

Premier Inn, Exeter

Concrete Repairs, Waterproof Membrane & Resin Injection,



Project: Premier Inn, Exeter

Client: Premier Inn

Concrete Repairs , Waterproof Membrane & Resin Injection

Main Contractor: Devon Contractors LTD

Date: February 2021— November 2021

The Problem

The client had reported signs of water ingress at the base of the building going into the building and down into the multi story car park below ground. There was also an issue where the hydrostatic pressure was pushing water up through the base of the car park as the water table in Exeter is higher than the lowest level of the car park.



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Case Study

The Solution— Phasing 1—5

The project at Premier Inn was completed over several Phases along with some isolated areas needed attention.

Each phase followed a similar works programme from start to finish, with the exception of Phase 4&5 which needed additional works. All areas required;

- Surfaces to be scabbled to remove any existing coatings and then power washed clean.
- Once done any cracks noted were resin injected and a bandage system to provide a seal.
- The coating system could then be applied to the deck and upstands. In Phases 1&2 the areas were primed with Cemprotect EF and Cemprotect Elastic was applied the upstands and corners whilst Cemprotect E942 was applied to the Flat Deck surfaces. But for Phase 3-5 all areas were primed and then coated with Cemprotect Elastic.
- Once coated and cured the Damp Proof Membrane Polythene Sheeting could be fitted followed by Delta-Terraxx System.

Areas Scabbled:



Areas resin injected and bandage applied:



Areas Primed:



Areas coated with Cemprotect Elastic and Cemprotect E942:



Areas Damp-proofing Membrane Polythene Sheetting:



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Areas Delta-Terraxx System:



The Solution continued..

Additional works were required on Phase 4 & 5 before the waterproofing system could be started:

- Isolated areas required Concrete Repairs works. These areas were broken out, cleaned, any steel treated, primed and then repairs in a concrete repair mortar.
- Renewal of Expansion Joints were needed, these were broken out, cleaned and sealed using Sikaflex Pro 3 SL. An Angle fillet was then formed on top.



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The Solution - Retaining Wall

Works to the retaining wall followed a similar system as the previous phases.

- All surfaces were scabbled to remove all existing coatings and then power washed clean
- Injection nipples were drilled and fixed into place, resin was then pumped in until the cracks were filled.
- A new fall was cast on the existing slab, so that water runs off the slab.
- Isolated areas required patch repairs so that there was a smooth surface for the Cemprotec system.
- Cemprotec EF Primer was the applied to all slab areas prior to the Cemprotec Elastic application to the slab and upstands.
- There was a bulge within the retaining wall, which was broken out, treated where needed and then repairs to a flat finish.



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Case Study

The Solution— Newly cast slab and substructure

- Power washed clean.
- Areas primed with Cemprotec EF Primer
- Application of Cemprotec Elastic to all the newly cast slab and substructure and into the full width slab



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