



Bedford River Valley Park, Bedford

Historic Environment Desk-Based Assessment



Report prepared for: Woods Hardwick Planning Ltd

CA Project: MK0431

CA Report: MK0431_1

March 2021



Bedford River Valley Park, Bedford

Historic Environment Desk-Based Assessment

CA Project: MK0431

CA Report: MK0431_1

prepared by	Sophie Bell, Assistant Heritage Consultant
date	March 2021
checked by	Adrian Scruby, Senior Heritage Consultant
date	March 2021
approved by	Julia Sulikowska, Senior Heritage Consultant
signed	
date	March 2021
issue	1

This report is confidential to the client. Cotswold Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.

Cirencester	Milton Keynes	Andover	Exeter	Suffolk
Building 11	Unit 8 – The IO Centre	Stanley House	Unit 1 – Clyst Units	Unit 5, Plot 11
Kemble Enterprise Park	Fingle Drive	Walworth Road	Cofton Road	Maitland Road
Cirencester	Stonebridge	Andover	Marsh Barton	Lion Barn Industrial
Gloucestershire	Milton Keynes	Hampshire	Exeter	Estate
GL7 6BQ	Buckinghamshire	SP10 5LH	EX2 8QW	Needham Market
	MK13 0AT			Suffolk IP6 8NZ
t. 01285 771022	t. 01908 564660	t. 01264 347630	t. 01392 573970	t. 01449 900120
f. 01285 771033				
e. enquiries@cotswoldarchaeology.co.uk				

CONTENTS

1.	INTRODUCTION	6
2.	METHODOLOGY	10
3.	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	18
4.	ARCHAEOLOGICAL SIGNIFICANCE & POTENTIAL EFFECTS	32
5.	THE SETTING OF HERITAGE ASSETS	37
6.	CONCLUSIONS	49
7.	REFERENCES	51

ILLUSTRATIONS

Fig. 1	Site Location Plan
Fig. 2	Designated Heritage Assets
Fig. 3	Archaeological Works on Site
Fig. 4	HER: Palaeolithic and Mesolithic
Fig. 5	HER: Neolithic, Bronze Age, Iron Age and Roman
Fig. 6	HER: Anglo Saxon and Medieval
Fig. 7	HER: Post-medieval and Modern
Fig. 8	LiDAR
Fig. 9	Areas of known ground disturbance and landfill
Fig. 10	Immediate Setting of Grade II Listed Octagon Farmhouse
Fig. 11	Wider Setting of Grade II Listed Octagon Farmhouse
Fig. 12	1884-1885 OS Map, 1:10,560
Fig. 13	1901-1902 OS Map, 1:10,560
Fig. 14	1938 OS Map, 1:10,560
Fig. 15	1960 OS Map, 1:10,000

PHOTOGRAPHS

Fig. 16 1972-78 OS Map, 1:10,000

Photo 1	Octagon Farmhouse, taken from the driveway to the farm, looking north west
Photo 2	Derelict farm buildings
Photo 3	Burnt out granary
Photo 4	Derelict farm building with Octagon Farmhouse in the background
Photo 5	View of 'Two Barrows 500m NE of Octagon Farm', a Scheduled Monument (CA Ref: 2)
Photo 6	Neolithic and Bronze Age mortuary complex 600m NW of Octagon Farm (CA Ref: 4)

APPENDICES

Appendix 1: Heritage Statute Policy and Guidance
Appendix 2: Gazetteer of Selected Recorded Heritage Assets
Appendix 3: Historic Mapping
Appendix 4: Proposed Development

SUMMARY

Project Name: Bedford Valley Park

Location: Willington, Bedfordshire

NGR: TL 09911 49784

The purpose of promoting the Proposed Development through the 'Call for Sites' exercise is to amend Policy AD23 of the Allocations and Designations and Local Plan (2013), which currently allocates this 102.65ha area of land at Bedford River Valley Park for a mixed-use development. The amendment seeks to include residential 'enabling development' within Policy AD23, which will generate sufficient funds to deliver the water sports lake and other leisure opportunities which are an integral part of the Bedford River Valley Park; planning permission for the water sports lake was granted in 2006 (LPA Ref: BC/CM/2003/33). This report has been prepared upon request by the Council to support the promotion of the Proposed Development.

Bedford Valley Park, otherwise known as the Site, is proposed for redevelopment. Presently, the Site comprises Octagon Farm situated within a predominantly fallow landscape.

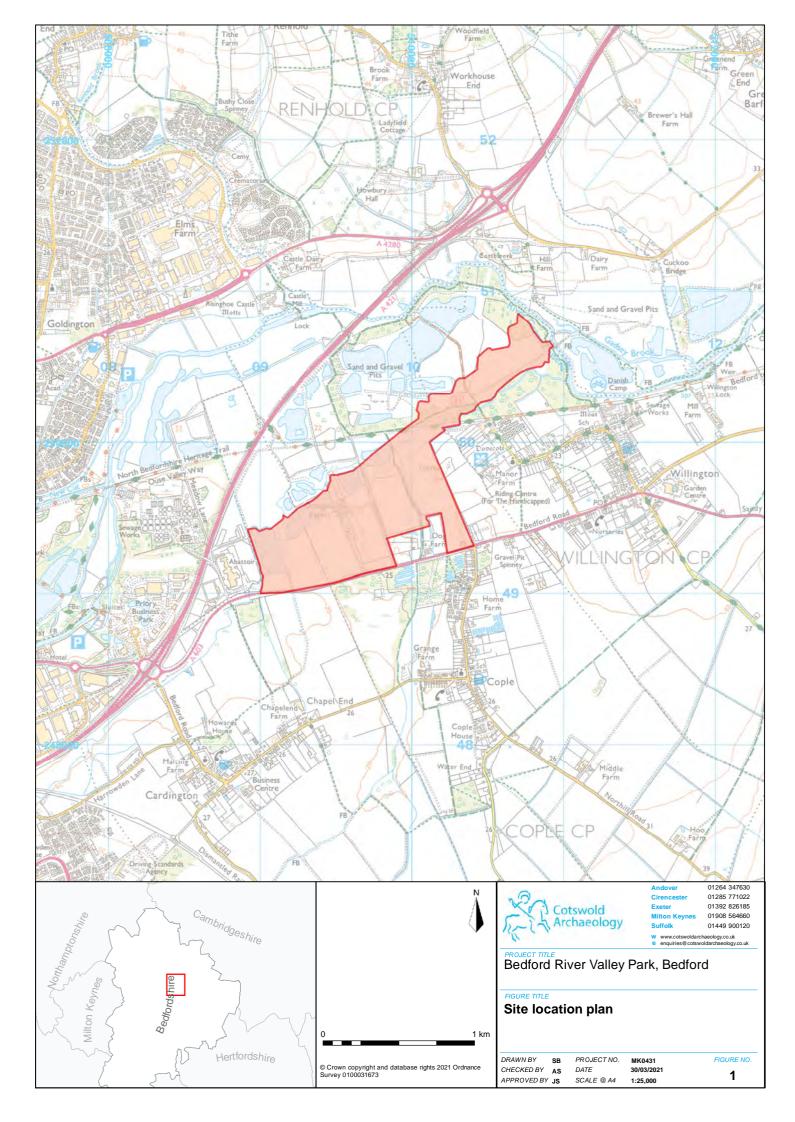
Octagon Farmhouse is a Grade II Listed Building, designated primarily for its architectural value. It is intended to make this building a focal point of the new development, which could help to increase public appreciation of its architectural merits.

Finds and features dating to all archaeological periods have previously been identified within the Site. Therefore, the Site is considered to have a high theoretical potential for finds or features dating to all archaeological periods. However, in the latter part of the 20th century the Site was quarried, which will have had a widespread significant impact on any archaeological features present on the Site in areas subject to extraction, though it is considered likely that remains could survive in parts of the Site which have not been disturbed by quarrying activity.

The Site is located within a Neolithic and Bronze Age funerary landscape, comprising a number of designated and non-designated heritage assets. However, modern agriculture, infrastructure and quarrying has already had a significant negative impact on these assets and their setting. The impact of the proposed development on the setting, and therefore significance, of these assets is therefore considered to be minimal.

The proposed development is in line with the requirements of the NPPF. It is likely that the Local Planning Authority will require evaluation in the areas of the Site which have not already been subject to mineral extraction. It is suggested that any subsequent mitigation measures for this site should concentrate on parts of the Site which have not already been quarried,

though the final decision on the scope of future archaeological works rests with the archaeological advisor to the Local Planning Authority.



1. INTRODUCTION

- 1.1. In February 2021, Cotswold Archaeology (CA) was commissioned by Woods Hardwick Planning Ltd to undertake a Heritage Assessment in respect of land at Bedford River Valley Park, Bedford (hereafter referred to as 'the Site'). The Site is located north of Bedford Road, south east of the A421, west of Willington and 1.1km south east of Bedford (NGR: 509354 249438; Fig. 1). The Site has previously been used as a quarry, and whilst parts of the Site have been returned to agricultural use (Fig. 2) most of the Site comprises fallow land and ponds.
- 1.2. The purpose of promoting the Proposed Development through the 'Call for Sites' exercise is to amend Policy AD23 of the Allocations and Designations and Local Plan (2013), which currently allocates this 102.65ha area of land at Bedford River Valley Park for a mixed-use development. The amendment seeks to include residential 'enabling development' within Policy AD23, which will generate sufficient funds to deliver the water sports lake and other leisure opportunities which are an integral part of the Bedford River Valley Park; planning permission for the water sports lake was granted in 2006 (LPA Ref: BC/CM/2003/33). This report has been prepared upon request by the Council to support the promotion of the Proposed Development. The development plans for this site are not finalised. Any reference to development proposals is based on the Site's concept plan.
- 1.3. The Site is proposed for mixed use development, comprising residential units, an education facility, a care home, a community centre, a water sports lake, and associated landscaping and infrastructure.

Objectives and professional standards

- 1.4. The composition and development of the historic environment within the Site and wider landscape are discussed in this report. A determination of the significance of any heritage assets located within the Site, and any heritage assets beyond the Site boundary that may potentially be affected by the development proposals, is presented. Any potential development effects upon the significance of these heritage assets (both adverse and/or beneficial) are then described as far as is feasible, reflecting the available concept plan for the Site.
- 1.5. Cotswold Archaeology (CA) is a Registered Organisation (RO) with the Chartered Institute for Archaeologists (CIfA). This report has been prepared in accordance with appropriate standards and guidance, including the 'Standard and Guidance for

Historic Environment Desk-Based Assessment' published by CIfA in 2014 and updated in 2017 and 2020. This states that, insofar as they relate to the determination of planning applications, heritage desk-based assessments should:

'...enable reasoned proposals and decisions to be made [as to] whether to mitigate, offset or accept without further intervention [any identified heritage] impact' (CIfA 2020, 4).

1.6. The 'Historic Environment Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment' (Historic England 2015), further clarifies that a desk-based assessment should:

'...determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area, and the impact of the proposed development on the significance of the historic environment, or will identify the need for further evaluation' (Historic England 2015, 3).

Statute, policy and guidance context

1.7. The Site is located in the local authority of Bedford Borough Council. This Site was allocated for development in the Bedford Borough Council Allocations and Designations Local Plan which was adopted in 2013. This allocation became a saved policy following the adoption of the Bedford Borough Local Plan 2030 in January 2020. The 2013 Allocations and Designations Local Plan (ADLP 2013) contains the following information relevant to the historic environment of the Site and its vicinity:

'Development within the Bedford River Valley Park will have an impact on the surrounding highly significant historic environment, including the setting of designated heritage assets and their landscape context' (ADLP 2013 6.5).

'Accordingly, the enabling development will need to be the subject of an initial comprehensive application (including a Master Plan) which will need to include a heritage statement in order to understand the potential impact of the proposed development on the significance of any heritage assets affected, including their setting and wider landscape context. The level of detail of the assessment should be proportionate to the importance of those assets, and use appropriate expertise and techniques where necessary. The assessment should be used to inform the appropriate location and form of development on the Site along with any mitigation measures required and the application will need to be adequately detailed to enable full understanding of the impact on those assets affected' (ADLP 2013 6.6).

'The development will need to comply with and contribute towards the comprehensive heritage access, management and interpretation strategy for the Bedford River Valley Park archaeological landscape' (ADLP 2013 6.7).

'Further archaeological investigations including fieldwork, assessment, analysis, publication and archiving may be required as a condition of the grant of consent for the enabling development' (ADLP 2013 6.8).

1.8. This assessment has been undertaken within the key statute, policy and guidance context presented within Table 1.1. The applicable provisions contained within these statute, policy and guidance documents are referred to, and discussed, as relevant, throughout the text. Fuller detail is provided in Appendix 1.

Statute	Description
Ancient Monuments and Archaeological Areas Act (1979)	Act of Parliament providing for the maintenance of a schedule of archaeological remains of the highest significance, affording them statutory protection.
Planning (Listed Buildings and Conservation Areas) Act (1990)	Act of Parliament placing a duty upon the Local Planning Authority (or, as the case may be, the Secretary of State) to afford due consideration to the preservation of Listed Buildings and their settings (under Section 66(1)), and Conservation Areas (under Section 72(2)), in determining planning applications.
National Heritage Act 1983 (amended 2002)	One of four Acts of Parliament providing for the protection and management of the historic environment, including the establishment of the Historic Monuments & Buildings Commission, now Historic England.
Conservation Principles (Historic England 2008)	Guidance for assessing heritage significance, with reference to contributing heritage values, in particular: <i>evidential</i> (archaeological), <i>historical</i> (illustrative and associative), <i>aesthetic</i> , and <i>communal</i> .
National Planning Policy Framework (2019)	Provides the English government's national planning policies and describes how these are expected to be applied within the planning system. Heritage is subject of Chapter 16 (page 54).
National Planning Practice Guidance (updated July 2019)	Guidance supporting the National Planning Policy Framework.
Good Practice Advice in Planning: Note 2 (GPA2): Managing Significance in Decision-Taking in the Historic Environment (Historic England, 2015)	Provides useful information on assessing the significance of heritage assets, using appropriate expertise, historic environment records, recording and furthering understanding, neglect and unauthorised works, marketing and design and distinctiveness.

Statute	Description
Good Practice Advice in Planning: Note 3 (GPA3): The Setting of Heritage Assets, Second Edition (Historic England, 2017)	Provides guidance on managing change within the settings of heritage assets, including archaeological remains and historic buildings, sites, areas, and landscapes.
Bedford Borough Local Plan 2030 (2020)	Comprises the local development plan (local plan), as required to be compiled, published and maintained by the local authority, consistent with the requirements of the NPPF (2019). Intended to be the primary planning policy document against which planning proposals within that local authority jurisdiction are assessed. Where the development plan is found to be inadequate, primacy reverts to the NPPF (2019).
Bedford Borough Allocations and Designations (2013)	Comprises allocation and designation of sites suggested for redevelopment by the local authority. Contains site-specific policy relating to the historic environment, land contamination and
Hedgerows Regulations (1997)	Provides protection for 'important' hedgerows within the countryside, controlling their alteration and removal by means of a system of statutory notification.

 Table 1.1
 Key statute, policy and guidance

2. METHODOLOGY

Data collection, analysis and presentation

2.1. This assessment has been informed by available historic environment information, subject to limitations due to health and safety constrictions imposed in response to the 2020 Coronavirus (COVID-19) pandemic. In this instance, this is considered to be sufficient to understand the archaeological potential of the Site, the significance of identified heritage assets, and any potential development effects. This approach accords, where practicable under present restrictions, with the provisions of the NPPF (2019) and the guidance issued by CIfA (2020). The data has been collected from a wide variety of sources and where this has not been possible to obtain this has been outlined in the summary set out in Table 2.1 below. Limitations to the study are specifically set out in 'limitations' below.

Source	Data
National Heritage List for England (NHLE)	Current information relating to designated heritage assets, and heritage assets considered to be 'at risk'.
Bedford Borough Historic Environment Record (HER)	Heritage sites and events records, National Mapping Program (NMP) data, and other spatial data supplied in digital format (shapefiles) and hardcopy.
Historic England Archives (HEA)	Not available due to COVID-19 closure requirements.
Historic England's Aerial Photograph Research Unit	Not available due to COVID-19 closure requirements.
Defra Data Services Platform (environment.data.gov.uk)	LiDAR imagery and point cloud data, available from the Defra Data Services Platform
Genealogist, Envirocheck, National Library of Scotland & other cartographic websites	Historic (Ordnance Survey and Tithe) mapping in digital format.
British Geological Survey (BGS) website	UK geological mapping (bedrock & superficial deposits) & borehole data.

Table 2.1Key data sources

2.2. Prior to obtaining data from these sources, an initial analysis was undertaken in order to identify a relevant and proportionate Study Area. This analysis utilised industry-standard GIS software, and primarily entailed a review of recorded heritage assets in the immediate and wider landscape, using available datasets.

- 2.3. On this basis a 1km Study Area, measured from the boundaries of the Site, was considered sufficient to capture the relevant HER data, and provide the necessary context for understanding archaeological potential and heritage significance in respect of the Site. All of the spatial data held by the HER the primary historic data repository for the land within the Study Area, was requested. The records were analysed and further refined in order to narrow the research focus onto those of relevance to the present assessment. Not all HER records are therefore referred to, discussed or illustrated further within the body of this report, only those that are relevant. These are listed in a cross-referenced gazetteer provided at the end of this report (Appendix 2) and are illustrated on the figures accompanying this report.
- 2.4. A site visit was also undertaken as part of this assessment. The primary objectives of the Site visit were to assess the Site's historic landscape context, including its association with any known or potential heritage assets, and to identify any evidence for previous truncation of the on-site stratigraphy. The Site visit also allowed for the identification of any previously unknown heritage assets within the Site, and assessment of their nature, condition, significance and potential susceptibility to impact. The wider landscape was examined, as relevant, from accessible public rights of way.

Aerial photographs

2.1. Although HEA was not available, aerial photographs held by the National Collection of Aerial Photography (NCAP) and the Cambridge University Collection of Aerial Photography (CUCAP) were examined as part of this assessment, ranging in date from 1948 to 1991. The aerial photographs show that the Site was predominantly associated with agricultural activity during this time.

LiDAR imagery

- 2.2. Existing Environment Agency (EA) Lidar data was analysed with the specific aim of clarifying the extent any potential archaeological remains.
- 2.3. EA Lidar DTM tiles were obtained from the Defra Data Services Platform (environment.data.gov.uk), under the Open Government Licence v3.0. The data was available at 1m resolution, surveyed in 2020, for the entire Study Area. The DTM tiles were downloaded in ASCII (.asc) format, with each .asc file covering an area measuring 100x100m-square. EA state that their specifications for Lidar data require absolute height error to be less than +-15cm, and relative error to be less than +-5cm

- (EA, 2016). The planar accuracy of the data is guaranteed to +- 40cm (absolute), while relative planar accuracy depends on the altitude of the survey aircraft but can generally be said to be +-20cm (ibid.).
- 2.4. The Lidar .asc files contain British National Grid as the "native" coordinate reference system.
- 2.5. Where necessary, the DTM tiles were combined into a mosaic raster dataset using Esri ArcGIS 10.5.1 and exported as a .TIFF
- 2.6. The output images from the RVT software were then imported into the ArcMap 10.5.1 where further settings manipulation was undertaken to enhance the visualization for archaeological feature detection.
- 2.7. DTM tile formed the basis within the desk-based assessment and is illustrated on Fig.8.

Previous archaeological investigations

2.8. A considerable amount of archaeological fieldwork has previously been carried out within the Site and wider Study Area. Previous intrusive investigations including watching briefs, evaluations and excavations, are illustrated on Fig. 3 and are listed in Appendix 2. The results of these investigations are discussed in Section 4, below.

Assessment of heritage significance

2.9. The significance of known and potential heritage assets within the Site, and any beyond the Site which may be affected by the proposed development, has been assessed and described, in accordance with paragraph 189 of the NPPF (2019), the guidance issued by ClfA (2020), Historic Environment Good Practice Advice in Planning Note 2 (HE 2015) and Advice Note 12: Statements of Heritage Significance: Analysing Significance in Heritage Assets (Historic England 2019). Determination of significance has been undertaken according to the industry-standard guidance on assessing heritage value provided within Conservation Principles (English Heritage 2008). This approach considers heritage significance to derive from a combination of discrete heritage values, principal amongst which are: i) evidential (archaeological) value, ii) historic (illustrative and associative) value, iii) aesthetic value, iv) communal value, amongst others. Further detail of this approach, including the detailed definition of those aforementioned values, as set out, and advocated, by Historic England, is provided in Appendix 1 of this report.

Assessment of potential development effects (benefit and harm)

- 2.10. The present report sets out, in detail, the ways in which identified susceptible heritage assets might be affected by the proposals, as well as the anticipated extent of any such effects. Both physical effects, i.e. resulting from the direct truncation of archaeological remains, and non-physical effects, i.e. resulting from changes to the setting of heritage assets, have been assessed. With regard to non-physical effects or 'settings assessment', the five-step assessment methodology advocated by Historic England, and set out in the Second Edition of GPA3 (Historic England, 2017), has been adhered to (presented in greater detail in Appendix 1).
- 2.11. Identified effects upon heritage assets have been defined within broad 'level of effect' categories (Table 2.2 below). These are consistent with key national heritage policy and guidance terminology, particularly that of the NPPF (2019). This has been done in order to improve the intelligibility of the assessment results for purposes of quick reference and ready comprehension. These broad determinations of level of effect should be viewed within the context of the qualifying discussions of significance and impact presented in this report.
- 2.12. It should be noted that the overall effect of development proposals upon the designated heritage asset are judged, bearing in mind both any specific harms or benefits (an approach consistent with the Court of Appeal judgement *Palmer v. Herefordshire Council & ANR* Neutral Citation Number [2016] EWCA Civ 1061).
- 2.13. In relation to non-designated heritage assets, the key applicable policy is paragraph 197 of the NPPF (2019), which states that:

'The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset [our emphasis].'

2.14. Thus with regard to non-designated heritage assets, this report seeks to identify the significance of the heritage asset(s) which may be affected, and the scale of any harm or loss to that significance.

Level of effect	Description	Applicable statute & policy
Heritage benefit	The proposals would better enhance or reveal the heritage significance of the heritage asset.	Enhancing or better revealing the significance of a heritage asset is a desirable development outcome in respect of heritage. It is consistent with key policy and guidance, including the NPPF (2019) paragraphs 185 and 200.
No harm	The proposals would preserve the significance of the heritage asset.	Preserving a Listed Building and its setting is consistent with s66 of the Planning (Listed Buildings and Conservation Areas) Act (1990). Preserving or enhancing the character or appearance of a Conservation Area is consistent with s72 of the Act. Sustaining the significance of a heritage asset is consistent with paragraph 185 of
Less than substantial harm (lower end)	The proposals would be anticipated to result in a restricted level of harm to the significance of the heritage asset, such that the asset's contributing heritage values would be largely preserved.	the NPPF, and should be at the core of any material local planning policies in respect of heritage. In determining an application, this level of harm should be weighed against the public benefits of the proposals, as per paragraph 196 of the NPPF (2019). Proposals involving change to a Listed Building or its setting, or any features of
Less than substantial harm (upper end)	The proposals would lead to a notable level of harm to the significance of the heritage asset. A reduced, but appreciable, degree of its heritage significance would remain.	special architectural or historic interest which it possesses, or change to the character or appearance of Conservation Areas, must also be considered within the context of Sections 7, 66(1) and 72(2) of the 1990 Act. The provisions of the Act do not apply to the setting of Conservation Areas. Proposals with the potential to physically affect a Scheduled Monument (including the ground beneath that monument) will be subject to the provisions of the Ancient Monuments and Archaeological Areas Act (1979); these provisions do not apply to proposals involving changes to the setting of Scheduled Monuments. With regard to non-designated heritage assets, the scale of harm or loss should be weighed against the significance of the asset, in accordance with paragraph 197 of the NPPF.
Substantial harm	The proposals would very much reduce the heritage asset's significance or vitiate that significance altogether.	Paragraphs 193 - 196 of the NPPF (2019) would apply. Sections 7, 66(1) and 72(2) of the Planning Act (1990), and the Ancient Monuments and Archaeological Areas Act (1979), may also apply. In relation to non-designated heritage assets, the scale of harm or loss should be

Level of effect	Description	Applicable statute & policy
		weighed against the significance of the asset, in accordance with paragraph 197 of the NPPF.

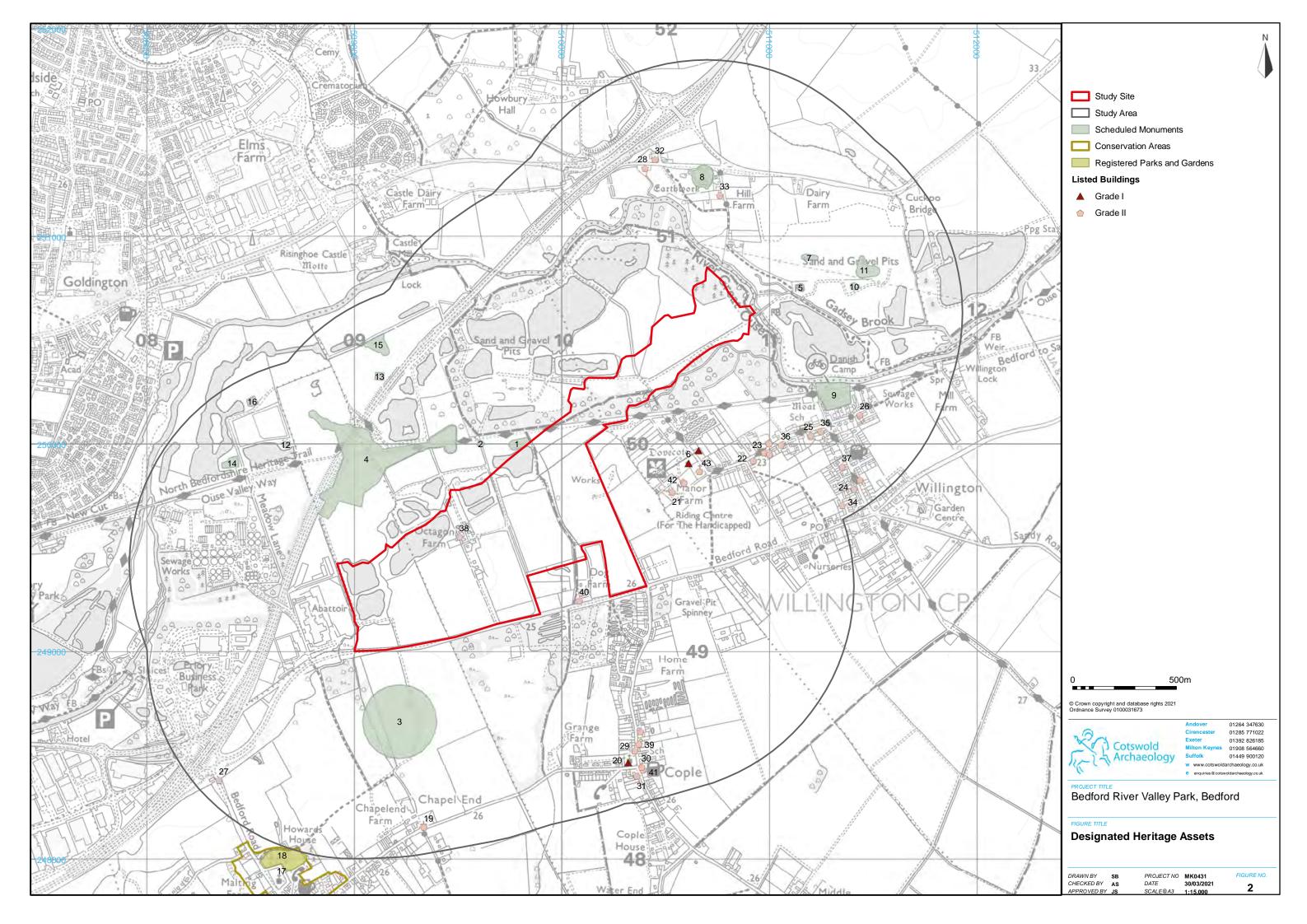
Table 2.2 Summary of level of effect categories (benefit and harm) referred to in this report in relation to heritage assets, and the applicable statute and policy.

2.15. The July 2019 revision of the Planning Practice Guidance (PPG) defines non-designated heritage assets as those identified as such in publicly accessible lists or documents provided by the plan-making body. Where these sources do not specifically define assets as non-designated heritage assets, they will be referred to as heritage assets for the purpose of this report. The assessment of non-designated heritage assets and heritage assets will be equivalent in this report, in line with industry standards and guidance on assessing significance and impact. They may not, however, carry equivalent weight in planning as set out within the provisions of the NPPF.

Limitations of the assessment

- 2.16. This assessment is principally a desk-based study and has utilised secondary information derived from a variety of sources, only some of which have been directly examined for the purpose of this assessment. The assumption is made that this data, as well as that derived from secondary sources, is reasonably accurate. The records held by HER and HEA are not a record of all surviving heritage assets, but a record of the discovery of a wide range of archaeological and historical components of the historic environment. The information held within these repositories is not complete and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.
- 2.17. It was not possible to visit Historic England's Aerial Photograph Research Unit due to CoVID-19 restrictions. However, this is not considered to be a significant limitation as the area was studied as part of the National Mapping Programme undertaken by Historic England and the transcripts of this are held and were provided by the HER.
- 2.18. Due to current lockdown restrictions, it was not possible to consult any material held by Bedford Archives and other repositories, although sufficient information to respond to the scope of this assessment was available in from the resources consulted.

2.19. A walkover survey was conducted within the Site, which was undertaken in dry and clear weather conditions. Access was restricted to public footpaths which afforded good access to the majority of the Site, although such observations are limited since archaeological remains can survive below-ground with no visible surface indications of their presence. It is possible that unknown archaeological remains may be present within the Site, and the presence of modern infrastructure may possibly have inhibited identification of any possible upstanding remains. Due to widespread quarrying within the Site, there is an element of uncertainty over the nature, condition, frequency and extent of the potential buried archaeological resource, which may be clarified through intrusive investigation. There was also sufficient access to heritage assets to assess likely impacts upon the significance of the assets due to changes to their setting.



3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Landscape context

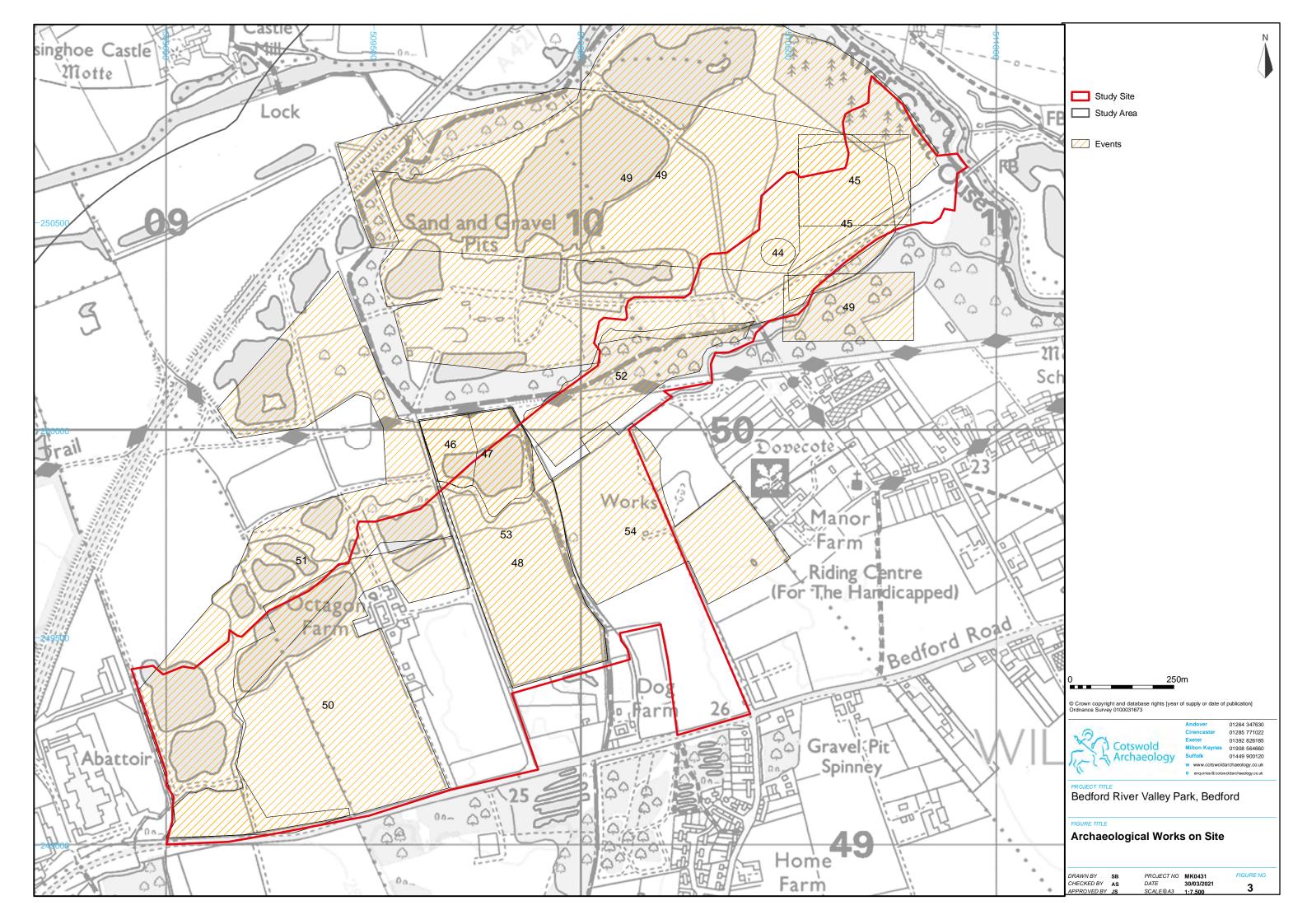
- 3.1. The Site is located to the south of the Great Ouse. The north eastern end of the Site shares its boundary with the south west bank of the river. The Site is generally very flat, measuring c. 24 Above Ordnance Datum.
- 3.2. The British Geological Survey (BGS 2021) records the underlying bedrock geology of the Site as Peterborough Member Mudstone, which formed 164 to 166 million years ago in the Jurassic Period. During this time, the local environment would have been dominated by shallow seas. Superficial deposits are recorded for parts of the Site. Alluvium runs in two narrow strips through the Site, one of these strips runs from the north east to the south west of the Site, and the other runs north to south. Both veins of Alluvium follow the course of two tributaries of the Great Ouse. Other parts of the Site contain deposits of Stoke Goldington Member and Felmersham Member Sand and Gravel, though due to widespread gravel extraction on the Site the survival of these deposits onsite is fragmented.
- 3.3. Gravel extraction took place on the Site in the late 20th century. Since then, parts of the former quarry were infilled and others areas have been left as open ponds. Figure 9 shows some of the areas of made ground and landfill, though it should be noted that this data is not complete.

Depth (m)	Description
0	Topsoil.
0.3	Firm dark brown sandy silty clay with occasional fine gravel (river gravel).
0.9	Soft to firm brown silty clay with much fine to medium sub-angular gravel (river gravel).
1.3	Medium dense to dense light brown very sandy fine to medium sub-rounded to sub-angular gravel (river gravel).
3.7	Stiff dark grey silty clay with occasional fossil traces.
7.5	Very stiff dark grey sandy silty clay with fossils (Kellaways Sand)
8.5	Dense dark grey slightly clayey sandy silt.
9.7	Limestone weak to moderately strong (Kellaways Sand)

3.4. During the Site visit, a resident remarked that they recovered a vertebra from the field to the south of Octagon Farmhouse prior to quarrying taking place. This vertebra was subsequently identified as a dinosaur vertebra by a specialist.

Designated heritage assets

3.5. There are 49 designated heritage assets recorded within the Study Area comprising scheduled monuments, listed buildings, a conservation area, and a registered park



- and garden. All designated heritage assets are listed in detail in Appendix 2 and mapped on Fig. 2.
- 3.6. Designated heritage assets are described within this assessment where relevant to understanding the historic use and development of the Site and the archaeological potential therein. A detailed examination of the possible sensitivities associated with these built heritage assets is undertaken in Section 5.

Previous archaeological investigations (Fig. 3)

- 3.7. A large number of archaeological investigations have already taken place within the Study Area. Due to the volume of investigations which have already taken place within the Site only these will be discussed in detail below. The results of other excavations are discussed further down where of relevance.
- 3.8. An archaeological watching brief took place at Willington Pit in the north east of the Site in 1985. This watching brief comprised a limited investigation of a large enclosure ditch prior to gravel extraction. No artefacts were recovered (CA Ref: 44).
- 3.9. Archaeological excavation took place at Willington in the north east of the Site in 1984 prior to gravel extraction. During the excavation, a double ring ditch was investigated. The monument had suffered heavy plough damage and no burial was identified, but it was presumed to be a Bronze Age funerary monument. To the north west of the Bronze Age ring ditch, the excavation identified a large double enclosure dating to the Iron Age. Roman material was also identified in this excavation, comprising a small square enclosure and a series of ditches forming a field boundary (CA Ref: 45; HER Refs: EBB614, EBB615).
- 3.10. An evaluation took place at Dog Farm in the centre of the Site in 1991 and comprised twenty one trenches. During the evaluation, prehistoric activity was identified as being concentrated to the north of Elstow Brook, with limited evidence recovered from the south. Evidence of both ceremonial and domestic activity was identified. In general, the archaeological remains on this site were well preserved, having been protected from plough damage by a layer of alluvium (CA Ref: 48; HER Ref: EBB670).
- 3.11. A number of archaeological investigations took place at Willington Quarry between 1988 and 1991. Whilst the majority of these excavations fell outside of the Site boundary, the eastern part of the combined excavation area is located inside the north eastern part of the Site. In 1988 a Neolithic mortuary/burial enclosure was

identified. It contained a single young female buried in a crouched position with a single red deer antler. In 1989, a truncated Late Iron Age to Roman enclosure was identified. In 1990, excavation identified two Bronze Age ring ditches, another Iron Age enclosure and two penannular ditches crossed by a post alignment. In 1991, the remains of an Iron Age complex comprising a double enclosure were excavated (CA Ref: 49; HER Refs: EBB671; EBD250; EBB1249).

- 3.12. Two evaluations took place at Octagon Farm in 1995 and 2004. The evaluation in 2004 comprised 64 trenches and identified features including Roman enclosures, two late Neolithic to Iron Age ring ditches, late Bronze Age or Iron Age occupation and early-mid Anglo Saxon occupation (CA Ref: 50; HER Ref: EBD134). Further information on the 1995 evaluation was not available at the time of writing the report (CA Ref: 51; HER Ref: EBB787).
- 3.13. In 2006, an evaluation took place on the Site of the proposed Bedford rowing lake. The evaluation area comprised c. 5.9ha, though only 1.4ha was evaluated due to the presence of dense foliage across the majority of the proposed area. Fifteen trial trenches were distributed across the Site. Features identified during the evaluation include a ring ditch surrounding a probable prehistoric round barrow, and evidence of post-medieval agriculture and land division (CA Ref: 52; HER Ref: EBD282).
- 3.14. An excavation took place at Dog Farm in 1962 ahead of gravel extraction. Features of archaeological significance dated from the Late Neolithic to Roman periods and included ring ditches, cremated human remains, linear cropmarks, hearths, pits, and walls. Evidence of Post-medieval agricultural activity was also identified during the excavation (CA Ref: 54; HER Ref: EBB1231).
- 3.15. A watching brief took place at Dog Farm in 1995 in advance of gravel extraction but further information on this investigation were not available at the time of writing this report (CA Ref: 53; EBB1230). Negative investigations within the Site include an evaluation at Dog Farm in 2002 (CA Ref: 48; HER Ref: EBB618), and a watching brief during the construction of the Bedford to Sandy cycle path (Not mapped; HER Ref: EBB753).
- 3.16. A publication is currently being produced which aims to discuss the results of archaeological investigations associated with the guarry, including those mentioned

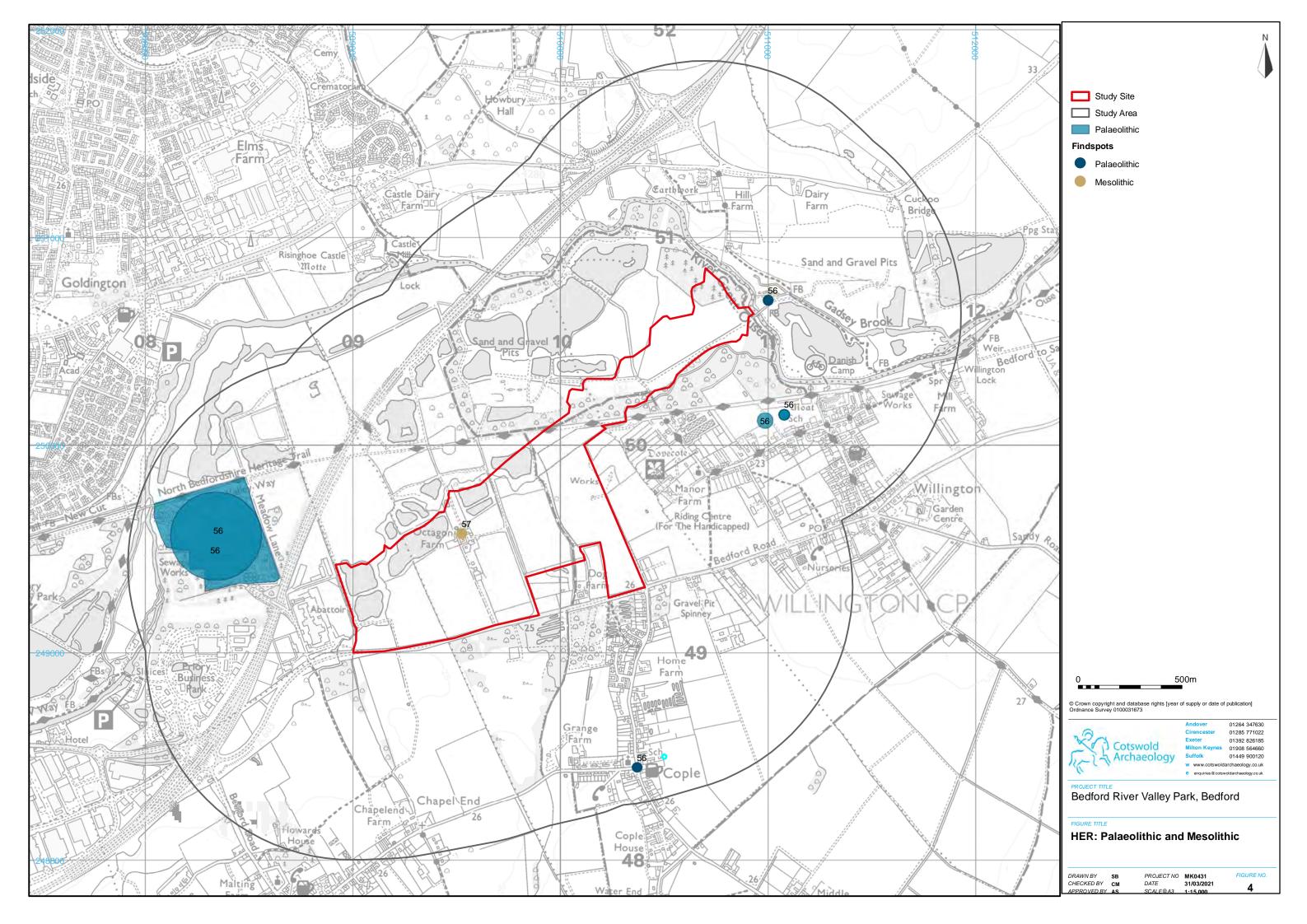
above. However, this was not available for consultation at the time of writing this report.

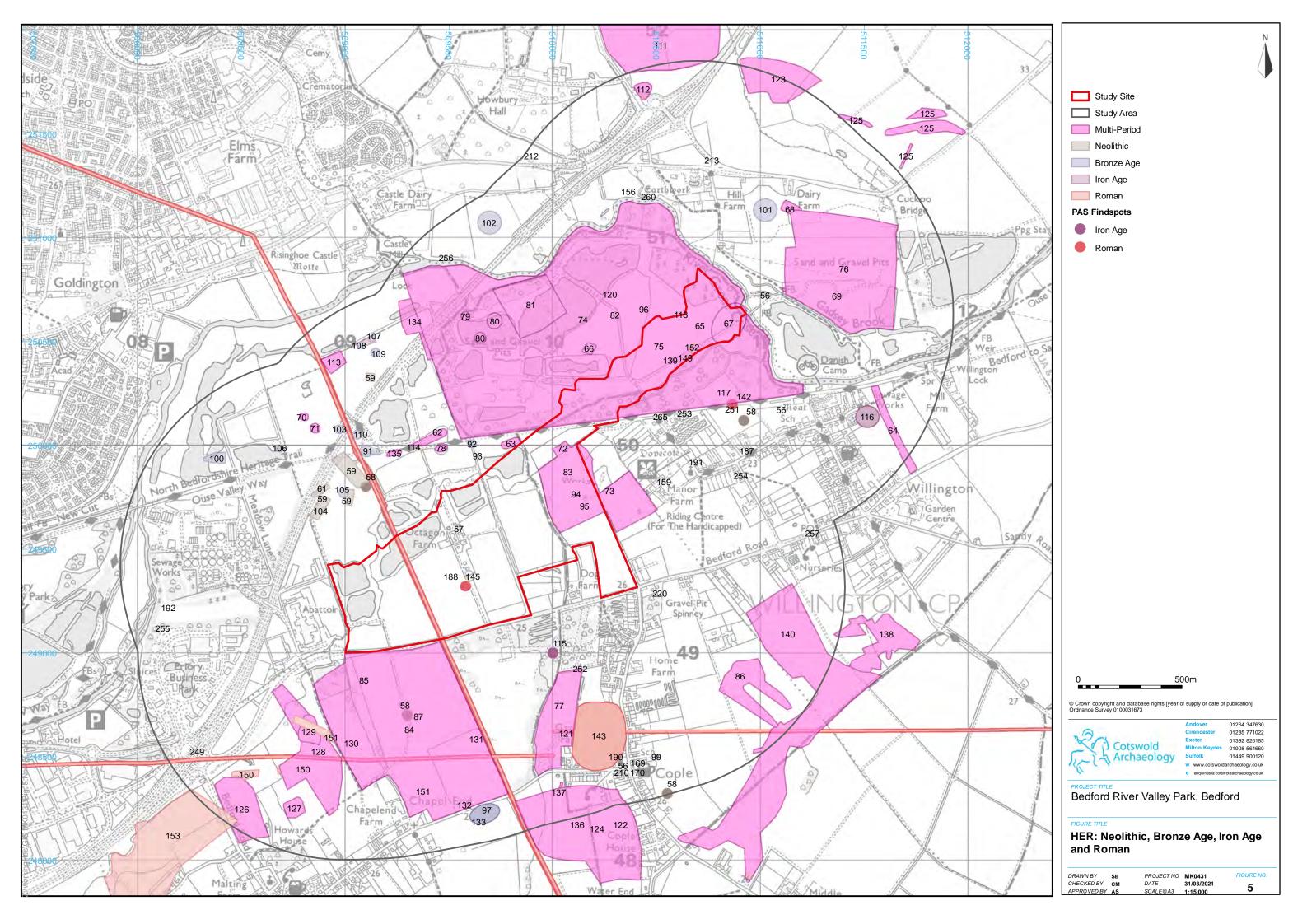
Palaeolithic and Mesolithic (Fig. 4)

- 3.17. During an evaluation on the Site in advance of quarrying, a Palaeolithic flint was recovered (Fig. 3, CA Ref: 50; Fig. 6, CA Ref: 60). Within the wider Study Area, over thirty Palaeolithic flints have been recovered (CA Ref: 56). These finds have generally been recovered from gravel terraces in advance of gravel extraction. The Site is considered to have a moderate potential for the recovery of further Palaeolithic flints on gravel terraces which have not already been destroyed by quarrying.
- 3.18. The only HER reference to Mesolithic finds within the Site comprises an assemblage of flints recovered close to Octagon Farm (CA Ref: 57), though the exact location of recovery is unknown. Due to the recovery of Mesolithic material from the Site or its immediate vicinity, there is potential for further finds dating to this period within the Site. Similarly, this is likely to be concentrated on any surviving gravel terraces and in association with the nearby watercourses which would have provided varied food and fuel resources for the hunter gatherer communities.

Neolithic, Bronze Age, Iron Age and Roman (Fig. 5)

- 3.19. The study site sits within a Neolithic and Bronze Age mortuary complex, comprising 12 scheduled monuments (Fig. 2, CA Refs: 1-5, 7, 10-16). These scheduled monuments preserve the remains of henges, mortuary enclosures, cursi and barrows. The majority of these monuments are not visible above ground but have been identified through study of aerial photographs where they are visible as cropmarks. Though no scheduled monuments are located on the Site itself, 'Two Barrows 500m NE of Octagon Farm: part of a Neolithic and Bronze Age mortuary complex' are located immediately adjacent to the northern boundary of the Site (Fig. 2, CA Ref: 1). The monument comprises two ring ditches, neither of which were visible when the Site visit took place, though the Site was very overgrown.
- 3.20. Beyond designated heritage assets, a wide variety of non-designated assets dating to these periods have been identified on the Site and within the Study Area. Due to the volume of finds and features recorded in the area and the fact that the Site itself underwent widespread archaeological investigation prior to quarrying, only those recorded on the Site will be discussed in detail below. Information on other non-designated assets in the area can be found in Appendix 2.





- 3.21. A double ring ditch of Neolithic to Bronze Age date is located in the north east of the Site (CA Ref: 65). The ring ditch was excavated in 1984 prior to gravel extraction. The inner ditch was sub-oval with a narrow entrance to the north west. It enclosed an area of 19m by 16.5m. The outer ditch was near circular and around 30m in diameter. Finds included 22 small sherds of pottery which appeared to be pre-Iron Age in date, flints, and fragments of animal bones. The feature is now destroyed by gravel extraction. Another ring ditch and a rectilinear enclosure (CA Ref: 67) were identified to the east of the double ring ditch and expected to be of similar date. It is not known whether these features have been destroyed by quarrying. An oval enclosure dating to the Neolithic period was also identified nearby (CA Ref: 75).
- 3.22. A cluster of five late Neolithic to Bronze Age ring ditches are located to the north of Dog Farm (CA Refs: 72, 94, 95). To the west of these funerary monuments, a series of Late Neolithic and Early Bronze Age pit groups have been identified and are contemporary with the ring ditches (Fig. 6: CA Ref: 90). A further ring ditch containing evidence of Iron Age cremation burial was also identified in this area, suggesting continued use of the Site for funerary purposes during the Iron Age (CA Ref: 83).
- 3.23. A multi-period occupation site is located to the south west of Octagon Farmhouse (Fig. 6, CA Ref: 60). The Site was initially identified from cropmarks. A subsequent geophysical survey and archaeological evaluation identified features dating to the Neolithic, Bronze Age, Iron Age, and Roman periods. These features included two ring ditches of late Neolithic/early Bronze Age date, a Roman rectangular enclosure, and a range of pits, ditches and post holes dating from the Bronze Age to the Roman period.
- 3.24. An Iron Age farmstead has been identified in the north east of the Site, enclosed within a sub rectangular ditched enclosure measuring approximately 25 meters by 20 metres (CA Ref: 118). A smaller triangular enclosure was attached to its south east end, and both enclosures had entrance causeways along their eastern site. The smaller enclosure was excavated fully and found to contain over 100 postholes and three roundhouses. Other features included ditches or gullies and a single pit. A nearby linear feature was found to contain a Roman cremation burial. Finds from the Site suggest a broad Iron Age date, though recutting of the ditches and the overlapping nature of the three roundhouses suggest that the Site was occupied for a long period of time.

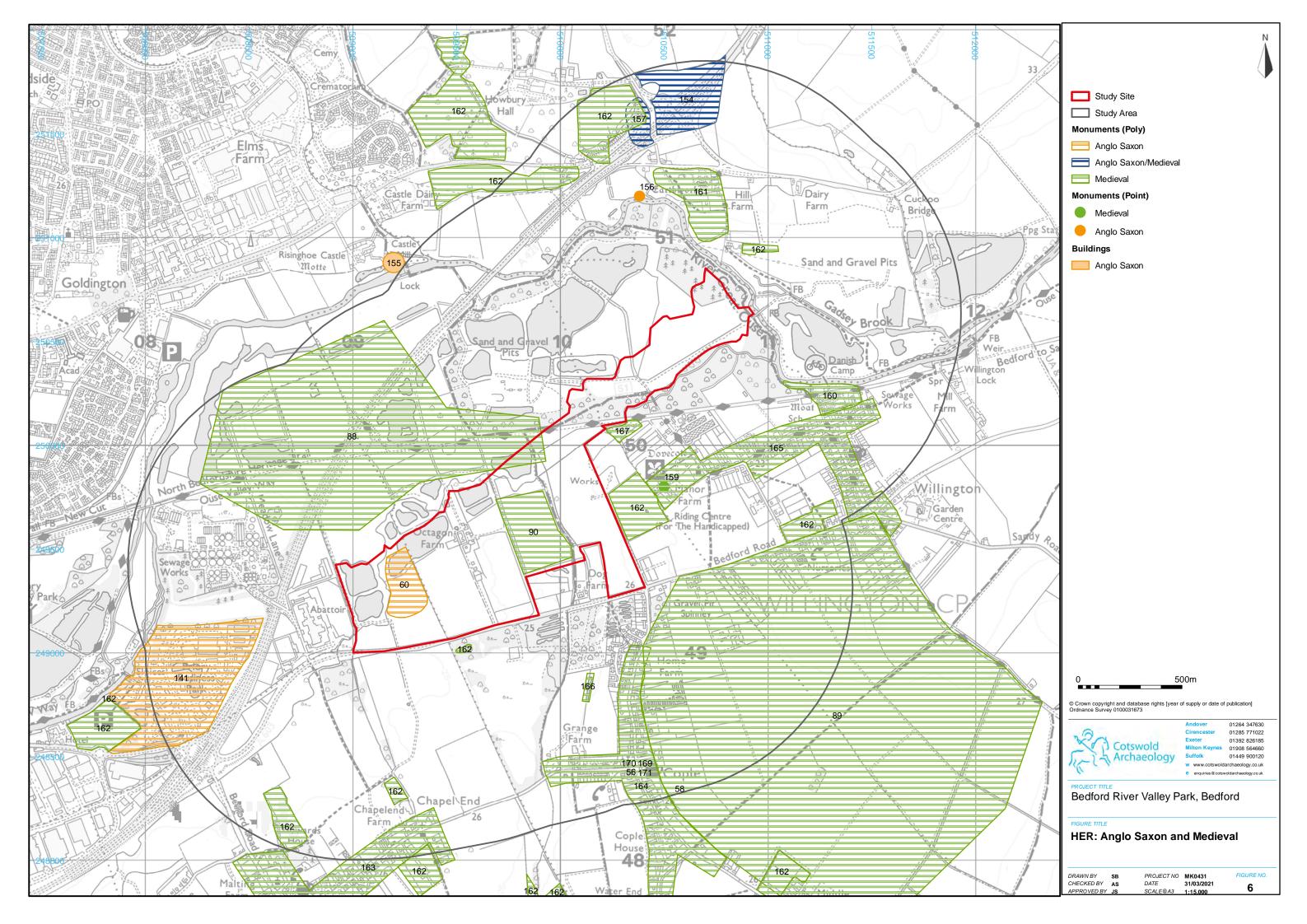
- 3.25. A minor Roman Road runs c. 250m west of the trackway to Octagon Farm and runs roughly parallel to it. The road was believed to connect Bedford with Shefford (Not labelled). Enclosures and ditches dating to the Roman period have been identified in the north east of the Site (CA Refs: 139, 149, 152) and a copper alloy vessel dating to the Roman period has been recovered just to the south of Octagon Farm (CA Ref: 145).
- 3.26. The Site is considered to have high potential for further finds and features dating to the Neolithic, Bronze Age, Iron Age and Roman periods in areas which have not already been disturbed by quarrying activity.

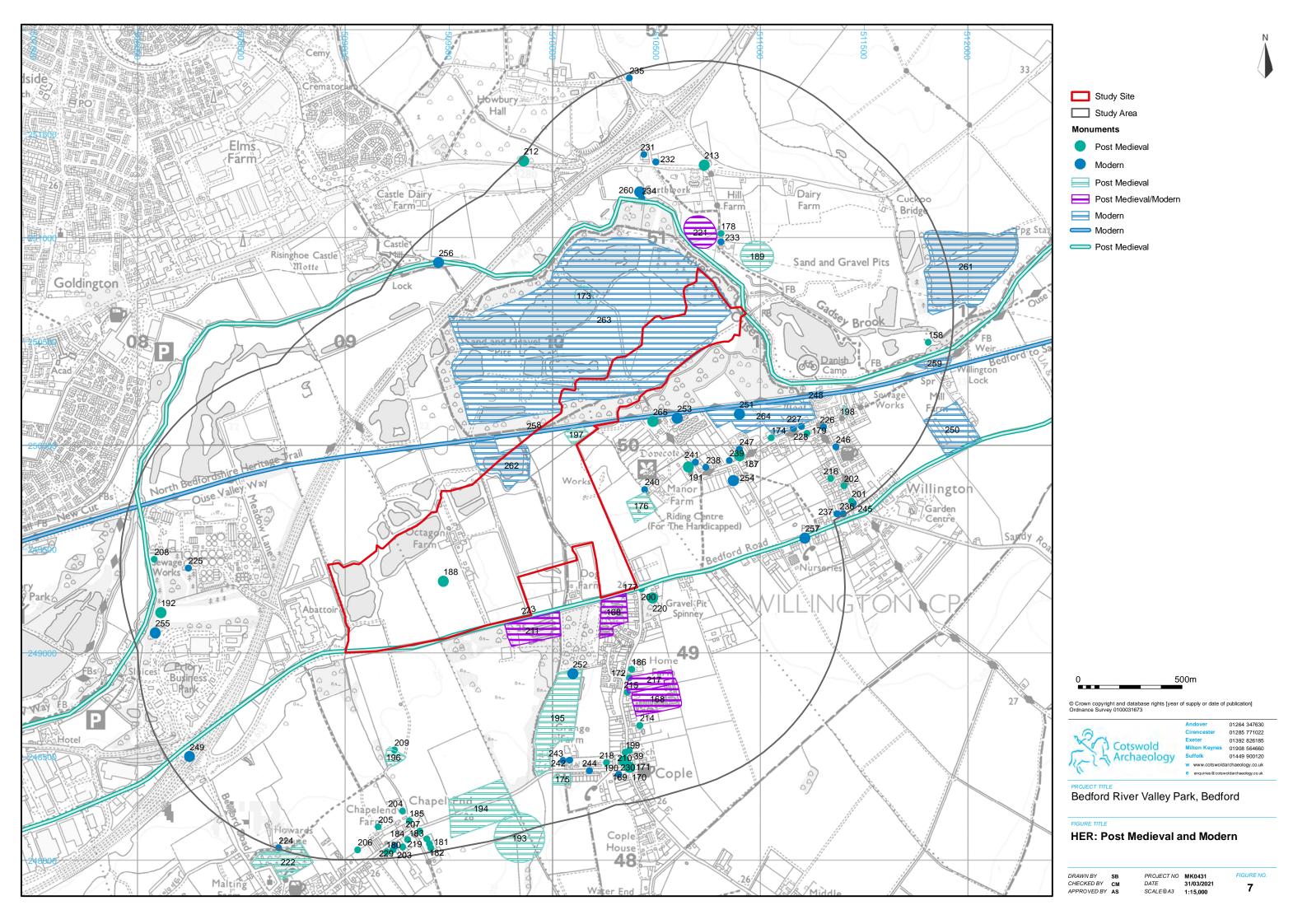
Early medieval and medieval (Fig. 6)

- 3.27. Evidence of early to mid Anglo-Saxon occupation was identified to the west of the Site (CA Ref: 60). Features identified included ditches, pits, postholes and a well. Finds recovered included Anglo-Saxon bone objects, slag, a quern and pottery.
- 3.28. Neither Willington nor Cople, to the east and south of the site respectively, are mentioned in surviving Anglo-Saxon charters (PASE, E-Sawyer), but both are recorded in Domesday. Cople is recorded as comprising 12 households and Willington is recorded as comprising 21 households. A mill is recorded under Willington, though the location of this mill is unknown (OpenDomesday). The Manor of Willington was located east of the Site but was demolished in the post-medieval period (CA Ref: 159).
- 3.29. Several medieval pits and ditches were identified in the east of the Site, and probably reflect agricultural use of the Site during this period (CA Ref: 90). Medieval ridge and furrow is identified in the vicinity of the Site, though none appears to survive within the Site itself (CA Refs: 88, 162).
- 3.30. Further evidence of Anglo-Saxon occupation or medieval agricultural activity is expected in parts of the Site which have not already been disturbed by quarrying activity.

Post-medieval and modern (Fig. 7)

3.31. During the post-medieval period, the Site was located within the agricultural hinterland of Willington and Cople.

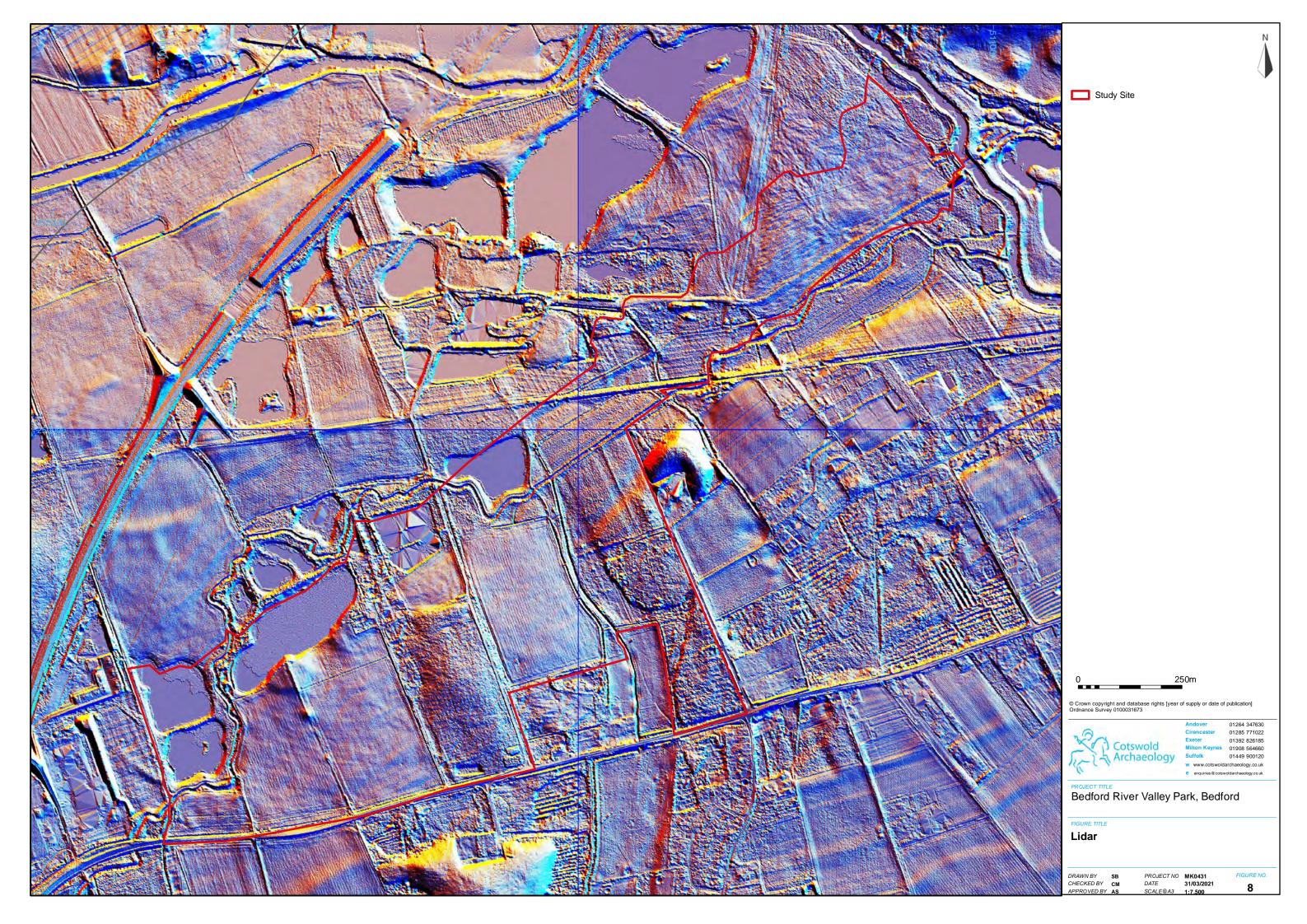


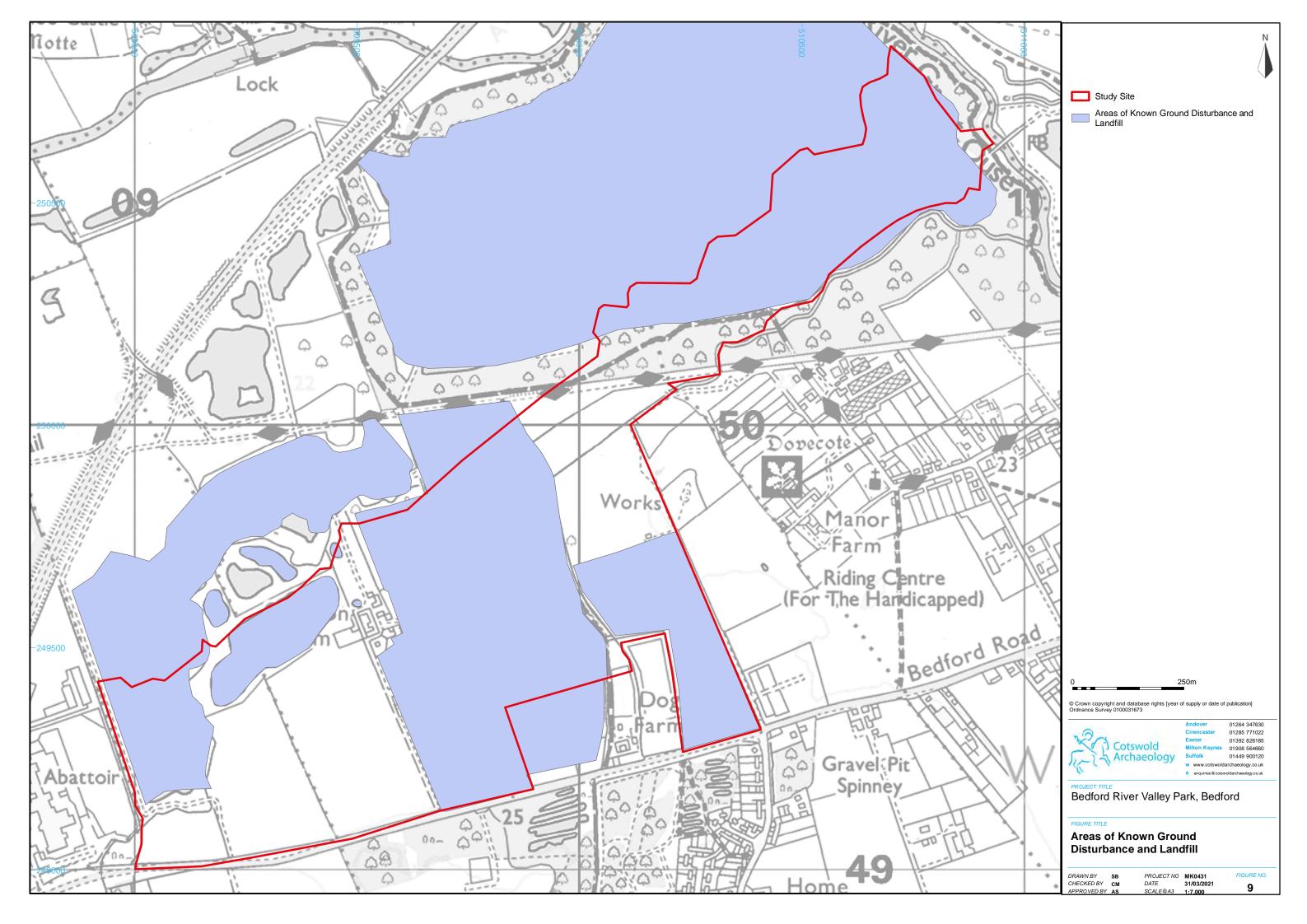


- 3.32. Willington Dovecote and Willington Stables (CA Ref: 6), both Grade I listed buildings and scheduled monuments, are located 335m south east of the Site. Together with the Grade II listed St Lawrence's Church (CA Ref 44), they were built by the owner of Willington Manor, Sir John Gostwick, in c. 1540-41. The manor itself was demolished, though it is expected to have been located to the west of the church, on the approximate site of Manor Farm.
- 3.33. A small area of post-medieval boundary ditches have been identified as cropmarks in the north east of the Site and were excavated as part of a field evaluation in 2006 (CA Ref: 197). It has been suggested that a windmill may have been located in the field to the south west of Octagon Farm (CA Ref: 188) as the field is recorded as Windmill Field in an 18th century parish map, however no trace of a windmill was identified during late 20th century archaeological investigations of the area.
- 3.34. Octagon Farmhouse, a Grade II listed building, is located in the western part of the Site and comprises an early 19th century house most notable for the octagonal shape of its main block (CA Ref: 39). This asset is discussed in greater detail in Section 5 of this report. Dog Farmhouse (CA Ref: 41) is located 149m to the south of the Site and is also Grade II listed. This farmhouse is 19th century in date though it features 20th century alterations.
- 3.35. In 1862, the Bedford to Sandy railway line was opened which connected the farming areas of east Bedfordshire with the towns and cities and ran roughly east to west through the northern part of the Site (CA Ref: 258). The former railway was closed in 1967 and is now a cycle way. Historic maps show that the Site remained relatively unchanged between the late 19th century and mid 20th century (Appendix Four). However, in the latter part of the 20th century the Site and its surrounds became a quarry, changing the landscape and use of the Site significantly (CA Refs: 250, 251, 254, 261, 262, 263, 264).
- 3.36. Evidence of post-medieval agricultural activity and modern quarrying is expected to survive on the Site.

Lidar (Fig. 8)

3.37. The Lidar data appears to show no discernible archaeological features present on the Site itself. However, within the wider area, features including ridge and furrow and barrows can be identified. The field immediately south east of Octagon Farmhouse shows evidence of post-quarrying use of the site as landfill.





4. ARCHAEOLOGICAL SIGNIFICANCE & POTENTIAL EFFECTS

Previous impacts

4.1. The Site has been severely impacted by previous quarrying, and parts of the Site have been used for landfill. Whilst the full extent of quarrying is not known, it is considered likely that the majority of the land covered by archaeological works in the late 20th century (Fig. 3) has already been subjected to quarrying. Parts of the quarry site have subsequently been used for landfill and parts have been converted into ponds (Fig. 9).

The significance of known and potential archaeological remains within the Site

- 4.2. This assessment has identified that no designated archaeological remains are located within the Site; no designated archaeological remains will therefore be adversely physically affected by development within the Site.
- 4.3. The survival of archaeological remains is unknown due to widespread ground disturbance, but the Site has a theoretical potential for:
 - Finds associated with Palaeolithic or Mesolithic activity.
 - Evidence of Neolithic or Bronze Age funerary activity.
 - Evidence of Late Prehistoric or Roman occupation, most likely comprising enclosures and evidence of agricultural activity.
 - Features associated with the Roman Road which runs through the Site.
 - Evidence of Anglo Saxon, Medieval, Post-medieval and Modern agricultural activity.

Palaeolithic and Mesolithic Finds

4.4. Finds dating to the Palaeolithic and Mesolithic periods have been recovered from the gravel terraces around the River Ouse. Any further finds dating to this period have the potential to further enhance our understanding of Palaeolithic and Mesolithic activity in this area during this period. If present, such finds have the potential to be of local to national significance, however, widespread disturbance across the Site is likely to have compromised the survival of such assets.

Neolithic or Bronze Age Funerary Activity

4.5. As discussed in Section 3 of this report, the Site is situated within an area of high Neolithic and Bronze Age activity which is largely clustered around the River Ouse and its tributaries. Features comprising mortuary enclosures, ring ditches and cursi are widespread in this landscape, and many of them are Scheduled Monuments.

4.6. Further finds or features dating to this period could conceivably be present on the Site and would be considered to have local to national significance. However, widespread disturbance across the Site is likely to have affected the survival of such remains.

Neolithic and Bronze Age Occupation

4.7. Despite the density of funerary features within the landscape, comparatively little evidence for occupation has been identified for the Neolithic and Bronze Age periods. If any evidence of occupation is found, it is likely to comprise small homesteads or evidence of land cultivation. Such evidence would be considered to be of local to regional significance, predominantly due to its association with nationally significant Scheduled Monuments of similar date. However, widespread disturbance across the Site is likely to have affected the survival of such remains.

Iron Age and Roman Occupation and the Roman Road

4.8. Evidence for Iron Age and Roman occupation has also been identified with the Site, including a farmstead discovered in the north east of the Site. There is potential for further evidence of occupation dating to these periods within the Site, though this is likely to comprise evidence of agricultural activity or and associated smallholdings. Any such finds or features have the potential to be of local to regional significance. However, widespread disturbance across the Site is likely to have affected the survival of such remains.

Anglo Saxon, Medieval, Post-medieval or Modern Agricultural Activity

4.9. Evidence of Anglo-Saxon, medieval, post-medieval or modern agricultural activity is likely to be present onsite, most likely comprising evidence of land division or drainage. Some ridge and furrow has been identified within the surrounding area, though there is no evidence to suggest that ridge and furrow survives on the Site itself. Features dating to the Anglo-Saxon or medieval periods have the potential for local significance, and features dating to the post-medieval or modern periods are considered to have a negligible archaeological significance. However, widespread disturbance across the Site is likely to have affected the survival of such remains.

Potential development effects

4.10. The Site is proposed for a mixed use development comprising residential units, an education facility, a care home, a community centre, a water sports lake, and

- associated landscaping and infrastructure. The layout for the development has not yet been finalised, but a preliminary layout is supplied in Appendix 4.
- 4.11. Whilst the Site has a high theoretical potential for archaeological remains dating to a range of archaeological periods, it is considered that gravel extraction work on the Site would have had a significant impact on the survival of any archaeological finds or features. The Site is considered to have a very low to negligible potential for significant unknown archaeological remains in parts of the Site which have been impacted by gravel extraction. The Site is considered to have a moderate to high potential for finds or features of archaeological interest in other parts of the Site.
- 4.12. In the unlikely event that highly significant remains survive within the Site, it is suggested that these areas could be retained as areas of open space. There is potential for the development to have an impact on the 'Two Barrows 500m NE of Octagon Farm: Part of a Neolithic and Bronze Age Mortuary Complex' located immediately adjacent to the Site's northern boundary. It is suggested that a buffer should be provided between the Scheduled Monument and the cycle path proposed for this part of the Site, to ensure that the asset is not truncated by redevelopment of the Site.
- 4.13. Any truncation (physical development effects) upon less significant archaeological remains identified within the Site would primarily result from groundworks associated with construction. Such groundworks might include:
 - pre-construction impacts associated with demolition and ground investigation works;
 - ground reduction;
 - construction ground works, including excavation of building foundations, service trenches and stripping for roads/car parks;
 - excavation of new site drainage channels (including soakaways); and
 - landscaping and planting.
- 4.14. Depending upon the final construction strategy, development within the Site would be likely to result in the removal of any remnant ridges associated with the postmedieval ridge and furrow within the Site. Given that these remains retain no evidential value and are of overall low heritage significance, their removal/loss would not be considered a significant archaeological impact.





5. THE SETTING OF HERITAGE ASSETS

- 5.1. This section considers potential non-physical effects upon the significance of susceptible heritage assets within the Site environs which comprises Steps 1-3 of Historic England's 'Good Practice Advice in Planning: Note 3: The Setting of Heritage Assets' (known as 'GPA3'; Historic England 2017). Non-physical effects are those that derive from changes to the setting of heritage assets as a result of new development.
- 5.2. All heritage assets considered within the settings assessment are illustrated on Figure 2 and, where relevant, summarised in Appendix 2: Gazetteer of Selected Heritage Assets. Those assets identified as potentially susceptible to non-physical impact, and thus subject to more detailed assessment, are discussed in greater detail within the remainder of this section.

Step 1: Identification of heritage assets potentially affected

- 5.3. Step 1 of the Second Edition of Historic England's 2017 'Good Practice Advice in Planning: Note 3' (GPA3) is to 'identify which heritage assets and their settings are affected' (see Appendix 1). GPA3 notes that Step 1 should identify the heritage assets which are likely to be affected as a result of any change to their experience, as a result of the development proposal (GPA3, page 9).
- 5.4. A number of heritage assets were identified as part of Step 1, as potentially susceptible to impact as a result of change within the Site. In this regard and to inform this assessment, a broad parameter of change consistent with residential development within the Site has been used.
- 5.5. The initial scoping process, carried out as part of Step 1 of the setting assessment, utilised readily available information and resources, such as GIS, modern mapping, terrain mapping and aerial photography, to establish whether any particular heritage asset could be affected by the proposed development through an alteration to its setting. The process, in combination with field survey, took into account the form of the asset, the nature of the prevailing topography, distance between the Site and the asset, the presence of intervening vegetation (woods, tree belts, hedgerows etc.), built form screening, the primary aspect and experience of the heritage assets and the nature of the proposed development.

- 5.6. The initial review of designated assets within the wider surroundings of the Site indicated that the majority were located at a sufficient distance from the Site with no historical or functional relationship with it, and are effectively screened by intervening built form, vegetation and topography. The Site visit confirmed this assessment. The majority of assets were therefore found to be unaffected at an early stage in the settings assessment process and will not be discussed further in this report.
- 5.7. Willington Dovecote and Willington Stables (CA Ref: 6), both Grade I listed buildings and scheduled monuments, are located 335m south east of the Site. Together with the Grade II listed St Lawrence's Church (CA Ref 44), they were built by the owner of Willington Manor, Sir John Gostwick, in c. 1540-41. These assets are not considered likely to be impacted by the proposed development, however this could change depending on the final development proposals for the Site. Listed buildings within the historic cores of Willington and Cople are not considered to be affected by the proposed development as they are located some distance from the Site, and there is no intervisibility between the Site and these assets.
- 5.8. Of those heritage assets assessed as part of Step 1, only the following assets were progressed for Steps 2 and 3:
 - Octagon Farmhouse, Grade II Listed Building.
 - Several Scheduled Monuments in the Study Area which form the Neolithic and Bronze Age mortuary complex (CA Refs 1, 2 and 4). Other Scheduled Monuments representing Neolithic and Bronze Age mortuary activity are located within the Study Area, however due to changes within the landscape this site no longer forms a relevant part of their setting.

Steps 2 – 3: Assessment of setting and potential effects of the development

5.9. This section presents the results of Steps 2 to 3 of the settings assessment, which have been undertaken with regard to those potentially susceptible heritage assets identified in Step 1. Step 2 considers the contribution that setting makes to the significance of potentially susceptible heritage assets. Step 3 then considers how, if at all, and to what extent any anticipated changes to the setting of those assets, as a result of development within the Site, might affect their significance.

Octagon Farmhouse

The Asset and its Significance

- 5.10. Octagon Farmhouse is Grade II Listed (https://historicengland.org.uk/listing/the-list/list-entry/1321601) and as such is considered to be a designated heritage asset of architectural interest.
- 5.11. The following description of Octagon Farmhouse comprises relevant extracts from Historic England:

House. Early C19, for Duke of Bedford. Similar to design c.1800 by R. Salmon for Francis, 5th Duke of Bedford, for house in another parish (cf. T. Batchelor, General View of the Agriculture of the County of Bedford, 1808, p.20 and facing plate). Apparently with later alterations. Red brick, with slate roof, hipped to main block, gabled to projecting blocks. Main block octagonal plan, 2 storeys and attic, with 2-span 2 storeyed block projecting from W elevation, and one storey and attics block projecting from N elevation. Variety of casements, but mostly of 3 lights, with glazing bars, under cambered heads. S and E elevations are blank. Original 6-panel front door to NE elevation, up flight of steps, covered by flat-roofed wooden porch. Pair of red brick stacks to centre of octagonal block, flanking double-sided roof light.



Photograph 1. Octagon Farmhouse, taken from the driveway to the farm, looking north west.

5.12. As emphasised in the above description, the octagonal main block is the principal contributor to its heritage significance due to its unusual design. This part of the building appears to have been constructed primarily for its aesthetic value. The Octagon was intended to be the focus of this farm, and its position at the end of the straight driveway emphasises this – this would have been the first part of the farmhouse a visitor would have seen as they approached the farmhouse from Bedford Road. With this in mind, it is considered that the significance derives from the aesthetic value of the building, and less so from its historical use as a farmhouse.

Landscape Setting – "what matters and why"

- 5.13. Octagon Farmhouse is situated within a largely flat landscape. To the east of the farmhouse, there is a range of farm buildings which were once associated with the farmhouse (Fig. 10). Whilst the farmhouse may once have formed part of an active agricultural landscape, this is no longer the case. In the later 20th and early 21st century, the surrounding area has been subject to widespread quarrying. Whilst parts of the quarry have since been infilled, in some cases with landfill, other parts of the quarry have been converted into open ponds. The ponds dominate the area to the north of the Site and are surrounded by heavily overgrown brush. To the south of the Site, some of the fields have been returned to agricultural use following quarrying but as shown by Fig. 11, these fields are located some distance from the farmhouse.
- 5.14. The land the farmhouse is located on is currently owned by Bedford Borough Council, and Octagon Farmhouse is rented to tenants who have occupied the property for at least fifteen years. These tenants do not farm the landscape. A range of farm buildings are located in a courtyard to the east of the farmhouse, and comprise barns, stables and other agricultural buildings, but all of these buildings are in a very poor state and many are fenced off. A probable eighteenth to nineteenth century granary located in the northern part of the courtyard has burnt down.
- 5.15. The farmhouse was historically owned by the Duke of Bedford, who is shown to have owned vast swathes of land within the parishes of Cople and Willington. This is not the only farmhouse recorded under the ownership of the Duke of Bedford in the tithe apportionments for these parishes.



Photograph 2. Derelict farm buildings.



Photograph 3. Burnt out granary.



Photograph 4. Derelict farm building with Octagon Farmhouse in the background

Assessment of Development Effects

- 5.16. The development is not yet finalised but a provisional layout has been produced and will be the focus of this section. This assessment is based on the current proposed development layout.
- 5.17. As already discussed above, the octagon-shaped portion of Octagon Farmhouse was constructed as the focal point of the building. Currently, the building is visible from/along the access drive from Bedford Road. Under the current development proposals, this view will be preserved.
- 5.18. Whilst the farmhouse originally formed part of an agricultural landscape, the quarrying of the landscape has had a severe impact on the link with its historical setting and it no longer serves an agricultural function. Currently, though the surrounding area largely comprises fallow land, the relatively rural setting of the farmhouse building could be considered to have some positive contribution to the way the building is experienced. It is suggested that the retention of the garden around Octagon Farmhouse could reduce the impact of development on this rural setting, by providing a buffer between the existing building and proposed new buildings. There is potential

for some of the associated farm buildings to be refurbished as part of this development, though this would depend on the condition of these structures.

5.19. The development of the Site will represent a marked change to the wider setting of Octagon Farmhouse. The Listed Building currently feels somewhat isolated, situated within a landscape which, whilst no longer agricultural, retains some rural character. However, as discussed above, the significance of Octagon Farmhouse derives predominantly from the unusual architectural style of the main octagonal block, not its agricultural history. This block was originally constructed to be a focal point of the Site, designed not because it was functional but for its ability to impress visitors. It could be argued that since the late 20th century, when the farmhouse's agricultural setting was heavily altered by quarrying, that this ability has been significantly reduced. In its current state, Octagon Farmhouse is now a house, located some distance from the road, where its architectural merits cannot be readily appreciated. Whilst the proposed development would introduce significant change to the setting of the asset, it seeks to make Octagon Farmhouse the focal point of this new development and allows the building's architectural merits to be appreciated by the wider public once more.

Neolithic and Bronze Age Mortuary Complex

The Asset and its Significance

5.20. The Site is surrounded by a number of separately scheduled monuments which make up the Neolithic and Bronze Age funerary landscape around the course of the Great Ouse and its tributaries. Three of these (CA Refs: 1, 2 and 4) have the potential to be affected by the development. All other monuments which form the Neolithic and Bronze Age Mortuary Complex were scoped out during the site visit as they are screened from the site by roads, modern development and mature boundary planting and hedgerows. Due to the temporal, spatial and functional similarities between these monuments, they will be considered as a group. The closest of these assets, 'Two Barrows 500m NE of Octagon Farm: Part of a Neolithic and Bronze Age Mortuary Complex', is located immediately adjacent to the Site boundary (CA Ref: 1). 'Barrow 400m north of Octagon Farm' is located 130m north of the Site (CA Ref: 2), and 'Neolithic and Bronze Age mortuary complex 600m NW of Octagon Farm' is located 180m north west of the Site (CA Ref: 4). Within the wider landscape associated designated assets are located south west, north west, north, and north east of the

Site and comprise various mortuary enclosures, barrows and cursi which represent a high level of activity in this area during these periods.

5.21. The following description comprises relevant extracts taken from Historic England:

Neolithic and Bronze Age mortuary complexes date to the period between c4000 and c700 BC. Typically they are set within topographically defined areas, perhaps between rivers or valleys, and sometimes their topographical boundaries are emphasised by ditch systems. Within the defined area such complexes comprise closely spaced groups of features or different types, later types of feature often being superimposed on earlier ones, indicating continuity of use over a long period of time. Features found on such sites include round barrows, which can take a variety of forms, of which bowl barrows are the most common. Such barrows were earthen or stone mounds covering a burial or a group of burials. Such barrows were usually surrounded by a circular ditch from which material for the construction of the mound was obtained. These circular ditches are often visible through aerial photography when the mound no longer shows as an earthwork and are frequently classified as 'ring-ditches'. Burials on such sites, however, are not confined to the barrows and 'flat burials' have often been discovered in between them. Also found on such sites are a variety of enclosures, sometimes referred to as mortuary enclosures. These are often square or rectangular in plan but round-ended and even sub-circular examples are known. They are usually defined by a bank and external ditch and sometimes have opposed entrances. Their original function is uncertain but it is presumed that they were employed in the burial ritual and in subsequent commemorations. Neolithic and Bronze Age mortuary complexes often also include other classes of ceremonial monuments such as cursuses (which were elongated embanked enclosures which probably served as ceremonial routeways) and henges (which were major circular earthworks which probably served as gathering places). A small number of such complexes have individual components surviving as earthworks but the majority are cropmark sites which are known from aerial photography and which survive only as buried features below the ploughsoil. They provide important evidence for the diversity of beliefs and social organisation amongst Early Prehistoric communities and all examples where significant archaeological deposits remain are considered to be of national importance. The geophysical survey of the two barrows 500m north-east of Octagon Farm has confirmed that the monument survives well below ground. The ditches will retain archaeological information and environmental evidence relating to the burial mounds and the landscape in which they were constructed. The association of these barrows with the main group of mortuary monuments to the west will contribute information regarding the continuity and evolution of Prehistoric funerary practices in this area.

5.22. Evidence from across Britain suggests that water bodies and wetland areas often played a key role in the Bronze Age ritual landscape. Key sites elsewhere in the country include the Thames Estuary and Flag Fen, Cambridgeshire).

Landscape Setting – "what matters and why"

- 5.23. These monuments were originally created with the intent to dominate the landscape and serve as a permanent memorial to the ancestors. However, in the present day, the vast majority of the monuments which form this landscape do not survive at all above ground, and those that do remain little more than slight depressions in the ground. As discussed in Section 3, a number of non-designated assets of similar date and function have been identified within the Site, but most of these have been destroyed by guarrying activity in the late 20th century.
- 5.24. It is likely that during the Neolithic and Bronze Age there would have been some intervisibility between these monuments. However, the construction of Bedford Road, the Bedford to Sandy railway, and the A421 to the north and south of the Site has severed the intervisibility between these assets. Furthermore, quarrying activities in the area have decimated the gravel terraces which made the area so attractive to prehistoric peoples. Due to these changes, the setting of the barrows no longer contributes to their significance beyond the association and theoretical visibility between these sites.
- 5.25. As shown in Photograph 5, 'Two barrows 500m NE of Octagon Farm', located on the Site's boundary, is no longer visible at ground level. The monument was first identified as a series of cropmarks on aerial photographs and its presence was confirmed by a geophysical survey which suggests some level of preservation of archaeological remains below ground. 'A barrow 400m north of Octagon Farm' is also no longer visible at ground level.



Photograph 5. View of 'Two Barrows 500m NE of Octagon Farm', a Scheduled Monument (CA Ref: 2)

5.26. 'Neolithic and Bronze Age Mortuary Complex 600m NW of Octagon Farm' does contain some cut features which are visible at ground level, though no barrow mounds survive.



Photograph 6. Neolithic and Bronze Age mortuary complex 600m NW of Octagon Farm (CA Ref: 4)

Assessment of Development Effects

- 5.27. The development is considered to have a minimal impact on the Neolithic and Bronze Age mortuary complex as a whole. The monuments are poorly preserved and their setting has already been significantly affected by quarrying and the construction of the modern road and rail development.
- 5.28. The proposed development is not considered likely to have an impact on the setting of the 'Neolithic and Bronze Age mortuary complex 600m NW of Octagon Farm' (CA Ref: 4). Originally, this monument formed part of the river valley's landscape. However, the construction of the A421 to the north west and the Bedford to Sandy railway to the south has already severed its links to the Great Ouse and its tributaries, the proposed development is not considered likely to further impact on these links. It is considered likely that there will be no intervisibility between the monument and the proposed development as it is shielded by the Bedford to Sandy cycle path and associated mature vegetation. Following on from the development, this asset will remain in a fallow landscape.

- 5.29. The setting of 'A barrow 400m north of Octagon Farm' is also unlikely to be impacted by the proposed development. The barrow is not visible at ground level, so views of it within its setting will not be compromised.
- 5.30. Similarly, the setting of 'Two Barrows 500m NE of Octagon Farm' is also expected to be unaffected by the development (CA Ref: 1). This monument is not visible above ground, and gravel extraction has left large pits around it which have drastically altered the landscape it occupies. However, the reroute of the cycle way has the potential to have a physical impact on the scheduled monument. Currently, the development proposals seek to divert the cycle path around the new water sports lake. Whilst the barrows do not survive as earthworks, laying of the path has the potential to have a negative impact on any parts of the monument which survive below ground. It is suggested that this cycle way is diverted around the barrows to ensure that there is no direct physical impact on them.

6. CONCLUSIONS

- 6.1. This assessment has included a review of a comprehensive range of available sources, in accordance with key industry guidance, in order to identify known and potential heritage assets located within the Site and its environs which may be affected by the proposals. The significance of the identified known and potential heritage assets has been determined, as far as possible, on the basis of available evidence. The potential effects of development on the significance of identified heritage assets, including any potential physical effects upon buried archaeological remains, and potential non-physical effects resulting from the anticipated changes to the settings of heritage assets, have been assessed. Any physical or non-physical effects of the proposals upon the significance of the heritage resource will be a material consideration in the determination of the planning application for the proposal.
- 6.2. The purpose of promoting the Proposed Development through the 'Call for Sites' exercise is to amend Policy AD23 of the Allocations and Designations and Local Plan (2013), which currently allocates this 102.65ha of land at Bedford River Valley Park for a mixed-use development. The amendment seeks to include residential 'enabling development' within Policy AD23, which will generate sufficient funds to deliver the water sports lake and other leisure opportunities which are an integral part of the Bedford River Valley Park; planning permission for the water sports lake was granted in 2006 (LPA Ref: BC/CM/2003/33). This report has been prepared upon request by the Council to support the promotion of the Proposed Development.
- 6.3. Finds and features dating to all archaeological periods have previously been identified on the Site. Therefore, the Site is considered to have a high theoretical potential for finds or features dating to all archaeological periods.
- 6.4. However, the Site was quarried extensively in the late 20th century, and this activity will have had a widespread below ground impact on any archaeological remains which may once have been present on the Site. As a result, it is likely that any archaeological remains present on the Site will be concentrated in the areas which have not been impacted by quarrying activity.
- 6.5. Octagon Farmhouse, a Grade II Listed Building, is located within the Site. Whilst the Site once formed part of its agricultural landscape, quarrying activity has had a significant impact on its historic setting. The significance of Octagon Farmhouse

predominantly lies in the architectural interest and aesthetic value of the octagonshaped main block. The proposed development provides an opportunity to increase appreciation of the building's architectural merits by making the farmhouse the focal point of a new community space.

- 6.6. The Site is situated within a Neolithic and Bronze Age mortuary complex comprising a number of designated and non-designated heritage assets. However, agricultural activity and modern infrastructure improvements have had a severe impact on the survival of these monuments above ground and on their setting. The location of the proposed diversion to National Cycle Route 51 should be carefully considered to avoid an impact on the below ground archaeological remains associated with a scheduled monument immediately to the north of the Site, but otherwise the development is considered to have minimal impact on these designated assets.
- 6.7. It is likely that the Local Planning Authority will require evaluation in the areas of the Site which have not already been subject to mineral extraction and previous archaeological works. It is suggested that any subsequent mitigation measures for this Site should concentrate on parts of the Site which have not already been quarried, though the final decision on the scope of future archaeological works rests with the archaeological advisor to the Local Planning Authority.

7. REFERENCES

- British Geological Survey 2021 *Geology of Britain Viewer, 1:50,000 geological mapping, bedrock and superficial* http://mapapps.bgs.ac.uk/geologyofbritain3d/index.html
- Chartered Institute for Archaeologists 2020 Standard and Guidance for Historic Environment

 Desk-Based Assessment
- Electronic Sawyer https://esawyer.lib.cam.ac.uk/about/index.html
- Historic England (HE) 2010, The Light Fantastic: Using Airbourne LiDAR in Archaeological Survey
- Historic England 2008 Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment
- Historic England 2015 Historic Environment Good Practice Advice in Planning Note 2:

 Managing Significance in Decision-Taking in the Historic Environment
- Historic England 2016 Historic England Advice Note 1: Conservation Area Designation, Appraisal and Management
- Historic England 2017 Historic Environment Good Practice Advice in Planning: Note 3: The Setting of Heritage Assets (Second Edition)
- Historic England 2019 Historic England Advice Note 12: Statements of Heritage Significance:

 Analysing Significance in Heritage Assets
- Klemen Zakšek, Krištof Oštir and Žiga Kokalj 2011 *Sky-View Factor as a Relief Visualization Technique. Remote Sensing 3(2): 398-415*
- Kokalj, Žiga and Maja Somrak 2019 Why not a single image? Combining Visualizations to Facilitate Fieldwork and On-Screen Mapping. Remote Sensing 11 (7): 747
- Kokalj, Žiga and Ralf Hesse 2017 Airbourne Laser Scanning Raster Visualisation: A guide to Good Practice
- Ministry of Housing, Communities and Local Government 2019 National Planning Policy Framework (NPPF); published February 2019
- Open Domesday https://opendomesday.org/map/
- Planning (Listed Buildings and Conservation Areas) Act 1990 Act of UK Parliament
- Prosopography of Anglo Saxon England http://www.pase.ac.uk/

Cartographic sources

1839 Willington Parish Tithe Map

1842 Cople Parish Tithe Map

1884 Ordnance Survey 1:2500

1884-1885 Ordnance Survey 1:10560

1901 Ordnance Survey 1:2500

1901-1902 Ordnance Survey 1:10560

1926 Ordnance Survey 1:2500

1927 Ordnance Survey 1:10560

1938 Ordnance Survey 1:10560

1948 Ordnance Survey 1:10560

1960 Ordnance Survey 1:10,000

1969 Ordnance Survey 1:2500

1972-1978 Ordnance Survey 1:10,000

1984-1987 Ordnance Survey 1:10,000

1985 Ordnance Survey 1:2500

1993 Ordnance Survey 1:2500

Ordnance Survey maps viewed at: www.promap.co.uk http://www.envirocheck.co.uk/ and www.maps.nls.uk/geo/find/

APPENDIX 1: HERITAGE STATUTE POLICY & GUIDANCE

Heritage Statute: Scheduled Monuments

Scheduled Monuments are subject to the provisions of the Ancient Monuments and Archaeological Areas Act 1979. The Act sets out the controls of works affecting Scheduled Monuments and other related matters. Contrary to the requirements of the Planning Act 1990 regarding Listed buildings, the 1979 Act does not include provision for the 'setting' of Scheduled Monuments.

Heritage Statute: Listed Buildings

Listed buildings are buildings of 'special architectural or historic interest' and are subject to the provisions of the Planning (Listed Buildings and Conservation Areas) Act 1990 ('the Act'). Under Section 7 of the Act 'no person shall execute or cause to be executed any works for the demolition of a Listed Building or for its alteration or extension in any manner which would affect its character as a building of special architectural or historic interest, unless the works are authorised.' Such works are authorised under Listed Building Consent. Under Section 66 of the Act '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 feature of special architectural or historic interest which it possesses'.

Note on the extent of a Listed Building

Under Section 1(5) of the Act, a structure may be deemed part of a Listed Building if it is:

- (a) fixed to the building, or
- (b) within the curtilage of the building, which, although not fixed to the building, forms part of the land and has done so since before 1st July 1948

The inclusion of a structure deemed to be within the 'curtilage' of a building thus means that it is subject to the same statutory controls as the principal Listed Building. Inclusion within this duty is not, however, an automatic indicator of 'heritage significance' both as defined within the NPPF (2019) and within Conservation Principles (see Section 2 above). In such cases, the significance of the structure needs to be assessed both in its own right and in the contribution it makes to the significance and character of the principal Listed Building. The practical effect of the inclusion in the listing of ancillary structures is limited by the requirement that Listed Building Consent is only needed for works to the 'Listed Building' (to include the building in the list and all the ancillary items) where they affect the special character of the Listed Building as a whole.

Guidance is provided by Historic England on '<u>Listed Buildings and Curtilage: Historic England Advice Note 10</u>' (Historic England 2018).

National heritage policy: the National Planning Policy Framework Heritage assets and heritage significance

Heritage assets comprise 'a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest' (the NPPF (2019), Annex 2). Designated heritage assets include World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, Registered Parks and Gardens, Registered Battlefields and Conservation Areas (designated under the relevant legislation; NPPF (2019), Annex 2). The NPPF (2019), Annex 2, states that the significance of a heritage asset may be archaeological, architectural, artistic or historic. Historic England's 'Conservation Principles' looks at significance as a series of 'values' which include 'evidential'. 'historical', 'aesthetic' and 'communal'.

The July 2019 revision of the Planning Practice Guidance (PPG) expanded on the definition of non-designated heritage assets. It states that 'Non-designated heritage assets are buildings, monuments, sites, places, areas or landscapes identified by plan-making bodies as having a degree of heritage significance meriting consideration in planning decisions, but which do not meet the criteria for designated heritage assets.' It goes on to refer to local/neighbourhood plans, conservation area appraisals/reviews, and importantly, the local Historic Environment Record (HER) as examples of where these assets may be identified, but specifically notes that such identification should be made 'based on sound evidence', with this information 'accessible to the public to provide greater clarity and certainly for developers and decision makers'.

This defines *non-designated heritage assets* as those which have been specially defined as such through the local HER or other source made accessible to the public by the plan-making body. Where HERs or equivalent lists do not specifically refer to an asset as a *non-designated heritage asset*, it is assumed that it has not met criteria for the plan-making body to define it as such, and will be referred to as a *heritage asset* for the purpose of this report.

The assessment of *non-designated heritage assets* and *heritage assets* will be equivalent in this report, in line with industry standards and guidance on assessing significance and impact. They may not, however, carry equivalent weight in planning as set out within the provisions of the NPPF, should there be any effect to significance.

The setting of heritage assets

The 'setting' of a heritage asset comprises 'the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral' (NPPF (2019), Annex 2). Thus it is important to note that 'setting' is not a heritage asset: it may contribute to the value of a heritage asset.

Guidance on assessing the effects of change upon the setting and significance of heritage assets is provided in 'Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets', which has been utilised for the present assessment (see below).

Levels of information to support planning applications

<u>Paragraph 189</u> of the NPPF (2019) identifies that 'In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any 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'.

Designated heritage assets

<u>Paragraph 184</u> of the NPPF (2019) explains that heritage assets 'are an irreplaceable resource and should be conserved in a manner appropriate to their significance'. <u>Paragraph 193</u> notes that 'when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance'. <u>Paragraph 194</u> goes on to note that 'substantial harm to or loss of a grade II listed building...should be exceptional and substantial harm to or loss of designated heritage assets of the highest significance (notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites)...should be wholly exceptional'.

<u>Paragraph 196</u> clarifies that 'Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including, where appropriate, securing its optimum viable use'.

Good Practice Advice 1-3

Historic England has issued three Good Practice Advice notes ('GPA1-3') which support the NPPF. The GPAs note that they do not constitute a statement of Government policy, nor do they seek to prescribe a single methodology: their purpose is to assist local authorities, planners, heritage consultants, and other stakeholders in the implementation of policy set out in the NPPF. This report has been produced in the context of this advice, particularly 'GPA2 – Managing Significance in Decision-Taking in the Historic Environment' and 'GPA3 – The Setting of Heritage Assets'.

GPA2 – Managing Significance in Decision-Taking in the Historic Environment

GPA2 sets out the requirement for assessing 'heritage significance' as part of the application process. Paragraph 8 notes 'understanding the nature of the significance is important to understanding the need for and best means of conservation.' This includes assessing the extent and level of significance, including the contribution made by its 'setting' (see GPA3 below). GPA2 notes that 'a desk-based assessment will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area, and the impact of the proposed development on the significance of the historic environment, or will identify the need for further evaluation to do so' (Page 3).

GPA3 – The Setting of Heritage Assets

The NPPF (Annex 2: Glossary) defines the setting of a heritage asset as 'the surroundings in which a heritage asset is experienced...'. Step 1 of the settings assessment requires heritage assets which may be affected by development to be identified. Historic England notes that for the purposes of Step 1 this process will comprise heritage assets 'where that experience is capable of being affected by a proposed development (in any way)...'.

Step 2 of the settings process 'assess[es] the degree to which these settings and views make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated', with regard to its physical surrounds; relationship with its surroundings and patterns of use; experiential effects such as noises or smells; and the way views allow the significance of the asset to be appreciated. Step 3 requires 'assessing the effect of the proposed development on the significance of the asset(s)' – specifically to 'assess the effects of the proposed development, whether beneficial or harmful, on the significance or on the ability to appreciate it', with regard to the location and siting of the development, its form and appearance, its permanence, and wider effects.

Step 4 of GPA3 provides commentary on 'ways to maximise enhancement and avoid or minimise harm'. It notes (Paragraph 37) that 'Maximum advantage can be secured if any effects on the significance of a heritage asset arising from development liable to affect its setting are considered from the project's inception.' It goes on to note (Paragraph 39) that 'good design may reduce or remove the harm, or provide enhancement'.

Heritage significance

Discussion of heritage significance within this assessment report makes reference to several key documents. With regard to Listed buildings and Conservation Areas it primarily discusses 'architectural and historic interest', which comprises the special interest for which they are designated.

The NPPF provides a definition of 'significance' for heritage policy (Annex 2). This states that heritage significance comprises 'The value of a heritage asset to this and future generations because of its heritage interest. That interest may be <u>archaeological</u>, <u>architectural</u>, <u>artistic</u> or <u>historic'</u>. This also clarifies that for World Heritage Sites 'the cultural value described within each site's Statement of Outstanding Universal Value forms part of its significance'.

Regarding 'levels' of significance the NPPF (2019) provides a distinction between: designated heritage assets of the highest significance; designated heritage assets not of the highest significance; and non-designated heritage assets.

Historic England's 'Conservation Principles' expresses 'heritage significance' as comprising a combination of one or more of: evidential value; historical value; aesthetic value; and communal value:

- Evidential value the elements of a historic asset that can provide evidence about past human activity, including physical remains, historic fabric, documentary/pictorial records.
 This evidence can provide information on the origin of the asset, what it was used for, and how it changed over time.
- Historical value (illustrative) how a historic asset may illustrate its past life, including changing uses of the asset over time.
- Historical value (associative) how a historic asset may be associated with a notable family, person, event, or moment, including changing uses of the asset over time.
- Aesthetic value the way in which people draw sensory and intellectual stimulation from a historic asset. This may include its form, external appearance, and its setting, and may change over time.

• Communal value – the meaning of a historic asset to the people who relate to it. This may be a collective experience, or a memory, and can be commemorative or symbolic to individuals or groups, such as memorable events, attitudes, and periods of history. This includes social values, which relates to the role of the historic asset as a place of social interactive, distinctiveness, coherence, economic, or spiritual / religious value.

Effects upon heritage assets

Heritage benefit

The NPPF clarifies that change in the setting of heritage assets may lead to heritage benefit. Paragraph 200 of the NPPF (2019) notes that 'Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably'.

GPA3 notes that 'good design may reduce or remove the harm, or provide enhancement' (Paragraph 28). Historic England's 'Conservation Principles' states that 'Change to a significant place is inevitable, if only as a result of the passage of time, but can be neutral or beneficial in its effects on heritage values. It is only harmful if (and to the extent that) significance is reduced' (Paragraph 84).

Specific heritage benefits may be presented through activities such as repair or restoration, as set out in Conservation Principles.

Heritage harm to designated heritage assets

The NPPF (2019) does not define what constitutes 'substantial harm'. The High Court of Justice does provide a definition of this level of harm, as set out by Mr Justice Jay in *Bedford Borough Council v SoS for CLG and Nuon UK Ltd.* Paragraph 25 clarifies that, with regard to 'substantial harm': 'Plainly in the context of physical harm, this would apply in the case of demolition or destruction, being a case of total loss. It would also apply to a case of serious damage to the structure of the building. In the context of non-physical or indirect harm, the yardstick was effectively the same. One was looking for an impact which would have such a serious impact on the significance of the asset that its significance was either vitiated altogether or very much reduced'.

Effects upon non-designated heritage assets

The NPPF (2019) paragraph 197 guides that 'The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the

application. In weighing applications that affect directly or indirectly non-designated heritage assets, a balanced judgment will be required having regard to the scale of any harm or loss and the significance of the heritage asset'.

APPENDIX 2: GAZETTEER OF SELECTED RECORDED HERITAGE ASSETS

Designated Heritage Assets

Ref	Description	Grade/Period	NGR/Location	HE ref. HER ref. HEA ref.
1	Two barrows 500m NE of Octagon Farm: part of a Neolithic and Bronze Age mortuary complex. These monuments are not visible above ground but they are visible on aerial photography and their location has been confirmed by a geophysical survey. The eastern ring ditch measures 23m in diameter and contains a rectilinear enclosure. The western ring ditch is situated 20m to the west, and is double ditched, with the outer ditch measuring 32m in diameter and the inner ditch measuring 12.5m.	Neolithic to Bronze Age	TL 0979 5000 On N boundary of Site.	1008510
2	A barrow 400m north of Octagon Farm: part of a Neolithic and Bronze Age mortuary complex. The barrow is no longer visible at ground level but represented as a ring ditch partially visible on aerial photographs. The ditch measures 22m in diameter.	Neolithic to Bronze Age	TL 0960 5000 130m N of the Site.	1009777
3	Settlement site N of Chapel End Farm. Cropmarks show an interrupted ditch system or causewayed enclosure overlain by rectilinear enclosures and other features. The causewayed enclosure is considered to be Neolithic but other features are likely to date to the Iron Age/Roman periods. Excavations in 1951-52 uncovered a hearth and 4th century AD pottery. 2nd to 4th century AD pottery was found during field-walking in 1982.	Neolithic/Iron Age to Roman	TL 0921 4866 174m SW of the Site.	1005390
4	Neolithic and Bronze Age mortuary complex 600m NW of Octagon Farm. Comprises at least 19 closely spaced monuments including: - 4 large rectangular mortuary enclosures with 1 or more entrances. They measure between 70m and 180m in length and 20m and 60m in width a small oval shaped enclosure measuring 41m SE-NW by 28m NE-SW a long oval shaped enclosure measuring 70m SW-NE by 15m NW-SE.	Neolithic to Bronze Age	TL 0906 4991 177m NW of the Site.	1011629

Ref	Description	Grade/Period	NGR/Location	HE ref. HER ref. <i>HEA ref.</i>
	 a cursus measuring 130m by 10m. 11 ring ditches representing the remains of barrows, some of which were located within the above features. The diameters of these ring ditches range from 45m to 16m. Additional features including pits, postholes and linear ditches were identified during an evaluation in 1992. 			
5	Hengi-form monument 480m south of Dairy Farm. The monument is no longer visible on the ground but is visible as a cropmark on aerial photographs. It comprises a circular ditch c. 24m in diameter, broken by a single entranceway on the south facing towards the Ouse. The entrance measures c. 5m across and is flanked on both sides by broadened ditch terminals. A concentric internal feature is also visible on the aerial imagery.	Neolithic to Bronze Age	TL 1114 5075 234m NE of the Site.	1015586
6	Willington Dovecote The Tithe Barn and Pigeon House at Willington Manor date to the time of Henry VIII and are outlying buildings of the manor of Gostwychs. The Dovecote, likely built between 1535 and 1541, appears to have reused stone from Newnham Priory. Willington Stables Dating to c. 1535-41, this building is constructed out of course limestone and associated with the manor Gostwychs.	Grade I, Tudor	TL 1065 4996 and TL 1060 4990 335m SE of the Site.	1004503 1321578 MBD435 1004502 1114191 MBD995
7	Two bowl barrows 330m south of Dairy Farm. Two bronze age barrows located on the low lying gravel terrace. Earthwork remains are barely visible but the cropmarks are frequently visible from both ground and air level. One barrow measures 18m in diameter, the other is slightly oval and measures 25m by 19m.	Bronze Age	TL 1119 5090 340m NE of the Site.	1015589
8	Howbury ringwork and medieval trackway. The ringwork, once known as Addingreves Castle, is undisturbed and is considered the best-preserved example in Bedfordshire. Though originally mistaken as a Roman amphitheatre on early maps, it is now considered to be a Norman castle. Burials were found on the Site in the early 19th century. The	Medieval	TL 1067 5129 378m NE of the Site.	1009627

Ref	Description	Grade/Period	NGR/Location	HE ref. HER ref. <i>HEA ref.</i>
	ringwork is located on a medieval trackway.			
9	"The Docks" moated site and dock. A rare example of a moat with contemporary medieval docking facilities. Includes remains of double island moated site and associated dock adjacent to the River Ouse. The moated site comprises inner and outer moated enclosures, and excavations have identified 11th to 14th century AD buildings within them.	Medieval	TL 1131 5023 397m E of the Site.	1012079
10	Bowl barrow 550m south east of Dairy Farm. This barrow has been severely damaged by ploughing and the earthwork is barely visible at ground level. The cropmark of the ring ditch is visible on aerial photographs. The ditch measures c. 11m in diameter.	Neolithic to Bronze Age	TL 1140 5076 476m NE of the Site	1015590
11	Henge, henge type monument and bowl barrow, 500m south east of Dairy Farm. Both the henge and the barrow have been reduced by ploughing and neither are visible at ground level though they are visible as cropmarks on aerial photographs. The henge comprises a circular ditch measuring c. 32m in diameter. This is broken by an entrance on the east side. Inside, a second ditch measuring 18m in diameter is also broken by a gap to the east. Internal features comprise further subdivisions and pits. The barrow is located c. 24m north of the henge and measures c. 18m in diameter.	Neolithic to Bronze Age	TL 1146 5084 522m NE of the Site.	1015587
12	A barrow 1000m NW of Octagon Farm: part of a Neolithic and Bronze Age mortuary complex. A barrow no longer visible at ground level but represented by a circular ring ditch which is clearly visible on aerial photographs. The ditch measures 21m in diameter.	Neolithic to Bronze Age	TL 0866 4999 610m NW of the Site.	1007329
13	Mortuary enclosure 900m NNW of Octagon Farm: part of a Neolithic and Bronze Age mortuary. The enclosure is visible as a rectangular enclosure on aerial photographs and measures 30m E-W by 30m N-S. A causeway is situated on its E boundary. A trial trench was excavated in 1990 and identified a U-shaped ditch. Postholes were identified within the enclosure.	Neolithic to Bronze Age	TL 0912 5032 619m NW of the Site.	1007324

Ref	Description	Grade/Period	NGR/Location	HE ref. HER ref. HEA ref.
14	Barrow and mortuary enclosure 1100m WNW of Octagon Farm, part of a Neolithic and Bronze Age mortuary complex. These features are not visible at ground level but have been identified on aerial photographs. The barrow ditch measures 11m in diameter. About 8m E of the barrow is a 5 sided enclosure measuring 70m E-W by 35m N-S.	Neolithic to Bronze Age	TL 0840 4990 666m NW of the Site.	1007327
15	Three barrows and a rectilinear enclosure 1000m NNW of Octagon Farm: part of a Neolithic and Bronze Age mortuary complex. Though no longer visible at ground level, the features are visible as cropmarks on aerial photography. The barrows date to the Bronze Age and measure 30m, 25m and 20m in diameter. A rectilinear enclosure overlies the western ring ditch and measures 70m NE-SW by 30m NW-SE and dates to the Iron Age.	Bronze Age to Iron Age	TL 0911 5047 718m NW of the Site	1007322
16	Mortuary enclosure 1200m northwest of Octagon Farm: part of a Neolithic and Bronze Age mortuary complex. A mortuary enclosure visible as cropmarks in aerial photographs. The enclosure is surrounded by a ditch measuring 30m E-W by 30m N-S.	Neolithic to Bronze Age	TL 0850 5020 861m NW of the Site.	1007326
17	Cardington Conservation Area	N/A	TL 0868 4786 986m SW of the Site.	DBD3267
18	Garden to Howard's House, Cardington The garden is considered an rare example of a C18 walled garden of moderate size. The garden was laid out by the owner of the house, John Howard, a prison reformer.	Grade II, Georgian	TL 0866 4800 986m SW of the Site.	1429874 DBB6489
19	Wesleyan Methodist Chapel, Chapel End Built in either 1823 or 1825. Red brick, with slate roof.	Grade II, Georgian	TL 0933 4815 872m S of the Site.	1114143 MBD1032
20	All Saints' Church Parish church. Built c. 1430 with 16th, 18th, 19th and 20th century additions.	Grade I, Late Medieval	TL 1031 4846 804m S of the Site.	1114154 MBD1039
21	Manor Farm, Church Road 16th century building with 17th, 18th, and 19th century alterations. Originally a timber framed brick building, some timbering is still visible on the interior. Located on the Site of a former manor house.	Grade II, Late Medieval to Early Post-medieval	TL 1053 4976 291m E of the Site.	1312403 MBD5411

Ref	Description	Grade/Period	NGR/Location	HE ref. HER ref. <i>HEA ref.</i>
22	39 Church Road 16th century house with 17th century alterations and 20th century windows. Timber framed construction with old clay tile roof.	Grade II, Late Medieval to Early Post-medieval	TL 1092 4992 535m SE of the Site.	1114193 MBD5412
23	33 Church Road House, c. 1600 with later 17th century alterations. Timber framed with thatched roof. 31 Church Road 17th century cottage with 20th century alterations. Timber framed with thatched roof. The Old Vicarage, 32 Church Road 17th century house with 19th and 20th century alterations. Timber framed with red tile roof.	Grade II, Post- medieval	TL 1097 4995 550m SE of the Site. TL 1099 4994 571m SE of the Site. TL 1099 5000 519m SE of the Site.	1312333 MBD5413 1321579 MBD5414 1137396 MBD5415
24	36 Station Road Cottage, c. 1700 with 20th century alterations. Timber framed construction with thatched roof. Clumber Cote, 45 Station Road 17th century house with 20th century alterations. Timber framed construction with thatched roof.	Grade II, Post- medieval	TL 1140 4978 903m SE of the Site. TL 1143 4982 882m SE of the Site.	1321580 MBD5416 1114195 MBD5417
25	7 Church Road 16th century house with 17th, 18th and 20th century alterations. Timber framed with thatched roof.	Grade II, Late Medieval to Early Post-medieval	TL 1119 5004 572m SE of the Site.	1114192 MBD5421
26	Mill Lane Cottage, 16 Chapel Lane 18th century cottage with mostly 20th century windows. Timber framed with thatched roof.	Grade II, Post- medieval	TL 1143 5014 662m E of the Site.	1114189 MBD5422
27	Cardington Bridge, Smeatons Bridge 18th century bridge designed by T. Smeaton.	Grade II, late Post-medieval	TL 0834 4838 902m SW of the Site.	1136418 MBD5633
28	Fairfield Cottage, Leewind Cottage, Riverside Cottage & Water Cottage 17th to 18th century farmhouse, now divided into four properties, with 20th century alterations and additions. Timber framed with a clay tile roof.	Grade II, Post- medieval	TL 1040 5133 563m N of the Site.	1138234 MBD5881
29	Bier House, at No. 1 Willington Road Former Bier House of 19th century origins. Timber framed with clay tile roof.	Grade II, Modern	TL 1035 4852 753m S of the Site.	1114159 MBD6242
30	The Five Bells Public House, Northill Road Public House of 17th century origin. Timber framed with clay tile roof. 19th and 20th century additions to the rear.	Grade II, Post- medieval	TL 1038 4844 836m S of the Site.	1321602 MBD6246
31	6 Northill Road, The Croft House, 17th century with 19th and 20th century alterations. Timber framed with 20th century tile roof.	Grade II, Post- medieval	TL 1036 4840 875m S of the Site. TL 1037 4861 667m S of the Site.	1114156 MBD6247 1321606 MBD6248

Ref	Description	Grade/Period	NGR/Location	HE ref. HER ref. HEA ref.
32	14 & 16 Willington Road, formerly No 33 (Kennels Cottage) Pair of 17th century houses, timber framed with 20th century alterations. Great Dairy Farm, St Neots Road, Water End 18th century farmhouse with 19th and 20th century alterations.	Grade II, late Post-medieval	TL 1044 5137 576m N of the Site.	1114908 MBD9462
33	Hill Farmhouse, Water Lane, Water End 18th and 19th century farmhouse with 20th century additions. Timber framed with 20th century clay tile roof, door and open porch.	Grade II, late Post-medieval to Modern	TL 1076 5120 352m N of the Site.	1321205 MBD9465
34	Mill, Grange Farm, Bedford Road Mid-late 19th century, converted into residential.	Grade II, Modern	TL 1135 4970 939m SE of the Site.	1114188 MBD9682
35	5 Church Road, Penwrights Cottage Cottage, 17th to 18th century with 20th century additions. Timber framed.	Grade II, Post- medieval	TL 1124 5006 584m E of the Site.	1137354 MBD9690
36	21 Church Road, Bellwood Cottage, 16th century with 17th, 18th and 20th century alterations. Timber framed with tile roof.	Grade II, Late Medieval to Post- medieval	TL 1105 4999 546m E of the Site.	1312330 MBD9691
37	Croots Farm, Station Road House, 17th century with 19th and 20th century alterations.	Grade II, Post- medieval	TL 1135 4989 782m E of the Site.	1137406 MBD9695
38	Octagon Farmhouse, Bedford Road Early 19th century house, built for the Duke of Bedford. Red brick with slate roof. Main block has an octagonal plan.	Grade II, Modern	TL 095 495 Within the Site	1321601 MBD12516
39	10 Willington Road Cottage, 18th century with later alterations. Timber framed with clay tile roof. 6 & 8 Willington Road c. 1600 with later alterations. Timber framed, clay tile roof.	Grade II, Post- medieval	TL 1037 4855 725m S of the Site. TL 1037 4852 740m S of the Site	1136704 MBD12518 1114160 MBD6249
40	Dog Farmhouse, Bedford Road House, early 19th century with 20th century alterations. Yellow brick with slate roof.	Grade II, Modern	TL1008 4924 149m S of the Site	1136614 MBD12521
41	5 Northill Road Cottage, 17th century with 20th century alterations. Timber framed with clay tile roof.	Grade II, Post- medieval	TL 1039 4843 850m S of the Site	1114155 MBD12522
42	Garden Wall, Manor Farm, Church End Garden wall and boundary wall, including some remains of former manor house. 17th century with 18th and 19th century alterations.	Grade II, Post- medieval	TL 1058 4981 359m E of the Site	1114190 MBD12589 MBD15702
43	St Lawrence's Church Parish church built by Sir John Gostwick in c. 1541, and restored by Clutton in 1876-77.	Grade II, Post- medieval to Modern	TL 1066 4986 425m E of the Site.	1312387 MBD18220

Archaeological Investigations within 100m of the Site

Ref	Event Name	Grade/Period	NGR	HE ref. HER ref. <i>HEA ref.</i>
44	Archaeological Watching Brief, Willington Pit	Undated	TL 1047 5042	EBB612
45	Excavations at Willington 1984	Bronze Age, Iron Age and Roman	TL 1065 5060 TL 1062 5052	EBB614 EBB615
46	Archaeological Field Evaluation, Willington, Land at Dog Farm	None	TL 0968 4995	EBB618
47	Geophysical Survey, Willington, Dog Farm	Undated	TL 0976 4994	EBB669
48	Archaeological Assessment: Willington, Dog Farm (Evaluation)	Prehistoric	TL 0983 4972	EBB670
49	Excavations 1988-1991: Willington, Plantation Quarry A Square Barrow at Plantation Quarry, Willington, Bedfordshire	Neolithic, Bronze Age, Iron Age, Roman	TL 1008 5059 TL 10644 50298 TL 1017 5057	EBB671 EBD250 EBB1249
50	Summary Report on Archaeological Field Evaluation and Trenching Report on Octagon Farm South, Willington	Neolithic, Bronze Age, Iron Age, Roman, Anglo Saxon	TL 09365 49382	EBD134
51	Octagon Farm, Cople; Archaeological Evaluation, Tempus Reparatum	Unknown	TL 0928 4966	EBB787
52	Bedford Rowing Lake, Archaeological Field Evaluation	Bronze Age, Post-medieval	TL 10110 50116	EBD282
53	Dog Farm; Watching Brief	Unknown	TL 0983 4971	EBB1230
54	North of Dog Farm; Excavation	Neolithic, Bronze Age, Iron Age, Roman, Post- medieval	TL 1021 4980	EBB1231
55	Marston Vale Cycle Path – Bedford to Sandy; Archaeological Watching Brief	None	TL 0948 4990	EBB753

Non-Designated Heritage Assets

Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
56	Flint Hand Axes	Palaeolithic	TL 110 507 TL 083 495 TL 1036 4844 TL 1098 5011 TL 0835 4956 TL 1107 5014	MBB21529 MBD572 MBD3268 MBB22528 MBB18927 MBB22530
57	Mesolithic flints	Mesolithic	TL 0952 4957	MBB22534

Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
58	Lithic implements	Neolithic	TL 105 483 TL 0929 4869 TL 0910 4980 TL 1092 5011	MBD9287 MBB22468 MBD299 MBB22529
59	Mortuary Enclosures	Neolithic	TL 0902 4987 TL 0887 4969 TL 0902 4974 TL 0912 5032	MBB22112 MBB22115 MBB22116 MBB22125
60	Multi-period enclosures and occupation; SW of Octagon Farm Rectangular enclosures, rotary quern, ring ditches and evidence of Iron Age, Roman and Anglo Saxon occupation. Palaeolithic finds also identified.	Palaeolithic, Neolithic, Bronze Age, Iron Age, Roman, Anglo Saxon	TL 092 493	MBD586
61	Neolithic Cursus/Mortuary enclosure	Neolithic	TL 0888 4977	MBB22113
62	Neolithic Cursi and Bronze Age Ring Ditches	Neolithic and Bronze Age	TL 0941 5003	MBB22130
63	Two Ring Ditches and Mortuary Enclosure	Neolithic and Bronze Age	TL 0979 5001	MBB22135
64	Cropmarks NE of Willington Village	Neolithic to Bronze Age	TL 116 500	MBD985
65	Double Ringditch	Neolithic to Bronze Age	TL 1070 5057	MBD14455
66	Square Enclosure and Burial	Neolithic to Bronze Age	TL 101 504	MBD15285
67	Ring Ditch and Rectilinear Enclosure E of Willington Plantation	Neolithic to Bronze Age	TL 108 505	MBD16674
68	Enclosure Cropmarks	Neolithic to Bronze Age	TL 1114 5113	MBB21997
69	Prehistoric field system	Neolithic to Bronze Age	TL 1139 5074	MBB21998
70	Ring Ditch	Neolithic to Bronze Age	TL 0880 5013	MBB22109
71	Barrow	Neolithic to Bronze Age	TL 0885 5008	MBB22110
72	Ring Ditch, Lithic working site	Neolithic to Bronze Age	TL 1004 4998	MBB22138
73	Ring ditch	Neolithic to Bronze Age	TL 1027 4978	MBB22141
74	Ring ditch	Neolithic to Bronze Age	TL 1014 5060	MBB22164
75	Ditched Enclosure, Redlands Gravel Pit Neolithic to Bronze Age enclosures, modern gravel pit.	Neolithic to Bronze Age, Modern	TL 1051 5047	MBD14457
76	Cropmarks; SE of Dairy Farm Ring ditches and probable henges.	Neolithic to Bronze Age	TL 114 508	MBD594

Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
77	Cropmarks W of Grange Farm	Neolithic to Iron Age	TL 100 486	MBD16672
78	Oval ditched enclosure	Neolithic to Iron Age	TL 0946 4998	MBB22131
79	Enclosure cropmarks	Neolithic to Iron Age	TL 0957 5062	MBB22532
80	Ring ditches	Neolithic to Iron Age	TL 0968 5056	MBB22533
81	Cropmarks; NW of Willington Plantation	Neolithic, Bronze Age, Iron Age	TL 098 506	MBD337
82	Cropmarks on the Grange Estate, Willington	Neolithic, Bronze Age, Iron Age	TL 101 505	MBD1478
83	Cropmarks and Multi-Period Settlement Site; N of Dog Farm	Neolithic, Bronze Age, Iron Age, Roman	TL 101 497	MBD1618
84	Causewayed enclosure and other cropmarks, Roman occupation	Neolithic, Iron Age, Roman	TL 093 486	MBD585
85	Irregular Ditched Enclosure	Neolithic to Roman	TL 0909 4886	MBB22105
86	Enclosure cropmarks	Neolithic to Roman	TL 1095 4883	MBB22145
87	Three irregular ditched enclosures	Neolithic to Roman	TL 0929 4870	MBB22464
88	Cropmarks; Octagon Farm, S of Rver Ouse	Neolithic, Bronze Age, Iron Age, Roman, Medieval	TL 089 500	MBD1480
89	Cropmarks, S of Willington	Neolithic, Bronze Age, Iron Age, Roman, Medieval	TL 112 486	MBD1861
90	Multi Period Activity, Claypit Close	Neolithic, Bronze Age, Medieval	TL 098 495	MBD8114
91	Triple Ring Ditch	Bronze Age	TL 0911 4997	MBB22127
92	Ring Ditch	Bronze Age	TL 0961 5000	MBB22132
93	Ring Ditch	Bronze Age	TL 0963 4994	MBB22133
94	Barrow/Ring Ditch	Bronze Age	TL 1011 4975	MBB22139
95	Two or three barrows	Bronze Age	TL 1015 4970	MBB22140
96	Ring ditch	Bronze Age	TL 1043 5065	MBB22163
97	Bronze Age Axe	Bronze Age	TL 096 482	MBD15918
98	Bronze Age socketed axe	Bronze Age	TL 0929 4869	MBB22468

Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
99	Barbed flint arrowhead	Bronze Age	TL 1049 4850	MBB22627
100	Ring Ditch	Bronze Age	TL 0837 4993	MBD15080
101	Ring Ditch	Bronze Age	TL 1102 5113	MBD15480
102	Ring Ditch	Bronze Age	TL 0969 5107	MBD15548
103	Ring Ditch	Bronze Age	TL 0897 5007	MBB22111
104	Ring Ditch	Bronze Age	TL 0888 4969	MBB22114
105	Ring ditch	Bronze Age	TL 0899 4976	MBB22117
106	Ring ditch	Bronze Age	TL 0868 4998	MBB22119
107	Double Ring Ditch	Bronze Age	TL 0913 5051	MBB22120
108	Ring Ditch	Bronze Age	TL 0907 5048	MBB22122
109	Ring Ditch	Bronze Age	TL 0914 5044	MBB22123
110	Ring Ditch	Bronze Age	TL 0905 5005	MBB22126
111	Bronze Age to Roman Settlement cropmarks	Bronze Age to Roman	TL 1054 5199	MBB21995
112	Bronze Age to Roman curvilinear enclosure	Bronze Age to Roman	TL 1043 5171	MBB21996
113	Subrectangular Enclosure	Bronze Age to Roman	TL 0894 5040	MBB22124
114	Ring Ditch	Bronze Age	TL 0932 4999	MBB22129
115	Iron Age Gold Coin	Iron Age	TL 10 49	MBB19977
116	Early Iron Age sherd and flint core	Iron Age	TL 115 501	MBD15034
117	Iron Age Occupation Site	Iron Age	TL 108 502	MBD10807
118	Iron Age Farmstead	Iron Age	TL 1061 5063	MBD14451
119	Late Iron Age Rectilinear Enclosure	Iron Age	TL 0909 5049	MBB22121
120	Settlement enclosures and farmstead	Iron Age	TL 1027 5072	MBB22165

Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
121	Probable prehistoric pit alignment	Iron Age	TL 1007 4866	MBB21763
122	Trackway	Iron Age or Roman	TL 1027 4818	MBB22147
123	Cropmarks SW of Brewers Hall Farm	Iron Age to Roman	TL 110 517	MBD1800
124	Cropmarks, west of Couple House	Iron Age to Roman	TL 101 481	MBD2840
125	Iron Age/Roman cropmarks	Iron Age to Roman	TL 1168 5147	MBB22009
126	Iron Age/Roman field system	Iron Age to Roman	TL 0850 4824	MBB22097
127	Iron Age/Roman subcircular enclosure	Iron Age to Roman	TL 0875 4825	MBB22098
128	Iron Age/Roman field system	Iron Age to Roman	TL 0883 4850	MBB22100
129	Iron Age/Roman subcircular enclosure	Iron Age to Roman	TL 0882 4862	MBB22101
130	Iron Age/Roman Sub rectangular enclosure	Iron Age to Roman	TL 0903 4856	MBB22103
131	Iron Age/Roman Enclosure Cropmark	Iron Age to Roman	TL 0963 4858	MBB22106
132	Ring Ditch Probably Iron Age or Roman, maybe earlier.	Iron Age to Roman	TL 0957 4826	MBB22107
133	Ring Ditch Probably Iron Age or Roman, maybe earlier.	Iron Age to Roman	TL 0964 4818	MBB22108
134	Iron Age/Roman settlement cropmarks	Iron Age to Roman	TL 0935 5058	MBB22118
135	Double ditched enclosure	Iron Age to Roman	TL 0923 4996	MBB22128
136	Enclosure Cropmarks	Iron Age to Roman	TL 1011 4817	MBB22148
137	Pit alignment	Iron Age to Roman	TL 1002 4831	MBB22149
138	Trackway	Iron Age to Roman	TL 1156 4905	MBB22156
139	Square ditched enclosure	Iron Age to Roman	TL 1057 5041	MBB22524
140	Iron Age to Roman settlement Possible villa.	Iron Age, Roman	TL 1111 4866	MBB22144
141	Iron Age/Roman Occupation and Anglo Saxon Burial	Iron Age, Roman, Anglo Saxon	TL 081 488	MBD302
142	Unspecified Roman finds, Willington Railway. Exact site unknown.	Roman	TL 1086 5019	MBD4792

Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
143	4th century Roman coin Probably dates to Gratian 367-383 AD.	Roman	TL 102 486	MBD14658
144	Roman coins	Roman	TL 1049 4850	MBB22535
145	Copper Alloy Vessel Roman cast copper alloy cockerel shaped vessel, possibly an oil lamp. Dates to c. 175 AD to 225 AD.	Roman	TL 09 49	MBB19760
146	Line of Roman Road Suggested line of Roman Road from Bedford to Shefford	Roman	TL 100 454	MBD717
147	Roman Road Suggested line of Roman Road from Bedford to Cockanye Hatley	Roman	TL 1646 4895	MBD738
148	Procession Way Roman agger used into the Post- medieval period.	Roman	TL 0998 4797	MBD11949
149	Roman Enclosure and Ditches	Roman	TL 106 504	MBD14456
150	Possible Roman Road cropmarks	Roman	TL 0867 4844	MBB22099
151	Possible Roman Road cropmarks	Roman	TL 0912 4846	MBB22102
152	Field boundary ditches	Roman	TL 1066 5045	MBB22525
153	Cropmarks N of Harrowden Lane	Roman	TL 081 479	MBD9081
154	Romano-British Cropmarks, Medieval Field System and Multi- period settlement site N of Great Dairy Farm	Roman, Anglo Saxon, Medieval	TL 106 516	MBD16675
155	Site of Castle Mill First mentioned in Domesday.	Anglo Saxon/Medieval	TL 0919 5088	MBD336
156	Possible Viking potsherd Found on the north bank of the River Ouse. Exact location unknown.	Anglo Saxon/Viking	TL 1 5	MBD15954
157	Anglo Saxon and Medieval Occupation, Water End	Anglo Saxon to Medieval	TL 10378 51553	MBD18687
158	Watermill Mill first recorded in Domesday. Latest mill demolished in mid-19th c.	Anglo Saxon, Medieval, Post- medieval, Modern	TL 11 50	MBD2635
159	Site of Manor House	Medieval	TL 1050 4980	MBD434
160	Danish Docks; Medieval earthworks and buildings 11 th to 14 th century.	Medieval	TL 113 502	MBD769
161	Howbury Ringwork Castle and moat	Medieval	TL 106 511	MBD2806

Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
162	Ridge and Furrow	Medieval	TL 1076 4762 TL 0978 5219 TL 1119 4962 TL 0882 4747	MBD3305 MBD3325 MBD3365 MBD4449
163	Cardington Medieval Village	Medieval	TL 088 478	MBD16982
164	Cople Medieval Village	Medieval	TL 104 482	MBD17071
165	Willington Medieval Village	Medieval	TL 111 499	MBD17076
166	Possible Moat	Medieval	TL 1013 4883	MBD8109
167	Moat, The Pump House	Medieval to Post- medieval	TL 103 500	MBD768
168	Gravel Pits or Fishponds	Post-medieval	TL 105 487 TL 102 491	MBD14769 MBD14770
169	Iberian jar Storage jar from Portugal or Spain, c. 18th century.	Post-medieval		MBD2041
170	Tradesman's Token Dates to c. 1668.	Post-medieval	TL 1036 4844	MBD8059
171	Coin Hoard Hoard of 35 silver coins. Monarchs represented include Elizabeth I, Charles I and Charles II.	Post-medieval	TL 1036 4844	MBD9288
172	Cople Almshouses Four almshouses, built in 1627 and demolished in the 1850s.	Post-medieval	TL 1037 4888	MBD824
173	Site of building at Well Head Visible on c. 1795 estate map.	Post-medieval	TL 1014 5072	MBD1409
174	Dovecote, Church Road Late 17th or early 18th century.	Post-medieval	TL 1105 5003	MBD5420
175	Site of Old Grange Farm Farm shown on 1779 map. Present building dates to 1860.	Post-medieval	TL 1004 4839	MBD8241
176	Site of Cople End Farm	Post-medieval	TL 1042 4970	MBD8256
177	Site of demolished building	Post-medieval	TL 1033 4928	MBD8257
178	Gadsey Brook Cottage 17th century.	Post-medieval	TL 1081 5102	MBD9467
179	5 Church Road 17th-18th century with modern extensions. Timber framed with thatched root.	Post-medieval	TL 1122 5005	MBD9689
180	Summer Hill Farm Site of demolished Post-medieval farmstead.	Post-medieval	TL 0920 4804	MBD11707
181	304 Chapel Lane, site of cottage	Post-medieval	TL 0941 4805	MBD11715

Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
182	305 Chapel Lane, site of 'Manor House' Manor House mentioned in 1782-9 listings. Demolished.	Post-medieval	TL 0940 4807	MBD11717
183	306-307 Chapel Lane, site of cottage First recorded in late 18th century, now demolished.	Post-medieval	TL 0939 4810	MBD11718
184	Cottage, Chapel End Demolished 1785.	Post-medieval	TL 093 481	MBD11720
185	Buildings, North of Methodist Chapel Post-medieval buildings recorded in late 18th century, now demolished.	Post-medieval	TL 0931 4819	MBD11728
186	Onion drying shed, Home Farm Deemed of local interest.	Post-medieval	TL 10380 48920	MBD18657
187	Milepost	Post-medieval	TL 1090 4995	MBD161
188	Possible site of windmill Field named Windmill Field.	Post-medieval	TL 0947 4934	MBD3188
189	Gravel Pit	Post-medieval	TL 109 509	MBD6717
190	All Saints' Parish Churchyard	Post-medieval	TL 1034 4847	MBD8879
191	St Lawrence's Parish Churchyard	Post-medieval	TL 106 498	MBD8992
192	Brick Kiln	Post-medieval	TL 0811 4919	MBD11824
193	'Hangman's Grave' Site of former boundary cross and disused gravel pit.	Post-medieval	TL 098 481	MBD11826
194	Gravel Pits	Post-medieval	TL 0965 4825	MBD11942
195	Water Meadow Management	Post-medieval	TL 1002 4868	MBB21764
196	Gravel Extraction Pit	Post-medieval	TL 0923 4849	MBB22104
197	Boundary ditches	Post-medieval	TL 1011 5005	MBB22137
198	Quarry Pit	Post-medieval	TL 1141 5016	MBB22662
199	Pound for stray animals Demolished in 18th century.	Late Post- medieval	TL 1035 4852	MBD1955
200	Turnpike Cottage (Toll House) Probably 18th century.	Late Post- medieval	TL 1042 4930	MBD6241
201	Dovecote, Grange Farm, Bedford Road 18th century timber framed dovecote.	Late Post- medieval	TL 1144 4973	MBD9683

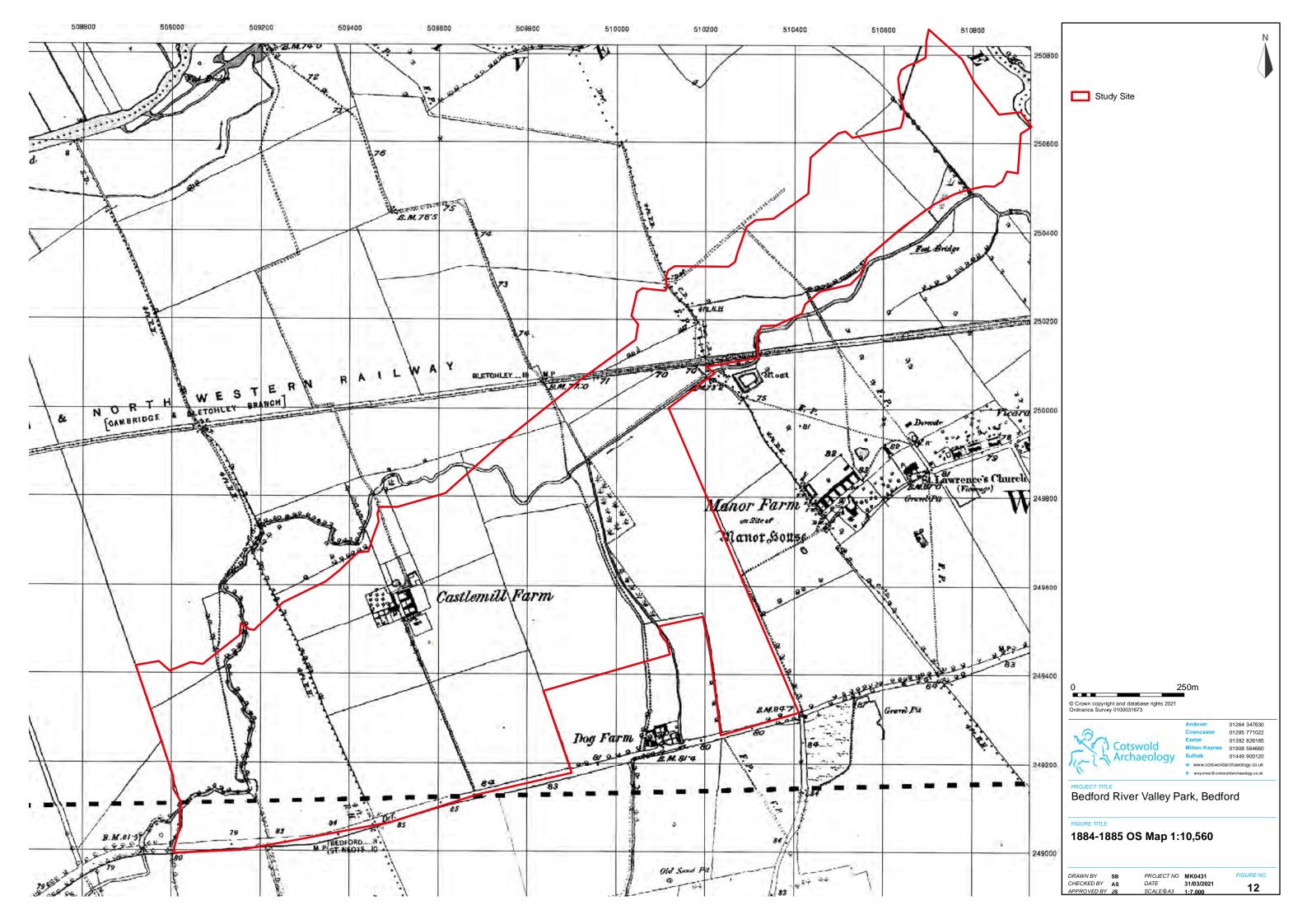
Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
202	Sedes Mea, Station Road 18th century timber framed house with thatched roof.	Late Post- medieval	TL 1140 4980	MBD9686
203	300 Cople Road Site of demolished 18th century cottage.	Late Post- medieval	TL 0923 4805	MBD11710
204	Chapel End Farm 18th century farmhouse.	Late Post- medieval	TL 0927 4823	MBD11729
205	Farm buildings, Summer Hill Farm, North of Cople Road Site of demolished 18th century farm buildings.	Late Post- medieval	TL 0916 4816	MBD11738
206	Site of building West of Summer Hills Barns Shown on 1794 map, now demolished.	Late Post- medieval	TL 0906 4805	MBD11740
207	Nursery & Cottage Site of demolished nursery and cottage of 18th century date.	Late Post- medieval	TL 0936 4814	MBD11821
208	Summer House Mid 18th century Summerhouse, demolished by 1808.	Late Post- medieval	TL 0808 4945	MBD11823
209	Burnt House Furlong 18th century house/furnace, now demolished.	Late Post- medieval	TL 0923 4853	MBD11943
210	Brick Kiln	Late Post- medieval	TL 1036 4844	MBD8116
211	Claypit Furlong Clay and gravel pits.	Post-medieval to Modern	TL 099 491	MBD8115
212	Site of former milestone	Post-medieval to Modern	TL 0986 5137	MBD18311
213	Milepost	Post-medieval to Modern	TL 1073 5135	MBD18312
214	Site of Farmstead and Sand Pit	Post-medieval and Modern	TL 1042 4865	MBD8249
215	Site of buildings, Yew Tree Farm	Post-medieval to Modern	TL 1036 4881	MBD2015
216	Barn/Byre & Stables, Warren Farm, Station Road 18th century stable and 19th century cowsheds and barn.	Post-medieval to Modern	TL 1134 4984	MBD9694
217	Dovehouse Close Possible dovecote, based on place name evidence.	Post-medieval to Modern	TL1046 4886	MBD130
218	6 Grange Lane	Late Post- medieval to Modern	TL 1026 4847	MBD6597
219	Lakes Farm Site of demolished 18th/19th century farmhouse	Late Post- medieval to Modern	TL 0927 4806	MBD11712
220	Gravel Pit Spinney Possible area of gravel extraction, based on place name evidence.	Late Post- medieval to Modern	TL 1048 4926	MBD124
221	Sand Pit	Late Post- medieval to Modern	TL 107 510	MBD6716

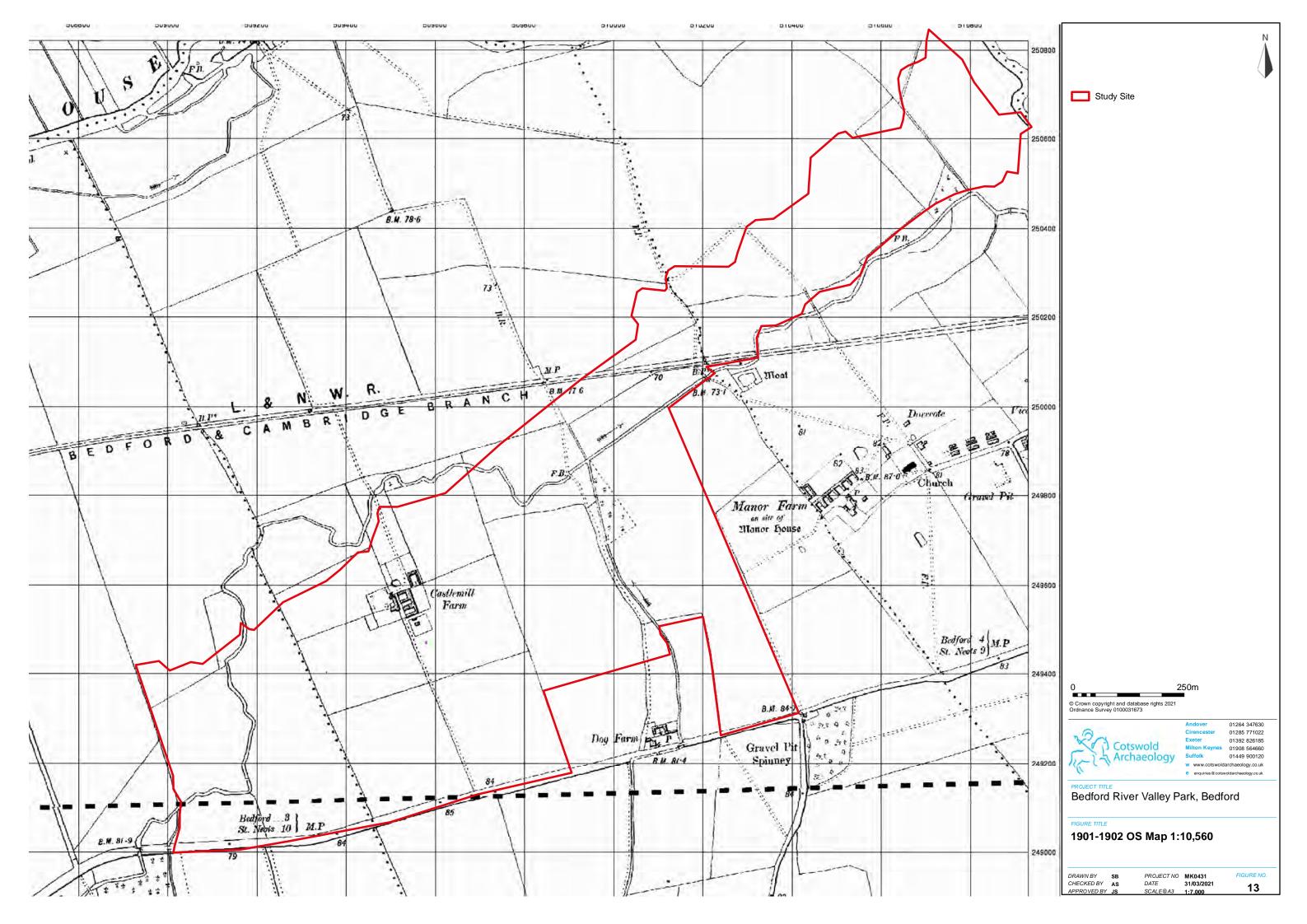
Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
222	Howards House Grounds Landscape garden planted 1762.	Late Post- medieval to Modern	TL 087 479	MBD9435
223	Bedford-Great North Road Toll Road	Late Post- medieval to Modern	TL 1108 5173	MBD11928
224	Barns of Bedford Road Built after 1840.	Modern	TL 0868 4806	MBD863
225	Bedford sewage works	Modern	TL 082 494	MBD1768
226	Willington Methodist Church Opened 1868.	Modern	TL 1130 5008	MBD6559
227	8 & 10 Church Road	Modern	TL 1119 5009	MBD7177
228	Willington Lower School, Church Road	Modern	TL 1116 5008	MBD7178
229	Lakes Farmhouse, Chapel End Built 1852, demolished 20th century.	Modern	TL 0924 4807	MBD7697
230	Cople Vicarage Built c. 1816, demolished prior to 1976.	Modern	TL 1031 4841	MBD8497
231	Shelter Shed at great dairy Farm, St Neots Road Now demolished.	Modern	TL 1044 5140	MBD9463
232	Hillside, St Neots Road 19th century brick house.	Modern	TL 1049 5136	MBD9464
233	Barn, Water Lane, Water End 19th century timber framed barn with thatched roof.	Modern	TL 1081 5098	MBD9466
234	Boat House, Howbury Hall Estate	Modern	TL 1043 5119	MBD9482
235	2 & 4 Water End Pair of cottages, dating to 1901.	Modern	TL 1037 5177	MBD9527
236	Byre, Grange Farm, Bedford Road 19th century.	Modern	TL 1140 4967	MBD9680
237	Barn, Grange Farm, Bedford Road 19th century, demolished.	Modern	TL 1137 4967	MBD9681
238	56 & 58 Church Road Dated 1857. Estate building.	Modern	TL 1073 4989	MBD9692
239	36 & 38 Church Road Dated 1840. Estate building.	Modern	TL 1085 4992	MBD9693
240	Farm Buildings, Manor Farm 19th century farm building.	Modern	TL 1044 4978	MBD9696
241	70-72 Church Road Dated 1880. Estate cottages.	Modern	TL 1068 4991	MBD9705
242	Grange Farm Buildings 19th century farm buildings.	Modern	TL 1008 4848	MBD9760

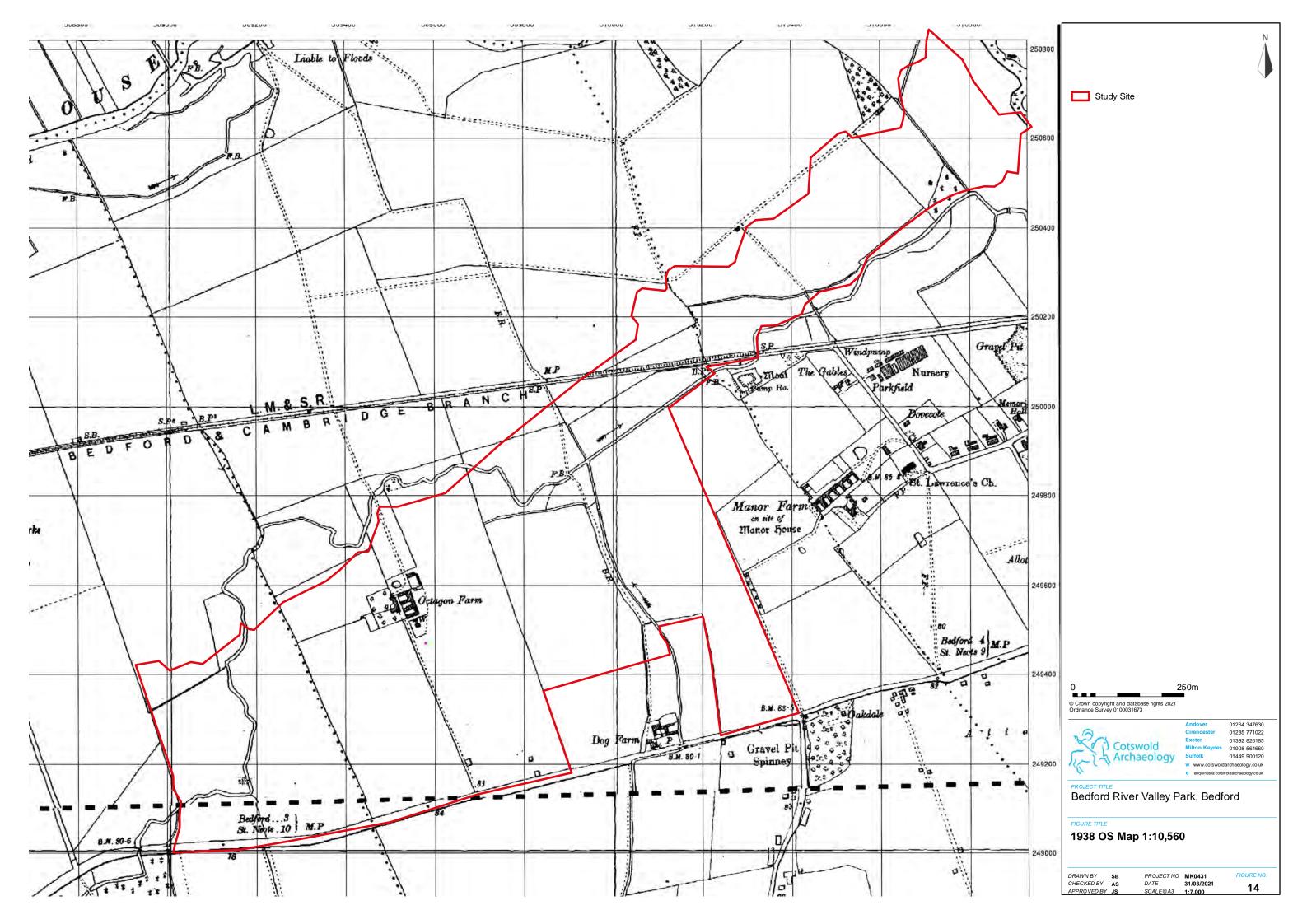
Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
243	Grange Farmhouse Dated 1860, Bedford Estate farmhouse.	Modern	TL 1005 4848	MBD9761
244	2-44 Grange Lane, Estate Cottages 19th century range of Estate Cottages.	Modern	TL 1017 4843	MBD12517
245	Onion drying shed, Grange Farm Site of demolished 19th century onion drying shed.	Modern	TL 1145 4972	MBD12591
246	The Crown at Station Road no. 17 Early 20th century Public House in Willington. Opened in 1905.	Modern	TL 113 499	MBD16355
247	Memorial Hall Opened in 1922, commemorates dead of WWI and WWII.	Modern	TL 1090 4998	MBD17004
248	Site of Willington Railway Station Railway station on the Bedford and Sandy Railway. Opened in 1906 and closed in 1968. Route is now a cycle way. One platform remains.	Modern	TL 1126 5024	MBD22527
249	Cardington Cross	Modern	TL 0825 4850	MBD280
250	Twentieth Century Gravel Pit	Modern	TL 119 500	MBD685
251	Gravel Pit	Modern	TL 1090 5015	MBD794
252	Old Sand Pit	Modern	TL 1009 4889	MBD1358
253	Site of Windpump	Modern	TL 1060 5013	MBD1754
254	Gravel Pit	Modern	TL 1087 4983	MBD3098
255	Former Brick Kiln	Modern	TL 080 490	MBD7200
256	Castle Mills Staunch	Modern	TL 0945 5088	MBD8016
257	Lionhead Standpipe	Modern	TL 1121 4955	MBD8263
258	Bedford to Sandy Railway	Modern	TL 1136 4975	MBD11833
259	Osier Holt	Modern	TL 1184 5039	MBD18225
260	Boathouse Demolished in 20 th century.	Modern	TL 1042 5122	MBD18314
261	Gravel pit	Modern	TL 1199 5086	MBB22003
262	Gravel pit	Modern	TL 0975 4992	MBB22134

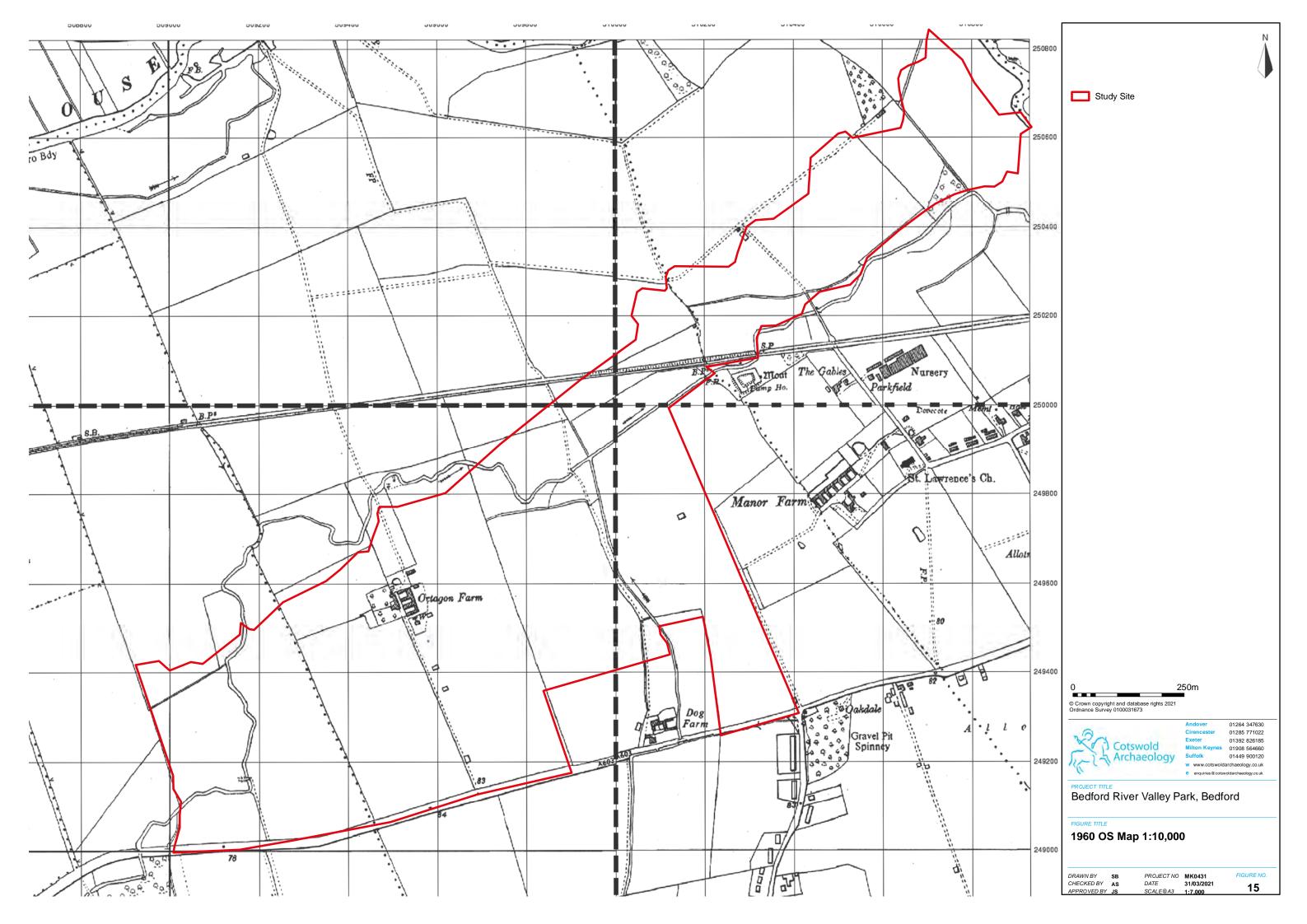
Ref	Description	Grade/Period	NGR	HE ref. HER ref. HEA ref.
263	Plantation Quarry	Modern	TL 1016 5055	MBB22136
264	Gravel pit	Modern	TL 1101 5014	MBB22162
265	Quarry pit and ditch No datable material but probably later in date.	Post- medieval/Modern?	TL 1048 5011	MBB21762

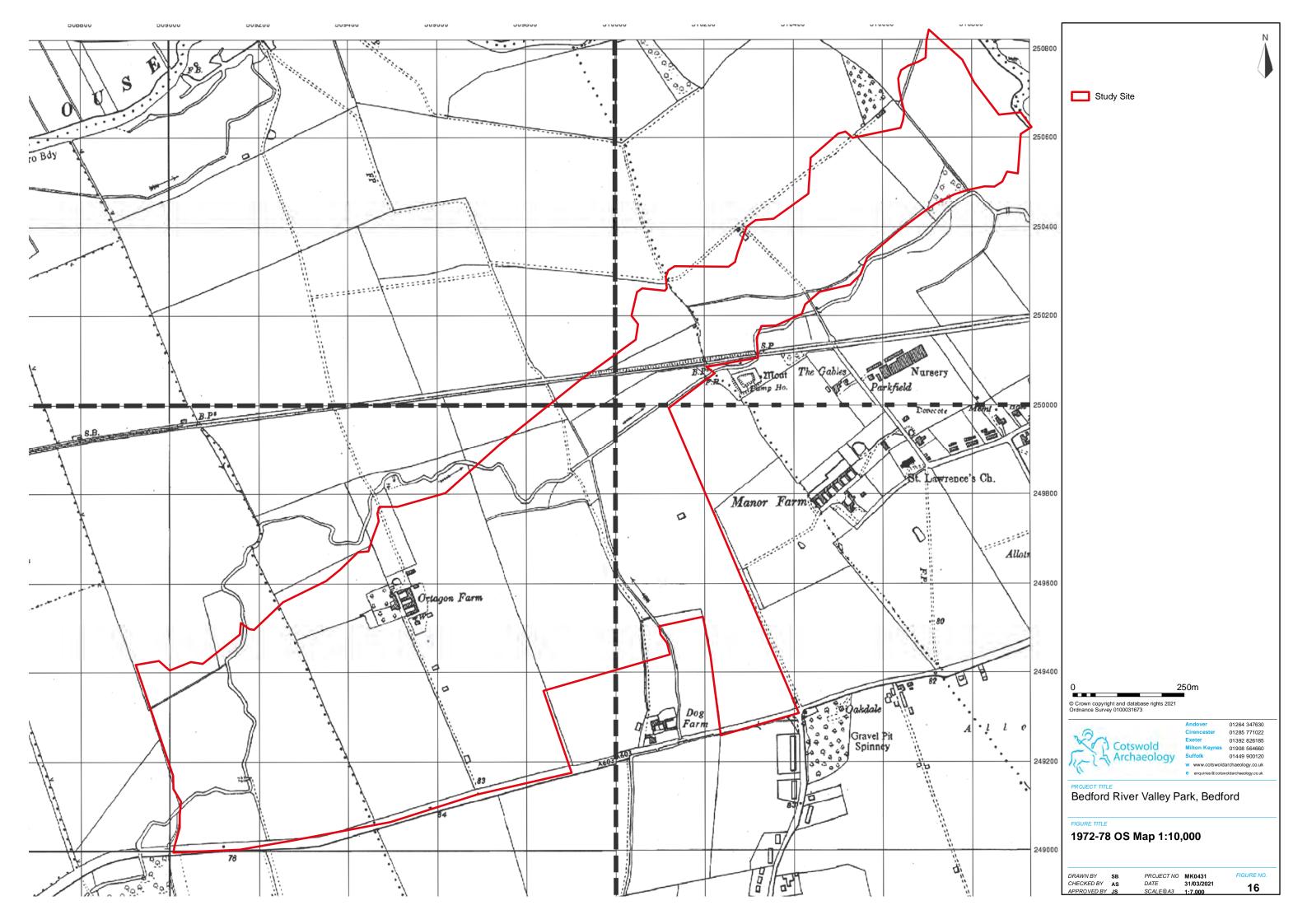
APPENDIX 3: HISTORIC MAPPING



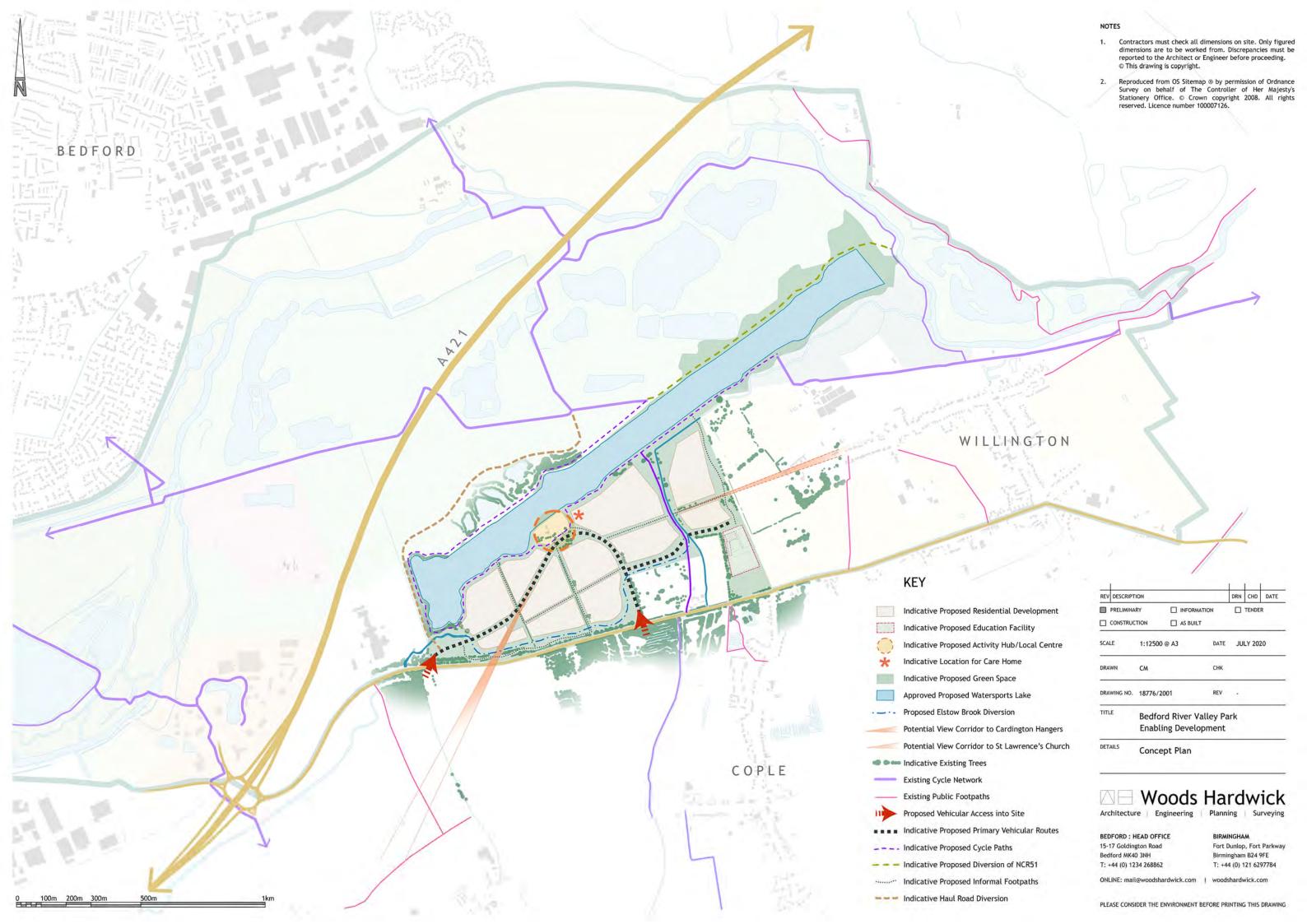








APPENDIX 4: PROPOSED DEVELOPMENT





Andover Office

Stanley House Walworth Road Andover Hampshire SP10 5LH

01264 347630

Cirencester Office

Building 11 Kemble Enterprise Park Cirencester Gloucestershire GL7 6BQ

01285 771022

Exeter Office

Unit 1, Clyst Units Cofton Road Marsh Barton Exeter EX2 8QW

1 01392 573970

Milton Keynes Office

Unit 8 - The IO Centre Fingle Drive, Stonebridge Milton Keynes Buckinghamshire MK13 0AT

t: 01908 564660

Suffolk Office

Unit 5, Plot 11, Maitland Road Lion Barn Industrial Estate Needham Market Suffolk IP6 8NZ

1:01449 900120

