

**DUNSTABLE DOWNS  
MULTI-USER ROUTE**

**IMPACT ASSESSMENT FOR  
ARCHAEOLOGY AND CULTURAL HERITAGE**

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## ***Contents***

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List of Tables .....	4
List of Figures .....	4
List of Plates .....	4
Preface .....	5
Non-Technical Summary .....	6
<b>1. INTRODUCTION .....</b>	<b>7</b>
1.1 Project Background.....	7
1.2 Site location .....	7
<b>2. ASSESSMENT METHODOLOGY .....</b>	<b>8</b>
2.1 Methodological Summary .....	8
2.2 Methodological Standards .....	8
2.3 Desk-based Assessment .....	8
2.4 Significance Criteria Indicators .....	9
2.5 Impact Assessment Tables .....	12
<b>3. THE EFFECTS OF THE EXISTING ROUTES ON ARCHAEOLOGICAL REMAINS .....</b>	<b>13</b>
3.1 Summary of the Effect of the Current Situation .....	13
<b>4. LIKELY SIGNIFICANT EFFECTS OF THE PROPOSED ROUTES ON ARCHAEOLOGICAL REMAINS .....</b>	<b>24</b>
4.1 Summary of the Likely Effects of the Proposed Routes.....	24
<b>5. DISCRIMINATION BETWEEN ALTERNATIVE ROUTES.....</b>	<b>32</b>
5.1 Comparisons between routes.....	32
<b>6. MITIGATION STRATEGY FOR ARCHAEOLOGY AND CULTURAL HERITAGE .....</b>	<b>34</b>
6.1 Requirement for Mitigation.....	34
6.2 Mitigation of the Construction Phase .....	34
6.3 Mitigation of Visitor Usage.....	35



<b>7. INTERPRETATION OF ARCHAEOLOGICAL FEATURES .....</b>	<b>37</b>
7.1 Current Interpretation Provision.....	37
7.2 Potential for Interpretation .....	37
<b>APPENDIX 1: POLICIES FOR HISTORIC ENVIRONMENT.....</b>	<b>39</b>
<b>APPENDIX 2: GAZETTEER.....</b>	<b>44</b>
<b>FIGURES .....</b>	<b>47</b>

### **List of Tables**

Table 1: Definition of criteria for assessing significance .....	10
Table 2: Characterisation of impact magnitude .....	11
Table 3: Existing Routes .....	14
Table 4: Proposed Routes .....	25
Table 5: Ranking of proposed routes and equivalent existing routes .....	33
Table 6: Archaeological sites within the study area and assessment of their significance .....	45

### **List of Figures**

- Figure 1: Site location map
- Figure 2: Embankments around current visitor centre
- Figure 3: Current visitor centre, showing terrace into hillside
- Figure 4: Current visitor centre car park bank and ditch
- Figure 5: Aerial photograph with area of Beds. C. C. ownership overlain

### **List of Plates**

- Plate 1: Present erosion scar along area of route P3; Route E7 is visible to the left
- Plate 2: Earthworks (B) in area of Route A2
- Plate 3: Earthworks (B) in distance; present erosion along Route P4 on the right;  
Route A2 is to the left of the earthworks
- Plate 4: View of strip lynchet and target butts in area of Pascomb Pit
- Plate 5: Hollow-way earthworks (C) and erosion scar along Route E9
- Plate 6: Hollow-way earthworks (C) and Route E9
- Plate 7: Hollow-way earthworks (C) in area of Route P5
- Plate 8: Five Knolls round barrows (E) and erosion scar along Route E15
- Plate 9: Five Knolls round barrows and erosion scars in area of Route E15
- Plate 10: Five Knolls round barrows and erosion scars in area of Route E15
- Plate 11: Five Knolls round barrows (E) and scarring along Routes E14 and E15
- Plate 12: Five Knolls round barrows (E) and scarring along Route E15
- Plate 13: Presently used routes E15/E16 onto the Five Knolls round barrows and scarring
- Plate 14: Pillow mound (D)
- Plate 15: Pillow mound (D) with scarring along Route E12 on the extreme left and Five Knolls  
round barrows (E) in the distance



## **Preface**

*Every effort has been made in the preparation of this document to provide as complete an assessment as possible. All statements and opinions in this document are offered in good faith. Albion Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.*

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*8<sup>th</sup> February 2006*



## **Non-Technical Summary**

*This report has been prepared by Albion Archaeology for Bedfordshire County Council as a contribution to the Environmental Impact Assessment of a proposed development of a multi-user route on Dunstable Downs. The proposed routes link a new visitor centre with the northern end of the Downs and are designed to permit access by foot, bicycle, horse and wheelchair.*

*This Assessment identifies and evaluates the impacts of the different route options in relation to archaeological remains, and sets out appropriate measures for the mitigation of those impacts. The Assessment comprised three main stages:*

- Stage 1: evaluation of the archaeological impacts of the existing network of paths;*
- Stage 2: evaluation of the archaeological impacts of each of the alternative route options;*
- Stage 3: ranking of the proposed options in terms of their archaeological impacts.*

*This Impact Assessment draws on the results of a desk-based survey of existing knowledge of archaeological and historical sites in the area, which was based on previous desk-based assessment report 2004/73 (Albion Archaeology 2004).*

*The Impact Assessment concludes that continued use of the existing un-surfaced routes would have an increasingly detrimental impact on archaeology in the vicinity, whereas a surfaced route would limit the amount of erosion and damage to any earthworks and potential sub-surface archaeology in the vicinity. Of the various permutations of the possible routes, the favoured route options are Options 1, 2 and 7. These route options have the potential to aid the survival of and enhance the setting of archaeology in the vicinity, provided the construction of the paths is carried out in accordance with a Scheme for Archaeological Resource Management (SARM), to be approved in advance by the County Archaeological Officer.*



## 1. INTRODUCTION

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### 1.1 *Project Background*

As part of the Chilterns Gateway Project (a partnership led by Bedfordshire County Council and the National Trust), the development of a multi-user route from the northern end of the site to the existing visitor centre has been proposed. This report has been prepared by Albion Archaeology for Bedfordshire County Council as a contribution to the Environmental Impact Assessment of the development of this route.

The proposed development involves the construction of a multi-user route that permits access by foot, bicycle, horse and wheelchair users from the northern end of Dunstable Downs to the existing and new facilities. Phase 2 of the development connects the area of the existing visitor centre with the northern end of the Downs, for which there are alternative route options, including an alternative route to the Five Knolls Scheduled Ancient Monument. Phase 1 of the multi-user route that connects the new visitor centre and area of the existing visitor centre is already covered by existing planning permission and environmental assessment and will not be discussed within this Assessment.

The purpose of this Assessment is to identify and evaluate the impacts of the different route options in relation to archaeological remains and historic buildings, and to set out appropriate measures for the mitigation of those impacts. This Assessment is based on a site walk over survey and desk-based research, as well as drawing on the results of a previous impact assessment (Albion Archaeology 2004) that was concerned with a programme of works associated with the development of a new visitor centre.

### 1.2 *Site location*

The proposed development relates to the area of land at the top of the chalk escarpment on Dunstable Downs adjacent to the B4541, which is owned by Bedfordshire County Council. The development comprises proposed routes between the north of the Downs, at grid reference TL 007 210 and the present visitor centre at TL 008 197, a distance of approximately 1.3km.

Dunstable Downs is an area of permanent pasture on the north-western edge of the Chilterns Area of Outstanding Natural Beauty. The chalk escarpment of the Downs stretches from the edge of Dunstable south-westwards and despite the name, lies mainly in the parish of Totternhoe.



## 2. ASSESSMENT METHODOLOGY

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### 2.1 *Methodological Summary*

This impact assessment is based on desk-based study, which has identified the known features of archaeological significance likely to be affected by the proposed development. The results of the desk-based study were verified by a site inspection. There are three stages to the impact assessment:

**Stage 1:** evaluation of the archaeological impacts of the existing network of paths and major desire lines;

**Stage 2:** evaluation of the archaeological impacts of each of the alternative route options;

**Stage 3:** ranking of the proposed options in terms of their archaeological impacts.

Finally, an appropriate mitigation strategy is identified for any significant adverse effects that are identified as likely to result from the proposed development.

### 2.2 *Methodological Standards*

The assessment has been undertaken in accordance with standards set out in the following documents:

- The Institute of Field Archaeologist's Codes of Conduct and standards, specifically *Standards and Guidance for Archaeological Desk-Based Assessment* (September 2001) and *Environmental Assessment and Archaeology (IFA Occas. Paper 5, 1993)*;
- The Highways Agency's *Design Manual for Roads and Bridges* (1994), Volume 11, Section 3, Part 2;
- English Heritage's *Management of Archaeological Projects* (1991); and
- Association of County Archaeological Officers' *Briefs and Specifications for Archaeological Assessment and Field Evaluation* (1993).

### 2.3 *Desk-based Assessment*

A desk-based archaeological assessment was carried out in order to identify the known archaeological potential of the area of proposed development and to consider the likely impact of each of the different route options. Previous desk-based assessment (Albion Archaeology, report 2004/73) was reviewed and utilised, and records specific to the present development contained within the Bedford HER and BLARS were revisited.

#### 2.3.1 *Location and Extent of the Archaeological Desk-Based Study Area*

Previous desk-based assessment Report 2004/73 (Albion Archaeology 2004) has been used to form the basis of the present desk-based assessment. This covered a wide study area that included the area of the Downs that is in Bedfordshire County Council Ownership (Fig. 1), as well as areas to the west and east of the Downs. This covered a large area due to the nature of the development having wide-ranging implications, whereas the impacts of the present development are expected to be more localised.





### 2.3.2 Sources Consulted

The previous desk-based assessment Report 2004/73 (Albion Archaeology 2004) was reviewed and forms the basis of this assessment. However, records and aerial photographs held at Bedfordshire's HER, together with cartographic and documentary sources held at the Bedfordshire and Luton Archives and Records Service that applied to the specific area of the present development were re-examined.

In addition, information regarding the possible nature and location of archaeology in the development area was received from the National Trust. The internet and the club secretary of Dunstable Downs golf club were consulted with regard to information on the extent of the golf course.

The limitation of desk-based survey is that it relies on existing knowledge of the archaeology of an area. It is possible that previously unidentified buried remains will be affected by the development. Where possible, however, a reasonable prediction has been made as to the potential for the survival of buried remains and the likely impacts of development on these.

### 2.3.3 Results of the desk-based assessment

The results of the desk-based assessment are summarised in Appendix 2 and Figure 2.

## 2.4 Significance Criteria Indicators

The impact of the proposed development has been evaluated according to criteria set out below. The application of these criteria is set out in the subsequent section (Section 2.5).

### 2.4.1 Forms of Significance

The routes were addressed with reference to the following criteria (defined in Appendix 1 Section):

- Earthworks
- Potential sub-surface remains
- Interpretation value
- Setting of other sites in the vicinity

The desk-based assessment has now been used to evaluate the likely impacts of the detailed development proposals (see below Section 3)

<b>Earthworks</b>	Evaluates the effect on archaeological features that survive as visible earthworks.
<b>Potential sub-surface remains:</b>	Evaluates the effect on archaeological deposits and features that survive within the ground. This is based on a) an expectation of the potential of the surviving archaeology, based on what is known of the archaeology on adjacent land, and b) assumptions about the operations likely to be undertaken as part of the proposed development.
<b>Interpretation value:</b>	Evaluates the effect the proposed development will



have on the ability to interpret archaeology for the public. Currently, there are a few interpretation boards in the area of the proposed routes that would benefit from updating. Currently, there are no major archaeological exhibition sites in the area, other than the local Museums (for instance, Luton Museum has a good archaeological collection).

**Setting of other sites:** Evaluates the effect that the proposed development will have on nationally important archaeological monuments in the surrounding area.

### 2.4.2 Significance

<b>Significance</b>	<b>Definition</b>
<i>Statutory</i>	Archaeological sites whose national or international importance is recognised by legal designation. Historic buildings of listed status.
<i>International</i>	Demonstrates connections with international archaeology and the historic environment. (Well-preserved sites of International significance will be recognised by statutory designation, see above)
<i>National</i>	Demonstrates connections with British archaeology and the historic environment. (Well-preserved sites of National significance will be recognised by statutory designation, see above)
<i>Regional</i>	Demonstrates connections with the archaeology and historic environment of the Bedfordshire region and the Chilterns.
<i>Local</i>	Demonstrates connections with the archaeology and historic environment of Dunstable Downs.
<i>Neutral</i>	Has no particular significance as above, but not actually 'Negative'.
<i>Negative</i>	Detracts from other elements of greater significance.
<i>Unknown</i>	Further investigation is required before a reliable assessment can be made.

**Table 1: Definition of criteria for assessing significance**

### 2.4.3 Potential

The anticipated importance of archaeological remains and historical features has been evaluated as 'High', 'Moderate' or 'Low'. These criteria help to take account of the uncertainty that inevitably surrounds assessment of the precise nature of archaeological evidence.



In the particular circumstances of the proposed development, 'Potential' has also been used to indicate the scope for improvement by positive management of the site.

#### 2.4.4 Vulnerability

The vulnerability of archaeological and cultural heritage to changes brought about by development has been indicated as has been 'High', 'Moderate' or 'Low'

#### 2.4.5 Magnitude of effect

The magnitude of impacts has been characterised according to the scheme used for the initial site selection.

Magnitude	Definition
Major Adverse	<ul style="list-style-type: none"> <li>Causes major damage to archaeological structures, deposits or artefacts, leading to their complete destruction or complete loss of key components.</li> <li>Causes a major and overbearing intrusion on the visible appearance of an archaeological feature, either obscuring it from view or preventing any appreciation of its landscape context.</li> </ul>
Moderate Adverse	<ul style="list-style-type: none"> <li>Causes major damage to archaeological structures, deposits or artefacts, leading to their partial destruction involving partial loss of two or more key components.</li> <li>Causes a major intrusion on the visible appearance of an archaeological feature, partially obscuring it from view and preventing a full appreciation of its landscape context.</li> </ul>
Minor Adverse	<ul style="list-style-type: none"> <li>Causes moderate damage to archaeological structures, deposits or artefacts, leading to their partial destruction without complete loss of any key components.</li> <li>Causes a major intrusion on the visible appearance of an archaeological feature, either slightly obscuring it from view or detracting from the appreciation of its landscape context</li> </ul>
Neutral	<ul style="list-style-type: none"> <li>No appreciable direct effect on archaeological structures, deposits or artefacts.</li> <li>No appreciable effect on the visual appearance of an archaeological feature.</li> </ul>
Minor Beneficial	<ul style="list-style-type: none"> <li>Ensures the continued survival of archaeological structures, deposits or artefacts in a stable condition, but without significant improvement.</li> <li>Ensures that there will be no new detrimental impacts on the visible appearance of an archaeological feature, but without significant improvement.</li> </ul>
Moderate Beneficial	<ul style="list-style-type: none"> <li>Actively improves the condition of archaeological structures, deposits or artefacts by removing one or more low-level, chronic threats to their survival.</li> <li>Actively improves the visible appearance of an archaeological feature by removing lesser elements that are overbearing or detract from an appreciation of its landscape context.</li> </ul>
Major Beneficial	<ul style="list-style-type: none"> <li>Actively improves the condition of archaeological structures, deposits or artefacts by removing one or more acute threats to their survival.</li> <li>Actively improves the visible appearance of an archaeological feature by removing elements that are very overbearing or a major obstacle to an appreciation of its landscape context.</li> </ul>

**Table 2: Characterisation of impact magnitude**



Appropriate mitigation measures will be undertaken to reduce the effects of High, Moderate and Low impacts.

## **2.5 Impact Assessment Tables**

The impacts of the proposed development are presented in Sections 3 and 4.

### **Key to abbreviations used in the tables:**

VC Visitor centre

SARM Scheme for Archaeological Resource Management

LMP Landscape Management Plan [for Dunstable Downs]

HER Historic Environment Record



### **3. THE EFFECTS OF THE EXISTING ROUTES ON ARCHAEOLOGICAL REMAINS**

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#### **3.1 Summary of the Effect of the Current Situation**

The effects of the existing routes and desire lines are presented in Table 3.

Apart from the two segments of route that are presently surfaced, the remaining existing routes are all causing some degree of erosion and truncation to the ground surface. Continued use of these routes would have an increasingly detrimental effect on the preservation of any affected earthworks as well as the preservation of potential sub-surface archaeology. The worst affected areas of earthworks are in segments E15 which is damaging the Five Knolls SAM and routes E8 and E9 which are damaging earthworks B and C (see Fig. 2). Continued use of these routes and resulting scarring may also detract from the setting of any earthworks in the vicinity of the routes.

The proposed multi-user route is aimed at mitigation of these adverse effects caused by the continued use of the current routes.



**Table 3: Existing Routes**

Existing Routes									
Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Effect of Continued use of path	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
<b>Segment E1 Concrete path</b>	Potential sub-surface remains	There are no existing HER records and construction may have involved some truncation of the ground surface, resulting in some damage to any previously unidentified archaeological remains. Hard surface can be seen as beneficial in that it protects against erosion and scrub growth.	Unknown	Unknown	Concrete path will protect route from erosion and should encourage people to use it, so limiting erosion to surrounding areas.	Low	Minor Beneficial	If path stays the same no mitigation would be needed.	none
	Interpretation value	Views over the Downs and landscape to north-west but no clear view of significant cultural sites.	Regional	Moderate	Will continue to provide access to the north end of the Downs.	n/a	Neutral		none
	Setting of other sites in the vicinity	The concrete path is not overly visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gliding Club LB.	National	Low	n/a	n/a	Neutral		none
<b>Segment E2 Lightly eroded grass track</b>	Potential sub-surface remains	There are no existing HER records. However, erosion of the track over the years has resulted in some truncation to the ground surface, potentially resulting in some damage to any previously unidentified archaeological remains. At present though, the amount of erosion is minimal.	Unknown	Unknown	Continued use will cause further erosion and damage to any potential archaeology.	High	Minor Adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	Interpretation value	Views over the Downs and landscape to north-west but no clear view of significant cultural sites.	Regional	Moderate	Will continue to provide access to the north end of the Downs.	n/a	Neutral		None
	Setting of other sites in the vicinity	The track is not overly visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gliding Club LB. However, continued use and resulting scarring may make the track more prominent from nearby sites.	National	Moderate	Continued use and resulting scarring may make the track more prominent from nearby sites.	Moderate	Minor adverse	Amount of erosion and resulting detrimental effect on the setting of sites in the vicinity would need to be monitored.	Contract specification



**Existing Routes**

Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Effect of Continued use of path	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
<b>Segment E3</b> Lightly eroded track with the remains of a gravelled surface.	Potential sub-surface remains	There are no existing HER records. However, erosion of the track over the years has resulted in some truncation to the ground surface, potentially resulting in some damage to any previously unidentified archaeological remains. At present though, the amount of erosion is minimal. The graveling can be seen as beneficial as it has limited erosion and prevented scrub growth.	Unknown	Unknown	Continued use will cause further erosion and damage to any potential archaeology. However, the track does not appear to be frequently used due to it deviating from the direct route from the visitor centre along the ridge-line.	Moderate	Minor Adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	Interpretation value	Views over the Downs and landscape to north-west but no clear view of significant cultural sites.	Regional	Moderate	Will continue to provide access to the north end of the Downs.	n/a	Neutral		Design
<b>Segment E4</b> Heavily eroded track	Setting of other sites in the vicinity	The track is not overtly visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gliding Club LB. However, continued use and resulting scarring may make the track more prominent from nearby sites.	National	Moderate	Continued use and resulting scarring may make the track more prominent from nearby sites.	Moderate	Minor Adverse	Amount of erosion and resulting detrimental effect on the setting of sites in the vicinity would need to be monitored.	
	Potential sub-surface remains	There are no existing HER records. The amount of erosion over the years is such that either any sub-surface archaeology would be revealed or have been totally truncated. No archaeology is presently visible within the heavily eroded track.	Unknown	Unknown	Continued use will cause a larger area of erosion, thereby damaging any potential sub-surface archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	Interpretation value	Views over the Downs and landscape to north-west but no clear view of significant cultural sites.	Regional	Moderate	Will continue to provide access to the north end of the Downs.	n/a	Neutral		Design
	Setting of other sites in the vicinity	The track is not overtly visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gliding Club LB. However, continued use and resulting scarring may make the track more prominent from nearby sites.	National	Moderate	Continued use and resulting scarring may make the track more prominent from nearby sites.	Moderate	Minor Adverse	Amount of erosion and resulting detrimental effect on the setting of sites in the vicinity would need to be monitored.	LMP



### Existing Routes

Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Effect of Continued use of path	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
<b>Segment E5. Concrete path</b>	Potential sub-surface remains	There are no existing HER records and construction may have involved some truncation of the ground surface, resulting in some damage to any previously unidentified archaeological remains. Hard surface can be seen as beneficial in that it protects against erosion and scrub growth.	Unknown	Unknown	Concrete path will protect route from erosion and should encourage people to use it, so limiting erosion to surrounding areas.	Low	Minor Beneficial	If path stays the same no mitigation would be needed	none
	Interpretation value	Views over the Downs and landscape to north-west but no clear view of significant cultural sites.	Regional	Moderate	Will continue to provide access to the north end of the Downs.	n/a	Neutral		none
	Setting of other sites in the vicinity	The concrete path is not overly visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gliding Club LB.	National	Low	n/a	n/a	neutral		none
<b>Segment E6. Moderately eroded track</b>	Earthworks.	There are no HER records, but some earthworks (A) and (B) (see Fig. 2) are visible. The path runs across and truncates some of these earthworks, but bypasses most of them to the east. These earthworks are probably a combination of quarry pitting and golf course features and possibly WW1 trenches. The Dunstable Downs golf course is known to have extended into this area up until 1930. Features at the north end of this area have been suggested by the National Trust as being WW1 practice trenches; though this is unsubstantiated.	Local	Moderate	Though only a small amount of the earthworks are affected, the affected areas would be subject to further erosion from continued use of the track.	High	Moderate adverse.	Amount of erosion and damage to any earthworks would need to be monitored and earthworks may need to be accurately recorded before further serious damage.	





Existing Routes									
Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Effect of Continued use of path	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
	Potential sub-surface remains	There are no existing HER records. In some areas of the track the amount of erosion over the years is such that either any sub-surface archaeology would be revealed or have been totally truncated. No sub-surface archaeology is presently visible within the more eroded areas of the track. Erosion in other areas of the track has resulted in some truncation to the ground surface that will have damaged any potential sub-surface archaeological remains. The proximity of the earthworks in some parts of the track suggest some potential for sub-surface archaeology.	Unknown	Unknown	Continued use will cause further erosion and damage to any potential archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	Interpretation value	Views over the Downs and landscape to north-west but no clear view of significant cultural sites. However, the earthworks mentioned above are visible and may benefit from some interpretation.	Regional	Moderate	Potential for installation of interpretation boards.	N/A	Minor beneficial	Consider need for interpretation boards as appropriate.	None
	Setting of other sites in the vicinity	The track is not visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gliding Club LB. However, continued use and resulting scarring may make the track more prominent from nearby sites.	National	Moderate	Continued use and resulting scarring may make the track more prominent from nearby sites, including the adjacent earthworks.	Moderate	Minor adverse.	Amount of erosion and resulting detrimental effect on the setting of sites in the vicinity, including the adjacent earthworks may need to be monitored.	LMP
<b>Segment E7</b> <b>Moderately eroded track</b>	Earthworks	There are no HER records. However, the track passes through some earthworks (A on Fig. 2), some of which appears to be a green associated with Dunstable Downs golf course which is known to have extended into this area up until 1930.	Local	Low	May continue to take pedestrian traffic away from the earthworks.	Low	Minor Beneficial	None	



**Existing Routes**

Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Effect of Continued use of path	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
	Potential sub-surface remains	There are no existing HER records. In some areas of the track the amount of erosion over the years is such that either any sub-surface archaeology would be revealed or have been totally truncated. No sub-surface archaeology is presently visible within the more eroded areas of the track. Erosion in other areas of the track has resulted in some truncation to the ground surface that will have damaged any potential sub-surface archaeological remains. The proximity of earthworks (A) (see Fig. 2) in some parts of the track suggests some potential for sub-surface archaeology.	Unknown	Unknown	Continued use will cause further erosion and damage to any potential archaeology.	High	Minor Adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	Trench evaluation and SARM
	Interpretation value	Views over the Downs and landscape to north-west but no clear view of significant cultural sites. Earthworks (A) (see Fig. 2) on the east side of the path are visible.	Regional	Moderate	Potential for installation of interpretation boards.	N/A	Minor Beneficial	Consider need for interpretation boards as appropriate.	Design
	Setting of other sites in the vicinity	The track is not overly visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gliding Club LB. However, continued use and resulting scarring may make the track more prominent from nearby sites.	National	Moderate	Continued use and resulting scarring may make the track more prominent from nearby sites, including the adjacent earthworks.	Low	Minor Adverse	Amount of erosion and resulting detrimental effect on the setting of sites in the vicinity, including the adjacent earthworks may need to be monitored.	Design
<b>Segment E8. Moderately eroded tracks</b>	Earthworks	There are no HER records, but some earthworks (B on Fig.2) are visible. The tracks run across and truncate some of these earthworks. The earthworks are possibly the remains of quarry pitting, though some of the features have been suggested by the National Trust as being WW1 practice trenches and WW2 aerial bases, though this is as yet unsubstantiated.	Local	Moderate	Continued use will cause further erosion to the effected earthworks.	High	Moderate adverse	Amount of erosion and damage to any earthworks would need to be monitored and earthworks may need to be accurately recorded before further damage.	
	Potential sub-surface remains	There are no existing HER records. However, erosion of the tracks over the years has resulted in some truncation to the ground surface, resulting in some damage to any previously unidentified archaeological remains. The proximity of the earthworks suggests some potential for sub-surface archaeology.	Unknown	Unknown	Continued use will cause further erosion and damage to any potential archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM



**Existing Routes**

Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Effect of Continued use of path	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
	Interpretation value	Views over the Downs and landscape to north-west but no clear view of significant cultural sites. However, the earthworks mentioned above are visible and may benefit from some interpretation.	Regional	Moderate	Potential for installation of interpretation boards.	N/A	Minor beneficial	Consider need for interpretation boards as appropriate.	None
	Setting of other sites in the vicinity	The tracks are not particularly visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gilding Club LB. However, continued use and resulting scarring may make the track more prominent from nearby sites.	National	Low	Continued use and resulting scarring may make the track more prominent from nearby earthworks.	Moderate	Minor adverse.	Amount of erosion and resulting detrimental effect on the setting of sites in the vicinity, including the adjacent earthworks may need to be monitored.	LMP
<b>Segment E9. Heavily eroded tracks</b>	Earthworks	There are no HER records, but linear earthworks (C) (see Fig. 2) are clearly visible in this area. The presently used tracks run across and along these earthworks. These earthworks appear to be a series of hollow-ways or track-ways that may represent ancient route-ways or drove-ways up onto the Downs.	Local	High	Continued use will cause further erosion to the effected earthworks.	High	Moderate adverse	Amount of erosion and damage to any earthworks would need to be monitored and earthworks may need to be accurately recorded before further damage.	
	Potential sub-surface remains	There are no existing HER records. However, erosion of the tracks over the years has resulted in some truncation to the ground surface, resulting in some damage to any previously unidentified archaeological remains. The proximity of the earthworks suggests the potential for sub-surface archaeology.	Unknown	Unknown	Continued use will cause further erosion to a larger area and damage to any potential archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	Interpretation value	Views over the Downs at the southern end of the tracks, but no clear view of significant cultural sites. However, the earthworks mentioned above are dramatic features in themselves and may benefit from some interpretation.	Local	Moderate	Potential for installation of interpretation boards.	N/A	Neutral	Consider need for interpretation boards as appropriate.	None
	Setting of other sites in the vicinity	The eroded routes are not particularly visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gilding Club LB. However, continued use and resulting scarring will make the track more prominent from the adjacent hollow-way earthworks.	National	Moderate	Continued use and resulting scarring may make the track more prominent from nearby sites, including the adjacent hollow-way earthworks.	Moderate	Minor adverse.	Amount of erosion and resulting detrimental effect on the setting of sites in the vicinity, including the adjacent hollow-way earthworks may need to be monitored.	LMP



**Existing Routes**

Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Effect of Continued use of path	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
<b>Segment E10. Heavily eroded track</b>	Earthworks	There are no HER records, but the earthworks affected by tracks E8 are visible to the east. Though not directly affected, the track may be taking pedestrian traffic away from the earthworks to the east.	Local	Moderate	May continue to encourage pedestrians away from walking on the earthworks.	Low	Minor beneficial	None	
	Potential sub-surface remains	There are no existing HER records. The amount of erosion over the years is such that either any sub-surface archaeology would be revealed or have been totally truncated. No archaeology is presently visible within the heavily eroded track.	Unknown	Unknown	Continued use will cause erosion to a wider area and damage to any potential archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	Interpretation value	Views over the Downs, including lynchets and firing range. Views of earthworks adjacent to the east side of the track.	Regional	Moderate	Potential for installation of interpretation boards.	N/A	Minor benefit	Consider need for interpretation boards as appropriate.	None
<b>Segment E11. Heavily eroded track with a small remnant of a gravelled surface.</b>	Setting of other sites in the vicinity	The eroded track is not particularly visible on the skyline and should not significantly effect on the views from adjacent sites. However, continued use and resulting scarring will make the track more prominent.	National	Moderate	Continued use and resulting scarring may make the track more prominent from nearby sites, including the adjacent earthworks.	Minor	Minor adverse.	Amount of erosion and any resulting detrimental effect on the setting of sites in the vicinity, including the adjacent earthworks may need to be monitored.	LMP
	Potential sub-surface remains	There are no existing HER records. The amount of erosion over the years is such that either any sub-surface archaeology would be revealed or have been totally truncated. No archaeology is presently visible within the heavily eroded track.	Unknown	Unknown	Continued use will cause erosion to a wider area and damage to any potential archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	Interpretation value	Views over the Downs, including lynchets and firing range (G and I on Fig. 2). Views of earthworks, including the hollow-ways (F on Fig. 2), to the east side of the track.	Regional	Moderate	Potential for installation of interpretation boards.	N/A	Minor benefit	Consider need for interpretation boards as appropriate.	None
<b>Segment E12. Heavily eroded track.</b>	Setting of other sites in the vicinity	The eroded track is not particularly visible on the skyline and should not significantly effect on the views from adjacent sites. However, continued use and resulting scarring will make the track more prominent.	National	Moderate	Continued use and resulting scarring may make the track more prominent from nearby sites, including the earthworks identified to the east.	Moderate	Minor adverse.	Amount of erosion and any resulting detrimental effect on the setting of sites in the vicinity, including the adjacent earthworks may need to be monitored.	LMP
	Potential sub-surface remains	There are no existing HER records. The amount of erosion over the years is such that either any sub-surface archaeology would be revealed or have been totally truncated. No archaeology is presently visible within the heavily eroded track.	Unknown	Unknown	Continued use will cause erosion to a wider area and damage to any potential archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM



**Existing Routes**

Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Effect of Continued use of path	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
	<p>Interpretation value</p> <p>Setting of other sites in the vicinity</p>	<p>Views over the Downs, including lynchets and firing range (G and I on Fig.2). Views of Five Knolls round barrows and pillow mounds from the northern end of the route.</p> <p>The eroded track is not particularly visible on the skyline, but it is visible from the round barrows and the pillow mounds (D and E on Fig.2) and does have some detrimental effect on the view from these features. Also, continued use and resulting scarring will make the track more prominent.</p>	National	High	Potential for installation of interpretation boards.	N/A	Minor benefit	Consider need for interpretation boards as appropriate.	None
		<p>The eroded track is not particularly visible on the skyline, but it is visible from the round barrows and the pillow mounds (D and E on Fig.2) and does have some detrimental effect on the view from these features. Also, continued use and resulting scarring will make the track more prominent.</p>	National	High	Continued use and resulting scarring will make the track more prominent from nearby sites, including the SAMs.	High	Moderate adverse.	Amount of erosion and any resulting detrimental effect on the setting of sites in the vicinity, including the SAMs may need to be monitored.	LMP
<b>Segment E13. Moderately eroded track.</b>	<p>Earthworks</p>	<p>Though not appearing to directly cross any earthworks, the round barrows (E on Fig.2) are situated adjacent to the west and the hollow-way earthworks (C on Fig.2) lie to the east. The route may be beneficial in that it is taking pedestrian traffic away from these earthworks.</p>	National	High	May continue to encourage pedestrian traffic away from the earthworks.	Low	Minor Beneficial	Effect on adjacent monuments may need to be monitored.	
	<p>Potential sub-surface remains</p>	<p>There are no existing HER records. However, erosion of the track over the years has resulted in some truncation to the ground surface, resulting in some damage to any previously unidentified archaeological remains. The proximity of the earthworks suggests some potential for sub-surface archaeology.</p>	Unknown	Unknown	Continued use will cause further erosion and damage to any potential archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	<p>Interpretation value</p>	<p>Views of Five Knolls round barrows and hollow-way earthworks (C and E on Fig.2), as well as views over the Downs.</p>	National	High	Potential for installation of interpretation boards.	N/A	Minor benefit	Consider need for interpretation boards as appropriate.	None
	<p>Setting of other sites in the vicinity</p>	<p>The eroded track is not particularly visible on the skyline, but is visible from the round barrows. Continued use and resulting scarring will make the track more prominent.</p>	National	High	Continued use and resulting scarring will make the track more prominent from nearby sites, including the Five Knolls SAM.	High	Minor adverse.	Amount of erosion and any resulting detrimental effect on the setting of sites in the vicinity, including the SAMs may need to be monitored.	LMP
<b>Segment E14. Moderately eroded track.</b>	<p>Potential sub-surface remains</p>	<p>There are no existing HER records. However, erosion of the track over the years has resulted in some truncation to the ground surface, resulting in some damage to any previously unidentified archaeological remains. The proximity of the pillow mounds and the Five Knolls round barrows (D and E on Fig.2) suggest some potential for sub-surface archaeology.</p>	Unknown	Unknown	Continued use will cause further erosion and damage to any potential archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM



**Existing Routes**

Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Effect of Continued use of path	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
	Interpretation value	Restricted views of Five Knolls round barrows, hollow-way earthworks and pillow mounds (C, D and E on Fig. 2), as well as views over the Downs.	National	High	Potential for installation of interpretation boards.	N/A	Minor benefit	Consider need for interpretation boards as appropriate.	None
	Setting of other sites in the vicinity	The eroded track is not particularly visible on the skyline, but is visible from the SAMs D and E (see Fig. 2). Continued use and resulting scarring will make the track more prominent.	National	High	Continued use and resulting scarring will make the track more prominent from nearby sites, including the SAMs.	High	Minor adverse.	Amount of erosion and any resulting detrimental effect on the setting of sites in the vicinity, including the SAMs may need to be monitored.	LMP
<b>Segment E15. Heavily eroded tracks.</b>	Earthworks	These heavily eroded routes run near to and across the Five Knolls SAM (E on Fig. 2), which has resulted in some major truncation to the SAM.	Statutory	High	Continued use will cause further erosion to the SAM.	High	Moderate Adverse.	Amount of erosion and damage to the earthworks would need to be monitored and earthworks may need to be accurately recorded before further damage.	
	Potential sub-surface remains	Erosion of the routes has resulted in some major truncation to the SAM and also potentially damaging any previously unidentified sub-surface archaeological remains.	National	High?	Continued use will cause further erosion and damage to the SAM and any potential previously unidentified archaeology.	High	Moderate adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	Interpretation value	The routes are located on the Five Knolls round barrows and have views of the pillow mounds, as well as views over the Downs (see D and E on Fig. 2).	National	High	The placing of interpretation boards on this route would probably have a detrimental effect on the SAM, encouraging the public to use this route and thereby adding to the erosion on the SAM.	N/A	Moderate adverse.	Consider need for interpretation boards, though for reasons already mentioned may not be appropriate.	None
	Setting of other sites in the vicinity	The eroded routes are clearly visible from the Five Knolls and pillow mounds. They are also clearly visible on the skyline, if approached from the north. The scarring is detrimental to the views of the earthworks and continued use and resulting scarring will make the routes more prominent.	National	High	Continued use and resulting scarring will make the routes more prominent and detrimental to views of the SAMs.	High	Major adverse.	Amount of erosion and any resulting detrimental effect on the setting of sites in the vicinity, including the SAMs may need to be monitored.	LMP
<b>Segment E16. Moderately eroded track.</b>	Potential sub-surface remains	There are no existing HER records. However, erosion of the track over the years has resulted in some truncation to the ground surface, resulting in some damage to any previously unidentified archaeological remains.	Unknown	Unknown	Continued use will cause further erosion and damage to any potential archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	Interpretation value	Approaching upslope from the north provides a restricted view of the Five Knolls round barrows (see E on Fig. 2).	National	High	Potential for installation of interpretation boards.	N/A	Minor benefit	Consider need for interpretation boards as appropriate.	None
	Setting of other sites in the vicinity	The eroded route is clearly visible from the northern-most end of the Five Knolls. The scarring is visible from the north and has some detriment to the view of the approach to the Five Knolls. Continued use and resulting scarring will make the route more prominent.	National	High	Continued use and resulting scarring will make the routes more prominent and possibly detrimental to views of the SAM from the north.	High	Moderate adverse.	Amount of erosion and any resulting detrimental effect on the setting of sites in the vicinity, including the SAM, may need to be monitored.	LMP



**Existing Routes**

Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Effect of Continued use of path	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
<b>Segment E17. Moderately eroded track.</b>	Earthworks	There are no HER records, but the linear earthworks (C on Fig. 2) affected by the tracks in area E9 are clearly visible in this area. The presently used track runs up a steep slope crossing several of these earthworks. These earthworks appear to be a series of hollow-ways or track-ways that may represent ancient route-ways or drove-ways up onto the Downs.	Local	High	Continued use will cause further erosion to the effected earthworks.	High	Moderate adverse	Amount of erosion and damage to any earthworks would need to be monitored and earthworks may need to be accurately recorded before further damage.	
	Potential sub-surface remains	There are no existing HER records. However, erosion of the track over the years has resulted in some truncation to the ground surface, including the earthworks themselves. This may also result in some damage to any previously unidentified archaeological remains.	Unknown	Unknown	Continued use will cause further erosion and damage to the earthworks as well as any potential previously unidentified archaeology.	High	Minor adverse	Amount of erosion and damage to any potential sub-surface archaeology may need to be monitored.	SARM
	Interpretation value	Has no views of the Downs, but does have restricted views along the hollow-way earthworks, which may benefit from some interpretation.	Local	Moderate	Potential for installation of interpretation boards.	N/A	Minor benefit	Consider need for interpretation boards as appropriate.	None
	Setting of other sites in the vicinity	The route is partly visible from the Five Knolls and from the hollow-way earthworks themselves. However, continued use and resulting scarring will make the track more prominent when viewed from the hollow-way earthworks or Five Knolls.	National	Moderate	Continued use and resulting scarring may make the track more prominent from nearby sites, including the hollow-way earthworks and the Five Knolls.	Moderate	Minor adverse.	Amount of erosion and resulting detrimental effect on the setting of sites in the vicinity, may need to be monitored.	LMP



## 4. LIKELY SIGNIFICANT EFFECTS OF THE PROPOSED ROUTES ON ARCHAEOLOGICAL REMAINS

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### 4.1 *Summary of the Likely Effects of the Proposed Routes*

The effects of the construction and use of the proposed routes and desire lines are presented in Table 4.

As well as the construction work detailed in Table 4, the development would also need areas for storage of materials and works compounds. As these details of the development are not known at this stage, they have been discussed within separate Table 4b that deals with their possible effects on the area of the route in general.

Although initially the construction of a surfaced route would have a minor adverse effect on any earthworks present and potential sub-surface archaeology, the surfacing would prevent further erosion and damage to archaeology. A surfaced route would also encourage the public away from present routes that are causing erosion and damage to earthworks and potential sub-surface archaeology. Proposed route A3, together with proposed route P5 should encourage the public away from using present routes, such as E15, that cross and are subsequently damaging the Five Knolls SAM. The initial adverse effect on any earthworks or potential sub-surface archaeology such as in P5, would be reduced by appropriate mitigation.





**Table 4: Proposed Routes**

Proposed Routes									
Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Proposed development action	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
Segment P1 of proposed route. Follows existing concrete path E1.	Potential sub-surface remains	There are no existing HER records and construction of the path may have involved some truncation of the ground surface, resulting in some damage to any previously unidentified archaeological remains. Hard surface can be seen as beneficial in that it protects against erosion and scrub growth.	Unknown	Unknown	Will use present concrete path? This would protect route from erosion and should encourage people to use it, so limiting erosion to surrounding areas.	Low	Minor Beneficial	If path stays the same no mitigation would be needed	none
	Interpretation value	Views over the Downs and landscape to north-west but no clear view of significant cultural sites.	Regional	Moderate	Will continue to provide access to the north end of the Downs.	n/a	Neutral		none
	Setting of other sites in the vicinity	The concrete path is not overtly visible on the skyline and should not significantly effect on the views from sites in the vicinity, particularly the Five Knolls SAM and the London Gilding Club LB.	National	Low	n/a	n/a	Neutral		none
Segment P2 of proposed route. Follows existing route E2, E4 and E5 comprised of eroded tracks and concrete hard-standing.	Potential sub-surface remains	There are no existing HER records. However, erosion of the presently used track E2/E4 has resulted in some truncation to the ground surface and construction of the concrete hard-standing E5 at the north end of the area may have involved truncation to the ground surface. This would potentially result in some damage to any previously unidentified archaeological remains. In some areas of present track E4 the amount of erosion is such that any sub-surface archaeology would be revealed or have been totally truncated. No archaeology is presently visible within this area. The area of concrete hard-standing may however have protected against any further erosion to potential sub-surface archaeology.	Unknown	Unknown	Path construction and surfacing will involve some levelling and truncation to the ground surface. It would probably affect a wider area than that affected by the present erosion. However, surfacing would prevent further erosion to the ground surface and potential sub-surface archaeology.	Moderate	Minor Adverse	Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded.	



Proposed Routes									
Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Proposed development action	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
	<p>Interpretation value</p> <p>Setting of other sites in the vicinity</p>	<p>Views over the Downs and landscape to north-west but no clear view of significant cultural sites.</p> <p>The path would not be overly visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gliding Club LB. A surfaced path may be less conspicuous than an eroded track.</p>	<p>Regional</p> <p>National</p>	<p>Moderate</p> <p>Low</p>	<p>A surfaced path would improve access to the north end of the Downs.</p> <p>Construction of a surfaced path would prevent further erosion and scarring, thereby possibly benefiting the setting of any nearby sites.</p>	<p>n/a</p> <p>Low</p>	<p>Minor Beneficial</p> <p>Minor Beneficial</p>	<p>Design</p> <p>Contract specification</p>	
<p><b>Segment P3 of proposed route.</b></p> <p><b>Follows a similar route to the existing eroded track E6.</b></p>	<p>Earthworks.</p>	<p>There are no HER records, but some earthworks (A and B on Fig. 2) are visible. The path may run across a small proportion of these earthworks, but would bypass most of them to the east. These earthworks are probably a combination of quarry pitting and golf course features and possibly WW1 trenches. The Dunstable Downs golf course is known to have extended into this area up until 1930. Features at the north end of this area have been suggested by the National Trust as being WW1 practice trenches; though this is unsubstantiated.</p>	<p>Local</p>	<p>Moderate</p>	<p>Only a small amount of the earthworks would be directly affected by the route of the path. However, path construction and surfacing will involve some levelling and truncation to the ground surface and earthworks. Areas where the path crosses the earthworks may also involve some making-up of the ground surface. However, surfacing would prevent further erosion to the ground surface and damage to potential sub-surface archaeology. Surfacing may also encourage the public to use this route, thereby limiting damage to the rest of the earthworks.</p>	<p>High</p>	<p>Minor adverse.</p>	<p>Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains investigated and recorded. Areas of the earthworks directly affected by the route of the path may also need to be surveyed prior to pathway construction.</p>	
	<p>Potential sub-surface remains</p>	<p>There are no existing HER records, but the route is in the vicinity of the above mentioned earthworks. Erosion of the presently used track over the years has resulted in some truncation to the ground surface, resulting in some damage to any previously unidentified archaeological remains as well as to affected areas of the earthworks.</p>	<p>Unknown</p>	<p>Unknown</p>	<p>Path construction and surfacing will involve some levelling and truncation to the ground surface. However, surfacing would prevent further erosion to the ground surface and potential sub-surface archaeology.</p>	<p>High</p>	<p>Minor adverse</p>	<p>Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded.</p>	<p>SARM</p>
	<p>Interpretation value</p>	<p>Views over the Downs and landscape to north-west, including nationally significant archaeological sites in the hinterland of the Downs. The earthworks mentioned above are visible and may benefit from some interpretation.</p>	<p>Regional</p>	<p>Moderate</p>	<p>Potential for installation of interpretation boards.</p> <p>A surfaced path would improve access to the north end of the Downs.</p>	<p>N/A</p> <p>n/a</p>	<p>Minor beneficial.</p> <p>Minor beneficial</p>	<p>Consider need for interpretation boards as appropriate.</p>	<p>None</p>



Proposed Routes									
Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Proposed development action	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
<b>Segment P4.</b> Follows the route of the presently used and heavily eroded track E10.	Setting of other sites in the vicinity	The path would not be visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gliding Club LB.	National	Moderate	Construction of a surfaced path would prevent further erosion and scarring, thereby possibly benefiting the setting of any nearby sites.	Low	Minor beneficial.	Long term management plan essential.	LMP
	Earthworks	Though not directly affected, there are some earthworks (B on Fig. 2) visible to the east of this track. No HER record exists for these earthworks. The earthworks are probably the remains of quarry pitting, though some of the features have been suggested by the National Trust as being WW1 practice trenches and WW2 aerial bases, though this is as yet unsubstantiated.	Local	Moderate	The construction of a surfaced path here may encourage the public to use the surfaced path, lessening the impact on the nearby earthworks themselves.	Moderate	Moderate beneficial	Effect on earthworks may need to be monitored.	
	Potential sub-surface remains	There are no existing HER records. The amount of erosion caused by the track over the years is such that either any sub-surface archaeology would be revealed or have been totally truncated. No archaeology is presently visible within the area of the eroded track. However, the construction of a path is likely to affect a slightly wider area than that of the present track.	Unknown	Unknown	Path construction and surfacing will involve some levelling and truncation to the ground surface. However, surfacing would prevent further erosion to the ground surface and wider area, limiting damage to potential sub-surface archaeology.	High	Minor adverse	Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded.	SARM
	Interpretation value	Views over the Downs, including lynchets and firing range (G and I on Fig. 2). Views over nationally significant archaeological sites in the hinterland of the Downs. Earthworks (B on Fig. 2) adjacent to the east side of the track, which may benefit from interpretation.	Regional	Moderate	Potential for installation of interpretation boards.	n/a	Minor beneficial	Consider need for interpretation boards as appropriate.	None
Setting of other sites in the vicinity	The new path would be no more visible than the presently used eroded track, which is not particularly visible on the skyline and does not significantly effect on the views from adjacent sites.	National	Low	A surfaced path would improve access along the Downs. Construction of a surfaced path would prevent further erosion and scarring, thereby possibly benefiting the setting of any nearby sites.	n/a	Minor beneficial	Minor beneficial.	LMP	



Proposed Routes									
Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Proposed development action	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
Segment P5. Area of largely dense scrub	Earthworks	There are no HER records, but several linear earthworks (C on Fig. 2) are clearly visible in this area. The presently used tracks E9 located to the west of the present route, run across and along these earthworks. These earthworks appear to be a series of hollow-ways or track-ways that may represent ancient route-ways or drove-ways up onto the Downs.	Local	High	It is proposed that the route of the path will follow one of the hollow-ways where possible, thereby limiting the amount of damage to the earthworks. However, construction and surfacing will involve some levelling and truncation to the earthworks. In areas where the proposed route needs to cross the earthworks, the ground may also need to be made-up. However, the damage to the earthworks should be minor compared with the potential benefit of a surfaced path, which would limit further erosion and damage to the adjacent hollow-way earthworks.	High	Minor adverse	Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded. Areas of the earthworks directly affected by the route of the path may also need to be surveyed prior to being damaged or obscured by the pathway construction.	
	Potential sub-surface remains	There are no existing HER records. The hollow-way earthworks suggest there is some potential for sub-surface archaeology.	Unknown	Unknown	Path construction and surfacing will involve some levelling and truncation to the ground surface. However, surfacing would prevent further erosion to the ground surface and damage to potential sub-surface archaeology.	High	Minor adverse	Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded.	SARM
	Interpretation value	Views over the Downs at the southern end of the route, but no clear view of significant cultural sites. However, the earthworks mentioned above are dramatic features in themselves and may benefit from some interpretation.	Local	Moderate	Potential for installation of interpretation boards.		N/A	Minor benefit	Consider need for interpretation boards as appropriate.
Setting of other sites in the vicinity		The proposed route would not be visible on the skyline and would mainly be visible from the B4541 road side. It would be visible from the adjacent hollow-way earthworks.	Local	Moderate	A surfaced path would improve access up onto the Downs.	N/A	Minor benefit		
					It is intended to clear the dense scrub on the side of the hill which would improve the view of the hollow-way earthworks.	High	Major Beneficial		
					Construction of a surfaced path would prevent further erosion and scarring, thereby possibly benefiting the setting of the earthworks. The intended scrub clearance would improve the setting of the earthworks.	Low	Minor benefit	LMP	



Proposed Routes									
Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Proposed development action	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
<b>Alternative route A1.</b> Follows mainly present track E3.	Potential sub-surface remains	There are no existing HER records. However, erosion of presently used track E3 over the years has resulted in some truncation to the ground surface, resulting in some damage to any previously unidentified archaeological remains. At present though, the amount of erosion is minimal.	Unknown	Unknown	Path construction and surfacing will involve some levelling and truncation to the ground surface. However, surfacing would prevent any further erosion to the ground surface and damage to potential sub-surface archaeology.	High	Minor Adverse	Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded.	SARM
	Interpretation value	Views over the Downs and landscape to north-west, including nationally significant archaeological sites in the hinterland of the Downs.	Regional	Moderate	A surfaced path would improve accessibility on the Downs. Existing interpretation could be updated.	n/a	Minor beneficial		Design
	Setting of other sites in the vicinity	The path would not be overtly visible on the skyline and should not significantly effect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gliding Club LB.	National	Moderate	Construction of a surfaced path would prevent any further erosion and scarring, thereby possibly benefiting the setting of any sites.	Low	Minor beneficial		
<b>Alternative route A2.</b> Follows similar route to presently used tracks E8.	Earthworks	There are no HER records, but some earthworks (B on Fig. 2) are visible in this area. The route would run across and truncate some of these earthworks. The earthworks are possibly the remains of quarry pitting, though some of the features have been suggested by the National Trust as being WW1 practice trenches and WW2 aerial bases, though this is as yet unsubstantiated.	Local	Moderate	Path construction and surfacing will involve some levelling and truncation to the ground surface and earthworks. Areas where the path crosses the earthworks may also involve some making-up of the ground surface.	High	Moderate adverse	Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded. Areas of the earthworks directly affected by the route of the path may also need to be surveyed prior to being damaged or obscured by the pathway construction.	
	Potential sub-surface remains	There are no existing HER records. However, erosion of presently used track E8 over the years has resulted in some truncation to the ground surface, resulting in some damage to any previously unidentified archaeological remains. The vicinity of the earthworks suggests there may be some potential for sub-surface archaeology.	Unknown	Unknown	Path construction and surfacing will involve some levelling and truncation to the ground surface. However, surfacing would prevent any further erosion to the ground surface and damage to potential sub-surface archaeology	High	Minor adverse	Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded.	SARM
	Interpretation value	Views over the Downs and landscape to north-west but no clear view of significant cultural sites. However, the earthworks the route impacts upon would be visible and may benefit from some interpretation.	Regional	Moderate	Potential for installation of interpretation boards.	N/A	Minor beneficial	Consider need for interpretation boards as appropriate.	None
					A surfaced path would improve accessibility along the Downs	N/A	Minor beneficial		



Proposed Routes									
Location	Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Proposed development action	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
	Setting of other sites in the vicinity	The route would not be particularly visible on the skyline and should not significantly affect on the views from adjacent sites, particularly the Five Knolls SAM and the London Gilding Club LB.	National	Low	Construction of a surfaced path would prevent any further erosion and scarring, thereby possibly benefiting the setting of any sites.	Low	Minor beneficial		LMP
<b>Alternative route A3 to the SAM. Area consists largely of dense scrub.</b>	Earthworks	There are no existing HER records for this specific area, but there are some earthworks visible in this area. They are probably associated with quarrying activity, though there is the possibility that they are associated with the hollow-way earthworks visible to the east of this route and in proposed route P5.	Local	Moderate	Path construction and surfacing will involve some levelling and truncation of any encountered earthworks. Some areas where the route crosses earthworks may also involve some making-up of the ground surface.	Moderate	Minor adverse	Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded. Areas of the earthworks directly affected by the route of the path may also need to be surveyed prior to being damaged or obscured by the pathway construction.	
	The Five Knolls SAM	Though not directly affected by the proposed route, the Five Knolls SAM lies to the west of this route.	Statutory	Moderate	The surfaced route may improve the condition of the Five Knolls by encouraging pedestrian traffic away from using currently used tracks such as E15 that are damaging the SAM.	Moderate	Moderate beneficial	Effect on SAM may need to be monitored.	
	Potential sub-surface remains	There are no existing HER records. At present the area consists of dense scrub. However, the vicinity of the above mentioned earthworks and SAM suggests there is some potential for sub-surface archaeology.	Unknown	Unknown	Path construction and surfacing will involve some levelling and truncation to the ground surface. However, surfacing would prevent any further erosion to the ground surface and damage to any potential sub-surface archaeology.	High	Minor adverse	Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded.	SARM
	Interpretation value	Views of Five Knolls round barrows and hollow-way earthworks, as well as views over the Downs.	National	High	Potential for installation of interpretation boards.	N/A	Moderate beneficial	Consider need for interpretation boards as appropriate.	None
	Setting of other sites in the vicinity	The path would not be particularly visible on the skyline, but would be visible from the round barrows.	National	High	Scrub clearance would improve interpretation of earthworks obscured by undergrowth. A surfaced path would improve access to the SAM. Construction of a surfaced path would possibly limit further erosion and scarring to currently used routes, thereby possibly benefiting the setting of any sites. Scrub clearance for the proposed route would improve the setting of the earthworks in the vicinity, including the Five Knolls.	N/A	Major beneficial		
							Minor beneficial		LMP
							Major beneficial		



**Table 4b: Effects of construction phase of the development, the details of which are not known at present**

Affected elements	Discussion of archaeology and cultural heritage significance	Significance	Potential	Proposed development action	Vulnerability	Impact	Mitigation requirements	Mitigation deliverables
Earthworks	As detailed in Table 4, there are earthworks in the vicinity of the proposed routes such as the Five Knolls barrow cemetery and pillow mound SAMs, as well as earthworks that may be directly affected by the routes such as A, B, C and F (see Fig. 2).	Variable. Dependent on location of storage areas and compounds.	Variable, depending on affected earthwork.	Any ancillary works associated with the construction of the path, materials and works compounds may potentially affect earthworks. However, any storage areas and compounds could easily be located so as to have little or no affect on any earthworks.	Low	Minor adverse	Location of any storage areas and compounds, as well as general working methods to comply with archaeological resource management scheme, with appropriate provision for recording of any archaeological remains encountered.	SARM
Potential sub-surface remains	As detailed in Table 4 there are no existing HER records for the area affected by the routes, though any earthworks in the vicinity may suggest there is some potential.	Unknown	Unknown	Any ancillary works associated with the construction of the path, materials and works compounds may involve some truncation to the ground surface.	Moderate	Minor adverse	Any truncation to the present ground surface should be monitored by an archaeologist. Significant archaeological remains exposed by the work must be investigated and recorded.	SARM
Interpretation Value	Dependant on the location of the route as detailed in Table 4, there may be views of the Five Knolls barrow cemetery, views over the Downs or views of other earthworks.	Variable. Dependent on location of storage areas and compounds.	Variable, depending on affected site of interest.	Potential for installation of temporary interpretation boards with information on the development.	NA	Neutral	Consider need for interpretation boards as appropriate.	
Setting of other sites in the vicinity	Dependant on their location, storage areas and compounds may have a temporary affect on the setting of sites that have been detailed in Table 4.	Variable. Dependent on location of storage areas and compounds.	Variable, depending on affected setting.	Storage areas and compounds would have an adverse affect on the setting of any sites, but this would only be temporary.	Moderate	Minor adverse	Working methods to comply with archaeological resource management scheme.	SARM



## 5. DISCRIMINATION BETWEEN ALTERNATIVE ROUTES

### 5.1 Comparisons between routes

This section compares the major permutations of the possible routes to identify the preferred routes from an archaeological perspective. Due to the nature of the development, the preservation of archaeological remains in the form of earthworks or potential sub-surface remains has been viewed as relatively more important than interpretation value and the setting of other sites in the assessment of the possible routes. The major permutations of the possible routes have been assessed as Options 1 – 5, while Options 6 – 8 assess the routes that access the Five Knolls.

In Table 5 the impact of the possible routes has been expressed numerically to help to discriminate between the various route options. The following numerical value equivalents were applied to the various routes in respect of the significance of features and their effect upon them.

Significance:		Magnitude of Effect:	
Statutory	<b>5</b>	Major Beneficial	<b>+3</b>
International	<b>4</b>	Moderate Beneficial	<b>+2</b>
National	<b>3</b>	Minor Beneficial	<b>+1</b>
Regional	<b>2</b>	Neutral	<b>0</b>
Local	<b>1</b>	Minor Adverse	<b>-1</b>
None	<b>0</b>	Moderate Adverse	<b>-2</b>
		Major Adverse	<b>-3</b>

The rank reflects the most beneficial route with regard to the preservation of archaeology, 1 being the most preferred option.

On the basis of the analysis presented in Table 5, the preferred route options would be either Option 1 or 2, together with Option 7 as the preferred route accessing the Five Knolls. The benefits of Options 1, 2 and 7 would far outweigh any minor adverse effect on archaeology caused by the initial construction. The proposed surfaced path would protect any affected earthworks and potential sub-surface remains from further erosion as well as encouraging the public away from using other routes that are currently eroding and damaging earthworks and potential sub-surface remains. Option 7, together with Options 1 and 2 should also encourage the public away from using currently eroded routes that are damaging the Five Knolls SAM.





**Table 5: Ranking of proposed routes and equivalent existing routes**

Route	Segments contained within route	Significance	Magnitude of Effect (worst case)	Significance of Effect	Rank	Comments
Option 1 Proposed Route	P1, P2, P3, P4, P5	1	+1	+1	=1	Hollow-way earthworks (C) and small amount of earthworks (A) (see Fig. 2) will be affected. However, surfaced path will protect earthworks and potential sub-surface remains from further erosion as well as encouraging public away from further eroding routes along these earthworks and the Five Knolls.
Option 2 Proposed route with alternative	P1, A1, part of P2, P3, P4, P5	1	+1	+1	=1	No difference in effect than Option 1.
Option 3 Proposed route with alternative	P1, P2, P3, A2, P5	1	0	0	3	Will have same effect as Option 1 but will impact upon earthworks (B) (see Fig. 2) in Segment A2.
Option 4 Continued use of existing route	E1, E2, E4, E5, E6, E9, E10,	1	-1	-1	=4	Continued use would cause further erosion to earthworks (C) and earthworks (A) (see Fig. 2) and the resulting scarring would be detrimental to any visible archaeology in the vicinity.
Option 5 Continued use of existing route	E1, E2, E4, E5, E6, E8, E9	1	-2	-2	6	Continued use would cause further erosion to earthworks (C), (A) and (B) (see Fig. 2) and resulting scarring would be detrimental to any visible archaeology in the vicinity.
Option 6 Continued use of existing route	E1, E2, E4, E5, E7, E9, E10	1	-1	-1	=4	Continued use would cause further erosion to earthworks (C) (see Fig. 2) and resulting scarring would be detrimental to any visible archaeology in the vicinity.

Routes Accessing the Five Knolls						
Route	Segments contained within route	Significance	Magnitude of Effect (worst case)	Significance of Effect	Rank	Comments
Option 7 Proposed route to Five Knolls	A3	3	+2	+6	1	Will have a minor impact on quarry earthworks (F) (see Fig. 2) and possible hollow-way earthworks. However, a surfaced path should encourage pedestrian traffic away from using existing routes E13 – E15 that are damaging the Five Knolls round barrows.
Option 8 Existing route accessing the Five Knolls.	E13, E16	3	+1	+3	2	Continuing use of existing track is taking pedestrian traffic away from using damaging routes across the Five Knolls themselves. However, the track runs closer to the Five Knolls than Option 6 and erosion and potential damage to sub-surface archaeology would increase with use.
Option 9 Existing route accessing the Five Knolls	E14, E15, E16	3	-2	-6	3	Would continue to cause major erosion to the Five Knolls.



## 6. MITIGATION STRATEGY FOR ARCHAEOLOGY AND CULTURAL HERITAGE

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### 6.1 Requirement for Mitigation

One of the aims of the proposed development is to mitigate the observed effects of erosion caused by visitors to the Downs using the existing network of paths. Section 5 demonstrates which of the proposed paths are most likely to deliver significant archaeological benefits in directing visitors away from vulnerable features. However, it has also been shown that the construction and use of the proposed new paths are potentially damaging to archaeological remains if not themselves subject to appropriate mitigation (see Section 4).

### 6.2 Scheduled Monument Consent

Scheduled Monument Consent (SMC) may be required for any works taken adjacent to the scheduled ancient monuments. SMC is entirely separate from planning consent and applications must be made to the Department for Culture Media and Sport.

### 6.3 Mitigation of the Construction Phase

In line with PPG 16, the mitigation strategy will seek to preserve archaeological remains *in situ* wherever possible. However, where this is not possible and archaeologically significant features altered or destroyed as a result of the development a programme of investigation and recording will be undertaken to ensure ‘preservation by record’. The results of any investigation should be assessed to determine the need for further post-excavation analysis and publication, in line with English Heritage’s policy for the *Management of Archaeological Projects*, 1992 (‘MAP 2’).

The archaeological mitigation strategy cannot set out in detail at this stage, as it will depend on the construction programme and contractor’s working methods. It is therefore proposed that the mitigation strategy will be secured by means of a planning condition on the development and that it will be agreed by means of a written Scheme for Archaeological Resource Management (SARM), to be approved by the County Archaeological Officer in advance of the start of the development.

#### 6.3.1 Outline Brief for a Scheme for Archaeological Resource Management

This section sets out the minimum requirements of the SARM. Before the SARM is prepared a detailed Brief should be obtained from the County Archaeological Officer. The National Trust’s Regional Archaeologist should also be consulted, to ensure that the SARM complies with the Trust’s requirements for archaeological fieldwork and research.

The SARM will identify the relevant standards to be adhered to, including Institute of Field Archaeologists’ Codes of Conduct and Standards and Guidance documents, English Heritage’s Management of Archaeological



Projects (1991) and Preparing Archaeological Archives for Deposition in Registered Museums in Bedfordshire (1998).

The SARM will make provision for an appropriate level of archaeological monitoring at each stage of the development, and set out fully resourced method statements for the investigation, recording, analysis and publication of the results, in the event that archaeological remains are uncovered during the works. It will set out procedures for:

- Management of contractors' operations to minimise the potential for damage to below-ground remains (e.g. establishment of agreed routes for plant movements, etc.)
- Low-level monitoring by archaeologists during some ground-disturbing works (a low-level archaeological watching brief)
- High-level monitoring by archaeologists during all ground-disturbing works (intensive watching brief)
- Halting contractors' operations to enable archaeologists to investigate and record unexpected archaeological remains
- Open area excavation (controlled stripping of defined areas for archaeological investigation and recording, leading to a programme of post excavation analysis and eventual publication)
- Designation of areas for preservation *in situ* (which will probably include a long-term commitment to a programme of monument management)
- Analysis, reporting, and publication of the results, archiving and transfer to appropriate museum. This should include an assessment of the potential for on-site display (possibly of actual or replica artefacts).

Within six months of completion of main construction contract an updated SARM should be produced. This will include:

- A post-excavation assessment of the results of any fieldwork, which will follow the guidelines set out in English Heritage's Management of Archaeological Projects 2 (1991)
- Proposals for reporting, and publication of the results. This should include an assessment of the potential for public dissemination, such as on-site exhibition
- Provision for archiving and transfer to appropriate museum, which may include proposals for on-site display of actual or replica artefacts
- Recommendations for the long-term management of landscape to feed into the overall Landscape Management Plan for the Downs.

#### **6.4 Mitigation of Visitor Usage**

Although the proposed development is intended to reduce erosion due to visitor pressure, the situation will need to be monitored in the longer term. Paths and adjacent verges will need to be maintained and any emergent problems tackled before they lead to damage to archaeological remains. Repairs and alterations to the path network will need to be undertaken with due regard to their effect on archaeological remains.



Archaeologically beneficial management practices will be incorporated into the Local Management Plan for the Downs. To ensure this takes place, the Plan will be submitted for approval to the County Archaeological Officer.



## 7. INTERPRETATION OF ARCHAEOLOGICAL FEATURES

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### 7.1 *Current Interpretation Provision*

On site interpretation of archaeology is currently very poor. The Five Knolls, which are one of the most striking prehistoric monuments in the county are simply ‘labelled’ with an unattractive utilitarian plaque (see Plate \*). Existing information panels are located well away from features of archaeological significance and focus on topics of landscape and natural history.

### 7.2 *Potential for Interpretation*

The assessment of the proposed paths and alternative routes has identified that the following have good potential to improve information provision.

#### 7.2.1 **Locations with high potential for interpretation of features on the Downs**

**Alternative Route A3** This new path would enable visitors to approach the Five Knolls. From the end of the spur the barrow mounds are dramatically silhouetted on the skyline, even though the view is slightly restricted by the brow of the ridge. Because the path lies below the ridge, information panels of a reasonable size could be installed along it with minimal visual intrusion. The southern end of the path would be an appropriate location for a panel describing the pillow mounds and discussing rabbit warrens.

**Segment P5** The proposed path offers good views over the Downs and, although there is no clear view of any significant archaeological sites, the hollow-way earthworks are dramatic features (Plate \*) with good potential for interpretation. Further research is needed to identify their date and function.

**Segment P4** Views from here over the Downs including lynchets and firing range. Interpretation (G and I on Fig. 2). Views of earthworks (B on Fig. 2) adjacent to the east side of the track, which may benefit from interpretation.

#### 7.2.2 **Locations with some potential for interpretation of features on the Downs**

**Segment P3** Earthworks that are visible from the path would benefit from some interpretation.

**Alternative Route A2** As this path lies back from the brow of the ridge, the view over the Downs and landscape to north-west is less dramatic. However, the earthworks along the



route should be interpreted if further information could be obtained regarding their data and origin.

### **7.2.3 Locations with potential for the interpretation of the historic landscape**

**Segments P2, P3 and P4** These routes all give good views from the Downs over the landscape to north-west. There are with clear views of nationally important archaeological sites in the vicinity (Totternhoe castle, Maiden Bower) and the historic settlements on the plain.

**Alternative Route A1** Existing information panels interpret the views over the Downs and landscape to north-west. If these were to be updated they should include archaeology.



## APPENDIX 1: POLICIES FOR HISTORIC ENVIRONMENT

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### 7.2.4 Purpose of this Section

The following is a brief review of relevant statutes and planning policy, along with national and local policies relating to the historic environment.

### 7.2.5 Scheduled Ancient Monuments

The Ancient Monuments and Archaeological Areas Act 1979 (amended by the National Heritage Act 1983) provides for the statutory protection of nationally important archaeological sites that are on the Schedule of ancient monuments. Two such monuments lie on Dunstable Downs – the Five Knolls barrow cemetery and medieval pillow mounds, which are both situated on the promontory at the north end of the Downs, between 1km and 1.5km from the option sites.

Scheduled status restricts works that might affect the monument's physical preservation, mitigates any ground disturbing works and, crucially, controls development which might affect the monument's setting. **Scheduled Monument Consent (SMC) may be required for works that affect the monument and is granted by the Department for Culture, Media and Sport, based on advice from English Heritage.**

### 7.2.6 Hedgerows Regulations 1997

This statutory instrument regulates actions that might damage hedgerows of ecological or historical significance (notably those associated with archaeological sites and those predating the general Enclosure Act). The intention to remove such a hedgerow should be notified in advance to the relevant local authority. The authority may grant permission for removal or, within a specified period, issue a hedgerow retention notice preventing the removal of an 'important' hedgerow, as defined in the regulations. It is an offence intentionally or recklessly to damage an important hedgerow or to cause or permit another person to do so.

### 7.2.7 National Government Review of Policy for the Historic Environment

Government policies relating to the historic environment are currently undergoing a major review initiated by the Department for Culture, Media and Sport<sup>1</sup>. In the longer term, new primary legislation is proposed and a White Paper is expected to be published in spring 2006<sup>2</sup>. The key proposals for the White Paper, as set out on the DCMS Website, comprise:

- a new unified register, bringing together the systems of listed buildings, scheduled monuments, and registered parks, gardens and battlefields;
- unification of listed building and scheduled monument consent regimes;

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<sup>1</sup> DCMS, 2004, *Review of Heritage Protection: the Way Forward*

<sup>2</sup> DCMS, 2006, Heritage Protection Review [Internet]. Available: [http://www.culture.gov.uk/historic\\_environment/heritage\\_protection\\_review](http://www.culture.gov.uk/historic_environment/heritage_protection_review) (accessed 08/02/2006)



- proactive management partnerships between sit owners, local authorities, English Heritage and local communities to be employed as alternative proactive management regimes;
- passing statutory responsibility for designating at a national level from the Secretary of State for DCMS to English Heritage;
- introduction of a statutory right of appeal in respect of designation decisions;
- a new overarching statutory definition of historic assets.

Responsibility for processing listing applications has already been transferred was to English Heritage.

Earlier statements that remain relevant, particularly with regard to public access to and knowledge of the historic environment, are *Power of Place: the Future of the Historic Environment* (English Heritage, 2000), and *The Historic Environment: a Force for Our Future* (DCMS, 2001).

The foreword to *Power of Place* highlights the five main messages of the document. The fifth of these is that

*Everything rests on sound knowledge and understanding. Good history is history that is based on thorough research and is tested and refined through open debate. It accommodates multiple narratives and takes account of the values people place on their surroundings. The review also makes a number of recommendations for those working with or living in the historic environment.*

It is considered that the proposed renovation of the visitor facilities on Dunstable Downs may provide opportunities to contribute to the following of the report's Recommendations:

- 4: provide more support for rural, coastal and marine environments
- 6: encourage better maintenance [of scheduled ancient monuments]
- 8: place the historic environment at the heart of education
- 9: remove barriers to access
- 10: enable more people to participate

The Government's vision statement, *The Historic Environment: a Force for Our Future* sets out the agenda aimed at delivering more attractive towns, world-class tourist attractions, new jobs and learning, vibrant and self-confident communities. Significantly, the overarching vision looks to a future in which:

- the full potential of the historic environment as a learning resource is realised;
- the historic environment is accessible to everybody and is seen as something with which the whole of society can identify and engage;
- the historic environment is protected and sustained for the benefit of our own and future generations;
- the historic environment's importance as an economic asset is skilfully harnessed.





### 7.2.8 National Planning Policy Guidance

Overall objectives for national planning policy are set out in *Planning Policy Guidance Note 1: General Policy and Principles* (DTLGR, 1997). Key Objective 32 states that:

*Just as well-designed, new development can enhance the existing environment, it is fundamental to the Government's policies for environmental stewardship that there should be effective protection for the historic environment. Those aspects of our past which have been identified as being of historic importance are to be valued and protected for their own sake, as a central part of our cultural heritage. Their presence adds to the quality of our lives, by enhancing the familiar and cherished local scene and sustaining the sense of local distinctiveness which is so important an aspect of the character and appearance of our towns, villages and countryside. Their continued use is important if they are to contribute fully to the life of our communities.*

More specific guidance is given in PPG 16, *Archaeology and Planning*, (Department of the Environment 1989), which aims to preserve archaeological remains *in situ* or, failing that, to ensure that an adequate record is made before they are destroyed. PPG15, *Planning and the Historic Environment* (Department for National Heritage, 1994), complements PPG16 by setting out government policies for the identification and protection of historic buildings, conservation areas, and other elements of the historic environment. The overriding objective of PPG15 is to promote sustainable economic growth whilst also protecting the natural and historic environment.

### 7.2.9 Bedfordshire and Luton Structure Plan Policies

The current County Structure Plan (adopted March 1997) includes, under the heading of 'Conserving and Enhancing Resources' policies for the historic environment. Of particular relevance are the following policies:

<i>Policy 13</i>	Preserving features (esp. encouraging the protection and management of historic landscape features)
<i>Policy 14</i>	Enhancing features (incl. promoting preparation of management plans)

The above Plan is currently being reviewed and new policies proposed in the Draft Deposit 2016 are:

<i>Policy 11</i>	Identifying designating and protecting historic features
<i>Policy 12</i>	Managing the Historic Environment



### 7.2.10 South Bedfordshire Local Plan policies

South Bedfordshire District Council's policies for archaeology are set out in the Built Environment section of the Local Plan (adopted 2004). The following policy should be noted:

*Policy BE1:* places a requirement on developers to undertake archaeological evaluation of their proposals, seeks to resist development of sites of archaeological importance, or to require recording of sites and buildings in advance of development. The policy also encourages appropriate management and interpretation of sites of archaeological importance.

### 7.2.11 Management Plan for the Chilterns AONB

Section 6 of the published management plan for the AONB, *Action Plan 2002–2007: The framework for Action*, acknowledges the significance of the historic environment and sets the following broad aims for its management:

- Ensure the sustainable conservation and management of the historic environment of the AONB for the benefit of current and future generations;
- Encourage greater public appreciation and understanding of the historic environment of the AONB and promote sustainable access.

### 7.2.12 The National Trust and the Historic Environment

As a partner in the management of the Downs, it is important to highlight the National Trust's commitment to archaeology and the historic environment.

This has been set out in a number of recent papers including

- *Position Statement: the Historic Environment*, January 2002;
- *Archaeology and the Historic Environment: An overview of National Trust archaeological practices*, by Caroline Thackray, 2001;
- responses delivered in 2000 to the Government's review of policies relating to the historic environment.

### 7.2.13 National and Regional Archaeological Research Frameworks

#### 7.2.13.1 The English Heritage Archaeology Draft Division Research Agenda

The draft Research Agenda were issued by the Archaeology Division of English Heritage in 1997. It set out the key areas of activity that English Heritage wished to develop, over the subsequent five to ten year period, and addressed the means by which activities would be achieved. Although the Research Agenda relate to the work undertaken by English Heritage or commissioned from others through grants programmes, it has become the overarching framework document for archaeological research in England. Archaeological work undertaken as part of the Improvement Scheme and Management Plan will need to address the aims of the Research Agenda.

The primary goals of the Research Agenda are:

- A. Advancing understanding of England's archaeology



- B. Securing the conservation of archaeological landscapes, sites and collections
- C. Supporting the development of national, regional and local research frameworks
- D. Promoting public appreciation and enjoyment of archaeology
- E. Supporting the development of professional infra-structure and skills

Each of these goals is to be addressed by a number of mechanisms, which are listed in Appendices, Section 0

#### **7.2.13.2 Regional and subject-based research frameworks**

At a regional level, research frameworks for Bedfordshire have now been drafted<sup>3</sup>. Until these are finalised, reference should also be made to the published framework and agenda covering East Anglia<sup>4,5</sup>. These review the archaeological knowledge of various periods and topics and propose priorities for future research. Research frameworks specific to for Bedfordshire are currently in preparation, but a very valuable discussion of the archaeology of the Chilterns is available in Holgate<sup>6</sup> (although this ‘handbook for the next decade’ is itself now due for review).

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<sup>3</sup> Oake, M., in prep

<sup>4</sup> Glazebrook, J. (ed.), 1997, *Research and Archaeology: A framework for the Eastern Counties, 1. resource assessment*

<sup>5</sup> Brown, N. and Glazebrook, J., 2000, *Research and Archaeology: A framework for the Eastern Counties, 2. research agenda and strategy*

<sup>6</sup> Holgate, R., (ed), 1995, in *Chiltern Archaeology, Recent Work: A Handbook for the Next Decade*, Dunstable.



## APPENDIX 2: GAZETTEER

Significance	Definition	Identifiers	
		SAM no.	HER no.
<i>Statutory</i>	<b>Monuments within the Study Area:</b>		
	The Five Knolls round barrow cemetery	20422	138
	Medieval 'pillow mound' (rabbit warren)	24409	139
	<b>Monuments overlooked from the Downs:</b>		
	Site of Roman villa, Totternhoe (2km to NW)	BD 57	
	Totternhoe Castle, motte and bailey (3.5km to NW)	23401	
	Park Farm moated site, deer park and fishponds, Eaton Bray (4km to W)	24418	
<i>International</i>	None identified by desk-based survey		
<i>National</i>	The Icknield Way path		353, 5148
	Admiralty telegraph station site		11211, 14109
	19 <sup>th</sup> century rifle range at the foot of the Down		11199
<i>Regional</i>	All lynchets and earthwork field systems		1476, 2604, 5114, 5152, 13580-1, 16538
	Unproven/damaged prehistoric burial sites		1392, 10025, 10445
	All isolated finds of Palaeolithic artefacts		633
	All isolated finds of Neolithic or Bronze Age artefacts		1152, 2030, 12149, 13570, 13575, 15824
	All isolated finds of Roman artefacts		104, 983, 2038, 16256, 17172
	All occupation sites of possible prehistoric date		276, 160, 11952
	All occupation sites of Romano-British date		1465
	All minor ancient roads		696, 10993, 11076
	Sallowspring Wood ancient woodland The Robertson war memorial		11193 11213
<i>Local</i>	All mineral extraction pits and quarries, including 'California' chalk pit to the east and quarry to the north of the development area.		5183-4, 10481, 11048, 11222, 13904-5, 13828, 13900, 13901, 14100
	Uncharacterised cropmarks and earthworks		12294, 112146
	London Gliding Club		15802
	Unrecorded hollow-way earthworks (C on Fig. 2)		
	Possible WWI and II remains at (B) on Fig. 2		



Significance	Definition	Identifiers	
		SAM no.	HER no.
	suggested by National Trust (if confirmed may be of more significance)		
	Golf course features at (A) on Fig. 2.		
	Possible turf maze at (H) on Fig. 2 identified by Steve Coleman (further investigation may increase significance)		
<i>Unknown</i>	All apparently blank areas within the Study Area		

**Table 6: Archaeological sites within the study area and assessment of their significance**



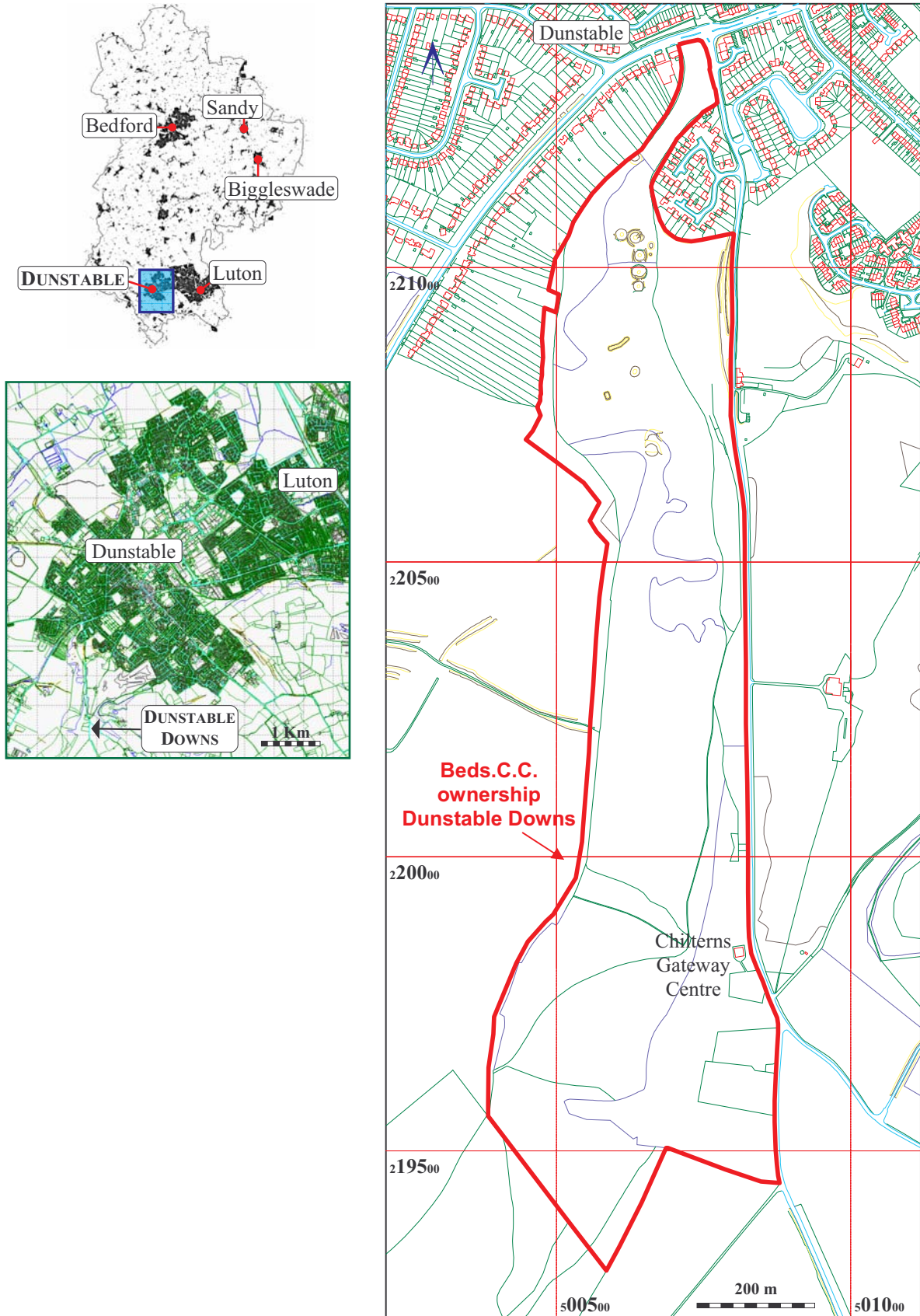


## FIGURES

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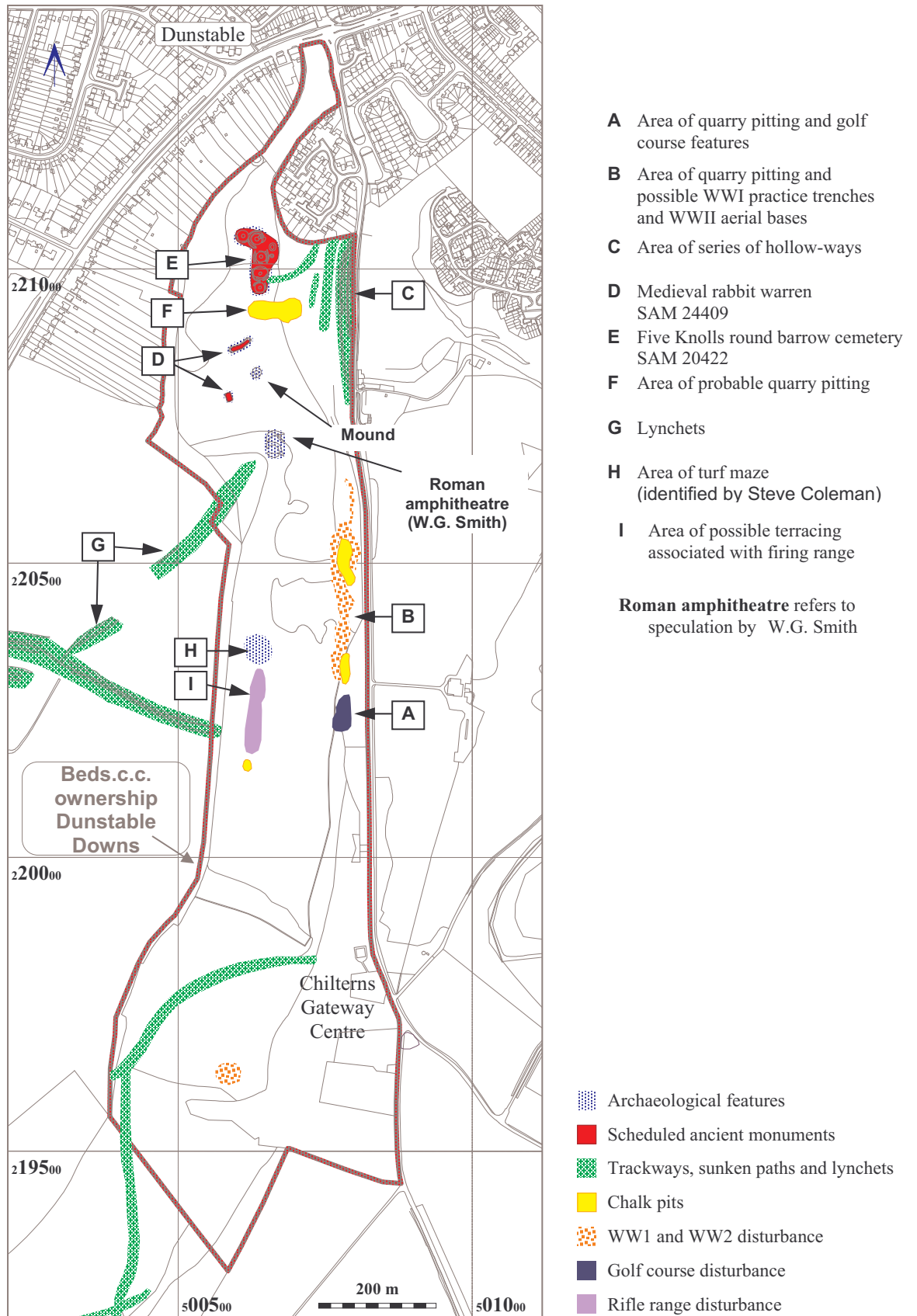




**Figure 1: Site location map**

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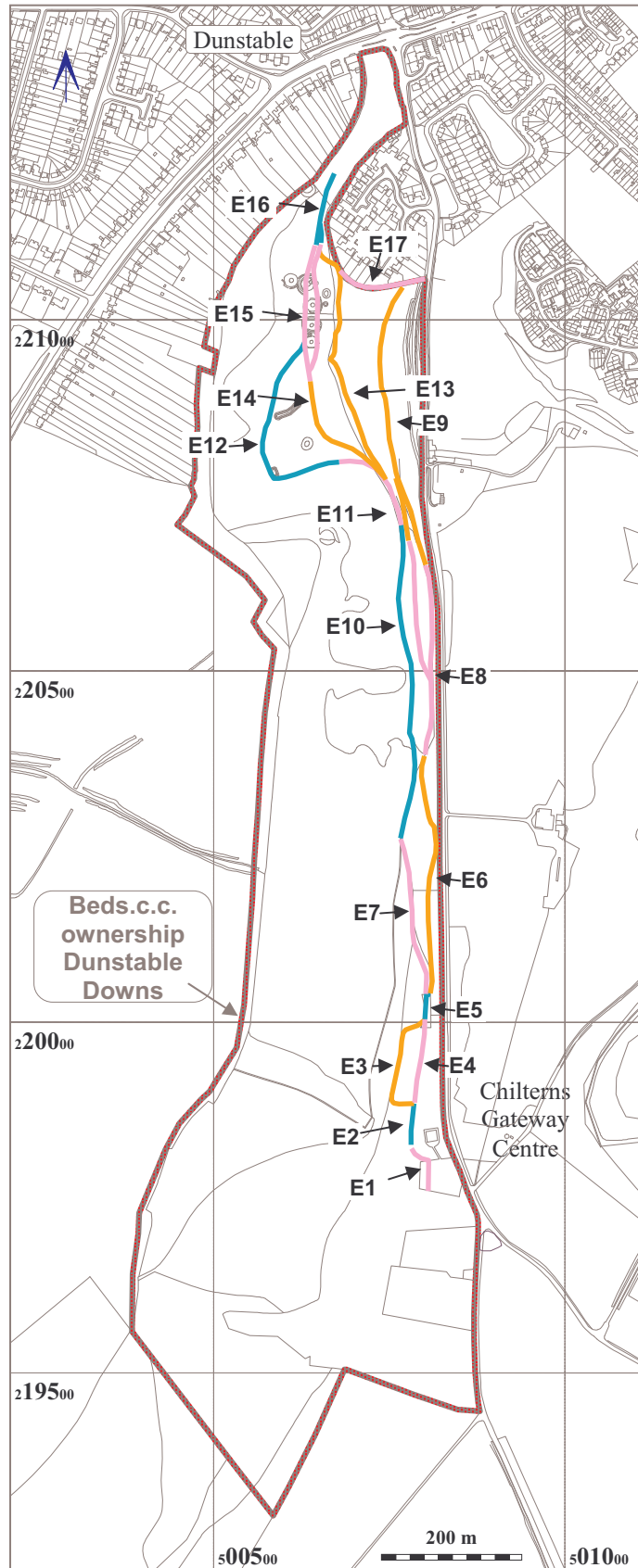




**Figure 2: Known Archaeology**

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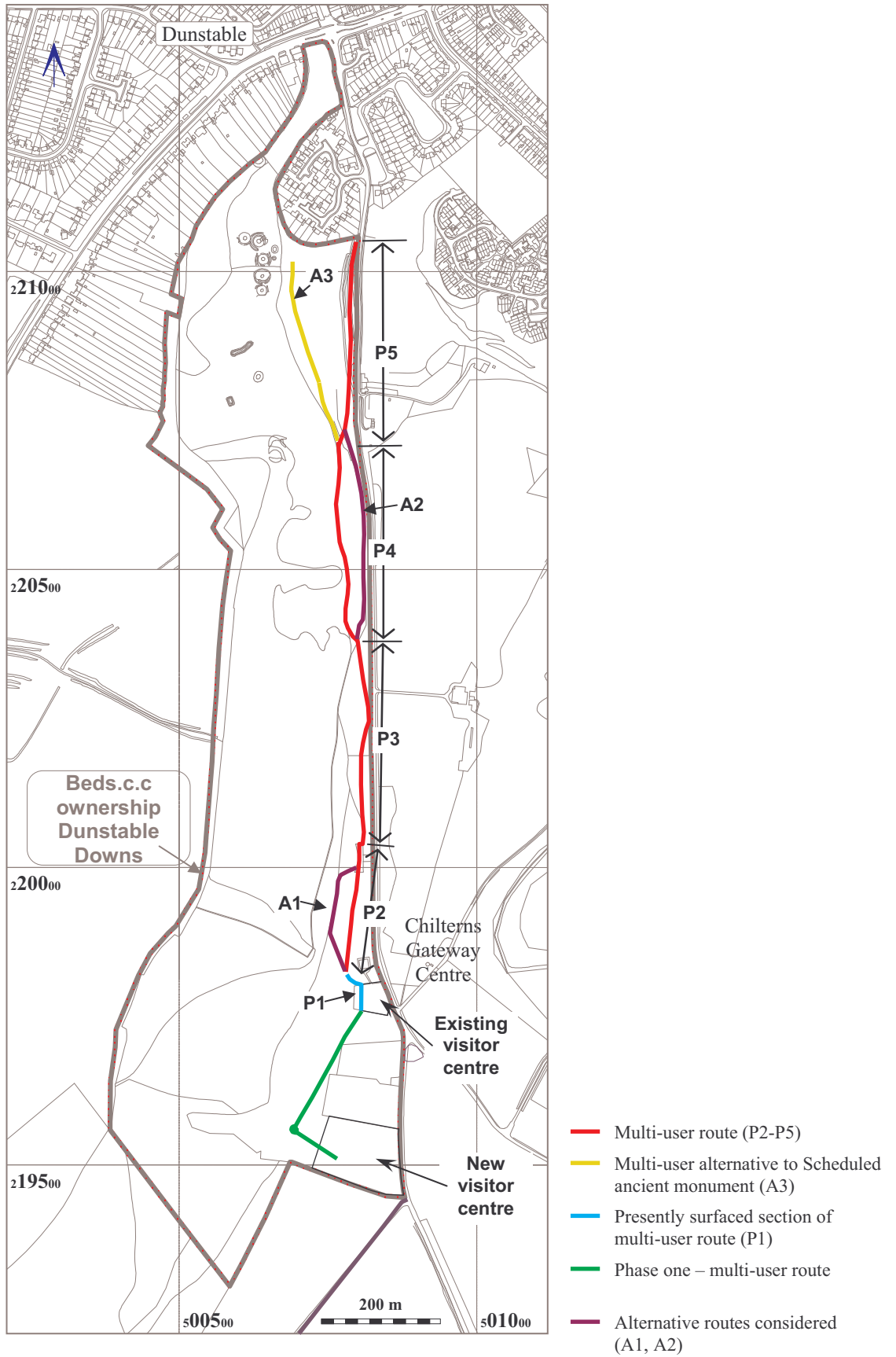




**Figure 3: Major existing routes along the top of the Downs**

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**Figure 4: Proposed multi-user routes**

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**Figure 5:** Aerial Photograph with area of Beds.c.c. ownership overlain