

Willen Church Hooke Heritage Project – Design and impact assessment

The purpose of this study has been to explore the site and assess what is possible. Any design process is iterative, and we have started this process by involving a select number of consultants – ourselves, Interlocks Surveys, Oxford Heritage Partnership, CBG consultants and the Vaughan Consultancy to provide a high-level view on what is possible.

The imagery we have produced makes the building look real – this is because of our design processes and the software we use. This is very early days in the design process and the designs we have produced are not the final designs, but initial ideas.

St Mary Magdalene is a Grade I listed Church and is therefore one of Milton Keynes' most important buildings. The Church was built in 1680 by Robert Hooke, and its future viability is now compromised by lack of facilities. The position the church now finds itself in is a direct result of the decision by the Society of the Sacred Mission to close the Willen Priory, where facilities for church use were available, and lease the building to Willen Hospice.

The Willen Church Hooke Heritage Project is a creative response to the church's lack of toilets, water, hospitality space, and challenging accessibility.

Its objectives are:

- Preserving the heritage building and its location for current and future users
- Providing discrete toilet and accessibility provision with minimal impact on either the interior or the exterior of the heritage building.
- Growing the congregation by increasing space for spiritual, learning and community activities
- Sharing the stories of this exceptional building and its polymath architect Robert Hooke.
- The project is being led by volunteers from the congregation and the community.

This project would not have been possible without the generous support of the following:

- The Heritage Fund
- Diocese of Oxford
- Milton Keynes City Council
- Society of the Sacred Mission
- The Church of St Mary Magdalene, Willen

Robert Hooke

Hooke was a polymath who studied at Westminster School in London under Dr Richard Busby. Having graduated at Westminster Hooke attended Christ Church in Oxford where he met Sir Christopher Wren, and others who were of paramount importance to Hooke through his career.

Some of Hooke's Creations include –

- Inventing an air gun and telescopic sights.
- The circular flywheel still used in many analogue watches today.
- Counterbalance weights used in sash windows.

Architecturally, Hooke designed several buildings and oversaw the building of 51 London Churches in total.

St Mary Magdalene is the only church known to be entirely of Hooke's design and retains an almost complete interior of 1680 – the only alteration being the apse which was added to the east end in 1862.

The brief

A detailed brief has been developed with the project team to create a flexible space that can accommodate up to 40 people and be used flexibly for members of the congregation after services, members of the public before and after events and as an exhibition space for heritage visitors interested in Robert Hooke.

The building is to have 2 WCs to serve 40 people (half the congregation during Sunday services) and a kitchen for organised groups and the congregation only.

The visitor space is to be freely accessible to visitors and passers-by when open and is to be a self-guided experience, open during weekends and on a Monday at the same time as the church.

Wider interest in the heritage project will be generated through partnerships such as Milton Keynes Public Arts Trust who plan to create steel representations of Hooke's work in the park adjacent to the church. In association with the church this has potential for a cohesive visitor destination with an outdoor teaching and play area and interpretation centre. Such partnerships are currently being explored.

Significance

To understand the significance of the Church we commissioned Oxford Heritage Partnership to prepare a Statement of Significance. Their conclusion was that the character, and the building as a whole, is of high significance for its evidential, historical, and architectural value.

The setting of the church is of high significance, preserving much of the core of the village as it was in the 18th century. Longer views are possible across the open fields and playground just to the north; from these positions the church is a key feature of the conservation area.

The least significant area of the churchyard is the north side, which has been marred by the modern close-boarded fence; nevertheless the archaeological potential of the area should be noted.

The nave is of high significance due to its evidential, historical and aesthetic value.

High level review of the site, and assessment of potential locations for facilities

In assessing the potential locations the following hierarchy has been used, working from the most to least desirable in principle.

Within the church building

Three options have been assessed within the church. Whilst in theory the provision of a small servery and welcome area, and WC at the rear of the church is feasible, the works would involve substantial alterations to the vestry and access into the Church. The space needed for storing liturgical materials and robes would also be lost.

The conversion of the south vestry into a WC has been explored. All alterations involve lowering the existing floor and replacing the existing door into the south vestry. This would affect the symmetry of the entrance space.

Three options are feasible externally:

- A very long ramp along the south of the church.
- Alternatively, a ramp integrated with the design of the steps would involve regrading ground levels externally.
- Providing a new external lift near the entrance to provide access into the church

Carrying out internal alterations to the Church is also contrary to the project ambition to preserve Hooke's design.

Stand-alone outside the churchyard

Various sites in the vicinity of the churchyard, on both public and private land not within the control of the church, have been considered for the provision of a new building. It has been concluded that the legal, financial and timescale obstacles to acquiring such land outweigh the desirability to minimise any intrusion on the churchyard.

In addition, the Congregational Leadership Team feel that the advantages of the building being in the churchyard rather than outside it are:

- The visitor experience would be better
- It would confirm a spiritual connection between the church and its outbuilding
- It would create a cohesive visitor offer and a stronger and more welcoming connection between the church and its outbuilding
- The spiritual connection between the two buildings would be diminished by a longer walk
- A longer walk from the church to amenities would create a disincentive to participate with post service hospitality and activities and reduce community engagement

Security would be better

- Being in the churchyard will encourage good behaviour as people will be less inclined to abuse a building in the churchyard
- It will be more in control of those responsible for maintaining and managing it
- Outside the churchyard risks it being assumed to belong to "the council" and so make it more vulnerable to abuse

Stand-alone within the churchyard

The three options originally prepared for the churchyard and discussed later included two sites to the north of the church bordering on the residential dwelling and away from existing interments; and a third site to the south of the church which sits between interments.

Extension to the church building

Potential locations for extensions to the north elevation and south elevation were considered but would interrupt the symmetry of the church and have an impact on the historic views of the setting of the church, which are considered of high significance.

Carrying out external alterations to the Church is also contrary to the project ambition to preserve Hooke's design.

On this basis providing a new building within the churchyard is the best practical compromise to achieve the overall project objectives.

Site plan

The site plan illustrates that the church lies within a residential setting with properties to the north and west, the park to the northwest and the hospice to the south. To ensure that the proposed heritage building has the minimal impact possible, we have aimed to follow permitted development technical guidance of setting the height of any new building at 3m to the eaves on a boundary. Whilst an arboricultural assessment hasn't been carried out we recognise that the trees are identified as significant in the conservation area appraisal. In each of the proposals explored we have located the proposed heritage building to minimise the impact on trees by avoiding anticipated root protection zones. However, each of the options explored does involve removal of one tree in the conservation area.

To provide a space to accommodate 40 people Option 2 has a 5.8x9m flexible space accommodated in a long thin plan, whilst Option 3 is 7.5mx8m and has a wider plan so sits marginally closer to the church on the north elevation.

The original site for Option 3 was discounted as there are memorials and ashes on the southern boundary wall and the footprint could not be made narrow enough to provide a pleasant space behind it for members of public to enjoy the memorial garden without the building being located along the path to the church. In addition, the difference in levels between the neighbouring settlement of The Hooke and the Churchyard meant that the building had to be excavated into the ground by over 0.5m to avoid an overbearing effect from the road and to avoid obscuring the view of the church from the road.

In each of the design options we have tried to minimise the impact of the building on the church by hiding the building amongst the planting. The first option is partially subterranean.

Design Options

Option 1

The first concept is for a modern structure on the corner of the site with a green roof. The building involves the removal of the tree on the corner of the site. The building is designed to be sculptural in order not to compete with the church. The walls are from stone to match the church and the entrance designed to reflect the west entrance to St Mary Magdalene. Whilst the ground floor is partly sunk into the ground the height of the roof at the apex is 5m and is determined by the likely build up required for a green roof. Access to the top of the roof is shown protected by a glass balustrade.

At ground floor there is an accessible toilet, whilst at basement level room has been provided for 2 additional toilets and a servery. A void has been left in the corner to provide natural daylight into the basement. The flexible space is below ground with a circular roof light which takes its cue from the circular window in the tower.

From the exhibition space you get a view of the tower rising out of the ground.

Option 2

Is a long thin building constructed along the boundary wall. This has been designed in copper and oak, to break up what otherwise makes a very long elevation. The building is deliberately contemporary not to copy the church, but the roofline matches the roof of the nave which is also from copper.

Internally the building provides 2 WC's and the arrangement could be orientated to ensure that the accessible toilet was always made accessible without access to the other spaces. The exhibition space is designed with timber piers looking to the church with timber shutters fixed to the reveals that can open and close to provide additional space for projection for interpretation or otherwise left open.

Option 3

Is a more traditional approach, however, the footprint is slightly wider. The building is proposed to be constructed of stone and brickwork with a copper roof matching the church.

We were originally exploring this building on the other side of the church and it was designed with the end elevation blank to avoid overlooking the memorial garden, however, in its proposed new location it could easily have windows looking out to the east.

Carbon zero

Our energy consultants have carried out a review of the low carbon energy options for the heritage space and the church. Their initial findings are that photovoltaics and air source heat pumps are the only feasible option for St Mary Magdalene.

Options 2 and 3 have the potential to support photovoltaics. Owing to the proposed use patterns they consider that most of the electricity generated would be put back into the grid and consequently it is not worth considering at this moment in time.

In terms of achieving carbon zero, it appears that air source heat pumps along with building fabric upgrades are the most likely way forward for the church and heritage space.

Conclusion

The design exercise has revealed that the north end of the site is the most suitable location for the construction of a new building. This is in alignment with the findings of the heritage statement which confirms that this is the least significant area of the churchyard. However, it would involve a degree of harm to the conservation area through the removal of one of the existing trees and in addition the archaeological potential of the site is unknown.

It seems likely that the energy for both the proposed heritage space and the church will be from air source heat pumps and works will be required to the church building to prevent draughts and improve lighting and existing electrical infrastructure.

JAMES
MACKINTOSH
ARCHITECTS

TRANSFORM | RESTORE | REPAIR