

Window Shading

Overhangs for Shading Building Elements

Solar gain from windows may cause adverse impacts to summer cooling bills. Before innovations in glass, films, and coatings in the past decade, a typical residential window with one or two layers of glazing allowed roughly 75-85% of the solar energy (heat) to enter a building.

Exterior overhangs provide a practical method of shading building elements such as windows, doors, and walls. Overhangs are most effective for south facing elements during the midday period. The higher, or more vertical, the arc of the sun, the longer the shadow that the building overhang generates along the face of the wall.

Overhangs may be fixed, operable, and/or removable. Examples include roof eaves, awnings, and Bahama shutters (top-hinged louvered shutters typically propped open with wooden dowels) respectively. Fixed overhangs offer perceived longevity and low maintenance at the expense of flexibility, or the ability to adjust to site-specific factors. Although adjustable devices allow the user to fine-tune the amount of shade or direct sunlight, they require more maintenance. Removable fixtures generally provide flexibility and longevity plus some personal involvement with installation and removal. Overhangs may be inappropriate for sites with restrictive regulatory guidelines.

Sizing Overhangs

Unfortunately, there is as yet no universally workable, simple formula for sizing overhangs. While one overhang methodology works well for some locations, it can be completely inappropriate for others. Anyone seeking a more specialized analysis should seek professional advice from an architect trained in passive solar design.

Energy Efficient Landscaping

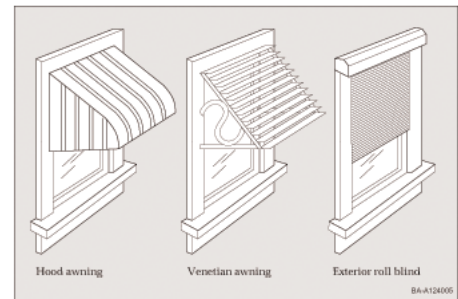
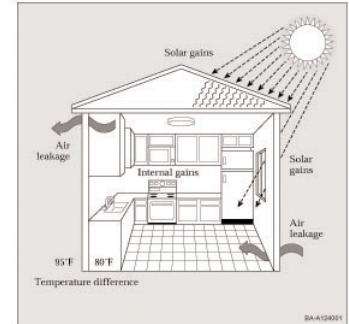


Locate trees to shade the east and west windows and walls. As trees mature, they will shade your roof, too.

Landscaping is a natural and beautiful way to keep your home more comfortable and reduce your energy bills. In addition to adding aesthetic value and environmental quality to your home, a well-placed tree, shrub, or vine can deliver effective shade, act as a windbreak, and reduce overall energy bills.

Carefully positioned trees can save up to 25% of a typical household's energy for heating and cooling. Computer models from Department of Energy estimate that just three trees, properly placed around the house, can save an average household between \$100 and \$250 in heating and cooling energy costs annually.

If you would like additional energy savings tips, please see our energy efficiency section at www.vectren.com or contact us by e-mail at marketinginfo@vectren.com.



A variety of exterior awning and shade styles are available.