Pontcysyllte Aqueduct Access Improvements

Landscape Statement

MAY 2024

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Our Ref:
10058635-AUK-XX-XX-RP-LA-0001-01-Landscape Statement



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Version Control

Issue	Revision No.	Date Issued	Page No.	Description	Reviewed By
Draft	01	March 2024		Landscape Statement	MH
Final	01	22-03-2024		Landscape Statement	EC
Final	02	09-05-24	P1, P7	Client comments	

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Contents

1 Introduction 5
2 Legislation, Policy and Guidance 8
3 Analysis of Baseline Conditions 10
4 Design and Integrated Mitigation 15
5 Likely Effects on Landscape Character and Visual Amenity 15
6 Likely Effects of the Proposed Development on the World Heritage Site and Buffer Zone 18
7 Conclusions and Next Steps 21

Appendices

Appendix A

Photosheets

Appendix B

Landscape Figures

1 Introduction

1.1 Project Background

1.1.1 This Landscape Statement has been prepared to support a planning application on behalf of the Canal River Trust (CRT) for the replacement and realignment of the existing stepped access east of the Pontcysyllte Aqueduct (herein referred to as the 'Proposed Development').

1.1.2 This statement has been written by Arcadis on behalf of CRT and addresses the potential effects of the Proposed Development on landscape character and visual amenity within a 1km radius of the Site. Mitigation measures which would be implemented to ameliorate any adverse effects of the Proposed Development on landscape and visual matters are also described where relevant.

1.1.3 The Proposed Development is located within the Pontcysyllte Aqueduct World Heritage Site (WHS) in the borough of Wrexham County Borough, in the north east of Wales. The Proposed Development seeks to improve the visitor experience and setting of the Aqueduct through the replacement and realignment of an existing stepped access east of the Aqueduct between the Trevor Basin WHS visitor hub and the River Dee. The Proposed Development is part of the wider Trevor Basin masterplan to improve the visitor destination.

1.2 Stakeholder Engagement

1.2.1 A pre-application response was received by Wrexham Borough Council on 31/07/2023 (Ref no. ENQ/2023/0102) for public realm improvements at Pontcysyllte Aqueduct, including the improved stepped access. The response notes that *'…given the sensitivity of the site within the AONB and World Heritage Site, a detailed Heritage Impact Assessment and LVIA would also be required to be submitted in support of a planning application for these works.'*

1.2.2 Following initial analysis, it was concluded that a full LVIA and preparation of a Zone of Theoretical Visibility would not be necessary due to the following reasons:

- No landscape character receptors or visual receptors are likely to be significantly affected by the Proposed Development;
- The 'Guidelines for Landscape and Visual Impact Assessment, third Edition' (GLVIA3) published by the landscape Institute & Institute of Environmental management and Assessment state that assessments are to be proportionate in scale and only likely significant effects should be taken forwards into the assessment stage;
- Low lying nature of the Proposed Development; and
- Limited visual envelope.

1.2.3 The format of this Landscape Statement will therefore consist of:

- Description of the works;
- Analysis of existing landscape character;
- Analysis of the Site's existing visual context;
- Discussion on the likely effects on landscape receptors;
- Discussion on the likely effects on visual receptors;

- Discussion on the likely effects on the Outstanding Universal Value (OUV) of the WHS; and
- Conclusions.

1.2.4 The format of, and terminology used within this statement draws upon GLVIA3 in so far that likely landscape and visual effects are assessed through professional judgements on the sensitivity of landscape character and visual receptors, combined with judgements on the predicted magnitude of effect arising from the Proposed Development.

1.2.5 Landscape effects relate to the degree of change to the physical characteristics or components of the place, which together form the character of that area, for example landform, settlement pattern, building form, colour and texture.

1.2.6 Visual impacts relate to the degree of change to an individual's view, for example that of users of public areas, people in their homes, or users of local roads.

1.3 Assumptions and Limitations

Limitations

Two site visits have taken place as part of the Project, one for design and one for assessment. During the landscape assessment site visit in February 2024, the entire length of the Aqueduct towpath was closed for maintenance works. Viewpoints from the top of the Aqueduct were therefore not achievable at this time. The landscape design site visit which took place in October 2022 when trees were in full leaf and screening at its greatest. Photography from this site visit have been used for views from the Aqueduct.

Assumptions

Where distances are given, these are approximate (rounded to the nearest 10m), between the nearest part of the Site and the nearest part of the receptor in question, unless explicitly stated otherwise.

1.4 Site Location and Setting

1.4.1 The Proposed Development is located at the southern end of Trevor Basin, within the Dee Valley in North Wales. Trevor Basin provides the visitor gateway for the Pontcysyllte Aqueduct and Canal WHS and is a popular destination for visitors exploring the history and natural beauty of the area.

1.4.2 As shown on Figure 1.1, the Site comprises a narrow area of the northern wooded valley slopes of the River Dee, between Trevor Basin at the top of the slope and the lower riverside paths, occupying an area at the base of the Pontcysyllte Aqueduct.

1.4.3 Within the Site there is an existing stepped access that provides visitors with access down the slope, allowing views of the Aqueduct piers, which rise high above the ground level and of the Aqueduct spanning the river.

1.4.4 Dense woodland covers the valley slopes to the edges of the existing steps and riverside paths, contributing to an enclosed character within the Site and restricting views of the wider landscape. The Site is located within a short section of a long riverside path, which follows the northern banks of the fast flowing River Dee.

1.4.5 The wider landscape comprises a continuation of the river valley woodland and slopes, giving way to rolling hills and settlements on the higher ground of the Dee Valley.

1.5 Scheme Proposals

1.5.1 The proposals are to replace and realign the existing stepped access along the eastern side of the Aqueduct to create a more comfortable experience for visitors manoeuvring down the steep slope. The new steps will broadly follow the existing stepped alignment, with the exception being where there are pinch points between the existing stepped access and sandstone Aqueduct pillars. The alignment in these places will be set back a short distance from the structure to both protect the stonework and increase opportunities to appreciate views of the imposing piers. The flights of steps will be consistent across the whole ascent/descent and will be a minimum of 2m wide. A handrail will be located to the centre of the steps and to steps/landings where there is a risk of falling greater than 380mm.

1.5.2 A selected number of existing trees and vegetation will be removed to improve the views of the Aqueduct.

1.5.3 New signage/wayfinding and seating will be located at the upper parts of the new steps and along the riverside paths.

1.5.4 Approximately 30m west of the Aqueduct piers, improvements will be made along the existing public footpath to allow for a new viewing area.

1.5.5 The Proposed Development includes the following works:

- Improvement to existing access route from existing Visitor Centre, towards the Pontcysyllte Aqueduct;
- Vegetation clearance to allow reveals of the Aqueduct;

- Improved stepped descent – steps to be widened to a minimum 2m, 7no. steps per flight, with consistent risers and treads and handrails as required (7no. x 300mm tread and 170mm riser, landings differ in length (min 1200mm); Materials to be of high-quality specification.
- Creation of new viewing areas;
- Retain reinstated historical hedge line;
- Improvements to 30m of existing public footpath to the west;
- Creation of an improved nodal/confluence point, linking main path to riverside and woodland footpaths; and
- Improved signage and wayfinding.

2 Legislation, Policy and Guidance

2.1.1 The section below sets out legislation, Welsh Policy and guidance published by National Resources Wales and the Landscape Institute, which is of relevance to this Landscape Statement.

Legislation

European Legislation

2.1.2 European Landscape Convention (ELC), Council of Europe (2004) (Ref 1.1) – The ELC provides the overarching principles of this assessment – i.e., for the protection, management and planning of landscapes including ordinary or degraded landscapes. This carries through into relevant landscape policies at a national and local scale.

Policy

Welsh Policy

- Future Wales: The National Plan 2040 (Ref 1.2): Policy 9 - Resilient Ecological Networks and Green Infrastructure provides direction on the need to work towards securing the maintenance and enhancement of green infrastructure assets and demonstrating nature-based approaches to site planning.
- Planning Policy Wales Edition 11 (February 2021) (Ref 1.3): provides the detailed policy framework for protecting the environment, setting out guidance for development and character. This includes how the special characteristics of an area should be central to the design of a development and also how its layout, scale, visual appearance and its relationship to its surroundings are important planning considerations. This further includes the management of development activities within World Heritage Sites (Chapter 2 and 6).
- Planning Policy Wales – Technical Advice Notes: provided guidance on Design (TAN 12 ((Ref 1.4)) and Sport, Recreation and Open Space (TAN 16 ((Ref 1.5)). TAN 12 provides advice on the understanding of site and its immediate and wider context as well as an approach to how character is appraised including through utilising the LANDMAP method of assessment (Paras 4.3, 4.8, 4.11, 4.14, 5.5.2 and 5.5.5). TAN 16 provides advice on playing fields and green open spaces and their contribution to the urban

Wrexham Borough Council Policy

- Wrexham Local Development Plan 2013-2028 (adopted 2023) (Ref 1.6)

  - Policy NE3 relates to Trees, Woodlands and Hedgerows and appropriate use and protection of woodlands and boundary edges.
  - Policy NE4 relates to AONBs and states that development must not have an adverse impact on the special qualities of the AONB and be designed to an appropriately high standard in order to integrate with the existing landscape and where feasible enhance the landscape quality.
  - Policy NE5 relates to Special Landscape Areas and states that development in these areas should have regard to the impact of the proposed development on key features, landscape character and quality.
  - Policy BE1 relates to Pontcysyllte Aqueduct and Canal World Heritage Site and states that '*development will only be permitted where it would not harm the attributes which justify the inscription… as a WHS and the site's Outstanding Universal Value*.'
  - Policy BE2 relates to Trevor Basin Masterplan Areas, stating that '*development which contributes to the delivery of the Trevor Basin Masterplan and which have no adverse impact on the outstanding universal value of the WHS or its setting, will be supported*.'
- Wrexham Local Planning Guidance Notes (LPGN)
  - LPGN 4 provides guidance on design and materials within Conservation Areas (Ref 1.7).
  - LPGN 7 provides guidance on landscape and design. (Ref 1.8).
  - LPGN 17 provides guidance on trees and development (Ref 1.9).
  - LPGN 33 provides background and guidance of management and development within Pontcysyllte Aqueduct and Canal World Heritage Site and buffer zone (Ref 1.10).

Guidance

- National Landscape Character Areas (Ref 1.11), published by Natural Resources Wales (NRW), provides descriptive profiles for broad National Landscape Character Areas (NLCA) in Wales to inform the more detailed studies.
- NRW's publication - 'LANDMAP in Landscape and Visual Impact Assessments' GN46 (Ref 1.12) provides guidance on using the LANDMAP data sets when preparing LVIA or TVIAs, particularly when identifying and determining the assessment's Study Area extent based on proposed development heights.
- Landscape Institute (LI) and the Institute of Environmental Assessment and Management (2013), Guidelines for Landscape and Visual Assessment (Third Edition) (Ref 1.13) and accompanying 'Statement of Clarification' 1/13 10-06-13 (Ref 1.14) provides the principles for assessing the landscape and visual effects of developments and their significance and provides guidance upon establishing methodologies for undertaking such assessments. This guidance has formed the basis of this landscape statement.
- LI Technical Guidance Note 06/19 Visual Representation of Development Proposals (Ref 1.15) provides guidance on selecting the appropriate type of visualisation.
- LI Technical Guidance Note 02/21 - Assessing Landscape Value Outside National Designations (Ref 1.16) provides guidance on defining value for landscapes and townscapes which fall outside of National Designations.
- Pontcysyllte Aqueduct and Canal World Heritage Site Management Plan 2019-2029 (Ref 1.17).
- Joint Supplementary Planning Guidance Note (Denbighshire County Council, Wrexham County Borough Council, Flintshire County Council) - The Clwydian Range & Dee Valley Area of Outstanding Natural Beauty 2018 (Ref 1.18).

3 Analysis of Baseline Conditions

3.1.1 The establishment of the baseline environment has entailed:

- The gathering and understanding of published information on the existing landscape character, nature and value of the Site and its surrounds.
- Determination of an initial area over which the Proposed Development may be visible from though the understanding of the wider site topography, woodland cover and settlement.
- Identification of the different groups of people who may experience views of the Proposed Development (the visual receptors) and the nature of their existing views, visual experience and their visual amenity.
- Identification of landscape receptors (areas of identifiable character), and their characteristics from a combination of analysis of published sources, research and field work.
- Visit to the Site and walk-over of the local Public Rights of Way (PRoW) network, publicly accessible areas and local roads, to identify visual receptors and identify suitably fine-grained landscape characteristics.
- The collection of photographs from locations that are representative of the visual experience of the identified receptors.

Desktop & Field Work

3.1.2 Desktop work has included research into the Site's existing topography, hydrology, vegetative cover, land use, historical and cultural associations, settlement patterns and built form vernacular, accessibility and recreational usage.

3.1.3 Field survey work to support the preparation of this Landscape Statement was carried out in February 2024. It included: a walkover of the Site, Trevor Basin, public footpaths, canal towpath and travel around the locality of the Site to consider potential effects on landscape character and on views.

3.2 Landscape Related Designations

3.2.1 As shown on Figure 1.2, the Site and its surrounds are located within several internationally and nationally important landscape designations. These are set out below:

- Pontcysyllte Aqueduct and Canal UNESCO World Heritage Site;
- Pontcysyllte Aqueduct Conservation Area;
- Pontcysyllte Aqueduct and Canal Scheduled Monument;
- Clwydian Range and Dee Valley AONB;
- Vale of Llangollen and Eglwyseg Historic Landscape Area; and
- Pontcysyllte Aqueduct Grade I Listed Building.

3.2.2 Within close vicinity of the Site (approximately 0.5km), the following landscape designations are also present. Due to the intervening dense woodland cover, steep topography and built form however, they have no or limited intervisibility with the Site.

- Pont y Cysylltau Scheduled Monument;
- Pont y Cysylltau Grade I Listed Building;
- Grade II Listed Buildings:

  - Pair of Docks on E side of Trevor Basin, excluding modern workshop superstructure and swing bridge
  - Bridge No 31
  - Bridge next to Telford Inn
  - New Road (House next to Telford Inn)
  - Telford Inn
  - Bryn Seion Presbyterian Chapel
  - Wood Bank
  - Kilns at Wood Bank; and
- Argoed Hall Grade II Historic Park and Garden.

3.3 Landscape Character

3.3.1 The following published national and local character assessments have informed the identification of the landscape character baseline of the Site and surrounds:

- National - National Landscape Character Areas (NLCA) published by Natural Resources Wales; and
- Local - Wrexham LANDMAP Supplementary Planning Guidance, Wrexham County Borough Council, 2007 (Ref 1.19).

3.3.2 A summary of the relevant descriptions of the landscape context of the Site contained within the published character assessments is set out below.

3.3.3 The published character assessments form a linked set of assessment 'levels'. The relationship between the landscape character areas across these levels that are found within the Site and its surrounds, are set out in Table 1-1 and graphically shown on Figure 1.3.

Table 1-1 Published Landscape Character

Landscape Character Assessment Level	*National*	*Local*
Source	*NRW:* *National Landscape Character Areas (NLCA)*	*Wrexham LANDMAP Supplementary Planning Guidance*
Landscape Character Areas within 1km of the Site	*NLCA 15 Bro Llangollen a Drffryn Dyfrdwy / Vale of Llangollen and Dee Valley* *NLCA 13 Glannau Dyfrdwy a Wrecsam / Deeside and Wrexham*	*LCA 9d – Dee Valley Froncysllte to Newbridge* *LCA 7b – Cefn Mawr*

National Landscape Character

3.3.4 As shown on Figure 1.3 - Landscape Character, the Site lies on the edge of NLCA 15 Bro Llangollen a Drffryn Dyfrdwy / Vale of Llangollen and Dee Valley, and close to the boundary of NLCA 13 Glannau Dyfrdwy a Wrecsam / Deeside and Wrexham.

3.3.5 The detailed profiles published by NRW lists each NLCA's key characteristics and 'Visual Sensory Profile'. Those that are relevant to this Landscape Statement, and which add to an understanding of the baseline of the Site and its surrounds, are set out below:

NLCA 15 Bro Llangollen a Drffryn Dyfrdwy / Vale of Llangollen and Dee Valley

Key characteristics

- Major river valley – '*a distinctive, deeply cut, meandering valley containing the River Dee'.*
- Largely tranquil, rural landscape.
- River morphology – *'alluvium, gravels and terraces give rise to a gently undulating valley floor and flood plain in places'.*
- Soils – *'Predominantly poorly drained soil / seasonally wet'.*
- Ecologically significant river habitats – *'along the River Dee and the numerous small streams that flow into it'.*
- Field Pattern – *'predominantly geometric and of small to medium scale, with boundaries defined by stone walls or hedgerows and many hedgerow trees, extending up hillsides.'*
- Valley and hillside woodlands and pastures – *'in places running down to the river and displaying a densely wooded character, with a mix of coniferous and deciduous plantations'*
- An important transport corridor and 'gateway'.
- Llangollen Canal and Pontcysllte Aqueduct is a World Heritage Site.
- Settlement relates to historic transport pattern.
- Iconic cultural landscape – *'the appeal of the picturesque landscape, the historic landscape, and the infrastructure of road, railway and canal.'*

3.3.6 The 'Visual and Sensory Profile' of NLCA 15 notes that 'Although the railway, the canal and the historic A5 road all share this corridor, the impression is more of a beautiful landscape than a busy transport route – a perception strengthened by the slow movement of canal boats and the bucolic character of steam railway.'

NLCA 13 Glannau Dyfrdwy a Wrecsam / Deeside and Wrexham

Key Characteristics

- Lowland, foothills and levels – *'sloping down to the Lower Dee and Dee Estuary'.*
- A single large river, the Dee, traverses the area.
- Narrow, incised, wooded tributary valleys.
- Urban settlements.

3.3.7 The 'Visual and Sensory Profile' of NLCA 13 notes that 'the area encompasses the main concentration of built-up areas that fall along the Dee and foothills of Wales.'

Local Landscape Character

Wrexham LANDMAP SPG (Ref 1.21)

3.3.8 Wrexham LANDMAP Supplementary Planning Guidance (adopted March 2007) sets out 27no. different Landscape Character Areas for the borough and based on NRW LANDMAP methodology to *'provide a consi*stent Wales-wide approach to landscape assessment.' The Site and surrounds are located within LCA 9d – Dee Valley Froncysllte to Newbridge.

3.3.9 Landscape Character Area sheets accompany each area and set out key characteristics, landscape sensitivity and management guidance. Those that are relevant to this Landscape Statement, and which add to an understanding of the baseline of the Site and its surrounds, are set out below:

Key Characteristics

- Enclosed lowland valley with level floodplain.
- Farmed and wooded character, flanked by closely built urban villages of Trevor and Froncysyllte.
- Outstanding views to and from the Pontcysyllte Aqueduct, Cefn railway viaduct and nearby hills.
- Notable man-made embankment carrying canal to Aqueduct which helps form 'gateway' in valley.

Management Guidance

- Protect and retain scenic and historic landscape character.
  - Identify, maintain and enhance significant views; and
  - Enhance recreational routes linking historic landscape features.
- Safeguard industrial archaeology:
  - Preserve canal and associated structures.
- Promote understanding and enjoyment of the outstanding historic industrial landscape and setting.

Landscape Sensitivity

3.3.10 This LCA is noted as being 'very sensitive to any development which might affect the setting of Pontcysyllte Aqueduct… and scenic Vale of Llangollen'

Site Landscape Character

3.3.11 The landscape character of the Site is a tapestry of historic, cultural and natural components. It is a well-enclosed, steep-sided wooded valley on the banks of the River Dee. The iconic Pontcysyllte Aqueduct towers overhead, with elegant arches spanning the valley and Cefn Sandstone material, which integrates seamlessly into the steep embankment. The Site and surrounds are a popular visitor destination with scenic walking and cycling routes, including the footpaths which cross through the Site. As a consequence of this high visitor use, the existing steps and footpath have a degraded appearance and are particularly muddy in places during wet conditions. The proximity of the path to the Aqueduct piers has also contributed to some degrading of the Sandstone.

AONB Special Qualities

3.3.12 The AONB Management Plan identified five special qualities of the AONB. Those which relate to the Landscape Character of the Site are '*Landscape Character and Quality*' and *'Access Recreation and Tourism'*. Components of these qualities are set out below:

- *'Tranquillity – feeling of calm and stillness with peace and quiet.'*
- *Remoteness and Wildness, Space and Freedom – …a sense of belonging and attachment between communities and their landscape.'*
- *'Iconic Visitor and Cultural Attractions.'*
- *'The Offa's Dyke national Trail and Promoted Routes.'*

3.4 Existing Visual Context

3.4.1 Desk-top research, coupled with a walkover of the Site and wider setting, has revealed that the Site has a very limited visual envelope on account of its location within the densely wooded valley slopes on the northern embankment of the River Dee. The imposing and large Aqueduct pillars provide further visual containment of the Site from the east and west. The northern entrance to the Site begins at the top of the embankment at the edge of Trevor Basin. Canal workshops and visitor centre buildings restrict views towards this part of the Site, resulting in limited views from public open spaces within Trevor Basin.

3.4.2 As such, the Site is considered likely to only be visible from along the public footpaths within the Site itself (LLA/35 (Dee Way LDP) and LLA/34) along a short stretch of the riverside public footpath east and west of the Site (LLA/34), and when looking down from the Aqueduct towpath over the short distance where it passes close to the Site (NCR84). The very upper reaches of the existing steps are perceptible from areas within the southern part of Trevor Basin directly north of the Site.

3.4.3 As shown on Figure 1.4 and Figure 1.5, there are numerous PRoW within the Site and its surrounds, the closest being the existing stepped footpath (Dee Way LDP/public footpath LLA/35) and riverside path (Dee Way LDP /public footpath LLA/34), which provide access to the base of the Aqueduct and riverside paths (as represented by viewpoints 2 and 3). Perceptibility of the Site reduces from along the riverside footpath after a short distance from the Site (approx. 0.1km), due to the dense woodland and embankment topography, which falls away to the east and west towards the River Dee (as represented by viewpoints 4 and 7). The Site is not perceptible from other PRoW within the wider Site surroundings.

3.4.4 A towpath (NCR84) following the eastern edge of the Aqueduct canal is located immediately west of the Site and views are available downwards and across towards the Site (as represented by Viewpoint 5). The Aqueduct towpath on the southern riverside embankment is well-wooded and the curvature of the canal contributes to no visibility towards the Site (as represented by viewpoint 8).

3.4.5 The Offa's Dyke National Trail crosses through the landscape surrounding the Site to the south and west, following the Llangollen canal towpath south of the settlement of Froncysyllte and B5434, including where it crosses the river over the Cysylltau Bridge (Scheduled Monument/Listed Building) (as represented by viewpoint 6). The Site is not perceptible from this National Trail given the dense woodland, curving river valley topography, road network and settlement areas.

3.4.6 The Site is not perceptible from the surrounding settlements of Trevor, Froncysyllte (as represented by viewpoint 9) and Rhosymedre, due to their distances from the Site, intervening built form, topography and woodland.

3.4.7 Given the Site is contained by dense vegetation, river valley topography and built structures, it is not perceptible in long distance views from within the wider AONB and elsewhere within the World Heritage Site.

3.4.8 In conclusion, the visual amenity receptors for the Proposed Development are considered to be:

- Recreational users of public footpath LLA/35 (Dee Way LDP) and LLA/34;
- Recreational users of the Aqueduct towpath (pedestrians and cyclists (NCR84)) and canal (leisure vessels); and

- Recreational users of the publicly accessible areas of Trevor Basin.

3.4.9 Viewpoints representing where the Proposed Development is likely to be visible from for the above visual receptors are set out in Appendix A (Viewpoints 1-5). Viewpoints 6-9 represent views from within the wider PRoW network, canal towpath, local roads and settlement from which the Site is not discernible due to the distance from Site, intervening woodland and river valley topography.

4 Design and Integrated Mitigation

4.1.1 The design and integrated mitigation during operation and construction phases are set out below.

Construction Phase

- To minimise potential adverse effects during construction on landscape and visual amenity and the OUV of the WHS, considerate construction methods shall be used. These include keeping a tight working area, use of small-scale equipment and appropriate fencing/hoarding. The construction period will be approximately 4-5 months and during this time, the footpaths within the Site will be temporarily closed.

Operation Phase

- Design of the new footpath to follow existing contours and minimise earthworks.
- Utilise locally sourced and traditional finishes ensuring steps and footpath integrate with the surroundings and complement the materiality of the Aqueduct.
  - Natural stone for the proposed steps.
  - Natural stone paving/stone block Sandstone for paving, tactiles and edging.
  - Self-binding gravel of buff tones for proposed landings and footpaths.
- Vegetation clearance and long-term management to enhance views of the Aqueduct and maintain visual connections to the surrounding landscape.
- Low growing shrubs to edges of new steps and landings to soften impact of hard landscaping.
- Existing restored ‘historic’ hedge line retained and protected during works.
- Installation of interpretive signage to provide visitors with information about the Aqueduct’s history, engineering and landscape, contributing to appreciation of the Site.

5 Likely Effects on Landscape Character and Visual Amenity

5.1 Potential Effects on Landscape Character

5.1.1 Given the low-lying nature and small geographical extent of the Proposed Development combined with the surrounding well-wooded slopes and valley topography, the Site is not widely visible across the NLCAs and LCAs. Relevant characteristics from these NLCA and LCA have been integrated into the Site Landscape Character description. A summary of the sensitivity of this landscape character receptor, the likely change to them as a result of the Proposed Development, and the subsequent overall effect upon them is provided in Table 1-2

Table 1-2 – Summary of Landscape Effects

Landscape Receptor	***Sensitivity of Receptor***	***Susceptibility***	***Nature of Impact Magnitude of Change***	***Overall Effect***
Site Landscape Character *Well-enclosed, steep wooded valley on the banks of the River Dee. The iconic Pontcysyllte Aqueduct towers overhead, with its elegant arches spanning the valley and Cefn Sandstone material. It is a popular visitor destination with scenic walking and cycling routes including the footpaths which cross through the Site. The existing steps and footpath have a degraded appearance and are particularly muddy during wet conditions. The proximity of the path to the Aqueduct piers has also contributed to some degrading of the Sandstone.*	***High*** *Located within a number of high value landscapes including WHS, AONB and CA.*	***Medium*** *The landscape receptor is considered able to accommodate a development of this nature, which is well integrated into the surrounding landscape.*	*Small during* ***construction phase****.* *Very Small during* ***operation phase*** *Proposals would represent a visible new feature and some vegetation removal will take place. These changes are considered not to alter the balance and make-up of the wooded landscape character and are likely to provide beneficial impacts on recreational value and setting of the Aqueduct, due to the improved layout and in-character surface, signage and seating materials.*	***Minor (adverse)*** *during* ***construction phase.*** ***Negligible (beneficial)*** *during* ***Operation Phase***

5.2 Potential Effects on Visual Amenity

5.2.1 The desk study and field work established that due to the well-wooded embankment combined with the low-lying nature of the proposals, the visibility of the Proposed Development is limited to the existing Site public footpaths, a short section of the riverside footpath where it continues beyond the Site, a short stretch of the Aqueduct towpath, and southern public open areas within Trevor Basin. Visibility of the Site is represented in viewpoints 1 to 5. Viewpoints 1 to 6 represent from where the Site is not visible.

5.2.2 A summary of the sensitivity of these visual amenity receptors, the likely change to them, and the subsequent overall effect is provided in Table 1-3.

Table 1-3 – Summary of Visual Amenity Effects

Visual Receptor	***Viewpoint***	***Sensitivity of Receptor***	***Nature of Impact (Magnitude of Change)***	***Overall Effect***
Recreational users of public footpath LLA/35 (Dee Way LDP) and LLA/34)	*Viewpoint 2* *Viewpoint 3* *Viewpoint 4*	*High*	***Medium*** *during* ***construction phase*** *given the temporary closure of the footpath.* ***Very small*** *during* ***operation phase****. Proposals would represent a visible new feature, but the change is considered not to alter the balance and make-up of the visual experience and should provide benefits for users of the steps and footpaths due to the improved layout and aesthetic quality of proposed surface materials (sympathetic to local context).*	***Moderate (adverse)*** *during* ***construction phase****.* ***Minor (beneficial)*** *during* ***operation phase****.*
Recreational users of the Aqueduct towpath (NCR84) and canal	*Viewpoint 5*	*High*	*Small during* ***construction phase*** *Very Small during* ***operation phase*** *Upper reaches of the Proposed Development will form a very minor component of panoramic views across the Dee Valley, also encompassing meandering river, rural countryside and woodland, for users of the Aqueduct towpath. The Proposed Development becomes increasingly visible where the Aqueduct runs alongside Site. During the operation phase, the changes are likely to be scarcely perceptible.*	***Minor (adverse)*** *during* ***construction phase.*** ***Negligible (neutral)*** *during* ***operation phase.***
Users of publicly accessible areas of Trevor Basin.	*Viewpoint 1*	*High*	*Very small during* ***construction phase*** *where upper reaches of the construction site would be visible*	***Minor (adverse)*** *during* ***construction phase.***

			within the southern part of Trevor Basin. *None during **operation phase**. New signage and vegetation clearance would be scarcely perceptible from Trevor Basin.*	***Negligible (neutral)** during **operation phase***

6 Likely Effects of the Proposed Development on the World Heritage Site and Buffer Zone

6.1.1 Pontcysyllte Aqueduct and Canal was inscribed as a World Heritage Site in 2009. As shown on Figure 1.1, the WHS forms a linear corridor west and south-east of Trevor Basin. The entire WHS is approximately 18km long, with the Site being a very small component within the centre of it. The WHS Buffer Zone encompasses the landscape surrounding the WHS and follows the principle ridgelines of the Dee, Chirk and Ceiriog valleys.

Outstanding Universal Value

6.1.2 Outstanding Universal Value (OUV) is a term used by UNESCO to denote the exceptional significance of a cultural or natural site. In inscribing the Pontcysyllte Aqueduct and Canal to the World Heritage List, UNESCO considered the site satisfied the following OUV criteria.

- *'Criterion (i): The Pontcysyllte Aqueduct is a highly innovative monumental civil engineering structure, made using metal arches supported by high slender masonry piers. It is the first great masterpiece of the civil engineer Thomas Telford and formed the basis of his outstanding international reputation. It bears witness to the production capacities of the British ironmaking industry, which were unique at that time.*
- *Criterion (ii): The intensive construction of canals in Great Britain, from the second half of the 18th century onwards, and that of the Pontcysyllte Canal in particular in a difficult region, bear witness to considerable technical interchanges and decisive progress in the design and construction of artificial waterways.*
- *Criterion (iv): The Pontcysyllte Canal and its civil engineering structures bear witness to a crucial stage in the development of heavy cargo transport in order to further the Industrial Revolution. They are outstanding representatives of its new technical and monumental possibilities.'*

6.1.3 The Pontcysyllte Aqueduct and Canal WHS Management Plan 2019 (Ref 1.17) and Local Planning Guidance (Note 33 - Pontcysyllte Aqueduct & Canal World Heritage Site) (Ref 1.18) provides information on attributes and descriptions, which contribute to OUV, and which should be considered in relation to new development. Those attributes/descriptions relevant to landscape and visual amenity and the likely effects of the Proposed Development on these, are set out in Table 1-4 below.

Table 1-4 Likely Effects of Proposed Development on Outstanding Universal Value.

Attributes / Consideration of OUV	***Description***	***Likely Effects of the Proposals***
The Pontcysyllte Aqueduct and Canal WHS Management Plan 2019		
Form and Design	*'for example the route of the canal, the earthwork formation, form and dimensions of the Aqueducts.'*	*The Proposed Development will provide opportunities for an increased appreciation of the form and design of the Aqueduct through the removal of vegetation to open up views to it and by setting back the upgraded steps/path from the piers.*
Materials and substances	*'use of traditional materials and conservation techniques.'*	*Setting back the steps from the Aqueduct reduces potential harm to stonework from visitors touching the piers and thereby contributes to the long-term conservation of the materials. Materials selected for the new footpath, wayfinding and signage should be in keeping with the character of the Site and reflect the use of traditional materials.*
Use and function	*'the continued use of the canal for boating purposes.'*	*The Proposed Development is considered to have no impact on the continued use of the canal for boating.*
Location and setting	*'the striking relationships between the canal and landscape, including the western half of the Buffer Zone has maintained a rural aspect similar to that of the area when the canal was built.'*	*The Proposed Development follows the existing topography of the slope and improvements to the steps and path will create a more comfortable experience for visitors manoeuvring down the steep slope. It will also improve appreciation of the relationship between the canal and landscape setting.* *Given the enclosed nature of the Site and low-lying nature of the proposals, there is considered to be no intervisibility between the Proposed Development and the Buffer Zone.*
Local Planning Guidance (Note 33 - Pontcysyllte Aqueduct & Canal World Heritage Site)		
Character	*'Architectural character… Important views and visual compositions to and from the development site in relation to the WHS'*	*Given the enclosed nature of the Site and low-lying nature of the proposals, it is considered that there are limited views of the Proposed Development from within the wider WHS. There are close range views of the Proposed Development from a short section of the Aqueduct towpath, which is notable for its panoramic views (of which the Site is a very small component). The new steps may be slightly more perceptible than the existing steps given the proposed realignment and widening. The new steps follow the existing topography of the slope, helping to integrate*

		them into the landscape. The new steps and improvements to the riverside path will also provide additional views towards the Aqueduct for visitors.
Views Relating to the World Heritage Site	*'All developments need to consider whether they fall within views of the World Heritage Site and/or are viewed from the World Heritage Site. If a proposal falls within such views, then the developer needs to consider the impact of development on the setting of the World Heritage Site and the character of the Buffer Zone…. Development proposals will be considered for opportunities to enhance views of the site in the design, siting and landscaping of the proposal. Within the Buffer Zone are significant views which have historic or cultural value. These views may be from historic sites like Castell Dinas Bran, A5 or from tourist attractions and national trails such as Offa's Dyke, Clwydian Way, Maelor Way, or may provide attractive views of the principal features of the World Heritage Site.'*	*Given the enclosed nature of the Site, geographical extent and low-lying nature of the Proposed Development, it is not considered likely that there will be views of it from within the wider WHS, Buffer Zone, or within the existing 'significant views of historic or cultural value'. The Proposed Development provides opportunities to enhance views of the Aqueduct for visitors ascending/descending the slope, within which the Aqueduct structure is integrated.*
Authenticity and Integrity	*'The adopted statement of Outstanding Universal Value for Pontcysyllte World Heritage Site notes the high integrity of the site as a major historic canal for the Industrial Revolution. It also notes the integrity of the landscape contributes to the expression of the value of the Pontcysyllte Aqueduct and Canal.'*	*Proposals which are of high-quality design, using an in-character and sensitive palette of materials, are not considered to significantly effect the integrity of the landscape.*
Sense of Arrival.	*'…with the Outstanding Universal Value in mind, a drive to the World Heritage Site through the rural valley gives views of the difficult geographical environment in which the World Heritage Site was engineered, reveals views of the monumental architecture, passes settlements with historic association to the World Heritage Site and finally a visit to the World Heritage Site reveals the engineering solutions to the difficult terrain.'*	*Given the enclosed nature of the Site, geographical extent and low-lying nature of the Proposed Development, it is not considered likely that there will be views of it from within the wider WHS or Buffer Zone, which would adversely affect 'sense of arrival'.*

6.1.4 Taking into consideration the likely impacts set out in the table above, it is considered that the Proposed Development will not significantly impact on the OUV of the WHS and will likely provide small beneficial contributions to it. It is considered that the Proposed Development will not be perceptible from within the Buffer Zone.

6.1.5 During the construction period there are likely to be adverse effects on the OUV, however these will be temporary and contained to a very small geographical area of the WHS.

7 Conclusions and Next Steps

7.1.1 The Proposed Development is designed to be well integrated into the existing landscape, enhancing access to and appreciation of the Site's natural and industrial heritage. The proposals are considered to have a very small visual impact on the surrounding landscape and will integrate well with its character.

7.1.2 The footpath design follows existing contours and uses locally sourced and natural finishes to ensure the footpath and steps blend seamlessly with its surroundings and complements the materiality of the Aqueduct piers. Selective vegetation clearance is proposed to enhance views of the Aqueduct and maintain visual connections to the surrounding landscape. Installation of interpretive signage/wayfinding will provide visitors with information about the Aqueduct's history and contribute to appreciation of the Site.

7.1.3 To minimise potential adverse effects during construction on landscape and visual amenity and the OUV of the WHS, considerate construction methods should be used such as a tight working area, use of small-scale equipment and appropriate fencing/hoarding. The construction period will be approximately 4-5 months and during this time, the Site footpaths will be temporarily closed. Signage should be provided to communicate the reason for closure to visitors. Further details of the considerate practices that would be in place during the construction phase of the development should be provided at the technical design stage and should ensure that any effects on landscape or visual amenity during this period is minor or negligible in nature.

7.1.4 The Proposed Development is not considered to result in marked changes to the overall landscape character of the Site and its surrounds. Whilst there would be some adverse effects on the localised landscape character during construction phase, these would be temporary and over a small geographical area.

7.1.5 The Proposed Development would represent a visible new feature, which would require some vegetation removal, however the change is considered not to alter the balance and make-up of the landscape character or OUV of the WHS and is likely to provide beneficial effects on visual amenity and setting of the Aqueduct, due to the improved layout and in-character surface, signage and seating materials proposed.

7.1.6 By incorporating appropriate design measures and mitigation strategies, it is considered the Proposed Development would be well-integrated into the landscape setting, improving the visitor experience and positively contributing to long-term management of the World Heritage Site.

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Pontcysyllte Aqueduct Steps

Appendix A:

Photosheets

Appendix B

Landscape Figures

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