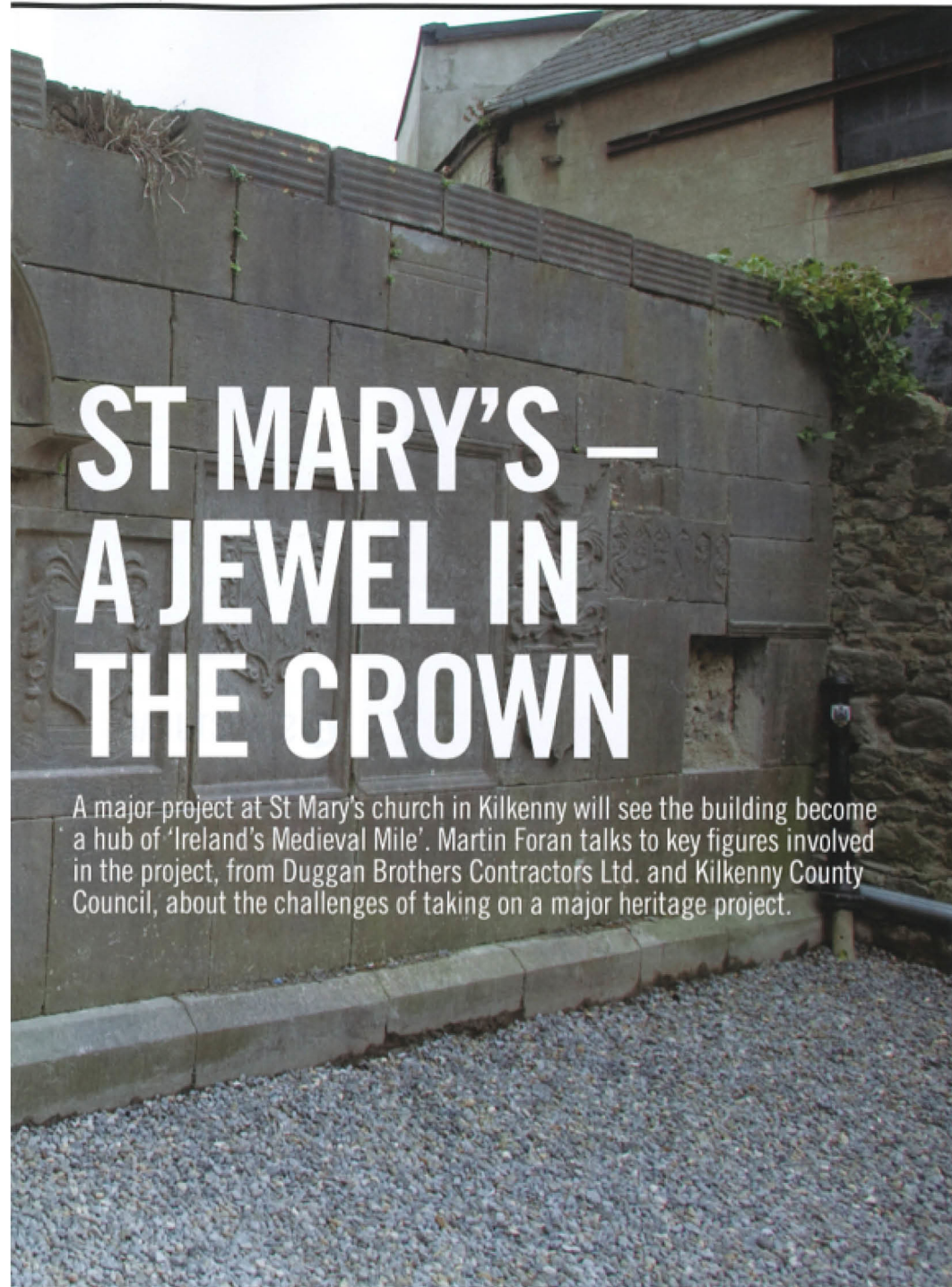


Seamus Duggan, Joint Managing Director, Duggan Brothers and John Butler, Contracts Manager



# ST MARY'S — A JEWEL IN THE CROWN

A major project at St Mary's church in Kilkenny will see the building become a hub of 'Ireland's Medieval Mile'. Martin Foran talks to key figures involved in the project, from Duggan Brothers Contractors Ltd. and Kilkenny County Council, about the challenges of taking on a major heritage project.





Seamus Duggan, Joint Managing Director, Duggan Brothers, John Butler, Contracts Manager and Evelyn Graham, Project Liaison Manager, Kilkenny County Council



## “STRUCTURAL REPAIRS WERE CARRIED OUT SENSITIVELY BUT ALSO SO THAT A CASUAL VISITOR TO THE MUSEUM CAN DISTINGUISH THE ORIGINAL ELEMENTS OF THE ROOF FROM 21ST CENTURY REPAIRS.”

**T**here's no typical Heritage project but there are typical challenges that present during the course of carrying out major works on an historic building or other structure. Confined spaces, undoing inappropriate repairs and finding contractors with the right skills and ethos were all in a day's work when Duggan Brothers worked at St Mary's in Kilkenny.

So too were the conditions of the Public Works Contract and even a visit from storm Barney, who put in an appearance along the way in November 2015.

Among the secrets to the team's success in what has been hailed as a hugely significant project that forms a major hub on Ireland's Medieval Mile: a knowledgeable and understanding client, a strong design team, a passion for the work and being prepared for lots and lots of archaeology!

So says John Butler, Contracts Manager

with Duggan Brother's who knows the history of St Mary's well. It's not surprising of course. It's been a major part of his life for two years now.

John is clearly passionate about the works here and justifiably proud of what has been achieved: turning a deconsecrated church / parish hall / badminton court and community centre into a modern museum-standard focal point set to attract locals and visitors from outside Kilkenny in their droves.

### CRAFTSMANSHIP

Along with joint company managing director, Seamus Duggan, John guides us through the site as it becomes evident how one could not function in his role without a deep empathy with the building and respect for the craftsmanship of years gone by.

"You have to have a particular interest," says John. "It can be rewarding and it can also be challenging on a project like this."

"Throughout the project McCullough



## AT A GLANCE

St Mary's Hall, formerly St Mary's Church, High Street, Kilkenny was founded in the 13th century by Strongbow's son-in-law William Marshal as the parish church of the City.

This Conservation project in a tight City Centre Site comprises the conservation and preservation of St Mary's Hall and its re-use as a public facility / museum building.

This work includes removal of sand/ cement pointing externally and re-pointing in lime mortar; specialised stone cleaning, repair (and replacement where necessary) of rain water goods; removal of the existing roof covering while protecting the 17th century roof structure plus the internal fabric of the church; repairs to the roof timbers, and only in cases where repair was not an option, was any timber replaced.

Structural Repairs were carried out sensitively but also so that a casual visitor to the museum can distinguish the original elements of the roof from 21st century repairs.

The original slates were salvaged and re-fitted to the roof. Where necessary, salvaged slates of a similar vintage were sourced and incorporated seamlessly in to the works.

Further structural repairs were carried out to windows, walls, foundations, floors and the tower.

### OTHER WORKS INCLUDED:

The removal of glazing to the existing windows in the chancel nave and transepts, repair of existing opes plus the re-formation of some of the original opes which were closed-in during the works in the 16th century; constructing 2 no. significant extensions, timber treatment as required; stabilisation of ceiling and cornice; careful removal of gypsum plaster to internal walls and replacing same with lime mortar; decorations plus the detailed conservation work on both the internal and external stone features.

In cases where the stone was beyond repair, the stone masons on site tooled out replacements with the same care and dedication that the original masons would have done in the 13th century.

Coupled with this there was a significant Mechanical & Electrical installation to ensure the building meets all demands and expectations to current standards.

A new room to the rear, called the Kilkenny Room, covering the area once

occupied by the original chancel to the east of the medieval church was constructed with a fully glazed aluminium façade looking out over Kilkenny City.

### KEY PLAYERS:

- Client: Kilkenny County Council
- Architect: McCullough Mulvin Architects
- Civil / Structural Engineer: O'Connor Sutton Cronin Consulting Engineers
- Services Engineer: McArdle McSweeney Associates
- Quantity Surveyor: Brendan Merry & Partners
- Contract Value: €4.75m
- Contract Duration: 18 Months
- Category: Refurb
- Key Sub-Contractors: Neil O'Dwyer Masonry, Rainey, George O'Malley, M & I Lead, Connors Studios, Curran Aluminium, Fox Brothers Gorey, Kilkenny Archaeology, Noel Morris Ltd, Premier Paving, Blanchfield Mechanical and Excel Electrical.

Kilkenny County Council was the client for this project and has committed substantial funding to see it through to successful completion.

Fáilte Ireland provided generous support and grant-aided this project to the tune of almost €4m which was carried out under the banner of Ireland's Medieval Mile.

Kilkenny Civic Trust provided additional funding of €400,000 and the museum is now being managed and operated by the Trust

The Heritage Council helped with funding for works including the purchase of the Church & graveyard in 2009, restoration works to the Shee Mausoleum in 2013 as well as the publication of the Conservation Plan in 2005 which was instrumental in achieving the long-term survival of St Mary's.

Peter Cox, MD of Carrig Conservation International Ltd., was the conservation consultant as part of the existing team with McCullough Mulvin lead-Architects.

## WIT COURSE



During the project there was significant engagement with Waterford Institute of Technology's Bachelor of Science in Applied Conservation Skills course.

Staff and students came to the site once a week and the design team members gave talks on various areas of conservation. There were also workshops carried out.

A couple of the course participants who were from Kilkenny even took up employment on the site with the stonemason contractor and site Archaeologist.

Mulvin Architects, Carrig Conservation and our own highly experienced site management team were always very cognisant of how it was all done hundreds of years ago.

"It did make you appreciate the work. You can see how it was done and the pride that was taken."

This was thrown into sharp relief at several key moments. For example, while faced with finding a flooring solution in the area of a sunken chapel, "we realised we were facing the exact challenge that the builders of hundreds of years ago had mulled over," says John.



## THE CLIENT

Kilkenny County Council was the client here. The primary objective says Evelyn Graham, Project Liaison Architect for the Council, was to "restore and extend St Mary's church to a modern museum standard facility, restore the fabric and undo certain inappropriate works that had been done previously".

Local reaction to the project has been fantastic, says Evelyn. "People didn't realise just what a gem we had here."

"The roof was one of my favourite parts of the job," adds Evelyn. "It is one of the best preserved mid-17 century roofs in the country."

"From the specialist timber analysis we learnt that the timber was felled in 1619 and was growing from the 1390s. It is all oak and very sound."

John adds: "We can't talk about the work in St Marys without recognising our two key personnel, Paddy Byrne and Pat O'Neill who between them oversaw every aspect of the works and took great pride in ensuring that the works were completed to the highest standard."

"Paddy was responsible for the structural conservation works and then Pat took over to oversee the completion and finishing of the project."

### BEST PRACTICE

According to what is considered best practice in conservation nowadays, the new work stands out from the old.

The result is an honesty about what is new, alongside a natural respect for what is old. New interventions are not hidden.

Yet the materials used complement each other well, lead and stonework for example. Old and new, side by side.

An enquiry about some of the main challenges and areas of work here throws light on a common issue in modern heritage contracting: making good previous "repairs" sometimes only carried out in the last half-century.

"The façade," says John, "was re-pointed in the 1960s."

"It was pointed with sand / cement pointing. The problem was that it was trapping water within the structure." This means the wall is unable to breathe.

"We had to remove all the existing sand / cement over all elevations and replace with a lime mix. That was there originally and it allows the building to breathe."

"That aspect of the job went on for

about five months."

Perhaps the biggest challenge, says Seamus, was the roof. It was certainly one of the biggest jobs.

"It had to be stripped. All came off except the structural timbers. They were maintained in place where this was possible."

"One major thing was that the building was completely dry. They had done a fabulous job all those years ago."

"What's more, when we took down the timber and compared it to a modern piece, we saw how a 4x4 piece of the older timber was about three times as dense."

As regards the roof: "There was a temporary RC structure in it supporting the apex," continues Seamus.

"We had to carefully take that out after the structural repairs and strengthening works had been completed."

### ON-SITE

All stone that was replaced was tooled on-site in temporary workshops. There was even a replica cross made on-site for the roof. The tower finials too, were tooled on site.

Another issue was lime plastering and the amount of time it takes to cure. "Here it is all about getting the moisture content right," says John.

"That had a major impact on our programme," continues John. This point neatly serving to highlight elements of the logistical challenges and how proper planning was key to success.

"This is no more evidenced than in the area of archaeology. 'There are around 30,000 people buried here,' says Seamus."

"We had a lot of archaeology here and had to be very respectful of what we found. Some bodies were eight hundred years old. Some were only fourteen inches below the surface."

"Archaeology was a big challenge. It took a lot of time."

As John explains, the key was to work in sections: "We opened up other areas to work around what would likely happen," he says.

"We had to open up a certain amount and then expect archaeology. It was a particular logistical challenge."

So too was the weather, but again, not enough of a challenge to cause too much upset – even when storm Barney paid a visit.

### CHALLENGING

Meanwhile, doing the work under the Public Works Contract was challenging says Seamus. "There are obviously issues with the contract."

"The whole thing is to transfer risk to

## SKILLS

Most of the skills, such as stone pointing and roofing were sub-contracted out, says Seamus Duggan. "It's great that the skills are there," he adds.

"However there are only a certain number of contractors that could carry out this work and hence the selection of the key subcontractors was critical."

On this note, Seamus Duggan says the Register of Heritage Contractors, of which Duggan Brothers is a member, is a helpful element.

"You can get more exposure to this type of work there and the types of sub-contractors that are out there."

"The key here is the right selection of sub-contractors and partners to carry out the work."

"The Register is the first place you'd go," adds Seamus. "We want to be on it and top specialist sub-contractors would want to be on it too."

the contractor from day one and that is not right on a project of this nature as he does not know what he will encounter and hence cannot adequately determine or price for that risk."

"From a risk perspective I was very aware of this. Although the Pricing Document was not subject to adjustment the PQS (Brendan Merry & Partners) had produced a comprehensive document which accurately captured the works' scope."

"This was a good start and coupled with stringent cost management on site the risks were controlled."

"The reason it worked out well was down to the collaborative nature and good working relationship of all involved."

This extends obviously to the client, Kilkenny County Council, where Evelyn Graham is Project Liaison Architect.

"For all of us it would be better if there was a better contract," Evelyn says.

"We have been arguing that for years."

Echoing Seamus Duggan, Evelyn also puts a lot of the success down to cooperation – extending to that received from the local businesses in the area.

Everyone, it seemed, wanted this to work.

As a result the project has been a success and stands testimony to how, when a clear vision and good planning are allied to expert skills and cooperation, it's hard for anything to hold a good team back. Including storm Barney. **E**