CASE STUDY

Project: Tunnel injection, London.

Date: 2021 -2024

Client: National Grid

Eng: Aecom

MC: Hochtief Murphy JV

Scope

National Grid London Power tunnels project ensures that the electricity network is ready for the capital's future demands The new power cables are being buried in underground tunnels which will make maintenance easier than if they were close to the surface. It has a minimum design life of 120 years.

Designed by Engineers Aecom the Construction of the second phase (known as LPT2) started in spring 2020 and spans 32.5 km from Wimbledon to Crayford in south-east London, The tunnels go under tube lines, canals and rivers.

The tunnels are between 3–3.5 m in diameter, 10–63 m below street level, with most being around 30m deep with multiple vertical shafts ranging 9m to 15m in diameter and up to 55m in depth were constructed along the route. These allowed the teams to safely access the tunnels for maintenance – and will serve the same function when they come into operation in 2026

CASE STUDY

ASF
Waterproofing Specialists
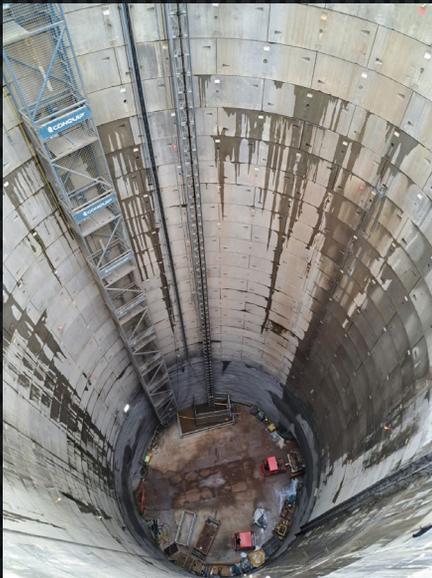
Solution

The tunnels are constructed using a tunnel boring machine that places precast concrete interlocking segments with a rubber gasket which is sometimes dislodged, damaged, or not seated properly. These slight defects allow seepage of water under considerable hydrostatic pressure and ASF Waterproofing Specialists undertake the resin injection of these joints using a variety of specialist products and techniques in keeping with BS8102:2022 section 11.
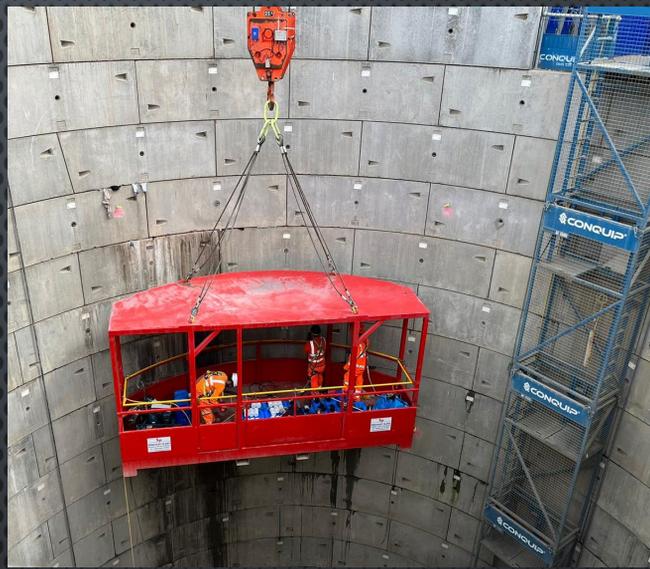
Testimony

ASF have been engaged in the London Power Tunnels project by the Hochtief Murphy Joint Venture for almost 3 years.

The Services provided by ASF are –
Leak Injection
Waterproofing
Labour Supply
Specialist Material Supply

ASF have consistently delivered their services to high standard, always reacting well to short timeframes and always willing to help out wherever they can.

I can recommend ASF for any project, they always give their all to find the most suitable solutions

Chris Ashton
LPT2