

Christ Hospital, Horsham Restoration Dining Hall Windows

Christ Hospital Foundation is an ancient charitable institution founded 400 years ago to look after and educate children in need in London. The school was moved to West Sussex in 1900 into a 1200 acre site that was designed by Sir Aston Webb. The building works were carried out from 1897 - 1902.

The pair of 17m high x 6m wide x 2 metre deep bay windows form an imposing feature on the Grade II Dining Hall within the main quadrangle.

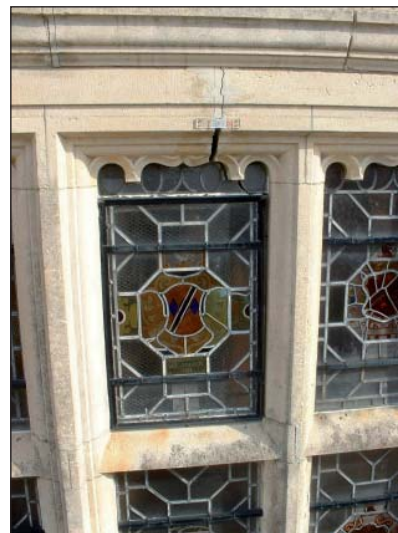
The windows are exceptionally slender and are glazed with stained glass windows incorporating pictures of shields taken out of the buildings in London when the school moved to its site near Horsham.

The bay windows were constructed with Stoke Ground Bath Stone, with three metre high mullions. Unfortunately the quality of the

original stone was variable and there was extensive replacement or mortar repair.

Age and the effects of wind and weather meant that the joints had become loose and mortar was falling out in high winds. This was exacerbated by the loss of restraint at the roof level where the corrosion of the steels meant the roof of the bay no longer acted as restraint.

CWO firstly cleaned the stonework using the Doff system to allow a detailed inspection to be made of the stone. The glazing was then removed and the stonework carefully taken down.



Having taken down the stones, CWO repaired where possible or replaced with new stone as necessary. They were then re-erected using a stainless steel rod at every transom to tie the window together and to restrain it back to the main brickwork of the Dining Hall. Additional resistance to movement was then provided by applying a nominal post tension to the ties there by putting the stone in compression.

During the dismantling the composite steel/concrete roofs were found to be failing and had to be reconstructed. Having completed the rebuild, the restored glazing was refitted.

Client: Christ Hospital
Main Contractor: CWO Ltd
Consultant Engineers: Lister Beare
Value: £300,000

RESTORATION