PROPOSED SOLAR ARRAY
CONNONBRIDGE
EAST TAPHOUSE
CORNWALL

Heritage Impact Assessment

South West Archaeology Ltd. report no. 230808

ARCHAEOLOGICAL SERVICES & HISTORIC BUILDING RECORDING
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PROPOSED SOLAR ARRAY, CONNONBRIDGE, EAST TAPHOUSE, CORNWALL

RESULTS OF A HERITAGE IMPACT ASSESSMENT

By N. Boyd, F. Balmond and S.H. Walls
Report Version: Final
Draft issued: 8th August 2023
Finalised: 14th August 2023

Work undertaken by SWARCH for One Planet Associates Ltd.

SUMMARY

This report presents the results of a heritage impact assessment and geophysical survey carried out by South West Archaeology Ltd. (SWARCH) for a proposed solar array on land at Connonbridge, East Taphouse, Cornwall. This work was carried out in advance of a planning application.

The survey area is located c.500 south of East Taphouse, c6km south-west of Liskeard and c.11km south-east of Bodmin, to the south of Braddock Down and immediately north of the recycling and landfill site. The site sits at the head of a river valley of a tributary of the West Looe River.

The site is located at the western edge of the parish of St Pinnock, in the historic hundred and deanery of West. Settlement is not recorded at Middle Taphouse (from the Cornish meaning 'house at the top or summit') until 1532, East Taphouse being recorded on historic mapping from the late 17th century (Buck 1996).

The proposal site lies within an area recorded on the Historic Landscape Characterisation (HLC) as Farmland: Medieval: The agricultural heartland, with farming settlements documented before the 17th century AD and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure. Either Medieval or Prehistoric origins. The rest of the proposed woodland site lies within Farmland: medieval: the agricultural heartland, with farming settlements documented before the 17th century AD and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure. Either medieval or prehistoric origins.

*The archaeological potential, and potential impact upon it, of the site alongside the sporadic nature of other archaeological/historical assets in the immediate landscape, is **medium** for the northern field and **low** for the southern field. It is unlikely that archaeological deposits or features exist on this site, however, this is unknown. For this reason the presumed impact/effect on any potential resource can be estimated as **slight** to **moderate, this can be further assessed following a geophysical survey**. The indirect effects of the development on nearby heritage assets are assessed as being **negligible,** with the site being located outside of any key views between the various prehistoric barrows or Registered Battlefield Site.*

August 2023

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ACKNOWLEDGEMENTS

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ONE PLANET ASSOCIATES (THE CLIENT)
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1.0 INTRODUCTION

LOCATION: CONNONBRIDGE, EAST TAPHOUSE
PARISH: ST PINNOCK
COUNTY: CORNWALL
NGR: CENTRED ON SX 18225 62511
PLANNING NO.: PRE-APPLICATION
SWARCH REF. ETCS23
OASIS REF: SOUTHWES1-517712

1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by One Planet Associates Ltd. (the Client) to undertake a heritage impact assessment on land at Connonbridge, East Taphouse, St Pinnock, Cornwall as part of proposals for a solar array. This work was drawn up in consultation with the Local Planning Authority (LPA), best practice and CIfA guidance.

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The survey area is located *c.*500 south of East Taphouse, *c*6km south-west of Liskeard and *c.*11km south-east of Bodmin, to the south of Braddock Down and immediately north of the recycling and landfill site. The site sits at the head of a river valley of a tributary of the West Looe River. The site slopes to the east, at a height of between c.149 and 165m AOD. The soils of the area are the well-drained fine loamy soils over slate or slatestone rubble of the Denbigh 2 Association (SSEW 1983), which overlie the sedimentary slate and siltstone of the Saltash Formation (BGS 2023).

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

The site is located at the western edge of the parish of St Pinnock, in the historic hundred and deanery of West. Settlement is not recorded at Middle Taphouse (from the Cornish meaning 'house at the top or summit') until 1532, East Taphouse being recorded on historic mapping from the late 17th century (Buck 1996).

The proposal site lies within an area recorded on the Historic Landscape Characterisation (HLC) as *Farmland: Medieval: The agricultural heartland, with farming settlements documented before the 17th century AD and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure. Either Medieval or Prehistoric origins.* The rest of the proposed woodland site lies within *Farmland: medieval: the agricultural heartland, with farming settlements documented before the 17th century AD and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure. Either medieval or prehistoric origins.*

1.4 METHODOLOGY

This work was undertaken in accordance with current best practice and CIfA guidance.

The desk-based assessment aspect of this report follows the guidance as outlined in: Standard and Guidance for Archaeological Desk-Based Assessment (CIfA 2014a) and Understanding Place: historic area assessments in a planning and development context (English Heritage 2012).

The heritage assessment follows the guidance outlined in: Conservation Principles: policies and guidance for the sustainable management of the historic environment (English Heritage 2008), The Setting of Heritage Assets (Historic England 2015), Seeing History in the View (English Heritage 2011), Managing Change in the Historic Environment: Setting (Historic Scotland 2010), and with

reference to Guidelines for Landscape and Visual Impact Assessment 3rd Edition (Landscape Institute 2013). The impact assessment also follows the guidance outlined in the Principles of Cultural Heritage Impact Assessment in the UK produced by CIfA, IHBC and IEMA in July 2021.

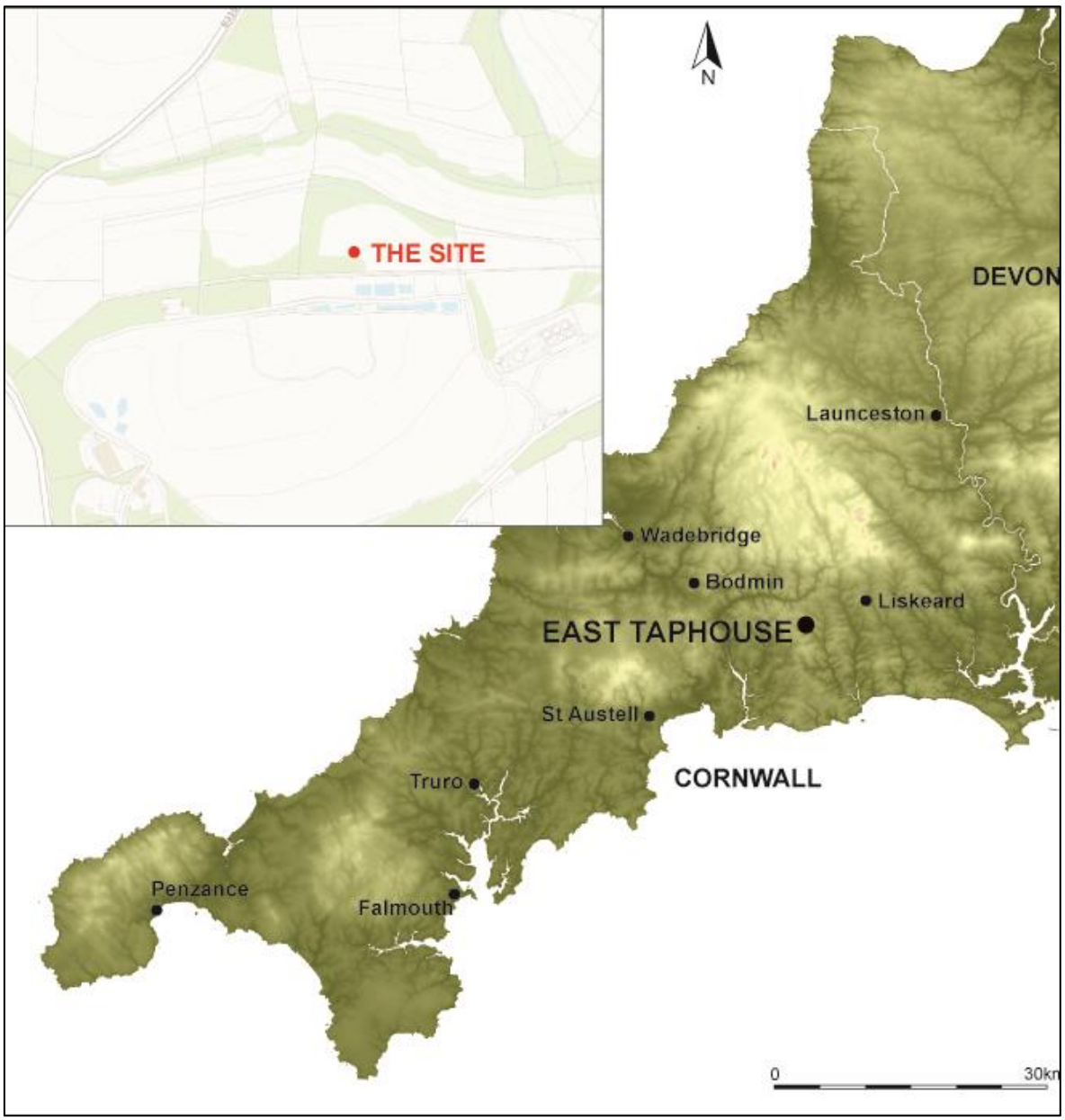

FIGURE 1: SITE LOCATION. CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2023. LICENCE NUMBER 100022432.

2.0 HERITAGE IMPACT ASSESSMENT

2.1 HERITAGE IMPACT ASSESSMENT - OVERVIEW

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonably practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area, monument or archaeological site (the 'heritage asset'). Secondly, to assess the likely effect of a proposed development on the heritage asset (direct impact) and/or its setting (indirect impact). The methodology employed in this assessment is based on the approach outlined in the relevant DoT guidance (DMRB LA 104 2020), used in conjunction with the ICOMOS (2011) guidance and the staged approach advocated in *The Setting of Heritage Assets* (GPA3 2nd Ed Historic England 2017). The methodology employed in this assessment can be found in Appendix 5.

2.2 NATIONAL POLICY

General policy and guidance for the conservation of the historic environment are now contained within the National Planning Policy Framework (Department for Communities and Local Government 2021). The relevant guidance is reproduced below:

Paragraph 194
In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including the contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 195
Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

A further key document is the Planning (Listed Buildings and Conservation Areas) Act 1990, in particular section 66(1), which provides statutory protection to the setting of Listed buildings:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

2.3 LOCAL POLICY

Policy 24: Historic Environment in *The Cornwall Local Plan: Strategic Policies 2010-2030* makes the following statement:

Development proposals will be permitted where they would sustain the cultural distinctiveness and significance of Cornwall's historic rural, urban and coastal environment by protecting, conserving and where appropriate enhancing the significance of designated and non-designated assets and their settings.

Development proposals will be expected to:

- sustain designated heritage assets;
- take opportunities to better reveal their significance;
- maintain the special character and appearance of Conservation Areas, especially those positive elements in any Conservation Area Appraisal;
- conserve and, where appropriate, enhance the design, character, appearance and historic significance of historic parks and gardens;
- conserve and, where appropriate, enhance other historic landscapes and townscapes, including registered battlefields, including the industrial mining heritage;
- protect the historic maritime environment, including the significant ports, harbours and quays.

Development within the Cornwall and West Devon Mining Landscape World Heritage Site (WHS) and its setting should accord with the WHS Management Plan. Proposals that would result in harm to the authenticity and integrity of the Outstanding Universal Value, should be wholly exceptional. If the impact of the proposal is neutral, either on the significance or setting, then opportunities to enhance or better reveal their significance should be taken.

All development proposals should be informed by proportionate historic environment assessments and evaluations (such as heritage impact assessments, desk-based appraisals, field evaluation and historic building reports) identifying the significance of all heritage assets that would be affected by the proposals and the nature and degree of any effects and demonstrating how, in order of preference, any harm will be avoided, minimised or mitigated.

Great weight will be given to the conservation of the Cornwall's heritage assets. Where development is proposed that would lead to substantial harm to assets of the highest significance, including undesignated archaeology of national importance, this will only be justified in wholly exceptional circumstances, and substantial harm to all other nationally designated assets will only be justified in exceptional circumstances.

Any harm to the significance of a designated or non-designated heritage asset must be justified. Proposals causing harm will be weighed against the substantial public, not private, benefits of the proposal and whether it has been demonstrated that all reasonable efforts have been made to sustain the existing use, find new uses, or mitigate the extent of the harm to the significance of the asset; and whether the works proposed are the minimum required to secure the long term use of the asset.

In those exceptional circumstances where harm to any heritage assets can be fully justified, and development would result in the partial or total loss of the asset and/or its setting, the applicant will be required to secure a programme of recording and analysis of that asset, and archaeological excavation where relevant, and ensure the publication of that record to an appropriate standard in a public archive.

Proposals that will help to secure a sustainable future for the Cornwall's heritage assets, especially those identified as being at greatest risk of loss or decay, will be supported.

2.4 DIRECT AND INDIRECT IMPACTS

This assessment is broken down into two main sections. Section 3.0 addresses the *direct impact* of the proposed development i.e. the physical effect the development may have on heritage assets within, or immediately adjacent to, the development site. Designated heritage assets on or close to a site are a known quantity, understood and addressed via the *design and access statement* and other planning documents. Robust assessment, however, also requires a clear understanding of the value and significance of the *archaeological* potential of a site. This is achieved via the staged

process of archaeological investigation detailed in Section 3.0. Section 4.0 assesses the likely effect of the proposed development on known and quantified designated heritage assets in the local area. In this instance the impact is almost always indirect i.e. the proposed development impinges on the *setting* of the heritage asset in question, and does not have a direct physical effect.

3.0 DIRECT IMPACTS

3.1 STRUCTURE OF ASSESSMENT

For the purposes of this assessment, the *direct effect* of a development is taken to be its direct physical effect on the buried archaeological resource. In most instances the effect will be limited to the site itself. However, unlike designated heritage assets (see Sections 3.5, 4.3) the archaeological potential of a site, and the significance of that archaeology, must be quantified by means of a staged programme of archaeological investigation. Sections 3.2-3.7 examine the documentary, cartographic and archaeological background to the site, and include the results of a geophysical survey of the proposed site conducted as part of this phase of work; Section 3.8 summarises this information in order to determine the significance of the archaeology, the potential for harm, and outlines mitigation strategies as appropriate. Appendix 5 details the methodology employed to make this judgement.

3.2 DOCUMENTARY HISTORY

The site is located within the parish of St Pinnock, in the hundred and deanery of West (Lysons 1814). Lysons records a single village in the parish, *Trevilles*; a manor, *Penvane*; and two farmstead hamlets, *Bodrane* and *Tregow*. *Ye East topp House* was first recorded in 1675 and as *Easter Taphouse* in 1699 (Watts 2004). The 'east' part of its place name is to differentiate it from the Middle- and West Taphouse that were recorded *c.*1532/3 that all served as isolated inns across the moors between Liskeard and Lostwithiel. Taphouse refers to an alehouse. East Taphouse was the last of the *Taphouse* hamlets, along with *West-* and *Middle-* to develop along the road to become the A390, through the 19th century. *Eastern Taphouse* is labelled on the 1748 Martyn's Map of Cornwall and *East Taphouse* on the 1882 Ordnance Survey (OS) mapping (KK/CRO CY/6721/6722).

Early references to the possible future location of the hamlet of East Taphouse can be seen in Parliamentary Archives that refer to the '…East End of the Western Taphouse Lane,…' in regards to the repairing and widening of roads in the area between 1760 and 1836 (HL/PO/PU/1/1760/1G3n21,HL/PO/PU/1/1770/10G3n115,HL/PO/PU/1/1781/21G3n43, HL/PO/PB/1/1803/43G3n170, HL/PO/PB/1/1824/5G4n137, HL/PO/PB/1/1836/6&7W4n99). An Act for further extensions is also recorded running from *the East End of West Taphouse* to Liskeard and beyond in 1801 (HL/PO/PB/1/1801/41G3n202).

The site lies to the south of an area that was known as Braddock Downs before its later 19th century enclosure. Although now in the neighbouring parish of Braddock (*Bradock/Broadoak*), it was historically within St Pinnock (Lysons 1814). Braddock Downs was the location of a civil war battle fought on the 19th of January 1643. The west half of the site is within the very eastern limits of the Registered Battlefield. Parliamentarians were deployed on Braddock Downs and Cornish Royalist forces charged and killed approximately 200 men and captured between 1000 and 1500, along with ammunition and the forces baggage train. The Royalists then marched on and blockaded Plymouth. The Listing text for the battlefield states:
'*The battlefield landscape remains dominated by the opposing slopes of Braddock Down and, although later drained and subdivided into smaller fields, the grassy downland over which the battle was fought is easily imagined…. Although the appearance of the battlefield has altered significantly since 1643, the topography is still readily appreciable. Access to the battlefield is limited, however, to the roads on its edges. A view can be gained from the southern tip of the battlefield where recent road improvements have left a small informal car parking area. The prehistoric burial mounds of the area add a further dimension to the interest of the landscape.*'.

The site was split into a different arrangement of plots at the time of the St Pinnock Tithe apportionment, *c.*1841, all in use as arable land.

3.3 CARTOGRAPHIC DEVELOPMENT

The first available map to show East Taphouse is the Martyn's Map of Cornwall, 1748. This map does not show the site or the fieldsystems of the area in any detail, but does show a building at *Eastern Taphouse*, possibly representing the inn that was known there.

FIGURE 2: EXTRACT OF THE 1748 MARTYN'S MAP OF CORNWALL (HARVARD CURIOSITY COLLECTIONS).

The first available map to show some detail of the site is the 1803 Ordnance Survey Draft Map for the Liskeard area (Figure 3). This map shows that the site is within an area of open land labelled as *Braddock Common*. *Red Burrow* is noted on this part of the common, presumably referring to the two barrows depicted on the map to the west of the site, presumably the Scheduled barrow 310yds S of Kilmansag (1004434) and MCO2955, to the east of Kilmansag.

FIGURE 3: EXTRACT FROM 1803 SURVEYORS DRAFT MAP (KK); THE APPROXIMATE SITE LOCATION IS INDICATED.

The *c.*1841 Tithe Map and Tithe Apportionment for St Pinnock provides the first detailed cartographic depiction of the site (Figure 4). The site lies across the southern end of two fields; plots 203 and 232, and across the northern end of three further plots 233, 242 and 352. These fields and the enclosures around them that have largely extended across the former *Braddock Common* are shown with straight sided boundaries. The access track would stretch to the south across further plots.

Generally, the field names on and around the site are prosaic (see Table 1) and the fields are owned and leased by numerous parties. The field names and uses generally reflect the former common and moorland downs nature of the area and also refer quite often to quarries and the stony nature of the area. At the time of the tithe apportionment the plots that make up the site were all owned by the Honourable Anna Maria Agar [of Lanhydrock], leased by John Verrin and Robert Nicholls and occupied by both of these men, along with Charles Gungan. The access track crosses plots 350, 379 and an adjacent plot which is without a number. These plots were owned by the Honourable Anna Maria Agar, leased by Charles and Richard Jay, with 379 occupied by John Perry. Plot 350 was named South Down and 379 was Lower Path, used as pasture and garden respectively.

FIGURE 4: EXTRACT FROM THE ST. PINNOCK TITHE MAP, *C.*1841 (TNA); THE APPROXIMATE SITE IS OUTLINED IN RED.

TABLE 1: TRANSCRIPT FROM THE 1841 ST PINNOCK TITHE APPORTIONMENT. THE PLOTS CONTAINING THE SITE ARE SHADED IN GREEN. THE PLOTS CROSSED BY THE ACCESS TRACK ARE SHADED IN RED

Plot	Landowner	Occupier	Plot Name	Cultivation
122	Rev. Jerveys Grills and William Browne	Themselves	Downs	Common
162	John Allen	William Crago	Plantation	Plantation
201	The Honourable Anna Maria Agar; John Verrin (Lessee)	John Verrin	North Down	Arable
202			North Down	Arable
203			North Down	Arable
231	Bastard Mark Selby; William Harris (Lessee)	Thomas Harris	Hills	Arable
232	The Honourable Anna Maria Agar; Robert Nicholls (Lessee)	Robert Nicholls	North Down	Arable
233	The Honourable Anna Maria Agar; John Verrin (Lessee)	John Verrin	Higher South Down	Arable
234	The Honourable Anna Maria Agar; William Verrin (Lessee)		Great Down Park	Arable
242	The Honourable Anna Maria Agar; John Verrin (Lessee)	Charles Gungan	Higher South Down	Arable
243	The Honourable Anna Maria Agar; Charles and Richard Jay (Lessees)		North Down	Heath/Pasture
350			South Down	Morafsy(?)/Pasture
352	The Honourable Anna Maria Agar; Robert Nicholls (Lessee)	Robert Nicholls	South Down	Arable
379	The Honourable Anna Maria Agar; Charles Jay (Lessee)	John Perry	Lower Path	Garden

The First Edition Ordnance Survey (OS) map of 1882 shows general continuity with the earlier tithe map regarding the layout of the site and surrounding landscape and consistency in the field boundaries. The depictions of field use/condition also corroborates some of tithe field uses as stated in the 1841 tithe apportionment, regarding moory pasture and plantation.

The Second Edition OS map, revised in 1905 and published in 1907 shows further continuity with the earlier mapping, although the areas of plantation and scrubby land appear to have decreased and one or two plot divisions or boundaries appear to have been removed.

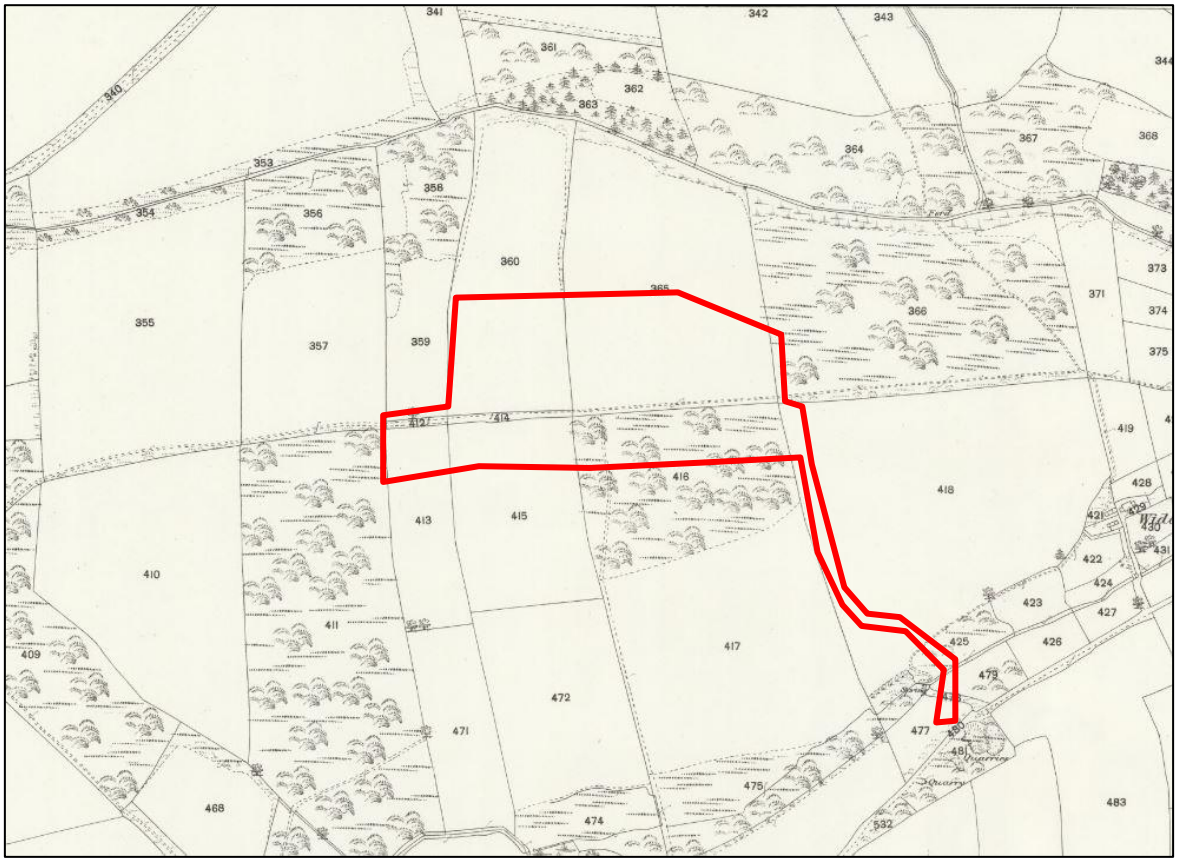

FIGURE 5: EXTRACT FROM THE ORDNANCE SURVEY FIRST EDITION 25 INCH MAP 1882; SHEET XXXV.15 (NLS). THE APPROXIMATE PROPOSED SITE IS OUTLINED RED.

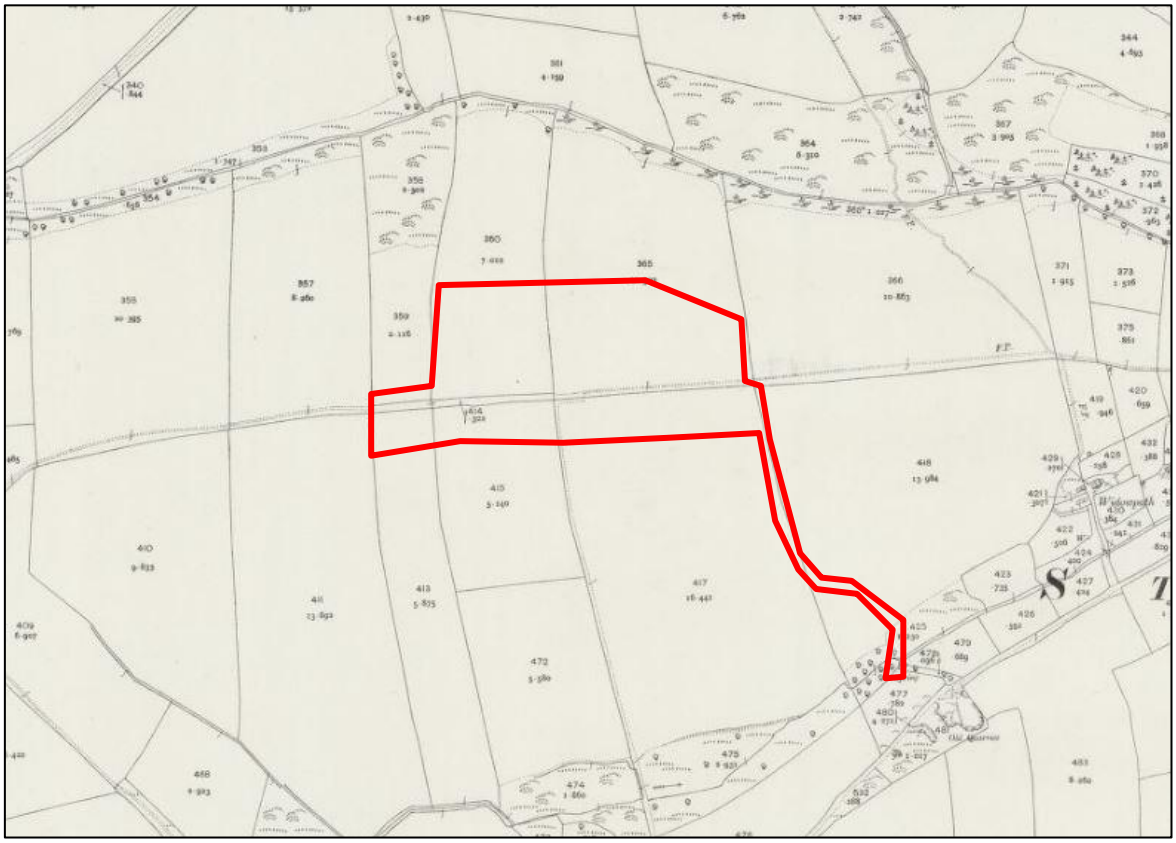

FIGURE 6: EXTRACT FROM THE SECOND EDITION 25 INCH ORDNANCE SURVEY MAP 1907; SHEET XXXV.15 (NLS). THE APPROXIMATE PROPOSED SITE IS OUTLINED IN RED.

3.4 AERIAL PHOTOGRAPHY AND LIDAR

3.4.1 AERIAL PHOTOGRAPHY

A review of readily available satellite imagery of the site shows the north of the site as an agricultural field over the last 10-15 years. The southern section of the site seems to have been in a state of change over the same period, variously stripped, excavated, possibly in use as water treatment pools, before the observations of it being backfilled again during the site walkover. In aerial photography from 2002 both the north field and the field adjacent to it to the west, appear to have two circular areas evident in the grass cutting of the site (Figure 7). Whether these are indicative of earthworks, modern ring feeders, or are simply tractor turning circles is not clear, however the frequent scattering of barrows in the landscape would suggest that there may be evidence of Prehistoric activity. The possible feature appears much fainter in the 2009 imagery (see Figure 8), although still present.

FIGURE 7: AERIAL PHOTOGRAPH SHOWING THE SITE IN 2002 © 2023 INFOTERRA/BLUESKY; THE CIRCULAR FEATURES ARE HIGHLIGHTED IN RED.

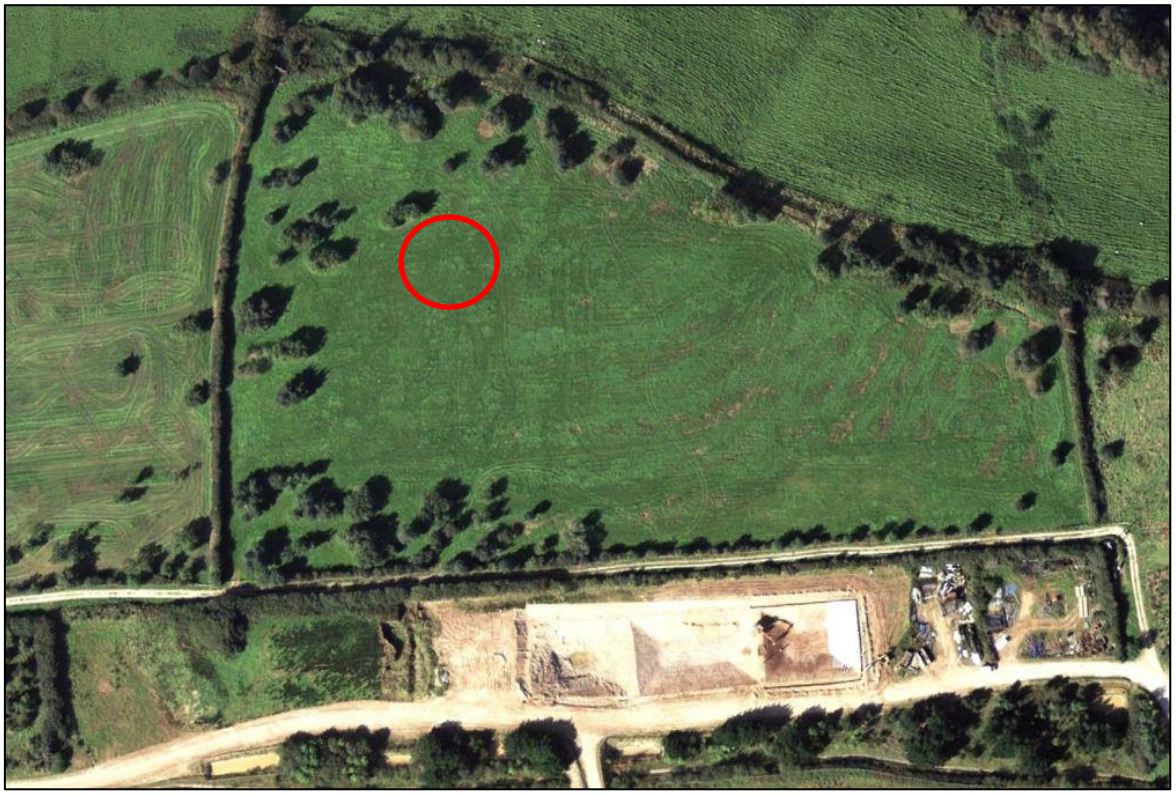

FIGURE 8: AERIAL PHOTOGRAPH SHOWING THE SITE IN 2009 © 2023 INFOTERRA/BLUESKY; THE POSSIBLE CIRCULAR FEATURE (ALTHOUGH FAINT) IS OUTLINED IN RED.

3.4.2 LIDAR DATA

The LiDAR image is derived from LiDAR data freely available from the Environment Agency. Digital terrain (i.e., bare earth, DTM) was processed. The highest sampling interval available for the site was a 1m interval.

The LiDAR data for the site shows mostly agricultural activity, such as ploughing and topographic features such as those associated with valley slopes to the north of the site. On the site, features associated with 21st century activity are most discernable, particularly in the southern section of the site; although a linear that may correspond with the removed field boundary in the northern field of the site (and in the adjacent field), as shown on the historic mapping is also evident. The circular feature visible on the aerial photography is not apparent on the LiDAR image.

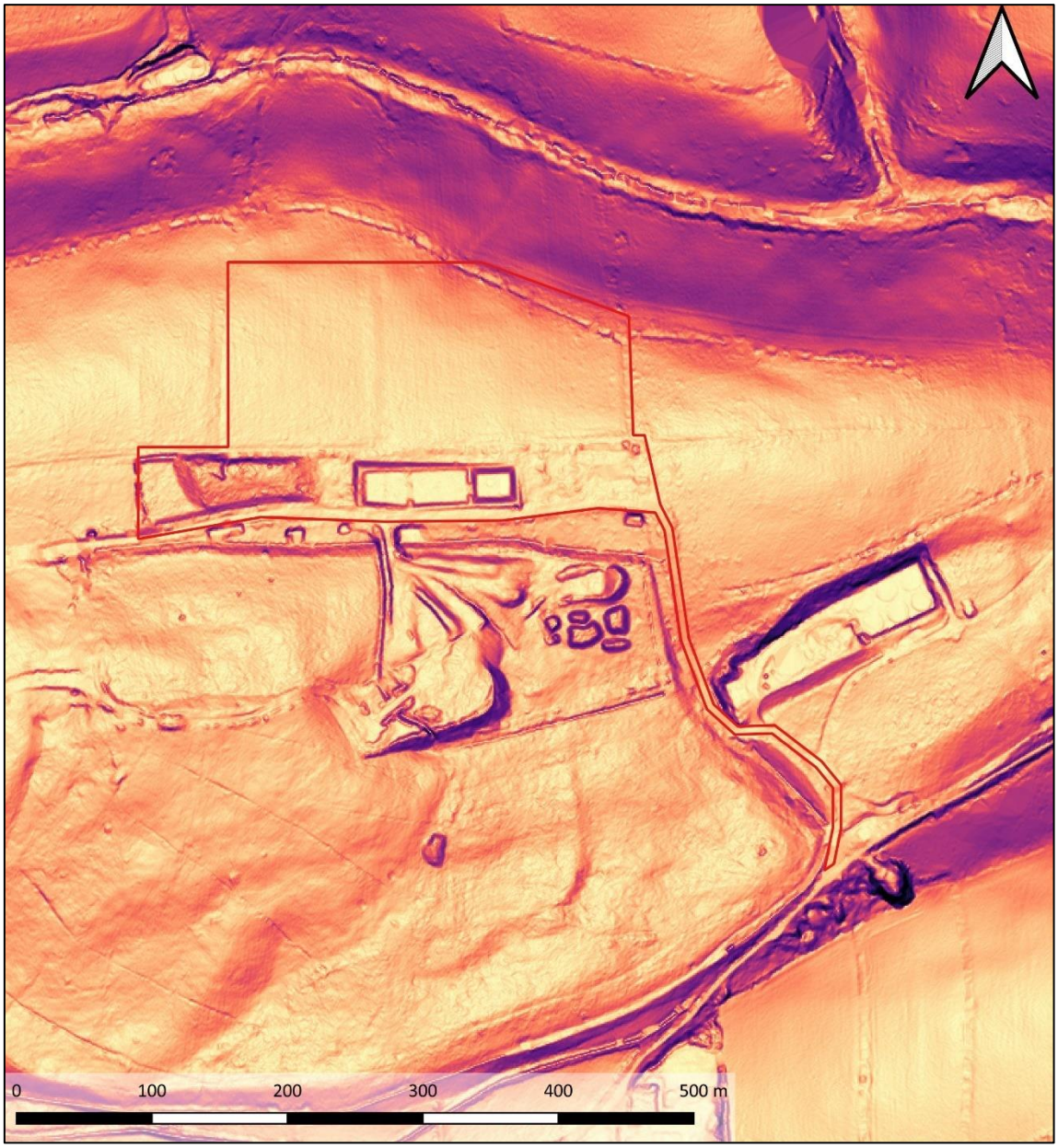

FIGURE 9: IMAGE DERIVED FROM 1M DTM LIDAR DATA; LIDAR DATA PROCESSED USING QGIS 3.16 AND RVT PLUGIN SLOPE Z2 (DATA USED UNDER THE OPEN GOVERNMENT LICENCE 3.0).

3.5 ARCHAEOLOGICAL BACKGROUND

Beside relatively broad landscape scale assessments no previous archaeological fieldwork has taken place on the site. Geophysical surveys, archaeological assessments and an archaeological evaluation have taken place near to the site. These were associated with a study of nearby barrows, developments along the A390, an assessment of the Braddock Downs, and an evaluation of the housing development c.600m north of the site. Further recent geophysical surveys for a proposed development to the west of Braddock School (Bampton 2023) and for a proposed woodland creation on land to the west of the site (Webb 2023) have added to the level of archaeological assessment works in the immediate area.

The proposal site lies within an area recorded on the Historic Landscape Characterisation (HLC) as *Farmland: Medieval: The agricultural heartland, with farming settlements documented before the 17th century AD and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure. Either Medieval or Prehistoric origins.*

Designated assets within 1km of the site include 1 Grade II Listed Building, and 3 Scheduled bowl barrows or groups of barrows. The Registered Battlefield of Braddock Downs extends across the landscape to the north-west of the site. The Cornwall and Scilly Historic Environment Record (HER) contains 81 assets within 1km of the site.

3.5.1 PREHISTORIC 4000BC - AD43

Eight barrows within clusters, some forming Scheduled barrow cemeteries, a number of flint scatters, and some possible linear earthworks are present within 1km of the site. The nearest of these to the site include a Scheduled barrow along the road to the south of Kilmansag, one to the east of the farm and one to the south west of the farm. A flint scatter was found in the same field as this barrow (MCO998), although the majority of the scatter was found at the west end of the field, with only two outlying flint pieces nearer the site.

3.5.2 ROMANO-BRITISH AD43-AD409

Earthworks of a possible Roman road (MCO66590) can be seen on LiDAR images along a similar course to the A390, north of the site.

3.5.3 MEDIEVAL AD410 – AD1540

Medieval settlements have been recorded at Trevellis from 1086 (MCO11594), Middle Taphouse from *c.*1532 (MCO15722), and the nearest Medieval settlements at Penhellick in 1302 (MCO16147) and Penhole in 1250 (MCO16151). The majority of other Medieval assets near to the site are comprised of possible field boundaries, such as MCO42286, MCO42304 and MCO42306. However, many of these possible boundaries are based on desk-based research, assessing aerial photography, and satellite- and LiDAR imagery and are not proven. Example MCO42309 may well correspond to a cropmark associated with a modern service. The west-south-west end of this ''asset'' approximately corresponds to the line of a high pressure gas main that runs across the site. In either case, it is likely that a rural Medieval community were active in the vicinity of the site.

3.5.4 POST-MEDIEVAL AD1540 -1899

The most significant Post-Medieval asset near the site is the Registered Battlefield of Braddock Downs (MCO23354; DCO16456; 10000005). Other Post-Medieval assets within 1km of the site include a blacksmith's workshop (MCO9052), a bridge (MCO9541), non-conformist chapel (MCO32096), several quarries (e.g. MCO42308, MCO42310, MCO42313), and mile and boundary stones (e.g. MCO63341, MCO64067, MCO64068).

3.5.5 MODERN AD1901-PRESENT AND UNDATED

The military camp to the south-west of the site is the only modern asset recorded within 1km of the site. There are also records relating to two undated enclosures within the study area, both identified through aerial photography.

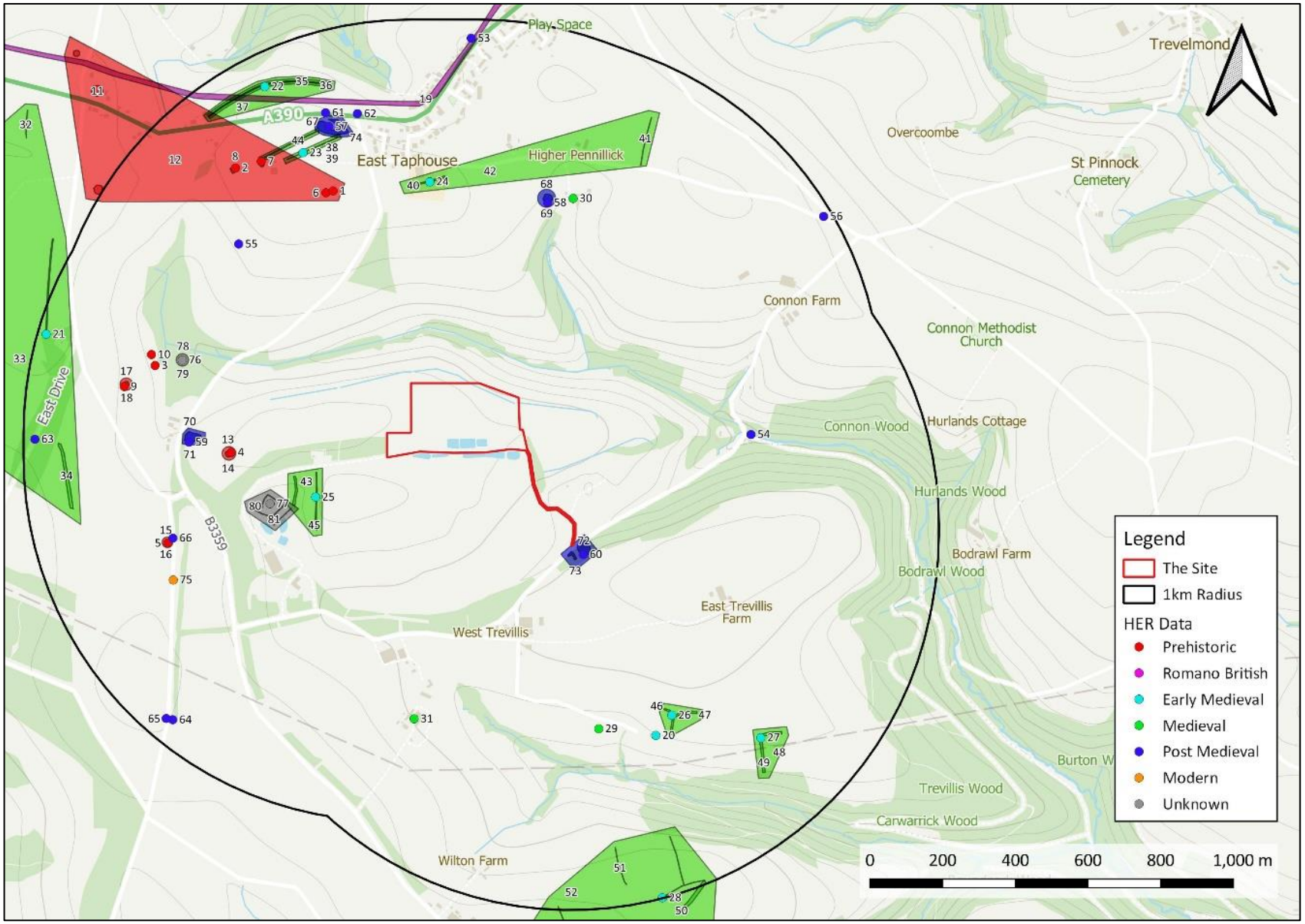

FIGURE 10: HERITAGE ASSETS WITHIN 1KM OF THE PROPOSAL AREA RECORDED IN THE CORNWALL HER CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2023.

TABLE 2: TABLE OF NEARBY HERITAGE ASSETS (SOURCE: CORNWALL HER).

No	MonUID	Name	Summary
1	MCO998	MIDDLE TAPHOUSE - Prehistoric findspot	A flint scatter was detected in a field which contains a barrow near Middle Taphouse.
2	MCO999	MIDDLE TAPHOUSE - Prehistoric findspot	A flint scatter was detected on the exposed surface of a barrow near Middle Taphouse.
3	MCO1145	PENVENTON - Prehistoric findspot	A Prehistoric flint scatter of mostly flakes was detected to the north of Penventon.
4	MCO2955	KILMANSAG - Bronze Age barrow	One of a pair of barrows, possibly outliers of the large barrow group at Middle Taphouse.
5	MCO2956	KILMANSAG - Bronze Age barrow	A bowl barrow in good condition, one of two forming outliers of the large barrow group at Middle Taphouse.
6	MCO3104	MIDDLE TAPHOUSE - Bronze Age barrow	A bowl barrow has been reduced by ploughing to the east of Middle Taphouse.
7	MCO3105	MIDDLE TAPHOUSE - Bronze Age barrow	A bowl barrow to the east of Middle Taphouse has been reduced through ploughing.
8	MCO3106	MIDDLE TAPHOUSE - Bronze Age barrow	A bowl barrow to the east of Middle Taphouse has been reduced through ploughing.
9	MCO42287	MIDDLE TAPHOUSE - Bronze Age barrow, Undated hollow	The possible ploughed-out remains of a barrow, visible as a sub-circular hollow on air photos.
10	MCO44050	MIDDLE TAPHOUSE - Bronze Age barrow	The remains of a possible barrow, visible as a slight earthwork on air photos.
11	MCO1958	MIDDLE TAPHOUSE - Bronze Age barrow cemetery	Seven barrows are situated on the plateau overlooking Middle Taphouse.
12	MCO1958	MIDDLE TAPHOUSE - Bronze Age barrow cemetery	Seven barrows are situated on the plateau overlooking Middle Taphouse.
13	MCO2955	KILMANSAG - Bronze Age barrow	One of a pair of barrows, possibly outliers of the large barrow group at Middle Taphouse.
14			
15	MCO2956	KILMANSAG - Bronze Age barrow	A bowl barrow in good condition, one of two forming outliers of the large barrow group at Middle Taphouse.
16			
17	MCO42287	MIDDLE TAPHOUSE - Bronze Age barrow, Undated hollow	The possible ploughed-out remains of a barrow, visible as a sub-circular hollow on air photos.
18			
19	MCO66590	TAPHOUSE - Roman road	Earthwork remains of a probable Roman road running eastwards from close to Restormel Roman fort to East Taphouse and onwards to approximately 2km north of Doublebois can be seen on Lidar
20	MCO11594	TREVILLIS - Early Medieval settlement, Medieval manor, Medieval settlement	The settlement of Trevellis is first recorded in the Domesday survey of 1086.
21	MCO42286	BRADDOCK - Early Medieval field system, Medieval field system	
22	MCO42304	MIDDLE TAPHOUSE - Early Medieval field boundary	
23	MCO42306	MIDDLE TAPHOUSE - Early Medieval field boundary	
24	MCO42309	MIDDLE TAPHOUSE - Early Medieval field boundary	
25	MCO42315	MIDDLE TAPHOUSE - Early Medieval field boundary	
26	MCO42324	EAST TREVILLIS - Early Medieval field boundary	
27	MCO42325	EAST TREVILLIS - Early Medieval field boundary	
28	MCO42326	WILTON FARM - Early Medieval field system	
29	MCO11595	TREVILLIS - Medieval manor house, Post Medieval manor house	The site of a manor house is recorded on OS maps.
30	MCO16147	PENHELLICK - Medieval settlement	The settlement of Penhellick is first recorded in 1302.
31	MCO16151	PENHOLE - Medieval settlement	The settlement of Penhole is first recorded c1250.
32	MCO42286	BRADDOCK - Early Medieval field system, Medieval field system	
33			
34			
35	MCO42304	MIDDLE TAPHOUSE - Early Medieval field boundary	
36			
37			
38	MCO42306	MIDDLE TAPHOUSE - Early Medieval field boundary	
39			
40	MCO42309	MIDDLE TAPHOUSE - Early Medieval field boundary	
41			
42			
43	MCO42315	MIDDLE TAPHOUSE - Early Medieval field boundary	
44			

45			
46	MCO42324	EAST TREVILLIS - Early Medieval field boundary	
47			
48	MCO42325	EAST TREVILLIS - Early Medieval field boundary	
49			
50	MCO42326	WILTON FARM - Early Medieval field system	
51			
52			
53	MCO9052	EAST TAPHOUSE - Post Medieval blacksmiths workshop	
54	MCO9541	COMMON BRIDGE - Post Medieval bridge	
55	MCO23354	BRADDOCK DOWN - Post Medieval battlefield	Cornish Royalists, under Sir Ralph Hopton, defeated Parliamentarians at Braddock Down on 19th Jan 1643.
56	MCO32096	CONNON - Post Medieval nonconformist chapel	
57	MCO42308	MIDDLE TAPHOUSE - Post Medieval quarry	
58	MCO42310	LOWER PENNELLICK - Post Medieval quarry	
59	MCO42313	MIDDLE TAPHOUSE - Post Medieval quarry	
60	MCO42316	TREVILLIS - Post Medieval quarry	
61	MCO49092	EAST TAPHOUSE - Post Medieval milepost	A cast iron milespost, approx 1760, survives approx 500m SW of East Taphouse on the north side of the A390 - Liskeard 5½ and Lostwith 6.
62	MCO58720	EAST TAPHOUSE - C19 guide post	A guide post is recorded on OS 1st Edition mapping dated 1882. The guide post survives in situ.
63	MCO63341	BOCONNOC - Post Medieval milestone	Extant milestone indicating 1 1/2 miles from Boconnoc House on the private road to East Lodge. The front face is inscribed '1 1/2', although labelled on the 1880 OS mapping as 'M.S. Boconnoc 2'
64	MCO64067	BROADOAK - C19 boundary stone	Extant C19 boundary stone marking the parish boundary between Broadoak, Lanreath and St. Pinnock parishes.
65	MCO64068	ST PINNOCK - C19 boundary stone	Extant C19 boundary stone marking the parish boundary between Broadoak and St. Pinnock parishes
66	MCO64069	ST PINNOCK - C19 boundary stone	Extant C19 boundary stone marking the parish boundary between Broadoak and St. Pinnock parishes
67	MCO42308	MIDDLE TAPHOUSE - Post Medieval quarry	
68	MCO42310	LOWER PENNELLICK - Post Medieval quarry	
69			
70	MCO42313	MIDDLE TAPHOUSE - Post Medieval quarry	
71			
72	MCO42316	TREVILLIS - Post Medieval quarry	
73			
74	MCO54668	POLMASSICK - Post Medieval signpost	A cast iron fingerpost from Charlestown Foundry survives on the southern side of a crossroads in Polmassick.
75	MCO44048	BRADDOCK - Modern military camp	
76	MCO42311	MIDDLE TAPHOUSE - Undated enclosure	A sub-circular ditched enclosure, diameter approx 20m, is visible on aerial photographs.
77	MCO42314	MIDDLE TAPHOUSE - Undated enclosure	The remains of a rectilinear enclosure are visible on aerial photographs.

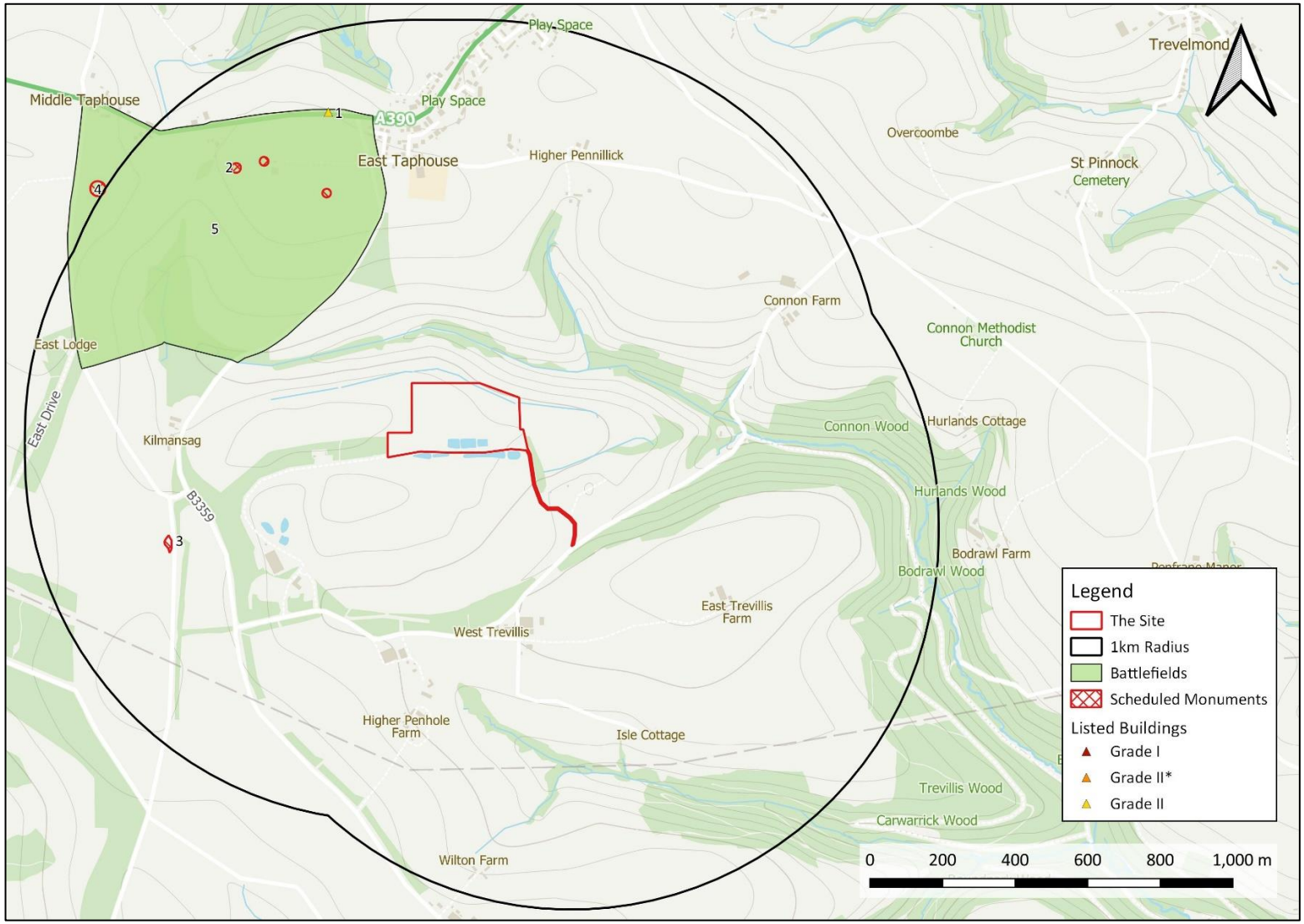

FIGURE 11: DESIGNATED HERITAGE ASSETS WITHIN 1KM OF THE PROPOSAL AREA RECORDED IN THE NATIONAL HERITAGE LIST FOR ENGLAND (NHLE) © HISTORIC ENGLAND 2023. CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2023. THE MOST PUBLICLY AVAILABLE UP TO DATE HISTORIC ENGLAND GIS DATA CAN BE OBTAINED FROM HTTP://HISTORICENGLAND.ORG.UK.

TABLE 3: DETAILS OF DESIGNATED HERITAGE ASSETS SHOWN IN FIGURE 9 (HE)

No	ListEntry	Name	Grade
1	1137619	Milestone At Ngr Sx1785463357	II
2	1004433	Three bowl barrows 215m south east of Beech Lawn, which form part of a larger round barrow cemetery	SM
3	1004434	Bowl barrow 780m east of Penventon	SM
4	1004435	Bowl barrow 230m south west of Middle Taphouse Farm, forming part of a round barrow cemetery	SM
5	1000005	Battle of Braddock Down 1643	Battlefield

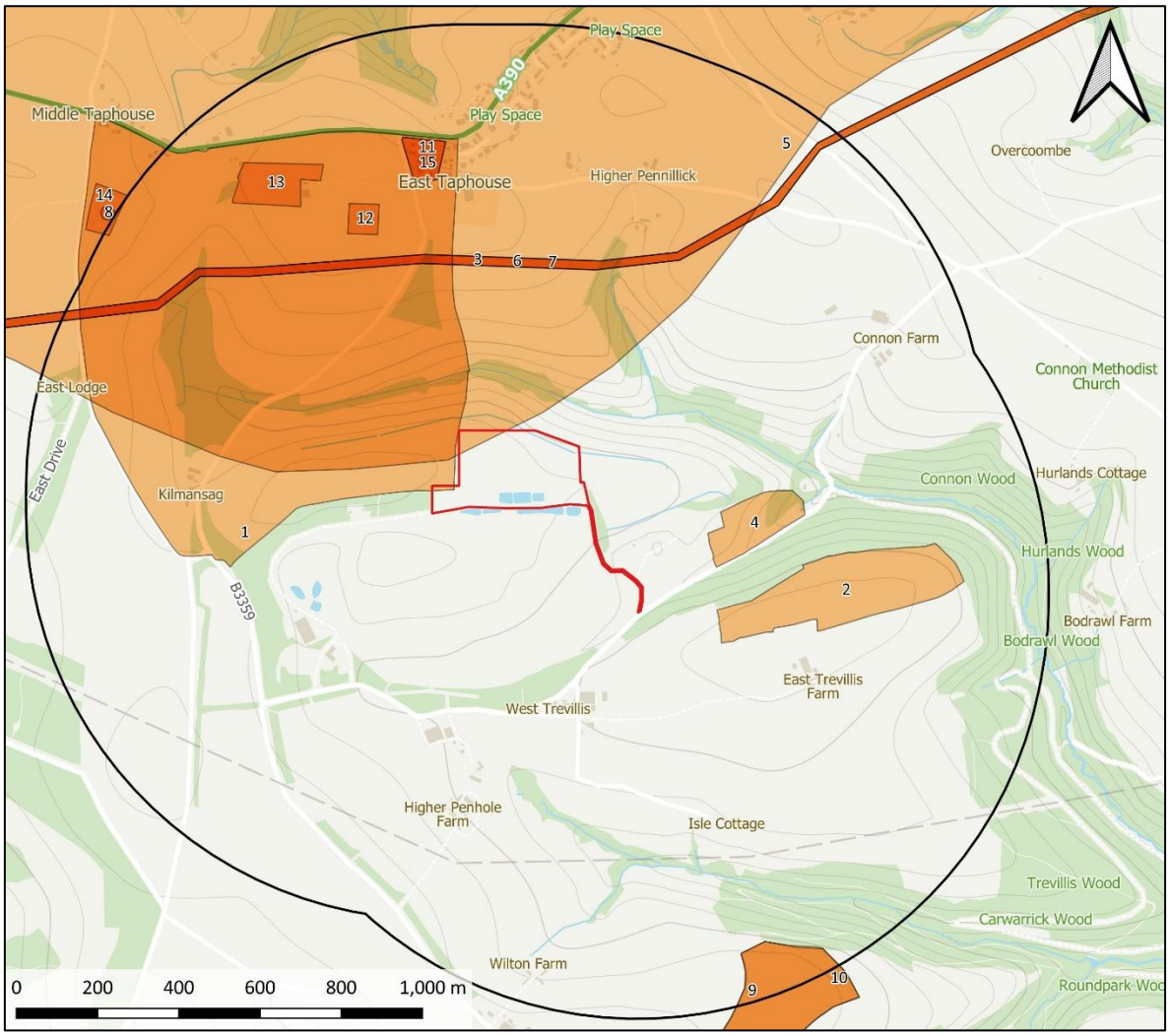

FIGURE 12:ARCHAEOLOGICAL INTERVENTIONS WITHIN 1KM OF THE PROPOSAL AREA RECORDED IN THE CORNWALL AND SCILLY HER (CSHER) CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2023.

TABLE 4: DETAILS OF ARCHAEOLOGICAL INTERVENTIONS (CSHER).

No	EvUID	EventTypes	Name
1	ECO105	Assessment	Braddock Down
2	ECO124	Assessment	East Trevillis Assessment
3	ECO173	Evaluation; Watching Brief	Liskeard to Maudlin Pipeline
4	ECO890	Assessment	Treworder, Connon Bridge and Clicker Tor
5	ECO1468	Assessment	A38 Liskeard to Bodmin Road Improvement
6	ECO1940	Assessment	Liskeard to Maudlin 450mm Pipeline
7	ECO2604	Geophysical Survey	Liskeard to Maudlin Pipeline
8	ECO3132	Management Works; Site Survey	Middle Taphouse Barrow
9	ECO4387	Assessment; Geophysical Survey; Walkover Survey	Land at Wilton Farm
10	ECO4388	Geophysical Survey	Wilton Farm, Herodsfoot, Cornwall
11	ECO4549	Evaluation	Land at East Taphouse
12	ECO4551	Geophysical Survey	Land at Middle Taphouse
13	ECO4551	Geophysical Survey	Land at Middle Taphouse
14	ECO4551	Geophysical Survey	Land at Middle Taphouse

15	ECO5798	Geophysical Survey	Land at East Taphouse

3.6 WALKOVER SURVEY

The walkover survey was conducted by Dr. Samuel Walls on the 4th May 2023. The site was accessed via public footpath from the south-west. Historic granite gate posts were observed lying on the floor by a modern dipwell just to the north of the gate, formerly a gate access from the public footpath to the south west.

The field is relatively level at its northern end, in use as pasture, and with some shelter belt trees along the north and north-west boundaries. The field falls away at the northern edge, the incline steeper nearer the boundary. Lots of molehills were observed, but no finds evident in the disturbed earth. The northern boundary was obscured by young trees and overgrowth.

The western boundary consists of a c.1.4m high earth bank, topped with very young growth. Lots of animal burrows were noted in the earth core of this bank. The eastern boundary is c.1.6m high, topped with gorse and hawthorn/blackthorn as well as lots of young growth. The boundary appears to be stone faced and has a very steep bank. Overhead cables were noted along this boundary.

Views were possible to the large barrow at West Taphouse, although these were restricted to glimpses through the trees and hedge growth. The southern section of the site was observed but not entered, as heavy plant machinery was present on the site. It would appear that the ponds seen on mapping have been recently landscaped/infilled. The archaeological potential of the area south of the footpath has been reduced to none by all the modern landscaping works.

3.7 ARCHAEOLOGICAL POTENTIAL & IMPACT SUMMARY

The site is characterized by the Cornwall and Scilly Historic Landscape Characterisation as Medieval farmland, however it seems likely the majority of this area was enclosed in the Post-Medieval period during the enclosure of the Braddock Downs common. The Bronze Age landscape around the site is of particularly significance, with a barrow cemetery and flint scatters west of the site as well as other Bronze Age assets documented on the CSHER across the broader area. There is potential for Romano-British remains possibly associated with a possible Roman road located to the north of the site in the approximate location of the A390. Nearby geophysical surveys and evaluation have demonstrated that magnetometry survey can be effective on the site. These surveys showed that barrows on the site ought to be identifiable in the geophysical record. Undated ditches and possible geological geophysical anomalies were located north and west of the site, which one could possibly associate with 19th century agricultural and plantation activity. The LiDAR data for the site shows the removed field boundaries that divided the site in the Tithe and later mapping but no evidence of any other features or deposits of an archaeological nature.

The walkover survey did not note any upstanding features or earthworks and no finds were noted in the areas of the site disturbed by moles. The south section of the site has been repeatedly landscaped over the last two decades and, while not accessed, it would appear that any archaeological deposits would have been severely truncated or entirely lost.

The direct *effect* of the development would be the possible disturbance or destruction of archaeological features or deposits present within the footprint of the development, particularly in the northern field; the *impact* of the development would depend on the presence and significance of archaeological features and deposits. Any disturbance or destruction would be permanent and irreversible.

The archaeological potential, and potential impact upon it, of the site alongside the sporadic nature of other archaeological/historical assets in the immediate landscape, is **medium** for the northern field and **low** for the southern field. It is unlikely that archaeological deposits or features exist on this site, however, this is unknown. For this reason the presumed impact/effect on any potential resource can be estimated as **slight** to **moderate**. Geophysical survey of the northern part of the site would serve to confirm the presence or absence of any archaeological remains on the site, and to mitigate for these appropriately, if required.

4.0 INDIRECT IMPACTS

4.1 STRUCTURE OF THE ASSESSMENT

For the purposes of this assessment, the *indirect effect* of a development is taken to be its effect on the wider historic environment. The principal focus of such an assessment falls upon identified designated heritage assets like Listed buildings or Scheduled Monuments. Depending on the nature of the heritage asset concerned, and the size, character and design of a development, its effect – and principally its visual effect – can impact on designated assets up to 20km away.

The methodology adopted in this document is based on that outlined in *The Setting of Heritage Assets* (GPA3 2nd edition, Historic England 2017), with reference to ICOMOS (2011) and National Highways (DMRB LA 104, 2020) guidance. Two assessments are provided. The first is arrived at by the objective application of DRMB Table 3.8.1 (i.e. environmental value and degree of change determines the significance of effect). The second applies a negligible/minor/moderate/major scale (derived from DRMB Table 3.4N, and which can be correlated with the NPPF substantial/less than substantial scale) based on the professional judgement of the author. The latter assessment is a more subjective one, but, as the term implies, applies the knowledge, skills, and experience of the author in a way that is informed by professional standards, laws, and ethical principles to provide a considered, fair, and impartial assessment as to the likely impact of the proposed development. Appendix 4 goes into greater depth regarding the methodology employed.

This report follows the staged approach to proportionate decision making outlined in *The Setting of Heritage Assets* (Historic England 2017, 6). *Step one* is to identify the designated heritage assets that might be affected by the development. The first stage of that process is to determine an appropriate search radius, and this would vary according to the height, size and/or prominence of the proposed development. For instance, the search radius for a wind turbine, as determined by its height and dynamic character, would be much larger than for a single house plot or small agricultural building. The second stage in the process is to look at the heritage assets within the search radius and assign to one of three categories:

- Category #1 assets: Where proximity to the proposed development, the significance of the heritage asset concerned, or the likely magnitude of impact, demands detailed consideration.
- Category #2 assets: Assets where location, current setting, significance would strongly indicate the impact would be no higher than negligible and detailed consideration both unnecessary and disproportionate. These assets are still listed in the impact summary table.

For *Step two* and *Step three*, and with an emphasis on practicality and proportionality (*Setting of Heritage Assets* p15 and p18), this assessment then groups and initially discusses heritage assets by category (e.g. churches, historic settlements, funerary remains etc.) to avoid repetitious narrative; each site is then discussed individually, and the particulars of each site teased out. The initial discussion establishes the baseline sensitivity of a given category of monument or building to the potential effect, the individual entry elaborates on local circumstance and site-specific factors. The individual assessments should be read in conjunction with the overall discussion, as the impact assessment is a reflection of both.

4.2 QUANTIFICATION

Designated assets within 1km of the site include 1 Grade II Listed Building, and 3 Scheduled bowl barrows or groups of barrows. The Registered Battlefield of Braddock Downs extends across an area of the landscape to the north-west of the site (see Figure 10, above).

Of these, the Registered Battlefield of Braddock Downs has no prominent landscape presence, although the landscape that represents it and has been altered; furthermore the B3359 provides a definable barrier between this asset and the expanding development of East Taphouse. This asset may be considered a Category #2 asset. Due to the effects of topography, screening and the limited surviving landscape presence of some of the other assets two of the scheduled monument groups have also been considered as category #2 assets. The bowl barrow 230m south west of Middle Taphouse Farm in contrast remains a prominent landscape feature and for this reason is the only designated heritage asset has been deemed as a Category #1 asset to require detailed consideration.

With an emphasis on practicality and proportionality (see *Setting of Heritage Assets* p15 and p18), only those assets where there is the possibility for an effect greater than negligible (see Table 4 in Appendix 2) are considered here in detail and in summary Table 5. All other Scheduled and Listed assets can be seen listed and mapped in section 3.1, although they have been scoped out of this assessment due to their neutral relationship to the proposed development.

- Category #1 assets: bowl barrow 230m south west of Middle Taphouse Farm
- Category #2 assets: the Registered Battlefield of Braddock Downs; Grade II Listed Milestone at SX1785463357; Round barrow 310yds (280m) S of Kilmansa; Bowl Barrow 780m east of Penventon; Three bowl barrows 215m south east of Beech Lawn, which form part of a larger round barrow cemetery. These have been discussed above and only further included in Table 3.

4.3 IMPACT BY CLASS OF MONUMENT OR STRUCTURE

4.3.1 PREHISTORIC RITUAL/FUNERARY MONUMENTS

Stone circles, stone rows, barrows and barrow cemeteries

These monuments undoubtedly played an important role in the social and religious life of past societies, and it is clear they were constructed in locations invested with considerable religious/ritual significance. In most instances, these locations were also visually prominent, or else referred to prominent visual actors, e.g. hilltops, tors, sea stacks, rivers, or other visually prominent monuments. The importance of inter-visibility between barrows, for instance, is a noted phenomenon. As such, these classes of monument are unusually sensitive to intrusive and/or disruptive modern elements within the landscape. This is based on the presumption these monuments were built in a largely open landscape with clear lines of sight; in many cases these monuments are now to be found within enclosed farmland, and in varying condition. Sensitivity to built structures and developments is lessened where tall hedgebanks restrict line-of-sight.

What is important and why

Prehistoric ritual sites preserve information on the spiritual beliefs of early peoples, and archaeological data relating to construction and use (evidential). The better examples may bear names and have folkloric aspects (historical/illustrative) and others have been discussed and illustrated in historical and antiquarian works since the medieval period (historical/associational). It is clear they would have possessed design value, although our ability to discern that value is limited; they often survive within landscape palimpsests and subject to the 'patina of age', so that fortuitous development is more appropriate. They almost certainly once possessed considerable communal value, but in the modern age their symbolic and spiritual significance is imagined or attributed rather than authentic. Nonetheless, the location of these sites in the historic landscape has a strong bearing on the overall contribution of setting to significance: those sites located in 'wild' or 'untouched' places – even if those qualities are relatively recent – have a stronger spiritual resonance and illustrative value than those located within enclosed farmland or forestry plantations.

The specific reasons for Designation of a bowl barrow monument according to the Scheduling text are as follows:

'*Bowl barrows, the most numerous form of round barrow, are funerary monuments dating from the Late Neolithic period to the Late Bronze Age, with most examples belonging to the period 2400-1500 BC. They were constructed as earthen or rubble mounds, sometimes ditched, which covered single or multiple burials. They occur either in isolation or grouped as cemeteries and often acted as a focus for burials in later periods. Often superficially similar, although differing widely in size, they exhibit regional variations in form and a diversity of burial practices. Often occupying prominent locations, they are a major historic element in the modern landscape and their considerable variation of form and longevity as a monument type provide important information on the diversity of beliefs and social organisations amongst early prehistoric communities. They are particularly representative of their period. Despite reduction in the heights of the mounds through, the three bowl barrows 215m south east of Beech Lawn, which form part of a larger round barrow cemetery, survive comparatively well and will contain archaeological and environmental evidence relating to their construction, relative chronology, territorial significance, social organisation, funerary and ritual practices and overall landscape context.*'

Asset: **Barrow S of Middle Taphouse**	
Parish: Braddock	*Distance to the site:* 1km
Designation: SAM	*Value:* High
*Description: "*The monument includes a bowl barrow, situated at the summit of a prominent branching ridge forming the watershed between the Fowey and West Looe Rivers and overlooking the valley of a tributary to the latter river. The barrow survives as a circular, flat-topped mound standing up to 41.5m in diameter and 3.5m high, with a possible berm around the exterior edge which is best preserved to the north. The surrounding quarry ditch, from which material to construct the mound was derived, is preserved as a buried feature. Other similar barrows which form part of this extensive cemetery are the subject of separate schedulings". Sources: HER:- PastScape Monument No:-432653	
Conservation Value: Evidential value will still be high, aesthetic value is high as it is the most prominent of the barrow group, and obvious in the landscape. No known communal value. High historical value due to its association with a Registered Civil War battlefield.	
Authenticity and Integrity: Very authentic as a barrow, clearly visible in the landscape; however, it stands in a small field/paddock, and is somewhat divorced from the wider group by modern farm buildings and boundaries. It appears in very good condition. There are no obvious signs of antiquarian excavation.	
Setting: Field used for arable/grass land farming; although presumably with some restrictions across the monument.	
Principal Views: The monument would have afforded broad views across all directions southward and would have had views along the ridge line, but predominantly the east of the ridge due to the ground continuing to rise to the west. Views to the north may have been limited by topography, but the tops of other barrows would have been visible in the past.	
Contribution of Setting to Significance of Asset: Very High. Its elevated position was key in its use as a memorial. The surviving rural landscape and steep valleys allowing for impressive views of this landscape allows us to imagine its original setting, and this is of great benefit to interpretation. The proposed development would not severely impinge on its setting.	
Magnitude of Effect: The proposed development would be visible from the monument, and in views across the monument and the barrow can be seen from the Site. Furthermore, meaningful views from the monument are not restricted - and will not be restricted or greatly altered by the proposed development. The proposed development will not sit within any of the important views between the monument of the wider barrow group.	
Magnitude of Impact: High value + Negligible change = Slight effect	
Overall Impact Assessment: **Negligible**	

4.3.2 HISTORIC LANDSCAPE

General Landscape Character

The landscape of the British Isles is highly variable, both in terms of topography and historical biology. Natural England has divided the British Isles into numerous 'character areas' based on topography, biodiversity, geodiversity and cultural and economic activity. The County Councils and AONBs have undertaken similar exercises, as well as Historic Landscape Characterisation.

Some character areas are better able to withstand the visual impact of development than others. Rolling countryside with wooded valleys and restricted views can withstand a larger number of sites than an open and largely flat landscape overlooked by higher ground. The English landscape is already populated by a large and diverse number of intrusive modern elements, e.g. electricity pylons, factories, modern housing estates, quarries, and turbines, but the question of cumulative impact must be considered. The aesthetics of individual developments is open to question, and site specific, but as intrusive new visual elements within the landscape, it can only be **negative** and landscape character is typically considered of **high** value.

The proposed site would be located within Cornwall's *South East Cornwall Plateau* Landscape Character Area (LCA), of Natural England's *Cornwall Killas* National Character Area (NCA). These are described as:

South East Cornwall Plateau: '*…forms an extensive sloping plateau intersected by river valleys. Inland it is an agricultural working open pastoral landscape with some arable areas becoming more small scale in landscape character towards the east. Tree cover is generally sparse, mainly associated with Cornish hedges and around farms and buildings. Along the coast the dramatic coastline features cliffs in the west and in the east around Rame Head and between these are the sandy beaches of Whitsand Bay. The area inland is generally sparsely populated with dispersed settlement and isolated farms. Liskeard is the major settlement lying to the north of the area. Elsewhere small villages are a feature particularly on the higher ground, and along the coast there are significant coastal settlements at Polperro and Downderry and the twin villages of Kingsand and Cawsand. Much of the south coast is associated with fortifications which are still evident today. There are important groups of Bronze Age barrows along the high ground to the north west of the LCA and near Pelynt and an unusual stone circle of quartz rich stones at Duloe. The area has a number of substantial Iron Age hillforts, including Bury Down, Lanreath, Hall Rings, Bake Rings and St Nun's Camp, near Pelynt, Blacketon Rings, Menheniot, and Padderbury, St Germans, Rame Head is a spectacular Iron Age cliff castle. Liskeard is a medieval urban settlement, with a castle site, and the prominent Rame Head chapel dates from the 14th Century and served as a lighthouse. Many of the coastal settlements were important medieval fishing ports. There are numerous defensive sites along the coasts, with a particularly prominent series of Victorian forts and batteries above Whitsand Bay to defend Plymouth (Polhawn, Whitsand Bay, Scraesdon, and Tregantle). Coastguard cottages at Cawsand overlook the sheltered anchorage; Polperro has an inner drying harbour protected by double piers with a narrow entrance. There are deer parks at Pinsla, Boconnoc and Mt Edgcumbe with designed landscapes at Mt. Edgcumbe, Grade l, Boconnoc, Grade ll*, and Catchfrench, Grade ll.*'

Cornwall Killas: '*forms the main body of the Cornish landmass around the igneous outcrops of Bodmin Moor, Hensbarrow, Carnmenellis, West Penwith and The Lizard NCAs. The open character of the landscape and the general lack of tree cover mean that long views are afforded across Cornwall to neighbouring NCAs and out to sea. A network of minor streams and rivers form physical links with adjacent landscapes, including the rivers Fowey, Camel, Tiddy, Inny and Lynher (draining from Bodmin Moor); the rivers Hayle and Cober (draining from Carnmenellis); the rivers Par and Fal (draining from Hensbarrow); and minor streams draining from West Penwith. The north and south Killas coasts provide continuous visual and physical links along the length of the Cornish peninsula, through the dramatic coastline and its associated impressive geology. On the eastern side of the NCA, the River Tamar, which rises only 6 km from the north Cornwall coast in The Culm NCA, separates the counties of Devon and Cornwall, with the Tamar Valley landscape linking the two NCAs of the Cornish Killas and South Devon. On the northern boundary of the NCA, the landscape abuts the south-western edge of The Culm, which lies in north Cornwall as far south as Boscastle. The NCA has many features in common with the area of west Devon, immediately east of the river. St Michael's Mount. All of the main transport links (the A30, A38 and A39 roads and the mainline*

railway) between Cornwall and the rest of the country in part run through the Cornish Killas NCA, with the main railway line skirting the moorland areas as it winds its way to Penzance.'

The proposed development falls within the remit of the agricultural landscape of the LCA and NCA, changing the land use to energy generation. The land to the south of the site has already been taken out of agricultural production and is used as a landfill site. The impact of the proposed development is assessed as **negligible** and **slight**, being arguably **negligible/adverse** for the immediate landscape, but **minor/beneficial** in its provision of renewable energy. Suitable and sufficient screening already exits and should be maintained and supplemented to reduce any adverse impact of the proposed development.

4.3.3 AGGREGATE IMPACT

The aggregate impact of a proposed development is an assessment of the overall effect of a single development on multiple heritage assets. This differs from cumulative impact (below), which is an assessment of multiple developments on a single heritage asset. Aggregate impact is particularly difficult to quantify, as the threshold of acceptability will vary according to the type, quality, number and location of heritage assets, and the individual impact assessments themselves.

Based on the restricted number of assets where any appreciable effect is likely, the aggregate impact of this development is **negligible**.

4.3.4 CUMULATIVE IMPACT

Cumulative impacts affecting the setting of a heritage asset can derive from the combination of different environmental impacts (such as visual intrusion, noise, dust and vibration) arising from a single development or from the overall effect of a series of discrete developments. In the latter case, the cumulative visual impact may be the result of different developments within a single view, the effect of developments seen when looking in different directions from a single viewpoint, of the sequential viewing of several developments when moving through the setting of one or more heritage assets.
The Setting of Heritage Assets 2011a, 25

*The key for all cumulative impact assessments is to focus on the **likely significant** effects and in particular those likely to influence decision-making.*
GLVIA 2013, 123

An assessment of cumulative impact is, however, very difficult to gauge, as it must take into account existing, consented and proposed developments. The threshold of acceptability has not, however, been established, and landscape capacity would inevitability vary according to landscape character. A number of relatively small developments have been consented within the area surrounding the site, with more considerable development to the south encompassing the landfill site and its subsequent restoration. With this in mind, an assessment of **minor** is appropriate.

TABLE 5: SUMMARY OF INDIRECT IMPACTS ON NEARBY BY DESIGNATED ASSETS AND LANDSCAPE CHARACTER.

Asset	Type	Distance	Value	Magnitude of Impact	Assessment	Overall Assessment
Indirect Impacts						
Three bowl barrows 215m south east of Beech Lawn, which form part of a larger round barrow cemetery	SM	565m	High	Negligible/ Adverse	Slight	Negligible
Bowl barrow 230m south west of Middle Taphouse Farm, forming part of a round barrow cemetery	SM	1km	High	Negligible/ Adverse	Slight	Negligible
Bowl barrow 780m east of Penventon	SM	615m	High	Neutral	None	Neutral
Braddock Downs Registered Battlefield	RB	330m	High	Negligible/ Adverse	Slight	Negligible
Landscape Character						
Historic Landscape	n/a	n/a	n/a	n/a	n/a	Negligible
Aggregate Impact	n/a	n/a	n/a	n/a	n/a	Negligible
Cumulative Impact	n/a	n/a	n/a	n/a	n/a	Minor

5.0 CONCLUSION

The survey area is located *c.*500 south of East Taphouse, *c*6km south-west of Liskeard and *c.*11km south-east of Bodmin, to the south of Braddock Down and immediately north of the recycling and landfill site. The site sits at the head of a river valley of a tributary of the West Looe River.

The site is located at the western edge of the parish of St Pinnock, in the historic hundred and deanery of West. Settlement is not recorded at Middle Taphouse (from the Cornish meaning 'house at the top or summit') until 1532, East Taphouse being recorded on historic mapping from the late 17th century (Buck 1996).

The proposal site lies within an area recorded on the Historic Landscape Characterisation (HLC) as *Farmland: Medieval.* The archaeological potential of the site is unknown but may be **medium** for the northern field and **low** for the southern field due to extensive evidence of ground disturbance. For this reason the presumed impact/effect on any potential archaeological resource can be estimated as **slight** to **moderate**.

Designated assets within 1km of the site include 1 Grade II Listed Building, and 3 Scheduled bowl barrows or groups of barrows. The Registered Battlefield of Braddock Downs extends across the landscape to the north-west of the site.

The overall impact of the proposed development can be assessed as **negligible**. The impact of the development on any buried archaeological resource may be **permanent** and **irreversible** but can be appropriately assessed and mitigated following the completion of a geophysical survey of the northern part of the Site.

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APPENDIX 1: SUPPORTING PHOTOGRAPHS

1. GATE PIER AND DIP WELL BY WEST GATE OF PUBLIC FOOTPATH, FROM THE SOUTH (1M SCALE).

2. GATE INTO NORTHERN PART OF SITE, AND PUBLIC FOOTPATH/TRACK, FROM THE WEST-SOUTH-WEST.

3. NORTHERN PART OF THE SITE, FROM THE WEST.

4. NORTHERN PART OF THE SITE, FROM THE MIDDLE OF THE SITE, FROM THE WEST.

5. NORTHERN PART OF THE SITE, FROM THE EAST.

6. NORTHERN PART OF THE SITE, FROM THE SOUTH-EAST CORNER, SHOWING SCREENING TO MIDDLE TAPHOUSE.

7. SOUTHERN PART OF THE SITE VIEWED FROM THE FOOTPATH, FROM THE NORTH (1M SCALE).

APPENDIX 2: IMPACT ASSESSMENT METHODOLOGY

Heritage Impact Assessment - Overview

The purpose of heritage impact assessment is twofold: Firstly, to understand – insofar as is reasonable practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area or archaeological monument (the 'heritage asset'). Secondly, to assess the likely effect of a proposed development on the heritage asset (direct impact) and its setting (indirect impact). This methodology employed in this assessment is based on the staged approach advocated in *The Setting of Heritage Assets 2ND Edition* (GPA3 Historic England 2017), used in conjunction with the ICOMOS (2011) and DoT (DMRB LA 104 2020) guidance. This Appendix contains details of the methodology used in this report.

National Policy

General policy and guidance for the conservation of the historic environment are now contained within the *National Planning Policy Framework* (Department for Communities and Local Government 2012 revised 2021). The relevant guidance is reproduced below:

Paragraph 194

In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including the contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 195

Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

A further key document is the Planning (Listed Buildings and Conservation Areas) Act 1990, in particular section 66(1), which provides *statutory protection* to the setting of Listed buildings:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

Cultural Value – Designated Heritage Assets

The majority of the most important ('nationally important') heritage assets are protected through *designation*, with varying levels of statutory protection. These assets fall into one of six categories, although designations often overlap, so a Listed early medieval cross may also be Scheduled, lie within the curtilage of Listed church, inside a Conservation Area, and on the edge of a Registered Park and Garden that falls within a world Heritage Site.

Listed Buildings

A Listed building is an occupied dwelling or standing structure which is of special architectural or historical interest. These structures are found on the *Statutory List of Buildings of Special Architectural or Historic Interest.* The status of Listed buildings is applied to 300,000-400,000 buildings across the United Kingdom. Recognition of the need to protect historic buildings began after the Second World War, where significant numbers of buildings had been damaged in the county towns and capitals of the United Kingdom. Buildings that were considered to be of 'architectural merit' were included. The Inspectorate of Ancient Monuments supervised the collation of the list, drawn up by members of two societies: The Royal Institute of British Architects and the Society for the Protection of Ancient Buildings. Initially the lists were only used to assess which buildings should receive government grants to be repaired and conserved if damaged by bombing. The *Town and Country Planning Act 1947* formalised the process within England and Wales, Scotland and Ireland following different procedures. Under the 1979 *Ancient Monuments and Archaeological Areas Act* a structure cannot be considered a Scheduled Monument if it is occupied as a dwelling,

making a clear distinction in the treatment of the two forms of heritage asset. Any alterations or works intended to a Listed Building must first acquire Listed Building Consent, as well as planning permission. Further phases of 'listing' were rolled out in the 1960s, 1980s and 2000s; English Heritage advise on the listing process and administer the procedure, in England, as with the Scheduled Monuments.

Some exemption is given to buildings used for worship where institutions or religious organisations (such as the Church of England) have their own permissions and regulatory procedures. Some structures, such as bridges, monuments, military structures and some ancient structures may also be Scheduled as well as Listed. War memorials, milestones and other structures are included in the list, and more modern structures are increasingly being included for their architectural or social value.

Buildings are split into various levels of significance: Grade I (2.5% of the total) representing buildings of exceptional (international) interest; Grade II* (5.5% of the total) representing buildings of particular (national) importance; Grade II (92%) buildings are of merit and are by far the most widespread. Inevitably, accuracy of the Listing for individual structures varies, particularly for Grade II structures; for instance, it is not always clear why some 19th century farmhouses are Listed while others are not, and differences may only reflect local government boundaries, policies and individuals.

Other buildings that fall within the curtilage of a Listed building are afforded some protection as they form part of the essential setting of the designated structure, e.g. a farmyard of barns, complexes of historic industrial buildings, service buildings to stately homes etc. These can be described as having *group value*.

Conservation Areas
Local authorities are obliged to identify and delineate areas of special architectural or historic interest as Conservation Areas, which introduces additional controls and protection over change within those places. Usually, but not exclusively, they relate to historic settlements, and there are c.7000 Conservation Areas in England.

Scheduled Monuments
In the United Kingdom, a Scheduled Monument is considered an historic building, structure (ruin) or archaeological site of **'national importance'**. Various pieces of legislation, under planning, conservation, etc., are used for legally protecting heritage assets given this title from damage and destruction; such legislation is grouped together under the term 'designation', that is, having statutory protection under the *Ancient Monuments and Archaeological Areas Act 1979*. A heritage asset is a part of the historic environment that is valued because of its historic, archaeological, architectural or artistic interest; those of national importance have extra legal protection through designation. Important sites have been recognised as requiring protection since the late 19th century, when the first 'schedule' or list of monuments was compiled in 1882. The conservation and preservation of these monuments was given statutory priority over other land uses under this first schedule. County Lists of the monuments are kept and updated by the Department for Culture, Media and Sport. In the later 20th century sites are identified by English Heritage (one of the Government's advisory bodies) of being of national importance and included in the schedule. Under the current statutory protection any works required on or to a designated monument can only be undertaken with a successful application for Scheduled Monument Consent.

Registered Parks and Gardens
Culturally and historically important 'man-made' or 'designed' landscapes, such as parks and gardens are currently "listed" on a non-statutory basis, included on the 'Register of Historic Parks and Gardens of special historic interest in England' which was established in 1983 and is, like Listed Buildings and Scheduled Monuments, administered by Historic England. Sites included on this register are of **national**, many associated with stately homes of Grade II* or Grade I status. Emphasis is laid on 'designed' landscapes, not the value of botanical planting. Sites can include town squares and private gardens, city parks, cemeteries and gardens around institutions such as hospitals and government buildings. Planned elements and changing fashions in landscaping and forms are a main focus of the assessment.

Registered Battlefields
Battles are dramatic and often pivotal events in the history of any people or nation. Since 1995 Historic England maintains a register of 46 battlefields in order to afford them a measure of protection through the planning system. The key requirements for registration are battles of national significance, a securely identified location, and its topographical integrity – the ability to 'read' the battle on the ground.

World Heritage Sites
Arising from the UNESCO World Heritage Convention in 1972, Article 1 of the Operational Guidelines (2015, no.49) states: 'Outstanding Universal Value means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity'. These sites are recognised at an international level for their intrinsic importance to the story of humanity, and should be accorded the highest level of protection within the planning system.

Value and Importance
While every heritage asset, designated or otherwise, has some intrinsic merit, the act of designation creates a hierarchy of importance that is reflected by the weight afforded to their preservation and enhancement within the planning system. The system is far from perfect, impaired by an imperfect understanding of individual heritage assets, but the value system that has evolved does provide a useful guide to the *relative* importance of heritage assets. Provision is also made for heritage assets where value is not recognised through designation (e.g. undesignated 'monuments of Schedulable quality and importance' should be regarded as being of *high* value); equally, there are designated monuments and structures of *low* relative merit.

TABLE 6: THE HIERARCHY OF VALUE/IMPORTANCE (BASED ON THE DMRB LA104 2020 TABLE 3.2N).

Value (sensitivity) of receptor / resource	Typical description
Very High	Very high importance and rarity, international scale and very limited potential for substitution
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution
Low	Low or medium importance and rarity, local scale
Negligible	Very low importance and rarity, local scale.

Concepts – Conservation Principles
In making an assessment, this document adopts the conservation values (*evidential*, *historical*, *aesthetic* and *communal*) laid out in *Conservation Principles* (English Heritage 2008), and the concepts of *authenticity* and *integrity* as laid out in the guidance on assessing World Heritage Sites (ICOMOS 2011). This is in order to determine the relative importance of *setting* to the significance of a given heritage asset.

Evidential Value
Evidential value (or research potential) is derived from the potential of a structure or site to provide physical evidence about past human activity, and may not be readily recognised or even visible. This is the primary form of data for periods without adequate written documentation. This is the least equivocal value: evidential value is absolute; all other ascribed values (see below) are subjective. However,

Historical Value
Historical value (narrative) is derived from the ways in which past people, events and aspects of life can be connected via a place to the present; it can be *illustrative* or *associative*.

Illustrative value is the visible expression of evidential value; it has the power to aid interpretation of the past through making connections with, and providing insights into, past communities and their activities through a shared experience of place. Illustrative value tends to be greater if a place features the first or only surviving example of a particular innovation of design or technology.

Associative value arises from a connection to a notable person, family, event or historical movement. It can intensify understanding by linking the historical past to the physical present, always assuming the place bears any resemblance to its appearance at the time. Associational value can also be derived from known or suspected links with other monuments (e.g. barrow cemeteries, church towers) or cultural affiliations (e.g. Methodism).

Buildings and landscapes can also be associated with literature, art, music or film, and this association can inform and guide responses to those places.

Historical value depends on sound identification and the direct experience of physical remains or landscapes. Authenticity can be strengthened by change, being a living building or landscape, and historical values are harmed only where adaptation obliterates or conceals them. The appropriate use of a place – e.g. a working mill, or a church

for worship – illustrates the relationship between design and function and may make a major contribution to historical value. Conversely, cessation of that activity – e.g. conversion of farm buildings to holiday homes – may essentially destroy it.

Aesthetic Value

Aesthetic value (emotion) is derived from the way in which people draw sensory and intellectual stimulation from a place or landscape. Value can be the result of *conscious design*, or the *fortuitous outcome* of landscape evolution; many places combine both aspects, often enhanced by the passage of time.

Design value relates primarily to the aesthetic qualities generated by the conscious design of a building, structure or landscape; it incorporates composition, materials, philosophy and the role of patronage. It may have associational value, if undertaken by a known architect or landscape gardener, and its importance is enhanced if it is seen as innovative, influential or a good surviving example. Landscape parks, country houses and model farms all have design value. The landscape is not static, and a designed feature can develop and mature, resulting in the 'patina of age'.

Some aesthetic value developed *fortuitously* over time as the result of a succession of responses within a particular cultural framework e.g. the seemingly organic form of an urban or rural landscape or the relationship of vernacular buildings and their materials to the landscape. Aesthetic values are where a proposed development usually has their most pronounced impact: the indirect effects of most developments are predominantly visual or aural, and can extent many kilometres from the site itself. In many instances the impact of a development is incongruous, but that is itself an aesthetic response, conditioned by prevailing cultural attitudes to what the historic landscape should look like.

Communal Value

Communal value (togetherness) is derived from the meaning a place holds for people, and may be closely bound up with historical/associative and aesthetic values; it can be *commemorative, symbolic*, *social* or *spiritual*.

Commemorative and symbolic value reflects the meanings of a place to those who draw part of their identity from it, or who have emotional links to it e.g. war memorials. Some buildings or places (e.g. the Palace of Westminster) can symbolise wider values. Other places (e.g. Porton Down Chemical Testing Facility) have negative or uncomfortable associations that nonetheless have meaning and significance to some and should not be forgotten. *Social value* need not have any relationship to surviving fabric, as it is the continuity of function that is important. *Spiritual value* is attached to places and can arise from the beliefs of a particular religion or past or contemporary perceptions of the spirit of place. Spiritual value can be ascribed to places sanctified by hundreds of years of veneration or worship, or wild places with few signs of modern life. Value is dependent on the perceived survival of historic fabric or character, and can be very sensitive to change. The key aspect of communal value is that it brings specific groups of people together in a meaningful way.

Authenticity

Authenticity, as defined by UNESCO (2015, no.80), is the ability of a property to convey the attributes of the outstanding universal value of the property. 'The ability to understand the value attributed to the heritage depends on the degree to which information sources about this value may be understood as credible or truthful'. Outside of a World Heritage Site, authenticity may usefully be employed to convey the sense a place or structure is a truthful representation of the thing it purports to portray. Converted farm buildings, for instance, survive in good condition, but are drained of the authenticity of a working farm environment.

Integrity

Integrity, as defined by UNESCO (2015, no.88), is the measure of wholeness or intactness of the cultural heritage ad its attributes. Outside of a World Heritage Site, integrity can be taken to represent the survival and condition of a structure, monument or landscape. The intrinsic value of those examples that survive in good condition is undoubtedly greater than those where survival is partial, and condition poor.

Summary

As indicated, individual developments have a minimal or tangential effect on most of the heritage values outlined above, largely because almost all effects are indirect. The principle values in contention are aesthetic/designed and, to a lesser degree aesthetic/fortuitous. There are also clear implications for other value elements (particularly historical and associational, communal and spiritual), where views or sensory experience is important. As ever,

however, the key element here is not the intrinsic value of the heritage asset, nor the impact on setting, but the relative contribution of setting to the value of the asset.

Setting – The Setting of Heritage Assets

The principle guidance on this topic is contained within two publications: *The Setting of Heritage Assets* (Historic England 2017) and *Seeing History in the View* (English Heritage 2011). While interlinked and complementary, it is useful to consider heritage assets in terms of their *setting* i.e. their immediate landscape context and the environment within which they are seen and experienced, and their *views* i.e. designed or fortuitous vistas experienced by the visitor when at the heritage asset itself, or those that include the heritage asset. This corresponds to the experience of its wider landscape setting.

Where the impact of a proposed development is largely indirect, *setting* is the primary consideration of any HIA. It is a somewhat nebulous and subjective assessment of what does, should, could or did constitute the lived experience of a monument or structure. The following extracts are from the Historic England publication *The Setting of Heritage Assets* (2017):

The NPPF makes it clear that the setting of a heritage asset is the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve.

Setting is not itself a heritage asset, nor a heritage designation, although land comprising a setting may itself be designated (see below Designed settings). Its importance lies in what it contributes to the significance of the heritage asset or to the ability to appreciate that significance.

While setting can be mapped in the context of an individual application or proposal, it cannot be definitively and permanently described for all time as a spatially bounded area or as lying within a set distance of a heritage asset. This is because the surroundings of a heritage asset will change over time, and because new information on heritage assets may alter what might previously have been understood to comprise their setting and the values placed on that setting and therefore the significance of the heritage asset.

The HIA below sets out to determine the magnitude of the effect and the sensitivity of the heritage asset to that effect. The fundamental issue is that proximity and visual and/or aural relationships may affect the experience of a heritage asset, but if setting is tangential to the significance of that monument or structure, then the impact assessment will reflect this. This is explored in more detail below.

Landscape Context

The determination of *landscape context* is an important part of the assessment process. This is the physical space within which any given heritage asset is perceived and experienced. The experience of this physical space is related to the scale of the landform, and modified by cultural and biological factors like field boundaries, settlements, trees and woodland. Together, these determine the character and extent of the setting.

Landscape context is based on topography, and can vary in scale from the very small – e.g. a narrow valley where views and vistas are restricted – to the very large – e.g. wide valleys or extensive upland moors with 360° views. Where very large landforms are concerned, a distinction can be drawn between the immediate context of an asset (this can be limited to a few hundred metres or less, where cultural and biological factors impede visibility and/or experience), and the wider context (i.e. the wider landscape within which the asset sits).

When new developments are introduced into a landscape, proximity alone is not a guide to magnitude of effect. Dependant on the nature and sensitivity of the heritage asset, the magnitude of effect is potentially much greater where the proposed development is to be located within the landscape context of a given heritage asset. Likewise, where the proposed development would be located outside the landscape context of a given heritage asset, the magnitude of effect would usually be lower. Each case is judged on its individual merits, and in some instances the significance of an asset is actually greater outside of its immediate landscape context, for example, where church towers function as landmarks in the wider landscape.

Views

Historic and significant views are the associated and complementary element to setting, but can be considered separately as developments may appear in a designed view without necessarily falling within the setting of a heritage asset *per se*. As such, significant views fall within the aesthetic value of a heritage asset, and may be *designed* (i.e. deliberately conceived and arranged, such as within parkland or an urban environment) or *fortuitous* (i.e. the graduated development of a landscape 'naturally' brings forth something considered aesthetically pleasing, or at least impressive, as with particular rural landscapes or seascapes), or a combination of both (i.e. the *patina of age*, see below). The following extract is from the English Heritage publication *Seeing History in the View* (2011, 3):

Views play an important part in shaping our appreciation and understanding of England's historic environment, whether in towns or cities or in the countryside. Some of those views were deliberately designed to be seen as a unity. Much more commonly, a significant view is a historical composite, the cumulative result of a long process of development.

The Setting of Heritage Assets (2017, 11) lists a number of instances where views contribute to the particular significance of a heritage asset:

- Views where relationships between the asset and other historic assets or places or natural features are particularly relevant;
- Views with historical associations, including viewing points and the topography of battlefields;
- Views where the composition within the view was a fundamental aspect of the design or function of the heritage asset;
- Views between heritage assets and natural or topographic features, or phenomena such as solar and lunar events;
- Views between heritage assets which were intended to be seen from one another for aesthetic, functional, ceremonial or religious reasons, such as military or defensive sites, telegraphs or beacons, Prehistoric funerary and ceremonial sites.

On a landscape scale, views, taken in the broadest sense, are possible from anywhere to anything, and each may be accorded an aesthetic value according to subjective taste. Given that terrain, the biological and built environment, and public access restrict our theoretical ability to see anything from anywhere, in this assessment the term *principal view* is employed to denote both the deliberate views created within designed landscapes, and those fortuitous views that may be considered of aesthetic value and worth preserving. It should be noted, however, that there are distance thresholds beyond which perception and recognition fail, and this is directly related to the scale, height, massing and nature of the heritage asset in question. For instance, beyond 2km the Grade II cottage comprises a single indistinct component within the wider historic landscape, whereas at 5km or even 10km a large stately home or castle may still be recognisable. By extension, where assets cannot be seen or recognised i.e. entirely concealed within woodland, or too distant to be distinguished, then visual harm to setting is moot. To reflect this emphasis on recognition, the term *landmark asset* is employed to denote those sites where the structure (e.g. church tower), remains (e.g. earthwork ramparts) or – in some instances – the physical character of the immediate landscape (e.g. a distinctive landform like a tall domed hill) make them visible on a landscape scale. In some cases, these landmark assets may exert landscape *primacy*, where they are the tallest or most obvious man-made structure within line-of-sight. However, this is not always the case, typically where there are numerous similar monuments (multiple engine houses in mining areas, for instance) or where modern developments have overtaken the heritage asset in height and/or massing.

Yet visibility alone is not a clear guide to visual impact. People perceive size, shape and distance using many cues, so context is critically important. For instance, research on electricity pylons (Hull & Bishop 1988) has indicated scenic impact is influenced by landscape complexity: the visual impact of pylons is less pronounced within complex scenes, especially at longer distances, presumably because they are less of a focal point and the attention of the observer is diverted. There are many qualifiers that serve to increase or decrease the visual impact of a proposed development (see Table 6), some of which are seasonal or weather-related.

Thus the principal consideration of assessment of indirect effects cannot be visual impact *per se*. It is an assessment of the likely magnitude of effect, the importance of setting to the significance of the heritage asset, and the sensitivity of that setting to the visual or aural intrusion of the proposed development. The schema used to guide assessments is shown in Table 6 (below).

Type and Scale of Impact

The effect of a proposed development on a heritage asset can be direct (i.e. the designated structure itself is being modified or demolished, the archaeological monument will be built over), or indirect (e.g. a housing estate built in the fields next to a Listed farmhouse, and wind turbine erected near a hillfort etc.); in the latter instance the principal effect is on the setting of the heritage asset. A distinction can be made between construction and operational phase effects. Individual developments can affect multiple heritage assets (aggregate impact), and contribute to overall change within the historic environment (cumulative impact).

Construction phase: construction works have direct, physical effects on the buried archaeology of a site, and a pronounced but indirect effect on neighbouring properties. Direct effects may extend beyond the nominal footprint of a site e.g. where related works or site compounds are located off-site. Indirect effects are both visual and aural, and may also affect air quality, water flow and traffic in the local area.

Operational phase: the operational phase of a development is either temporary (e.g. wind turbine or mobile phone mast) or effectively permanent (housing development or road scheme). The effects at this stage are largely indirect, and can be partly mitigated over time through provision of screening. Large development would have an effect on historic landscape character, as they transform areas from one character type (e.g. agricultural farmland) into another (e.g. suburban).

Cumulative Impact: a single development will have a physical and a visual impact, but a second and a third site in the same area will have a synergistic and cumulative impact above and beyond that of a single site. The cumulative impact of a proposed development is particularly difficult to estimate, given the assessment must take into consideration operational, consented and proposals in planning.

Aggregate Impact: a single development will usually affect multiple individual heritage assets. In this assessment, the term aggregate impact is used to distinguish this from cumulative impact. In essence, this is the impact on the designated parts of the historic environment as a whole.

Scale of Impact

The effect of development and associated infrastructure on the historic environment can include positive as well as negative outcomes. However, all development changes the character of a local environment, and alters the character of a building, or the setting within which it is experienced. change is invariably viewed as negative, particularly within respect to larger developments; thus while there can be beneficial outcomes (e.g. positive/moderate), there is a presumption here that, as large and inescapably modern intrusive visual actors in the historic landscape, the impact of a development will almost always be **neutral** (i.e. no impact) or **negative** i.e. it will have a **detrimental impact** on the setting of ancient monuments and protected historic buildings. This assessment incorporates the systematic approach outlined in the ICOMOS and DoT guidance (see Tables 5-7), used to complement and support the more narrative but subjective approach advocated by Historic England (see Table 8). This provides a useful balance between rigid logic and nebulous subjectivity (e.g. the significance of effect on a Grade II Listed building can never be greater than moderate/large; an impact of negative/substantial is almost never achieved). This is in adherence with GPA3 (2017, 7).

TABLE 7: MAGNITUDE OF IMPACT (BASED ON DMRB LA 104 2020 TABLE 3.4N).

Magnitude of impact (change)		Typical description
Major	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.
Moderate	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.
Minor	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.

	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring.
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.
No change		No loss or alteration of characteristics, features or elements; no observable impact in either direction.

TABLE 8: SIGNIFICANCE OF EFFECTS MATRIX (BASED ON DRMB LA 104; ICOMOS 2011, 9-10).

		Magnitude of Impact (degree of change)				
		No Change	Negligible	Minor	Moderate	Major
Environmental Value (Sensitivity)	Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
	High	Neutral	Slight	Moderate or Slight	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

TABLE 9: SCALE OF IMPACT.

Scale of Impact	
Neutral	No impact on the heritage asset.
Negligible	Where the developments may be visible or audible, but would not affect the heritage asset or its setting, due to the nature of the asset, distance, topography, or local blocking.
Negative/minor	Where the development would have an effect on the heritage asset or its setting, but that effect is restricted due to the nature of the asset, distance, or screening from other buildings or vegetation.
Negative/moderate	Where the development would have a pronounced impact on the heritage asset or its setting, due to the sensitivity of the asset and/or proximity. The effect may be ameliorated by screening or mitigation.
Negative/substantial	Where the development would have a severe and unavoidable effect on the heritage asset or its setting, due to the particular sensitivity of the asset and/or close physical proximity. Screening or mitigation could not ameliorate the effect of the development in these instances.

TABLE 10: IMPORTANCE OF SETTING TO INTRINSIC SIGNIFICANCE.

Importance of Setting to the Significance of the Asset	
Paramount	Examples: Round barrow; follies, eye-catchers, stone circles
Integral	Examples: Hillfort; country houses
Important	Examples: Prominent church towers; war memorials
Incidental	Examples: Thatched cottages
Irrelevant	Examples: Milestones

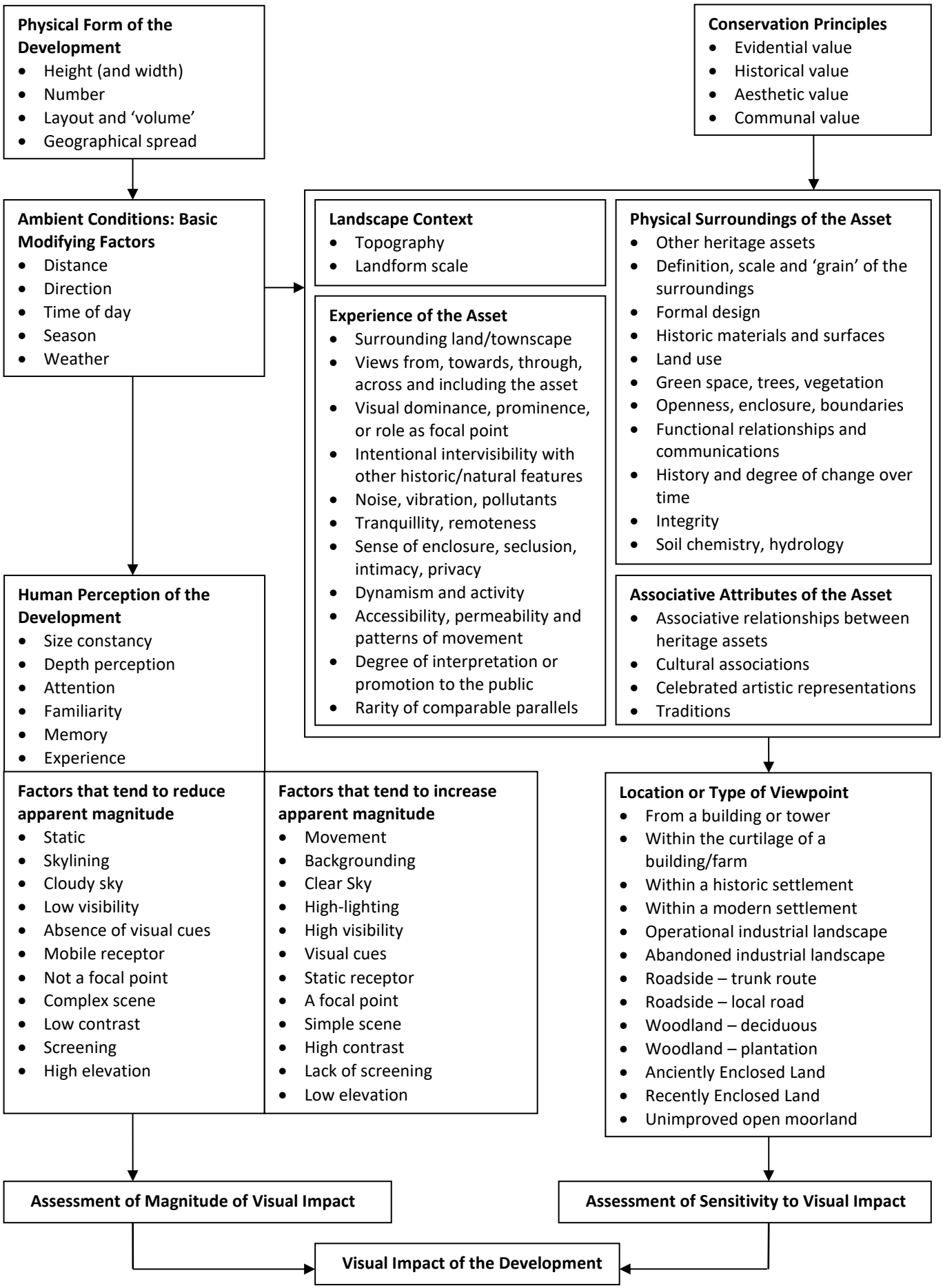

TABLE 11: THE CONCEPTUAL MODEL FOR VISUAL IMPACT ASSESSMENT PROPOSED BY THE UNIVERSITY OF NEWCASTLE (2002, 63), MODIFIED TO INCLUDE ELEMENTS OF *ASSESSMENT STEP 2* FROM THE SETTING OF HERITAGE ASSETS (HISTORIC ENGLAND 2015, 9).

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