

Timber frame and alternative housing solutions



LeeMcCullough
Consulting Engineers



Project 3679 Residential/New Build

CastlePark Housing

Client: South Dublin County Council

Architects: Kevin Brady Architect

Value: €2.1m (2008)

Project in brief

Timber framed housing has become an accepted alternative form of construction in Ireland to traditional blockwork. LeeMcCullough were commissioned as Civil & Structural Engineers by SDCC for their infill housing development at Castlepark, Tallaght. The development consisted of nine 1 & 2 storey houses, several of which were to be specially adapted for less abled occupants.

Key features

To enable a short on site period, timber frame was proposed. This solution also had the advantage that greater levels of insulation could be provided. As part of the civil works we also co-ordinated the re-routing of services that were running through the site.

With timber frame, there are many known pitfalls, however by working with a leading supplier and close site supervision by the design team, we ensured the end product was correctly delivered.

Project 3332 Residential New Build

Garristown Housing

Client: Fingal Co Co

Architects: Duffy Mitchell O'Donoghue

Value: €6m (2008)

Project in brief

LeeMcCullough were commissioned by Fingal Co Co to provide Civil & Structural Engineering advice on the development of thirty eight, 1, 2 & 3 storey energy efficient houses on two sites in Garristown, north County Dublin.

Key features

In light of our brief, the Proton clay block single leaf system was used rather than a traditional Insulated cavity between block leaves. The system has been widely used on the continent & consists of a high performance honeycombed block fabricated from terracotta clay laid on a thin mortar joint.

It was necessary for LeeMcCullough to confirm that the Proton system complied with the relevant structural aspects of the Building Regulations, this involved checking aspects of the design and visiting sites in Ireland where it had been used.

The development achieved a B2 energy rating.

Project Features

- Alternative structural solution
- Timber framed houses
- Energy efficient & sustainable design
- Infill developments
- Civil Engineering works
- Site services co-ordination
- Specially adapted housing

Residential

At LeeMcCullough, we have considerable experience of a wide range of Residential projects over the past ten years.

Issues successfully and cost effectively addressed include:

- Site investigation and management of waterflows, contamination and poor site conditions
- Flexible foundation solutions to facilitate architectural design
- Structural and Civil design services that are value driven and cost-efficient in construction
- Innovative engineering solutions that facilitate project compliance, quality and cost.

As part of your project team, LeeMcCullough recognize the need to work in a collaborative and supportive manner to ensure that all engineering aspects of a project are delivered to the required standards, cost-efficiently and on time.