

**Phase 1 Contaminated Land Preliminary Risk Assessment  
(Desk Top Study)**

**Former Kingdom Hall  
12 Mill Hill Road  
Deal  
Kent  
CT14 9EN**

**April 2024**

**E: [enquiries@x3environmental.co.uk](mailto:enquiries@x3environmental.co.uk)  
M: 07834 653036  
W: [www.x3environmental.co.uk](http://www.x3environmental.co.uk)  
A: Pett Bottom, Canterbury, Kent, CT4 5PD**



Client: NPP PR27 Ltd  
The Long Barn  
Litchfield  
Hampshire  
RG28 7PR

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	Name	Position	Date
Prepared and checked by	J Oates BSc (Hons) MCIEH	Principal Consultant	04/04/2024
X3 Environmental Consultants			

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# 1. Introduction

## 1.1 Background

This phase 1 preliminary risk assessment (desk top study) including a site walkover has been undertaken following the approach and guidance within Land Contaminations Risk Management (LCRM), 2021 update. In addition, reference has been made to BS 10175:2011 + A2:2017” Investigation of potentially contaminated sites – Code of Practice” and information (INFO-RA1) in the CL:AIRE Water and Land Library. Model Procedures for the Management of Land Contamination (CLR11). The report also takes account of Environment Agency’s guidance to groundwater protection.

This report presents the findings of the assessment, which comprises of a geo-environmental desk study and conceptual site model (also known as a preliminary risk assessment), and a walkover survey of the external area which was undertaken on 25<sup>th</sup> March 2024.

## 1.2 Proposed Development

Planning permission for ‘external alterations to existing building, construction of a Multi-Use Games Area (MUGA), canopy structure and alterations to walls’ at the former Kingdom Hall, 12 Mill Hill, Deal was granted by Dover District Council on 19<sup>th</sup> March 2024 under reference number 23/01402, subject to conditions.

The proposed work includes the following:

- Creation of a MUGA – formed by erection of 3m high mesh fencing to the boundaries of the area, with a pedestrian gate. The MUGA will also include a lightweight netting over it.
- Erection of 1.8m high fencing on the site to separate the car parking area from the remainder of the school site.
- Erection of an outdoor classroom – formed by a gazebo style aluminium canopy ☐ Cladding of an existing fire escape.
- Minor alteration to fenestration including replacement of windows and doors and insertion of rooflights ☐ Reconfiguration of car parking area, including removal of existing walls.

The works are all in connection with the change of use of the building from a hall of worship to use for the property as a school.

The former Kingdom Hall is located on the northwestern side of Mill Hill in Deal (Fig 1.) The building is two storey with single storey additions. There are parking areas to the front and rear with side access to the rear parking area and caretaker’s house.



**Fig 1: Development site plan - Former Kingdom Hall, 12 Mill Hill, Deal, Kent, CT14 9EN  
(Source: Nine Points Property)**

Fig. 2 shows the proposed site layout plan.



**Fig 2: Proposed site layout plan - Former Kingdom Hall, 12 Mill Hill, Deal, Kent, CT14 9EN  
(Source: Nine Points Property)**

Condition 4 of 23/01402 relates to potentially contaminated land and requires the following:

*Prior to commencement of the development a desk top study shall be undertaken and submitted to and approved in writing by the Local Planning Authority. The study shall include the identification of previous site uses, potential contaminants that might reasonably be expected given those uses and any other relevant information. Using this information, a diagrammatical representation (Conceptual Model) for the site of all potential contaminant sources, pathways and receptors shall also be included.*

*If a desk top study shows that further investigation is necessary, an investigation and risk assessment shall be undertaken by competent persons and a written report of the findings shall be submitted to and approved in writing by the Local Planning Authority prior to commencement of the development. It shall include an assessment of the nature and extent of any contamination on the site, whether or not it originates on the site. The report of the findings shall include*

- i) A survey of the extent, scale and nature of contamination;*
- ii) An assessment of the potential risks to:
  - Human health;*
  - Property (existing or proposed) including buildings, crops, livestock, pets, woodland and service lines and pipes,*
  - Adjoining land,*
  - Ground waters and surface waters,*
  - Ecological systems,*
  - Archaeological sites and ancient monuments;**
- iii) An appraisal of remedial options and identification of the preferred option(s). All work pursuant to this Condition shall be conducted in accordance with the DEFRA and Environment Agency document Model Procedures for the Management of Land Contamination (Contamination Report 11).*

*If investigation and risk assessment shows that remediation is necessary, a detailed remediation scheme to bring the site to a condition suitable for the intended use by removing unacceptable risks to human health, buildings and other property and the natural and historical environment shall be submitted to and approved in writing by the Local Planning Authority prior to commencement of the development. The scheme shall include details of all works to be undertaken, proposed remediation objectives and remediation criteria, a timetable of works, site management procedures and a verification plan. The scheme shall ensure that the site will not qualify as contaminated land under Part 2A of the Environmental Protection Act 1990 in relation to the intended use of the land after remediation. The approved remediation scheme shall be carried out in accordance with the approved terms including the timetable, unless otherwise agreed in writing by the Local Planning Authority. The Local Planning Authority shall be given two weeks written notification of commencement of the remediation scheme works.*

*Prior to commencement of development, a verification report demonstrating completion of the works set out in the approved remediation scheme and the effectiveness of the remediation shall be submitted to and approved in writing by the Local Planning Authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met. It shall also include details of longer-term monitoring of pollutant linkages and maintenance and arrangements for*

*contingency action, as identified in the verification plan, and for the reporting of this to the Local Planning Authority.*

*In the event that, at any time while the development is being carried out, contamination is found that was not previously identified, it shall be reported in writing immediately to the Local Planning Authority. An investigation and risk assessment shall be undertaken and where remediation is necessary a remediation scheme shall be prepared. The results shall be submitted to the Local Planning Authority. Following completion of measures identified in the approved remediation scheme a verification report shall be prepared and submitted to the Local Planning Authority.*

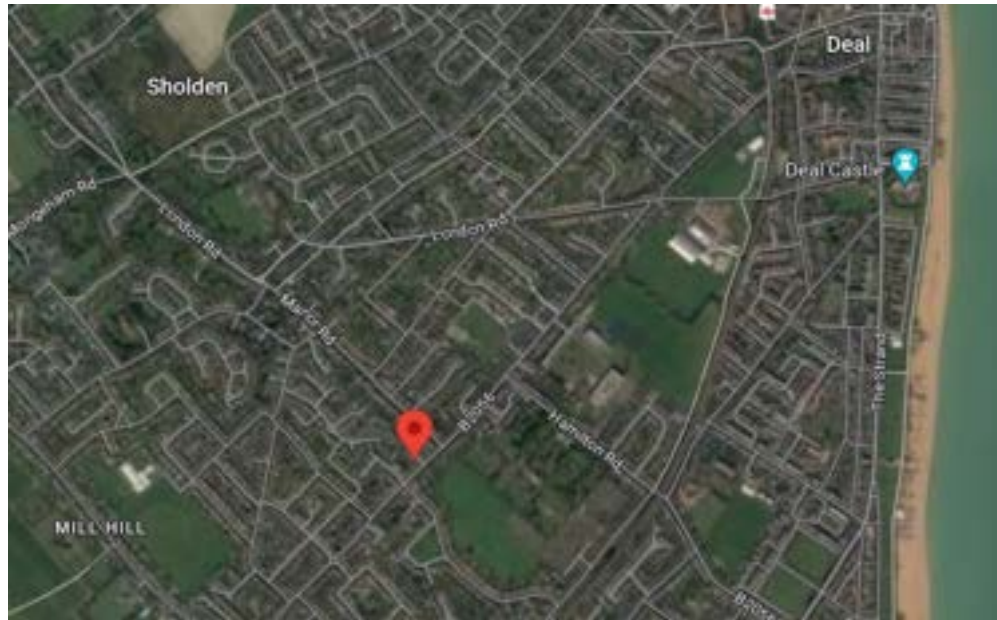
*Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land, together with those to controlled waters, property and ecological systems, are minimised and to ensure that the development can be carried out safely without unacceptable risks to workers, pursuant to the National Planning Policy Framework 2023.*

The purpose of this report is to address the first part of Condition 4 (desk top study and conceptual site model/preliminary risk assessment) and make recommendations regarding the remainder of the condition.

## **2 Site Location and Description**

### **2.1 Site Location**

The development site is just over 1km southwest of the centre of the town of Deal on the coast in East Kent (See Fig 3). The site is on the northwest side of Mill Hill, the B2056 which links the area to the centre of Deal. The area is predominantly residential interspersed with some small businesses/commercial uses. Residential properties surround the hall and site on all sides except the road frontage (See Fig 4).



**Fig 3: Site location map (Source: Google Maps)**



**Fig 4: Aerial site map (capture date 23/04/2021) (Source: Enviro+Geo Insight Report)**



## 2.2 Site Description

The former Kingdom Hall is constructed of red brick (part pebble dash covering) with a slate roof. To the front of the building is a parking area surfaced with brick paviors, with a low brick wall separating the area from the pavement in front. Access to the front parking area is served via its own vehicular access point from the road. The main entrance into the building is at the front, via a covered porchway. The site is separated from the house to the left by a concrete block wall.

To the left side of the hall is a small, concrete path that leads up the side of the hall. There is no access to the rear of the site via this path. Two service inspection covers are located within this path.

A separate access road to the rear parking area lies to the right of the hall, separated by a low brick wall at the front and then the side wall of the hall itself. To the right of the access road is a wooden fence on the boundary with the adjacent dwelling. The access road itself is rough tarmac. Various service inspection covers are located along the access road to the rear with evidence of excavation and repair likely to be associated with laying or repair of the services at various times. The access road also serves a dwelling located at the northwest of the rear car park area.

The parking area to rear is laid to tarmac. Again, there are several service inspection covers, and evidence of excavation and repair likely to be associated with laying or repair of the services at various times (some linked to the dwelling in the northwest corner of the site). The parking area is relatively flat with a very slight camber uphill towards the rear of the site and slightly downhill towards the east of the site. A flower/shrub border is located on the northern boundary of the site. The boundaries surrounding the rear area are a mix of timber fencing and brick/block walls. A metal fire escape leads from the 1<sup>st</sup> floor of the hall to the rear of the building.

Photos of the building and site follow:



**Photo 1: Kingdom Hall from Mill Hill**



**Photo 2: Front parking area**



**Photo 3: Side passage (left) from front**



**Photo 4: Access road to rear of site**



**Photo 5: Metal staircase–rear of building**



**Photo 6: Rear of building from car park**



**Photo 7: View of car park to caretaker's (showing repair to tarmac)**



**Photo 8: View over rear of car park house**



**Photo 9: Car park showing tarmac ‘joints’**



**Photo 10: View from access road to car park-typical repair work round service inspection covers**

### 3 Land Use History

#### 3.1 Historical Land Use Review

Historical maps have been reviewed and a Groundsure Enviro+Geo Insight Report (Appendix B) was obtained to review the history of the land use and environmental data associated with the site and surrounding area. The historic maps reviewed cover the periods from 1868 to 2023 (1:2500 scale and 1:10,560/10,000 scale). These maps are shown in Appendices C and D and are summarised in Table 1:

Map Epoch	Description
1871-1872	<p>The site is on open land to the south (c. 500m) of a residential area known as Upper Deal.</p> <p>The road (now known as Mill Hill) that borders the site to the southeast is shown and called Mill Road. Along the road, Allenton Place (residential) is marked on the opposite side c. 50m to the east. A site titled ‘Brick Field’ is lies c.250m to the northeast with the Lord Warden PH just beyond this. There are other small pockets of what is likely to be residential dotted along the road to the northeast.</p> <p>A cemetery and chapel are marked c. 350m to the east.</p> <p>A Windmill (corn), Lime Kilns and Water Works are marked c. 600-750m southwest.</p>

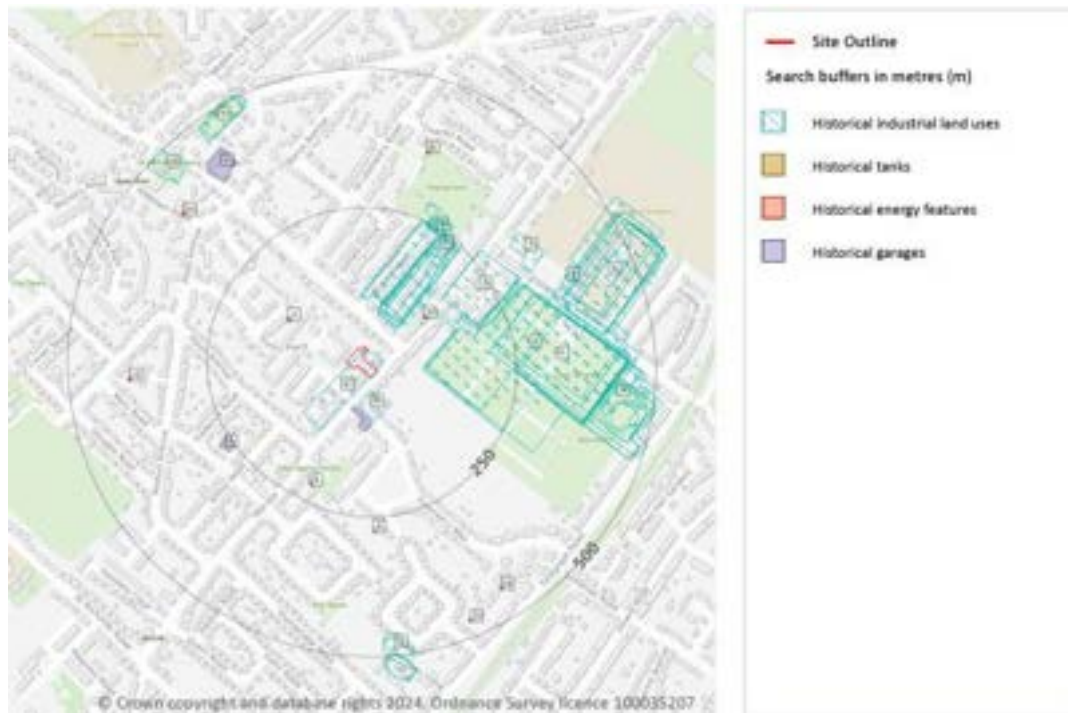
	<p>A Corn Mill and Brick Field is marked c.800m north-northeast. The towns of Deal and Walmer with an area called Lower Walmer in between are shown.</p> <p>Areas marked as Royal Marine Barracks, Drill Ground and Royal Marin Hospital Barracks are present to the east of the site c.1km away just inland from the coastline.</p>
1889-1898	<p>No change to the application site itself which is still shown on open land. The road is still present as Mill Road.</p> <p>Allenton Place is still shown and marked as such. The brick field site is still shown but has no name/title. The pub is still present. More houses area now shown to the northeast.</p> <p>Allotment gardens are marked c.150m to the west with a property known as Hillside House on the opposite side of the road.</p> <p>The cemetery and chapel (now a mortuary chapel) are still present. The Windmill, and Water Works are still marked. The Lime Kilns is now shown as a chalk pit and an additional 2 chalks pits, and an Old Chalk Pit are marked in near to it. A further Old Chalk Pit is located c.800m northwest.</p> <p>The brick works c.800m north-northeast is still shown as is an additional brick works 500m to the northeast.</p> <p>The Dover and Deal railway line is now running parallel to Mill Road c. 500m away with stations at Upper Walmer and Deal.</p> <p>The areas of Upper Deal, Walmer, Lower Walmer and Deal have all expanded as have the Royal Marine Barracks.</p>
1897-1908	<p>No change on the application site.</p> <p>Housing is now present on Manor Road to the east.</p> <p>More housing is now shown along Mill Road to the northeast and there is also housing on the area previously marked as 'Brick Field'.</p> <p>An additional allotment gardens is marked to the north of the houses along Mill Road.</p> <p>Hillside House and the allotment gardens to the southwest are still marked.</p> <p>Little change to the wider area on the 1:10, 560 scale maps along the coastline and towns (apart from pockets of infill development), but more development has taken place to the southwest with several new roads being marked and named.</p> <p>A sanatorium (infectious disease) is marked c. 600m southwest and further brickworks are marked 500m east and c.1km north.</p>
1938	<p>The application site is now marked as a Methodist Church with a similar size building to what exists now.</p> <p>The immediate surrounding area (on the 1:2500 map) is now more built up with several residential streets particularly on the north side of the road, along Manor Road (east) and to the southwest.</p> <p>A Nursery (glasshouses) is shown c. 100m northeast next to the allotment gardens.</p> <p>The site formerly known as Brick Fields (to the east) is now a school. The cemetery is still present.</p>

	<p>The 1:10,560 maps for this time also show much more development across the whole area.</p> <p>The Royal Marine Barracks, railway, sanatorium, waterworks, chalk pits and some of the brickworks are still marked.</p>
1948	<p>The 1:2,500 (large scale) map does not exist for this epoch.</p> <p>The 1:10,560 map shows little change from the 1938 map apart from various infill development. The areas both sides of the railways line are now mostly developed. The area of open land to the southeast of Mill Road opposite the application site is still shown as such.</p> <p>The application site is still shown and marked as a church.</p> <p>The only brick works now showing is the one c. 1km to the north.</p>
1957	<p>The 1:10,560 (small scale) map does not exist for this epoch.</p> <p>The application site is known as Havelock Hall Methodist Church and 2 additional structures are shown at the rear of the hall (in what is now the parking area).</p> <p>The road is now called Mill Hill and the residential area to the east is also called Mill Hill.</p> <p>A Factory is marked at number 30 and an Ambulance Station is shown on the opposite side of the road.</p> <p>An additional allotment gardens is marked 100m to the northwest.</p> <p>Part of the open land to the southeast is marked as a playing field.</p> <p>The school to the east is now called South Deal School.</p>
1960-1963	<p>Although the 1:2,500 map for 1963 is incomplete, the application site is still marked as Havelock Hall Methodist Church.</p> <p>More development has taken place on the southeast side of the road on part of the open land.</p> <p>A garage is shown at number 67. The factory is still marked. The ambulance station has moved.</p> <p>Little change to the wider area. No brickfields or chalkpits are marked as such (those few remaining now known as works).</p> <p>The areas of Upper Walmer, Walmer, Lower Walmer and Deal are now all connected.</p>
1972-1976	<p>The application site is now called Kingdom Hall. The buildings at the rear within the site boundary are marked as a Clothing Factory.</p> <p>The factory at number 30 is now known as a Brush Factory. The garage and ambulance station are still shown.</p> <p>A Timber Yard is shown 100m east of the site.</p> <p>The school east is now called South Deal County Primary School.</p> <p>Little other change to the immediate area.</p> <p>Little change to the wider area on the 1:10,000 map.</p>
1979-1985	<p>The 1:2,500 (large scale) map is incomplete for this period – only the northern part of the application site is shown.</p> <p>The clothing factory is still marked and there is now residential immediately to the northwest of the site beyond the boundary.</p> <p>Residential is now on the former Nursery (c. 100m northeast).</p> <p>The timber yard is still marked.</p> <p>Little change to the wider area.</p>

1986 – 1993	<p>Only 1:2,500 maps exist for this period.</p> <p>The application site is still known as Kingdom Hall with the factory at the rear of the site.</p> <p>The factory at number 30 is no longer marked as such.</p> <p>The garage and ambulance station on the southern side of the road are still marked as is the timber yard to the east.</p> <p>Little change to the immediate area.</p>
2001-2003	<p>The application site building is still present but unnamed. The factory still exists at the rear.</p> <p>The timber yard and garage are still marked.</p> <p>Little other change in the immediate area (although the area shown is now only 100m – previously up to 250m).</p> <p>The style of the 1:10,000 map is now more up to date; A &amp; B road are marked red and yellow and buildings coloured brown.</p> <p>The northern part of the Royal Marine Barracks is marked as 'Disused'.</p>
2010	<p>The 1:1,250 map does not exist for this epoch.</p> <p>On site, the building to the rear that was marked as a factory is no longer shown.</p> <p>Little change to the immediate or wider area from the previous map.</p> <p>The barracks are now longer shown/marked.</p>
2024	<p>The 1:1,250 map does not exist for this epoch.</p> <p>Little change to the site, immediate or wider area from the previous map.</p>

**Table 1: Historic Map Review Summary**

The Groundsure Enviro Insight Report indicates a number of potentially contaminative land uses within 250m and 500m of the site. The application site itself is shown marked with a red site outline. Sites within 500m of the site can be seen can be seen in Fig. 5 and full details of all sites up to 500m can be found in the full Enviro+Geo Insight Report in Appendix B.



**Fig 5: Historical Industrial Land Use (Source: Groundsure Enviro+Geo Insight Report)**

A summary of the potentially contaminative land uses within 250m and 500m of the site can be seen in Table 2.

<b>Historic land use within 250 metres</b>		
<b>Map ref no</b>	<b>Land Use/Location</b>	<b>Dates present</b>
<b>1</b>	Unspecified Factory - On site	1960-1973
<b>A</b>	Ambulance Station – 22m S	1960
<b>A</b>	Unspecified Factory – 49m SW	1960
<b>A</b>	Garage – 58m S	1963-1973
<b>B</b>	Unspecified Ground Workings/Unspecified Pits – 62-84m NE	1872, 1905, 1907, 1908-1938,
<b>C</b>	Cemetery – 82-87m E	1938, 1960-1973, 1985
<b>B</b>	Nursery – 84-86m N	1938, 1960
<b>2</b>	Electricity Substation – 118m NE	1972-1991
<b>3</b>	Electricity Substation – 123m NW	1981-1988
<b>D</b>	Unspecified Pit/Brick Field/Unspecified Ground Workings – 165-178m NE	1872, 1905
<b>E</b>	Unspecified Pit – 199-250m NE	1872, 1960
<b>F</b>	Cemetery – 204-251m E	1872. 1889, 1897, 1905, 1907, 1908-1938



<b>Historic Land Use between 251 and 500 metres</b>		
<b>Map ref no</b>	<b>Land Use/Location</b>	<b>Dates present</b>
<b>6</b>	Electricity Substation – 271m S	1973
<b>7</b>	Unspecified Pit – 314m NE	1872
<b>G</b>	Brick Works – 356-390m E	1897, 1905, 1907, 1908
<b>8</b>	Electricity Substation – 365m N	1972-1991
<b>H</b>	Brick Works – 370-394m E	1905,1907, 1938
<b>9</b>	Unspecified Tank – 377m E	1872
<b>M</b>	Garages – 383m NW	1957
<b>11</b>	Electricity Substation – 386m W	1976-1980
<b>12</b>	Electricity Substation – 392m NW	192-1988
<b>H</b>	Unspecified Pit/Unspecified Ground Workings – 402-425m E	1905-1938, 1960-1985
<b>13</b>	Graveyard 440m NW	1872
<b>14</b>	Electricity Substation – 440m S	1973
<b>I</b>	Graveyard 457-458m NW	1960, 1973-1985
<b>15</b>	Electricity Substation	1973
<b>J</b>	Quarry/Unspecified Quarry – 459-497m S	1905, 1907, 1908, 1938
<b>G</b>	Unspecified Tank – 498m NE	1906

**Table 2: Details of historic land use within 500 metres of Former Kingdom Hall, 12 Mill Hill, Deal, Kent, CT14 9EN (Source: Groundsure Enviro+Geo Insight Report 1:10,00 and 1:10,560 scale maps)**

There are a number of potentially contaminative uses identified from historic uses within 250m of the site. On site, a clothing factory was operational from 1960 to the early 2000's. This was in a building at the rear of the site which now forms part of the car park and house (built in c. 2012). The other uses include an ambulance station, factory, garage, electricity substations, nursery, cemetery and unspecified pits, brick works and ground workings.

The majority of these sites have been developed over the years and now have alternative land uses, so any potential contaminative sources are likely to have been addressed as part of the redevelopment. The garage is still present on the corner of Mill Hill and Freemans way, but due to the distance from the site is unlikely to pose a risk.

With regards to other potentially contaminative historic sites listed between 251 and 500m of the application site (unspecified ground workings/pits, unspecified tank, electricity substations, brick works, garages, graveyards, quarry), again, these are unlikely to have impacted on the site due to their distance and low risk.

In terms of landfill sites, there are no active or recent landfill sites within 500m of the site. There are no historic waste sites within 500m of the site.

Two waste exemptions are registered within 250 of the site. The first is 134m south and relates to storage of waste in a secure place. The second is 178m southeast and is a waste exemption for the use of waste in construction. Twenty-two other waste exemptions within 500m of the site. The majority of these are issued to Dover District Council for Hamilton Road Cemetery (for

various purposes including storage, use, screening, sorting, blending, and burning of waste, use of mulch and spreading of plant matter). The others relate to Deal Cemetery (composting, treatment, spreading and burning of waste and use of mulch) and one for Castle Community School (use of waste in construction).

The waste exemptions are all quite minor, linked to lower risk sources or due to distance are again unlikely to impact on the site.

Apart from potentially the former clothing factory on the site, there is very little of historic environmental concern associated with the surrounding area that could impact on the application site.

The full Groundsure Enviro Insight Report is shown in Appendix B and the historic maps are at Appendices C and D.

### 3.2 Current Land Use review

Fig 6 shows the current land use within 500m of the site.



**Fig 6: Current Land Use (Source: Groundsure Enviro+Geo Insight Report)**

In terms of current industrial land use, 5 uses are displayed within 500m of the site (all within 250m (Fig 5)). Number 1 and B relate to construction work, numbers 2, 3 and B refer to electricity sub stations and A relates to vehicle servicing and repair and a closed petrol station. This use is closest to the site being c. 60-67m south of the site. However, it is sufficiently distanced from the site and on the opposite side of the road to be of any likely concern.

Nothing else has been flagged within the Enviro+Geo Insight report within 500m of the site of note. Current industrial land use covers the following additional parameters: high voltage underground electricity cables, gas pipelines, Control of Major Accident Hazard sites, regulated

explosive sites, hazardous substance storage/usage, historic Integrated Pollution Control (IPC) sites, current Part A(1), A(2) or Part B Environmental Permitted sites, radioactive substance authorisations, licenced discharges to controlled waters, pollutant release to surface waters, pollutant release to public sewer, List 1 or 2 dangerous substances, pollution inventory substances/waste transfers/radioactive substances – none of these are listed.

There are no sites determined as Contaminated Land under part 2A of the Environmental Protection Act 1990 within 500m of the site.

Surrounding current land uses are unlikely to impact on the development site.

The full Groundsure Enviro+Geo Insight Report is shown in Appendix B and the historic maps are at Appendices C and D.

## **4 Geology**

Information published by the British Geological Survey 1:50,000 scale bedrock geology information indicates Seaford Chalk – Chalk on and around the site. This consists of firm white chalk with conspicuous semi-continuous nodular and tabular flint seams. This bedrock covers significant areas of southern England with beds in Kent being in the range of 55-60m in depth. Superficial geology on site is clay and silt.

Neither the 1:10,000 and 1:50,000 scale geology maps indicate areas of artificial or made ground made ground within 500m of the site.

On site permeability records show that the site permeability is classed as fracture flow type with very high permeability. This means that water from the ground surface can vertically flow quickly and easily through the unsaturated zone of the bedrock. This can mean that groundwater can be more vulnerable to pollution the higher the permeability.

There are no hazards on site or within 500m from natural ground subsidence, landslides, bedrock faults or linear features.

In terms of collapsible deposits, on site is classed as ‘moderate’. This means that there may be a hazard whereby natural deposits could collapse under load (eg buildings) or if the ground become saturated. However, subsidence on site is considered to be low and not a concern except in exceptional circumstances.

There are no British Geological Society (BGS) Boreholes within 500m of the site.

There are two records of British Pits within 500m of the site. However, both are 234m NE and 498m NE respectively and associated with the Upper Deal Brick Field (both ceased). A number of historic unspecified ground workings and unspecified pits have already been identified in the historic land use section. The closest is 62m NE.

The site is located within a historic non-coal mining area where localised small scale underground mining for commodities such as chalk in this instance, may have occurred. However, the potential for difficult ground conditions is unlikely and need not be considered. The site is located within a coal mining area as defined by the Coal Authority. However, there are no natural or mining cavities or incidents (recent or historic) in the area that would highlight concerns.

There is no evidence of any gypsum, tin, or clay mining in this area.

The site and surrounding area do fall in an area where between 3% and 5% of properties are affected by Radon. As such basic radon protection measures are recommended for any buildings.

## **5 Hydrogeology and Groundwater**

The Environment Agency (EA) website and BGS information indicates that the site is over a principal aquifer (previously termed a major aquifer). This type of aquifer usually provides a high level of water storage on a strategic level. These can be important as a source of potable water.

In terms of groundwater vulnerability, on site the classification is Principal aquifer with high vulnerability. These are areas which are easily able to transmit pollution to groundwater and are characterised by high leaching soils. In this respect, care must be taken when undertaking any form of excavation to ensure that contamination cannot be introduced into the ground below.

The development site itself does not fall within any Source Protection Zone (SPZ). Within 250m SPZ 1 and 2 areas exist. An SPZ defines the area and sensitivity to contamination around a potable (drinking water) abstraction, with 1 being the highest level of sensitivity to contamination.

There are 4 licensed groundwater abstraction records within 2km of the site. Only 1 is within 1km from the site and relates to a Southern Water potable water supply at St Richard's Road Deal (612m SW). Of the remaining 3, 1 is historical and the 2 active licenses relating to irrigation at a plant nursery c.1.5km to the northwest.

There is only 1 surface water abstraction record within 2km of the site. This is just over 1km to the north and relates to spray irrigation.

There is 1 potable abstraction within 2km of the site, relating to Southern Water wells at St Richard's Road, Deal.

With regards to hydrology, there are no surface water features or other water bodies such as streams, ponds etc within 500m of the site.

On site, a surface water body catchment is noted. This relates to the North and South Streams in the Lydden Vally catchment area as part of the Stour management catchment. These are catchments are categorised under the Water Framework Directive and are for the protection of inland surface waters through river basin-level management planning. Overall classification was 'poor' for 2022.

The site and surrounding area falls within the East Kent Chalk-Stour Water Framework Directive Groundwater Body area. These are catchments are also categorised under the Water Framework Directive and are for the protection of groundwater. Overall classification was 'poor' for 2019.

On site and within 250m, there is no risk of flooding from rivers or sea. There are no historic flood records within 250m from river, sea, groundwater, or surface water flooding. The site does not fall into any Flood Zone area.

The highest risk of on-site (and within 50m) surface water flooding due to extreme rainfall events is a 1 in 30-year risk is a depth of 0.1-0.3m.

The Groundwater flooding risk on site and within 50m is moderate to high. This is usually caused by high groundwater levels when the water table rises above the ground surface. There can be a risk of damage to property as a result of this.

## **6 Environmental Designations**

The site does not fall within any Sites of Specific Scientific Interest (SSSI) or Ramsar site. The nearest SSSI site is over 1.5km away (Sandwich Bay to Hackling Marshes). The nearest Ramsar site is a similar distance (Thanet Coast & Sandwich Bay Site). The site is however classed as being within the SSSI Impact Risk Zone. These are zones around SSSI's that indicate the type of development proposals that could have adverse impact on the SSSI. This proposed development does not fall into any of the categories specified for the Sandwich Bay to Hackling Marshes SSSI so risk does not need to be considered.

There are no other environmentally designated areas (such as special areas of conservation, nature reserves, ancient woodland, biosphere reserves, green belt etc) within 2km of the site.

In terms of visual and cultural designations (AONB's, national parks, listed buildings, conservation areas, monuments etc) there are none within 250m of the site.

## **7 Contamination Assessment**

The site walkover took place on 25<sup>th</sup> March 2024. At the time of the visit, the premises was empty. The inside of the building was not inspected but as the development is linked to the external area only, this was not necessary. The front car parking area is laid to brick paviors which were in good condition. There were no cracks or lifted paviours and no stained areas. Some weed growth was present at the edges where the paviors butted up to the side and front

walls and small amounts in between the paviers themselves in some areas. A small flower bed is in front of the building - shrubs and annual plants being present. The parking area is surrounded by brick and concrete block walls that are all in good condition. An entrance leads from the road into the parking area with a metal gate (open at the time of the visit). See Photos 1 and 2.

To the left side of the building is a short concrete pathway leading to the rear of an extension to the building. Two inspection covers are present in this area. Some weed growth was present but nothing else of note. See Photo 3.

To the right side of the building is the main accessway to the rear of the building and parking area which the area subject of this development. This is tarmacked and bordered by the building on one side and timber fencing on the other. Several services inspection covers are located within the access way. Generally, the access way is in good condition. There is evidence of some repair work having taken place. These are around the inspection covers and also a strip running the entire length of the access road and continuing across the parking area to the house at the rear. These areas of repairs are likely to be associated with repair to services of relaying of new services. Some weed growth is present at the side of the access road. No areas of staining, other discoloration or other cracking were evident. See Photos 4, 7 and 10.

The rear area parking is also tarmacked. The area is relatively flat and in good condition. Again, there is evidence of some repair work to the tarmac associated with the laying of services. In addition, there are one of two areas where there are joints in the tarmac indicating that it was likely laid in sections. There is no evidence of staining or fuel spillages/leakages. The borders surrounding the parking area to the sides and rear are a mix of timber fencing and breeze block walls. To the left is the caretakers house and residential surrounds the rest of the site. Adjacent to the caretaker's house and along the rear are plant borders containing shrubs add leylandii hedging. Some weed growth is present around the edge of the tarmac. A metal staircase leads from the 1<sup>st</sup> floor of the building into the area. Under this are remains of bags of de-icing salt. Again, a number of service covers exist at various points. See Photos 5, 6, 7, 8 and 9.

No fuels or oils are currently being stored on the site.

In conclusion, the site walkover did not indicate anything of concern.

The statutory definition of contaminated land is given in Part IIA of the Environmental Protection Act 1990 as amended by section 57 of the Environment Act 1995 is "land which appears to the Local Authority in whose area it is situated to be in such a condition, by reason of substances in, on, or under the land that:

- significant harm is being caused or there is a significant possibility of such harm being caused, or to people, ecosystems, crops/livestock or infrastructure, or there is a significant possibility that such harm could be caused, or
- pollution of controlled waters is being, or likely to be caused."

Contaminated land guidance advises a staged approach to assessing contamination and the associated risks. For a desk top study (preliminary risk assessment), this involves identifying any

potential contamination sources either on site or adjacent to the site and then assessing the risk by looking at the source-pathway-receptor linkages:

Source is defined as a substance that is in, on or under the land and has the potential to cause harm to health or could affect the environment.

Pathway – is a route or means by which a receptor can be exposed to, or affected by, a contaminant. Routes can be via e.g.: soil, air, or water.

Receptor – in general terms, something that could be adversely affected by a contaminant, such as people, an ecological system, property, or a water body.

For a pollutant linkage to be identified there must be a connection between all 3 parts of the source-pathway-receptor. If none of these conditions exist on site or the source-pathway-receptor linkage is broken, then extended or targeted on site intrusive soil testing is usually not required. A Phase 1 Contaminated Land Desk Top Study involving a preliminary risk assessment can usually determine the requirement for any further work.

As the car park area is tarmacked there may be a risk of volatile organic carbons (VOC), Polyaromatic Hydrocarbons (PAH) and phenols associated with this. However, the tarmac/bitumen surface was seen to be in good condition which suggests that it has been laid/re-laid in more recent years. Coal tar and coal tar distillates (sources of high levels of PAH and benzo-(a)-pyrene) have not been used in tarmac/asphalt for road surfacing etc since the 1980's so the risk of this is limited. The historic maps and Enviro+Geo Insight report indicate that the clothing factory building was on site until the early 2000's so it's likely that the area was hard surfaced or re-surfaced after the building was demolished.

The site has been used for car parking, so there could be a risk of petroleum hydrocarbons (TPH) due to leaking engines, fuel tanks etc. However, close examination of the car park area did not reveal any staining/markings that would be indicative of this. In addition, the access way and car parking area were not cracked/broken in any places excepting areas repaired around service inspection covers of re-laying of services to the caretaker's house at the rear. When petrol and particularly diesel spills/leaks onto tarmac/asphalt it acts as a solvent and dissolves the binder part of the tarmac leaving gaps/cracks in the surface. There was no evidence of this having occurred.

With regards to the old clothing factory building no information has been able to be found regarding its structure, demolition or actual business that took place there. The historic maps indicate that it was demolished in the early 2000's as it is not shown on later maps. The caretaker's house was granted planning permission in 2012 and there is no mention of the factory associated with that application. It is assumed that the building was demolished, and materials removed from site prior to the current/existing car park area being laid. There is no evidence of land raising on site which would indicate demolition materials were left on site. If there are any demolition material left present on site, the quantity is likely to be minimal and they are below the tarmac surface.

Minimal groundworks are expected with this proposal. MUGA's need to be laid on a flat and stable surface - usually a macadam base. As this surface already exists on site and is in good condition, the base layer can be laid directly on top, therefore negating/minimising intrusive groundworks.

The surrounding rebound fencing and also the perimeter/boundary timber fencing will need to be secured into the ground, but again intrusive works will be minimal and of limited depth. If any tarmac is to be excavated, careful removal, storage, and offsite disposal of the tarmac surface during the development works will negate any risk.

The erection of the gazebo canopy will also require little intrusive groundworks being of a lightweight aluminium structure.

Although the site is categorised as high vulnerability in terms of groundwater and these are areas which are easily able to transmit pollution to groundwater, the risk is minimised due to the fact that excavation for the MUGA and fencing will be limited/minimal and are unlikely to be of any great depth.

The development site itself does not fall within any Source Protection Zone (SPZ) but is within 250m of SPZ 1 and 2 areas. IN this respect, there could be a risk in terms of potable water abstraction. As groundbreaking or excavation will be minimal and to no great depth, this risk is minimised.

The end user will be commercial and there are no soft landscaped or garden areas associated with the use. In this respect risk of exposure is minimised. The existing tarmac surface is to remain on site, and this will serve to break any source-pathway-receptor pollutant linkage to any potential contamination below the ground surface.

Of-site, there is little of note in the immediate area (either current or historic) that gives rise to any risk. Any potential sources are sufficiently distanced from the site to have had any impact on it.

The proposed end use is commercial, and no structural changes/excavations are planned. In this respect, potential pathways for this type of use on this site are limited.

Typical pathways could include the following:

- Ingestion of soils
- Ingestion of dust and vapours
- Dermal contact with the soil
- Ingestion of contaminated vegetables etc
- Leachate via infiltration

Typical receptors could include:

- Ground workers/construction workers
- Future users of the site
- Adjacent occupants
- Below ground services
- Groundwater and surface waters
- Environmental/ecological receptors
- Historic receptors (buildings, features etc)



Appropriate risk classification has been used to assess how the risks are derived and their definitions. These can be seen in Tables 3 and 4:

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very high risk	High risk	Moderate risk	Moderate/low risk
	Likely	High risk	Moderate risk	Moderate/low risk	Low risk
	Low Likelihood	Moderate risk	Moderate/low risk	Low risk	Very low risk
	Unlikely	Moderate/low risk	Low risk	Very low risk	Very low risk

**Table 3: Risk Rating Matrix**

Risk Rating	Definitions
Very high risk	<p>There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening.</p> <p>This risk, if realised, is likely to result in a substantial liability.</p> <p>Urgent investigation (if not already undertaken) and remediation are likely to be required.</p>
High risk	<p>Harm is likely to arise to a designated receptor from an identified hazard</p> <p>Realisation of the risk is likely to present a substantial liability.</p> <p>Urgent investigation (if not already undertaken) is required and remediation works may be necessary in the short term and are likely over the longer term.</p>
Moderate risk	<p>It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild.</p>
Moderate to low risk	<p>It is possible that harm could arise to a designated receptor from an identified hazard. However, it is unlikely that any such harm would be severe, or if any harm were to occur it is probable that the harm would be relatively mild.</p>
Low risk	<p>It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.</p>
Very low risk	<p>There is low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.</p>

**Table 4: Risk Rating Definitions**

A conceptual site model and qualitative preliminary risk assessment for the site has been drawn up and can be seen in Appendix A. A full quantitative risk assessment is beyond the scope of this investigation.

Based on the findings of this assessment, plausible pollutant linkages are minimal. The site is considered overall as **Low Risk**.

In view of this, no further assessment or intrusive investigation is required for the re-development of the site for this end use.

## 8 Conclusions

This Preliminary Risk Assessment (desk study) has considered the available historic and current land use and any potential contaminants associated with those uses; geological and hydrogeological information and considered the environmental sensitivity of the site. In addition, an on-site walkover survey has been undertaken.

The tarmac surface on both the access road and the car park is in good condition; there is no evidence of any staining associated with leaking/spilled fuel. Therefore, the risk associated with this is minimal.

There is a potential risk on site from the historic use of the building at the rear of the site as a clothing factory and the more recent use of the site as a tarmacked car park. However, in respect of risk associated with the former factory, any possible contamination as a result of debris left on site following its demolition, is minimised by the barrier formed by the car park surface itself. In addition, minimal excavation works will be associated with the development and will not be to any great depth – further reducing any risk. The car park surface serves to break the source-pathway-receptor linkage.

The carpark surface also breaks this linkage in terms of any risk to groundwater and any other off-site receptors.

There are no environmental, ecological, or historic receptors at risk in this area.

A risk based conceptual site model has been drawn up based on the available information. The risk associated with this site and proposed development in terms of human health and other receptors such as groundwater has been assessed as **Low**.

Based on this, no further investigative work is required as outlined in Condition 4 of 23/01402.

## 9 Recommendations

Based on the overall assessment of the site that it is **Low** risk; an intrusive investigation or quantitative risk assessment is not required for this site. The following is recommended:

- As a precaution, it is recommended that appropriate PPE is used by construction workers, to mitigate any potential risks from dermal contact, ingestion, and inhalation of materials/soils. Sensible hygiene practices such as washing of hands before eating

should be undertaken on site to minimise any risk associated with ingestion of materials/soils.

- During construction, any exposed soils should be protected from any accidental spillages from on-site machinery or other stored fuel, oil or chemical sources associated with the construction. This is to prevent any impact on the site or groundwater.
- Every precaution should be taken during the course of the development in order to prevent escape and migration of any pollutants into the underlying principal aquifer. Any fuels or lubricants used by contactors plant/equipment during the course of the development should be stored securely to prevent leaks/spills (preferably in a bunded area of the site).
- All general inert waste materials arising from site must be taken off site for appropriate disposal to a licenced facility.
- Any asbestos containing material discovered on site should be removed by an appropriately licensed contractor and disposed of at a licensed facility.
- Any excavated soils should be subject to Waste Acceptance Criteria (WAC) analysis and disposed of accordingly.
- It is recommended that a 'Watching Brief' takes place during any excavation works by an appropriately qualified person in case any previously undiscovered or unknown areas of potential contamination are discovered. If such areas are discovered, they must be investigated immediately by suitably qualified personnel and findings must be reported to the Local Authority.

## **Appendices**

**Appendix A: Evaluation of pollutant linkages – Conceptual site model and diagram**

**Appendix B: Groundsure Enviro Insight Report - See Separate Document**

**Appendix C: Groundsure Historic Maps Scale 1:2,500 - See Separate Documents**

**Appendix D: Groundsure Historic Maps Scale 1:10,560/1:10,000 - See Separate Document**

## Appendix A: Evaluation of Pollutant Linkages – Conceptual Site Model

### Conceptual Site Model

Potential Source	Potential Receptors	Potential Pathways	Likelihood of Linkage	Consequence	Risk and Comments
Soils (PAH's, hydrocarbons, other chemicals from tarmac and parking use, possible ACM, and debris from demolished factory building)	Controlled Waters Groundwater	Leaching from soil Migration through bedrock	Unlikely  Unlikely	Medium  Medium	<p><b>Moderate/Low</b></p> <p>Development site is not in an SPZ. Some risk to groundwater and abstraction used for public water supply. The Groundwater vulnerability is high. Care should be taken during excavation work to minimise any risk of spill/release of chemicals/fuels during construction or mobilisation of any unforeseen contaminants. Excavation work is minimal and to no great depth, so risk is minimised. A 'Watching Brief' condition will address this. Risk from spill/release of chemicals/fuels during groundworks will be minimised by correct storage. Problems associated with ground gases are unlikely given the site setting, geology, and past historic use.</p>
Vapours and gases		Gas migration	Unlikely	Mild	
Soils (PAH's, hydrocarbons, other chemicals from tarmac and parking	Humans – current end user – commercial (vacant)	Dermal contact Direct ingestion Inhalation of particles/vapours	Unlikely Unlikely Unlikely	Medium Medium Medium	<p><b>Low</b></p> <p>The source-pathway-receptor linkage is not complete as the site is</p>

use, possible ACM, and debris from demolished factory building)		Indirect ingestion	Unlikely	Medium	covered by buildings or tarmac hardstanding. Tarmac surface in good condition. No evidence of any fuel/oil spill/leaks. No evidence that waste was left on site following demolition of the factory building. Problems associated with ground gases are unlikely given the site setting, geology, and past historic use.
Vapours and gases		Gas migration	Unlikely	Medium	
Soils (PAH's, hydrocarbons, other chemicals from tarmac and parking use, possible ACM, and debris from demolished factory building) Use of fuels, machinery, and chemicals during development	Humans – Future commercial end user	Dermal contact Direct ingestion Inhalation of particles/vapours Indirect ingestion Root uptake	Low likelihood Unlikely Unlikely	Medium Medium Medium	<b>Low</b> The source-pathway-receptor linkage is not complete as the site is covered by buildings or tarmac hardstanding. Tarmac surface in good condition. No evidence of any fuel/oil spill/leaks. No evidence that waste was left on site following demolition of the factory building. Problems associated with ground gases are unlikely given the site setting, geology, and past historic use.
Vapours and gases		Gas migration	Unlikely	Mild	
Soils (PAH's, hydrocarbons, other chemicals from tarmac and parking use, possible ACM, and debris from	Humans – ground and construction workers	Dermal contact Direct ingestion Inhalation of particles/vapours Indirect ingestion	Unlikely Low Likelihood Unlikely Unlikely	Medium Medium Severe Medium	<b>Low/Moderate</b> There is a potential risk to ground/construction workers associated during any excavation works.

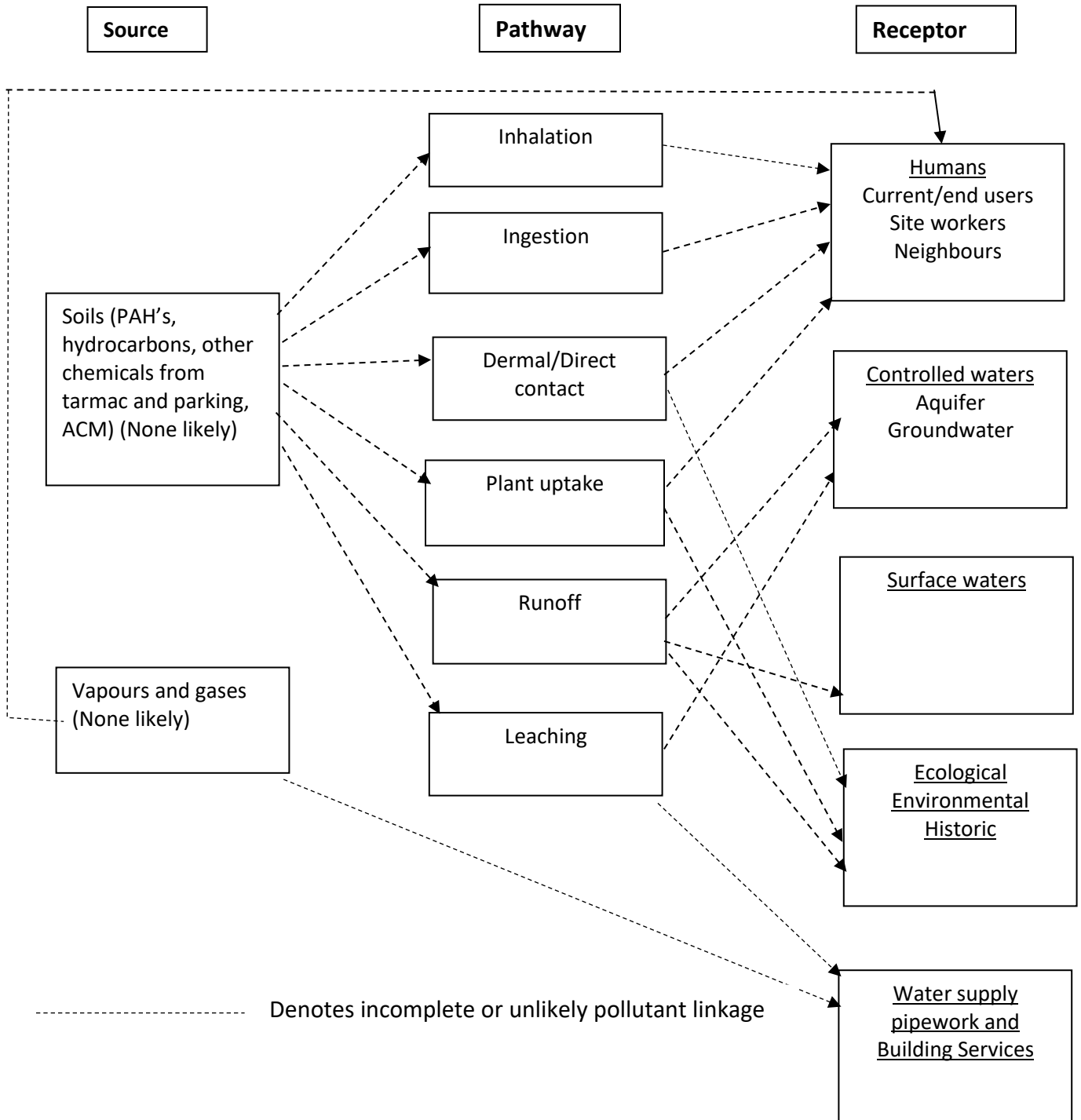
<p>demolished factory building)</p> <p>Use of fuels, machinery, and chemicals during development</p> <p>Vapours and gases</p>		Gas migration	Unlikely	Mild	<p>Risk minimised by the minimal amount of excavation work likely to take place.</p> <p>Use of appropriate PPE and suitable H &amp; S procedures/good site practice such as damping down to suppress dust should also minimise any risk.</p> <p>Good construction practice and careful storage of any fuel/lubricants etc used on site – store in bunded area/intact containers.</p> <p>Problems associated with ground gases are unlikely given the site setting, geology, and past historic use.</p>
<p>Soils (PAH's, hydrocarbons, other chemicals from tarmac and parking use, possible ACM, and debris from demolished factory building)</p> <p>Use of fuels, machinery, and chemicals during development</p> <p>Vapours and gases</p>	Third parties or neighbouring sites	Dust from excavations	Low likelihood	Medium	<p><b>Low</b></p> <p>There are residential properties surrounding the site.</p> <p>Amount of excavation works will be minimal. Using appropriately qualified personnel and damping down should reduce any risk to low likelihood.</p> <p>Good construction practice and careful storage of any fuel/lubricants etc used on site – store in bunded area/intact containers.</p> <p>Problems associated with ground gases are unlikely given the site setting, geology, and past historic use.</p>
<p>Vapours and gases</p>		Gas migration	Unlikely	Mild	<p>Problems associated with ground gases are unlikely given the site setting, geology, and past historic use.</p>

<p>Soils (PAH's, hydrocarbons, other chemicals from tarmac and parking use, possible ACM, and debris from demolished factory building) Use of fuels, machinery, and chemicals during development</p> <p>Use of fuels, machinery, and chemicals during development</p>	<p>Surface water/river</p>	<p>Direct run off</p>	<p>Unlikely</p>	<p>Medium</p>	<p><b>Low</b> This receptor is not present. There are no surface/below surface watercourses nearby.</p>
<p>Soils (PAH's, hydrocarbons, other chemicals from tarmac and parking use, possible ACM, and debris from demolished factory building) Use of fuels, machinery, and chemicals during development</p>	<p>Environmental &amp; ecological receptors</p>	<p>Direct run off Root uptake Leaching from soil Migration through bedrock</p>	<p>Unlikely</p>	<p>Medium</p>	<p><b>Low</b> There are no environmental receptors nearby. There are no sensitive ecological receptors nearby. Plants and vegetation on site and in surrounding gardens are healthy indicating that there are no contaminants of concern in existing soils. Minimal excavation. Good construction practice and careful storage of any fuel/lubricants etc used on site –</p>



					store in banded area/intact containers.
Soils (PAH's, hydrocarbons, other chemicals from tarmac and parking use, possible ACM, and debris from demolished factory building) Use of fuels, machinery, and chemicals during development	Historic receptors (buildings, features etc)	Direct run off Leaching from soil Migration through	Unlikely	Mild	<b>Low</b> This receptor is not present.
Soils (PAH's, hydrocarbons, other chemicals from tarmac and parking use, possible ACM, and debris from demolished factory building) Use of fuels, machinery, and chemicals during development  Use of fuels, machinery, and chemicals during development	Building services	Sulphate attack in concrete Organics permeating plastics Ingress/build-up of gas	Unlikely	Mild	<b>Very low</b> There is no evidence or history likely to give rise to any concerns

Conceptual Site model – diagrammatic version



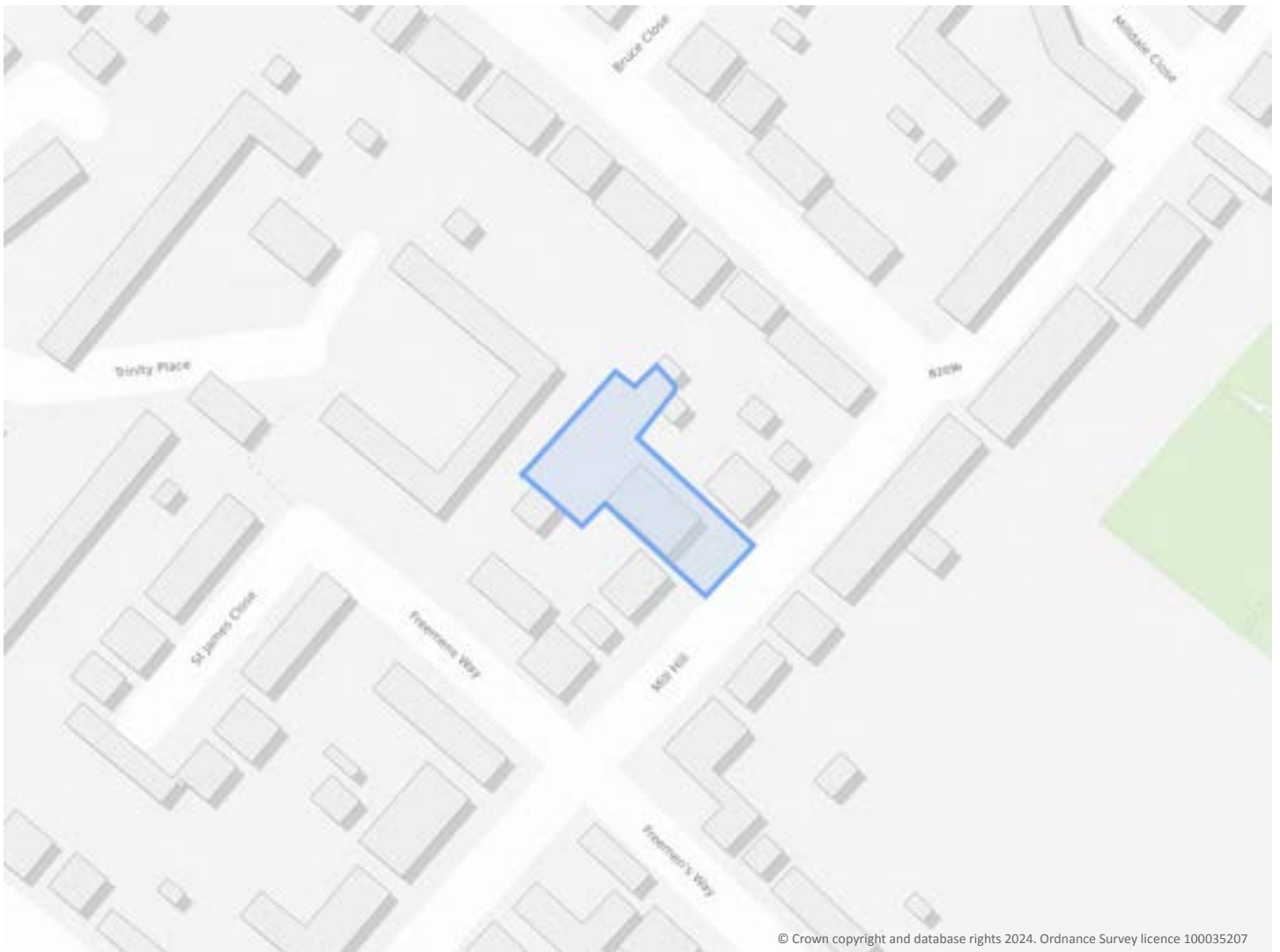
KINGDOM HALL, 12, MILL HILL, DEAL, CT14 9EN

## Order Details

**Date:** 28/03/2024  
**Your ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Our Ref:** GS-KKO-IWS-1VH-OH9

## Site Details

**Location:** 636624 151500  
**Area:** 0.12 ha  
**Authority:** [Dover District Council](#) ↗



**Summary of findings**

[p. 2 >](#)

**Aerial image**

[p. 9 >](#)

**OS MasterMap site plan**

[p.14 >](#)

[groundsure.com/insightuserguide](https://groundsure.com/insightuserguide) ↗

Contact us with any questions at:

[info@groundsure.com](mailto:info@groundsure.com) ↗

01273 257 755

## Summary of findings

Page	Section	<a href="#">Past land use &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">15 &gt;</a>	<a href="#">1.1 &gt;</a>	<a href="#">Historical industrial land uses &gt;</a>	1	1	22	26	-
<a href="#">17 &gt;</a>	<a href="#">1.2 &gt;</a>	<a href="#">Historical tanks &gt;</a>	0	0	0	1	-
<a href="#">18 &gt;</a>	<a href="#">1.3 &gt;</a>	<a href="#">Historical energy features &gt;</a>	0	0	3	6	-
18	1.4	Historical petrol stations	0	0	0	0	-
<a href="#">19 &gt;</a>	<a href="#">1.5 &gt;</a>	<a href="#">Historical garages &gt;</a>	0	0	1	2	-
19	1.6	Historical military land	0	0	0	0	-
Page	Section	<a href="#">Past land use - un-grouped &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">20 &gt;</a>	<a href="#">2.1 &gt;</a>	<a href="#">Historical industrial land uses &gt;</a>	1	2	29	45	-
<a href="#">23 &gt;</a>	<a href="#">2.2 &gt;</a>	<a href="#">Historical tanks &gt;</a>	0	0	0	1	-
<a href="#">24 &gt;</a>	<a href="#">2.3 &gt;</a>	<a href="#">Historical energy features &gt;</a>	0	0	7	12	-
25	2.4	Historical petrol stations	0	0	0	0	-
<a href="#">25 &gt;</a>	<a href="#">2.5 &gt;</a>	<a href="#">Historical garages &gt;</a>	0	0	2	3	-
Page	Section	<a href="#">Waste and landfill &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
26	3.1	Active or recent landfill	0	0	0	0	-
26	3.2	Historical landfill (BGS records)	0	0	0	0	-
27	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
27	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
27	3.5	Historical waste sites	0	0	0	0	-
27	3.6	Licensed waste sites	0	0	0	0	-
<a href="#">27 &gt;</a>	<a href="#">3.7 &gt;</a>	<a href="#">Waste exemptions &gt;</a>	0	0	3	22	-
Page	Section	<a href="#">Current industrial land use &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">31 &gt;</a>	<a href="#">4.1 &gt;</a>	<a href="#">Recent industrial land uses &gt;</a>	0	0	6	-	-
<a href="#">32 &gt;</a>	<a href="#">4.2 &gt;</a>	<a href="#">Current or recent petrol stations &gt;</a>	0	0	1	0	-
32	4.3	Electricity cables	0	0	0	0	-
32	4.4	Gas pipelines	0	0	0	0	-
33	4.5	Sites determined as Contaminated Land	0	0	0	0	-



33	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
33	4.7	Regulated explosive sites	0	0	0	0	-
33	4.8	Hazardous substance storage/usage	0	0	0	0	-
33	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
34	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
34	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
34	4.12	Radioactive Substance Authorisations	0	0	0	0	-
34	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
34	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
35	4.15	Pollutant release to public sewer	0	0	0	0	-
35	4.16	List 1 Dangerous Substances	0	0	0	0	-
35	4.17	List 2 Dangerous Substances	0	0	0	0	-
35	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
35	4.19	Pollution inventory substances	0	0	0	0	-
36	4.20	Pollution inventory waste transfers	0	0	0	0	-
36	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<b>Hydrogeology &gt;</b>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">37 &gt;</a>	<a href="#">5.1 &gt;</a>	<a href="#">Superficial aquifer &gt;</a>	Identified (within 500m)				
<a href="#">38 &gt;</a>	<a href="#">5.2 &gt;</a>	<a href="#">Bedrock aquifer &gt;</a>	Identified (within 500m)				
<a href="#">39 &gt;</a>	<a href="#">5.3 &gt;</a>	<a href="#">Groundwater vulnerability &gt;</a>	Identified (within 50m)				
<a href="#">40 &gt;</a>	<a href="#">5.4 &gt;</a>	<a href="#">Groundwater vulnerability- soluble rock risk &gt;</a>	Identified (within 0m)				
40	5.5	Groundwater vulnerability- local information	None (within 0m)				
<a href="#">41 &gt;</a>	<a href="#">5.6 &gt;</a>	<a href="#">Groundwater abstractions &gt;</a>	0	0	0	0	4
<a href="#">42 &gt;</a>	<a href="#">5.7 &gt;</a>	<a href="#">Surface water abstractions &gt;</a>	0	0	0	0	1
<a href="#">43 &gt;</a>	<a href="#">5.8 &gt;</a>	<a href="#">Potable abstractions &gt;</a>	0	0	0	0	1
<a href="#">43 &gt;</a>	<a href="#">5.9 &gt;</a>	<a href="#">Source Protection Zones &gt;</a>	0	1	1	1	-
44	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<b>Hydrology &gt;</b>	On site	0-50m	50-250m	250-500m	500-2000m
45	6.1	Water Network (OS MasterMap)	0	0	0	-	-



45	6.2	Surface water features	0	0	0	-	-
<a href="#">46</a> >	<a href="#">6.3</a> >	<a href="#">WFD Surface water body catchments</a> >	1	-	-	-	-
<a href="#">46</a> >	<a href="#">6.4</a> >	<a href="#">WFD Surface water bodies</a> >	0	0	0	-	-
<a href="#">47</a> >	<a href="#">6.5</a> >	<a href="#">WFD Groundwater bodies</a> >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
48	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
48	7.2	Historical Flood Events	0	0	0	-	-
48	7.3	Flood Defences	0	0	0	-	-
49	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
49	7.5	Flood Storage Areas	0	0	0	-	-
50	7.6	Flood Zone 2	None (within 50m)				
50	7.7	Flood Zone 3	None (within 50m)				
Page	Section	<a href="#">Surface water flooding</a> >					
<a href="#">51</a> >	<a href="#">8.1</a> >	<a href="#">Surface water flooding</a> >	1 in 30 year, 0.1m - 0.3m (within 50m)				
Page	Section	<a href="#">Groundwater flooding</a> >					
<a href="#">53</a> >	<a href="#">9.1</a> >	<a href="#">Groundwater flooding</a> >	High (within 50m)				
Page	Section	<a href="#">Environmental designations</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">54</a> >	<a href="#">10.1</a> >	<a href="#">Sites of Special Scientific Interest (SSSI)</a> >	0	0	0	0	2
<a href="#">55</a> >	<a href="#">10.2</a> >	<a href="#">Conserved wetland sites (Ramsar sites)</a> >	0	0	0	0	2
56	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
56	10.4	Special Protection Areas (SPA)	0	0	0	0	0
56	10.5	National Nature Reserves (NNR)	0	0	0	0	0
56	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
56	10.7	Designated Ancient Woodland	0	0	0	0	0
57	10.8	Biosphere Reserves	0	0	0	0	0
57	10.9	Forest Parks	0	0	0	0	0
57	10.10	Marine Conservation Zones	0	0	0	0	0
57	10.11	Green Belt	0	0	0	0	0
57	10.12	Proposed Ramsar sites	0	0	0	0	0



58	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
58	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
58	10.15	Nitrate Sensitive Areas	0	0	0	0	0
<a href="#">58</a> >	<a href="#">10.16</a> >	<a href="#">Nitrate Vulnerable Zones</a> >	0	0	0	0	2
<a href="#">60</a> >	<a href="#">10.17</a> >	<a href="#">SSSI Impact Risk Zones</a> >	1	-	-	-	-
<a href="#">61</a> >	<a href="#">10.18</a> >	<a href="#">SSSI Units</a> >	0	0	0	0	2
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
63	11.1	World Heritage Sites	0	0	0	-	-
63	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
63	11.3	National Parks	0	0	0	-	-
63	11.4	Listed Buildings	0	0	0	-	-
64	11.5	Conservation Areas	0	0	0	-	-
64	11.6	Scheduled Ancient Monuments	0	0	0	-	-
64	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	<a href="#">Agricultural designations</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">65</a> >	<a href="#">12.1</a> >	<a href="#">Agricultural Land Classification</a> >	Urban (within 250m)				
66	12.2	Open Access Land	0	0	0	-	-
66	12.3	Tree Felling Licences	0	0	0	-	-
66	12.4	Environmental Stewardship Schemes	0	0	0	-	-
66	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
67	13.1	Priority Habitat Inventory	0	0	0	-	-
67	13.2	Habitat Networks	0	0	0	-	-
67	13.3	Open Mosaic Habitat	0	0	0	-	-
67	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	<a href="#">Geology 1:10,000 scale</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">68</a> >	<a href="#">14.1</a> >	<a href="#">10k Availability</a> >	Identified (within 500m)				
69	14.2	Artificial and made ground (10k)	0	0	0	0	-
70	14.3	Superficial geology (10k)	0	0	0	0	-

70	14.4	Landslip (10k)	0	0	0	0	-
71	14.5	Bedrock geology (10k)	0	0	0	0	-
71	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	<a href="#">Geology 1:50,000 scale &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">72 &gt;</a>	<a href="#">15.1 &gt;</a>	<a href="#">50k Availability &gt;</a>	Identified (within 500m)				
73	15.2	Artificial and made ground (50k)	0	0	0	0	-
73	15.3	Artificial ground permeability (50k)	0	0	-	-	-
<a href="#">74 &gt;</a>	<a href="#">15.4 &gt;</a>	<a href="#">Superficial geology (50k) &gt;</a>	1	0	0	0	-
<a href="#">75 &gt;</a>	<a href="#">15.5 &gt;</a>	<a href="#">Superficial permeability (50k) &gt;</a>	Identified (within 50m)				
75	15.6	Landslip (50k)	0	0	0	0	-
75	15.7	Landslip permeability (50k)	None (within 50m)				
<a href="#">76 &gt;</a>	<a href="#">15.8 &gt;</a>	<a href="#">Bedrock geology (50k) &gt;</a>	1	0	0	1	-
<a href="#">77 &gt;</a>	<a href="#">15.9 &gt;</a>	<a href="#">Bedrock permeability (50k) &gt;</a>	Identified (within 50m)				
77	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
78	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	<a href="#">Natural ground subsidence &gt;</a>					
<a href="#">79 &gt;</a>	<a href="#">17.1 &gt;</a>	<a href="#">Shrink swell clays &gt;</a>	Low (within 50m)				
<a href="#">80 &gt;</a>	<a href="#">17.2 &gt;</a>	<a href="#">Running sands &gt;</a>	Negligible (within 50m)				
<a href="#">81 &gt;</a>	<a href="#">17.3 &gt;</a>	<a href="#">Compressible deposits &gt;</a>	Negligible (within 50m)				
<a href="#">82 &gt;</a>	<a href="#">17.4 &gt;</a>	<a href="#">Collapsible deposits &gt;</a>	Moderate (within 50m)				
<a href="#">83 &gt;</a>	<a href="#">17.5 &gt;</a>	<a href="#">Landslides &gt;</a>	Very low (within 50m)				
<a href="#">84 &gt;</a>	<a href="#">17.6 &gt;</a>	<a href="#">Ground dissolution of soluble rocks &gt;</a>	Low (within 50m)				
Page	Section	<a href="#">Mining and ground workings &gt;</a>	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">86 &gt;</a>	<a href="#">18.1 &gt;</a>	<a href="#">BritPits &gt;</a>	0	0	1	1	-
<a href="#">87 &gt;</a>	<a href="#">18.2 &gt;</a>	<a href="#">Surface ground workings &gt;</a>	0	0	30	-	-
<a href="#">88 &gt;</a>	<a href="#">18.3 &gt;</a>	<a href="#">Underground workings &gt;</a>	0	0	0	0	4
89	18.4	Underground mining extents	0	0	0	0	-
89	18.5	Historical Mineral Planning Areas	0	0	0	0	-

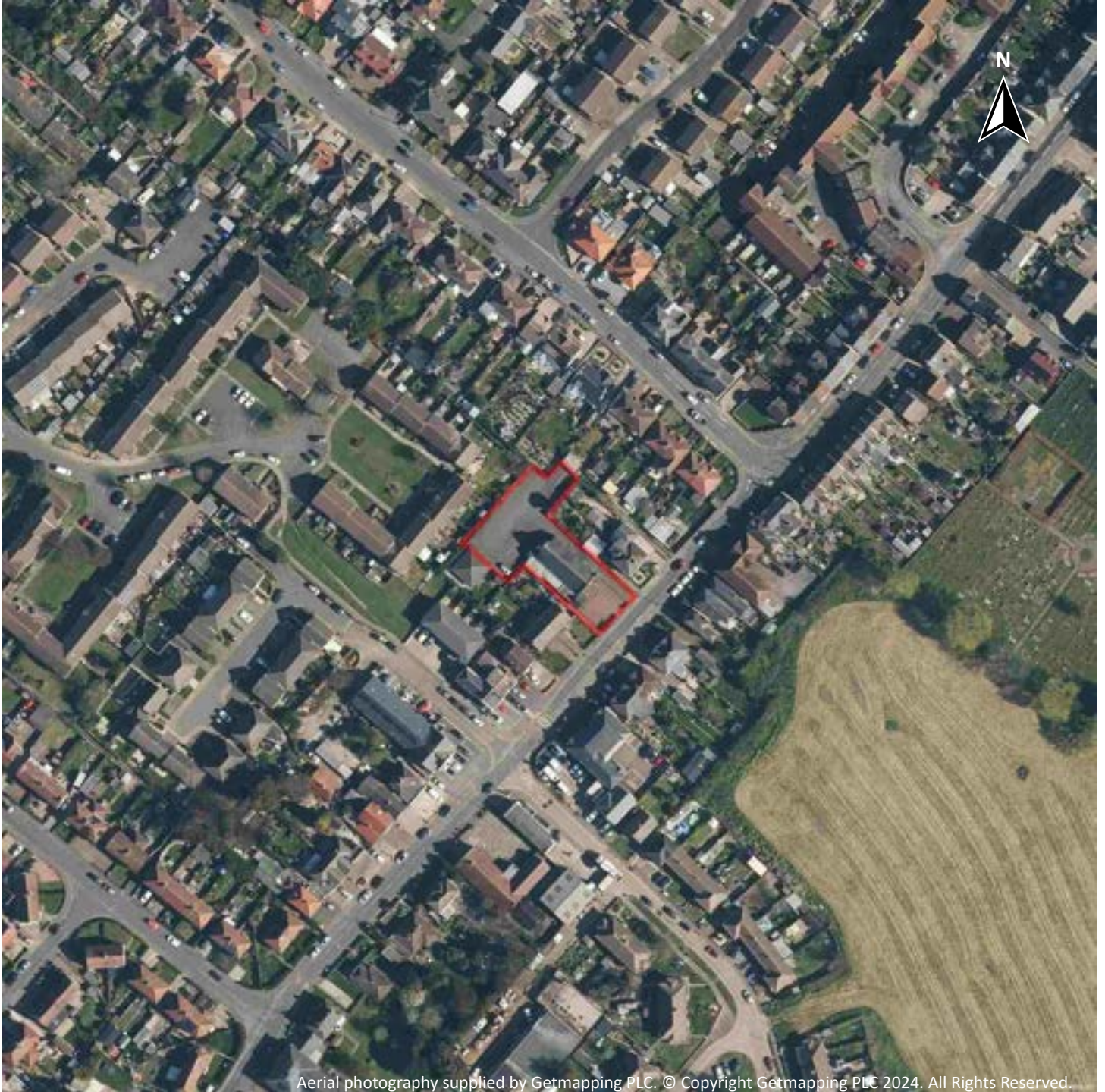




<a href="#">89</a> >	<a href="#">18.6</a> >	<a href="#">Non-coal mining</a> >	1	0	0	0	0
90	18.7	JPB mining areas	None (within 0m)				
90	18.8	The Coal Authority non-coal mining	0	0	0	0	-
90	18.9	Researched mining	0	0	0	0	-
90	18.10	Mining record office plans	0	0	0	0	-
91	18.11	BGS mine plans	0	0	0	0	-
<a href="#">91</a> >	<a href="#">18.12</a> >	<a href="#">Coal mining</a> >	Identified (within 0m)				
91	18.13	Brine areas	None (within 0m)				
91	18.14	Gypsum areas	None (within 0m)				
91	18.15	Tin mining	None (within 0m)				
92	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
93	19.1	Natural cavities	0	0	0	0	-
93	19.2	Mining cavities	0	0	0	0	0
93	19.3	Reported recent incidents	0	0	0	0	-
93	19.4	Historical incidents	0	0	0	0	-
94	19.5	National karst database	0	0	0	0	-
Page	Section	<a href="#">Radon</a> >					
<a href="#">95</a> >	<a href="#">20.1</a> >	<a href="#">Radon</a> >	Between 3% and 5% (within 0m)				
Page	Section	<a href="#">Soil chemistry</a> >	On site	0-50m	50-250m	250-500m	500-2000m
<a href="#">97</a> >	<a href="#">21.1</a> >	<a href="#">BGS Estimated Background Soil Chemistry</a> >	2	0	-	-	-
97	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
97	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
98	22.1	Underground railways (London)	0	0	0	-	-
98	22.2	Underground railways (Non-London)	0	0	0	-	-
98	22.3	Railway tunnels	0	0	0	-	-
98	22.4	Historical railway and tunnel features	0	0	0	-	-
98	22.5	Royal Mail tunnels	0	0	0	-	-

99	22.6	Historical railways	0	0	0	-	-
99	22.7	Railways	0	0	0	-	-
99	22.8	Crossrail 1	0	0	0	0	-
99	22.9	Crossrail 2	0	0	0	0	-
99	22.10	HS2	0	0	0	0	-

## Recent aerial photograph

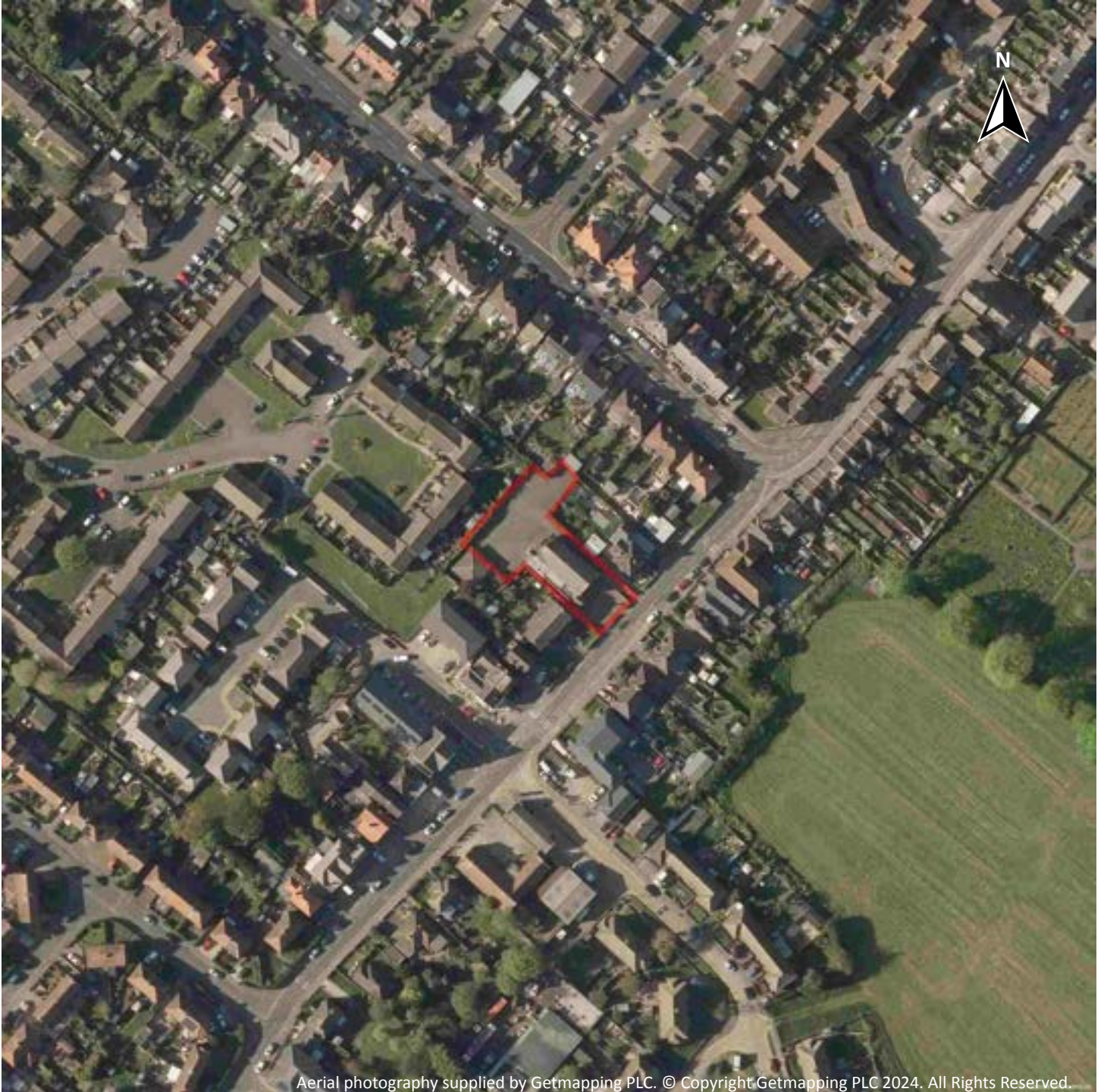


Capture Date: 23/04/2021

Site Area: 0.12ha



## Recent site history - 2018 aerial photograph

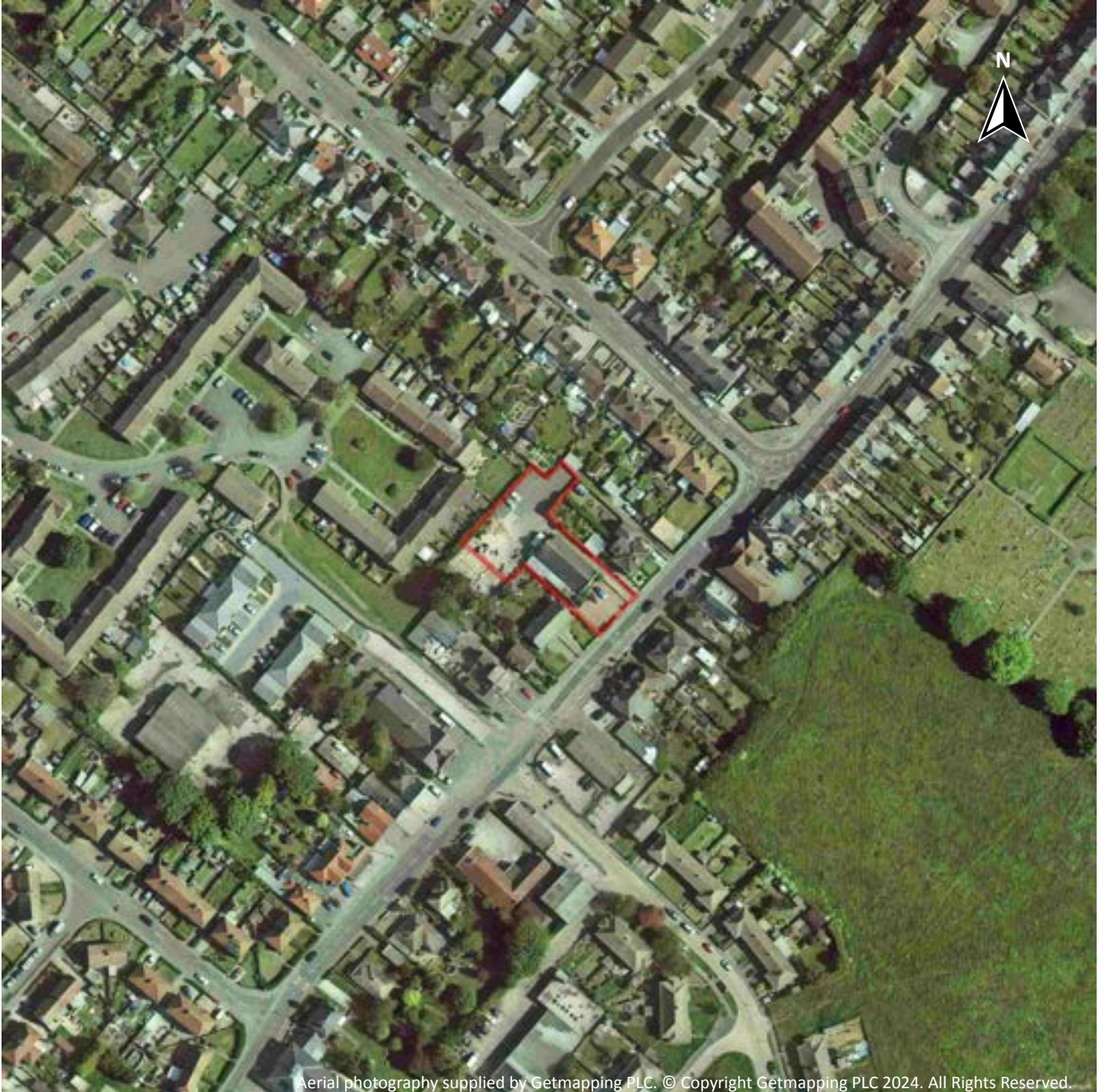


Capture Date: 05/05/2018

Site Area: 0.12ha



## Recent site history - 2012 aerial photograph

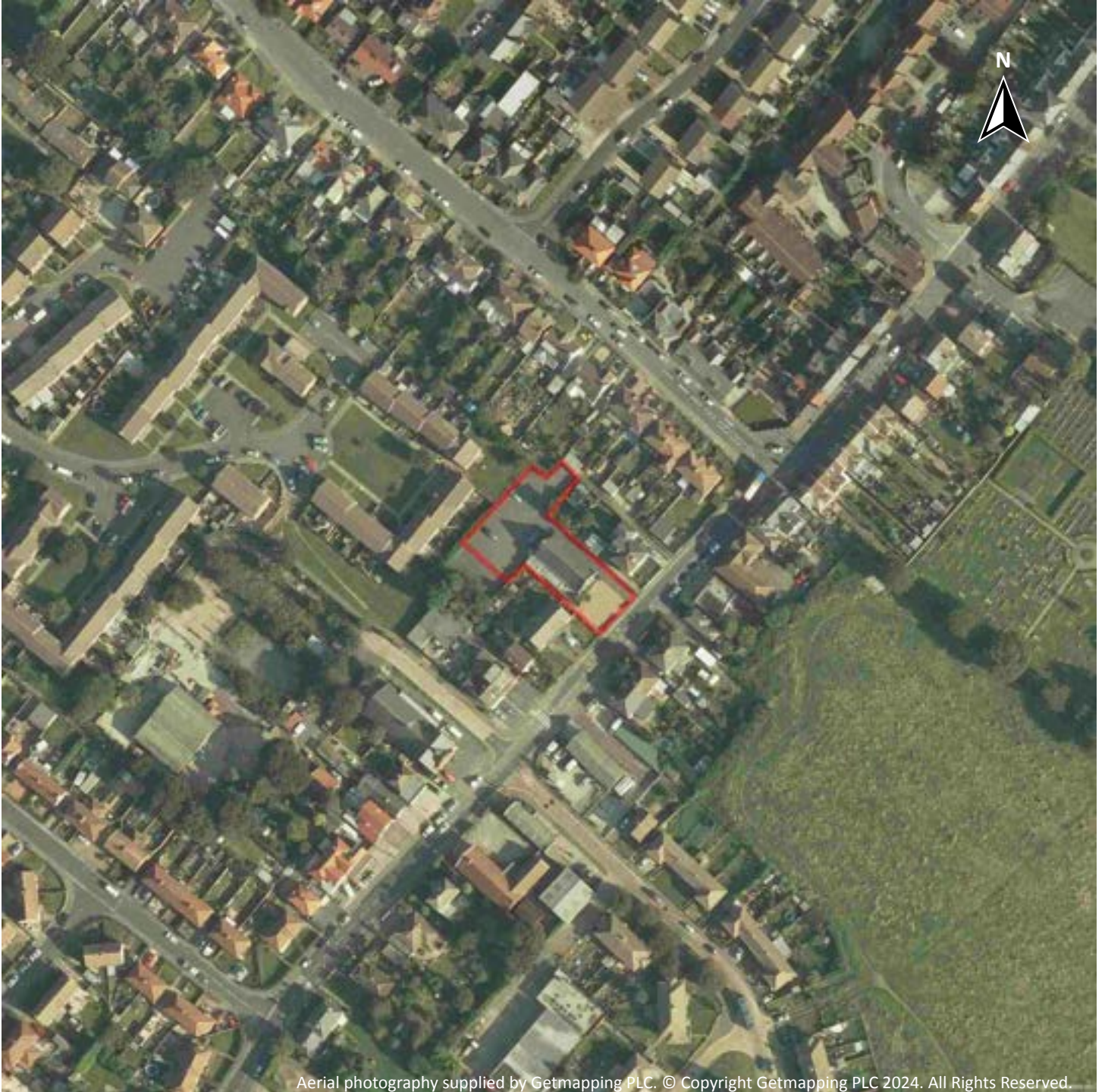


Capture Date: 27/05/2012

Site Area: 0.12ha



## Recent site history - 2008 aerial photograph



Capture Date: 20/09/2008

Site Area: 0.12ha



## Recent site history - 1999 aerial photograph



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Capture Date: 29/08/1999

Site Area: 0.12ha



## OS MasterMap site plan

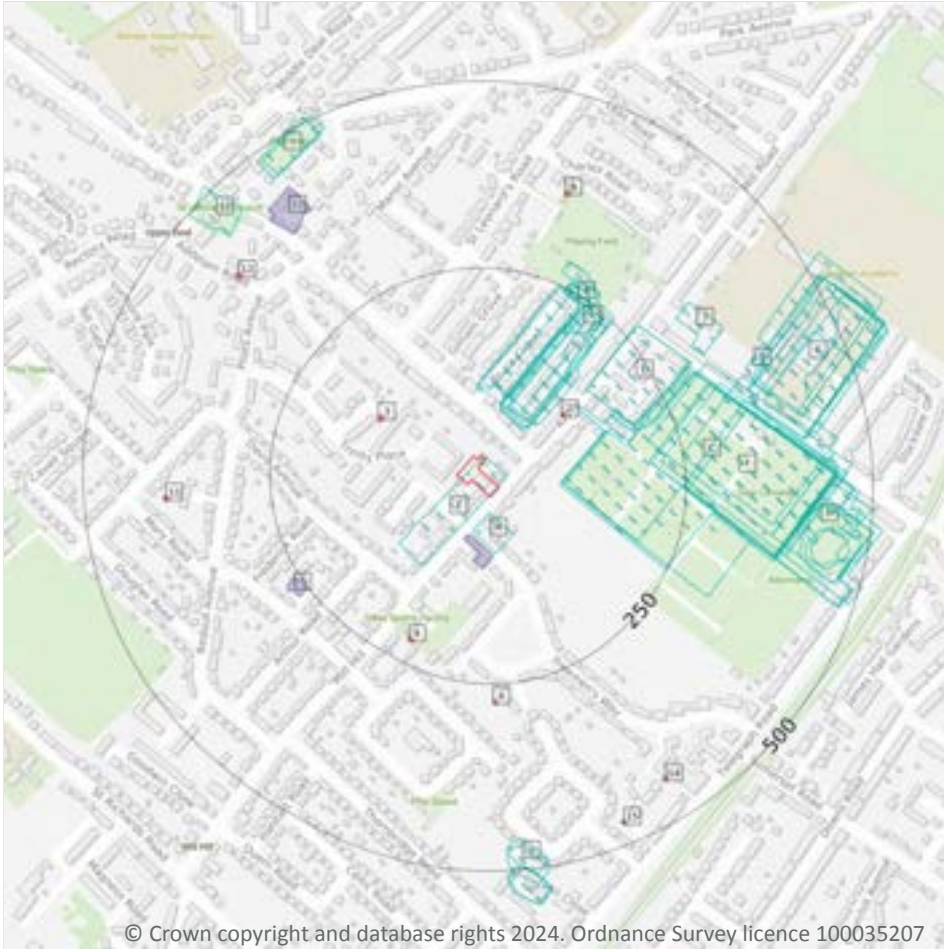


Site Area: 0.12ha









# 1 Past land use



**— Site Outline**

**Search buffers in metres (m)**

-  Historical industrial land uses
-  Historical tanks
-  Historical energy features
-  Historical garages

## 1.1 Historical industrial land uses

**Records within 500m**

**50**

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
1	On site	Unspecified Factory	1960 - 1973	2363624

ID	Location	Land use	Dates present	Group ID
A	22m S	Ambulance Station	1960	2348655
B	62m NE	Unspecified Ground Workings	1905	2358099
B	64m NE	Unspecified Pits	1907	2354889
B	68m NE	Unspecified Pit	1938	2358225
B	72m NE	Unspecified Pit	1872	2361336
B	76m NE	Unspecified Pits	1938	2353188
C	82m E	Cemetery	1960 - 1973	2355397
B	84m N	Nursery	1938	2348521
B	84m NE	Unspecified Pits	1908 - 1938	2358450
C	84m E	Cemetery	1938	2363856
B	86m N	Nurseries	1960	2350834
C	87m E	Cemetery	1985	2364281
D	165m NE	Unspecified Pit	1872	2346121
D	165m NE	Brick Field	1872	2349368
D	178m NE	Unspecified Ground Workings	1905	2362598
E	199m NE	Unspecified Pit	1960	2365208
F	204m E	Cemetery	1907	2352959
F	207m E	Cemetery	1905	2355296
F	209m E	Cemetery	1908 - 1938	2362858
F	219m E	Cemetery	1938	2362678
F	247m E	Cemetery	1872	2354744
F	248m E	Cemetery	1889	2364945
E	250m NE	Unspecified Pit	1872	2346120
F	251m E	Cemetery	1897	2354623
7	314m NE	Unspecified Pit	1872	2346119
G	356m E	Bricks Works	1907	2353861
G	358m E	Brick Works	1905	2362943
G	360m E	Unspecified Pit	1905 - 1907	2355951



ID	Location	Land use	Dates present	Group ID
G	366m E	Brick Works	1908	2356006
G	369m E	Unspecified Ground Workings	1908 - 1938	2352379
H	370m E	Brick Works	1908 - 1938	2362277
G	375m E	Unspecified Pit	1938	2354426
9	377m E	Unspecified Tank	1872	2348152
H	379m E	Bricks Works	1907	2354259
H	381m E	Brick Works	1905	2358326
G	390m E	Brick Works	1897	2354036
H	394m E	Brick Works	1938	2357381
H	402m E	Unspecified Pit	1905 - 1938	2354307
H	404m E	Unspecified Ground Workings	1938	2347146
H	417m E	Unspecified Pit	1960 - 1985	2361115
H	425m E	Unspecified Pit	1938	2364190
G	430m E	Unspecified Pit	1960	2355600
13	440m NW	Grave Yard	1872	2346645
I	457m NW	Grave Yard	1960	2363786
I	458m NW	Grave Yard	1973 - 1985	2360078
J	459m S	Quarry	1938	2357073
J	468m S	Quarry	1908	2363007
J	497m S	Unspecified Quarry	1907	2346791
J	497m S	Quarry	1905	2363816

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.2 Historical tanks

### Records within 500m

1

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.



Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
G	498m NE	Unspecified Tank	1906	422714

*This data is sourced from Ordnance Survey / Groundsure.*

### 1.3 Historical energy features

<b>Records within 500m</b>	<b>9</b>
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Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
2	118m NE	Electricity Substation	1972 - 1991	301436
3	123m NW	Electricity Substation	1981 - 1988	302905
4	215m SW	Electricity Substation	1973	300663
6	271m S	Electricity Substation	1973	300643
8	365m N	Electricity Substation	1972 - 1991	300872
11	386m W	Electricity Substation	1976 - 1980	302376
12	392m NW	Electricity Substation	1972 - 1988	301433
14	440m SE	Electricity Substation	1973	300645
15	467m SE	Electricity Substation	1973	300644

*This data is sourced from Ordnance Survey / Groundsure.*

### 1.4 Historical petrol stations

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.



This data is sourced from Ordnance Survey / Groundsure.

## 1.5 Historical garages

Records within 500m

3

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
A	58m S	Garage	1963 - 1973	89532
5	250m SW	Maintenance Depot	1976	88702
10	383m NW	Garages	1957	89425

This data is sourced from Ordnance Survey / Groundsure.

## 1.6 Historical military land

Records within 500m

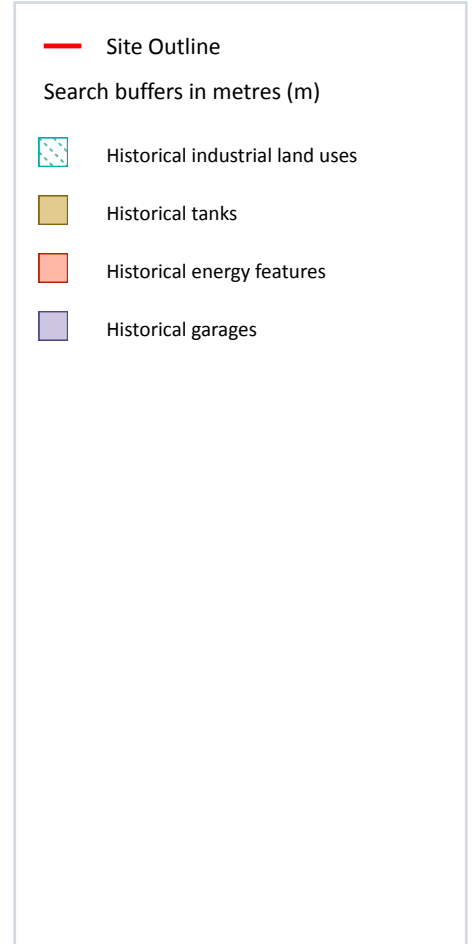
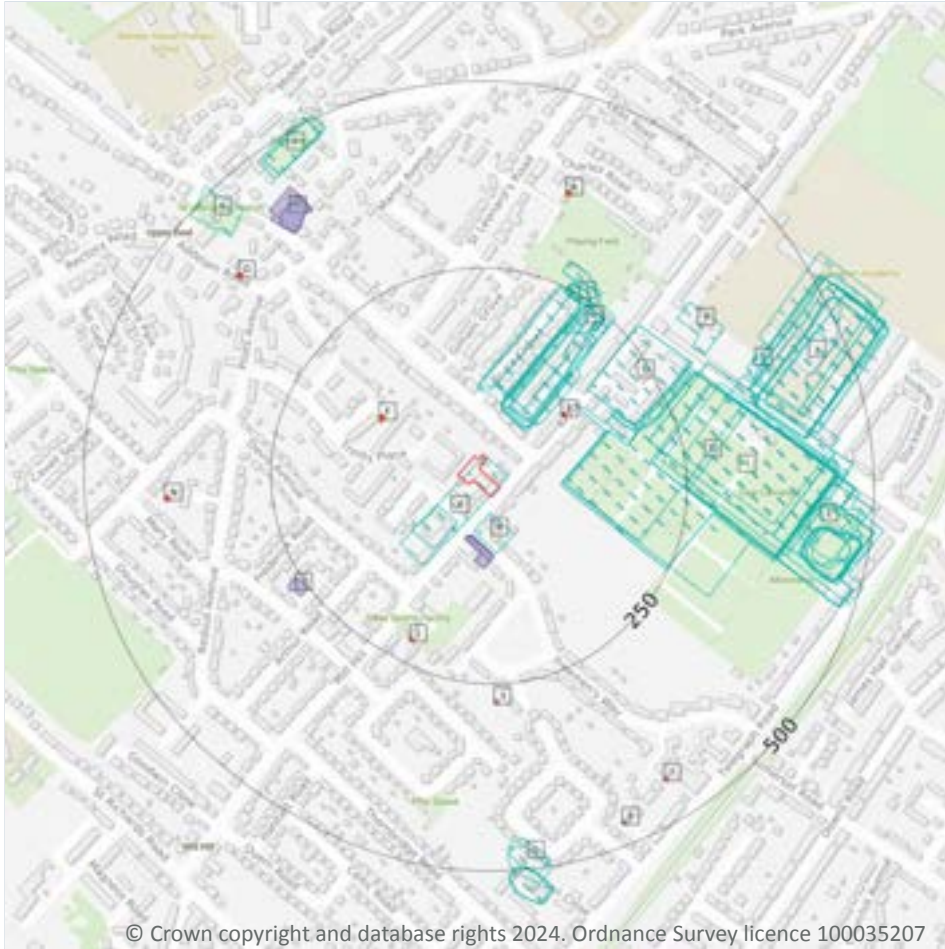
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



## 2 Past land use - un-grouped



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### 2.1 Historical industrial land uses

Records within 500m

77

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 20](#) >

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Factory	1973	2363624
B	22m S	Ambulance Station	1960	2348655
A	49m SW	Unspecified Factory	1960	2363624

ID	Location	Land Use	Date	Group ID
C	62m NE	Unspecified Ground Workings	1905	2358099
C	62m NE	Unspecified Ground Workings	1905	2358099
C	64m NE	Unspecified Pits	1907	2354889
C	64m NE	Unspecified Pits	1907	2354889
C	68m NE	Unspecified Pit	1938	2358225
C	72m NE	Unspecified Pit	1872	2361336
C	76m NE	Unspecified Pits	1938	2353188
D	82m E	Cemetery	1973	2355397
D	82m E	Cemetery	1960	2355397
C	84m N	Nursery	1938	2348521
C	84m NE	Unspecified Pits	1908	2358450
C	84m NE	Unspecified Pits	1938	2358450
D	84m E	Cemetery	1938	2363856
C	86m N	Nurseries	1960	2350834
D	87m E	Cemetery	1985	2364281
G	165m NE	Brick Field	1872	2349368
G	165m NE	Unspecified Pit	1872	2346121
G	178m NE	Unspecified Ground Workings	1905	2362598
G	178m NE	Unspecified Ground Workings	1905	2362598
H	199m NE	Unspecified Pit	1960	2365208
I	204m E	Cemetery	1907	2352959
I	207m E	Cemetery	1905	2355296
I	207m E	Cemetery	1905	2355296
I	209m E	Cemetery	1908	2362858
I	209m E	Cemetery	1938	2362858
I	219m E	Cemetery	1938	2362678
I	247m E	Cemetery	1872	2354744
I	248m E	Cemetery	1889	2364945



ID	Location	Land Use	Date	Group ID
H	250m NE	Unspecified Pit	1872	2346120
I	251m E	Cemetery	1897	2354623
4	314m NE	Unspecified Pit	1872	2346119
J	356m E	Bricks Works	1907	2353861
J	356m E	Bricks Works	1907	2353861
J	358m E	Brick Works	1905	2362943
J	358m E	Brick Works	1905	2362943
J	360m E	Unspecified Pit	1907	2355951
J	360m E	Unspecified Pit	1907	2355951
J	362m E	Unspecified Pit	1905	2355951
J	362m E	Unspecified Pit	1905	2355951
J	366m E	Brick Works	1908	2356006
J	369m E	Unspecified Ground Workings	1908	2352379
J	369m E	Unspecified Ground Workings	1938	2352379
L	370m E	Brick Works	1908	2362277
L	370m E	Brick Works	1938	2362277
J	375m E	Unspecified Pit	1938	2354426
J	375m E	Unspecified Pit	1938	2354426
5	377m E	Unspecified Tank	1872	2348152
L	379m E	Bricks Works	1907	2354259
L	379m E	Bricks Works	1907	2354259
L	381m E	Brick Works	1905	2358326
L	381m E	Brick Works	1905	2358326
J	390m E	Brick Works	1897	2354036
L	394m E	Brick Works	1938	2357381
L	402m E	Unspecified Pit	1908	2354307
L	404m E	Unspecified Ground Workings	1938	2347146
L	409m E	Unspecified Pit	1907	2354307





ID	Location	Land Use	Date	Group ID
L	409m E	Unspecified Pit	1907	2354307
L	411m E	Unspecified Pit	1905	2354307
L	411m E	Unspecified Pit	1905	2354307
L	412m E	Unspecified Pit	1938	2354307
L	417m E	Unspecified Pit	1973	2361115
L	417m E	Unspecified Pit	1985	2361115
L	417m E	Unspecified Pit	1960	2361115
L	425m E	Unspecified Pit	1938	2364190
J	430m E	Unspecified Pit	1960	2355600
6	440m NW	Grave Yard	1872	2346645
P	457m NW	Grave Yard	1960	2363786
P	458m NW	Grave Yard	1973	2360078
P	458m NW	Grave Yard	1985	2360078
Q	459m S	Quarry	1938	2357073
Q	468m S	Quarry	1908	2363007
Q	497m S	Unspecified Quarry	1907	2346791
Q	497m S	Quarry	1905	2363816
Q	497m S	Quarry	1905	2363816

This data is sourced from Ordnance Survey / Groundsure.

## 2.2 Historical tanks

### Records within 500m

1

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 20 >](#)

ID	Location	Land Use	Date	Group ID
J	498m NE	Unspecified Tank	1906	422714

This data is sourced from Ordnance Survey / Groundsure.



## 2.3 Historical energy features

Records within 500m

19

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 20 >](#)

ID	Location	Land Use	Date	Group ID
E	118m NE	Electricity Substation	1979	301436
E	118m NE	Electricity Substation	1991	301436
E	118m NE	Electricity Substation	1972	301436
F	123m NW	Electricity Substation	1986	302905
F	124m NW	Electricity Substation	1981	302905
F	124m NW	Electricity Substation	1988	302905
1	215m SW	Electricity Substation	1973	300663
3	271m S	Electricity Substation	1973	300643
K	365m N	Electricity Substation	1979	300872
K	365m N	Electricity Substation	1991	300872
K	365m N	Electricity Substation	1972	300872
N	386m W	Electricity Substation	1980	302376
N	387m W	Electricity Substation	1976	302376
O	392m NW	Electricity Substation	1981	301433
O	392m NW	Electricity Substation	1988	301433
O	393m NW	Electricity Substation	1986	301433
O	393m NW	Electricity Substation	1972	301433
7	440m SE	Electricity Substation	1973	300645
8	467m SE	Electricity Substation	1973	300644

*This data is sourced from Ordnance Survey / Groundsure.*



## 2.4 Historical petrol stations

**Records within 500m****0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.5 Historical garages

**Records within 500m****5**

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 20 >](#)

ID	Location	Land Use	Date	Group ID
B	58m S	Garage	1963	89532
B	59m S	Garage	1973	89532
2	250m SW	Maintenance Depot	1976	88702
M	383m NW	Garages	1957	89425
M	383m NW	Garages	1957	89425

*This data is sourced from Ordnance Survey / Groundsure.*



## 3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Waste exemptions

### 3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

*This data is sourced from the British Geological Survey.*

### 3.3 Historical landfill (LA/mapping records)

Records within 500m

0

Landfill sites identified from Local Authority records and high detail historical mapping.

*This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.*

### 3.4 Historical landfill (EA/NRW records)

Records within 500m

0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 3.5 Historical waste sites

Records within 500m

0

Waste site records derived from Local Authority planning records and high detail historical mapping.

*This data is sourced from Ordnance Survey/Groundsure and Local Authority records.*

### 3.6 Licensed waste sites

Records within 500m

0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 3.7 Waste exemptions

Records within 500m

25

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on [page 26 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
A	134m S	-	WEX360375	Storing waste exemption	Not on a farm	Storage of waste in a secure place



ID	Location	Site	Reference	Category	Sub-Category	Description
A	134m S	-	WEX234725	Storing waste exemption	Not on a farm	Storage of waste in a secure place
1	178m SE	-	WEX343644	Using waste exemption	Not on a farm	Use of waste in construction
B	324m NE	Hamilton Road Cemetery Hamilton Road Deal Kent CT14 9BP	EPR/XF0100H N/A001	Disposing of waste exemption	Non-Agricultural Waste Only	Burning waste in the open
B	325m NE	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX175507	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	325m NE	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX175507	Using waste exemption	Not on a farm	Spreading of plant matter to confer benefit
B	325m NE	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX175507	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	325m NE	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX175507	Using waste exemption	Not on a farm	Use of waste for a specified purpose
B	325m NE	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX175507	Using waste exemption	Not on a farm	Use of mulch
B	325m NE	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX175507	Treating waste exemption	Not on a farm	Screening and blending of waste
B	325m NE	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX175507	Treating waste exemption	Not on a farm	Sorting mixed waste
C	354m E	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX307667	Storing waste exemption	Not on a farm	Storage of waste in secure containers



ID	Location	Site	Reference	Category	Sub-Category	Description
C	354m E	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX307667	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
C	354m E	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX307667	Using waste exemption	Not on a farm	Spreading of plant matter to confer benefit
C	354m E	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX307667	Using waste exemption	Not on a farm	Use of waste for a specified purpose
C	354m E	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX307667	Treating waste exemption	Not on a farm	Sorting mixed waste
C	354m E	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX307667	Treating waste exemption	Not on a farm	Screening and blending of waste
C	354m E	Dover District Council, Hamilton Road Cemetery, Hamilton Road, Seal, CT14 9BP	WEX307667	Using waste exemption	Not on a farm	Use of mulch
2	433m E	Castle Community School, Hamilton Road, Deal, CT14 9BW	WEX126443	Using waste exemption	Not on a farm	Use of waste in construction
D	495m E	Deal Cemetery, Hamilton Road, Deal, CT14 9BH	WEX017996	Treating waste exemption	Not on a farm	Aerobic composting and associated prior treatment
D	495m E	Deal Cemetery, Hamilton Road, Deal, CT14 9BH	WEX017996	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
D	495m E	Deal Cemetery, Hamilton Road, Deal, CT14 9BH	WEX017996	Using waste exemption	Not on a farm	Spreading waste on non-agricultural land to confer benefit
D	495m E	Deal Cemetery, Hamilton Road, Deal, CT14 9BH	WEX017996	Using waste exemption	Not on a farm	Spreading of plant matter to confer benefit
D	495m E	Deal Cemetery, Hamilton Road, Deal, CT14 9BH	WEX017996	Disposing of waste exemption	Not on a farm	Burning waste in the open



ID	Location	Site	Reference	Category	Sub-Category	Description
D	495m E	Deal Cemetery, Hamilton Road, Deal, CT14 9BH	WEX017996	Using waste exemption	Not on a farm	Use of mulch

*This data is sourced from the Environment Agency and Natural Resources Wales.*





## 4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- ▲ Current or recent petrol stations

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### 4.1 Recent industrial land uses

**Records within 250m** **6**

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 31](#) >

ID	Location	Company	Address	Activity	Category
A	67m S	Dunkley's of Deal Ltd	67, Mill Hill, Deal, Kent, CT14 9EW	Vehicle Repair, Testing and Servicing	Repair and Servicing
1	73m N	S Gay	16, Manor Road, Deal, Kent, CT14 9BT	Construction Completion Services	Construction Services

ID	Location	Company	Address	Activity	Category
B	109m E	Jason Harrison Carpet Fitting Service	249, Mill Road, Deal, Kent, CT14 9BQ	Construction Completion Services	Construction Services
B	123m NE	Electricity Sub Station	Kent, CT14	Electrical Features	Infrastructure and Facilities
2	126m NW	Electricity Sub Station	Kent, CT14	Electrical Features	Infrastructure and Facilities
3	218m S	Electricity Sub Station	Kent, CT14	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

## 4.2 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 31 >](#)

ID	Location	Company	Address	LPG	Status
A	60m S	PACE	67, Mill Hill, Freemans Way, Deal, Kent, CT14 9EW	No	Closed

This data is sourced from Experian.

## 4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

## 4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.



## 4.5 Sites determined as Contaminated Land

Records within 500m	0
---------------------	---

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

*This data is sourced from Local Authority records.*

## 4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0
---------------------	---

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

*This data is sourced from the Health and Safety Executive.*

## 4.7 Regulated explosive sites

Records within 500m	0
---------------------	---

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

*This data is sourced from the Health and Safety Executive.*

## 4.8 Hazardous substance storage/usage

Records within 500m	0
---------------------	---

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

*This data is sourced from Local Authority records.*

## 4.9 Historical licensed industrial activities (IPC)

Records within 500m	0
---------------------	---

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

*This data is sourced from the Environment Agency and Natural Resources Wales.*



#### 4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

*This data is sourced from Local Authority records.*

#### 4.12 Radioactive Substance Authorisations

Records within 500m

0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.13 Licensed Discharges to controlled waters

Records within 500m

0

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

*This data is sourced from the Environment Agency and Natural Resources Wales.*



#### 4.15 Pollutant release to public sewer

Records within 500m	0
---------------------	---

Discharges of Special Category Effluents to the public sewer.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.16 List 1 Dangerous Substances

Records within 500m	0
---------------------	---

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.17 List 2 Dangerous Substances

Records within 500m	0
---------------------	---

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.18 Pollution Incidents (EA/NRW)

Records within 500m	0
---------------------	---

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

#### 4.19 Pollution inventory substances

Records within 500m	0
---------------------	---

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

*This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.*

## 4.20 Pollution inventory waste transfers

Records within 500m

0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

*This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.*

## 4.21 Pollution inventory radioactive waste

Records within 500m

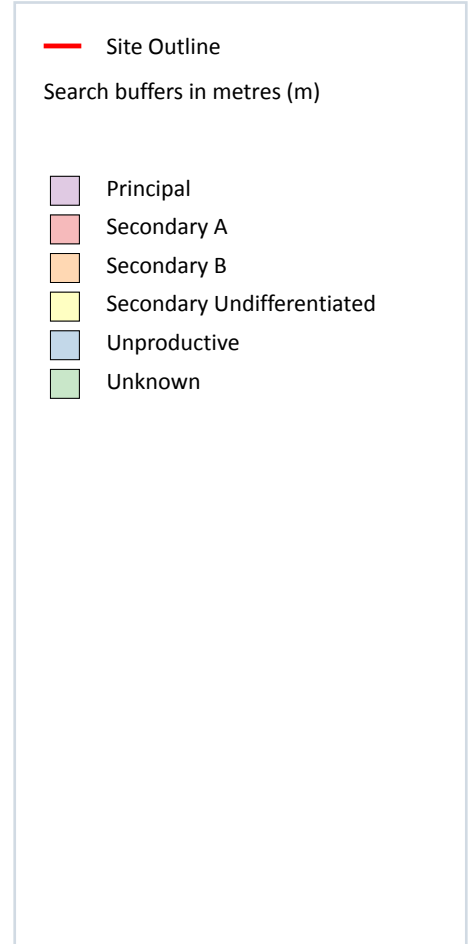
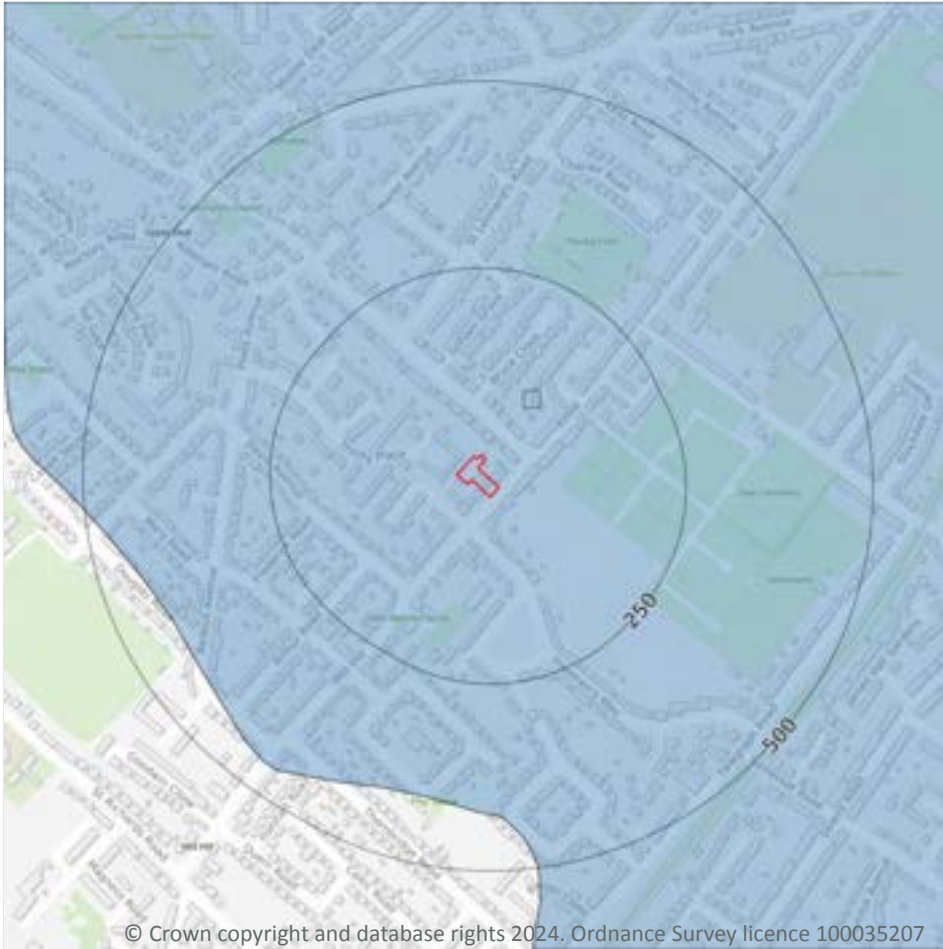
0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

*This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.*



## 5 Hydrogeology - Superficial aquifer



### 5.1 Superficial aquifer

Records within 500m

1

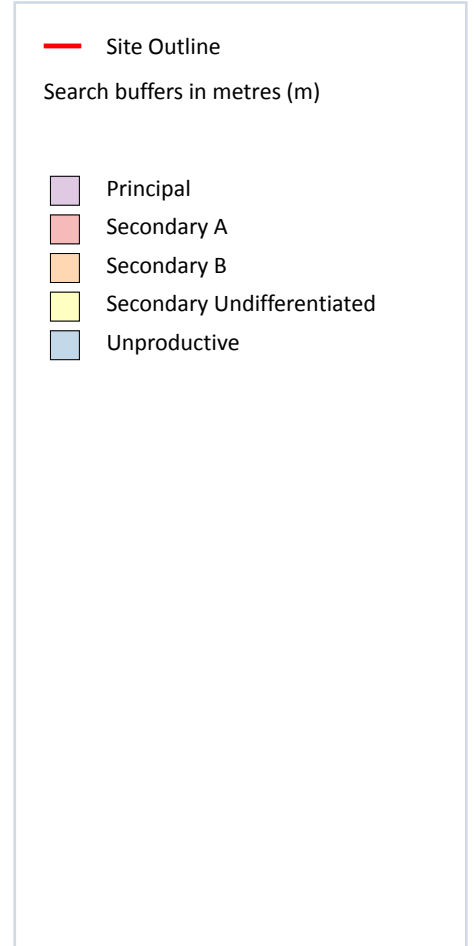
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 37](#) >

ID	Location	Designation	Description
1	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

*This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.*

## Bedrock aquifer



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### 5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

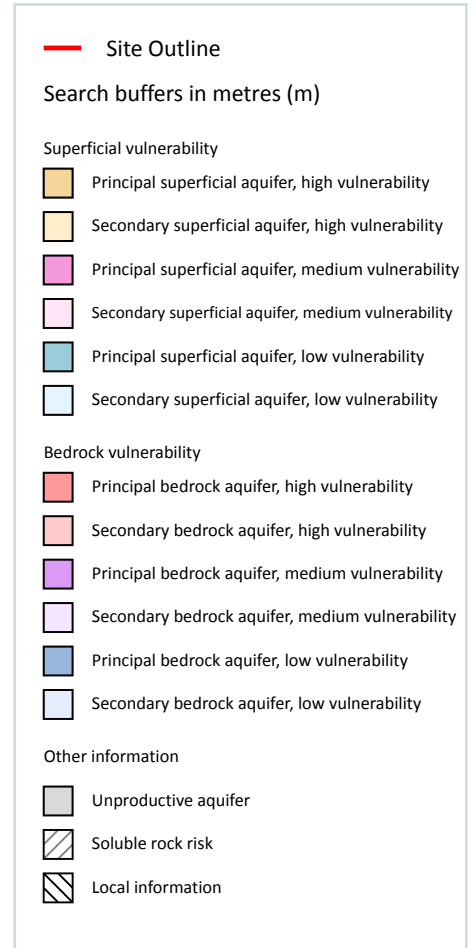
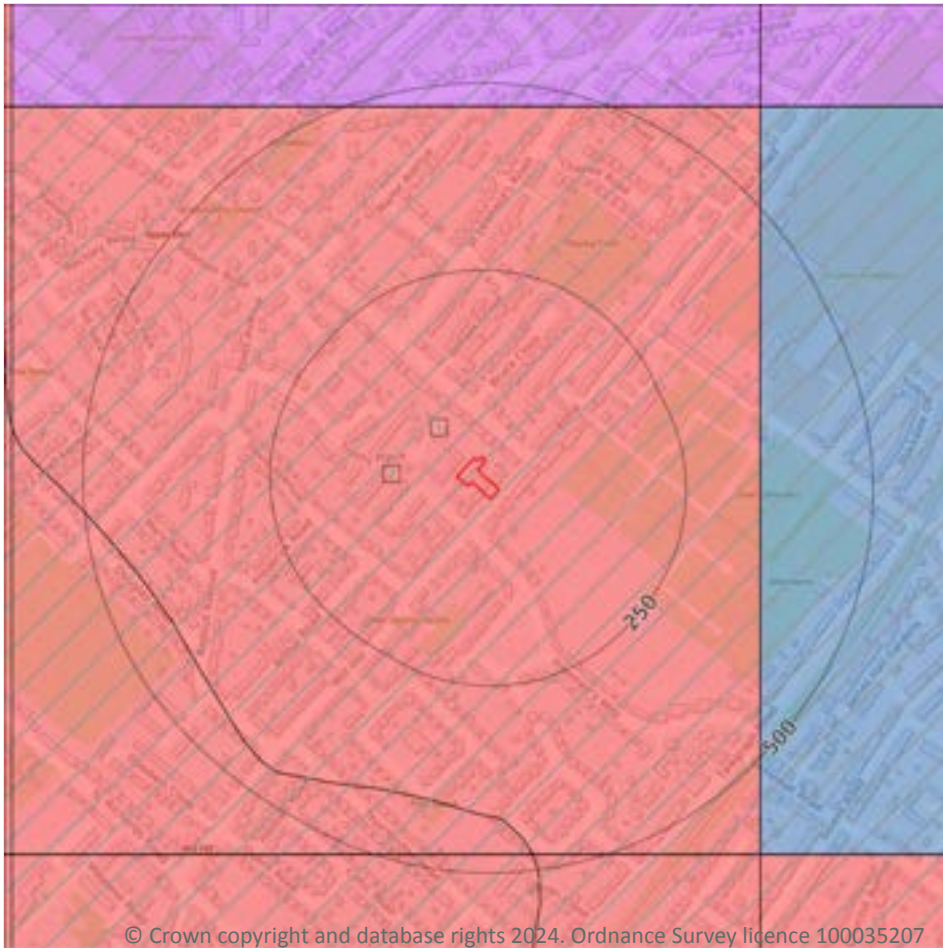
Features are displayed on the Bedrock aquifer map on [page 38](#) >

ID	Location	Designation	Description
1	On site	Principal	<b>Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers</b>

*This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.*



## Groundwater vulnerability



### 5.3 Groundwater vulnerability

Records within 50m

1

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on [page 39](#) >

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	<b>Summary Classification:</b> Principal bedrock aquifer - High Vulnerability <b>Combined classification:</b> Productive Bedrock Aquifer, Unproductive Superficial Aquifer	<b>Leaching class:</b> Intermediate <b>Infiltration value:</b> >70% <b>Dilution value:</b> 300- 550mm/year	<b>Vulnerability:</b> Unproductive <b>Aquifer type:</b> Unproductive <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> High	<b>Vulnerability:</b> High <b>Aquifer type:</b> Principal <b>Flow mechanism:</b> Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

## 5.4 Groundwater vulnerability- soluble rock risk

<b>Records on site</b>	<b>1</b>
------------------------	----------

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
2	<b>Significant soluble rocks are likely to be present. Low possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow.</b>	52.0%

This data is sourced from the British Geological Survey and the Environment Agency.

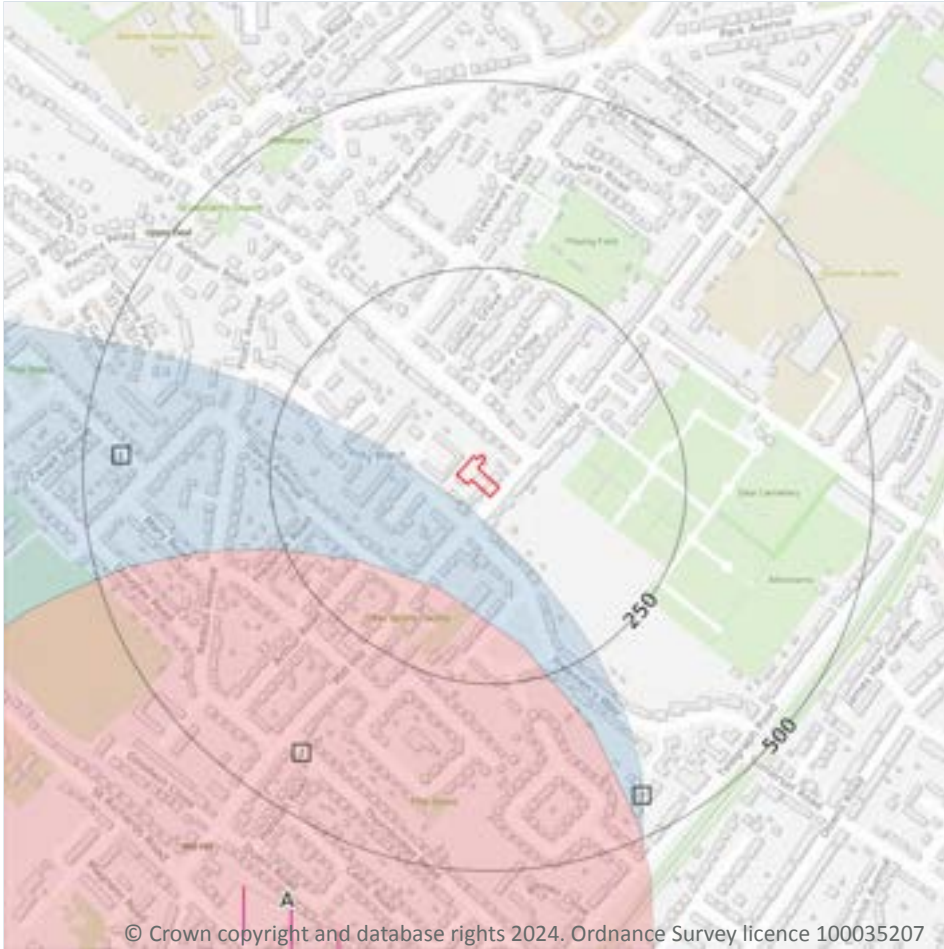
## 5.5 Groundwater vulnerability- local information

<b>Records on site</b>	<b>0</b>
------------------------	----------

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk) ↗.

This data is sourced from the British Geological Survey and the Environment Agency.

## Abstractions and Source Protection Zones



### 5.6 Groundwater abstractions

Records within 2000m

4

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 41](#) >

ID	Location	Details	
A	612m SW	Status: Active Licence No: 9/40/04/0279/GR Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: WELLS AT ST RICHARD'S RD DEAL Data Type: Poly4 Name: Southern Water Services Ltd Easting: 636300 Northing: 150960	Annual Volume (m <sup>3</sup> ): 2273000 Max Daily Volume (m <sup>3</sup> ): 9092 Original Application No: WR.1037 Original Start Date: 30/12/1966 Expiry Date: - Issue No: 100 Version Start Date: 12/12/2006 Version End Date: -
-	1068m N	Status: Historical Licence No: 9/40/04/0119/GR Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: BOREHOLE AT COURT LODGE FARM, DEAL Data Type: Point Name: Mount Bros (Deal) Ltd Easting: 636630 Northing: 152600	Annual Volume (m <sup>3</sup> ): 9092 Max Daily Volume (m <sup>3</sup> ): 454.6 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 03/11/2006 Version End Date: -
-	1548m NW	Status: Active Licence No: SO/040/0009/005 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: BOREHOLE AT TURNHOUSE NURSERIES Data Type: Point Name: Edward Vinson Plants Ltd Easting: 635901 Northing: 152902	Annual Volume (m <sup>3</sup> ): 32804 Max Daily Volume (m <sup>3</sup> ): 220 Original Application No: NPS/NA/001810 Original Start Date: 28/04/2011 Expiry Date: 31/03/2028 Issue No: 3 Version Start Date: 24/03/2022 Version End Date: -
-	1548m NW	Status: Active Licence No: SO/040/0009/005 Details: Trickle Irrigation - Direct Direct Source: Southern Region Groundwater Point: BOREHOLE AT TURNHOUSE NURSERIES Data Type: Point Name: Edward Vinson Plants Ltd Easting: 635901 Northing: 152902	Annual Volume (m <sup>3</sup> ): 32804 Max Daily Volume (m <sup>3</sup> ): 220 Original Application No: NPS/NA/001810 Original Start Date: 28/04/2011 Expiry Date: 31/03/2028 Issue No: 3 Version Start Date: 24/03/2022 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

## 5.7 Surface water abstractions

### Records within 2000m

1

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 41](#) >



ID	Location	Details	
-	1058m N	Status: Historical Licence No: 9/40/04/0522/S Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: POINT X, IN SHOLDEN. Data Type: Point Name: Mount Bros (Deal) Ltd Easting: 636620 Northing: 152590	Annual Volume (m <sup>3</sup> ): 6820 Max Daily Volume (m <sup>3</sup> ): 455 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 01/12/2006 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

## 5.8 Potable abstractions

<b>Records within 2000m</b>	<b>1</b>
-----------------------------	----------

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 41 >](#)

ID	Location	Details	
A	612m SW	Status: Active Licence No: 9/40/04/0279/GR Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: WELLS AT ST RICHARD'S RD DEAL Data Type: Poly4 Name: Southern Water Services Ltd Easting: 636300 Northing: 150960	Annual Volume (m <sup>3</sup> ): 2273000 Max Daily Volume (m <sup>3</sup> ): 9092 Original Application No: WR.1037 Original Start Date: 30/12/1966 Expiry Date: - Issue No: 100 Version Start Date: 12/12/2006 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

## 5.9 Source Protection Zones

<b>Records within 500m</b>	<b>3</b>
----------------------------	----------

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

Features are displayed on the Abstractions and Source Protection Zones map on [page 41 >](#)

ID	Location	Type	Description
1	25m SW	2	Outer catchment



ID	Location	Type	Description
2	140m S	1	Inner catchment
3	424m SE	3	Total catchment

*This data is sourced from the Environment Agency and Natural Resources Wales.*

## 5.10 Source Protection Zones (confined aquifer)

Records within 500m

0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

*This data is sourced from the Environment Agency and Natural Resources Wales.*



## 6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

### 6.1 Water Network (OS MasterMap)

Records within 250m

0

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

*This data is sourced from the Ordnance Survey.*

### 6.2 Surface water features

Records within 250m

0

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

This data is sourced from the Ordnance Survey.

### 6.3 WFD Surface water body catchments

**Records on site**

**1**

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on [page 45 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	North and South Streams in the Lydden Valley	GB107040019550	North and South Streams	Stour

This data is sourced from the Environment Agency and Natural Resources Wales.

### 6.4 WFD Surface water bodies

**Records identified**

**1**

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on [page 45 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	3875m NW	River	North and South Streams in the Lydden Valley	<a href="#">GB107040019550</a> ↗	Poor	Fail	Poor	2019

This data is sourced from the Environment Agency and Natural Resources Wales.





## 6.5 WFD Groundwater bodies

<b>Records on site</b>	<b>1</b>
------------------------	----------

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on [page 45 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	East Kent Chalk - Stour	<a href="#">GB40701G501500 ↗</a>	Poor	Poor	Poor	2019

*This data is sourced from the Environment Agency and Natural Resources Wales.*

## 7 River and coastal flooding

### 7.1 Risk of flooding from rivers and the sea

Records within 50m

0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 7.2 Historical Flood Events

Records within 250m

0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 7.3 Flood Defences

Records within 250m

0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

*This data is sourced from the Environment Agency and Natural Resources Wales.*



## 7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

## 7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

*This data is sourced from the Environment Agency and Natural Resources Wales.*



## River and coastal flooding - Flood Zones

### 7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

*This data is sourced from the Environment Agency and Natural Resources Wales.*

### 7.7 Flood Zone 3

Records within 50m

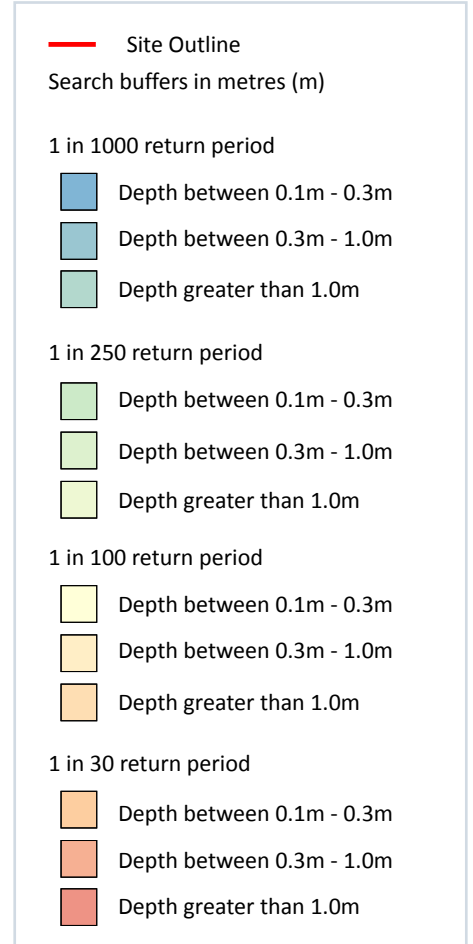
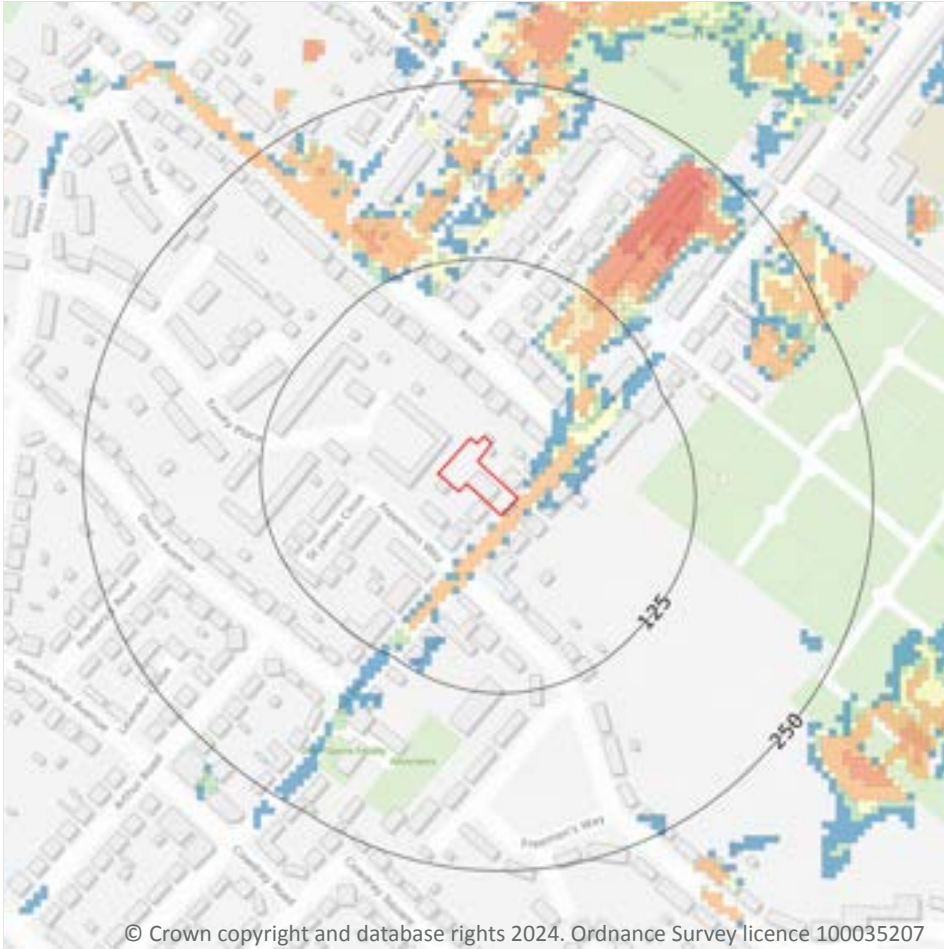
0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

*This data is sourced from the Environment Agency and Natural Resources Wales.*



## 8 Surface water flooding



### 8.1 Surface water flooding

**Highest risk on site**

**1 in 30 year, 0.1m - 0.3m**

**Highest risk within 50m**

**1 in 30 year, 0.1m - 0.3m**

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on [page 51](#) >

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

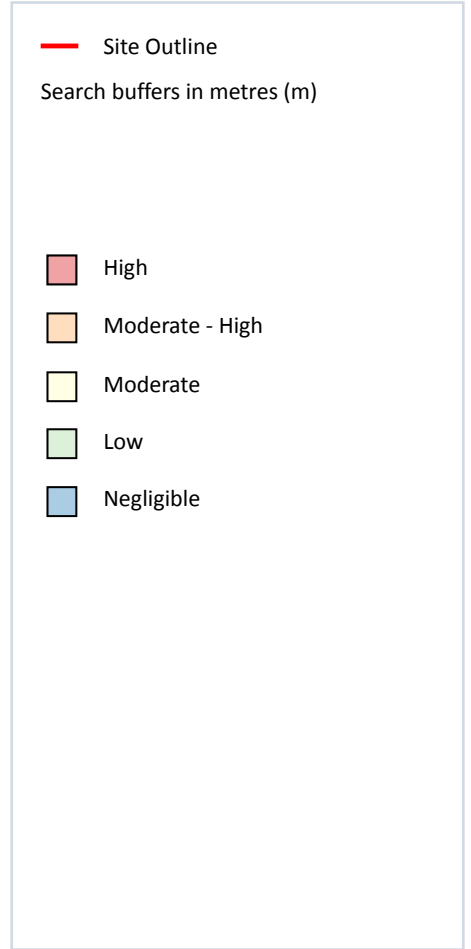
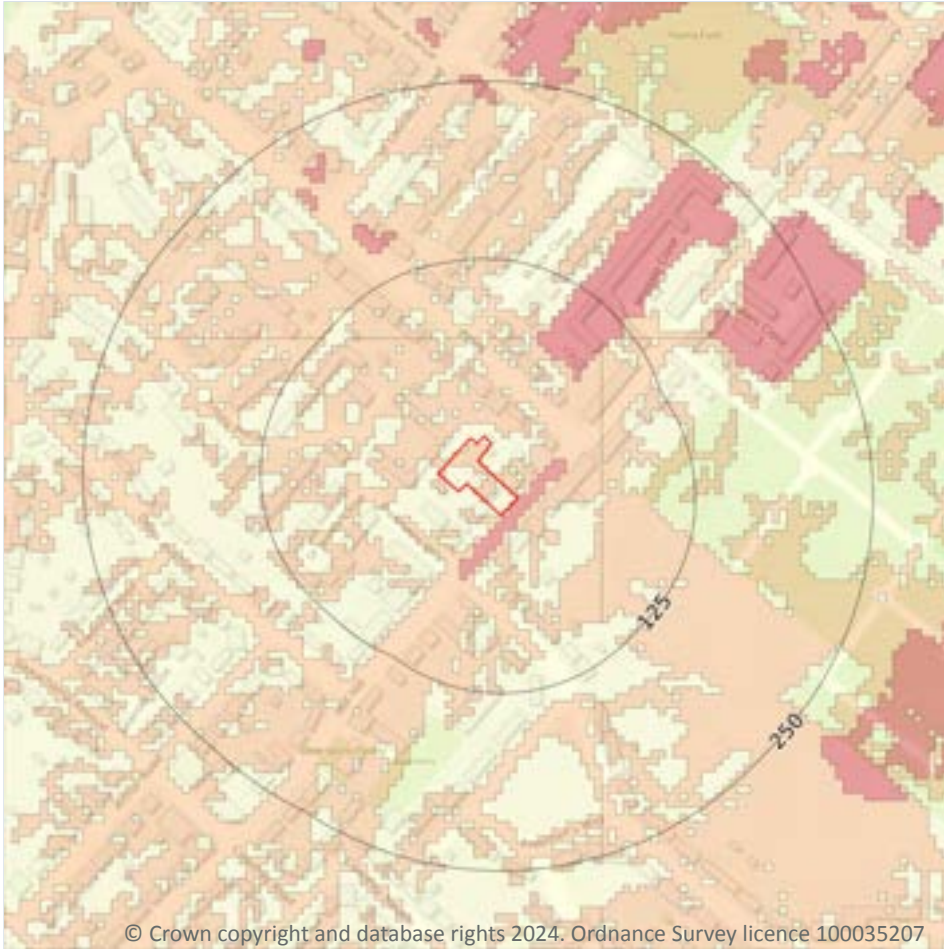
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.1m and 0.3m
1 in 100 year	Between 0.1m and 0.3m
1 in 30 year	Between 0.1m and 0.3m

*This data is sourced from Ambiental Risk Analytics.*



## 9 Groundwater flooding



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### 9.1 Groundwater flooding

**Highest risk on site**

**High**

**Highest risk within 50m**

**High**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on [page 53](#) >

*This data is sourced from Ambiental Risk Analytics.*

## 10 Environmental designations



— Site Outline

Search buffers in metres (m)

- Sites of Special Scientific Interest (SSSI)
- Conserved wetland sites (Ramsar sites)

### 10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

2

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on [page 54 >](#)

ID	Location	Name	Data source
-	1543m NW	Sandwich Bay to Hacklinge Marshes	Natural England



ID	Location	Name	Data source
-	1838m NW	Sandwich Bay to Hacklinge Marshes	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

## 10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	2
----------------------	---

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

Features are displayed on the Environmental designations map on [page 54 >](#)

ID	Location	Site	Details
-	1543m NW	Name: Thanet Coast & Sandwich Bay Site status: Listed Data source: Natural England	Overview: A coastal site, consisting of a long stretch of rocky shore, adjoining areas of estuary, sand dune, maritime grassland, saltmarsh and grazing marsh. The wetland habitats support 15 British Red Data Book invertebrates, as well as a large number of nationally scarce species. The site attracts internationally important numbers of turnstone <i>Arenaria interpres</i> , and nationally important numbers of nationally important wintering populations of four wader species: ringed plover, golden plover, grey plover and sanderling, as well as Lapland bunting. The site is used by large numbers of migratory birds. Ramsar criteria: Ramsar criterion 2 Supports 15 British Red Data Book wetland invertebrates.
-	1838m NW	Name: Thanet Coast & Sandwich Bay Site status: Listed Data source: Natural England	Overview: A coastal site, consisting of a long stretch of rocky shore, adjoining areas of estuary, sand dune, maritime grassland, saltmarsh and grazing marsh. The wetland habitats support 15 British Red Data Book invertebrates, as well as a large number of nationally scarce species. The site attracts internationally important numbers of turnstone <i>Arenaria interpres</i> , and nationally important numbers of nationally important wintering populations of four wader species: ringed plover, golden plover, grey plover and sanderling, as well as Lapland bunting. The site is used by large numbers of migratory birds. Ramsar criteria: Ramsar criterion 2 Supports 15 British Red Data Book wetland invertebrates.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

### 10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

### 10.4 Special Protection Areas (SPA)

Records within 2000m

0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

### 10.5 National Nature Reserves (NNR)

Records within 2000m

0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

### 10.6 Local Nature Reserves (LNR)

Records within 2000m

0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

### 10.7 Designated Ancient Woodland

Records within 2000m

0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*



## 10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

## 10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

*This data is sourced from the Forestry Commission.*

## 10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

## 10.11 Green Belt

Records within 2000m

0

Areas designated to prevent urban sprawl by keeping land permanently open.

*This data is sourced from the Ministry of Housing, Communities and Local Government.*

## 10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

*This data is sourced from Natural England.*



### 10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

*This data is sourced from Natural England and Natural Resources Wales.*

### 10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

*This data is sourced from Natural England.*

### 10.15 Nitrate Sensitive Areas

Records within 2000m

0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

*This data is sourced from Natural England.*

### 10.16 Nitrate Vulnerable Zones

Records within 2000m

2

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
557m SW	North and South Streams in the Lydden Valley NVZ	Surface Water	511	Existing

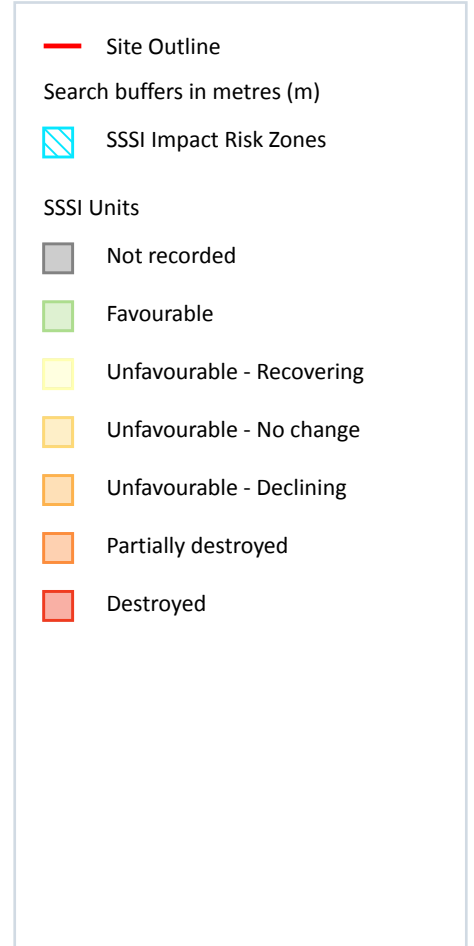
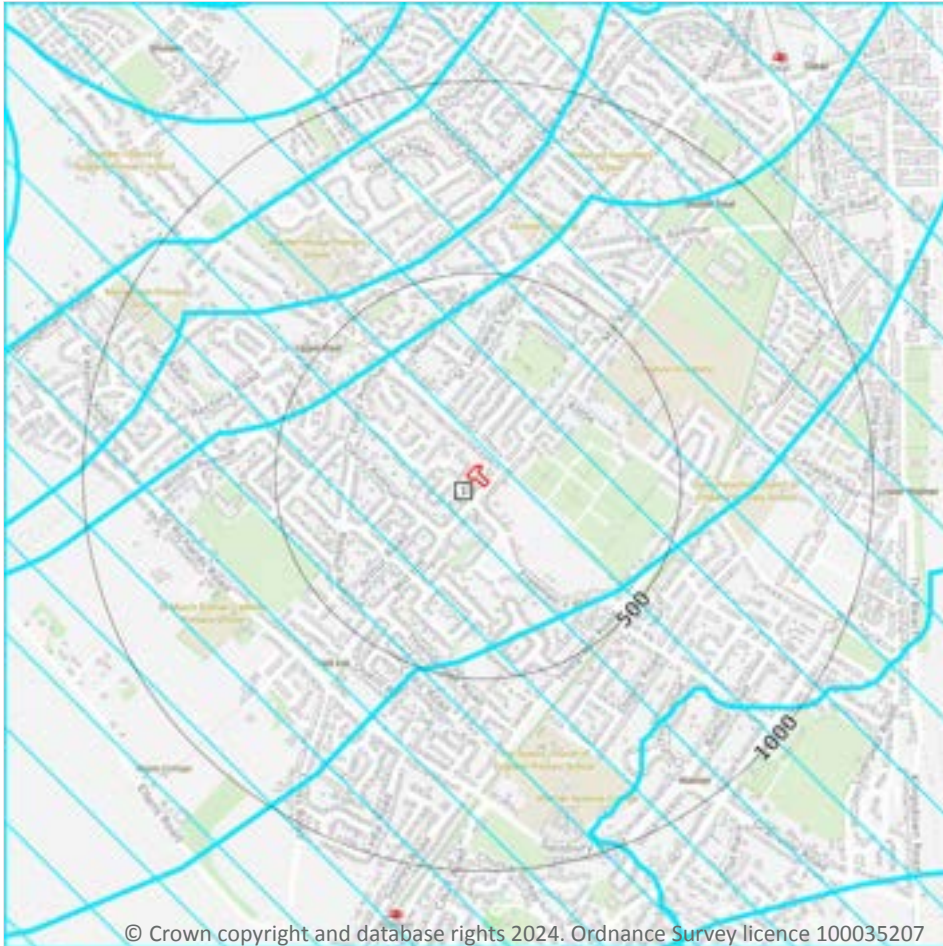


Location	Name	Type	NVZ ID	Status
849m E	East Kent	Groundwater	67	Existing

*This data is sourced from Natural England and Natural Resources Wales.*



## SSSI Impact Zones and Units



### 10.17 SSSI Impact Risk Zones

Records on site

1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on [page 60](#) >

ID	Location	Type of developments requiring consultation
1	On site	<p>Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.</p> <p>Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil &amp; gas exploration/extraction.</p> <p>Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha.</p> <p>Residential - Residential development of 500 units or more.</p> <p>Rural residential - Any residential development of 100 or more houses outside existing settlements/urban areas.</p> <p>Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock &amp; poultry units with floorspace &gt; 500m<sup>2</sup>, slurry lagoons &amp; digestate stores &gt; 200m<sup>2</sup>, manure stores &gt; 250t).</p> <p>Combustion - General combustion processes &gt;20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.</p> <p>Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.</p> <p>Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.</p> <p>Discharges - Any discharge of water or liquid waste of more than 5m<sup>3</sup>/day to ground (ie to seep away) or to surface water, such as a beck or stream.</p> <p>Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m<sup>2</sup> or more.</p> <p>Notes: For new residential development in this area financial contributions are required to mitigate increased recreational disturbance on coastal SPAs and Ramsar Sites. Check with Local Planning Authority.</p>

*This data is sourced from Natural England.*

## 10.18 SSSI Units

### Records within 2000m

2

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

Features are displayed on the SSSI Impact Zones and Units map on [page 60 >](#)

ID:	-
Location:	1543m NW
SSSI name:	Sandwich Bay to Hacklinge Marshes
Unit name:	S.15. Sholden Mr Steed
Broad habitat:	Neutral Grassland - Lowland
Condition:	Favourable
Reportable features:	



Feature name	Feature condition	Date of assessment
Ditches	Not Recorded	01/01/1900
Nationally rare and scarce dragonfly species - Libellula fulva, Scarce Chaser	Not Recorded	01/01/1900
Vascular plant assemblage	Not Recorded	01/01/1900

ID: -  
 Location: 1838m NW  
 SSSI name: Sandwich Bay to Hacklinge Marshes  
 Unit name: S.15 Northbourne Fen Fields  
 Broad habitat: Fen, Marsh And Swamp - Lowland  
 Condition: Unfavourable - Recovering  
 Reportable features:

Feature name	Feature condition	Date of assessment
Ditches	Not Recorded	01/01/1900
Nationally rare and scarce dragonfly species - Libellula fulva, Scarce Chaser	Not Recorded	01/01/1900
Vascular plant assemblage	Not Recorded	01/01/1900

*This data is sourced from Natural England and Natural Resources Wales.*



## 11 Visual and cultural designations

### 11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

### 11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

*This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.*

### 11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

*This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.*

### 11.4 Listed Buildings

Records within 250m

0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.



*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

## 11.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

## 11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*

## 11.7 Registered Parks and Gardens

Records within 250m

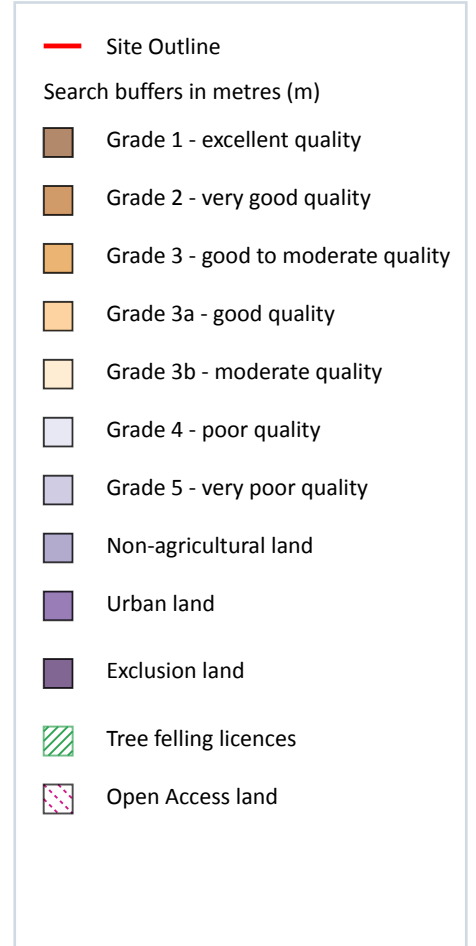
0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

*This data is sourced from Historic England, Cadw and Historic Environment Scotland.*



## 12 Agricultural designations



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### 12.1 Agricultural Land Classification

Records within 250m

1

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on [page 65 >](#)

ID	Location	Classification	Description
1	On site	Urban	-

*This data is sourced from Natural England.*

## 12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

*This data is sourced from Natural England and Natural Resources Wales.*

## 12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

*This data is sourced from the Forestry Commission.*

## 12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

*This data is sourced from Natural England.*

## 12.5 Countryside Stewardship Schemes

Records within 250m

0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

*This data is sourced from Natural England.*



## 13 Habitat designations

### 13.1 Priority Habitat Inventory

Records within 250m

0

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

*This data is sourced from Natural England.*

### 13.2 Habitat Networks

Records within 250m

0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

*This data is sourced from Natural England.*

### 13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

*This data is sourced from Natural England.*

### 13.4 Limestone Pavement Orders

Records within 250m

0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

*This data is sourced from Natural England.*



## 14 Geology 1:10,000 scale - Availability



— Site Outline  
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

### 14.1 10k Availability

Records within 500m

1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 68](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	No coverage	No coverage	No coverage	NoCov

*This data is sourced from the British Geological Survey.*

## Geology 1:10,000 scale - Artificial and made ground

### 14.2 Artificial and made ground (10k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

*This data is sourced from the British Geological Survey.*



## Geology 1:10,000 scale - Superficial

### 14.3 Superficial geology (10k)

Records within 500m

0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

*This data is sourced from the British Geological Survey.*

### 14.4 Landslip (10k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

*This data is sourced from the British Geological Survey.*





## Geology 1:10,000 scale - Bedrock

### 14.5 Bedrock geology (10k)

Records within 500m

0

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

*This data is sourced from the British Geological Survey.*

### 14.6 Bedrock faults and other linear features (10k)

Records within 500m

0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

*This data is sourced from the British Geological Survey.*



## 15 Geology 1:50,000 scale - Availability



- Site Outline
- Search buffers in metres (m)
- Geological map tile

### 15.1 50k Availability

#### Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on [page 72](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	Full	EW290_dover_v4

*This data is sourced from the British Geological Survey.*

## Geology 1:50,000 scale - Artificial and made ground

### 15.2 Artificial and made ground (50k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

*This data is sourced from the British Geological Survey.*

### 15.3 Artificial ground permeability (50k)

Records within 50m

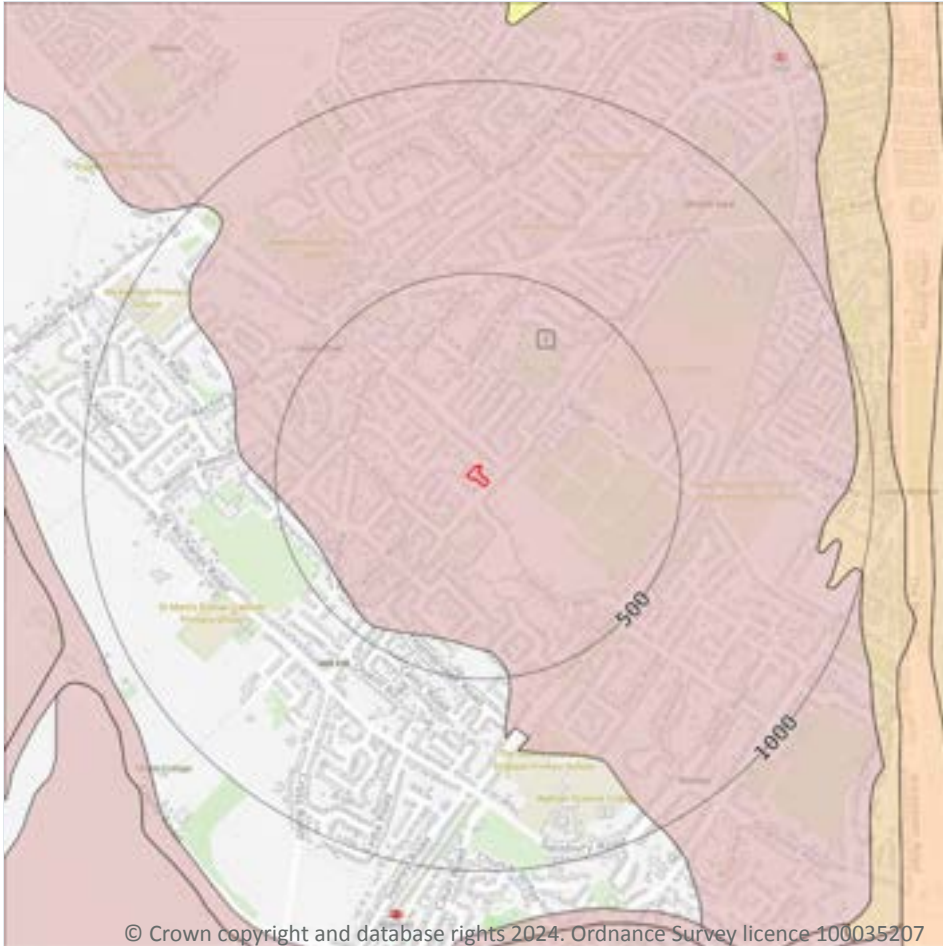
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

*This data is sourced from the British Geological Survey.*



## Geology 1:50,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
- Landslip (50k)
- Superficial geology (50k)  
Please see table for more details.

### 15.4 Superficial geology (50k)

Records within 500m

1

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 74 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	HEAD-XCZ	HEAD	CLAY AND SILT

*This data is sourced from the British Geological Survey.*

## 15.5 Superficial permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Low	Very Low

*This data is sourced from the British Geological Survey.*

## 15.6 Landslip (50k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

*This data is sourced from the British Geological Survey.*

## 15.7 Landslip permeability (50k)

Records within 50m

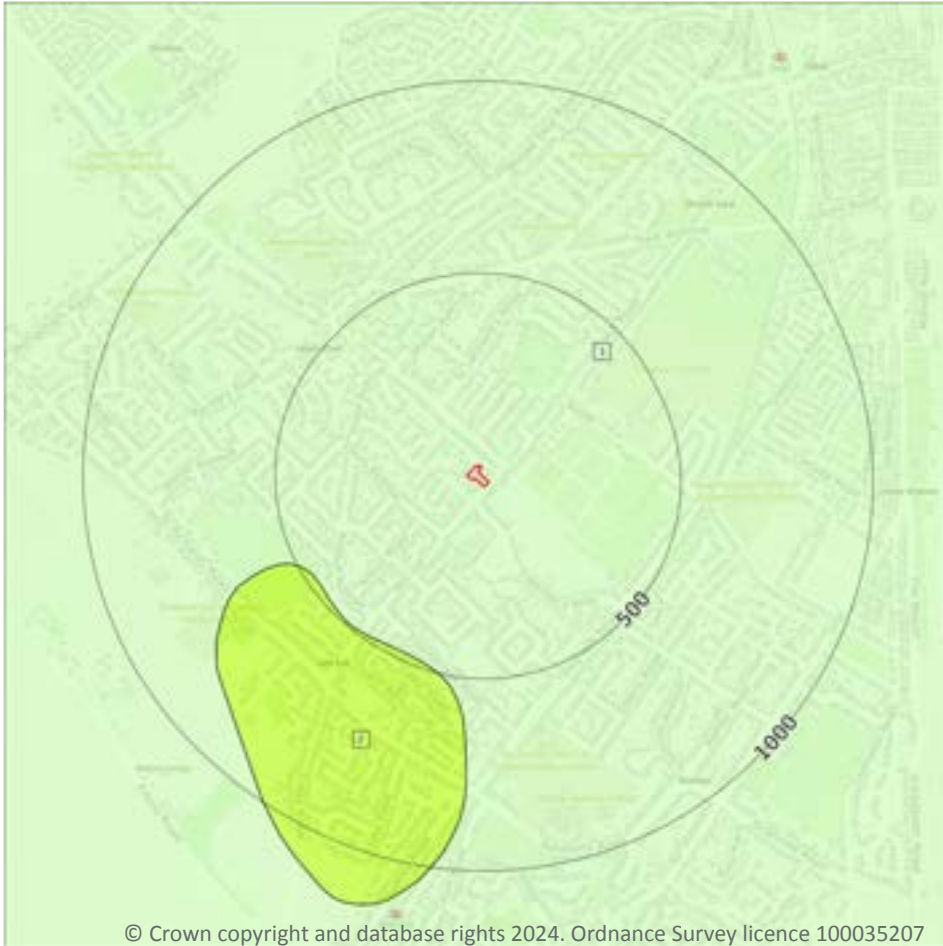
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

*This data is sourced from the British Geological Survey.*



## Geology 1:50,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (50k)
- Bedrock geology (50k)  
Please see table for more details.

### 15.8 Bedrock geology (50k)

Records within 500m

2

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 76 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	SECK-CHLK	SEAFORD CHALK FORMATION - CHALK	CONIACIAN
2	477m SW	MACK-CHLK	MARGATE CHALK MEMBER - CHALK	SANTONIAN

*This data is sourced from the British Geological Survey.*

## 15.9 Bedrock permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Very High	Very High

*This data is sourced from the British Geological Survey.*

## 15.10 Bedrock faults and other linear features (50k)

Records within 500m

0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

*This data is sourced from the British Geological Survey.*

## 16 Boreholes

### 16.1 BGS Boreholes

Records within 250m

0

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

*This data is sourced from the British Geological Survey.*





## 17 Natural ground subsidence - Shrink swell clays



— Site Outline  
Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

### 17.1 Shrink swell clays

Records within 50m

1

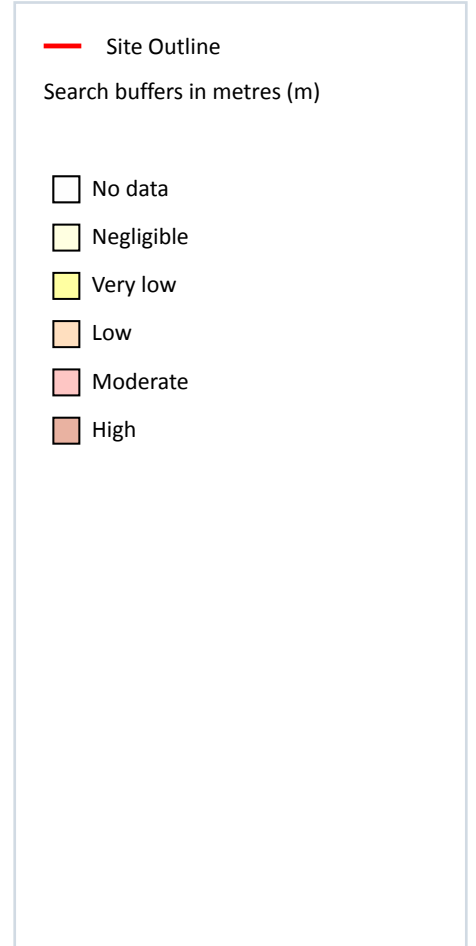
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 79 >](#)

Location	Hazard rating	Details
On site	Low	Ground conditions predominantly medium plasticity.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Running sands



### 17.2 Running sands

Records within 50m

1

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on [page 80](#) >

Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Compressible deposits



— Site Outline  
Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

### 17.3 Compressible deposits

Records within 50m

1

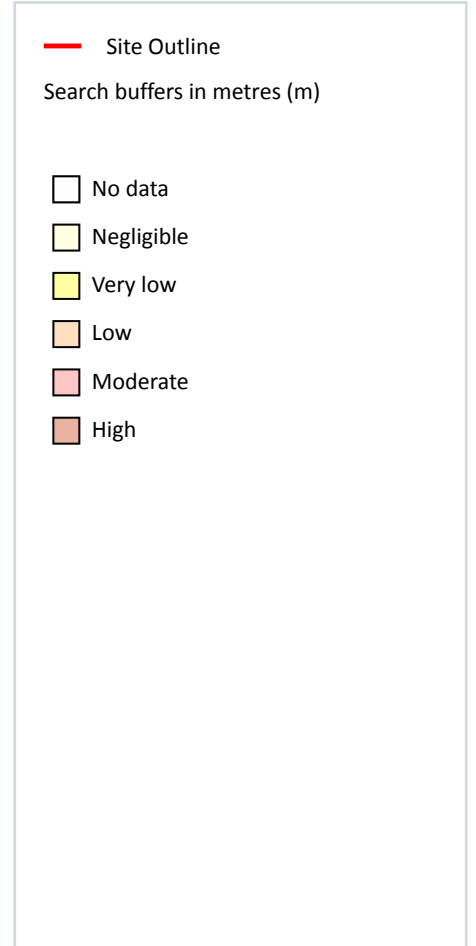
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 81](#) >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Collapsible deposits



### 17.4 Collapsible deposits

Records within 50m

1

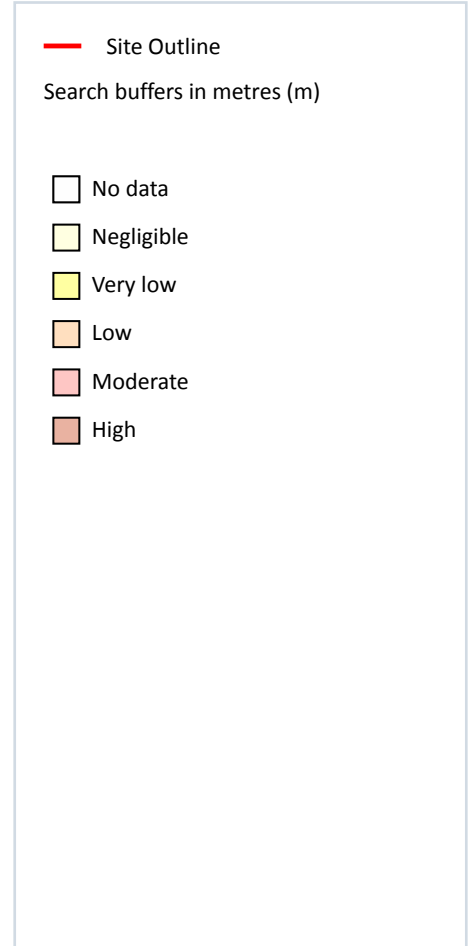
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 82 >](#)

Location	Hazard rating	Details
On site	Moderate	Deposits with potential to collapse when loaded and saturated are probably present in places.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Landslides



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### 17.5 Landslides

Records within 50m

1

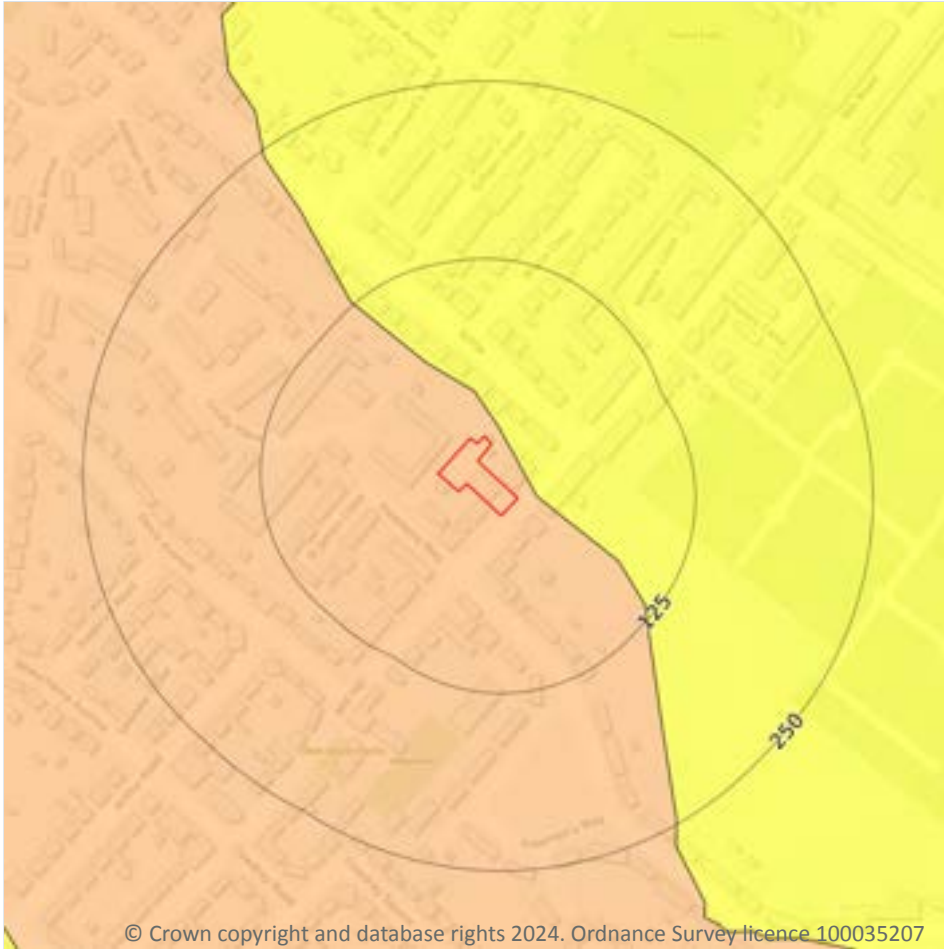
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on [page 83 >](#)

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Ground dissolution of soluble rocks



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### 17.6 Ground dissolution of soluble rocks

Records within 50m

2

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 84](#) >

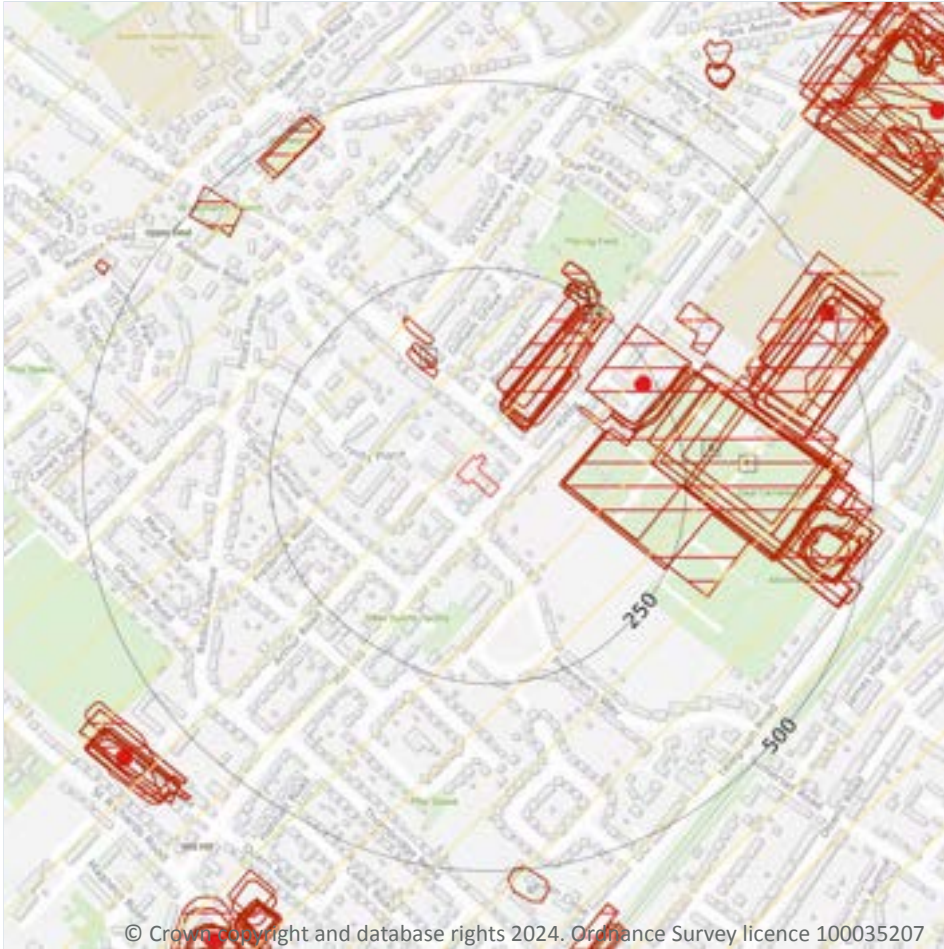
Location	Hazard rating	Details
On site	Low	Soluble rocks are present within the ground. Some dissolution features may be present. Potential for difficult ground conditions are at a level where they may be considered, localised subsidence need not be considered except in exceptional circumstances.

Location	Hazard rating	Details
10m NE	Very low	Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.

*This data is sourced from the British Geological Survey.*



## 18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

### 18.1 BritPits

Records within 500m

2

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on [page 86](#) >



ID	Location	Details	Description
D	234m NE	Name: Upper Deal Brick Field Address: DEAL, Kent Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
G	498m NE	Name: Upper Deal Brick Works Address: DEAL, Kent Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

## 18.2 Surface ground workings

Records within 250m

30

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 86 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	62m NE	Unspecified Ground Workings	1905	1:10560
A	62m NE	Unspecified Ground Workings	1905	1:10560
A	64m NE	Unspecified Pits	1907	1:10560
A	64m NE	Unspecified Pits	1907	1:10560
A	68m NE	Unspecified Pit	1938	1:10560
A	72m NE	Unspecified Pit	1872	1:10560
A	76m NE	Unspecified Pits	1938	1:10560
B	82m E	Cemetery	1960	1:10560
B	82m E	Cemetery	1973	1:10000
A	84m NE	Unspecified Pits	1908	1:10560
A	84m NE	Unspecified Pits	1938	1:10560
B	84m E	Cemetery	1938	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
B	87m E	Cemetery	1985	1:10000
C	118m NW	Pond	1897	1:10560
C	134m N	Pond	1872	1:10560
C	160m N	Pond	1889	1:10560
D	165m NE	Brick Field	1872	1:10560
D	165m NE	Unspecified Pit	1872	1:10560
D	178m NE	Unspecified Ground Workings	1905	1:10560
D	178m NE	Unspecified Ground Workings	1905	1:10560
E	199m NE	Unspecified Pit	1960	1:10560
F	204m E	Cemetery	1907	1:10560
F	207m E	Cemetery	1905	1:10560
F	207m E	Cemetery	1905	1:10560
F	209m E	Cemetery	1908	1:10560
F	209m E	Cemetery	1938	1:10560
F	219m E	Cemetery	1938	1:10560
F	247m E	Cemetery	1872	1:10560
F	248m E	Cemetery	1889	1:10560
E	250m NE	Unspecified Pit	1872	1:10560

*This is data is sourced from Ordnance Survey/Groundsure.*

### 18.3 Underground workings

**Records within 1000m**

**4**

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

Features are displayed on the Mining and ground workings map on [page 86 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
-	733m S	Unspecified Shaft	1973	1:10000
-	738m S	Unspecified Shaft	1985	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
-	855m S	Unspecified Shaft	1973	1:10000
-	855m S	Unspecified Shaft	1985	1:10000

*This data is sourced from Ordnance Survey/Groundsure.*

## 18.4 Underground mining extents

**Records within 500m**

**0**

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

*This data is sourced from Groundsure.*

## 18.5 Historical Mineral Planning Areas

**Records within 500m**

**0**

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

*This data is sourced from the British Geological Survey.*

## 18.6 Non-coal mining

**Records within 1000m**

**1**

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining and ground workings map on [page 86 >](#)

ID	Location	Name	Commodity	Class	Likelihood
1	On site	Not available	Chalk	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

*This data is sourced from the British Geological Survey.*



## 18.7 JPB mining areas

Records on site

0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

*This data is sourced from Johnson Poole and Bloomer.*

## 18.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

*This data is sourced from The Coal Authority.*

## 18.9 Researched mining

Records within 500m

0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

*This data is sourced from Groundsure.*

## 18.10 Mining record office plans

Records within 500m

0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

*This data is sourced from Groundsure.*



## 18.11 BGS mine plans

Records within 500m

0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

*This data is sourced from Groundsure.*

## 18.12 Coal mining

Records on site

1

Areas which could be affected by past, current or future coal mining.

Location	Details
On site	The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.

*This data is sourced from the Coal Authority.*

## 18.13 Brine areas

Records on site

0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

*This data is sourced from the Cheshire Brine Subsidence Compensation Board.*

## 18.14 Gypsum areas

Records on site

0

Generalised areas that may be affected by gypsum extraction.

*This data is sourced from British Gypsum.*

## 18.15 Tin mining

Records on site

0

Generalised areas that may be affected by historical tin mining.

*This data is sourced from Groundsure.*



## 18.16 Clay mining

Records on site

0

Generalised areas that may be affected by kaolin and ball clay extraction.

*This data is sourced from the Kaolin and Ball Clay Association (UK).*



## 19 Ground cavities and sinkholes

### 19.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

*This data is sourced from Stantec UK Ltd.*

### 19.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

*This data is sourced from Stantec UK Ltd.*

### 19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

*This data is sourced from Groundsure.*

### 19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



*This data is sourced from Groundsure.*

## 19.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

*This data is sourced from the British Geological Survey.*





## 20 Radon



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— Site Outline  
Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

### 20.1 Radon

#### Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 95](#) >

Location	Estimated properties affected	Radon Protection Measures required
On site	Between 3% and 5%	Basic



*This data is sourced from the British Geological Survey and UK Health Security Agency.*



## 21 Soil chemistry

### 21.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km<sup>2</sup>. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km<sup>2</sup>; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

*This data is sourced from the British Geological Survey.*

### 21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km<sup>2</sup>).

*This data is sourced from the British Geological Survey.*

### 21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km<sup>2</sup>.

*This data is sourced from the British Geological Survey.*



## 22 Railway infrastructure and projects

### 22.1 Underground railways (London)

Records within 250m 0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

*This data is sourced from publicly available information by Groundsure.*

### 22.2 Underground railways (Non-London)

Records within 250m 0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

*This data is sourced from publicly available information by Groundsure.*

### 22.3 Railway tunnels

Records within 250m 0

Railway tunnels taken from contemporary Ordnance Survey mapping.

*This data is sourced from the Ordnance Survey.*

### 22.4 Historical railway and tunnel features

Records within 250m 0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

*This data is sourced from Ordnance Survey/Groundsure.*

### 22.5 Royal Mail tunnels

Records within 250m 0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.



*This data is sourced from Groundsure/the Postal Museum.*

## 22.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

*This data is sourced from OpenStreetMap.*

## 22.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

*This data is sourced from Ordnance Survey and OpenStreetMap.*

## 22.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

*This data is sourced from publicly available information by Groundsure.*

## 22.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

*This data is sourced from publicly available information by Groundsure.*

## 22.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

*This data is sourced from HS2 Ltd.*



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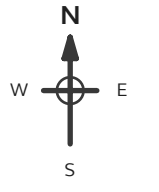
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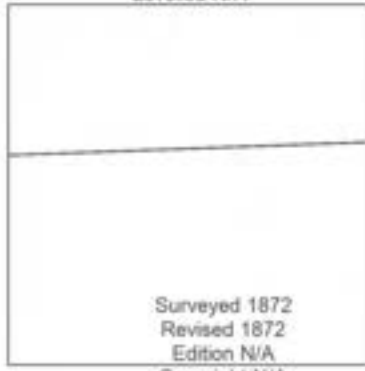
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**Grid Ref:** 636622, 151503

**Map Name:** County Series  
**Map date:** 1872  
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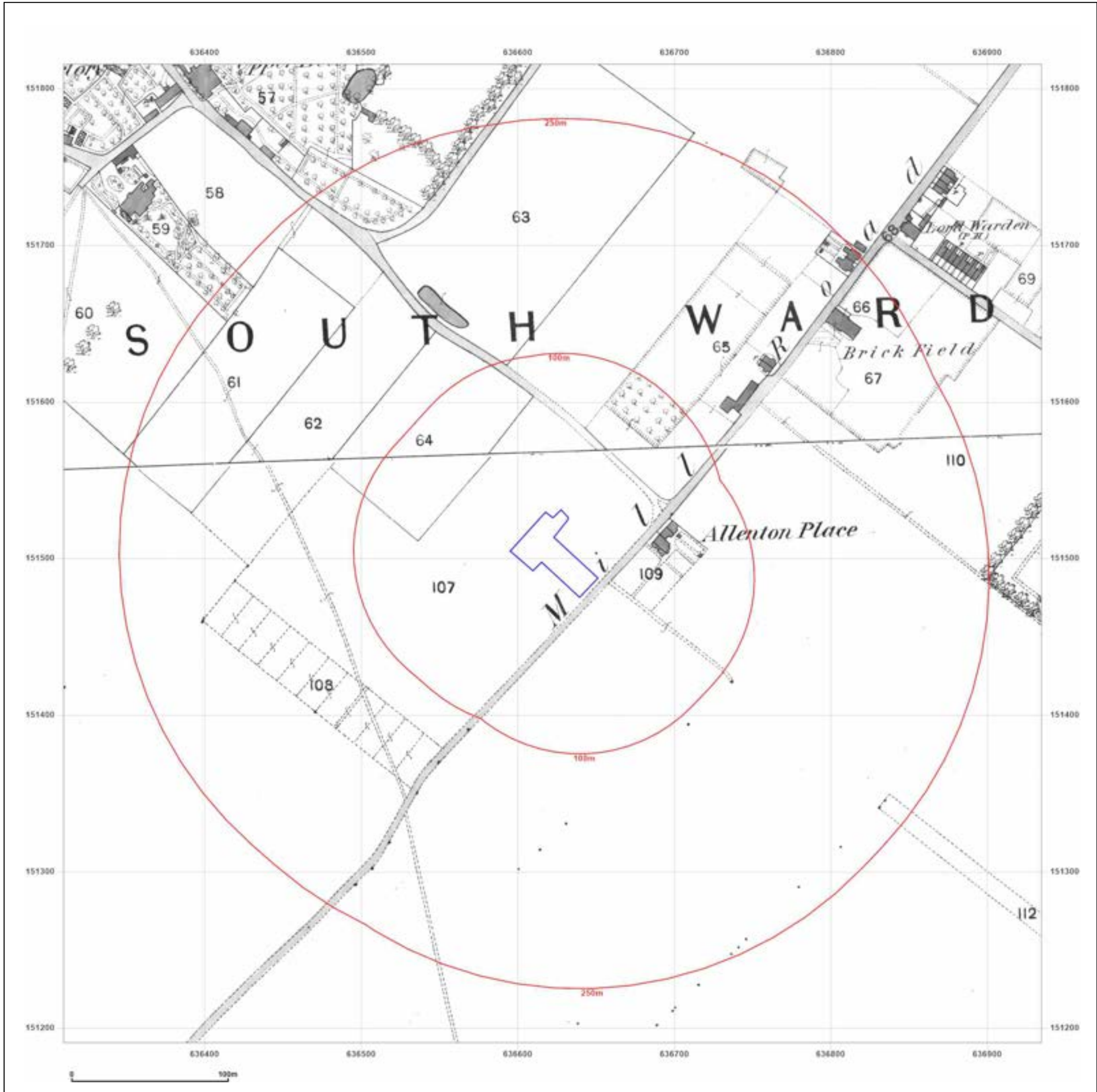
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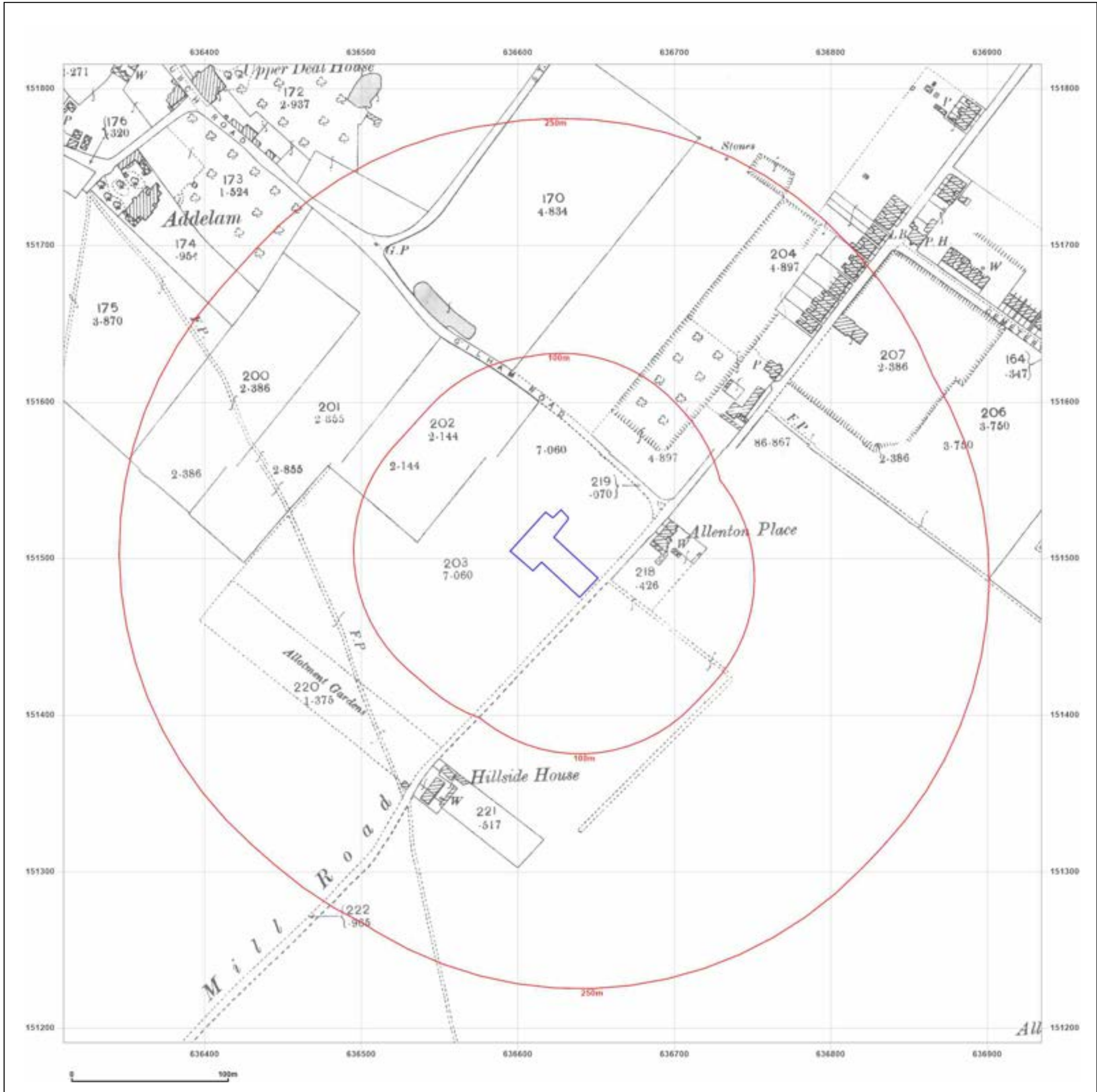
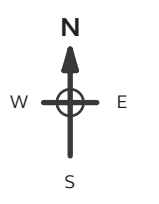
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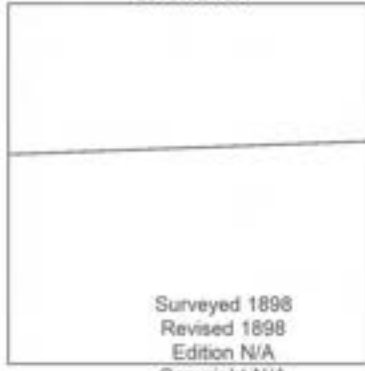
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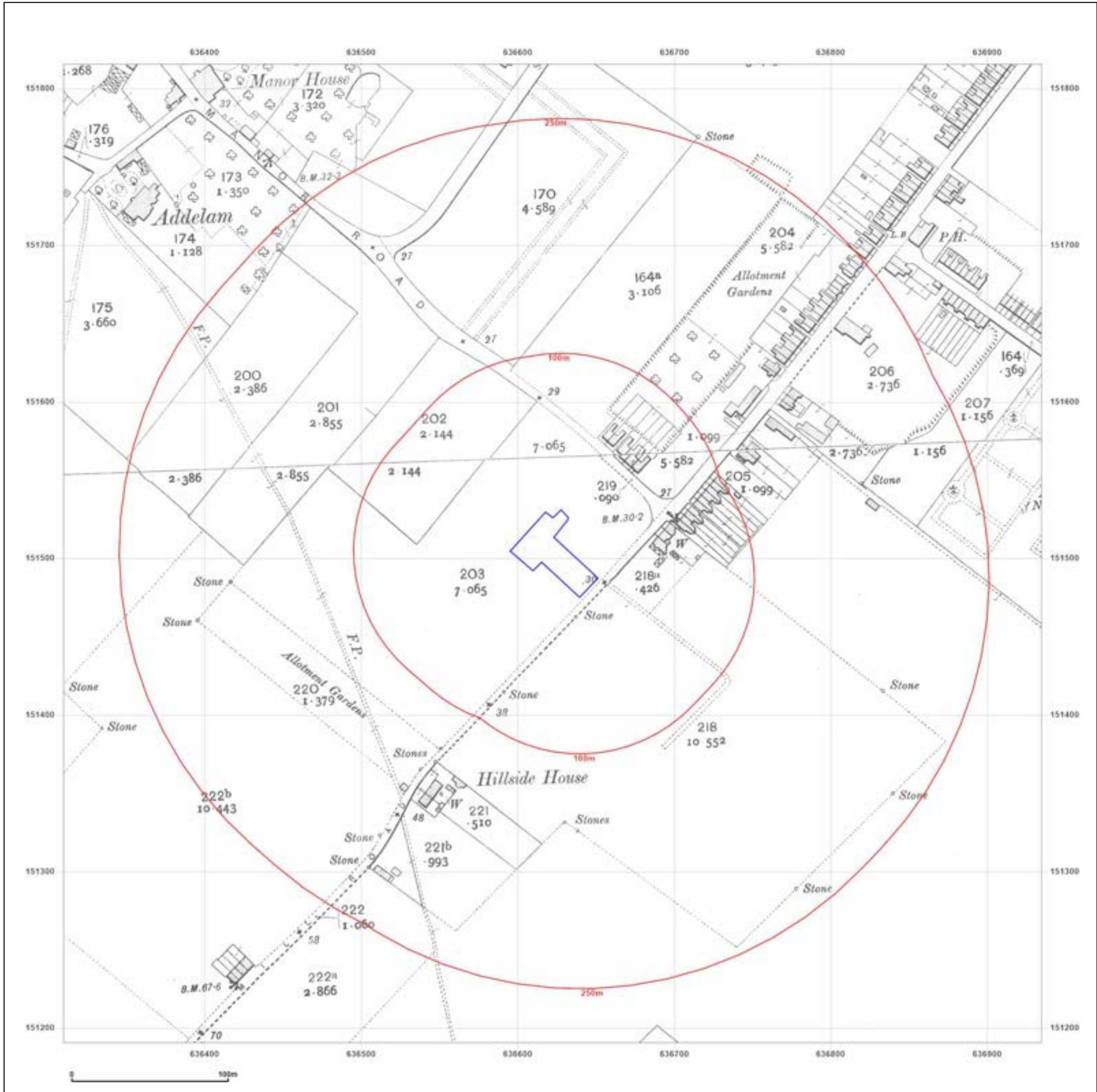
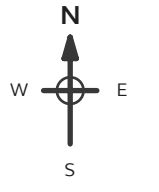
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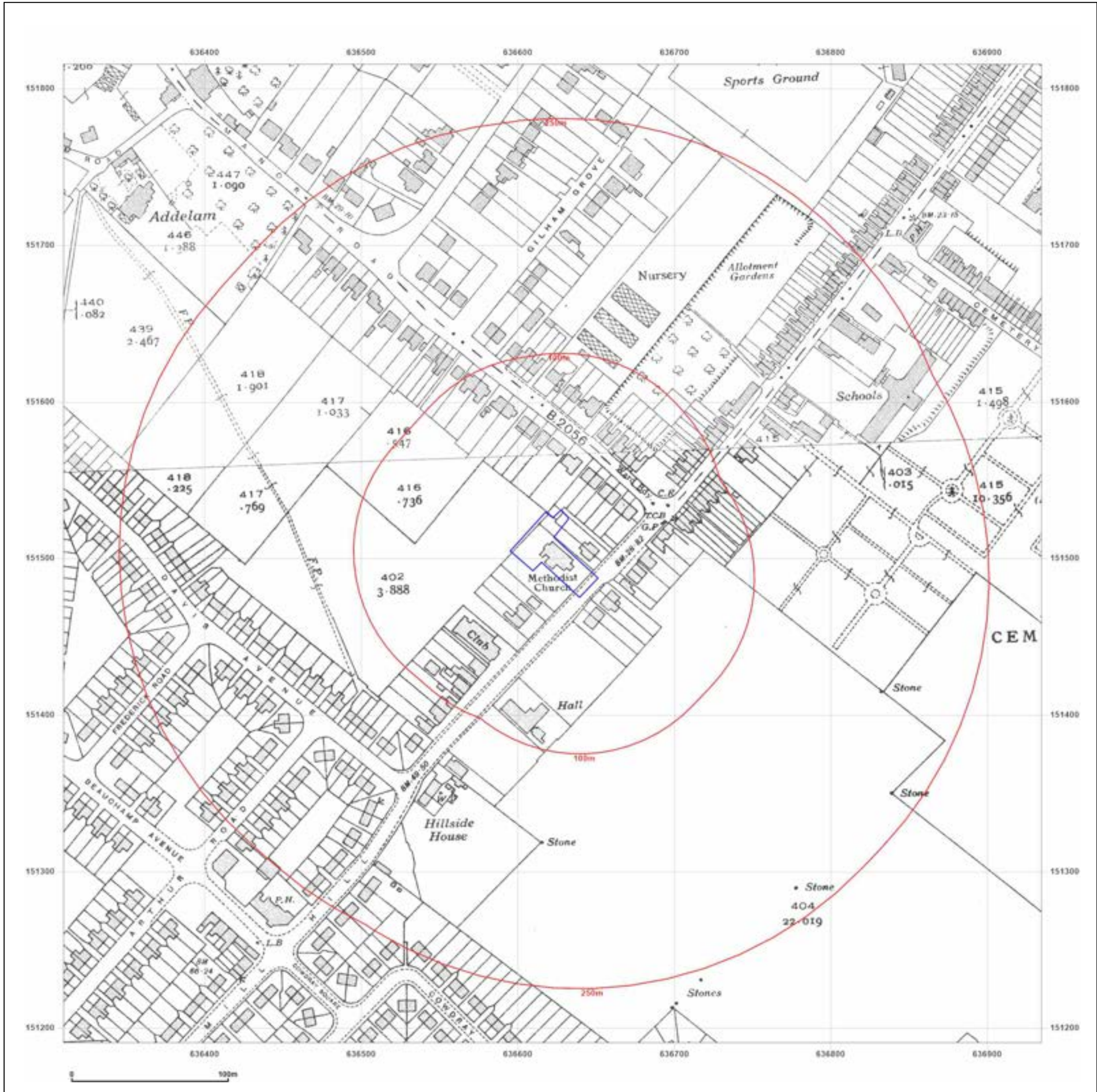
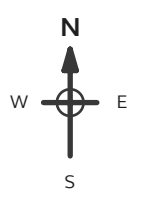
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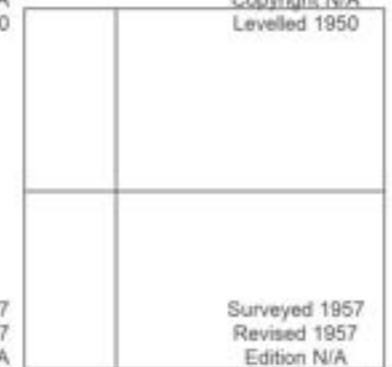
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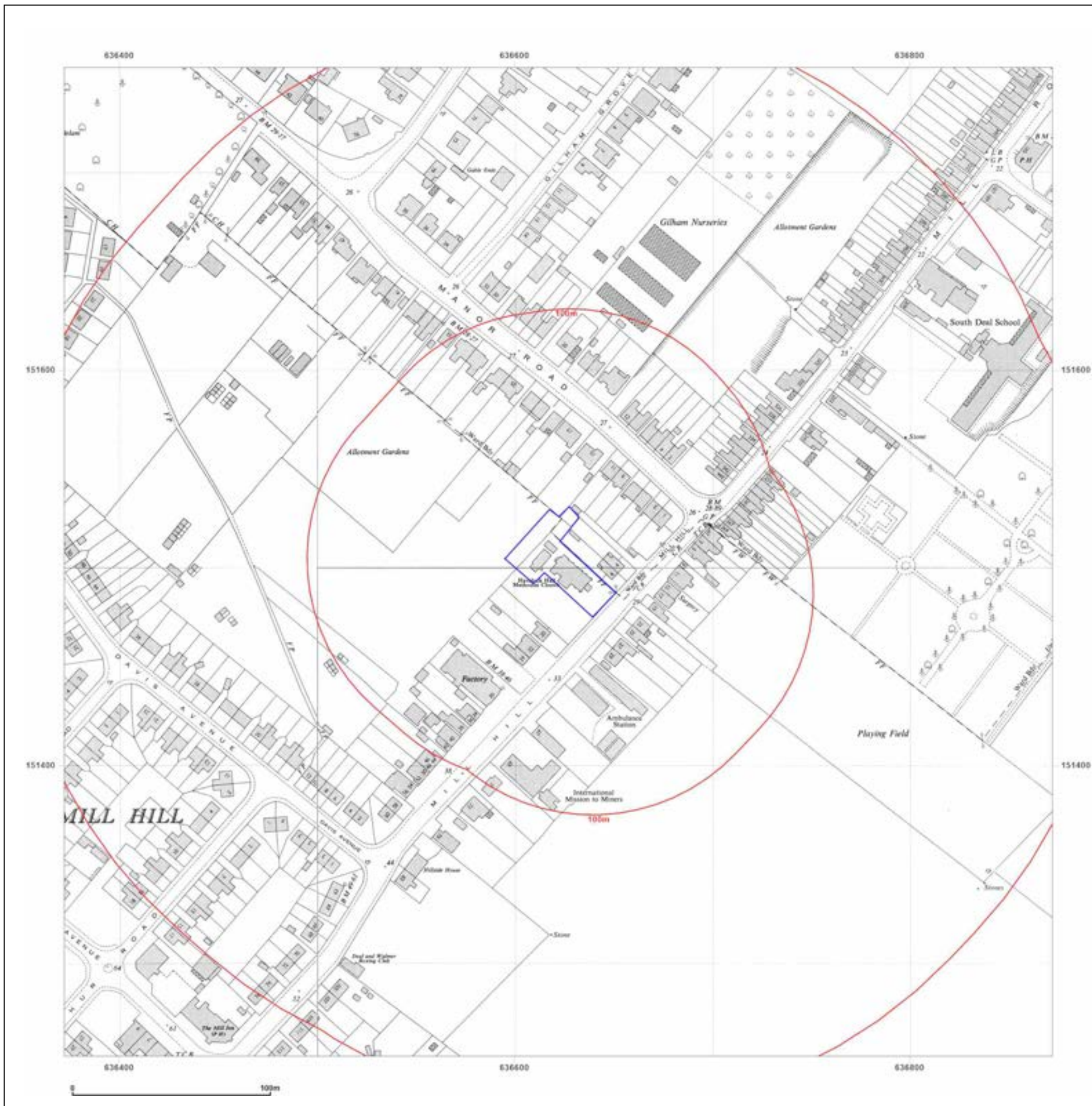


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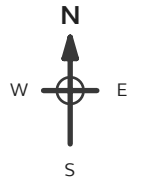
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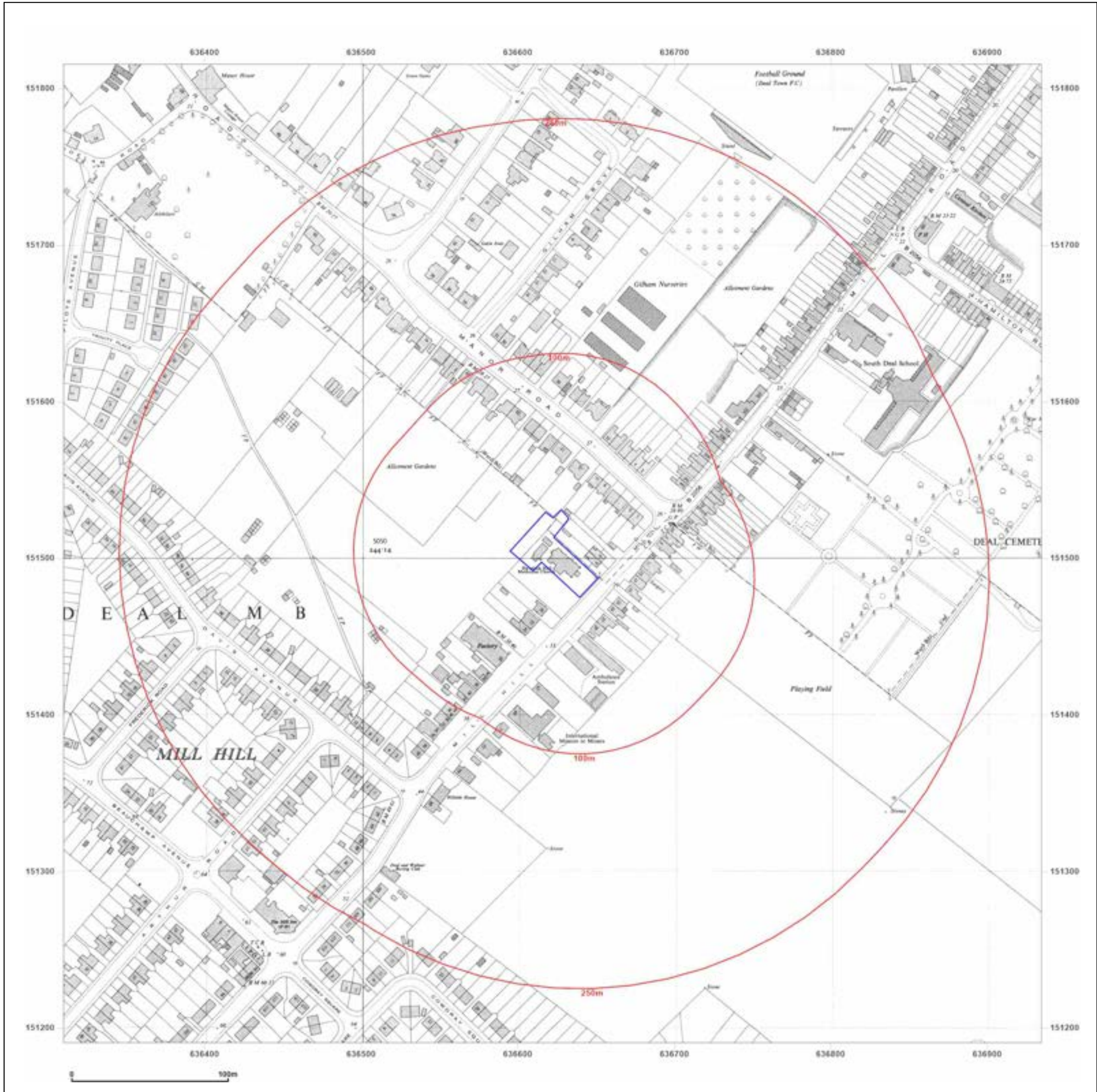


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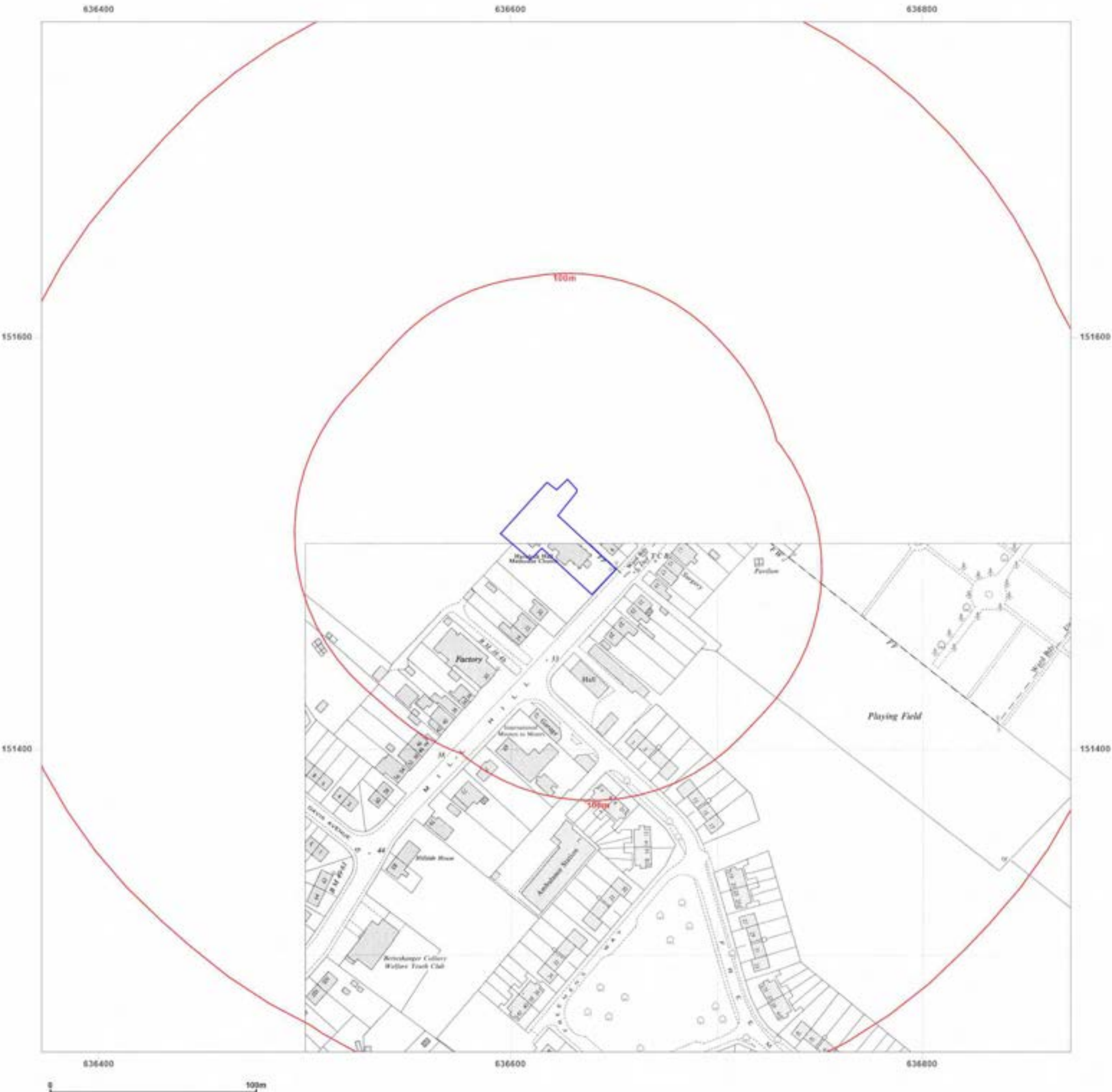
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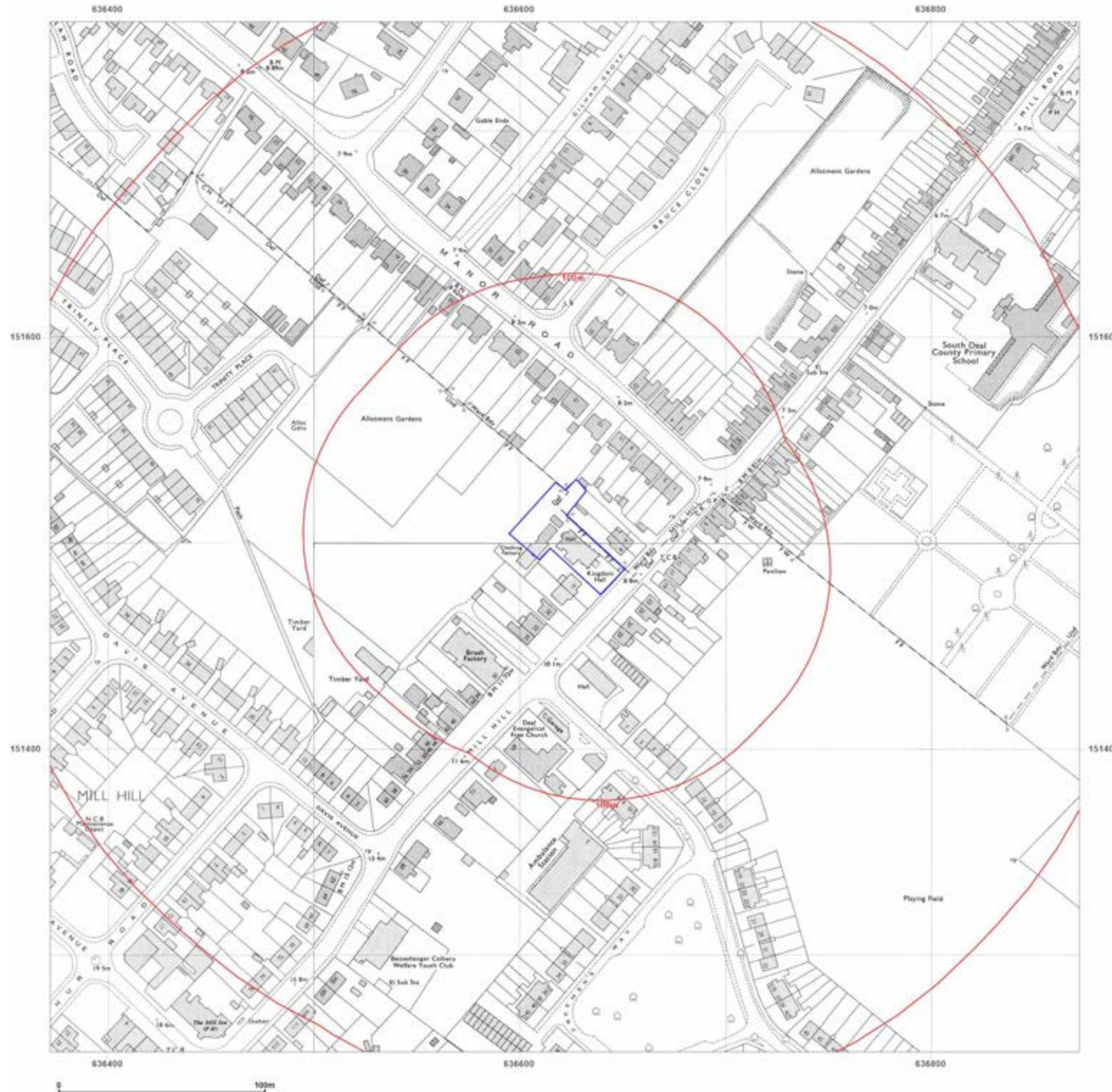


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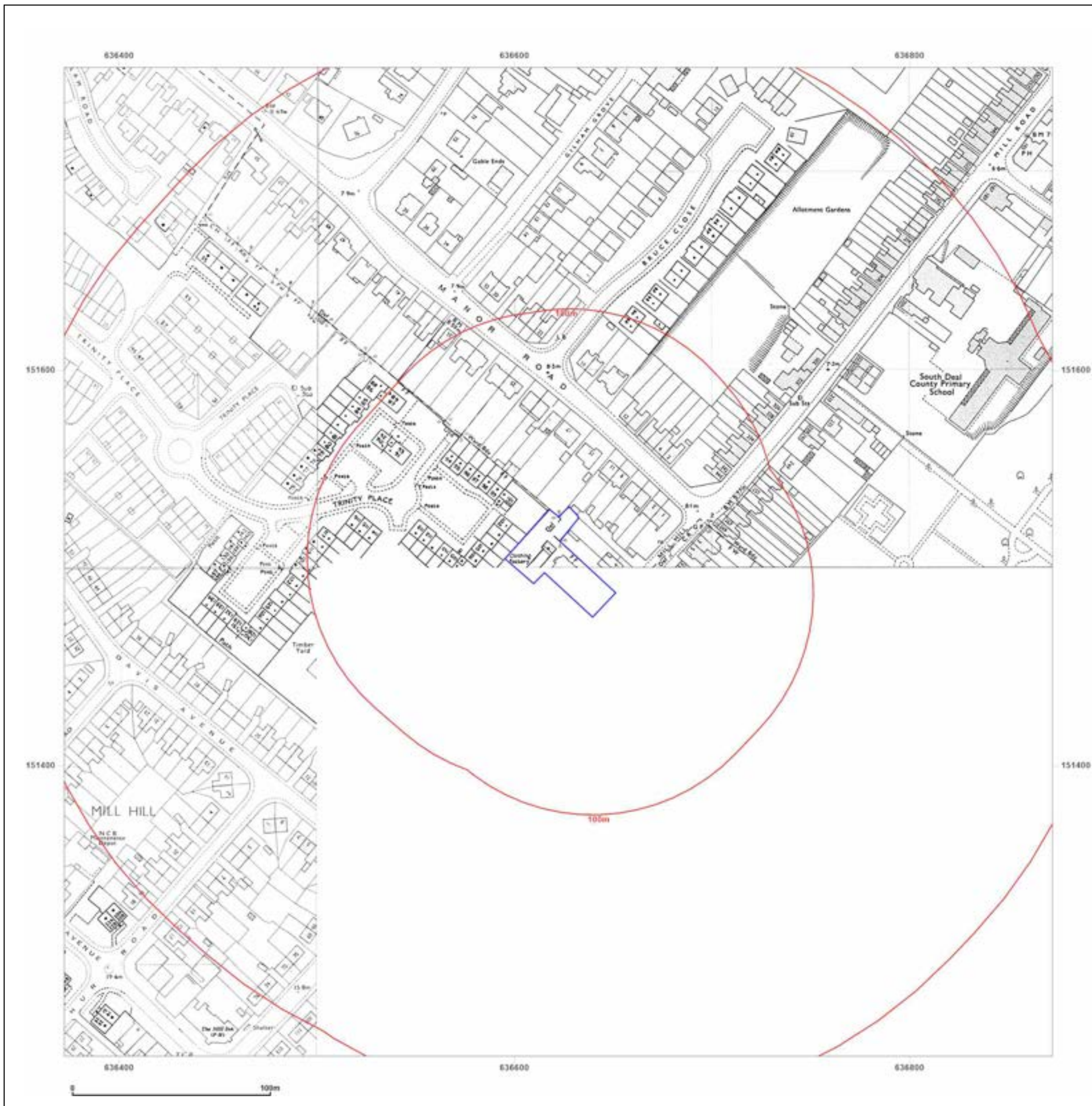


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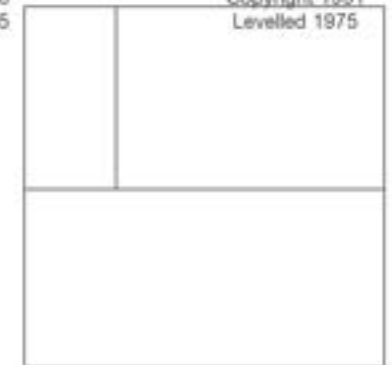
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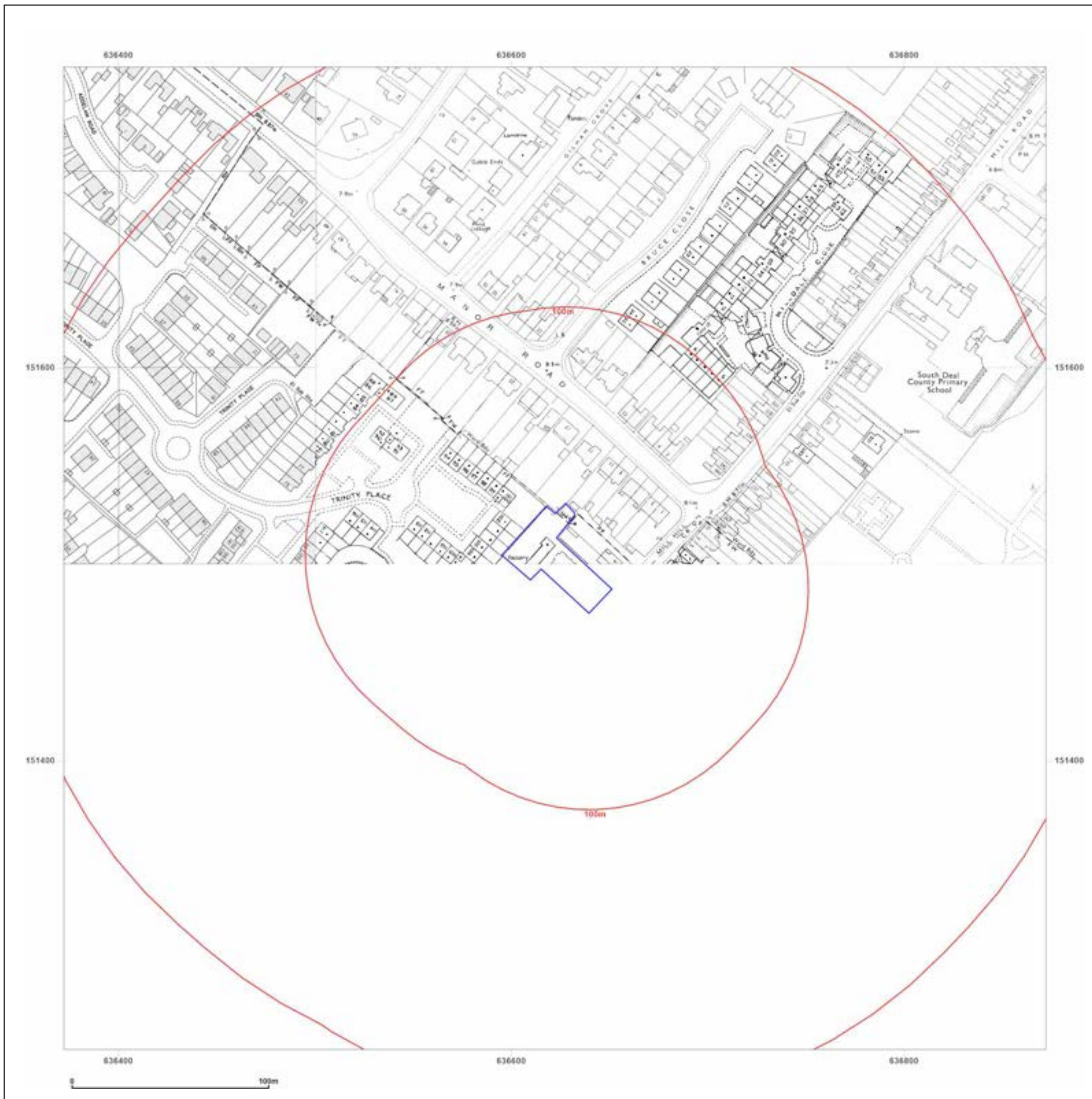


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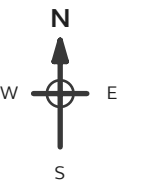
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**Map Name:** National Grid

**Map date:** 1988-1993

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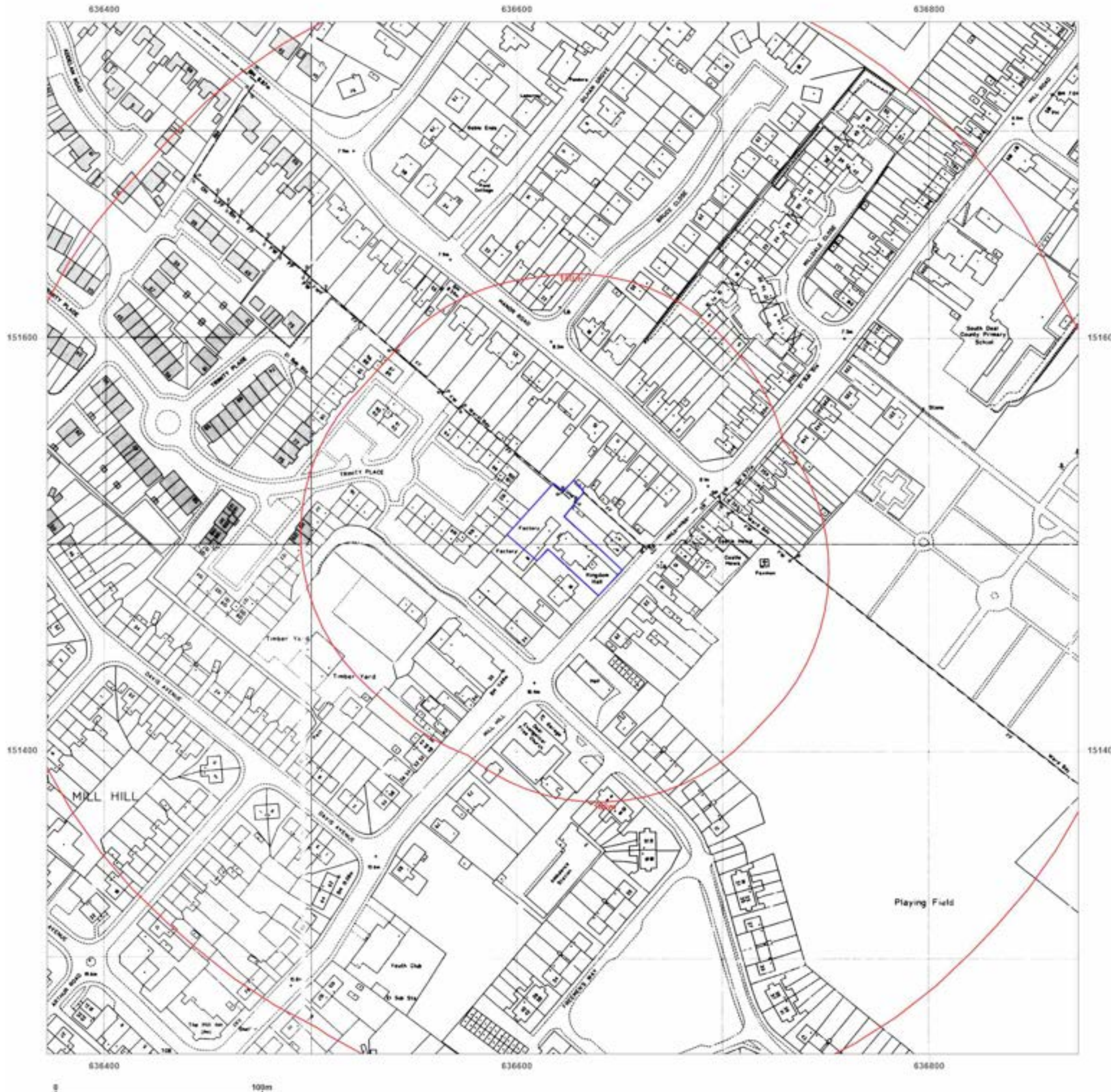


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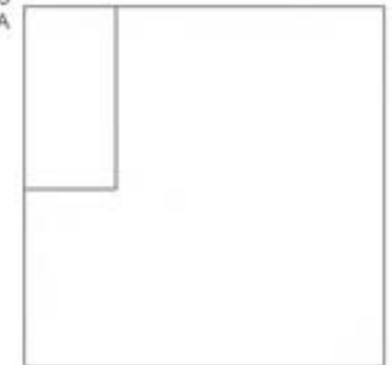
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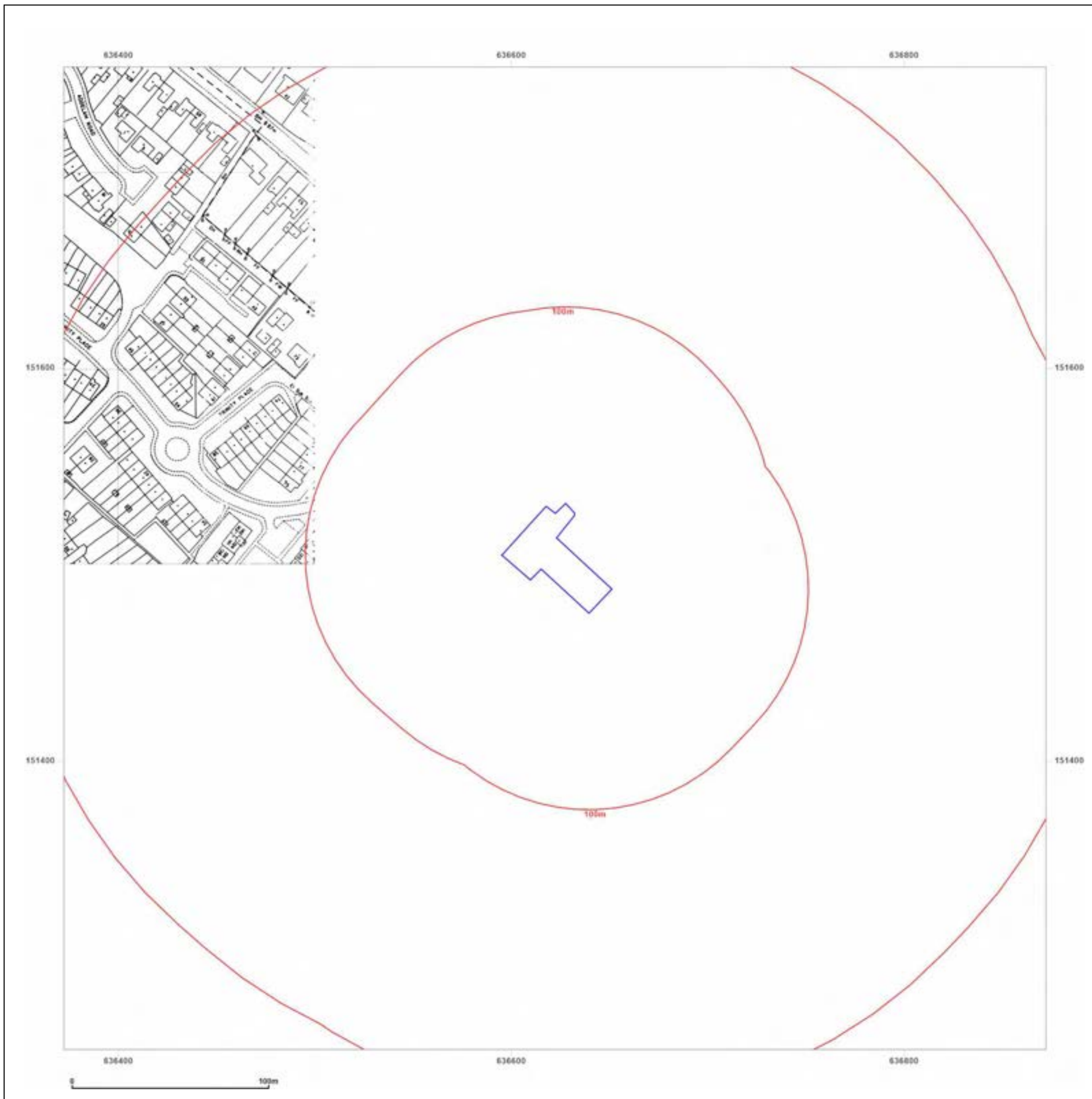


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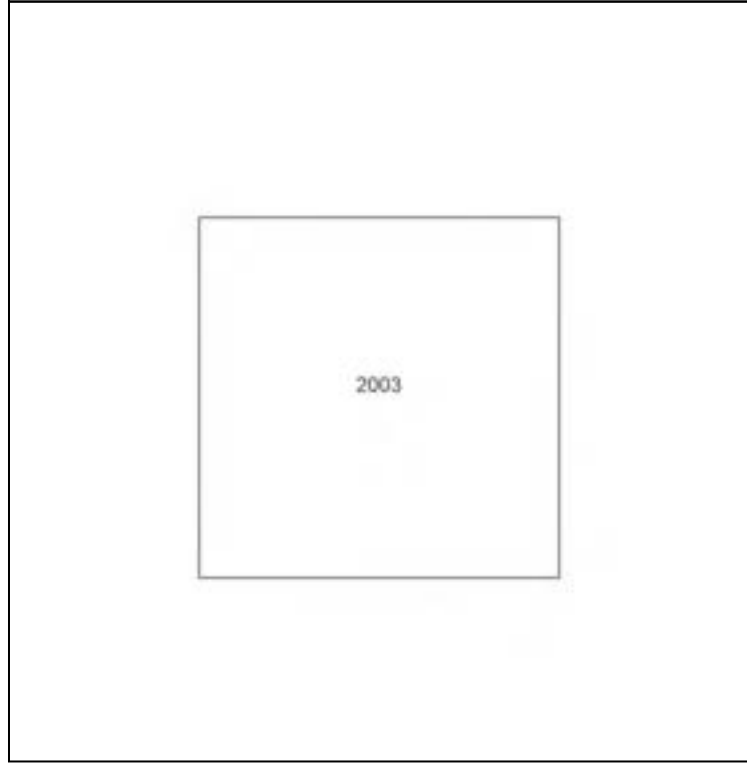
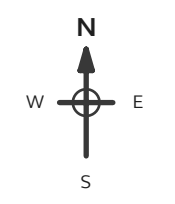


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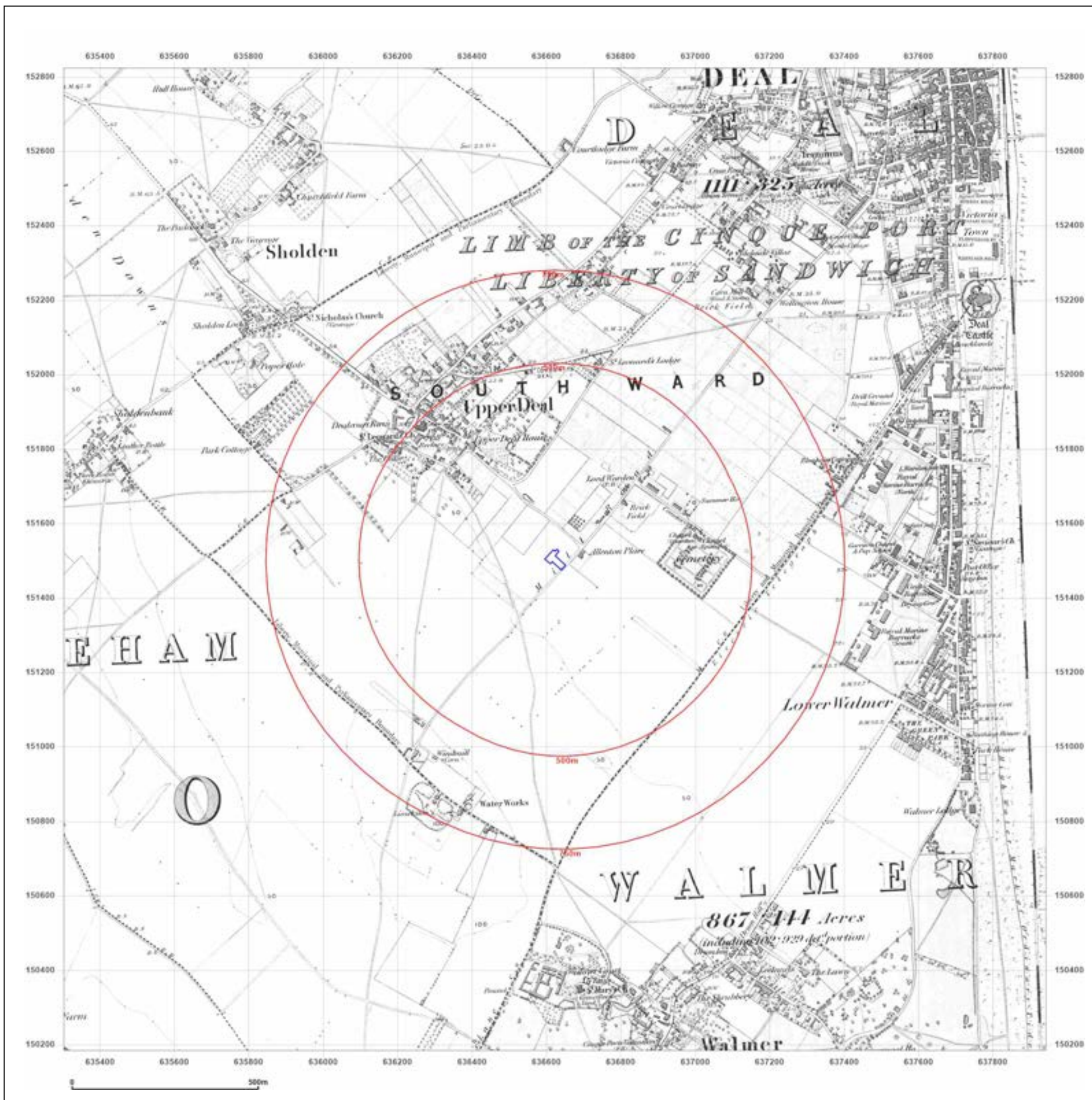


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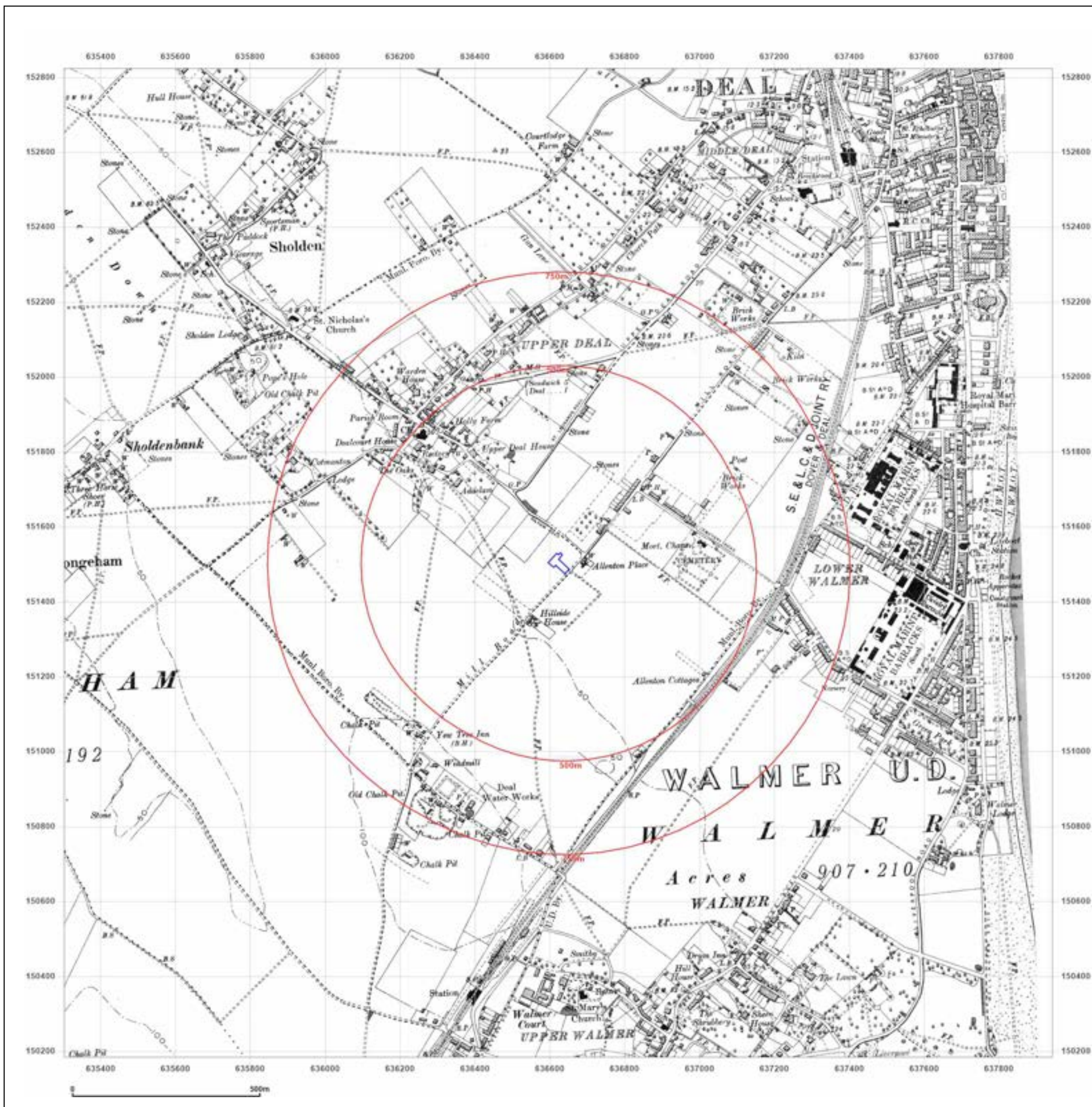


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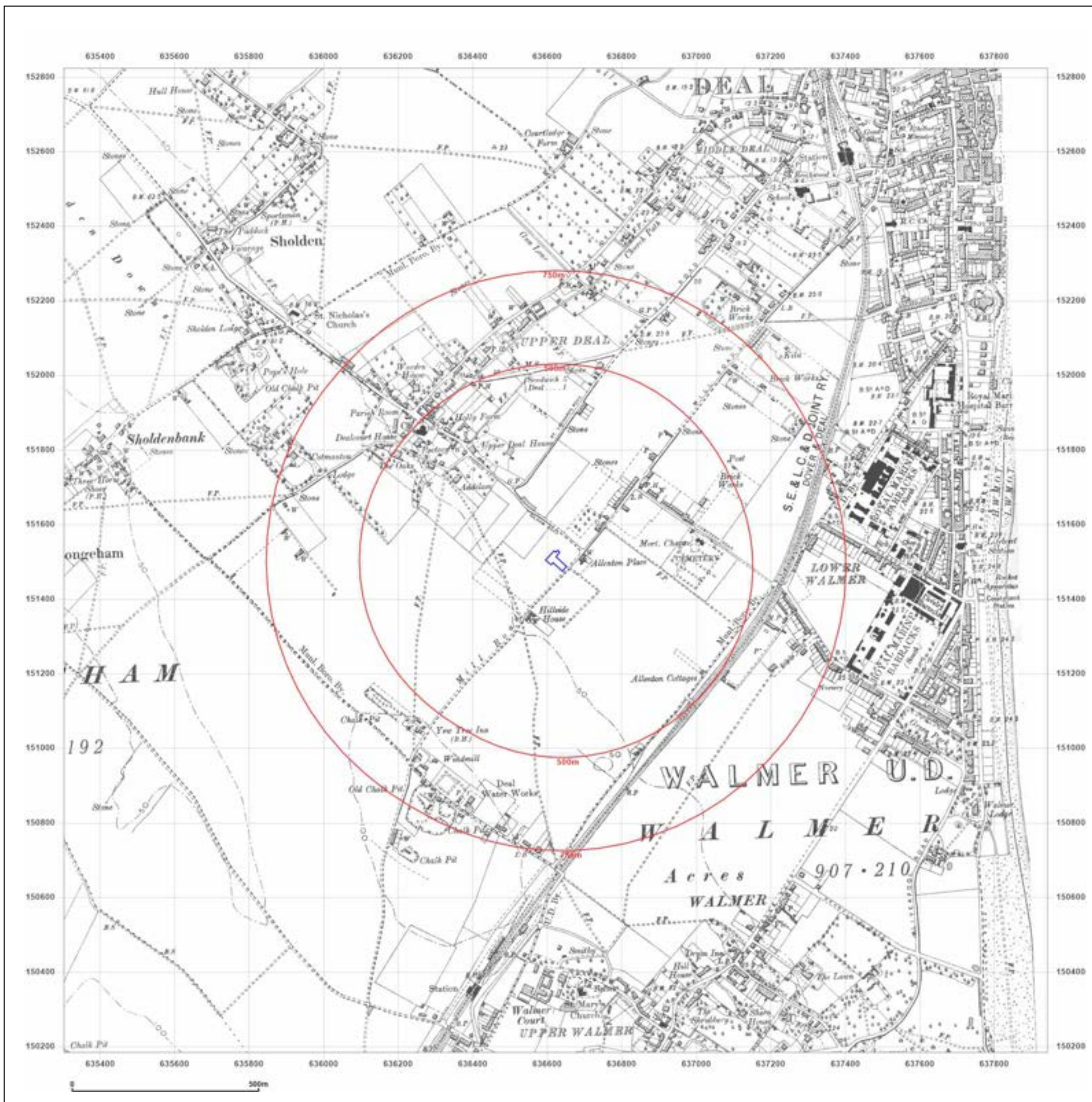


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Levelled N/A

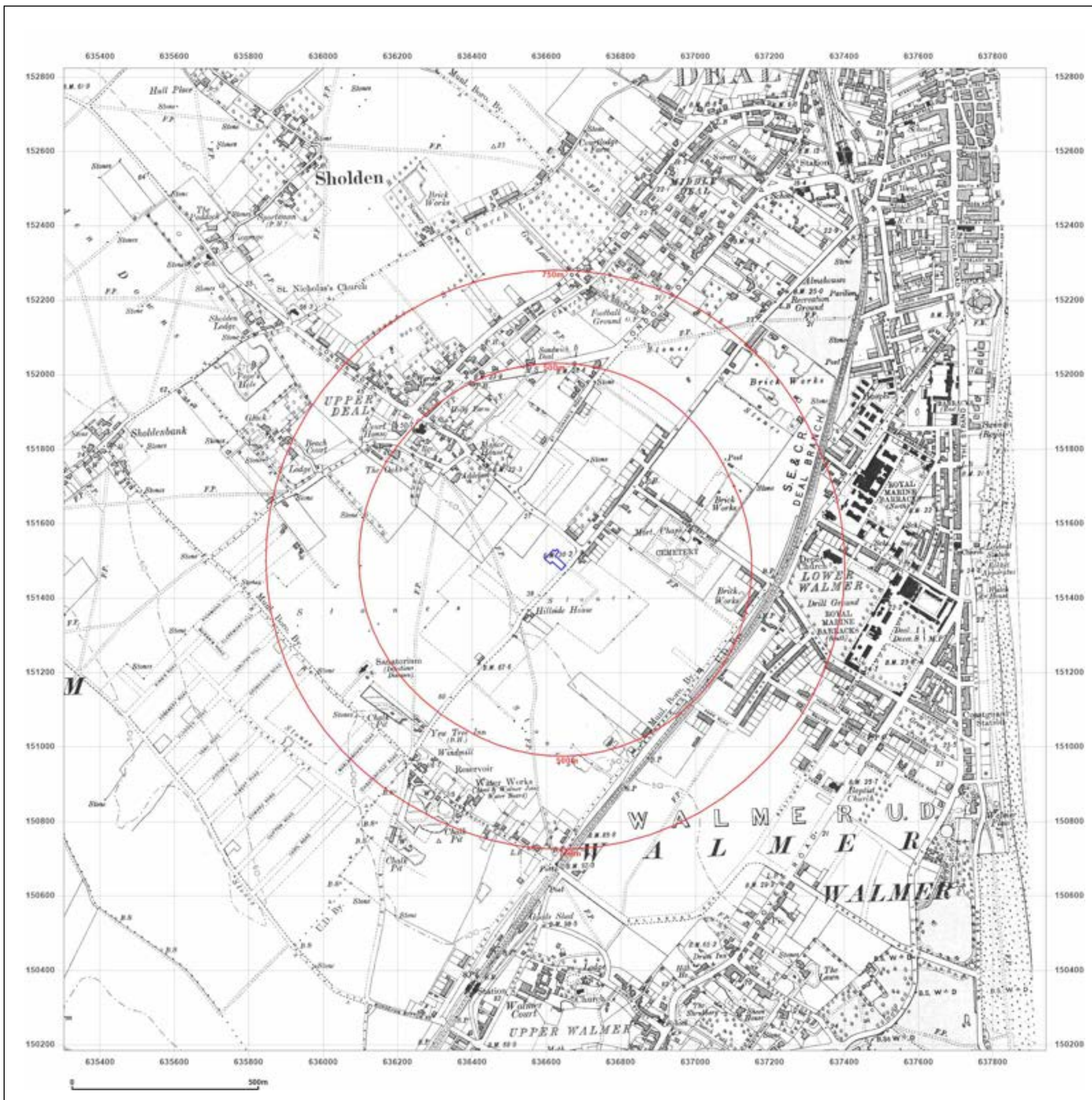


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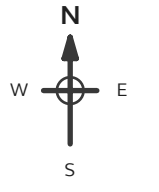
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**Site Details:**  
 KINGDOM HALL, 12, MILL HILL,  
 DEAL, CT14 9EN

**Client Ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Report Ref:** GS-F7J-LYY-FAZ-FDI  
**Grid Ref:** 636622, 151503

**Map Name:** County Series  
**Map date:** 1905  
**Scale:** 1:10,560  
**Printed at:** 1:10,560



Surveyed 1871  
 Revised 1905  
 Edition N/A  
 Copyright N/A  
 Levelled N/A

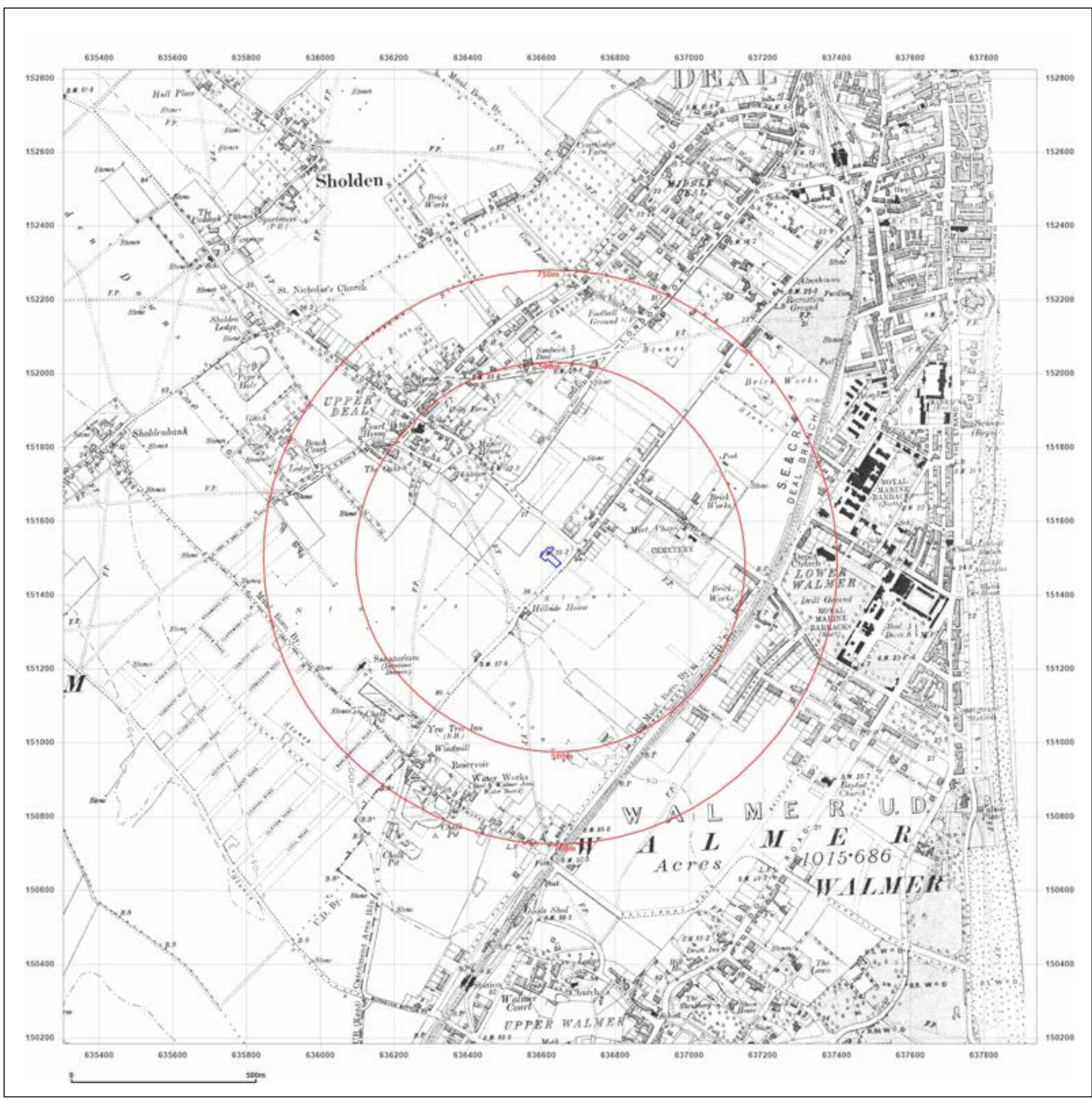


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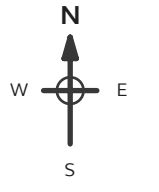




**Site Details:**  
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 DEAL, CT14 9EN

**Client Ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Report Ref:** GS-F7J-LYY-FAZ-FDI  
**Grid Ref:** 636622, 151503

**Map Name:** County Series  
**Map date:** 1907  
**Scale:** 1:10,560  
**Printed at:** 1:10,560



Surveyed 1871  
 Revised 1907  
 Edition 1907  
 Copyright N/A  
 Levelled N/A

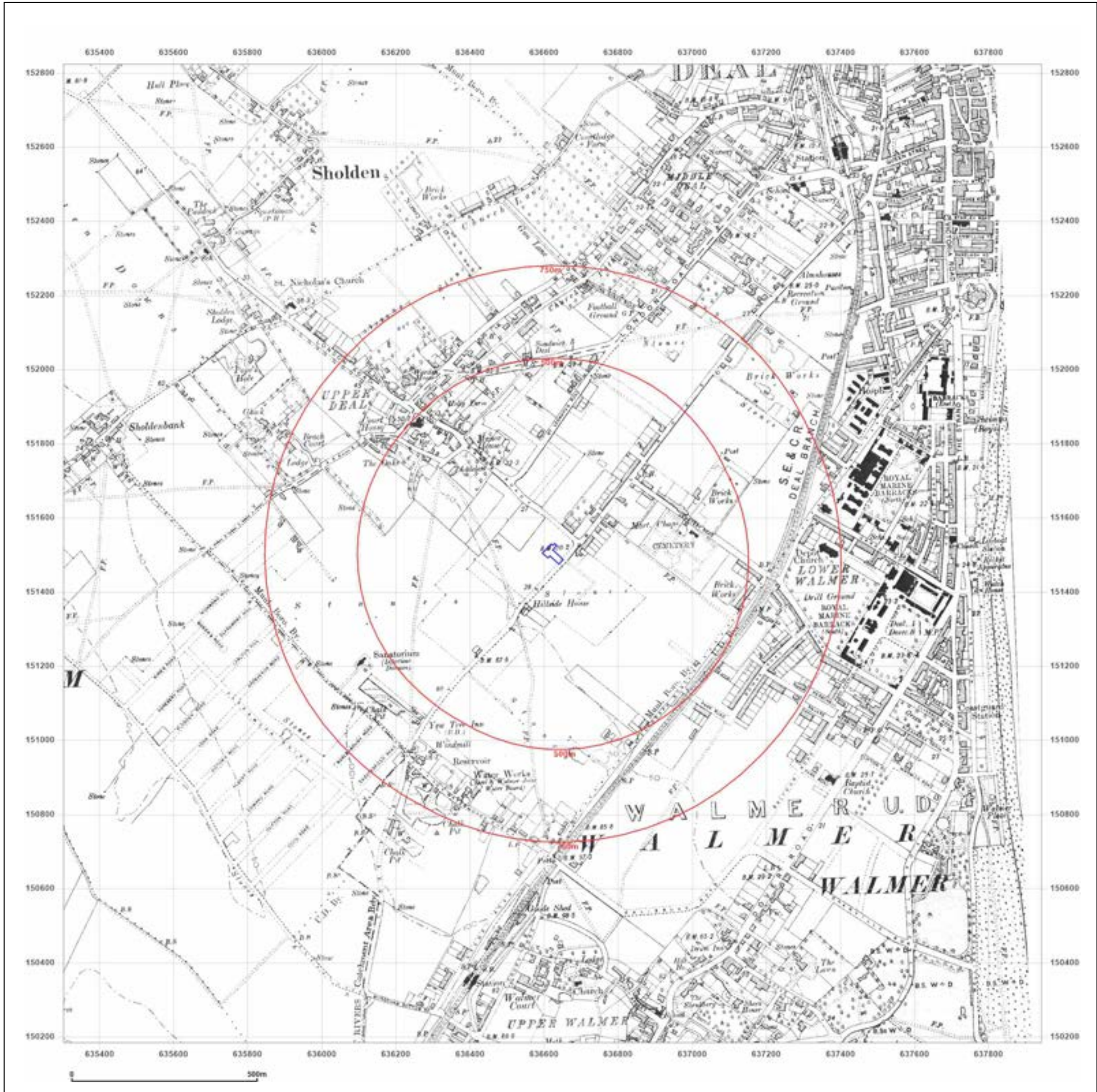


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**Site Details:**

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**Client Ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Report Ref:** GS-F7J-LYY-FAZ-FDI  
**Grid Ref:** 636622, 151503

**Map Name:** County Series

**Map date:** 1908

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed N/A  
Revised N/A  
Edition N/A  
Copyright N/A  
Levelled N/A

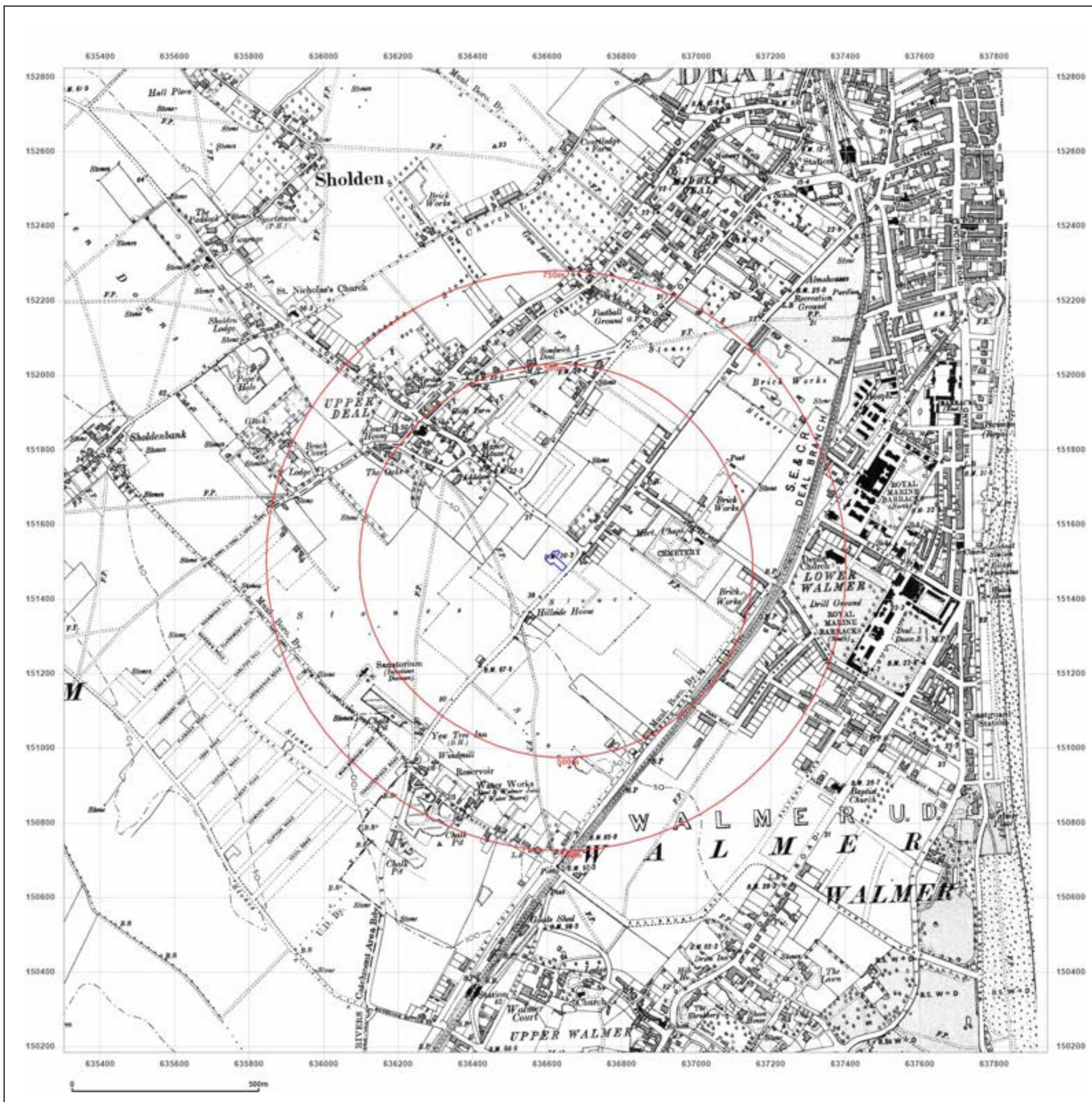


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**Client Ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Report Ref:** GS-F7J-LYY-FAZ-FDI  
**Grid Ref:** 636622, 151503

**Map Name:** County Series

**Map date:** 1938

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed N/A  
Revised N/A  
Edition N/A  
Copyright N/A  
Levelled N/A

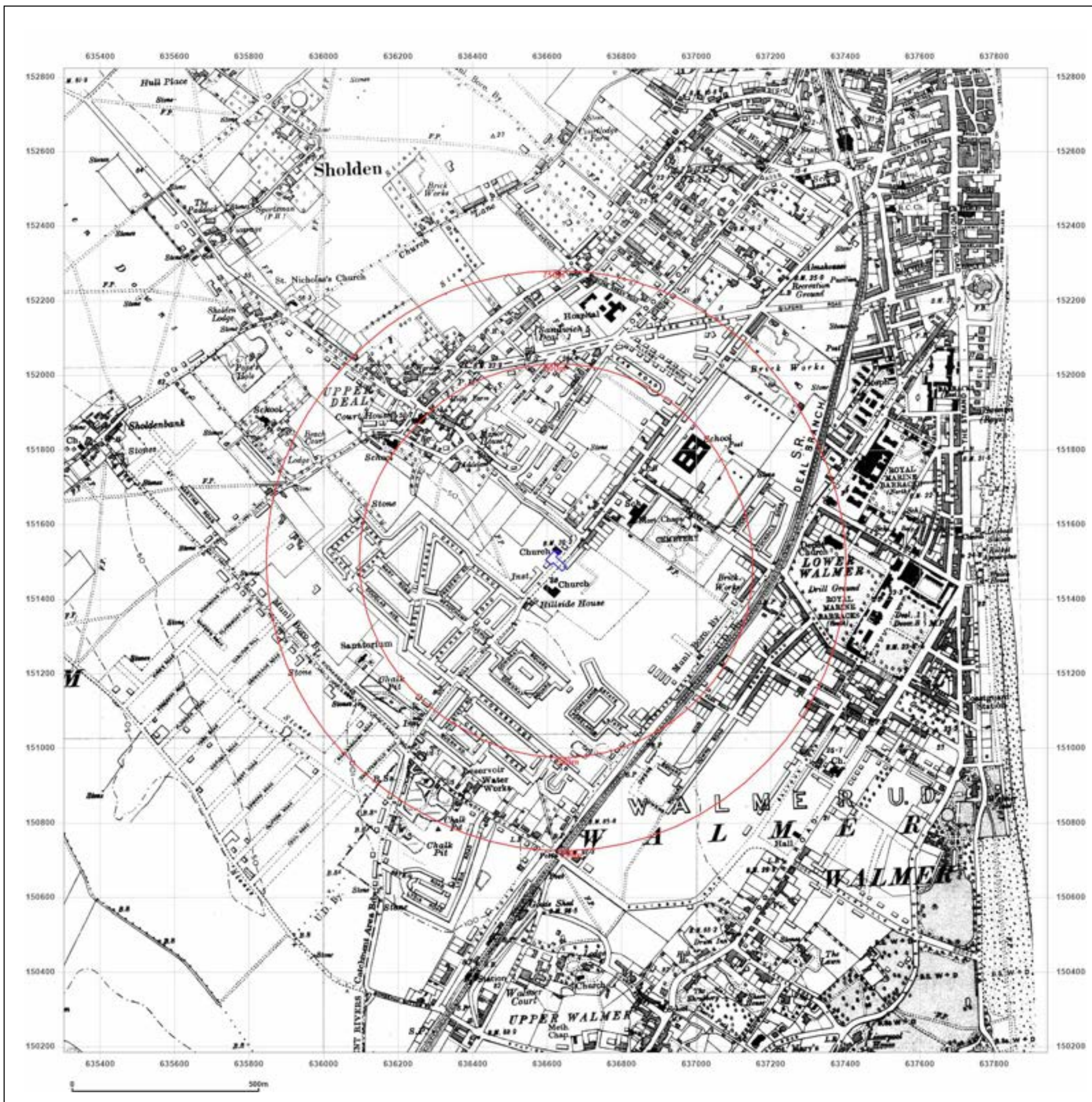


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**Client Ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Report Ref:** GS-F7J-LYY-FAZ-FDI  
**Grid Ref:** 636622, 151503

**Map Name:** County Series

**Map date:** 1938

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1871  
Revised 1938  
Edition 1938  
Copyright N/A  
Levelled N/A

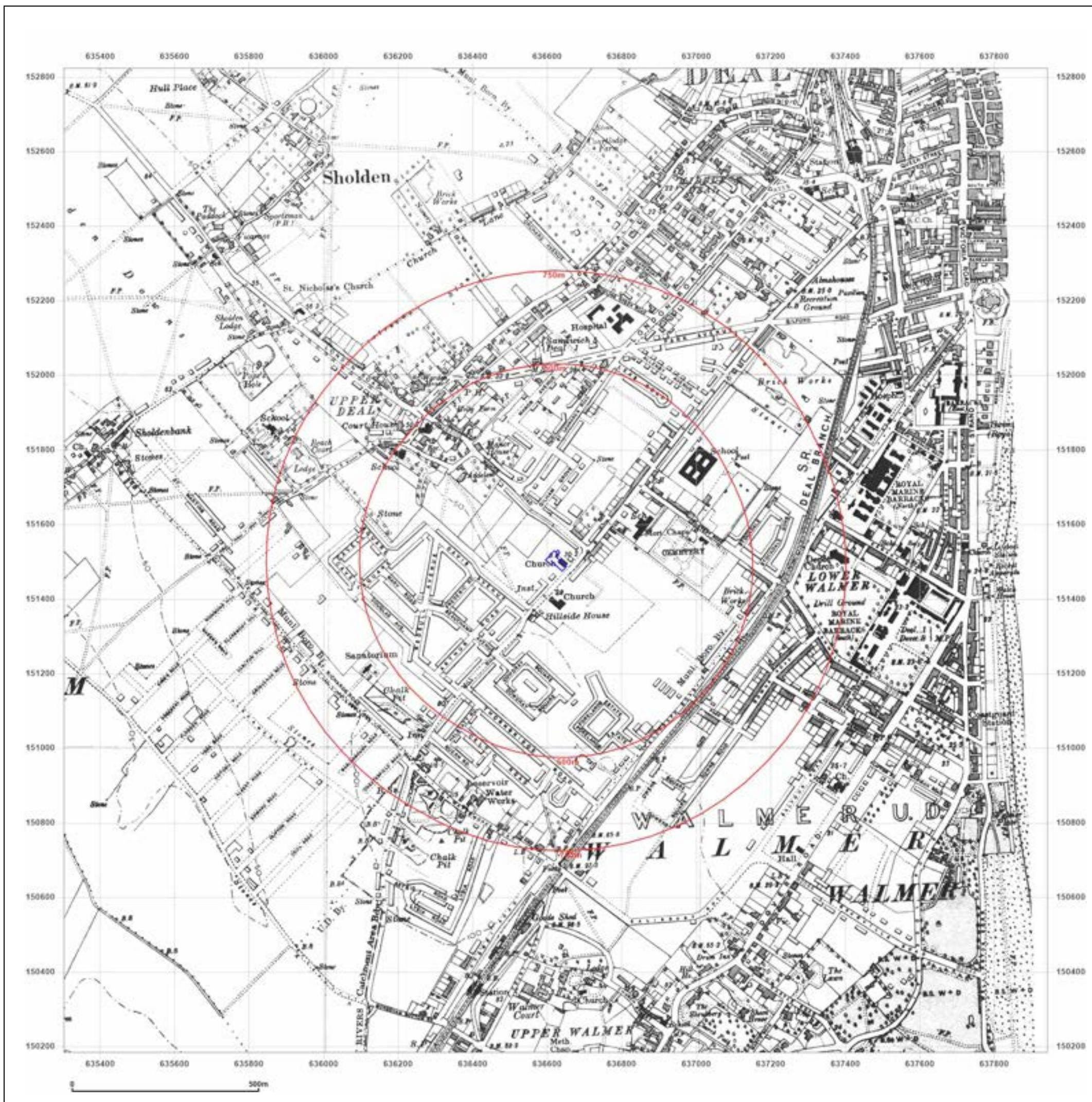


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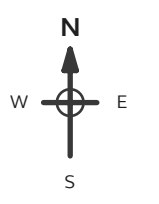
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**Client Ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Report Ref:** GS-F7J-LYY-FAZ-FDI  
**Grid Ref:** 636622, 151503

**Map Name:** County Series  
**Map date:** 1948  
**Scale:** 1:10,560  
**Printed at:** 1:10,560



Surveyed 1871  
 Revised 1948  
 Edition N/A  
 Copyright N/A  
 Levelled 1933

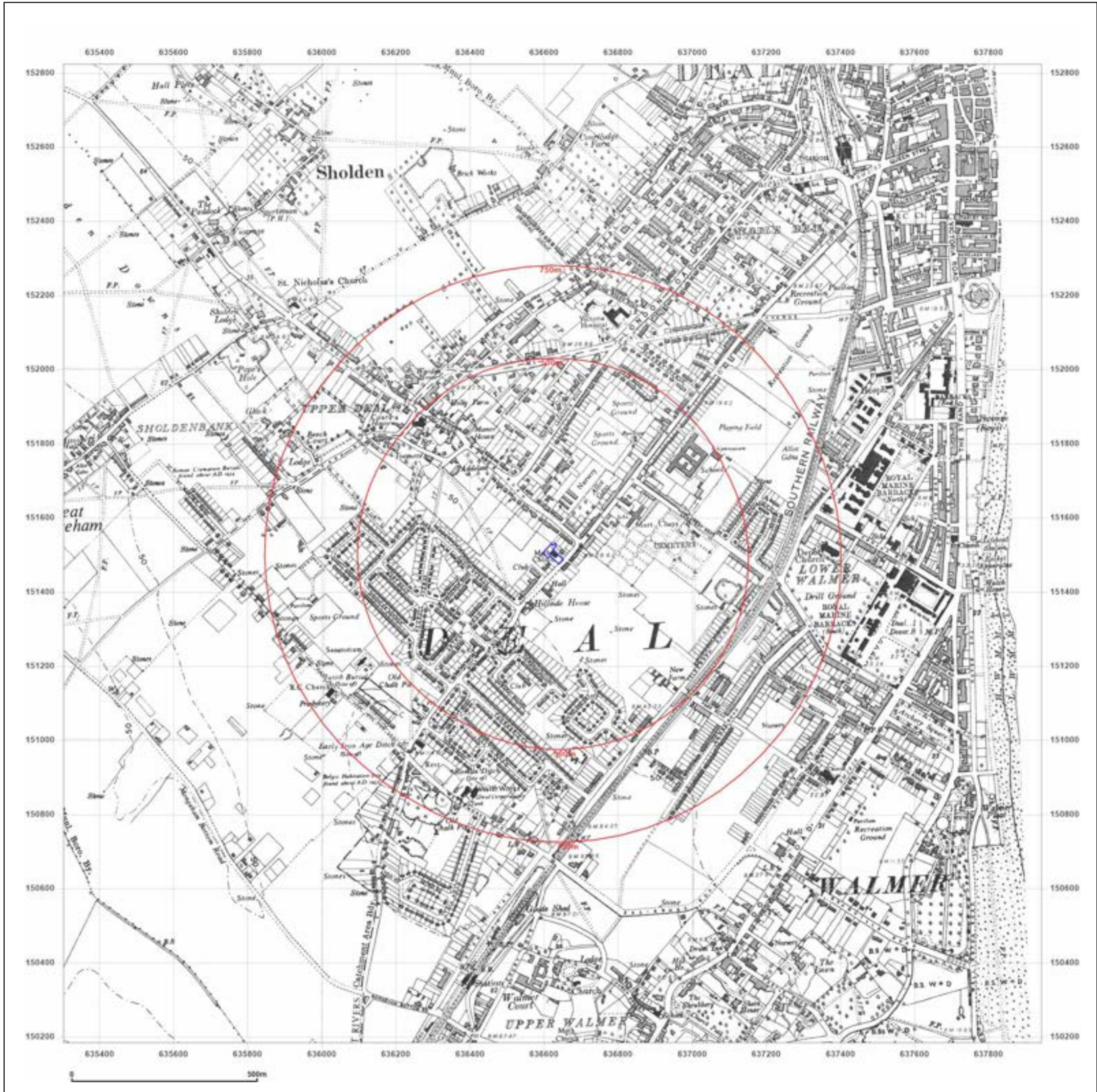


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**Client Ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Report Ref:** GS-F7J-LYY-FAZ-FDI  
**Grid Ref:** 636622, 151503

**Map Name:** Provisional

**Map date:** 1960

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1960  
Revised 1960  
Edition N/A  
Copyright N/A  
Levelled N/A

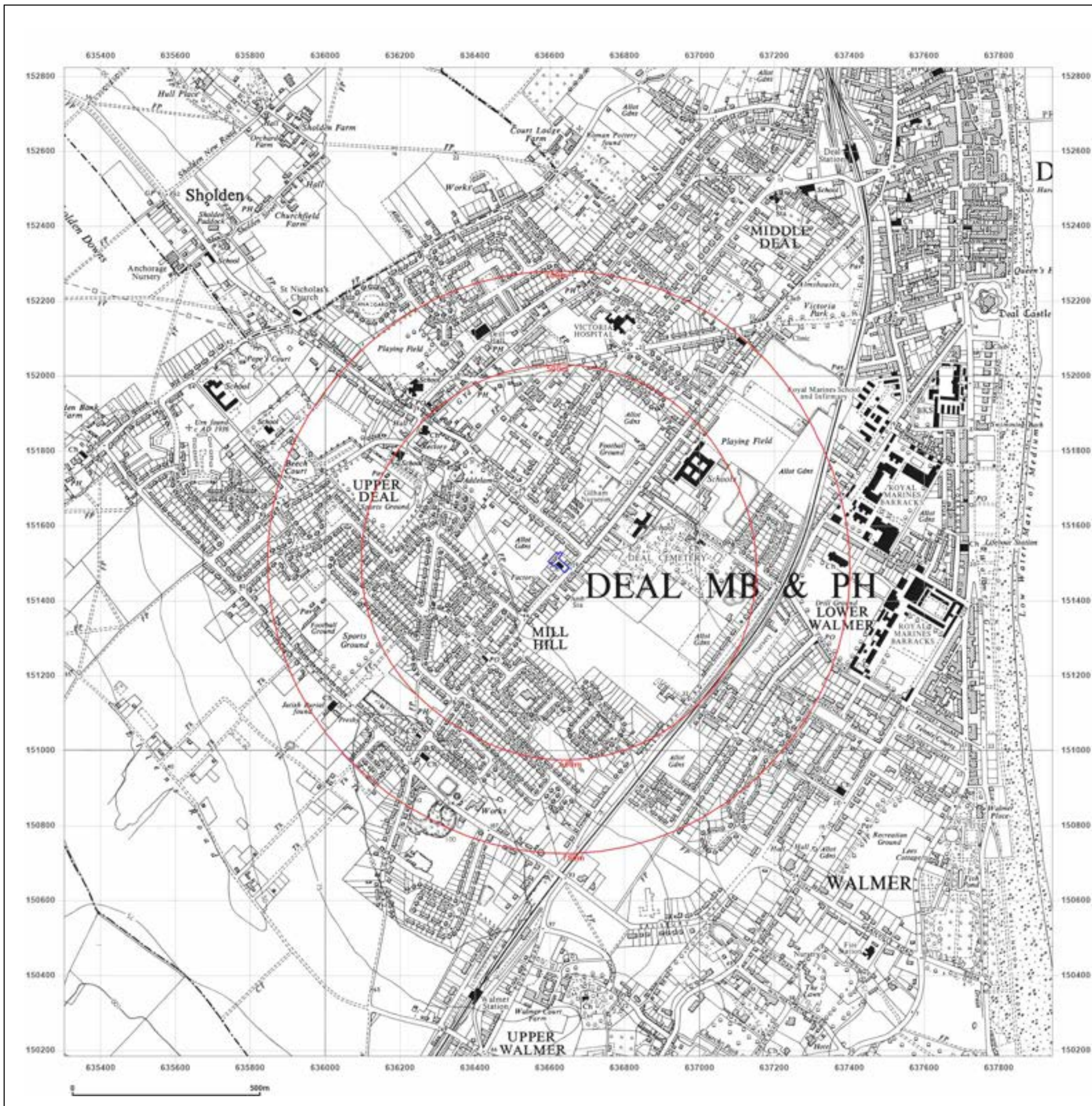


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**Client Ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Report Ref:** GS-F7J-LYY-FAZ-FDI  
**Grid Ref:** 636622, 151503

**Map Name:** National Grid

**Map date:** 1973

**Scale:** 1:10,000

**Printed at:** 1:10,000



Surveyed 1972  
Revised 1973  
Edition N/A  
Copyright 1973  
Levelled N/A

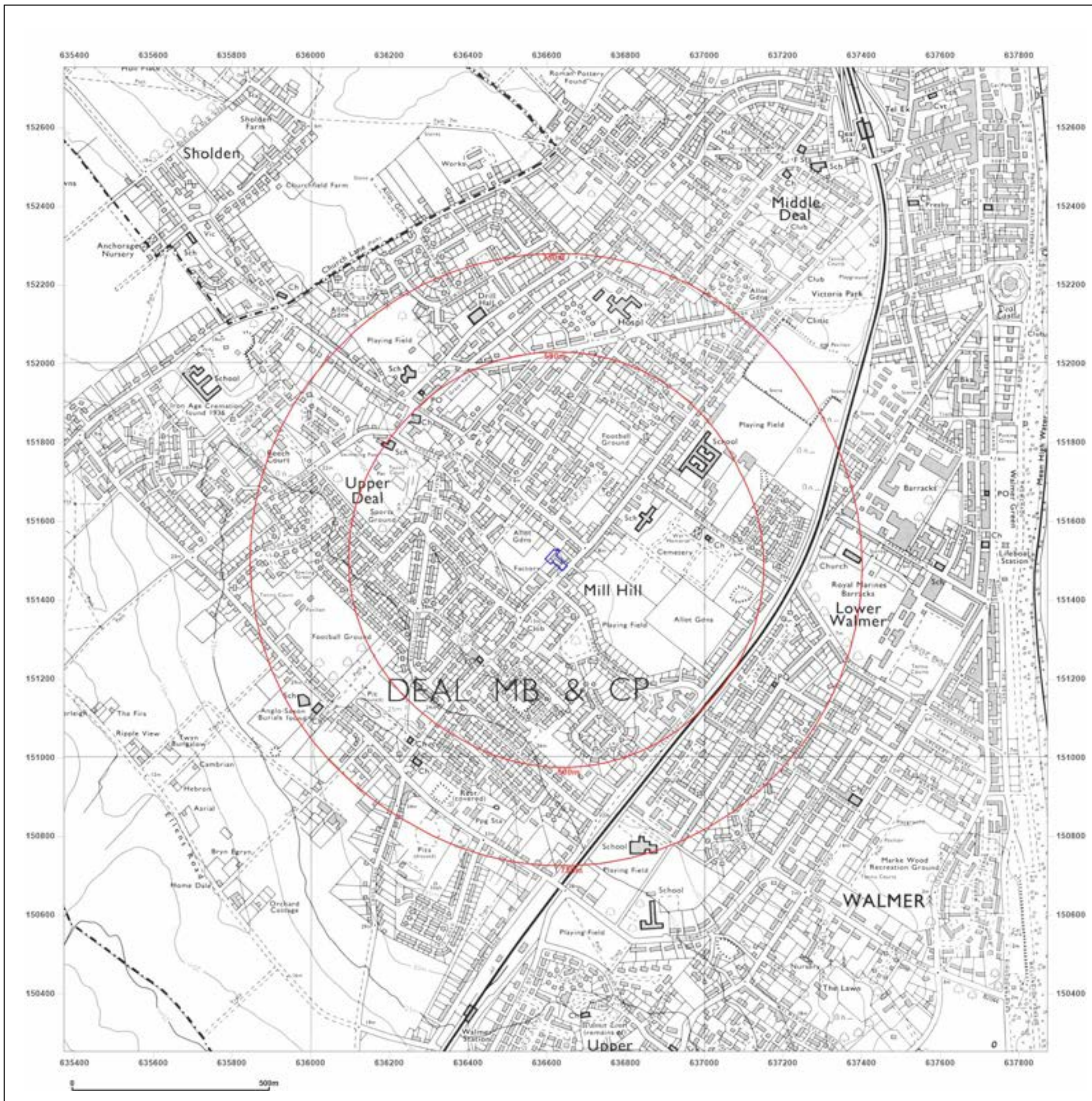


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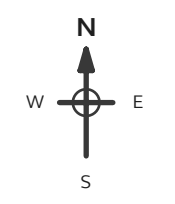
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**Map Name:** National Grid

**Map date:** 1985

**Scale:** 1:10,000

**Printed at:** 1:10,000



Surveyed 1985  
Revised 1985  
Edition N/A  
Copyright N/A  
Levelled N/A

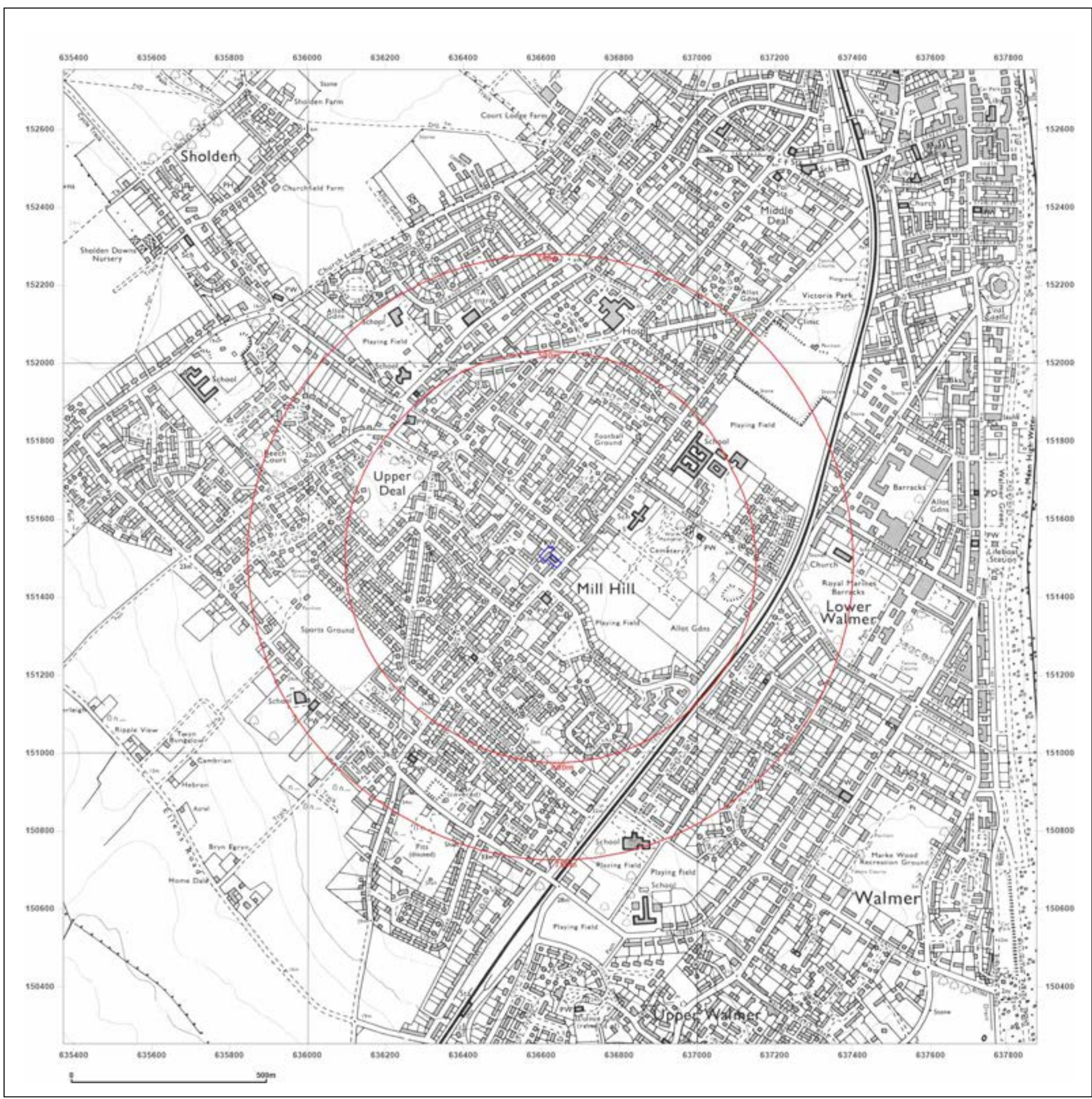


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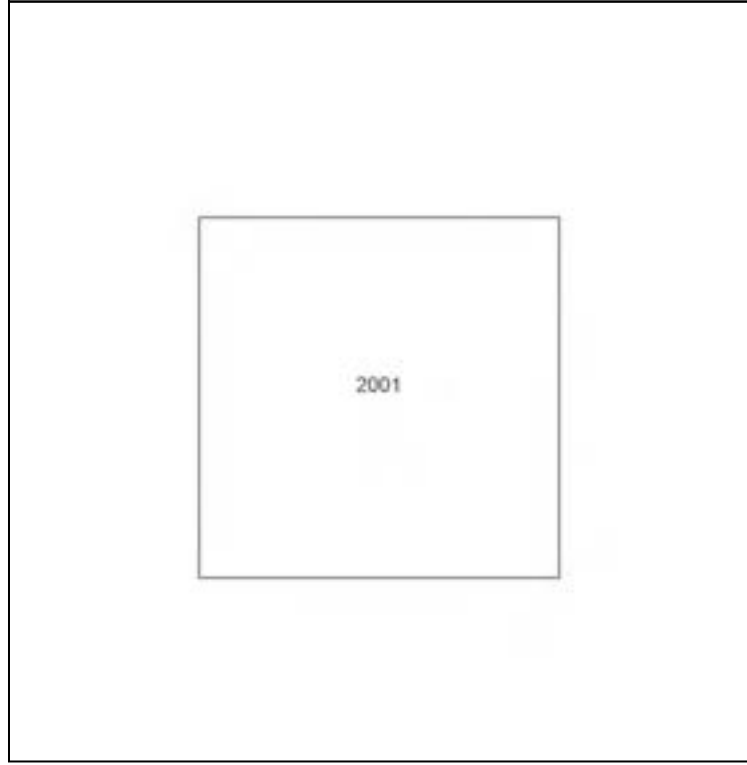
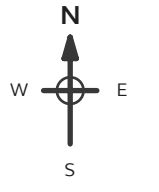




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**Client Ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Report Ref:** GS-F7J-LYY-FAZ-FDI  
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**Map Name:** National Grid  
**Map date:** 2001  
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**Printed at:** 1:10,000



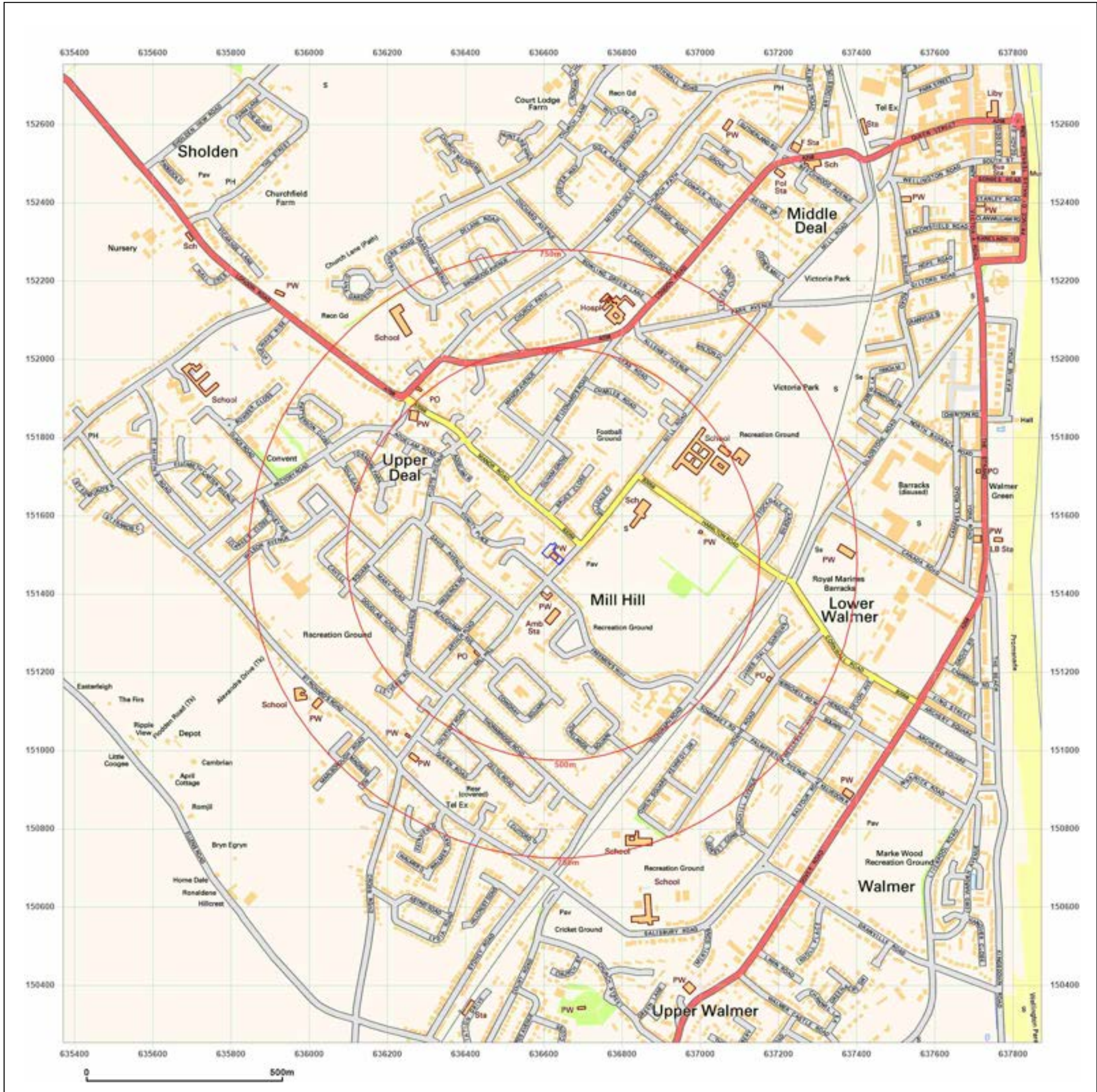
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**Client Ref:** Kingdom\_Hall\_12\_Mill\_Hill\_Deal\_Kent\_  
**Report Ref:** GS-F7J-LYY-FAZ-FDI  
**Grid Ref:** 636622, 151503

**Map Name:** National Grid

**Map date:** 2010

**Scale:** 1:10,000

**Printed at:** 1:10,000

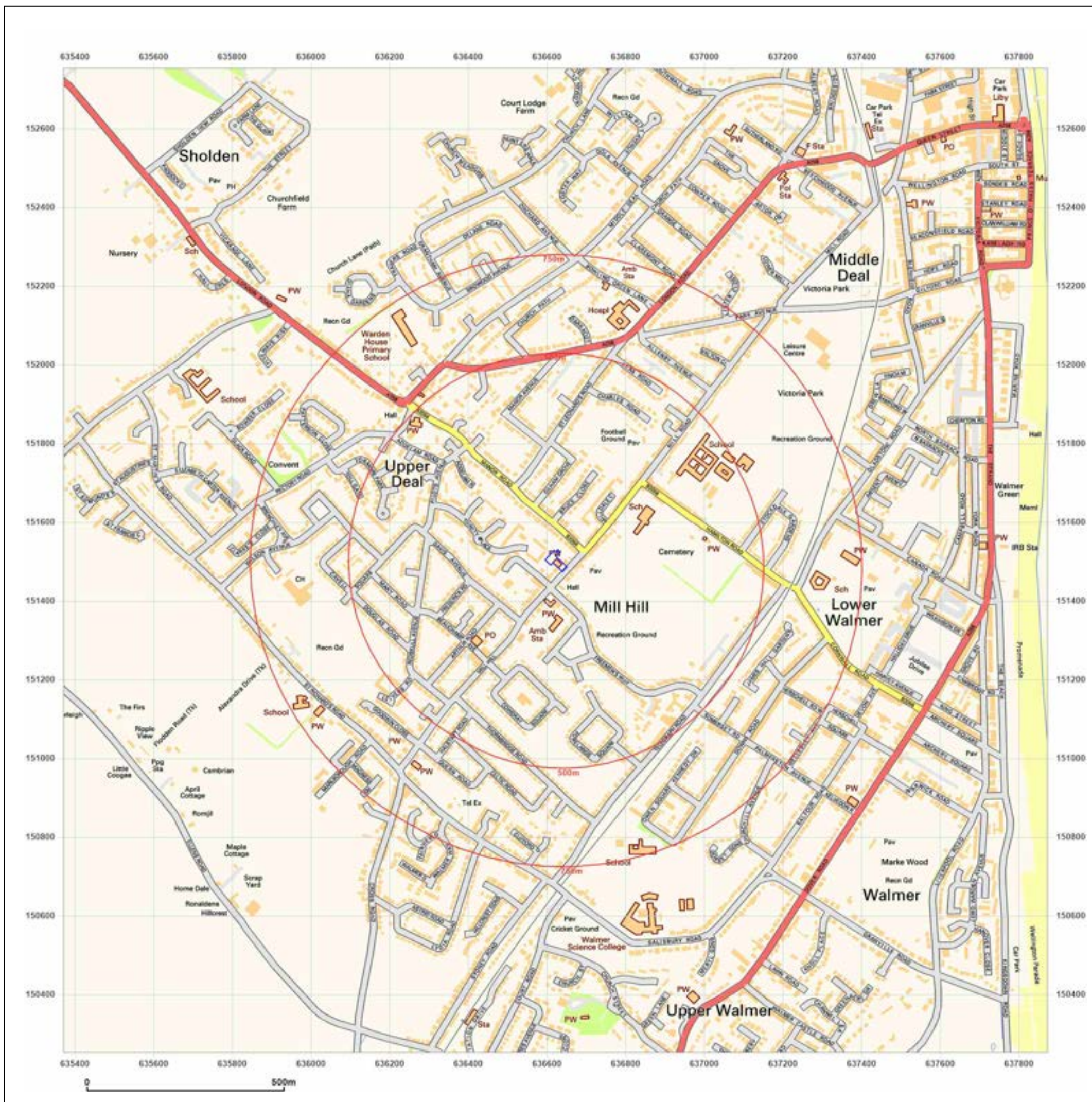


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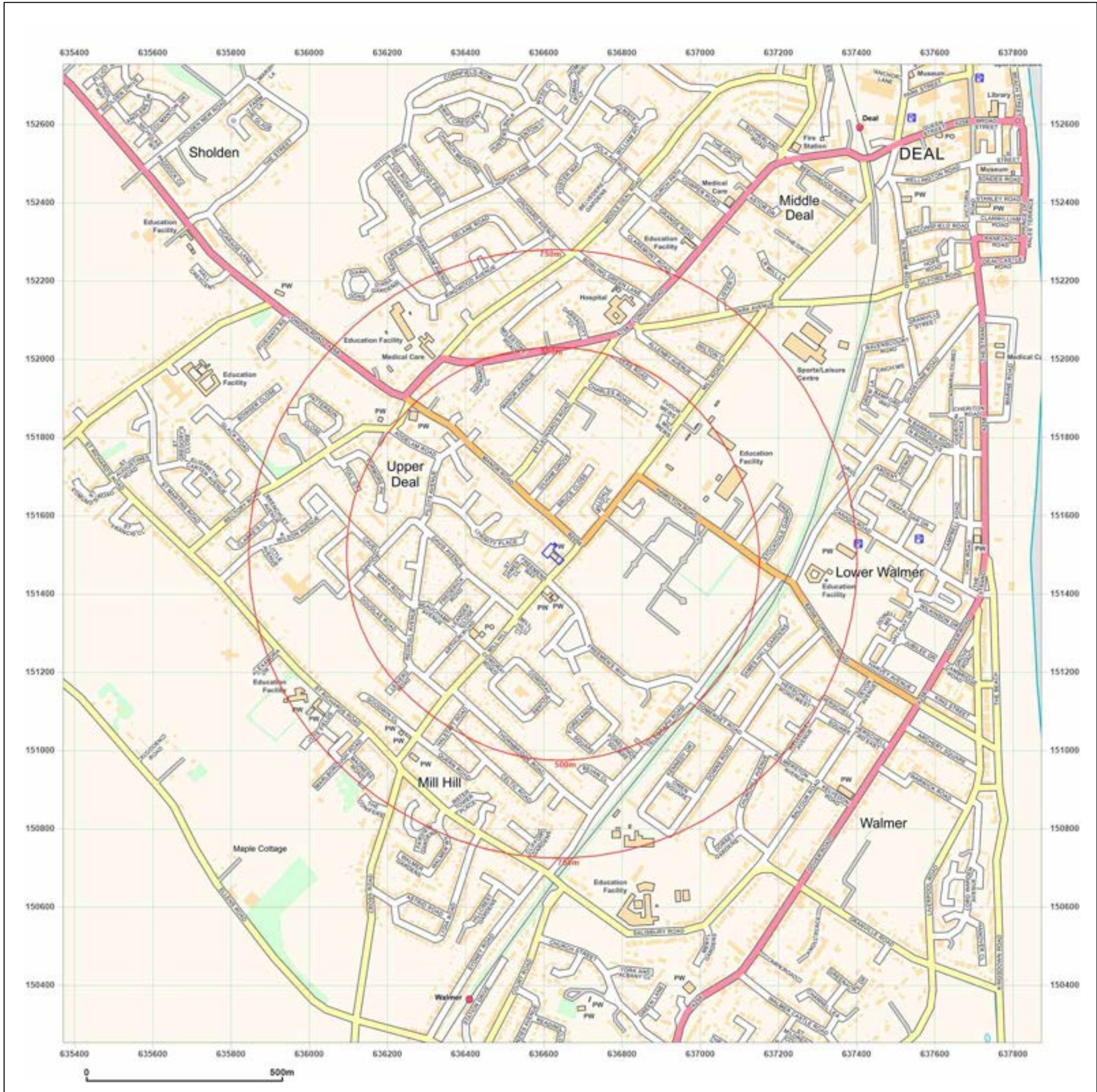
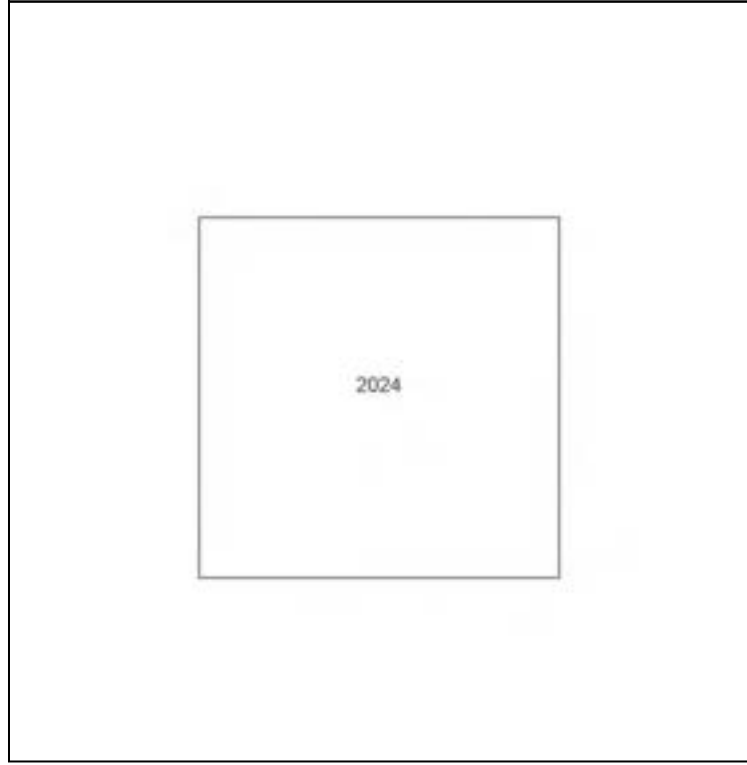
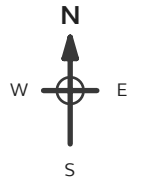
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**Report Ref:** GS-F7J-LYY-FAZ-FDI  
**Grid Ref:** 636622, 151503

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**Printed at:** 1:10,000



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