



Desk-Based Heritage Appraisal

Proposed Developments at Pen-Y-Bont Landfill, Near Chirk

Report Reference: CE-PY1291-RP01a - FINAL



Produced by Crestwood Environmental Ltd.

4 July 2018

Crestwood Report Reference: CE-PY1291-RP01a - FINAL:

Version & Status	Date Produced	Written / Updated by:	Checked & Authorised by:
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FINAL Following client revisions	04-07-2018	David Leigh Senior Consultant (Heritage and Archaeology)	Adam Collinge (Associate Director and Principal Landscape Architect)

The information which we have prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

This report has been prepared in good faith, with all reasonable skill, care and diligence, based on information provided or known available at the time of its preparation and within the scope of work agreement with the client.

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EXECUTIVE SUMMARY

A Desk-Based Heritage Appraisal was instructed by DBA Estates (**'the Client'**) in support of an outline planning application for residential development on land at Pen-Y-Bont Landfill, Chirk (Plate1). The application comprises proposed residential development for the construction of up to 60 dwellings with associated access and landscaping.

This desk-based study has been produced to describe those Heritage Assets that may be impacted by the Proposed Development and the potential effects on these as required in the document Planning Policy Wales (2016).

No Registered Parks and Gardens, Registered Battlefields or Scheduled Monuments lie within the Site, however a Grade 2 Listed Building lies within the Site, whilst four Grade Listed Buildings lie within the wider Study Area of 500m. To the west and south of the Site lies a World Heritage Site comprising the Pontcysyllte Aqueduct which carries the Pontcysyllte Canal over the Dee Valley, both the aqueduct and canal are designated World Heritage Sites (No:1000106; DE175) and are encompassed within a buffer zone which extends for approximately 10km along the canal, extending up to, and running along a small section of the southwest boundary of the Site running along the line of the B5605.

To the northeast, in the area of Darland Wood, lie two prehistoric burial mounds (Ref: DE223) known as the Darland Wood Round Barrows.

A visit to the Site was undertaken where an examination of viewpoints between the Site and Heritage Assets, including the buffer zone of the World Heritage Site was made. This determined that due to intervening topography and established tree screening, there will be no direct or indirect impact on the Grade I and Grade II Listed Buildings in the wider Study Area, or to the Scheduled Monuments located to the northeast of the Site.

However the former Brick and Tile company office, a Grade 2 Listed Building has the potential to be impacted upon by the residential aspect of the Proposed Development and further assessment in respect of its setting may be required once detailed information regarding the built and landscaped form of the Proposed Development is available. The function and setting of the building was originally one of a commercial nature set within an industrial backdrop, and appropriate mitigation may involve the reuse of the building in a similar way, perhaps utilised in accessing the glamping area or as a public information facility.

Similarly the buffer zone of the World Heritage Site, from which a view towards the area of proposed residential development through the present access may be seen, has the potential to be impacted by the Proposed Development and is likely to require further assessment once developed designs become available.

Cartographic evidence and a walk-over examination of the site indicate that the area of the proposed residential development has been subject to considerable post-medieval disturbance comprising quarry activity associated with the former brickworks undertaken in combination with the construction and development of the brickworks. The brick and tile works ceased to trade in 1960 following which it appears most of the brickworks buildings and infrastructure were demolished, the former clay pit subsequently utilised for landfill.

In this respect it may be considered that the potential for the Site to contain below ground archaeological remains of medieval date or earlier is Low. There is however a Medium to High potential for the presence of below ground archaeological remains connected with the post-medieval brick and tile manufacture recorded

on the site at least since the early to mid-1800's and evidenced by fragmentary remains of upstanding brickwork and masonry in the earthen bank on the western edge of the present area of hardstanding. It is considered that this impact may be appropriately mitigated through the attachment of a suitably worded condition requiring a Level 2 Photographic Building Recording action to record those fragmentary remains of brickwork and masonry identified during the Site visit, in combination with a programme of archaeological observation and recording to be undertaken during groundworks for the new development.

1 INSTRUCTION

1.1 BACKGROUND

- 1.1.1 Crestwood Environmental Ltd. (**'Crestwood'**) has been appointed by DBA Estates (**'the Client'**) to undertake a Desk-Based Heritage Appraisal of land at Pen-Y-Bont Landfill, Chirk, Wrexham – centred at National Grid Reference SJ 2941, 2651. This assessment has been produced in support of an outline planning application for planning permission for a proposed development comprising 2.5ha residential development (the Proposed Development).

1.2 SITE LOCATION, TOPOLOGY AND GEOLOGY

- 1.2.1 The Site lies within an oxbow of the River Dee and is located approximately 2.5km to the north of Chirk and 9km southwest of Wrexham (Wrecsam).
- 1.2.2 The area of residential development (Plate 1) lies on an elevated plateau of land between 70m and 75mAOD currently forming a part of the Pen-Y-Bont Landfill site, and formerly the Pen-Y-Bont Brick and Clay Works that closed in 1960. The character of the Site presently comprising of a large concrete apron that covers much of the Site along with ancillary buildings including the former 'Pen-y-Bont Brick and Tile Co Office' a Grade II Listed Building, located at the main entrance to the Site and utility buildings. Immediately to the northwest, in the area of the former clay pit for the brick works, the topography has been significantly altered by landfill operations, the land rising to a height of c.99mAOD
- 1.2.3 The land surrounding the Site comprising a mixture of woodland and agricultural fields with the small town of Newbridge lying to the west.
- 1.2.4 The underlying geology has been mapped by the British Geological Survey as comprising Etruria Formation Mudstone Sedimentary Bedrock overlain by superficial deposits of River Terrace Deposits (Undifferentiated) Sand and Gravel (BGS 2018).

1.3 PURPOSE AND SCOPE

- 1.3.1 The purpose of this desk-based study is to identify those known and potential Heritage Assets within the Site and the Study Area that may be impacted upon by the Proposed Development to the extent that is proportionate to the potential magnitude of impacts and level of effects of the Proposed Development.
- 1.3.2 The study has been undertaken adhering to the requirements as set out in the relevant standards and guidance issued by the Chartered Institute for Archaeologists (CIfA 2014a and 2014b).
- 1.3.3 The description of the Site relates only to that recorded at the time of the walkover survey on 22 February 2018.

Plate 1 Location Plan and Red Line Boundary



1.4 LEGISLATIVE FRAMEWORK

- 1.4.1 The Ancient Monuments and Archaeological Areas Act of 1979 provides for the investigation, preservation and recording of matters of archaeological or historical interest, both designated Heritage Assets and those of sufficient significance. The Historic Buildings and Ancient Monuments Act 1953 provides for the preservation of buildings of outstanding historic or architectural interest and their contents and related property. Additionally the Listed Buildings and Conservation Areas Act (1990) provides for the designation, control of works, and measures for enforcement pertaining to Listed Buildings and conservation Areas.

1.5 PLANNING POLICY WALES

- 1.5.1 Planning Policy Wales (PPW) Edition 9 (November 2016) currently under revision, sets out the policies that reflect Welsh Government strategies. Those policies pertaining to the historic environment are set out in Chapter 6, The Historic Environment.
- 1.5.2 Planning Policy Wales in Chapter 6 recognises the importance of the protection, management and conservation of the historic environment and details the Welsh Governments objectives.

Paragraph 6.2.1 states:

- “...Conserve and enhance the historic environment, which is a finite and non-renewable

resource and a vital and integral part of the historical and cultural identity of Wales;

- *Contribute to the knowledge and understanding of the past by making an appropriate record when parts of a historic asset are affected by a proposed change, and ensuring that this record or the results of any investigation are securely archived and made publicly available;*
- *Protect the outstanding universal value of the World Heritage Sites in Wales;*
- *Safeguard the character of historic buildings and manage change so that their special architectural and historic interest is preserved;*
- *Preserve or enhance the character or appearance of conservation areas, while at the same time helping them remain vibrant and prosperous;*

World heritage sites

1.5.3 It further states in Paragraph 6.5.2:

“The impacts of proposed developments on a World Heritage Site and its setting and, where it exists, the World Heritage Site buffer zone, is a material consideration in the determining of any planning application “

Paragraph 6.5.4

“Cadw is a statutory consultee on planning applications likely to have an impact on the Outstanding Universal Heritage value of a World Heritage Site.”

Archaeological remains

1.5.4 It continues in paragraph 6.5.5

“The conservation of archaeological remains is a material consideration in determining a planning application, whether those remains are a scheduled monument or not. Where nationally important archaeological remains, whether scheduled or not, and their setting are likely to be affected by proposed development, there should be a presumption in favour of their physical protection in situ. It will only be in exceptional circumstances that planning permission will be granted if development would result in an adverse impact on a scheduled monument (or an archaeological site shown to be of national importance) or has a significantly damaging effect upon its setting. In cases involving less significant archaeological remains, local planning authorities will need to weigh the relative importance of the archaeological remains and their setting against other factors, including the need for the proposed development.”

Listed buildings

1.5.5 Paragraph 6.5.11

“There should be a general presumption in favour of the preservation of a listed building and its setting, which might extend beyond its curtilage. For any development proposal affecting a listed building or its setting, the primary material consideration is the statutory requirement to have

special regard to the desirability of preserving the building, its setting or any features of special architectural or historic interest which it possesses. The aim should be to find the best way to protect and enhance the special qualities of listed buildings, retaining them in sustainable use. The continuation or reinstatement of the original use should generally be the first option, but not all original uses will now be viable or appropriate. The application of development and listed building controls should recognise the need for flexibility where new uses have to be considered in order to secure a building's survival or provide it with a sound economic future."

Local Historic Assets

- 1.5.6 Paragraph 6.5.25 states:

"Where a local planning authority has identified historic assets of local interest or produced a list of historic assets of special local interest and included a policy in its development plan for their preservation and enhancement, any supporting supplementary planning guidance will be a material consideration when determining a planning application."

1.6 LOCAL POLICY

- 1.6.1 The Site is located within the administrative area of Wrexham County Borough Council. The Wrexham Unitary Development Plan (UDP), 1996-2011 which was adopted on 14th February 2005, is the document that provides the policies taken into consideration when making a planning decision. This document is scheduled to be replaced by the Wrexham Local Development Plan 2 (LDP2) 2013-2028, which is currently being prepared by Wrexham County Borough Council. Until LDP2 is implemented the policies relating to the historic environment as set out in the UDP remain applicable.

Archaeology policies contained in the Wrexham Unitary Development Plan

- 1.6.2 **Policy EC9:** Listed Buildings of Special Architectural or Historic Interest

"Alterations or additions to, and development or redevelopment within the curtilage of, buildings or structures listed as of special architectural or historic interest must respect the setting of the listed buildings or structures."

- 1.6.3 **Policy EC11:** Archaeology

"Development which would adversely affect the site or setting of a Scheduled Ancient Monument or archaeological site of national significance will not be permitted. Development that directly affects non-scheduled sites of archaeological importance will only be permitted if an archaeological investigation has been carried out to determine the nature, extent and significance of the remains, and this investigation indicates that in-situ preservation is not justified, and a programme of excavation and recording has been agreed. Development will also be carefully controlled to ensure that the setting of non-scheduled sites of archaeological importance is not harmed where appropriate."

1.7 SUMMARY OF PROPOSALS

1.7.1 **The Applicant** is applying for planning permission for the construction of 2.5ha of residential development comprising up to 60 dwellings (**'the Proposed Development'**). Proposed access into the Proposed Development will be from the southern boundary of the Site.

1.7.2 Information provided by the client at the time of survey included:

- Outline plans of the Proposed Development; and
- Plan of the Proposed Site Zoning Areas
- Topographic survey of the Site.

1.8 GENERAL LIMITATIONS

1.8.1 The Site's boundary relates to plans of the Proposed Development provided by the Client in February 2018 and revised in June 2018. Any subsequent amendments to the boundary may alter recommendations made in this report if amended plans are provided following the survey.

2 METHODOLOGY

2.1 SITE WALKOVER

2.1.1 A site walkover of the roughly oval-shaped Site was conducted on 22 February 2018. The purpose of the visit was to better understand the topography of the Site, existing land use and to identify any evidence for past impacts within the current Site boundaries, along with an appreciation of the potential for survival of any below ground archaeological deposits. The locations of Heritage Assets within the Study Area were also visited to determine any potential issues relating to inter-visibility between the Site and Heritage Assets, including that of the buffer zone of the World Heritage Site and their setting.

2.1.2 The site visit was undertaken in bright dry conditions with the Site accessed from the entrance to the present landfill site off the B5605 on the southern boundary of the Site.

2.2 SOURCES CONSULTED

2.2.1 A radius of 500m from the ownership boundary of the Site was determined as a basis of this study (**the Study Area**) in order to appropriately assess the impact, if any, on Heritage Assets within the site and Study Area.

2.2.2 The Clywd-Powys Historic Environment Record office in Welshpool (CPHER) was consulted to identify documented sites and monuments, along with the recorded location (find spot) of artefacts collected whether as part of an archaeological investigation or as a chance find.

2.2.3 The National Monuments record of Wales (NMRW) online resource was also consulted so that designated Heritage Assets within the Study Area were identified. The Historic England procedural document, *The setting of heritage assets: Historic environment good practice advice in planning: 3* (HE 2015) provides the basis upon which the assessment of impact upon the setting of Heritage Assets can be assessed.

In addition a number of online sources were consulted in order to check for further information, including Old Maps Online (<http://www.oldmapsonline.org>), Old Maps (<http://www.old-maps.co.uk>).

3 HERITAGE ASSET ASSESSMENT

3.1 DESIGNATED HERITAGE ASSETS

3.1.1 An examination of the *Information obtained from the Regional Historic Environment Record curated by the Clywd-Powys Archaeological Trust* (Enquiry Reference No: E6353) **Copyright CPAT HER partnership, 2018 (and in part Crown, 2018)** and the online Coflein database confirms that there are no Registered Parks and Gardens, Registered Battlefields or Scheduled monuments within the Site, however within the Site, and situated at the main entrance, is the former brickworks office which is a Grade II Listed structure (HER: 42863; Listing Ref: 20213; Plate 3), and is the only complete building remaining from the former brickworks, which occupied the Site up until 1960.

3.1.2 Within the wider Study Area a number of Heritage Assets are recorded, comprising five Listed Buildings including the Railway Viaduct over the River Dee, 480m to the west, (Grade II*; 619) the Cefyn (Newbridge) Viaduct c.480m to the southwest (Grade II*; 628), and Waterloo Tower (Grade II; 16874) c.440m to the northwest. In addition a group of Listed Buildings comprising Newbridge Lodge (Grade I; 16872), Entrance Gates and Railings (Grade I; 16873) lie to the west at a distance of c. 575m from the western boundary of the Site at its closest point (Plate 4).

Two Scheduled Monuments comprising prehistoric burial mounds (Ref: DE223), known as the Darland Wood Round Barrows, lie on the opposite side of the River Dee to the northeast of the Site.

3.1.3 Further to the west of the Site and Study Area lies the Pontcysyllte Aqueduct and Canal (DE175). Both the aqueduct and a 10km stretch of the canal have been designated a World Heritage Site, the site lies outside of the Study Area, however a section of the Buffer Zone in which it is contained runs along a short section of the southwestern boundary of the Site adjacent to the Site entrance.

3.2 PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

3.2.1 No previous archaeological investigations are recorded as having been carried out within the Site, whilst within the wider Study Area a total of six archaeological investigations are recorded.

These include an evaluation undertaken along the line of a new sewage pipeline in the area of Wynnstay Round Barrows (HER: 23584) during which fragments of worked and unworked chert were collected.

3.3 SUMMARY AND SIGNIFICANCE OF HERITAGE ASSETS

Prehistoric

3.3.1 There is no recorded archaeological evidence for the presence of archaeological remains of prehistoric date within the Site.

3.3.2 Within the wider Study Area, approximately 360m to the northeast at Darland Wood lie two

Scheduled Monuments comprising burial mounds of probable Bronze-Age date (SM No: DE223).

- 3.3.3 The potential for finds or remains of this period to be present within the Site must be considered to be low. Any such finds would most likely be of local significance.

Roman

- 3.3.4 There is no archaeological evidence recorded for the presence of remains dating from the Roman period within the site or the wider Study Area.
- 3.3.5 The potential for finds or remains of this period to be present within the Site must be considered to be low. Any such finds would most likely be of local significance.

Medieval

- 3.3.6 There is no archaeological evidence recorded for the presence of remains dating from the medieval period within the Site or the wider Study Area.
- 3.3.7 In this respect the potential for finds or remains of this period to have once been present within the Site is considered to be low. Any such finds would most likely be considered to be of local significance.

Post-medieval

- 3.3.8 Post-medieval activity within the Site is predominantly characterised by the former brick works that was in operation on the Site from at least 1865, when it was in the ownership of J C Edwards of Acrefair near Wrexham, up until 1960 when it was closed.
- 3.3.9 At its peak the Site comprised a complex of buildings and up to 40 kilns, associated with a large clay pit, the extraction equipment being powered by a large stationary steam powered engine.
- 3.3.10 The Pen-Y-Bont Brick and Tile Company produced a range of ceramic products including brick and terracotta, roof and quarry tiles and decorative mouldings. The former office, built around 1880, was constructed as a showpiece for the company products built using examples of their products.
- 3.3.11 This building being the only remaining complete structure of the former brickworks.
- 3.3.12 During the course of the site visit fragmentary remains of masonry and brickwork, likely connected with the former brickworks building and structures, were noted partially concealed within undergrowth against the earthen bank on the western edge of the present area of hardstanding.
- 3.3.13 To the northwest lie two Grade Listed Buildings, the entrance gateway and railings to Newbridge Lodge dating from the early 1800's and Grade I Listed, along with the Grade II Listed Building of Wynnstay Lodge, a Grade 2 Listed Building dating from the 19th century.

Based on cartographic evidence and observations made during the Site walkover it is considered that there is a Medium to High potential for the presence of below ground archaeological remains of this period to be present within the Site. Any such remains would be considered to be of local significance.

3.4 CARTOGRAPHIC EVIDENCE

First Edition Ordnance Survey map, 1872

- 3.4.1 The First Edition Ordnance Survey map shows the central area of the Site occupied by the Pen-Y-Bont Brick and Tile Works. The clay pit is shown along with the brick works buildings and structures. The entrance to the brick works being the same as that now, the brickworks office is not shown, being constructed after the date of this map sometime around 1880.
- 3.4.2 To the north of the brickworks a belt of woodland is shown extending east-west across the Site. A number of field boundaries are recorded to the east and north of the brick-works, along with another to the south, extending out towards the bank of the river.

1900 Edition Ordnance Survey map

- 3.4.3 Between the first Edition Ordnance Survey and the 1900 edition the brick and tile works are shown to have significantly expanded with additional larger structures now recorded along with an enlargement of the clay-pit and the construction of the present office building. The belt of woodland to the north of the brick works is now shown to have been reduced.

1954 Edition Ordnance Survey map

- 3.4.4 The Site continued with little change until the 1954 edition Ordnance Survey map, when the brickworks are expanded.

1961 Edition Ordnance Survey map

- 3.4.5 The final enlargement of the brick works is depicted on the 1961 edition, which shows that the brick works had expanded significantly towards the north. The field boundaries to the north and northeast of the brickworks shown on the First Edition map remain, contained within an arc of land outside of the working area of the brickworks. The Site subsequently remains relatively unchanged up to its present form. On subsequent editions the brick works is no longer identified.

4 IMPACT ASSESSMENT

4.1 ARCHAEOLOGICAL POTENTIAL

- 4.1.1 Evidence from cartographic and documentary sources, supported by the Site walkover, clearly indicates that the area of the Site proposed for residential development, has been subject to considerable disturbance since at least the mid-1800's beginning with the creation of the Pen-Y-Bont Brick and Tile Works in 1865. The extraction of clay for the brick and tile manufacture and the construction of the brickworks, followed by subsequent demolition, to be succeeded by the infrastructure connected to the landfill activity on the Site is likely to have resulted in the severe truncation of any medieval or earlier below ground archaeological remains that may have been present. There is however a Medium-High potential for the presence of post-medieval below ground remains connected with the brick and tile works as evidenced by fragmentary remains of brickwork and masonry noted during the site walkover (Plates 5,6 and 7).

5 CONCLUSION

- 5.1.1 Through an examination of the relevant archaeological, historical and topographical sources along with a Site walk-over, this Desk-Based Heritage Appraisal has examined the available information relating to the archaeological and historical resource within the Site and Study Area in order to determine the effect of the Proposed Development of land at Pen-Y-Bont Landfill on the known and potential Heritage Assets within the Site and Study Area.
- 5.1.2 The assessment has been carried out adhering to the relevant guidelines and standards as set out by the Chartered Institute for Archaeologists (CIfA 2014b) and addresses the requirements set out in the document Planning Policy Wales (2016).
- 5.1.3 No Registered Parks and Gardens, Registered Battlefields or Scheduled Monuments lie within the Site, however a Grade 2 Listed Building comprising the former brick and tile works office, lies within the site on the southern boundary, while five Grade Listed Buildings are located within the wider Study Area. To the west and south of the Site, outside of the Study Area, lies a World Heritage Site comprising the Pontcysyllte Aqueduct which carries the Pontcysyllte Canal over the Dee Valley, both the aqueduct and canal are designated World Heritage Sites (No:1000106) and are encompassed within a Buffer Zone which extends for approximately 10km along the canal, extending up to, and running along a small section of the southwest boundary of the Site adjacent to the Site access, running along the line of the B5605.
- 5.1.4 To the northeast in the area of Darland Wood lie two prehistoric burial mounds (Ref: DE223) known as the Darland Wood Round Barrows.
- 5.1.5 A visit to the Site was undertaken where an examination of viewpoints between the Site and Heritage Assets, including the buffer zone of the World Heritage Site was made. This determined that due to intervening topography and established tree screening, there will be no direct or indirect impact on the Grade Listed Buildings in the wider Study Area, or to the Scheduled Monuments located to the northeast.
- 5.1.6 However the Grade 2 Listed Building comprising the former brick and tile company office, has the potential to be impacted upon by the residential aspect of the Proposed Development and further assessment in respect of its setting may be required once detailed information regarding the built and landscaped form of the Proposed Development is available. In this respect any proposal should consider the industrial-commercial nature of the original setting of this building.
- 5.1.7 Similarly the buffer zone of the World Heritage Site, from which views into the Site from the access, may be seen (Plate 3), has the potential to be impacted by the Proposed Development and is likely to require further assessment once developed designs become available.
- 5.1.8 Cartographic evidence and a walk-over examination of the site indicate that the area of the residential part of the Proposed Development has been subject to considerable post-medieval disturbance with the development of the brickworks. The brick and tile works ceased to trade in 1960 following which it appears most of the brickworks buildings and infrastructure were demolished, much of the Site subsequently utilised for landfill operations.
- 5.1.9 In this respect it may be considered that the potential for this area of the Site to contain below ground archaeological remains of medieval date or earlier is Low. There is however a Medium to

High potential for the presence of below ground archaeological remains connected with the post-medieval brick and tile manufacture recorded on site at least since the early to mid-1800's and evidenced by fragmentary remains of upstanding brickwork and masonry in the earthen bank on the western edge of the present area of hardstanding. It is considered that this impact may be appropriately mitigated through the attachment of a suitably worded condition requiring a Level 2 Photographic Building Recording action to be undertaken prior to development to record those fragmentary remains of brickwork and masonry identified during the Site visit, followed by a programme of archaeological observation and recording to be undertaken during the groundworks for the new development.

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- Welsh Government 2016 *Planning Policy Wales, Chapter 6, Conserving the Historic Environment, Edition 9*

Appendix 1: Glossary – General Terms

For the avoidance of confusion, abbreviations used within the report have the meanings detailed below:

Archaeological Potential	Negligible Archaeological Potential means there is evidence that archaeological remains do not exist or survive within the site; Low Archaeological Potential means that it is unlikely that archaeological remains are present within the site; Moderate Archaeological Potential means that there is the potential for archaeological remains to be present within the site based on the extent and preservation of known archaeological data in the immediate area of the site; High Archaeological Potential refers to those instances where there is potential for well-preserved archaeological remains of good quality based on the archaeological data in the immediate area of the site.
Associative relationship	Is a term used to describe the connections between individual HAs within a designed Setting. Each formed an independent function within the design and each function was necessary to fulfil the role of that design. The HAs may belong to but are not necessarily treated as a group.
Change over time	In English Heritage Guidance (2015), Change over time relates to the history and degree of change of the Setting of a HA and, where relevant, how this affects the contribution made by Setting to the significance of each asset.
Context	‘The context of a HA is a non-statutory term used to describe the relationship between it and other HAs, which are relevant to its significance, including cultural, intellectual, spatial or functional. They apply irrespective of distance, sometimes extending well beyond what might be considered an asset’s Setting, and can include the relationship of one HA to another of the same period or function, or with the same designer or architect.’ (English Heritage 2015).
Contextual inter-relationship	Is a term used to describe the designed relationship between two or more Heritage Assets.
Cumulative Change	In English Heritage Guidance (2015), where Cumulative Change has been unsympathetic it may compromise the significance of the heritage asset. To accord with NPPF policies, consideration needs to be given to whether additional change would further detract from or enhance the significance of the asset.
Designed Settings	In English Heritage Guidance (2015), Designed Settings are those Settings where there is deliberate intention to enhance the presence of the HAs or to incorporate other HAs. These designed Settings may be regarded as HAs in their own right.
Designated heritage	Designated HAs are World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, Registered Parks and Gardens, Registered Battlefields or Conservation Areas designated under the relevant legislation
Domesday Survey	A survey of property ownership in England, compiled in 1086 AD, on the instruction of William I for taxation purposes
Ecofact	Archaeological finds not manufactured by humans including bones and vegetal remains that provide evidence of past diet or environments
Enclosure	Enclosure was a movement in England and Wales that had legal definition that is the removal of communal rights or ownership over any piece of land. It was converted into ‘severalty’, with the owner had sole control over its use, and of access to it
Feature	Any non-portable physical structure or element that was made or altered by humans including a wall, post hole, pit or floor
Key Heritage Asset	A term to distinguish Heritage Assets that exist within the Study Area from those heritage assets that may potentially be affected by the Proposed Development; the latter that are key Heritage Assets;

Geophysical survey	Non-invasive methods of identifying below ground remains, targeting depths at which archaeological features may be found, by measuring deviations in the physical characteristics of buried surfaces
Grade I, II* and II Listed Buildings	Grade I is a designation of buildings that are of exceptional interest Grade II* designations are for buildings that are of more than special interest Grade II Listed Buildings are of special interest, warranting every effort to preserve them
Importance	The importance assigned to a Heritage Asset equates to the degree of policy protection taken into consideration when making a planning decision
In-situ	Anything in its natural or original position or place, also referred to as 'primary context'
Level of effect	The Level of effect is the measure of change caused to a Heritage Asset.
Magnitude of impact	The Magnitude of impact is the measure of disturbance of buried Heritage Assets or alterations to built Heritage Assets.
Natural	Undisturbed natural geology accumulated without the influence of human activity
Non-designated heritage asset	Non-designated HAs are historic landscapes, important hedgerows, buildings of local historic interest, artwork and non-scheduled archaeological remains
NGR	National Grid Reference from the Ordnance Survey Grid
AOD	Above Ordnance Datum (aOD) – elevation in relation to mean sea level.
Relative dating	A system of dating archaeological remains and strata in relation to each other
Residual	<i>Residual finds</i> are those which occur in deposits later than the date of their origin and are evidence of disturbance
Romano-British	Refers primarily to the period of Roman occupation of Britain, dating between AD 43 and <i>circa</i> AD 410
Significance	Significance is defined in Annex 2 of the NPPF as the heritage asset's interest and " <i>that interest may be archaeological, architectural, artistic or historic</i> ".
Trial trenching	A number of evaluative methods like geophysical surveys, field walking and <i>trial trenching</i> are used to determine the possible presence and absence of buried heritage. This involves the excavation of a series of trenches within the area of investigation, to determine if archaeological remains are present.
Value	The value is a measure of the contribution made by an attribute of setting towards the setting as a whole.
Views	The following aspects of views will be appraised when relevant to the contribution made to the various elements of Setting of each designated HAs - views from the Site towards these designated HAs; views from the designated HAs towards the Site; and views between designated HAs where the Proposed Development would be present within those views.

Appendix 2: Archaeological Periods

For the avoidance of confusion, the terms used in this report follow the definitions given below:

Prehistoric	The periods from the Ice Ages to Roman occupation of Britain in AD 43
Early prehistory	Prehistory is the period of human occupation in England prior to the introduction of writing. Early prehistory dates from the earliest occupation, Palaeolithic to the Mesolithic – up to 4001 BC
Palaeolithic	The earliest of the Prehistoric periods, meaning ‘Old Stone Age’, associated with periodic occupation in Britain due to the expansion and contraction of the glaciers during the Ice Ages – 800,000 years ago - 10,000 BC
Mesolithic	The second of the Prehistoric periods, meaning ‘Middle Stone Age’, associated with more permanent occupation in Britain – 10,000 BC – 4,000 BC
Neolithic	The third period of the Prehistoric, meaning ‘New Stone Age’. It is characterised by the practice of farming and the construction of large stone monumental structures and earthworks – 4,000 BC – 2,600 BC
Late Neolithic to Early Bronze Age	The continued use of stone implements and of ritual and burial monuments results in a considerable overlap - 3000 BC to 1501 BC
Bronze Age	The penultimate period of the Prehistoric periods. It is characterised by an increase in copper and bronze working – 2,200 BC - 801 BC
Early Bronze Age	2200 BC to 1501 BC characterised by the use of copper, and to a limited extent, bronze
Late Bronze Age	1000 BC to 801 BC characterised by the more frequent use of bronze and less frequent use of copper
Iron Age	The most recent of the Prehistoric. It is characterised by the development of iron technology and the construction of large-scale settlements such as hillforts – 800 BC – AD 43
Roman	This period begins in Britain with the Roman invasion in AD 43 and ends with the withdrawal of the legions around AD 410
Saxon	The period between <i>circa</i> AD 410 and AD 1000, is a period associated with an influx of Jutes and Frisians and a multi-culturalism and self-sufficiency in settlement and innovation in farming practices.
Early medieval or Dark Age	Pre Norman conquest - 1000 AD to 1066 AD
Medieval	The period between the Norman Conquest (AD 1066), associated with Norman occupation including mottes and baileys and castles, the start of the historic period when writing became the norm, the growth of towns, the Black Death, climate change and rebellion up to a point in history <i>circa</i> AD 1550. Many consider the medieval period to extend to 1700.
Post-medieval	The period from <i>circa</i> AD 1823 AD to 1900 AD and includes the Industrial Revolution and evolving house styles. Many consider the post-medieval period to begin around 1700.
Modern	1901 AD to 2050 AD

Appendix 3: Historic Environment Record Data:

HER / Event No.	Summary description	Description
17063	Pen-Y-Bont post-medieval brick and tile works. The works were established in 1865 and closed in 1960	Former Brickworks
25287	Pont Needy, post-medieval bridge. Originally recorded as being a Listed Building – HER record now amended to show this as undesignated.	Bridge
28296	Offa's Dyke, early medieval linear earthwork	Earthwork
28297	Offa's Dyke, early medieval linear earthwork	Earthwork
28298	Offa's Dyke, early medieval linear earthwork	Earthwork
28299	Offa's Dyke, early medieval linear earthwork	Earthwork
28300	Offa's Dyke, early medieval linear earthwork	Earthwork
28301	Offa's Dyke, early medieval linear earthwork	Earthwork
28302	Offa's Dyke, early medieval linear earthwork	Earthwork
36658	Wynnstay Hall, New bridge Lodge and entrance gates. Post medieval - Grade I Listed Building. Listing No: 16872	Listed Building
36659	Wynnstay Hall, Waterloo Tower – Post medieval – Grade II. Listing No: 16874	Listed Building
42330	Wynnstay Hall, New bridge Lodge, gates and railings – Post medieval – Grade I Listed Gateway. Listing No: 16873	Listed Building
42863	Pen-Y-Bont Brick and Tile office. Post medieval - Grade II Listed Building of post-medieval date. Listing No: 20213	Listed Building
57611	Wynnstay round barrow finds – small quantity of worked and unworked chert fragments found during evaluation of pipeline area.	Finds
58347	Hop yard Wood limekiln recorded on Ordnance Survey map of 1963	Kiln
58348	Hop yard Wood site of post-medieval lime kiln	Kiln
79830	Disused post-medieval mine shaft recorded on Ordnance Survey	Disused mineshaft
101200	Wynnstay round barrow I – Bronze-Age round barrow – Scheduled Monument No: DE223	Scheduled Monument
101201	Wynnstay round barrow II – Bronze-Age round barrow - Scheduled Monument No: DE223	Scheduled Monument
104406	New bridge Furnace, site of post-medieval furnace. Still evident as foundations, mostly sealed by grass	Furnace site
104408	New bridge Smithy, ruins of post-medieval smithy	Ruins of smithy
106780	Offa's Dyke, known to have run through Hop yard Wood. A berm or scarp is present in places on the east side of the ravine.	Dyke
126395	Post-medieval building recorded on early Ordnance Survey maps	Building
126396	Post-medieval building recorded on early Ordnance Survey maps	Building
141463	George III halfpenny found recorded on the Portable Antiquities database	Find-spot
141464	Find-spot of lead object possibly casting waste	Find-spot

	Event Record	Event
23584	Evaluation Wynnstay round barrows during sewage line works recovered worked and unworked chart fragments	Evaluation
34025	Topographical survey Wynnstay round barrows in advance of pipeline construction	Contour survey
34026	Assessment work along pipeline route	Assessment
38547	Archaeological evaluation recorded 19th century estate management features including a pond and a sluice	Evaluation
123124	Medieval and post-medieval assessment project	Assessment
141996	Medieval and post-medieval industry desk assessment	Desk-based Assessment

Appendix 4: Oasis Form

Project details	
Title of Project	Desk-Based Heritage Appraisal, Proposed Residential Development at Pen-Y-Bont Landfill near Chirk
Project summary	A Desk-Based Heritage Appraisal was undertaken by Crestwood Environmental Ltd on behalf of DBA Estates which examined relevant available sources, and in combination with a Site visit attempted to assess possible effects on the known and unknown Heritage Assets and, where applicable their settings.
Project type	Desk-Based Heritage Appraisal
Site status/designation	None
Previously recorded work	None
Current land use	Commercial
Future work	Recommended Level II Photographic and Archaeological observation
Significant finds	N/A
Project location	
County	Wrexham
Address	Pen-Y-Bont Landfill, Chirk, Wrexham
NGR	SJ 2941, 2651
Project originators	
Organisation	Crestwood Environmental Ltd
Brief originator	N/A
Project originator	N/A
Project director	Karl Jones
Project manager	David Leigh
Client	DBA Estates Ltd
Project dates	
Start	15 February 2018
Finish	11th June 2018 (Revisions 04-07-2018)
Archive	
Location (digital copy only no other archive material)	Clwyd Powys Archaeological Trust http://www.archwilio.org.uk
Archive contents	Digital copy of the report
Archive notes	Temporary location on Crestwood Environmental Ltd Server
Report No	CE-PY-1291-RP01
Date	11-06-2018

Appendix 5: Plates

PLATE 2: THE PROPOSED RESIDENTIAL AREA, LOOKING SOUTHEAST FROM THE LANDFILL



PLATE 3: THE FORMER PEN Y BONT BRICK AND TILE COMPANY OFFICE AND SITE ENTRANCE



PLATE 4: VIEW TOWARDS THE SITE FROM THE LISTED BUILDINGS AT WYNNSTAY LODGE



PLATE 5: FRAGMENTARY REMAINS OF BRICKWORK



PLATE 6: FRAGMENTARY BRICKWORK REMAINS, SEMI-CIRCULAR IN PLAN



PLATE 7: MASONRY IN EARTH BANK

