



TIMBERWISE

Case Study: Sheffield Winter Garden

The Winter Garden is part of Sheffield's 'Heart of the City' project - a £120 million scheme to regenerate Sheffield's city centre. It is the largest temperate glasshouse in a European city centre measuring 70m long, 22m wide with the enormous wooden arches nearly 21m high. The Winter Garden houses tropical plants from across the globe.

The Problem

Below the Winter Garden is a car park for visitors and neighbouring businesses. After watering the plants, the excess water was escaping from within the planters beds and falling onto the parked cars in the car park below.

The planter construction posed a problem when looking at suitable remedial treatments. Due to the planters extending out 2m beneath the surrounding walkways and the fragility of the exotic plants they were unable to move the plants. This meant that any waterproofing treatments could only be carried out from below (the negative side) and not from within the planters (the positive side)

The water problem was caused by insufficient sealing around the joints and drain outlets within the planter beds. The Root Barrier had failed to stop roots from damaging the Bituthene proofing membrane leading to water seepage.

The Solution

Working alongside Safeguard Chemicals we were able to source a product made by Vandex that would be suitable for sealing around any pipes or wires that passed through the concrete structure. It was also flexible enough to seal any construction joints while still allowing the structure to move.

The end result is that no matter how much watering the exotic plants need the cars below remain dry.

