

Model (DTM) or 'bare earth' model, which removes buildings and vegetation from the DEM. The DSM takes into account the likely screening effect of buildings and vegetation, thereby giving a more realistic impression of where visibility might be possible, albeit still an approximation.

A ZTV was produced using 18 points representing the maximum heights of the rooflines and eaves on the proposed boat hire building and pump out building/fuel store, as identified from the design drawings. This ZTV was created using the Natural Resources Wales composite LiDAR @ 1m resolution as the DSM, which takes into consideration the screening effect of vegetation and the built environment embedded into the basemap.

The ZTV (Figure 17) confirms that visibility of the proposed new buildings would be largely confined within the immediate area of the basin to the north of Scotch Hall Bridge, this being due to the enclosed nature of this part of the Basin and the screening afforded by the surrounding trees. The ZTV also indicates that there would also be clear visibility of the buildings from the field immediately to the west and from the north-east, and glimpsed views from the east would also be possible, as well as more distant views from the Cefn-mawr area. Visual effects within the WHS, Scheduled Monument and Conservation Area, however, would be almost wholly contained within the Assessment Area. Key views into this area are possible from Scotch Bridge (Photograph 32), although views of the new buildings from here would be largely screened by intervening vegetation. The bridge forms an effective visual barrier (Photographs 34-36) which prevents intervisibility between the Assessment Area and the rest of Trevor Basin and the Pontcysyllte Aqueduct (Photographs 37, 39 and 45).

In conclusion, any visual impacts, whether beneficial or adverse, would be almost wholly self-contained within the Assessment Area itself and would not directly affect the wider designated areas.

7.2 Impacts upon Heritage Values

Cadw's guidance document *Heritage Impact in Wales* (Cadw 2017a) identifies a series of questions that should help to frame the assessment of developmental impacts, and these are set out and discussed below.

7.2.1 How would your proposals affect the evidential value of the historic asset? Would they result in the loss of or damage to historic fabric, including archaeological evidence, or make it harder to appreciate the way in which the building or site was used in the past, and how it has changed over time?

Potential impacts to the evidential value that could be enshrined in the archaeological evidence within the Assessment Area have been assessed through an initial phase of archaeological evaluation. The results of this indicate that there is likely to be some, but perhaps limited, survival of archaeological remains within the footprint of the development, buried beneath later deposits of dumped material. These include the buried foundations of a building which is thought to be the former beer house known as The Canal Tavern, and there is the potential for other features associated with activity on the canal wharf and central pier to be present, although it appears likely that the former rail tracks that served this transport hub are no longer *in situ*.

Any impacts to these archaeological remains as a result of the development could be mitigated through an appropriate scheme of archaeological monitoring or recording, which could be secured by a suitably worded planning condition.

With regard to damage or loss to historic fabric, it is likely that there could be some minor physical impacts to the canal wall coping stones as a result of the insertion of the proposed new Electricity, Fuel, Foul and Water Service Points. These impacts should be minimised or avoided as far as possible, and details provided to Cadw to be approved as part of the application for Scheduled Monument Consent. It is possible that, in consultation with Cadw and CPAT, that a scheme of historic building recording to an appropriate level is implemented in order to document any loss of historic building fabric.

With suitable mitigation measures in place, archaeological and structural recording could serve to contribute to an appreciation of the way in which the building or site was used in the past, and how it has changed over time, and this could help to offset any physical impacts.

7.2.2 How would the proposals affect the aesthetic or design qualities of the historic asset? Will they compromise its historical design principles — such as its layout, scale and proportion — or result in the loss of historic detail or craftsmanship?

This question can be addressed with reference to the list of *scale, form* and *design* principles which informed the scheme proposals, which are provided in the Design and Access Statement (DAS) that is to be submitted as part of the scheme:

- ◆ *A study of structures within the canal's locality can identify similar architectural qualities within the Basin Dry Dock, Visitor Centre and nearby waterside examples along the Shropshire Union Canal, Llangollen Branch.*
- ◆ *An architectural character was developed to reflect upon the simplistic, low scale, traditionally pitched forms of the historic canal side houses, operational buildings, and barns sited along the local waterside.*
- ◆ *Within this architectural language, openings often comprised of large operational entrances, double doors, or vertically thin proportioned single leaf. Windows tended to be simplistic openings, with a range of differing fenestration styles.*
- ◆ *Large solid wooden and wooden shutters on openings are a notable characteristic upon built forms frontage, which provide shelter, resilience, and security to the openings.*
- ◆ *With the intention to harmonise with the site's setting, a palette of contemporary but contextually relevant materials has been carefully selected.*
- ◆ *At present, woodland planting immediately surrounds the basin fork. A primary material of timber larch cladding has been selected to blend the proposed structures into the wooded setting.*
- ◆ *Roof materiality is made up of dark metallic standing seam covering system. This will distinguish the building as contemporary while appreciating the darker tones of slate found typically within the destination's locality.*

- ♦ *Dark metallic window frames form the appearance of the scheme's fenestration. This foremost presents a high-quality finish in a contemporary architectural language, while echoing industrial tones.*
- ♦ *Local canal side structures present a typically low-lying scale with longitudinal form, covered by an uncluttered traditional pitched roof, without dormers or skylights.*

In addition, the DAS provides details of the *setting, layout and landscape* principles that informed the scheme proposals:

- ♦ *Early studies of the existing site's context set out key views to encourage ongoing review of appearance and place making. 3D models of proposals helped to envisage the developing proposals within the existing landscape and steer design to be contextually driven.*
- ♦ *Development of the design's layout within the setting required a balance of screening the operational requirements of the boating business while celebrating its outward facing customer experiences within a design of considered appearance for the destination.*
- ♦ *After careful consideration of pre-application guidance, the layout set about focusing key views onto active frontage, building thresholds and amenable landscapes, while screening the service areas such as parking, refuse storage and mechanical equipment away from visitor sight lines.*
- ♦ *Within the current scheme, the central island is used an opportunity to present a contemporary naturalistic landscape scheme through native tree and shrub planting feature linear log pile habitats to promote biodiversity and ecological growth.*
- ♦ *External surfaces surrounding the proposed building and connecting routes through the site consist of tar, and chip surfacing to match recent footpath improvements and a thin underlying grass reinforcing mesh strip. The larger areas of surface are left as 'made' ground supported by matching loose bound gravel.*
- ♦ *External walls primarily consist of stone masonry stone walls of locally quarried natural stone, carefully positioned to screen service and parking areas from the outward views of primary visitors' experiences. Railway timber sleepers are adopted into the wooded areas around the island, distinguishing as new over the existing historic stone coping level.*
- ♦ *Railing and balustrade specifications are black coated estate metal railings to keep consistent with the wider area, this offers a cohesive approach to feel and character within the destination setting.*
- ♦ *Lighting is kept minimal in the landscape plan with only low-level micro-LEDs marking key points of pathways. Boating service bollards and other paraphernalia are to be of a black painted appearance to tie in with the feel of local painted ironmongery.*

7.2.3 How would the proposals affect communal value? Would they make it easier for people to access and appreciate the building or site?

The communal value of the WHS is of paramount significance, Pontcysyllte Aqueduct and being one of Wales' premier tourist attractions, with Trevor Basin supporting an established

boat hire business, which is a key asset on the canal network, receiving over 300,000 annual visits, pre-Covid-19. This proposal utilises a more suitable location for the hire boat business, re-locating it to the rear of Trevor Basin, which will ultimately reduce boat, pedestrian and vehicular congestion within the main basin area having a positive impact on manoeuvrability across the site. Consequently, it is concluded that the proposals would have an overwhelmingly positive benefit upon communal vale, and make it easier for the public to access and appreciate this internationally important heritage asset.

7.2.4 Are there any other risks or benefits? For example, risks might include increased maintenance and management liabilities, or compromised performance through the use of incompatible materials; benefits might include the introduction of a sustainable new use.

The scheme proposals would regenerate the area of Trevor Basin to the north of Scotch Bridge, which suffers from an air of abandonment and neglect, especially since the demolition and removal of the pre-fabricated *Jones the Boat* hire buildings. The construction of a high quality modern building with a scale, height, character, and materiality to complement the visual setting of the Canal Basin, Pontcysyllte Aqueduct WHS, and designated Conservation Area, and the associated landscaping will result in the regeneration of this part of the basin, and have a highly beneficial impact upon its setting.

7.2.5 If your historic asset is within or part of a World Heritage Site, what would be the impact of your proposals on the Outstanding Universal Value?

There would be no adverse impacts upon the Outstanding Universal Value of the WHS, but conversely, the proposals would enhance and increase the understanding, appreciation, enjoyment and amenity value of the site, whilst also improving its setting.

8 CONCLUSION

In conclusion, overall the proposed development would have an overwhelmingly beneficial impact upon the significance of the Pontcysyllte Aqueduct WHS, Scheduled Monument and Conservation Area.

There could be some slight adverse impacts upon buried archaeological remains and minor impacts to the historic fabric of the canal walls, but these could be mitigated through appropriately worded planning conditions, and via Scheduled Monument Consent, in consultation with Cadw and CPAT.

Further archaeological monitoring and recording could reveal evidence that might contribute to an understanding and appreciation of the way in which the canal wharf and transfer dock was used and inhabited in the past, and how it has changed over time. This could contribute to the *evidential value* of this part of Trevor Basin, by informing the historical narrative concerning how the site has evolved from its origin as a Canal Tavern adjacent to a vital transport hub at the height of the Industrial Revolution, to one of the premier boat hire centres on the modern canal network.

9 STATEMENTS AND ACKNOWLEDGEMENTS

9.1 Publicity, Confidentiality and Copyright

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9.3 Acknowledgements

Archaeological Research Services Ltd would like thank Kate Lynch (Heritage Advisor for the Canal & River Trust) for commissioning this work, Stephen Hough (Senior Building Surveyor - Building Consultancy Team for the Canal & river Trust) for arranging for the site access, the Flintshire and Denbighshire Record Offices for permission to reproduce material held in their collections, Gary Duckers (CPAT Historic Environment Officer) for provision of HER data and Penny Icke (RCAHMW Information Services Manager) for provision of NMR data. Thanks also to Mark Walters (CPAT Development Control Archaeologist) and Will Davies (Cadw Regional Inspector of Ancient Monuments) for their advice and consultation responses during the course of the project.