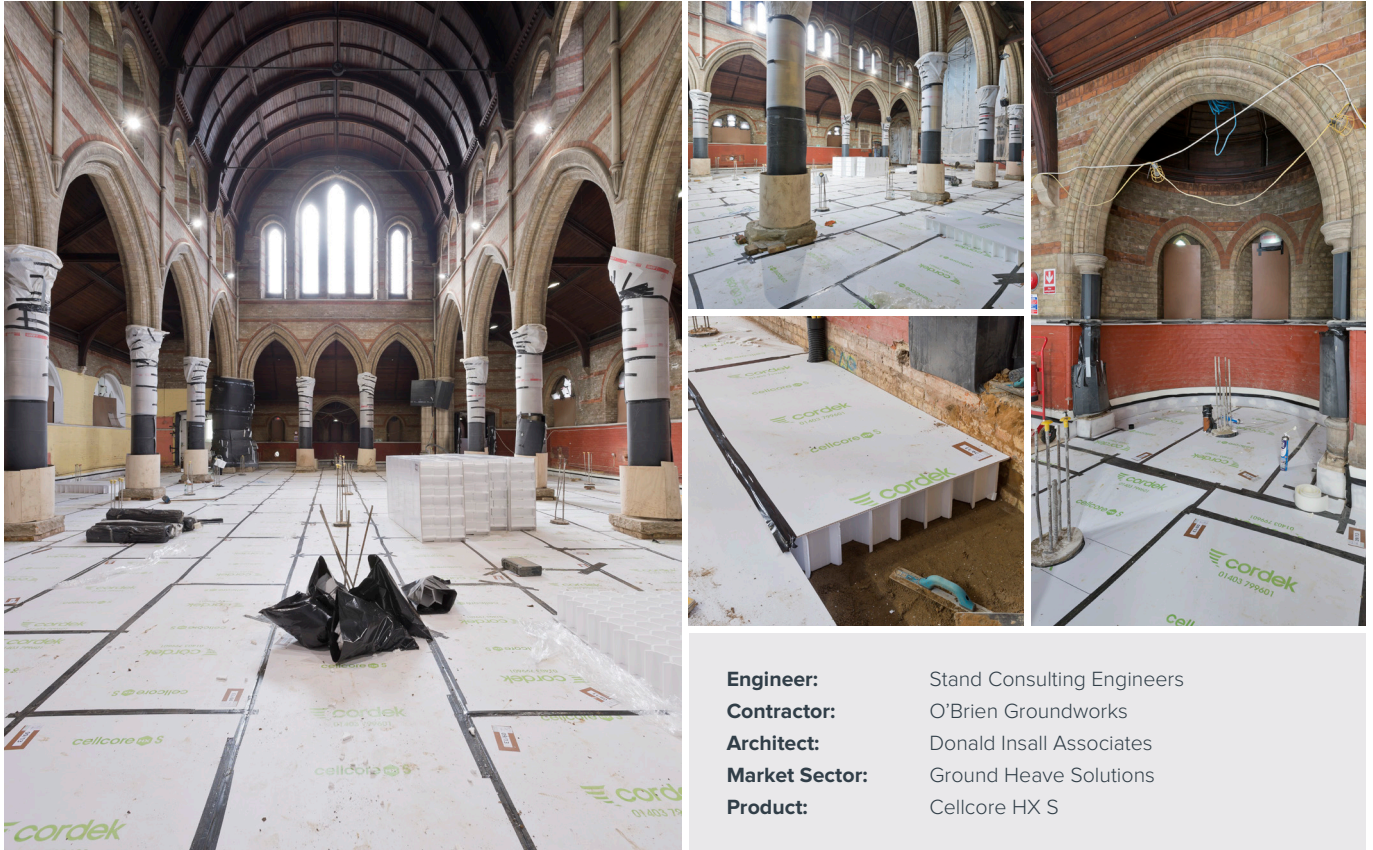


## Emmanuel Church

Hampstead, London



<b>Engineer:</b>	Stand Consulting Engineers
<b>Contractor:</b>	O'Brien Groundworks
<b>Architect:</b>	Donald Insall Associates
<b>Market Sector:</b>	Ground Heave Solutions
<b>Product:</b>	Cellcore HX S

The Emmanuel Church in Hampstead, North London has stood in its prominent position alongside West End Green since being completed in 1903. The church is now being further developed to accommodate the growing local population with the addition of four new community rooms and welfare facilities. Over the last 113 years since the church was built, the original floor of the church has sunk and become uneven, therefore needed to be reconstructed. Cordek was asked to provide heave protection measures to protect its new floor from possible future ground movement.

### The Solution

The new suspended reinforced concrete floor is supported on piles and protected from the anticipated heave of the clay soil beneath by a layer of Cellcore HX S. Following analysis of the site investigation report, the heave potential of the expansive soil identified was classified as high, equivalent to a potential maximum heave of 150mm.

### The Process

Cellcore HX S was supplied in standard 2400mm x 1200mm panels and laid onto a firm, level blinding consisting of 50mm thick concrete. Where required, the Cellcore panels were cut to ensure the correct alignment and a close fit around the piles. Once the floor area was covered and the joints between the individual panels taped, reinforcement was placed prior to the concrete slab being poured. If the predicted ground heave occurs, the upward force from the swelling clay would then be transferred into the 'legs' of the Cellcore HX S panels, which will then collapse so as to avoid damage to the floor slab.

### Summary

Cellcore HX is most frequently used on new build projects however Cordek were pleased to be able to help protect this Grade II listed building from further damage in the future.

Please contact us for  
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