

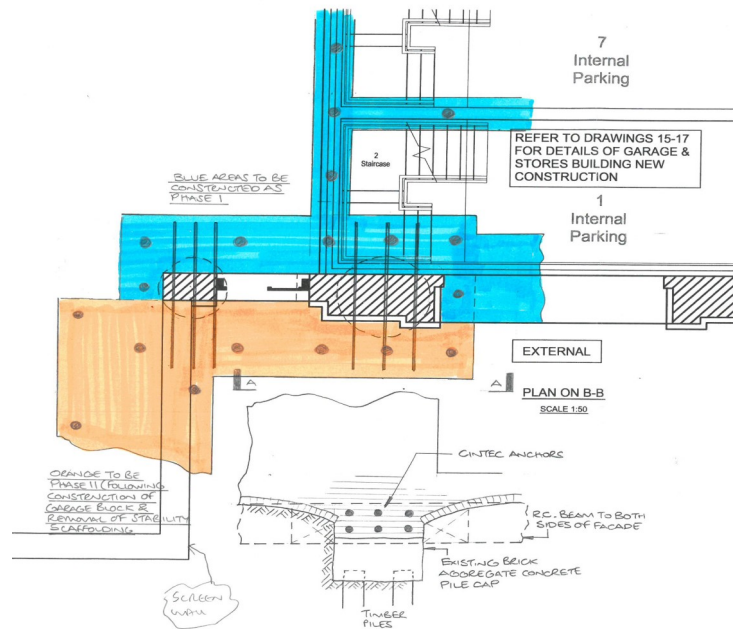
Egerton Park, Cheshire - Stabilisation of listed gable walls

In 2017 the developers Morris Homes were required under site development planning conditions to incorporate parts of a former commercial site into their new housing scheme.



The site ground conditions dictated that all building works were to be on piled foundations including the retained listed facades and gables.

The challenge for structural engineers Atkinson Peck, retained by the client, was how to support the existing listed facades by new piles. Traditional underpinning would not suffice as the retained structures were to be incorporated into the new housing and differential movement would be unacceptable to achieve either the building control certificate or NHBC certificate.



An underpinning scheme was devised whereby piling was carried out along with piles for the new construction houses and then new ground beams would be cast adjacent to the retained facades.

In order to transfer the load of the facades to the piles Cintel anchors were inserted through the existing masonry and ends of anchors left exposed to be cast into the new ground beams.

Structural engineers Epoc were engaged by Cintel to carry out the design of the load transfer anchors.

A combination of Cintel 25mm and 30mm diameter anchors were used in holes 100mm, 86mm and 65mm diameter.



Diagram at left showing anchor positions and photograph at right with exposed ends of anchors for casting ground beams around.

