

LeeMcCullough
Consulting Engineers

Project 3694: Monument - Inspection

Saint Nathy's Cathedral

Client: Achonry RC Diocese

Architects: Eamon Hedderman

Value: €2.8k (2006)

Project scope:

- *Visual Inspection*
- *Condition Report*

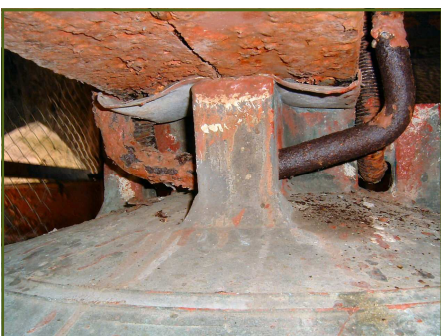
Boosting the Bells

Project in brief

Saint Nathy's Cathedral was built circa 1855-1860, and the Clock Tower and Spire were added circa 1909. The famous nine-bell carillon was commissioned from Gillett & Johnson of Croydon, and the bourdon is dated 1905.

Routine inspection by cathedral staff suggested that the bell supports and fixings were seriously corroded.

Our brief was to visually inspect the bell supports and fixings within the spire and report on their condition (listing structural defects, probable causes, and recommendations for remedial work).



Survey included:

Visual Inspection

- A comprehensive visual inspection of the bells, their fixings, and all supporting steelwork (including load-bearing masonry)

Structural Analysis

- Analysis of each element of the support system, taking into account structural section loss due to corrosion

Review of Weathering

- Review of the efficiency of the louvred belfry windows to prevent rainwater ingress

Corrosion Assessment

- Assessment of corrosion evident at bi-metallic contacts, as well as corrosion due to inadequate protection of ironmongery and steelwork

Review of Access

- Review of access for routine inspection and maintenance, with suggestions for improving access in line with current Health & Safety Regulations

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.