

had flat panels outlined by beading. These might have a fanlight above if they led into a hall or passage, and in the grander houses, a decorative door surround. (see front cover)

Materials and Finish

Traditional doors, and most traditional window frames are wooden. The use of UPVC and mass produced designs is particularly inappropriate, as neither the materials nor the design have the character and finish of traditional joinery. Applied leading is also unsuitable.

Hard wood may be used for a new window if it comes from a sustainable source and is painted. Unpainted oak and oiled window frames only occurred on high status buildings pre-dating 1750. Staining may be appropriate on a farm building. Traditional paints are lead based and may still be present in historic buildings. Face masks and good ventilation are essential when stripping, and good quality microporous paints should be used as a replacement.

Double Glazing

Historic windows have single glazing allowing fine glazing bars and slender frames. Double glazing requires heavier woodwork to take the extra weight, timber beading takes the place of putty, and opening mechanisms have to be changed. It may also include unsightly trickle vents, 'storm proofing' and applied glazing bars, giving a visual effect that is markedly different from a traditional window.

Buildings and the law

Before altering a Listed Building make contact with a conservation officer. Listed buildings are protected by law and it is necessary to obtain Listed Buildings Consent from the local authority to change the design, method of opening or material of a window or door. In some cases, unlisted buildings also need permission before their windows can be altered. Business premises, hotels and flats fall into this category, together with those buildings in Conservation Areas covered by an Article 4(2) Direction. This is in addition to applying for Building Regulation approval.

Building Regulations and windows

Part L of the Building Regulations is concerned with energy efficiency, and the requirements of part L means owners must apply to the local authority if windows are to be replaced or the use of the building is being changed.

The aims of Building Conservation and Energy Conservation sometimes conflict. Since traditional single glazed windows cannot reach the level of efficiency required by Part L the regulations recognise the need for compromise in historic buildings. When applying for replacement the owner of a historic building must demonstrate that the character and appearance of the building will be harmed by the full requirements of Part L.

Practical solutions

The following are ways of improving thermal efficiency without spoiling the character of historic windows:

- Refurbishing them and adding draught-proofing is often the best solution. Draught-proofing a single glazed window has roughly the same effect as fitting an additional sheet of glass.
- Use internal shutters, particularly if the shutters themselves are draught-proofed.
- Use thermally lined curtains, or reflective and/or insulated internal blinds.
- Install secondary glazing.
- Add draught stripping.

Guidelines

Keep

- Keep historic joinery wherever possible
- Match existing materials
- Keep historic glass
- Match existing mouldings
- Keep existing methods of opening
- Keep existing fittings
- Use historic finishes such as paint
- Match section, size and profile of existing details
- Match the existing glazing bar arrangement

Avoid

- UPVC
- Double glazing
- Applied leading
- Modern 'storm proof' windows
- Applied glazing bars
- Projecting timber sills
- Top hung window openings
- Routered details i.e. mouldings added after a window or door is assembled
- Stained timber
- Stripping joinery except to repaint
- Avoid paint removal by dipping
- Beading instead of putty
- Spiral balances for sash windows
- Fanlight style windows within a door

Further information

We can provide further information on:

- Mullioned windows and traditional lead glazing.
- Traditional casement windows.
- Sash windows.
- Historic doors and the use of fanlights.
- Industrial and agricultural joinery

For further information, or a discussion on your own building please contact a conservation officer at Staffordshire Moorlands District Council on: **01538 483576**
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web www.staffsmoorlands.gov.uk

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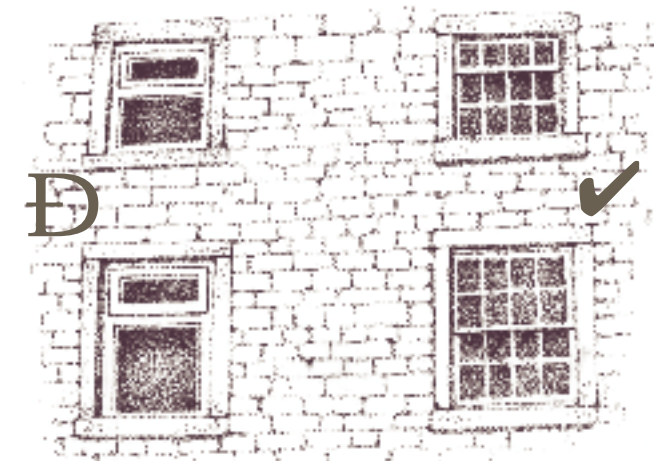
INVESTOR IN PEOPLE

'Windows and doors' is a response to PPG15 'Planning and the Historic Environment' and Policies B6, B11 and B13 of the Staffordshire Moorlands Local Plan.

Available in alternative formats on request

Windows and Doors

in the
Staffordshire Moorlands



The bad and the good

Repair and Replacement

Windows and Doors

Historic windows and doors are unique, and should be treated as antiques. Their shape, style and materials contribute to the essential character of the building, reflecting the period in which it was built, the wealth and status of the builder, its uses, and the changes that have taken place over time.

Repair or Replacement?

Windows and doors keep the weather out, and make a building secure. Badly maintained they will be draughty, and may allow a building to become damp. Poor maintenance may also affect the value of the property and regular work is essential.

Early doors and windows may be of oak, but by the 18th century seasoned soft woods were in use. This gives historic doors and windows a far greater life expectancy than their modern equivalent.

Early glass is different from modern glass having slight imperfections, and a rippling surface. Standard modern glass is flat and lacks the sparkle of the earlier materials.

Historic buildings rarely survive unaltered, and most will have fittings from more than one period. This gives a subtlety of character to their appearance that is destroyed by wholesale replacement, or a misguided attempt to 'return to the original'.

For all these reasons (**durability of the wood, quality of the glass, subtlety and authenticity of detailing**) repair should be considered rather than replacement. This can generally be achieved by cutting out the rotten sections of wood and scarfing in new ones, taking care to replicate the original profiles.

If replacement is essential

Contact a conservation officer if you feel a window or door is beyond repair. The following guidelines will apply to a Listed Building unless there are exceptional circumstances:

- an exact match of the original materials
- an exact match of the window or door design
- an exact match of opening mechanisms
- an exact match of all glazing bar profiles or the profiles of other mouldings
- retention of single glazing
- re-use of glass and ironmongery where possible
- an exact replica of the finish

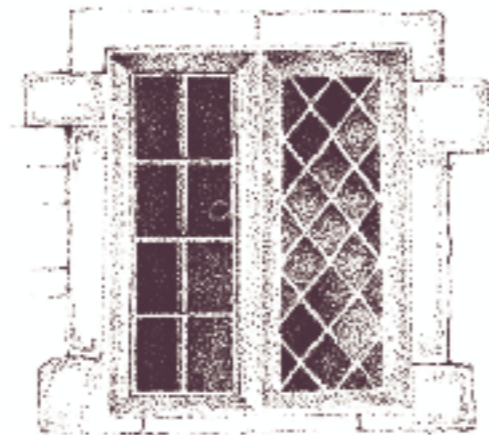
Standard catalogues may include 'period' windows and doors. These are rarely appropriate in a historic building, as they generally include materials such as UPVC, applied leading instead of plain glass, double glazing and poor detailing.

New Properties

With new properties in Conservation Areas, or adjacent to a Listed Building joinery should be chosen that is sympathetic to that of the surrounding buildings. Think also about local features such as stone sills and relieving arches, and setting windows back within the opening.

Window Styles

Window styles and their position have changed over time. Seventeenth century windows were generally small because glass was expensive. They were divided into 'lights' by stone or wooden mullions. These were filled with glazed panels made by leading together small pieces of glass which were set straight into the opening without an intervening frame. Larger windows might be divided by mullions and transoms giving two or more rows of lights in each window. Either might have an iron-framed casement to provide ventilation.



Side-hung metal casement with oblong panes

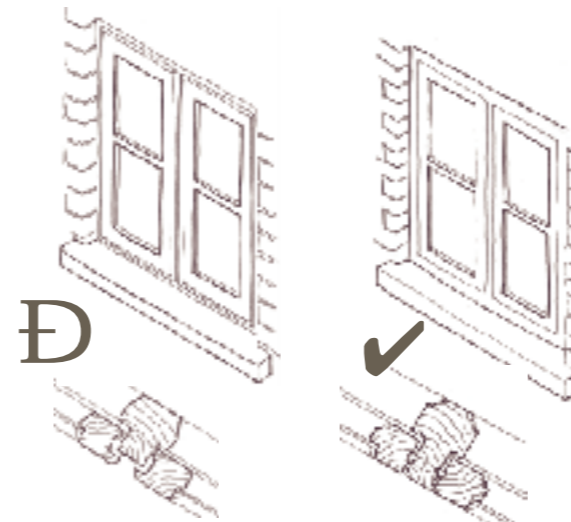
17th century style glazing with diamond panes

As glass became cheaper window sizes increased. Leaded lights gave way to side-hung casements with metal or timber frames, or to sash windows. Both came in a great variety of styles, which may vary according to the type and status of the building. The woodwork was almost always painted.

Traditional casement windows are flush fitting which is less heavy in appearance than modern storm-proof casements.



Traditional casement with eight-pane windows

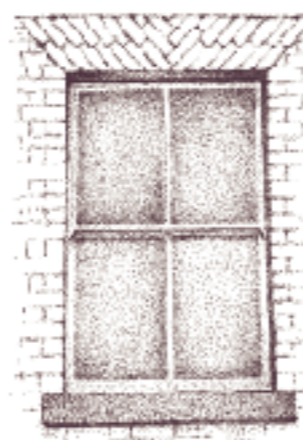


Sections of storm-proof (£) and flush (✓) windows

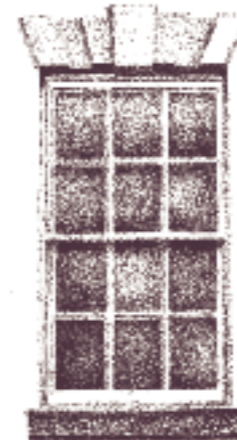


Traditional glazing bar profiles

Early sash windows have small panes divided by glazing bars. As glass making changed larger sheets became available, and by the late 19th century, windows might have a single sheet of glass in each sash. Later sashes could be heavy, and by 1850 horns were added, making the sashes run more smoothly. Sash design was heavily influenced by fashion producing a wide range of local detailing.

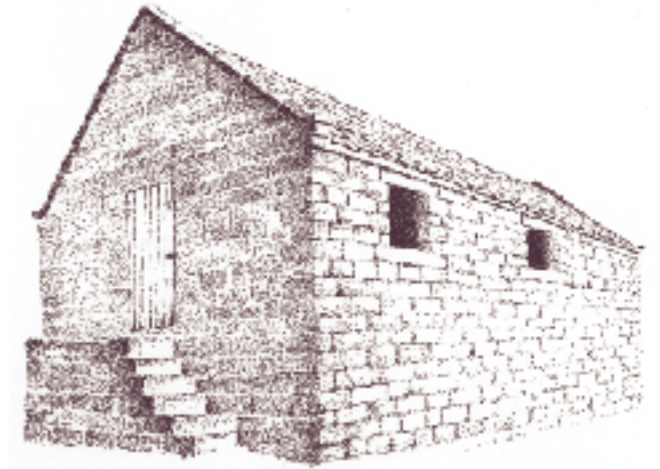


Sash window with horns - two over two panes



Sash window without horns - six over six panes

Industrial buildings often have large windows to ensure adequate lighting for machine operators. These may have metal frames and relatively small opening sections. By contrast, agricultural buildings generally have few windows, although their disposition varies with the function of the building. Upper floors may be served by unglazed pitching holes, and lower floors may have several doorways, but few if any windows.



Barn with pitching holes

Doors

External doors take the full force of the weather and are sturdier than internal doors. Exterior doors in the 17th century were of plank construction, and might have vertical boards outside, and horizontal boards inside. Simpler versions of plank and baton construction were used both inside and outside in later farm-houses, small houses in urban areas, and in industrial and farm buildings. The latter might have stable doors with a top half that could be opened on its own.



Plank and baton door with bracing (rear)



Panelled door (front)

By the 18th century panelled doors with raised and fielded panels were fashionable in wealthier households. Panelled doors remained a feature in the 19th century. The most elaborate had deep bolection mouldings, while the simplest