

BUILDING FOR THE FUTURE

Project Fact Sheet

Scoil Mhúire Naofa National School
Carrigtwohill Educational Campus, Co. Cork

Department of Education





PROJECT: Lot 3C - Scoil Mhuire Naofa National School, Carrigtwohill Educational Campus, Station Road, Carrigtwohill, Co. Cork

CLIENT: Department of Education
Awarded under the Design and Build Schools Programme 2020 - 2021

VALUE: €22.5 million

STAGE: Completed September 2023

DESCRIPTION:

The project comprised of the provision of a new 3 storey primary school building with 24 classrooms and 2 Class SNU with physical education hall, support teaching spaces and ancillary accommodation. The site works to the school grounds will consist of the provision of cycle spaces, bin store/external store, ball courts, playing field, secure special play area, landscaping and new entrance, boundary treatment and all other associated site development works.

The works to the remainder of the school grounds will consist of the provision of car parking spaces, disabled access car parking spaces, drop-off and pick-up facilities. Inline channel and onsite attenuation storage measures will be incorporated into the development to manage flood risk.



SCOPE OF WORKS:

ABM's role in the project was as Main Contractor and Project Supervisor for the Construction Stage (PSCS) undertaking 100% of the Construction works and Lead Designer and Project Manager of the Design and Build project.

The foundation detail consisted of a reinforced raft foundation slab with 20mm diameter starter bars which were cast in at approximately 1.8m centres. These were cast absolutely plumb and set out in accordance with Kilsaran Precast Concrete drawings, to align with the cores in the precast wall panels. The raft was power floated to 225mm below finished ground level. Radon, insulation and concrete finished floor was installed over this.

The building frame was constructed using precast concrete wall panels and hollowcore concrete floor slabs for upper floor slabs topped with concrete screed. Some structural steel was incorporated into the concrete frame design. In addition to hollowcore slabs, Flat slabs were used in cantilevered floor/roof areas. The prefabricated wall panels and hollowcore slabs were delivered on an as-needed basis.

The concrete frame was erected in sequence, allowing for screeding works to be ongoing in one area, while precast walls and hollowcore slabs were being installed in another area. The works then simply swapped over to complete the following level, and so on. This allowed continuity of the frame erection in parallel with screeding works, and also for the M&E works to commence internally to the area where precast was not being installed overhead.

The buildings external envelope was made up of 90mm insulation fitted tight to the outer face of the precast wall panel, 60mm air cavity, with rendered blockwork, brickwork. Aluminium cladding was also used in some areas consisting of liquid DPC, 100mm insulation, timber batten subframe.

A PVC membrane roofing system was installed on site. A structural steel frame was fixed to the precast walls with galvanised steel stubs bolted to the external precast walls through thermal break pads to prevent cold bridging support the outer overhang detail. The roofing consisted of a metal decking, 120mm PIR insulation and a mechanically and welded PVC membrane to selected grey colour.

SCOIL MHUIRE NAOFA NATIONAL SCHOOL



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