

PROJECT

Shudy Camps Water Tower, Cambridgeshire

SUMMARY

Repair, protection and decorative coating of reinforced concrete elevations

PRODUCTS

Steel Reinforcement Protector 841, Monomix, Monolevel FC, Bond-Prime, **Monodex Smooth**

CLIENT

Cambridge Water Company

CONTRACTOR

Concrete Repairs Ltd

BACKGROUND ▶

Shudy Camps is a small village located some 12 miles from Cambridge. Standing at 30m high, the reinforced concrete Water Tower dominates the local landscape and can be seen from miles around.

Over the years as a result of weathering and carbonation attack, the Water Tower had deteriorated and the external concrete elevations and supporting columns were exhibiting signs of concrete spalling, cracking, corrosion of reinforcement and other signs of deterioration. A remedial solution was required to repair the existing damage and provide effective anti-carbonation protection.

Shudy Camps Water Tower is operated by Cambridge Water Company which has come top in a national Water Matters survey carried out by the Consumer Council for Water, reflecting the views of water consumers throughout England and Wales. Cambridge Water Company achieved the highest scores nationally for the quality and safety of the water supplied.

THE SOLUTION ▶

Flexcrete products were chosen for this project as the company's products have an outstanding track record of successful use in the clean water industry. Once surface preparation had been carried out, all exposed steel reinforcement was treated with Steel Reinforcement Protector 841 which forms a corrosion preventative, flexible coating. Areas of spalled and defective concrete were reinstated with Monomix, a highly advanced, waterproof repair mortar which can be applied up to 80mm to both vertical and horizontal surfaces in a single application. Monomix is water-based, environmentally friendly and nontoxic and like 841, is listed under Regulation 31 for use in the supply of drinking water and is also CE marked to meet the demands of BS EN 1504.

Monolevel FC, an engineering quality fairing coat, was applied to areas where blow holes and defects were present before the application of Bond-Prime to prime the substrate prior to overcoating. Monodex Smooth, an advanced, high build, waterborne, elastomeric coating, was applied to the complete external façade. Monodex Smooth offers high diffusion resistance to carbon dioxide, providing excellent protection from the effects of carbonation and outstanding durability of at least 15 years. It is very attractive in appearance and is available in a range of colours, of which stone was chosen for this project.





EMS 597350

Environmental

Flexcrete Technologies Limited



