

Corby Rail Station - Rainwater Harvesting

Client:	Network Rail
Building Type:	Ticket office and customer services
Roof:	100% mono pitch with sheet cover
Catchment Area:	250m ²
Rainwater Apps:	2 WCs public and staff use
Sustainability:	BREEAM
Built:	2008



Rainwater Harvesting Requirements

The modular building design was a fast track project for the new Corby rail station. The building was designed to have several environmental solutions, one of which was rainwater harvesting. Ecozi are specialists in supply of pre-assembled rain mangers and filter/tank combinations from leading German suppliers. The rainwater system supplies two staff and customer WCs from a 3,500L PE underground rainwater tank located under the pedestrian forecourt. Equipped with an auto filter spray to eliminate routine maintenance the design engineers', Chorus Rail, specified Ecozi for its modular systems that are robust end easy to install.

The annual rain yield is calculated at 108m³ enough for up to 50 WC flushes per day. The main contractor Dean and Dyball Rail installed the tank and drains. Eurothermal installed the M&E equipment for the building including the rain manager M&E hook-ups. Ecozi were also employed to commission and certify the system.

Ecozi provided design assistance to Chorus Rail for the drainage plan and pipe work layout.



A factory built and tested, wall mounted, rain manager provides direct rainwater distribution to the WCs calling for demand. The 4.6 bar multi-stage centrifugal pump with pressure switch provides plenty of power to the WCs for fast refilling. The BREEAM rating was further enhanced by fitting leak detection systems and PIR solenoid operated valves to prevent misuse of the buildings water systems. The rain manager, pictured below, is simple to hook-up and maintain with no moving parts located in the tank.



The Matrix rain manager is wall mounted in the plant room. Requiring just plumbing pipe hook-ups and two plug and socket electrical connections the Matrix is fast and simple to install. Future maintenance and fault diagnosis is straightforward.



The auto filter spray operates every 7 days using rainwater to clean the filter maintaining higher system efficiencies and reducing routine maintenance. The components are pre-installed requiring simple onsite hook-up.



rainwater harvesting systems

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