



A complete roof refurbishment at Queen Mary's Hospital, utilising a flame-free and cold-applied liquid waterproofing system, as part of the NHS Trusts' long-term asset management programme.

The Oxleas NHS Foundation Trust has invested significantly in restructuring and revitalising the facilities at Queen Mary's Hospital in Sidcup. The Trust appointed Technical Manager Jack Costello to support their long-term asset management goals to refurbish and maintain their buildings for the future.

With the improvements planned across 5 phases, the large-scale refurbishment project at Queen Mary's Hospital would incorporate a breadth of works, including clinical accommodation and internal refurbishment. As part of the Trust's planning, there was an immediate desire to prolong the roof's life as much as possible and restore the existing system before any water ingress or further problems occurred.

Jack conducted a detailed roof condition survey and site report to assess the existing substrate of the 2,000m² roof, revealing a mastic asphalt system applied directly to the concrete deck. The existing system needed restoration, making it eligible for refurbishment to prolong its serviceable life.

Challenge

The hospital would need to remain fully operational throughout the phased works, with minimum disruption to patients and daily staff operation across the site.

Given the sensitive nature of the active hospital, it was an essential requirement for the new waterproofing system to reduce the threat of fire risks during installation and eliminate the need for naked flame torch-on applications.

In addition, the rooftop areas were filled with plant equipment and coolers that could not be moved, as they supplied critical services to the theatres and wards below. The existing flat roof contained a series of awkward detailing requiring a durable waterproofing solution that could easily accommodate the challenges.

Quick Facts

Project
Queen Mary Hospital

Location
Sidcup

Garland System
Dura-Coat

Sector
Healthcare

Garland Technical Manager
Jack Costello

Approved Contractor
Inspire Contracts



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Solution

Working closely with the main contractor Galliford Try, Jack specified Garland's flame-free Dura-Coat cold applied liquid waterproofing system. This unique MMA resin has been developed to completely eliminate the need for hot works.

The Dura-Coat system comprises a 3 part application process of Dura-Coat Primer, Membrane and Top Coat, providing a homogenous watertight seal across the roof surface and excellent crack bridging properties if used for remedial repair projects.

A series of steel beams supported the coolers and plant equipment on the roof at Queen Mary's, which could not be raised due to the disruption that would be caused by deactivating the plant equipment, making Dura-Coat the perfect solution for the complex roof structure and its multiple details and penetrations.

Garland UK's highly skilled approved contractor, Inspire Contracts, utilised Dura-Coat's rapid curing time of as little as 30 minutes to deliver a high-quality installation. With a series of extendable rollers to get the cold-applied liquid waterproofing system applied evenly underneath the active plant equipment efficiently, ensuring there was no disruption to the hospital's daily operation.

Outcome

The roof works, carried out during phase 2 of the Trust's extensive refurbishment project, were completed on budget and on time in just 9 weeks. With multiple stakeholders involved in the project, Jack visited the site twice a week during the Dura-Coat installation to provide regular quality checks and detailed progress reports to all parties.

Following the completion of a rigorous final inspection by Jack, the Oxleas NHS Foundation Trust were supplied with Garland's market-leading 20 year Single-Point Guarantee on completion, which covers the project's design, waterproofing system and installation liability, providing complete peace of mind for the future of the hospitals roofing assets.



Garland UK

Second Way Centre, Second Way, Avonmouth, Bristol, BS11 8DF



contact@garlanduk.com



01174 401 050



garlanduk.com