

Hammersmith Flyover Bearing Pits, London, UK



Fibrelite Trench Covers Provide an Engineered Covering Solution Over Bearing Pits for Iconic Hammersmith Flyover in London



London Hammersmith flyover during refurbishment



Bespoke composite trench covers designed with encapsulating frames

Project Overview

As part of the essential refurbishment and strengthening of this iconic London flyover, roller bearings at the base of the supporting piers were replaced due to wear, corrosion and the ever increasing vehicular traffic volume. The replacement spherical sliding bearings are located in underground bearing pits, which are now covered by an encapsulating row of bespoke GRP trench covers. The cover design layout accommodates minor movement of the pier.

What Was the Problem?

The previously installed concrete recess covers were cumbersome, preventing easy inspection and maintenance access to the bearing pits. They also exhibited major fatigue. A solution was required in specific sizes with a securing mechanism to prevent unauthorised removal of the covers, while allowing easy access when essential maintenance was required. As the covers would potentially experience both pedestrian foot traffic and the occasional vehicular wheel the covers had to be designed for both environments.

What Was the Fibrelite Solution?

Fibrelite worked in close collaboration with the designing engineers (Ramboll) and the installation contractor (Pro Steel) to design, manufacture and deliver a custom made covering solution for the 15 piers, totalling 500 individual GRP trench covers encapsulated within a purpose designed frame. The bespoke GRP trench covers were equipped with locking device to prevent unauthorised access.

Handling pedestrian and vehicle traffic was achieved by supplying a C250 (25 tonne) load rated cover with a unique anti-slip/skid tread pattern surface.



Lightweight tailor made Fibrelite covers set into frame around supporting pier

Results

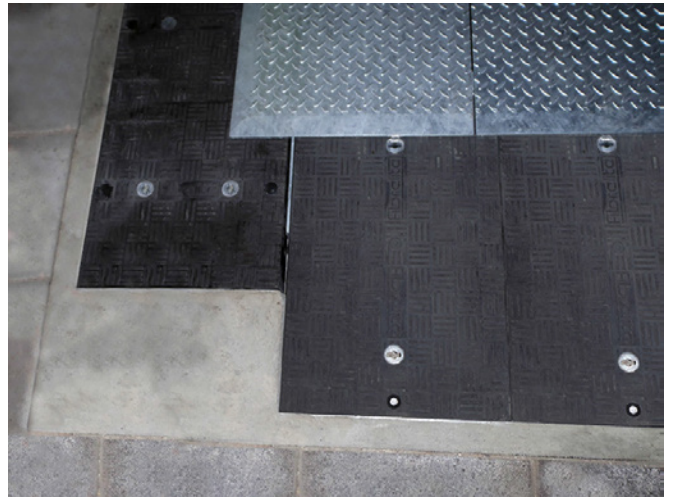
Fibrelite's GRP composite access covers have an inherent resistance to corrosion, offering a maintenance free 'fit-and-forget' solution. This means when you fit Fibrelites, they will continue to perform over time and retain their snug fit, minimising water ingress. When essential maintenance is required, the lightweight trench covers can quickly, safely and easily be removed using the custom 'key' and Fibrelite's ergonomically designed lifting handles. Fibrelite's GRP covers also have anti-slip properties equivalent to a modern high grade road surface whether wet or dry, far exceeding health and safety advisory limits [independent test reports] providing a safe walking surface. All Fibrelite access covers are BS EN 124 load test compliant, meaning consistent high quality is assured.



Roller bearings at bases of supporting piers before being replaced



Spherical sliding bearings located in underground pits, allowing for minor movement of the pier



Securing system moulded into covers which locks into frame, preventing unauthorised access



Replacement bearings located in the underground pits, covered by continuous set of access covers, allowing for the minor movement of the pier



Roller bearings at the bases of supporting piers were replaced due to wear and increased load on the bridge

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