

Cleaning and Bird Proofing Shaldon Bridge in Devon

At A Glance

Location: Shaldon Bridge Devon
Structure: Bridge over water

Problem: Pigeon Prevention
Solution: Weld Mesh Sheets

Overview

Shaldon Bridge provides a route between Shaldon and Teignmouth across the River Teign Estuary. The bridge has a vertical swing bridge section, which allows tall vessels to pass up the river. This is the section Rapid ESL were tasked to clean and protect. The swing bridge section has not been used for approx. 50 years and in order to make it work, the bearings and lifting mechanisms need to be replaced.

Unfortunately, over time this has become home to hundreds of feral pigeons, so the actual lifting chamber had become highly contaminated, as have the bridge workings.

The Problem

Rapid Environmental Services were asked to clean and decontaminate the inner chamber and bearing surfaces, then prevent pigeons from gaining access to the chamber and bearing areas, preventing further roosting and defecation.

One other point was to ensure the top and bottom sections moved freely to allow the bridge to open (in time) but prevent access to pigeons.

The Challenge

The challenges faced were:

- Cleaning and decontaminating a large area that contained 50 years of fouling
- Installing a Weld Mesh solution that kept pigeons out but had the ability to move when the bridge moved
- Working over a tidal estuary with 3-meter tidal swell – gaining access to the bridge underside safely.
- Providing a discrete solution that would blend in nicely with the bridge and appear unobtrusive
- Installing in a short window of opportunity – traffic over this bridge is very heavy and the access equipment is expensive to keep on site
- Providing low maintenance free solution as access is difficult and limited

Rapid Environmental Services are very familiar in dealing with the list of requirements above, so a solution using stainless steel weld mesh to create a structure that met all the requirements was the obvious choice. Our experience in working with local authorities and traffic management companies allowed us to execute a solution to meet the timeframes imposed.

The Solution

One of the biggest challenges was to get down to the work area safely. With a tidal river and a very busy road, the only logical choice was to use an under bridge cherry picker. These machines use a small footprint above the bridge but allow a large envelope of access below. By using this machine, we were able to pretty much keep traffic flowing without signals except for larger loads, again a benefit to our client and the public.

Cleaning such a large area with so much waste produced required careful management and disposal, by utilizing local resources we managed this problem effectively. It is vital that the bearing surfaces are totally free from pathogens so other workers can safely work.

The bridge lends itself to weld mesh as the beams are ideal to clamp the sheets to, allowing us to create an inner and outer cage with a maximum clearance of 25mm so the bridge top and bottom would separate and re-join easily when the bridge is activated.

The Result

With such a challenging project, we expected to face lots of unseen issues, however everybody involved, the Traffic Management team, the MEWP driver and waste carriers all worked as a team and the project was completed slightly ahead of schedule.

The client was impressed with our approach and our teamwork when engaging with others on site, as well as our approach to the public with the road access.

He said our quality was outstanding and our attention to detail was more than expected, so was very happy.

The bridge is likely to be open this summer and has major significance to this area. We are proud to have played our part in the renovation of this historic structure.



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