



Elegant Church conversion

Project in brief

This late seventeenth century church, designed by Sir William Robinson, occupies a prominent position on Wolfe Tone Park, and is a designated Protected Structure. It is Dublin's first galleried church and boasts a spectacular barrel-vaulted ceiling, oak breakfronts and a richly decorated organ. After a deeply historic tenure (the site of Wolfe Tone's baptism, Arthur Guinness's wedding and John Wesley's first sermon), the church was deconsecrated in 1986 and is now privately owned. The project converted the derelict church into a state-of-the-art public house and restaurant, contributing greatly to the rejuvenation of the area.

The building is a massive stone structure with several crypts. The slated pitched roof is conical over the chancel and supported by baulk oak trusses. The oak-framed gallery is accessed by decorative timber stairs, and the main roof and belfry are accessed by intra-mural spiral staircases.

The refurbishment contract included the repair/replacement of degraded structural timber in the roof and gallery, the levelling of the terraced oak gallery and its strengthening to accommodate possible indoor concerts, the formation of a basement within the footprint of the church, the formation of an adjoining external basement beneath the footpaths and plaza, and the ducting of over three dozen services to an energy centre on the opposite side of Mary Street.

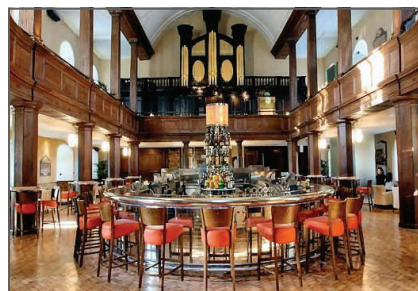
Key features

The main walls were underpinned and the gallery was propped while the ground floor stone columns were removed to excavate the internal basement. The stones were numbered and carefully rebuilt after the new RC ground floor was cast.

The external and internal basements are interconnected by two large passages through the underpinned main walls, and waterproofed to form hygienic kitchen facilities.

An external lift was installed to facilitate less-abled access between all floors. The lift is housed in a free-standing glazed tower of six metres diameter, fifteen metres high over ground and linked to the gallery by a cantilevered glass bridge. Defective masonry was stabilised by customised concealed remedial works comprising high-level precision core drilling and grouting with full-length steel anchors.

A four tonne water tank was installed in the belfry, in a customised steel cradle.



LeeMcCullough
Consulting Engineers

Project 3306: Leisure - Renovation

St. Mary's Church, Dublin

Client: Sauceboat Limited

Architects: Duffy Mitchell O'Donoghue

Value: €14m (2006)

LeeMcCullough team:

Lorcan O'Flannery

Frank Lee

Project scope:

- *Restoration of Protected historic structure*
- *Redesign for new use*
- *Refurbishment to a high standard*

Historical Renovation

At LeeMcCullough we have exceptional experience of revitalising existing buildings, which is often more complex than the structural engineering of new buildings.

Over many projects we have addressed and resolved a wide range of issues, including:

- Strengthening historical joists and beams to carry increased loading
- Masonry Decay/Delamination
- Threading modern services into old structures

At LeeMcCullough we always seek to identify and resolve issues early, innovatively address demanding building difficulties and deliver our solutions on time and cost efficiently.

When it comes to renovation and refurbishment, anticipating and resolving engineering issues effectively is the key to a successful outcome.