

A Glaziers Point of View



A skilled workforce in traditional glass and glazing techniques with over 40 years experience in the glass industry, C N Glass have become the leading glass and glazing service in Oxfordshire and the Cotswolds area. They are Members of The Glass and Glazing Federation Offering a Full Service for all Glass and Glazing products and Services from initial design consultation through processing, manufacture and installation.

WINDOWS

Windows are one of the most important design features of a building and listed properties must adhere to strict requirements in terms of keeping with the original feel of the building.

Even small changes have a significant effect on the appearance. The position of the window in the opening, the proportions of the sashes, the arrangement of the opening lights, the thickness and profile of the glazing bars and the frame material, and indeed the glass and glazing technique itself, all have an effect on the appearance of the window and its appropriateness to the building.

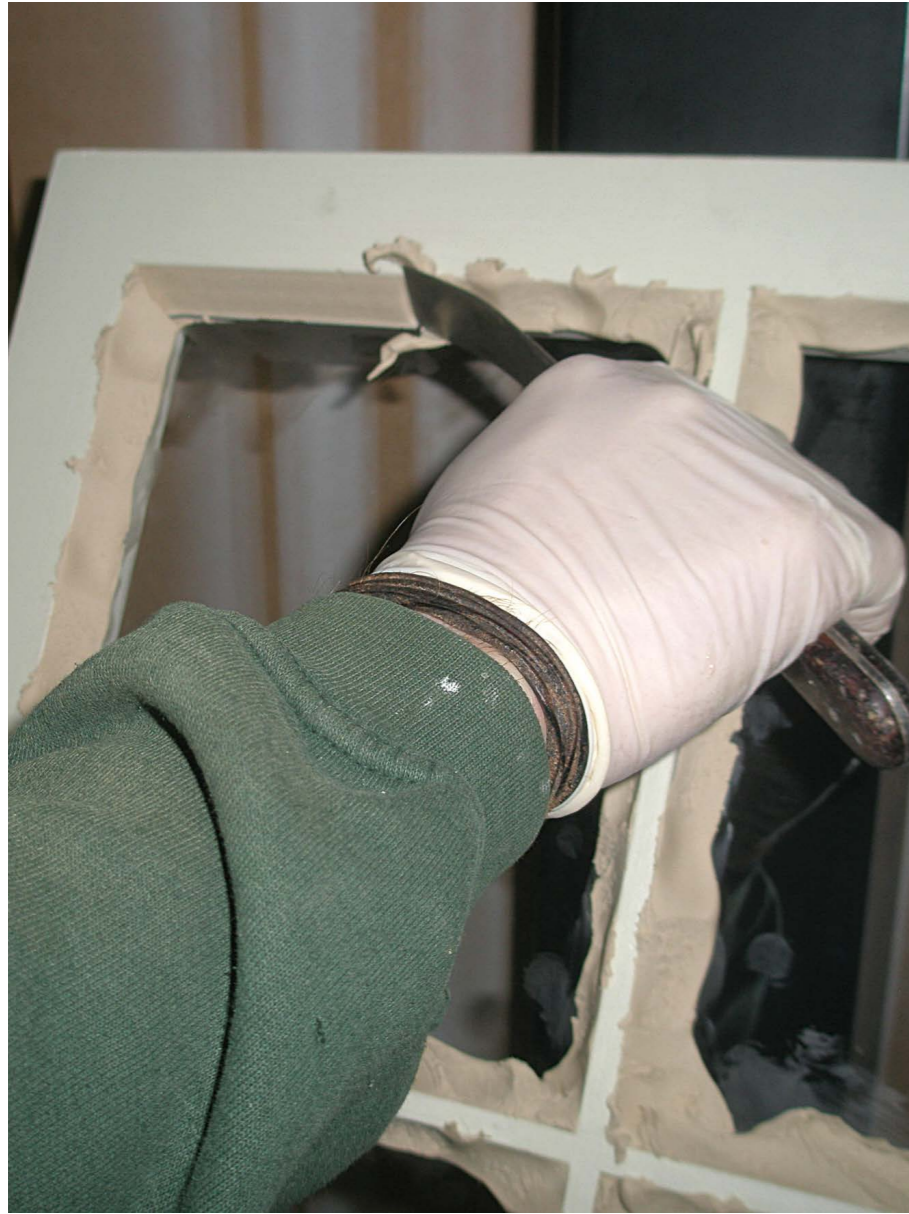
When original windows are in need of attention because of energy-efficiency, draughts, poor decorative condition, inoperative sashes, or general disrepair it may often be better to retain the old timber or metal framed windows within a building rather than replace them. In many cases, architectural or historic features may have to be retained and replacement windows may simply not be appropriate.

SECONDARY DOUBLE GLAZING

The fitting of Secondary double glazing behind the original windows as an alternative to replacement double-glazing will provide excellent draught-proofing resulting in a significant improvement to the energy performance of old windows. Secondary Double Glazing is installed with a choice of float, toughened or laminated glass and will eliminate drafts, increase security and reduce noise from outside.

Secondary double glazing does affect the appearance of the inside of the window and care must be taken to ensure that the glazing bars exactly match the windows' bars and rails and it should be installed close to the existing window frame. This is essential because the whole idea is that it should not be seen when looking in from the outside.

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Glazing the traditional way using a multi-purpose putty. A sharp professional finish requires a steady hand.



Cleaning the glass in both frames is sometimes difficult but Secondary Double Glazing usually slides horizontally or vertically depending on the window style and the glass panels may also be lifted out for ventilation and cleaning purposes.

Secondary double glazing comprises of an aluminium outer frame joined to a seasoned hardwood surround, which allows for a neat, unobtrusive installation even in the most difficult situations. A range of hardwood sub-frames and scribing trims can be used to assist face fixing, reveal fixing and the coupling of units. It is suitable for all types of premises including grade 1 and grade 2 listed buildings, schools, colleges, hospitals, universities, hotels and commercial buildings.

REPAIR – UPGRADE – REPLACE

Repair is the first option to consider when looking to maintain the character of a building, particularly as the original glass can often be retained by hacking out the rebate and installing the glass again by the traditional face putty method.

Upgrading wood windows can be more cost-effective than replacement. Making improvements to seals, ironmongery and other mechanisms will lead to improved weather performance.

Manufacture of replica replacement windows involves real craftsmanship, it is of utmost importance to keep to the original construction methods. Individual glazed panes create a varied light reflection across the whole window and exact replica handles stays and hinges to mimic the originals in order to maintain the original character of any period property façade.

SLIM HERITAGE DOUBLE GLAZED UNITS

The original or replacement windows may be further improved by replacing the original single-glazing with Slim Heritage Double Glazed Units, this is a form of double-glazing with a cavity between the two glass panes that is thinner than that in conventional double-glazing units. Slim-profile double-glazing generally has a less efficient thermal



Secondary Double Glazing installed into a listed property. Look closely because it is not easy to see it, that's the beauty of this product, it will not spoil the original look of the windows.

performance than conventional double-glazing, but performs thermally significantly better than single-glazing. The thermal performance of slim profile double glazing can however be improved further by using technical glass and by injecting an inert (Krypton/ Eco/ Xenon) gas to fill the cavity.

The slim heritage double glazed units can be glazed traditionally into most existing single glazing glass rebates of 17mm. By also using the technical glasses available today and by filling the space between the two panes of glass with an inert gas a building may gain all the thermal and acoustic benefits of normal

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double glazing without compromising the appearance or the value of the property.

Only a very close inspection will reveal the glass to be a double glazed unit especially if Crown reproduction glass is used. When glazed traditionally into sash/casement window frames the units are virtually undetectable because slim units do not have the double reflection or the distorted reflection that is seen when you sometimes look at standard double glazing, making them perfectly suitable for conservation or listed buildings. (subject to local planning).

For a unit that will fit into a minimum 17mm rebate the outside glass will be 3mm thick and the inside glass 4mm thick, the spacer bar is produced down to a minimum of 4mm so this will produce an overall unit of 11mm depth. The glass can be simply clear or patterned annealed/float glass, for security it can be toughened, for an improved thermal performance it can be Low E Energy Saving glass.

For new replica timber windows the rebate will be slightly deeper allowing for both internal and external glass to be 4mm therefore the overall depth of the unit will be 12mm.

To produce the Slim Heritage Double Glazed Units at CN Glass we use Edgetech Super Spacer® bar; introducing a no-metal, pre-desiccated, structural foam spacer system that is a warm edge technology to suit all sealed glass unit applications helping to deliver windows of the highest standards. Its award winning, patented Thermal Set Spacer (TSS) technology gives the ultimate in high performance spacer systems. Super Spacer has 100% memory and allows for expansion and contraction. With Super Spacer® thermal bridging is all but eliminated, resulting in a massive 70% reduction in condensation. Most of the heat loss through a window occurs at the edge of the unit, Super Spacer® blocks this escape route.

Traditional timber windows have much slimmer profiles than the modern choice of today's window styles and are glazed with low sightlines. This creates problems for standard aluminium or warm edge spacer bars because they protrude into the sightline of the window. Super Spacer has a lower sightline which eradicates the problem. 🌀

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Replacement timber casement and sash windows glazed with C N Heritage double glazed units using Low E Energy Saving Glass



Edgetech Super Spacer®, used to manufacture C N Slim Heritage Double Glazed Units