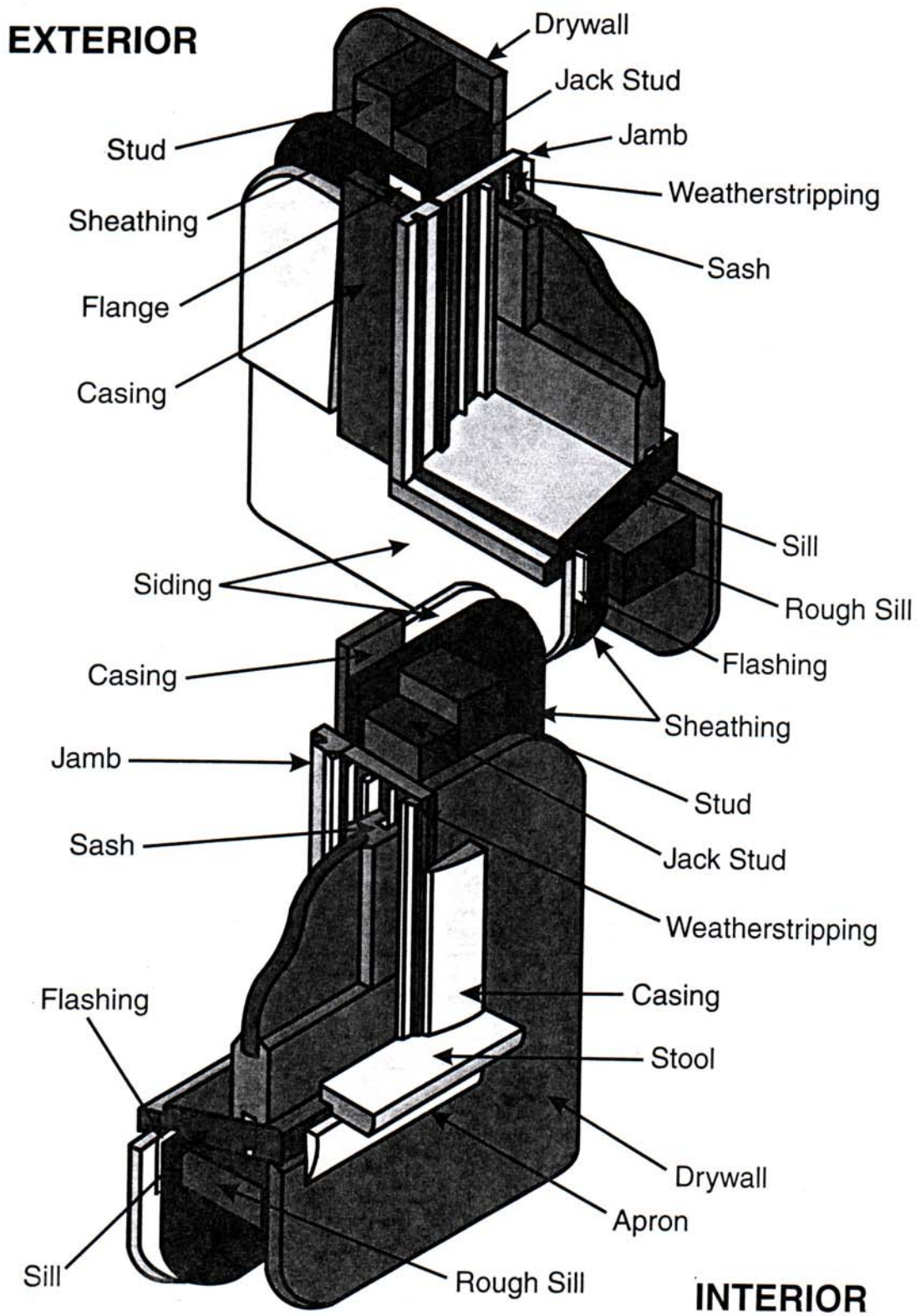


Bow or Bay

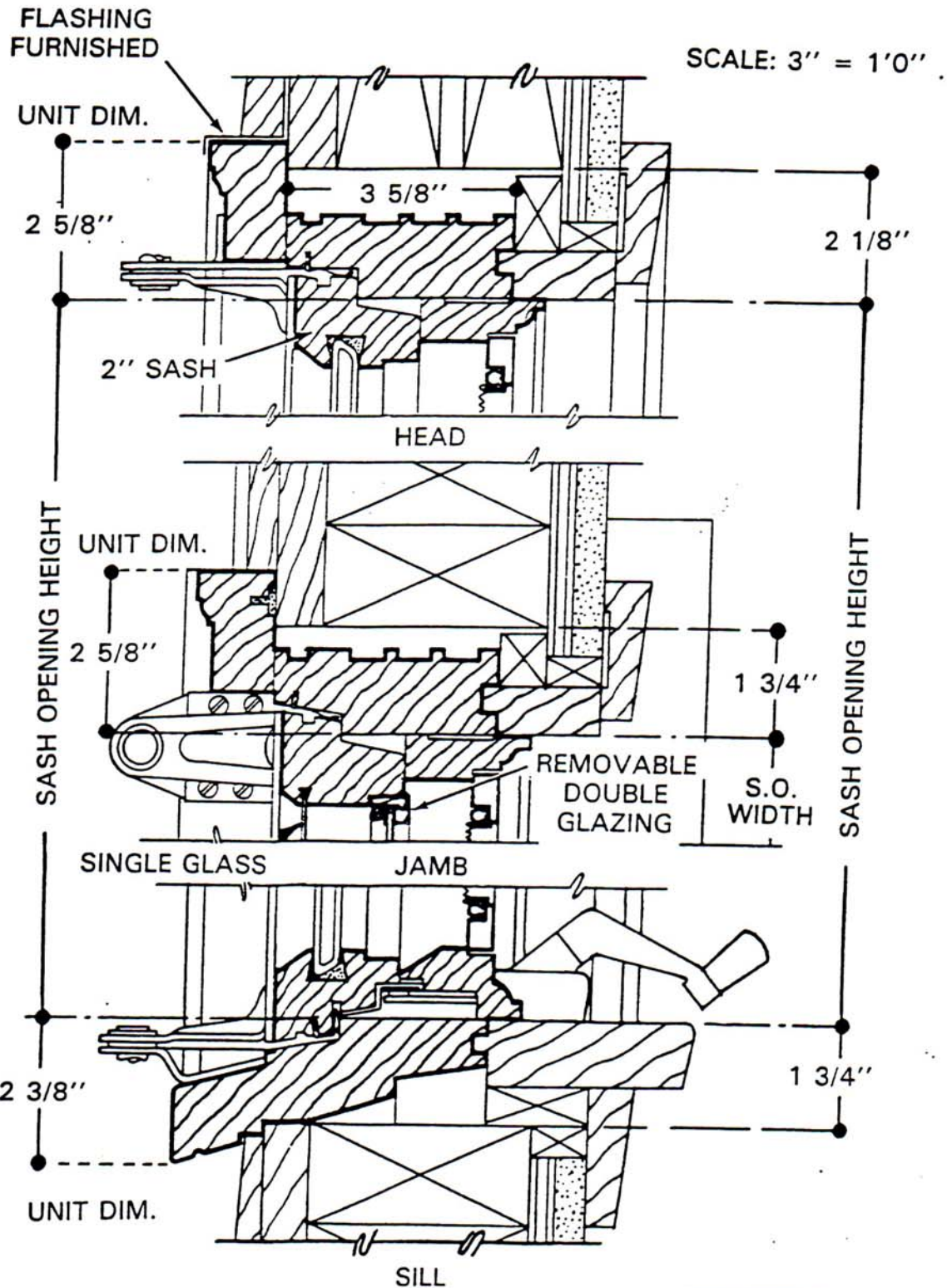


Symbol for swing of window sash.

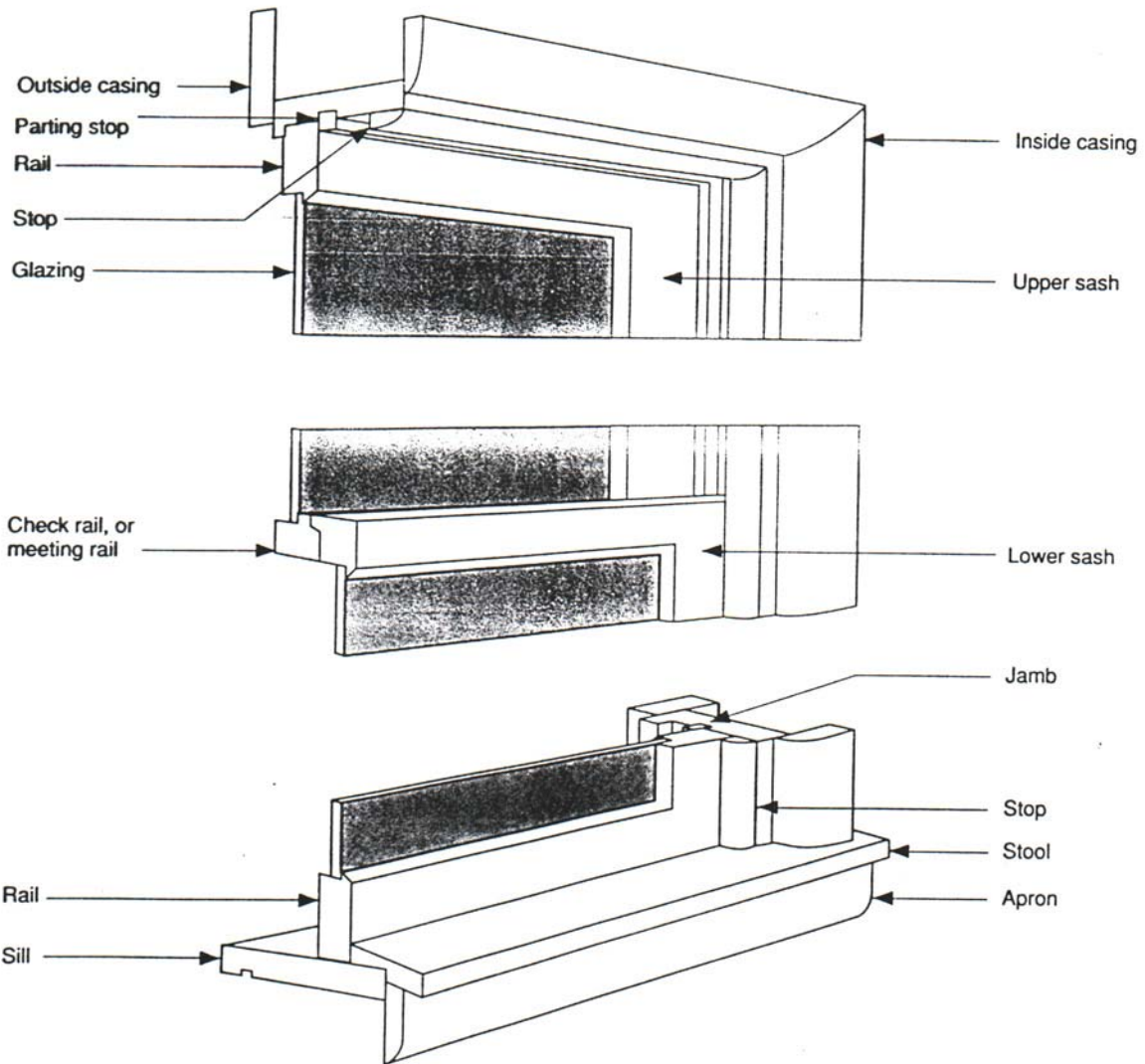
Modern Window Design



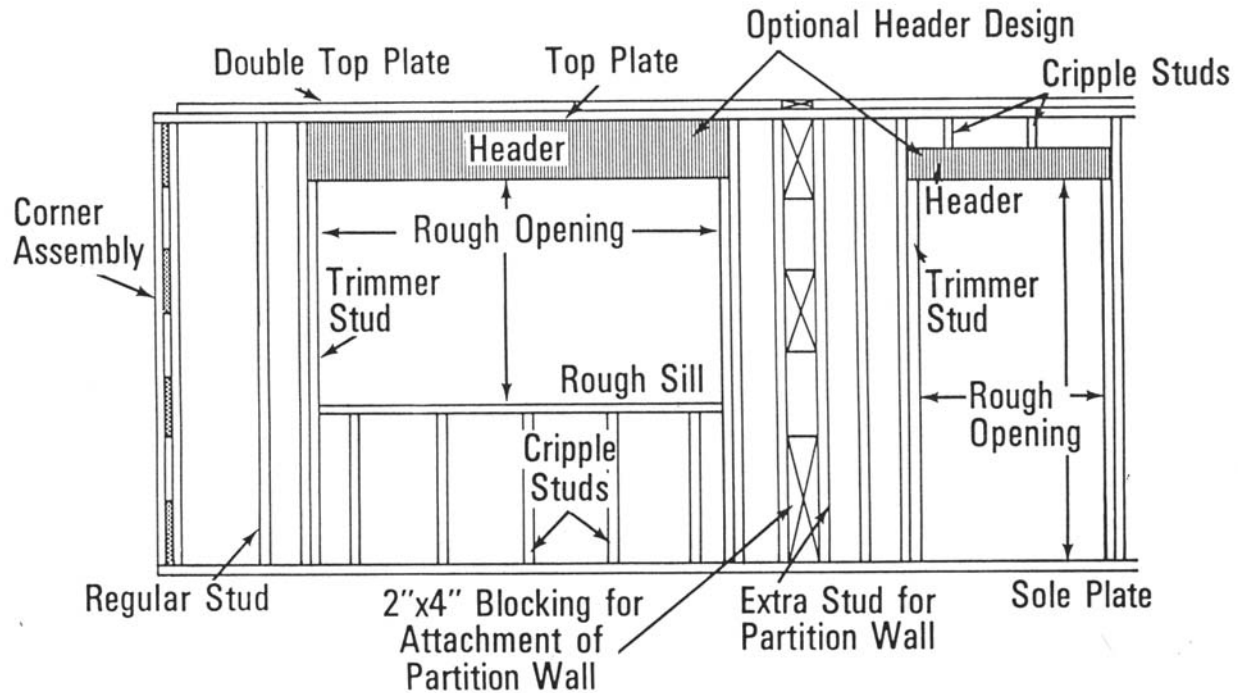
Window Framing Detail



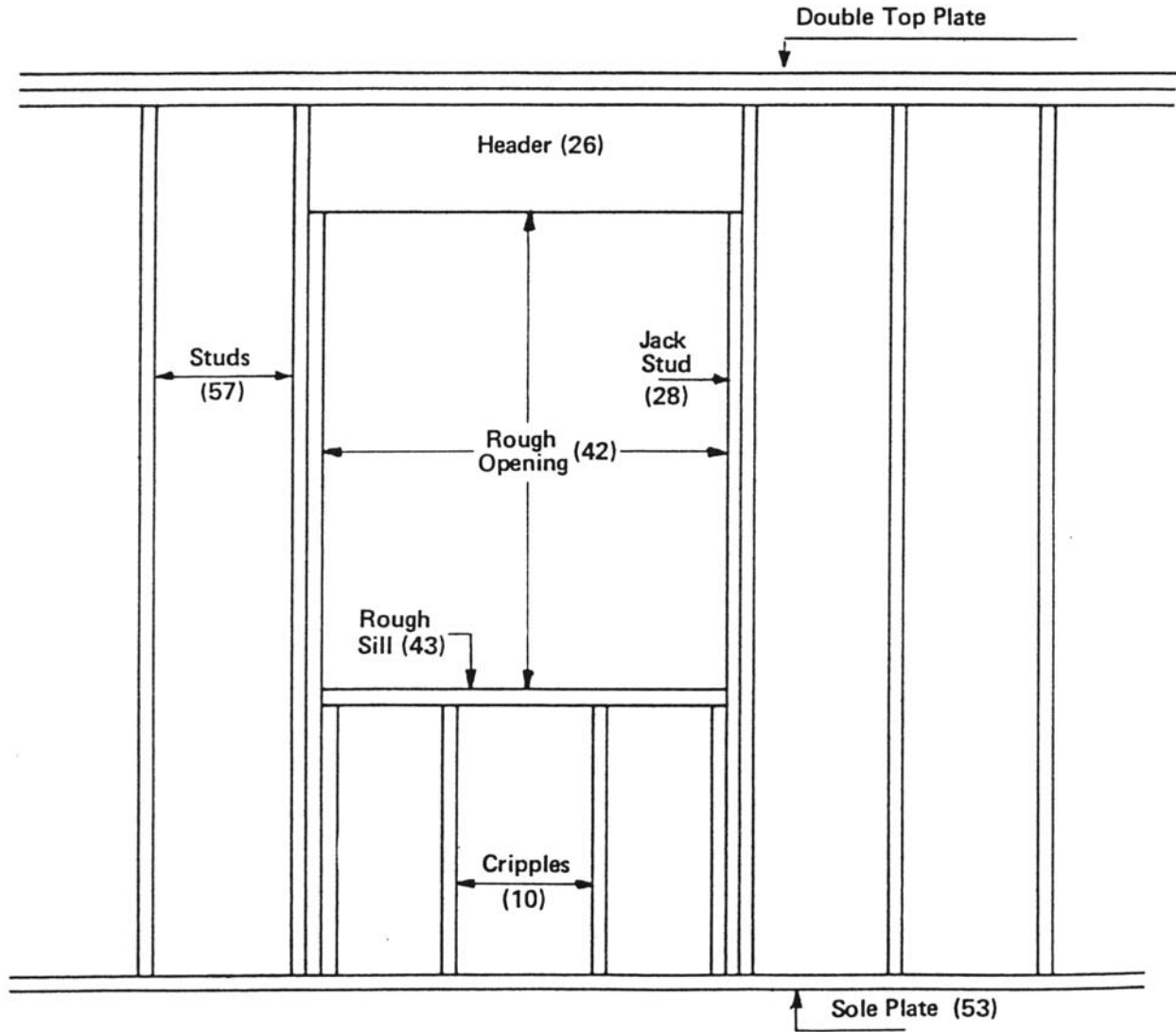
Window Anatomy and Terminology



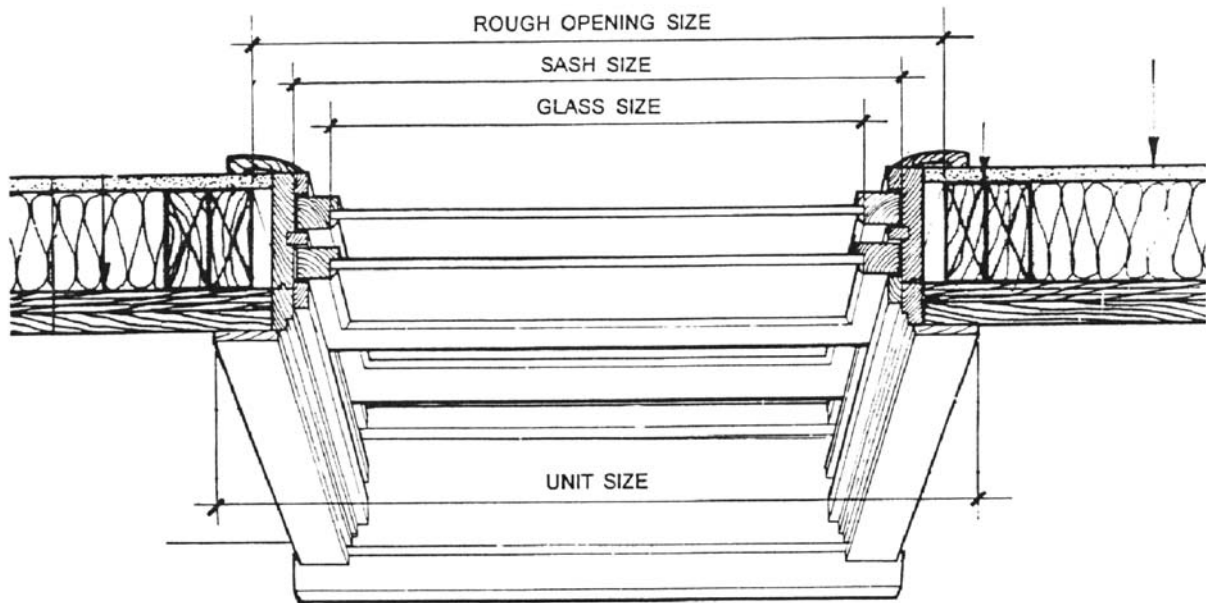
Wall and Partition Framing Members



FRAME WALL CONSTRUCTION

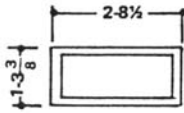


Window Measurements



PREFINISHED BASEMENT/UTILITY WINDOW NUMBERING SYSTEM

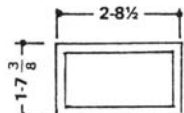
Numbering system is based on unit dimension in feet and inches.



2813

28 – Unit Dimension Width (2'-8")
13 – Unit Dimension Height (1'-3")

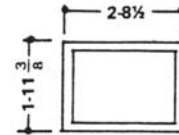
This unit will fit a block wall 2 blocks wide and 2 blocks high.



2817

28 – Unit Dimension Width (2'-8")
17 – Unit Dimension Height (1'-7")

This unit will fit a block wall 2 blocks wide and 2½ blocks high.

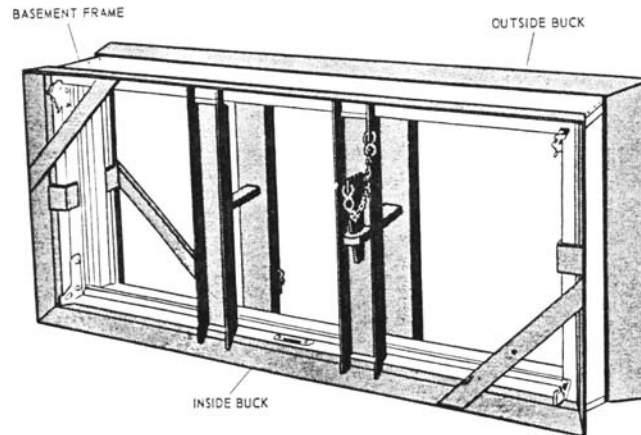


2820

28 – Unit Dimension Width (2'-8")
20 – Unit Dimension Height (2'-0")

This unit will fit a block wall 2 blocks wide and 3 blocks high.

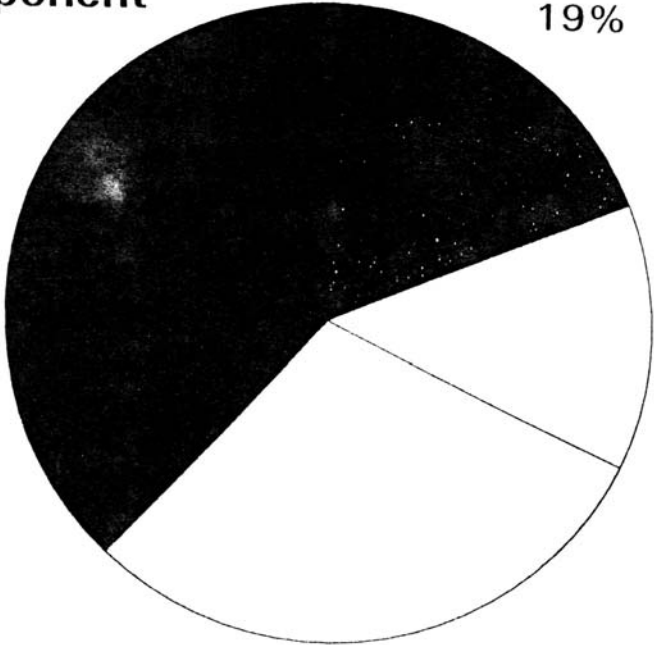
SPLIT STEEL BUCK



Andersen split steel bucks are available for 8, 10 and 12 inch poured concrete walls.

Heat Loss by Component

Windows, Doors
and Skylights 38%



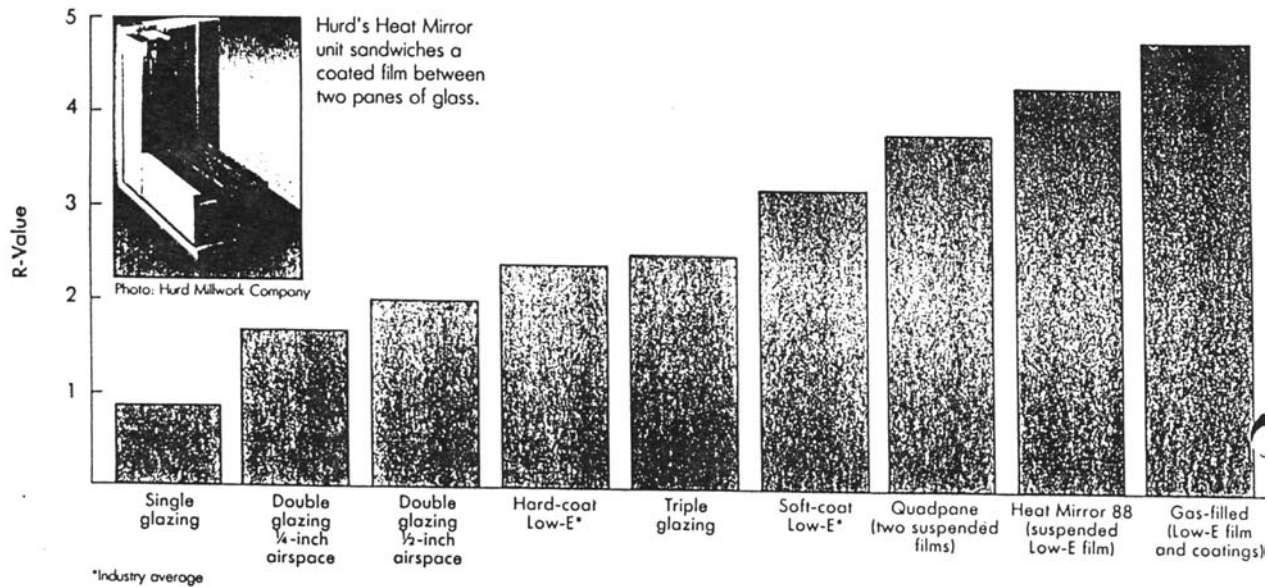
Floor
19%

Roof
13%

Walls
30%

COMPARING GLAZING R-VALUES (Double glazing unless otherwise specified)

The new generation of energy-saving windows can nearly triple the efficiency of standard double glazing.



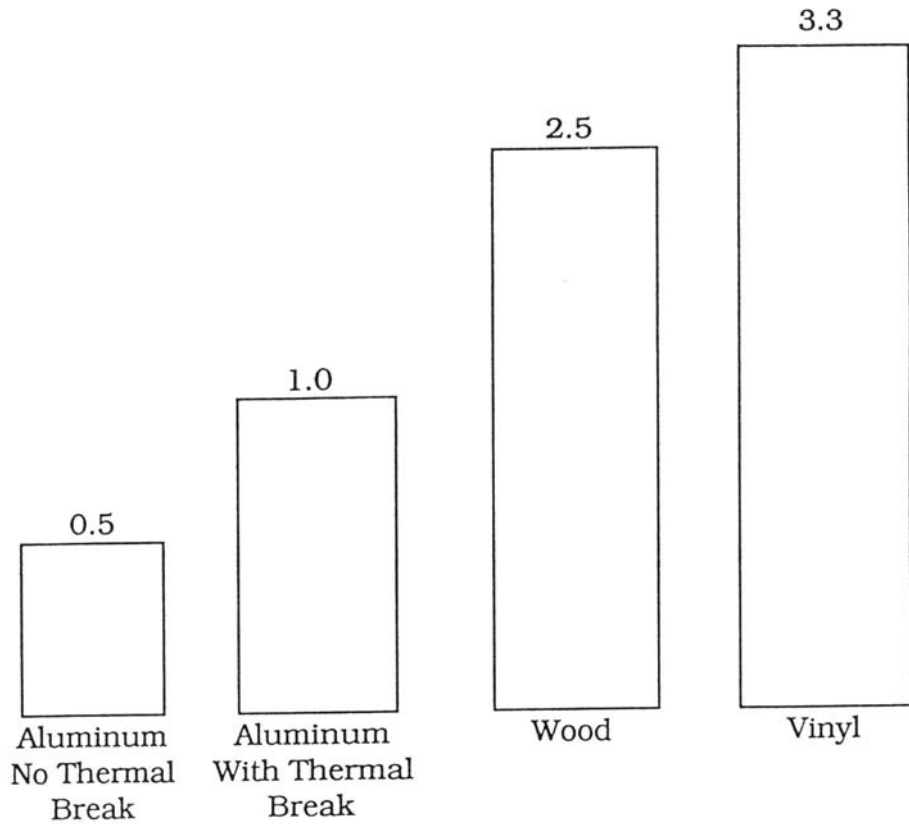
Insulating Values of Window Frame Materials

R - Value

More Efficient



Less Efficient

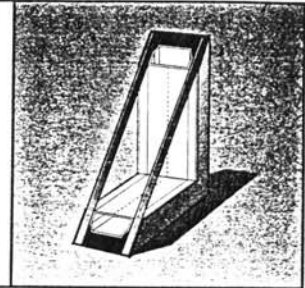


Source: Lawrence Berkeley Laboratory
Data based on typical window frame sizes.

GLOSSARY OF GLAZING TYPES:

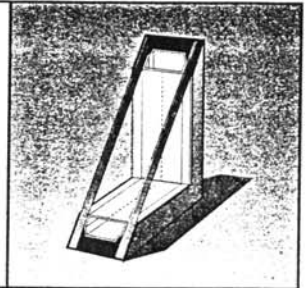
Dual Pane:

Two panes of glass separated by an airspace (also referred to as insulating glass).



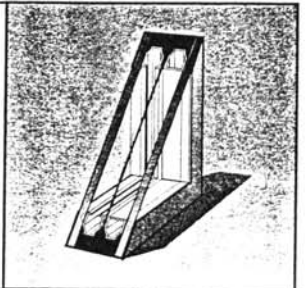
Low-E:

Two panes of glass, one of which is coated by a Low-E (low-emissivity) coating, separated by an airspace. The Low-E coating increases the windows insulating value. The airspace may be filled with an inert gas, which further adds to the insulating properties of the window.



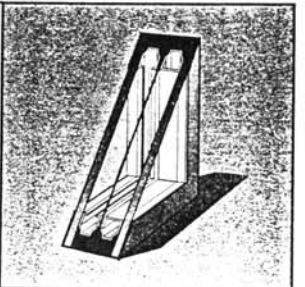
Heat Mirror™ TC-88:

Two panes of glass, with a non-tinted polyester film suspended and permanently sealed between them in the airspace. This film is coated on both sides with a low-emissivity material. The two resulting airspaces are filled with an inert gas mixture for additional insulating value. Gas retention is ensured by use of a dual seal system.



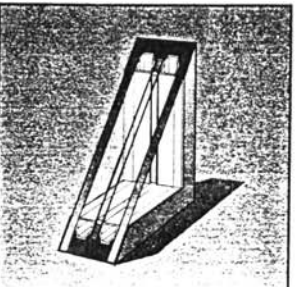
Sunbelter™ SC-75:

Similar to Heat Mirror TC-88, but the molecular structure of the low-emissivity coating is applied on one side and arranged in such a way as to provide better protection from outside solar heat.

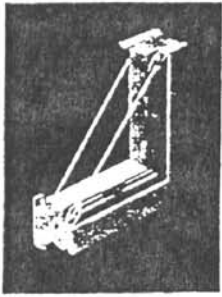


In-Sol 8®:

A glazing system incorporating two sheets of Low-E coated Heat Mirror film suspended between two panes of glass. The resulting three air spaces are then filled with a proprietary inert gas mixture, resulting in increased insulating value.

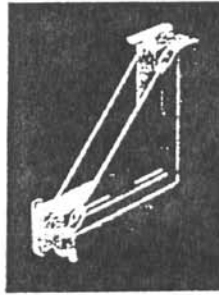


THE PELLA DOUBLE GLAZING PANEL SYSTEM



U .41
R 2.43

PELLA DOUBLE GLAZING PANEL—Pella's most popular glazing option: A removable interior panel and the exterior glazing create a tightly-sealed 13/16" (21 mm) air space between the glass panes. This superior insulating medium outperforms insulating glass—and at lower cost.



U .41
R 2.43

SOLARCOOL* BRONZE GLASS IN PANEL—Pella double glazing panels with this mirror-like exterior face reflect up to 35% of visible sunlight. Benefits: Reduced glare and ultraviolet damage to fabrics...lower cooling costs, especially in buildings with large expanses of window glass.



U .30
R 3.33

PELLA SLIMSHADE—A narrow-slat venetian blind set inside the sash, between exterior glass and the double glazing panel. It can be adjusted to reduce solar heat gain in summer—up to 82% compared with single unshaded glass—and cut winter heat loss through the window by as much as 62%.



U .31
R 3.23

PELLA TRIPLE GLAZING PANEL—Take the double glazing concept and add a one-two punch for coldest climates: The panel has two panes of glass and a separate 1/4" air space in addition to the 3/4" (19 mm) space within the sash. Triple glazing panels are offered for most vent-size units.

THE PELLA LOW-EMISSIVITY TYPE E SYSTEM



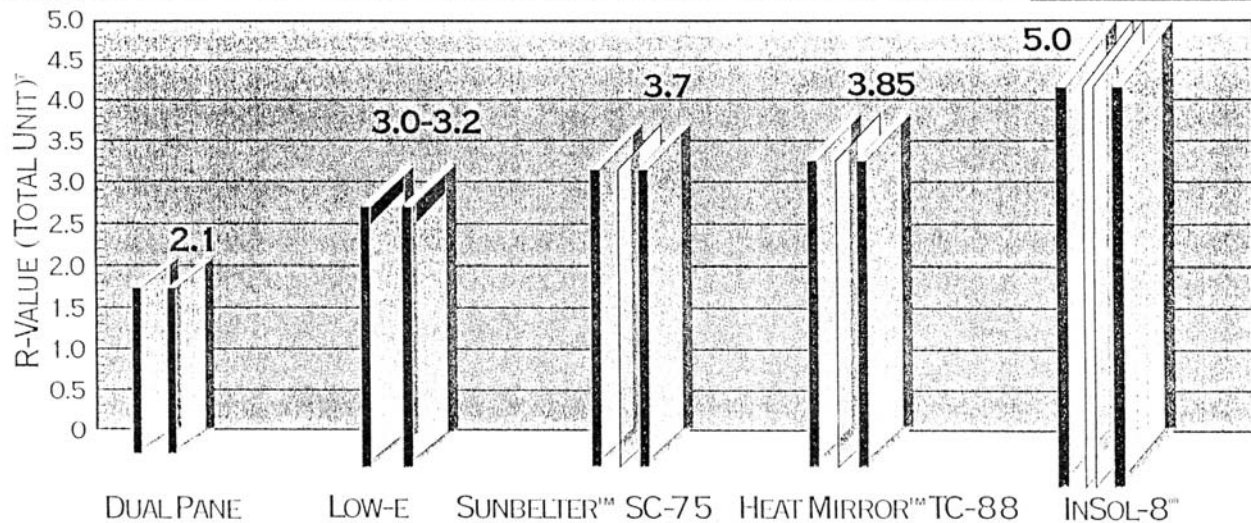
U .23
R 4.35

PELLA TYPE E SLIMSHADE—Identical to the standard blind above except for its special gold-tone, low-emissivity finish on all slat surfaces. Winter U-value performance is 23% better than standard Slimshade...better than triple glazing... equal to or better than performance of equivalent low-emissivity films in insulating glass.

PELLA "LOW-E" GLASS—A transparent coating on the double glazing panel (or in insulating glass) has characteristics similar to the Type E Slimshade. U and R values vary by glazing type.

INSOL-8 FOR HIGH INSULATION

HIGHER R-VALUES
GIVE MORE INSULATION
(LOWER U-VALUES DO AS WELL)



WINDOW INSULATION PERFORMANCE COMPARED