EARTH ENVIRONMENTAL & GEOTECHNICAL

PHASE I GEO-ENVIRONMENTAL DESK REPORT STUDY WITH WALK OVER

MEAD HOUSE

MEAD HOUSE LANE

HAYES

UB4 8EW

REPORT REF: R4336/24

NOVEMBER 2024

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Prepared on Behalf of:

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PHASE I GEO-ENVIRONMENTAL DESK STUDY REPORT

MEAD HOUSE, MEAD HOUSE LN, HAYES UB4 8EW

Report Reference: R4336/24

Version A.1

Date: 4th November 2024

Prepared for: Reliant Care Ltd

Prepared by: Earth Environmental & Geotechnical (Southern) Ltd
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Definition of Version Code:
D. Applied during initial drafting of the report before it has been reviewed.
C. Applied after the report has been reviewed but before it has been approved by the Project Manager.
B. Applied after the Project Manager has approved the report ready for issue to the client.
A. Applied to reports after external/internal review.

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Written by:

Timthy Stainthorpe
Geo-Environmental Consultant

Approved by: **John Grace**
Director

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1.0 INTRODUCTION

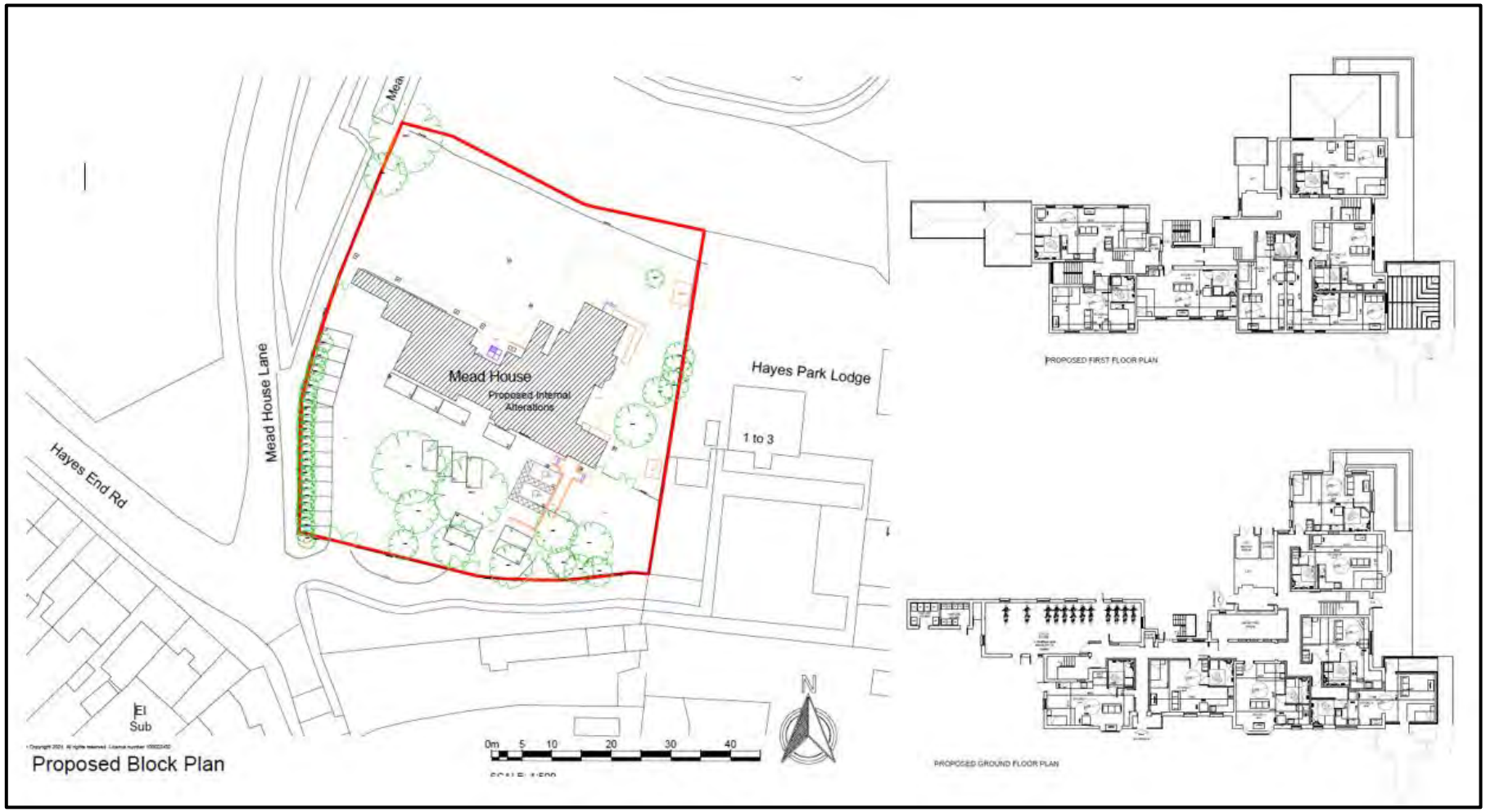
1.1 Background

Earth Environmental & Geotechnical (Southern) Ltd (EEGSL) was commissioned by Reliant Care Ltd (the 'Client'), to undertake a Phase I Geo-Environmental Desk Study for the prior approval application being submitted under Class MA to convert the ground and first floors of Mead House from Class E to Class C3 to provide 14 residential studios at Mead House, Mead House Lane, Hayes, UB4 8EW (herein referred to as the 'assessment site').

1.2 Proposed Development

A prior approval application is being submitted under Class MA to convert the ground and first floors of Mead House from Class E to Class C3 to provide 14 residential studios. Plans showing the proposed development layouts and block plan are provided in Figure 1.

Figure 1 – Proposed Development Plans



1.3 Terms of Reference

EEGSL was commissioned by the Client to undertake a Phase I Geo-Environmental Desk Study for the assessment site in accordance with a proposal reference R4336, dated 9th October 2024.

The objectives of this assessment are as follows:

- *Undertake a desk-based review of the underlying geology and hydrology, current and historical site uses, potential contamination sources, radon potential, natural cavities and mining risks. As part of this study, historical plans and environmental data would be obtained for the assessment site.*
- *Assess the implications of any potential environmental risks, liabilities and development constraints associated with the site in relation to its future use.*

1.4 Sources of Information

The Phase 1 Desk Study comprises of a review of the following information sources:

- British Geological Survey online maps.
- Google Earth imagery.
- Environment Agency online data.
- Historical Ordnance Survey maps.
- Site-specific Groundsure Insight Report (REF: GS-ES3-8QI-B5U-Y3S. October 2024)

1.5 Limitations of the Study

The report is written in the context of an agreed scope of work and budget and should not be used in a different context. New information, improved practices or changes in legislation may require a reinterpretation of the report in whole or in part. EEGSL reserve the right to amend either conclusions or recommendations in light of any further information that may become available. The report is provided for the sole use by the client and is confidential to them.

Recommendations within this report are also based on records produced by others. It is assumed this information is accurate and no liability can be accepted for the accuracy of this information.

2.0 SITE LOCATION & DESCRIPTION

The assessment site is located at Mead House, Mead House Lane, Hayes and is centred on National Grid Reference TQ 08897 82105 (E: 508897 , N: 182105) with the nearest postcode being UB4 8EW. The assessment site and surrounding area are shown in Figure 2.

Figure 2 – Site Location Plan

The assessment site is approximately 0.45 hectares in size and is bound by residential properties, open parkland and allotments within a semi urban setting.

A site visit was completed by EEGSL on the 21st October 2024. During the site visit access to all areas was made available.

During the site visit it was noted the interior of the building had been well maintained and was formally used as a Day Centre (run by the council) a General Practice (GPs) and more recently a Covid 19 vaccination centre. A description of the internal layout is provided below.

Main entrance and wating areas are situated on the central south portion of the property with interview rooms and office areas to the right of the corridor leading east to the canteen, kitchen and filing room. To the rear of the ground floor is a second kitchen / dining room and a games room with a lift shaft and staircase.

The first floor currently consists of several open office spaces, interview rooms and storage areas with a relaxation room and a kitchen. The floor layout is broadly similar to the ground floor as can been seen in Figure 1.

The second floor was not inspected during the site visit, however it is known to be occupied by staff areas, offices, admin storage and a staff room with roof access to the western side.

The exterior of the property is of brick construction with the second floor being rendered and painted white. The main entrance is located to the south and leading off Mead Lane.

External areas consisted of the site access and parking areas to the south, and open lawns to the north, east and south east.

The site is bound to the south and southwest by residential properties, to the west and north by a small access track and open land associated with a large residential property and to the east by assisting living premises.

In terms of potential sources of contamination, an internal plant room was noted within the western area of the site, however the boilers were all mains gas fed, and the floor of the plant room was noted as being solid concrete (and in good order).

No significant onsite sources of contamination were noted during the site walkover.

Photographs taken during the site visit are presented within Figure 3.

Figure 3 Site Walkover Photographs

Photograph Taken from the Entrance of Site Looking North from Mead House Lane	Photograph Taken from the Entrance of Site Looking Northeast
	
Photograph Showing the Rear Of The Site Taken From the western side of the Rear Garden	**Photograph Showing the Eastern Area of the Rear Garden.**
	
Photograph Looking South Within Front Garden Area (within the SE Corner of Site)	**Photograph Showing the Internal Plant Room Located in the Single-Story Western Section of the Property**
	

3.0 GEOLOGICAL SETTING

The geology of the assessment site is covered by British Geological Survey (BGS) online data and the site-specific Groundsure Insight Report (Appendix 1).

The following sections are generally limited to locations within 250m of the assessment site boundary unless it is considered that installations or activities beyond that range could potentially impact on the assessment site or its redevelopment.

3.1 Geology

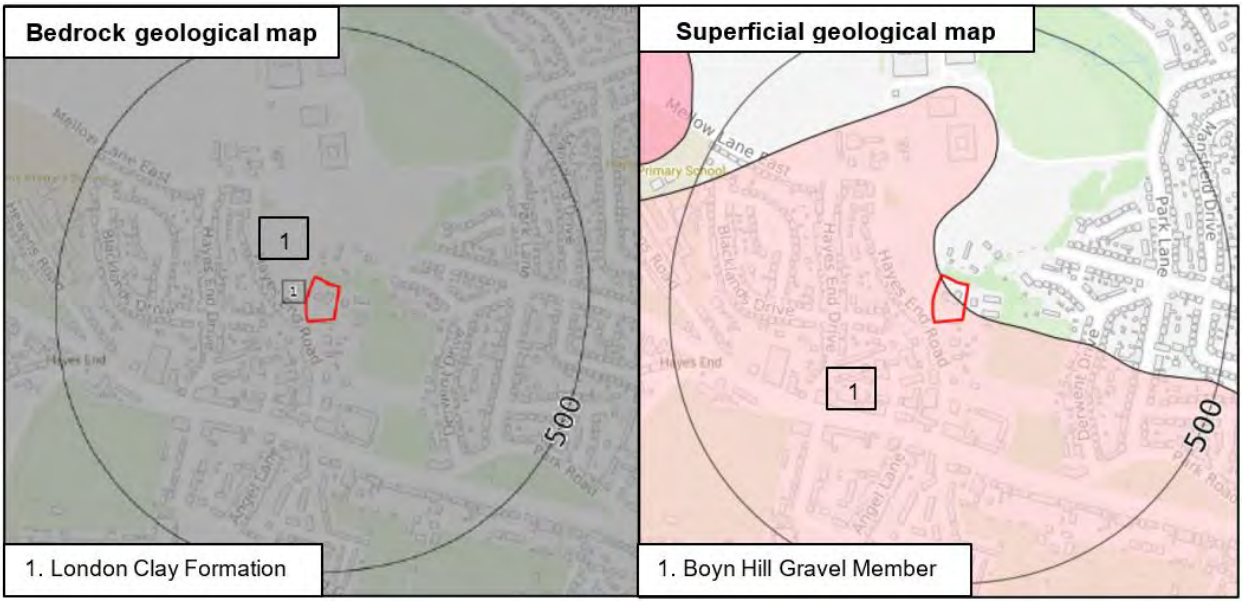
The Groundsure report indicates the assessment site is not underlain by artificial ground (Made Ground).

BGS data indicates that the site is partially underlain by superficial deposits of the Boyn Hill Gravel Member, consisting of Sand and Gravel, with possible lenses of Silt, Clay or Peat. These superficial deposits, and the areas not underlain by superficial deposits, are in turn underlain by bedrock geology comprising of the London Clay Formation (Clay, Silt and Sand).

The London Clay Formation is defined as bioturbated or poorly laminated, blue-grey or grey brown, slightly calcareous, silty to very silty Clay, clayey Silt and sometimes Silt, with some layers of sandy Clay.

A geological map extract of the site is presented in Figure 4.

Figure 4 – Geological Map Extract



A review of geological maps has proven a lack of bedrock geological faults or linear features within 250m of the assessment site.

There is one BGS borehole record located within 250m of the assessment site. The record is located 4m west of the assessment site and refers to BGS borehole SU76NW39. Unfortunately, geological information from this borehole record has not been made publicly available.

3.2 Ground Stability

A review of common geohazards in the area surrounding the assessment site has been completed, and the results are presented within Table 1.

Table 1 - Geohazards Risk Ratings

Geohazards	Risk Rating
Highly Compressible Ground	**Negligible risk**
Collapsible Soils	**Very Low risk**
Shrink Swell Clays	**Low risk**
Running Sand	**Very Low risk**
Ground Dissolution	**Negligible risk**
Landslides	**Very Low risk**
Mining & Quarrying	According to the Groundsure report, no underground mining or quarrying is recorded as taking place on-site. There is a single recorded case of on-site surface working with another 12 recorded within 250 m. The assessment site is not located within a Coal Mining Reporting Area.

3.3 Radon Potential

The assessment site is in an Area where less than 1% of properties are expected to be above the Radon Action Level. Therefore, radon protection measures are not expected to be required.

3.4 Mining, Ground Workings & Natural Cavities

Reference to the Coal Authority Interactive viewer shows the assessment site is not within a coal mining area, and therefore, is not located within a coal mining Development High Risk Area.

Review of the Groundsure report has also confirmed that the assessment site is not located within a gypsum, brine, tin, or clay mining area.

There are no records of underground workings located within 250m of the assessment site.

The Groundsure Report has identified the existence of a former pond noted as a surface working at the assessment site. The former pond was located on the east side of the assessment area and extended into the current car parking area within the southern portion of the assessment site.

The former pond did not extend beneath the building on site. It is believed that these ponds were part of landscaping works undertaken prior to the 1860s in order to create the man made water features within the grounds of Hayes Park Estate. The ponds are shown to be removed on maps of 1895.

Given the age of these works, the former ponds are not thought to represent a significant contamination source in this instance.

4.0 ENVIRONMENTAL SETTING

The following environmental conditions were discovered by reviewing Environment Agency (EA) and BGS online data, and the site-specific Groundsure Insight report (Appendix 1).

The following sections are generally limited to locations within 250m of the assessment site boundary unless it is considered that installations or activities beyond that range could potentially have an impact on the assessment site or its conversion to residential.

4.1 Industrial Land Use Information

Historical and current industrial land usage on-site and within 250m of the assessment site is summarised in Table 2 below:

Table 2 - Summary of Industrial Land Use

Description	On-Site	Records within 250m of site	Details of nearest Record
Historical Industrial Land Uses	0	8	Nearest off-site: 85m S, Nursery 1970 - 1990
Historical Tanks	0	2	Nearest off-site: 87m S, Unspecified Tank 1914
Historical Energy Features	0	1	Nearest off-site: 26m SW Electricity Substation 1992
Historical Petrol Station	0	0	
Historical Garage	0	5	Nearest off-site: 162m S Garage 1966
Historical Military Land	0	0	-
Historical Railway and Tunnel Features	0	0	-
Historical Railways	0	0	-`
Recent Industrial Land Use	0	12	Nearest off-site: 3m S M A S Ltd Old Barn Nursery, Hayes End Road, Hayes, Greater London, UB4 8EH Shooting Facilities
Current/Recent Petrol Stations	0	1	Nearest off-site: 203m S, TEXACO, petrol station (Status: Obsolete)
Electricity Cables	0	0	-
Gas Pipelines	0	0	-
Current Railway Features	0	0	-

4.2 UXO Assessment

A review of freely available UXO risk mapping indicates that the risk from Unexploded Ordnance (UXO) is Low.

4.3 Waste and Landfill Sites

There are no records of licensed waste sites within 250m of the assessment site.

There are no records for historical/active landfill sites within 250m of the assessment site.

There are 12 records of waste exemption licences located within 250m of the site. The closest waste exemption licence is located at Old Barn Nursery, Hayes End, 2m South of the assessment

site. The exemption covers the disposal of waste and is associated with eleven other waste exemptions under the same or similar addresses located within 3m of the site boundary.

4.4 Environmental Permits, Incidents and Registers

The Groundsure Report includes records of environmental permits, incidents, and registers within 250m of the assessment site. A review of these records has been made and any relevant details are summarised in Table 3 below.

Table 3 - Environmental Permits, Incidents and Registers within 250m

Permit/Incident/Register	Number	Closest Record
Sites Determined as Contaminated Land under Part 2A EPA1990	0	-
Dangerous or Hazardous (COMAH and NIHHS) Sites	0	-
Regulated Explosive Sites	0	-
Hazardous Substance Storage/Usage	0	-
Historical Licensed Industrial Activities (IPC)	0	-
Licensed Industrial Activities Part A (1)	0	-
Licensed Pollutant Release Part A (2) and Part B	3	Off-site: Located 179m South at Texaco Uxbridge, 1190 Uxbridge Road, Hayes, UB4 8JE. Process: Unloading of Petrol into Storage at Service Stations Status: Historical Permit Permit Type: Part B
Radioactive Substance Authorisations	0	-
Licensed Discharge to Controlled Waters	0	-
Pollutant Release to surface waters (Red List)	0	-
Pollutant Release to Public Sewer	0	-
List 1 Dangerous Substances	0	-
List 2 Dangerous Substances	0	-
Pollution Incidents (EA/NRW)	0	-
Pollution Inventory Substances / Waste Transfers/ Radioactive Waste	0	-

4.5 Hydrogeology and Hydrology

The superficial deposits of the Boyn Hill Gravel Member are classified as a Secondary A aquifer. The EA definition of a Secondary A aquifer is as follows:

> ***"Secondary A"*** *- Aquifers that comprise permeable layers that can support local water supplies, and may form an important source of base flow to rivers*

The London Clay Formation bedrock geology has been classified as an Unproductive aquifer by the EA. The EA definition of an Unproductive aquifer is provided below:

> ***"Unproductive"*** *- These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.*

There are no Source Protection Zones (SPZs), groundwater, surface water or potable water abstractions within 500m of the Site.

Given the unproductive nature of the underlying bedrock geology, the lack of nearby surface water features, groundwater and surface water abstraction and SPZs, the sensitivity of the surrounding controlled waters is deemed as low.

4.6 Potential Flood Risks

A comprehensive flood risk assessment is not within the scope of this report. However, based on a preliminary examination of flood data, the following observations can be made:

- The risk of surface water flooding at the assessment site and within a 50-meter radius of the assessment site is considered negligible.

- The assessment site does not fall within planning flood risk zone 2 or 3.

There is a low risk of groundwater flooding on-site and within 50m of the assessment site.

There are no records of flood defences, areas benefitting from flood defences, and no flood storage areas within 250m of the assessment site.

EEGSL understands that a comprehensive flood risk assessment has been completed for the assessment site by RIDA Reports Ltd (RIDA Reports Ltd. Mead House, Hayes End Road, Hayes, UB4 8EW, Flood Risk Assessment, Report Ref R0741 FRA-v1. October 2024). For further information on potential flood risks at the assessment site, reference to the RIDA Reports Ltd report should be made.

4.7 Environmentally Sensitive Sites

There are no records of Special Areas of Conservation, Special Protection Areas, Conserved Wetland Sites, Conservation Areas, Local Nature Reserves, National Nature Reserves or Designated Ancient Woodlands within 250m of the assessment site.

5.0 SITE HISTORY

The historical development of the assessment site has been determined by reference to historical plans and Google Earth imagery. The reviewed historical plans comprise only readily available records and may be limited; however, the information available to date indicates that additional searches are unlikely to add to our understanding of the assessment site. The earliest available historical mapping covering the assessment site is from 1866. The assessment site history is summarised in Table 4.

Table 4 - Summary of Site History

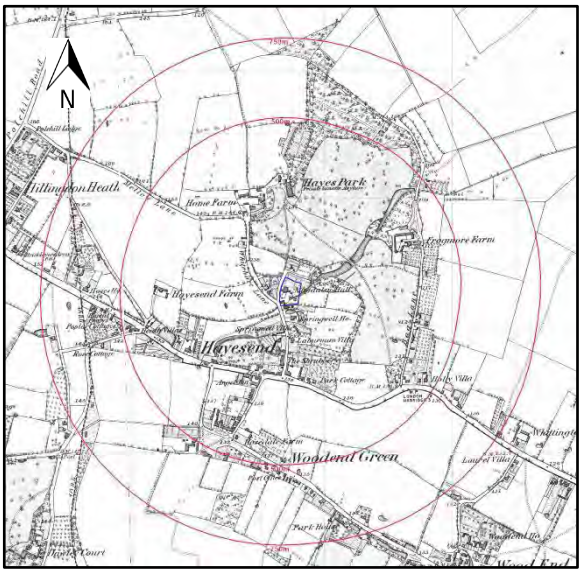
Date	Site	Surrounding Land Use
1866	The assessment site is occupied by Maydalen Hall in the central portion of the assessment area and associated smaller buildings in the southwest. The rest of the assessment site is occupied by garden areas with connecting paths and part of a larger pond in the northeastern area.	A road runs parallel to the west of the assessment site boundary travelling from the south to the north. 250m north of the assessment site is Home Farm comprising several small buildings around a central yard. East of this is the Hayes Park Insane Asylum. The pond in the central and eastern portion of the site extends 90m to the northeast of the assessment site where it is linked to secondary ponds by culverts in woodland. Several unnamed orchards are mapped around the assessment area. 10-100m south is Springwell House, Springwell Villa and Laburnum Villa with associated gardens ponds and glass houses. Approximately 100m to the south there are low density residential properties. Approximately 240 south of the site there are two Inns (the White Hart Inn & Angel Inn) The wider surrounding area consist of open fields.
1895	The Property on the site has been extended to the east and the ponds on site have been infilled	Ponds in the properties 25-75m south of the assessment areas have been infilled and are no longer mapped.
1914	The property on the site has been further developed. The site is now mapped as Mead House (Private Lunatic Asylum)	No significant change.
1920	No significant change.	A Depot is mapped 450m west of the assessment site.
1935	No significant change.	Large scale residential redevelopment has taken place 300m west, 650m east, 500m south and 750 m east of the assessment area. Hayes Park is no longer mapped as an Insane Asylum.
1940	No significant change.	Further residential redevelopment has taken place 25 m west of the assessment area and 200m east of the assessment area.
1966	No significant change.	The area 100-200m south of the site is mapped as having several large unnamed buildings and a garage. A nursery now occupies area to the west of Laburnum Villa.

		There has been an increase in residential development to the north, northeast, south and southwest. A new property has been constructed 20m east of the assessment area, The buildings previously of Hayes Park have been demolished and replaced by a new complex mapped as Hayes Park.
1973	No significant change.	The property 20m to the east is mapped as a hostel. The area beyond the hostel is now in use as allotments. The large builds to the south of the assessment area are mapped as warehouses with one being detailed as an Ignitions Equipment Factory 130m southwest of the assessment area. A Builder's Yard is mapped 150 m southwest of the site.
1991	No significant change.	An Electric Substation is mapped 30 m southwest of the assessment area.
2001	No significant change.	No significant change.

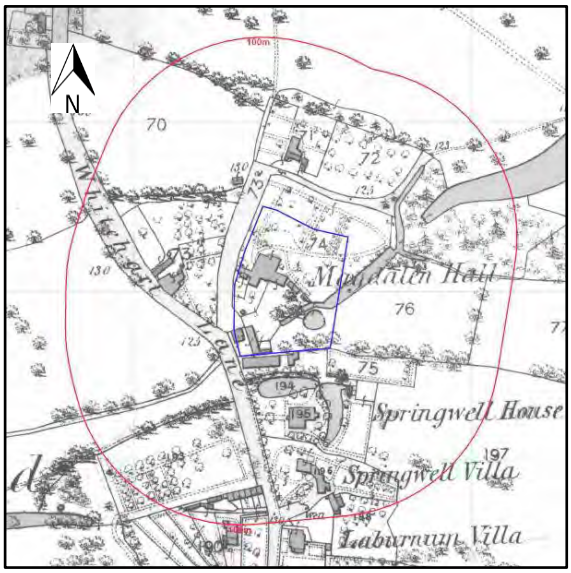
Selected extracts from historical maps and aerial images are presented in Figures 5 and 6.

Figure 5 – Historical Map Extracts

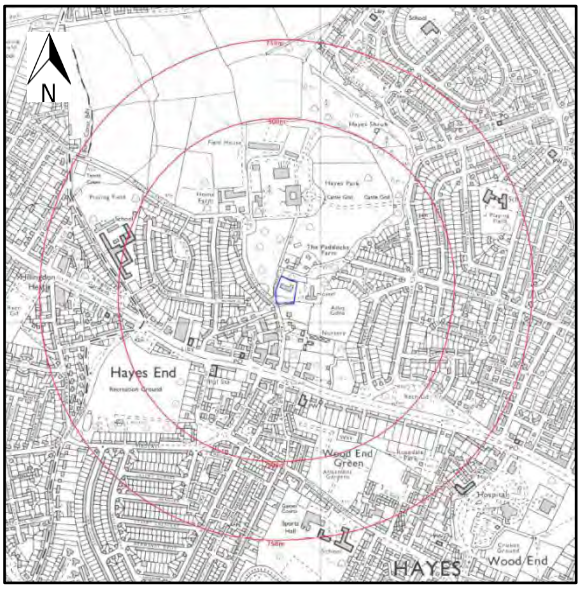
1868 (1:10,560)



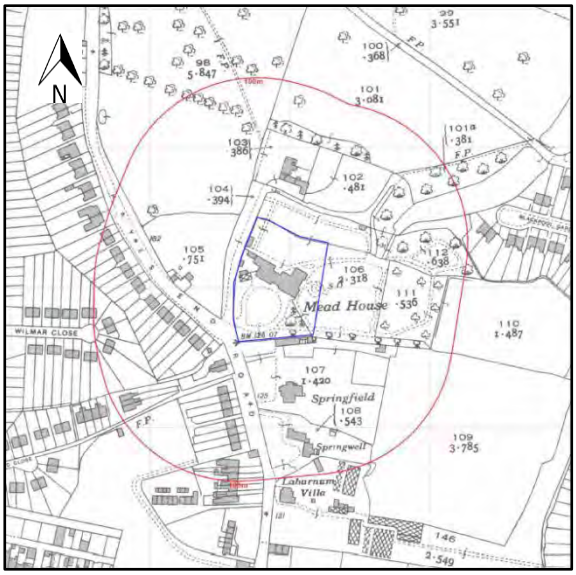
1866 (1:2,500)



1990 (1:10,560)



1940 (1:2,500)



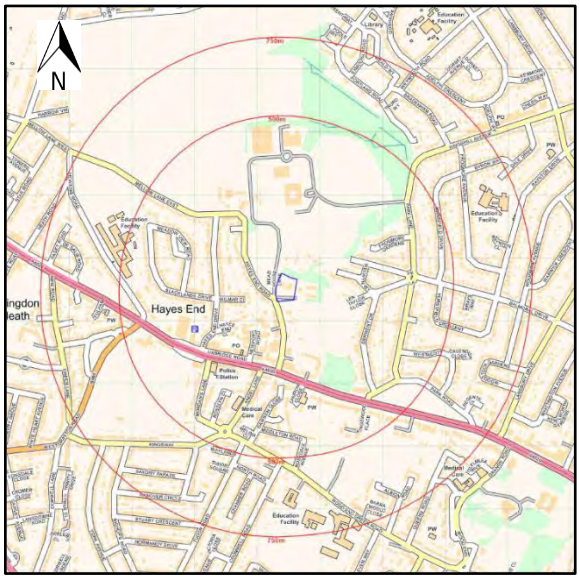
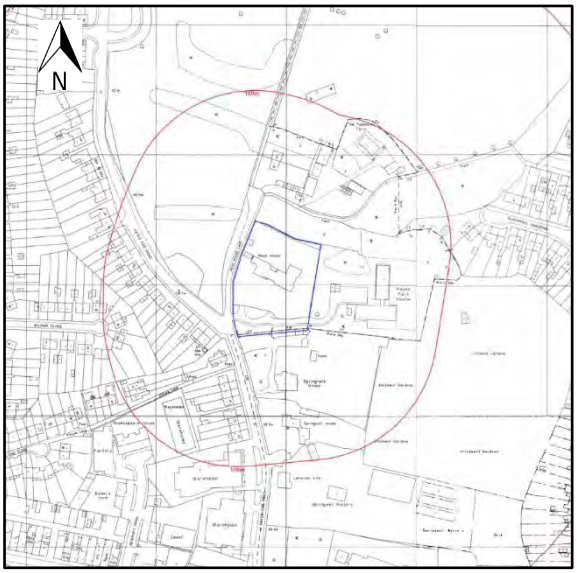
2024 (1:10,560)	1991 (1:2,500)
	

Figure 6 – Aerial Images

2014	2024
	

6.0 PRELIMINARY CONTAMINATION RISK ASSESSMENT

6.1 Introduction

The following paragraphs outline a Preliminary Risk Assessment (PRA) for the site based on the above desk study information as defined by DEFRA and the EA Land contamination risk management, LCRA (2020) guidance.

Table 7 provides a Preliminary Conceptual Model (PCM) which considers the source-pathway-receptor linkages present alongside the likelihood, severity and risk level as defined within Table 5 and Table 6 below. The assessment of probability, a modified risk table, and certain consequence definitions are based on CIRIA C552 and the former Environment Agency CLR11.

Table 7 considers whether a pollution linkage is potentially present and provides a preliminary qualitative assessment of risk based on the information currently available. Where a possible linkage is identified, it does not necessarily mean that a significant risk exists but indicates that further information is required through appropriate site investigation to substantiate the conceptual model.

The PCM/PRA is based on a residential end use.

Table 5 - Consequence, Probability and Risk

Probability	Consequence	Risk
High Likelihood- There is a pollution linkage and an event either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution	Very High – acute risk to the human health likely to result in significant harm. Risk of severe or irreversible effect on ground/surface water quality. Catastrophic damage to buildings / property.	Very High – there is a high potential that the source-pathway-receptor scenarios may give rise to harm to human health or the environment and remedial action is likely to be required.
Likely – there is a pollution linkage and all the elements are present, which means that it is probable an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.	High – Severe or irreversible effect on human health. Temporary severe or irreversible effect on ground/surface water quality. Reduction of water quality rendering groundwater or surface water unfit to drink and/or substantial adverse impact on groundwater dependant environmental receptors.	High – it is likely that the source-pathway-receptor scenarios may give rise to an impact on human health or the environment, which may require remediation and/or control measures to mitigate risks
Low likelihood– there is a pollutant linkage and circumstances are possible for an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term	Moderate – Long term or short term moderate effect on human health. Moderate effect on ground/surface water quality, reversible with time. Reduced reliability of a supply at a groundwater or surface water abstraction source	Moderate – it is possible that the source-pathway-receptor scenarios may give rise to an impact on human health or the environment, however it is either relatively unlikely that such would be severe, or if any harm were to occur it is more likely that harm would be mild.
Unlikely – there is a pollution linkage, but circumstances are such that it is doubtful that an event would occur even in the very long term.	Low – Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc.) Slight effect on ground/surface water quality, reversible with time. Marginal reduced reliability of a supply at a groundwater or surface water abstraction source.	Low – it is possible that harm could arise at the source, however it is likely that they would at worst be mild.
		Very Low – it is unlikely that the source-pathway-receptor scenarios will give rise to an impact on human health or the environment.

Table 6 - Estimation of Level of Risk by Comparison of Consequence and Probability

		Consequence			
		High	**Moderate**	**Low**	**Very low**
Probability	**High Likelihood**	Very High	High risk	Moderate risk	Moderate to low risk
	Likely	High risk	Moderate risk	Moderate to low risk	Low risk
	Low Likelihood	Moderate risk	Moderate to low risk	Low risk	Very low risk
	Unlikely	Moderate to low risk	Low risk	Very low risk	Very low risk

6.2 Potential Sources

The following sources have been considered at the assessment site:

Onsite

A review of the historic maps and available data has identified a lack of on-site sources of contamination. The assessment site has remained largely unchanged in terms of layout since the earliest mapping in 1866 with a central building surrounded by an entrance way and gardens in the grounds. The site has been in a healthcare use since the 1910s when Mead House (a Private Lunatic Asylum) was constructed. The site has more recently been used as a Day Centre (run by the council) a General Practice (GPs) and more recently a Covid 19 vaccination centre.

Offsite

Several current and historical offsite sources of contamination have been noted, including several unidentified warehouses, builders' yards, depot and a garage located ~100m south and developed during the 1960s. These developments may all pose a risk of causing contamination, however, due to their distance from the assessment site, it is deemed unlikely that they could have caused significant contamination to be present. These sources are therefore dismissed as insignificant in this instance.

Other potential off-site sources of contamination include historic and current electricity substations located 26m southwest. However, once more these sources have been reviewed, and in this instance they have been deemed too distance to pose a significant risk.

Based on the above assessment, EEGSL recommended that there are currently no significant sources of contamination present at or near the assessment site.

6.3 Potential Receptors

The following receptors have been considered as part of this assessment.

- Current land users.
- Adjacent land users.
- Future land users.
- Controlled Waters. &
- Construction workers during site development.

6.4 Potential Pathways

The following pathways have been considered as part of this assessment.

- Direct / dermal contact, ingestion, inhalation pathways of potentially contaminated soils.
- Vertical or horizontal migration of contaminants within shallow soils.
- Vertical or horizontal migration of contaminants within shallow groundwater.

Table 7 - Preliminary Conceptual Model

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
On-site Sources						
Potential contamination associated with the sites historical and current day use.	Direct / Dermal contact, ingestion and inhalation of soils dust	Current Site Users	Unlikely	Low	Very Low	Given the limited development history of the assessment site and the lack of identified on-site sources of contamination, the risk to current site users is deemed as **VERY LOW.**
		Adjacent Site Users	Unlikely	Low	Very Low	Given the limited development history of the assessment site and the lack of identified on-site sources of contamination, the risk to adjacent site users is deemed as **VERY LOW.**
		Future Site users	Unlikely	Low	Very Low	Given the limited development history of the assessment site and the lack of identified on-site sources of contamination, the risk to future site users is deemed as **VERY LOW.**
		Construction Workers	Unlikely	Low	Very Low	Given the limited development history of the assessment site and the lack of identified on-site sources of contamination, the risk to construction site workers is deemed as **VERY LOW**.
		Controlled waters	Unlikely	Low	Very Low	Given the limited development history of the assessment site and the lack of identified on-site sources of contamination, the risk to controlled waters is deemed as **VERY LOW**.
Off-site Sources						
Contamination of the site due to current and historical off-site uses	Vertical or horizontal migration of contaminants within shallow soils	Current Site Users	Unlikely	Moderate	Low	Although several off-site historic and current sources of contamination have been identified within the wider vicinity of the assessment site, it is considered unlikely that contaminants will be able to significantly migrate within the surrounding soils due to the cohesive nature of the underlying London Clay formation. Given the limited migration potential and the distance from site, it is suggested that only a **LOW** risk is currently present.

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
		Future Site users	Unlikely	Moderate	Low	Although several off-site historic and current sources of contamination have been identified within the wider vicinity of the assessment site, it is considered unlikely that contaminants will be able to significantly migrate within the surrounding soils due to the cohesive nature of the underlying London Clay formation. Given the limited migration potential and the distance from site, it is suggested that only a **LOW** risk is currently present.
		Construction Workers	Unlikely	Moderate	Low	Although several off-site historic and current sources of contamination have been identified within the wider vicinity of the assessment site, it is considered unlikely that contaminants will be able to significantly migrate within the surrounding soils due to the cohesive nature of the underlying London Clay formation. Given the limited migration potential and the distance from site, it is suggested that only a **LOW** risk is currently present.
	Vertical or horizontal migration of contaminants within shallow groundwater	Current Site Users	Unlikely	Moderate	Low	Although several off-site historic and current sources of contamination have been identified within the wider vicinity of the assessment site, it is considered unlikely that contaminants will be able to significantly migrate within shallow groundwater due to the cohesive nature of the underlying London Clay formation. Given the limited migration potential and the distance from site, it is suggested that only a **LOW** risk is currently present.
		Future Site users	Unlikely	Moderate	Low	Although several off-site historic and current sources of contamination have been identified within the wider vicinity of the assessment site, it is considered unlikely that contaminants will be able to significantly migrate within shallow groundwater due to the cohesive nature of the underlying London Clay formation. Given the limited migration potential and the distance from

Source	Pathway	Receptor	Probability	Consequence	Risk	Comment
						site, it is suggested that only a **LOW** risk is currently present.
		Construction Workers	Unlikely	Moderate	Low	Although several off-site historic and current sources of contamination have been identified within the wider vicinity of the assessment site, it is considered unlikely that contaminants will be able to significantly migrate within shallow groundwater due to the cohesive nature of the underlying London Clay formation. Given the limited migration potential and the distance from site, it is suggested that only a **LOW** risk is currently present.

6.5 Preliminary Risk Assessment

A review of historical and current day information has highlighted a lack of significant contamination sources present at the assessment site.

A review of surrounding site uses has identified several potential off site contamination sources, however given the cohesive nature of the underlying geology, and the distance of the potential sources from the assessment site, it has been recommended that a maximum of a low risk is present.

Given the Low level of risk, it is suggested that no instructive works are currently required at the assessment site. It would however seem prudent for the client to complete a watching brief if any groundworks are undertaken. If any signs of unknown contamination are found present, then a suitably qualified consultant should be employed to assess the potential impacts prior to occupation.

7.0 GEOTECHNICAL HAZARD ASSESSMENT

In addition to the environmental hazards, the following geotechnical hazards have been considered at the assessment site. Local Authorities currently follow guidance outlined in the National Planning Policy Farmwork (NPPF) which requires all sites to be suitable for their intended use considering ground conditions and land instability, including from natural hazards and activities such as mining.

A summary of the geotechnical considerations is provided below in Table 8.

Table 8 - Summary of Geotechnical Hazards

Geohazards	
Highly Compressible Ground	Negligible risk
Collapsible Soils	Very Low risk
Shrink Swell Clays	Low risk
Running Sand	Very Low risk
Ground Dissolution	Negligible risk
Landslides	Very Low risk
Mining & Quarrying	No underground mining or quarrying is recorded as taking place on-site.
Geotechnical Design Considerations	
Site Clearance	Due to the internal nature of the proposed development, significant site clearance is not anticipated.
Trees	Despite several mature tress being present, there are no plans to construct new foundations, therefore the impact of trees is not significant in this instance.
Foundations	No new foundations will be constructed as part of the proposed works.
Floor Slabs	No new floor slabs will be constructed as part of the proposed works.
Groundwater	The depth to groundwater is currently unknown.
Earthworks	Significant earthworks are not expected to be required.
Slopes	The site is generally flat.
Retaining Walls	There is no significant retaining walls present on-site.
Chemically aggressive ground conditions	An intrusive geotechnical investigation would be necessary to confirm if chemically aggressive ground is present. Given no new foundations are to be constructed, this is currently not considered significant.

8.0 CONCLUSIONS & RECOMMENDATIONS

8.1 Conclusions

EEGSL was commissioned by Reliant Care Ltd to undertake a Phase I Geo-Environmental Desk Study for the prior approval application being submitted under Class MA to convert the ground and first floors of Mead House from Class E to Class C3 to provide 14 residential studios at Mead House, Mead House Lane, Hayes, UB4 8EW.

A review of historical and current day information has highlighted a lack of significant contamination sources present at the assessment site.

A review of surrounding site uses has identified several potential off site contamination sources, however given the cohesive nature of the underlying geology, and the distance of the potential sources from the assessment site, it has been recommended that a maximum of a low risk is present.

Given the Low level of risk, it is suggested that no instructive works are currently required at the assessment site. It would however seem prudent for the client to complete a watching brief if any groundworks are undertaken. If any signs of unknown contamination are found present, then a suitably qualified consultant should be employed to assess the potential impacts prior to occupation.

With regards to geotechnical hazards, it has been noted that the proposal is for the conversion of the building to residential and that no external works to the building are proposed.

Given the above, it is recommended that there is no need for geotechnical ground investigation prior to conversion.

8.2 Recommendations

An intrusive investigation to determine the presence of contamination at the assessment site is not deemed necessary. A contamination watching brief should however be considered if future groundworks are undertaken.

APPENDIX 1

GROUNDSURE REPORT

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

Mead House, Hayes End Road, Hayes, UB4 8EW

Order Details

Date: 15/10/2024

Your ref: R4336

Our Ref: GS-ES3-8QI-B5U-Y3S

Site Details

Location: 508890 182102

Area: 0.46 ha

Authority: London Borough of Hillingdon ↗

Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Certified B Corporation

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	0	8	5	-
16 >	1.2 >	Historical tanks >	0	0	2	2	-
17 >	1.3 >	Historical energy features >	0	1	0	10	-
17	1.4	Historical petrol stations	0	0	0	0	-
18 >	1.5 >	Historical garages >	0	0	5	2	-
18	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
19 >	2.1 >	Historical industrial land uses >	0	0	11	7	-
20 >	2.2 >	Historical tanks >	0	0	2	3	-
21 >	2.3 >	Historical energy features >	0	1	0	12	-
21	2.4	Historical petrol stations	0	0	0	0	-
22 >	2.5 >	Historical garages >	0	0	5	2	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
23	3.1	Active or recent landfill	0	0	0	0	-
23	3.2	Historical landfill (BGS records)	0	0	0	0	-
24	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
24	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
24	3.5	Historical waste sites	0	0	0	0	-
24	3.6	Licensed waste sites	0	0	0	0	-
24 >	3.7 >	Waste exemptions >	0	12	0	4	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
27 >	4.1 >	Recent industrial land uses >	0	3	9	-	-
28 >	4.2 >	Current or recent petrol stations >	0	0	1	1	-
29	4.3	Electricity cables	0	0	0	0	-
29	4.4	Gas pipelines	0	0	0	0	-
29	4.5	Sites determined as Contaminated Land	0	0	0	0	-

29	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
29	4.7	Regulated explosive sites	0	0	0	0	-
30	4.8	Hazardous substance storage/usage	0	0	0	0	-
30	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
30	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
30 >	**4.11 >**	**Licensed pollutant release (Part A(2)/B) >**	0	0	3	0	-
31	4.12	Radioactive Substance Authorisations	0	0	0	0	-
31	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
31	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
31	4.15	Pollutant release to public sewer	0	0	0	0	-
32	4.16	List 1 Dangerous Substances	0	0	0	0	-
32	4.17	List 2 Dangerous Substances	0	0	0	0	-
32 >	**4.18 >**	**Pollution Incidents (EA/NRW) >**	0	0	0	2	-
32	4.19	Pollution inventory substances	0	0	0	0	-
33	4.20	Pollution inventory waste transfers	0	0	0	0	-
33	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	**Hydrogeology >**	On site	0-50m	50-250m	250-500m	500-2000m
34 >	**5.1 >**	**Superficial aquifer >**	Identified (within 500m)				
35 >	**5.2 >**	**Bedrock aquifer >**	Identified (within 500m)				
36 >	**5.3 >**	**Groundwater vulnerability >**	Identified (within 50m)				
37	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
37	5.5	Groundwater vulnerability- local information	None (within 0m)				
38 >	**5.6 >**	**Groundwater abstractions >**	0	0	2	0	15
43	5.7	Surface water abstractions	0	0	0	0	0
43 >	**5.8 >**	**Potable abstractions >**	0	0	0	0	4
44	5.9	Source Protection Zones	0	0	0	0	-
44	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	**Hydrology >**	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	-	-
46 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
46 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
46 >	6.5 >	WFD Groundwater bodies >	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	Surface water flooding >					
51 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
53 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
54	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
55	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
55	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
55	10.4	Special Protection Areas (SPA)	0	0	0	0	0
55	10.5	National Nature Reserves (NNR)	0	0	0	0	0
56 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	4
56 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	1
56	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 >	1	0	0	0	12
58	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
59	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
60 >	10.17 >	SSSI Impact Risk Zones >	2	-	-	-	-
61	10.18	SSSI Units	0	0	0	0	0
Page	Section	**Visual and cultural designations** >	On site	0-50m	50-250m	250-500m	500-2000m
62	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	3	-	-
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	**Agricultural designations** >	On site	0-50m	50-250m	250-500m	500-2000m
65 >	12.1 >	Agricultural Land Classification >	Grade 3 (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 >	2	4	8	-	-
68	13.2	Habitat Networks	0	0	0	-	-
68	13.3	Open Mosaic Habitat	0	0	0	-	-
68	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	**Geology 1:10,000 scale** >	On site	0-50m	50-250m	250-500m	500-2000m
70 >	14.1 >	10k Availability >	Identified (within 500m)				
71 >	14.2 >	Artificial and made ground (10k) >	0	1	1	4	-
73 >	14.3 >	Superficial geology (10k) >	1	0	0	0	-

74	14.4	Landslip (10k)	0	0	0	0	-
75 >	14.5 >	Bedrock geology (10k) >	1	0	0	0	-
76	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
77 >	15.1 >	50k Availability >	Identified (within 500m)				
78	15.2	Artificial and made ground (50k)	0	0	0	0	-
78	15.3	Artificial ground permeability (50k)	0	0	-	-	-
79 >	15.4 >	Superficial geology (50k) >	1	0	0	0	-
80 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
80	15.6	Landslip (50k)	0	0	0	0	-
80	15.7	Landslip permeability (50k)	None (within 50m)				
81 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
82 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
82	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
83 >	16.1 >	BGS Boreholes >	0	0	1	-	-
Page	Section	Natural ground subsidence >					
84 >	17.1 >	Shrink swell clays >	Low (within 50m)				
85 >	17.2 >	Running sands >	Very low (within 50m)				
86 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
87 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
88 >	17.5 >	Landslides >	Very low (within 50m)				
89 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
91	18.1	BritPits	0	0	0	0	-
92 >	18.2 >	Surface ground workings >	1	8	4	-	-
92	18.3	Underground workings	0	0	0	0	0
93	18.4	Underground mining extents	0	0	0	0	-
93	18.5	Historical Mineral Planning Areas	0	0	0	0	-

93	18.6	Non-coal mining	0	0	0	0	0
93	18.7	JPB mining areas	None (within 0m)				
93	18.8	The Coal Authority non-coal mining	0	0	0	0	-
94	18.9	Researched mining	0	0	0	0	-
94	18.10	Mining record office plans	0	0	0	0	-
94	18.11	BGS mine plans	0	0	0	0	-
94	18.12	Coal mining	None (within 0m)				
95	18.13	Brine areas	None (within 0m)				
95	18.14	Gypsum areas	None (within 0m)				
95	18.15	Tin mining	None (within 0m)				
95	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
96	19.1	Natural cavities	0	0	0	0	-
96	19.2	Mining cavities	0	0	0	0	0
96	19.3	Reported recent incidents	0	0	0	0	-
96	19.4	Historical incidents	0	0	0	0	-
97	19.5	National karst database	0	0	0	0	-
Page	Section	**Radon** >					
98 >	**20.1** >	**Radon** >	Less than 1% (within 0m)				
Page	Section	**Soil chemistry** >	On site	0-50m	50-250m	250-500m	500-2000m
100 >	**21.1** >	**BGS Estimated Background Soil Chemistry** >	2	0	-	-	-
100 >	**21.2** >	**BGS Estimated Urban Soil Chemistry** >	4	1	-	-	-
101	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
102	22.1	Underground railways (London)	0	0	0	-	-
102	22.2	Underground railways (Non-London)	0	0	0	-	-
102	22.3	Railway tunnels	0	0	0	-	-
102	22.4	Historical railway and tunnel features	0	0	0	-	-
102	22.5	Royal Mail tunnels	0	0	0	-	-

103	22.6	Historical railways	0	0	0	-	-
103	22.7	Railways	0	0	0	-	-
103	22.8	Crossrail 1	0	0	0	0	-
103	22.9	Crossrail 2	0	0	0	0	-
103	22.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 30/04/2022

Site Area: 0.46ha

Recent site history - 2021 aerial photograph

Capture Date: 13/06/2021

Site Area: 0.46ha

Recent site history - 2015 aerial photograph

Capture Date: 07/06/2015

Site Area: 0.46ha

Recent site history - 2013 aerial photograph

Capture Date: 20/04/2013

Site Area: 0.46ha

Recent site history - 1999 aerial photograph

Capture Date: 13/10/1999

Site Area: 0.46ha

OS MasterMap site plan

Site Area: 0.46ha

1 Past land use

1.1 Historical industrial land uses

Records within 500m	13

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
A	85m S	Nursery	1970 - 1990	2276212

ID	Location	Land use	Dates present	Group ID
A	112m S	Nursery	1920	2248505
A	116m S	Nursery	1938	2280585
A	116m S	Nursery	1913	2282070
B	188m S	Police Station	1935 - 1938	2309041
B	201m S	Police Station	1938	2331095
C	219m SW	Police Station	1960	2227052
C	219m SW	Police Station	1970	2272576
E	273m S	Bakery	1970	2160236
4	274m SW	Police Station	1975 - 1990	2331824
G	423m SE	Unspecified Tank	1913	2191147
H	427m S	Unspecified Warehouse	1970	2189567
H	427m S	Unspecified Works	1975 - 1990	2324599

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**4**

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 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
2	87m S	Unspecified Tank	1914	383445
3	247m N	Unspecified Tank	1992	383448
G	419m SE	Unspecified Tank	1914 - 1935	425722
7	475m S	Unspecified Tank	1866	393897

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	11

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 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	26m SW	Electricity Substation	1992	273789
E	272m S	Electricity Substation	1972	267953
E	300m S	Electricity Substation	1992	273788
D	340m W	Electricity Substation	1972	267952
D	347m W	Electricity Substation	1992	273783
5	359m SE	Electricity Substation	1992	273790
F	396m S	Electricity Substation	1972	267954
6	414m SW	Electricity Substation	1992	273784
F	419m S	Electricity Substation	1992	273785
I	451m W	Electricity Substation	1967 - 1992	283812
I	452m W	Electricity Substation	-	265751

This data is sourced from Ordnance Survey / Groundsure.

1.4 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, 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'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	7

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 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
B	162m S	Garage	1966	92245
B	163m S	Garage	1972	86444
B	163m S	Garage	1965	87630
B	192m S	Garage	1992	86689
D	237m W	Garage	1992	81539
D	272m W	Garage	1972	87010
D	291m SW	Garage	1992	83288

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

2.1 Historical industrial land uses

Records within 500m	18

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 19 >**

ID	Location	Land Use	Date	Group ID
A	85m S	Nursery	1990	2276212
A	85m S	Nursery	1975	2276212
A	85m S	Nursery	1970	2276212

ID	Location	Land Use	Date	Group ID
A	112m S	Nursery	1920	2248505
A	116m S	Nursery	1938	2280585
A	116m S	Nursery	1913	2282070
B	188m S	Police Station	1935	2309041
B	196m S	Police Station	1938	2309041
B	201m S	Police Station	1938	2331095
C	219m SW	Police Station	1970	2272576
C	219m SW	Police Station	1960	2227052
E	273m S	Bakery	1970	2160236
F	274m SW	Police Station	1990	2331824
F	274m SW	Police Station	1975	2331824
H	423m SE	Unspecified Tank	1913	2191147
I	427m S	Unspecified Works	1990	2324599
I	427m S	Unspecified Works	1975	2324599
I	427m S	Unspecified Warehouse	1970	2189567

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m **5**

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 19 >**

ID	Location	Land Use	Date	Group ID
2	87m S	Unspecified Tank	1914	383445
3	247m N	Unspecified Tank	1992	383448
H	419m SE	Unspecified Tank	1914	425722
H	419m SE	Unspecified Tank	1935	425722
6	475m S	Unspecified Tank	1866	393897

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	13

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 19 >**

ID	Location	Land Use	Date	Group ID
1	26m SW	Electricity Substation	1992	273789
E	272m S	Electricity Substation	1972	267953
E	300m S	Electricity Substation	1992	273788
D	340m W	Electricity Substation	1972	267952
D	347m W	Electricity Substation	1992	273783
4	359m SE	Electricity Substation	1992	273790
G	396m S	Electricity Substation	1972	267954
5	414m SW	Electricity Substation	1992	273784
G	419m S	Electricity Substation	1992	273785
J	451m W	Electricity Substation	1967	283812
J	452m W	Electricity Substation	1992	283812
J	452m W	Electricity Substation	-	265751
J	452m W	Electricity Substation	1985	283812

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	7

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 19 >**

ID	Location	Land Use	Date	Group ID
B	162m S	Garage	1966	92245
B	163m S	Garage	1972	86444
B	163m S	Garage	1965	87630
B	192m S	Garage	1992	86689
D	237m W	Garage	1992	81539
D	272m W	Garage	1972	87010
D	291m SW	Garage	1992	83288

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill

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	16

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 23 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	2m S	Old Barn Nursery Hayes End Road Hayes Middlesex Ub4 8eh	EPR/EE5557FQ /A001	Disposing of waste exemption	Non-agricultural waste only	Depositing samples of waste for the purposes of testing or analysing them

ID	Location	Site	Reference	Category	Sub-Category	Description
A	2m S	Old Barn Nursery Hayes End Road Hayes Middlesex Ub4 8eh	EPR/DE5655CW/A001	Treating waste exemption	Non-agricultural waste only	Manual treatment of waste
A	2m S	Old Barn Nursery Hayes End Road Hayes Middlesex Ub4 8eh	EPR/DE5655CW/A001	Disposing of waste exemption	Non-agricultural waste only	Depositing samples of waste for the purposes of testing or analysing them
A	2m S	Old Barn Nursery Hayes End Road Hayes Middlesex Ub4 8eh	EPR/EE5557FQ/A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in a secure place
A	2m S	Old Barn Nursery Hayes End Road Hayes Middlesex Ub4 8eh	EPR/DE5655CW/A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in secure containers
A	2m S	Old Barn Nursery Hayes End Road Hayes Middlesex Ub4 8eh	EPR/DE5655CW/A001	Treating waste exemption	Non-agricultural waste only	Treatment of waste toner cartridges by sorting, dismantling, cleaning or refilling
A	3m S	Old Barn Nursery, Hayes End Road, Hayes, Ub4 8eh	WEX295375	Disposing of waste exemption	Not on a farm	Depositing samples of waste for the purposes of testing or analysing them
A	3m S	Old Barn Nursery, Hayes End Road, Hayes, Ub4 8eh	WEX295375	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	3m S	Old Barn Nursery, Hayes End Road, Hayes, Ub4 8eh	WEX159310	Disposing of waste exemption	Not on a farm	Depositing samples of waste for the purposes of testing or analysing them
A	3m S	Old Barn Nursery, Hayes End Road, Hayes, Ub4 8eh	WEX159310	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	10m SE	Old Barn Nursery Hayes End Road Hayes Middlesex Ub4 8eh	EPR/HE5249VE/A001	Storing waste exemption	Both agricultural and non-agricultural waste	Storage of waste in a secure place
A	10m SE	Old Barn Nursery Hayes End Road Hayes Middlesex Ub4 8eh	EPR/HE5249VE/A001	Disposing of waste exemption	Non-agricultural waste only	Depositing samples of waste for the purposes of testing or analysing them
1	295m SE	-	WEX362333	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	354m SW	26, Angel Lane, Hayes, Ub3 2qx	WEX301342	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

ID	Location	Site	Reference	Category	Sub-Category	Description
B	354m SW	26, Angel Lane, Hayes, Ub3 2qx	WEX164384	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
2	361m SE	1a, Derwent Drive, Hayes, Ub4 8dr	WEX260037	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

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

4 Current industrial land use

4.1 Recent industrial land uses

Records within 250m	12

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 27 >**

ID	Location	Company	Address	Activity	Category
A	3m S	M A S Ltd	Old Barn Nursery, Hayes End Road, Hayes, Greater London, UB4 8EH	Shooting Facilities	Sports Complex
1	32m SW	Electricity Sub Station	Greater London, UB4	Electrical Features	Infrastructure and Facilities
A	41m S	Brandon Hire	Flat 2 Springfield House, Hayes End Road, Hayes, Greater London, UB4 8EH	Lifting and Handling Equipment	Industrial Products

ID	Location	Company	Address	Activity	Category
2	134m SW	Factory	Greater London, UB4	Unspecified Works Or Factories	Industrial Features
B	187m S	Roadlink UK Ltd	1190, Uxbridge Road, Hayes, Greater London, UB4 8JB	Secondhand Vehicles	Motoring
B	187m S	Hadley Motors	1190, Uxbridge Road, Hayes, Greater London, UB4 8JB	Secondhand Vehicles	Motoring
B	187m S	Tip Top Autos	Unit 1 1190, Uxbridge Road, Hayes, Greater London, UB4 8JB	Vehicle Repair, Testing and Servicing	Repair and Servicing
C	188m SW	Draypark Motors	Rear of 1278, Uxbridge Road, Hayes, Greater London, UB4 8JF	Vehicle Repair, Testing and Servicing	Repair and Servicing
D	218m S	Electricity Sub Station	Greater London, UB4	Electrical Features	Infrastructure and Facilities
3	229m W	Electricity Sub Station	Greater London, UB4	Electrical Features	Infrastructure and Facilities
C	231m SW	Stuart TV Electricals	1294, Uxbridge Road, Hayes, Greater London, UB4 8JG	Electrical Equipment Repair and Servicing	Repair and Servicing
D	232m S	Crystal Interiors	1, 1178, Uxbridge Road, Hayes, Greater London, UB4 8JB	Curtains and Blinds	Consumer Products

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	**2**

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 27 >**

ID	Location	Company	Address	LPG	Status
B	203m S	TEXACO	1364, Uxbridge Road, Hayes End Road, Hayes End, Hayes, Outer London, UB4 8JE	Not Applicable	Obsolete
5	358m W	OBSOLETE	1368, Uxbridge Road, Hayes End, Hayes, Outer London, UB4 8JB	Not Applicable	Obsolete

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	3

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.

Features are displayed on the Current industrial land use map on **page 27 >**

ID	Location	Address	Details	
B	179m S	Texaco Uxbridge, 1190 Uxbridge Road, Hayes, UB4 8JE	Process: Unloading of Petrol into Storage at Service Stations Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
B	190m S	Texaco Reliance, Harlington Rd	Process: Petrol Vapour Recovery Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Location	Address	Details	
B	212m SW	Evans Halshaw, Uxbridge Rd, Borehamwood, Hertfordshire, WD6 1QB	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

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	2

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

Features are displayed on the Current industrial land use map on **page 27 >**

ID	Location	Details	
4	256m NW	Incident Date: 14/06/2002 Incident Identification: 84958 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Vegetable Cuttings and Deposits	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
6	368m W	Incident Date: 02/10/2002 Incident Identification: 112222 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

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.

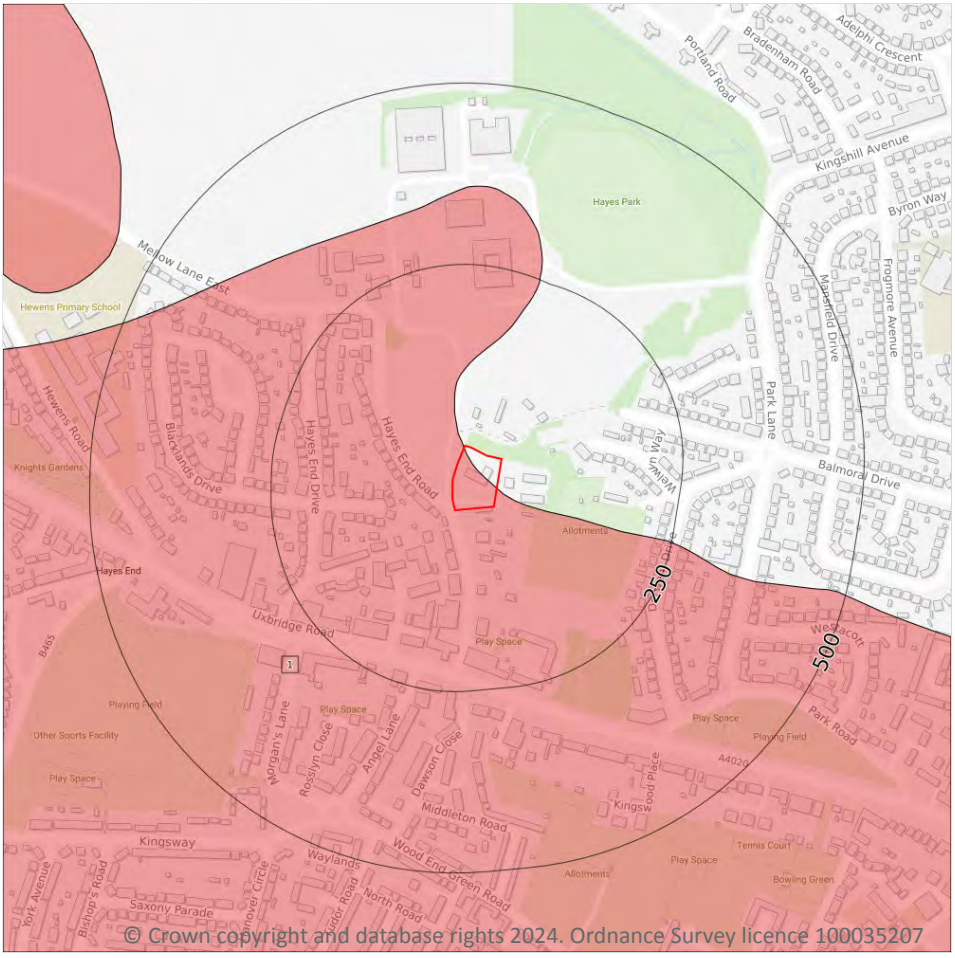
4.21 Pollution inventory radioactive waste

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

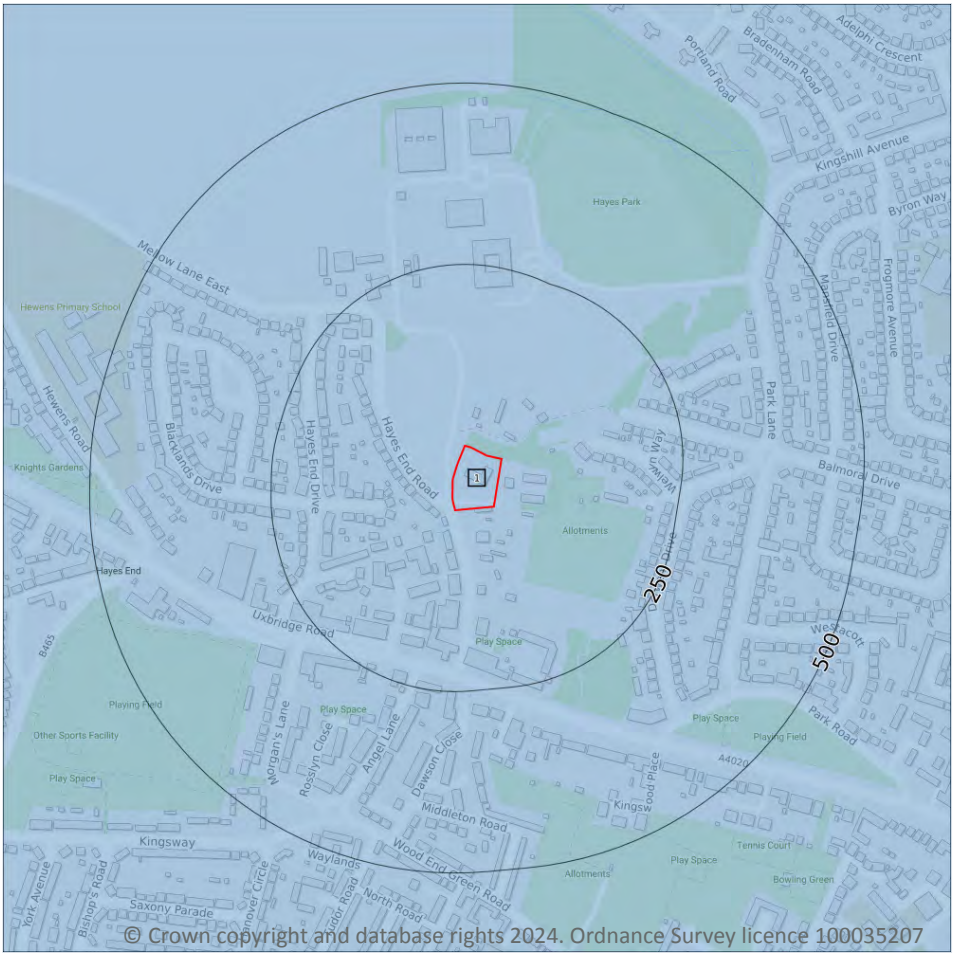
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 34 >**

ID	Location	Designation	Description
1	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**

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

Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m	1

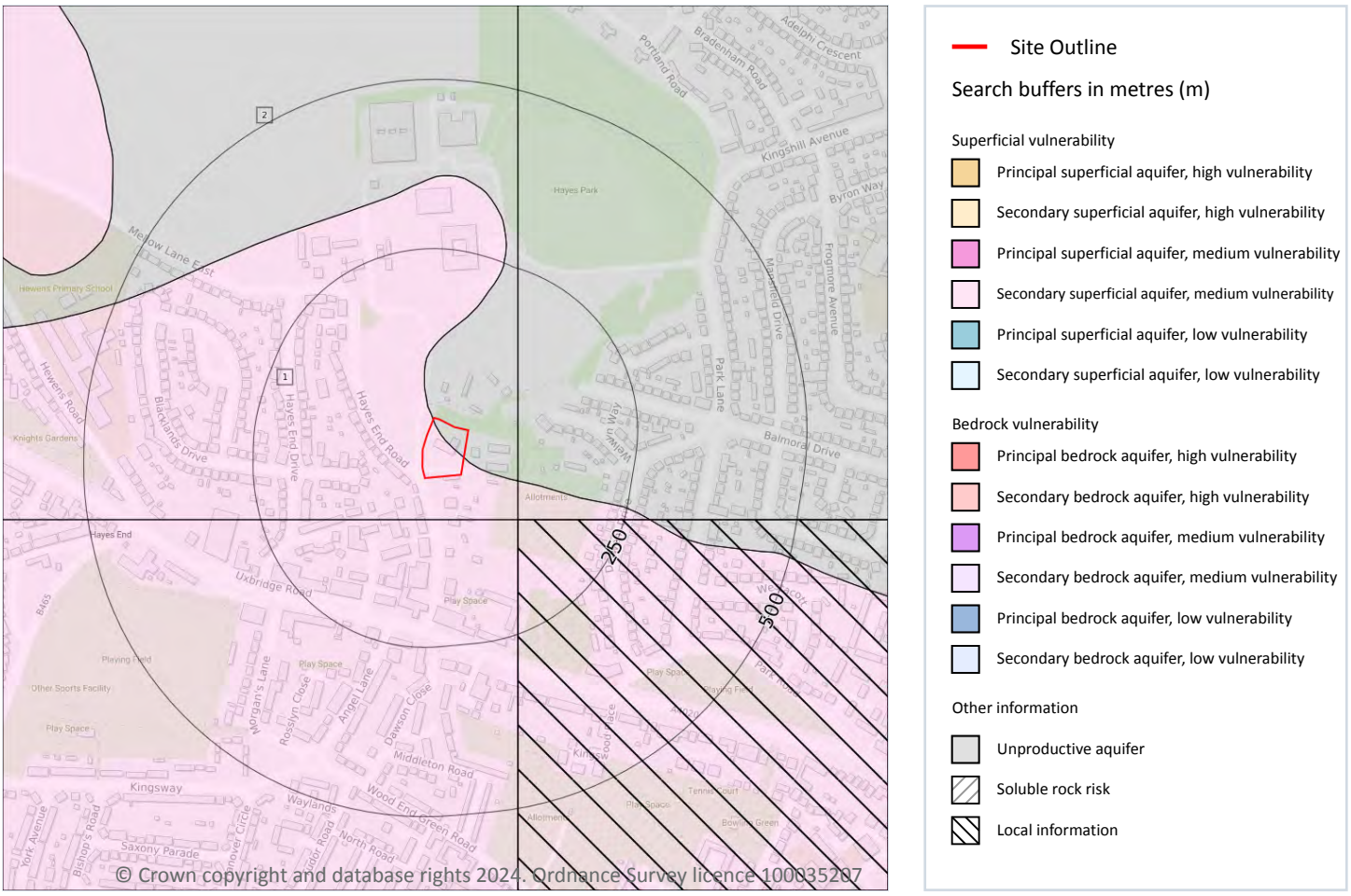
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 35 >**

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.

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m	2

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 36 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	**Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year**	**Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed**
2	On site	**Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed**

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0

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

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

5.5 Groundwater vulnerability- local information

Records on site	0

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 ↗.

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

Abstractions and Source Protection Zones

Site Outline

Search buffers in metres (m)

- Source Protection Zone 1 — Inner catchment
- Source Protection Zone 2 — Outer catchment
- Source Protection Zone 3 — Total catchment
- Source Protection Zone 4 — Zone of Special Interest
- Source Protection Zone 1c — Inner catchment - confined aquifer
- Source Protection Zone 2c — Outer catchment - confined aquifer
- Source Protection Zone 3c — Total catchment - confined aquifer
- Drinking water abstraction licences
- Drinking water abstraction licences — Polygon features
- Drinking water abstraction licences — Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m	17

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 38 >**

ID	Location	Details	
A	164m S	Status: Historical Licence No: 28/39/36/0015 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: TWO WELLS AT SPRINGWELL NURSERY, HAYES END ROAD, HAYES Data Type: Point Name: GOODSON Easting: 508900 Northing: 181900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 12/06/1997 Version End Date: -
A	164m S	Status: Historical Licence No: 28/39/36/0015 Details: Spray Irrigation - Spray Irrigation Definition Order Direct Source: THAMES GROUNDWATER Point: TWO WELLS AT SPRINGWELL NURSERY, HAYES END ROAD, HAYES Data Type: Point Name: GOODSON Easting: 508900 Northing: 181900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 12/06/1997 Version End Date: -
-	1061m W	Status: Active Licence No: 28/39/28/0008 Details: Laundry Use Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT WHITELYS PARADE Data Type: Point Name: BLUE DRAGON (HILLINGDON) LTD Easting: 507817 Northing: 182299	Annual Volume (m^3): 47663 Max Daily Volume (m^3): 200 Original Application No: NPS/WR/014518 Original Start Date: 08/11/1965 Expiry Date: - Issue No: 101 Version Start Date: 07/02/2014 Version End Date: -
-	1077m W	Status: Historical Licence No: 28/39/28/0008 Details: Laundry Use Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT WHITELYS PARADE Data Type: Point Name: BLUE DRAGON (HILLINGDON) LTD Easting: 507800 Northing: 182300	Annual Volume (m^3): 37669 Max Daily Volume (m^3): 181.84 Original Application No: - Original Start Date: 08/11/1965 Expiry Date: - Issue No: 100 Version Start Date: 08/11/1965 Version End Date: -

ID	Location	Details	
-	1123m W	Status: Historical Licence No: 28/39/28/0277 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: WELL AT LITTLE LONDON NURSERY, HARLINGTON ROAD, HILLINGDON Data Type: Point Name: BARWICK Easting: 507800 Northing: 181700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 13/02/1967 Expiry Date: - Issue No: 100 Version Start Date: 25/09/1996 Version End Date: -
-	1123m W	Status: Historical Licence No: 28/39/28/0277 Details: Spray Irrigation - Spray Irrigation Definition Order Direct Source: THAMES GROUNDWATER Point: WELL AT LITTLE LONDON NURSERY, HARLINGTON ROAD, HILLINGDON Data Type: Point Name: BARWICK Easting: 507800 Northing: 181700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 13/02/1967 Expiry Date: - Issue No: 100 Version Start Date: 25/09/1996 Version End Date: -
-	1905m S	Status: Historical Licence No: 28/39/36/0065 Details: Make-Up or Top Up Water Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT STOCKLEY PARK Data Type: Point Name: STOCKLEY PARK MANAGEMENT LTD Easting: 508340 Northing: 180230	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 25/10/2000 Expiry Date: 31-Dec-09 Issue No: 2 Version Start Date: 25/09/2002 Version End Date: -
-	1905m S	Status: Historical Licence No: 28/39/36/0065 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT STOCKLEY PARK Data Type: Point Name: STOCKLEY PARK MANAGEMENT LTD Easting: 508340 Northing: 180230	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 25/10/2000 Expiry Date: 31-Dec-09 Issue No: 2 Version Start Date: 25/09/2002 Version End Date: -
-	1905m S	Status: Historical Licence No: 28/39/36/0065 Details: Make-Up Or Top Up Water Direct Source: THAMES GROUNDWATER Point: STOCKLEY PARK, UXBRIDGE- BOREHOLE A Data Type: Point Name: STOCKLEY PARK MANAGEMENT LTD Easting: 508340 Northing: 180230	Annual Volume (m^3): 50005 Max Daily Volume (m^3): 720 Original Application No: - Original Start Date: 25/10/2000 Expiry Date: 31/12/2009 Issue No: 3 Version Start Date: 14/04/2003 Version End Date: -

ID	Location	Details	
-	1905m S	Status: Historical Licence No: 28/39/36/0065 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: STOCKLEY PARK, UXBRIDGE- BOREHOLE A Data Type: Point Name: STOCKLEY PARK MANAGEMENT LTD Easting: 508340 Northing: 180230	Annual Volume (m^3): 50005 Max Daily Volume (m^3): 720 Original Application No: - Original Start Date: 25/10/2000 Expiry Date: 31/12/2009 Issue No: 3 Version Start Date: 14/04/2003 Version End Date: -
-	1905m S	Status: Historical Licence No: TH/039/0036/003 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: STOCKLEY PARK, UXBRIDGE- BOREHOLE A Data Type: Point Name: STOCKLEY PARK ESTATE MANAGEMENT LIMITED Easting: 508340 Northing: 180230	Annual Volume (m^3): 50005 Max Daily Volume (m^3): 720 Original Application No: - Original Start Date: 02/02/2010 Expiry Date: 31/03/2019 Issue No: 1 Version Start Date: 02/02/2010 Version End Date: -
-	1905m S	Status: Historical Licence No: TH/039/0036/003 Details: Spray Irrigation - Storage Direct Source: THAMES GROUNDWATER Point: STOCKLEY PARK, UXBRIDGE, BOREHOLE A Data Type: Point Name: Stockley Park Estates Company Limited Easting: 508340 Northing: 180230	Annual Volume (m^3): 50005 Max Daily Volume (m^3): 720 Original Application No: - Original Start Date: 02/02/2010 Expiry Date: 31/03/2019 Issue No: 2 Version Start Date: 15/07/2016 Version End Date: -
-	1910m W	Status: Active Licence No: 28/39/28/0513 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: HILLINGDON HOSPITAL - BOREHOLE Data Type: Point Name: HILLINGDON HOSPITAL NHS TRUST Easting: 506950 Northing: 182160	Annual Volume (m^3): 138166 Max Daily Volume (m^3): 385.4 Original Application No: - Original Start Date: 05/10/1992 Expiry Date: - Issue No: 103 Version Start Date: 01/01/2010 Version End Date: -

ID	Location	Details	
-	1910m W	Status: Historical Licence No: 28/39/28/0513 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BOREHOLE A AT HILLINGDON HOSPITAL, HILLINGDON Data Type: Point Name: HILLINGDON HOSPITAL NHS TRUST Easting: 506950 Northing: 182160	Annual Volume (m^3): 200000 Max Daily Volume (m^3): 1000 Original Application No: - Original Start Date: 05/10/1992 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2005 Version End Date: -
-	1937m S	Status: Active Licence No: TH/039/0036/003/R01 Details: Make-Up Or Top Up Water Direct Source: THAMES GROUNDWATER Point: STOCKLEY PARK, UXBRIDGE, BOREHOLE A Data Type: Point Name: Stockley Park Estates Company Limited Easting: 508320 Northing: 180202	Annual Volume (m^3): 30000 Max Daily Volume (m^3): 720 Original Application No: NPS/WR/026744 Original Start Date: 01/04/2019 Expiry Date: 31/03/2026 Issue No: 3 Version Start Date: 01/04/2019 Version End Date: -
-	1955m W	Status: Active Licence No: 28/39/28/0513 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: HILLINGDON HOSPITAL- BOREHOLE Data Type: Point Name: HILLINGDON HOSPITAL NHS TRUST Easting: 506910 Northing: 181930	Annual Volume (m^3): 138166 Max Daily Volume (m^3): 385.4 Original Application No: - Original Start Date: 05/10/1992 Expiry Date: - Issue No: 103 Version Start Date: 01/01/2010 Version End Date: -
-	1955m W	Status: Historical Licence No: 28/39/28/0513 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BOREHOLE B AT HILLINGDON HOSPITAL, HILLINGDON Data Type: Point Name: HILLINGDON HOSPITAL NHS TRUST Easting: 506910 Northing: 181930	Annual Volume (m^3): 200000 Max Daily Volume (m^3): 1000 Original Application No: - Original Start Date: 05/10/1992 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2005 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	0

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.

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

5.8 Potable abstractions

Records within 2000m	4

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 38 >**

ID	Location	Details	
-	1910m W	Status: Active Licence No: 28/39/28/0513 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: HILLINGDON HOSPITAL - BOREHOLE Data Type: Point Name: HILLINGDON HOSPITAL NHS TRUST Easting: 506950 Northing: 182160	Annual Volume (m^3): 138166 Max Daily Volume (m^3): 385.4 Original Application No: - Original Start Date: 05/10/1992 Expiry Date: - Issue No: 103 Version Start Date: 01/01/2010 Version End Date: -
-	1910m W	Status: Historical Licence No: 28/39/28/0513 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BOREHOLE A AT HILLINGDON HOSPITAL, HILLINGDON Data Type: Point Name: HILLINGDON HOSPITAL NHS TRUST Easting: 506950 Northing: 182160	Annual Volume (m^3): 200000 Max Daily Volume (m^3): 1000 Original Application No: - Original Start Date: 05/10/1992 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2005 Version End Date: -

ID	Location	Details	
-	1955m W	Status: Active Licence No: 28/39/28/0513 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: HILLINGDON HOSPITAL- BOREHOLE Data Type: Point Name: HILLINGDON HOSPITAL NHS TRUST Easting: 506910 Northing: 181930	Annual Volume (m^3): 138166 Max Daily Volume (m^3): 385.4 Original Application No: - Original Start Date: 05/10/1992 Expiry Date: - Issue No: 103 Version Start Date: 01/01/2010 Version End Date: -
-	1955m W	Status: Historical Licence No: 28/39/28/0513 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BOREHOLE B AT HILLINGDON HOSPITAL, HILLINGDON Data Type: Point Name: HILLINGDON HOSPITAL NHS TRUST Easting: 506910 Northing: 181930	Annual Volume (m^3): 200000 Max Daily Volume (m^3): 1000 Original Application No: - Original Start Date: 05/10/1992 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2005 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	0

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

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

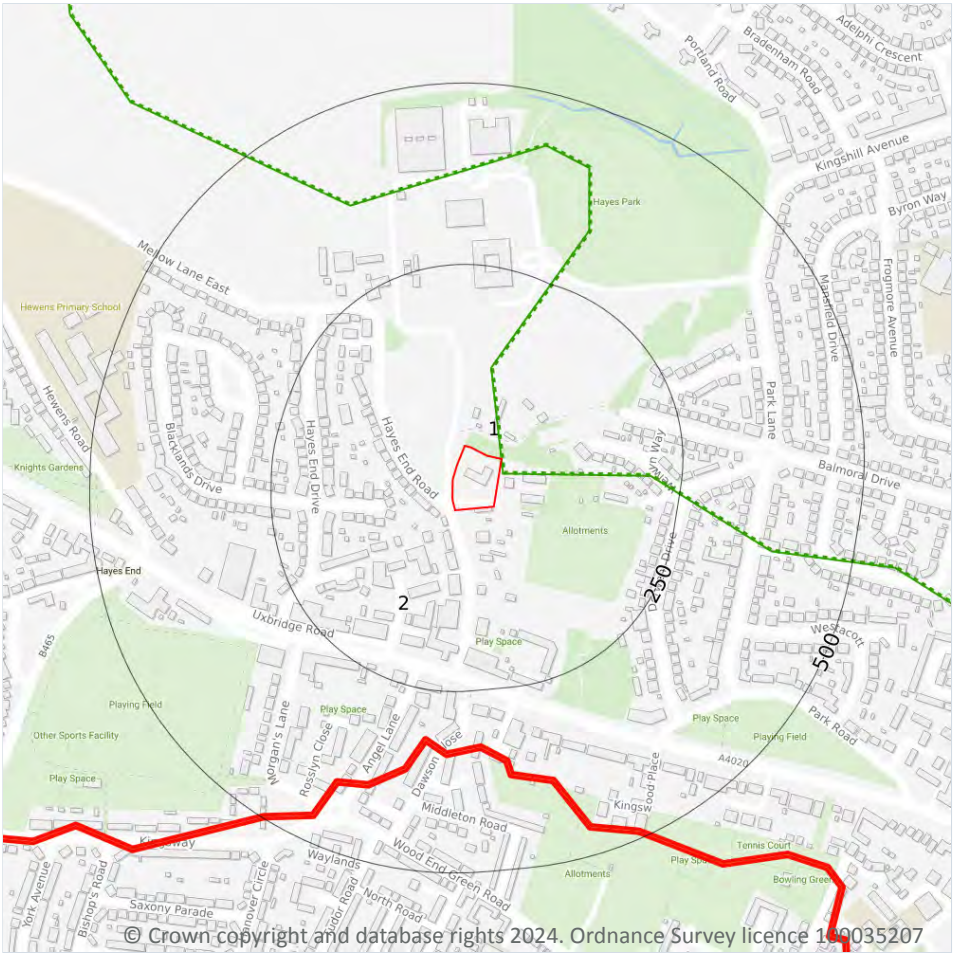
5.10 Source Protection Zones (confined aquifer)

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



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
1	**On site**	**River**	**Yeading Brook**	**GB106039023051**	**Crane Rivers and Lakes**	**London**

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
-	1374m E	River	Yeading Brook	GB106039023051 ↗	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site	1

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
2	**On site**	**Lower Thames Gravels**	**GB40603G000300** ↗	**Poor**	**Good**	**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.

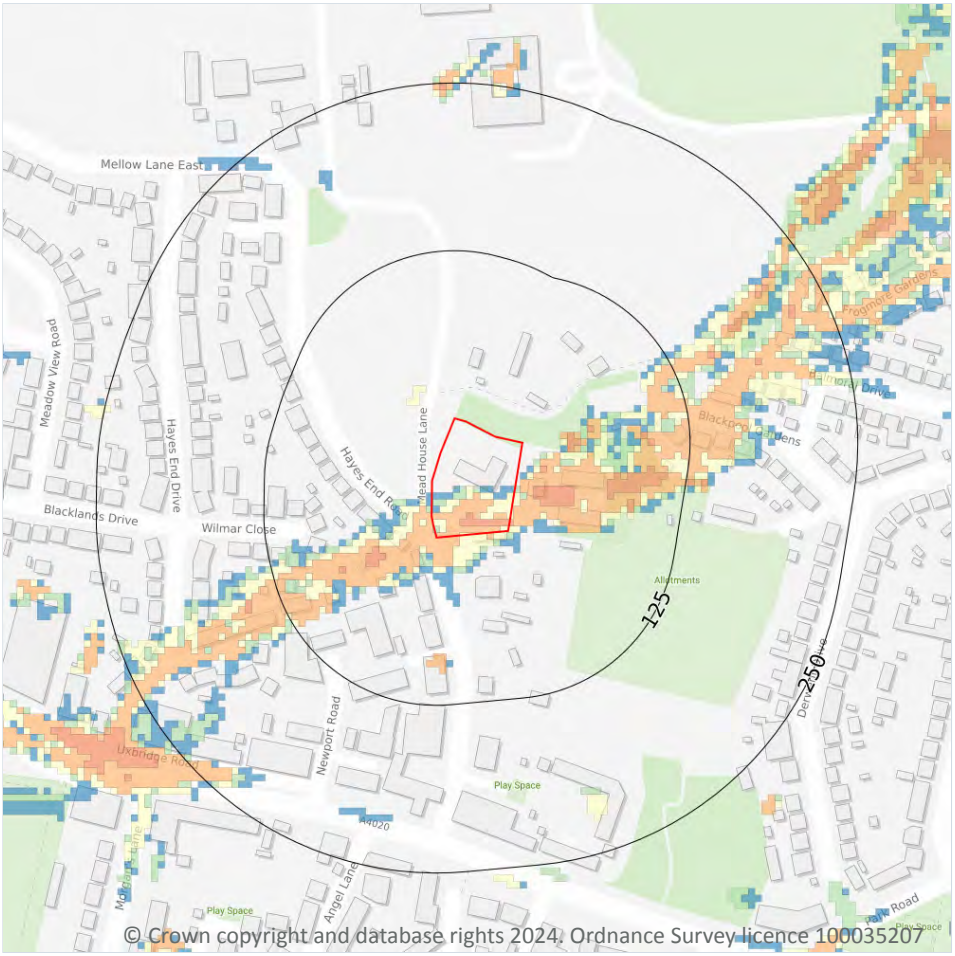
7.7 Flood Zone 3

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



Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

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 >**

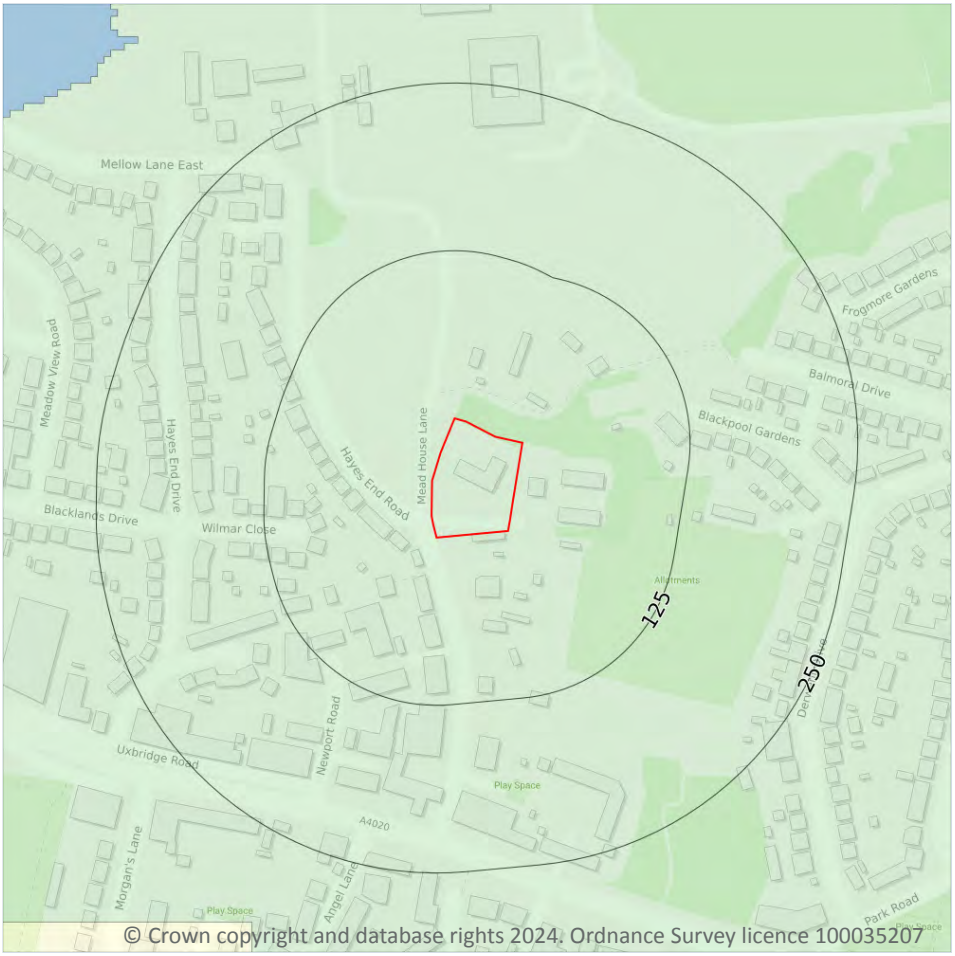
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

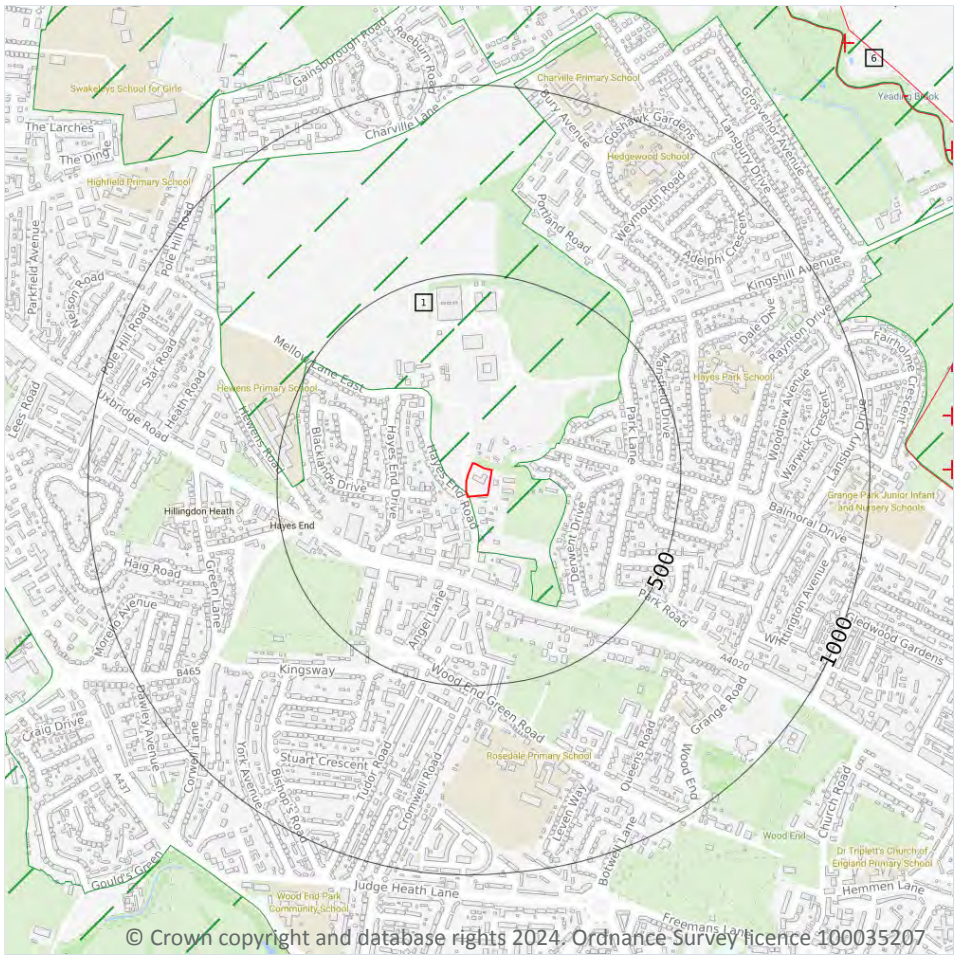
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

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.

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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.

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	4

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.

Features are displayed on the Environmental designations map on **page 54 >**

ID	Location	Name	Data source
A	1097m E	Yeading Meadows (mapped boundary not verified)	Natural England
6	1383m NE	Yeading Brook Meadows (mapped boundary not verified)	Natural England
-	1813m NE	Yeading Woods (mapped boundary not verified)	Natural England
-	1915m N	Yeading Woods (mapped boundary not verified)	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	1

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.

Features are displayed on the Environmental designations map on **page 54 >**

ID	Location	Name	Woodland Type
-	1926m N	Gutteridge Wood	Ancient & Semi-Natural Woodland

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	13

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

Features are displayed on the Environmental designations map on **page 54 >**

ID	Location	Name	Local Authority name
1	**On site**	**London**	**Hillingdon**
A	1007m NE	London	Hillingdon
2	1031m N	London	Hillingdon
3	1189m SW	London	Hillingdon
4	1205m SW	London	Hillingdon
-	1373m S	London	Hillingdon
7	1385m NE	London	Ealing
-	1514m SW	London	Hillingdon
-	1674m S	London	Hillingdon
-	1679m S	London	Hillingdon
-	1736m W	London	Hillingdon
-	1772m SW	London	Hillingdon
-	1983m W	London	Hillingdon

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.

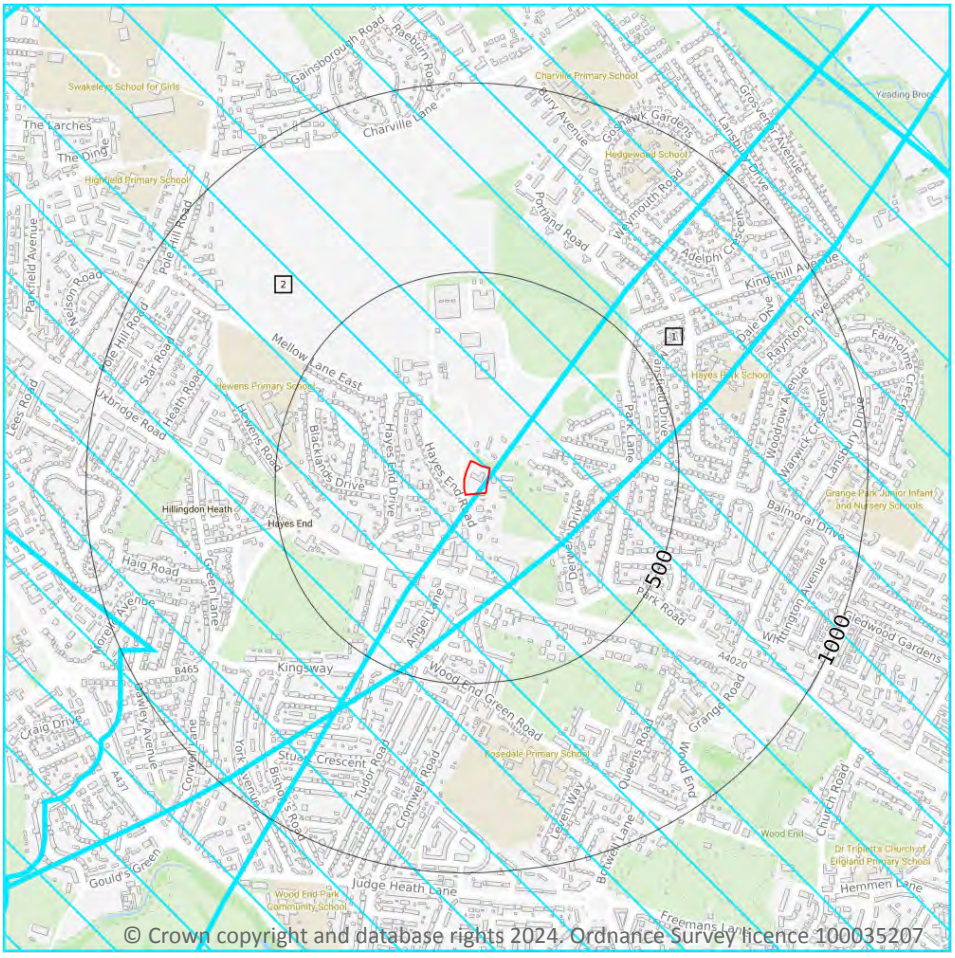
10.16 Nitrate Vulnerable Zones

Records within 2000m	0

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.

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	2

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	**Infrastructure - Airports, helipads and other aviation proposals. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.**
2	On site	**Infrastructure - Airports, helipads and other aviation proposals. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**0**

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.

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

11 Visual and cultural designations

Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

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	3

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.

Features are displayed on the Visual and cultural designations map on **page 62 >**

ID	Location	Name	Grade	Reference Number	Listed date
1	78m S	Pringwell House And Cottage	II	1358377	06/09/1974
2	79m S	Garden Wall To West Of Springwell House	II	1285939	06/09/1974
3	243m S	The Angel Ph	II	1422617	13/02/2015

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.

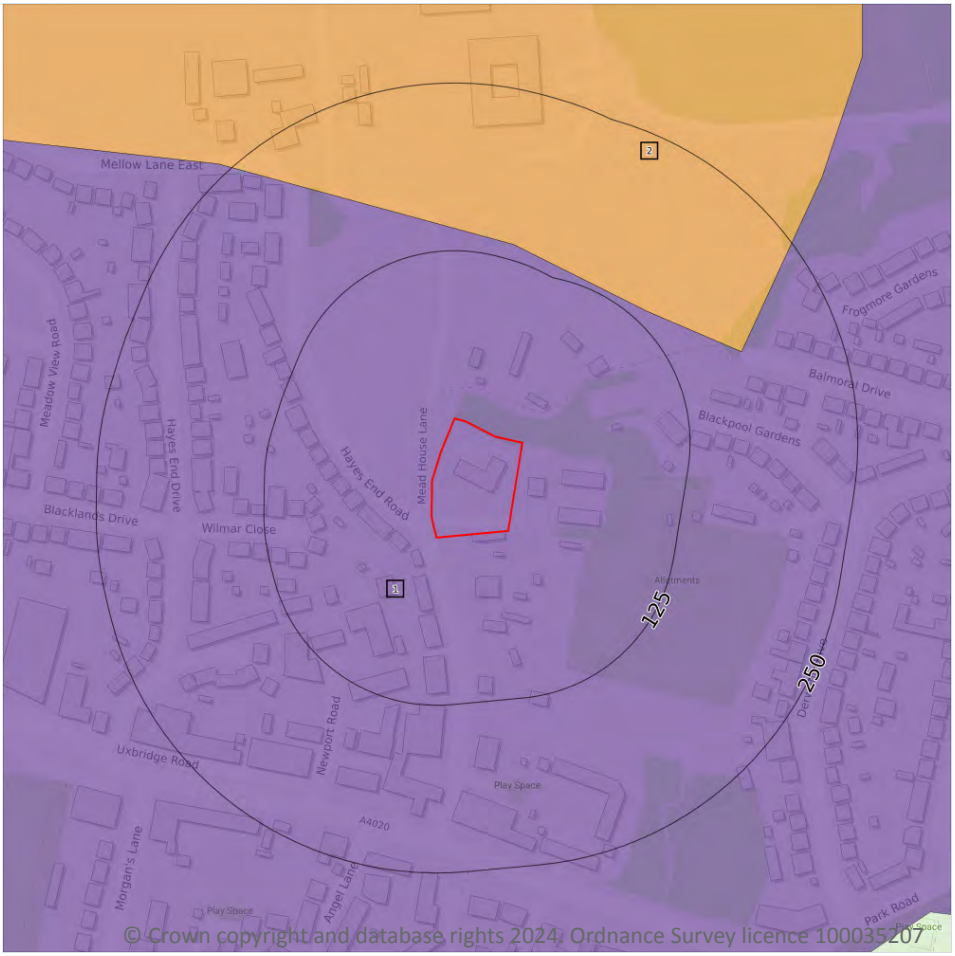
11.7 Registered Parks and Gardens

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



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	2

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**	**Non-agricultural/no quality assigned**
2	129m NE	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

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

Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks

Primary Habitat
Restorable Habitat
Associated Habitats
Habitat Restoration-Creation
Network Enhancement Zone 1
Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	14

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

Features are displayed on the Habitat designations map on **page 67 >**

ID	Location	Main Habitat	Other habitats
A	**On site**	**Deciduous woodland**	**Main habitat: TORCH (INV > 50%); DWOOD (INV > 50%)**
A	**On site**	**Traditional orchard**	**Overruled by Traditional Orchards HAP Inventory dataset**
B	27m E	Deciduous woodland	Main habitat: TORCH (INV > 50%); DWOOD (INV > 50%)
B	29m E	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset

ID	Location	Main Habitat	Other habitats
1	31m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
B	31m NE	Deciduous woodland	Main habitat: TORCH (INV > 50%); DWOOD (INV > 50%)
2	56m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	165m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	178m SE	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
C	178m SE	Traditional orchard	Main habitat: TORCH (INV > 50%)
C	195m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	225m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	244m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	250m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

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

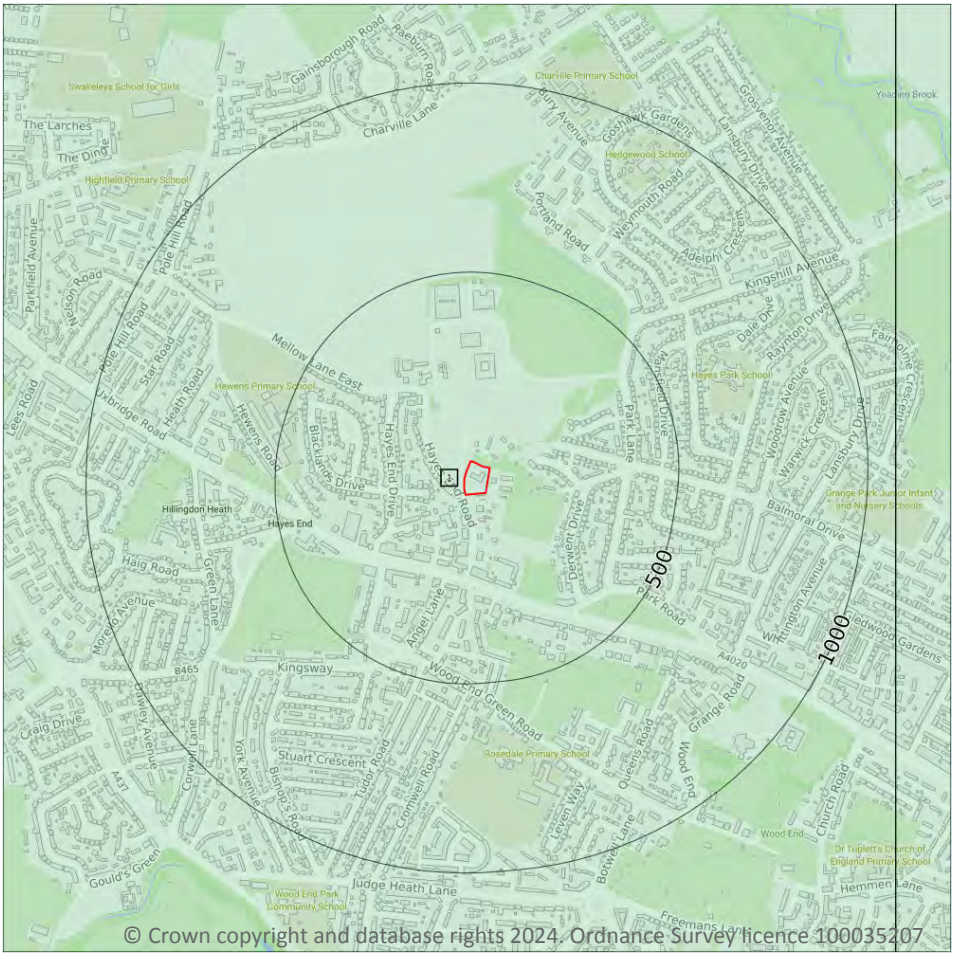
Records within 250m	**0**

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



14.1 10k Availability

Records within 500m	1

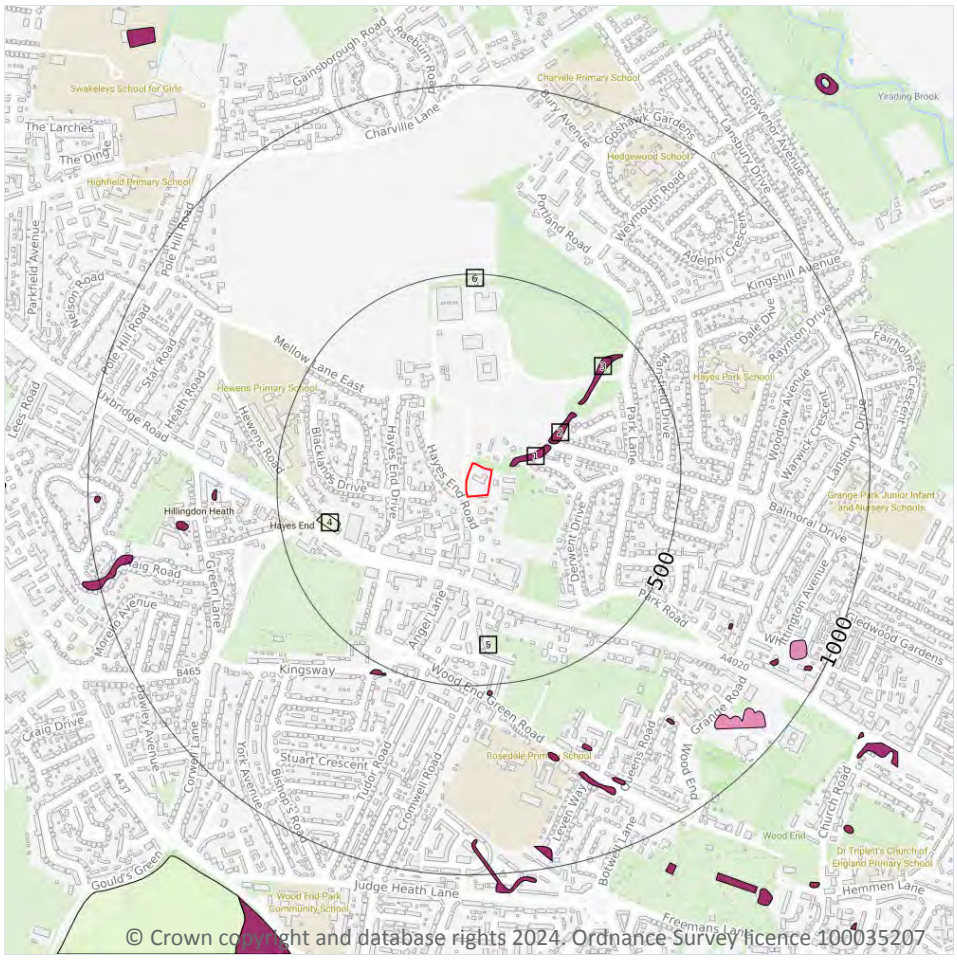
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 70 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**TQ08SE**

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	6

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.

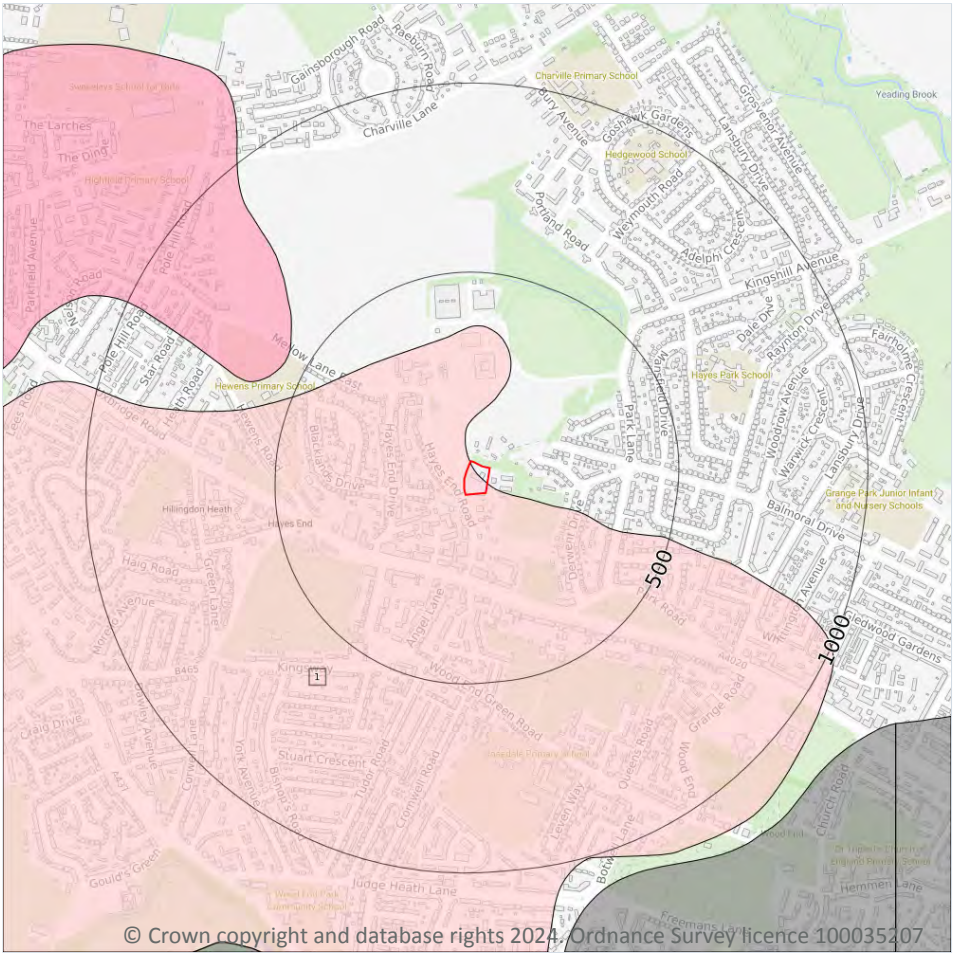
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 71 >**

ID	Location	LEX Code	Description	Rock description
1	49m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	168m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	289m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	344m W	WMGR-ARTDP	Infilled Ground	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
5	389m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
6	485m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m	1

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.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 73 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**BHT-XSV**	**Boyn Hill Gravel Member - Sand And Gravel**	**Sand And Gravel**

This data is sourced from the British Geological Survey.

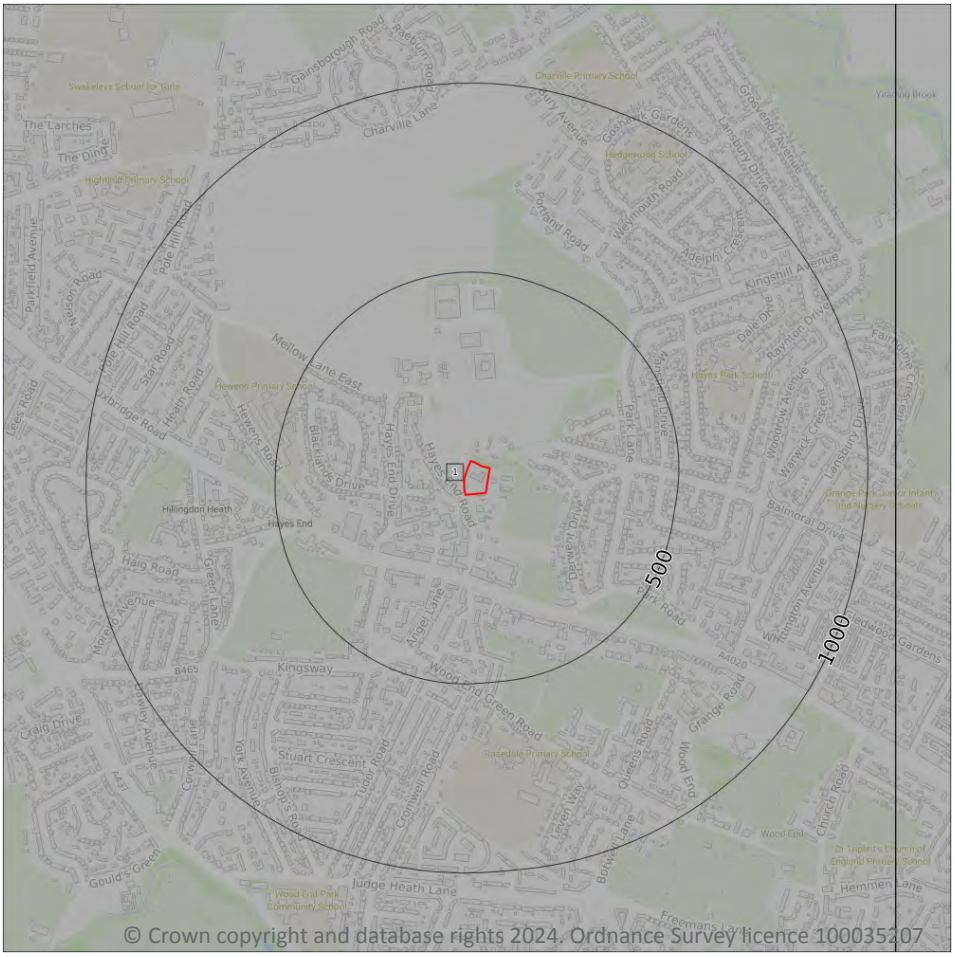
14.4 Landslip (10k)

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



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m	1

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.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 75 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LC-CLSISA**	**London Clay Formation - Clay, Silt And Sand**	**Eocene Epoch**

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 77 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW255_beaconsfield_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.

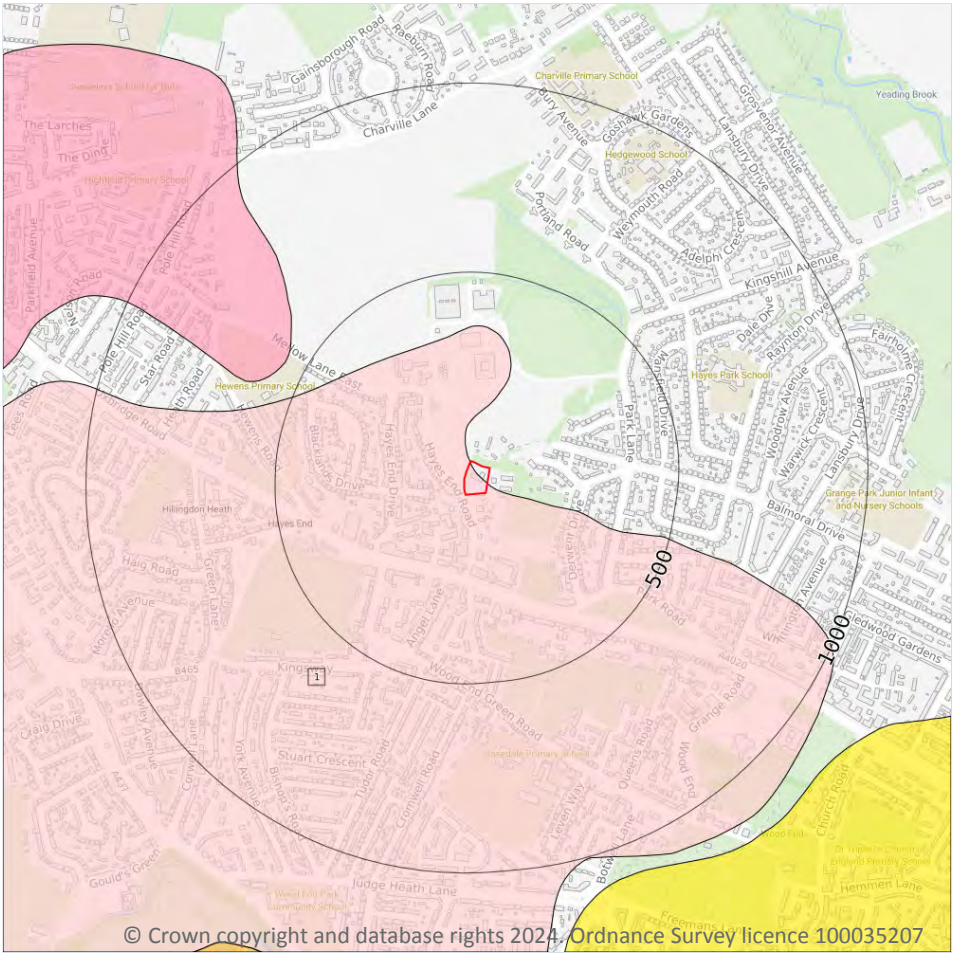
15.3 Artificial ground permeability (50k)

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 79 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**BHT-XSV**	**BOYN HILL GRAVEL MEMBER**	**SAND AND GRAVEL**

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	**Intergranular**	**Very High**	**High**

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	1

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 81 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LC-XCZS**	**LONDON CLAY FORMATION - CLAY, SILT AND SAND**	**YPRESIAN**

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	**Mixed**	**Moderate**	**Very Low**

This data is sourced from the British Geological Survey.

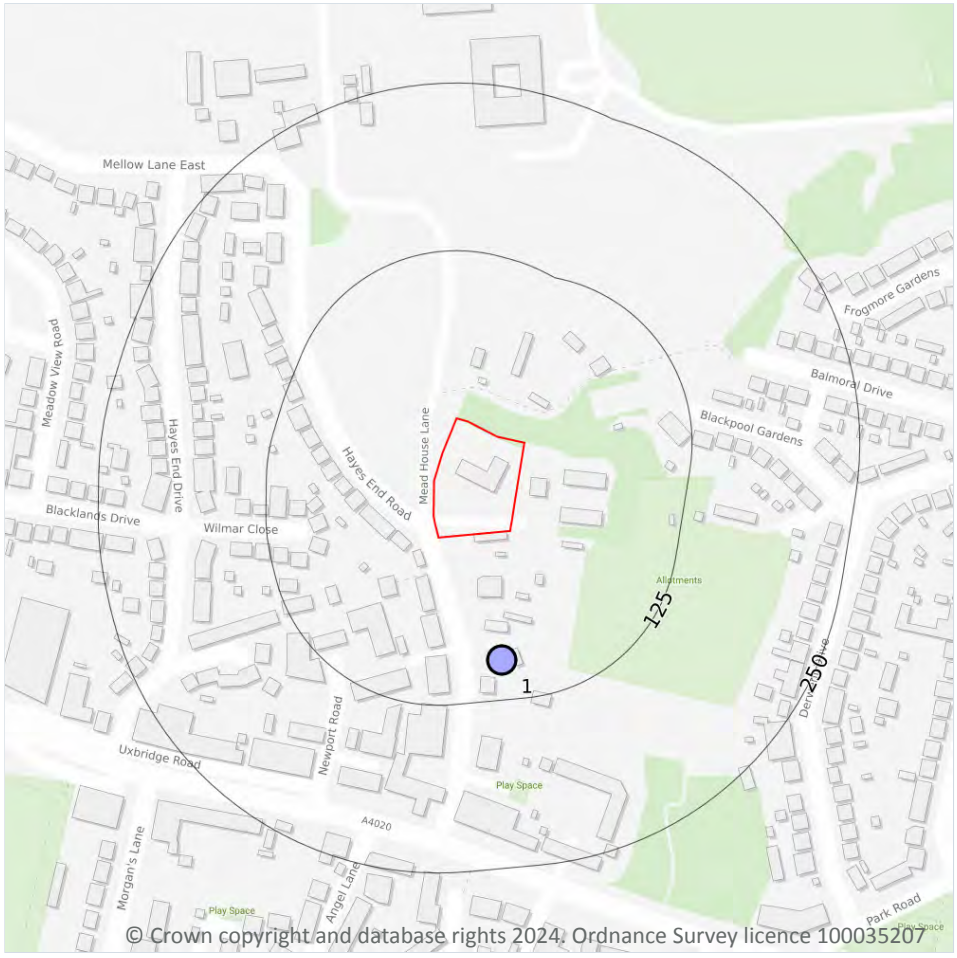
15.10 Bedrock faults and other linear features (50k)

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



Site Outline

Search buffers in metres (m)

Confidential

0 - 10m

10 - 30m

30m+

Unknown

16.1 BGS Boreholes

Records within 250m	1

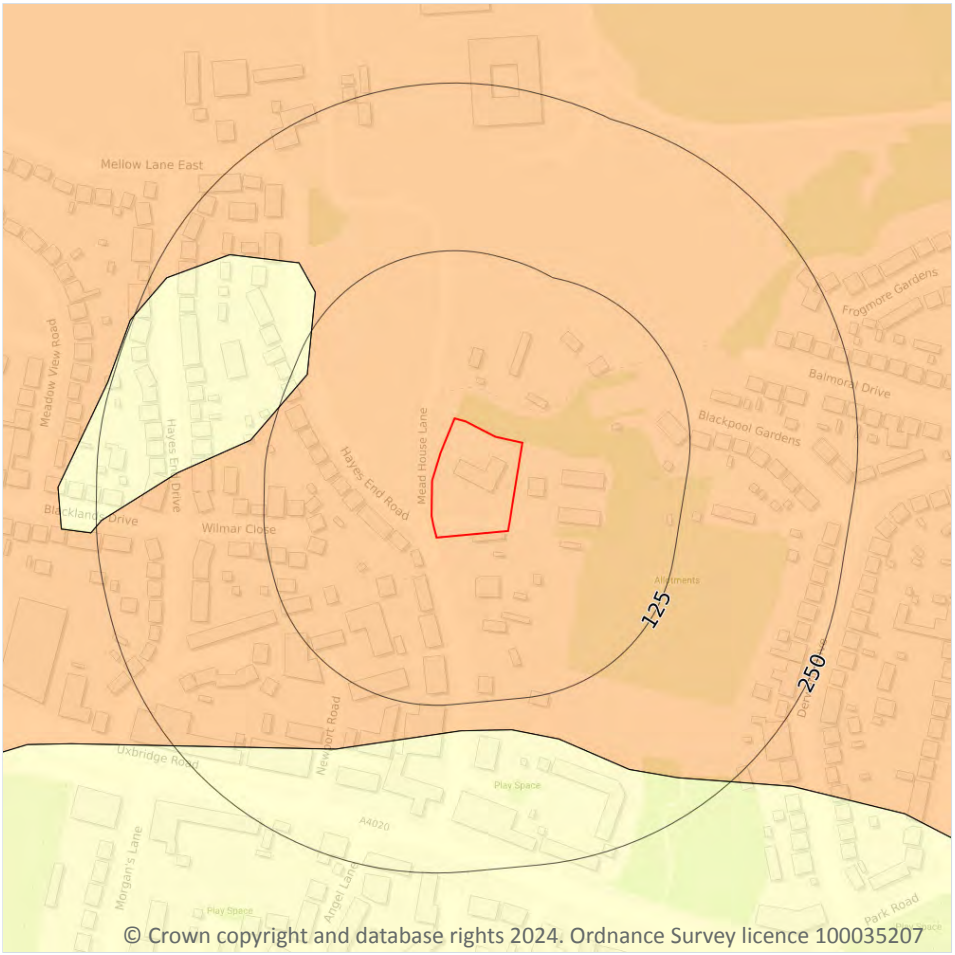
The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several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

Features are displayed on the Boreholes map on **page 83 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	95m S	508910 181970	SPRINGWELL NURSERY, HAYES END	4.57	N	576590 ↗

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

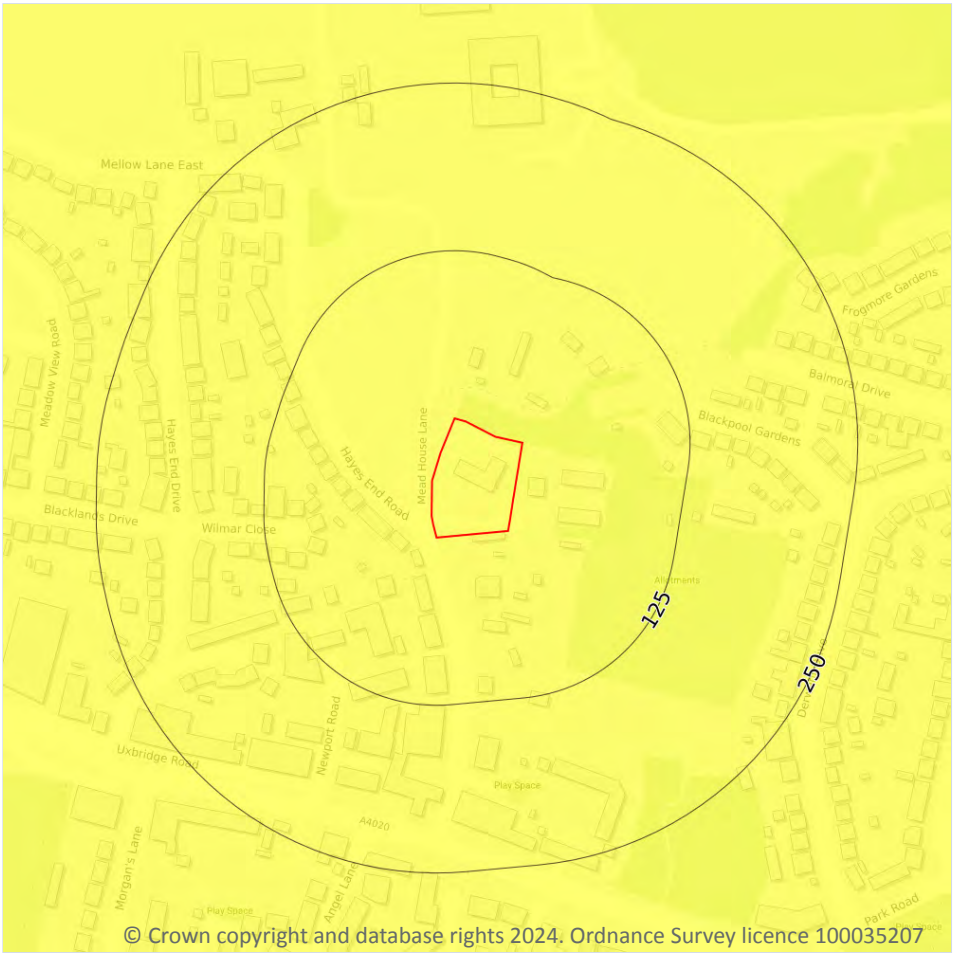
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 84 >**

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



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	1

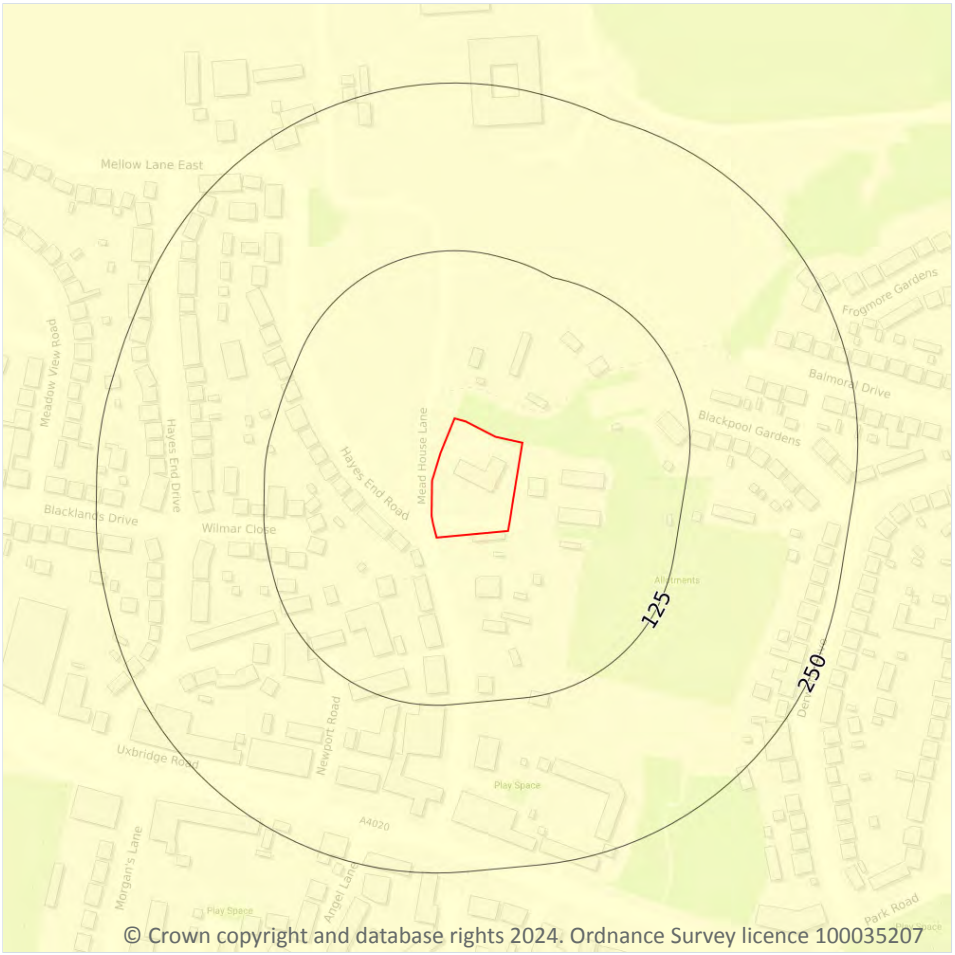
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 85 >**

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**

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

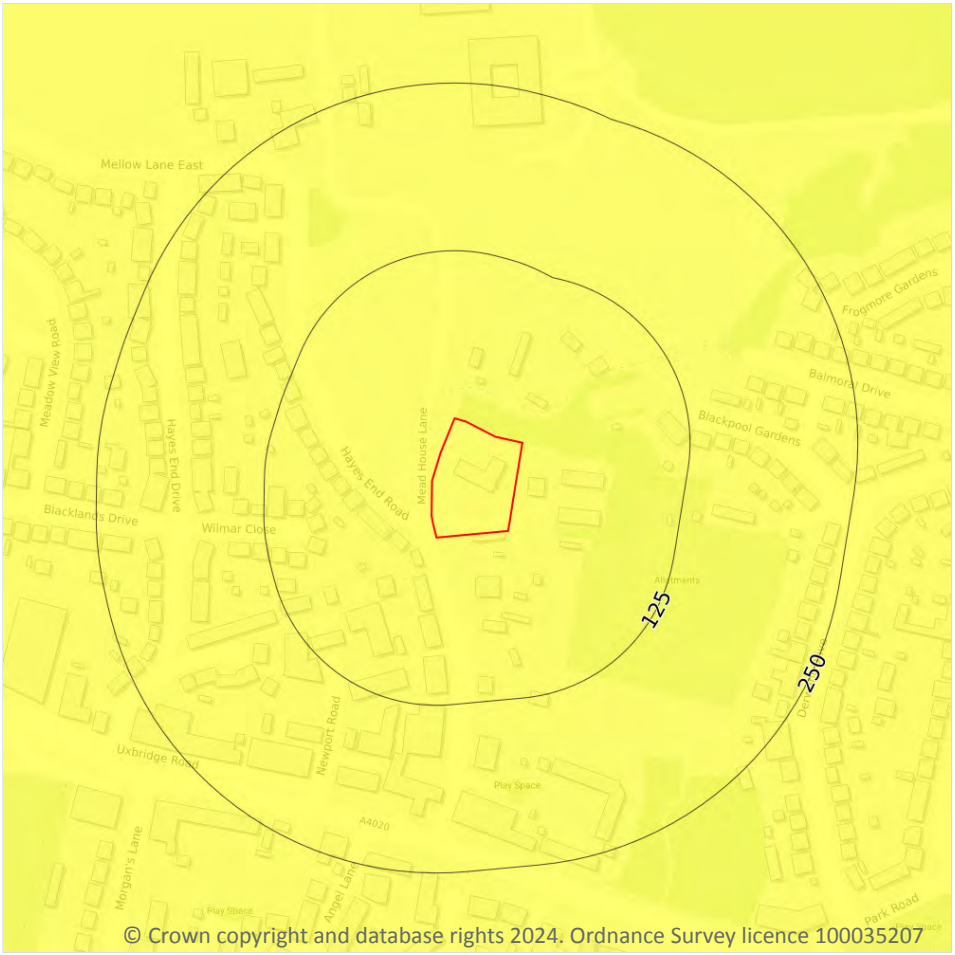
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 86 >**

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



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	1

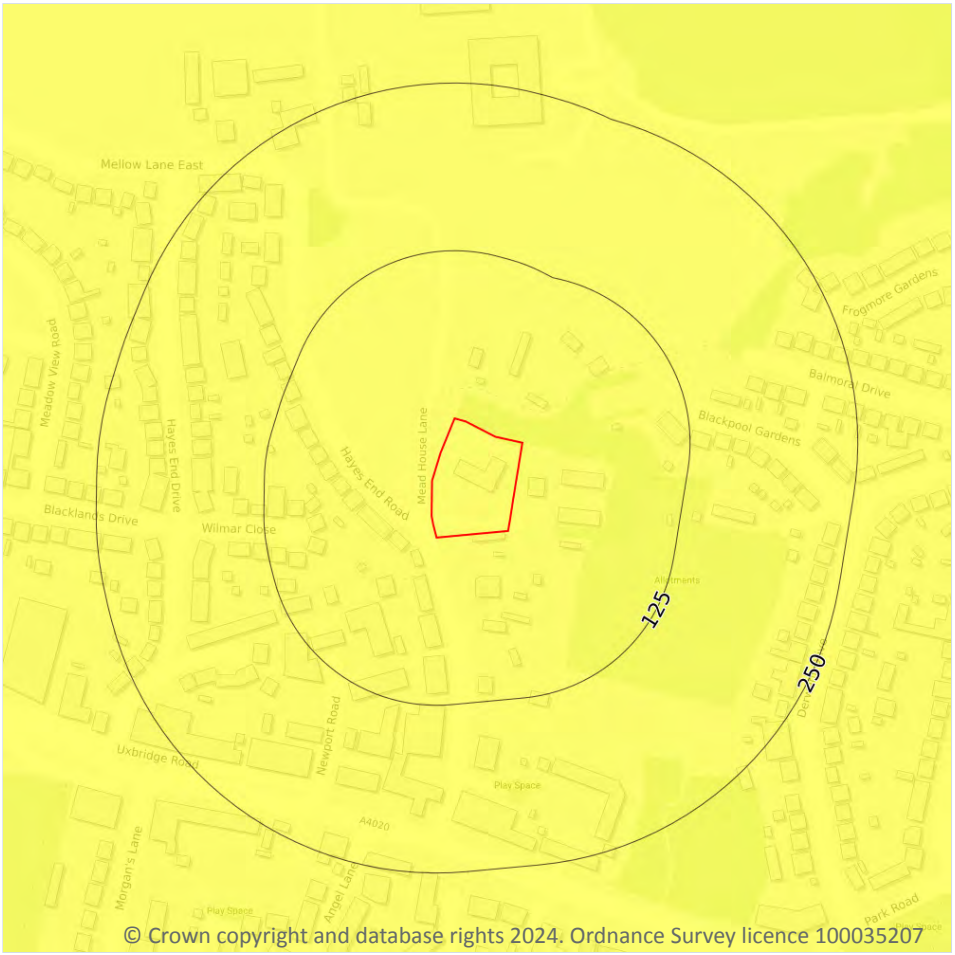
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 87 >**

Location	Hazard rating	Details
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

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

17.5 Landslides

Records within 50m	1

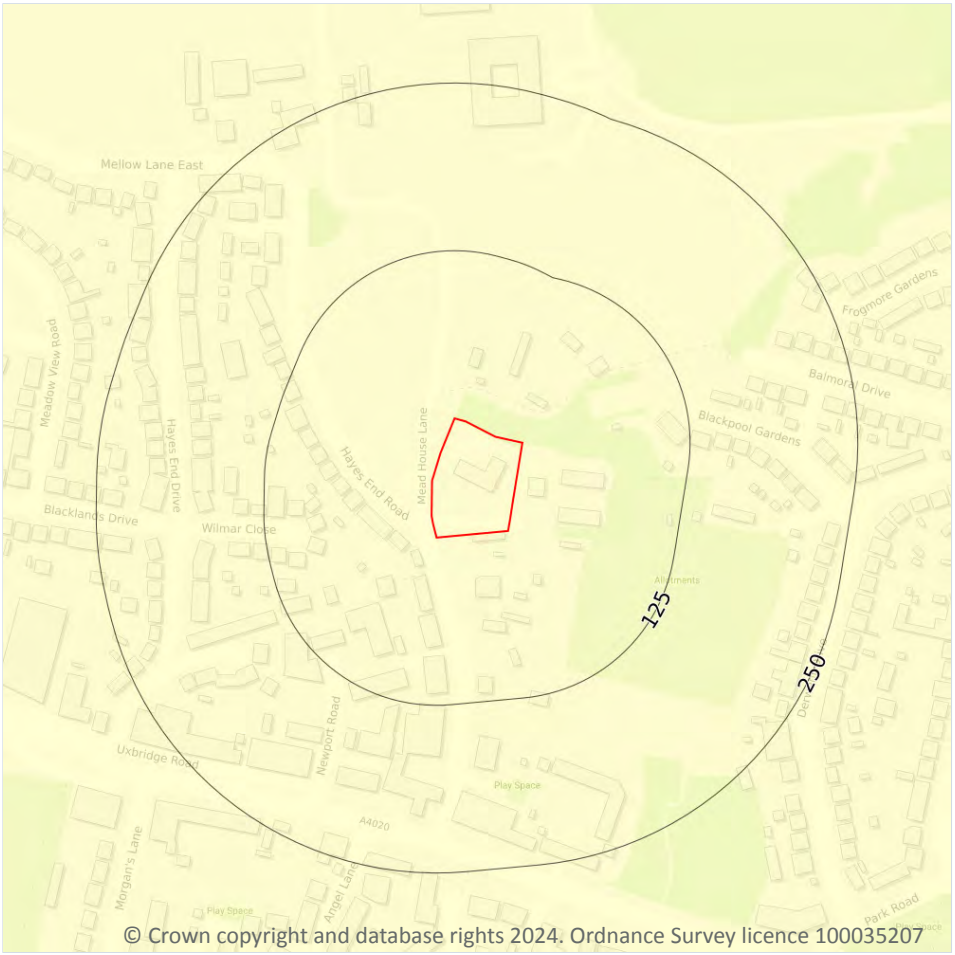
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 88 >**

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



Site Outline

Search buffers in metres (m)

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

17.6 Ground dissolution of soluble rocks

Records within 50m	1

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 89 >**

Location	Hazard rating	Details
On site	**Negligible**	**Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.**

This data is sourced from the British Geological Survey.

18 Mining and ground workings

18.1 BritPits

Records within 500m	0

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.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	13

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 91 >**

ID	Location	Land Use	Year of mapping	Mapping scale
1	**On site**	**Pond**	**1868**	**1:10560**
A	7m SE	Pond	1881	1:10560
A	17m S	Ponds	1868	1:10560
B	46m E	Ponds	1920	1:10560
B	46m NE	Pond	1868	1:10560
B	46m NE	Ponds	1960	1:10560
B	48m NE	Ponds	1938	1:10560
B	48m NE	Ponds	1913	1:10560
B	48m NE	Ponds	1894	1:10560
B	58m NE	Pond	1881	1:10560
2	132m SW	Water Body	1868	1:10560
B	168m NE	Pond	1868	1:10560
B	182m NE	Pond	1881	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	0

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

This is 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	0

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).

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	0

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

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

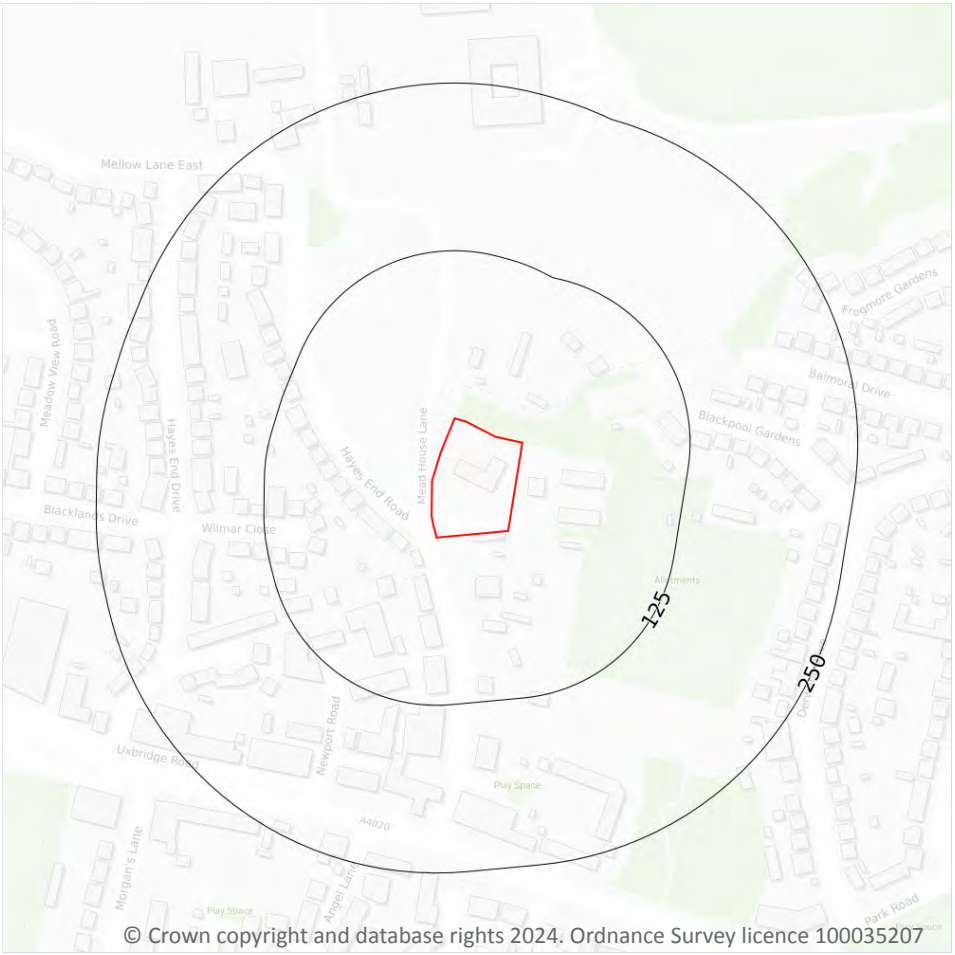
This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

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



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 98 >**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Less than 1%**	**None**

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^2. 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^2; 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	**No data**	**No data**	**No data**	**No data**	**No data**	**No data**	**No data**
On site	**No data**	**No data**	**No data**	**No data**	**No data**	**No data**	**No data**

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	5

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^2).

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	**18**	**3.2**	**206**	**142**	**0.9**	**66**	**50**	**27**	**17**
On site	**18**	**3.2**	**216**	**148**	**0.9**	**65**	**53**	**28**	**18**
On site	**18**	**3.2**	**190**	**131**	**0.8**	**67**	**46**	**27**	**17**
On site	**18**	**3.2**	**198**	**136**	**0.9**	**67**	**49**	**27**	**17**
50m N	18	3.2	207	142	0.9	66	51	28	16

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^2.

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.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see https://www.groundsure.com/sources-reference ↗.

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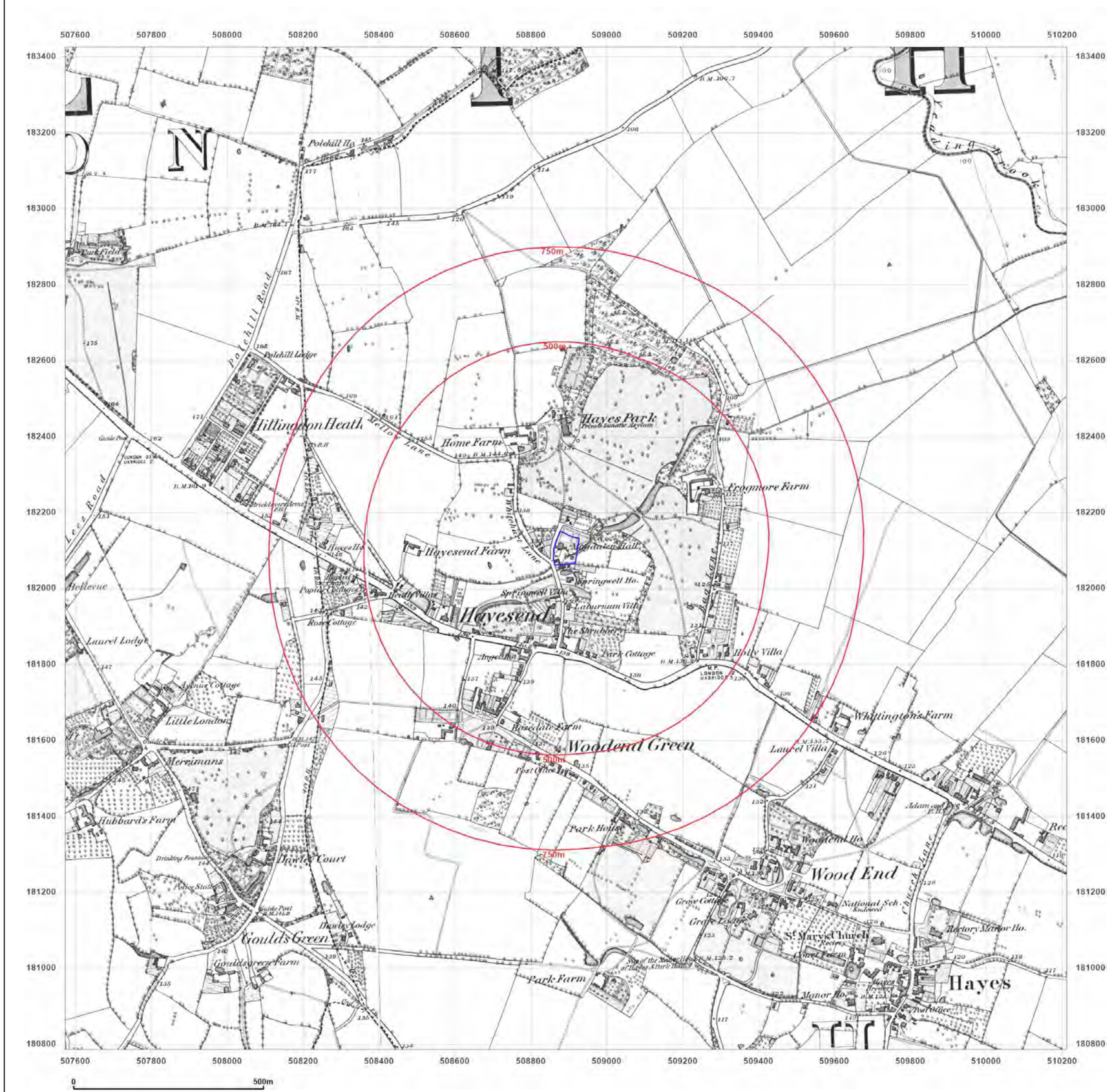

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Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1868**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1864
Revised 1868
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1865
Revised 1865
Edition 1868
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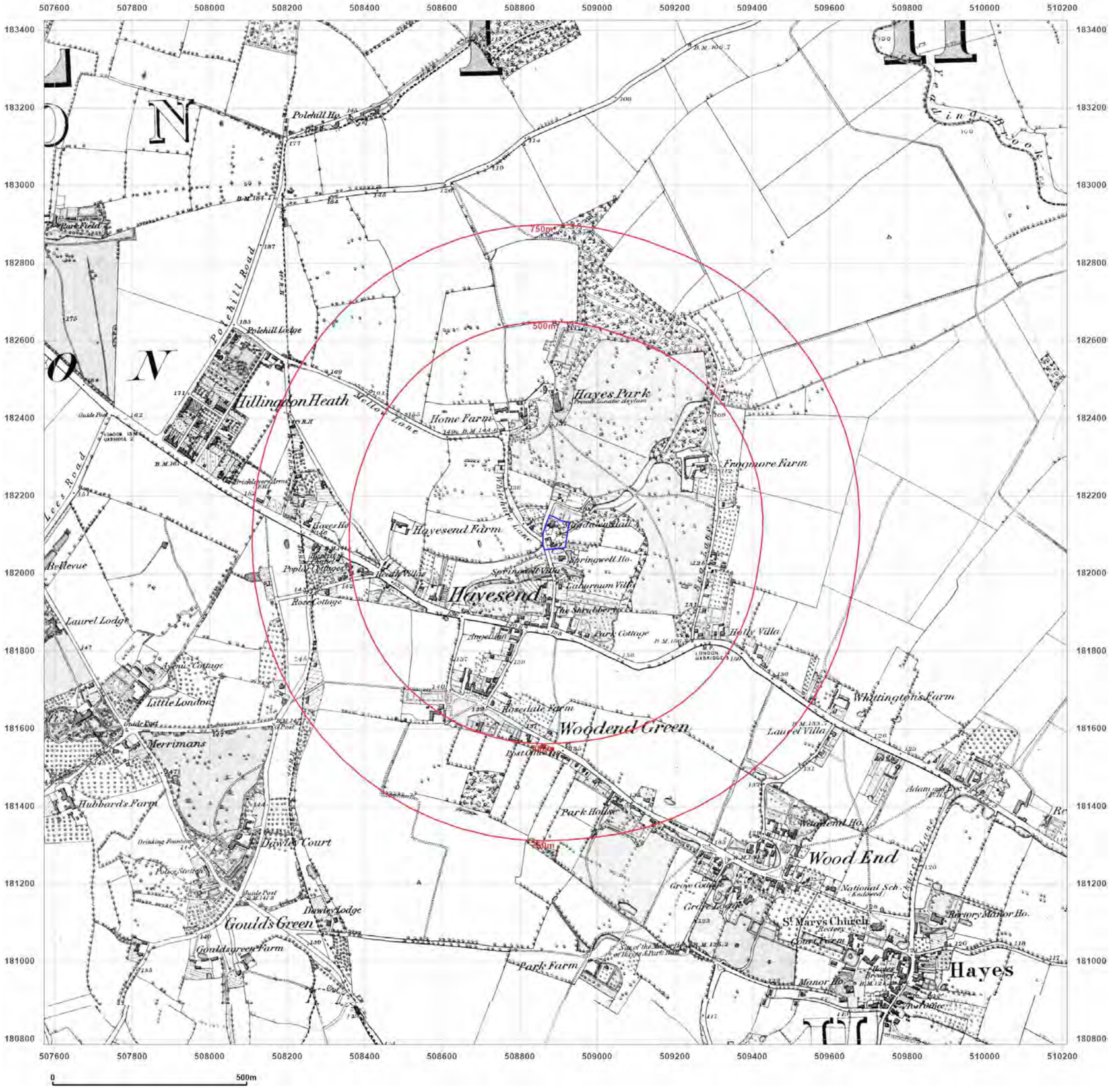

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Site Details:

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Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1881**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1875
Revised N/A
Edition 1881
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition 1881
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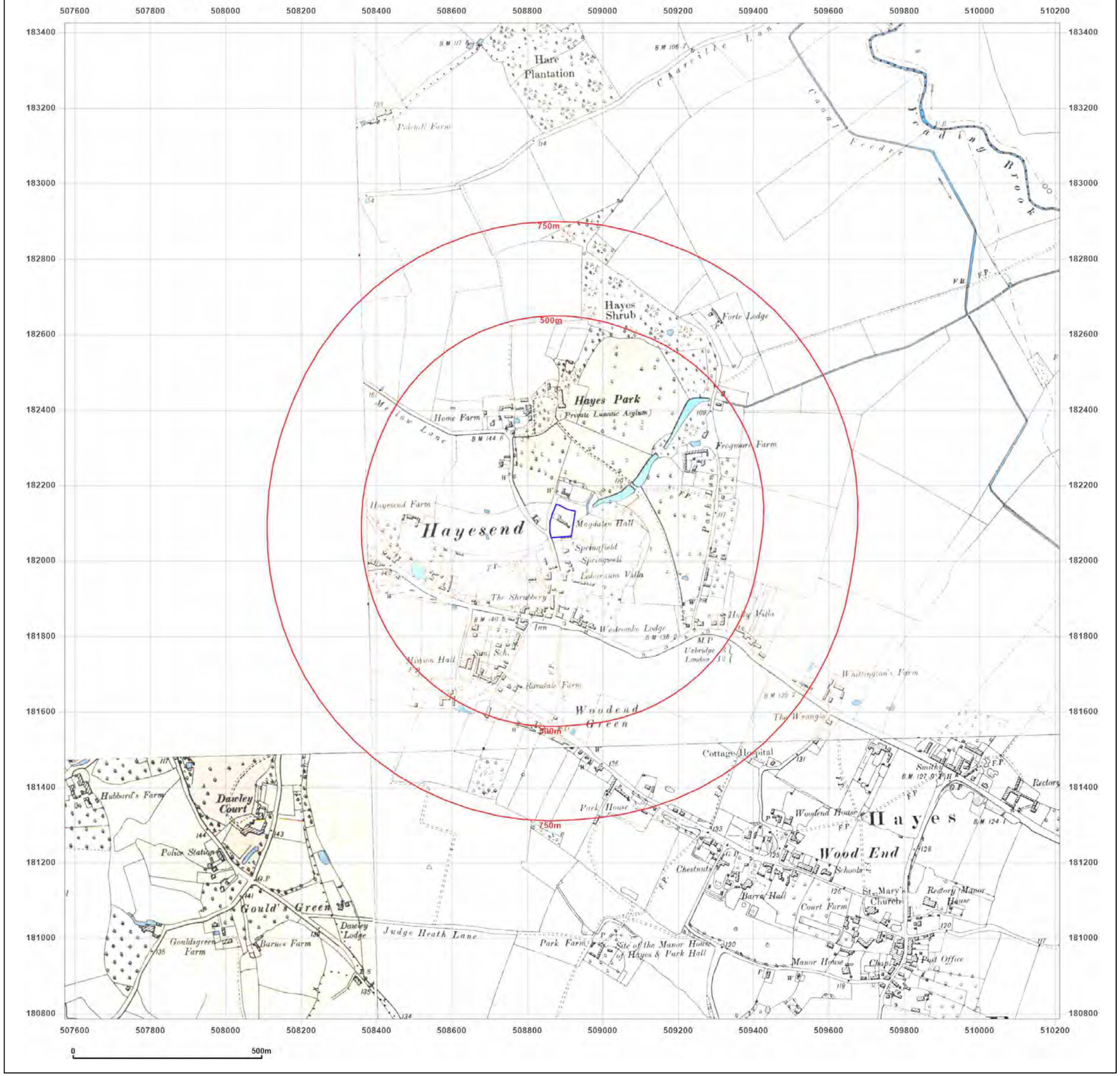

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Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1894**

Scale: 1:10,560

Printed at: 1:10,560

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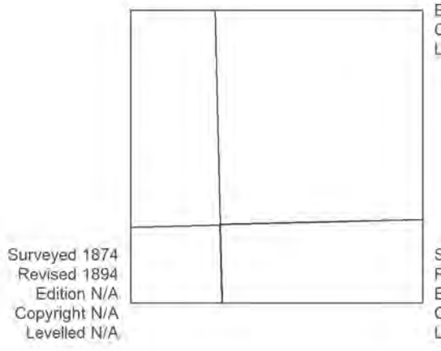

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Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1894**

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Printed at: 1:10,560

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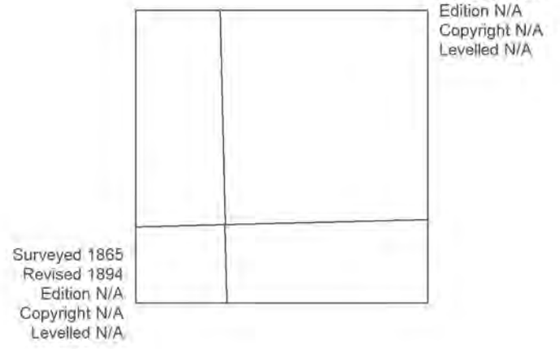

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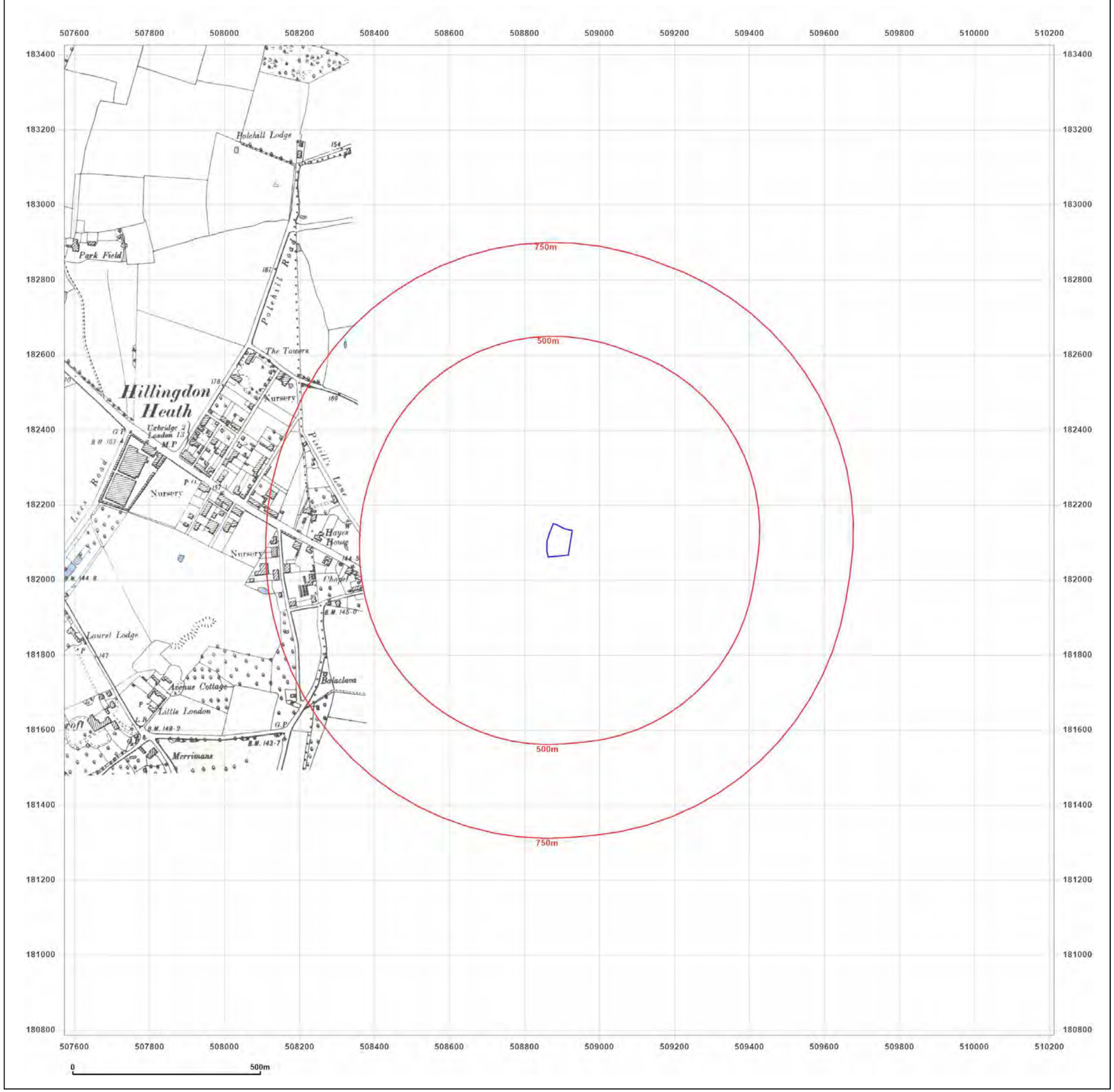

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Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1895**

Scale: 1:10,560

Printed at: 1:10,560

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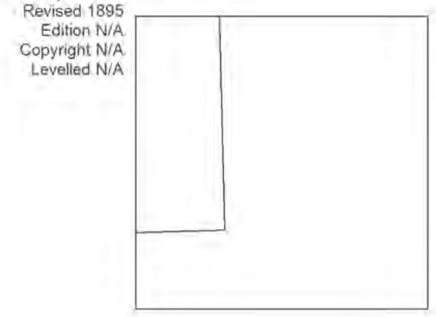

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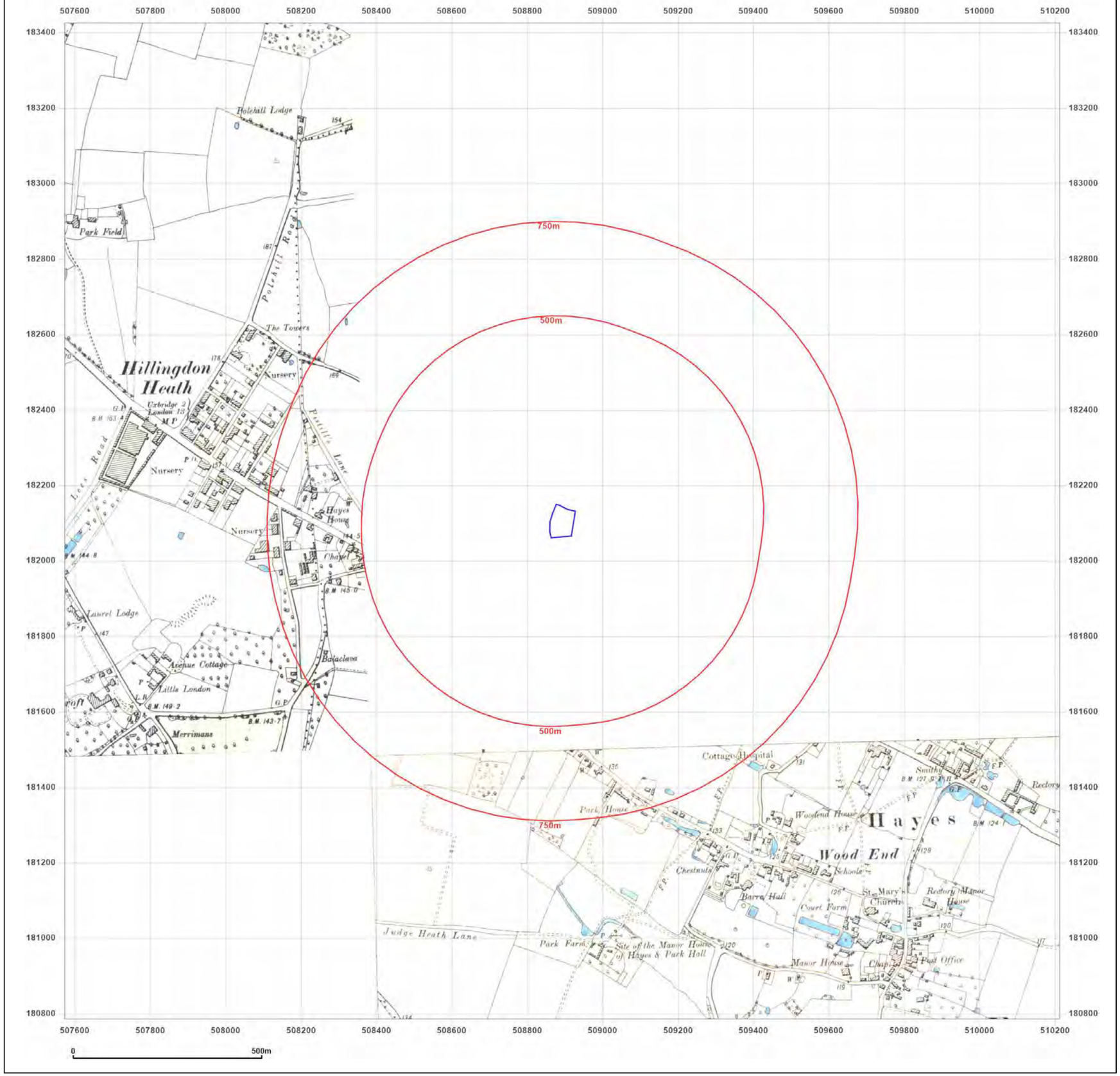

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Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1895-1897**

Scale: 1:10,560

Printed at: 1:10,560

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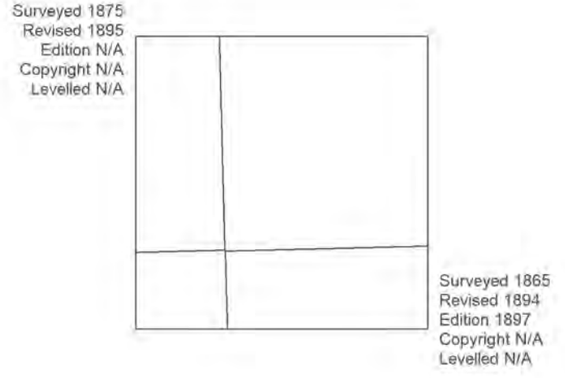

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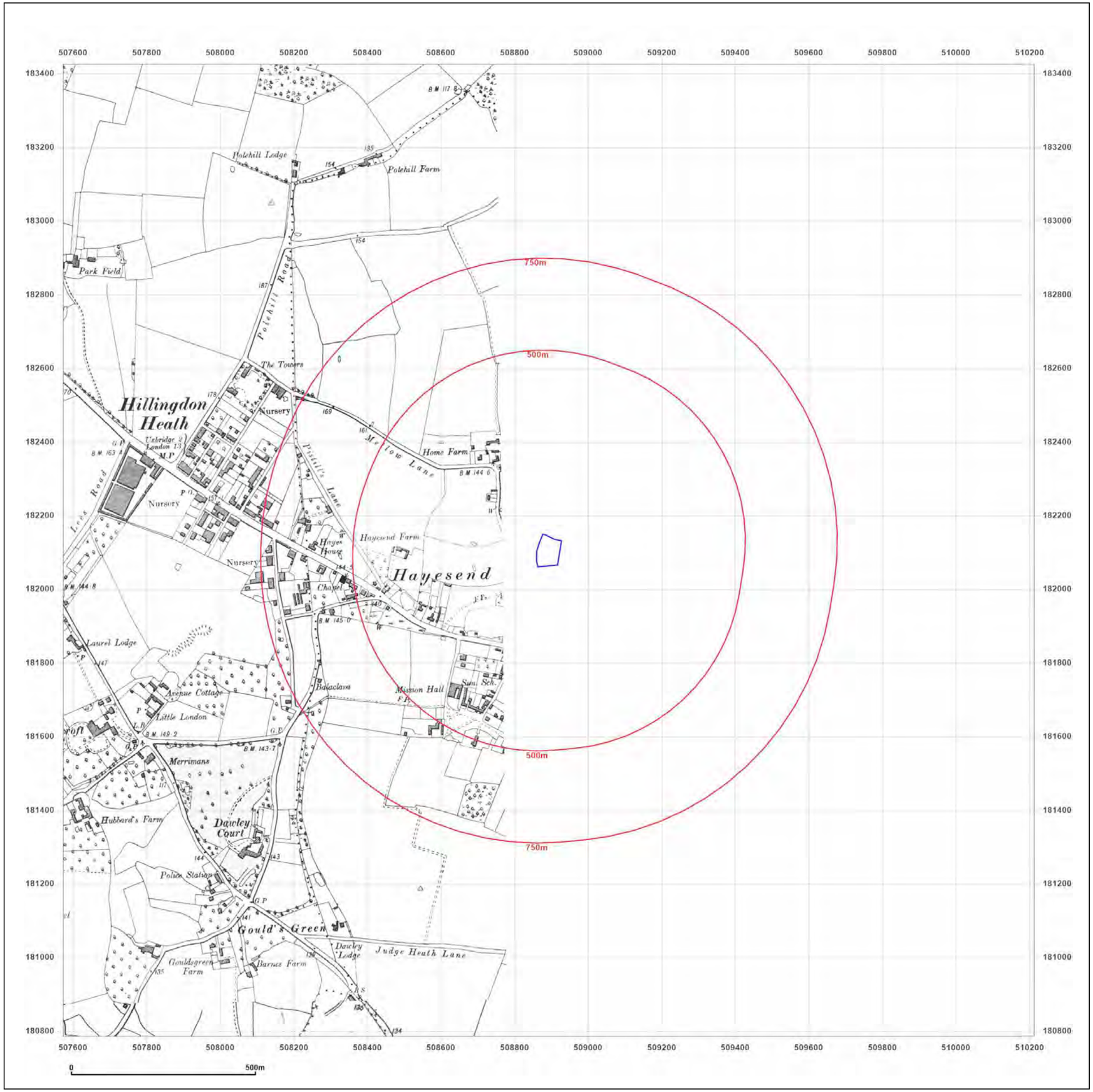

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Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1898-1900**

Scale: 1:10,560

Printed at: 1:10,560

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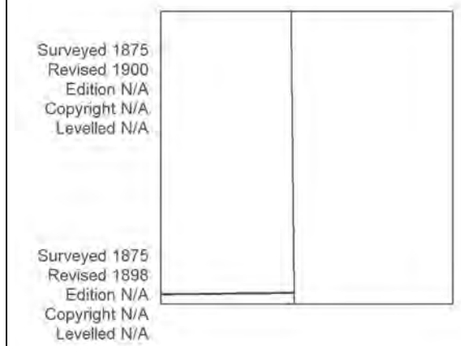

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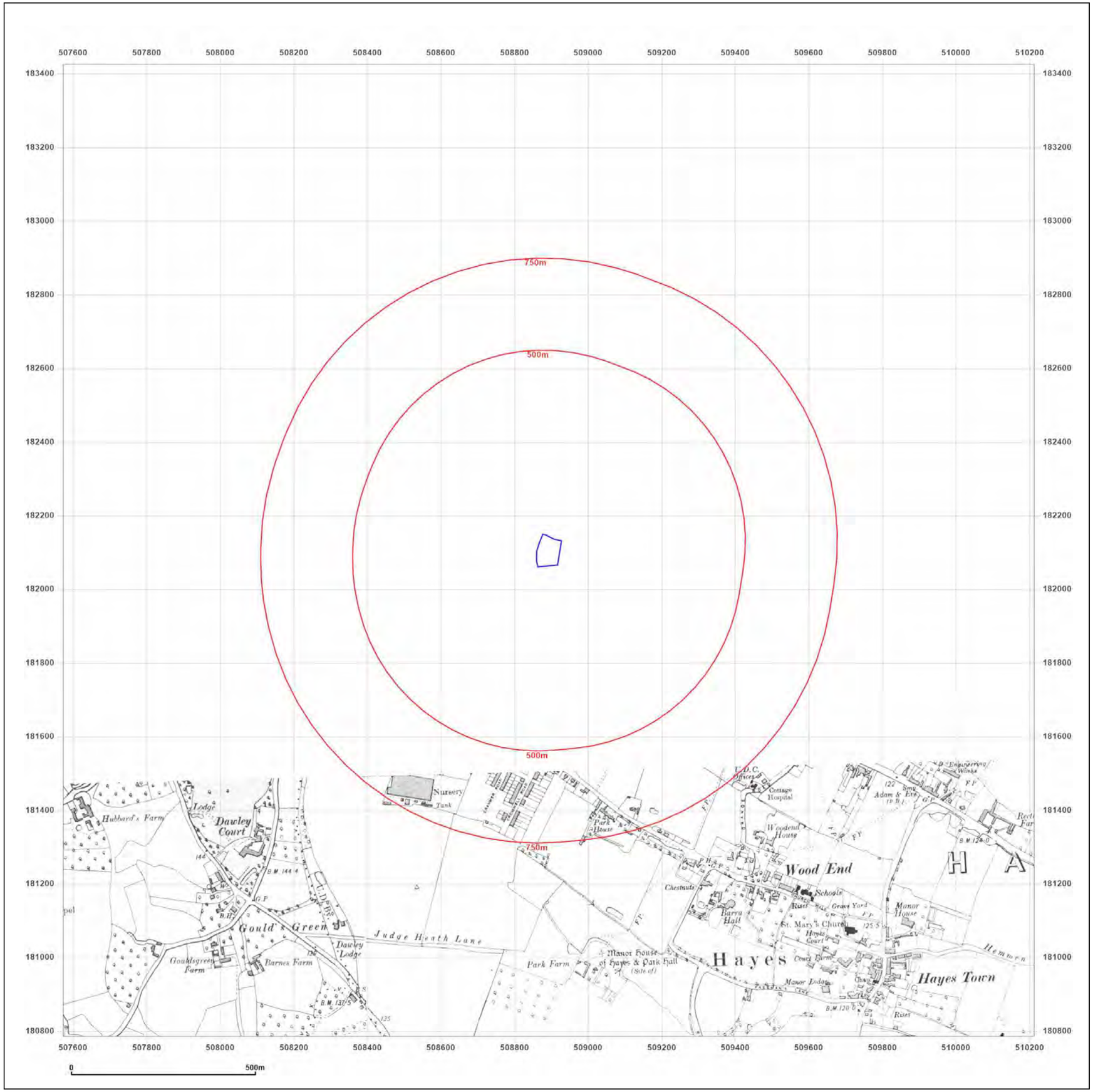

Groundsure INSIGHTS

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Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1913**

Scale: 1:10,560

Printed at: 1:10,560

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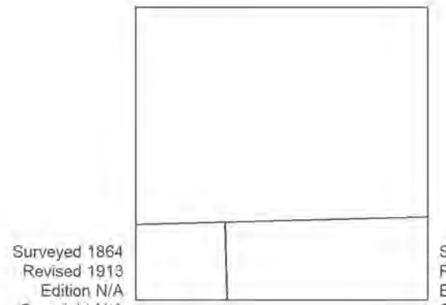

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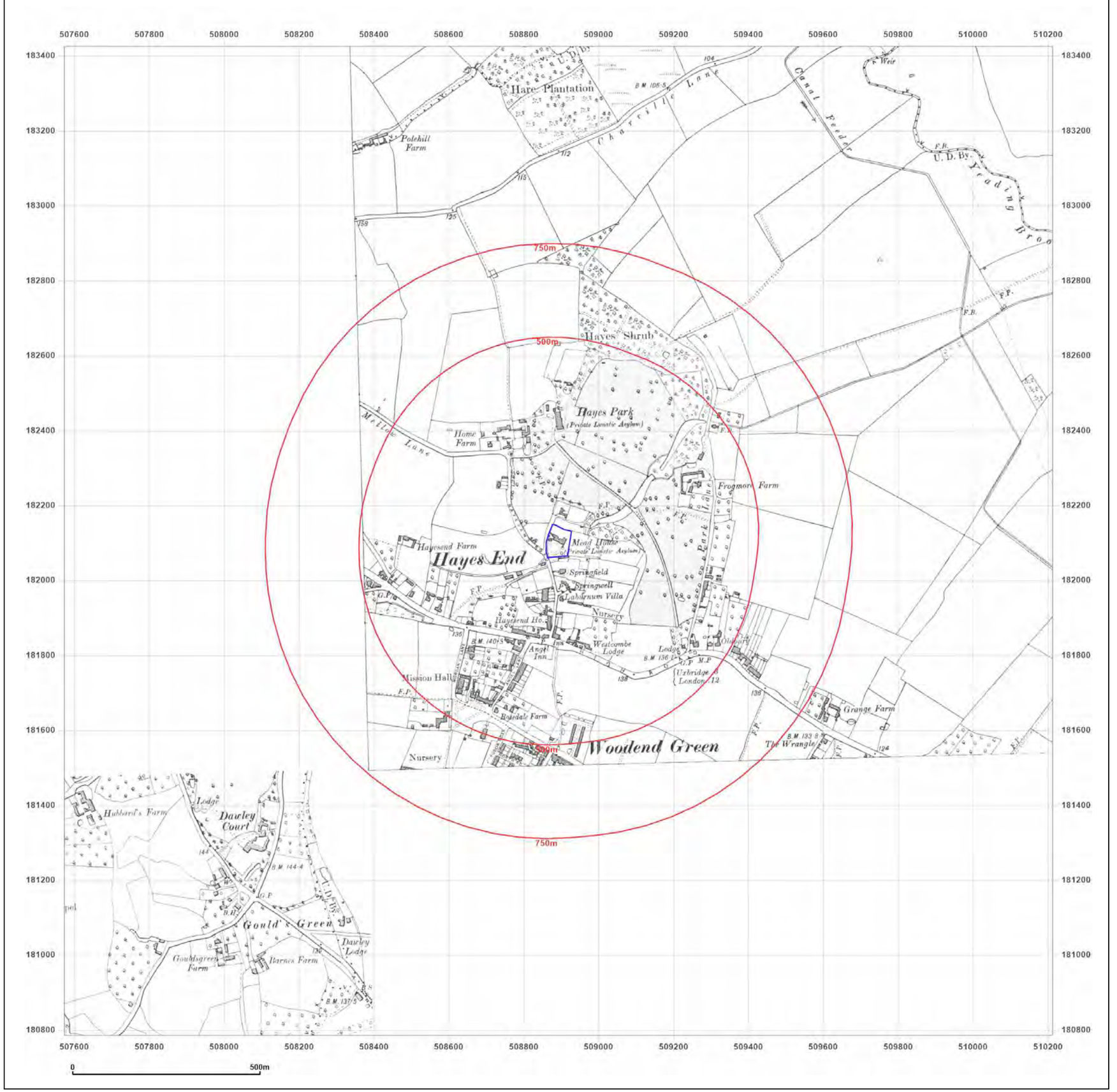

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Site Details:

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Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1913**

Scale: 1:10,560

Printed at: 1:10,560

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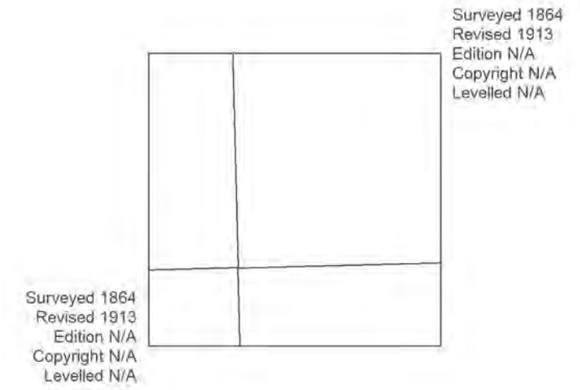

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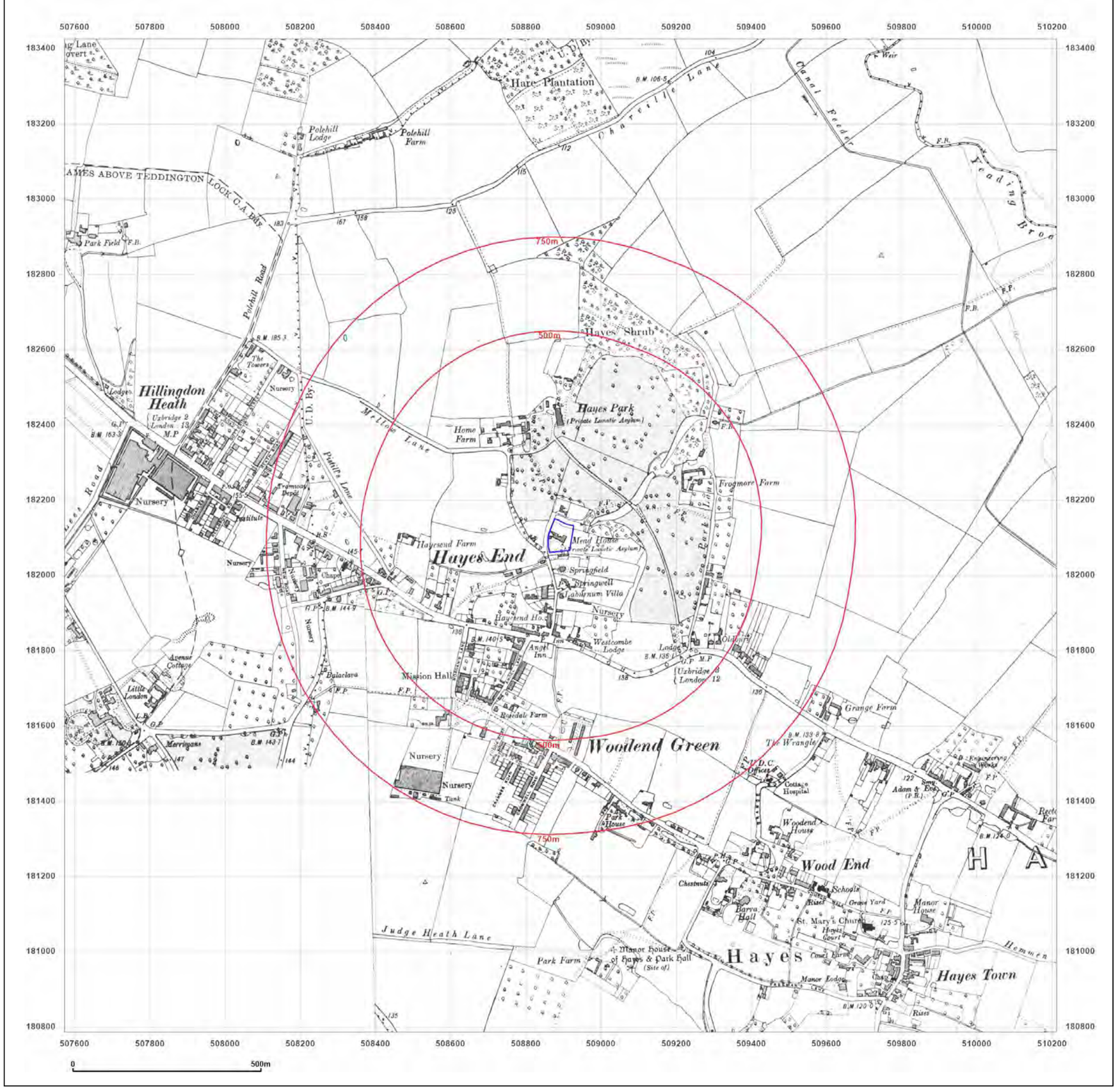

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Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1920**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1864
Revised 1913
Edition 1920
Copyright N/A
Levelled 1913

Surveyed 1865
Revised 1913
Edition 1920
Copyright N/A
Levelled 1912

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Map legend available at:
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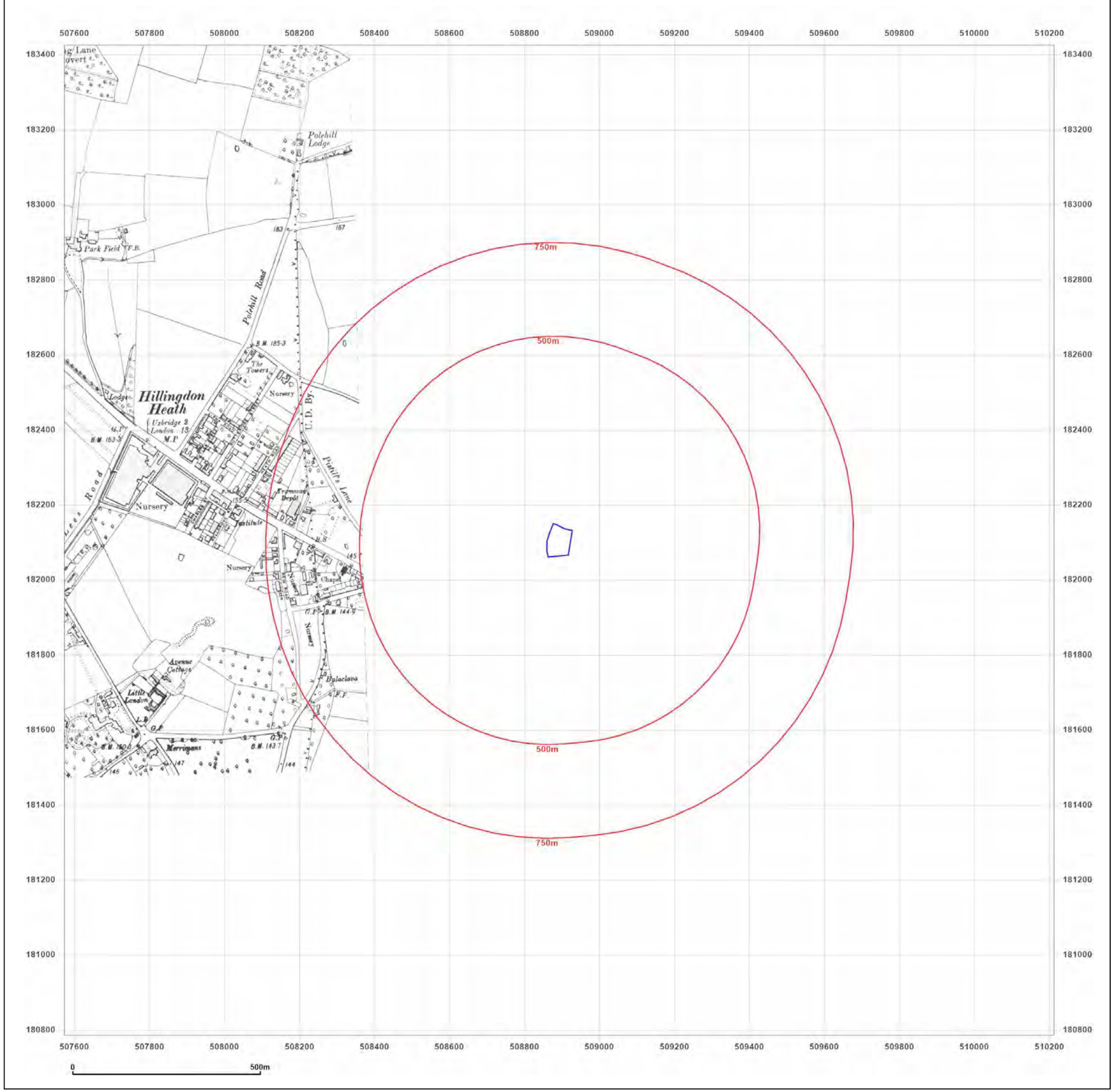


Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

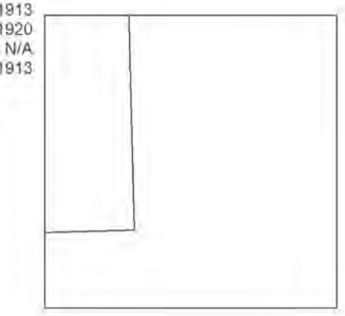
Map date: **1920**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1864
Revised 1913
Edition 1920
Copyright N/A
Levelled 1913



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W: www.groundsure.com

Production date: 15 October 2024

Map legend available at:
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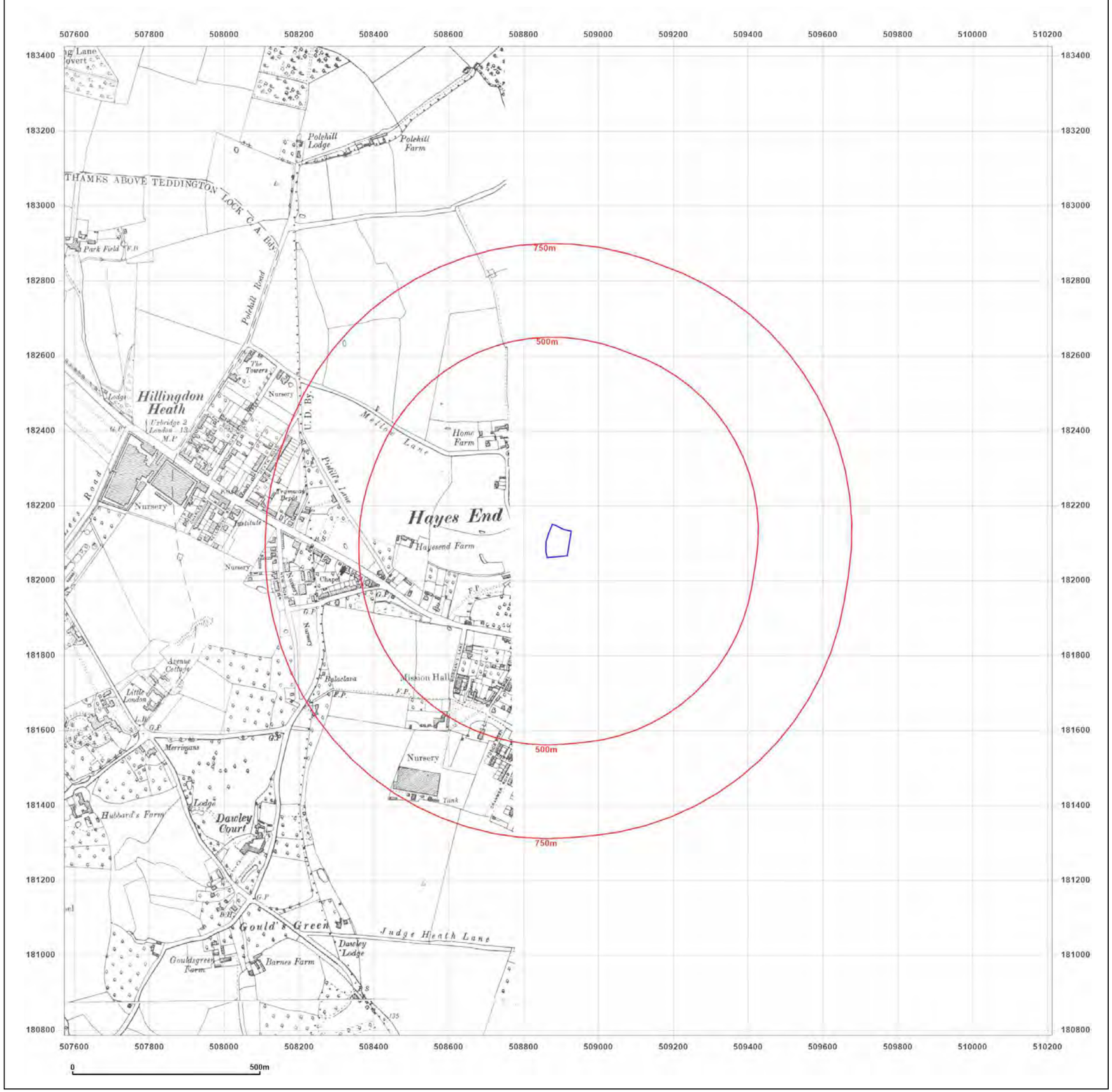


Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

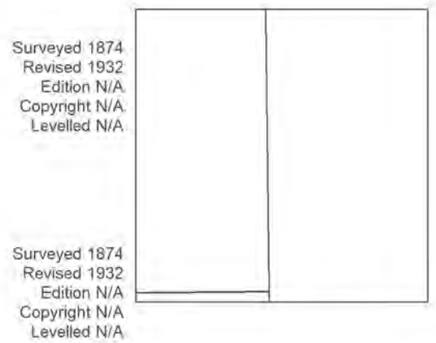
Map Name: County Series

Map date: **1932**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S



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Production date: 15 October 2024

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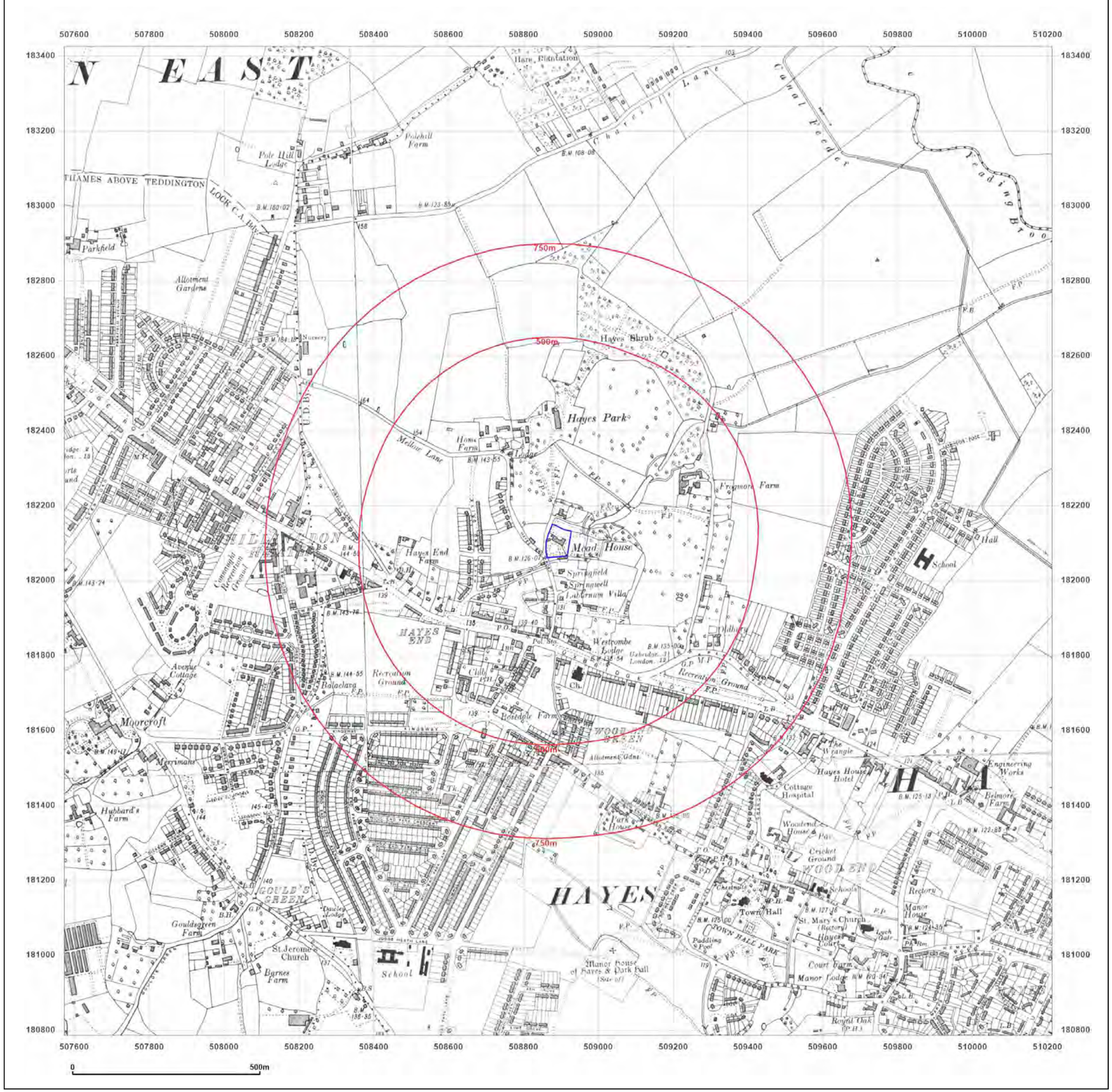

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1935**

Scale: 1:10,560

Printed at: 1:10,560

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W E
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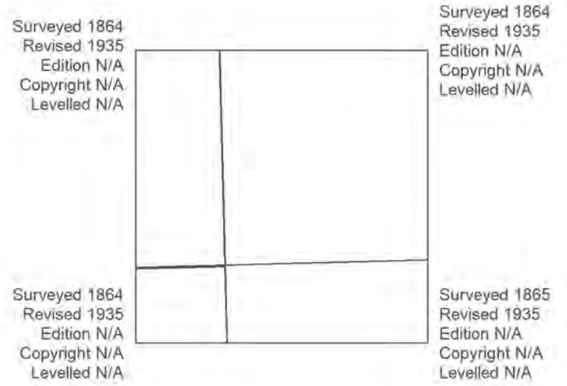

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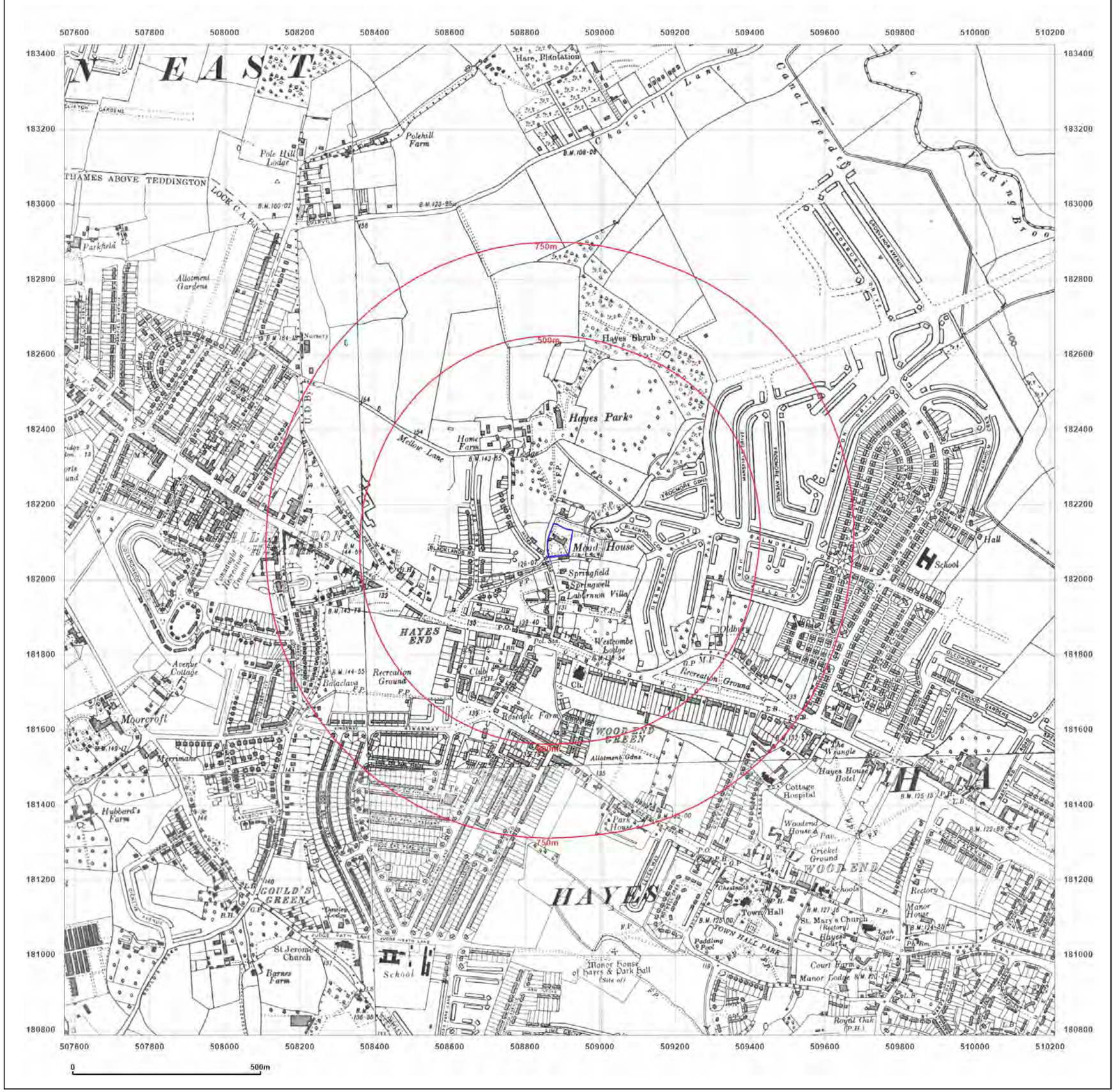


Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

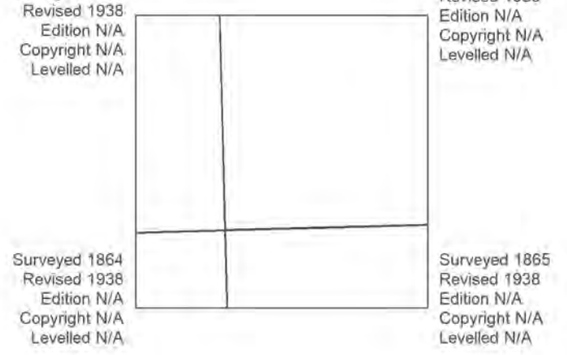
Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S



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Production date: 15 October 2024

Map legend available at:
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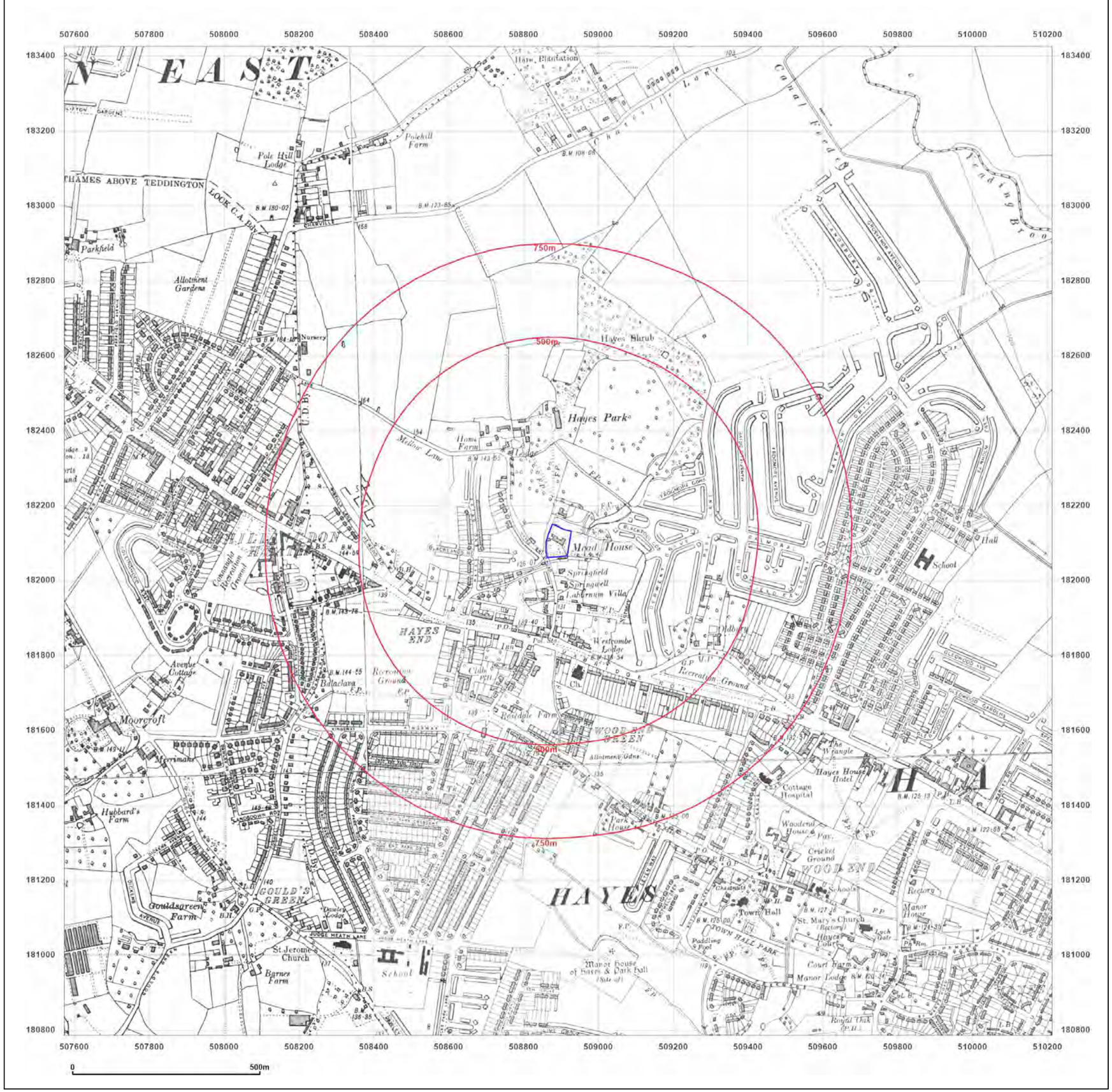


Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

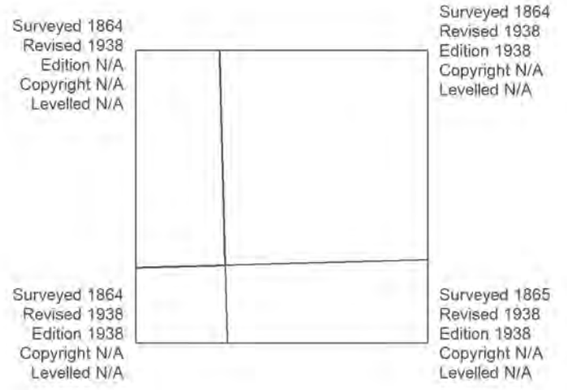
Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S



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Production date: 15 October 2024

Map legend available at:
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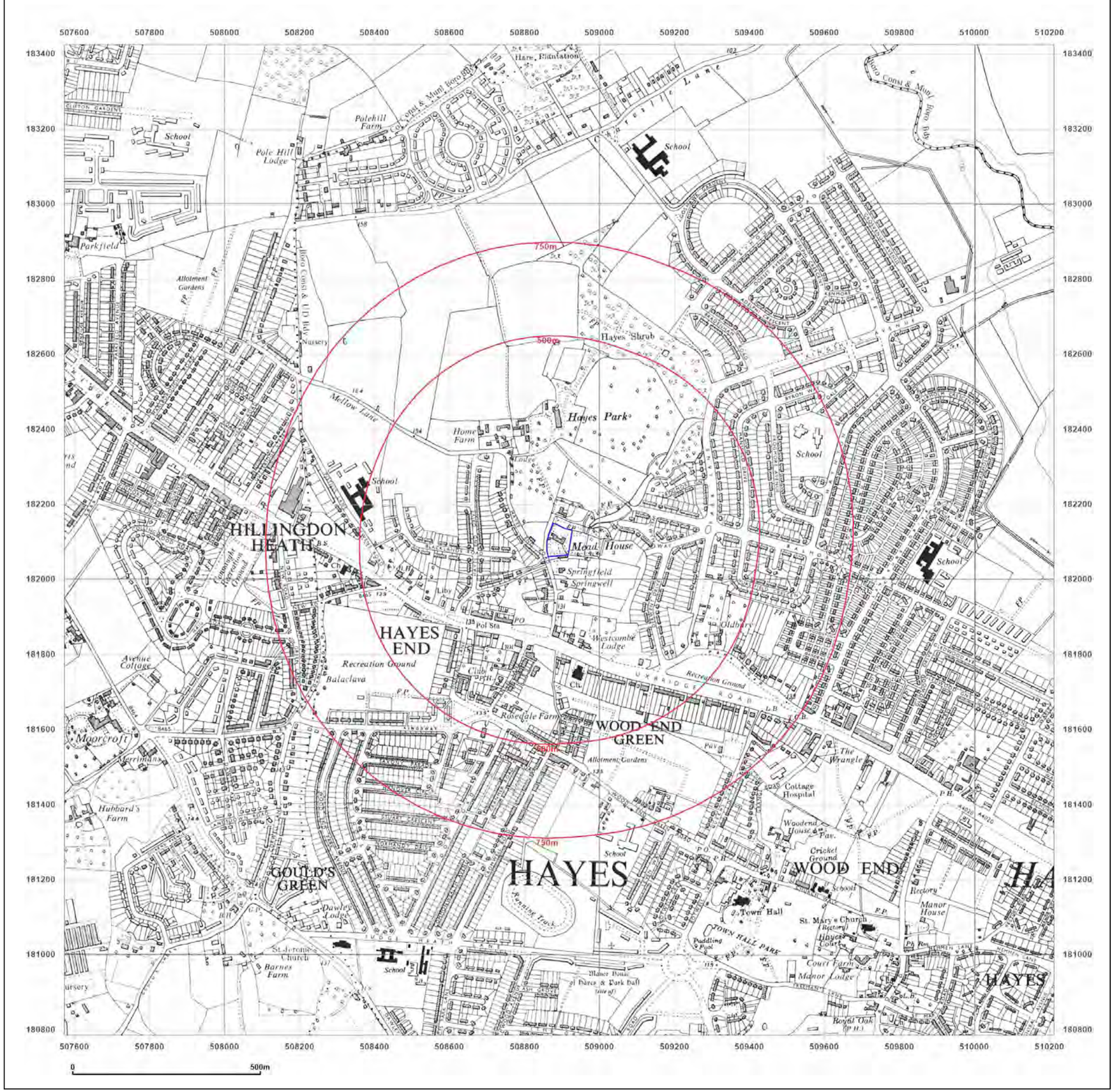

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: Provisional

Map date: **1960**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed N/A
Revised 1959
Edition N/A
Copyright 1960
Levelled N/A

Surveyed N/A
Revised 1959
Edition N/A
Copyright 1960
Levelled N/A

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Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: Provisional

Map date: **1966-1970**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1970
Revised 1970
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1966
Revised 1966
Edition N/A
Copyright N/A
Levelled N/A

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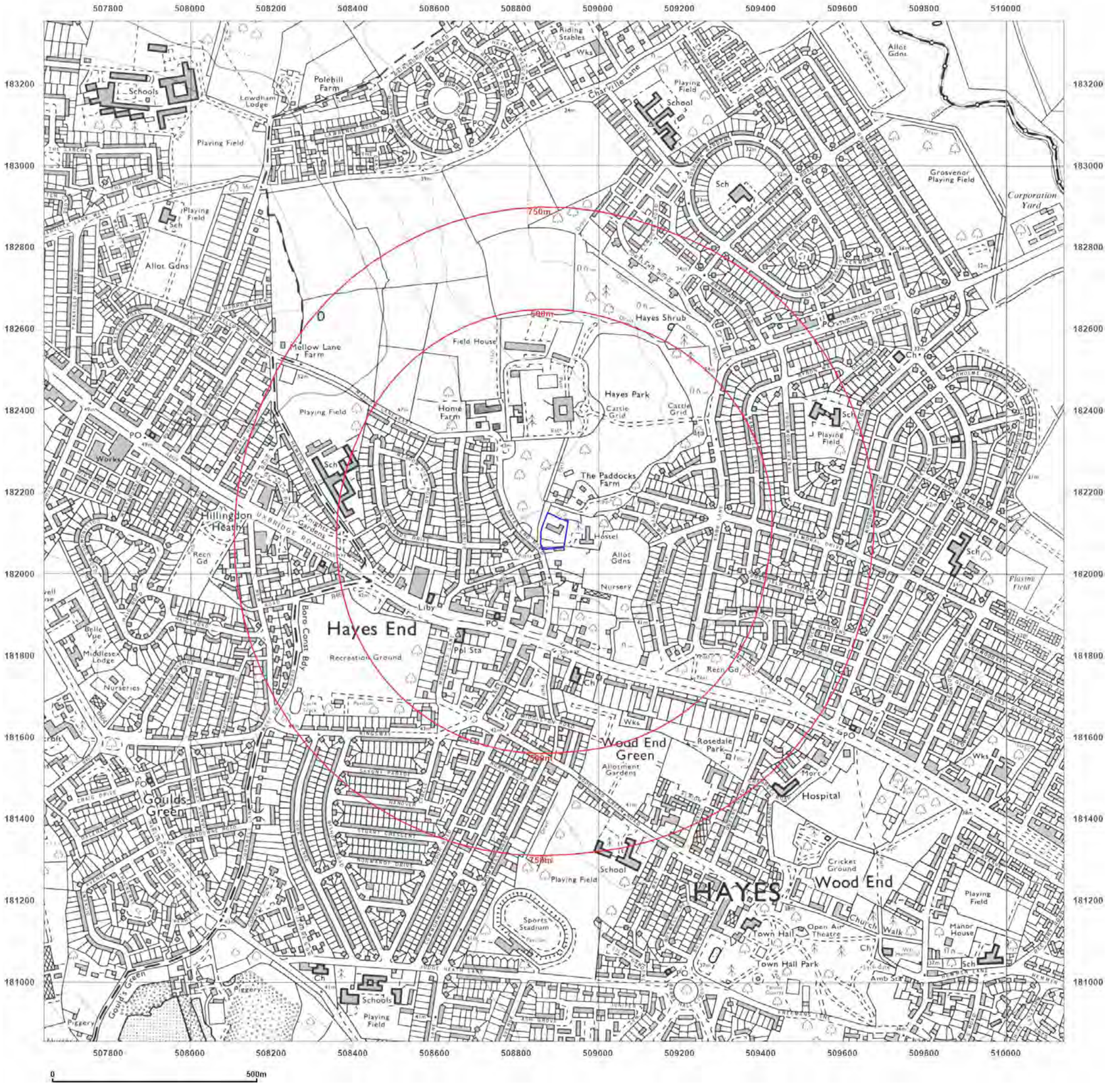

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **1973-1975**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
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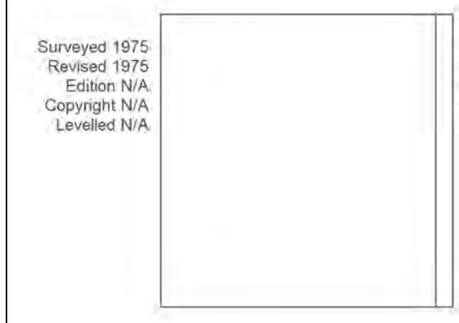

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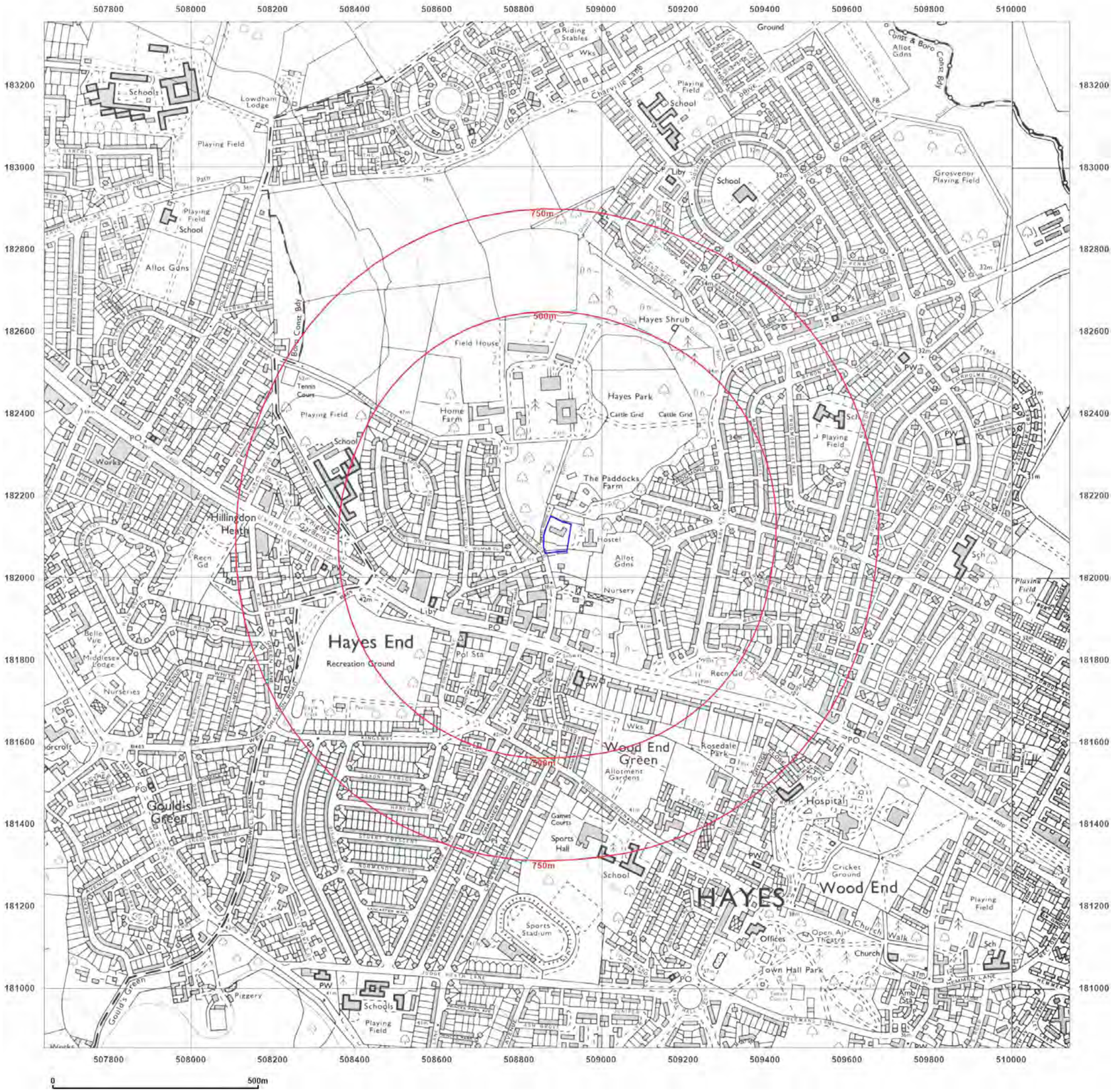

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **1990-1994**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1988
Revised 1989
Edition N/A
Copyright 1990
Levelled 1972

Surveyed 1983
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 15 October 2024

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Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

N
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Production date: 15 October 2024

Map legend available at:
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Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

N
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Production date: 15 October 2024

Map legend available at:
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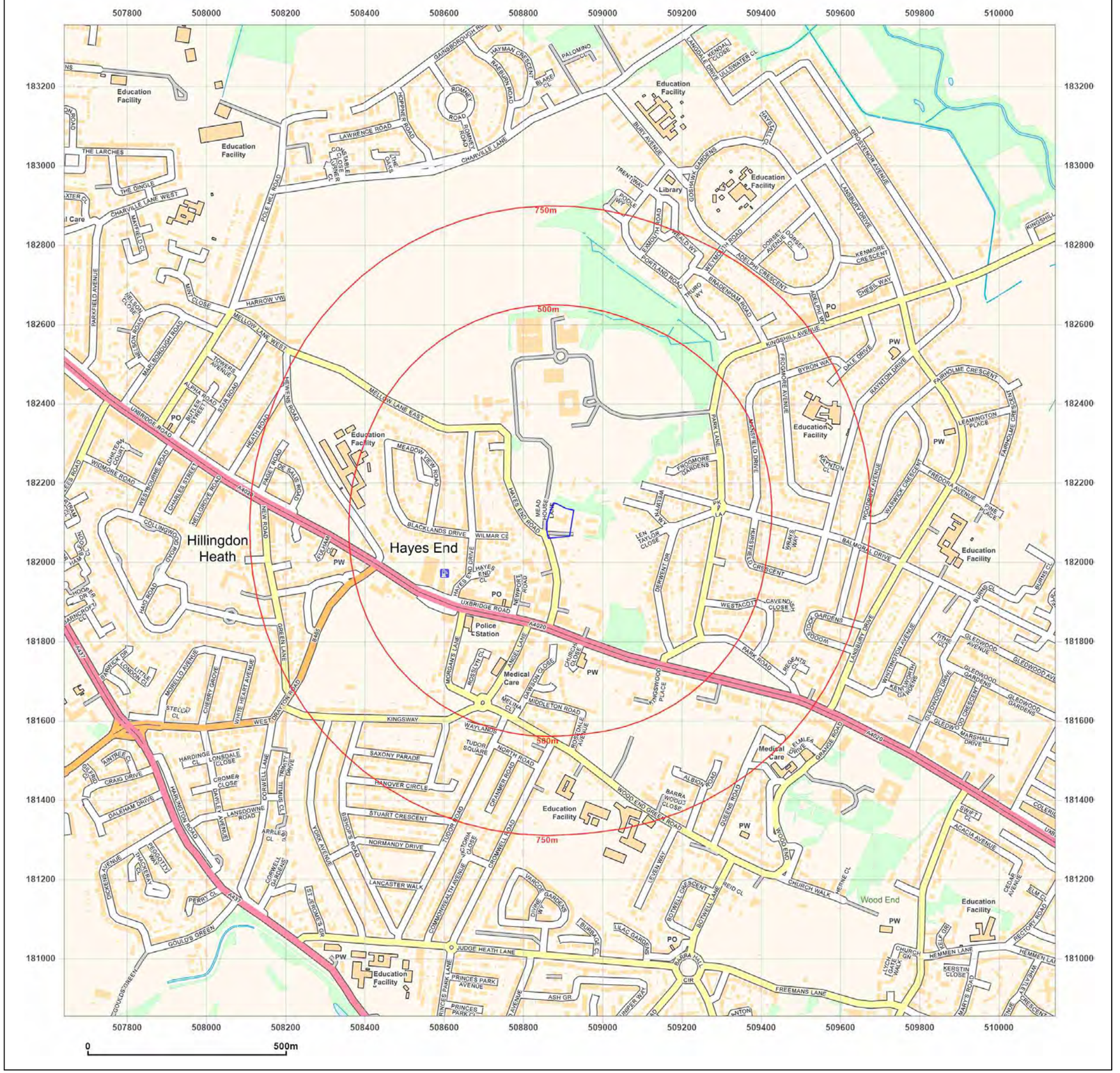

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **2024**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
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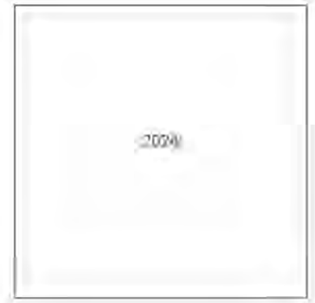

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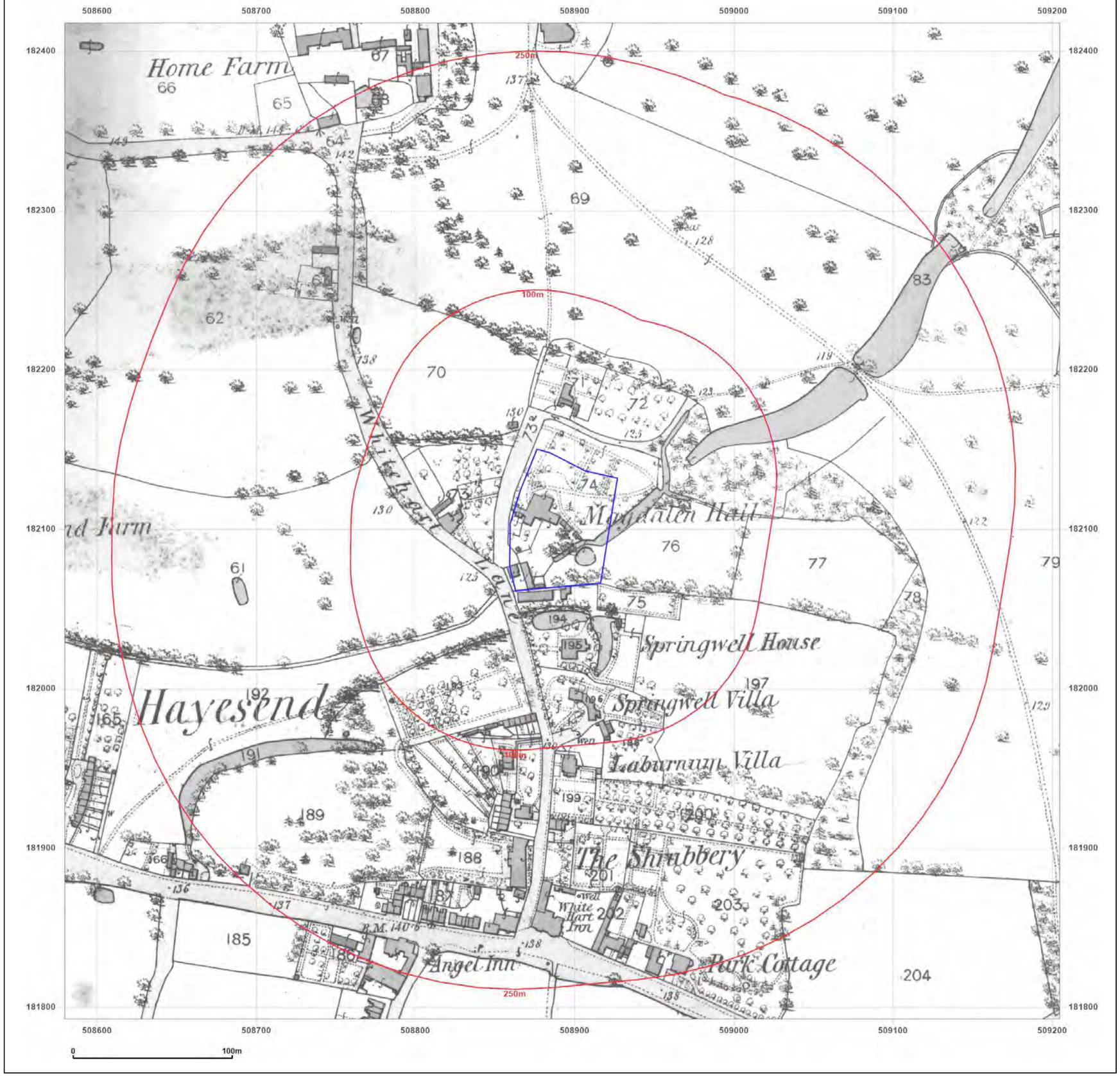

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1866**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1866
Revised 1866
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 15 October 2024

Map legend available at:
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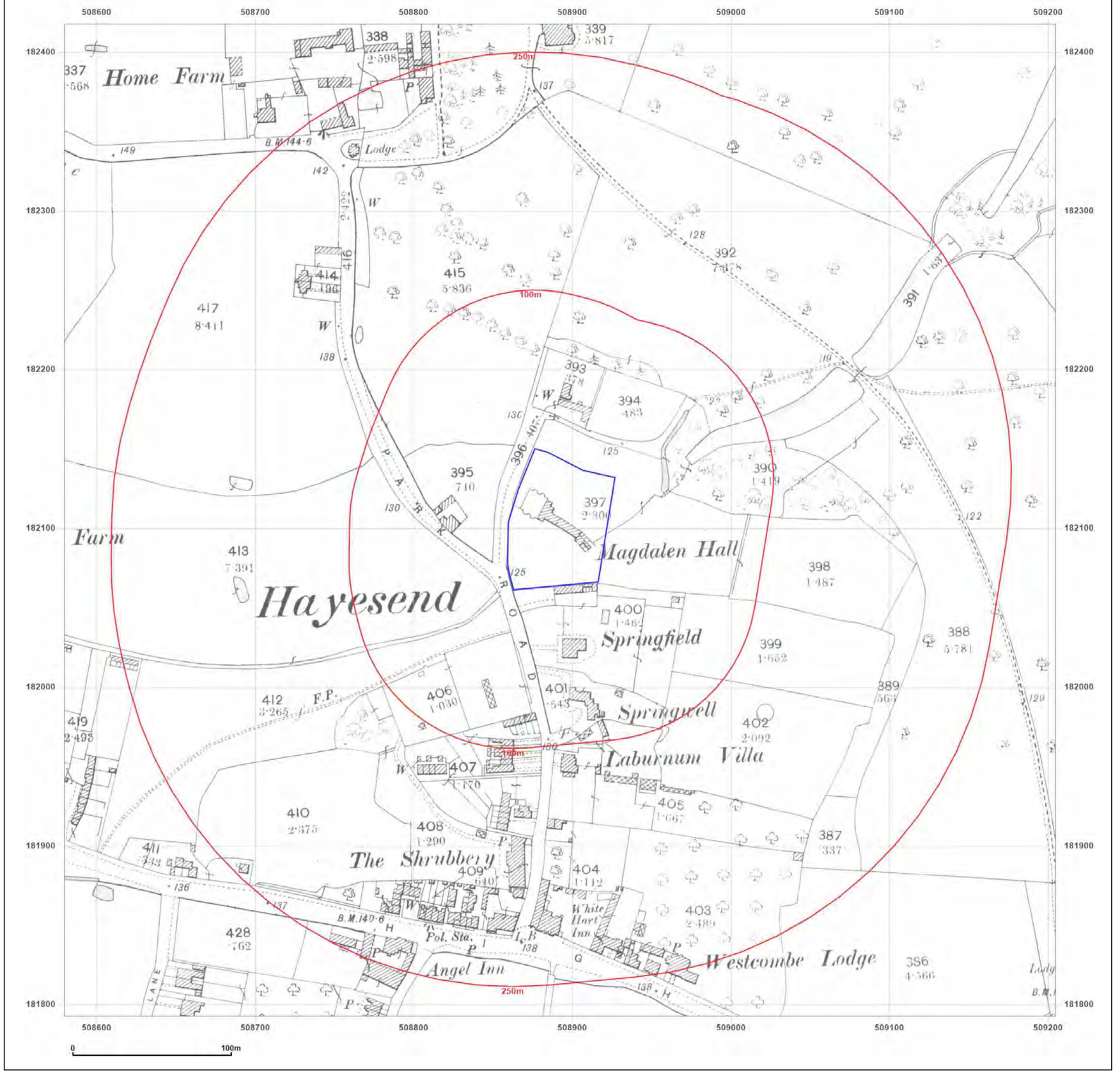

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1895**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1895
Revised 1895
Edition N/A
Copyright N/A
Levelled N/A

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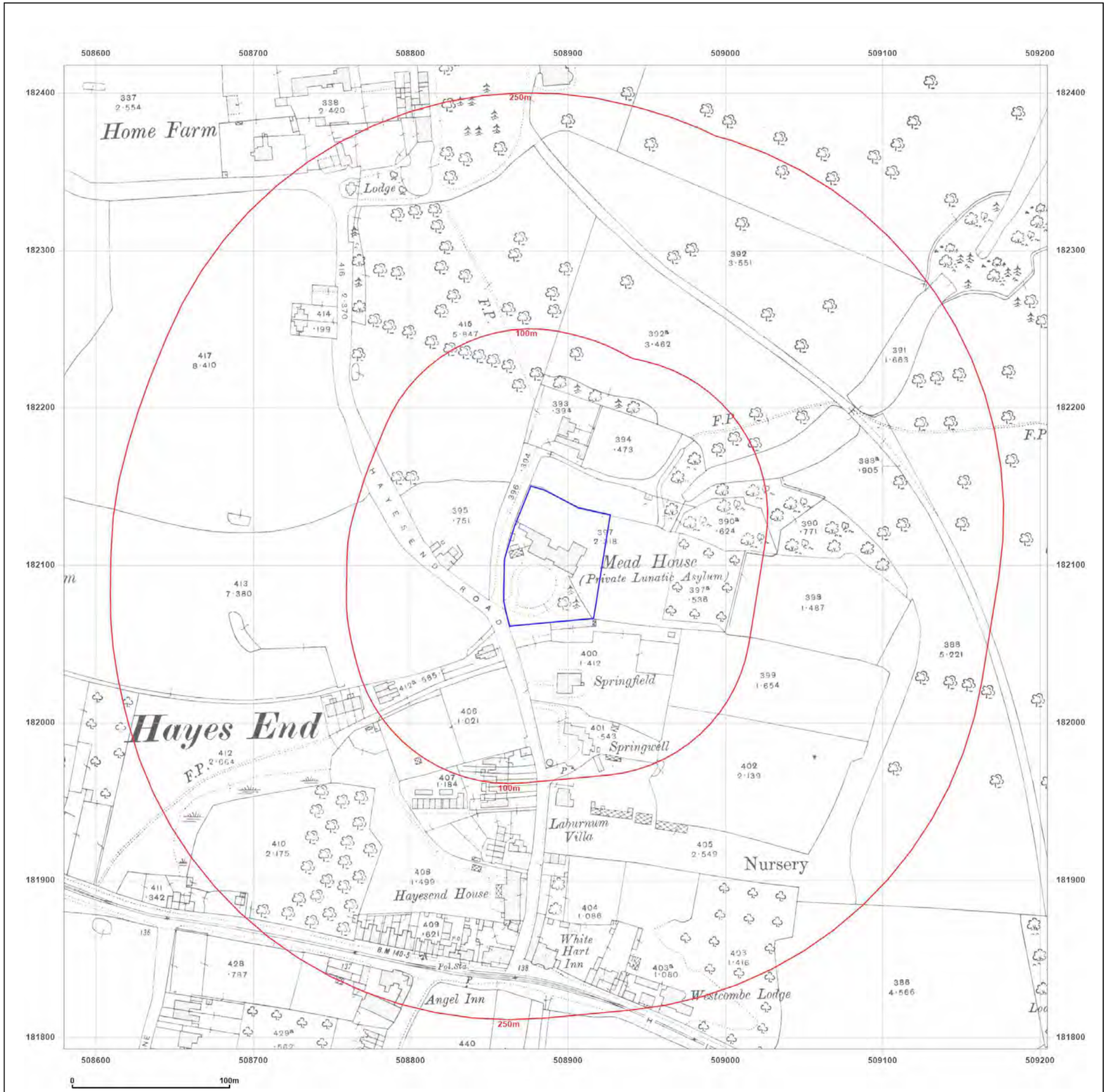

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1914**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1914
Revised 1914
Edition N/A
Copyright N/A
Levelled N/A

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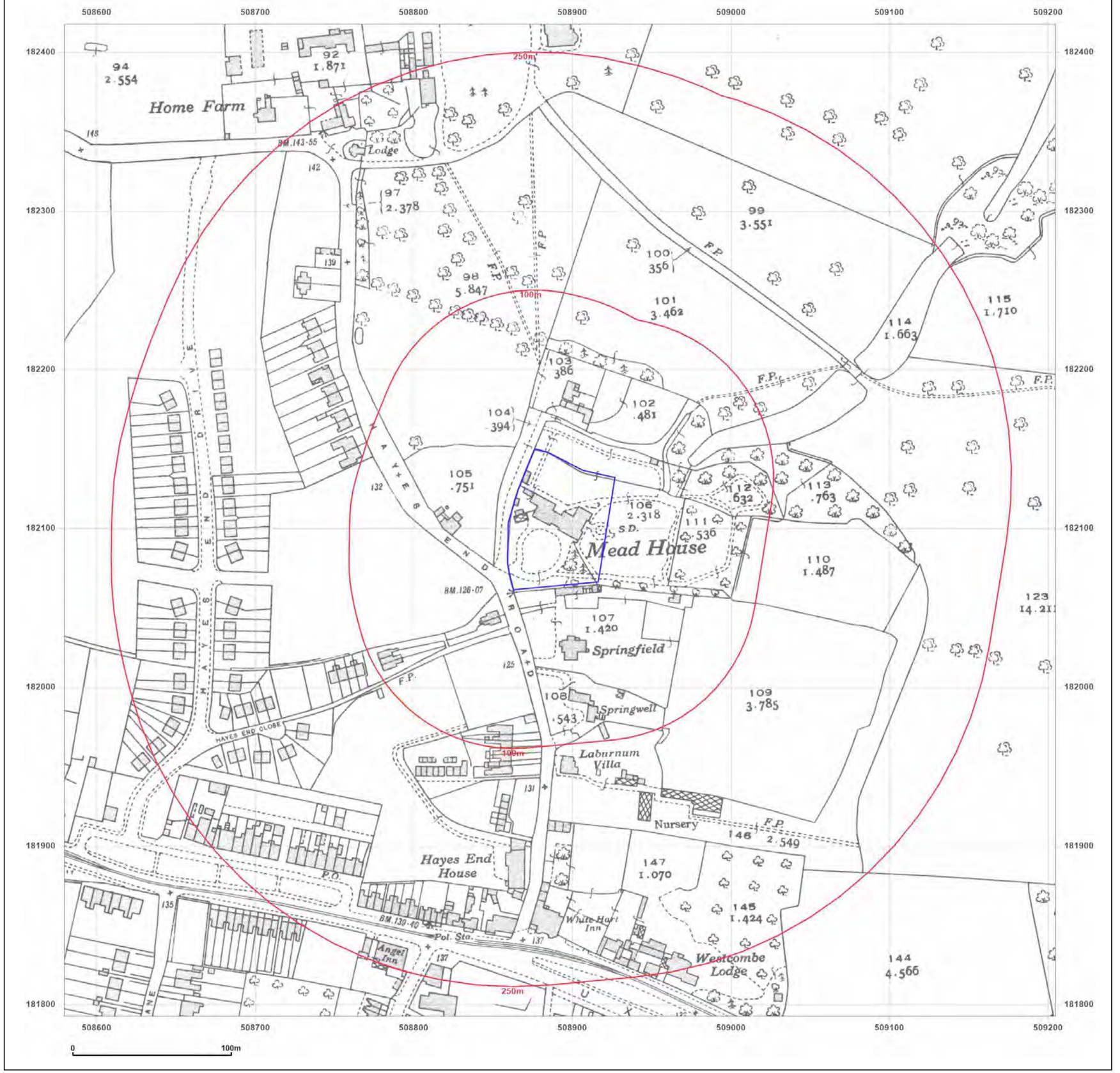

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1935**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1935
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A

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Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: County Series

Map date: **1940**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
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Surveyed 1940
Revised 1940
Edition N/A
Copyright N/A
Levelled N/A

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Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **1964-1965**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
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Surveyed 1963 Revised 1963 Edition N/A Copyright 1964 Levelled 1957	Surveyed 1963 Revised 1963 Edition N/A Copyright 1964 Levelled 1957
Surveyed 1964 Revised 1964 Edition N/A Copyright 1965 Levelled 1957	Surveyed 1964 Revised 1964 Edition N/A Copyright 1965 Levelled 1957

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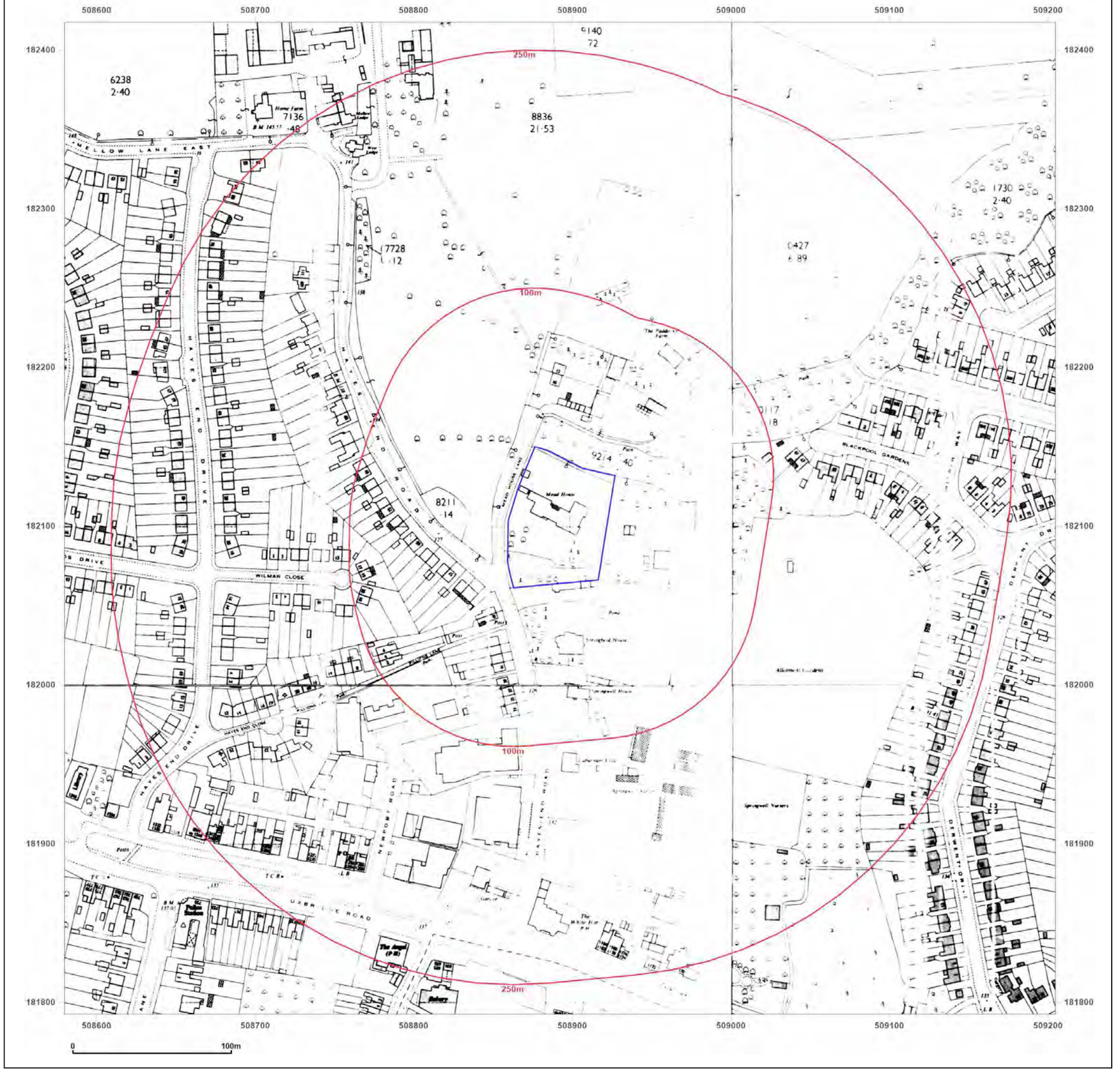

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **1965-1966**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

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

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

Surveyed N/A
Revised 1964
Edition 1966
Copyright N/A
Levelled N/A

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

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Production date: 15 October 2024

Map legend available at:
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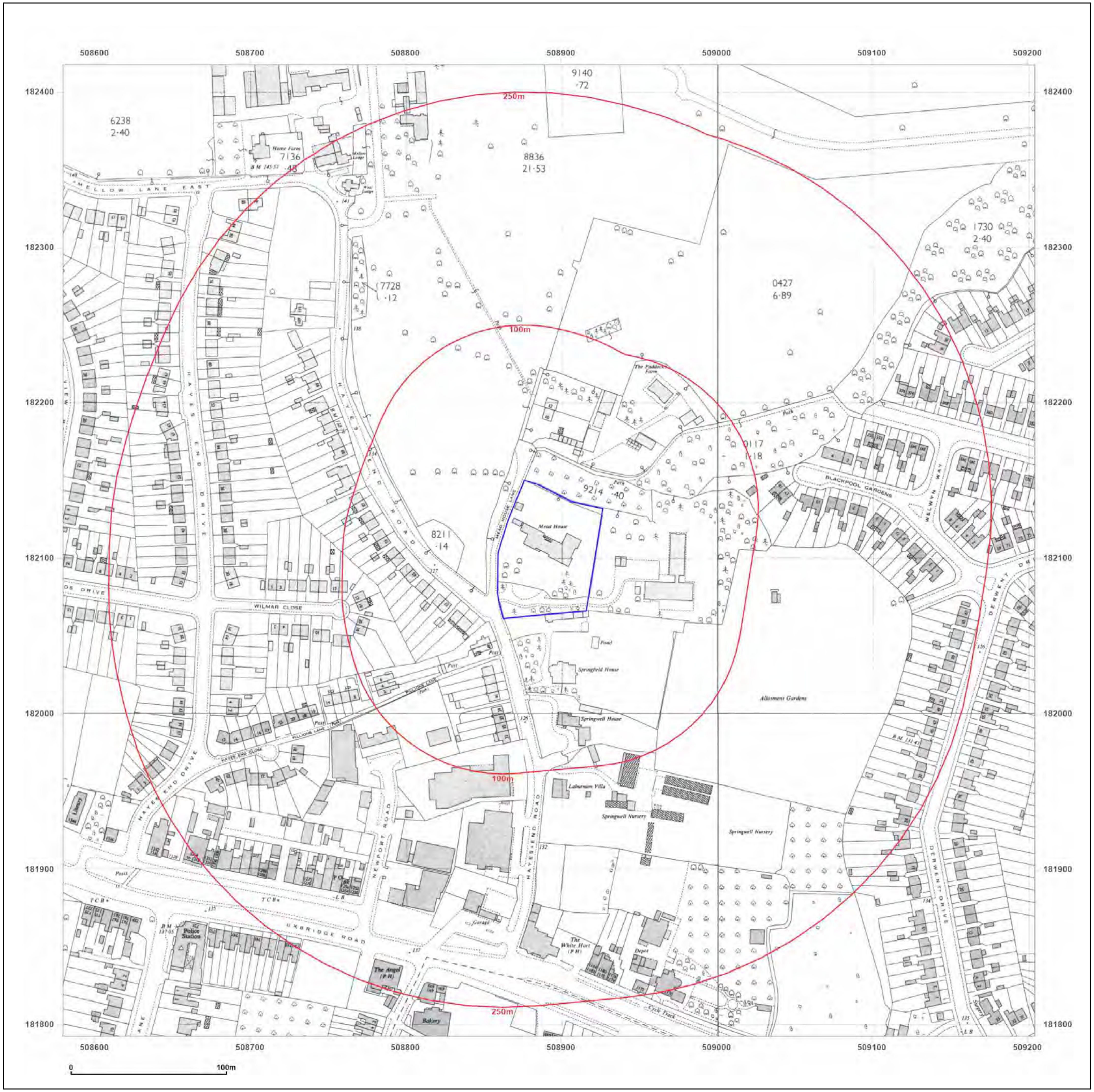

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **1965-1966**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
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Surveyed 1963
Revised 1963
Edition 1965
Copyright 1965
Levelled 1957

Surveyed 1964
Revised 1964
Edition N/A
Copyright 1966
Levelled 1957

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Production date: 15 October 2024

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Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid
Map date: **1972-1975**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1975
Levelled N/A

Surveyed 1964
Revised 1971
Edition N/A
Copyright 1972
Levelled 1957

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1975
Levelled N/A

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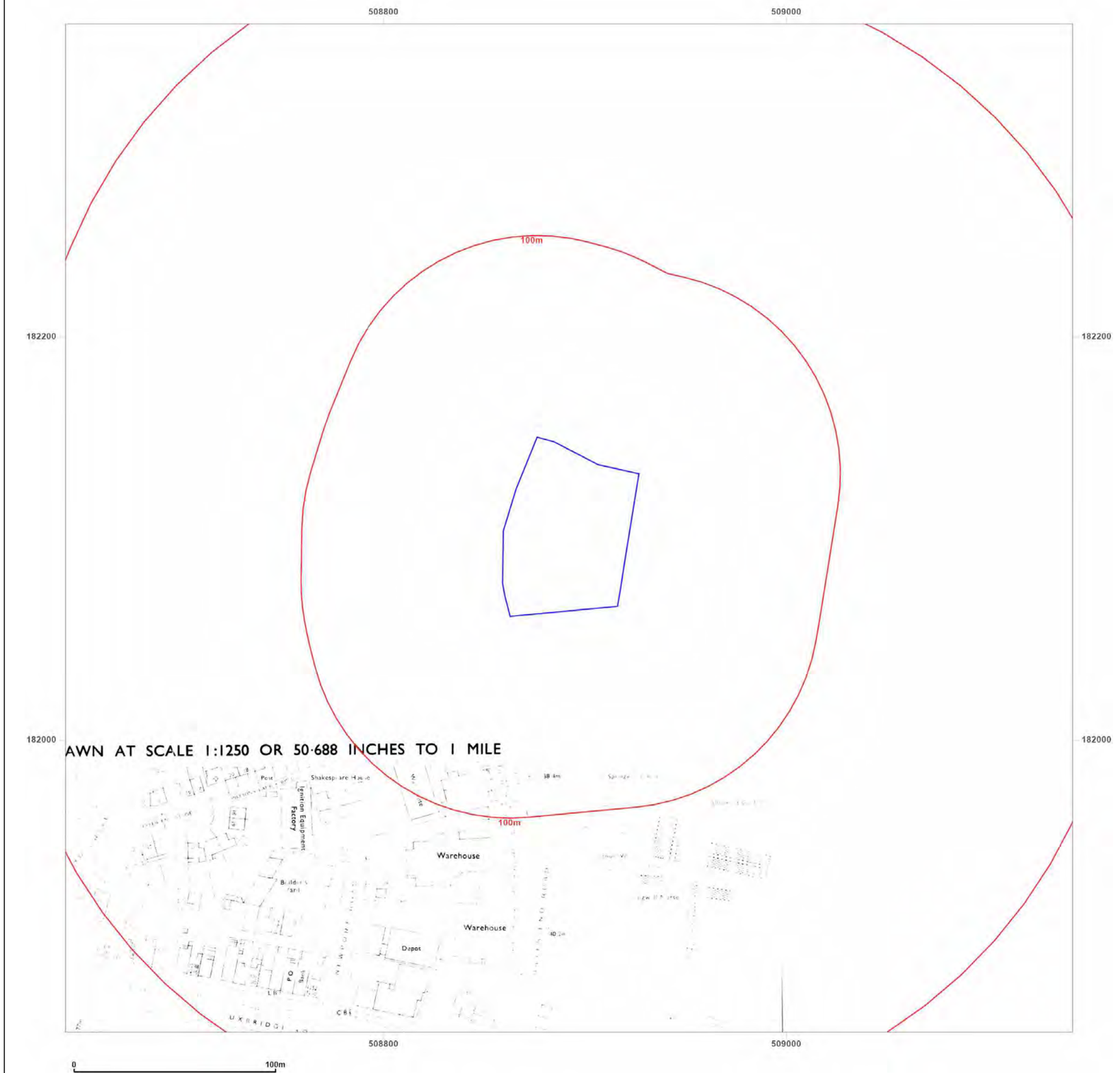

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **1975**

Scale: 1:1,250

Printed at: 1:2,000

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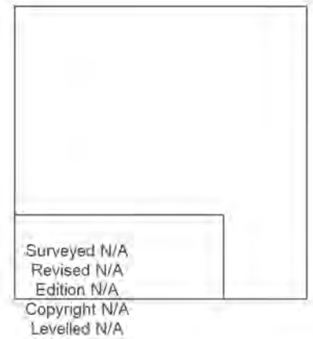

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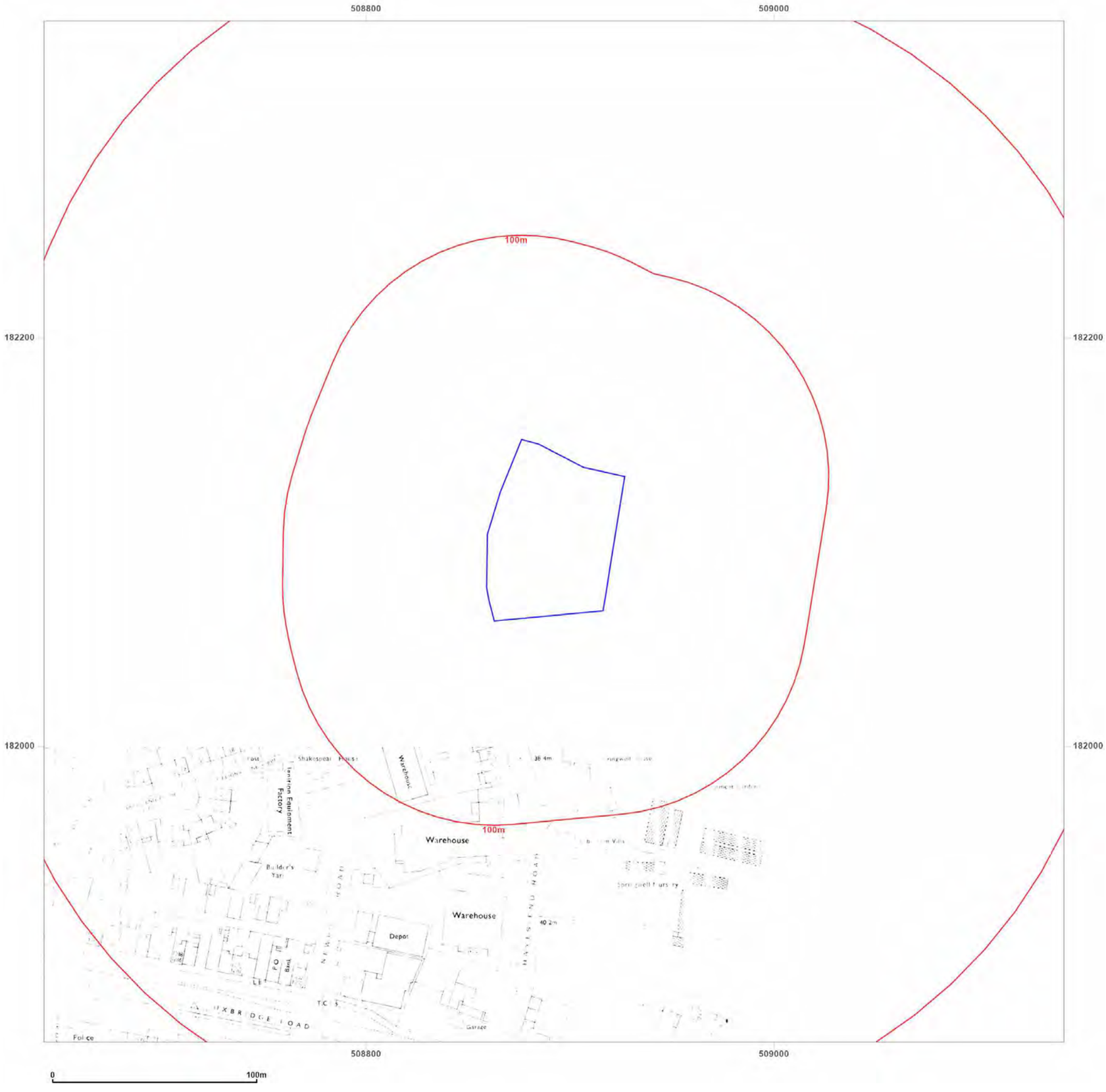

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **1978**

Scale: 1:1,250

Printed at: 1:2,000

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Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid

Map date: **1991-1992**

Scale: 1:1,250

Printed at: 1:2,000

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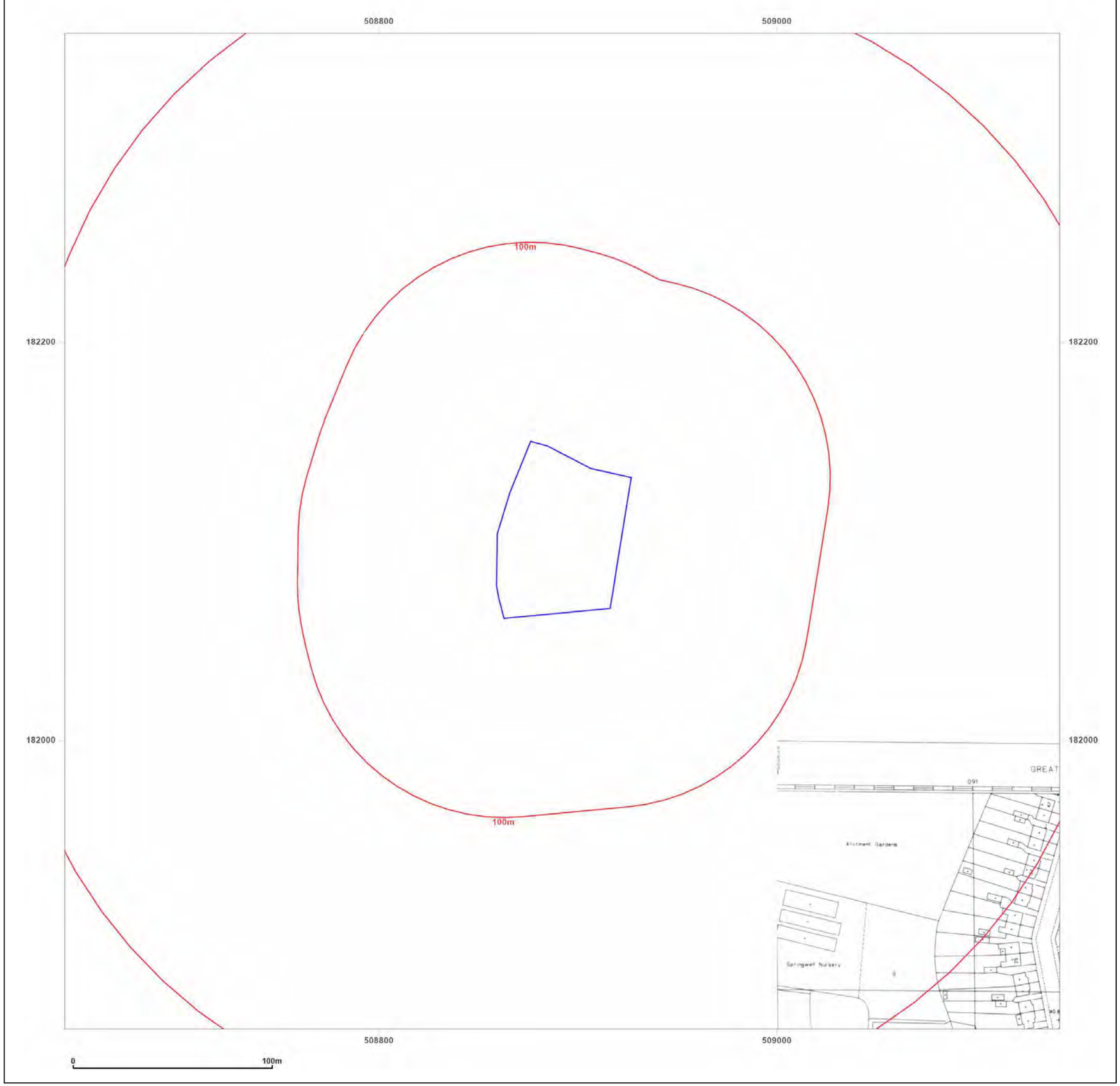

Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: National Grid
Map date: **1992**
Scale: 1:1,250
Printed at: 1:2,000

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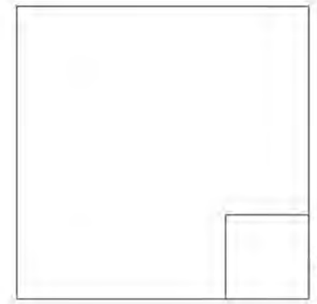

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Groundsure INSIGHTS

Site Details:

Mead House, Hayes End Road,
Hayes, UB4 8EW

Client Ref: R4336
Report Ref: GS-15P-1Q6-KDS-O2G
Grid Ref: 508892, 182105

Map Name: LandLine
Map date: **2003**
Scale: 1:1,250
Printed at: 1:1,250

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Production date: 15 October 2024

Map legend available at:
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APPENDIX 2
REPORT LIMITATIONS

REPORT LIMITATIONS

This contract was completed by Earth Environmental & Geotechnical Ltd on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with all reasonable skill, and care, bearing in mind the project objectives, the agreed scope of works, the prevailing site conditions, the budget and staff resources allocated to the project.

Other than that expressly contained in the above paragraph, Earth Environmental & Geotechnical Ltd provides no other representation or warranty whether express or implied, is made in relation to the services. Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon, or transferred to, by any other party without the written agreement of a Director of Earth Environmental & Geotechnical Ltd.

If a third party relies on this report, it does so wholly at its own and sole risk and Earth Environmental & Geotechnical Ltd disclaims any liability to such parties.

It is Earth Environmental & Geotechnical Ltd understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was an important factor in determining the scope and level of the services. Should the purpose for which the report is used, or the proposed use of the site change, this report will no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without Earth Environmental & Geotechnical Ltd review and advice shall be at the client's sole and own risk.

The report was written in 2024 and should be read in light of any subsequent changes in legislation, statutory requirements and industry best practices. Ground conditions can also change over time and further investigations or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Earth Environmental & Geotechnical Ltd. In the absence of such written advice of Earth Environmental & Geotechnical Ltd, reliance on the report in the future shall be at the client's own and sole risk. Should Earth Environmental & Geotechnical Ltd be requested to review the report in the future, Earth Environmental & Geotechnical Ltd shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Earth Environmental & Geotechnical Ltd and the client.

The observations and conclusions described in this report are based solely upon the services that were provided pursuant to the agreement between the client and Earth Environmental & Geotechnical Ltd. Earth Environmental & Geotechnical Ltd has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report.

Earth Environmental & Geotechnical Ltd is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Earth Environmental & Geotechnical Ltd did not seek to evaluate the presence on or off the site of electromagnetic fields, lead paint, radon gas or other radioactive materials.

The services are based upon Earth Environmental & Geotechnical Ltd observations of existing physical conditions at the site gained from a walkover survey of the site together with Earth

Environmental & Geotechnical Ltd interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst Earth Environmental & Geotechnical Ltd have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified.

No responsibility can be accepted for errors within third party items presented in this report. Further Earth Environmental & Geotechnical Ltd was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Earth Environmental & Geotechnical Ltd is not liable for any inaccurate information, misrepresentation of data or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Earth Environmental & Geotechnical Ltd and including the doing of any independent investigation of the information provided to Earth Environmental & Geotechnical Ltd save as otherwise provided in the terms of the contract between the client and Earth Environmental & Geotechnical Ltd.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on-site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Earth Environmental & Geotechnical Ltd] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan but is (are) used to present the general relative locations of features on, and surrounding, the site.