

CLEMENT WINDOWS GROUP - REPLACING ORIGINAL STEEL WINDOWS AT HISTORIC SCHOOL BUILDINGS

According to Historic England, there are over 5,000 listed school buildings in England alone and there will be many more across the UK that are worthy of preservation despite not being listed.

These days refurbishment of historic school buildings is generally preferred over demolition. Thankfully the days of the Government's Building Schools For The Future programme of the early years of this millennium are over. Back then, building new state-of-the-art school buildings seemed to be the main goal and bodies such as English Heritage and the Victorian Society joined the debate to try and turn the focus to the importance of preserving current buildings, not just because of their architectural and historic significance, but because of the important role played by schools in the local community.

In 2023, reuse is a popular strategy due to the sustainability agenda. Individual buildings can be renovated to become greener versions of themselves and repurposed to accommodate sophisticated technology and new equipment. Refurbishment often means less disruption for the school than rebuilding as it can take less time and cost less, meaning fewer teaching hours and resources are compromised.

When it comes to the windows at these buildings, new frames can be manufactured to match the exact size and style of the existing ones so that none of the original character is lost and these new windows will bring advantages such as better thermal performance, increased daylight and tighter security.

Clement Windows Group has been privileged to manufacture new steel windows and doors to replace the originals at a number of heritage school projects and here we look at the most recently completed.

Trent Young's C of E Primary School

Trent Young's Church of England Primary School is located in Trent, a village and civil parish situated in North West Dorset, in the beautiful Yeo Valley. The Trent Conservation Area was designated in February 1970 and many of its structures are listed due to their historical and architectural significance, including a number of medieval and Tudor buildings.

Between 1835 and 1875, Reverend Turner and his wife occupied the village rectory and together built a great number of the buildings that survive in the village today, including the Alms Houses. In 1862, the Turners constructed the National School which was to be for girls and infants. Since its induction, the school has seen many changes, including the introduction of boys and the expansion of the buildings and today the school is Grade II listed.

Below, New Clement Brooking steel windows at Trent Young's Church of England Primary School



Unsurprisingly, the original metal windows at the school were not fit for purpose and the time came to replace them. This required great sensitivity as it was imperative that the new windows looked as similar as possible to the originals.

The Clement Brooking range was specified because the slim, strong frames could replicate the wonderful shaped heads of the existing windows and they could be fixed directly to stone. The 16mm krypton filled units offer the much improved thermal performance required and, like all Clement steel windows, the frames could be fitted with restrictors, which are essential for safety.

Developed for buildings which require a specialist 'putty fronted' system, the Brooking range is specifically for use in sensitive fenestration projects where a traditional appearance is required and can be specified as either single

glazed or insulated glass units. This makes the range perfect for Listed Buildings such as this one where strict Building Regulations apply.

Ros Baker, the Deputy Headteacher of the school at the time, said: "The transformation the windows have made to our school and the local area is fantastic. Many local residents have commented positively on the 'new look' windows. They have been sympathetically upgraded, in keeping with the original school building and have had a positive effect on our school environment. Furthermore, there was no impact on the staff or the children during the refurbishment."

St Mary's Calne

St Mary's School in Calne, Wiltshire, is a leading UK independent boarding and day school for girls aged 11 to 18. It was founded in 1873 by local vicar, The Reverend



Above, Clement's EB20 steel windows at St Mary's Calne have significantly enhanced the environmental performance of this building

John Duncan, who believed that the daughters of the town's Anglican families at the time lacked access to a wide-ranging education. The school moved to the current site in 1907 and over the years as the school grew, nearby properties were bought and new buildings were established.

Clement was chosen to manufacture and install almost forty new steel windows to replace the original steel windows on the front and gable ends of the Plumer Wing which comprises classrooms for music, computing, Religious Education and art. Built in 1955, the Plumer Wing is not listed, although other buildings at the school are, but it was important to retain the original character of the building.

Windows from the Clement EB20 range were chosen and these were polyester powder coat painted RAL 7016 (Anthracite Grey) instead of white like the original windows. EB20 windows are manufactured from recycled steel and have exceptionally slim frames. The use of krypton filled glass units means this product complies with the latest energy ratings for replacement windows.

This was the second phase of work for Clement which had previously manufactured the steel windows for the rear elevations of the building. The school acted as the main contractor and CDM lead for the job and Clement was the sole contractor on site. The project was completed to programme and budget during a break from the school term with minimum disruption to the school overall.

Bob Lunn, Director of Estates at St Mary's, said: "The installation of 83 high quality Clement windows, which

were installed in two phases during 2021 and 2022, have significantly enhanced the aesthetics and environmental efficiency of this building. Installation was very efficiently completed by Clement operatives within the specified installation timeframes."

City of London Freeman's School

City of London Freeman's School first opened in Brixton, South West London, in 1854 for the 'maintenance and the religious and virtuous education of orphans of Freeman of the City of London'. Paid for by the Corporation of London both boys and girls were enrolled from the outset making it one of the oldest co-educational independent schools.

In 1926, the school moved to Ashted Park in Surrey where the Grade II* listed Main House had been the home of Sir Robert Howard, Chancellor of the Exchequer during the 17th century.

In 2016, an ambitious development project was commenced, due to span the next decade. The modernization of the Main House, now the Sixth Form Centre, involved a redesign of the building and the new layout required fire screens to ensure the building met with current Building Regulations. Clement Windows Group supplied the internal steel-framed fire rated doors and screens at the top of the adjacent internal stairs which are access controlled and linked into the main fire control of the building.

Clement bespoke fire rated steel doors and screens are manufactured from cold formed pre galvanised steel profiles with a polyester powder coat paint finish to BS:6497 or BS EN 13438. The profiles are particularly slender, as opposed to the bulky frames usually associated with high performance of this type and thus provide the perfect solution for a Listed Building of this type.

As these three different projects demonstrate, replacing original steel windows with new double glazed more thermally efficient versions is the perfect solution when refurbishing school buildings of historic interest, helping to ensure that these academic environments of the past continue to provide inspiration to students both now and in the future.

Clement Windows Group manufactures an innovative, made-to-measure range of steel windows, steel doors and steel screens for both private residences and commercial projects. Based just outside London, in Surrey, Clement also supplies conservation rooflights, available from stock or made bespoke to individual requirements, in either a tile or a slate profile.

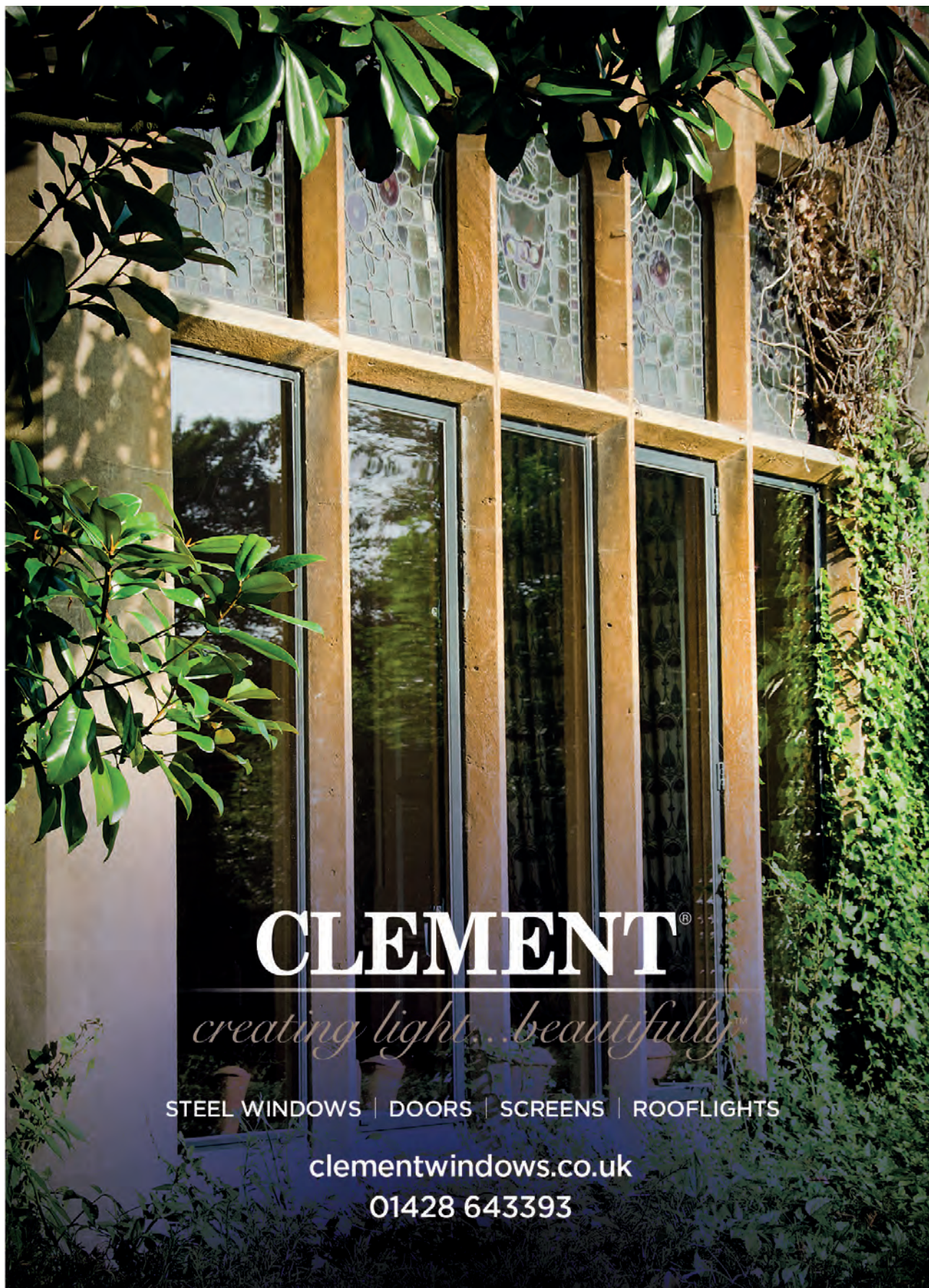
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Opposite, Bespoke fire rated door screens by Clement at City of London Freeman's School





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