

### INTRODUCTION

This leaflet offers guidance on issues of design and appearance for those who seek to raise or alter the main roofs of terraced houses and related types of traditional urban house.

In many circumstances, English Heritage advises against adding any visible extra storey to the roof of a terraced house. This advice holds good particularly

- when there are no roofs above the parapet in view elsewhere along the terrace
- where a terrace forms an overall composition the balance of which would be upset
- where the existing roof structure is of historic or architectural interest
- where the scale of the house or terrace would be damaged by adding extra height (this applies especially to two-storey houses and short terraces)
- where the existing roof overhangs the front wall rather than being curbed by a gutter and parapet
- where structural difficulties might result from extra loading

This advice applies with particular force in the case of terraced houses which are listed or in a conservation area. English Heritage's officers are pleased to provide specialized guidance, which may vary according to the circumstances of the case. Where listed buildings in London are concerned, English Heritage's formal approval for alterations must be obtained through the relevant local authority before any work is commenced.

The correct form for roof extensions to Georgian or Victorian terraced houses is generally the mansard roof which has two slopes on each side, the lower face being steeply pitched and the upper one at a lesser pitch. Some terraced houses were originally built with mansard roofs.



*Mansard roofs have two slopes on each side, the lower face being more steeply pitched than the upper, thus providing more space for accommodation than would be possible with a conventional roof of single slope*



*Houses with pantiles on the upper slopes: this tradition should be respected where appropriate, but not introduced in unsuitable contexts*

**The three main aspects of appearance to consider when designing a mansard roof extension are its pitches and profile, its external covering, and its windows.**

### PITCHES AND PROFILE

The basic principles of a mansard roof are that the lower slope should be at a steeper angle than the upper slope, and that the upper slope should be visible. The exact angles and proportions of the slopes may vary according to the depth of the house and other circumstances. But generally tiles require a steeper pitch, slates a lower one. The accompanying diagrams show some acceptable examples, but are not to be taken as standard designs to imitate.

On grounds both of appearance and of good building practice, 'flat-topped' mansards – in other words roofs with an upper slope of a pitch below 5 degrees or totally flat – are not usually acceptable.

For correct appearance, the lower slope of a domestic mansard should rise from a point sufficiently behind the main parapet wall of the house at both front and back. It should not rest on the parapet wall, and should normally be separated from the wall by a substantial gutter.

Bulkheads and other protrusions rising out of the slopes of the roof are to be avoided, nor should there be large cuts into the slopes. Only party walls with their chimneys (if any) and windows of traditional type should interrupt the roof planes.

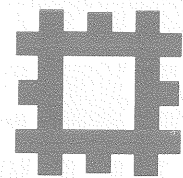
Particular problems of design can arise in the construction of roof extensions on end-of-terrace houses. In such cases, and generally in the rare cases where roof extensions on top of semi-detached houses are permissible, it may be necessary for the sake of good appearance to construct roofs with proper hipped ends.



*A pair of semi-detached houses with mansard roofs and hipped ends finished with lead rolls*



*A Victorian terrace with three windows on the second floor of each house and two dormers above. The shaped slates of the lower slope and the curved tops to the dormers are appropriate features for this particular terrace but would not be right in many other contexts*



English  
Heritage



From the point of view of correct external appearance, the internal construction of a mansard roof need not necessarily follow traditional building practice. It must however conform to current building and fire regulations, and party walls and chimneys should in normal circumstances be properly built up above the level of the new roof, with the party wall following the pitches of the roof.



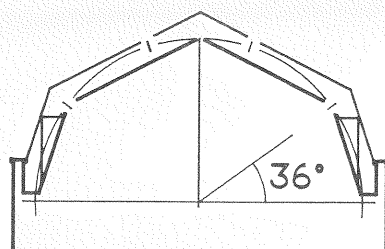
*An end-of-terrace house with a mansard roof and with a proper hipped end*

### SETTING OUT

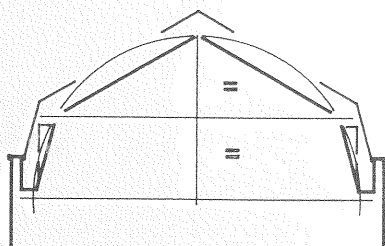
There are several ways of setting out mansard roofs. Two of the most suitable solutions are shown, all based on semicircles with the span of the roof as the diameter. The upper slope should generally not be greater than 30 degrees (depending on roofing materials and other factors). The lower slope should be in the region of 70 degrees. The coping should always fall towards the gutter and the party wall line should start behind the back line of the coping.

In example 1, the circumference of the semicircle is divided into five equal parts. The junction between the two roof slopes (knee) is located between the lower two parts.

In example 2, the height from diameter to ridge is divided into two equal parts and the knee located on the circumference at this level.



EXAMPLE 1



EXAMPLE 2

### EXTERNAL COVERINGS

Tiles or, more commonly in London and other cities, slates are the traditional coverings for terraced houses, and should be the materials used except in special circumstances. If for any reason the original material has been replaced, the choice of covering should follow the material used on the existing roof of the house or of its neighbours. Roofing materials should be of the best possible quality, and laid in traditional manner. In most urban contexts, natural slate will be the correct facing material. Artificial slates or other substitutes for traditional materials should not normally be used.

On some Georgian houses, mansard roofs are found with pantiles on the upper slopes and plain tiles on the lower faces. This tradition should be respected where appropriate, as should other such special cases.

Listed Building  
Guidance Leaflet

Mansard  
Roofs



*A terrace of London houses of the Regency period, showing mansard roofs with the party walls which follow the pitches of the roofs; the dormer windows are set behind the parapets and each two-bay house has one dormer*

## WINDOWS

Traditional mansard roofs often have fewer windows than the elevations below. Thus a three-bay house may have two dormers and a two-bay house may have one. Windows should be in the lower slopes only. They should be modest in size and unpretentious, and should project from the roof slopes. They should be set behind the parapet wall, so that the full height of the window is not visible from the street. Windows of non-traditional width are not recommended.

There are historical precedents both for side-hung casements and for sliding sash windows in mansard roofs. Care should be taken to choose a historically appropriate style and appearance of window, with special attention paid to the thickness and profile of the glazing bars. With houses in the Georgian tradition, windows in roofs should be unobtrusive, and it may be desirable to paint their woodwork in a dark tone.

These guidelines for windows apply to the backs as well as the fronts of houses.

English Heritage  
Fortress House  
23 Savile Row  
London W1X 1AB  
(01-973-3000)  
December 1989

*Dormer windows in the lower slopes of mansard roofs should be modest in size and should generally project from the roof slopes rather than be inset; there are historical precedents for both side-hung casements and sliding sash windows in mansard roofs*

