

Case Study: Resin Flooring

Grosvenor Shopping Centre, Northampton

Client: Major High Street Retailers

Contractor: Bowmer & Kirkland

Completed: August 2014

Area Coverage: 5,437m²

Project Description

Following a rip-out of the former House of Fraser site at Grosvenor Shopping Centre in Northampton, a two-storey shell was created to house two major high street retail outlets.

Prior to shop fit-out, the project required Zenith Contract Services Limited to provide a seamless flooring system for both shops, successfully overcoming problems of water ingress and weak substrate within a tight time-frame.

Area 1

Area 1's specification required a SR1 tolerance of +/- 3mm over a 2m straight edge, with a finished floor level no greater than 15 mm above datum.

To reduce levels in order to comply with datum tolerances, it was first necessary to plane approximately 1300m² to allow the minimum thickness of product to be applied.

The existing screed was found to be in a poor state, with old adhesive residues, latex and loose material covering the entire area and numerous wet sections that could not be dried in time, due to water ingress.

To plane the entire area down to 50-60mm and get back to sound concrete or screed would have been time-consuming and economically unviable, calling for an alternative, specialist flooring installation.



Existing state of the screed was extremely poor.

Products & Systems Used

Uzin PE 425 (case hardener)

Uzin PE 480 (damp proof membrane)

Uzin PE 280 (rapid drying primer)

Uzin RR 201 (fibreglass reinforcement mesh)

Uzin NC 160 (flow/pump screed)

A quick STR grind was carried out to remove any loose surface materials and Uzin's PE 425 case hardener was spray applied, penetrating the surface of the existing screed and reinforcing the weak and unstable substrate. Uzin's PE 480 DPM was applied to the ground floor, and areas that could not be dried in time were treated with PE 414, a rapid drying DPM that can be applied to wet surfaces.



The project called for a specialist, failsafe flooring solution, capable of going over a weak substrate covered with latex, adhesive residue and wet areas.



Uzin's PE 480 DPM was applied to the ground floor.

PE 280 was next applied to the ground floor and Uzin's PE 360 to the entire first floor, both rapid drying primers that cure within 45 minutes. Uzin RR 201 fibreglass mesh was then rolled out and Uzin NC 160 pumped in, causing the mesh to disperse and form a matrix in the screed, increasing its strength ten-fold and providing a failsafe solution, which overcame the site's inherent problems, within the given time parameters.



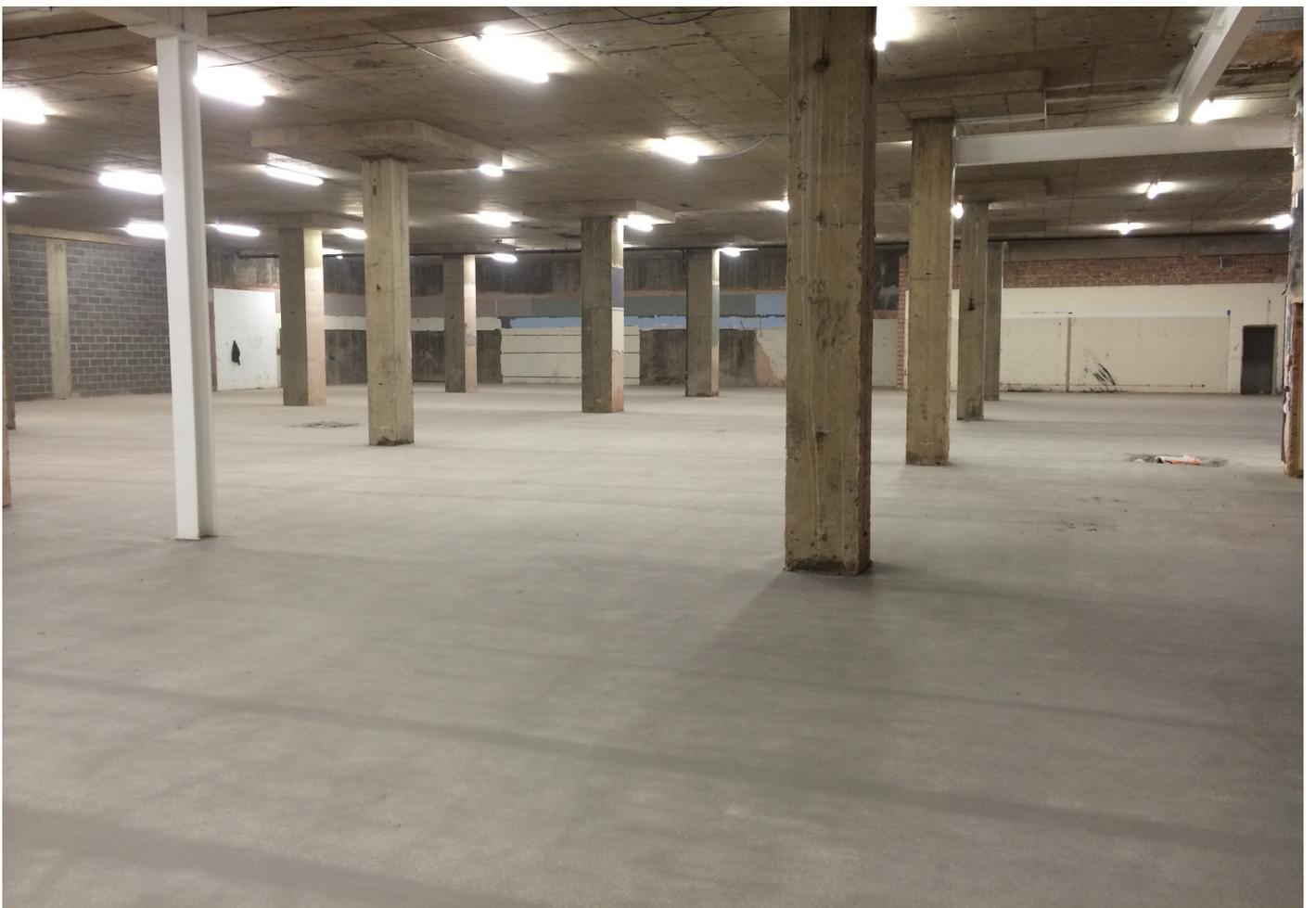
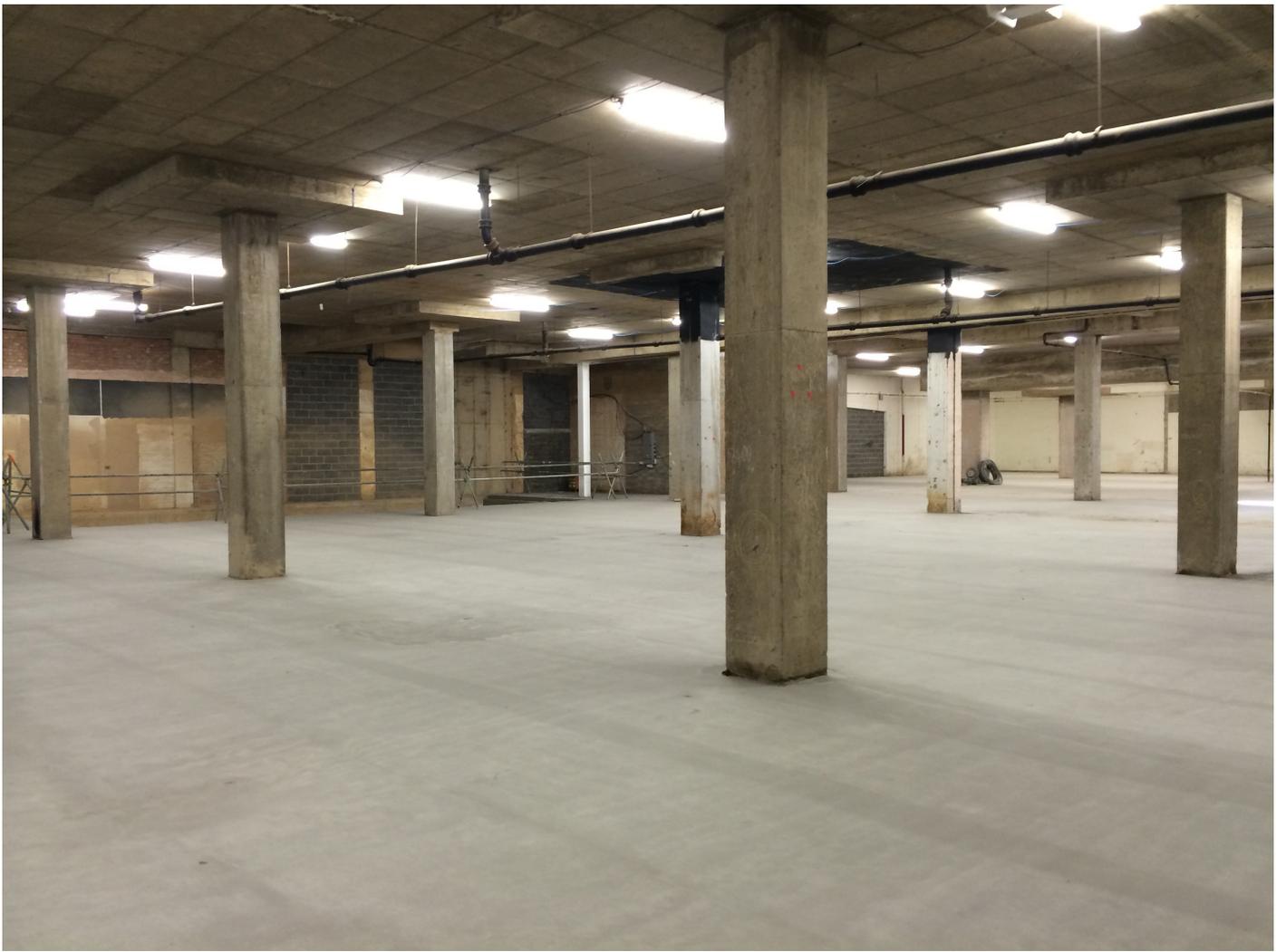
Mesh was rolled out and Uzin NC 160 pumped in.



Uzin's PE 360 primer was applied to the first floor.



The finished floor for Area 1.



Area 2

Area 2's specification required a higher tolerance of +/- 3mm over a 3m straight edge. Due to differences in level and channels in the floor, it also required a higher level of preparation to bring the floor to the necessary standard before the flow screed could be installed.

Initially, channels were backfilled and level differences ramped down, using Uzin's Codex FM 50 mixed with either sharp sand or pea gravel. Leaking pipes and water presented constant issues throughout the installation process, along with the necessity of working around other trades, some of which were demolition teams.



Level differences and channels in the existing floor called for a high level of preparation.



Channels were backfilled and level differences ramped down.

Once all the channels were backfilled and the area was dry, installation followed the same processes as Area 1. The entire area was case hardened and DPM applied the same evening, with mesh rolled out and 32 tonnes of Uzin NC 160 pumped in the next day, once again providing a failsafe seamless flooring solution.



Leaking pipes and water ingress posed constant problems throughout the installation process.



The finished floor for Area 2.



zenith

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