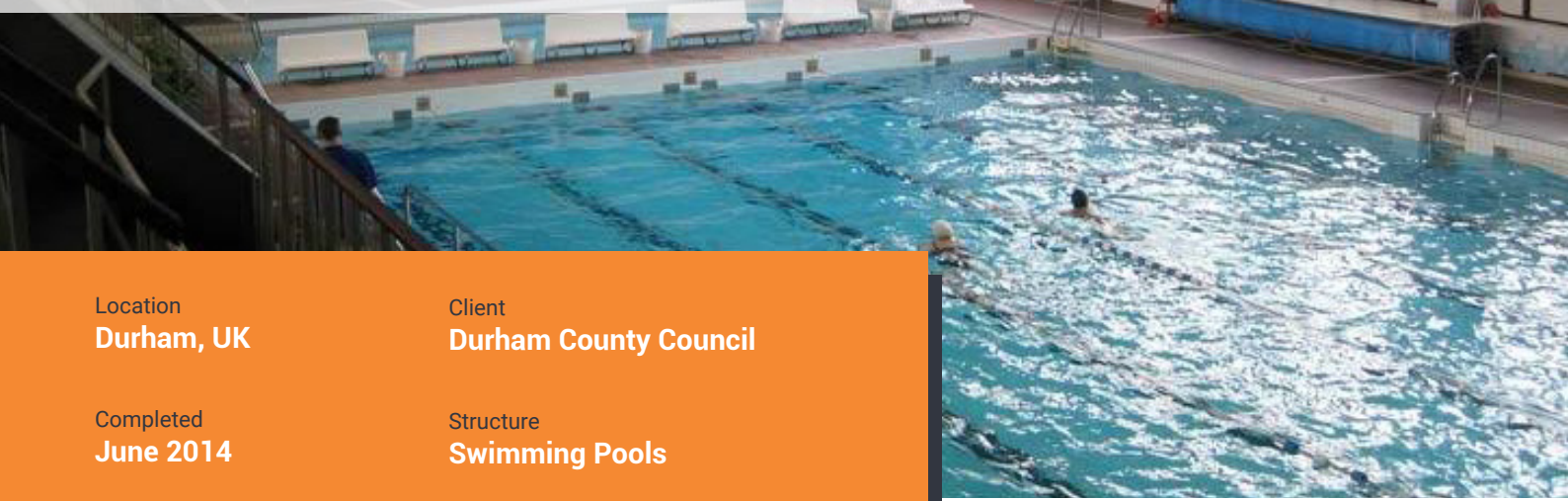


Woodhouse Close



Woodhouse Close Leisure Complex is located in Durham. Built in 1968 the complex comprises two swimming pools, a gym, sauna and steam room.



Location
Durham, UK

Client
Durham County Council

Completed
June 2014

Structure
Swimming Pools



The Problem Identified

In 2013, CPT carried out an assessment of the two swimming pools. The testing, which included carbonation depth analysis, chloride profiling and half-cell potential surveys showed that the pool walls and walkway soffits were suffering from a combination of chloride and carbonation induced corrosion.



The Solution Developed

Based on the results of the testing, in 2014, CPT designed a bespoke DuoGuard™ hybrid anode solution to halt ongoing corrosion and to treat the areas at the highest risk of further corrosion damage. This involved the installation of over 1650 anodes divided into 40 individual anode zones spread across the pool undercroft. (below ground level rooms alongside swimming pool tanks housing filtration services etc.)

Using an external power source, an impressed current was applied to stop active corrosion and render the steel passive. The DuoGuard anodes were then disconnected from the power source to self-generate a galvanic current, sufficient to maintain steel passivity and control corrosion. All individual zones could be accessed and re-powered should conditions change in the future.

The pools remained open throughout the works.



The Benefits Provided

Corrosion related deterioration of the Woodhouse Close Leisure Complex swimming pools has been halted. After the initial power up period using an external power source the DuoGuard system is self-powered thus minimising future maintenance requirements and associated life costs.

The discrete nature of the anodes means that concrete obscured by complex pipework can still be protected by the anode system.



Corrosion found on the pool walls and walkway soffits

CPT Products Used



DuoGuard™
350



DuoCrete
SD Mortar



ISO 9001
Cert No. 10159