

# Bird proofing for a brand new railway bridge in London

## At A Glance

Location: Croydon

Problem: Pigeon Proofing

Structure: Network Rail Bridge

Solution: Weld Mesh Sheeting

## Overview

Network Rail (the owner and operator of most of the rail infrastructure in Great Britain, including railway tracks, signals, overhead wires, tunnels, bridges, level crossings and most stations) had commissioned Graham Construction to build and install a new railway bridge at Tennison Road in Croydon, London.

Part of this installation involved the design and provision of bird protection systems under the bridge.

## The Problem

Pigeons pose an ongoing problem on structures due to the amount of guano they produce, mostly on either the building or on unsuspecting areas or people below. Pigeon faeces can contain pathogens harmful to humans, but the faeces also create a cleaning problem in the surrounding areas.

The client wanted this brand new bridge being built protected from bird infestation before a problem occurred to protect the trains below the bridge from fouling once they had been cleaned.

Doing this before the pigeons had a chance to nest and roost in the bridge was the best option in terms of protection, costs and disruption as possessions and rail closures would need to be in place to do this after the bridge was positioned.

## The Challenge

The challenge was how to get the area protected once and for all and complete the installation in time so the positioning of the bridge would not be delayed.

The construction company was under massive deadline pressures and very limited time opportunities to get the bridge in place, by inching the 565-tonne bridge over 10 operational rail lines in a 24 hour period. This meant they had to engage with the right partner to design and deliver a bird protection system that would meet the needs of the client and be installed within very tight deadlines.



## The Solution

When designing bird prevention systems, it is vital to pick the technologies and the right media to provide the protection required. Pigeons are actually quite intelligent and soon work out protection systems, particularly if they have not been installed correctly.

Our experiences in dealing with lots of pigeon protection systems allow us to provide options that suit budgets and applications perfectly.

This particular solution was based upon weld mesh sheeting being installed to prevent the birds gaining access to the underside of the bridges and beams. Weld mesh is fast becoming the standard media for bird proofing bridges and other public structures where traditional nylon netting has been used and damaged allowing birds back in. On a structure like this, once in place a possession order to work on the railway lines would be difficult to obtain, so it had to be done once and only once, so weldmesh was the only choice.

The main reasons for this are:

- Once installed, the structure will last for many years without any maintenance,
- If bridge maintenance is required, the sections can be removed and replaced without issue,
- Vandals cannot easily damage and create breaches in the weld mesh – normal netting systems are easy to destroy,
- Birds cannot gain entry, so therefore cannot be trapped inside, causing distress to the birds and the public,
- The return on investment is quickly achieved due to low/no maintenance – fit and forget.
- Weld Mesh blends in and quickly adds to the overall look of any structure once installed

Specially designed clamps were used to ensure the mesh, once positioned, would be permanently fixed, with the threads locked using thread adhesive to prevent shaking and vibrations working them loose. Further vibration protection was added under the weld mesh and fixings to complete the solution.

## The Result

The new bridge was delivered on time and to budget without any disruption to the rail network. The bridge is due to open to the public in Spring 2015, and will improve commuter links for the community. Of course now insitu there will be no disruption in the future as the bridge is completely bird-proofed so the bridge will not need to be closed for removal and cleaning of guano.

## Additional Information

Watch the Time Lapse Footage of the Bridge Being Inched Into Place

[Tennison Road Bridge Replacement Live Launch December 2014](#)



**Web: [www.rapid-esl.co.uk](http://www.rapid-esl.co.uk)**  
**Tel: 01635 247192**