



## Northern Line Extension Battersea, London

### CUSTOMER

Ferrovial Agroman Laing O'Rourke JV (FLO)

### SECTOR

Rail

### DATE

2017

### PRODUCTS

- Proofex Engage
- Proofex WG
- Supercast SW20
- Supercast Predimax
- Nitocote CM210

### THE PROJECT

The Northern Line Extension (NLE) includes two new stations, one at Battersea Power Station and the other at Nine Elms which are targeted for completion in 2020. Waterproofing is a vital part of the construction for the station boxes along the NLE because the client requires a fully dry internal environment (Grade 3) for a fully buried deep basement structure in a location with a high water table and no possibility of external pressure relief. The NLE project required materials that could withstand water pressure as there was no external drainage; primary and secondary waterproofing measures; buildability and reparability during the construction phase and reparability

### THE SOLUTION

The base slab of the station box at Battersea Power Station was constructed by placing Proofex Engage Type A waterproofing membrane prior to pouring 1.5 metres deep of concrete for the slab. Proofex Engage has a proven track record and the advantages that it bonds to the structure not the blinding / substrate, is a fully bonded membrane preventing water tracking, is robust and not easily punctured and has an integral lap detail. The product comes with a full range of ancillaries enabling watertight construction of details such as pile caps, pipe entries and corners.

Nitocote CM210 cementitious waterproof coating has been applied to walls, bonding to the substrate and preventing water tracking and Supercast SW20 Type B swellable waterstop was incorporated in the reinforced concrete joints.

### THE BENEFITS

In addition to being competitive, Fosroc had demonstrated their ability to problem solve and adapt their solutions, to improve buildability and in support have provided over 50 drawings to date.

With repair and maintenance forming an important part of the solution for the NLE, Fosroc's new Supercast Predimax injection hose was installed because it allows for remedial work to be carried out should there be a failure in the waterproofing system after construction.



Proofex Engage with Proofex WG to Pile Head



Supercast SW20 bonded with Supercast SWX to Capping Beam



Supercast Predimax fixed to D-Wall coated with Nitocote CM210