



Topaz Citywest service station, Co. Dublin

Case Study



BACKGROUND

Topaz, Ireland's largest fuel and convenience brand, has recently opened a service station in Citywest Business Campus on the outskirts of Dublin – complete with petrol pumps, a convenience store and a carwash. During the build, the contractor was tasked with finding an efficient, long-term SuDS (Sustainable urban Drainage System) that would not only successfully protect against flooding, but would also withstand the weight of heavy vehicles on the forecourt overhead. Specifying a solution that would work with the site's space and depth restrictions was also key. When the system originally proposed could not meet the project's unique requirements, the contractors approached water engineering specialist FM Environmental for an effective alternative.

SOLUTION

FM Environmental worked with Graf UK to specify, design and install a 240-cubic metre EcoBloc Inspect Flex stormwater attenuation tank, with a lorry-bearing capacity of 60 tonnes. As the tank is designed to be installed at depths as shallow as 1.32 metres (with a 600mm earth covering), this made it the ideal fit for the limited space available. Surrounded by an impermeable membrane, the tank releases water back into the main storm system at a controlled flow rate. The team also specified a 10,000L Carat XXL underground rainwater harvesting tank from Graf UK, which feeds the rainwater it collects directly into the service station's on-site carwash.

RESULTS

The EcoBloc Inspect Flex system is delivering effective, ongoing flood prevention that meets the Topaz site's significant vehicle loading needs. What's more, the tank's inbuilt inspection channels allow for straightforward maintenance, ensuring optimum performance for the lifetime of the system. It is also engineered to handle the kind of extreme storms that only occur roughly once every 100 years – making it a truly long-term solution. Meanwhile, the Carat XXL rainwater harvesting tank is providing the carwash with a clean, cost-effective and sustainable water supply to meet its high demands.

“ We've worked with Graf UK on several projects before, so we know we can rely on their products to deliver on quality, flexibility and performance. For this particular site, Graf's EcoBloc systems were the best, and the only ones that could be installed at shallow depths and still cope with heavy traffic loads – all while providing a highly effective drainage solution. The Graf UK team fitted the whole system in just two days, and we're all really happy with the result. Jim Sheridan, Sales Representative at FM Environmental ”