

Merthyr Tydfil Town Hall Refurbishment

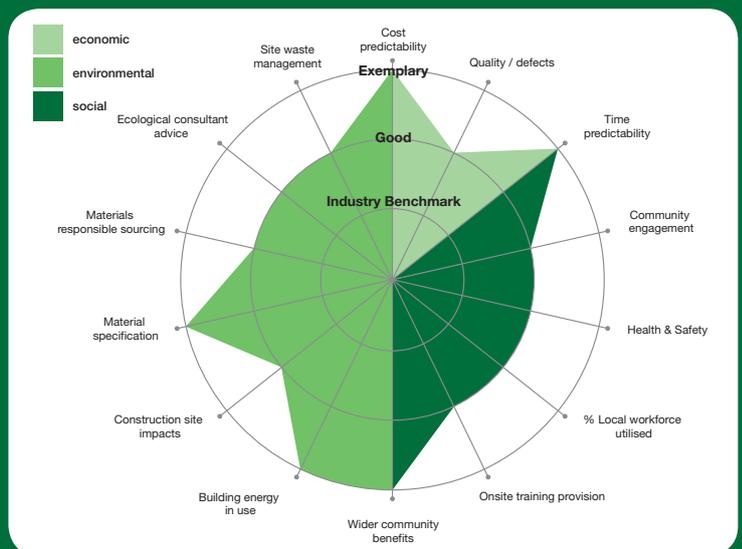


Merthyr Tydfil Town Hall is an iconic Grade II* listed building in the centre of the town which has fallen into disrepair. Merthyr Tydfil Housing Association (MTHA) decided to renovate the building to bring it back into use and to preserve and promote the history of the building given its location as the site where the Labour party was established in Wales by Keir Hardie in 1900. MTHA recognised that refurbishment could be a catalyst for regeneration in the Merthyr Tydfil area and help to create a more desirable environment for people to live and work, which would increase the demand for MTHA housing stock.

Despite its considerable size, the building has a large courtyard and generous circulation spaces that leave relatively little 'lettable' floor area. Hence, it was less attractive to commercial developers. A key success factor for MTHA was to attract anchor tenants and create flexible spaces for community use to secure sustainable use and revenue streams for the facility. The restoration of key elements of the building relating to its history and heritage for the town would also serve as an attraction to visitors.

To underpin its sustainability, running costs would need to be reasonable so reducing energy demand through the restoration was also a key driver whilst respecting the limitations of the building and its listed features.

This case study seeks to explain how careful attention to design and construction and a mature approach to risk management can transform a historic listed building, of which there are many in Wales, into a cost-effective and energy efficient community facility using local labour and materials. Despite adopting a relatively traditional contract strategy, a team approach based on openness and trust is proposed to ensure certainty of costs, time and quality criteria.



project details

client: Merthyr Tydfil Housing Association
 architect: Austin Smith Lord
 contractor: Graham Construction
 value: £5,800,000
 project size: 3150m² lettable area across 4 floors, including basement
 contract : JCT



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what is an Exemplar project?

An Exemplar is defined as 'something worthy of being copied'. The Exemplar programme has been developed to help identify the reasons why certain projects are successful in a standardised, quantifiable way, and to share with the industry what enabled these successes. An Exemplar considers all aspects of sustainability, including economic, social and environmental. Projects must demonstrate that they have been innovative in one or more of these aspects in a way that exceeds normal industry practices, while achieving at least minimum standards in all other areas of the project. This is to demonstrate that the scheme is well rounded and has not sacrificed one aspect to be successful in another, while also incorporating best practice measures that can advance the state of the industry. An Exemplar project therefore reflects the ideal industry goal of achieving a scheme's primary function aims in a sustainable way, at acceptable costs. Case studies are prepared at 3 key stages : post-design, post-construction, post-occupation. This ensures that lessons learnt can be demonstrated throughout the development of the project.

what will make the project successful

- The client's desire to safeguard the long term usability and viability of the building by carefully balancing the issues of running costs, maintenance and environmental performance to provide a legacy for Merthyr Tydfil
- Careful selection of the architect and the contractor at tender stage through price and quality criteria allowed their previous experiences, knowledge and skills of working on other historic and heritage buildings to benefit this project
- Despite having no formal contractual/financial incentives in place, the team has been motivated to deliver a high quality facility on time and budget through a combination of pride, reputation and future work opportunities
- The client has promoted an honest, open atmosphere amongst the project team in order to deal effectively with any issues

notable achievements

- Initial site investigations and enabling works carried out up-front by the client has helped to reduce potential risks in the scheme, thus providing greater cost certainty
- Proactive involvement of the contractor once appointed helped ensure the build ability of the scheme, while also maintaining the target budget and timeframe
- Quality is designed into the scheme from the start by ensuring that previous heritage experiences of the architect and contractor are considered carefully at the tender selection stage
- An innovative strategy using a 'zoned approach' will vastly improve the energy performance of the refurbished building, ensuring more manageable running costs for tenants and building users
- The refurbished Town Hall will provide a range of new facilities and functions for community use that are not currently available in the area, with a focus on 'access for all'
- Proactive engagement with the surrounding community should help ensure local buy-in and the long term success of the development

economic considerations

Initial site investigations and enabling works carried out up-front by the client have helped to reduce potential risks in the scheme, thus providing greater cost certainty

Funding for the scheme has come from various sources, including CADW, European funds, Welsh Government (Heads of the Valleys Programme) and the Heritage Lottery Fund. 'Acceptable' costs are difficult to determine for the refurbishment of listed buildings. However, the Lottery Fund set benchmarks for determining value for money based on a cost benefit analysis and deemed the project worthwhile and the proposed budget appropriate.

As such, two of the most important economic factors for the project are cost certainty during the refurbishment and securing longer term income in order to sustain its use.

During the earliest stages of the building design, the client appointed various consultants to help determine the state of the building and give a better understanding of the works that were required. As well as helping to reduce risks during the tendering process it also provided more reliable indicative costs to seek and justify appropriate funding. Overall, this upfront investigative work and costing exercises should help the client maintain cost predictability over the course of the project.

In terms of long term security of income, Merthyr College were identified as an anchor user for the building, with the intention to utilise a significant proportion of the available floor area. This commitment helped provide security of investment from the various funding sources.

Proactive involvement of the contractor once appointed helped ensure the build ability of the scheme, while also maintaining the target budget and timeframe

A conscious decision was made by the client to appoint a main contractor after detailed design stage. This allowed many issues with the building structure and fabric to be fully investigated and repairs scoped out prior to any competitive tendering exercise. Testing the appropriateness of this approach is an important feature of this case study. However, since appointment, the contractor has provided many solutions to secure additional cost savings and hence cost and time certainty through alternative approaches. Although there is no financial incentive in the contract to do so, it simply helps their reputation and introduces a focus on the end user. As an example, based on previous experiences of heritage projects where an entire roof needed to be replaced, they removed the need for temporary roofing over the structure by replacing the roof in relatively small sections.

The contractor's and client's QS also work closely on all issues so they can negotiate reasonable and transparent prices upfront rather than introducing conflict when independent estimates differ. Again, this is not a contractual requirement but the approach helps develop trust between the client and contractor leading to greater openness, less conflict and a better outcome for the end user.

Once appointed, they also reviewed the programme and the sequencing of tasks and suggested alterations that would reduce the overall delivery timeframe. They identified works that could be phased simultaneously without interfering with each other so many items will now run in parallel, rather than being on a linear programme. This will introduce a "float" to compensate for any delays that may be experienced over the course of the works e.g. due to weather. The contractor will continue to review and adapt the programme to keep the project moving and will keep the client and wider supply chain well informed so they are able to adapt to any changes in good time. Once again, the focus is on meeting the needs of the end user.

Quality is designed into the scheme from the start by ensuring that previous heritage experiences of the architect and contractor are considered carefully at the tender selection stage.

The client carried out their initial selection and interview process for the delivery team based on the quality of the solutions proposed, their approach to the scheme, the individuals who would work on the project and their previous experiences in this area of conservation. This took place before considering any tendered prices. It was believed to be critical to the success of the development that everyone would need to buy-in to the ambitions of the scheme and work well together to deliver the client's vision for the building.

The architect was appointed largely based on their previous heritage and accessibility experience. This offered confidence that due consideration would be given to the listed elements of the building during the proposed designs. The contractor was also selected on the strength of their previous project delivery experience and during selection interviews where the quality of their approach was made clear in the solutions they offered to the client.

The choice of materials is critical so care is taken by the project team, in partnership with the Heritage Planners, to select appropriate products and suppliers to give the correct 'look' to the building. In order to help the client make decisions about certain options, the contractor has taken them to other projects to see where things have been successfully implemented to help them make informed decisions. Future maintenance has also been an important factor so that longer term costs remain manageable.

environmental considerations

An innovative strategy using a 'zoned approach' will vastly improve the energy performance of the refurbished building, ensuring more manageable running costs for tenants and building users

The traditional construction of the Town Hall building and in particular its listed elements means the facility does not typically lend itself to low energy refurbishment. However a strategy has been developed that is both respectful to the building's history and as ambitious as possible with regard to reducing the energy demand of the building.

The building is of solid wall construction and due to the need to retain its external appearance it is being insulated internally. Samples were taken of the walls throughout the building to better understand the type and level of insulation that would be appropriate. Modelling (using WUFI moisture transfer analysis software) was then carried out to ensure that insulating in this way would not lead to condensation problems in the building.

This led to a zoned approach toward insulating the building according to what was viable in each zone, based on delivering the best possible energy performance in light of any apparent limitations from the modelling. Five isolated zones were established with their own insulation, heating and ventilation strategy. In some cases, the proposed use of spaces in each zone was determined according to how the space could be heated, e.g. more physically 'active' uses proposed in zones that would inevitably be cooler than other parts of the building.

A significant step to reduce the heating demand of the building is the decision to enclose the central courtyard within an atrium. This will help capture solar gains for the building and will mean that the walls now contained within the courtyard would effectively no longer be external heat loss walls. 'Air movers' (fans) have been strategically designed into the building to help balance the heating and cooling requirement, i.e. transferring excess warmth to parts of the building that need it and subsequently reducing the need for mechanical cooling. 3D modelling was used to help design this solution.

social considerations

The refurbished Town Hall will provide a range of new facilities and functions for community use that are not currently available in the area, with a focus on 'access for all'

With the aim of creating a cultural and arts centre for the town, the local college was a natural anchor tenant for the development. The building will therefore incorporate new facilities including a theatre, dance studio, recording studios, a cafe and flexible gallery zones that will also be available extensively for community use.

It was also the intent to introduce flexible spaces within the building that could be used for many varied activities. Hence in parts of the building that are less critical from a 'historic preservation' perspective, moveable partitions have been installed that can allow varied use of the spaces by community groups.

In some of the more attractive areas of the building that contain lots of appealing building features, the rooms will be used for weddings and banquets, which should help make the newly renovated building a focus for the community and give it prominence once again within the town. Exhibits detailing the activities of Keir Hardie and the establishment of the Labour Party in Merthyr will also serve to raise the historic significance of the area.

The ambition for 'access for all' has been a strong driver for the refurbishment with a priority being to ensure that disabled access to the building was possible despite it being a listed building. The building will be as 'inclusive' as any similar building could possibly be, with significant effort towards access, including raising floor levels in the design to allow for level access. For this, the project team have engaged with a local 'Access Group' for advice, plus have enlisted the help of a Welsh Government Access Advisor.

Proactive engagement with the surrounding community should help ensure local buy-in and the long term success of the development

A Community Liaison Officer has been appointed by the contractor to engage with the local community during the development and to help realise local employment and training opportunities via the scheme. The future Building Manager, with a background in creative arts, has been appointed as early as practically possible (towards the end of the formal design stage) to help refine the specifications to enhance the creative and cultural offer, which has brought a different and useful perspective to the design team.