

Viaduct Brickwork Repair

Gospel Oak, London

Client

Network Rail

Principal Contractor

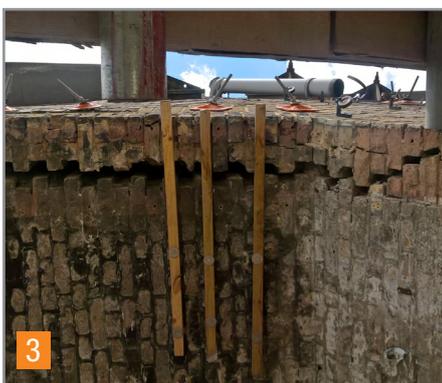
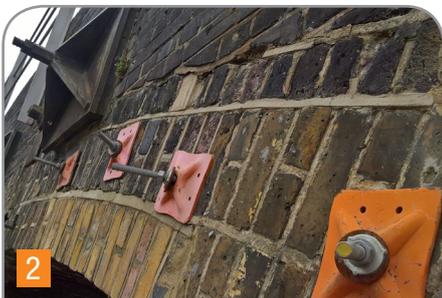
AMCO

Works Commenced

October 2016

Works Completed

November 2016



Gospel Oak in North London is a congested area for railway lines as they emerge from the centre of the city. Gospel Oak Viaduct, a brick multiple arch structure, was in need of structural repair and beautification due to a development of luxury apartments built by Mace adjacent to the train line.

Historical longitudinal vertical cracking separating the arch barrel from the spandrel had been crudely and temporarily pinned years ago with Dywidag bars terminating in pattress plates.

Freyssinet's contract included works to three of the arches applying three distinct repairs:

(a) to fill the vertical crack with cementitious grout, up to 700mm high by 80mm wide, between the arch barrel and the spandrel, having first sealed the crack's surface with brick slips,

(b) to pin the face of the voussoir/spandrel to the rest of the barrel with horizontal 10mm diameter steel pins, fixed in place with grout (Network Rail standard detail SD/107),

(c) to resin inject the old Dywidag bars and then remove the pattress plates and crop the bar flush with the brickwork.

Freyssinet carried out the works, which included scaffolding and temporary timber centring works, over a four-week period and left the site looking considerably more presentable.

- 1 Three arches to be repaired
- 2 Orange pattress plates to be removed
- 3 Spandrel wall separation from arch barrel
- 4 Crack sealed with brick slips

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