VolkerLaser

Highways, bridge and tunnels

TAMAR BRIDGE 1961

Tamar Bridge

VolkerLaser was contracted by Cornwall Council and Plymouth City Council to undertake resurfacing works on the Tamar Bridge deck.

Opened in 1961, this 335m suspension bridge spans the River Tamar, connecting Saltash, Cornwall, and Plymouth, Devon. Its surface, which had been in place for over 20 years, was reaching the end of its serviceable life and required replacement to ensure continued safety for users.

The full scope of repair and refurbishment works included resurfacing the toll plaza area and the bridge approaches, and the replacement of all six of the bridge movement joints, as well as resurfacing the three lanes on the bridge deck and both cantilevers.

This involved carrying out a series of highly complex procedures in sequence. After removing 949 tonnes of existing surface material using a road planer, the teams then applied 1,920kg of primer to the deck. Two layers of waterproofing - 8,500m² – were then applied, to provide vital corrosion protection to the steel deck plates. Two thin layers of the surfacing material were then also applied, before the final process of laying the road markings was carried out.

The bridge can see more than 50,000 cars on a busy weekday, meaning that although disruption to cyclist and pedestrian bridge users was alleviated by the introduction of bus services, the traffic management and lane closures would cause significant disruption in the local community. Working with a traffic management sub-contractor, we employed a tidal flow system meaning traffic management was changed when required based on volume of vehicles, rather than strict programme to keep delays and disruption to a minimum.

Works were completed over three phases to allow for the reactive traffic management, and the project was eventually completed two weeks ahead of programme.

"Everyone has worked very hard to complete the project as quickly as possible, whilst still meeting the high standards required."

Councillors Jonathan Drean and Martin Worth, Joint Chairs of the Tamar Bridge and Torpoint Ferry Joint Committee

