



PARSONS  
JOINERY<sub>Ltd</sub>

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## BUYERS GUIDE TO REPLACEMENT WINDOWS AND DOORS



*Victorian villa in Hastings where the original sliding box sash windows were replaced with wooden double glazed alternatives, using slim 14mm krypton filled units to enable the replication of the fine glazing bars.*

Replacing the windows and doors in your property represents a substantial investment which requires a great deal of thought and extensive research. New windows and doors can transform the appearance, security and comfort of your home and, if accomplished with sensitivity and understanding, can represent a significant improvement which can increase the value of your property. However, there are many pitfalls and we have written this guide to assist in making the right choice for you and your property.

## CHOOSING THE BEST CONTRACTOR

When making your choice of contractor, there are a number of important checks to ensure that your installation will comply with legal requirements and Building Regulations and will offer you assurances about your safety and offer the security of guarantees. The number of contractors you ask to submit quotations is up to personal preference and a personal recommendation from friends or family is always a good starting point. Price and meeting the requirements of your budget is a consideration for most of us but should only be one of many other checks you make as a mistake could be very costly and outweigh any benefits gained from a financial saving at the quotation stage of your project. When comparing prices, ensure that all the contractors have included all the elements required to undertake the installation such as scaffolding and parking bay suspension and that the specification for the joinery, finish, ironmongery and glazing are similar.

In April 2002, the replacement of windows and doors came within the scope of the Building Regulations for England and Wales and, therefore, any replacement windows and doors in your home are subject to the requirements of these regulations. It is, therefore, important to choose a contractor who is fully conversant with these regulations and is a member of a Competent Person scheme, such as FENSA, so can self-certify their installation or will submit a Building Notice to your local council for their inspection. Companies who operate Competent Persons schemes have to ensure that their surveyors and installers have Minimum Technical Competency to undertake the work so there is a further assurance of the safety and quality of both the product and the installation. If your installation does not comply the work will not be legal and you could be prosecuted. The work may not be safe and may not meet energy efficiency standards and your Local Authority may insist that you put this right at your own expense. There are exceptions for properties in a conservation area or Listed Buildings particularly relating to thermal efficiency and u values and you should seek advice from your Local Authority if you think that your property falls within either of these categories.

Windows and external doors and patio door sets should be CE marked. The CE mark is an assurance that these products comply with the required European standard and can, therefore, legally be placed on the market. The CE mark is also an assurance of quality as the manufacturer must operate a quality control system within their factory to ensure consistency and that the component parts of the joinery meet with the required British Standards.

Your installer should offer a company guarantee that is insurance backed in case the company ceases to trade within the period of the guarantee. If they require a deposit prior to commencing the works, deposit indemnity insurance will give you peace of mind that, if the worst were to happen, you would be recompensed with any deposits you have paid.

Ask if your contractor is a member of any professional organisations such as the British Woodworking Federation or the TrustMark scheme who monitor the performance of their members or ensure that they comply with their Code of Conduct.

## WHAT ARE YOU TRYING TO ACHIEVE?

Before you embark on this project as with any other significant alteration to your property, it is important to reflect on your reasons for making the change and what you hope to achieve from your investment. These reasons can include upgrading the thermal performance of your windows, maintenance issues, aesthetic improvement or renovation and Parsons Joinery can offer advice and guidance to help you to make the correct choice for you and your home.

## SAVING MONEY BY UPGRADING THERMAL PERFORMANCE

Heating and constructing buildings in the UK accounts for 50% of our energy consumption. The by-products of that energy use are carbon dioxide and sulphur dioxide emissions from power stations and it is these by-products that are contributing to global warming and acid rain. In order to meet its commitment to reduce CO<sub>2</sub> emissions under the Kyoto Agreement, the Government made the replacement of windows and doors in your home subject to the requirements of Building Regulations in England and Wales.

These changes are designed to improve the thermal efficiency of our homes and set insulation standards which are measured in units of thermal transmittance or 'U-value' which favour double or even triple glazing rather than single glazing. Double glazing works by trapping air between two panes of glass creating an insulating barrier that reduces heat loss, noise and condensation. Sealed units usually consist of two panes of glass vacuum sealed into a single unit that is fitted into the window frame. The thermal performance, or U-value of a replacement window, can be increased by upgrading the glass type, the gap between the sheets of glass, filling the cavity with gas or adding sheets of glass, i.e. triple glazing. Ensure that your contractor can provide you with the calculated u value for your new replacements.

New glazing technology is being introduced into the UK market consistently. One of the latest developments are slimmer double glazed units which can be used in traditional style Georgian or Victorian type designs enabling the glazing bars and section sizes to replicate the slimmer appearance of the original windows. However, many of these slimmer units do not comply with the u values required by Building Regulations so may only be appropriate for Listed Properties or those in Conservation areas as a more thermally efficient alternative to single glazing.

Window frames can be manufactured in a variety of materials but interestingly, aluminium and uPVC does not perform as well as timber in terms of thermal efficiency. Both involve a much greater consumption of energy in their production than is used to produce timber. Wood, as a natural renewable resource is clearly preferable to any man-made alternative and can be repaired and renovated over time. To further increase insulation, opening sashes should be draught proofed.

At the Grand Designs Live Show in April 2009, Kevin McCloud launched the Great British Refurbishment Campaign to lobby Government and the Prime Minister to introduce measures to assist in its commitment to reduce our carbon output by 80% by 2050. He believes that "As homeowners, we need look no further than our own four walls to find a way to reduce carbon emissions, save money on our energy bills, and create jobs in our communities. If the Government is serious about tackling climate change, help must be given to homeowners on every street in Britain to green their homes". By retrofitting existing homes with modern insulating,

energy saving and even energy generating technology we can improve their eco-credentials which is good for the individual and the planet. To join his campaign and find out more information go to [www.thegreatbritishfurb.co.uk](http://www.thegreatbritishfurb.co.uk) or for the Act on CO2 campaign at [www.energytrust.org.uk](http://www.energytrust.org.uk).

## WINDOWS ARE ROTTEN AND BEYOND REPAIR

Wood has been the natural choice for joinery for centuries and there are many excellent examples of wooden windows which are over 100 years old and still perfectly serviceable today. Wood is a natural renewable resource and, when adequately and appropriately maintained, can give many years of useful service. Additionally, when wooden windows and doors shows signs of weathering, they can be sympathetically repaired to extend their life. This option is not available with man-made alternatives which will fade and discolour over a period of time.

Inevitably, however, windows and doors reach the point where they are beyond repair and require replacement at which time it may be possible to incorporate modern technology to upgrade their performance whilst maintaining the aesthetic appearance of the originals. Alternatively, you may wish to take the opportunity to replace the joinery with something that is more in keeping with the period of the building, where uPVC or aluminium replacements have been used in the past, or for a design that is more aesthetically pleasing.

To ensure that you achieve the maximum life from any external joinery including windows and doors, it is very important to instigate a regular maintenance routine which will involve inspection and cleaning on a quarterly basis after the final protective covering (paint or stain) has been applied in accordance with the paint manufacturers' instructions. Additionally, to enable sliding sash windows to operate smoothly, apply a silicon spray or candle wax to the pulley stiles regularly and always treat your windows with care, avoiding slamming them shut or forcing them open and always use the window furniture provided. For further information refer to our guide to **joinery maintenance**.



*Replacement of vertical sliding sash box windows in a terraced property in Lewes, East Sussex.*

## REPLACING MIS-MATCHED WINDOWS IN PLASTIC OR ALUMINIUM

The UK has a rich tradition of different window designs and materials from various periods of history and the loss of original windows in historic buildings can ruin the appearance of the building and must be avoided at all costs. However, occasionally buildings are subjected to unsympathetic renovation and replacements which are functional rather than aesthetic or, through several renovations under different ownership, can have mismatched windows that are not in keeping with each other or with the property itself.

In this instance, not only will the property benefit from consistency but also the replacements might actually increase the value of the property whilst improving its appearance. It is always worth checking with an expert such as a local surveyor or estate agent before making your investment as it has been found that, in some instances, plastic replacement windows, rather than wooden, can actually reduce the value of your home when it comes to resale or were replaced without consent and the Local Authority may enforce replacement.



*This property in Heathfield had windows of different styles in aluminium and painted wood. These were replaced with hardwood casement style windows glazed with traditionally hand-made leaded light glass.*

## MATCHING AGE AND DESIGN OF BUILDING

Custom-made manufacturers of joinery can replicate the original design of the windows in your property and, if these windows no longer exist, can use those in the neighbouring properties or those shown in old photographs as a pattern to inform the design of the replacements. Details such as the style and section size of the glazing bars, the use of mouldings, the style of the horns on sliding sash windows and the use of traditional weights and cords and the style and finish of the ironmongery can all be incorporated within the design.

In the terraced cottage in Lewes shown on next page, the property was located within the Conservation area of the town and single glazed replacements were the preference of the property owner and the Conservation Officer. To improve thermal efficiency and enhance privacy and security, double sets of timber shutters were designed and fitted to all of the windows.

## IMPROVING SECURITY

Statistics indicate that one third of all burglars gain access to properties through the windows. Double glazing provides some security in that it is harder to break than single glazing. Glazing beads are difficult to remove but it is recommended, as a precautionary measure, that these should be glued and pinned for additional security. Because the noise of breaking glass could alert neighbours and passers by to criminal activity, easing open the sashes on a window is a preferable means of undetected entry and, therefore, lockable ironmongery should be fitted to all replacements.

Before instructing your contractor, check with your insurance company to see if there are additional security measures that you can specify which, whilst in the short term may increase the cost of your installation, may, in the long term, prove cost effective in the savings made on your household insurances. It is recommended that lockable stays and fasteners should be fitted to casement windows and, for additional security, casement locks. On sliding sash windows, lockable sash fasteners should be fitted together with sash stops.



## REPLACING WINDOWS IN HISTORIC BUILDINGS

Undoubtedly we all recognise the need to conserve the natural environment by reducing heat loss. This presents an ethical dilemma for architectural conservationists and homeowners alike as a balance needs to be struck between the requirements for energy efficiency and the preservation of our architectural heritage.

Replacing any window in your property now requires Building Regulations approval from your District Council, even if a like-for-like replacement is being made. Where the existing windows are beyond repair and require replacement, it may be possible to incorporate double glazing into the replacements without significantly compromising the character and appearance of the building. Where the existing design does not have fine glazing bars, sashes in both casement windows and sliding box sash windows can be glazed with 24mm argon gas filled double glazed units. Where there are fine glazing bars, 24mm double glazed units with inset spacers and applied glazing bars can be used to replicate the original design or, alternatively, slim 14mm Krypton gas filled double glazed units will achieve higher U values than single glazing but will not be as thermally efficient as 24mm argon gas filled units.



*Replacement windows in a listed property in Wivelsfield Green*

## TIMBER, uPVC OR ALUMINIUM?

If there are budgetary constraints, upvc or aluminium certainly offer a cost effective option but for many period properties this choice could compromise the integrity and appearance of the building as the original joinery would have, invariably, been manufactured in timber. Replacement windows in upvc or aluminium may operate differently to the originals. For example, sliding box sash windows replaced with top hung sashes will alter the appearance and sight lines. The ecological arguments in favour of timber certainly outweigh those for any other choice of material and further information can be found on our website. The arguments in favour of upvc or aluminium over timber have invariably been concerned with maintenance issues but with new technologies in paint finishes and more timber manufacturers offering a fully finished product, these issues pale into insignificance when set against the ecological plus points.

At Parsons Joinery we predominantly use six species of timber for our joinery:

- European oak, a hardwood, is one of the most durable natural timbers for exterior use. Oak can be treated with oil with UV filters to preserve its blond appearance or can be left untreated and will gradually fade leaving it a pale silver grey. It is one of the most expensive hardwoods. It should not be painted or varnished as the acids and oils within the timber will, over time, repel this type of finish.
- Utile and sapele are commonly used tropical hardwoods suitable for exterior use and are a cheaper alternative to European oak. They have a reddish colour and can be stained, varnished or painted. We also use utile or sapele for door and window cills when the rest of the joinery is manufactured in softwood as the cill requires more durability than the vertical components in a window or door.
- Iroko is a tropical hardwood suitable for exterior joinery. It is a cheaper alternative to European oak and is often used as a substitute for oak because it has a lighter more yellow hue than utile or sapele. Iroko is often used for unpainted door cills.
- Red Grandis – a plantation grown hardwood suitable for exterior joinery, 100% FSC certified and can be stained or painted as required.
- Accoya is one of the latest technological advances in timber. The Accoya process takes sustainably sourced, fast growing softwood and treats it in a non toxic process that ‘enables nature’ to create an extremely durable and stable product with good environmental credentials.

**All the timbers we use are from verified legal origin.**

**Want to know more? Call 01273 814870 or visit [www.parsonsjoinery.com](http://www.parsonsjoinery.com)**