

JPC Environmental Services

(A Division of J P Chick & Partners Ltd)

Consulting Civil & Structural Engineers



Reed House Royston

STAGE I/ TIER I Geo-Environmental Desk Study Report

Report: IE23/105/SITI

15/12/2023

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DOCUMENT CONTROL

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ISSUE & REVISIONS RECORD

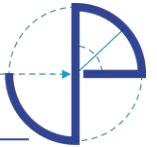
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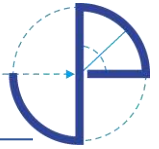


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Appendix A:	Site Location Plan
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EXECUTIVE SUMMARY

Site Name & Address:	Reed House, Jacksons Lane, Reed, Royston SG8 8AB
Client:	David Tait
Local Planning Authority:	North Hertfordshire District Council
Historical Site Use:	Agricultural land, residential garden and a pond
Present Site Use:	Residential garden
Proposed Site Use:	Construction of 14 no. dwellings with associated gardens and off-street parking
Date of most recent investigation:	Monday 11 th December 2023 – site walkover survey
Objectives:	
▪ To develop an understanding of the site's history and environmental context; ▪ To determine the potential existence of any significant pollutant linkages which might represent a potential risk to construction workers, future occupants of the site or controlled waters; and ▪ To undertake a Stage I Preliminary 'Contaminated Land' investigation in accordance with LCRM and guidance contained in the NHBC Publication 66: 2008.	
▪ Our desk-based research and walkover survey identified the following potential sources of contamination: ○ On-site: stockpiles, Made Ground, an infilled pond and bonfire bases; and ○ Off-site (within 250m): tank, electricity substation, waste exemptions, unspecified tanks, brick works, unspecified pit, Brick Field Kilns, smithy, licenced discharge to controlled waters, Reed Brick Field Brit Pit and possible chalk mining.	
Pathway:	
▪ Based on the BGS online mapping, the site is underlain by superficial deposits of Lowestoft Formation (diamicton). The superficial deposits are underlain by bedrock geology of the undifferentiated Lewes Nodular Chalk Formation and Seaford Chalk Formation; ▪ Surface soils have an intermediate leaching class with an infiltration rate greater than 70%; ▪ In respect of the local hydrology there are 16 no. Water Network (OS MasterMap) records on-site. The closest one is 10m north-west and is described as an inland river not influenced by normal tidal action. There are a further 9 no. surface water features within 250m of the site; ▪ The site is situated within Flood Zone 1. The site has not been subject to a historic flood event; ▪ A historical flood event was recorded in 1947 located 241m south of the site. This was caused by water levels exceeding the capacity of the river channel; and ▪ There is a negligible risk of flooding on-site and within 50m. The risk of groundwater flooding on-site and within 50m of the site is negligible.	
Receptor:	
▪ The superficial deposits on-site are classified as a Secondary Undifferentiated Aquifer. The underlying bedrock geology is classified as a Principal Aquifer; ▪ We consider the potential on-site sources of contamination to represent a moderate risk to human health and low risk to groundwater; and ▪ The potential risk from ground gas migrating onto the site, and affecting the proposed development is low to moderate.	
Recommendations:	



- We would recommend that a Stage I/ Tier II Ground Investigation is completed across the site. The investigation could comprise a series of machine excavated across the site to determine the potential of contaminants within shallow soils. Soil samples should also be retrieved from the stockpiles and sent for off-site laboratory testing for a typical range of contaminants; and
- As part of the investigation, we would recommend a minimum of three combined ground gas and groundwater monitoring wells are installed on-site, specifically targeting the infilled pond. A minimum of six return visits to monitor ground gas levels should then be completed over a two-month period.

1 INTRODUCTION

1.1 Brief

1.1.1 JPC Environmental Services were appointed by Strutt and Parker on behalf of our mutual client, David Tait, to undertake a Stage I/ Tier I Geo-Environmental Desk Study Report for 'Reed House, Jacksons Lane, Reed, Royston SG8 8AB' (hereafter referred to as 'the site').

1.1.2 The investigation was carried out broadly in accordance with the following guidance:

- Environment Agency (April 2021): *Land Contamination Risk Management (LCRM)*;
- Department for Environment, Food and Rural Affairs (2012): *Contaminated Land Statutory Guidance, Environmental Protection Act 1990: Part IIA*;
- Ministry of Housing, Communities and Local Government. (July 2021): *National Planning and Policy Framework*; and
- BS10175:2011 +A2:2017 "Investigation of Potentially Contaminated Sites – Code of Practice".

1.1.3 This report shall be for the private and confidential use of David Tait for whom it was undertaken. It should not be reproduced in whole or in part or relied upon by a third party for any use without the express written authority of JPC Environmental Services.

1.1.4 In producing this report, we have exercised all the reasonable skill, care, and diligence to be expected of an appropriately qualified and competent consultant, experienced in carrying out equivalent services for developments of a similar size, value, purpose, scope and complexity.

1.2 Scope

1.2.1 The main elements of the investigation were as follows:

- The review of historical and regulatory information relating to the site to gain an understanding of the site's history, local environment, and potential ground conditions;
- Undertake a walkover survey of the site and surrounding area to identify the presence and types of commercial activities within the locality and seek evidence of potential sources of on or off-site contamination;
- The formulation of a "Conceptual Site Model" to explore and evaluate the existence and potential impact of any plausible pollutant linkages;
- To utilise the resulting information to undertake a 'Stage I' human and environmental risk assessment; and
- If appropriate, make recommendations on the extent of any intrusive investigations which may be required to fully establish the condition of the site.

1.3 Sources of Information

1.3.1 As part of the desk-based research, JPC Environmental Services consulted the following sources of information:

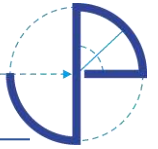
- GroundSure Enviro Insight Report – produced by GroundSure Ltd;
- British Geological Survey (BGS) mapping and online referencing;



- Environment Agency landfill mapping – online;
- BR 211 Radon: Guidance on Protective Measures for New Dwellings, 2007 Edition;
- Magic Map Website – magic.defra.gov.uk;
- North Hertfordshire District Council Planning Portal; and
- Google Earth (aerial photography).

1.4 Development Proposal

- 1.4.1 We understand that the development proposals comprise the construction of 14 no. dwellings with associated gardens and off-street parking. At the time of writing this report, we understand that the architect's proposed drawings are yet to be finalised.



2 DESK STUDY

2.1 Location

Table 1: Site Location

Location	Reed House, Jacksons Lane, Reed, Royston SG8 8AB
Grid Reference	536378 236515
Area	1.3ha
Access	Access is gained via a private driveway to the south leading off from Jackson Street.
Topography	The site slopes gently upwards from the south at an elevation of approximately 155mAOD to the north at 157mAOD.

2.2 Site Description (Walkover Survey)

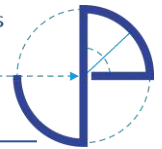
2.2.1 The site walkover was completed on the 11th December 2023 by Daniel Fowles and Katherine Carpenter on behalf of JPC Environmental Services. An extract of the site location plan is shown in **Figure 1** below and the full version is included within **Appendix A**.

Figure 1: Site Location Plan (extract)



2.2.2 Site photographs taken during the site walkover are included within **Appendix B**.

2.2.3 Access was gained off Jackson Street from the south of the site onto a private driveway associated with Reed House, approximately 0.17km north-east of Reed First School. The site was bounded by The Joint to the north followed by agricultural land and open lawn space to the east and west. To the south was residential properties including Reed House and Bramshott and garden spaces.



Reed House, Royston

2.2.4 The northern boundary was demarcated by dense, mature shrubs with an area of hardstanding and a gate leading to The Joint. The eastern boundary was demarcated by a row of mature trees which led south off-site. The south-eastern boundary comprised open land whilst the south-western section was demarcated by wood panelled fencing and scattered mature trees. Chain link and wooden fencing demarcated the western boundary.

2.2.5 The site primarily comprises a residential garden associated with Reed House. Two bonfire bases were to the south-west of the site along with an area of Made Ground. Further bonfire bases were identified on the northern boundary of the site.

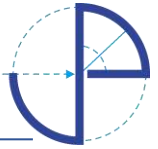
2.2.6 To the north of the site are two circular mounds consisting of primarily topsoil (anecdotal evidence from the client) and limited Made Ground surrounded by laurels with gaps to the south for access. Between the two mounds was a small cluster of mature shrubs.

2.3 Site History

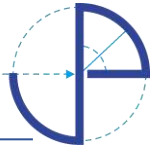
2.3.1 The site history which was determined by our review of the GroundSure historical mapping is presented in **Table 2** below. The full GroundSure report is provided within **Appendix C**.

Table 2: Historic Mapping

Map Edition (Date, Scale)	The Site	Surrounding Area
1876 1877 (1:2,500) (1:10,560)	The site comprises open land with a field boundary intersecting the centre oriented north to south. A pond is on the southern boundary of the site extending south-east off-site.	A road oriented west to east abuts the northern boundary of the site. A pond extends over the site boundary to the south-east, further ponds are 60-250m south-east, south, south-west, and west. A river flows north-west to south-east 160m south of the site and North Farm is 210m south-east. Additional roads are west, south, and east of the site. Brick Field Kiln is 200m west of the site along with an associated clay pit.
1882-1883 (1:2,500) (1:10,560)	No significant change has occurred.	No significant change has occurred.
1896-1899 1898 1899 1899-1901 (1:2,500) (1:10,560)	No significant change has occurred.	Buildings have been demolished and a smithy is labelled 200m east of the site. A mission room and a well are 220m south and a post office is 20m south-west. The clay pit 200m west has been infilled and a pump has been installed. Works are 230m west.
1919-1922 1919-1924	The hedgerow separating the two sections of the site has been	Allotment gardens are 10-50m north and 20-250m north-east. Two wells are 120m



Map Edition (Date, Scale)	The Site	Surrounding Area
(1:10,560)	removed.	south-east, 210m. The post office is 250m south-east and a school is 80m south-west. A pond has been infilled 120m west. Brick Field Kiln has been removed and Mill Corner Farm has been constructed where works were previously occurring 250m west. Additional buildings have been constructed 230-250m west and south-west.
1921 1922* (1:2,500)	No significant change has occurred.	No significant change has occurred.
1947-1948 1948-1950 (1:10,560)	No significant change has occurred.	The allotment gardens north-east of the site have been removed. Buildings have been demolished 130-200m south-east.
1960 (1:10,560)	No significant change has occurred.	Buildings have been constructed 100m west. The smithy 200m east has been demolished and the post office is 20m south of the site.
1974 (1:2,500)	The pond on the southern boundary of the site has been infilled.	Further buildings have been constructed 100m west, south, and south-east. The school to the south-east is named Reed Junior Mixed Infants School. Mill Corner Farm has changed layout with 3 no. tanks 110-230m south-east and west of the site. An additional tank is 230m south-east. The clay pit 200m west has been infilled along with the pond extending south-east off-site.
1982 (1:10,000)	No significant change has occurred.	Three silos associated with Mill Corner Farm are 130m west of the site and a drain is 10m north. The well 100m west has been infilled.
1993 (1:2,500)	No significant change has occurred.	An electricity substation and 3 no. tanks associated with Mill Corner Farm are 110-170m west.
2001 2003 (1:2,250) (1:10,000)	No significant change has occurred.	No significant change has occurred.
2010	No significant change has occurred.	No significant change has occurred.



Map (Date, Scale)	The Site	Surrounding Area
(1:10,000)		
2023 (1:10,000)	No significant change has occurred.	No significant change has occurred.

*Incomplete mapping

2.4 Geology

2.4.1 To determine the nature of the underlying geology, we have consulted the 1:50,000 scale geological maps compiled by British Geological Survey (BGS). Based on these maps, the site is likely to be underlain by superficial deposits of Lowestoft Formation (diamicton). This is underlain by bedrock geology of the undifferentiated Lewes Nodular Chalk Formation and Seaford Chalk Formation.

2.4.2 The likelihood of potential geological hazards associated with natural ground subsidence is summarised in **Table 3** below. Unless otherwise stated, the hazard rating is for the entire site.

Table 3: Natural Ground Subsidence Events

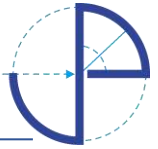
Geological Hazard	Hazard Rating
Shrink-swell clays	Low
Running sands	Very low
Compressible deposits	Negligible
Collapsible deposits	Very low
Landslides	Very low
Ground dissolution of soluble rocks	Low

2.5 Hydrogeology and Hydrology

2.5.1 The hydrogeological designations and classifications for superficial deposits and bedrock geology, both underlying the site and within 250m, were obtained with reference to the Environment Agency website and GroundSure Report and are outlined in **Table 4** below.

Table 4: Hydrogeology

Geological Strata	Distance (m)	Designation	Groundwater Vulnerability
Superficial Deposits	On-site	Secondary Undifferentiated Aquifer – mixed flow type with moderate to low permeability	High
Bedrock Geology	On-site	Principal Aquifer – fracture flow type with very high permeability	Medium



- 2.5.2 In terms of groundwater vulnerability, the Environment Agency divides significant groundwater catchments into three Source Protection Zones (SPZ's) based on the potential risk associated with the migration of possible contaminants. In this case, the site is located within Source Protection Zone (SPZ) 3 (total catchment).
- 2.5.3 The surface soil leaching class for the site is intermediate with an infiltration rate greater than 70%.
- 2.5.4 In respect of the local hydrology there are 16 no. Water Network (OS MasterMap) records within 250m of the site. The closest is 10m north-west and is described as an inland river not influenced by normal tidal action. There are a further 9 no. surface water features within 250m of the site.
- 2.5.5 The local hydrology forms part of the River Quin (water body ID GB106038040120) which has an overall and ecological rating of 'poor' and a chemical rating of 'fail'. Groundwater on-site is associated with the Cam and Ely Ouse Chalk (water body ID GB40501G400500) which has an overall and chemical rating of 'poor'.
- 2.5.6 The site is situated within Flood Zone 1 and has not been subject to a historical flood event.
- 2.5.7 A historical flood event was recorded in 1947 located 241m south of the site. This was caused by water levels exceeding the capacity of the river channel and lasted 12 days.
- 2.5.8 There is a negligible risk of surface water flooding and groundwater flooding on-site and within 50m.
- 2.5.9 Information on groundwater, surface water and potable abstractions within 250m of the site are outlined in **Table 5** below.

Table 5: Abstractions

Abstraction	Distance (m)	Related to
Groundwater	n/a	None recorded within 250m of the site.
Surface Water		
Potable Water		

2.6 Industrial Land Use, Waste and Landfill

- 2.6.1 Records for industrial land uses, waste, and landfills on-site and within 250m of the site are presented below in **Table 6**.

Table 6: Potentially Contaminative Sources

Source	Distance (m)	Related to
Industrial Land Use		
Current Industrial Land Use	203-228m west and south-west	Tank and electricity substation (2 records).
Historical Industrial Land Use	120-198m	Unspecified tanks, brick works, unspecified



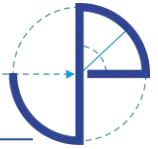
Source	Distance (m)	Related to
Historical Tanks	west	pit, and Brick Field Kilns (8 records).
	200-210m east	Smithy (3 records).
	106-149m west	Unspecified tank and tanks (3 records).
	207-229m west and south-east	Unspecified tank (4 records).
Historical Energy Features	150m west	Electricity substation.
Historical Petrol Stations	n/a	None recorded within 250m of the site.
Historical Garages		
Waste and Landfill		
Active or Recent Landfill	n/a	None recorded within 250m of the site.
Historical Landfills		
Historical Waste Sites		
Licenced Waste Sites		
Waste Exemptions	72m north-east	Site: Hatchpen Farm Royston Hertfordshire SG8 1XX Reference: EPR/ VE5946NU/A001 Category: on a farm (2 records).

2.7 Licenced Activities, Permits and Incidents

2.7.1 Records for licenced activities, permits and incidents on-site and within 250m of the site are presented below in **Table 7**.

Table 7: Licenced Activities, Permits and Incidents

Activity	Distance (m)	Related to
Historical Licenced Industrial Activities (IPC)	n/a	None recorded within 250m of the site.
Licenced Industrial Activities (Part A(1))		
Licenced Pollutant Release (Part A(2)/B)		
Radioactive Substance Authorisations		
Licenced Discharges to Controlled Waters	80m south	Effluent type: sewage discharges – final/treated effluent – not water company. Permit number: CLCU.0116 Status: lapsed under schedule 23 Environment Act 1995
Pollutant Release to Surface Waters (Red List)	n/a	None recorded within 250m of the site.
Pollution Inventory Substances		
Pollution Inventory Waste Transfers		
List 1/ List 2 Dangerous Substances		
Pollution Incidents		



2.8 Radon

2.8.1 The site is in a lower probability Radon affected area. Less than 1% of homes are above the action level for Radon, no radon protection measures are necessary in the construction of new buildings or residential dwellings.

2.9 Mineral Workings and Potentially Infilled Land

2.9.1 Records for mineral workings and potentially infilled land on-site and within 250m of the site are presented below in **Table 8**.

Table 8: Mineral Working and Potentially Infilled Land

Feature	Distance (m)	Related to
Natural Cavities	n/a	None recorded within 250m of the site.
Brit Pits	194m west	Address: Reed Brick Field, Royston, Hertfordshire. Commodity: clay and shale. Status: ceased.
Surface Ground Workings	148-198m west	Brick works, unspecified pit and Brick Field Kilns (7 records).
Underground Workings	n/a	None recorded within 250m of the site.
Historical Mineral Planning Areas		
Non-coal Mining	On-site	Commodity: chalk. Likelihood: underground mine workings are uncommon, although the geology is similar to that worked elsewhere.
Mining Cavities	n/a	None recorded within 250m of the site.
Johnson Poole and Bloomer Mining Areas		
Coal Mining		
Brine Areas		
Gypsum Areas		
Tin Mining		
Clay Mining		

2.10 Railway Infrastructure and Projects

2.10.1 Records for railway infrastructure and projects on-site and within 250m of the site are presented in **Table 9** below.

Table 9: Railway Infrastructure and Projects

Feature	Distance (m)	Related to
Underground Railways (London)	n/a	None recorded within 250m of the site.



Feature	Distance (m)	Related to
Underground Railways (Non-London)		
Railway Tunnels		
Historical Railway and Tunnel Features		
Active Railways		

2.11 Designations

2.11.1 Records for environmental, cultural, and agricultural designations on-site and within 250m of the site are presented below in **Table 10**.

Table 10: Environmental, Cultural and Agricultural Designations

Designations	Distance (m)	Related to
Environmental	On-site	Lee Nitrate Vulnerable Zone (NVZ) (surface water).
	On-site	Anglian Chalk NVZ (groundwater).
	On-site	Site of Special Scientific Interest (SSSI) Impact Risk Zone.
	8m north	Ely Ouse and Cut-off Channel NVZ (surface water).
Visual and Cultural	On-site	Reed Conservation Area.
	171-238m south and south-east	North Farm House, Wisbridge Farm House, Cosykot and Crabtree Cottage; Grade II Listed Buildings (4 records).
Agricultural	On-site	Grade 2: very good quality agricultural land in the western half of the site.

2.12 Planning Portal

2.12.1 A search was made on North Hertfordshire District Council's planning portal. This was done to further explore the evolution of the site and any available information related to nearby sites. The search identified 82 no. applications relating to the SG8 8AB postcode. No contamination issues have been identified which could impact this site.

3 CONCEPTUAL SITE MODEL

3.1 Introduction

3.1.1 The “conceptual site model” is a simplified representation of the ground conditions that exist on-site, which is subsequently used to assess the potential risk to human and environmental receptors. According to the Land Contamination Risk Management (LCRM) guidance, “A *conceptual site model is a representation of the characteristics of the site. It shows the possible relationships between contaminants, pathways, and receptors*”.

3.1.2 Although the model is formulated during the initial phase of the investigation it is subject to change, as new information comes to light, and our understanding of the site improves. It is central to the risk assessment process and therefore must consider all potential relationships and interactions.

3.1.3 There are four key aspects to the model, these are:

Table 11: Conceptual Site Model Key Aspects

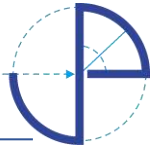
Source(s)	These can include current or historic activities taking place either on or adjacent to the site, which may have had a negative impact on surface or sub-surface soils, or groundwater.
Pathway(s)	This is the route by which contaminants travel / migrate between their source and any available receptor.
Receptor(s)	These are varied and can include human or non-human organisms and eco-systems; controlled waters such as groundwater or surface water bodies; and structures or individual construction materials.
Pollutant linkage(s)	These exist where all three of the previous elements are present, indicating that the “link” between an identified source and a potential receptor via a pathway.

3.2 Potential Sources of Contamination

3.2.1 Records for potential sources of contamination on-site and within 250m of the site are presented below in **Table 12**.

Table 12: Summary of Potential Sources of Contamination

On-Site	Description
Current Land Use and Activities	Residential garden containing stockpiles, Made Ground, an infilled pond and bonfire bases.
Historical Land Use and Activities	Pond, agricultural land and residential garden.
Off-Site	Description
Current Land Use and Activities	Tank, electricity substation and waste exemptions.
Historical Land Use and Activities	Unspecified tanks, brick works, unspecified pit, Brick Field Kilns, smithy, tanks, electricity substation, licenced discharge to controlled waters, Reed Brick Field Brit Pit and possible chalk mining.



3.3 Potential Contaminant Pathways

Table 13: Identified Potential Pathways

Pathway
Inhalation - Potential inhalation of contaminants in dust/ fibrous form.
Ingestion - Future site users could ingest small quantities of soil derived dust originating from soft landscaped areas or disturbed ground.
Dermal absorption - Contaminants present within surface or sub-surface soils/ fill material can enter the human body through the skin or via open wounds.
Buried services - If elevated levels of petroleum hydrocarbons are present within surface/ subsurface soils, then 'plastic' drinking water pipe can become compromised.
Migration/ Leaching - Potential for migration of contaminants through soil/ groundwater.

3.4 Potential Contaminant Receptors

Table 14: Identified Potential Receptors

Receptor
Future site users - Future site users could be affected by contaminants in the soil, entering the mains water system or ground gas entering the building.
Construction workers - Workers involved with future site clearance and preparatory work will be exposed to contaminants present within on-site soil, should they exist.
Buildings and Infrastructure - Modern construction techniques can cause accumulations of gas, if gas is able to accumulate within new, or converted, buildings there is potential for an explosion.
Buried services - Plastic drinking water pipes are vulnerable to petroleum hydrocarbons.
On-site soil - Particularly close to the surface, may have been impacted by historic activities.

3.5 Plausible Pollutant Linkages

- 3.5.1 Using the 'source – pathway – receptor' tables above, potential pollutant linkages are identified. An assessment of the likely significance of each linkage is then considered, which would include; the possible extent and mobility of the source; the sensitivity of the receptor and the type of migration/ exposure pathways.
- 3.5.2 An assessment of the probability and the magnitude of potential risk is presented below to give a valuation of each potential pollutant linkage identified and their significance.
- 3.5.3 This assessment is undertaken based on the current proposal for the site at the time of issuing this report, which comprises the erection of 14 no. dwellings with associated gardens and off-street parking.
- 3.5.4 This qualitative risk assessment has been undertaken in accordance with CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001).
- 3.5.5 The level of potential risk ascribed to each linkage is based on the following criteria:



Table 15: Risk Classification

Risk Classification	Description
Very high risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the site without appropriate remedial action.
High risk	Harm is likely to arise to a designated receptor from an identified hazard at the site without appropriate remedial action.
Moderate risk	It is possible that without appropriate remedial action harm could arise to a designated receptor, but it is relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely that such harm would be relatively mild.
Low risk	It is possible that harm could arise to a designated receptor from an identified hazard but is likely that, at worst, this harm if realised would normally be mild.
Negligible risk	The presence of an identified hazard does not give rise to the potential to cause significant harm to a designated receptor.

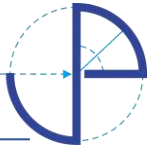
3.5.6 The following potential pollutant linkages have been identified and are outlined within **Table 16** below:

Table 16: Risk Assessment

Assessment	Comments	Risk Characterisation
Source		
Potential for on-site pollutants	Made Ground, bonfire bases and an infilled pond have been identified as potential sources of contamination on-site. Whilst anecdotal evidence from the client suggests the stockpiles comprise topsoil, soil testing would be recommended to confirm whether these can be discounted as potential sources of contamination.	Moderate
Pathway		
Potential for pollutants to migrate on-site	The site is underlain by cohesive deposits with moderate to low permeability which will reduce the likelihood of migration on-site.	Low
Potential for pollutants to migrate off-site	The cohesive nature of the underlying superficial deposits could increase the likelihood of lateral migration off-site.	Moderate
Receptor		
Environmental risk to human health	The proposed development will lead to an increase in site users and occupiers. Potential sources of contamination and the risk of ground gas have been identified on-site which may pose a risk to human health. A ground investigation is recommended to clarify this risk.	Moderate
Environmental risk to controlled waters	Potential sources of contamination have been identified; however, these are unlikely to pose a risk	Low



Assessment	Comments	Risk Characterisation
	to controlled waters.	
Environmental risk to Biota	Biota may be negatively impacted due to the proposed construction; however, the residential gardens may then improve conditions.	Low
Hazards to buildings – excluding ground gas	Potential sources of contamination have been identified which may be a hazard to buildings.	Low to moderate
Litigation		
Environmental litigation (Part IIA)	Part IIA only applies to land with chemical contamination, where the contaminants pose an unacceptable risk to human health or the wider environment. It is highly unlikely the site would fall into this category.	Low
Owner liability	Potential liability issues have been identified but will likely be addressed by the planning regime.	Moderate
Development Implications		
Potential for soil remediation	Remediation may be required due to the identified potential sources of contamination. A ground investigation will clarify this risk.	Moderate
Potential for groundwater remediation	Remediation of the on-site groundwater is unlikely to be required, however a ground investigation will clarify this risk.	Low
Potential for gas protection measures	The infilled pond on the southern boundary of the site could act as a potential source of ground gas for the adjacent proposed dwellings.	Low to moderate
Special requirements for water supply pipes	Specialist pipework is unlikely to be required.	Low
Potential limitations on foundation design	We recommend specialist advice is sought to assess potential geotechnical limitations for the proposed development.	Low
Risk of encountering materials classed as hazardous waste	The risk of encountering materials classed as hazardous waste is low. If asbestos containing material (ACM) were encountered, these would be classified as hazardous waste.	Low



4 CONCLUSIONS AND RECOMMENDATIONS

- 4.1.1 Based on the information obtained and reviewed as part of this preliminary assessment, JPC Environmental Services would advise the following:

Stage I/ Tier II Ground Investigation

- 4.1.2 We would recommend that a Stage I/ Tier II Ground Investigation is completed across the site. The investigation could comprise a series of machine excavated across the site to determine the potential of contaminants within shallow soils. Soil samples should also be retrieved from the stockpiles and sent for off-site laboratory testing for a typical range of contaminants.
- 4.1.3 As part of the investigation, we would recommend a minimum of three combined ground gas and groundwater monitoring wells are installed on-site, specifically targeting the infilled pond. A minimum of six return visits to monitor ground gas levels should then be completed over a two-month period.

5 REFERENCES

BS10175: 2011 +A2:2017 “Investigation of Potentially Contaminated Sites - Code of Practice”. British Standards Institution.

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Department for Environment, Food and Rural Affairs : 2012: Contaminated Land Statutory Guidance, Environmental Protection Act 1990: Part 2A, April 2012.

Environment Agency. 2016. GPLC2 – FAQs, technical information and references.

Environment Agency and Department for Environment, Food and Rural Affairs. 2017. Groundwater Protection.

Environment Agency, 2021: Land Contamination Risk Management (LCRM).

Health & Safety Executive: 2013 : Approved Code of Practice: Managing & working with asbestos. Control of Asbestos Regulations 2012.

Health & Safety Executive. 1991. Protection of Workers and the General Public during Development of Contaminated Land. HMSO.

LQM/CIEH. 2015. The LQM/CIEH S4ULs for Human Health Risk Assessment, Land Quality Press, Nottingham.

Ministry of Housing, Communities and Local Government. 2021. National Planning Policy Framework.

NHBC & RSK Group. 2007. Guidance on the Evaluation of Development Proposals on-sites where Methane and Carbon Dioxide are Present. Report No 10627-R01 (04).

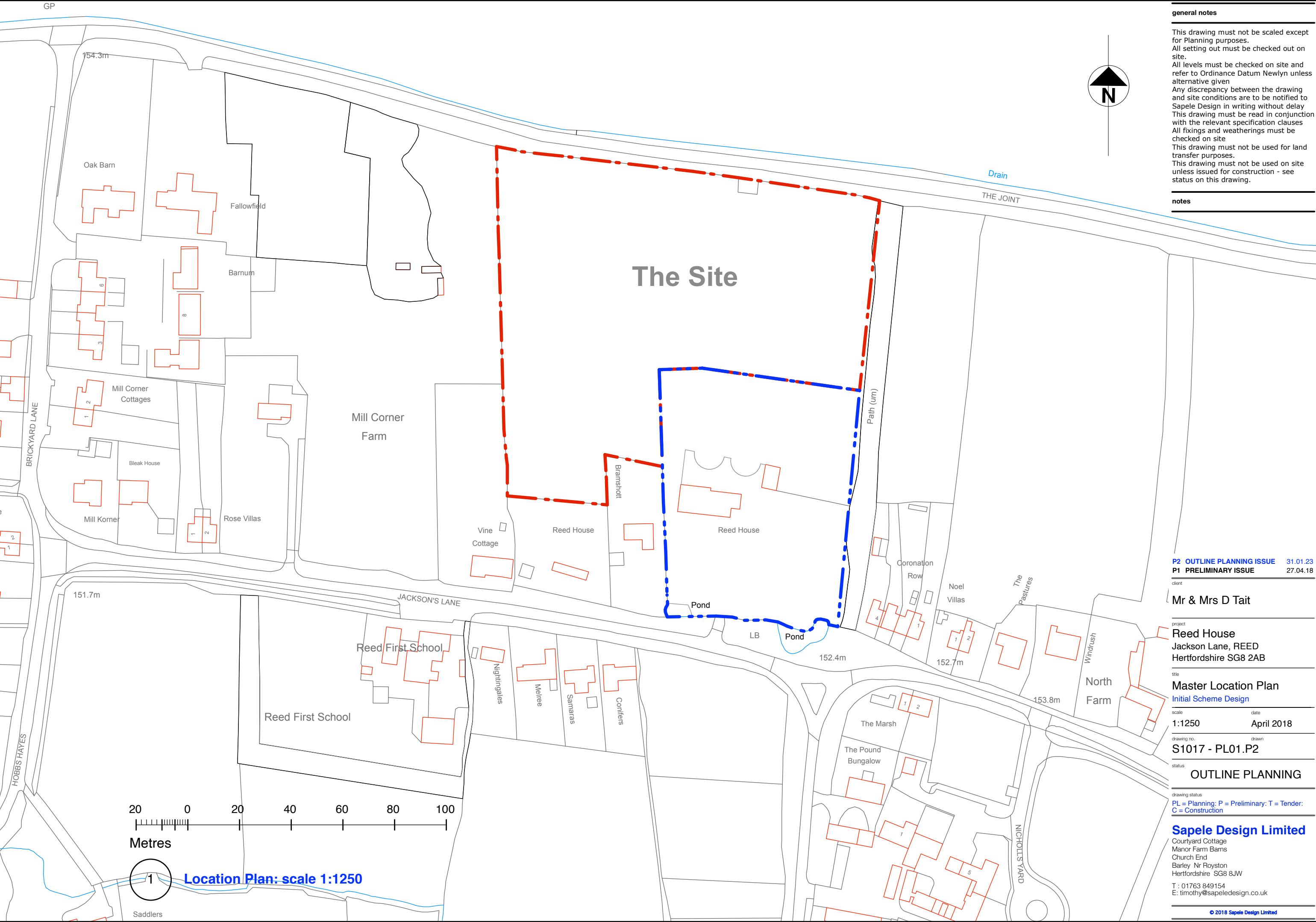
Statutory Instruments: 2012: Environmental Protection, England. Contaminated Land (England) (Amendment) Regulations 2012 No. 263 coming into force 6th April 2012.

Statutory Instruments: 2012: Health and Safety. The Control of Asbestos Regulations 2012. No. 262 coming into force 6th April 2012.

Water Regulations Advisory Scheme. 2002. Information and Guidance Note No. 9-04-03.



Appendix A – Site Location Plan



general notes

This drawing must not be scaled except for Planning purposes.
All setting out must be checked out on site.
All levels must be checked on site and refer to Ordinance Datum Newlyn unless alternative given
Any discrepancy between the drawing and site conditions are to be notified to Sapele Design in writing without delay
This drawing must be read in conjunction with the relevant specification clauses
All fixings and weatherings must be checked on site
This drawing must not be used for land transfer purposes.
This drawing must not be used on site unless issued for construction - see status on this drawing.

notes

P2 OUTLINE PLANNING ISSUE 31.01.23
P1 PRELIMINARY ISSUE 27.04.18

client

Mr & Mrs D Tait

project

Reed House
Jackson Lane, REED
Hertfordshire SG8 2AB

title

Master Location Plan
Initial Scheme Design

scale

1:1250

date

April 2018

drawing no.

S1017 - PL01.P2

drawn

status

OUTLINE PLANNING

drawing status

PL = Planning: P = Preliminary: T = Tender:
C = Construction

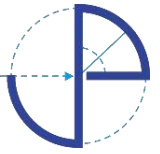
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Hertfordshire SG8 8JW

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Appendix B – Site Photographs



Figure 1: View of the southern site entrance from the lawn facing south-west.



Figure 2: View of the site from the southern site entrance, looking north onto the lawn.



Figure 3: View of the bonfire in the south-west of the site standing north-east.



Figure 4: View of the southern fenced boundary facing west.



Figure 5: View of the bonfire in the south-west corner of the site standing north.



Figure 6: View of the Made Ground on the western boundary facing north-west.



Figure 7: View of the lawn from the western boundary facing east.



Figure 8: View of the northern boundary and Made Ground/topsoil mounds.



Figure 9: View of one of the mounds standing south-east facing north-west.



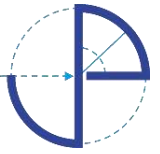
Figure 10: View of the hardstanding and metal gate at the northern entrance standing south.



Figure 11: View of the bonfire base on the northern boundary facing east.



Figure 12: View of the eastern boundary facing south.



Appendix C – GroundSure Report

REED HOUSE, JACKSONS LANE, REED, SG8 8AB

Order Details

Date: 06/12/2023
Your ref: IE23-105
Our Ref: GS-B9Z-GH4-4FX-CZR

Site Details

Location: 536378 236515
Area: 1.3 ha
Authority: [North Hertfordshire District Council](#) ↗

[Summary of findings](#)[p. 2 >](#) [Aerial image](#)[p. 9 >](#)[OS MasterMap site plan](#)[p.14 >](#) groundsure.com/insightuserguide ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

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	11	0	-
16 >	1.2 >	Historical tanks >	0	0	6	1	-
17 >	1.3 >	Historical energy features >	0	0	1	0	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
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	0	-
20 >	2.2 >	Historical tanks >	0	0	7	1	-
21 >	2.3 >	Historical energy features >	0	0	1	0	-
21	2.4	Historical petrol stations	0	0	0	0	-
21	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
22	3.1	Active or recent landfill	0	0	0	0	-
22	3.2	Historical landfill (BGS records)	0	0	0	0	-
23	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
23	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
23	3.5	Historical waste sites	0	0	0	0	-
23	3.6	Licensed waste sites	0	0	0	0	-
23 >	3.7 >	Waste exemptions >	0	0	2	4	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
25 >	4.1 >	Recent industrial land uses >	0	0	2	-	-
26	4.2	Current or recent petrol stations	0	0	0	0	-
26	4.3	Electricity cables	0	0	0	0	-
26	4.4	Gas pipelines	0	0	0	0	-
26	4.5	Sites determined as Contaminated Land	0	0	0	0	-



26	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
27	4.7	Regulated explosive sites	0	0	0	0	-
27	4.8	Hazardous substance storage/usage	0	0	0	0	-
27	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
27	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
27	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
28	4.12	Radioactive Substance Authorisations	0	0	0	0	-
28 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	1	2	-
28	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
29	4.15	Pollutant release to public sewer	0	0	0	0	-
29	4.16	List 1 Dangerous Substances	0	0	0	0	-
29	4.17	List 2 Dangerous Substances	0	0	0	0	-
29 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	0	1	-
30	4.19	Pollution inventory substances	0	0	0	0	-
30	4.20	Pollution inventory waste transfers	0	0	0	0	-
30	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
31 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
32 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
33 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
34 >	5.4 >	<u>Groundwater vulnerability- soluble rock risk ></u>	Identified (within 0m)				
34	5.5	Groundwater vulnerability- local information	None (within 0m)				
35	5.6	Groundwater abstractions	0	0	0	0	0
36	5.7	Surface water abstractions	0	0	0	0	0
36	5.8	Potable abstractions	0	0	0	0	0
36 >	5.9 >	<u>Source Protection Zones ></u>	1	0	0	0	-
36	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
37 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	5	11	-	-



39 >	6.2 >	Surface water features >	0	3	6	-	-
39 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
40 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
40 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
41	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
42 >	7.2 >	Historical Flood Events >	0	0	1	-	-
42	7.3	Flood Defences	0	0	0	-	-
42	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
42	7.5	Flood Storage Areas	0	0	0	-	-
43	7.6	Flood Zone 2	None (within 50m)				
43	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
44	8.1	Surface water flooding	Negligible (within 50m)				
Page	Section	Groundwater flooding >					
45 >	9.1 >	Groundwater flooding >	Negligible (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
46	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
47	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
47	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
47	10.4	Special Protection Areas (SPA)	0	0	0	0	0
47	10.5	National Nature Reserves (NNR)	0	0	0	0	0
48	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
48 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	3
48	10.8	Biosphere Reserves	0	0	0	0	0
49	10.9	Forest Parks	0	0	0	0	0
49	10.10	Marine Conservation Zones	0	0	0	0	0
49	10.11	Green Belt	0	0	0	0	0
49	10.12	Proposed Ramsar sites	0	0	0	0	0



49	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
50	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
50	10.15	Nitrate Sensitive Areas	0	0	0	0	0
50 >	10.16 >	Nitrate Vulnerable Zones >	2	1	0	2	0
51 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
52	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
53	11.1	World Heritage Sites	0	0	0	-	-
54	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
54	11.3	National Parks	0	0	0	-	-
54 >	11.4 >	Listed Buildings >	0	0	4	-	-
55 >	11.5 >	Conservation Areas >	1	0	0	-	-
55	11.6	Scheduled Ancient Monuments	0	0	0	-	-
55	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
56 >	12.1 >	Agricultural Land Classification >	Grade 2 (within 250m)				
57	12.2	Open Access Land	0	0	0	-	-
57	12.3	Tree Felling Licences	0	0	0	-	-
57 >	12.4 >	Environmental Stewardship Schemes >	0	0	2	-	-
58 >	12.5 >	Countryside Stewardship Schemes >	0	1	1	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
59 >	13.1 >	Priority Habitat Inventory >	0	0	3	-	-
60	13.2	Habitat Networks	0	0	0	-	-
60	13.3	Open Mosaic Habitat	0	0	0	-	-
60	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
61 >	14.1 >	10k Availability >	Identified (within 500m)				
62	14.2	Artificial and made ground (10k)	0	0	0	0	-
63	14.3	Superficial geology (10k)	0	0	0	0	-

63	14.4	Landslip (10k)	0	0	0	0	-
64	14.5	Bedrock geology (10k)	0	0	0	0	-
64	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
65 >	15.1 >	50k Availability >	Identified (within 500m)				
66	15.2	Artificial and made ground (50k)	0	0	0	0	-
66	15.3	Artificial ground permeability (50k)	0	0	-	-	-
67 >	15.4 >	Superficial geology (50k) >	1	0	0	0	-
68 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
68	15.6	Landslip (50k)	0	0	0	0	-
68	15.7	Landslip permeability (50k)	None (within 50m)				
69 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
70 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
70	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
71	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
72 >	17.1 >	Shrink swell clays >	Low (within 50m)				
73 >	17.2 >	Running sands >	Very low (within 50m)				
74 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
75 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
76 >	17.5 >	Landslides >	Very low (within 50m)				
77 >	17.6 >	Ground dissolution of soluble rocks >	Low (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
79 >	18.1 >	BritPits >	0	0	1	0	-
80 >	18.2 >	Surface ground workings >	0	0	7	-	-
80	18.3	Underground workings	0	0	0	0	0
81	18.4	Underground mining extents	0	0	0	0	-
81	18.5	Historical Mineral Planning Areas	0	0	0	0	-



81 >	18.6 >	Non-coal mining >	1	0	0	0	0
81	18.7	JPB mining areas	None (within 0m)				
82	18.8	The Coal Authority non-coal mining	0	0	0	0	-
82	18.9	Researched mining	0	0	0	0	-
82	18.10	Mining record office plans	0	0	0	0	-
82	18.11	BGS mine plans	0	0	0	0	-
83	18.12	Coal mining	None (within 0m)				
83	18.13	Brine areas	None (within 0m)				
83	18.14	Gypsum areas	None (within 0m)				
83	18.15	Tin mining	None (within 0m)				
83	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
84	19.1	Natural cavities	0	0	0	0	-
84	19.2	Mining cavities	0	0	0	0	0
84	19.3	Reported recent incidents	0	0	0	0	-
84	19.4	Historical incidents	0	0	0	0	-
85	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
86 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
88 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	1	-	-	-
88	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
88	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
89	22.1	Underground railways (London)	0	0	0	-	-
89	22.2	Underground railways (Non-London)	0	0	0	-	-
89	22.3	Railway tunnels	0	0	0	-	-
89	22.4	Historical railway and tunnel features	0	0	0	-	-
89	22.5	Royal Mail tunnels	0	0	0	-	-



90	22.6	Historical railways	0	0	0	-	-
90	22.7	Railways	0	0	0	-	-
90	22.8	Crossrail 1	0	0	0	0	-
90	22.9	Crossrail 2	0	0	0	0	-
90	22.10	HS2	0	0	0	0	-



Recent aerial photograph



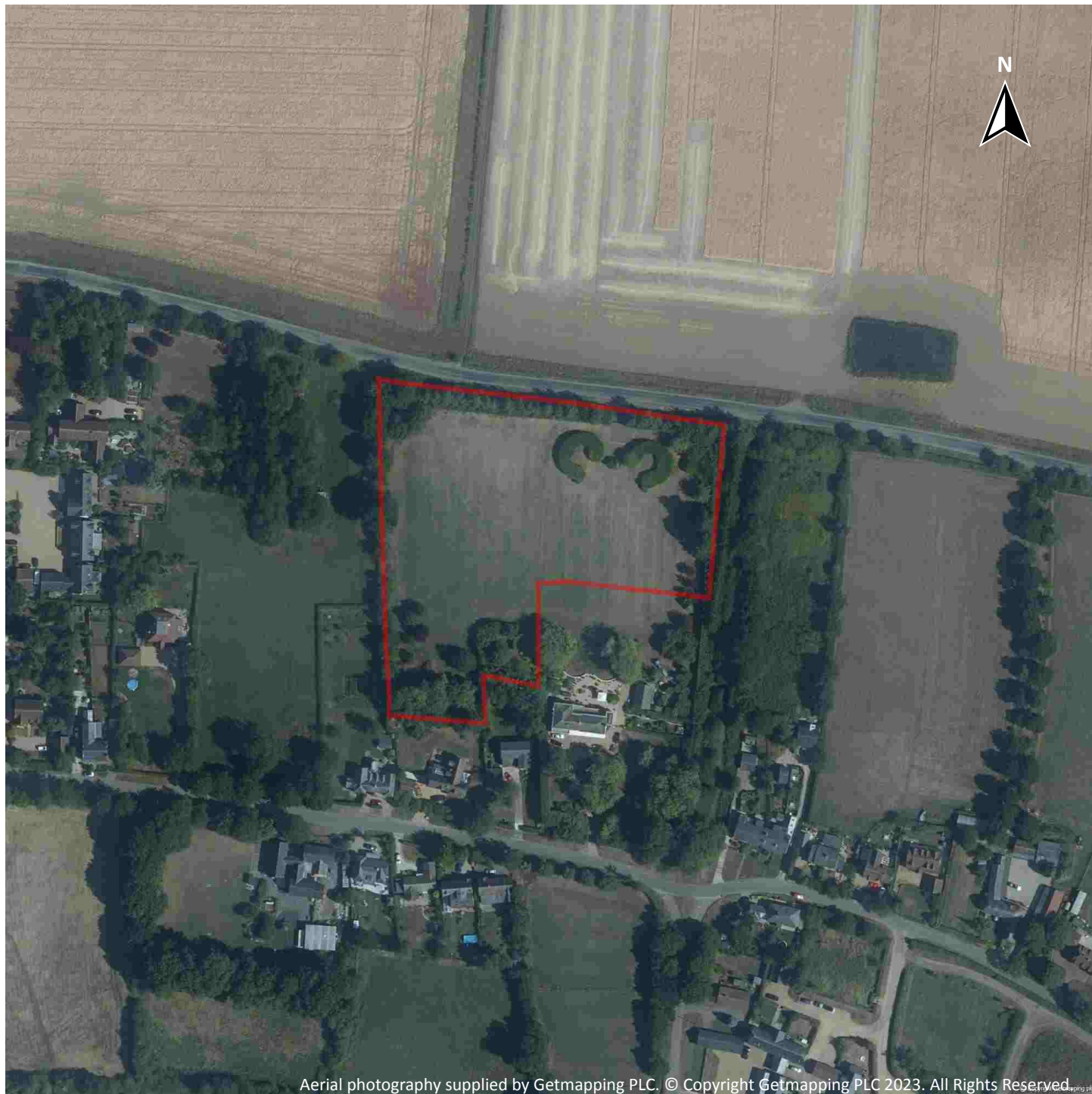
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2023. All Rights Reserved.

Capture Date: 06/04/2021

Site Area: 1.3ha



Recent site history - 2018 aerial photograph



Capture Date: 03/08/2018

Site Area: 1.3ha



Recent site history - 2015 aerial photograph



Capture Date: 16/04/2015

Site Area: 1.3ha



Recent site history - 2009 aerial photograph



Capture Date: 29/06/2009

Site Area: 1.3ha



Recent site history - 2000 aerial photograph

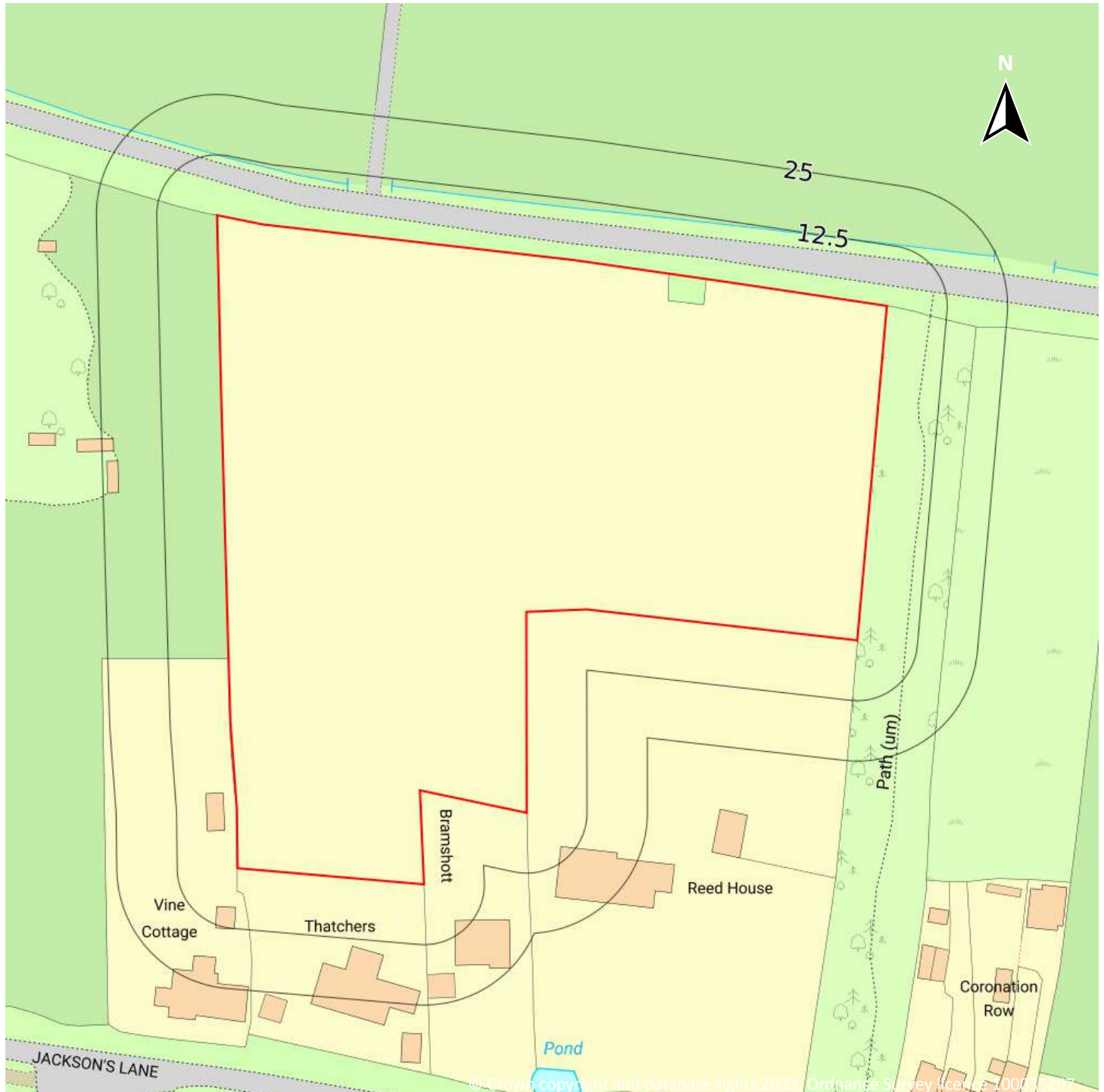


Capture Date: 08/06/2000

Site Area: 1.3ha



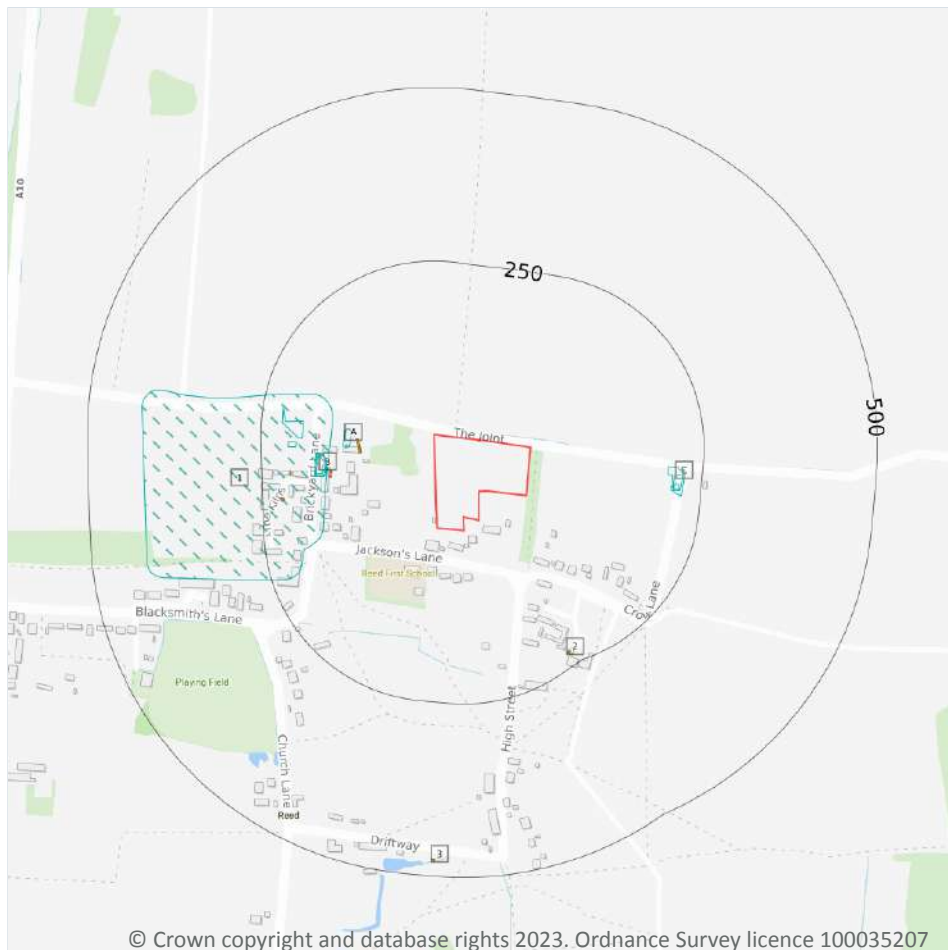
OS MasterMap site plan



Site Area: 1.3ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features

1.1 Historical industrial land uses

Records within 500m

11

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	120m W	Unspecified Tanks	1982	2054874



ID	Location	Land use	Dates present	Group ID
1	148m W	Brick Works	1899	2049886
B	156m W	Unspecified Pit	1899	2113304
B	156m W	Unspecified Pit	1924	2082249
B	156m W	Unspecified Pit	1876	2096025
B	158m W	Unspecified Pit	1952	2110635
B	190m W	Unspecified Pit	1878	2041563
B	198m W	Brick Field Kilns	1878	2049779
C	200m E	Smithy	1924	2102509
C	207m E	Smithy	1899	2122065
C	210m E	Smithy	1876	2104453

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

7

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

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

ID	Location	Land use	Dates present	Group ID
A	106m W	Unspecified Tank	1974	344218
A	106m W	Tanks	1993	348406
B	149m W	Unspecified Tank	1974	344219
B	207m W	Unspecified Tank	1993	344217
B	219m W	Unspecified Tank	1876	344216
2	228m SE	Unspecified Tank	1974 - 1993	354282
3	476m S	Unspecified Tank	1921	344220

This data is sourced from Ordnance Survey / Groundsure.



1.3 Historical energy features

Records within 500m

1

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

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

ID	Location	Land use	Dates present	Group ID
B	150m W	Electricity Substation	1993	225733

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 ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.



1.6 Historical military land

Records within 500m

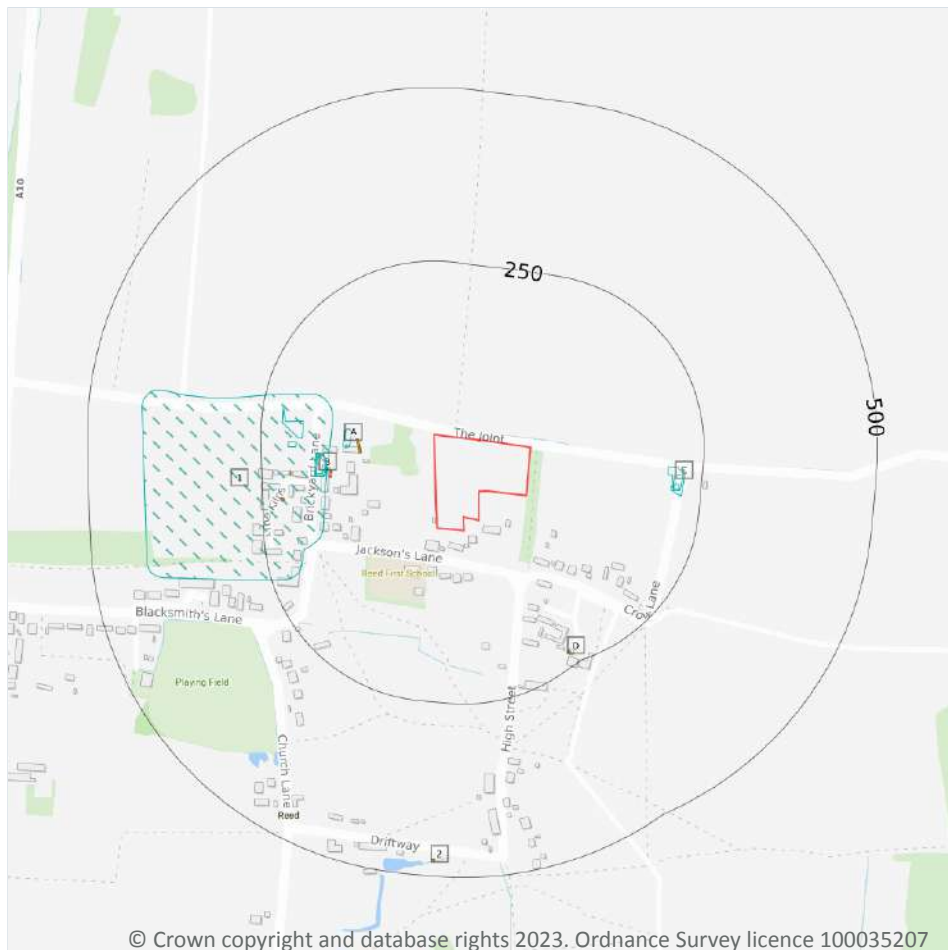
0

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



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features

2.1 Historical industrial land uses

Records within 500m

11

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	120m W	Unspecified Tanks	1982	2054874
1	148m W	Brick Works	1899	2049886
B	156m W	Unspecified Pit	1899	2113304



ID	Location	Land Use	Date	Group ID
B	156m W	Unspecified Pit	1924	2082249
B	156m W	Unspecified Pit	1876	2096025
B	158m W	Unspecified Pit	1952	2110635
B	190m W	Unspecified Pit	1878	2041563
B	198m W	Brick Field Kilns	1878	2049779
C	200m E	Smithy	1924	2102509
C	207m E	Smithy	1899	2122065
C	210m E	Smithy	1876	2104453

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

8

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
A	106m W	Unspecified Tank	1974	344218
A	106m W	Tanks	1993	348406
B	149m W	Unspecified Tank	1974	344219
B	207m W	Unspecified Tank	1993	344217
B	219m W	Unspecified Tank	1876	344216
D	228m SE	Unspecified Tank	1974	354282
D	229m SE	Unspecified Tank	1993	354282
2	476m S	Unspecified Tank	1921	344220

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

1

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
B	150m W	Electricity Substation	1993	225733

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

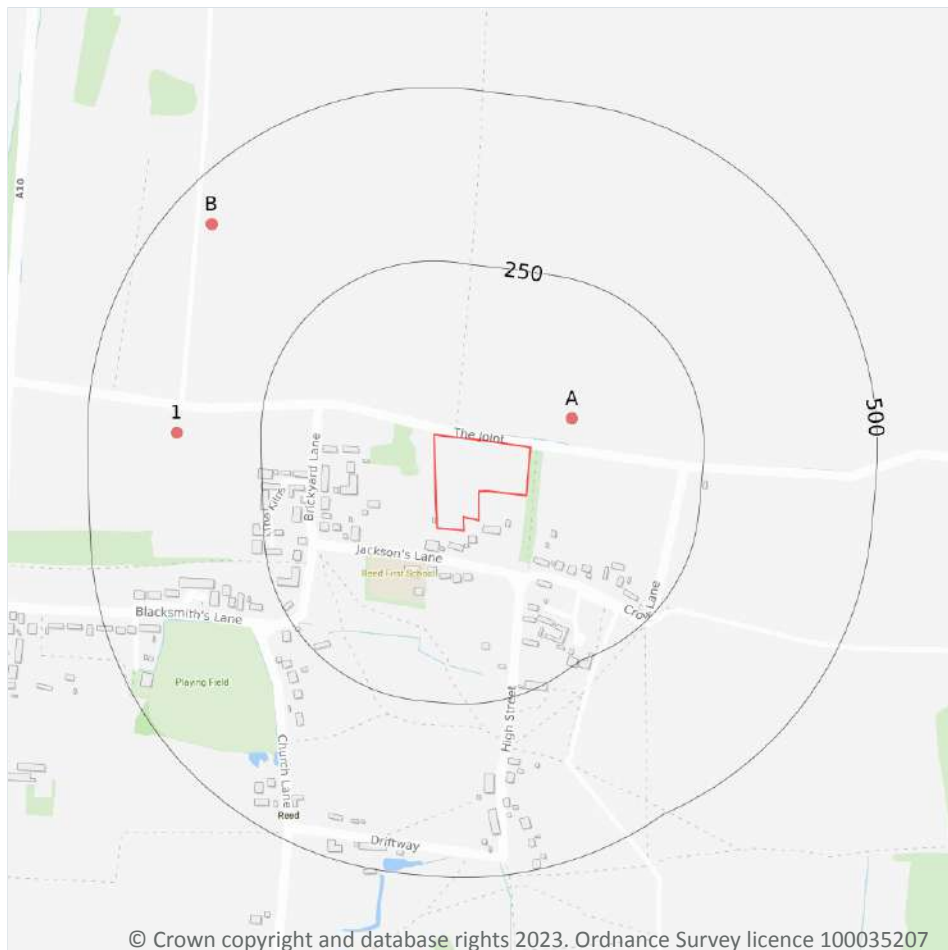
0

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'.

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



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

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

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

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

3.5 Historical waste sites

Records within 500m

0

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

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

3.6 Licensed waste sites

Records within 500m

0

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

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

3.7 Waste exemptions

Records within 500m

6

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 22](#) >

ID	Location	Site	Reference	Category	Sub-Category	Description
A	72m NE	-	WEX116222	Storing waste exemption	On a farm	Storage of sludge

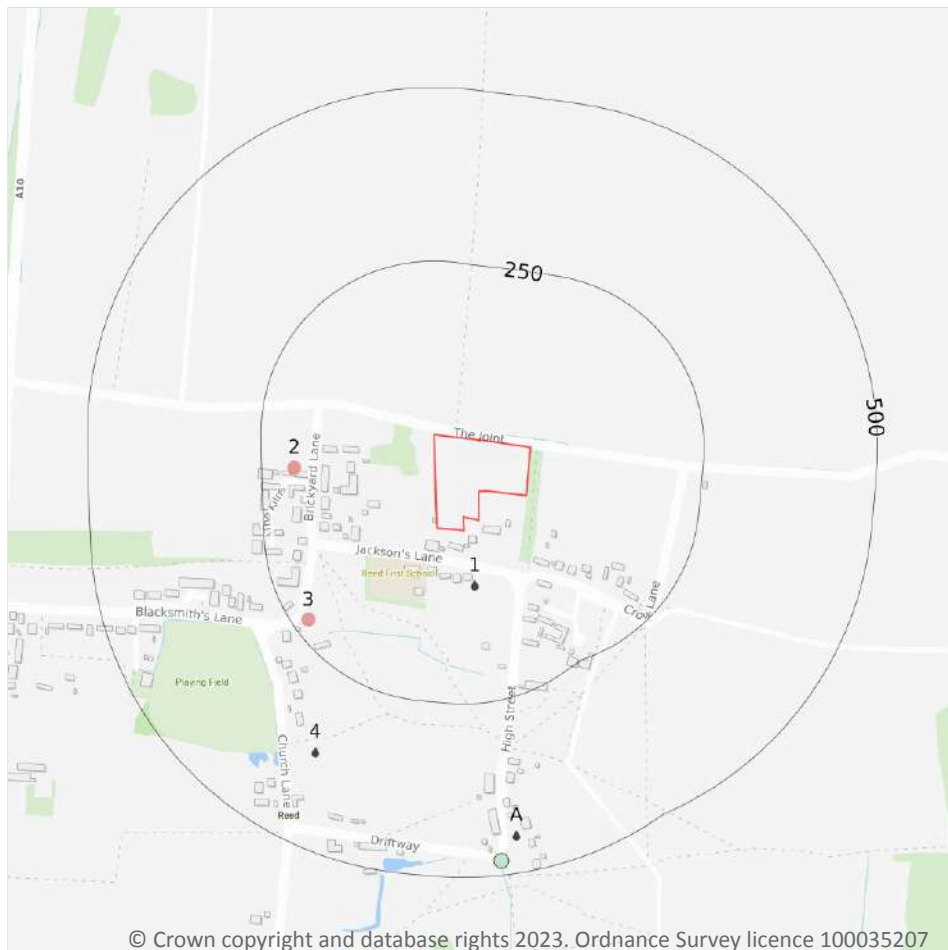


ID	Location	Site	Reference	Category	Sub-Category	Description
A	72m NE	Hatchpen Farm Royston Hertfordshire SG8 1XX	EPR/VE5946N U/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of sludge
1	372m W	Hatchpen Farm Reed Hertfordshire SG8 8AZ	EPR/UE5840H K/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of sludge
B	442m NW	-	WEX116221	Storing waste exemption	On a farm	Storage of sludge
B	442m NW	Hatchpen Farm Reed Hertfordshire SG8 8AZ	EPR/UE5240H D/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of sludge
B	442m NW	-	WEX351761	Storing waste exemption	On a farm	Storage of sludge

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

2

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 25](#) >

ID	Location	Company	Address	Activity	Category
2	203m W	Tank	Hertfordshire, SG8	Tanks (Generic)	Industrial Features
3	228m SW	Electricity Sub Station	Hertfordshire, SG8	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.



4.2 Current or recent petrol stations

Records within 500m**0**

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m**0**

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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

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

Records within 500m

0

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

This data is sourced from Local Authority records.



4.12 Radioactive Substance Authorisations

Records within 500m

0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m

3

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

Features are displayed on the Current industrial land use map on [page 25 >](#)

ID	Location	Address	Details	
1	80m S	PLOT 10, JACKSONS LANE, REED, ROYST, PLOT 10, JACKSONS LANE, REED, RO, YSTON, HERTS	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CLCU.0116 Permit Version: 1 Receiving Water: -	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 10/11/1967 Effective Date: 10/11/1967 Revocation Date: 01/10/1996
4	367m SW	CHURCH LANE, REED, ROYSTON, HERTS, CHURCH LANE, REED, ROYSTON, HERT, S	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CLCU.0162 Permit Version: 1 Receiving Water: -	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 24/09/1968 Effective Date: 24/09/1968 Revocation Date: 01/10/1996
A	445m S	PLOT 14, HIGH ST, REED, HERTS, PLOT 14, HIGH ST, REED, HERTS	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CLCU.0115 Permit Version: 1 Receiving Water: -	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 10/11/1967 Effective Date: 10/11/1967 Revocation Date: 01/10/1996

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**1**

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 25 >](#)

ID	Location	Details	
A	479m S	Incident Date: 28/04/2002 Incident Identification: 75235 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.

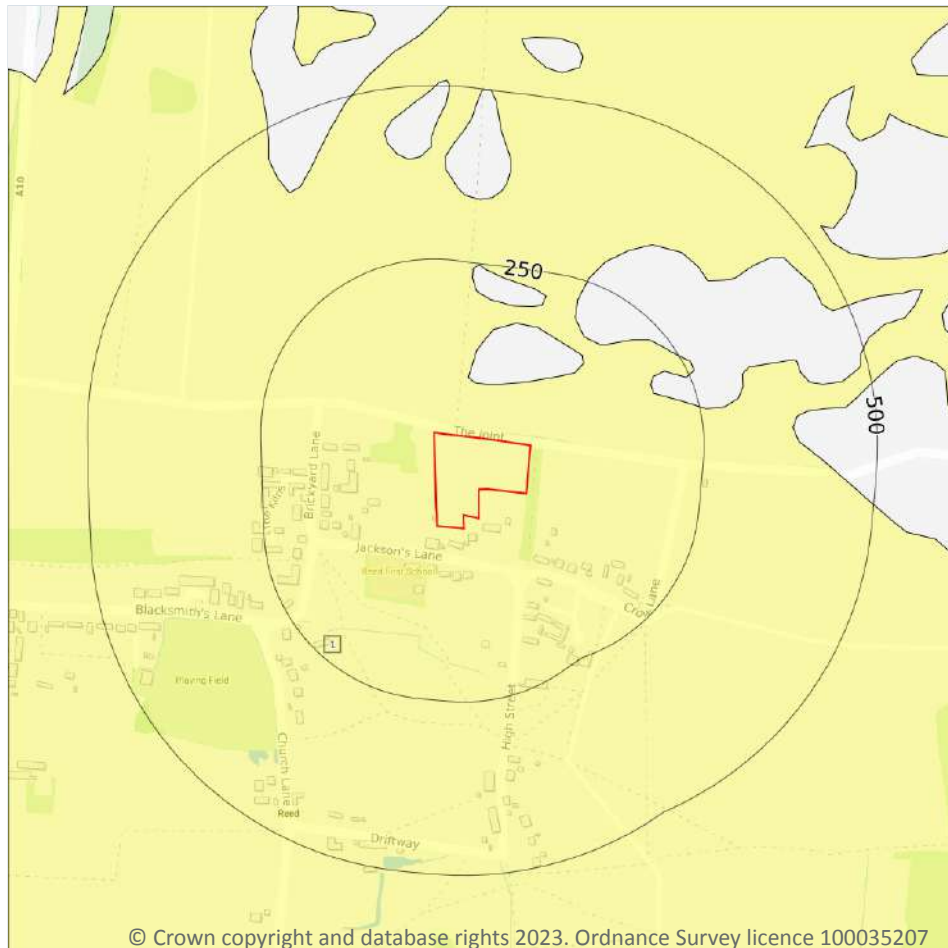
4.21 Pollution inventory radioactive waste

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



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

1

Aquifer status of groundwater held within superficial geology.

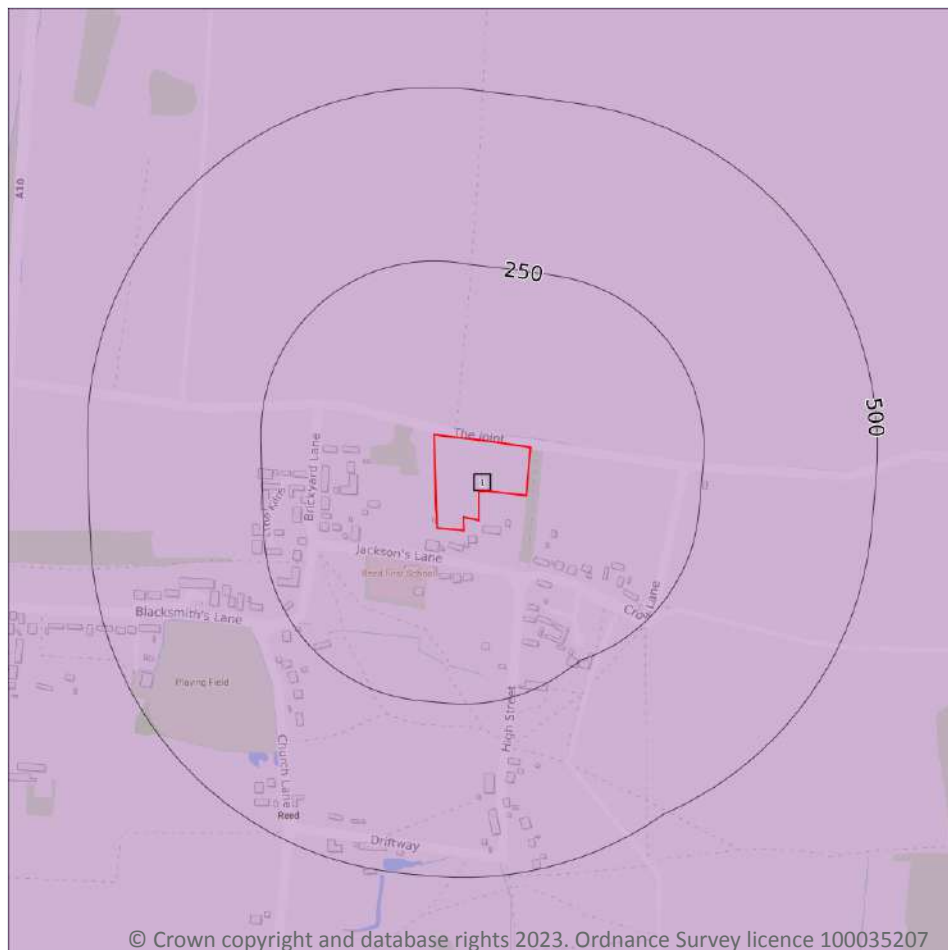
Features are displayed on the Hydrogeology map on [page 31](#) >

ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

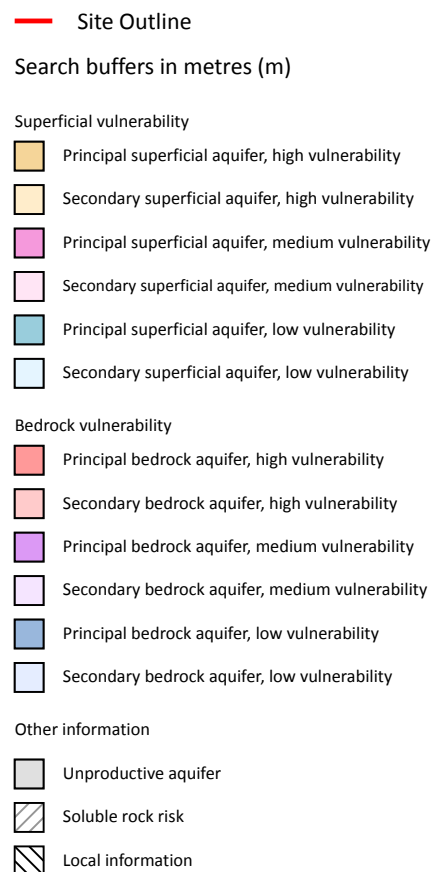
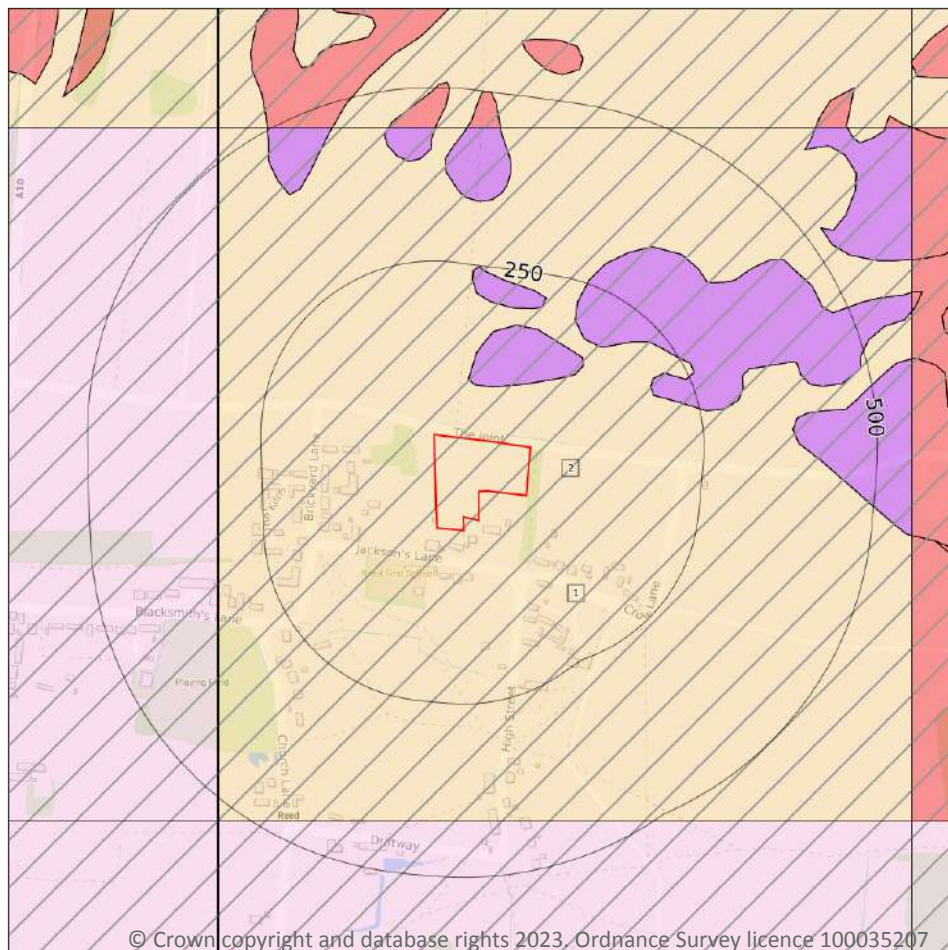
Features are displayed on the Bedrock aquifer map on [page 32 >](#)

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

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

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

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

Features are displayed on the Groundwater vulnerability map on [page 33](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: >90% Recharge potential: No Data	Vulnerability: Medium Aquifer type: Principal Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	1
------------------------	----------

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
2	Significant soluble rocks are likely to be present. Low possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow.	71.0%

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

5.5 Groundwater vulnerability- local information

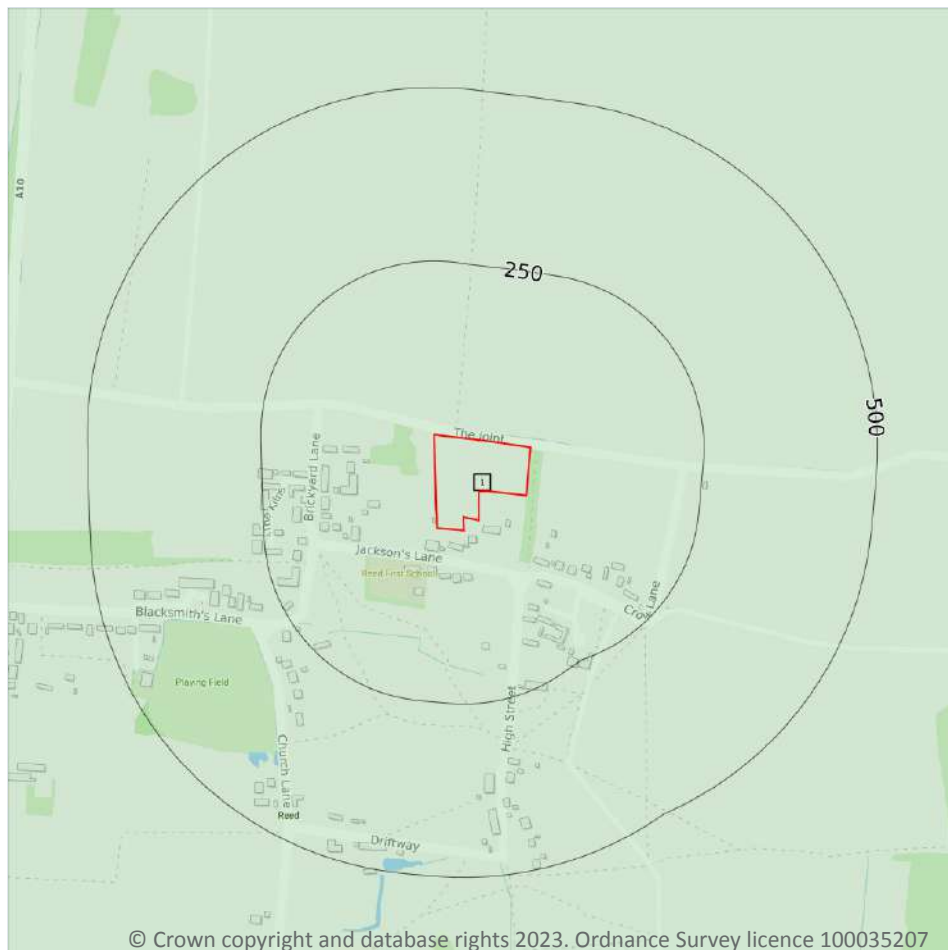
Records on site	0
------------------------	----------

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
Point features
- 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

0

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.

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

0

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.

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

5.9 Source Protection Zones

Records within 500m

1

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on [page 35 >](#)

ID	Location	Type	Description
1	On site	3	Total catchment

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m

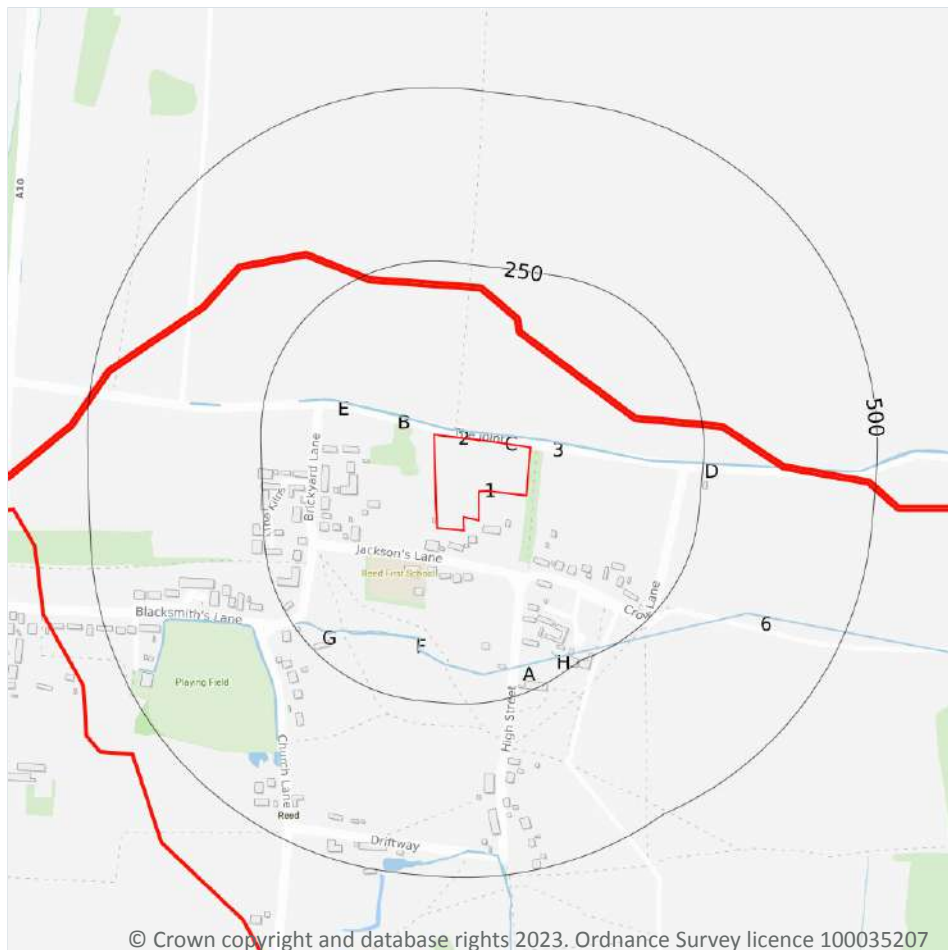
0

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

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



6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

16

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

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

ID	Location	Type of water feature	Ground level	Permanence	Name
2	10m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
B	10m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	10m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
3	24m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
D	35m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	147m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	152m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	160m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	166m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	172m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	208m S	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
H	214m SE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	217m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
H	227m SE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
G	228m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
6	229m SE	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

9

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.

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

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 37 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Quin	GB106038040120	Lee Upper	Lee Upper

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 37 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	3639m SE	River	Quin	GB106038040120 ↗	Poor	Fail	Poor	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.

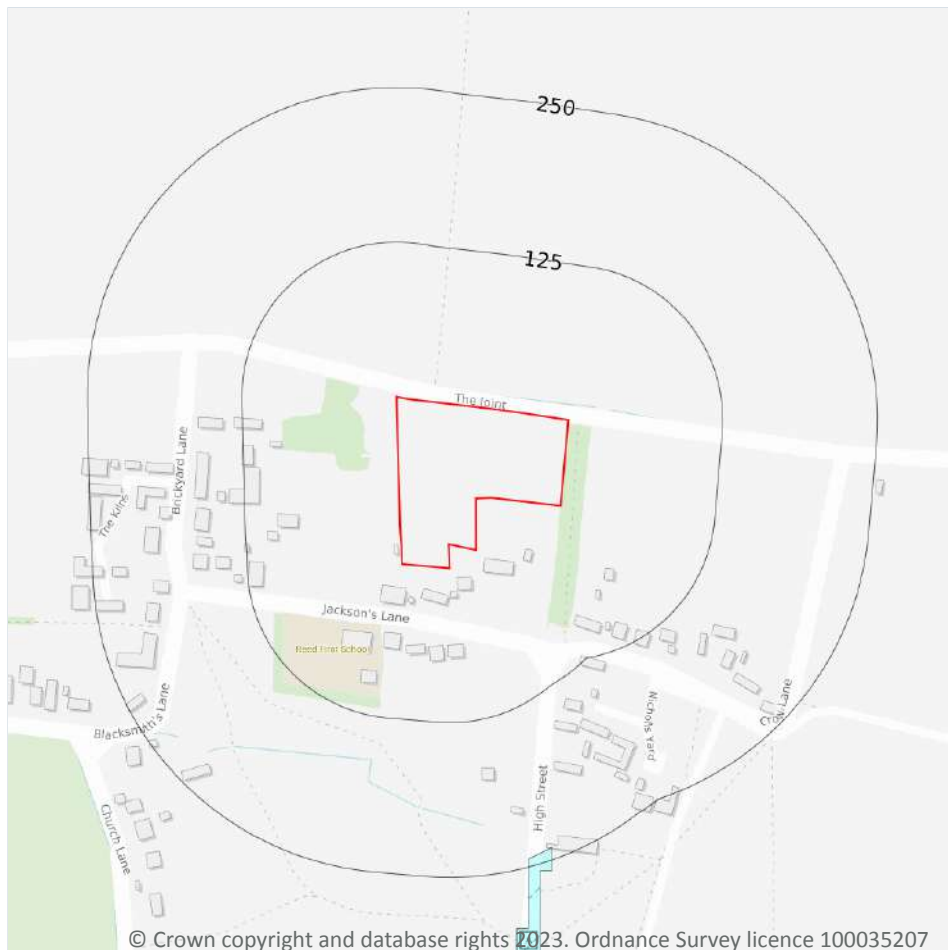
Features are displayed on the Hydrology map on [page 37 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	On site	Cam and Ely Ouse Chalk	GB40501G400500 ↗	Poor	Poor	Poor	2019

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



7 River and coastal flooding



- Site Outline
- Search buffers in metres (m)
- River and coastal flooding:
- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

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

1

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.

Features are displayed on the River and coastal flooding map on [page 41](#) >

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
A	241m S	06marchspring1947	1947-01-01 1947-12-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial

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

7.3 Flood Defences

Records within 250m

0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

0

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

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



8 Surface water flooding

8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

Negligible

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.

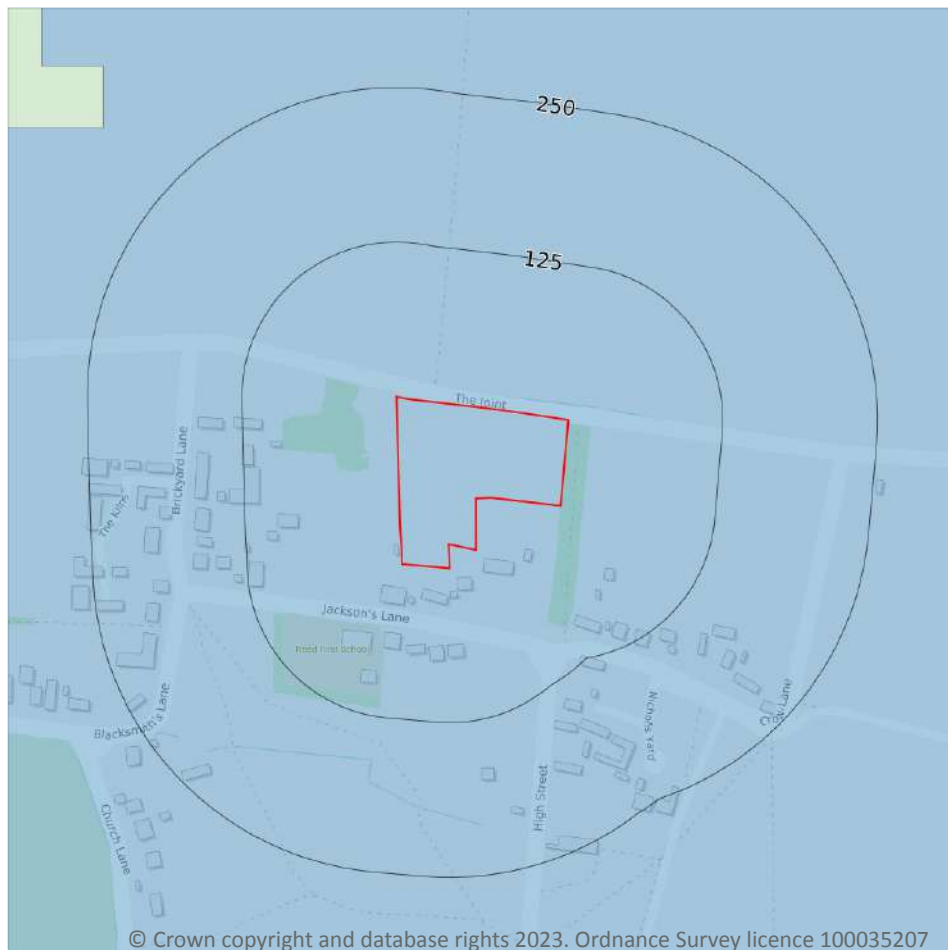
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the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

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

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

Negligible

Highest risk within 50m

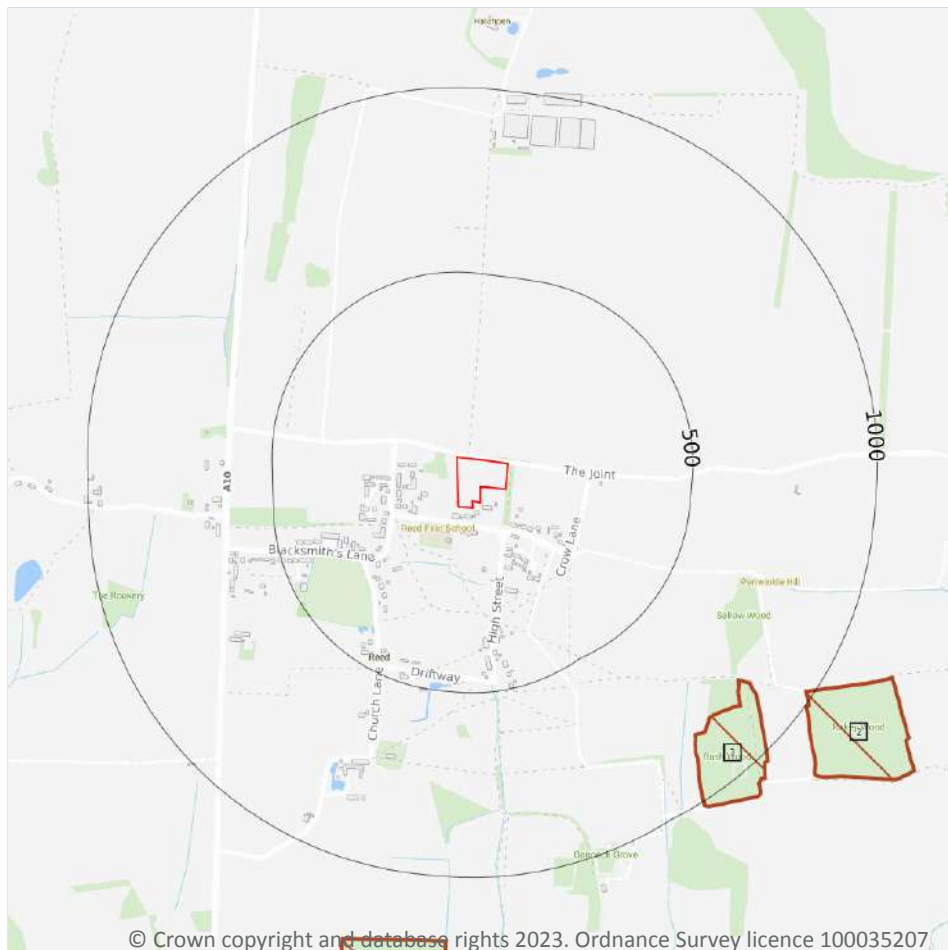
Negligible

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 45 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Designated Ancient Woodland

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**0**

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

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

10.7 Designated Ancient Woodland

Records within 2000m**3**

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 46 >](#)

ID	Location	Name	Woodland Type
1	814m SE	Bush Wood	Ancient & Semi-Natural Woodland
2	980m SE	Rokey Wood	Ancient & Semi-Natural Woodland
3	1175m S	Reed/hilly Woods.	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

0

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

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

10.12 Proposed Ramsar sites

Records within 2000m

0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

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

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



10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

5

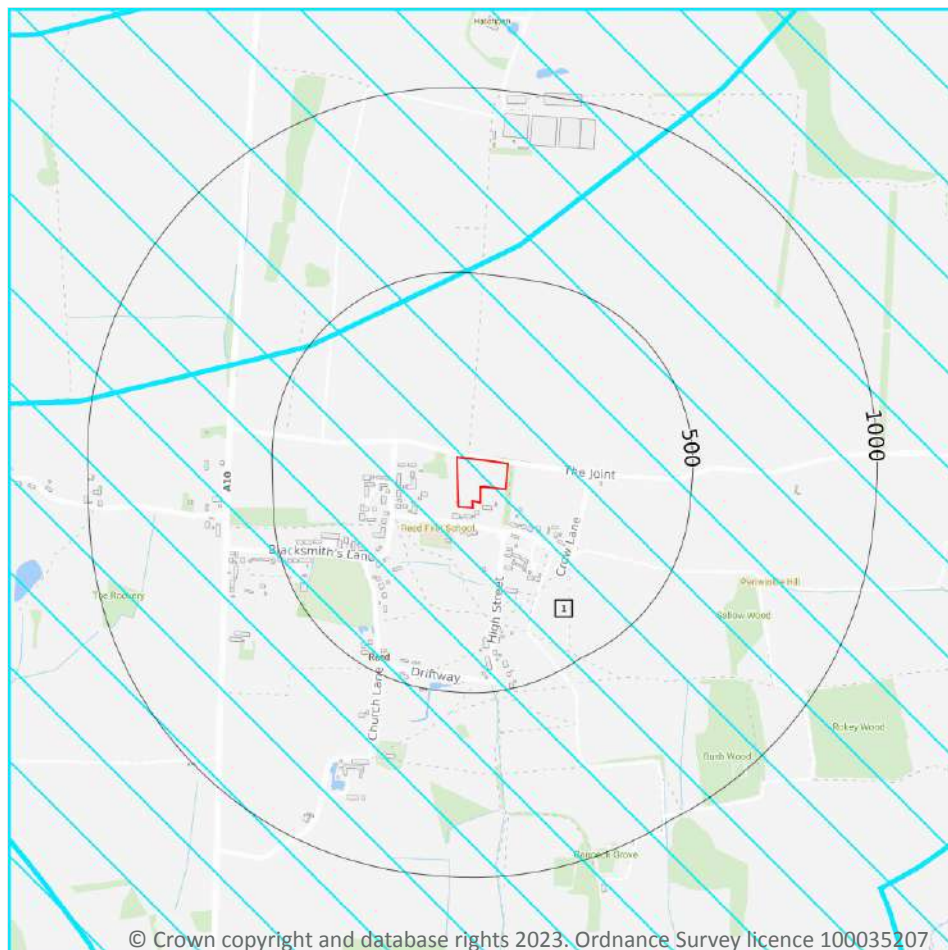
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	LEE NVZ	Surface Water	443	Existing
On site	Anglian Chalk	Groundwater	71	Existing
8m N	Ely Ouse and Cut-off channel NVZ	Surface Water	390	Existing
437m S	LEE NVZ	Surface Water	443	Existing
437m S	Anglian Chalk	Groundwater	71	Existing

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



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

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

Features are displayed on the SSSI Impact Zones and Units map on [page 51](#) >

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Residential - Residential development of 100 units or more. Rural residential - Any residential development of 100 or more houses outside existing settlements/urban areas. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Notes: New housing developments should assess and mitigate recreational pressure impacts to Therfield Heath SSSI with reference to the Therfield Heath Mitigation Strategy. For further advice contact LPA or Natural England's Discretionary Advice Service.

This data is sourced from Natural England.

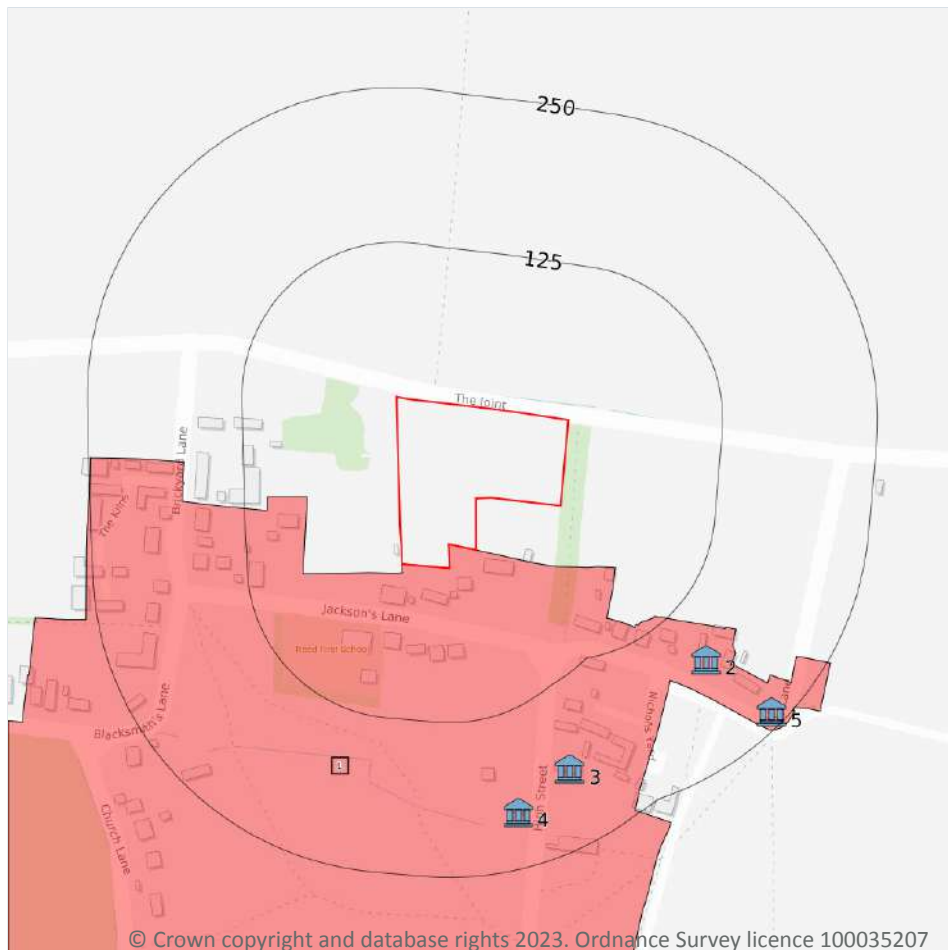
10.18 SSSI Units

Records within 2000m	0
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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**4**

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 53 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
2	171m SE	North Farm House	II	1175734	03/06/1987
3	189m S	Wisbridge Farm House	II	1175755	03/06/1987
4	205m S	Cosykot	II	1347398	03/06/1987
5	238m SE	Crabtree Cottage	II	1102560	03/06/1987

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



11.5 Conservation Areas

Records within 250m

1

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.

Features are displayed on the Visual and cultural designations map on [page 53](#) >

ID	Location	Name	District	Date of designation
1	On site	Reed	North Hertfordshire	11/06/1974

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

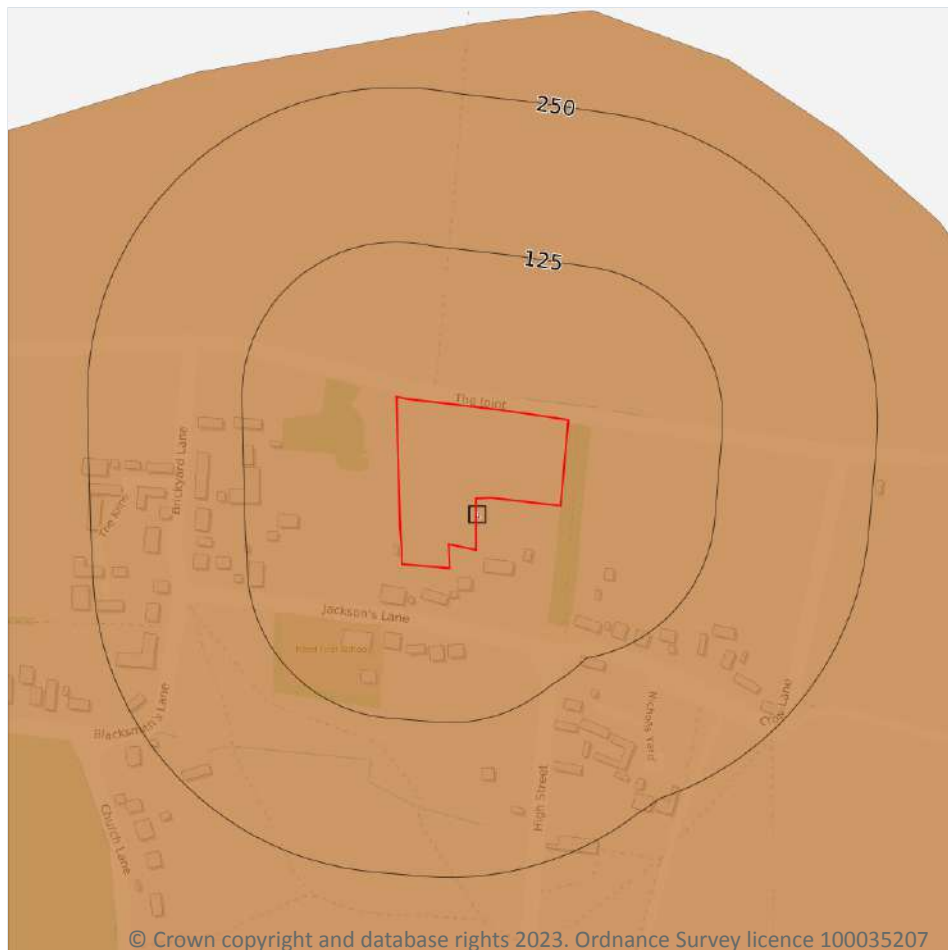
Records within 250m

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

1

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

Features are displayed on the Agricultural designations map on [page 56](#) >

ID	Location	Classification	Description
1	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

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

2

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.

Location	Reference	Scheme	Start Date	End date
206m SE	AG00492192	Entry Level plus Higher Level Stewardship	01/12/2013	30/11/2023
216m SE	AG00492192	Entry Level plus Higher Level Stewardship	01/12/2013	30/11/2023

This data is sourced from Natural England.



12.5 Countryside Stewardship Schemes

Records within 250m**2**

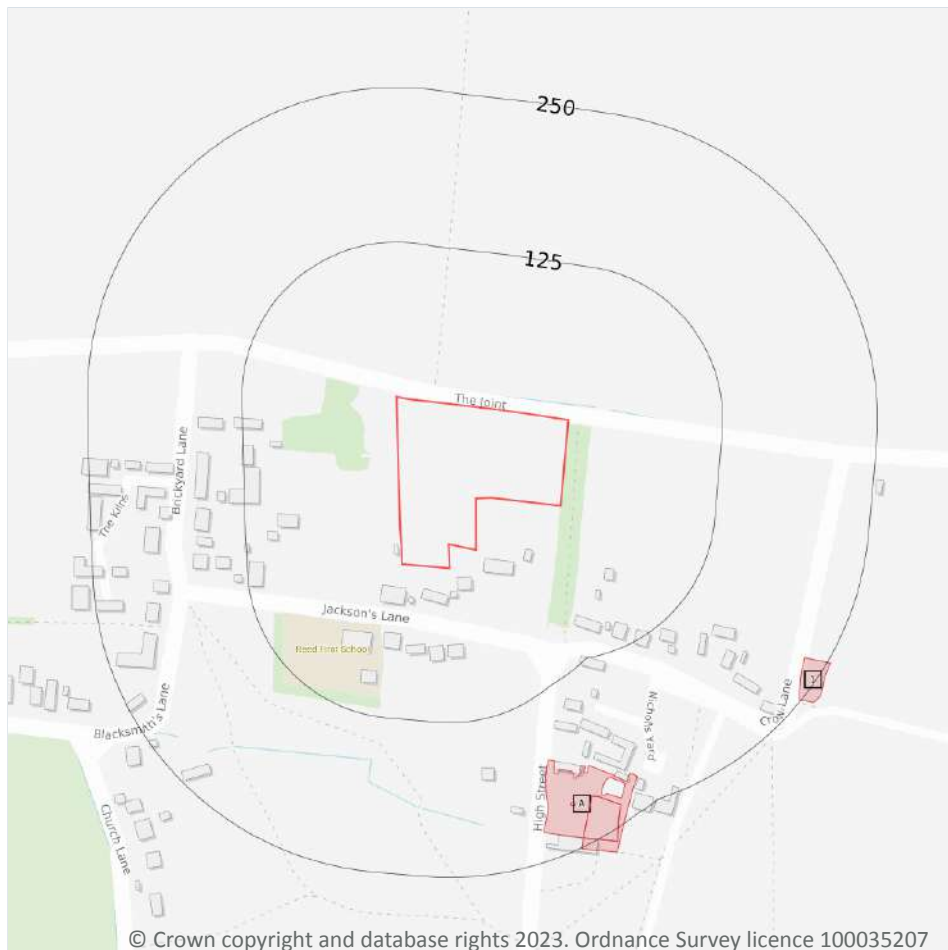
Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
8m N	1053300	Countryside Stewardship (Middle Tier)	01/01/2021	31/12/2025
172m W	1053300	Countryside Stewardship (Middle Tier)	01/01/2021	31/12/2025

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

3

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 59](#) >

ID	Location	Main Habitat	Other habitats
A	174m S	No main habitat but additional habitats present	Additional: TORCH (INV 50%)
A	217m S	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
1	233m SE	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset

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

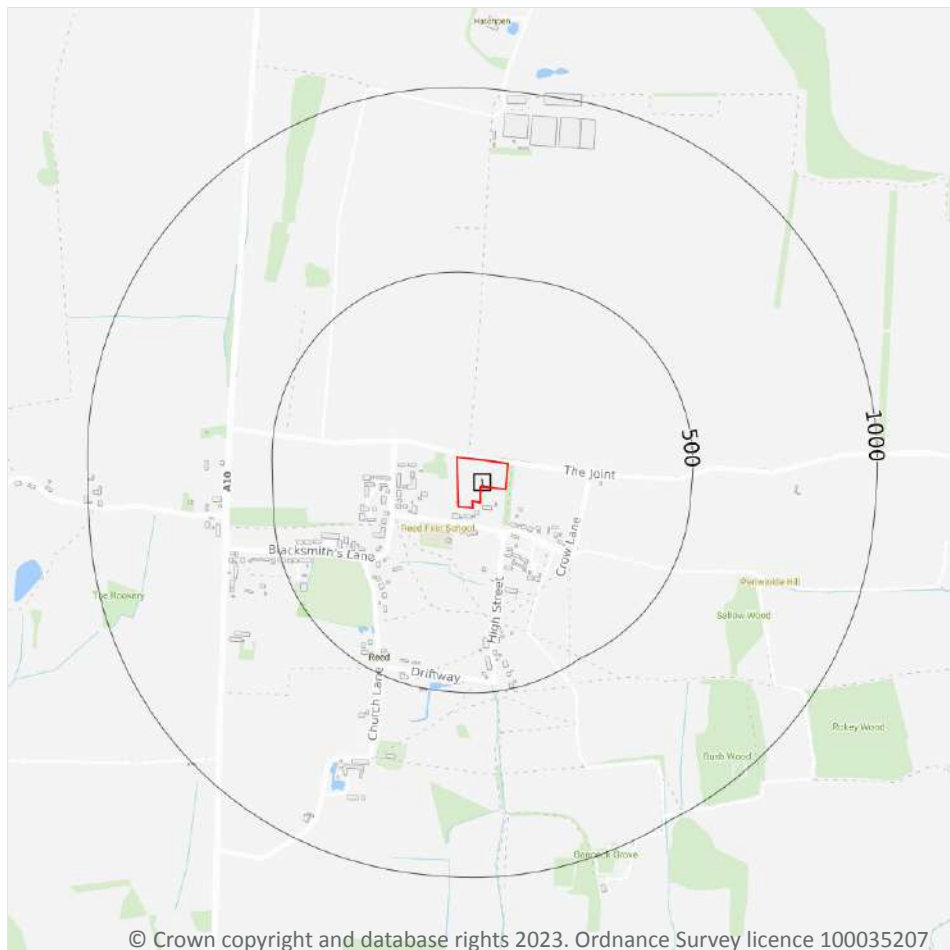
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Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



- Site Outline**
- Search buffers in metres (m)
- Full coverage
 - Partial coverage
 - No coverage

14.1 10k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 61](#) >

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

This data is sourced from the British Geological Survey.



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

14.2 Artificial and made ground (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

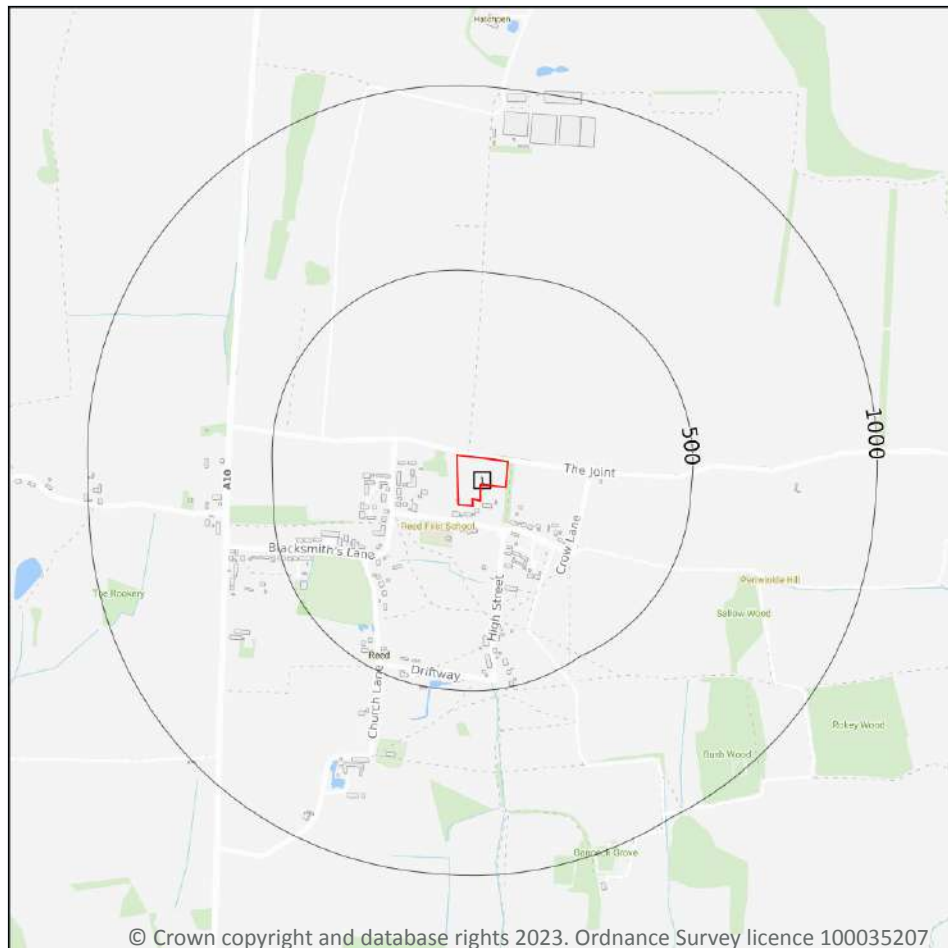
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Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

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 65](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW221_hitchin_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.

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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 67](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON

This data is sourced from the British Geological Survey.



15.5 Superficial permeability (50k)

Records within 50m

1

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

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

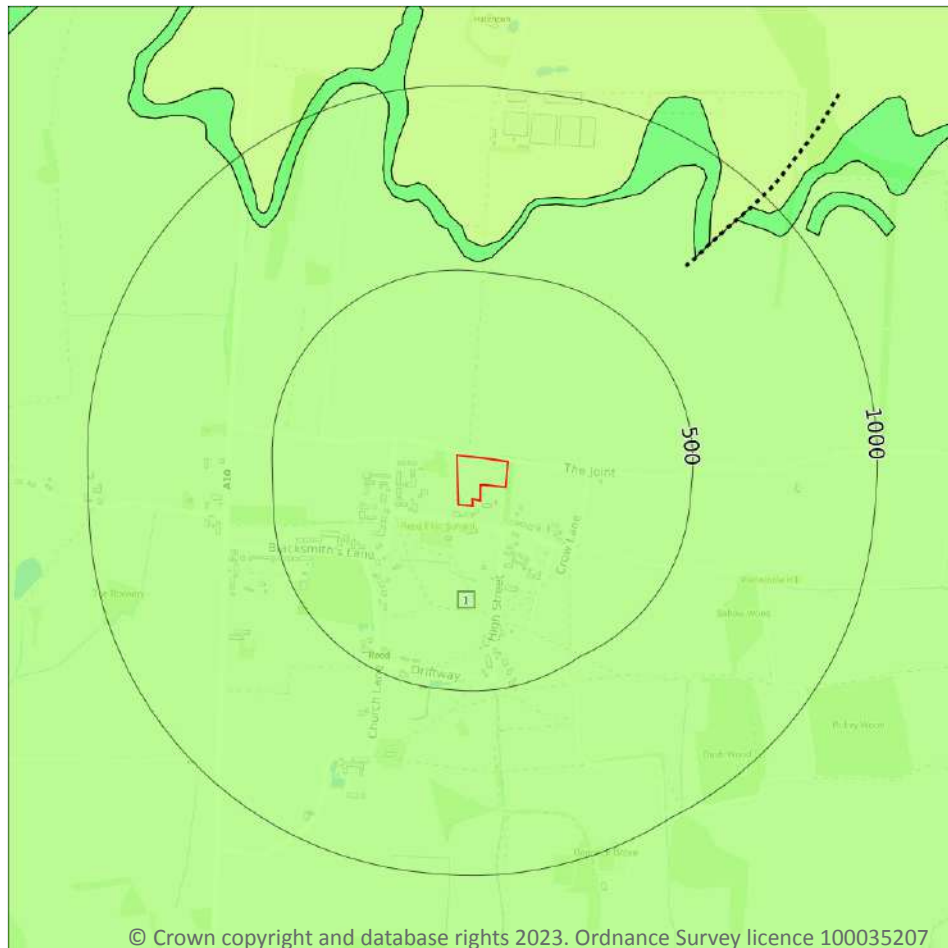
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

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 69](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	LESE-CHLK	LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION (UNDIFFERENTIATED) - CHALK	TURONIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m

1

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

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

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



16 Boreholes

16.1 BGS Boreholes

Records within 250m

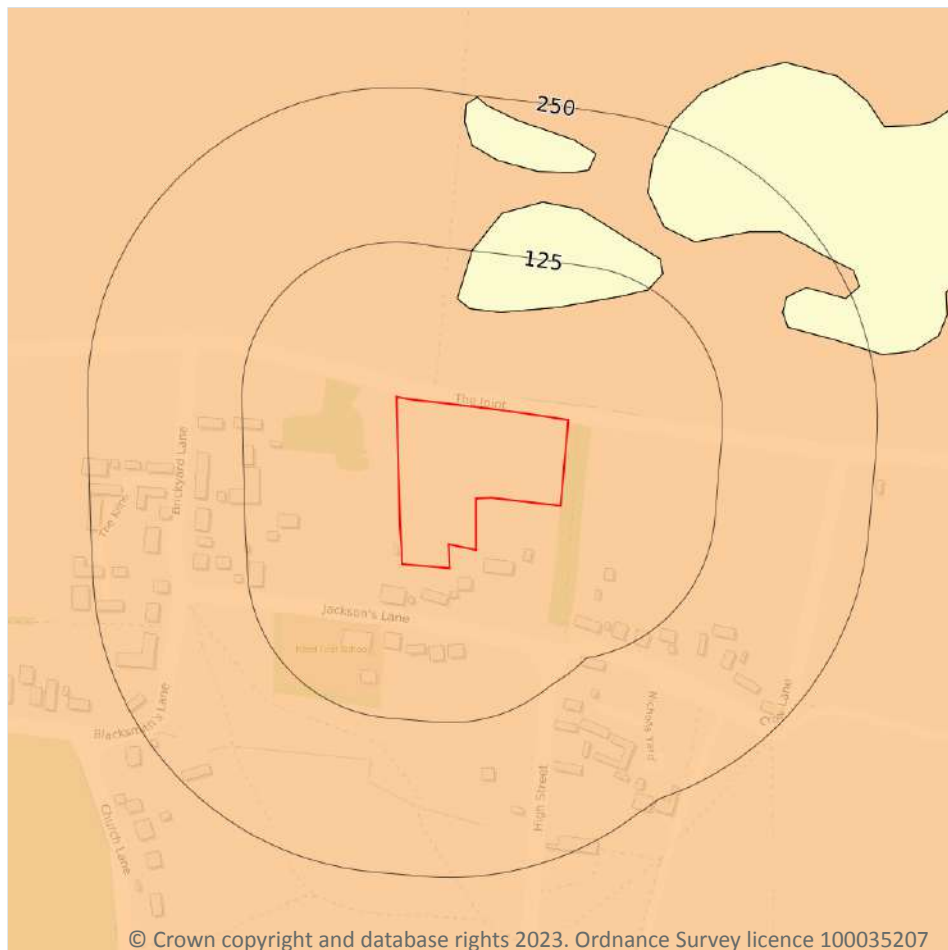
0

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

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.1 Shrink swell clays

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 72 >](#)

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.

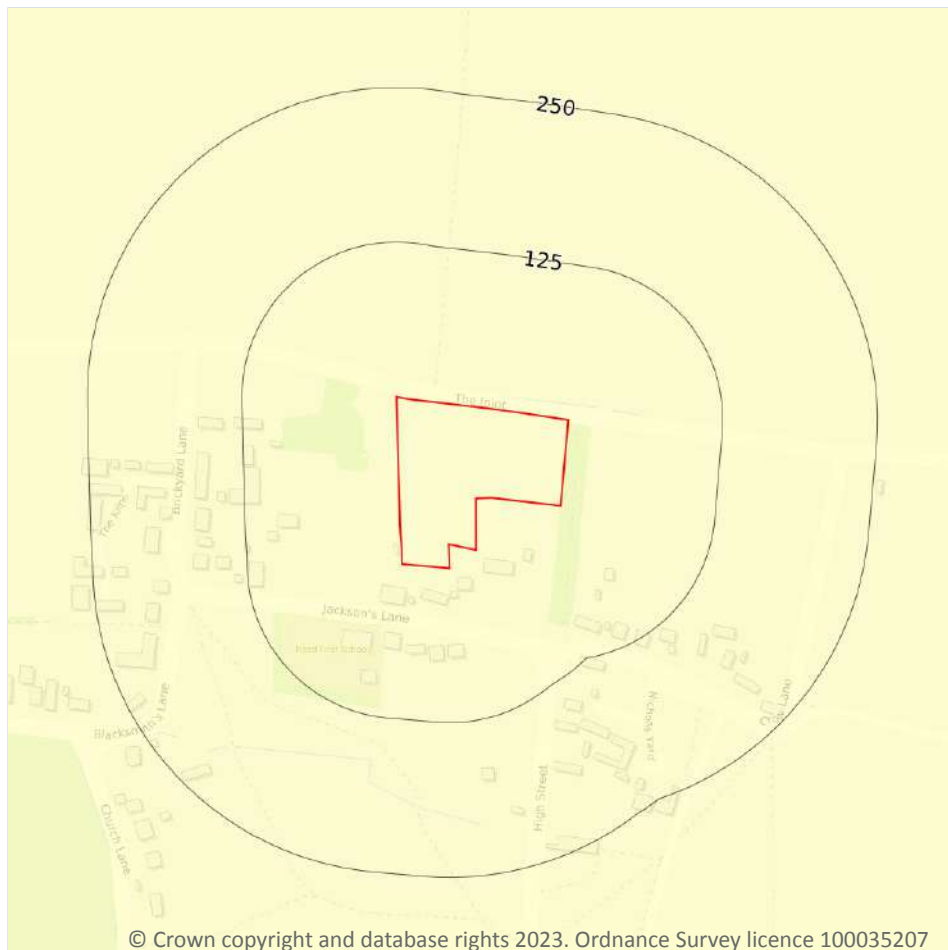
Features are displayed on the Natural ground subsidence - Running sands map on [page 73 >](#)

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.

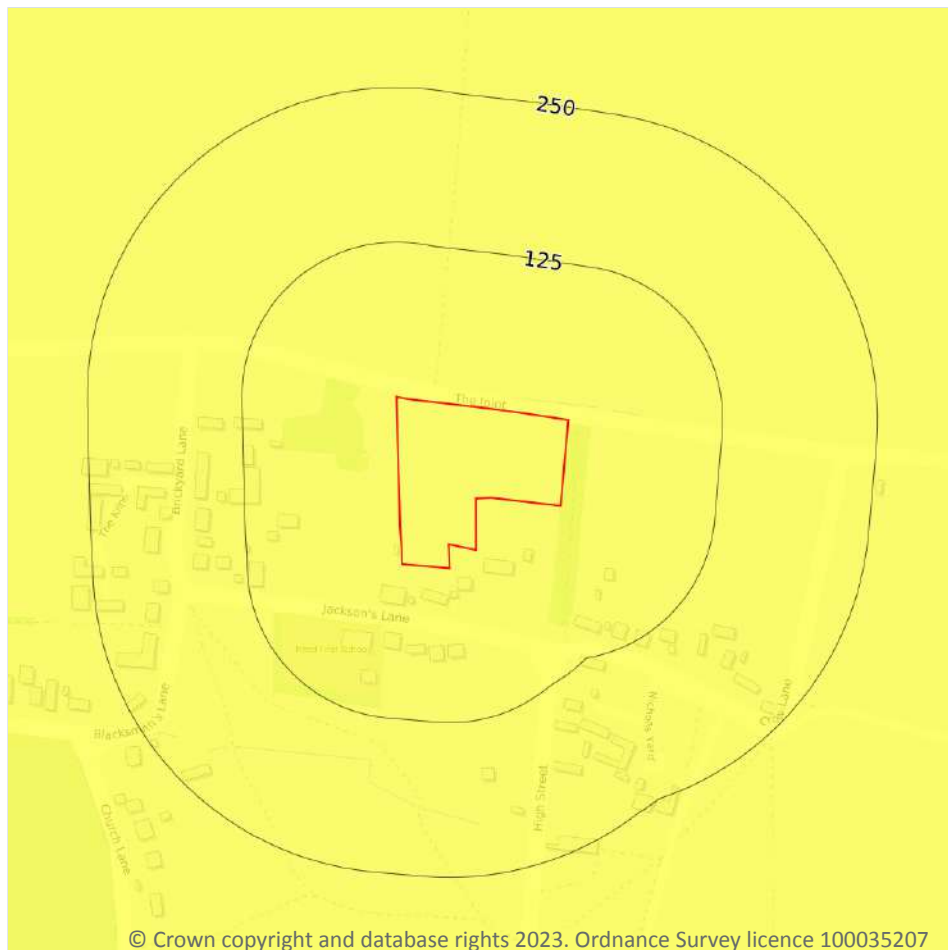
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 74 >](#)

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.

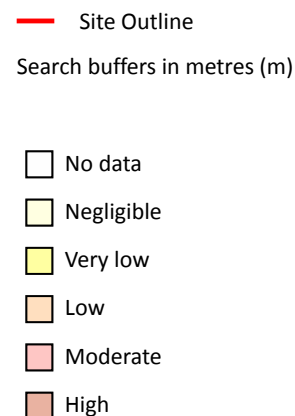
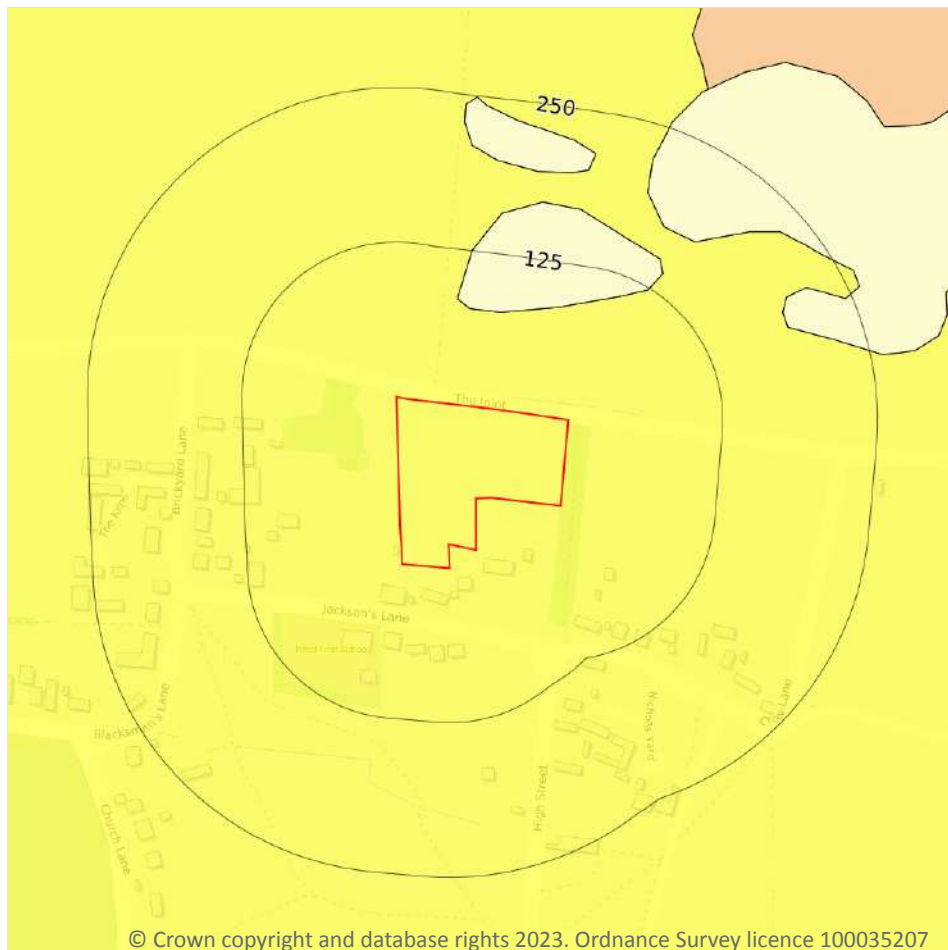
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 75 >](#)

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



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17.5 Landslides

Records within 50m

1

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

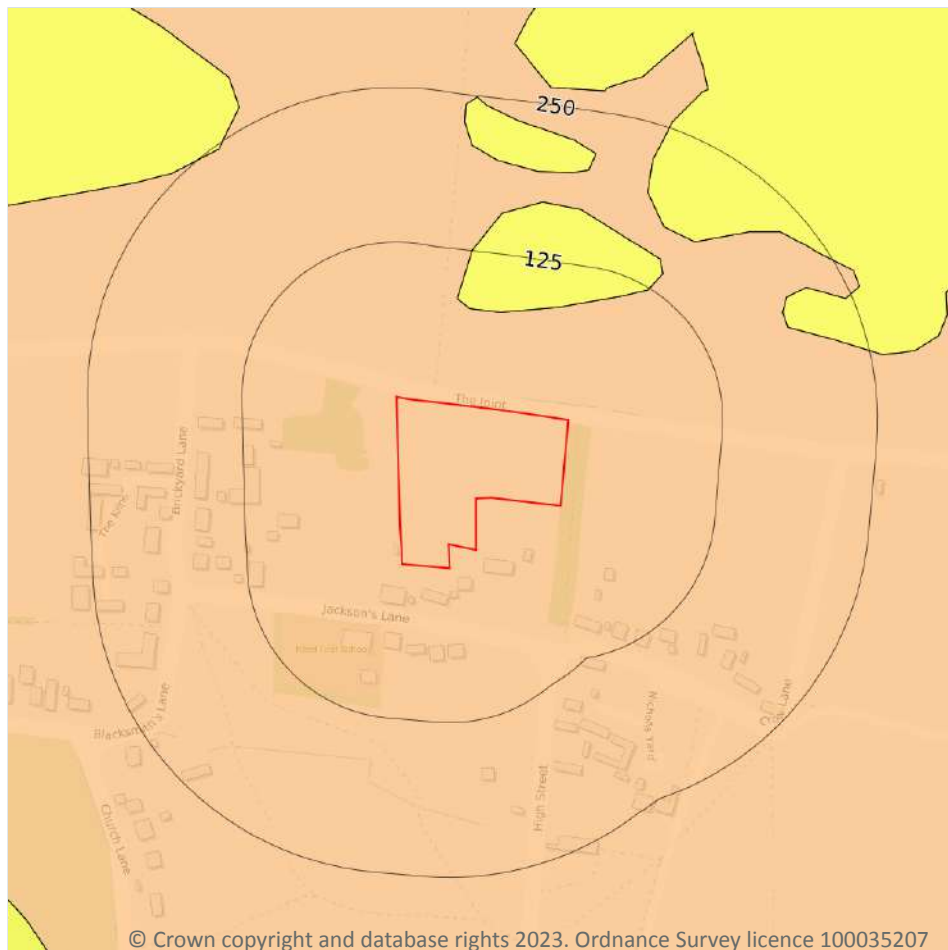
Features are displayed on the Natural ground subsidence - Landslides map on [page 76 >](#)

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 77](#)

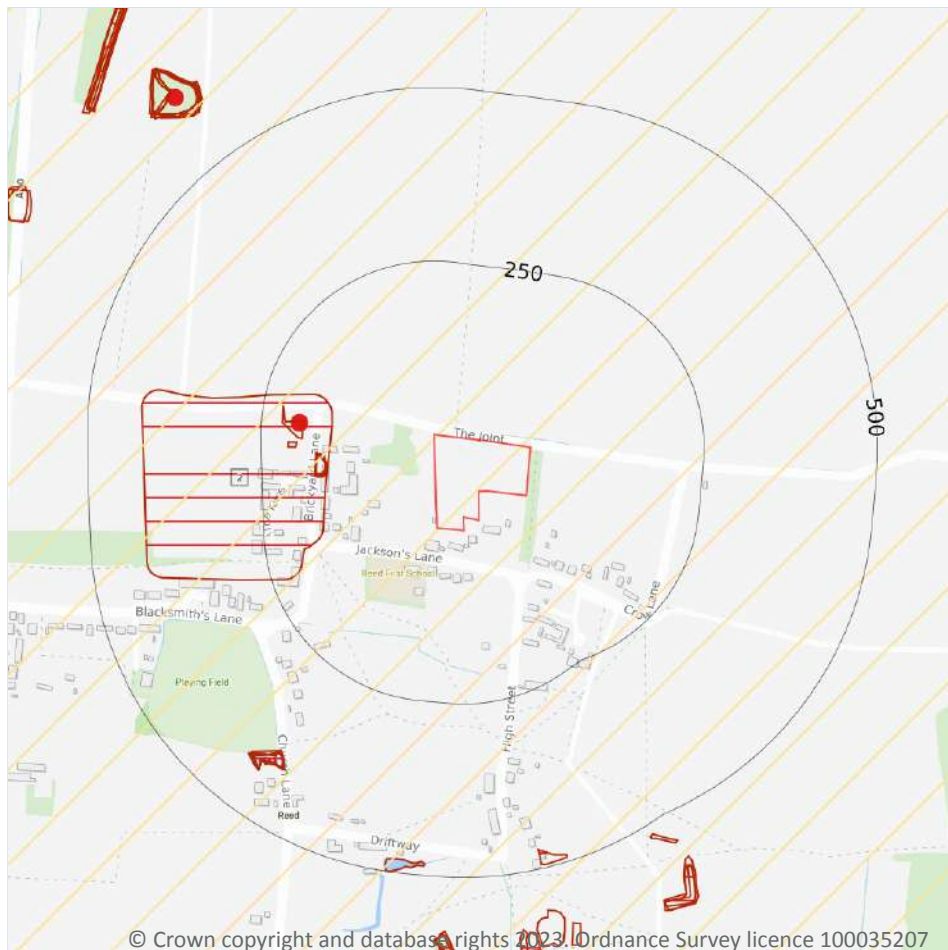
Location	Hazard rating	Details
On site	Low	Soluble rocks are present within the ground. Some dissolution features may be present. Potential for difficult ground conditions are at a level where they may be considered, localised subsidence need not be considered except in exceptional circumstances.



This data is sourced from the British Geological Survey.



18 Mining and ground workings



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

18.1 BritPits

Records within 500m

1

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

Features are displayed on the Mining and ground workings map on [page 79](#) >

ID	Location	Details	Description
A	194m W	Name: Reed Brick Field Address: Reed, ROYSTON, Hertfordshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

7

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 79 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
2	148m W	Brick Works	1899	1:10560
A	156m W	Unspecified Pit	1899	1:10560
A	156m W	Unspecified Pit	1924	1:10560
A	156m W	Unspecified Pit	1876	1:10560
A	158m W	Unspecified Pit	1960	1:10560
A	190m W	Unspecified Pit	1878	1:10560
A	198m W	Brick Field Kilns	1878	1:10560

This 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 data is sourced from Ordnance Survey/Groundsure.



18.4 Underground mining extents

Records within 500m

0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

1

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

Features are displayed on the Mining and ground workings map on [page 79](#) >

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

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.



18.8 The Coal Authority non-coal mining

Records within 500m**0**

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m**0**

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

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m**0**

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m**0**

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

This data is sourced from Groundsure.



18.12 Coal mining

Records on site	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.

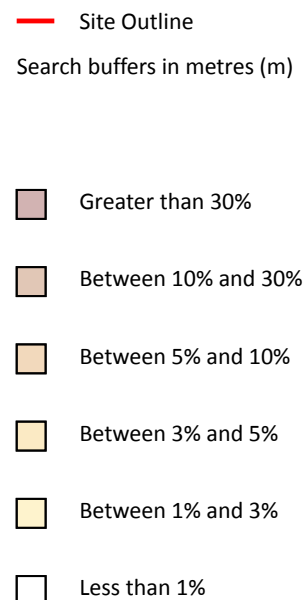
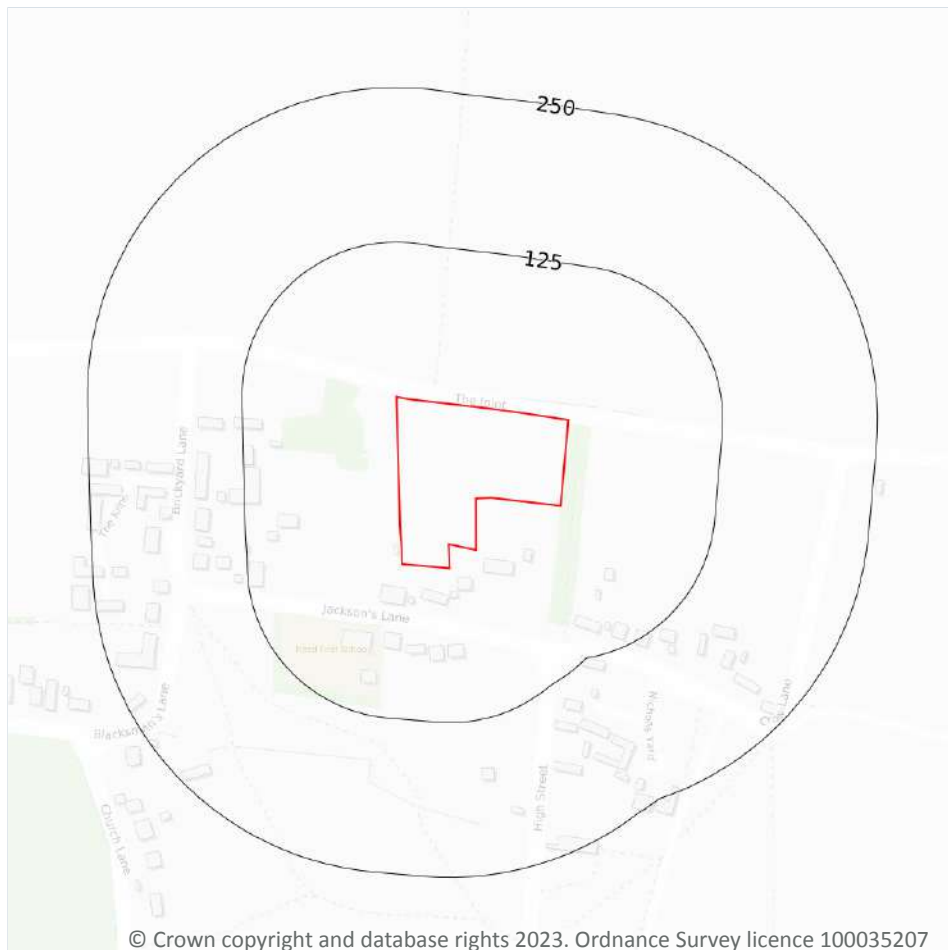
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over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



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 86](#) >

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

3

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 km². 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 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
49m E	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

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 km².

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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Site Details:

REED HOUSE, JACKSONS LANE,
REED, SG8 8AB

Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: County Series

Map date: 1877

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1877
Revised 1877
Edition N/A
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Levelled N/A



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Production date: 06 December 2023

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

REED HOUSE, JACKSONS LANE,
REED, SG8 8AB

Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: County Series

Map date: 1898

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1898
Revised 1898
Edition N/A
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Production date: 06 December 2023

Map legend available at:
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REED, SG8 8AB

Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: County Series

Map date: 1921

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1921
Revised 1921
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Copyright N/A
Levelled N/A

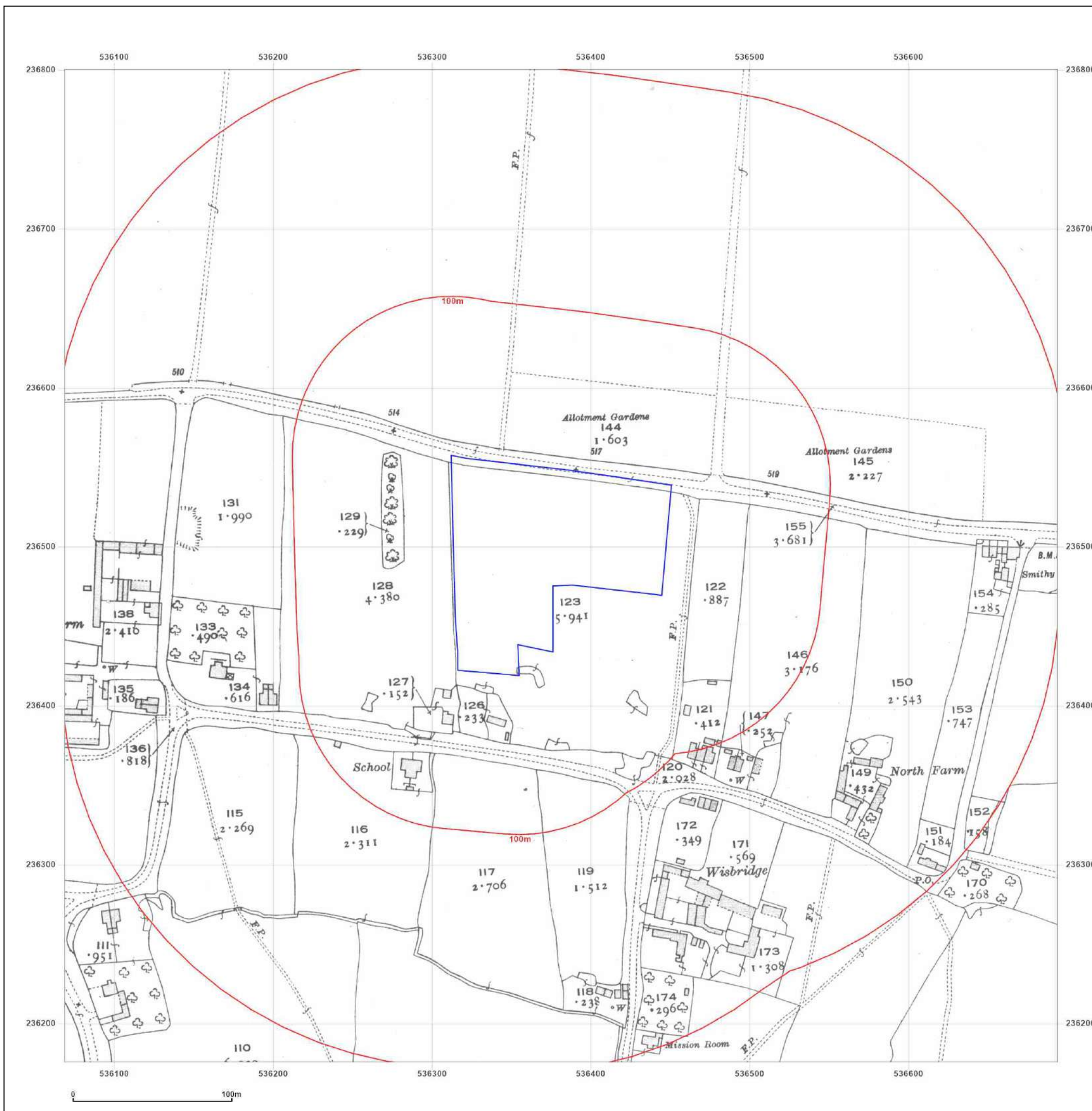


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Site Details:

REED HOUSE, JACKSONS LANE,
REED, SG8 8AB

Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: National Grid

Map date: 1974

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1974
Revised 1974
Edition N/A
Copyright 1975
Levelled 1968



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Site Details:

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REED, SG8 8AB

Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: National Grid

Map date: 1993

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1993
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A



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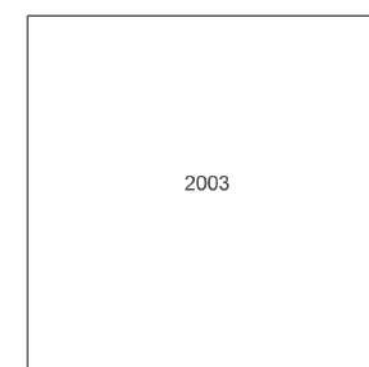
Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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Site Details:

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Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: County Series

Map date: 1896-1899

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1877
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1878
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

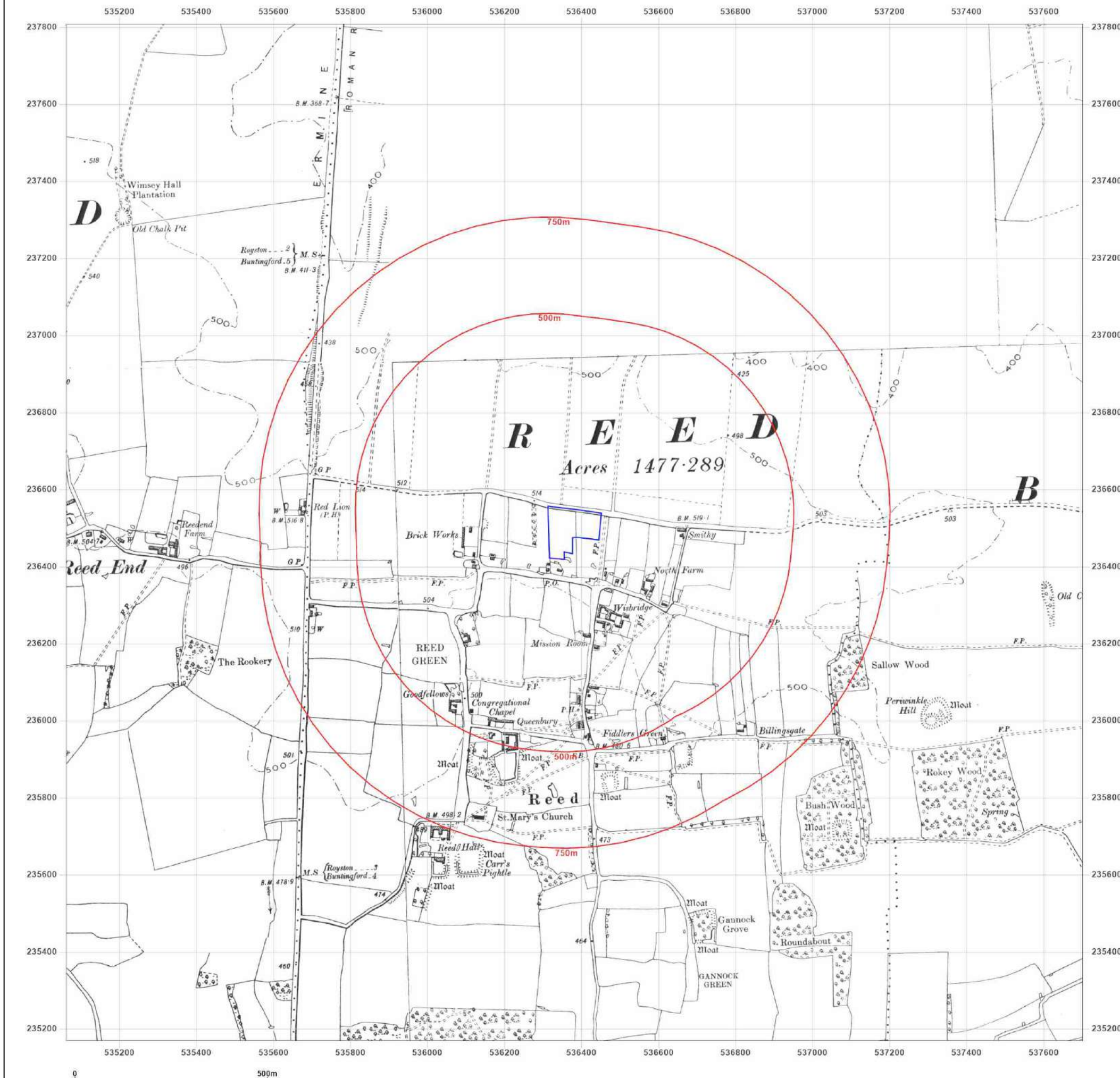


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Site Details:

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REED, SG8 8AB

Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: County Series

Map date: 1899-1901

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1877
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

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

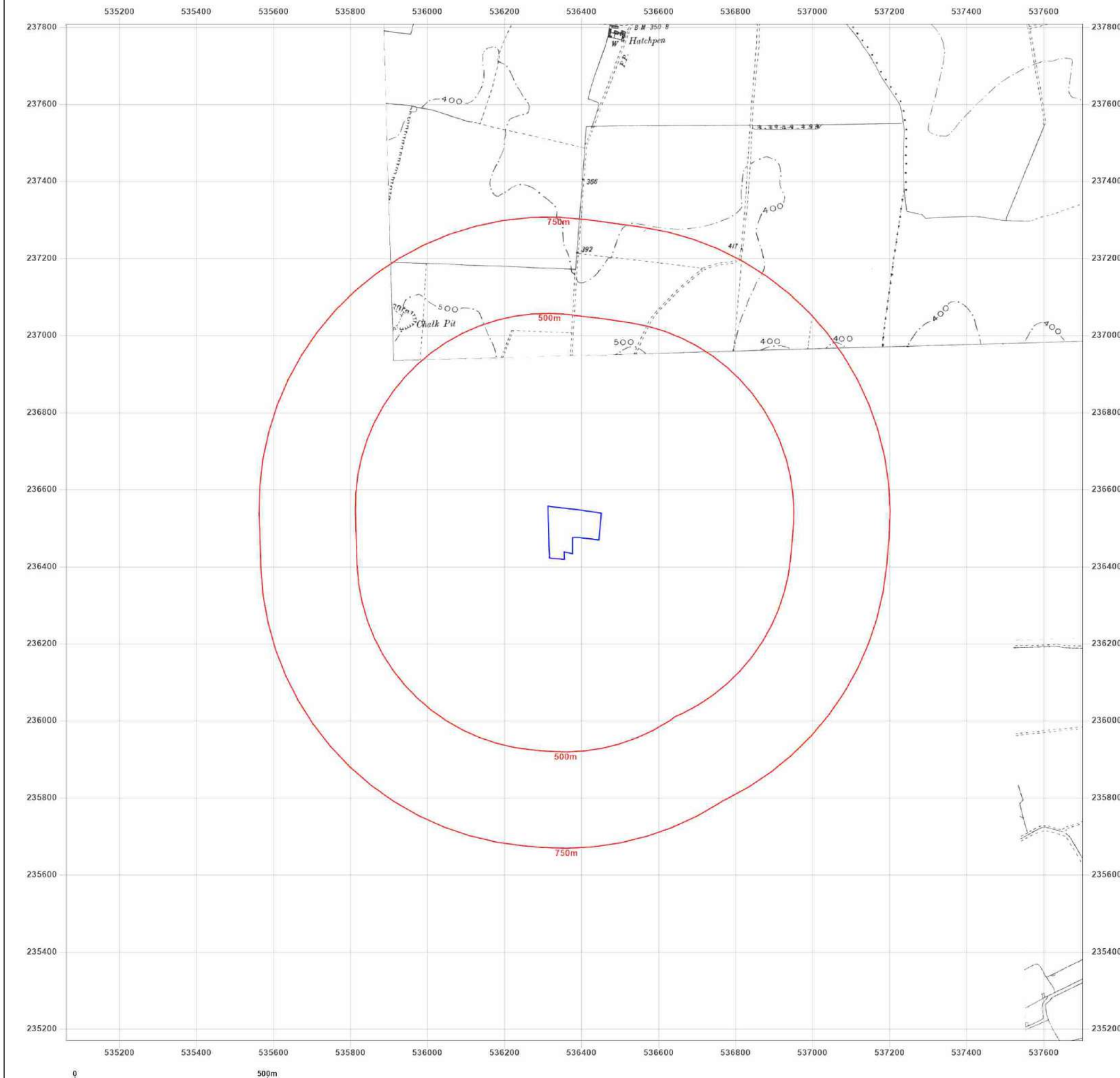


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Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: County Series

Map date: 1919-1922

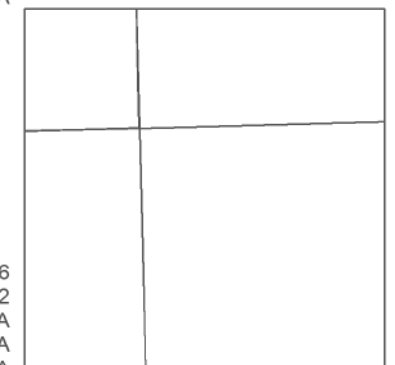
Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1876
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1876
Revised 1919
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1876
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

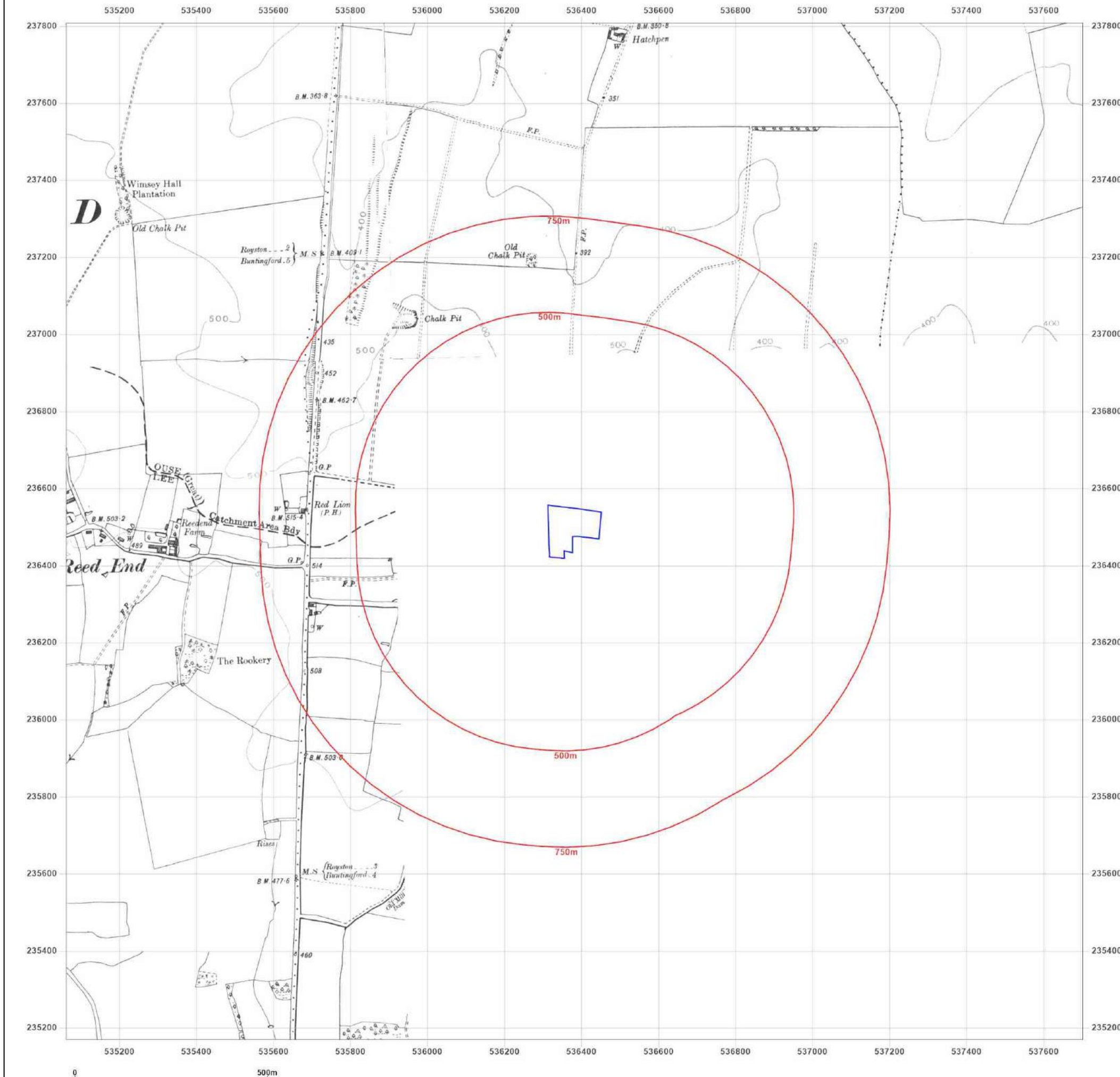


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Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: County Series

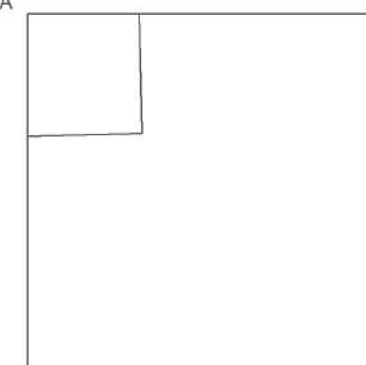
Map date: 1922

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1876
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

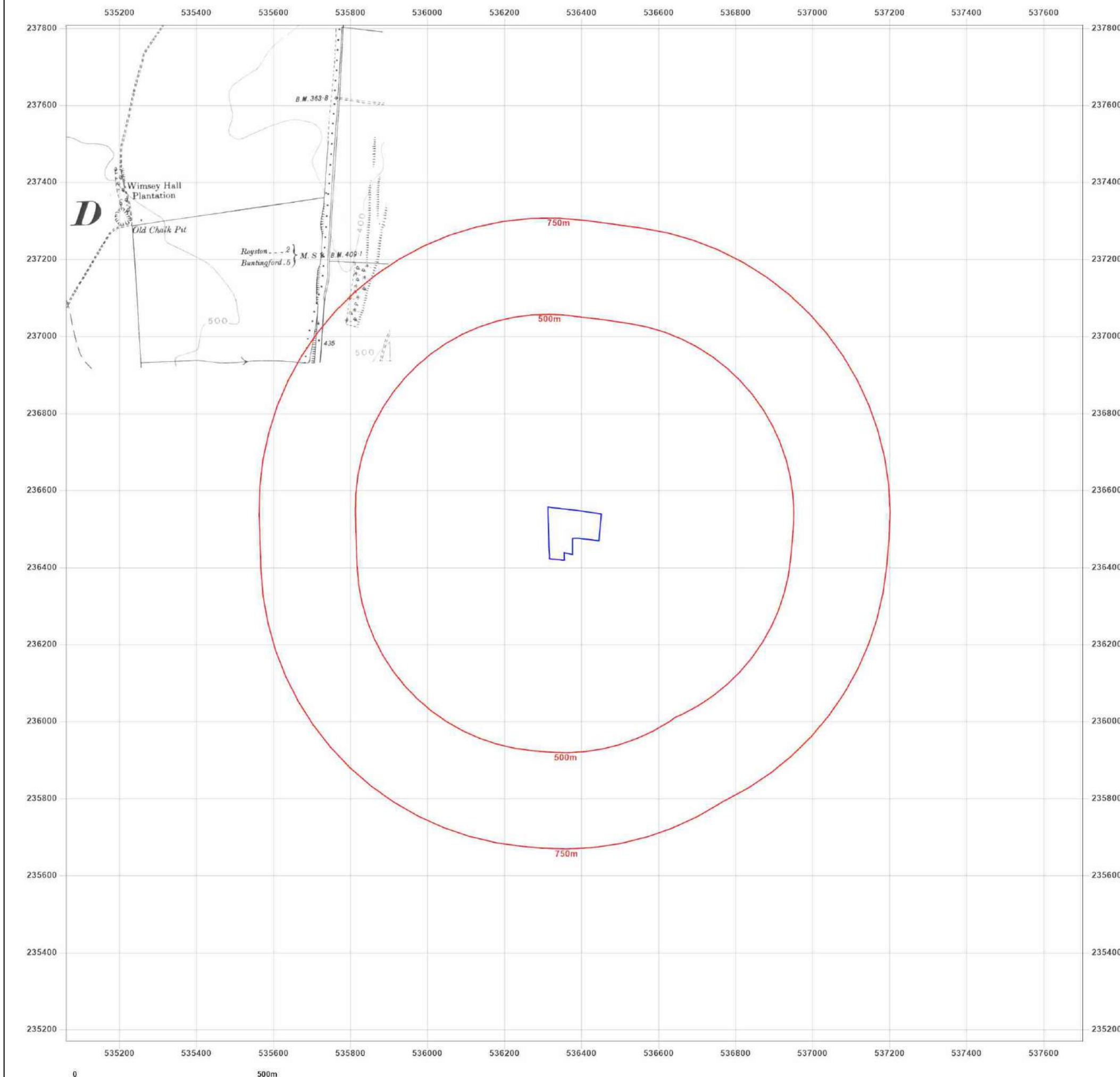


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Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: County Series

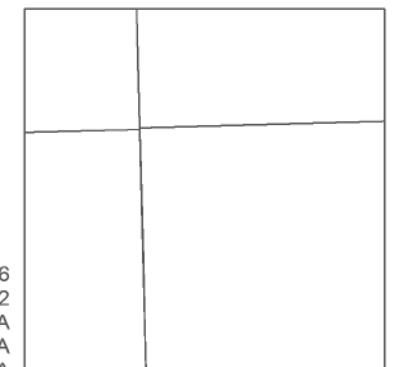
Map date: 1919-1924

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1876
Revised 1919
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1876
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1876
Revised 1924
Edition N/A
Copyright N/A
Levelled N/A

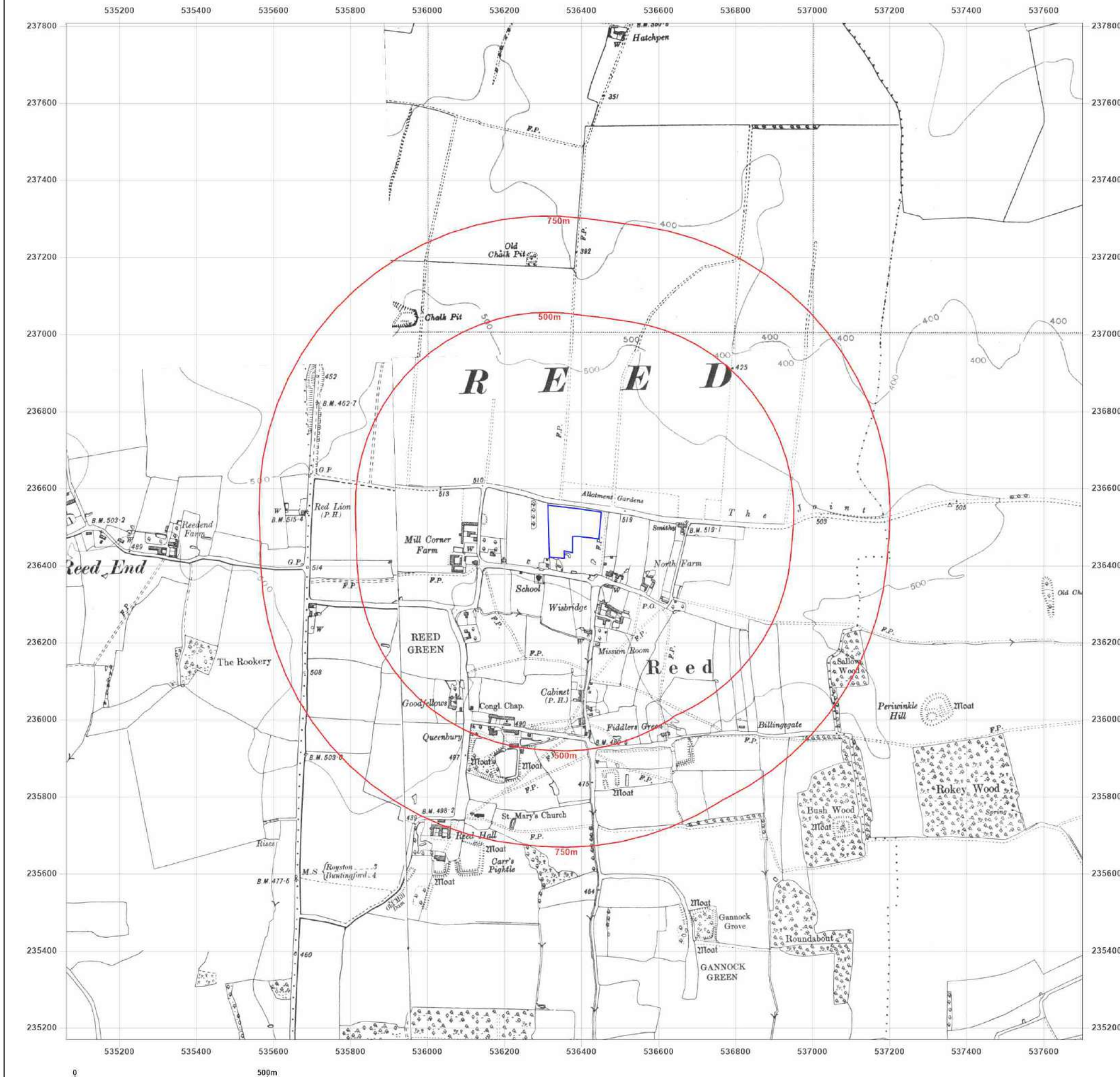


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Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: County Series

Map date: 1947-1948

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1876
Revised 1947
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1885
Revised 1948
Edition N/A
Copyright N/A
Levelled 1927

Surveyed 1876
Revised 1947
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

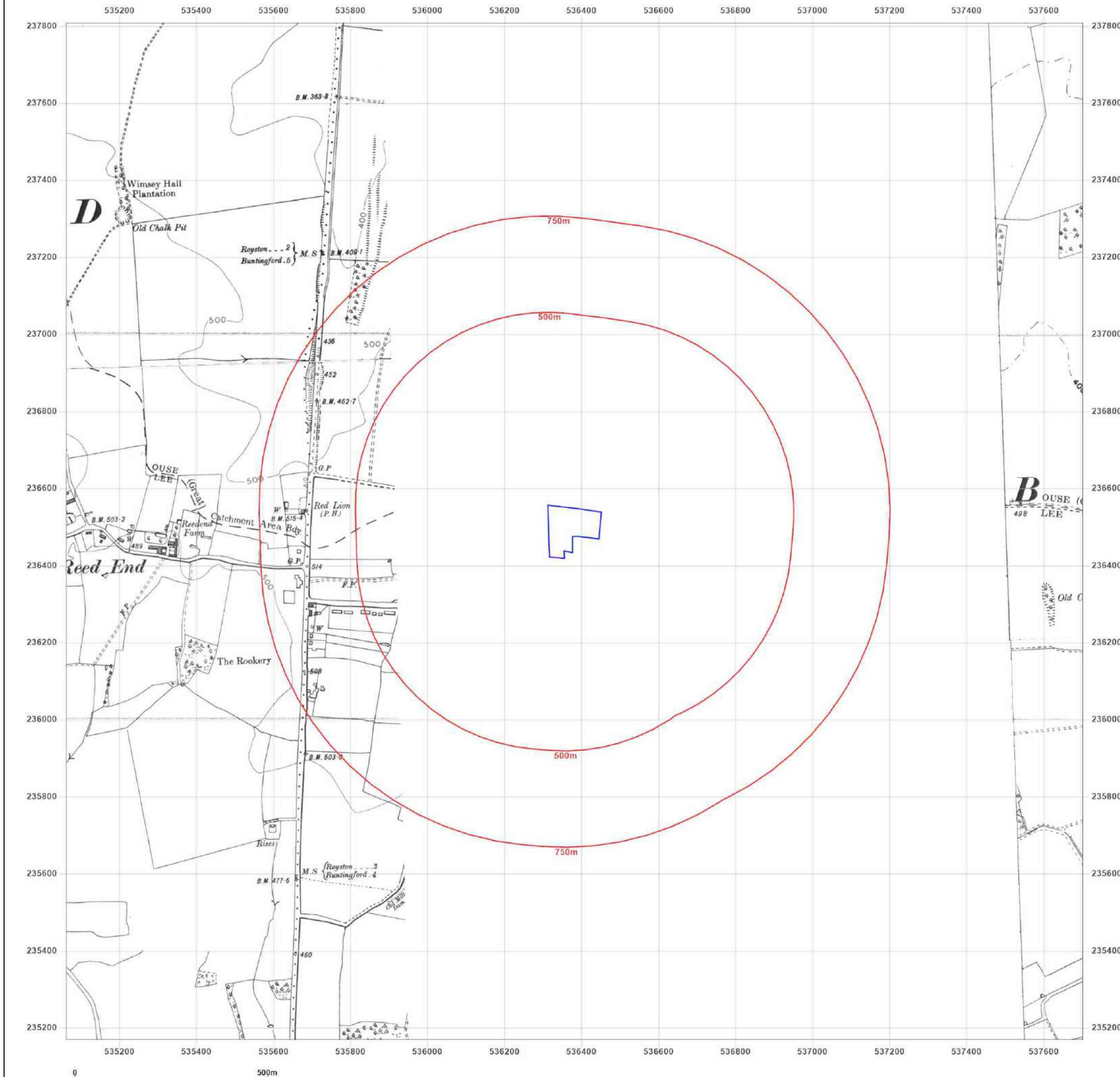


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REED, SG8 8AB

Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: County Series

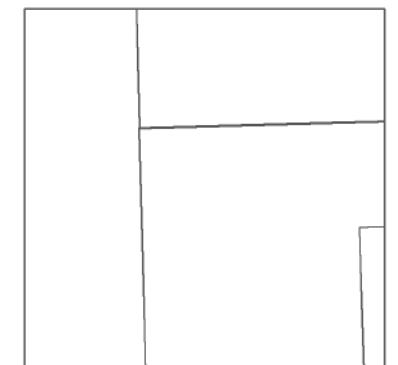
Map date: 1948-1950

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1876
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1877
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

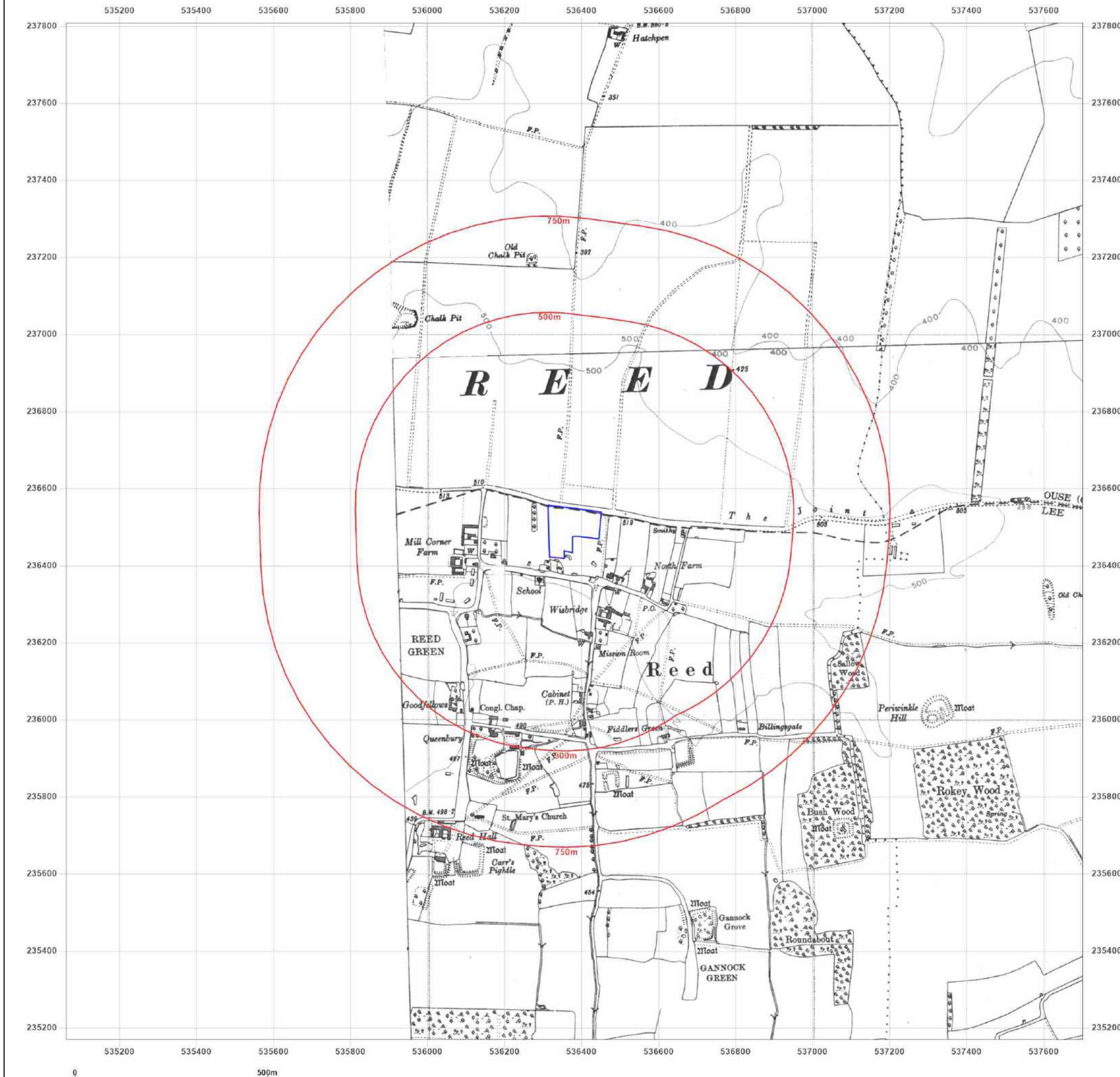


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Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: Provisional

Map date: 1960

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1952
Revised 1952
Edition N/A
Copyright 1960
Levelled N/A

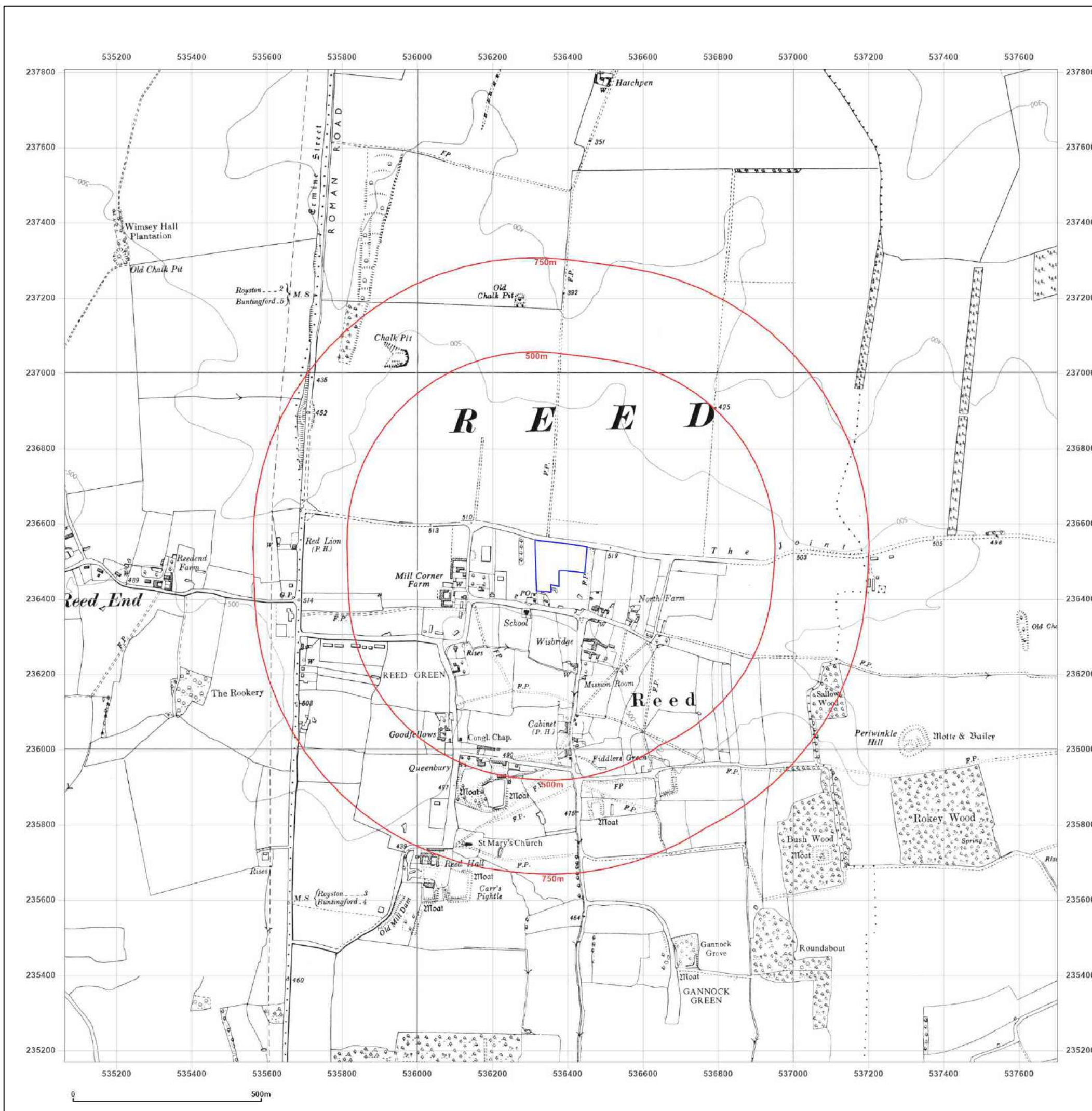


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Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: National Grid

Map date: 1982

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1975
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A

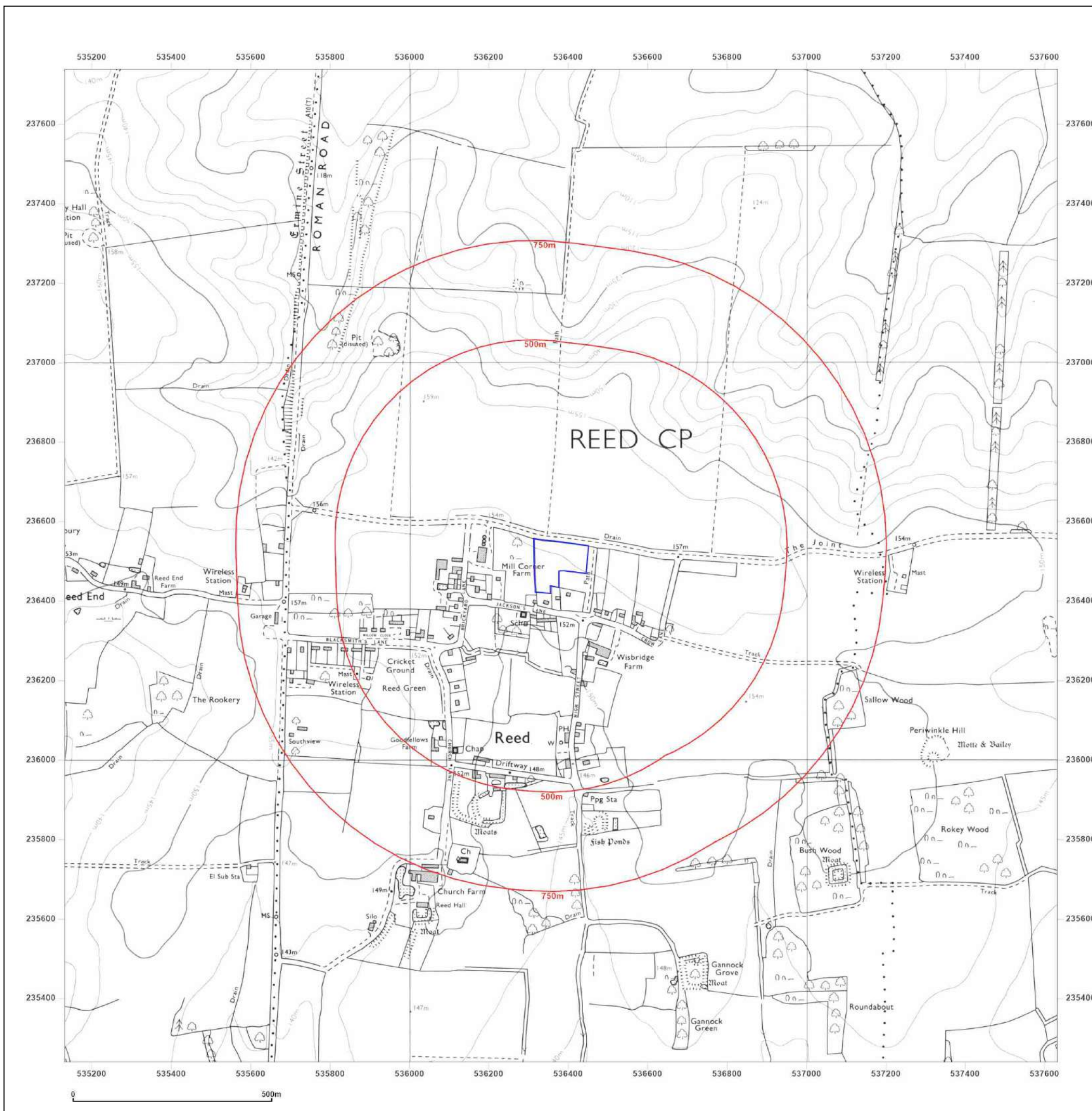


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Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



2001

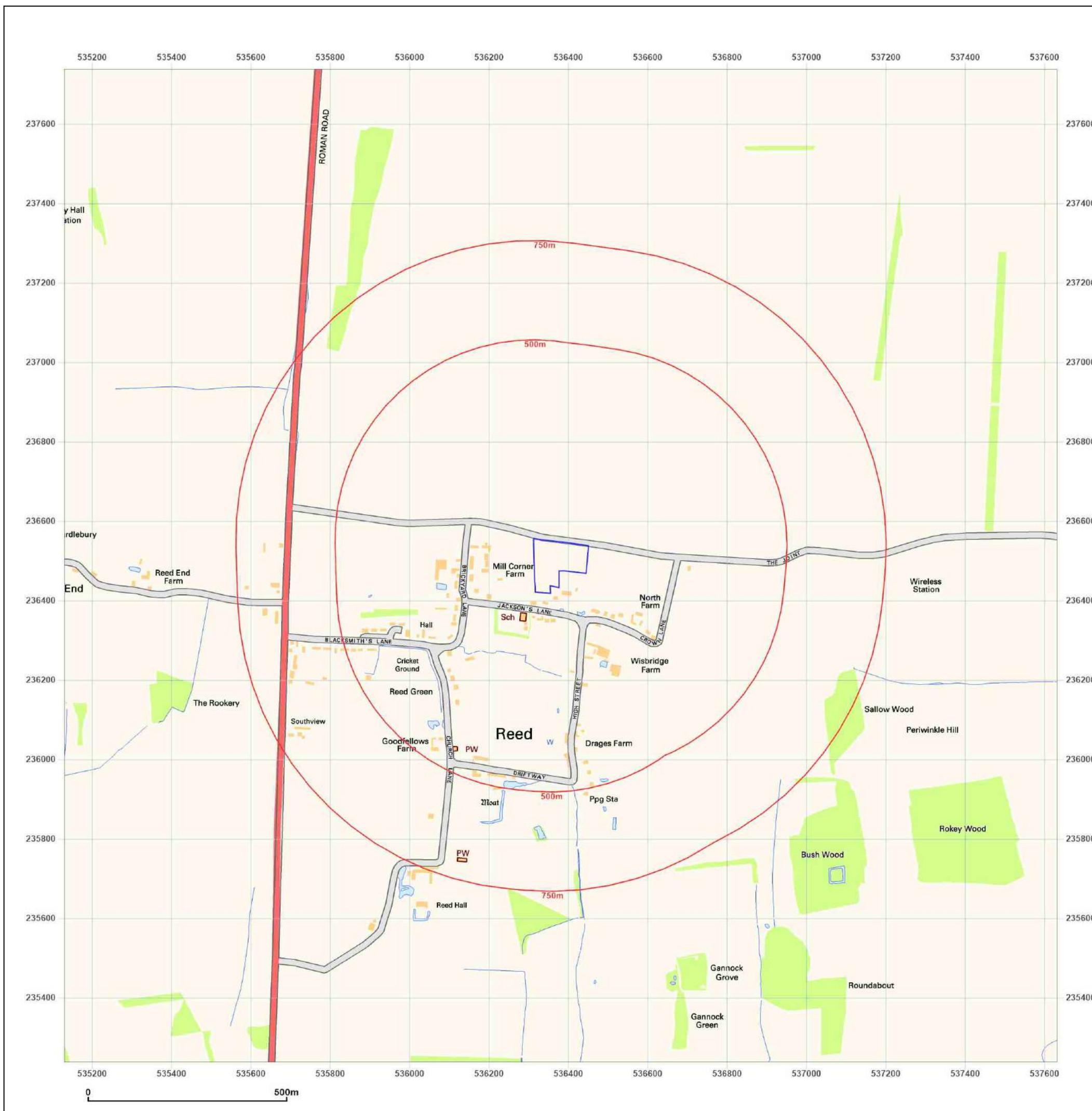


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Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010

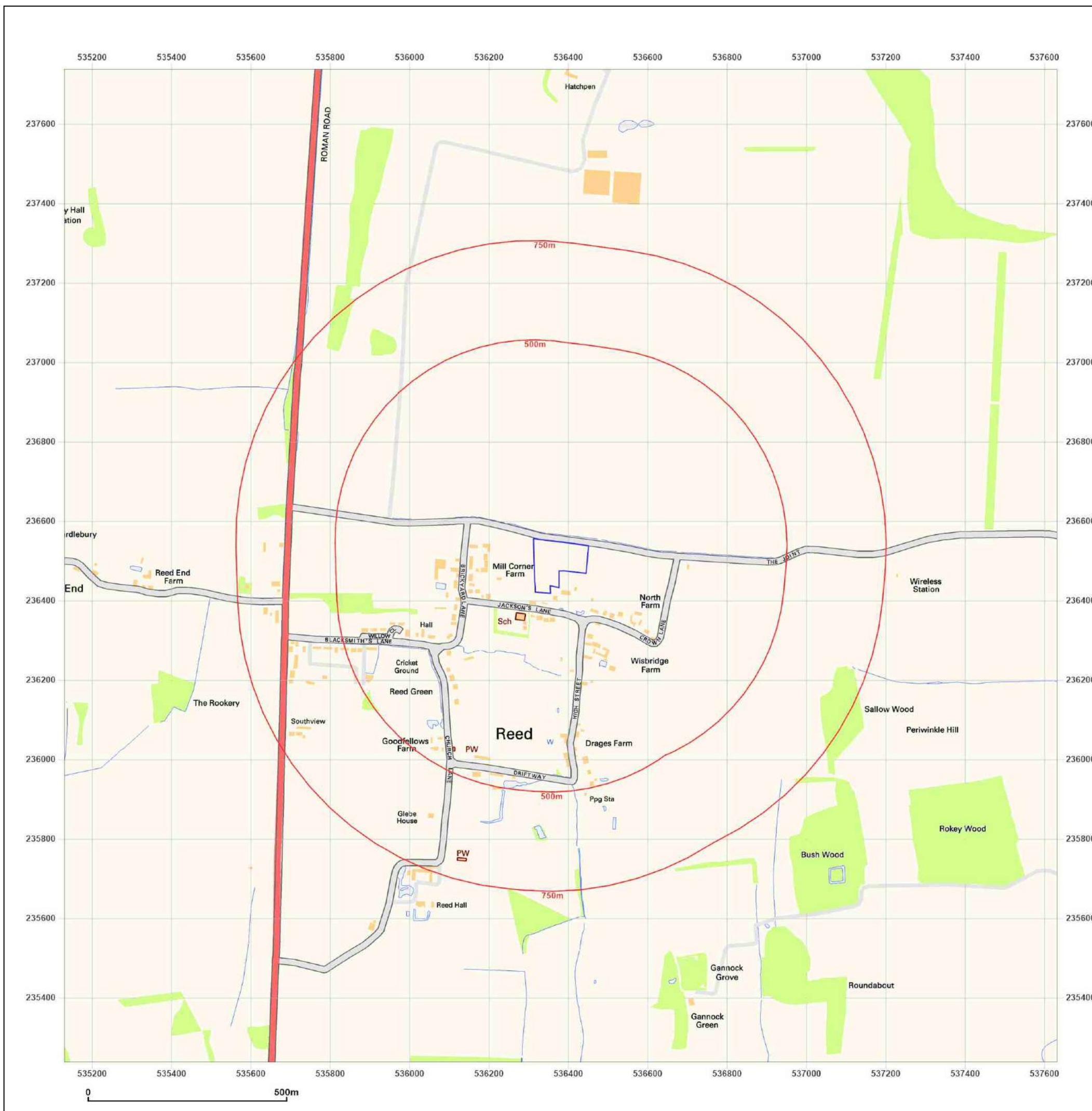


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Client Ref: IE23-105
Report Ref: GS-KJL-B9Y-DX9-AGZ
Grid Ref: 536381, 236488

Map Name: National Grid

Map date: 2023

Scale: 1:10,000

Printed at: 1:10,000



2023



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