Land off Dover Road, Deal Archaeological Appraisal & Geophysical Survey

Gladman Developments Ltd

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1.0 Introduction

This Archaeological Appraisal has been prepared by Dr Tudor Skinner, Consultant Archaeologist, WYG on behalf of Gladman Developments to inform an outline planning application for a residential development. A separate Heritage Statement considering built heritage has been completed by Daryl Page, Senior Built Heritage Consultant, WYG. The geophysical survey of the proposed development area is summarised within the report and included in full in Appendix G.

WYG is a Registered Organisation with the Chartered Institute for Archaeologists.

1.1 Aims and Objectives

This study examines the archaeological potential of the proposed development site and the surrounding area. The aim of the study is to:

- Identify recorded archaeological sites within the site boundary and assess its heritage significance/value;
- Identify the potential for previously unrecorded sites to be present within the site; and
- Identify potential impacts on archaeological remains from development.

This appraisal considers the archaeological potential within the site itself, the surrounding area and wider local and regional context. The appraisal does not attempt to plot and review every archaeological find and monument; rather it aims to examine the distribution of evidence and to use this to predict the archaeological potential of the study area and the likely impact of the development proposals upon any potential remains.

The appraisal is not a comprehensive desk-based assessment as defined by the CIfA Standards and Guidance for Historic Environment Desk-Based Assessment, as it does not include detailed consideration of all information resources, but the work has been completed in line with the principles within the guidance.

2.0 Site and Development Description

The proposed development area is divided between a larger area of paddocks, bordered by a tree plantation on the south-east side of the site. A small area for stables and car parking is set aside at the north-west corner of the area. The site is set amid undulating open countryside on the southern border of Upper Walmer, now a suburb of Deal.

The east side of the development area is fenced off from arable fields. It is bordered to the north and west by the southerly extension of residential buildings from Upper Walmer, further to the north. The premises of Walmer Court Farm delineate the southern border of the application site, alongside a small area of pasture. A site location plan can be seen in Appendix A and site photographs can be seen in Appendix B.

The bedrock geology for the development site is composed of the sedimentary Seaford Chalk Formation. This is overlain by clay and silt head, which is recorded across the proposed development area (British Geological Survey 2017). No boreholes are recorded within the proposed development area.

The proposed development is for up to 85 residential dwellings with associated landscaping, parking, and public amenity space. The Framework Development Plan can be seen with the submitted application drawings.

3.0 Methodology

3.1 Assessment Methodology

Impact assessment has been carried out through the consideration of baseline conditions in relation to the elements of the scheme that could cause cultural heritage impacts. Baseline conditions are defined as the existing environmental conditions and in applicable cases, the conditions that would develop in the future without the scheme. In accordance with best practice this report assumes that the scheme will be constructed, although the use of the word 'will' in the text should not be taken to mean that implementation of the scheme is certain.

No standard method of evaluation and assessment is provided for the assessment of impact significance upon cultural heritage, therefore a set of evaluation and assessment criteria have been developed using a combination of the Secretary of State's criteria for Scheduling

Monuments (Scheduled Monument Statement, Annex 1) and the Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07. Professional judgment is used in conjunction with these criteria to undertake the impact assessment. The full assessment methodology can be seen in Appendix C.

3.2 Sources Consulted

A study area of a 750m radius from the centre of the development site has been examined to assess the nature of the surrounding heritage sites, and to place these sites within their archaeological and historic context. The sources consulted were:

- Kent Historic Environment Record (HER);
- Kent History and Library Centre
- Historic England and Local Planning Authority for designated sites;
- Historic mapping including early Ordnance Survey mapping; and
- Appropriate secondary and documentary sources.

In addition to the above, a site walkover survey was undertaken on 2nd March 2017 by Dr Tudor Skinner, Consultant Archaeologist, WYG, to assess the site for previously unrecorded archaeological remains and the suitability for future evaluation and mitigation measures. In March 2017 Magnitude Surveys conducted a geophysical survey of land within the proposed development area.

4.0 Legislation and Policy Context

4.1 Ancient Monuments and Archaeological Areas Act, 1979

Scheduled Monuments are designated by the Secretary of State for Culture, Media and Sport on the advice of Historic England as selective examples of nationally important archaeological remains. Under the terms of Part 1 Section 2 of the Ancient Monuments and Archaeological Areas Act 1979 it is an offence to damage, disturb or alter a Scheduled Monument either above or below ground without first obtaining permission from the Secretary of State. This Act does not allow for the protection of the setting of Scheduled Monuments.

4.2 Planning (Listed Buildings and Conservation Areas) Act, 1990

The Act outlines the provisions for designation, control of works and enforcement measures relating to Listed Buildings and Conservation Areas. Section 66 of the Act states that the planning authority must have special regard to the desirability of preserving the setting of any Listed Building that may be affected by the grant of planning permission. Section 72 states that special attention shall be paid to the desirability of preserving or enhancing the character or appearance of Conservation Areas.

4.3 National Planning Policy Framework, 2012

The National Planning Policy Framework (NPPF) sets out the Government's national planning policies including those on the conservation of the historic environment. The NPPF covers all aspects of the historic environment and heritage assets including designated assets (World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, Conservation Areas, Registered Parks and Gardens and Registered Battlefields) and non-designated assets. The NPPF draws attention to the benefits that conserving the historic environment can bring to the wider objectives of the NPPF in relation to sustainability, economic benefits and place-making (para 126).

The NPPF states that the significance of heritage assets (including their settings) should be identified, described and the impact of the proposal on the significance of the asset should be assessed. The planning application should include sufficient information to enable the impact of proposals on significance to be assessed and thus where desk-based research is insufficient to assess the interest, field evaluation may also be required. The NPPF identifies that the requirements for assessment and mitigation of impacts on heritage assets should be proportional to their significance and the potential impact (para 128).

The NPPF sets out the approach local authorities should adopt in assessing development proposals within the context of applications for development of both designated and non-designated assets. Great weight should be given to the conservation of designated heritage assets and harm or loss to significance through alteration or destruction should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage

Sites, should be wholly exceptional (para 132). Additional guidance is given on the consideration of elements within World Heritage Sites and Conservation Areas (para 138).

Where there is substantial harm to or total loss of significance of a designated heritage asset a number of criteria must be met alongside achieving substantial public benefits (para 133). Where there is less than substantial harm the harm should be weighed against the public benefits of the development (para 134). Balanced judgements should be made when weighing applications that affect non-designated heritage assets (para 134). The NPPF also makes provision to allow enabling development (para 140) and allowing development which enhances World Heritage Sites and Conservation Areas (para 127).

Where loss of significance as a result of development is considered justified, the NPPF includes provision to allow for the recording and advancing understanding of the asset before it is lost in a manner proportionate to the importance and impact. The results of these investigations and the archive should be made publically accessible. The ability to record evidence should not however be a factor in deciding whether loss should be permitted (para 141).

The NPPF is supported by Planning Practice Guidance on Conserving and Enhancing the Historic Environment (2014). This provides further information on how to interpret and apply the NPPF in practice and the relationship to the legislative framework for planning and the historic environment.

4.4 Local Policy and Guidance

4.4.1 The South East Plan, a Regional Spatial Strategy for the South East of England, 2009

The South East Plan, adopted in 2009, sets out overarching planning and development priorities within the South East region between 2006 and 2026, extending from Hampshire and Oxfordshire through to Kent. It provides an overarching context for Local Development Frameworks, such as the Dover District Core Strategy. It contains one policy relevant to the historic environment, detailed below.

- **Policy BE6 Management of the historic environment**

  When developing and implementing plans and strategies, local authorities and other bodies will adopt policies and support proposals which protect, conserve and, where appropriate, enhance the historic environment and the contribution it makes to local and regional distinctiveness and sense of place. The region's internationally and nationally designated historic assets should receive the highest level of protection.

Proposals that make sensitive use of historic assets through regeneration, particularly where these bring redundant or under-used buildings and areas into appropriate use should be encouraged.

4.4.2 Dover District Local Development Framework Core Strategy, 2010

The Dover District Local Development Framework Core Strategy, adopted in February 2010, sets out the planning and development priorities for the district between 2010 and 2026. It superseded an earlier Local Plan, incorporating a number of earlier 'saved' policies. While it concerns Historic Parks and Gardens in the district, it otherwise defers all other policies related to the historic environment to The South East Plan, a Regional Spatial Strategy for the South East of England. The relevant policy directs the formulation of a local strategy, collated within the Dover District Heritage Strategy.

- **Policy DM 19 Historic Parks and Gardens**

  Permission will not be given for development proposals that would adversely affect the character, fabric, features, setting, or views to and from the District's Historic Parks and Gardens.

4.4.3 Dover District Heritage Strategy, 2013

The Dover District Heritage Strategy, adopted in 2013, was commissioned by Dover District Council and English Heritage in order to shape future regeneration, development and management decisions. The Heritage Strategy identifies a series of objectives. Objective 1, of direct relevance to the development, is detailed below, where relevant. The full text of the Objective is available in Appendix D.

- **Objective 1 – Enabling and informing regeneration activities to secure better outcomes from sustainable growth.**

  R1 - The historic environment should be embraced as an important element in proposals for regeneration and new development to help develop a strong 'sense of place' and an identity for existing and new communities. Particular attention should be given to key gateways and routes to and through the District's towns and rural settlements.

R2 - The character and form of existing heritage assets should be used to help shape the character and form of new development. The historic environment should be considered and reflected in development master plans.

R3 - The sustainable and beneficial reuse of heritage assets, conserving them in a manner appropriate to their significance, should be encouraged in new development and given appropriate weight in making planning decisions.

R4 - Proposals for new development should include an appropriate description of the significance of any heritage assets that may be affected including the contribution of their setting. The impact of the development proposals on the significance of the heritage assets should be sufficiently assessed using appropriate expertise where necessary. Desk-based assessment, archaeological field evaluation and historic building assessment may be required as appropriate to the case.

R6 - The opportunities that the historic environment and heritage assets present and their vulnerability to change should be taken into account in considering the site allocations for the Core Strategy.

R7 - Improved guidance for compiling and the required content of Heritage Statements should be developed and made available to planning applicants. The methodology developed for checking proposals against the Heritage Strategy themes should be developed for use in Heritage Statements.

5.0 Baseline Data

5.1 Designated Sites

There are no World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas or Registered Parks and Gardens or Battlefields within the development site.

The Upper Walmer Conservation Area is located to the north of the development site, separated from it by 20th-century residential developments. There are 10 Listed Buildings located within the 750m study area of the proposed development site. All of these are Grade II listed, apart from the Church of St Mary the Blessed Virgin, which is Grade II* listed (Listed building 1251215). These are all located to the north of the site within the Upper Walmer Conservation Area. The Walmer Castle Registered Garden is also located within the study area, to the north-east of the development site (1000291). One scheduled monument is located to

the north of the development site, again within the Upper Walmer Conservation Area. This is Old Walmer Court Manor House, former caput of the manor of Walmer (Scheduled monument 1005142). The upstanding remains consist of a roofless 12th/13th-century manor house of flint with Caen stone dressings. It has a rectangular structure, enclosing two undercrofts and a first floor hall. The Conservation Area, Registered Garden, Scheduled Monument and Listed Buildings are considered within the separate Built Heritage Assessment prepared by WYG and are not dealt with further in this report. The designated heritage assets are presented in Figure 2, Appendix E.

5.2 Non-Designated Sites

The Historic Environment Record holds details for 38 monument records within the study area; of these two are records of Listed Buildings within the Upper Walmer Conservation Area. The Historic Environment Record also holds details for 18 archaeological events within the study area. Three monument records directly border the north side of the development site as do two event records and it is evident that the northern edge of the site was the location of substantial occupation in the later prehistoric and Romano-British periods. An excavation at Downlands conducted by Canterbury Archaeological Trust in 2004 and 2005 identified extensive Bronze Age, Iron Age and Romano-British activity (MKE21093; MKE43008 & EKE9351). Bronze Age and Iron Age activity was evident in extensive pitting with an east/west boundary ditch. The quantity of domestic waste suggested nearby settlement. Further early Romano-British boundary ditches were also identified, alongside the isolated burials of a horse and child. At the end of the 2nd century AD the site was levelled and a large aisled building was constructed on the site. Further Romano-British activity was identified in the south-west corner of the excavations, where they directly abutted the potential development area (MKE97869 & EKE10085). The excavator has proposed that the quantity and character of material found suggests the nearby presence of a villa. Finally, 19th-century mapping records a courtyard farmstead, King's Barn, on the north-west edge of the development site (MKE88050).

A number of undated sites have also been identified within the study area. These include the Dane Pits Enclosures to the south-west of the application site (MKE6646). This comprises a rectilinear earthwork enclosure complex of unknown date. Earthworks from an undated field system are also present south-east of the application site, as are cropmarks to the north-east, on the edge of the former extent of Hawkshill Down Airfield (MKE6641 & MWX43683). A variety of agricultural, ferrous, natural and undetermined anomalies were identified within the proposed development area during the course of a geophysical survey conducted by

Magnitude Surveys. It is most likely that the undetermined anomalies relate to modern land use.

Details for these sites can be seen in Appendix E and their locations can be seen on Figures 3 and 4.

5.2.1 Prehistoric (up to 43AD)

Across Britain, the main evidence for the Palaeolithic period are stone tools. Sites are typically recognised from lithic scatters, often found within river gravels and terraces. The geography of known remains is often highly regionalised, as sediments from the period have often been destroyed or reworked by natural processes. Unlike more northerly parts of the British Isles, hominin habitation is known from the south coast of England during inter-glacial periods, as demonstrated by the stone tools from Pakefield (c. 700 000 years old) flint tools found at the Southfleet Road elephant butchery site at Ebbsfleet (Wenban-Smith et al. 2006; Wenban-Smith 2008). Indeed, Kent boasts the highest concentration of Palaeolithic material in England. Some of the earliest hominin remains are also found at this region, such as at Swanscombe in Kent. However, there is comparatively little evidence for Upper Palaeolithic activity in Kent, especially prior to the end of the last Ice Age. Within the study area a flint core of either Palaeolithic or Mesolithic date has been recorded to the north-west of the development site (MKE91510).

Like the Palaeolithic period, the Mesolithic is characterised by ephemeral traces of activity, and sites are principally recognised from concentrations of lithics, as the temporary settlements used by these communities left little other trace in the landscape. It is very rare to find *in situ* evidence for Mesolithic settlement sites. Some of the earliest evidence for post-glacial re-settlement of the British Isles comes from Kent, including flint points from Oare, near Faversham (Palmer 2008a). Mesolithic archaeological assemblages are known for their wider variety of smaller microliths, and in Kent these are known from places such as Chiddingston and Harrietsham. More tools are known from Finglesham and High Rocks. At Horton Kirby, some of the only evidence for pre-Neolithic cereal cultivation has been identified. As mentioned above, a flint core of either Palaeolithic or Mesolithic date has been identified to the north-west of the development site (MKE91510).

Throughout the region, a range of Neolithic sites survive. The Neolithic was a period of increasingly permanent human occupation, although seasonal mobility and the exploitation of wild resources continued throughout the period. Mortuary monuments, along with the introduction of pottery, domesticates and arable farming practices mark the beginning of the Neolithic period, and the construction of large ceremonial monuments arguably marks a clear

change in ideology from the preceding Mesolithic period. Common Neolithic ceremonial monuments in Britain include long barrows, henges, causewayed enclosures, cursus and stone circles. Long barrows are known from the Medway and Stour Valleys, while a number of causewayed enclosures have recently been discovered on the Isle of Sheppey and near Ramsgate (Palmer 2008b). The chalk landscape of East Kent is particularly rich in Neolithic worked flint assemblages. No Neolithic material is reported from within the study area.

The Bronze Age period is characterised by significant changes in material culture, and domestic and ceremonial architecture. The introduction of bronze metalworking is traditionally associated with the appearance of Beaker culture. Mortuary ceremonies also change emphasis in this period, with a shift from the large communal complexes and inhumations of the Neolithic, to individual cremations and round barrow cemeteries. Across Britain, the Bronze Age is also associated with increased agricultural activity and enclosures, associated with improved cultivation techniques, particularly in the Middle and Late periods. The Isle of Thanet was a focus of settlement at this time, as was Mill Hill in Deal, a short distance north-west of the proposed development area. The main source of evidence for Bronze Age activity in the study area has already been mentioned above, on the north side of the proposed development area (MKE21093 & MKE43008). This consisted of a ditch and pits, dating from the Late Bronze Age to the Middle Iron Age. A number of ring ditches have been identified as cropmarks to the south-west and south-east of the development site (MKE6701 & MKE91770), one of which, it is suggested, represents a Bronze Age barrow associated with secondary early medieval burials (MKE91667). The cropmark of another oval enclosure of potential Bronze Age date is located immediately west of the development site (MKE6689).

By the Iron Age period, the landscape saw increasing evidence for field systems and defended sites, and much stronger evidence for continental influences than earlier periods. The period is also marked by evidence for the appearance of iron technology in the archaeological record. Kent is known for the relatively late appearance of hill forts in the archaeological record, comparative to the rest of the country (Palmer 2008c). Examples include Oldbury and Bigbury. Extensive late Iron Age settlement centres, known as *oppida*, have been proposed at Canterbury, Rochester and Quarry Woods. Mill Hill is again a prominent site in the Iron Age, known for large scale high status burials, covered in more detail immediately below. Within the study area, the ditches and pits observed immediately north of the proposed development site extended in date from the Later Bronze Age to the Middle Iron Age (MKE21093 & MKE43008). Two Iron Age inhumations were also found on the other side of Dover Road, immediately opposite the site (MKE17580). In this case a child and a juvenile had been interred in former storage pits, dated by pottery of Middle to Late Iron Age date. To the south of the

proposed development area, four post holes and a gully were identified in the course of a pipeline watching brief (MKE6656). Beyond this, there is a wider spread of more ephemeral material around the study area. Iron Age pottery was found in a later medieval ditch to the south-west of the development sites, and further find spots in the immediate vicinity include two Iron Age copper alloy coins (MKE65670 & MKE65682). Less precise locations are given for gold Iron Age staters, a La Tène brooch and more copper coins within the study area (MKE7323; MKE7387; MKE10076; MKE65825 & MKE65851).

Beyond these period-specific archaeological records, one pit of possible later prehistoric date was identified during a watching brief in The Maltings, to the north of development site (MKE17738).

5.2.2 Roman/Romano-British (43AD to c450AD)

Kent was one of the earliest places to experience Roman influence, first within networks of cross-channel and continental trade, and later as one of the earliest conquests during the Roman invasion of Britain. The Roman army itself probably landed at Richborough and within a short time much infrastructure had been built up along the course of Watling Street (running from Richborough to London) and in older centre of settlements such as Canterbury and Rochester in what had been the tribal territory of the Iron Age Cantiaci (Dover District Heritage Strategy 2013). While roundhouses continued to comprise the majority of vernacular architecture, local elites quickly adopted stone in building works and villas emerged in the British landscape, including at Sandwich and Ebbsfleet Farm. Indeed, while the chalk of East Kent is noted for the concentration of settlement in the Romano-British period, there is a comparative paucity of high status sites east of Canterbury. Kent remained militarised throughout the time of the Roman presence in Britain and it appear this was heightened from the third century onwards, as evidenced by the appearance of the Saxon Shore Forts on the coast, including at Dover and Richborough.

Romano-British material in the study area is concentrated immediately north of the development site, with some outliers to the south. The main source of evidence comes from the multi-period site north of the development site, in the form of Romano-British reoccupation of a site occupied in the Middle Bronze Age period (MKE21093 & MKE43008). The Romano-British material consisted of east/west aligned boundary ditches, alongside isolated horse and child burials. The excavator reports that the site may have been levelled in the 2nd century AD, preceding the construction of a large aisled building. The excavators have further suggested that this building may represent an ancillary structure related to more substantial settlement to the south, a hypothesis of immediate relevance to the development site (MKE97869).

Beyond this concentration of activity, one Romano-British pottery vessel is reported from Sotne Hole Meadow to the south-east of the development site (MKE6635).

5.2.3 Early Medieval (c410AD to 1066AD)

Following the departure of Roman power in the early 5th century, there is little in the documentary record concerned with the region's history until the writings of Bede. However, Kent is notable for the very large number of early Anglo-Saxon cemeteries in the region, exemplified by sites such as Finglesham and Buckland in eastern Kent (Thomas 2013). The complex array of influences evident in these mortuary assemblages cautions against the old culture-historical distinctions of Jutes and Saxons. At the turn of the 7th century the area was described as part of the kingdom of Kent, ruled over by Aethelberht. He was the potentate who met with the Roman envoy Augustine, first on the Isle of Thanet, before agreeing to convert to Christianity and thus heralding the beginning of a longer process of Christianisation throughout Anglo-Saxon England. Settlement evidence in East Kent has tended to be concentrated in earlier foci, such as Dover and Richborough, although a trading wic site was present at Sandwich from the mid-7th century. More recent excavation at Lyminge, further to the southwest, has evidence of occupation from the 5th century and timber halls from the 7th century prior to the construction of a monastery in the 8th century. In the 8th century more coastal trading settlements emerged, such as Fordwich, although Kent's power in the country was gradually eclipsed, dominated first by Mercia, and then by Wessex, and was incorporated within the latter kingdom by the end of the 9th century in response to the Viking incursions further north. Notwithstanding this, Canterbury, still the centre for Christianity in England, remained one of the major towns in England in the 10th and 11th centuries.

Early medieval evidence within the study area is entirely concentrated to the south-west of the development site in the inner angle of the junction of Dover Road and Ripple Road. An inhumation was identified during a pipe-line watching brief, furnished with an iron spear and shield (MKE6659). A late 5th-century cruciform brooch has also been reported as a findspot nearby (MKE64193). In addition to this artefactual evidence, two separate cropmark complexes in the vicinity of these sites have been identified as potential early medieval cemeteries (MKE91667 & MKE91668).

5.2.4 Medieval (1066AD to c1540AD)

The Norman Conquest provides a firm date for the commencement of the later medieval period across England. The South Coast is a particularly rich area for studying the medieval period, as the region's location between London and the Continent led to a number of especially impressive buildings, and the area has always been important for overseas trade, coastal

trading, and for cross-channel shipping routes. Walmer, the nearest settlement to the proposed development area, receives no mention in Domesday Book. The site itself is located at the northern limit of the parish of Ringwould in the hundred of Cornilo, which is also not recorded in the survey of 1086. While these settlements were notionally ancillary to Deal, there was a firm administrative division between them, insofar as the settlement of Walmer was reckoned a limb of the Cinque Port of Sandwich, while Ringwould was instead attached as a limb of Dover. Otherwise, the economy of the local area was dominated by mixed agriculture on the chalkland of East Kent.

Later medieval evidence within the study area is restricted to designated heritage assets, these being Walmer Court Manor House (Scheduled monument 1005142) and the Grade II*-listed Church of St Mary the Blessed Virgin (Listed building 1251215). These are dealt with in the accompanying built heritage statement.

5.2.5 Post-Medieval Period (c.1540AD to 1750AD), Industrial (1750AD to 1900AD) and Modern (1900AD to present)

Saxton's 1579 map of Kent depicts each of the settlements close to the proposed development, without offering any immediate detail, a situation repeated by Symonson's 1596 map, which does include certain routeways. Dury and Herbert's map of 1769 shows a building complex named Cold Blow at the junction of Dover Road and Ripple Road, but this is likely an error, representing a surviving farm that is in fact positioned further to the north-west. The early Ordnance Survey mapping of St Margaret's Bay and Canterbury (1798-9) depicts Dover Road, but not Ripple Road. It is possible that a field shown on the southern edge of Walmer represents the area of the proposed development area, but this must remain a point of speculation. The tithe map for Ringwould circumscribes the proposed development area. This records it as arable in the possession of George Leithe, leased to James Leithe, and known as "Part of South End Down". The map depicts this area as an open field, with a rectangular building in the north-west corner cut into what may be raised scrubland (judging by the hachures). The very western strip of the proposed development area was instead subdivided into a roadside close containing a small building. This was again owned by George Leithe, but this time jointly leased to William Clark and William Beer. This close was instead rated as a garden and listed as "2 Tenements".

From the early-nineteenth century, with the threat of invasion from the French during the Napoleonic Wars, a series of developments occurred in the Deal area. This included the addition to the barracks site at Walmer, the turnpike road through Deal to Sandwich, and construction of windmills to increase local agricultural production (East Kent History 2010). A

number of courtyard farms representative of this agricultural focus are (or were) located within the study area, including King's Barn in the north-west tip of the proposed development area (MKE88050; MKE87118 & MKE87119).

The first edition 25-inch Ordnance Survey (Kent LVIII.12) depicts the proposed development area as one unenclosed part of a larger field. It also shows the Walmer Brewery immediately to the north. This was built north of the site on Dover Road in 1820, although it had been demolished by 1974 (MKE16835). The second edition 25-inch survey (Kent LVIII.12) shows the Buckland Junction and Deal Railway, constructed in 1881 to the west of the site (MKE16835). In the intervening time, it also appears that the area circumscribed by the present development has been enclosed, while the roadside close depicted on the 1846 tithe map had been expanded further eastward. This is also the first map to label the buildings in the north-west corner of the application site as "King's Barn", while also noting the reservoir adjacent to the south-west corner. Subsequently, there is little change evident in the Third and Fourth Edition 25-inch surveys of 1905 and 1938.

During the First World War, an airfield was established at Hawkshill Down to the east of proposed development, under the Royal Naval Air Service. This was re-used during the Second World War as a defensive work and radar facility (MWX43634 & MWX43639). Further inland, a Fougasse Flame Trap is partly extant, designed to halt the movement of armoured vehicles (MKE42022).

6.0 Historic Landscape Characterisation

Historic Landscape Characterisation data was provided by the Kent Historic Environment Record (Munby 2001). The data can be seen on Figure 5. Almost all of the proposed development area is coextensive with land classed as prairie fields, a result of the loss of 19th-century boundary features and the consolidation of earlier field systems. The exception to this is the western roadside edge which is classed instead as post-1810 settlement, a better reflection of land-use on the mid 19th-century tithe map than its present state as paddocks for horse. This settlement zone extends immediately south of the application site to cover Walmer Court Farm.

Otherwise, the site should be considered an interface between more extensive prairie fields and the 19th- and 20th-century expansion of Walmer to the north, enclosing the historic core of this settlement. In the far south-east of the study area some evidence of parliamentary

enclosure remains, while to the south-east older, more irregular field boundaries prevail. Finally, a small amount of common downland survives to the east of the application site.

7.0 Geophysical Survey

A geophysical survey was undertaken within the majority of the application site in order to identify potential remains of archaeological and historical significance and to assist with the preparation of this appraisal. The full geophysical report has been reproduced in Appendix G and the initial results are summarised here. The survey identified plentiful evidence for modern land divisions and usage relating to the paddocks currently on the site. Evidence suggestive of ploughing activity was also identified, as were undetermined anomalies in the north of the survey area which may tentatively relate to historic activity within the proposed development area.

The survey was undertaken by Magnitude Surveys 27-31 March 2017, covering an area of approximately 4.1 hectares. The south-east of the application site was not surveyed as it is presently occupied by extensive scrub and a tree plantation. Stables, paddock fencing, livestock and picnic tables made the far north and north-east parts of the site unsurveyable.

The Dover Road site encompasses paddocks, stables and a tree plantation set on the east side of Dover Road and immediately south of residential expansion extending southward of the historic core of Walmer. At the time of the survey the south-east of the site was planted with trees, leaving the remainder subdivided severally between stabling and paddocks. The survey identified ferrous anomalies corresponding to paddock boundaries, a pitch, animal feeders and troughs. Further magnetic disturbance is apparent along the north-west edge of the site and may be associated with the dumping of material during the construction of Dover Road. There is some evidence of ploughing activity on a north-east/south-west alignment within the survey area. In addition, an undetermined curvilinear anomaly was detected in the north of the survey area in close proximity to another concentric anomaly. It is most likely that these anomalies reflect land usage or natural variation in the soil and/or geology. The survey team have suggested that this may represent a boundary connected to the former farm of King's Barn. It may also relate to the Romano-British settlement located adjacent to the northern boundary of the survey area.

8.0 Site Walkover Survey

A site walkover survey was undertaken on 2nd March 2017. The weather was bright and sunny. A selection of site photographs is included in Appendix B. No features of archaeological interest were identified during the walkover survey. The majority of the development site is currently used for paddocks, with a small plantation on the southern and eastern edge. No earthwork features of any antiquity were observed in the course of the survey.

The majority of the proposed development area was occupied by horse paddocks, sub-divided by wire and electric fencing (Photograph 1). Small linear earthwork rises accompanied some of the sub-divisions but these will be of comparatively recent date, judging from the evidence from older mapping. The grass had also been cropped to varying levels, presumably on the basis of the distribution of horses within the paddocks. In the north-west corner, a small number of wooden stables were located within smaller enclosed fields, accompanied by an area for car-parking. The remaining area of the field is taken up by a tree plantation, set in regular rows but overgrown with scrub (Photograph 2). The site is bounded by wire fencing to the north, east and south, dividing it respectively from residential areas in Walmer, further prairie fields and Walmer Court Farm. The eastern boundary is further characterised by mixed vegetation (Photograph 3). The boundary with Dover Road is partly screened by a high hedge and partly delineated by a low brick wall.

No underground services were identified within the proposed development area during the course of the walkover survey. The open nature of the site commends itself to common mitigation measures (geophysical survey, archaeological trial trenches, etc.), except in the area of the plantation. There is no clear evidence that the site has been disturbed by earlier groundworks.

9.0 Archaeological Potential and Impact Assessment

While no designated or undesignated heritage assets are located within the proposed development area, a number of monuments and events in the immediate area have implications for previously unrecorded archaeological remains within the application site. The geophysical survey has identified few anomalies of potential archaeological character within the proposed development area. Nonetheless, the site is set within a rich and dense archaeological landscape, therefore there remains a **medium** potential for previously unrecorded archaeological remains to be present on the site. The application site is in an area boasting proximate material of regional and local importance and therefore is of **medium** to

low heritage value. Where archaeological material of certain periods is particularly likely to be present on the site, this is summarised below.

Late Bronze Age occupation is evident immediately north of the proposed development area. In addition, a number of cropmarks immediately west and south of the application site suggest further Bronze Age agricultural and mortuary activity. It is further located near to the Bronze Age settlement at Mill Hill. There is some potential that the undetermined curvilinear and concentric anomalies identified by the geophysical survey in the north of the proposed development area may relate to this focus of settlement. There is a **moderate** potential for Bronze Age archaeological material to be present on the site. This is of regional importance and therefore is of **medium** heritage value.

Occupation on the Bronze Age site immediately north of the proposed development area continues into the Middle Iron Age, immediately north of the proposed development area. Another post hole structure is known to the south-west of the application site, as are a number of Late Iron Age burials alongside a wider distribution of coin finds. As with the Bronze Age material it is located near the succeeding Iron Age settlement at Mill Hill. There is some potential that the undetermined curvilinear and concentric anomalies identified by the geophysical survey in the north of the proposed development area may relate to this focus of activity. There is a **moderate** potential for Iron Age archaeological material to be present on the site. This is of regional importance and therefore is of **medium** heritage value.

Romano-British material is more concentrated within the study area, albeit immediately adjacent to the proposed development area. A number of Romano-British burials have been identified here, and it appears the area was levelled in the 2nd century AD in order to provide space for an aisled building. The excavators propose that this comprised an ancillary structure to a small settlement or villa to the south, potentially co-extensive with the proposed development area. There is some potential that the undetermined curvilinear and concentric anomalies identified by the geophysical survey in the north of the proposed development area may relate to this focus of settlement. There is a **moderate** potential for Romano-British archaeological material to be present on the site. This is of regional importance and therefore is of **medium** heritage value.

Early medieval material is concentrated to the south-west of the proposed development area. This includes a weapon burial, the findspot of a 5th-century brooch and several cropmarks suggestive of early medieval cemetery zones. There is a **moderate** potential for early

medieval archaeological material to be present on the site. This is of regional importance and therefore is of **medium** heritage value.

The development of the site for residential use could result in the removal of any previously unrecorded archaeological remains. The Framework Development Plan demonstrates that impacts to buried remains may occur across almost the whole of the development site, either as a result of construction of the residential areas, or through the construction of paths and green infrastructure, although the depth of groundworks will be less in these areas.

The impact of development on previously unrecorded assets can be mitigated. This mitigation could take the form of targeted archaeological evaluation trenches to identify and excavate archaeological remains in a manner proportionate to their significance. The requirement for any further archaeological assessment or mitigation will be identified during the determination of the planning application.

The development site does not contain any designated heritage assets. It is anticipated that it will contain previously unrecorded archaeological remains. Any previously unrecorded archaeological remains are likely to be of low, medium or high significance depending on their complexity and survival. In line with paragraph 135 of the National Planning Policy Framework the Local Planning Authority are required to make a balanced judgement with regard to the scale of harm to the heritage asset and its significance.

10.0 References

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Historic Mapping

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Ordnance Survey 1799 – Canterbury (OSD107)

Tithe map for the parish of Ringwould, 1846 (Reference EK/U725/P22)

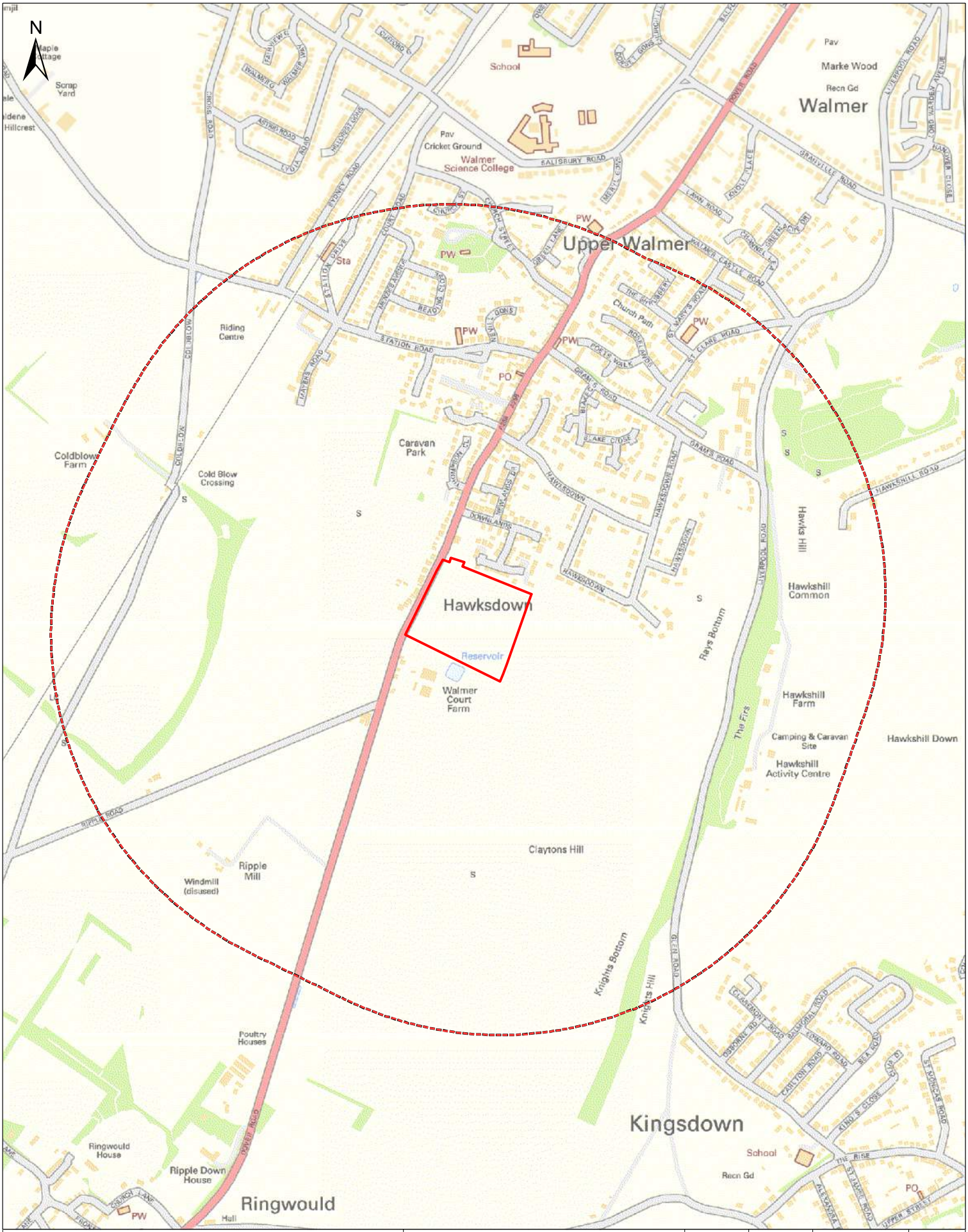
The Ordnance Survey First Edition map (scale twenty-five inches to one-mile), surveyed 1871-2, published 1873 (Kent LVIII.12)

The Ordnance Survey Second Edition map (scale twenty-five inches to one-mile), revised 1896, published 1898 (Kent LVIII.12)

The Ordnance Survey Third Edition map (scale twenty-five inches to one-mile), surveyed 1905, published 1906 (Kent LVIII.12)

The Ordnance Survey Fourth Edition map (scale twenty-five inches to one-mile), surveyed 1938, published 1940 (Kent LVIII.12)

Appendix A – Site Location Plan



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Client: Gladman Developments Ltd

Project: Dover Road, Deal

Title: Site Location Plan

Office:	Project No:	Figure No:
4154	A101293	1

Appendix B – Site Photographs

Photograph 1: View of the paddocks and plantation, looking south-west.

Photograph 2: View of the paddocks, looking north.

Photograph 3: View of the eastern boundary, looking south.

Appendix C – Assessment Methodology

Cultural Heritage Impact Assessment Methodology

No standard method of evaluation and assessment is provided for the assessment of significance of effects upon cultural heritage, therefore a set of evaluation and assessment criteria have been developed using a combination of the Secretary of State's criteria for Scheduling Monuments (Scheduled Monument Statement, Annex 1) and Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07. Professional judgement is used in conjunction with these criteria to undertake the impact assessment.

Value

The table below provides guidance on the assessment of cultural heritage value on all archaeological sites and monuments, historic buildings, historic landscapes and other types of historical site such as battlefields, parks and gardens, not just those that are statutorily designated.

Value	Examples
Very High	World Heritage Sites, Scheduled Monuments of exceptional quality, or assets of acknowledged international importance or can contribute to international research objectives Grade I Listed Buildings and built heritage of exceptional quality Grade I Registered Parks and Gardens and historic landscapes and townscapes of international sensitivity, or extremely well preserved historic landscapes and townscapes with exceptional coherence, integrity, time-depth, or other critical factor(s)
High	Scheduled Monuments, or assets of national quality and importance or that can contribute to national research objectives Grade II* and Grade II Listed Buildings, Conservation Areas with very strong character and integrity, other built heritage that can be shown to have exceptional qualities in their fabric or historical association. Grade II* and II Registered Parks and Gardens, Registered Battlefields and historic landscapes and townscapes of outstanding interest, quality and importance, or well preserved and exhibiting considerable coherence, integrity time-depth or other critical factor(s)
Medium	Designated or undesignated assets of regional quality and importance that contribute to regional research objectives Locally Listed Buildings, other Conservation Areas, historic buildings that can be shown to have good qualities in their fabric or historical association Designated or undesignated special historic landscapes and townscapes with reasonable coherence, integrity, time-depth or other critical factor(s) Assets that form an important resource within the community, for educational or recreational purposes.
Low	Undesignated assets of local importance Assets compromised by poor preservation and/or poor survival of contextual associations but with potential to contribute to local research objectives. Historic (unlisted) buildings of modest quality in their fabric or historical association

Value	Examples
	Historic landscapes and townscapes with limited sensitivity or whose sensitivity is limited by poor preservation, historic integrity and/or poor survival of contextual associations. Assets that form a resource within the community with occasional utilisation for educational or recreational purposes.
Negligible	Assets with very little or no surviving cultural heritage interest. Buildings of no architectural or historical note. Landscapes and townscapes that are badly fragmented and the contextual associations are severely compromised or have little or no historical interest.

Magnitude

The magnitude of the potential impact is assessed for each site or feature independently of its archaeological or historical value. Magnitude is determined by considering the predicted deviation from baseline conditions. The magnitude of impact categories are adapted from the Transport Assessment Guidance (TAG Unit 3.3.9) and Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07.

Magnitude of Impact	Typical Criteria Descriptors
Substantial	Impacts will damage or destroy cultural heritage assets; result in the loss of the asset and/or quality and integrity; cause severe damage to key characteristic features or elements; almost complete loss of setting and/or context of the asset. The assets integrity or setting is almost wholly destroyed or is severely compromised, such that the resource can no longer be appreciated or understood. (Negative) The proposals would remove or successfully mitigate existing damaging and discordant impacts on assets; allow for the restoration or enhancement of characteristic features; allow the substantial re-establishment of the integrity, understanding and setting for an area or group of features; halt rapid degradation and/or erosion of the heritage resource, safeguarding substantial elements of the heritage resource. (Positive)
Moderate	Substantial impact on the asset, but only partially affecting the integrity; partial loss of, or damage to, key characteristics, features or elements; substantially intrusive into the setting and/or would adversely impact upon the context of the asset; loss of the asset for community appreciation. The assets integrity or setting is damaged but not destroyed so understanding and appreciation is compromised. (Negative) Benefit to, or restoration of, key characteristics, features or elements; improvement of asset quality; degradation of the asset would be halted; the setting and/or context of the asset would be enhanced and understanding and appreciation is substantially improved; the asset would be bought into community use. (Positive)
Slight	Some measurable change in assets quality or vulnerability; minor loss of or alteration to, one (or maybe more) key characteristics, features or elements; change to the setting would not be overly intrusive or overly diminish the context; community use or understanding would be reduced. The assets integrity or setting

Magnitude of Impact	Typical Criteria Descriptors
	is damaged but understanding and appreciation would only be diminished not compromised. (Negative) Minor benefit to, or partial restoration of, one (maybe more) key characteristics, features or elements; some beneficial impact on asset or a stabilisation of negative impacts; slight improvements to the context or setting of the site; community use or understanding and appreciation would be enhanced. (Positive)
Negligible / No Change	Very minor loss or detrimental alteration to one or more characteristics, features or elements. Minor changes to the setting or context of the site. No discernible change in baseline conditions (Negative). Very minor benefit to or positive addition of one or more characteristics, features or elements. Minor changes to the setting or context of the site No discernible change in baseline conditions. (Positive).

Impacts may be of the following nature and will be identified as such where relevant:

- Negative or Positive.
- Direct or indirect.
- Temporary or permanent.
- Short, medium or long term.
- Reversible or irreversible.
- Cumulative.

Significance

By combining the value of the cultural heritage resource with the predicted magnitude of impact, the significance of the effect can be determined. This is undertaken following the table below. The significance of effects can be beneficial or adverse.

Significance of Effects	Magnitude of Impact			
Cultural Heritage Value	**Substantial**	**Moderate**	**Slight**	**Negligible / No Change**
Very High	Major	Major – Intermediate	Intermediate	Minor
High	Major – Intermediate	Intermediate	Intermediate – Minor	Neutral
Medium	Intermediate	Intermediate - Minor	Minor	Neutral
Low	Intermediate – Minor	Minor	Minor – Neutral	Neutral
Negligible	Minor-Neutral	Minor-Neutral	Neutral	Neutral

Significance should always be qualified as in certain cases an effect of minor significance could be considered to be of great importance by local residents and deserves further consideration. The

significance of effect is considered both before and after additional mitigation measures proposed have been taken into account.

Appendix D – Planning Policies

Dover District Heritage Strategy, 2013

Objective 1 – Enabling and informing regeneration activities to secure better outcomes from sustainable growth

R1 - The historic environment should be embraced as an important element in proposals for regeneration and new development to help develop a strong 'sense of place' and an identity for existing and new communities. Particular attention should be given to key gateways and routes to and through the District's towns and rural settlements.

R2 - The character and form of existing heritage assets should be used to help shape the character and form of new development. The historic environment should be considered and reflected in development master plans.

R3 - The sustainable and beneficial reuse of heritage assets, conserving them in a manner appropriate to their significance, should be encouraged in new development and given appropriate weight in making planning decisions.

R4 - Proposals for new development should include an appropriate description of the significance of any heritage assets that may be affected including the contribution of their setting. The impact of the development proposals on the significance of the heritage assets should be sufficiently assessed using appropriate expertise where necessary. Desk-based assessment, archaeological field evaluation and historic building assessment may be required as appropriate to the case.

R5 - Use of materials should be encouraged in new development that helps to make it more sustainable and foster local distinctiveness.

R6 - The opportunities that the historic environment and heritage assets present and their vulnerability to change should be taken into account in considering the site allocations for the Core Strategy.

R7 - Improved guidance for compiling and the required content of Heritage Statements should be developed and made available to planning applicants. The methodology developed for checking proposals against the Heritage Strategy themes should be developed for use in Heritage Statements.

R8 - The recommendations and guiding principles set out in the case studies for Discovery Park, North Deal, Farthingloe and Fort Burgoyne & Connaught Barracks are followed.

R9 - Systems should be put in place to ensure that historic environment information and advice is readily accessible to local communities to help them shape the places in which they live.

R10 - A programme of Conservation Area appraisal is put in place to cover all the District's Conservation Areas. Consideration should be given to developing tool kits for initial appraisal, at least, to be undertaken by local volunteer groups and individuals. Toolkits based upon the overview methodology and/or those developed by English Heritage could form the basis for use in the District.

Conservation Area appraisals should be used to review the special interest of each Conservation Area and inform proposals for any special measures needed, adjustment of boundaries and, where the significance has been sufficiently lost, removal of Conservation Area status.

Consider widening the use of Article 4 (2) directives to sustain and enhance the historic character of the District's Conservation Areas through ensuring that special interest is conserved.

Develop guidance and make information easily accessible to enable stakeholders within Conservation Areas to readily understand and take account of the special interest of the area and ensure that

proposals for change take account of that interest. An example of appropriate guidance is the treatment of shop fronts in Conservation Areas.

R13 - Work towards the conservation, appropriate development and promotion of the Dover Western Heights so that it might contribute to the regeneration of Dover. Establish an agreed vision, to inform a master plan and promote appropriate development and change that is consistent with the conservation and enhancement of the Dover Western Heights' significance.

R24 - An Urban Archaeological Database be prepared for Dover town preferably extended to include a wider range of heritage assets of the town, port and the flanking heights and Dour valley.

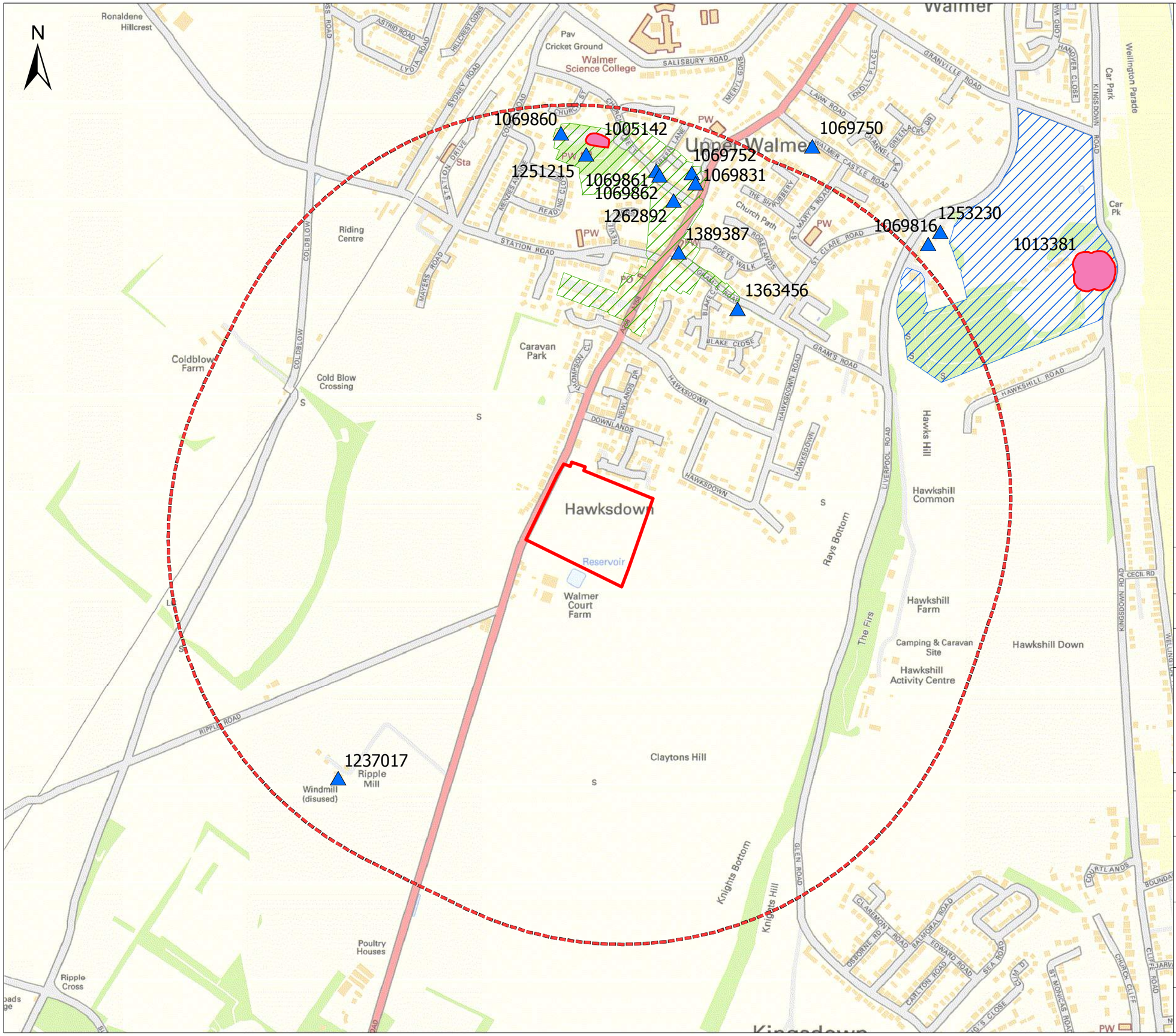
R25 - A programme of mapping of cropmarks identified on aerial photographs be developed. With the use of GIS packages transcription could be carried out through a supervised volunteer programme perhaps through the Kent Historic Environment Record.

R26 - The Heritage Strategy should be presented in an accessible way on the web with theme papers and links to complementary web sites. The web site should:

- promote and explain Dover's rich heritage;
- provide information on access to assets and visitor sites and visitor information;
- link to the on-line Historic Environment Record and other resources that can provide more detailed information on the District's heritage assets;
- provide guidance and advice to land/property owners, developers and others with an interest in management of the historic environment;
- include downloadable toolkits to support community led survey and research.

R27 - Support is given to the development of an Archaeological Resource Centre which secures a sustainable future for the District's archaeological archives and that provides a focus for community activities that support the delivery of the Heritage Strategy

Appendix E – Recorded Heritage Sites



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Client: Gladman Developments Ltd

Project: Dover Road, Deal

Title: Designated Heritage Assets

Office:	Project No:	Figure No:
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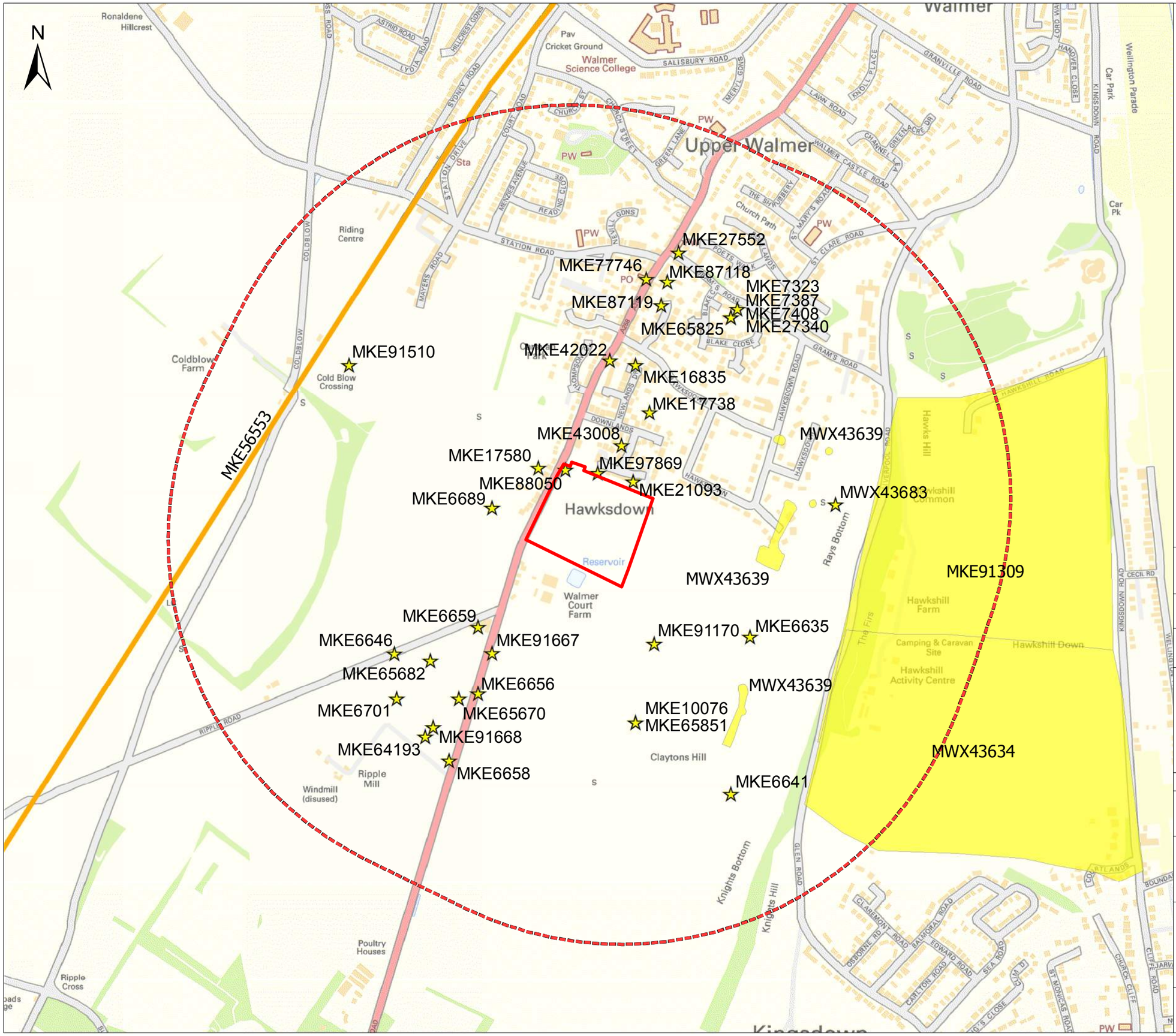

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Client: Gladman Developments Ltd

Project: Dover Road, Deal

Title: HER Monument Listing

Office:	Project No:	Figure No:
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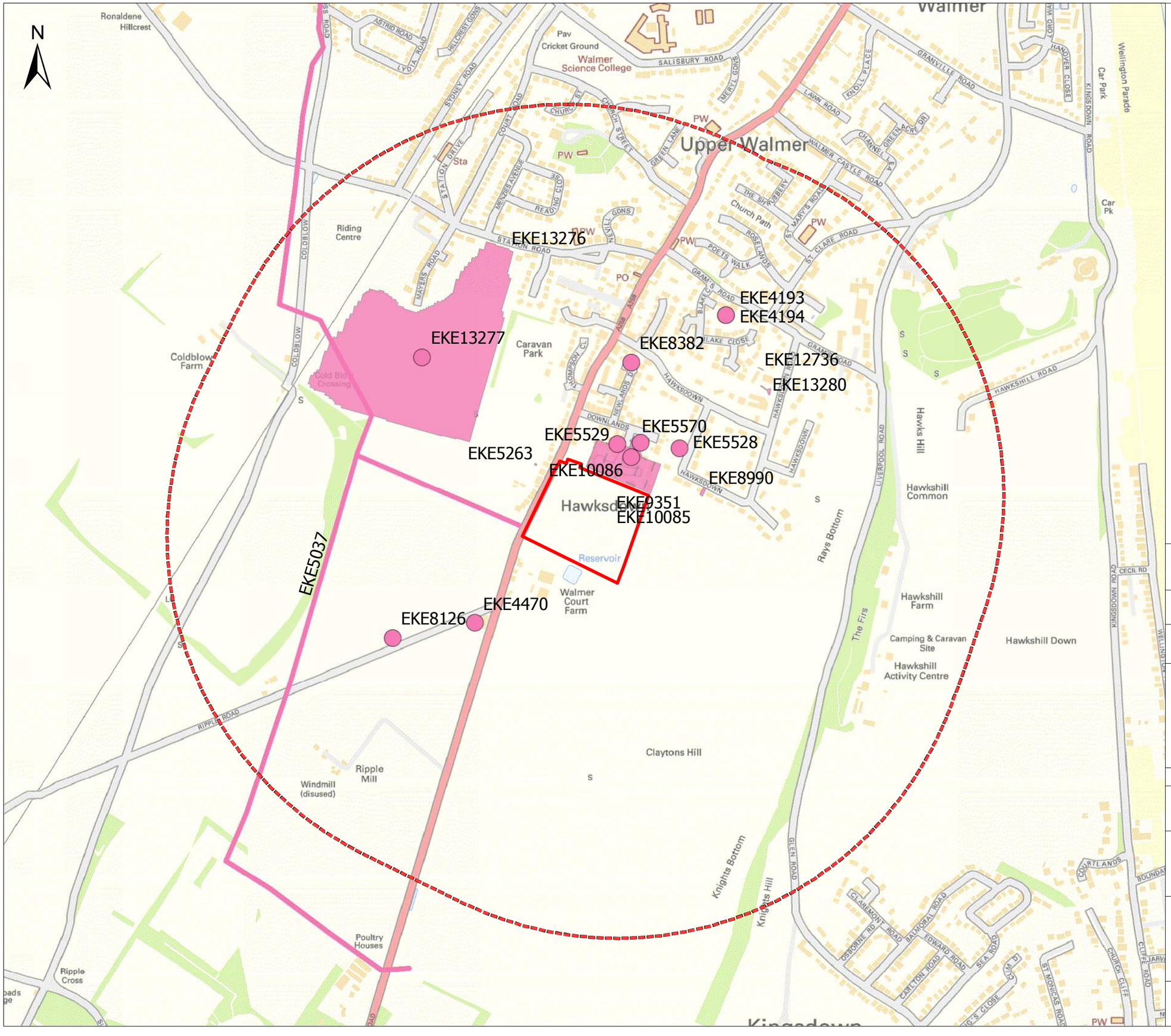

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Client: Gladman Developments Ltd

Project: Dover Road, Deal

Title: HER Event Listing

Office:	Project No:	Figure No:
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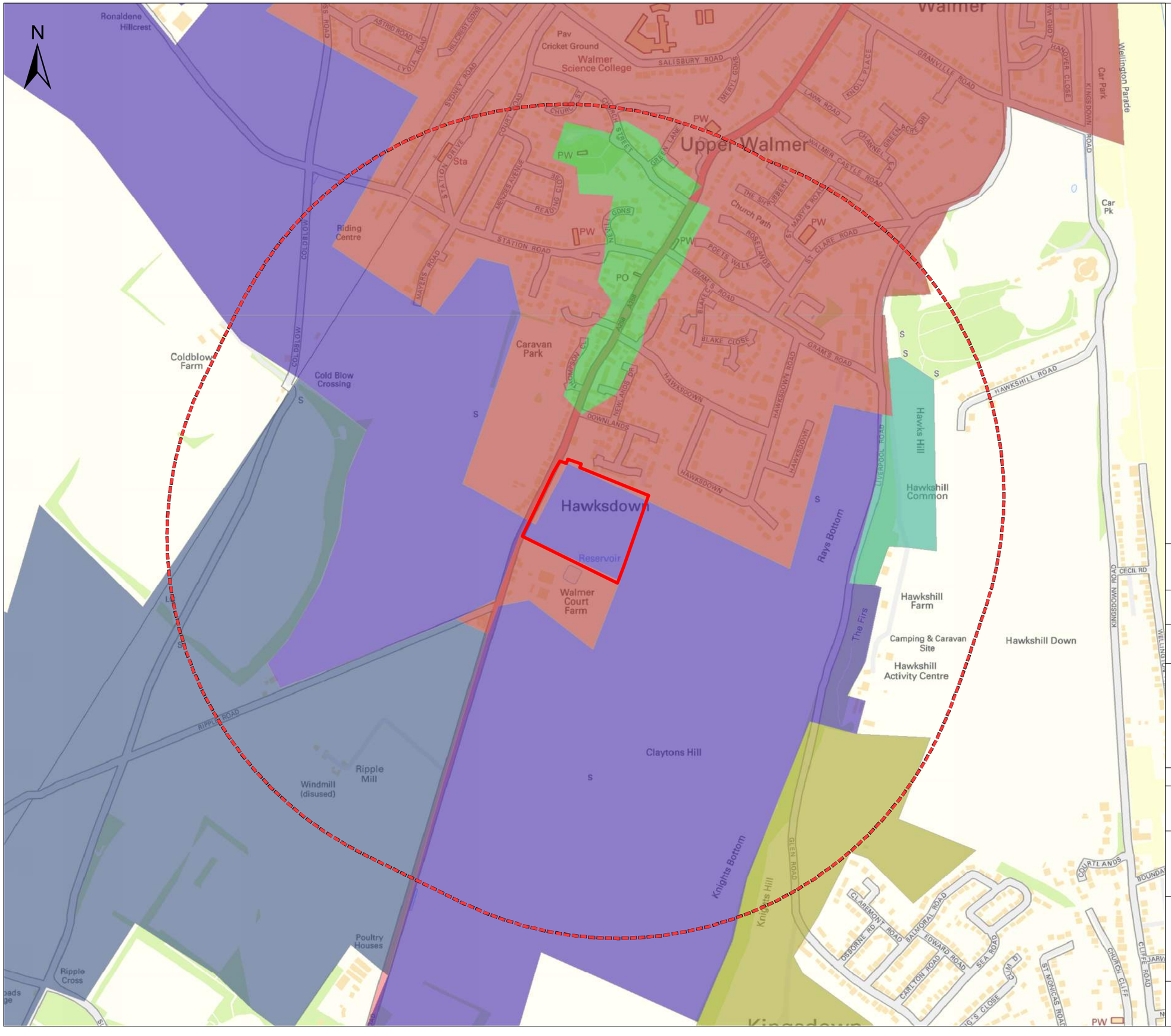

Legend

- Site Boundary
- Study Area
- Common Downland
- Irregular straight boundaries
- Post 1810 settlement (general)
- Prairie fields (19th cent enclosure with extensive boundary loss)
- Small regular with straight boundaries (parliamentary type enclosure)
- Town & city 1810 extent

0 55 110 220 330 440 550

Metres

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Client: Gladman Developments Ltd

Project: Dover Road, Deal

Title: Historic Landscape Characterisation

Office:	Project No:	Figure No:
4154	A101293	5

Recorded Heritage Sites (Kent Historic Environment Record)

Identifier	Record Type	Grid Reference	Description	Period
Designated Heritage Assets				
1005142	Scheduled Monument	TR 36720 50371	Old Walmer Court Manor House. The ruins of a 12th/13th-century manor house of flint with Caen stone dressings. It consists of a roofless rectangular structure, enclosing two undercrofts and a first floor hall.	Medieval
1251215 & MKE26835	Grade II* Listed Building	TR 36696 50342	Church of St Mary the Blessed Virgin. 12th-century church of Norman and Early English style, probably built as a chapel for Tile Castle. The south doorway is Norman. The nave is of flint, with a piscina on the south wall. There are traces of wall paintings on the chancel wall, which is of Early English style.	Later medieval
1069860 & MKE26079	Grade II Listed Building	TR 36643 50385	Walmer Court. An 18th-century three storey stuccoed building with a slate roof and bow windows. It has a lower east wing of two storeys with a roof sloping to the west. The back door is of 17th-century date.	Post-medieval
1069752	Grade II Listed Building	TR 36918 50302	Gothic House. A mid 19th-century stuccoed house with a one storey front elevation and two projecting gabled wings.	Industrial
1069831	Grade II Listed Building	TR 36926 50281	The Rattling Cat. Two-storey 18th-century building of painted brick with Venetian shutters.	Industrial
1069861	Grade II Listed Building	TR 36844 50307	Wingrove House. Early 19th-century house of three storeys, constructed of white brick with yellow brick dressings. It has a stuccoed parapet.	Industrial
1069862	Grade II Listed Building	TR 36850 50298	22, Church Street. Mid 19th-century house of two storeys with a parapet and stuccoed basement.	Industrial
1237017	Grade II Listed Building	TR 36176 49033	Ripple Windmill. Late 18th-century windmill, rebuilt in 1807. It is weather boarded with a tarred brick base and is two storeys in height.	Industrial
1262892	Grade II Listed Building	TR 36880 50244	Vine Cottage. Early 19th-century house of two storeys with a half-hipped tiled roof and dormer.	Industrial
1363456 & MKE27340	Grade II Listed Building	TR 37014 50017	Leelands School. An early 19th-century house of three storeys with wings of two storeys each.	Industrial

Identifier	Record Type	Grid Reference	Description	Period
1389387 & MKE27552	Grade II Listed Building	TR 36890 50136	Church of the Sacred Heart. Roman Catholic Church designed by Peter Paul Pugin and Cuthbert Pugin in 1881, although not substantially complete until 1890. It is the only surviving part of the former Convent of the Visitation. It is built of brick with stone dressing. The tower has a pyramidal roof.	Industrial
Registered Parks and Gardens				
1000291	Grade II Registered Garden	TR 37579 50111	Walmer Castle. The gardens at Walmer Castle were originally laid out for William Pitt the younger, who was Lord Warden from 1792-1805. Formal and ornamental gardens set in 19th-century parkland.	Industrial
Conservation Area				
Upper Walmer	Conservation Area	TR 36838 50187	The Conservation Area circumscribes the core of the original village of Walmer.	Medieval
Recorded heritage assets				
MKE91510	Findspot	TR 36200 49900	Palaeolithic/Mesolithic flint core/pick found near Mayers Road	Palaeolithic/Mesolithic
MKE6689	Monument	TR 36500 49600	Cropmarks of an oval enclosure were identified in Ripple in 1974	Bronze Age
MKE6701	Monument	TR 36300 49200	Cropmarks of a ring ditch and a trackway were identified in Ringwould.	Bronze Age
MKE91170	Monument	TR 36830 49310	Cropmark of a ring ditch to the east of Walmer Court Farm.	Bronze Age
MKE21093	Monument	TR 36795 49656	An excavation at Downlands conducted by Canterbury Archaeological Trust in 2004 and 2005 identified extensive Bronze Age, Iron Age and Romano-British activity. Bronze Age and Iron Age activity was evident in extensive pitting with an east/west boundary ditch. The quantity of domestic waste suggested nearby settlement. Further early Romano-British boundary ditches were also identified, alongside the isolated burials of a horse and child. At the end of the 2nd century AD the site was levelled and a large aisled building was constructed on the site.	Bronze Age/Iron Age/Romano-British
MKE43008	Monument	TR 36770 49730	An excavation at Downlands conducted by Canterbury Archaeological Trust in 2004 and 2005 identified extensive Bronze Age, Iron Age and Romano-British activity. Bronze Age and Iron Age activity was evident in extensive pitting with an	Bronze Age/Iron Age/Romano-British

Identifier	Record Type	Grid Reference	Description	Period
			east/west boundary ditch. The quantity of domestic waste suggested nearby settlement. Further early Romano-British boundary ditches were also identified, alongside the isolated burials of a horse and child. At the end of the 2nd century AD the site was levelled and a large aisled building was constructed on the site.	
MKE91667	Monument	TR 36500 49290	A small round barrow has been identified on aerial photography near Walmer Court Farm and the location of known early medieval burials.	Bronze Age/Early medieval
MKE6656	Monument	TR 36470 49210	Four post holes and a gully associated with Iron Age pottery were identified during a pipe-line watching brief by Dover Archaeological Group.	Iron Age
MKE7323	Findspot	TR 37000 50000	An Iron Age stater was found in Dover parish.	Iron Age
MKE7387	Findspot	TR 37000 50000	A La Tene Brooch was found in Walmer	Iron Age
MKE10076	Findspot	TR 36800 49150	A 1st-century BC Iron Age coin was identified during a metal detecting rally on Walmer Court Farm in 1991.	Iron Age
MKE17580	Monument	TR 36597 49684	Human bones were identified by Canterbury Archaeological Trust during a watching brief on Dover Road. They comprised two burials (a child and a juvenile) inhumed in former storage pits. Associated pottery was of Middle to Late Iron Age date.	Iron Age
MKE65670	Findspot	TR 36430 49200	Findspot of an Iron Age copper alloy coin.	Iron Age
MKE65682	Findspot	TR 36370 49280	Findspot of an Iron Age copper alloy coin.	Iron Age
MKE65825	Findspot	TR 37000 50000	Findspot of a gold Iron Age stater.	Iron Age
MKE65851	Findspot	TR 36800 49150	Findspot of an Iron Age copper alloy coin.	Iron Age
MKE6658	Monument	TR 36410 49070	A medieval ditch and two Roman pits were identified during a pipe-line watching brief by Dover Archaeological Group. Iron Age pottery was also found in the ditch.	Iron Age/Romano-British/Medieval
MKE17738	Monument	TR 36830 49800	A watching brief conducted by Dover Archaeological Group identified a pit of possible later prehistoric date at The Maltings.	Later prehistoric
MKE6635	Findspot	TR 37040 49330	A Roman vessel was found in Sotne Hole Meadow.	Romano-British

Identifier	Record Type	Grid Reference	Description	Period
MKE97869	Monument	TR 36720 49670	Potential site of a Roman villa. Romano-British activity has been identified in the south-west corner of the site. It is also near an aisled Romano-British building which may have served as an ancillary structure.	Romano-British
MKE6659	Monument	TR 36470 49350	An early medieval inhumation was encountered during pipe-line works in Ripple, accompanied by an iron spear and shield.	Early medieval
MKE64193	Findspot	TR 36360 49120	Findspot of a late 5th-century cruciform brooch.	Early medieval
MKE91668	Monument	TR 36370 49140	A possible early medieval cemetery has been identified from aerial photographs in the parish of Ripple.	Early medieval
MKE7408	Monument	TR 37000 50000	Conservation work was undertaken on Walmer fortified manor house in 1974.	Medieval
MKE56553	Monument	TR 33680 47630	Buckland Junction and Deal Railway, built in 1881.	Industrial
MKE16835	Monument	TR 36800 49900	Walmer Brewery was founded on Dover Road in 1820. It ceased brewing in 1960 and was demolished in 1974.	Industrial
MKE87118	Monument	TR 36860 50070	Former location of a courtyard farmstead in Walmer.	Industrial
MKE87119	Monument	TR 36850 50020	Former location of a courtyard farmstead in Walmer.	Industrial
MKE88050	Monument	TR 36650 49680	Former location of a courtyard farmstead in Walmer.	Industrial
MKE42022	Monument	TR 36740 49910	Walmer Fougasse Second World War Flame Trap.	Modern
MWX43634	Monument	TR 37521 49089	Second World War military complex visible on aerial photographs from the 1940s. It comprised a rectangular structure and circular bank enclosed by barbed wire.	Modern
MWX43639	Monument	TR 37075 49437	Second World War military complex visible on aerial photographs from the 1940s. It comprised a number of earthwork banks and enclosures.	Modern
MKE77746	Monument	TR 36820 50080	A George V pillar box is located on Dover Road	Modern
MKE91309	Monument	TR 37520 49460	Hawkshill Down First World War airfield. Royal Navy Airfield re-used during the Second World War.	Modern
MKE6641	Monument	TR 37000 49000	The slight earthworks of a former field system have been identified on the south side of Walmer Castle.	Unknown
MKE6646	Monument	TR 36290 49290	The Dane Pits Enclosures comprise a rectilinear earthwork enclosure complex of unknown date.	Unknown

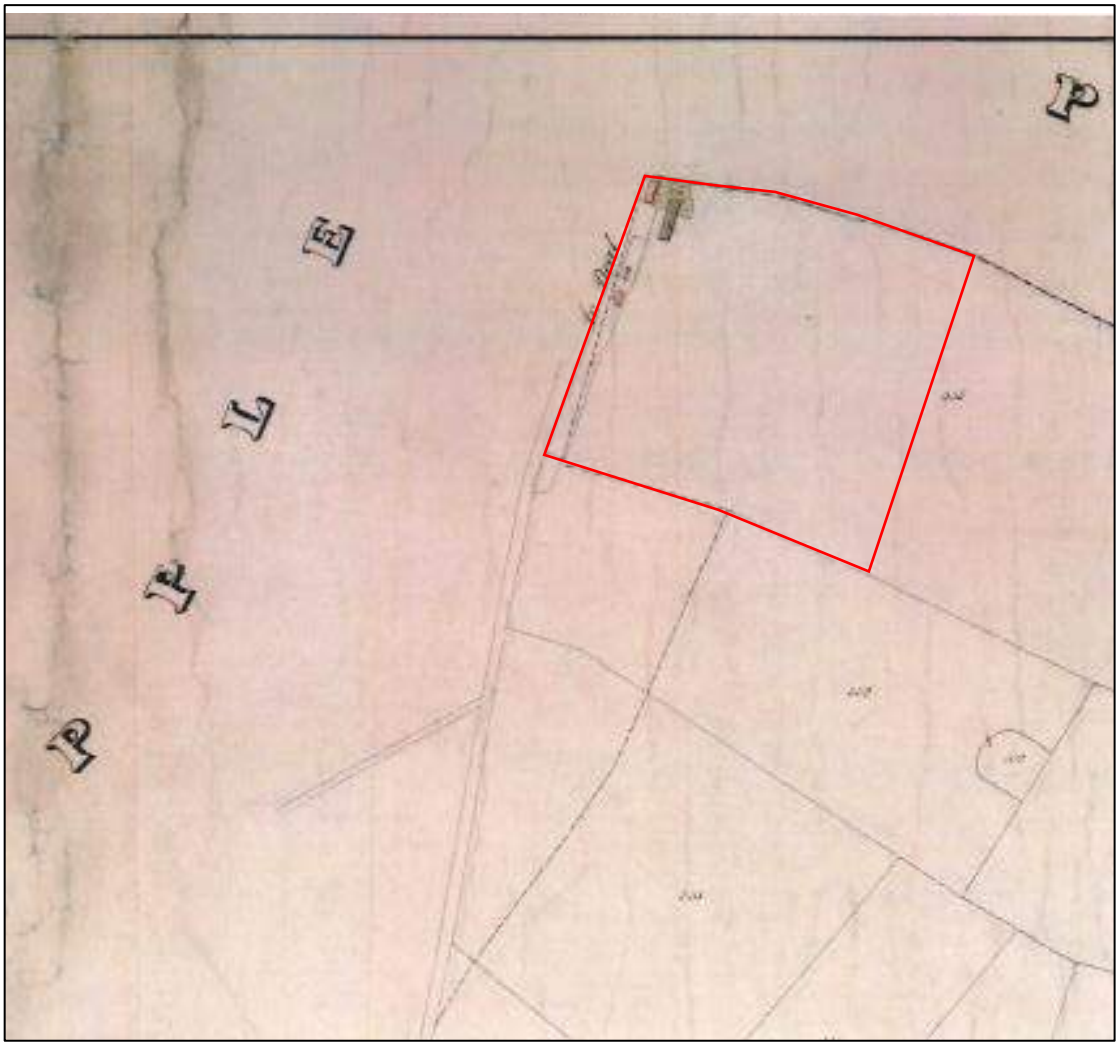
Identifier	Record Type	Grid Reference	Description	Period
MWX43683	Monument	TR 37220 49607	Cropmarks of earthworks identified near Walmer.	Unknown

Archaeological Interventions (Kent Historic Environment Record)

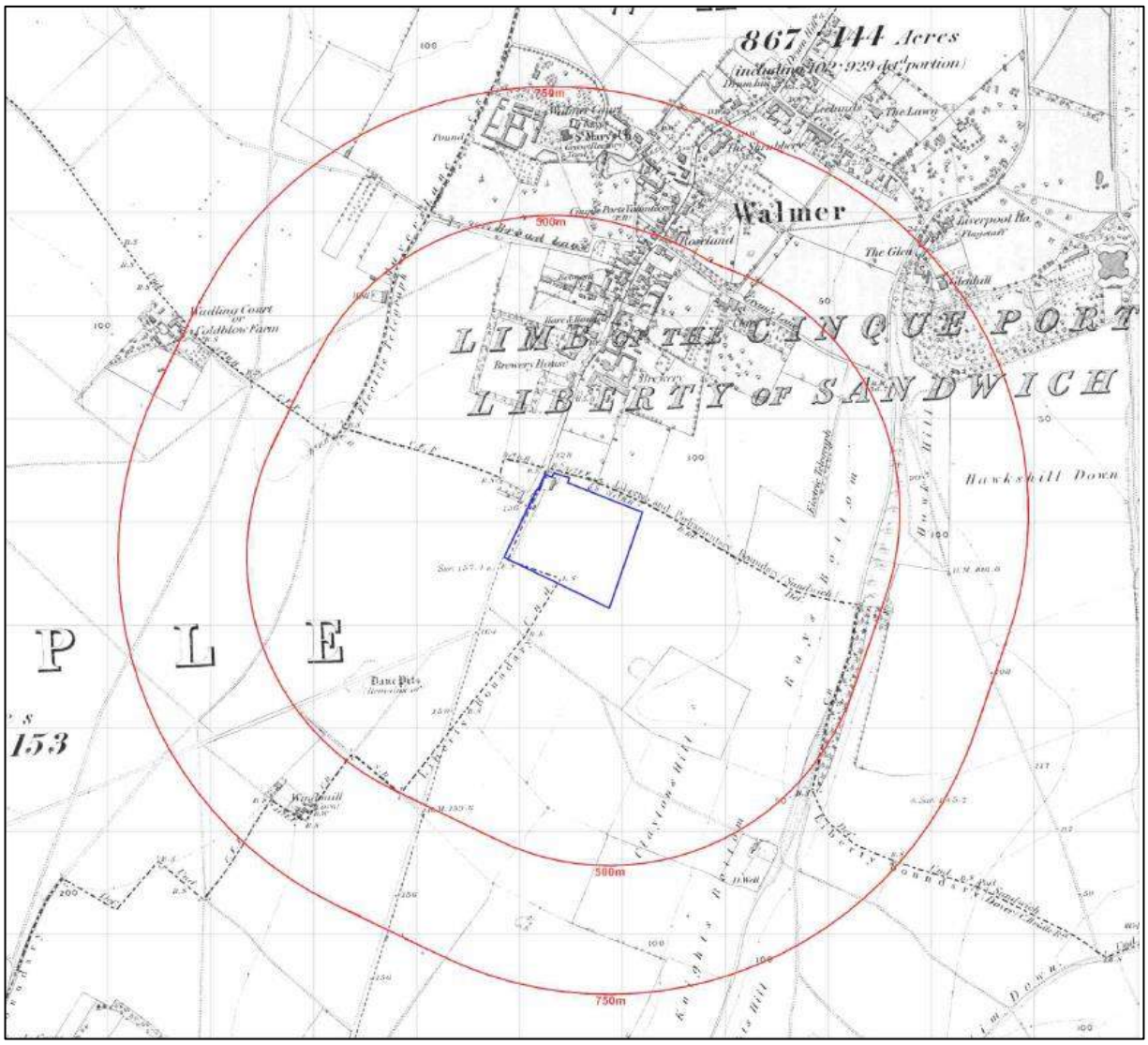
Identifier	Record Type	Grid Reference	Description	Organisation
EKE9351	Excavation	TR 36786 49684	An excavation at Downlands conducted by Canterbury Archaeological Trust in 2004 and 2005 identified extensive Bronze Age, Iron Age and Romano-British activity. Bronze Age and Iron Age activity was evident in extensive pitting with an east/west boundary ditch. The quantity of domestic waste suggested nearby settlement. Further early Romano-British boundary ditches were also identified, alongside the isolated burials of a horse and child. At the end of the 2nd century AD the site was levelled and a large aisled building was constructed on the site.	Bronze Age/Iron Age/Romano-British
EKE10086	Excavation	TR 36770 49720	An excavation at Downlands conducted by Canterbury Archaeological Trust in 2004 and 2005 identified extensive Bronze Age, Iron Age and Romano-British activity. Bronze Age and Iron Age activity was evident in extensive pitting with an east/west boundary ditch. The quantity of domestic waste suggested nearby settlement. Further early Romano-British boundary ditches were also identified, alongside the isolated burials of a horse and child. At the end of the 2nd century AD the site was levelled and a large aisled building was constructed on the site.	Bronze Age/Iron Age/Romano-British
EKE5263	Watching brief	TR 36597 49684	Human bones were identified by Canterbury Archaeological Trust during a watching brief on Dover Road. They comprised two burials (a child and a juvenile) inhumed in former storage pits. Associated pottery was of Middle to Late Iron Age date.	Iron Age
EKE5037	Watching brief	TR 36250 49780	Canterbury Archaeological Trust identified a rectilinear enclosure formed by a ditch and a gully during a pipe line watching brief. Struck flint and Later Iron Age pottery was also identified,.	Iron Age/Later prehistoric
EKE5570	Watching brief	TR 36830 49800	A watching brief conducted by Dover Archaeological Group identified a pit of possible later prehistoric date at The Maltings.	Later prehistoric
EKE10085	Archaeological evaluation	TR 36770 49680	Potential site of a Roman villa. Romano-British activity has been identified in the south-west corner of the site. It is also near an aisled Romano-British building which may have served as an ancillary structure.	Romano-British

Identifier	Record Type	Grid Reference	Description	Organisation
EKE4470	Watching brief	TR 36470 49350	An early medieval inhumation was encountered during pipe-line works in Ripple, accompanied by an iron spear and shield.	Early medieval
EKE4193	Excavation	TR 37000 50000	Conservation work was undertaken on Walmer fortified manor house in 1974.	Medieval
EKE4194	Excavation	TR 37000 50000	Conservation work was undertaken on Walmer fortified manor house in 1974.	Medieval
EKE8382	Watching brief	TR 36800 49900	A watching brief conducted by Thanet Archaeology at The Old Brewery Site, Downlands, identified post-medieval and modern pottery, but no other archaeological remains.	Post-medieval/Modern
EKE13277	Desk based assessment	TR 36350 49910	CgMs consulting undertook a DBA on land at Station Road Walmer in 2013.	Unknown
EKE8126	Excavation	TR 36290 49310	The Dane Pits Enclosures comprise a rectilinear earthwork enclosure complex of unknown date.	Unknown
EKE12736	Archaeological evaluation	TR 37070 49880	An archaeological evaluation conducted by Thanet Archaeology identified no archaeological remains at Alderden House.	None
EKE13280	Archaeological evaluation	TR 37080 49840	An archaeological evaluation conducted by Thanet Archaeology identified no archaeological remains at Alderden House.	None
EKE5528	Watching brief	TR 36900 49710	A watching brief conducted by Dover Archaeological Group identified no archaeological remains at Downlands.	None
EKE5529	Watching brief	TR 36800 49700	A watching brief conducted by Dover Archaeological Group identified no archaeological remains at Downlands.	None
EKE8990	Watching brief	TR 36950 49620	A watching brief conducted by Dover Archaeological Group identified no archaeological remains at The Briars, Hawksdown.	None
EKE13276	Geophysical survey	TR 36350 49920	Magnetometry survey at Station Road did not identify clear archaeological anomalies.	None

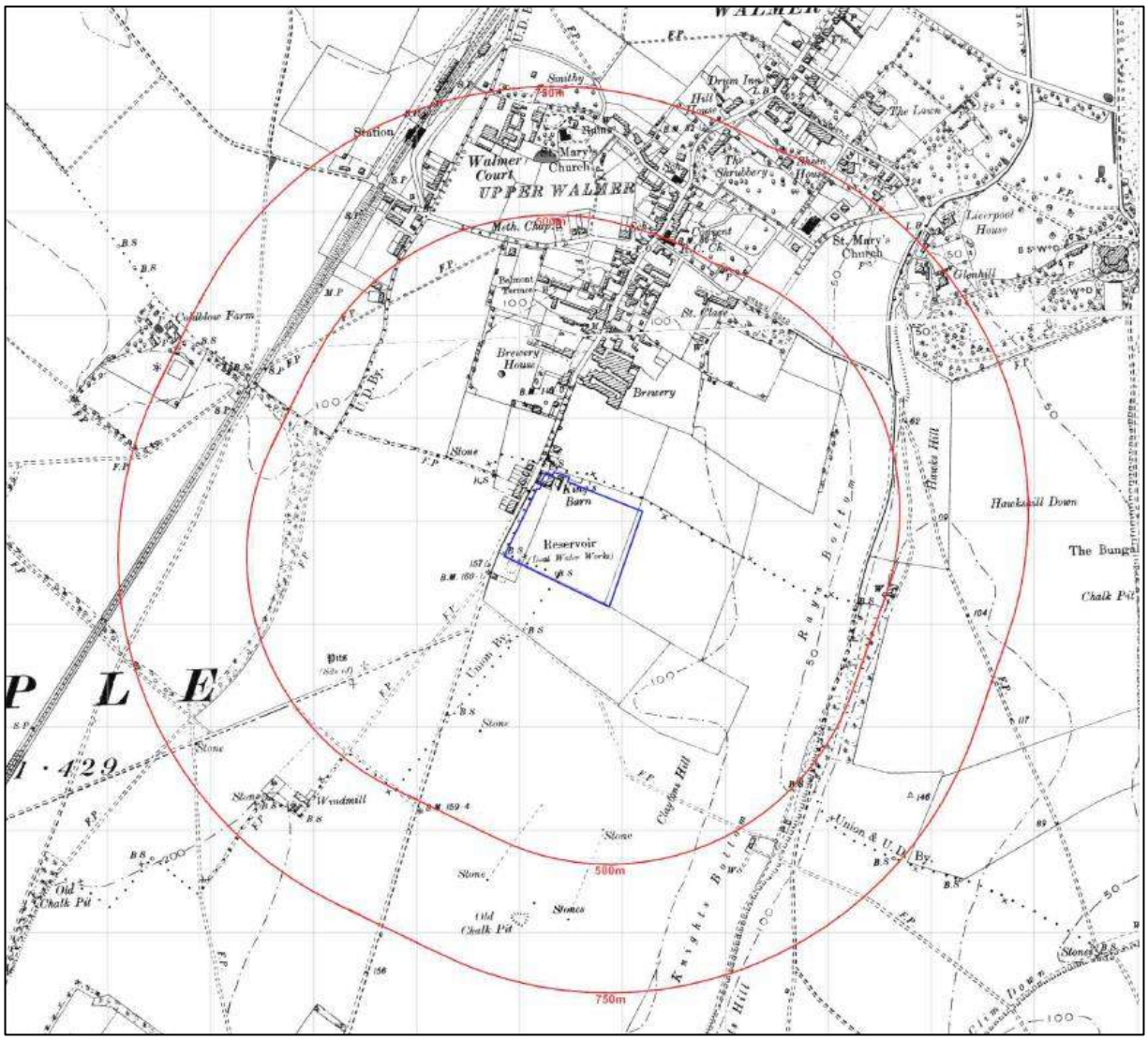
Appendix F – Historic Mapping



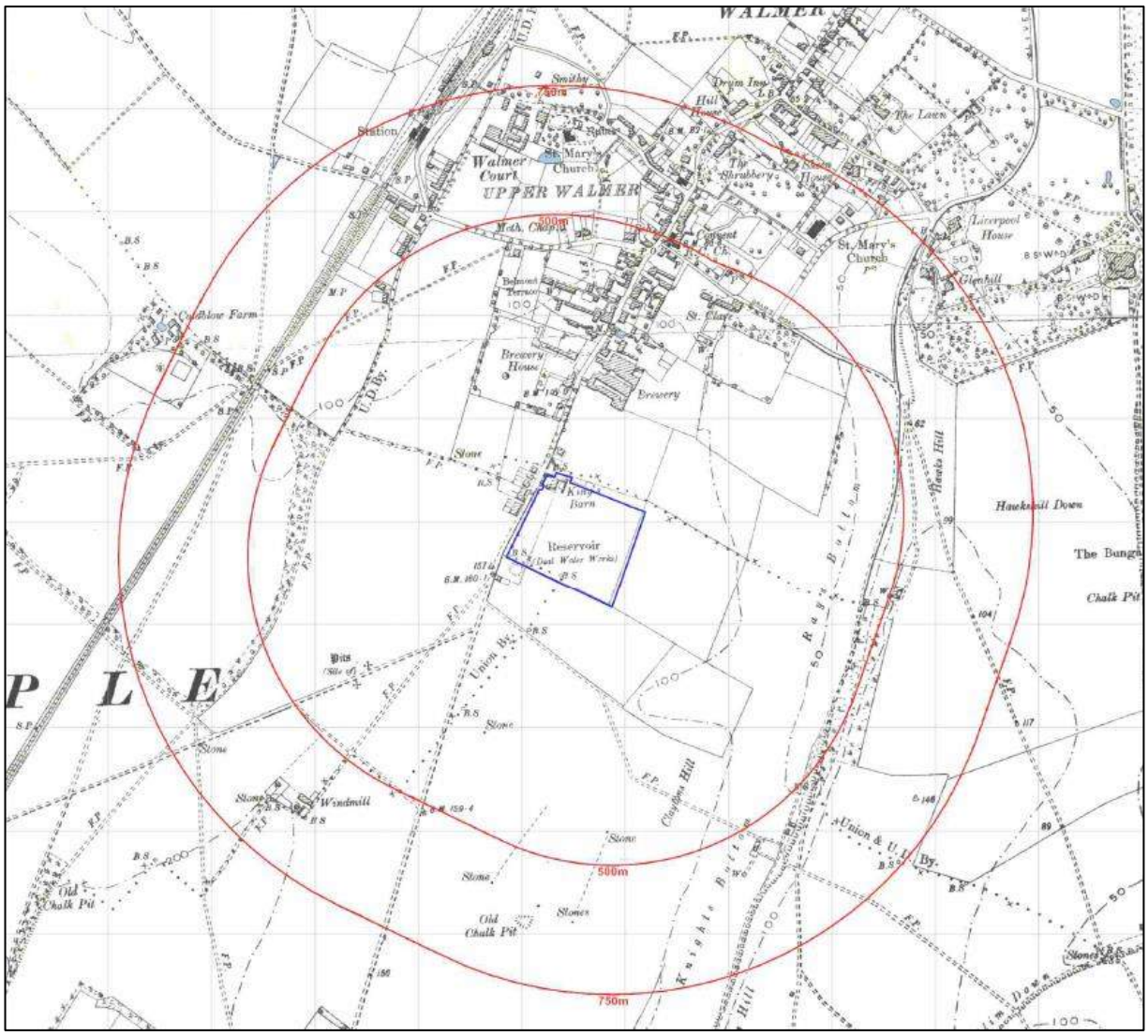
Tithe map of the parish of Ringwould, published 1846



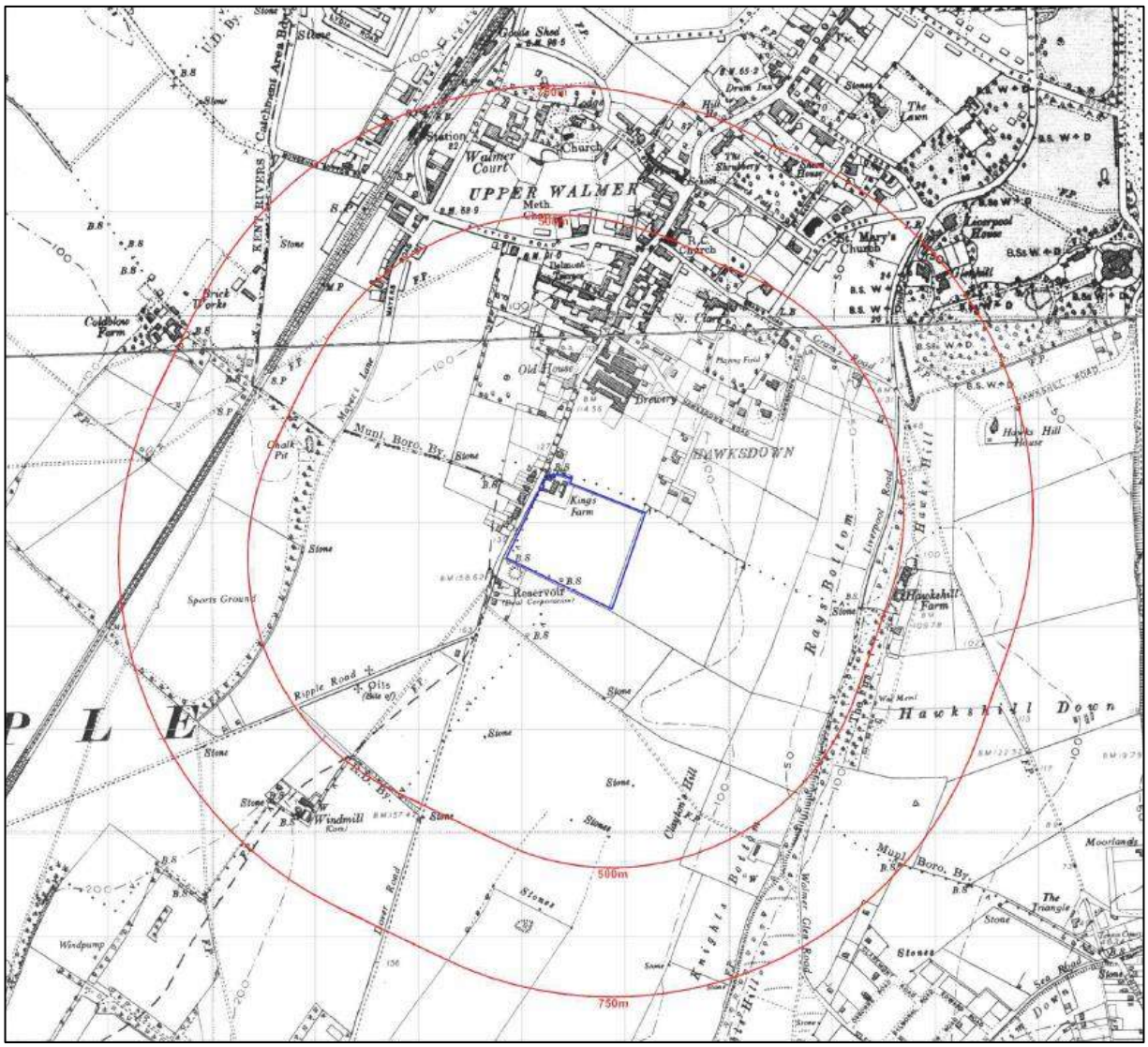
The Ordnance Survey First Edition map (scale twenty-five inches to one-mile), surveyed 1871-2, published 1873 (Kent LVIII.12)



The Ordnance Survey Second Edition map (scale twenty-five inches to one-mile), revised 1896, published 1898 (Kent LVIII.12)



The Ordnance Survey Third Edition map (scale twenty-five inches to one-mile), surveyed 1905, published 1906 (Kent LVIII.12)



The Ordnance Survey Fourth Edition map (scale twenty-five inches to one-mile), surveyed 1938, published 1940 (Kent LVIII.12)

Appendix G – Geophysical Survey

magnitude surveys

Geophysical Survey Report

of

Land at Dover Road

Deal, Kent

For

WYG

On Behalf Of

Gladman Developments

Magnitude Surveys Ref: MSTR117

April 2017

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Abstract

Magnitude Surveys was commissioned to assess the subsurface archaeological potential of a *c*. 4.1ha area of land at Dover Road, Deal, Kent. A fluxgate gradiometer survey was successfully completed and no anomalies of a probable or possible archaeological origin have been identified. The geophysical results primarily reflect modern activity, with responses generated by surface obstacles and paddock fencing present across the survey. An ephemeral ploughing regime has been detected as well. The extent of this anthropogenic activity, particularly the recent land usages of the site, has resulted in a number of anomalies being classified as "Undetermined" in origin; although these responses are considered to more likely reflect modern, agricultural or natural processes, as opposed to archaeological activity.

Contents

List of Figures

1. Introduction

1.1. Magnitude Surveys Ltd (MS) was commissioned by WYG on behalf of Gladman Developments to undertake a geophysical survey on a *c*. 4.1ha area of land at Dover Road, Deal, Kent (TR 3671 4960).

1.2. The geophysical survey comprised hand pulled, cart-mounted fluxgate gradiometer survey.

1.3. The survey was conducted in line with the current best practice guidelines produced by Historic England (David *et al*., 2008), the Chartered Institute for Archaeologists (CIfA, 2014) and the European Archaeological Council (Schmidt *et al*., 2015).

1.4. The survey was conducted in accordance with the method statement made available to White Young Green before survey commencement.

1.5. The survey commenced on 29th March 2017 and took 1 day to complete.

2. Quality Assurance

2.1. Project management, survey work, data processing and report production have been carried out by qualified and professional geophysicists to standards exceeding the current best practice (CIfA, 2014; David *et al*., 2008, Schmidt *et al*., 2015).

2.2. Magnitude Surveys is a corporate member of ISAP (International Society of Archaeological Prospection).

2.3. Director Graeme Attwood is a Member of the Chartered Institute for Archaeologists (CIfA), the chartered UK body for archaeologists, as well as the Secretary of GeoSIG, the CIfA Geophysics Special Interest Group. Director Finnegan Pope-Carter is a Fellow of the London Geological Society, the chartered UK body for geophysicists and geologists, as well as a member of GeoSIG, the CIfA Geophysics Special Interest Group. Director Chrys Harris has a PhD in archaeological geophysics from the University of Bradford.

2.4. All MS managers have postgraduate qualifications in archaeological geophysics. All MS field staff have relevant archaeology or geophysics degrees and supervisors have at least three years' field experience.

3. Objectives

3.1. The geophysical survey aimed to assess the subsurface archaeological potential of the survey area.

4. Geographic Background

4.1. The site is located on the southern fringe of Deal, Kent (Figure 1). The site is bounded to the northeast by properties of Thistledown, to the southwest by land associated with properties fronting onto Dover Road, and to the northwest by Dover Road. The presence of stables, a picnic area, livestock and trees rendered areas to the northeast, southeast and southwest of the site unsurveyable. Survey was undertaken in a flat, grassy area that was subdivided into a number of paddocks (Figure 2).

4.2. The underlying geology comprises Seaford Chalk Formation chalk, and is overlain by Head clay and silt (British Geological Survey, 2017).

4.3. The soils across the survey area consist of freely draining lime-rich loamy soils (Soilscapes, 2017).

4.4. Survey considerations are described below. See Appendix 1 for the site notes, which depict the location of these features.

Survey Area	Ground Conditions	Further notes:
1	Flat, under short grass.	Was subdivided into five paddocks. The individual paddocks were divided by electric fences, some of which were on at the time of survey. Three of these contained no obstacles to survey. However, others contained a trough, animal feeder, and a pitch delineated by a series of pipes. See Appendix 1 for the location of these features and photographs of site conditions. The area is bounded to the west and south-west by a brick wall with vegetation.
2	Unsurveyable due to stable buildings and picnic area.	See Appendix 1 for photographs of site conditions and survey obstacles.
3	Unsurveyable due to access and manoeuvrability issues caused by numerous electric fence divisions.	See Appendix 1 for photographs of site conditions and survey obstacles.
4	Unsurveyable due to mature trees and vegetation.	See Appendix 1 for photographs of site conditions and survey obstacles.

5. Archaeological Background

5.1. The following section summarises the archaeological background to the site and its surrounding landscape, based on the findings of an Archaeological Appraisal by WYG (Skinner, 2017). A map regression was undertaken, using available historic mapping, to track the evolution of the site's configuration and surrounding landscape.

5.2. In 2004/5, excavation conducted by Canterbury Archaeological Trust adjacent to Dowlands, c. 100m to the northeast of the site, recorded a ditch, numerous pits, and domestic waste dating from the Late Bronze to Middle Iron Ages. Romano-British occupation of the area was evidenced by ditches and the isolated burials of a horse and a child. Following the levelling of the site in the late 2nd century, a large aisled building was constructed. Romano-British occupation evidence was recorded in the area directly adjacent to the site, the quality and character of which was such that the excavator suggested the nearby presence of a villa (Skinner 2017: 8).

5.3. The 2nd Edition Ordnance Survey map records the presence of the buildings of King's Barn in the northern corner of the site; the exact location of the buildings and nature of the enclosure boundaries varies over the following decades. The farm is no longer present on the 1974 Ordnance Survey 1:1250 Plan. Early Ordnance Survey maps (*i.e.*1872-7) record a narrow, linear enclosure with trees running southwest from the farm, along Dover Road and the northwestern boundary of site. The southeastern extent of this enclosure formed a Liberty Boundary; while the administrative boundary was maintained into the 20th century, the field boundary itself is not marked on Ordnance Survey mapping after 1877, although it is fossilized in a line of trees on the 1974 OS map. No evidence of the boundary was visible on the ground at the time of survey. Two boundary stones are marked on the 2nd Edition Ordnance Survey map, located in the western corner and centre of the southwestern site of site, marking directional changes of the Liberty Boundary. A further field boundary, running parallel to (on the southeastern side of) the Liberty Boundary and the northwestern site boundary, is recorded on the 2nd Edition mapping (Figure 6), although it is no longer present on the 1938 Ordnance Survey County Series map. A small square reservoir, first marked on the 1898 Ordnance Survey County Series map, is located just outside the southeastern boundary of the survey area and adjacent to this former field boundary.

6. Methodology

6.1. Data Collection

6.1.1. Geophysical prospection comprised the magnetic method as described in the following table.

6.1.2. Table of survey strategies:

Method	Instrument	Traverse Interval	Sample Interval
Magnetic	Bartington Instruments Grad-13 Digital Three-Axis Gradiometer	1 m	200 Hz reprojected to 0.125 m

6.1.3. The magnetic data were collected using MS' bespoke hand-pulled cart system.

6.1.3.1. MS' cart system was comprised of Bartington Instruments Grad 13 Digital Three-Axis Gradiometers. Positional referencing was through a Hemisphere S321 GNSS Smart Antenna RTK GPS outputting in NMEA mode to ensure high positional accuracy of collected measurements. The Hemisphere S321 GNSS Smart Antenna is accurate to 0.008 m + 1 ppm in the horizontal and 0.015 m + 1 ppm in the vertical.

6.1.3.2. Magnetic and GPS data were stored on an SD card within MS' bespoke datalogger. The datalogger was continuously synced, via an in-field Wi-Fi unit, to servers within MS' offices. This allowed for data collection, processing and visualisation to be monitored in real-time as fieldwork was ongoing.

6.1.3.3. Rows of temporary sight markers were established in each survey area to guide the surveyor and ensure full coverage with the cart. Data were collected by traversing the survey area along the longest possible lines, efficient collection and processing.

6.2. Data Processing

6.2.1. Magnetic data were processed in bespoke in-house software produced by MS. Processing steps conform to Historic England's standards for "raw or minimally processed data" (see sect 4.2 in David et al., 2008: 11).

Sensor Calibration – The sensors were calibrated using a bespoke in-house algorithm, which conforms to Olsen et al. (2003).

Zero Median Traverse – The median of each sensor traverse is calculated within a specified range and subtracted from the collected data. This removes striping effects caused by small variations in sensor electronics.

Projection to a Regular Grid – Data collected using RTK GPS positioning requires a uniform grid projection to visualise data. Data are rotated to best fit an orthogonal grid projection and are resampled onto the grid using an inverse distance-weighting algorithm.

Interpolation to Square Pixels – Data are interpolated using a bicubic algorithm to increase the pixel density between sensor traverses. This produces images with square pixels for ease of visualisation.

6.3. Data Visualisation and Interpretation

6.3.1. This report presents the gradient of the sensors' total field data as greyscale images. Multiple greyscales images at different plotting ranges have been used for data interpretation. Greyscale images should be viewed alongside the XY trace plot (Figure 7). XY trace plots visualise the magnitude and form of the geophysical response, aiding in anomaly interpretation.

6.3.2. Geophysical results have been interpreted using greyscale images and XY traces in a layered environment, overlaid against open street mapping, satellite imagery, historic mapping, LiDAR data, and soil and geology mapping. Google Earth (2017) was consulted as well, to compare the results with recent land usages.

7. Results

7.1. Qualification

7.1.1. Geophysical results are not a map of the ground and are instead a direct measurement of subsurface properties. Detecting and mapping features requires that said features have properties that can be measured by the chosen technique(s) and that these properties have sufficient contrast with the background to be identifiable. The interpretation of any identified anomalies is inherently subjective. While the scrutiny of the results is undertaken by qualified, experienced individuals and rigorously checked for quality and consistency, it is often not possible to classify all anomaly sources. Where possible an anomaly source will be identified along with the certainty of the interpretation. The only way to improve the interpretation of results is through a process of comparing excavated results with the geophysical reports. MS actively seek feedback on their reports as well as reports of further work in order to constantly improve our knowledge and service.

7.2. Discussion

7.2.1. The geophysical results are presented in consideration with satellite imagery (Figure 5) and historic mapping (Figure 6).

7.2.2. The modern features and paddocks noted on the ground surface (see Section 4.4 and Appendix 1) have been detected by the fluxgate gradiometer survey. The survey results largely reflect the current land use, with discrete ferrous responses attributable to surface objects. An ephemeral ploughing trend is discernible towards the eastern half of the survey area. A number of curvilinear and linear responses have been classified as "Undetermined" origin and are considered likely to reflect associated modern or agricultural activity, and potentially natural variations. No anomalies of a probable or possible archaeological origin have been identified.

7.3. Interpretation

7.3.1. General Statements

7.3.1.1. Geophysical anomalies will be discussed broadly as classification types across the survey area. Only anomalies that are distinctive or unusual will be discussed individually.

7.3.1.2. **Undetermined** – Anomalies are classified as Undetermined when the anomaly origin is ambiguous through the geophysical results and there is no supporting or correlative evidence to warrant a more certain classification. These anomalies are likely to be the result of geological, pedological or agricultural processes--although an archaeological origin cannot be entirely ruled out. Undetermined anomalies are generally not ferrous in nature.

7.3.1.3. **Ferrous (Discrete/Spread)** – Discrete ferrous-like, dipolar anomalies are likely to be the result of modern metallic disturbance on or near the ground surface. A ferrous spread refers to a concentrated scattering of these discrete, dipolar anomalies. Broad dipolar ferrous responses from modern metallic features, such as fences, gates, neighbouring buildings and services, may mask any weaker underlying archaeological anomalies should they be present.

7.3.2. Magnetic Results - Specific Anomalies

7.3.1.4. **Modern and Ferrous** – Anomalies ascribed the "Modern" classification correlate with the paddock boundaries and the pitch constructed of pipes recorded in the sites notes (Appendix 1). Discrete ferrous responses within the western half of the survey can be attributed to the animal feeders and troughs.

7.3.1.5. **Magnetic Disturbance** – A linear band of magnetic disturbance, approximately 8-15m in width, is present along the north-western edge of the survey area. This may stem from origins such as the dumping of material during the construction of Dover Road, from alternative land use during the period when this area was enclosed (see Section 5.3), or more recent usage of the site.

7.3.1.6. **Agricultural** – A series of weak, parallel linear trends have been detected on a SW-NE alignment across the eastern end of the survey area. The patterning of these responses is characteristic of agricultural activity, such as ploughing. Given the weak, ephemeral nature of the magnetic response, a relative age for these features cannot be ascribed. There is no visible ploughing activity in recent satellite imagery that correlates with the orientation and extent of these responses (Google Earth, 2017).

7.3.1.7. **Natural** – Magnetic anomalies caused by natural variations in the soils and superficial geology have been detected across the site. As these weak, background variations are prevalent across the site, only certain responses have been indicatively categorised for clarity of the overall interpretation.

7.3.1.8. **Undetermined** – Of the anomalies classified as "Undetermined," the most coherent feature comprises a curvilinear response located in the northern part of the survey area, on a sub northwest-southeast alignment before turning to run

northeast [**1a**]. A similar, concentric response has also been detected immediately to the north [**1b**]; although the clarity of this response is less clear. It is possible that [**1a**] reflects a boundary associated with the former King's Barn farm previously present in the north of the area or may relate to more recent land usage of the site. A number of more ephemeral trends in the results are visible to the south of this anomaly, running across the survey area. Such anomalies are likely to be the result of natural variations in the soil or geology, or reflect modern usage of the land; however, given the ambiguous nature of response, an archaeological origin cannot be categorically ruled out.

8. Conclusions

8.1. A fluxgate gradiometer survey has been successfully undertaken across the accessible areas of the site (see Figure 2). The results primarily reflect modern activity associated with the recent utilisation of the land (see Appendix 1), including the wire fencing of paddocks, animal feeders, troughs, and a rectangular pitch made of a series of pipes. Agricultural activity has also been identified, as well as weak variations in the soil and geology. No anomalies have been identified as possible or probable archaeological in origin. While a number of anomalies have been classified as "Undetermined," these are considered more likely to reflect modern, agricultural and natural processes.

8.2. Agricultural activity is evident in a weak, ephemeral ploughing regime detected towards the eastern half of site. A relative age for this ploughing cannot be derived.

8.3. An area of magnetic disturbance runs along the northwestern edge of the site. The exact origins of this disturbance are unclear, but the nature of response indicates a dumping of mixed material.

9. Archiving

9.1. MS maintains an in-house digital archive, which is based on Schmidt and Ernenwein (2013). This stores the collected measurements, minimally processed data, georeferenced and un-georeferenced images, XY traces and a copy of the final report.

9.2. MS contributes all reports to the ADS Grey Literature Library subject to any time embargo dictated by the client.

9.3. Whenever possible, MS has a policy of making data available to view in easy to use forms on its website. This can benefit the client by making all of their reports available in a single repository, while also being a useful resource for research. Should a client wish to impose a time embargo on the availability of data, this can be achieved in discussion with MS.

10. Copyright

10.1. Copyright and the intellectual property pertaining to all reports, figures, and datasets produced by Magnitude Services Ltd. is retained by MS. The client is given full licence to use such material for their own purposes. Permission must be sought by any third party wishing to use or reproduce any IP owned by MS.

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12. Appendix 1

MSTR117 - Land at Dover Road, Deal, Kent
Figure 1 - Site Location
1 : 25,000 @ A4

Site Boundary

N

0 0.5 1 km

magnitude surveys

637000

Area 1

Area 2

Area 3

Area 4

MSTR117 - Land at Dover Road, Deal, Kent
Figure 2 - Location of Survey Areas
1:2500 @ A3

Surveyable Extent
Vegetation

N

0 50 100 150 m

magnitude surveys

636500 636600 636700 636800 636900

149700 149700

149600 149600

149500 149500

MSTR117 - Land at Dover Road, Deal, Kent
Figure 3 - Magnetic Greyscale
1:1250 @ A3

-1 nT 2

N

0 25 50 75 m

magnitude surveys

636500 636600 636700 636800 636900

149700 149700

149600 149600

149500 149500

1b

1a

MSTR117 - Land at Dover Road, Deal, Kent
Figure 4 - Magnetic Interpretation
1:1250 @ A3

- Agricultural (Trend)
- Undetermined (Trend)
- Undetermined (Strong)
- Undetermined (Weak)
- Modern
- Ferrous (Dipolar)
- Magnetic Disturbance
- Natural (Weak)
- Natural (Spread)

N

0 25 50 75 m

magnitude surveys

MSTR117 - Land at Dover Road, Deal, Kent
Figure 5 - Magnetic Interpretation Over Satellite Imagery
1:1250 @ A3

- Agricultural (Trend)
- Undetermined (Trend)
- Undetermined (Strong)
- Undetermined (Weak)
- Modern
- Ferrous (Dipolar)
- Magnetic Disturbance
- Natural (Weak)
- Natural (Spread)

N

0 25 50 75 m

magnitude surveys

636400 636500 636600 636700 636800 636900 637000 637100

149800 149700 149600 149500 149400

Stone

F.P.

B.S

King's Barn

1b

1a

Reservoir

(Works)

157

B.M. 160·1

F.P.

B.S

B.S

B.S

MSTR117 - Land at Dover Road, Deal, Kent
Figure 6 - Magnetic Interpretation Over Satellite Imagery
1:2000 @ A3

- Agricultural (Trend)
- Undetermined (Trend)
- Undetermined (Strong)
- Undetermined (Weak)
- Modern
- Ferrous (Dipolar)
- Magnetic Disturbance
- Natural (Weak)
- Natural (Spread)

N

0 40 80 120 m

magnitude surveys

636500
636600
636700
636800
636900
149700
149600
149500

MSTR117 - Land at Dover Road, Deal, Kent
Figure 7 - XY Trace Plot
25nT/cm at 1:1250 @ A3

N

0 25 50 75 m

magnitude surveys

Appendix H – Report Conditions

Archaeological Appraisal, Land off Dover Road, Deal

This report is produced solely for the benefit of Gladman Developments Ltd. and no liability is accepted for any reliance placed on it by any other party unless specifically agreed by us in writing.

This report is prepared for the proposed uses stated in the report and should not be relied upon for other purposes unless specifically agreed by us in writing. In time technological advances, improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of WYG using reasonable skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented accordingly within the scope for this report.

Reliance has been placed on the documents and information supplied to WYG by others, no independent verification of these has been made by WYG and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst reasonable skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal, budget and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors.

April 2017

WYG Environment Planning Transport Ltd