



**Duration**

**2 weeks**

**Completed**

**2021**

# **CCUK PROJECT INSIDER**

## **KINGS ROAD, LONDON**

**CANTILEVER STRENGTHENING, CRACK REPAIRS AND  
WATERPROOFING**

[www.fibrwrap-ccuk.com](http://www.fibrwrap-ccuk.com)

**Client**

**Civic  
Engineers**



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# 01

## Introduction

Following our successful projects in Cadogan square the previous years we were contacted again by Civic Engineers to provide innovative strengthening and repair solutions to these protected balconies, but this time on the world famous Kings Road in London! Cantilever strengthening, crack repairs and waterproofing works were required to these protected structures, the visual image of these balconies are protected by the City of London and whatever works you carry out have to be sympathetic to the structure and the environment, as you will understand you can't just do what you want in this area of town.





# 02

## The Challenge

Directly facing the Kings Road and working in a very tight space, the works also had to be coordinated with other façade works being carried out and also with a deal of sympathy to the tenants working above the shop. Due to the failure of a previous waterproofing system the balconies had become saturated through with rainwater which meant temporary weathering had to be placed and a 'drying' out process carried out.



## The Solution

The first job was to attack the crack repairs, with cracks in both directions all the way through the balconies. It was decided to strengthen across the cracks perpendicular using NSM (near surface mounting) of Tyfo Carbon Fibre Plates.

Narrow grooves were cut into the substrate at set centres on both the top and also the underside of the balcony, then small lengths of carbon fibre plate were resin bonded into the grooves (like stitches to a wound) before the surface filled and coloured with epoxy resin to match the existing substrate.

Next was the installation of a Tyfo GFRP (structural glass fibre) wrap system in both directions to both the top and the undersides of the balconies, followed by the fixing of steel cantilever brackets on top of the balconies that were bolted to a pad stone constructed within the masonry of the structure. The final applications were a thin coat of polymer modified mortar on the underside, to cover the GFRP and provide an aesthetic 'stone' look and a Sika waterproofing system to the top finished in a grey colour.



# 04

## The Results

A non-intrusive, sympathetic repair using the innovative Tyfo carbon Fibre materials as a hybrid solution with GFRP, steel, resins and mortars to provide a structurally sound and aesthetically acceptable repair that the shoppers on the Kings Road in London will enjoy for many years.







# 05

## Why choose CCUK?

Working throughout the UK and the Humber region, CCUK provide design & build specialist construction services. We pride ourselves on being innovators in construction services and thrive by taking on the biggest of challenges. As certified installers for major material suppliers like **WEBER, SIKA, Fosroc and Fyfe** we are approved by the biggest and best in the business:

Established in 2010 we have built a reputation with our customers for a high quality of service and our innovative engineering solutions underpinned by our commitment to safety and sustainability. We are flexible and work collaboratively with our clients which has helped to secure a high percentage of repeat business across all industry sectors direct with clients as a specialist contractor.

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