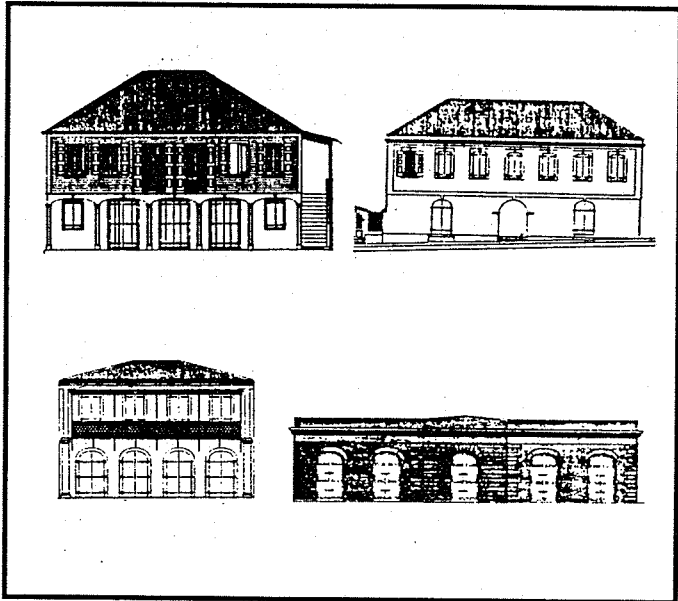


## ROOF REPLACEMENT AND REPAIRS

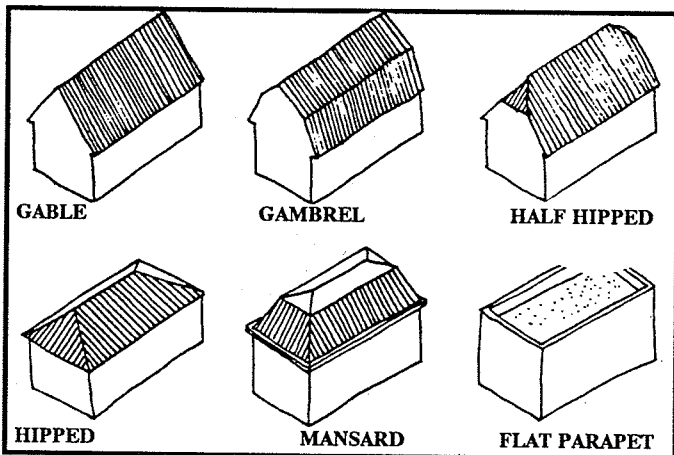
There are two major concerns when undertaking roof replacements or repairs: form and materials. Both of these should be taken into account when considering changes to existing historic buildings.



Roof form is important to historic buildings. Every effort must be made to retain the shape and materials of historic roofs.

### Roof Form

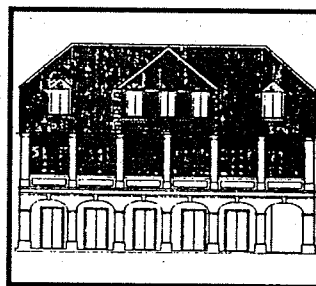
Most roofs in the Virgin Islands are "hipped", that is, a roof of four intersecting planes. Occasionally these rise to a single point, but more often are topped by a ridge line running parallel (though sometimes perpendicular) to the street. A few roofs are gable-ended. A few combine these elements with "half-hipped" forms. Others, such as Mansard roofs (eight-planed), are truly exceptions.



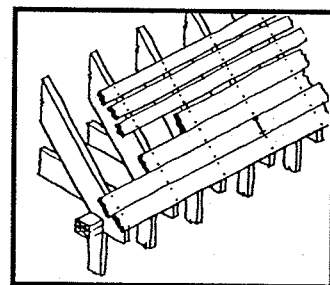
The range of roof types.

### Historic Roofing Materials

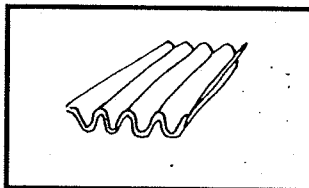
Roof framing in the Virgin Islands was traditionally timber -- usually lacking ridge-poles. The frame is covered by a sheathing of planks, or separated purlins, then covered by tile or wood shingles. Occasional older buildings still have wood or tile roofs, though most have subsequently been covered over by metal roofing.



A half-hipped or "clipped" roof. This roof form is typical of larger, mostly 18th-century buildings in the Virgin Islands.



Sheathing for roofs: purlins or butted. Modern plywood makes an effective replacement. Ideally, 3/4 inch or 1 inch thick plywood improves roof performance during storms. Also use appropriate fasteners.



Corrugated sheet metal - Now the typical roofing material. Use of a low gauge (heavier) material combined with proper fasteners - usually screws into both purlins and decking - vastly improves metal roof performance during hurricanes.

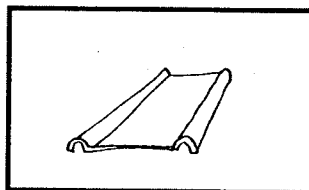
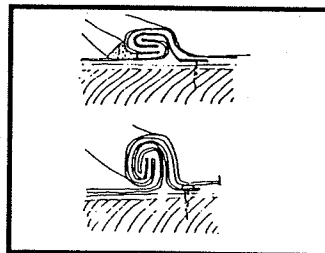


Plate metal roofs -- common on some historic buildings.

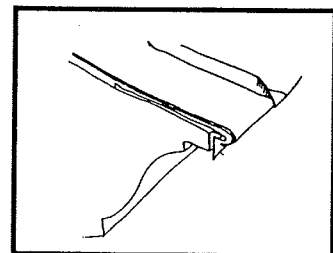
Most roofs now are covered with galvanized sheet metal. These come either in plates (extremely rare and old) or in corrugated sheets. They are generally painted red or silver, although some roofs are white and a few are green. Red is a recommended historic color, though other roof colors are acceptable.

### Replacement Roofs

Every effort should be made to retain existing roofs when undertaking repairs. If, however, the existing roof is severely

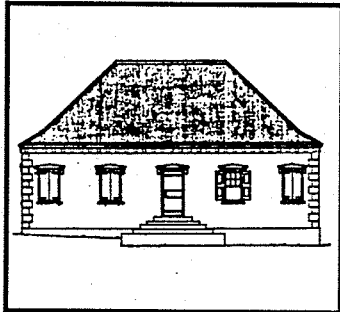


Two seam types for sheet metal roofs. Both work effectively for better quality metal roofs.



A proper drip edge for standing-seam metal roofs can improve performance.

deteriorated -- or in some cases absent -- new roofs following the existing or in some cases traditional examples are acceptable. The main concern in replacing or repairing roofs is the need to reproduce the shape and pitch of the original or historic roof. Measurements must be taken before removing a deteriorated, older roof; and the new roof should be designed to match exactly. If information is not available for a specific building -- either in the form of historic photographs or physical evidence -- then another roof form appropriate to the historic period of the building may be selected.



Note the change of angle at the lower edge of this roof. Details such as this should be preserved or recreated when roofs must be replaced.

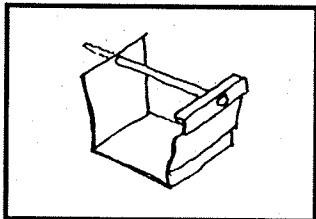
Traditional roofs were (and are) high-pitched with angles generally at 35 degrees. Nearly always, rafters were tied directly into the masonry wall, or in the case of wood buildings, attached directly to the top plate. Overhanging eaves were altogether absent, both for maintenance and to reduce wind resistance in the event of hurricanes. Unless evidence exists to the contrary, no

overhang should be incorporated into new roof designs.

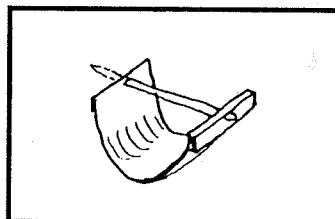
### Gutters and Downspouts

Another concern is the design and placement of gutters. Traditional gutters are semi-circular (half-round) in profile not ogee patterned as are many modern gutters. An effort should be made to obtain the proper gutters, as they have an important impact on the appearance of a building.

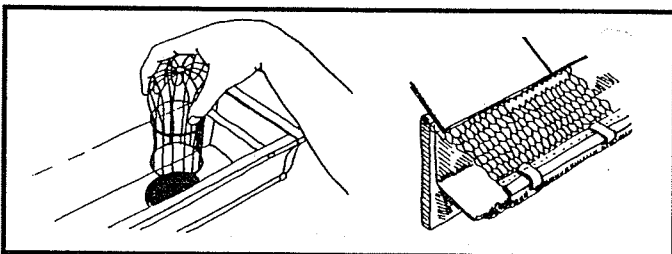
Some Virgin Islands buildings have bracketed, attached overhangs, known elsewhere as pent roofs or awning roofs. If an owner wishes to duplicate this feature, it should be based on prior documentation.



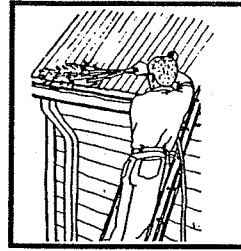
Ogee patterned gutters -- less traditional.



Half-round gutters - more traditional.



Screens or basket fitters can help prevent clogging of downspouts or gutters.



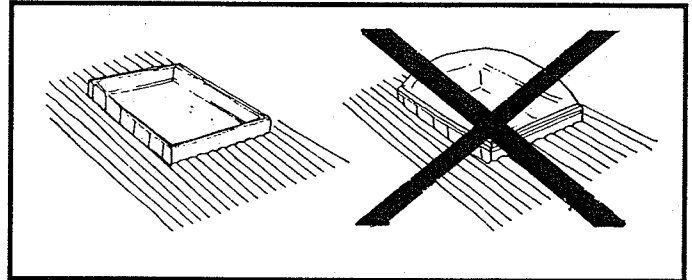
There is no substitute for regular gutter maintenance.

### Roofing Materials

Roofs should be covered with a high-grade, low-gauge (the lower the gauge the stronger the material) galvanized, corrugated sheet metal and repainted regularly. Standing seam roofs -- either custom built or manufactured roofing -- are also acceptable.



Dormers - a special problem. Generally, dormers should not be added to buildings which never had them. Also, existing dormers should be retained. To some extent, however new dormers can be added to historic buildings. Sometimes, roof framing holds clues to earlier dormers. Otherwise, the overall effect of new dormers should be taken into account: will the new dormers significantly alter the appearance of a building; is it possible to locate dormers on less visible sides of a building? Owners should ask these and other questions when considering new dormers.



Skylights are generally discouraged in the historic districts, unless they can be hidden from public view. Avoid "bubble-top" (convex) skylights in favor of relatively flat-profile lights. Skylights are not permitted on visible roof surfaces.

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