

## KOSTER WATERPROOFING – CO. MONAGHAN SCHOOL

MAIN CONTRACTOR – MAGENNIS CONTRACTS  
ARCHITECT- COYLE CIVIL & STRUCTURAL ENGINEERING

DATE OF CONSTRUCTION – AUGUST 2021

### OVERVIEW

SDG we're proud to work on an innovative structural waterproofing proposal for an extension to a key Primary School in County Monaghan. With a high water table and difficult ground conditions, a robust waterproofing system was needed to guarantee the structure against water ingress. Working with our core range of Koster products, we were able offer an innovative BBA approved proposal.

Working closely with Magennis Construction and Coyle Civil & Structural, SDG designed a robust waterproofing system to contend with challenging ground conditions. The partially retaining structure featured a large retaining wall at a lower end, with limited working space and a difficult water level.

SDG proposed a robust system, that allowed for significant reinforcement of the wall to floor transition joint. We rounded this transition using Koster Repair Mortar Plus and overcoated with Koster NB1. The NB1's crystalizing property ensured a mechanical crystalline bond to the RC wall, and RC base, adding a vital layer of protection to this at-risk construction joint.

Once cured, the Koster Deuxan 2C was applied in two 3mm layers, incorporating a glass fibre mesh to reinforce further. Being a polymer modified thick bitumen coating (PMBC), this offered us the greatest level of security against ingress. The membranes two coat application eliminates the risk of defects, and its elasticated crack bridging ability allows the sealant to protect against cracks in the underlying substrate.

The complete system was protected using Delta's Geo-Drain Quattro, which is specifically recommended for protection of the Deuxan 2C system. Its high compressive strength coupled with a 4-layer construction allows the membrane to protect the system from mechanical damage, and allows to ease of drainage into a land drain.