

Clifford's Tower, York

York's iconic ancient monument is home to one thousand years of history. The raised earth-work was once the site of a timber keep built by William the Conqueror. It burnt down during the worst event in the site's history: the massacre of the Jews in 1190.

Clifford's Tower has looked over the city of York from 1245 until the present day. Once part of York Castle, the tower played a role in turbulent national events such as the Dissolution of the Monasteries and the English Civil War.



Above: Before works commenced.



After completion.

York's Clifford's Tower ruin, which sits atop a 36ft (11m) mound, is one of the city's most famous landmarks.

After receiving approval from English Heritage in 2020 the tower underwent a major repair and restoration and re-opened in 2022.

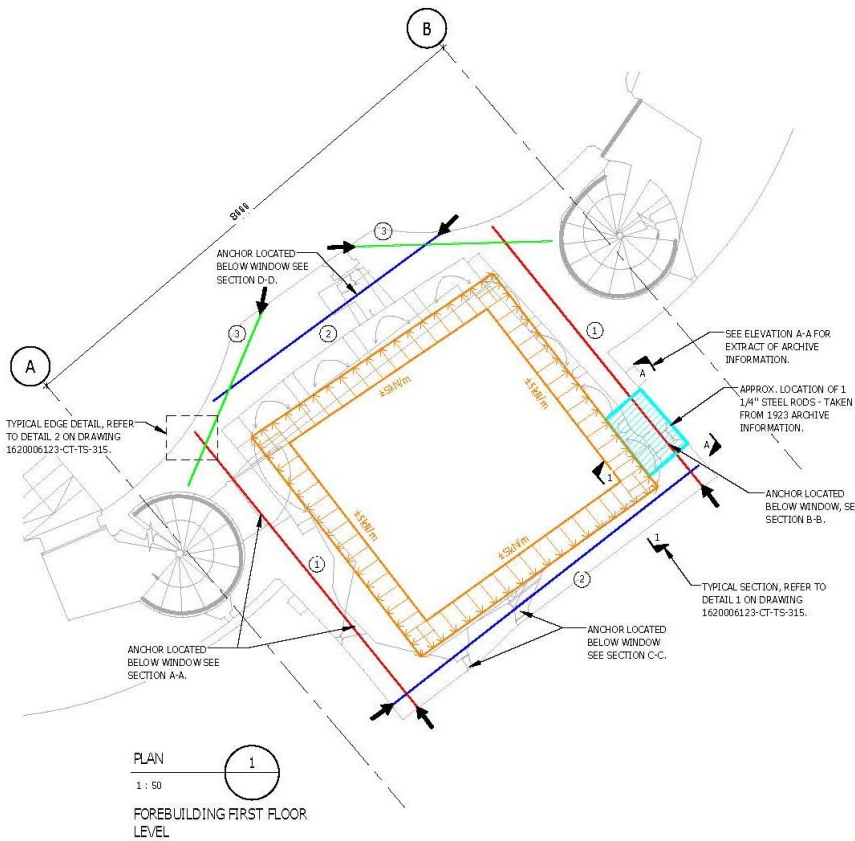
New walkways, stairs and a roof deck allow visitors to see previously inaccessible parts of the structure, according to English Heritage.

A raft of conservation work was also carried out on the tower, including repairs to turret stairs, arrow slits, fireplaces and damaged stonework. Newly-visible areas include the original royal chapel and a toilet thought to have been built for Henry III. Work was carried out to widen the 55 steps to the tower entrance, adding new handrails and resting points added. A free-standing timber structure, containing walkways and stairs, has been installed, leading visitors 32ft (10m) up to the roof deck.



In order to stabilize the tower for public access structural engineers at Ramboll UK's Chester office devised a sympathetic scheme utilizing the unique Cintec structural anchoring to ensure an invisible but effective long term solution.

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At first floor level a series of 16mm diameter Cintec M type anchors were installed to the perimeter walls thereby providing stability to structure and preventing further deforming of the masonry.

Additional anchors were installed below windows at tower corners indicated in green.

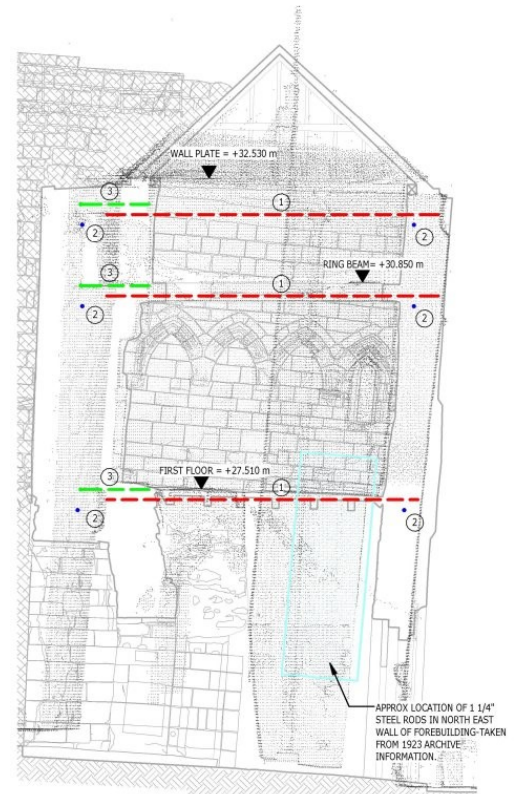
The anchor lengths varied from 3.00m to 6.00m, were in 3 rows at each location and installed in 65mm diamond core drilled holes.

At roof level a series of 16mm diameter Cintec M type anchors were installed to stabilize the masonry prior to the removal of the roof in order to resist the forces thereby released.

The anchor lengths varied from 3.00m to 6.00m, were in 3 rows at each location and installed in 65mm diamond core drilled holes.



SECTION A
1 : 50
SECTION A-A



SECTION B
1 : 50
SECTION B-B