Ground Condition Consultants

CONEX HOUSE, 148 FIELD END ROAD, HILLINGDON, HA5 1RJ

GROUND CONDITION DESK TOP STUDY

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Prepared for
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Desk Top Study	
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Contents

List of Tables

List of Figures and Appendices

0. EXECUTIVE SUMMARY

Brief	The brief was to use the information provided in an Environmental Database Search relating to the site to assess and report on the findings with respect to potential ground contamination and potential associated future liabilities in accordance with the Preliminary Risk Assessment procedure outlined in Land Contamination Risk Management (LCRM), published by the Environment Agency.
Current Site Status	The site is located to the west of Field End Road, Ruislip, Pinner HA5 1RJ, some 270m north of Eastcote Underground Station. The site presently comprises Conex House, an office building, set over three storeys with car parking to the frontage and small strip of land to the side (north) and rear (west) of the building. An electrical sub-station is located in the strip of land to the rear of the building. The curtilage surrounding the building was noted to comprise hard standing of tarmacadam across the parking area at the front and concrete along the strips to the side and rear.
Site History	Early records (1864) indicate that the site was undeveloped remaining as open field, directly to the west of a road until 1935, when the site was first developed as a cinema, extending west and south from the current subject site area, with the wider area of Eastcote developed as residential properties. In the late 1960s/early 1970s, the cinema was demolished and replaced by Conex House and a larger office type building, extending to the south and west of the study site. The electrical substation in the northwest corner of the site appears to have been constructed as part of the development of Conex House. If the transformer in the substation has not been replaced since it was installed, it is of an age where it may contain polychlorinated biphenyls (PCBs). A building was constructed along the northern site limit, extending westward by the end of the 1930s, later indicated to serve as a garage. This garage was replaced by an office building by 1991 and the office building was converted to a residential block of flats between 2015 and 2021.
Geology	Reference to the British Geological Survey (BGS) Map extracts indicates the site to directly overlie bedrock geology of the London Clay Formation (clay, silt and sand). Lambeth Group (clay, silt and sand) is recorded to crop 159m to the west of the site. Artificial Ground and Superficial Deposits are not recorded in the vicinity of the site. Given the site history, it is anticipated that Made Ground will be present across the site.
Hydrogeology	The Environment Agency Groundwater Vulnerability Map extracts indicate the majority of the site to be underlain by bedrock Unproductive Strata, interpreted as the London Clay Formation, over a bedrock Secondary A Aquifer, interpreted as the Lambeth Group. The site is not located within Groundwater Source Protection Zone.
Hydrology	There are no identified surface water features within 250m of the site.
Conclusions and Recommendations	The following potential sources of contamination were identified in relation to the proposed commercial open storage end use: • Reduced quality Made Ground and natural soils present across the site from the phased development of the site and former neighbouring land use as a garage. • Potential for PCBs from on-site substation. Potential for ground gas generation from Made Ground deposits on site. It should be noted that additional sources of contamination may become apparent during any future investigation and development of the site.

	The risks to the health of future site users from contamination, in the context of the proposed residential end use of the site, have been assessed to be **low**. The primary risk driver is considered to be exposure to asbestos in soil with an additional risk from a variety of other contaminants. The placement of hard standing and construction of the proposed building or the retention of the existing building and hard standing are considered likely to break pathways to end users of the site, where contaminants are present. Risk to controlled waters have been assessed as **very low** in relation to the Secondary A Aquifer due to the lower sensitivity of the receptor, low likelihood of presence of mobile contaminants and very low likelihood of viable migration pathway due to presence of low permeability geology. Further assessment of the risks to controlled waters is therefore not considered necessary. The previous development of the site may have given rise to contaminants at concentrations likely to cause damage to PE water supply pipes. This should be taken into account by the designers of new buried services for the proposed development. Intrusive investigation is therefore not considered to be necessary to further assess the contamination risks associated with the site in the context of converting the existing building to residential use or replacing it with a new residential block, provided no soft landscaping is proposed as part of the development. However, further investigation for geotechnical purposes, to inform foundation designs, is recommended if the existing building is to be demolished and replaced with a new building. While construction workers have been excluded from this assessment on the basis that they are subject to health and safety at work regulations and are expected to use appropriate personal protective equipment (PPE), any ground works contactors working on the site, including installing new underground services, should be made aware of the potential for contamination to be present within the ground underlying the site surfacing.
This sheet is intended to provide a summary only of the initial indicative assessment study of the site in relation to ground contamination. It does not provide a definitive engineering analysis for the purposes of costing or construction, and is subject to the limitation of the agreed brief.	

1. INTRODUCTION

1.1 INSTRUCTION

Ground Condition Consultants Ltd. (GCC) was commissioned by Urban Infill in April 2024 to undertake a Ground Condition Desk Top Study of a site - Conex House, 148 Field End Road, Hillingdon, HA5 1RJ.

The brief was to use the information provided in an Environmental Database Search relating to the site to assess and report on the findings with respect to potential ground contamination and potential associated future liabilities in accordance with the Preliminary Risk Assessment procedure outlined in Land Contamination Risk Management (LCRM), published by the Environment Agency.

This report is prepared in line with the agreed brief and is subject to the report conditions shown in Appendix 1.

1.2 LEGAL CONTEXT

Part IIA of the Environmental Protection Act 1990 (inserted by Section 57 of the Environment Act 1995) provides a regime for the control of specific threats to health or the environment from land contamination. In accordance with the Act and the statutory guidance document 'The Contaminated Land (England) Regulations 2000', the definition of contaminated land is intended to embody the concept of risk assessment. Within the meaning of the Act, land is only "contaminated land" where it appears to the Regulatory Authority, by reason of substances within or under the land, that:

- Significant harm is being caused, or there is a significant possibility of such harm being caused; or
- Pollution of controlled waters is being, or is likely to be, caused."

Inherent in this definition is the requirement for contamination risk assessment to be undertaken on a site specific basis, as the potential for harm is determined by the site's end use and its specific environmental setting.

The guidance defines "risk" as the combination of:

- The probability, or frequency, of occurrence of a defined hazard (for example, exposure of a property to a substance with the potential to cause harm); and
- The magnitude (including the seriousness) of the consequences.

While Part IIA of the Environmental Protection Act provides a risk based approach to the identification and remediation of land where contamination poses an unacceptable risk to human health or the environment, the regime does not take into account future uses. New developments are therefore controlled by the planning regime, with reference to the National Planning Policy Framework (NPPF), rather than directly by Part IIA of the Environmental Protection Act.

The NPPF is based on the principal that the site should be suitable for its new use, taking account of ground conditions, including from natural hazards or former activities and states that "Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner". The NPPF also links the planning and Part IIA regimes by stating that "after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990". Key components of the Part IIA regime, such as the definition of Contaminated Land and the associated risk based assessment approach, are therefore considered to also be applicable to the planning regime.

1.3 METHODOLOGY

This report has been prepared in accordance with published Environment Agency guidance ('Land Contamination Risk Management (LCRM)'). LCRM provides the technical framework for structured decision making about land contamination and builds on previous work carried out under the Contaminated Land Research Programme (of the former Department of the Environment) and the Model Procedures for the Management of Land Contamination – Contaminated Land Report (CLR) 11. LCRM has adopted and refined the well recognised methodology and terminology that has been used in contaminated land risk assessment for a number of years.

1.3.1. Pollutant linkage concept

In the context of land contamination, there are three essential elements to any risk:

- A **contaminant source** – a substance that is in, on or under the land and has the potential to cause harm or to cause pollution of controlled waters.
- A **receptor** – in general terms, something that could be adversely affected by a contaminant, such as people, an ecological system, property, or a water body.
- A **pathway** – a route or means by which a receptor can be exposed to, or affected by, a contaminant.

Each of these elements can exist independently, but they create a risk only where they are linked together, so that a particular contaminant affects a particular receptor through a particular pathway. This kind of linked combination of contaminant–pathway–receptor is described as a pollutant linkage.

1.3.2. Conceptual model

An important thread throughout the overall process of risk assessment is the need to formulate and develop a **conceptual model** for the site, which supports the identification and assessment of pollutant linkages. A conceptual model represents the characteristics of the site in diagrammatic or written form that shows the possible relationships between contaminants, pathways and receptors (pollutant linkages).

1.3.3. Risk assessment

LCRM advocates a phased approach to risk assessment comprising the following in order, as necessary:

Preliminary Risk Assessment – a desk study consisting of a review of documentary, anecdotal and site walk over evidence.

Generic Quantitative Risk Assessment (GQRA) - comparison of contaminant concentrations obtained from site investigation with generic assessment criteria.

Detailed Quantitative Risk Assessment (DQRA) - comparison of contaminant concentrations obtained from site investigation with site-specific assessment criteria.

This document constitutes a Preliminary Risk Assessment.

1.4 PROPOSED USE

It is currently understood that the site is proposed for demolition and redevelopment with a block of residential units or the existing office building will be converted to residential use. It is understood that a replacement building would occupy approximately the same footprint as the current building.

A change in the site use from that currently proposed may result in the need for re-assessment of risk criteria and the conclusions and recommendations resulting from the risk assessment could therefore significantly change.

1.5 REPORT SCOPE AND LIMITATIONS

This report is based upon a site visit, review of readily available historical and current information, geological and hydrogeological maps and information from an environmental database search. The assessment is based on the proposed use stated in Section 1.4 and the outcomes of this assessment could change if the end uses change.

The information contained in this report is intended for the use of Urban Infill. GCC can take no responsibility for the use of this information by any other party or for uses other than that described in this report.

2. PRELIMINARY RISK ASSESSMENT

2.1 SITE LOCATION AND DESCRIPTION

The site is located to the west of Field End Road, Ruislip, Pinner HA5 1RJ, some 270m north of Eastcote Underground Station. The site presently comprises Conex House, an office building, set over three storeys with car parking to the frontage and small strip of land to the side (north) and rear (west) of the building. An electrical sub-station is located in the strip of land to the rear of the building. The curtilage surrounding the building was noted to comprise hard standing of tarmacadam across the parking area at the front and concrete along the strips to the side and rear.

The site is set within a broadly residential and commercial setting, with residential developments directly to the north and south and Field End Road lined by shops on either side. A public house and associated parking is also present 20m to the north. The plot of land directly to the west of the site comprises and area of green space, believed to be associated with the residential block adjacent to the south.

2.2 SITE HISTORY

Early records (1864) indicate that the site was undeveloped remaining as open field, directly to the west of a road until 1935, when the site was first developed as a cinema, extending west and south from the current subject site area, with the wider area of Eastcote developed as residential properties. In the late 1960s/early 1970s, the cinema was demolished and replaced by Conex House and a larger office type building, extending to the south and west of the study site. The electrical substation in the northwest corner of the site appears to have been constructed as part of the development of Conex House. If the transformer in the substation has not been replaced since it was installed, it is of an age where it may contain polychlorinated biphenyls (PCBs).

The larger office type building, constructed to the south and west of the site in the late 1960s/early 1970s, was replaced by a residential block of flats on a similar footprint between 2013 and 2015.

A building was constructed along the northern site limit, extending westward by the end of the 1930s, later indicated to serve as a garage. This garage was replaced by an office building by 1991 and the office building was converted to a residential block of flats between 2015 and 2021.

On the 1935 map, a Hotel was noted to the north of the site and remains to the present day as The Ascott Public house.

Notable development in the wider area includes the Metropolitan Line, present in map extracts from 1911 onward. A series of small plots of land were also noted across the Eastcote area by 1911, followed by widespread residential development of the area by 1935.

2.3 DOCUMENTATED GROUND CONDITIONS

Ground conditions recorded in readily available sources are summarised below.

2.3.1. Geology

Reference to the British Geological Survey (BGS) Map extracts (see Appendix 2) indicates the site to directly overlie bedrock geology of the London Clay Formation (clay, silt and sand). Lambeth Group (clay, silt and sand) is recorded to crop 159m to the west of the site. Artificial Ground and Superficial Deposits are not recorded in the vicinity of the site.

Given the site history, it is anticipated that Made Ground will be present across the site.

Site investigation report identified on the London Borough of Hillingdon Planning Portal for 146 Field End Road (adjacent to the north of the site) and 150 Field End Road (adjacent to the south of the site) confirm less the 1.0m of Made Ground overlying London Clay over the Lambeth Group. It is anticipated that similar conditions are therefore also present beneath the site.

2.3.2. Hydrogeology

The Environment Agency Groundwater Vulnerability Map extracts (see Appendix 2) indicate the majority of the site to be underlain by bedrock Unproductive Strata, interpreted as the London Clay Formation, over a bedrock Secondary A Aquifer, interpreted as the Lambeth Group.

Unproductive Strata are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

Secondary A Aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.

The site is not located within Groundwater Source Protection Zone.

2.3.3. Hydrology

There are no identified surface water features within 250m of the site.

2.3.4. Radon

Radon is a naturally occurring radioactive gas which may be harmful to human health. Radon is generally released into the atmosphere in areas underlain by granite and limestone. Harmful concentrations of radon may build up if it becomes trapped in an enclosed space such as a building.

BGS/Public Health England data presented within the Groundsure Report indicates that the percentage of houses exceeding the Action Levels for Radon is less than 1%. Therefore, the property is not in a Radon Affected Area, as defined by the Health Protection Agency (HPA), and radon protection measures are not necessary in new dwellings or extensions.

2.4 ENVIRONMENTAL DATA SEARCH

A search of an environmental database was undertaken together with information from various other organisations as part of the desk study and is summarised in the following sections. The following summary is generally limited to locations within 250m of the site boundaries unless it is considered that installations or activities beyond that range could potentially have an impact on the site or be affected by the redevelopment of the site.

Table 2.1. Data search results

Discharge consents	A recorded discharge consent, exists for Hayes Asphalt and Readymix, Pump Lane, Hayes, for trade discharges to the River Crane 114m north east of the site.
Pollution incidents	There are no recorded pollution incidents within 250m of the site.
Water abstractions	There are no recorded groundwater abstractions within 500m of the site.
Fuel Stations	There are no recorded fuel stations within 250m of the site. However, the site directly to the north operated as a garage.
Landfill Sites	There are no recorded landfills within 250m of the site.

2.5 MINING AND NATURAL GROUND HAZARDS

2.5.1. Mining

There are no recorded surface or underground workings within 250m of the site, excluding cuttings constructed for the Metropolitan Line. The site is situated within an area where localised mining may have occurred targeting the chalk, which is present at depth.

2.5.2. Natural Ground Hazards

The following ground hazards were identified:

Compressible ground stability hazards – Negligible hazard

BGS Notes: compressible strata are not thought to occur.

Collapsible ground stability hazards – Very Low hazard

BGS Notes: Deposits with potential to collapse when loaded and saturated are unlikely to be present.

Ground dissolution stability hazards – Negligible hazard

BGS Notes: Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

Landslide ground stability hazard – Very Low hazard

BGS Notes: Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

Shrinking or swelling clay ground stability hazard – **Moderate** hazard

BGS Notes: Ground conditions predominantly medium plasticity.

Running sand ground stability hazards – Very Low hazard

BGS Notes: Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

2.6 DEPARTMENT OF ENVIRONMENT – INDUSTRY PROFILES

The Department of the Environment Industry Profiles do not cover the previous or existing site uses.

2.7 UNEXPLODED ORDNANCE

A Zetica UXO Unexploded Bomb (UXB) Risk Map was obtained for the site and is presented in Appendix 2. This map indicates the site to be situated within an area that is of low to medium bomb risk. Zetica UXO typically recommend that a Detailed UXO Risk Assessment is undertaken for sites in an area with a moderate or high bombing density.

2.8 REGULATOR CONSULTATION

A request for environmental data was submitted to the London Borough of Hillingdon Environmental Protection Team. A response had not been received at the time of issue of this report.

A search of the London Borough of Hillingdon Planning Portal has been undertaken and has identified previous investigation reports for 146 Field End Road (adjacent to the north of the site) and 150 Field End Road (adjacent to the south of the site).

2.8.1. 146 Field End Road

A Phase 1 and Phase 2 contamination Investigation report was prepared for 146 Field End Road by Risk Management Ltd in June 2015 to support the conversion of the office building to residential use. The subject site for the report had previous been used as a garage, prior to an office building being constructed by 1991

The report confirmed the presence of up to 0.6m of Made Ground over London Clay to 3.1mbgl over Lambeth Group to greater than 5.0mbgl.

The chemical analysis undertaken identified one sample with elevated benzo(a)pyrene concentrations and recommended a cover system in areas of proposed soft landscaping.

Ground gas monitoring identified no measurable methane and no measurable flow rates but carbon dioxide concentrations of up to 8% v/v. Risk Management concluded a NHBC Amber classification was appropriate for the site.

2.8.2. 150 Field End Road

A Desk Study and Ground Investigation Report was produced by Geotechnical & Environmental Associates (GEA) in August 2007 to support the development of the block of flats at 150 Field End Road.

The investigation encountered less then 1.0m of Made Ground over 1.5-1.9m of silty sandy clay with parting of silt (interpreted by GEA as superficial deposits) over stiff bluish grey mottled yellow brown and reddish brown clay (interpreted by GEA as Lambeth Group).

Localised elevated concentrations of heavy metals, PAH and TPH were identified and the report recommended the placement of a cover system in areas of soft landscaping.

A subsequent Phase 1 Environmental Risk Assessment was prepared by Millard Consulting in October 2009 and discusses the potential contamination risks but does not reference the GEA report but utilises the GEA Envirocheck report. Millard note the potential risk from the substation on the Conex House site.

3. CONCEPTUAL SITE MODEL

3.1 SOURCES

The conceptual model, based on information obtained as part of the preliminary risk assessment, identified the following potential contaminant sources:

- Reduced quality Made Ground and natural soils present across the site from the phased development of the site and former neighbouring land use as a garage.
- Potential for PCBs from on-site substation.
- Potential for ground gas generation from Made Ground deposits on site.

It should be noted that additional sources of contamination may become apparent during any future investigation and development of the site.

3.2 PATHWAYS

The key environmental pathways and exposure routes by which potentially toxic substances can reach the identified potential receptors are considered to be:

- Inhalation of vapours
- Inhalation of dust
- Direct contact
- Ingestion

3.3 RECEPTORS

Receptors that may be affected by the potential contamination are:

- Future site users
- Off-site land users
- Secondary A Aquifer (Lambeth Group)
- Building materials (including water pipes)

Construction workers have been excluded from this assessment on the basis that they are subject to health and safety at work regulations and are expected to use appropriate personal protective equipment (PPE).

4. RISK ASSESSMENT

4.1 RISK ASSESSMENT PROCEDURE

By considering the sources, pathways and receptors (pollutant linkages), an assessment of the human health/ environmental risks is made with reference to the significance and degree of the risk. This assessment is based on consideration of whether the source contamination can reach a receptor and hence whether it is of major or minor significance.

The risk assessment has been undertaken with reference to BS10175 and CIRIA Document C552: Contaminated Land Risk assessment 'A Guide to Good Practice'. The risk assessment has been carried out by assessing the severity of the potential consequence, taking into account both the potential magnitude of the hazard and the sensitivity of the target, based on the categories given overleaf.

Table 4.1. Sensitivity of receptor

Category	Examples
High	Residential with gardens/Groundwater Source Protection Zone
Medium	Residential without gardens/Principal (Major) Aquifer/sensitive watercourse
Low	Commercial and industrial use/Secondary (Minor) Aquifer
Very Low	Construction and maintenance workers/non-sensitive watercourse

Table 4.2. Magnitude of impact

Category	Examples
Gross Impact	Heavily contaminated gasworks or industrial site, hazardous waste landfill
Moderate Impact	Major leaks and spills from fuel infrastructure (e.g. petrol stations), domestic waste landfill
Slight Impact	Minor leaks and spills from fuel infrastructure, 'inert' waste landfills
No Impact	No identified or suspected contamination

Table 4.3. Level of severity for potential hazard

	Sensitivity of receptor			
Magnitude of Impact	**High**	**Medium**	**Low**	**Very Low**
Gross Impact	Severe	Medium	Mild	Minor
Moderate Impact	Medium	Mild	Minor	Minor
Slight Impact	Mild	Minor	Minor	Minor
No Impact	Minor	Minor	Minor	Minor

The likelihood of an event (probability) takes into account both the presence of the hazard and target and the integrity of the pathway and has been assessed based on the categories given below.

Table 4.4. Probability of risk definition

Category	Definition
High likelihood	Pollutant linkage may be present, and risk is almost certain to occur in long term, or there is evidence of harm to the receptor
Likely	Pollutant linkage may be present, and it is probable that the risk will occur over the long term
Low likelihood	Pollutant linkage may be present, and there is a possibility of the risk occurring, although there is no certainty that it will do so
Unlikely	Pollutant linkage may be present, but the circumstances under which harm would occur are improbable

The potential severity of the risk and the probability of the risk occurring have been combined in accordance with the following matrix in order to give a level of risk for each potential hazard.

Table 4.5. Level of risk for potential hazard definition

Probability of risk	Potential severity			
	Severe	**Medium**	**Mild**	**Minor**
High Likelihood	Very high	High	Moderate	Low/ Moderate
Likely	High	Moderate	Low/ Moderate	Low
Low likelihood	Moderate	Low/ Moderate	Low	Very low
Unlikely	Low/ Moderate	Low	Very low	Very low

The assessment is discussed below in terms of plausible pollutant linkages. A complete assessment of the pollutant linkages is presented in Table 4.6 overleaf.

A description of these risk classifications and likely action required are given in CIRIA 552 as:

Very high risk – High probability that severe harm could arise to a designated receptor from an identified hazard OR there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in substantial liability. Urgent investigation and remediation are likely to be required.

High risk – Harm is likely to arise to a designated receptor from an identified hazard. This risk, if realised, is likely to result in substantial liability. Urgent investigation is required and remedial works may be necessary in the short term and are likely over the long term.

Moderate risk – It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation is normally required to clarify risks and to determine potential liability. Some remedial works may be required in the long term.

Low risk – It is possible that harm could arise to a designated receptor from an identified hazard but it is likely that this harm, if realised, would at worst normally be mild.

Very low risk – It is a low possibility that harm could arise to a designated receptor. In the event of such harm being realised it is not likely to be severe.

4.2 POLLUTANT LINKAGE ASSESSMENT

The following assessment is based on the proposed commercial open storage end use scenario.

Table 4.6. Pollutant Linkage Assessment

Source	Pathway	Receptor	Severity	Likelihood	Risk Level
Asbestos containing materials and fibres in on-site Made Ground	Inhalation	Future Users	Medium	Unlikely	Low
Reduced quality Made Ground and natural soils (ex. asbestos)	Direct contact Ingestion Inhalation	Future Users	Mild	Unlikely	Very Low
	Vertical migration	Secondary A Aquifer	Minor	Unlikely	Very Low

Source	Pathway	Receptor	Severity	Likelihood	Risk Level
	Direct contact	Water pipes	Mild	Unlikely	Very Low
Potential for PCBs from on-site substation	Direct contact Ingestion Inhalation	Future Users	Mild	Unlikely	Very Low
	Vertical migration	Secondary A Aquifer	Minor	Unlikely	Very Low
Potential ground gas migration from thick Made Ground deposits	Lateral and vertical migration leading to inhalation or explosive environment	Future Users	Mild	Unlikely	Very Low
		Off-site users	Mild	Unlikely	Very Low

4.2.1. Asbestos in Soil

Given the age of construction of the existing and former buildings on the site, the potential exists for the presence of asbestos both in the building fabric and within the underlying soils.

The main exposure pathway will be in any areas of soft landscaping or unsurfaced areas via disturbance of the soil and inhalation of contaminated dust. The risk via this exposure pathway has been assessed to be low on the basis of the proposed site development with no proposed soft landscaping.

4.2.2. Reduced Quality Made Ground and Natural Soils

The potential exists for the presence of reduced quality Made Ground and natural soils, resulting from the development and uses of the site and neighbouring former land use as a garage. However, it is noted that the investigation of the adjacent garage site did not encounter much contamination and confirmed the underlying low mobility clay geology, reducing the potential lateral migration pathways.

The main exposure pathway in relation to human health will be in any areas of soft landscaping or unsurfaced areas via direct contact, ingestion and inhalation of dust and vapours. The risk via these exposure pathways has been assessed to be low on the basis of the proposed development with no proposed soft landscaping. The potential for migration of hydrocarbons from the adjacent former garage has been considered, but both the potential for hydrocarbon migration and any associated volatile vapours are considered to be low, given the cohesive low permeability natural geology.

Similarly, although presence on site of mobile contaminants is considered unlikely, it is considered that the natural geology of the London Clay formation would provide natural attenuation for any mobile contaminants that may otherwise migrate downward to the Secondary A Aquifer.

The potential for contaminants in the shallow soils should be considered in relation to water supply pipe selection. This should be taken into account by the designers of buried services for the proposed development.

4.2.3. PCBs From On-site Substation

The electrical sub-station in the northwest of the study site has been considered as a potential source of contamination as a sub-station has been present at this location since Conex House was developed in the 1960s/1970s and the potential therefore exists for PCBs to be present. The potential also exists for leaked transformer oil to contain heavy metals and aliphatic and aromatic hydrocarbons. However, a sub-station is proposed to remain at this location so access and exposure will remain limited.

As any PCBs that may have entered the ground from the sub-station would readily absorb to the underlying soil and not migrate or leach significantly, such contamination is not considered to represent a significant source with regard to the proposed development. Transformer oil comprises long chain, low mobility, low volatility hydrocarbon fractions and the viscosity of the oil tends to increase with age. In general, these fractions tend to be less toxic than lighter fractions and less prone to migration in soil. The concrete base of the sub-station is also likely limit the migration of transformer oils that may have leaked from the sub-station. In addition, quantities of leaked oil are likely to be limited unless a catastrophic failure of the transformer has occurred.

Contaminant concentrations that may present a risk to human health are therefore only potentially present in close proximity to or beneath the sub-station and the risk of significant exposure to future site users is therefore considered to be very low.

Due to the relatively low mobility and limited quantities of the transformer oil that may have leaked from the sub-station over the years, the migration of mineral oil contamination and associated heavy metal contamination is likely to be limited. The risk of significant quantities of leaked transformer oil migrating to the underlying Secondary A Aquifer, given that a layer of London Clay exists over the Lambeth Group Aquifer, is also considered be very low.

From a practical perspective, with the sub-station remaining, investigating in close enough proximity to a substation to be relevant, presents significant health and safety risks that are not justified by the potential contamination risks. Furthermore, in the event that sampling could be achieved in close proximity to the sub-station, remediation of any impact would be impractical, dangerous and costly and would not meet the criteria for sustainable remediation.

Further investigation and assessment of the sub-station is therefore not considered appropriate at this stage but should be considered if the sub-station is removed in the future.

4.2.4. Ground gas from Made Ground

Thick deposits of Made Ground are not known or thought likely to be present and putrescible materials are not likely to be present within Made Ground in significant quantities. Ground gas is therefore not considered to present a significant risk.

If intrusive investigations are required to inform construction of the proposed, assessment of organic content of Made Ground materials is recommended.

5. CONCLUSIONS AND RECOMMENDATIONS

The following potential sources of contamination were identified in relation to the proposed commercial open storage end use:

- Reduced quality Made Ground and natural soils present across the site from the phased development of the site and former neighbouring land use as a garage.
- Potential for PCBs from on-site substation.
- Potential for ground gas generation from Made Ground deposits on site.

It should be noted that additional sources of contamination may become apparent during any future investigation and development of the site.

The risks to the health of future site users from contamination, in the context of the proposed residential end use of the site, have been assessed to be **low**. The primary risk driver is considered to be exposure to asbestos in soil with an additional risk from a variety of other contaminants. The placement of hard standing and construction of the proposed building or the retention of the existing building and hard standing are considered likely to break pathways to end users of the site, where contaminants are present.

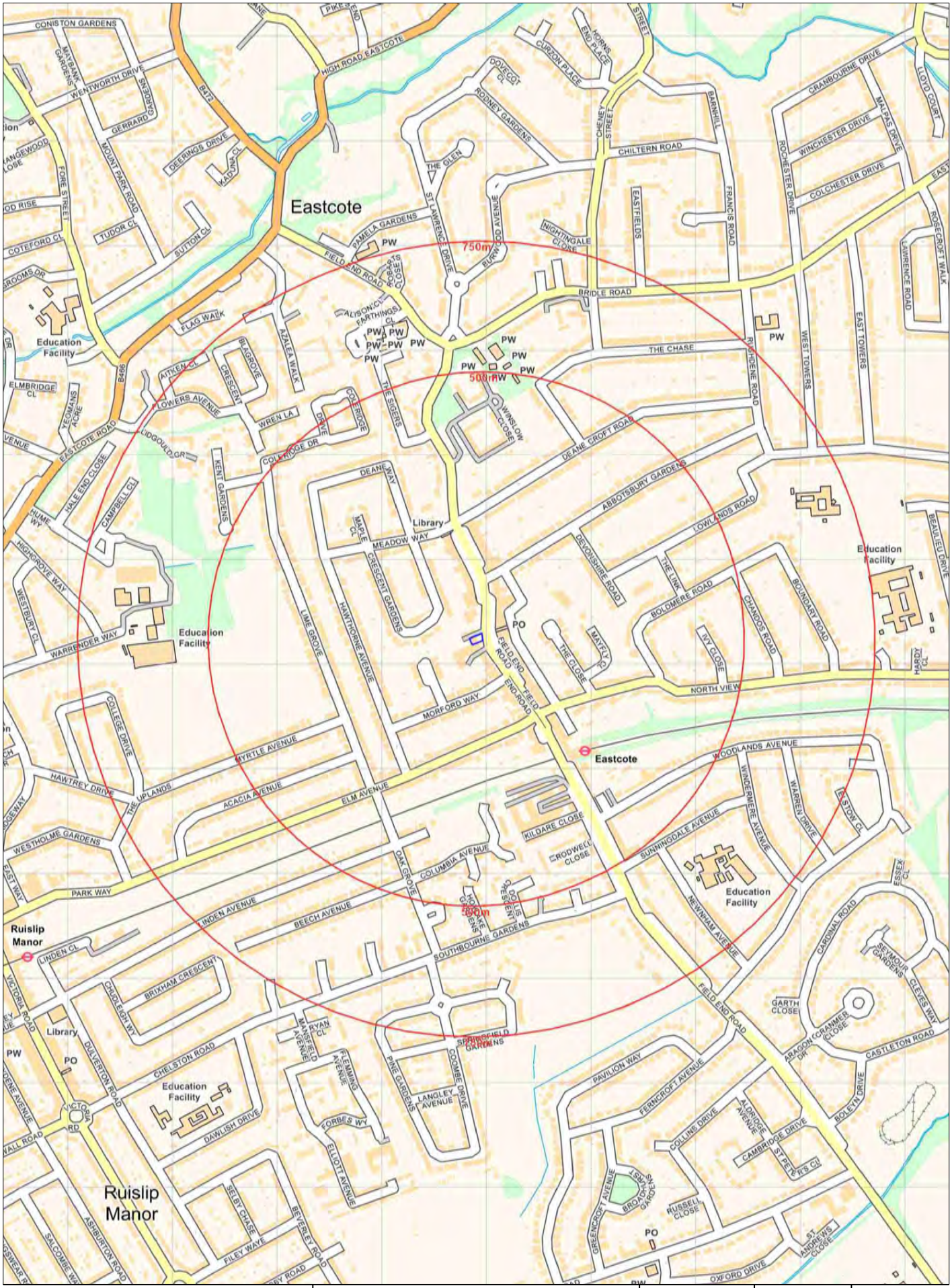
Risk to controlled waters have been assessed as **very low** in relation to the Secondary A Aquifer due to the lower sensitivity of the receptor, low likelihood of presence of mobile contaminants and very low likelihood of viable migration pathway due to presence of low permeability geology. Further assessment of the risks to controlled waters is therefore not considered necessary.

The previous development of the site may have given rise to contaminants at concentrations likely to cause damage to PE water supply pipes. This should be taken into account by the designers of new buried services for the proposed development.

Intrusive investigation is therefore not considered to be necessary to further assess the contamination risks associated with the site in the context of converting the existing building to residential use or replacing it with a new residential block, provided no soft landscaping is proposed as part of the development. However, further investigation for geotechnical purposes, to inform foundation designs, is recommended if the existing building is to be demolished and replaced with a new building.

While construction workers have been excluded from this assessment on the basis that they are subject to health and safety at work regulations and are expected to use appropriate personal protective equipment (PPE), any ground works contactors working on the site, including installing new underground services, should be made aware of the potential for contamination to be present within the ground underlying the site surfacing.

FIGURE 1: LOCATION PLAN



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Telephone 07971 450113
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client URBAN INFILL

site CONEX HOUSE, EASTCOTE

title SITE LOCATION PLAN

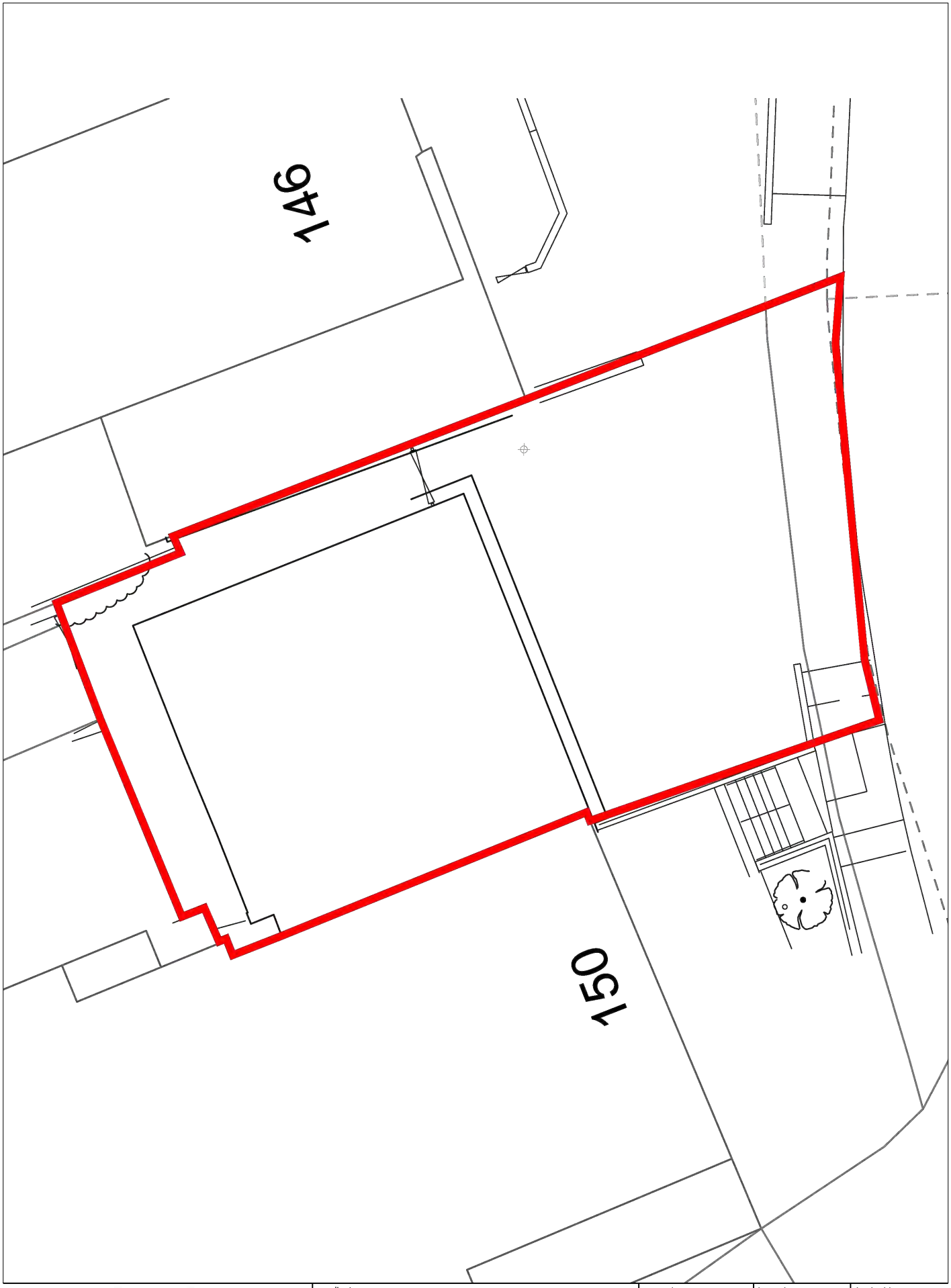
scale	drawn by	checked by
NTS	DP	RP

date	job no
22 APR 2024	J24-028

drawing number FIGURE 1

rev. -

FIGURE 2: LAYOUT PLAN



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client: URBAN INFILL

site: CONEX HOUSE, EASTCOTE

title: EXISTING LAYOUT PLAN

scale	drawn by	checked by
NTS	DP	RP

date	job no
22 APR 2024	J24-028

drawing number: FIGURE 2

rev.: -

APPENDIX 1: REPORT CONDITIONS

This report is produced solely for the benefit of **Urban Infill** and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report refers, within the limitations stated, to the condition of the Site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the Site.

This report is based on a visual Site inspection, study of readily accessible referenced historical records, information supplied by those parties noted in the text and preliminary discussions with local and Statutory Authorities. Some of the opinions are based on unconfirmed data and information and are presented in good faith without exhaustive clarification. Where ground contamination is suspected but no physical Site test results are available to confirm this, the report must be regarded as initial advice only, and further assessment should be undertaken prior to detailed activities related to the Site. Where test results undertaken by others have been made available these can only be regarded as a limited sample. The possibility of the presence of contaminants, not revealed by this research cannot be discounted.

Whilst confident in the findings detailed within this report because there are no exact UK definitions of these matters, being subject to risk analysis, we are unable to give categoric assurances that they will be accepted by Authorities or Funds etc. without question, as such bodies may have unpublished, often more stringent objectives. This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to Ground Condition Consultants Ltd. In time improved practices or amended legislation may necessitate a re-assessment.

The report is necessarily limited to those aspects of land contamination specifically reported on and no liability is accepted for any other aspect especially concerning gradual or sudden pollution incidents that may occur. The opinions expressed cannot be absolute due to the limitations of time and resources within the context of the agreed brief and the possibility of unrecorded previous use and abuse of the Site and adjacent Sites. The report concentrates on the Site as defined in the report and provides an opinion on surrounding Sites. If migrating pollution or contamination (past or present) exists this can only practically be better assessed following extensive on and off Site intrusive investigations and monitoring.

APPENDIX 2: GROUNDSURE REPORT

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Order Details

Date: 16/04/2024

Your ref: J24-028

Our Ref: GS-4SV-1K4-IWK-5WP

Site Details

Location: 510981 187847

Area: 0.03 ha

Authority: London Borough of Hillingdon ↗

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	4	32	-
17	1.2	Historical tanks	0	0	0	0	-
17 >	1.3 >	Historical energy features >	1	0	3	8	-
18	1.4	Historical petrol stations	0	0	0	0	-
18 >	1.5 >	Historical garages >	1	0	1	0	-
19	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
20 >	2.1 >	Historical industrial land uses >	0	0	6	42	-
22	2.2	Historical tanks	0	0	0	0	-
23 >	2.3 >	Historical energy features >	1	0	5	10	-
23	2.4	Historical petrol stations	0	0	0	0	-
24 >	2.5 >	Historical garages >	2	0	2	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
25	3.1	Active or recent landfill	0	0	0	0	-
25	3.2	Historical landfill (BGS records)	0	0	0	0	-
26	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
26	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
26	3.5	Historical waste sites	0	0	0	0	-
26	3.6	Licensed waste sites	0	0	0	0	-
26 >	3.7 >	Waste exemptions >	0	0	4	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
28 >	4.1 >	Recent industrial land uses >	0	2	10	-	-
29	4.2	Current or recent petrol stations	0	0	0	0	-
30	4.3	Electricity cables	0	0	0	0	-
30	4.4	Gas pipelines	0	0	0	0	-
30	4.5	Sites determined as Contaminated Land	0	0	0	0	-

30	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
30	4.7	Regulated explosive sites	0	0	0	0	-
31	4.8	Hazardous substance storage/usage	0	0	0	0	-
31	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
31	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
31 >	**4.11 >**	**Licensed pollutant release (Part A(2)/B) >**	0	0	1	1	-
32	4.12	Radioactive Substance Authorisations	0	0	0	0	-
32 >	**4.13 >**	**Licensed Discharges to controlled waters >**	0	0	1	0	-
32	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
32	4.15	Pollutant release to public sewer	0	0	0	0	-
33	4.16	List 1 Dangerous Substances	0	0	0	0	-
33	4.17	List 2 Dangerous Substances	0	0	0	0	-
33	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
33	4.19	Pollution inventory substances	0	0	0	0	-
33	4.20	Pollution inventory waste transfers	0	0	0	0	-
34	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
35	5.1	Superficial aquifer	None (within 500m)				
36 >	**5.2 >**	**Bedrock aquifer >**	Identified (within 500m)				
38 >	**5.3 >**	**Groundwater vulnerability >**	Identified (within 50m)				
39	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
39	5.5	Groundwater vulnerability- local information	None (within 0m)				
40	5.6	Groundwater abstractions	0	0	0	0	0
40	5.7	Surface water abstractions	0	0	0	0	0
40	5.8	Potable abstractions	0	0	0	0	0
40	5.9	Source Protection Zones	0	0	0	0	-
41	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	**Hydrology >**	On site	0-50m	50-250m	250-500m	500-2000m
42	6.1	Water Network (OS MasterMap)	0	0	0	-	-

42	6.2	Surface water features	0	0	0	-	-
43 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
43 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
43	6.5	WFD Groundwater bodies	0	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
45	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
45	7.2	Historical Flood Events	0	0	0	-	-
45	7.3	Flood Defences	0	0	0	-	-
46	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
46	7.5	Flood Storage Areas	0	0	0	-	-
47	7.6	Flood Zone 2	None (within 50m)				
47	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
48 >	8.1 >	Surface water flooding >	1 in 100 year, 0.1m - 0.3m (within 50m)				
Page	Section	Groundwater flooding >					
50 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
51 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	1
52	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
52	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
52	10.4	Special Protection Areas (SPA)	0	0	0	0	0
52 >	10.5 >	National Nature Reserves (NNR) >	0	0	0	0	1
53 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	1	0
53 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	1
53	10.8	Biosphere Reserves	0	0	0	0	0
54	10.9	Forest Parks	0	0	0	0	0
54	10.10	Marine Conservation Zones	0	0	0	0	0
54 >	10.11 >	Green Belt >	0	0	0	0	3
54	10.12	Proposed Ramsar sites	0	0	0	0	0

55	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
55	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
55	10.15	Nitrate Sensitive Areas	0	0	0	0	0
55	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
56 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
57 >	10.18 >	SSSI Units >	0	0	0	0	2
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
59	11.1	World Heritage Sites	0	0	0	-	-
60	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
60	11.3	National Parks	0	0	0	-	-
60 >	11.4 >	Listed Buildings >	0	0	1	-	-
61 >	11.5 >	Conservation Areas >	0	1	0	-	-
61	11.6	Scheduled Ancient Monuments	0	0	0	-	-
61	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
62 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
63	12.2	Open Access Land	0	0	0	-	-
63	12.3	Tree Felling Licences	0	0	0	-	-
63	12.4	Environmental Stewardship Schemes	0	0	0	-	-
63	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
64	13.1	Priority Habitat Inventory	0	0	0	-	-
64	13.2	Habitat Networks	0	0	0	-	-
64	13.3	Open Mosaic Habitat	0	0	0	-	-
64	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
65 >	14.1 >	10k Availability >	Identified (within 500m)				
66	14.2	Artificial and made ground (10k)	0	0	0	0	-
67	14.3	Superficial geology (10k)	0	0	0	0	-

67	14.4	Landslip (10k)	0	0	0	0	-
68 >	14.5 >	Bedrock geology (10k) >	1	0	1	1	-
69	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
70 >	15.1 >	50k Availability >	Identified (within 500m)				
71	15.2	Artificial and made ground (50k)	0	0	0	0	-
71	15.3	Artificial ground permeability (50k)	0	0	-	-	-
72	15.4	Superficial geology (50k)	0	0	0	0	-
72	15.5	Superficial permeability (50k)	None (within 50m)				
72	15.6	Landslip (50k)	0	0	0	0	-
72	15.7	Landslip permeability (50k)	None (within 50m)				
73 >	15.8 >	Bedrock geology (50k) >	1	0	2	1	-
74 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
74	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
75 >	16.1 >	BGS Boreholes >	0	0	2	-	-
Page	Section	Natural ground subsidence >					
76 >	17.1 >	Shrink swell clays >	Moderate (within 50m)				
77 >	17.2 >	Running sands >	Very low (within 50m)				
78 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
79 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
80 >	17.5 >	Landslides >	Very low (within 50m)				
81 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
83	18.1	BritPits	0	0	0	0	-
84 >	18.2 >	Surface ground workings >	0	0	3	-	-
84	18.3	Underground workings	0	0	0	0	0
84	18.4	Underground mining extents	0	0	0	0	-
84	18.5	Historical Mineral Planning Areas	0	0	0	0	-

85 >	18.6 >	Non-coal mining >	1	0	0	0	1
85	18.7	JPB mining areas	None (within 0m)				
85	18.8	The Coal Authority non-coal mining	0	0	0	0	-
86	18.9	Researched mining	0	0	0	0	-
86	18.10	Mining record office plans	0	0	0	0	-
86	18.11	BGS mine plans	0	0	0	0	-
86	18.12	Coal mining	None (within 0m)				
86	18.13	Brine areas	None (within 0m)				
87	18.14	Gypsum areas	None (within 0m)				
87	18.15	Tin mining	None (within 0m)				
87	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
88	19.1	Natural cavities	0	0	0	0	-
88	19.2	Mining cavities	0	0	0	0	0
88	19.3	Reported recent incidents	0	0	0	0	-
88	19.4	Historical incidents	0	0	0	0	-
89	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
90 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
92 >	21.1 >	BGS Estimated Background Soil Chemistry >	1	1	-	-	-
92 >	21.2 >	BGS Estimated Urban Soil Chemistry >	1	5	-	-	-
93	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
94	22.1	Underground railways (London)	0	0	0	-	-
94	22.2	Underground railways (Non-London)	0	0	0	-	-
95	22.3	Railway tunnels	0	0	0	-	-
95 >	22.4 >	Historical railway and tunnel features >	0	0	2	-	-
95	22.5	Royal Mail tunnels	0	0	0	-	-

95	22.6	Historical railways	0	0	0	-	-
96	22.7	Railways	0	0	0	-	-
96	22.8	Crossrail 1	0	0	0	0	-
96	22.9	Crossrail 2	0	0	0	0	-
96	22.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 21/04/2022

Site Area: 0.03ha

Recent site history - 2021 aerial photograph

Capture Date: 13/06/2021

Site Area: 0.03ha

Recent site history - 2015 aerial photograph

Capture Date: 07/06/2015

Site Area: 0.03ha

Recent site history - 2013 aerial photograph

Capture Date: 20/04/2013

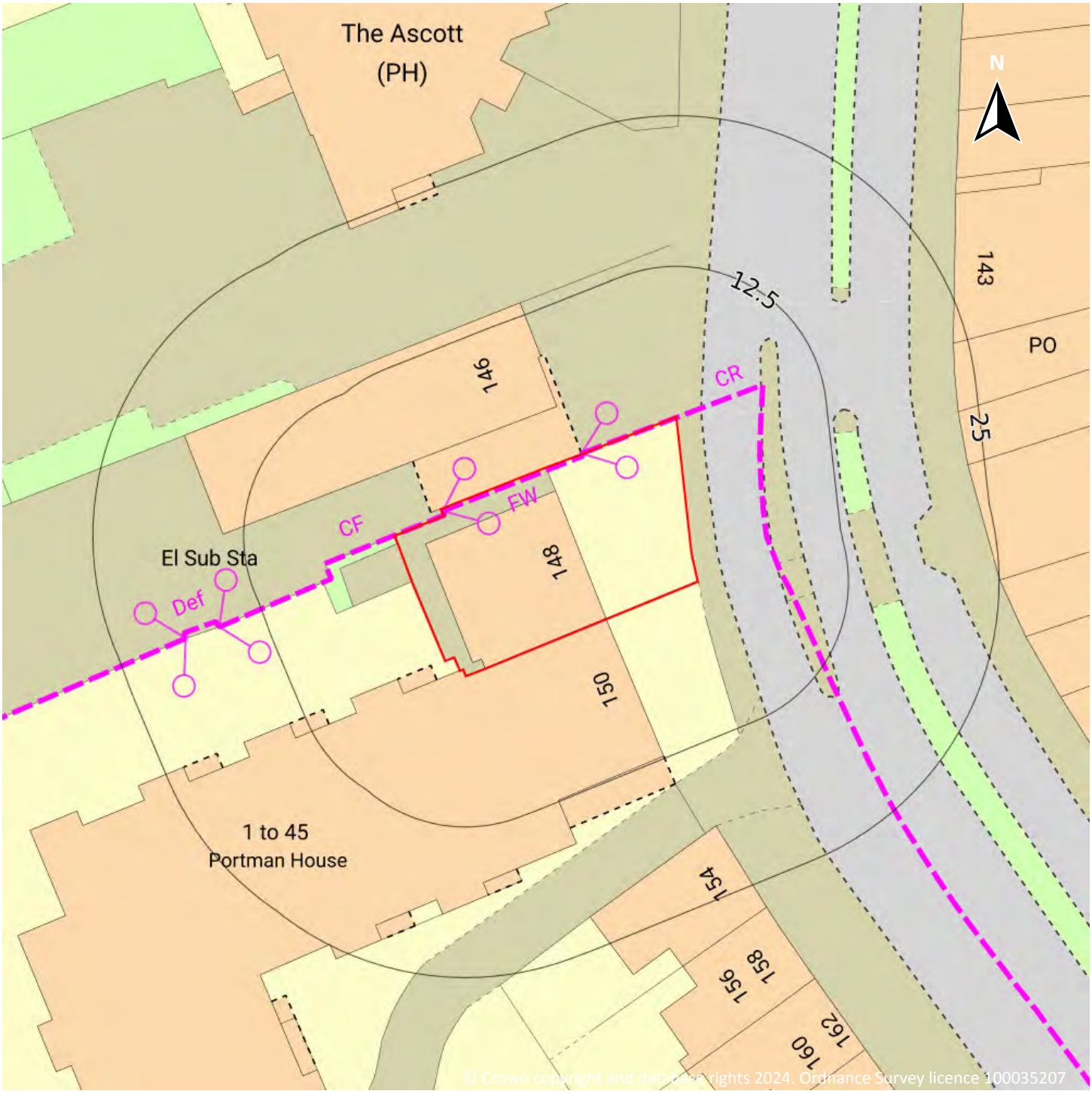
Site Area: 0.03ha

Recent site history - 1999 aerial photograph

Capture Date: 29/08/1999

Site Area: 0.03ha

OS MasterMap site plan



Site Area: 0.03ha

1 Past land use

Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical energy features

Historical garages

1.1 Historical industrial land uses

Records within 500m	36

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
2	131m E	Nursery	1935 - 1938	2258833

ID	Location	Land use	Dates present	Group ID
B	244m S	Cuttings	1938 - 1960	2270746
B	248m S	Cuttings	1912	2184298
C	248m SE	Railway Station	1935 - 1938	2245695
D	251m S	Cuttings	1990	2273177
D	251m S	Cuttings	1966	2285645
D	251m S	Cuttings	1974	2287650
C	251m SE	Railway Sidings	1938	2266222
E	252m S	Cuttings	1935	2247657
E	252m S	Cuttings	1938	2254790
E	252m S	Cuttings	1912	2290312
E	255m S	Cuttings	1913	2266961
C	265m SE	Railway Station	1960	2205878
C	268m SE	Railway Station	1966 - 1990	2284256
C	273m SE	Railway Building	1912	2148817
C	273m SE	Railway Station	1912	2285410
C	275m SE	Railway Sidings	1960	2198903
C	275m SE	Unspecified Commercial/Industrial	1960	2198932
C	279m SE	Railway Station	1938	2231990
C	285m SE	Unspecified Commercial/Industrial	1935 - 1938	2273368
C	288m SE	Cuttings	1938 - 1960	2263487
C	291m SE	Railway Sidings	1966	2295056
C	292m SE	Railway Sidings	1935 - 1938	2205280
C	297m SE	Cuttings	1935	2222003
C	297m SE	Railway Building	1966	2148816
C	298m SE	Railway Buildings	1938	2163463
C	309m SE	Cuttings	1912	2264210
C	309m SE	Cuttings	1912 - 1913	2225542
C	325m SE	Railway Building	1938	2148815

ID	Location	Land use	Dates present	Group ID
C	328m SE	Unspecified Tank	1960	2154574
C	353m SE	Railway Building	1966	2148814
8	356m W	Unspecified Tank	1966	2154571
9	370m SW	Cuttings	1960 - 1990	2186500
F	371m SW	Cuttings	1938	2182817
F	371m SW	Cuttings	1912	2279436
11	461m E	Railway Sidings	1966	2219487

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	12

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Electricity Substation**	**1991**	**244282**
1	92m NE	Electricity Substation	1972 - 1994	280048
4	216m N	Electricity Substation	1970	244281
C	244m SE	Electricity Substation	1972 - 1994	286151

ID	Location	Land use	Dates present	Group ID
5	263m NE	Electricity Substation	1976	244280
6	273m SE	Electricity Substation	1972 - 1994	283932
7	288m SW	Electricity Substation	1991	244283
C	298m SE	Electricity Substation	1972	287057
C	307m SE	Electricity Substation	1994	259142
10	398m N	Electricity Substation	1976	244278
12	463m E	Electricity Substation	1972 - 1994	271971
13	466m NW	Electricity Transformer	1970	250580

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	**0**

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	**2**

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Garage**	**1959 - 1960**	**84430**
3	149m SE	Garage	1959 - 1960	83129

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 energy features

Historical garages

2.1 Historical industrial land uses

Records within 500m	48

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

Features are displayed on the Past land use - un-grouped map on **page 20 >**

ID	Location	Land Use	Date	Group ID
C	131m E	Nursery	1935	2258833
C	134m E	Nursery	1938	2258833
E	244m S	Cuttings	1960	2270746

ID	Location	Land Use	Date	Group ID
E	248m S	Cuttings	1938	2270746
E	248m S	Cuttings	1912	2184298
F	248m SE	Railway Station	1938	2245695
G	251m S	Cuttings	1990	2273177
G	251m S	Cuttings	1974	2287650
G	251m S	Cuttings	1966	2285645
F	251m SE	Railway Sidings	1938	2266222
H	252m S	Cuttings	1938	2254790
H	252m S	Cuttings	1935	2247657
H	252m S	Cuttings	1912	2290312
H	255m S	Cuttings	1913	2266961
F	262m SE	Railway Station	1935	2245695
F	265m SE	Railway Station	1960	2205878
F	268m SE	Railway Station	1990	2284256
F	268m SE	Railway Station	1974	2284256
F	268m SE	Railway Station	1966	2284256
F	273m SE	Railway Building	1912	2148817
F	273m SE	Railway Station	1912	2285410
F	275m SE	Railway Sidings	1960	2198903
F	275m SE	Unspecified Commercial/Industrial	1960	2198932
F	279m SE	Railway Station	1938	2231990
F	285m SE	Unspecified Commercial/Industrial	1938	2273368
F	288m SE	Cuttings	1960	2263487
F	291m SE	Railway Sidings	1966	2295056
F	292m SE	Railway Sidings	1938	2205280
F	292m SE	Cuttings	1938	2263487
F	293m SE	Unspecified Commercial/Industrial	1935	2273368
F	297m SE	Cuttings	1935	2222003

ID	Location	Land Use	Date	Group ID
F	297m SE	Railway Building	1966	2148816
F	298m SE	Railway Buildings	1938	2163463
F	301m SE	Railway Sidings	1935	2205280
F	309m SE	Cuttings	1912	2264210
F	309m SE	Cuttings	1913	2225542
F	310m SE	Cuttings	1912	2225542
F	325m SE	Railway Building	1938	2148815
F	328m SE	Unspecified Tank	1960	2154574
F	353m SE	Railway Building	1966	2148814
4	356m W	Unspecified Tank	1966	2154571
J	370m SW	Cuttings	1990	2186500
J	370m SW	Cuttings	1974	2186500
J	370m SW	Cuttings	1966	2186500
J	370m SW	Cuttings	1960	2186500
K	371m SW	Cuttings	1938	2182817
K	371m SW	Cuttings	1912	2279436
6	461m E	Railway Sidings	1966	2219487

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**0**

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'.

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	16

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

Features are displayed on the Past land use - un-grouped map on **page 20 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Electricity Substation**	**1991**	**244282**
B	92m NE	Electricity Substation	1972	280048
B	92m NE	Electricity Substation	1994	280048
1	216m N	Electricity Substation	1970	244281
F	244m SE	Electricity Substation	1994	286151
F	245m SE	Electricity Substation	1972	286151
2	263m NE	Electricity Substation	1976	244280
I	273m SE	Electricity Substation	1972	283932
I	274m SE	Electricity Substation	1994	283932
3	288m SW	Electricity Substation	1991	244283
F	298m SE	Electricity Substation	1972	287057
F	307m SE	Electricity Substation	1994	259142
5	398m N	Electricity Substation	1976	244278
L	463m E	Electricity Substation	1994	271971
L	463m E	Electricity Substation	1972	271971
7	466m NW	Electricity Transformer	1970	250580

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	4

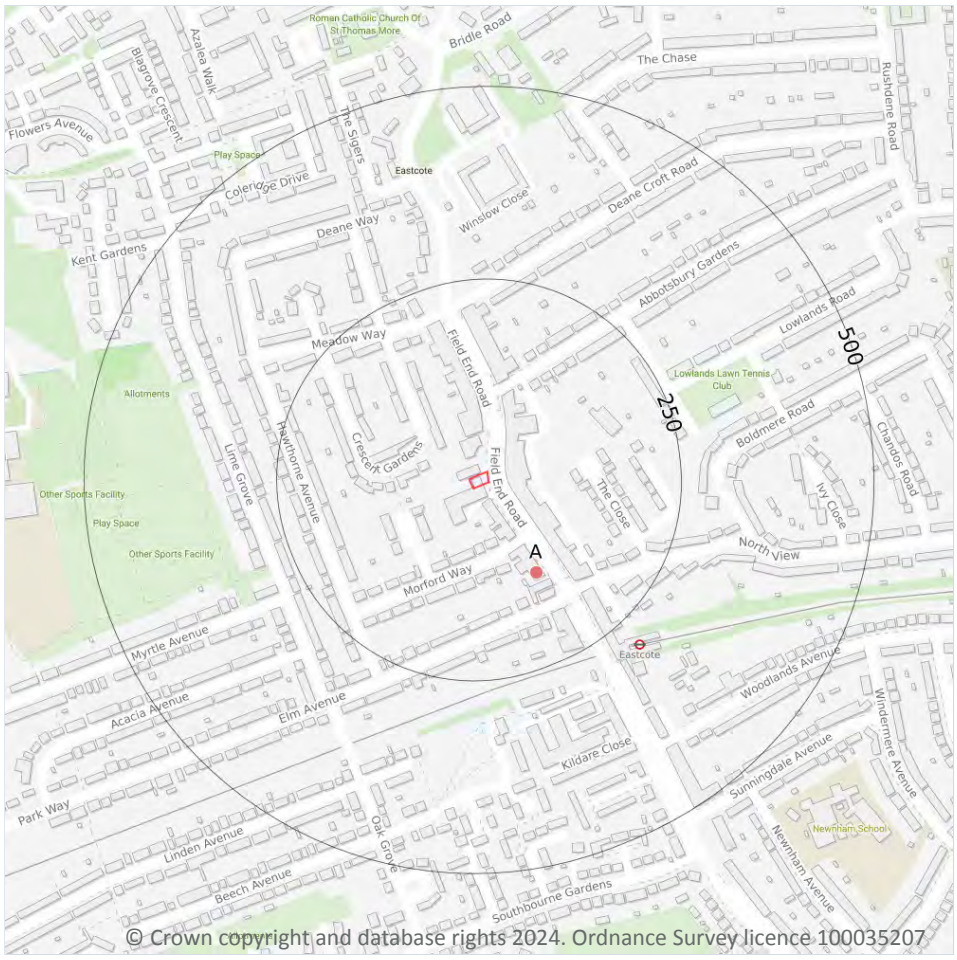
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 20 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Garage**	**1959**	**84430**
A	**On site**	**Garage**	**1960**	**84430**
D	149m SE	Garage	1960	83129
D	149m SE	Garage	1959	83129

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	4

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.

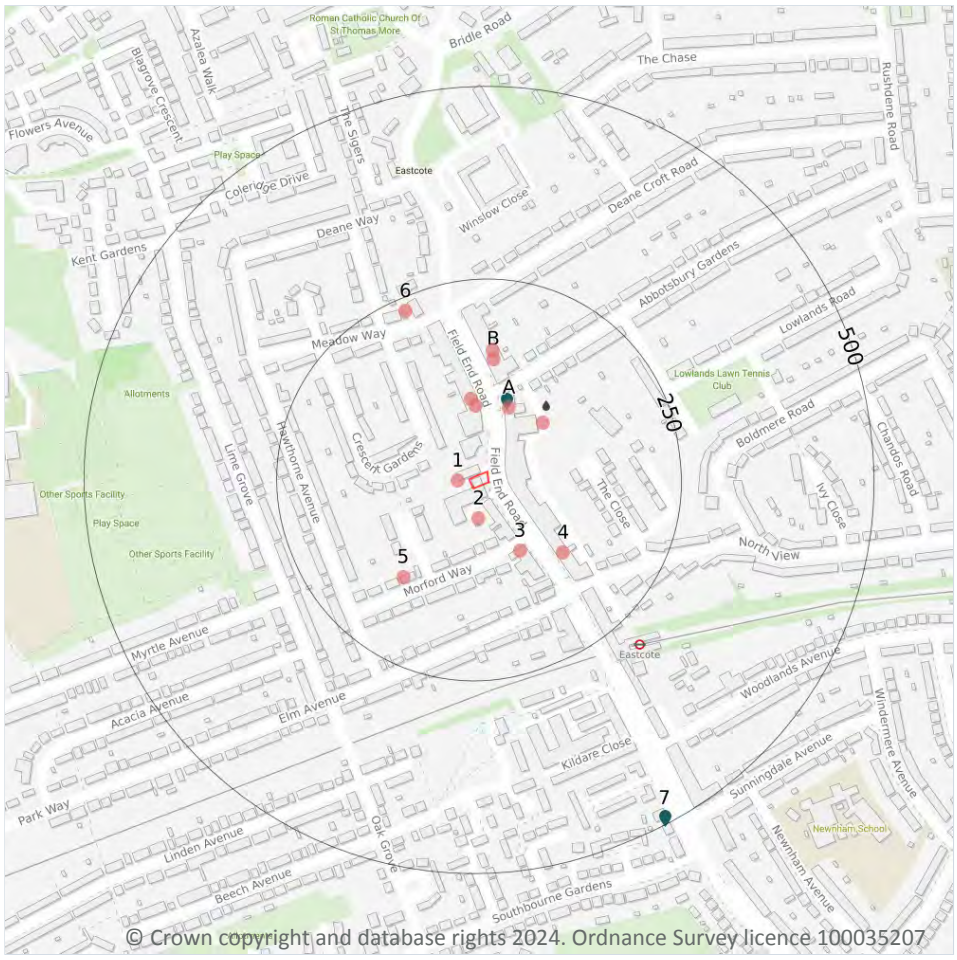
Features are displayed on the Waste and landfill map on **page 25 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	132m SE	184B, FIELD END ROAD, PINNER, HA5 1RF	WEX311239	Storing waste exemption	Not on a farm	Storage of waste in a secure place

ID	Location	Site	Reference	Category	Sub-Category	Description
A	132m SE	184B, FIELD END ROAD, PINNER, HA5 1RF	WEX311239	Storing waste exemption	Not on a farm	Storage of waste in secure containers
A	132m SE	184B, FIELD END ROAD, PINNER, HA5 1RF	WEX175509	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	132m SE	184B, FIELD END ROAD, PINNER, HA5 1RF	WEX175509	Storing waste exemption	Not on a farm	Storage of waste in secure containers

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 pollutant release (Part A(2)/B)

Licensed Discharges to controlled waters

4.1 Recent industrial land uses

Records within 250m	12

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 28 >**

ID	Location	Company	Address	Activity	Category
1	15m W	Electricity Sub Station	Greater London, HA5	Electrical Features	Infrastructure and Facilities
2	40m S	Electricity Sub Station	Greater London, HA5	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
A	88m N	V I P Hearing Solutions	121, Field End Road, Ruislip, Greater London, HA5 1QH	Disability and Mobility Equipment	Consumer Products
A	88m N	Cake Villa	130, Field End Road, Ruislip, Greater London, HA5 1RJ	Baking and Confectionery	Foodstuffs
A	97m NE	Electricity Sub Station	Greater London, HA5	Electrical Features	Infrastructure and Facilities
A	97m N	Bloom Hearing Specialists	126, Field End Road, Ruislip, Greater London, HA5 1RJ	Disability and Mobility Equipment	Consumer Products
3	98m SE	Martin Clarke Heat Shop	174, Field End Road, Ruislip, Greater London, HA5 1RF	Fireplaces and Mantelpieces	Consumer Products
4	133m SE	The Curtain Gallery Ltd	187, Field End Road, Ruislip, Greater London, HA5 1QR	Curtains and Blinds	Consumer Products
B	146m N	Three G Develop Ltd	105a, Field End Road, Ruislip, Greater London, HA5 1QG	Clothing, Components and Accessories	Consumer Products
5	147m SW	Plan Demolition Ltd	22, Morford Way, Ruislip, Greater London, HA4 8SN	Demolition Services	Construction Services
B	157m N	Harrow Lighting & Sound	103, Field End Road, Ruislip, Greater London, HA5 1QG	Lampshades and Lighting	Consumer Products
6	233m NW	Electricity Sub Station	Greater London, HA4	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	2

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

Features are displayed on the Current industrial land use map on **page 28 >**

ID	Location	Address	Details	
A	94m N	First Choice, 119 Field End Road, Eastcote, Pinner, Middlesex, HA5 1QH	Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
7	492m SE	Star Field End, 313a Field End Road, Eastcote	Process: Unloading of Petrol into Storage at Service Stations Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

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	1

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 28 >**

ID	Location	Address	Details	
A	114m NE	HAYES ASPHALT AND READYMIX, PUMP LANE, HAYES, GREATER LONDON, UB3 3LZ	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE (CONTAM SURFACE WATER, NOT WASTE SIT Permit Number: EPRGB3493AX Permit Version: 1 Receiving Water: RIVER CRANE	Status: NEW ISSUED UNDER EPR 2010 Issue date: 17/11/2017 Effective Date: 17/11/2017 Revocation Date: -

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0

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

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

4.17 List 2 Dangerous Substances

Records within 500m	0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	0

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

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

4.19 Pollution inventory substances

Records within 500m	0

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

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

4.20 Pollution inventory waste transfers

Records within 500m	0

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

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

4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer

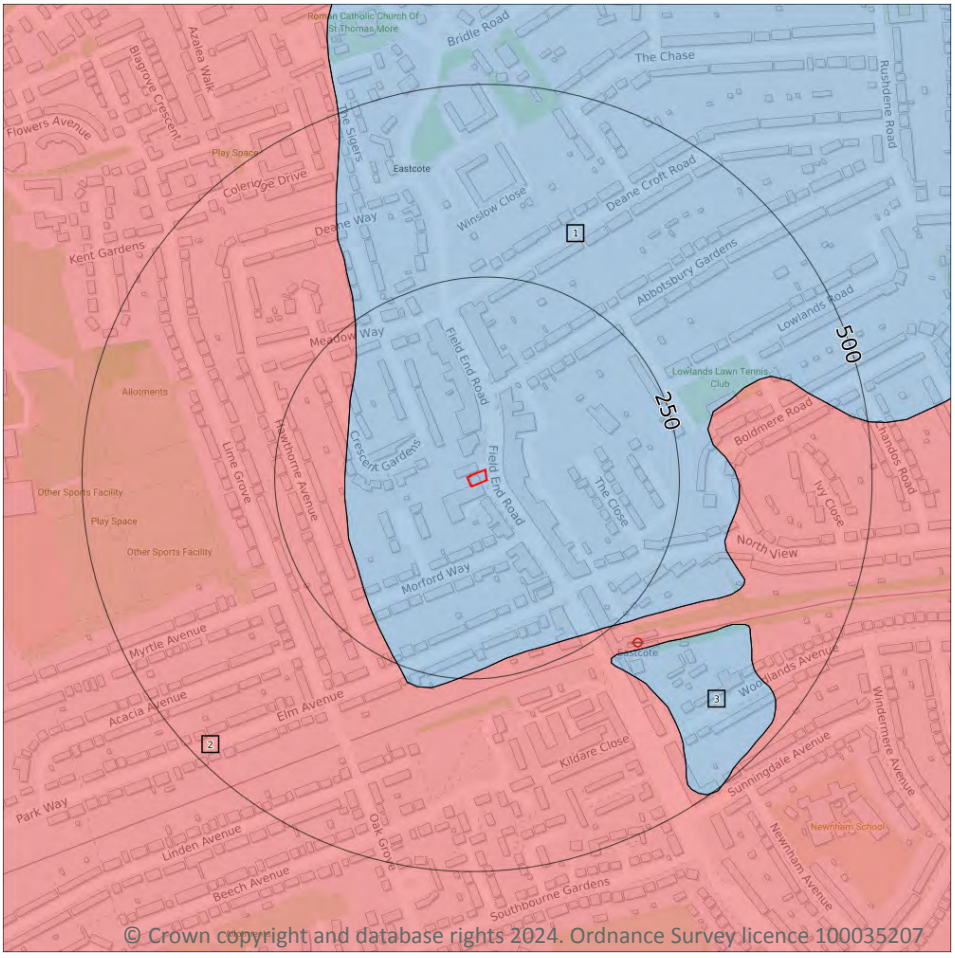
5.1 Superficial aquifer

Records within 500m	0

Aquifer status of groundwater held within superficial geology.

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	3

Aquifer status of groundwater held within bedrock geology.

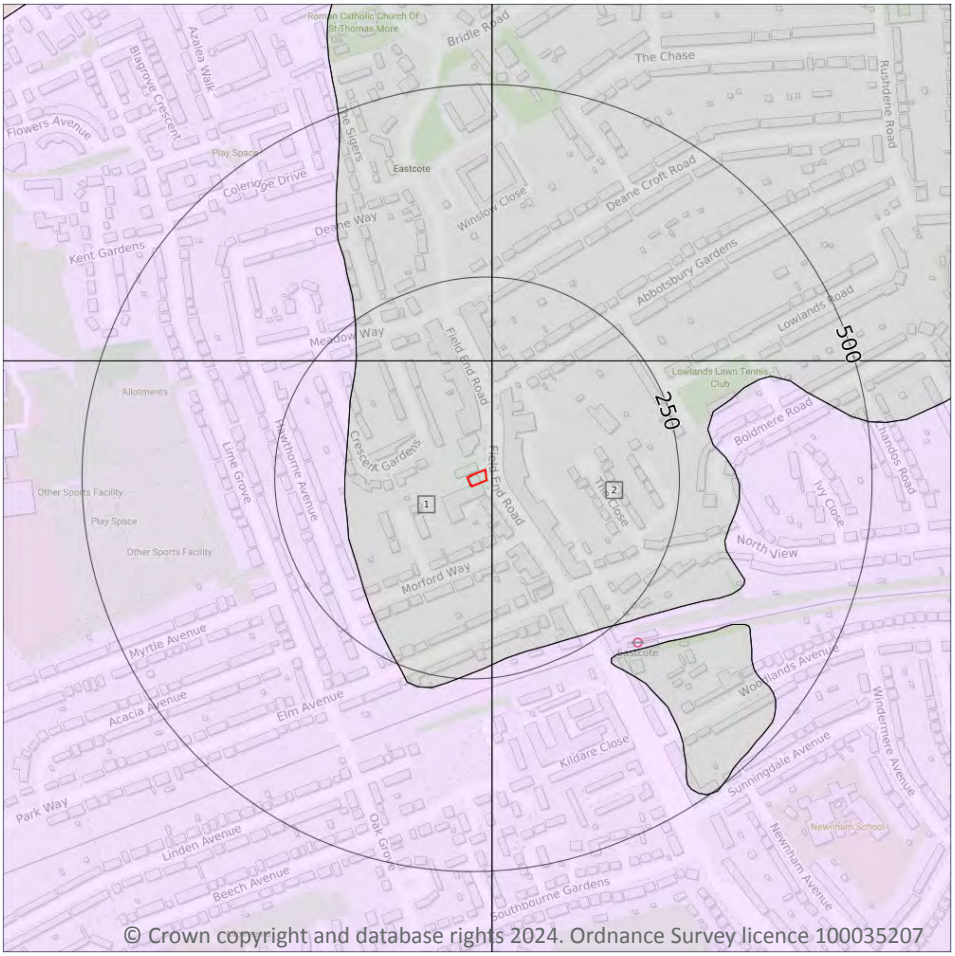
Features are displayed on the Bedrock aquifer map on **page 36 >**

ID	Location	Designation	Description
1	**On site**	**Unproductive**	**These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow**
2	159m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	282m SE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulnerability
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability

- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	2

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

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

Features are displayed on the Groundwater vulnerability map on **page 38 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	**On site**	**Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed**
2	6m E	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	**0**

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

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

5.5 Groundwater vulnerability- local information

Records on site	**0**

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

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

Abstractions and Source Protection Zones

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	0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

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

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

6 Hydrology

Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m	0

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

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	0

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

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

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

Features are displayed on the Hydrology map on **page 42 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	**On site**	**River**	**Yeading Brook**	**GB106039023051**	**Crane Rivers and Lakes**	**London**

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

6.4 WFD Surface water bodies

Records identified	1

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

Features are displayed on the Hydrology map on **page 42 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1263m SE	River	Yeading Brook	GB106039023051 ↗	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site	0

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.

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

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

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

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

7.2 Historical Flood Events

Records within 250m	0

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

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

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

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

7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding

Site Outline
Search buffers in metres (m)

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

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

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

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

8.1 Surface water flooding

Highest risk on site	**Negligible**
Highest risk within 50m	**1 in 100 year, 0.1m - 0.3m**

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

Features are displayed on the Surface water flooding map on **page 48 >**

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

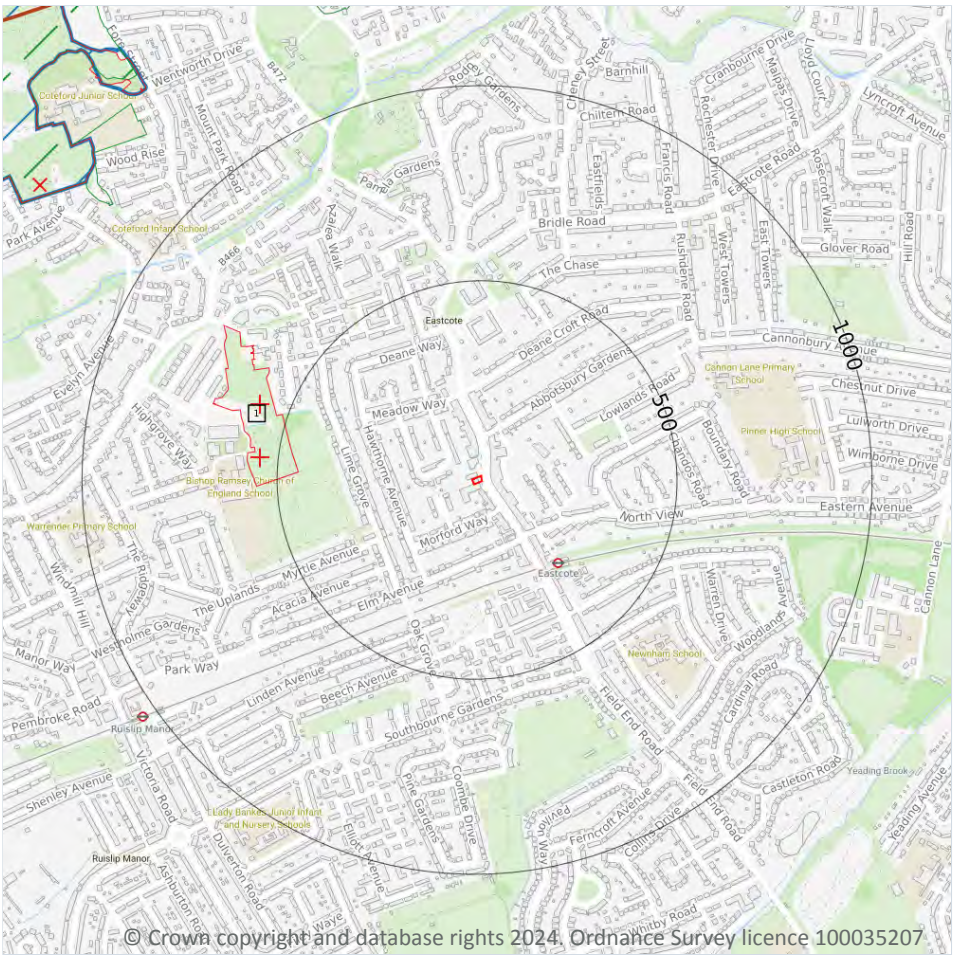
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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

Features are displayed on the Groundwater flooding map on **page 50 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 51 >**

ID	Location	Name	Data source
A	1250m NW	Ruislip Woods	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	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	1

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.

Features are displayed on the Environmental designations map on **page 51 >**

ID	Location	Name	Data source
A	1250m NW	Ruislip Woods	Natural England

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 51 >**

ID	Location	Name	Data source
1	446m W	Ruislip	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 51 >**

ID	Location	Name	Woodland Type
A	1431m NW	Park Wood	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	3

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

Features are displayed on the Environmental designations map on **page 51 >**

ID	Location	Name	Local Authority name
2	1161m NW	London	Hillingdon
3	1245m N	London	Hillingdon
-	1912m SW	London	Hillingdon

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

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

This data is sourced from Natural England.

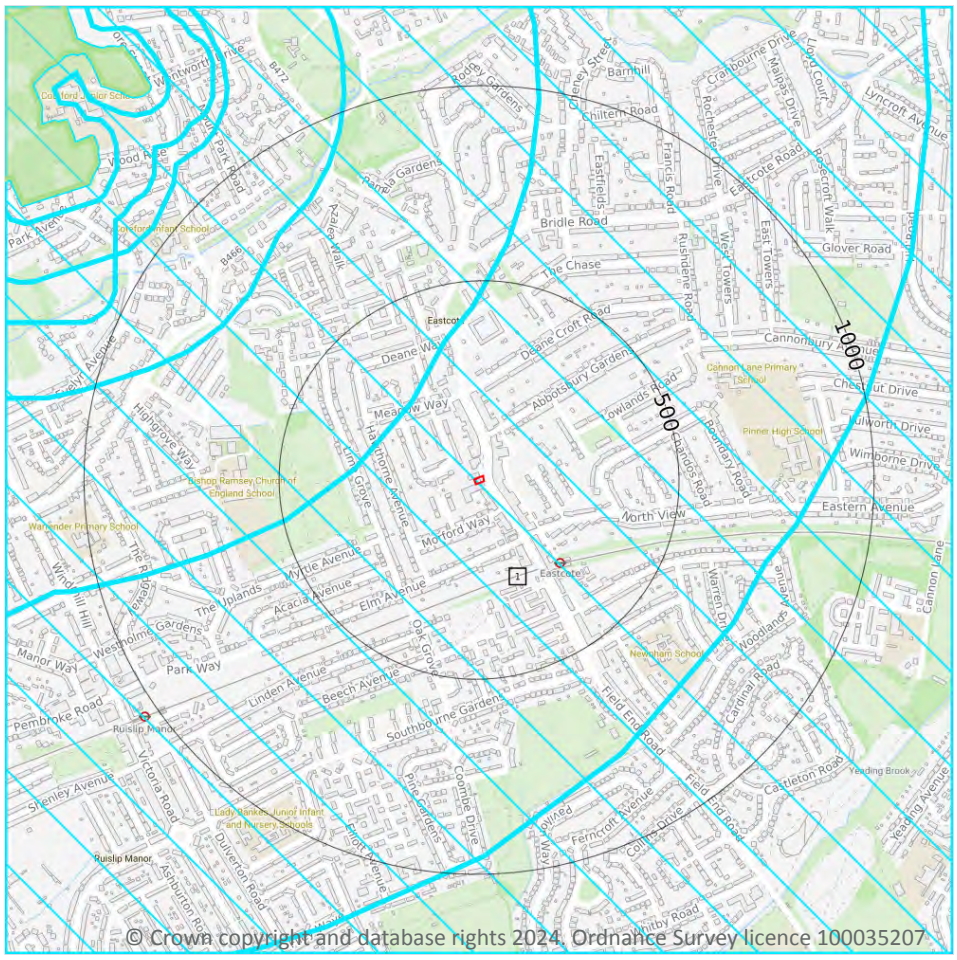
10.16 Nitrate Vulnerable Zones

Records within 2000m	0

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

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

SSSI Impact Zones and Units



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 56 >**

ID	Location	Type of developments requiring consultation
1	On site	**Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**2**

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

Features are displayed on the SSSI Impact Zones and Units map on **page 56 >**

ID: 10
Location: 1250m NW
SSSI name: Ruislip Woods
Unit name: Park Wood South
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

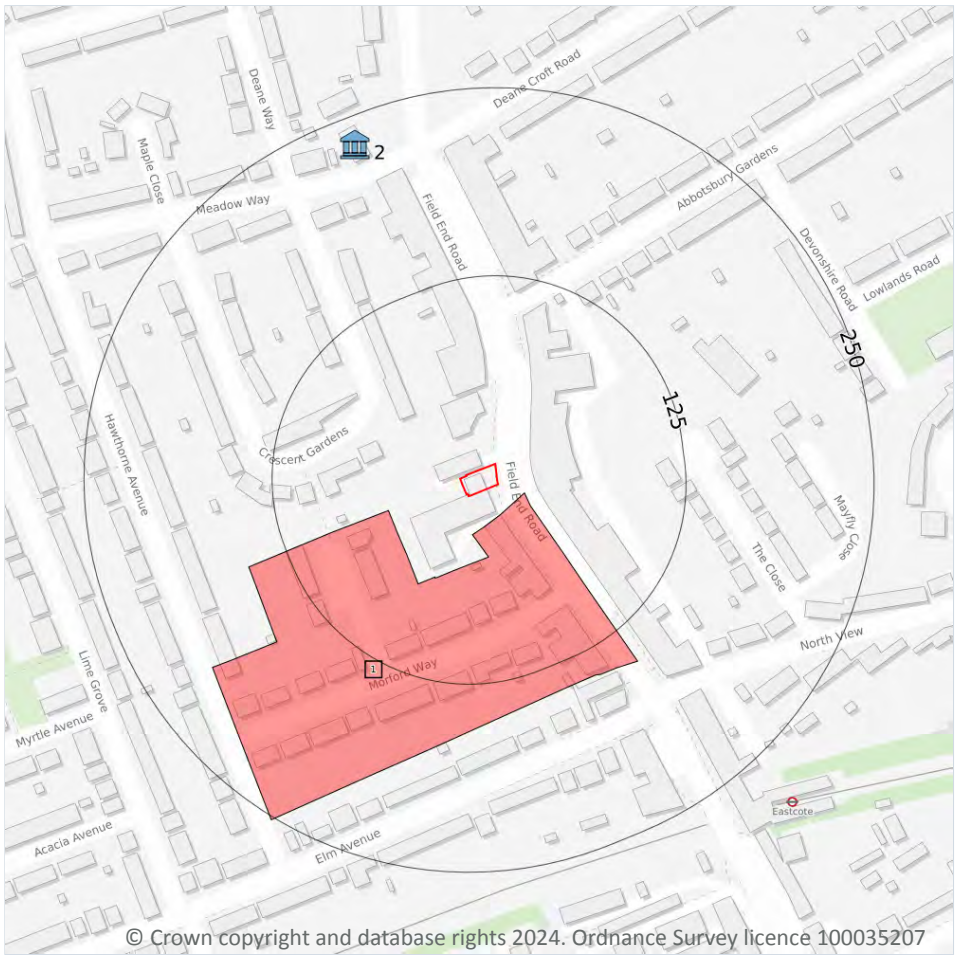
Feature name	Feature condition	Date of assessment
Invert. assemblage A1 arboreal canopy	Favourable	18/11/2020
Invert. assemblage A2 wood decay	Favourable	18/11/2020
Lowland mixed deciduous woodland	Favourable	18/11/2020

ID: 11
Location: 1626m NW
SSSI name: Ruislip Woods
Unit name: Park Wood
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Invert. assemblage A1 arboreal canopy	Favourable	18/11/2020
Invert. assemblage A2 wood decay	Favourable	18/11/2020
Lowland mixed deciduous woodland	Favourable	18/11/2020

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	1

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 59 >**

ID	Location	Name	Grade	Reference Number	Listed date
2	232m N	Barn To South Of Field End Farmhouse	II	1193521	12/12/1957

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 59 >**

ID	Location	Name	District	Date of designation
1	16m SE	Eastcote, Morford Way	Hillingdon	1989

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.

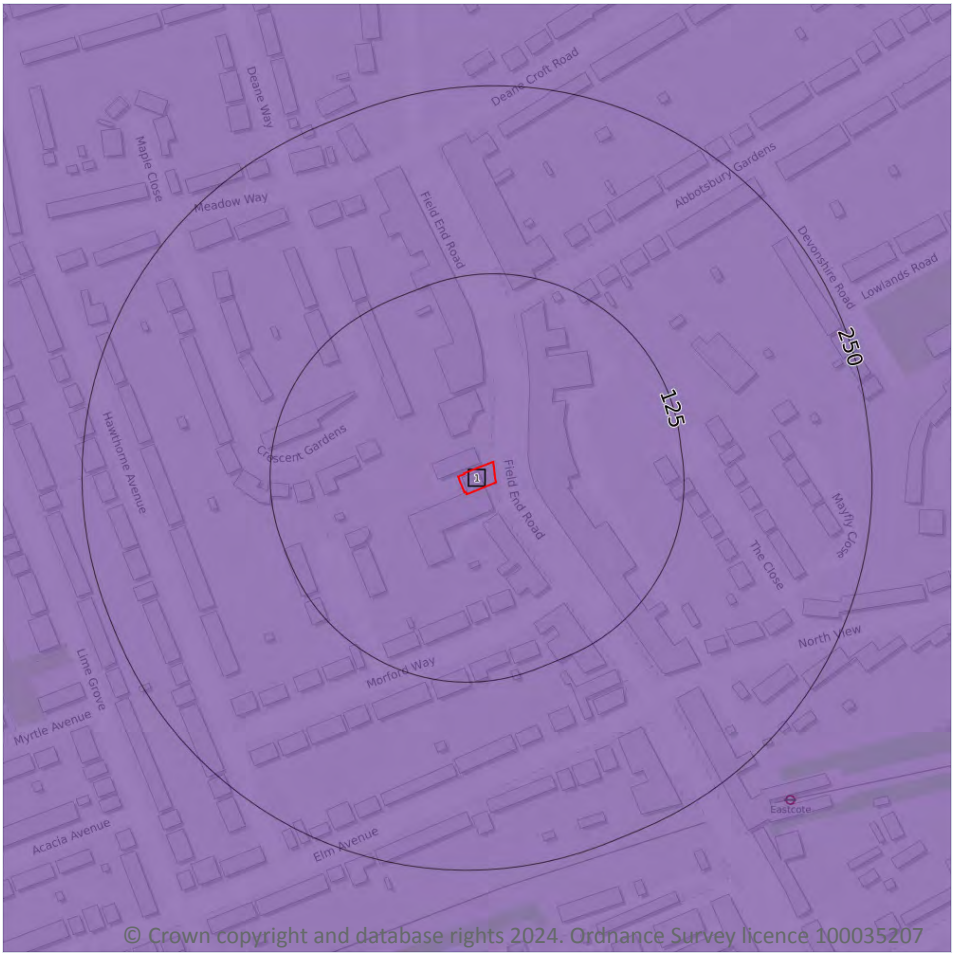
11.7 Registered Parks and Gardens

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 62 >**

ID	Location	Classification	Description
1	**On site**	**Urban**	-

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

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

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

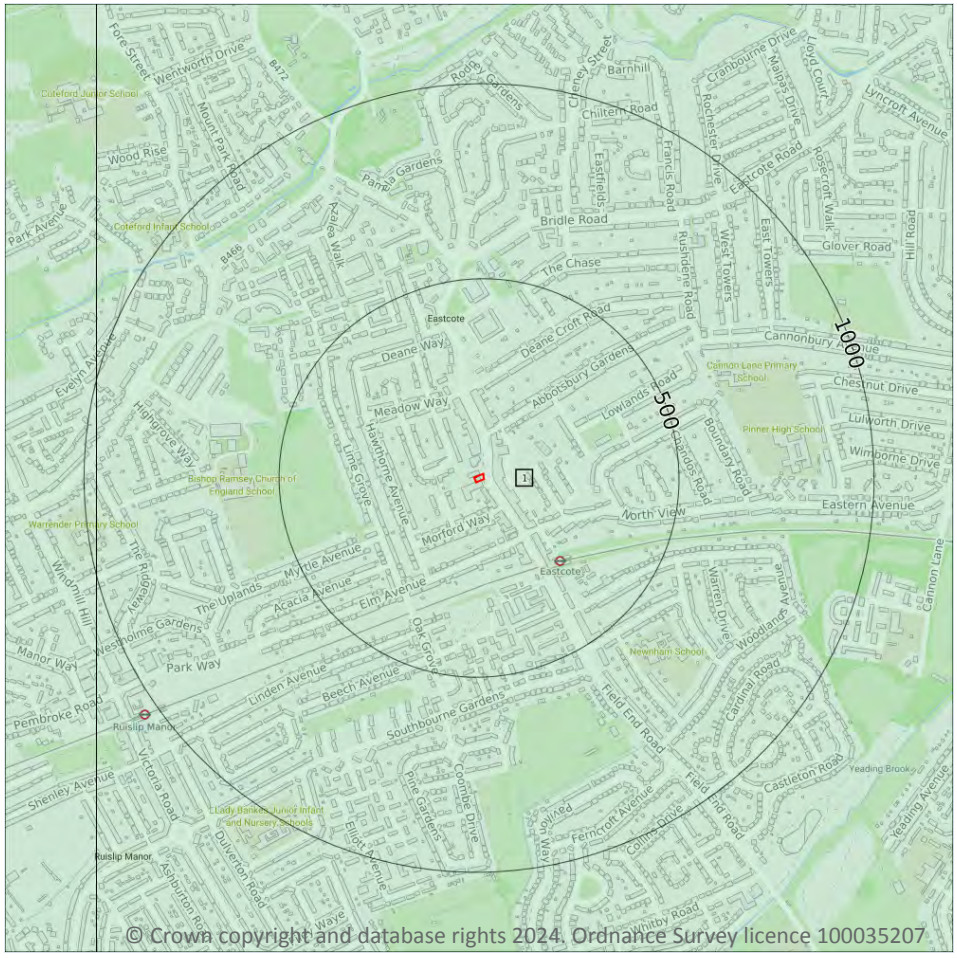
13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 65 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**TQ18NW**

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.

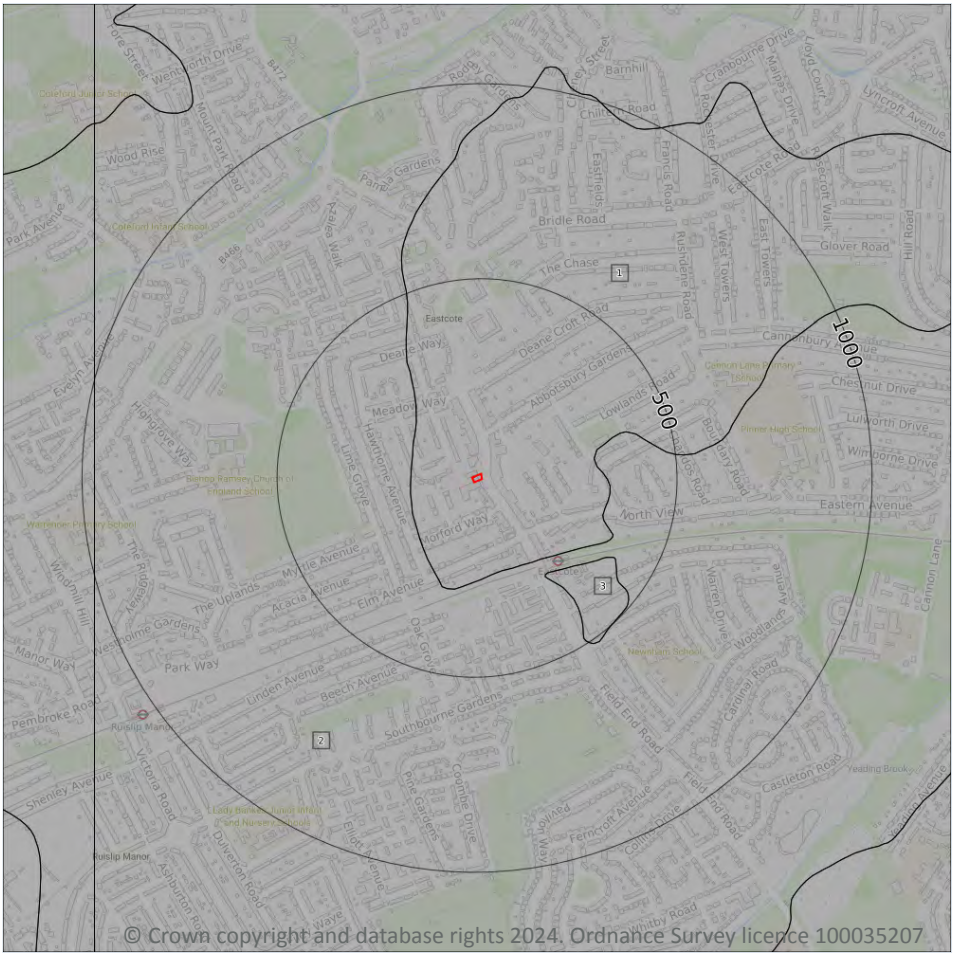
14.4 Landslip (10k)

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



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m **3**

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 68 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LC-CLAY**	**London Clay Formation - Clay**	**Eocene Epoch**
2	157m W	WRB-CLAY	Woolwich And Reading Beds Formation - Clay	Paleocene Epoch
3	293m SE	LC-CLAY	London Clay Formation - Clay	Eocene Epoch

This data is sourced from the British Geological Survey.

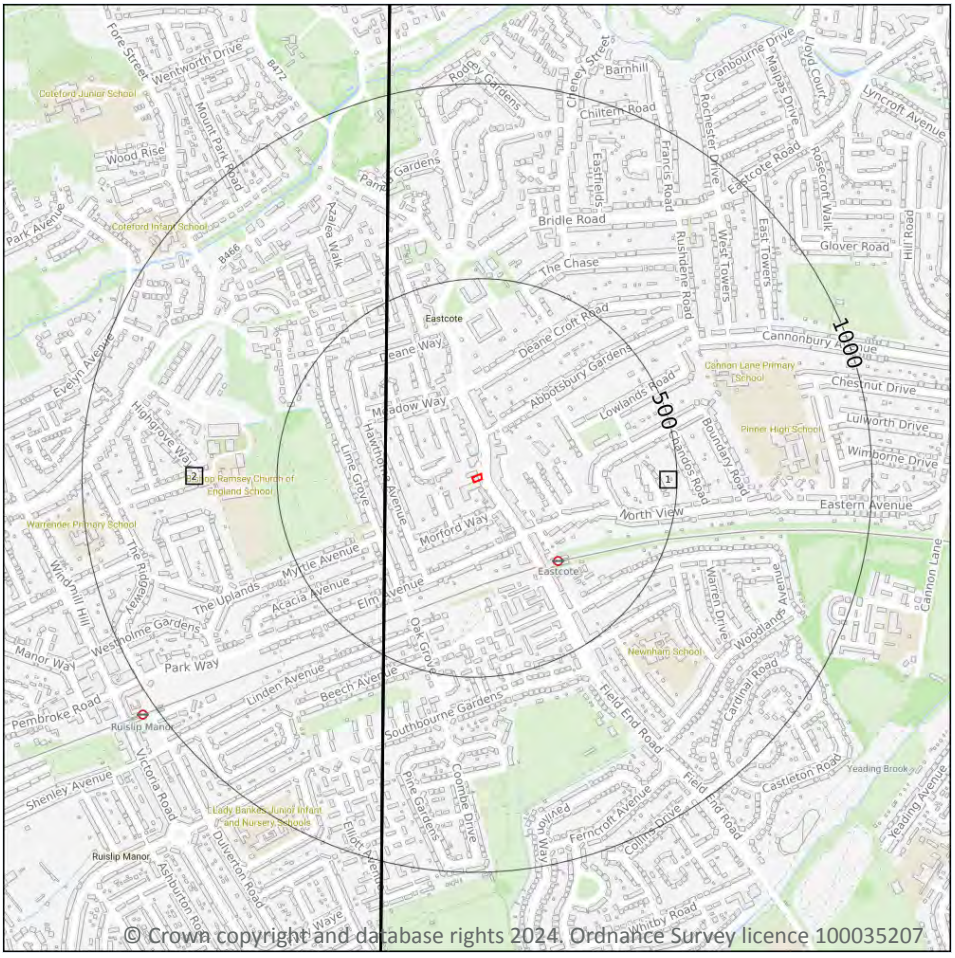
14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	2

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 70 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW256_north_london_v4**
2	223m W	Full	Full	Full	Full	EW255_beaconsfield_v4

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial

15.4 Superficial geology (50k)

Records within 500m	0

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.

This data is sourced from the British Geological Survey.

15.5 Superficial 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 superficial deposits (the zone between the land surface and the water table).

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.

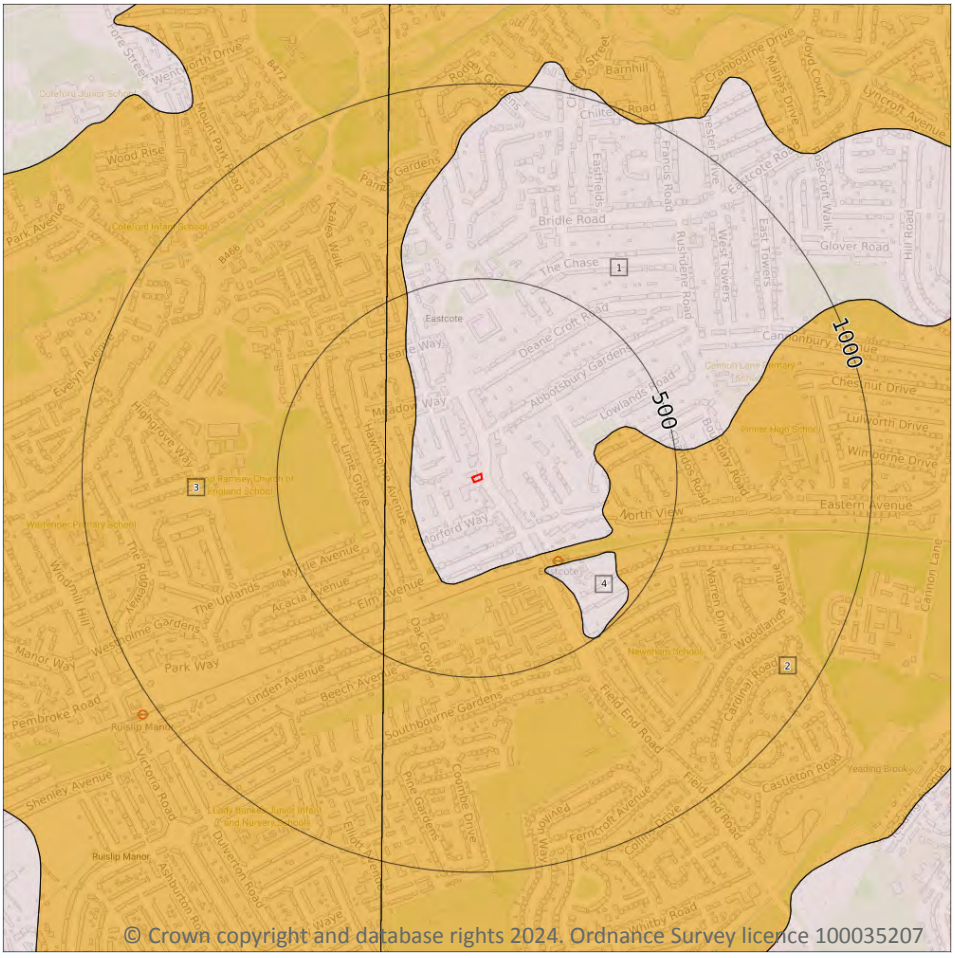
15.7 Landslip permeability (50k)

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 **4**

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 73 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LC-XCZS**	**LONDON CLAY FORMATION - CLAY, SILT AND SAND**	**YPRESIAN**
2	159m W	LMBE-XCZS	LAMBETH GROUP - CLAY, SILT AND SAND	THANETIAN
3	223m W	LMBE-XCZS	LAMBETH GROUP - CLAY, SILT AND SAND	THANETIAN
4	282m SE	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

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

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

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

16 Boreholes

Site Outline

Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m	2

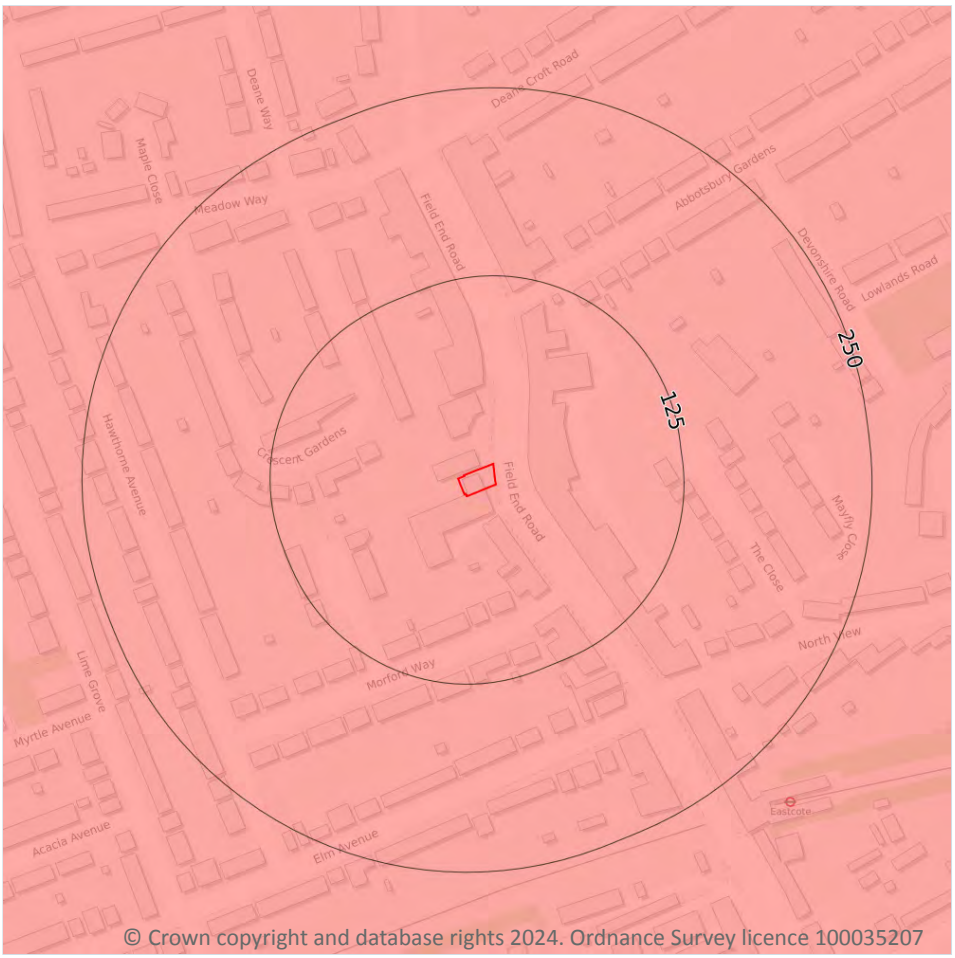
The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several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

Features are displayed on the Boreholes map on **page 75 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	156m NE	511130 187930	EASTCOTE HEALTH CENTRE 1	9.14	N	581811 ↗
A	157m E	511140 187910	EASTCOTE HEALTH CENTRE 2	9.14	N	581812 ↗

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

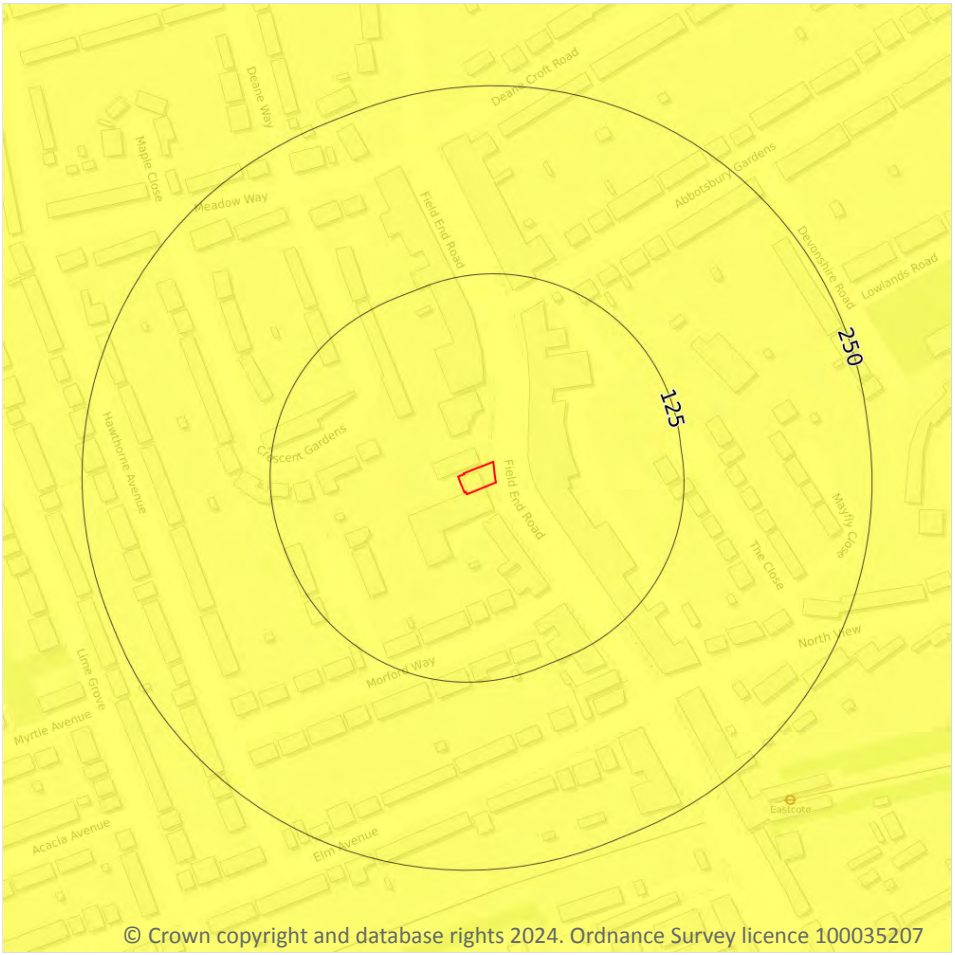
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 76 >**

Location	Hazard rating	Details
On site	**Moderate**	**Ground conditions predominantly high 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 77 >**

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

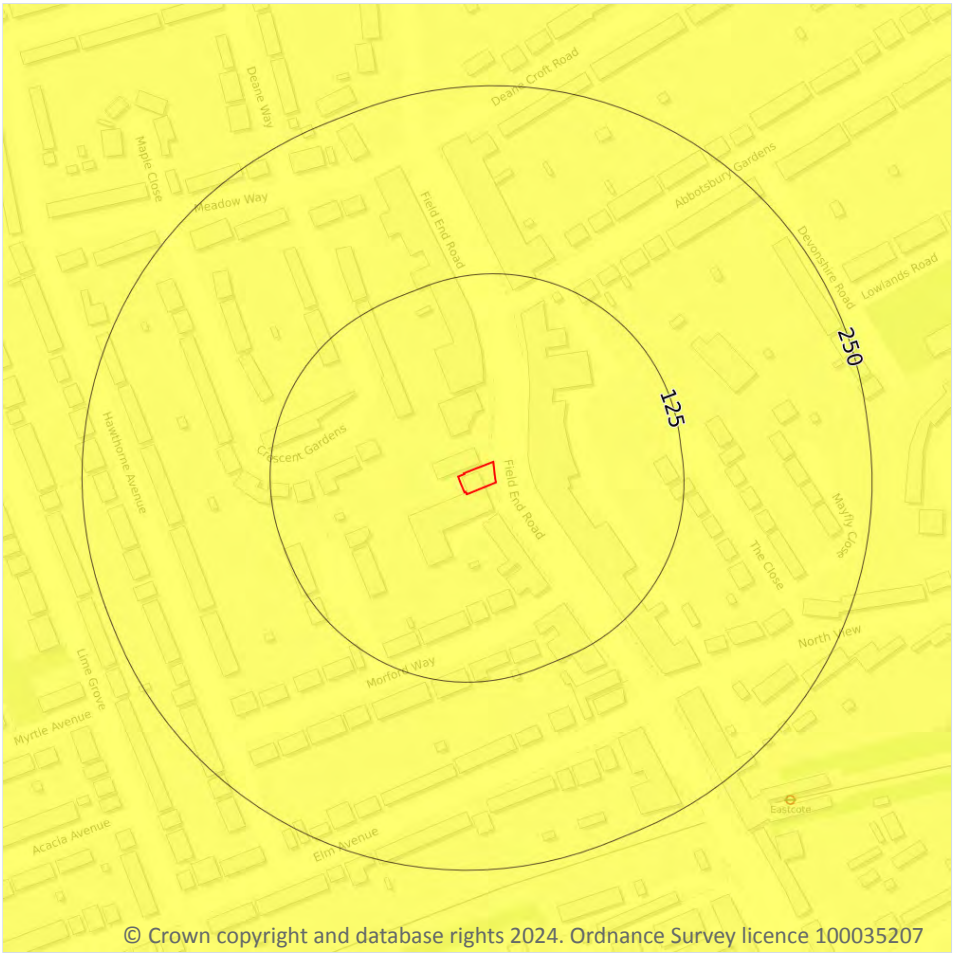
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 78 >**

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

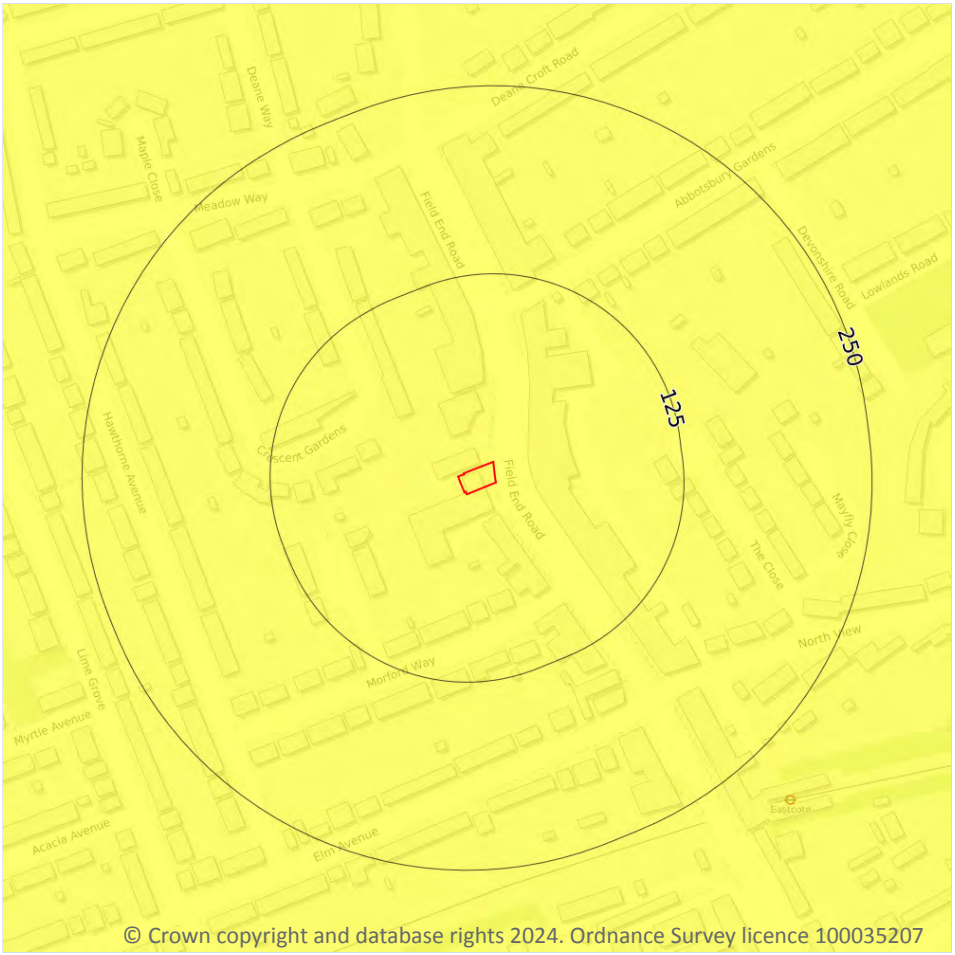
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 79 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

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

17.5 Landslides

Records within 50m	1

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

Features are displayed on the Natural ground subsidence - Landslides map on **page 80 >**

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

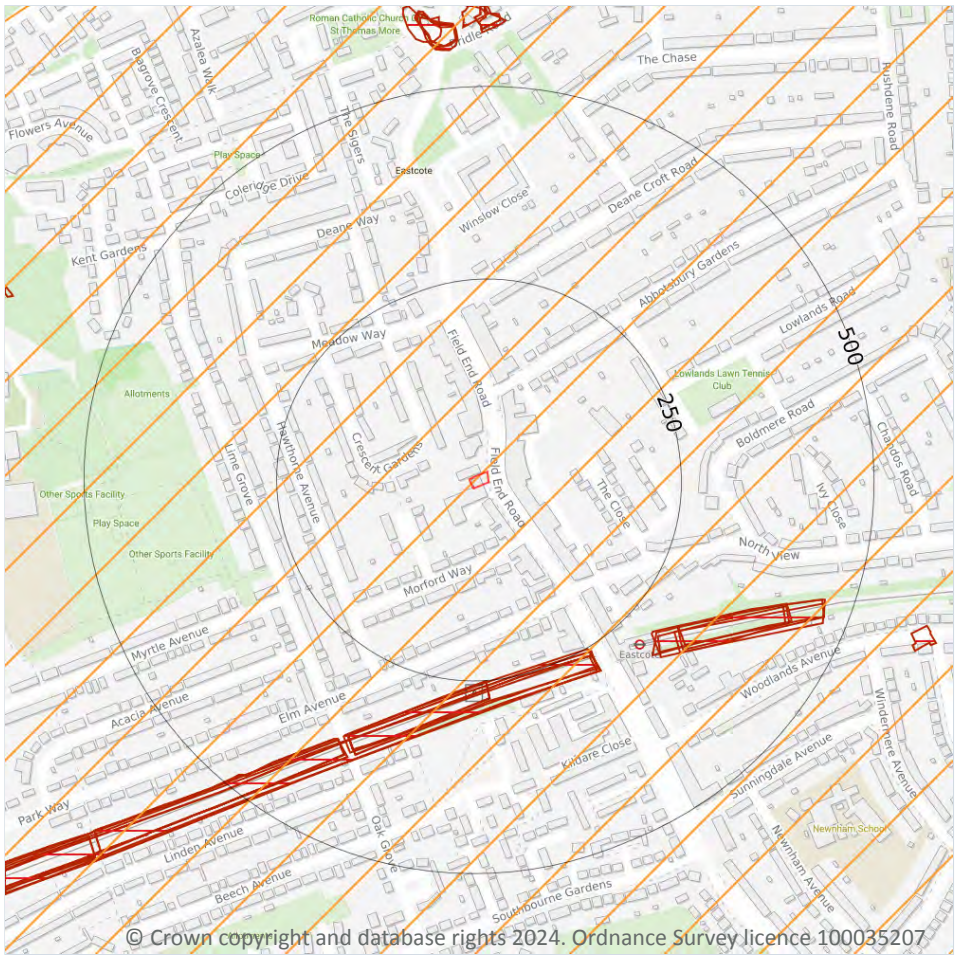
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 81 >**

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

This data is sourced from the British Geological Survey.

18 Mining and ground workings



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	0

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

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	3

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 83 >**

ID	Location	Land Use	Year of mapping	Mapping scale
A	244m S	Cuttings	1960	1:10560
A	248m S	Cuttings	1938	1:10560
A	248m S	Cuttings	1912	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	0

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

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m	0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	2

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 83 >**

ID	Location	Name	Commodity	Class	Likelihood
1	**On site**	**Not available**	**Chalk**	**C**	**Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.**
-	968m W	Not available	Chalk	C	Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should 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

Site Outline

Search buffers in metres (m)

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

20.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 90 >**

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

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

21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m	2

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**No data**	**No data**	**No data**	**No data**	**No data**	**No data**	**No data**
7m E	No data	No data	No data	No data	No data	No data	No data

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	6

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

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	**16**	**2.8**	**203**	**139**	**0.9**	**76**	**50**	**21**	**14**
7m E	16	2.8	177	122	0.9	77	55	22	20
37m S	16	2.8	194	133	0.9	76	54	21	14
41m N	16	2.8	183	126	0.8	76	47	21	13
42m N	17	3	164	113	0.8	76	50	21	17
44m S	16	2.8	178	122	0.9	76	57	22	23

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

22 Railway infrastructure and projects

Site Outline

Search buffers in metres (m)

- Crossrail 1 Stations
- Crossrail 1 Route
- Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

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	2

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.

Features are displayed on the Railway infrastructure and projects map on **page 94 >**

Location	Land Use	Year of mapping	Mapping scale
241m S	Railway	1912	-
241m S	Railway	1935	-

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.

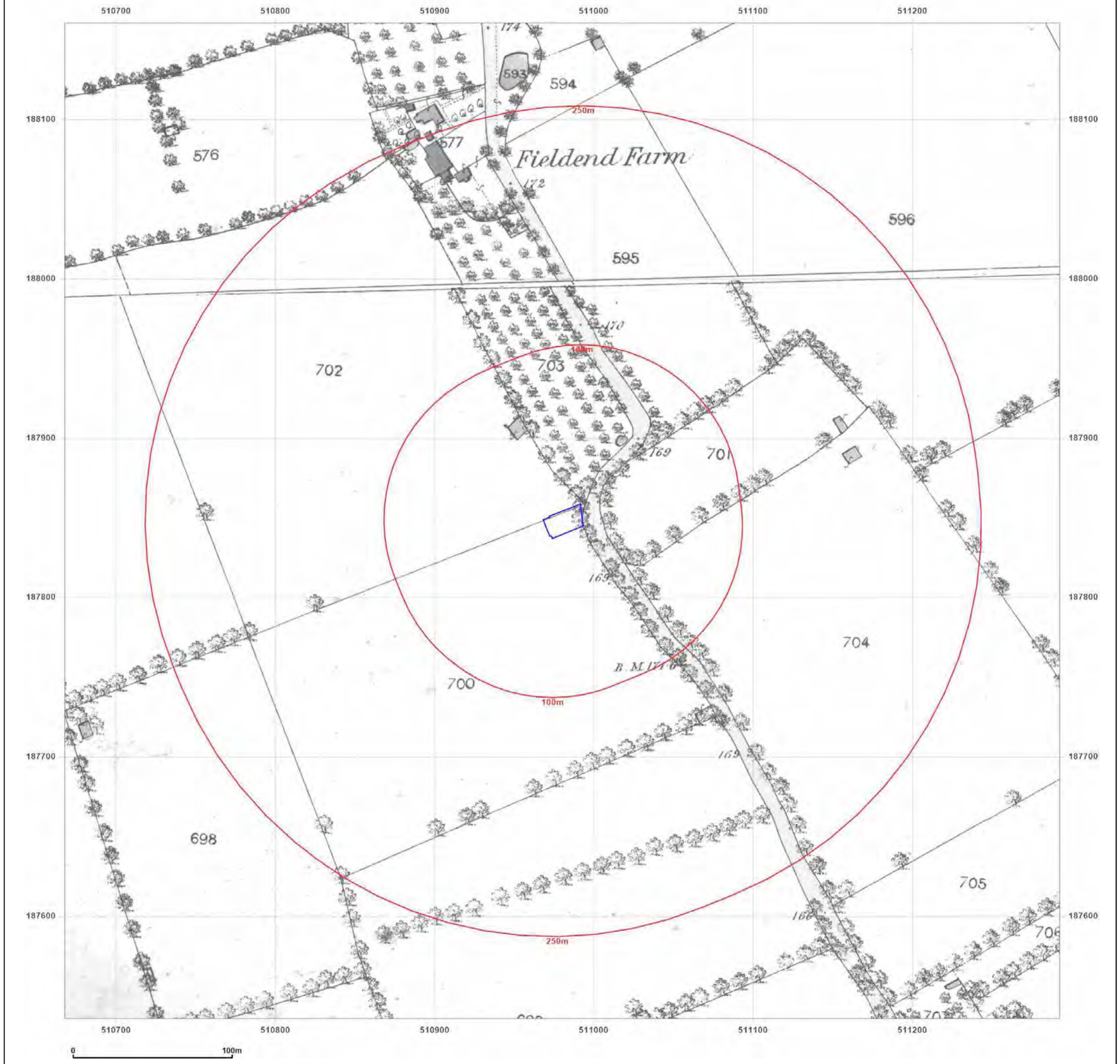
This data is sourced from HS2 ltd.

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 ↗.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.



Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series
Map date: **1865**
Scale: 1:2,500
Printed at: 1:2,500

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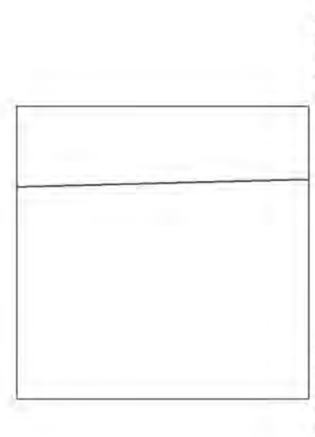

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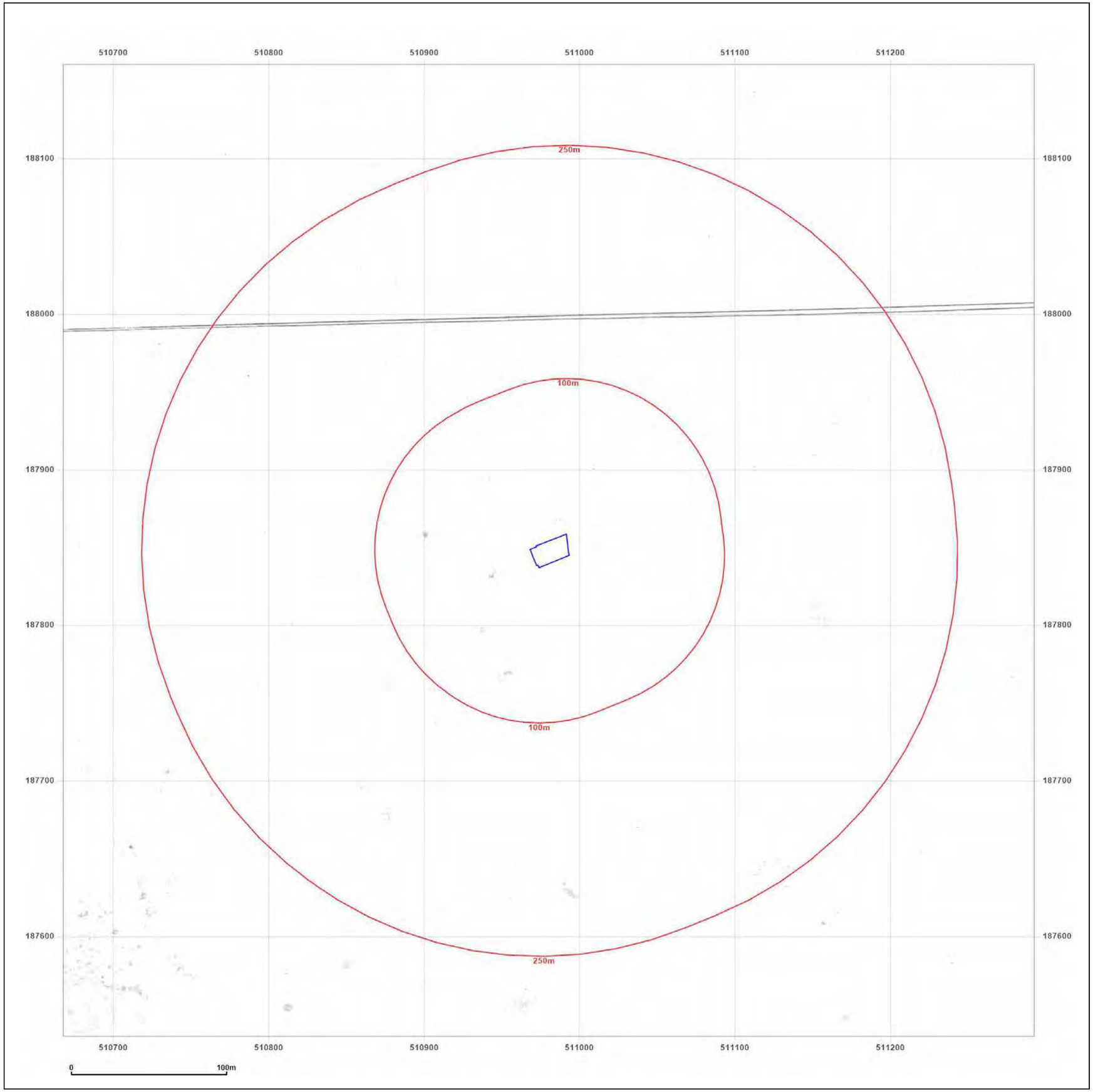
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 16 April 2024

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



Groundsure INSIGHTS

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Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1865**

Scale: 1:2,500

Printed at: 1:2,500

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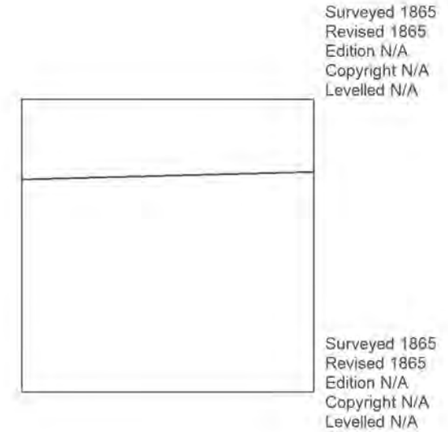

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Map legend available at:
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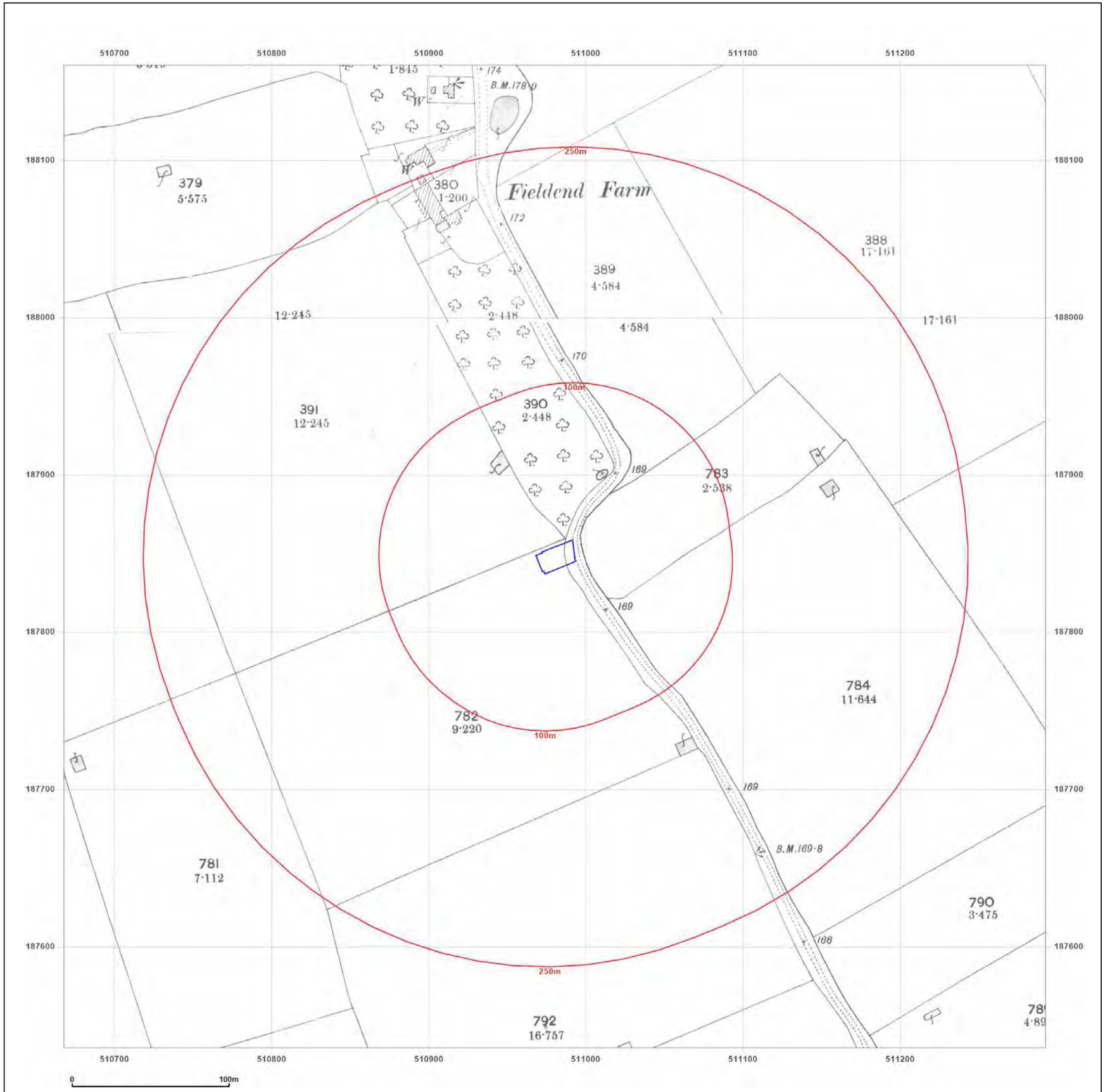

Groundsure INSIGHTS

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CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series
Map date: **1896**
Scale: 1:2,500
Printed at: 1:2,500

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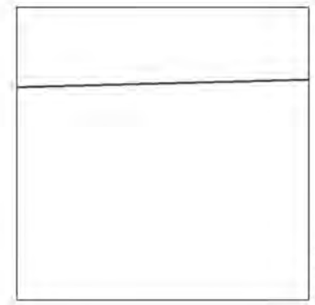
Surveyed 1896
Revised 1896
Edition N/A
Copyright N/A
Levelled N/A



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

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Map legend available at:
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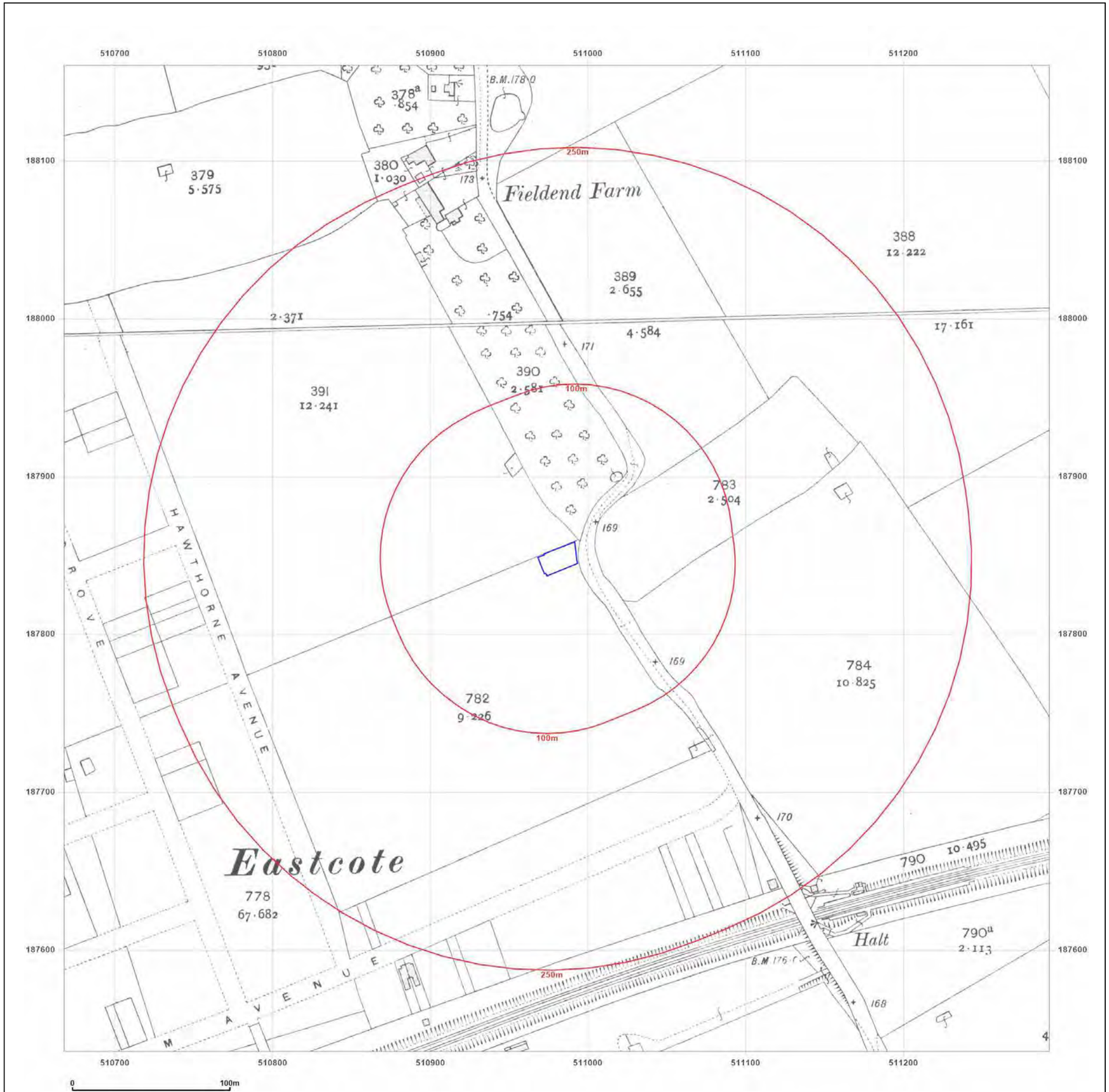

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series
Map date: **1913-1914**
Scale: 1:2,500
Printed at: 1:2,500

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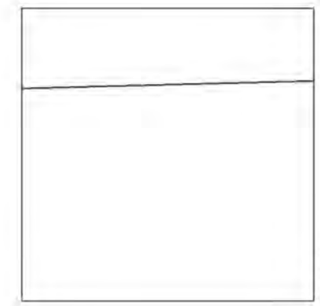

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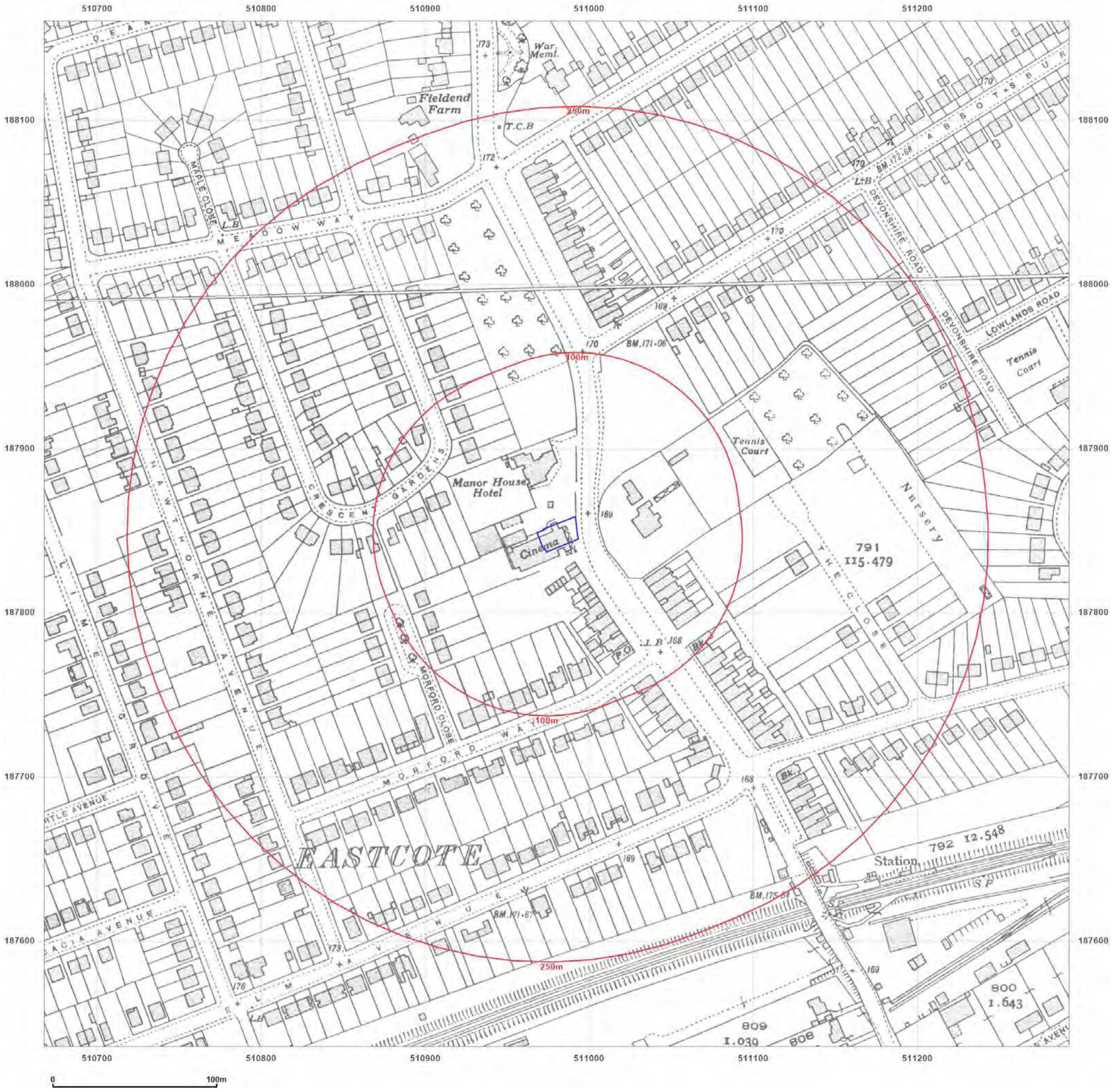

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series
Map date: **1935**
Scale: 1:2,500
Printed at: 1:2,500

N
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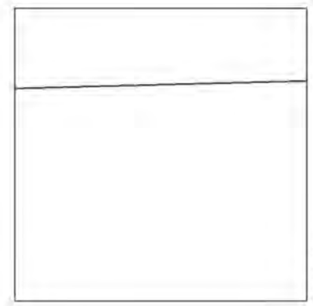

Surveyed 1935
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A

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

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Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series
Map date: **1939-1940**
Scale: 1:2,500
Printed at: 1:2,500

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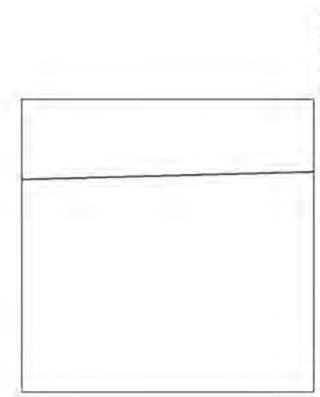

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Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: National Grid

Map date: **1959-1960**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1959
Revised 1959
Edition N/A
Copyright 1959
Levelled 1957

Surveyed 1959
Revised 1959
Edition N/A
Copyright 1959
Levelled 1957

Surveyed 1959
Revised 1959
Edition N/A
Copyright 1960
Levelled 1957

Surveyed 1959
Revised 1959
Edition N/A
Copyright 1960
Levelled 1957

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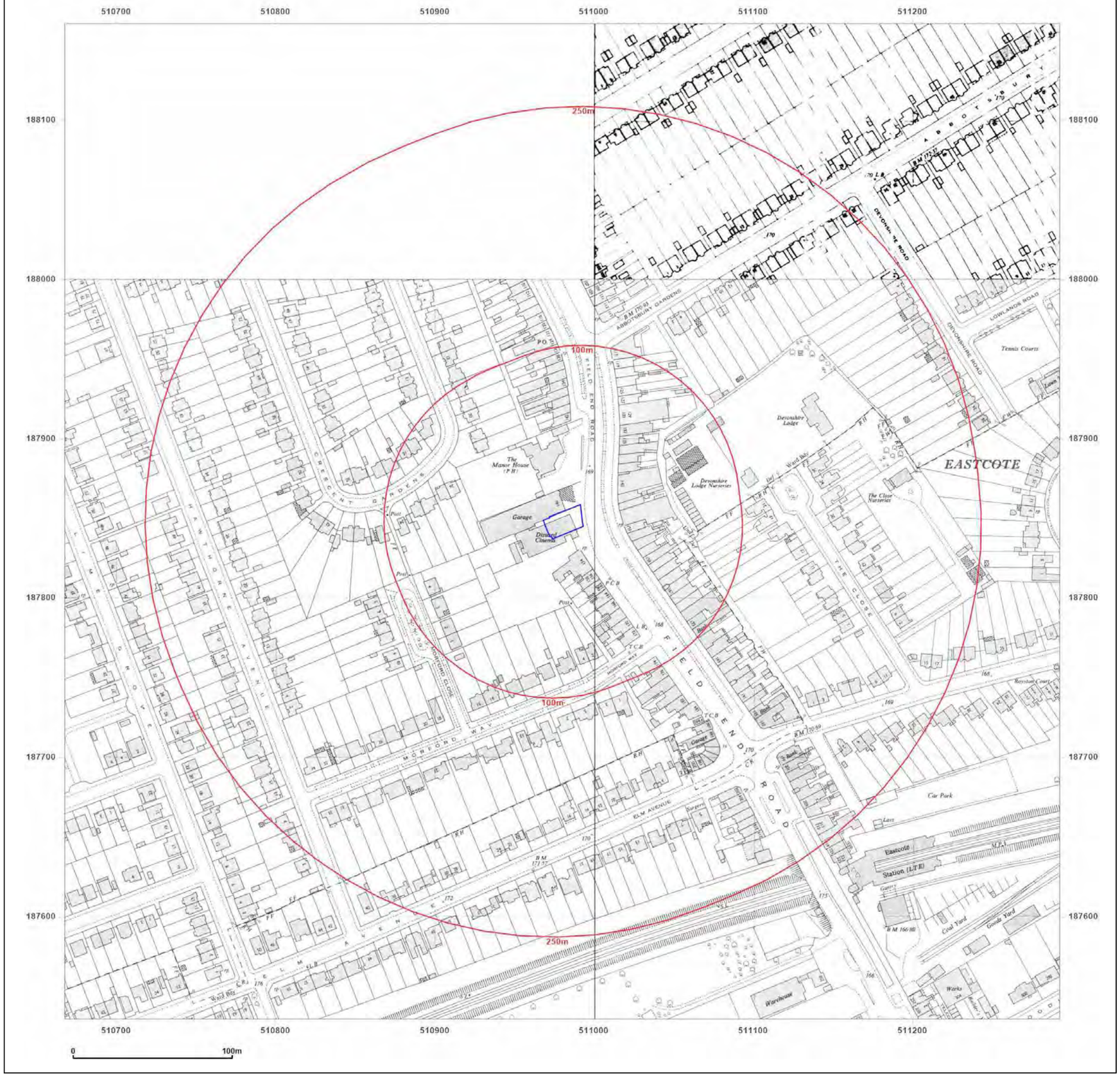

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: National Grid

Map date: **1959-1960**

Scale: 1:2,500

Printed at: 1:2,500

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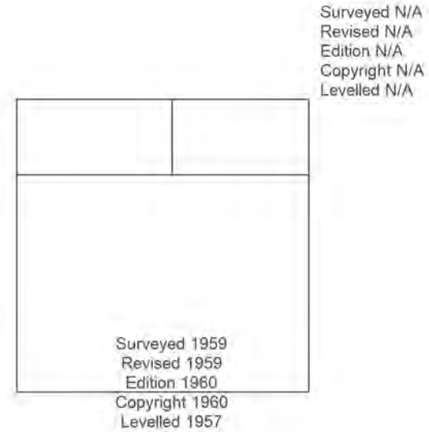

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Production date: 16 April 2024

Map legend available at:
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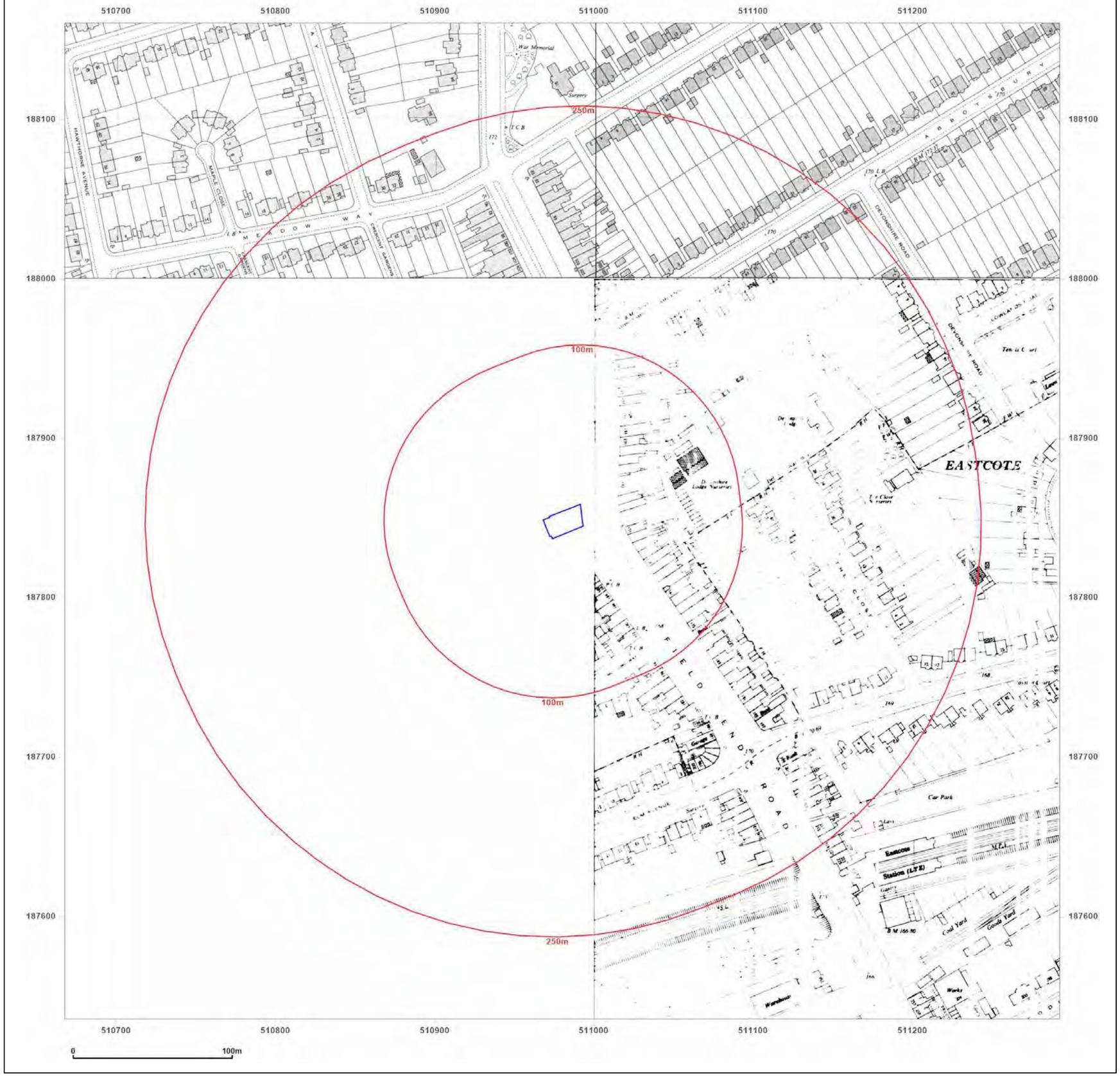

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: National Grid

Map date: **1959-1960**

Scale: 1:2,500

Printed at: 1:2,500

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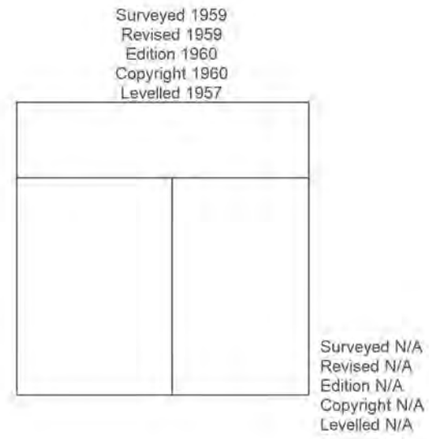

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Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: National Grid
Map date: **1970-1972**
Scale: 1:1,250
Printed at: 1:2,000

N
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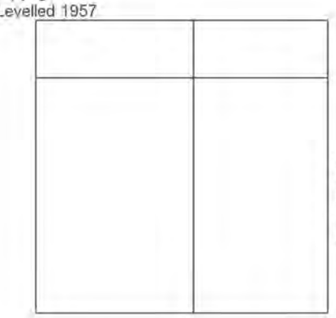
Surveyed 1959
Revised 1969
Edition N/A
Copyright 1970
Levelled 1957



Surveyed 1959
Revised 1972
Edition N/A
Copyright 1972
Levelled 1957

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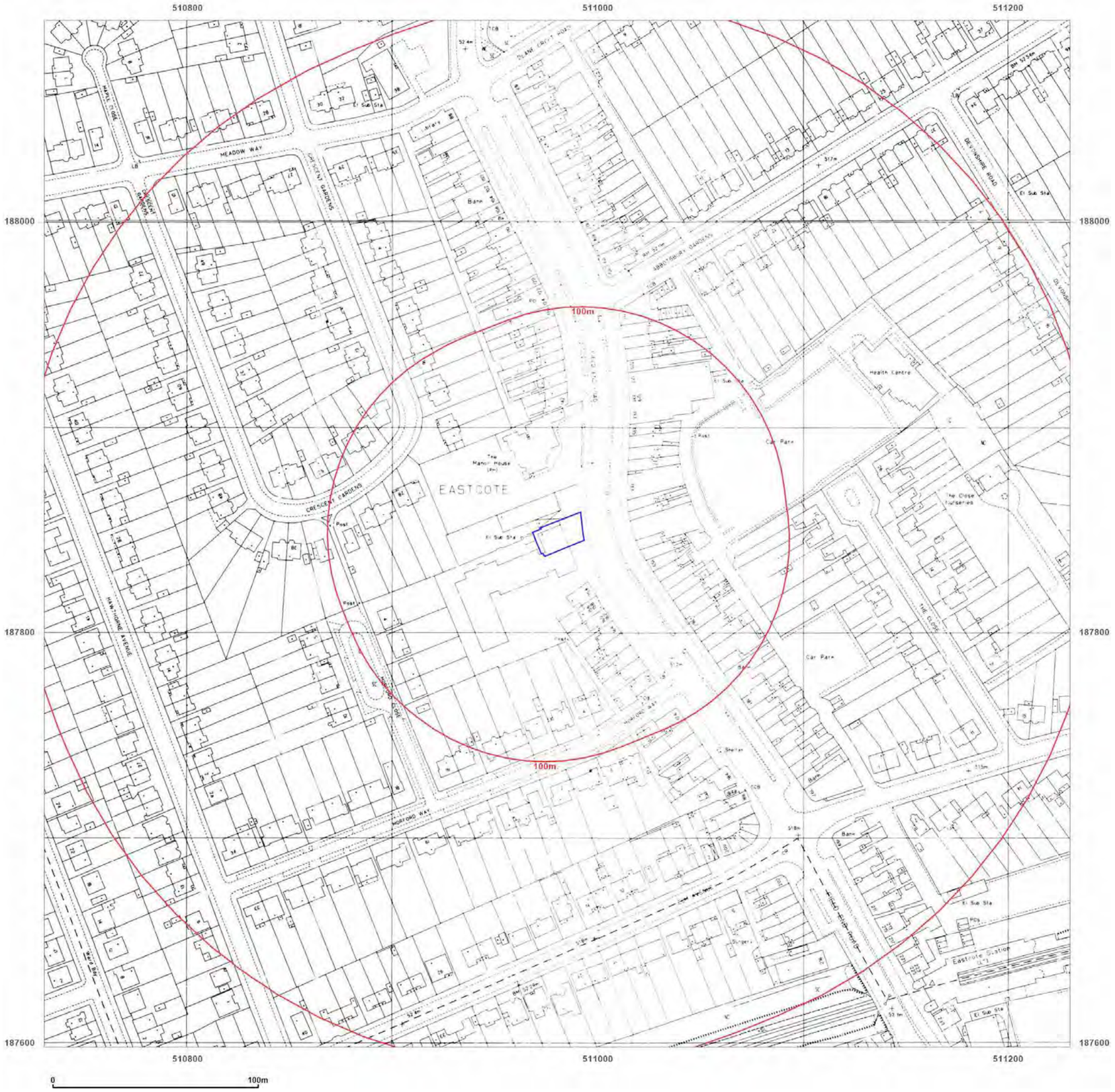

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: National Grid
Map date: **1991**
Scale: 1:1,250
Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1991
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1991
Levelled N/A

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Revised N/A
Edition N/A
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Revised N/A
Edition N/A
Copyright 1991
Levelled N/A

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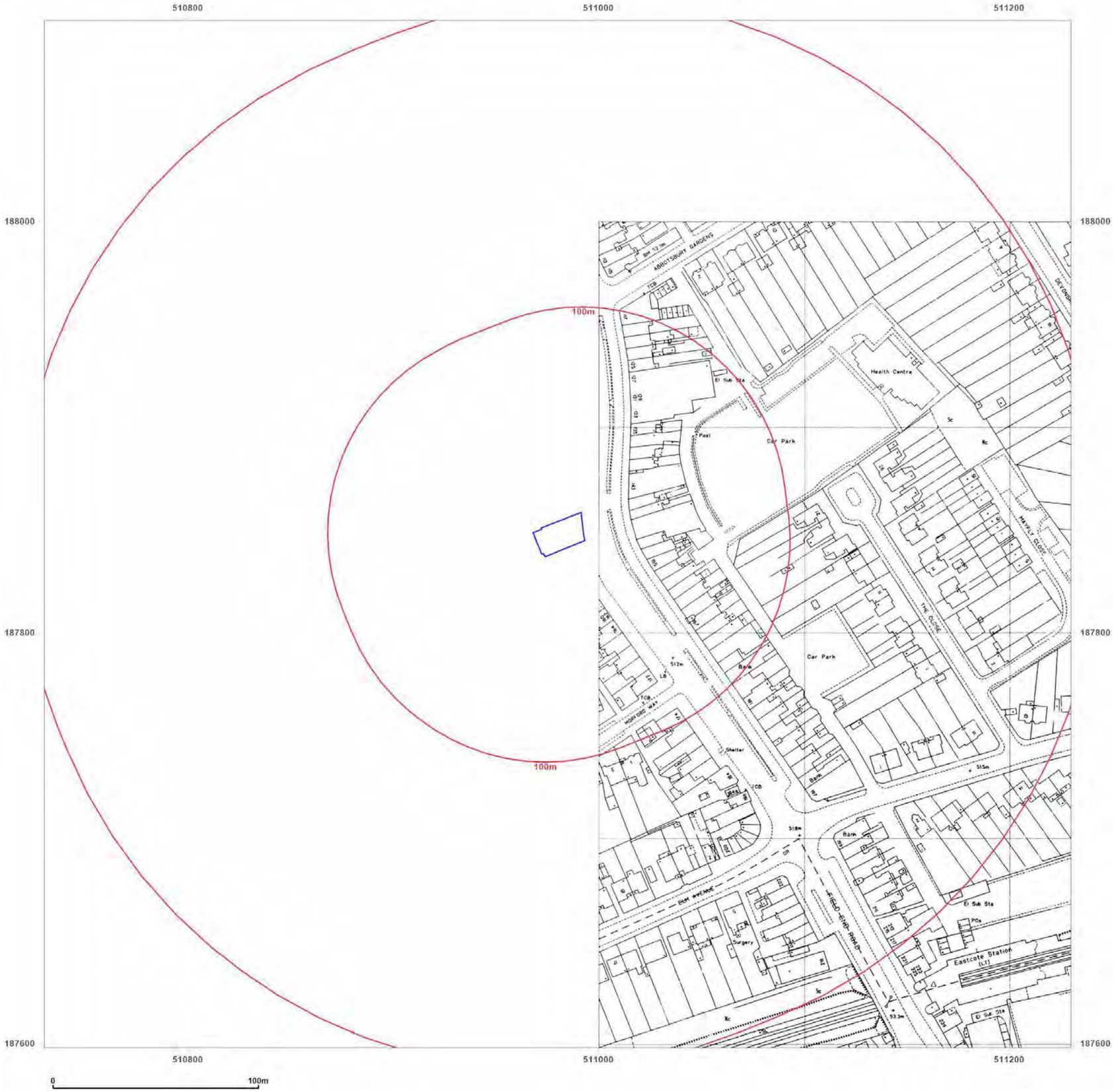

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: National Grid
Map date: **1994**
Scale: 1:1,250
Printed at: 1:2,000

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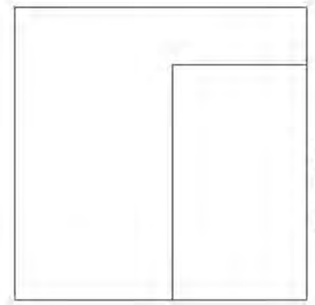

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

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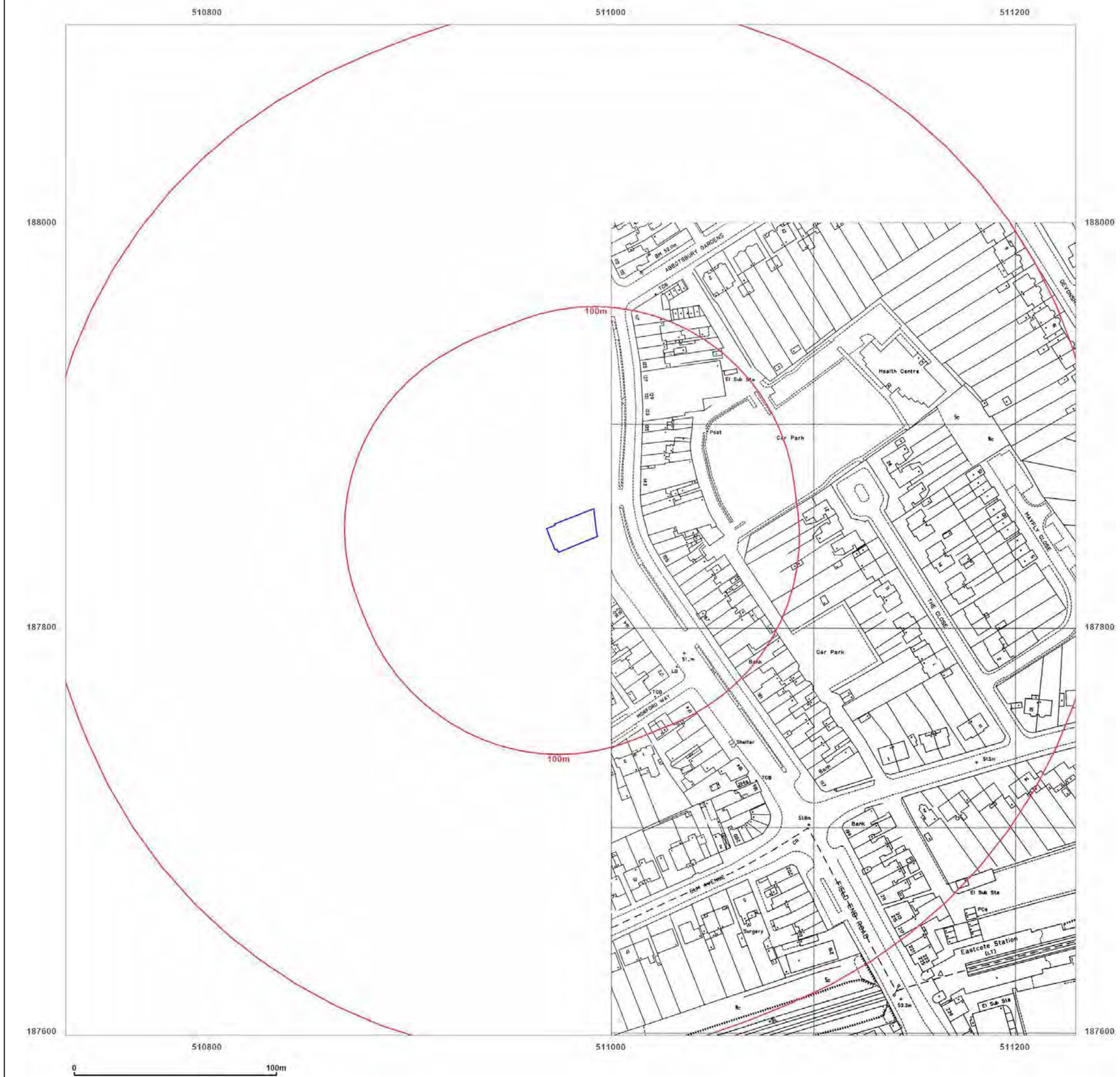

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: National Grid
Map date: **1994**
Scale: 1:1,250
Printed at: 1:2,000

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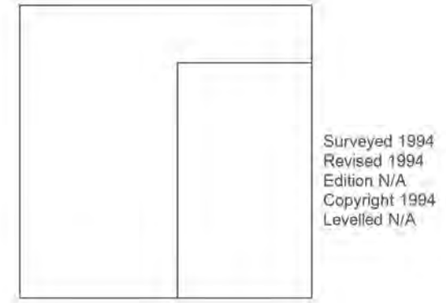

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Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

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

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Map legend available at:
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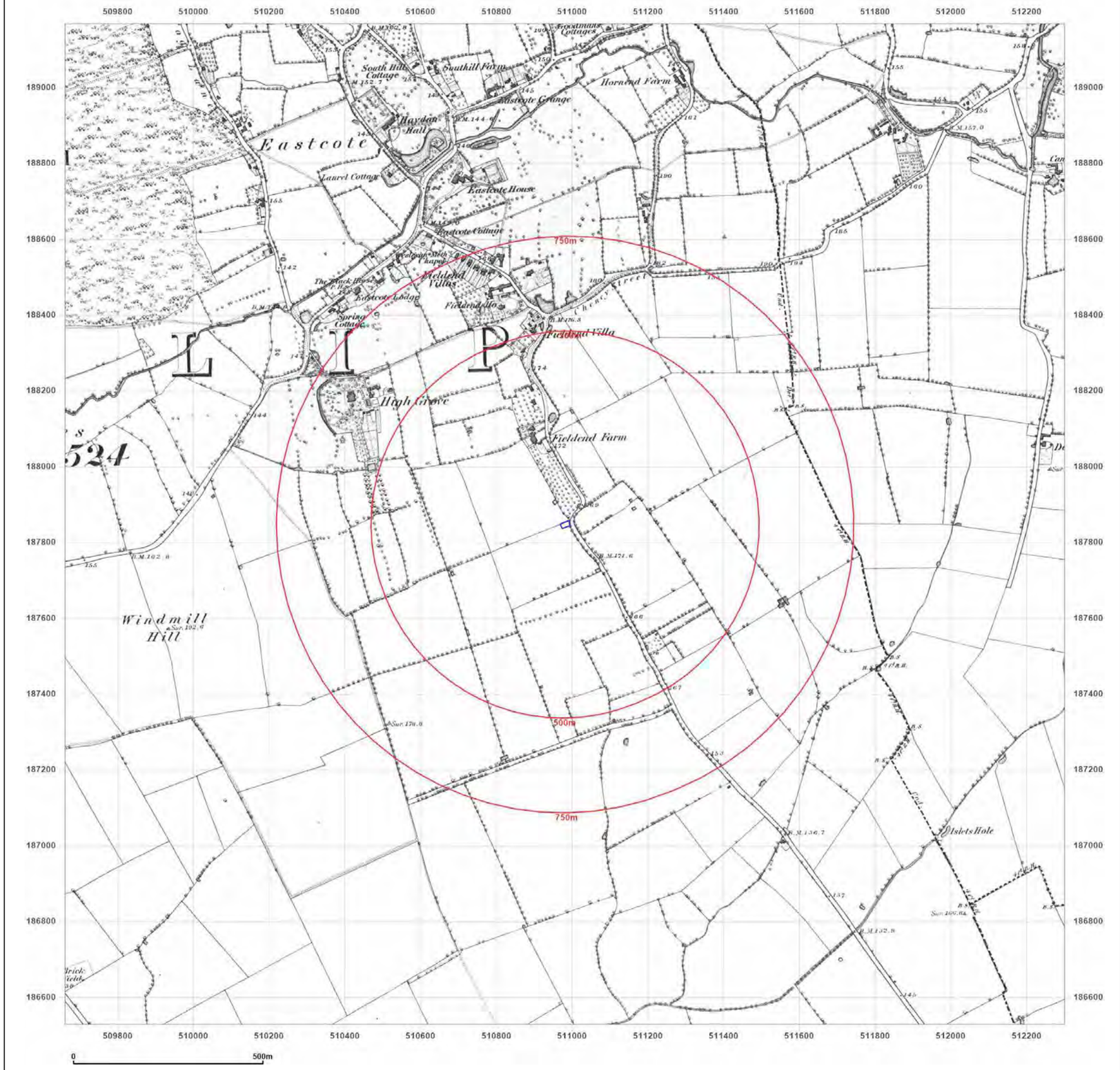

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1864**

Scale: 1:10,560

Printed at: 1:10,560

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

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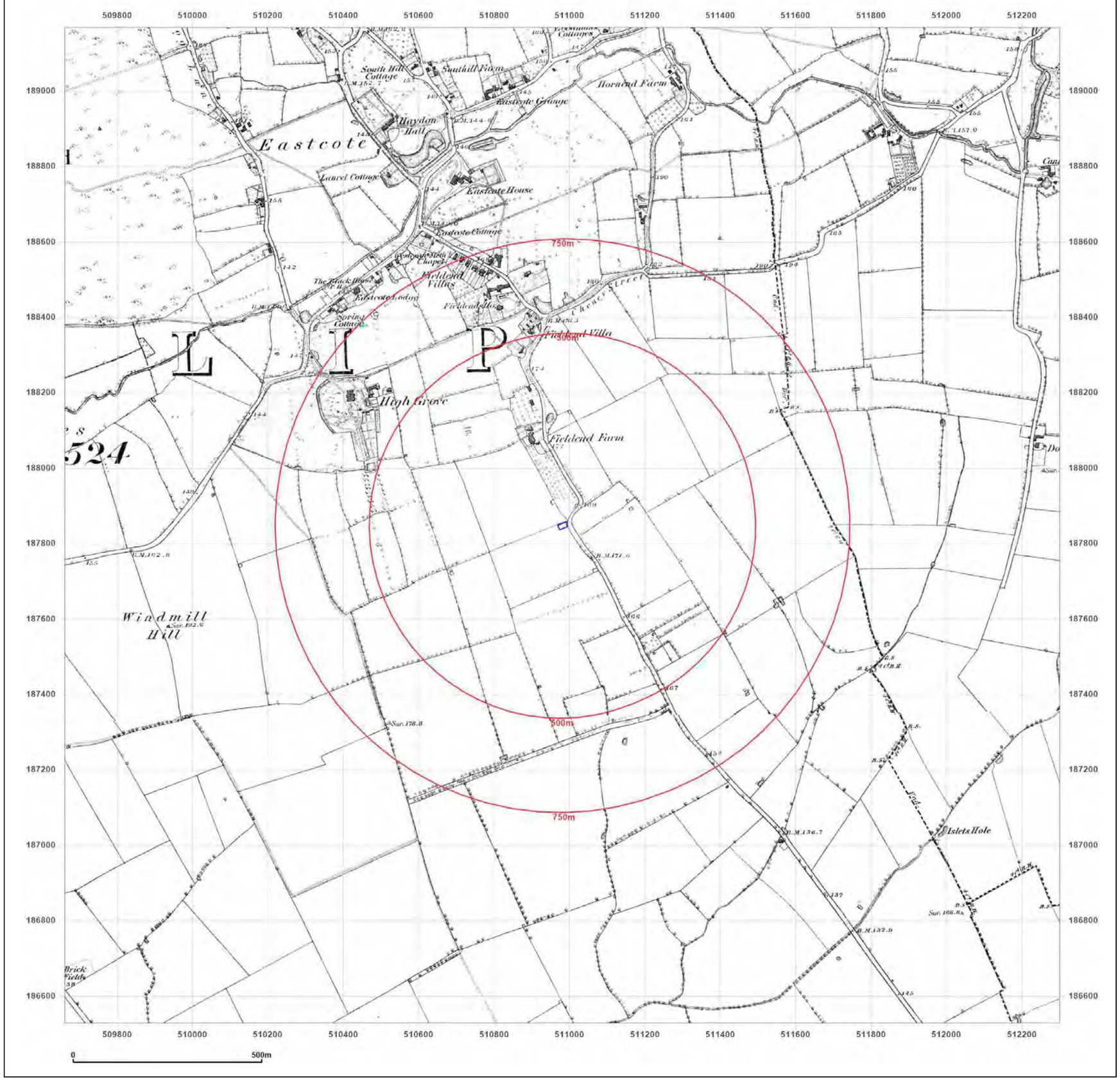

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1881-1883**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1872
Revised N/A
Edition 1883
Copyright N/A
Levelled N/A

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

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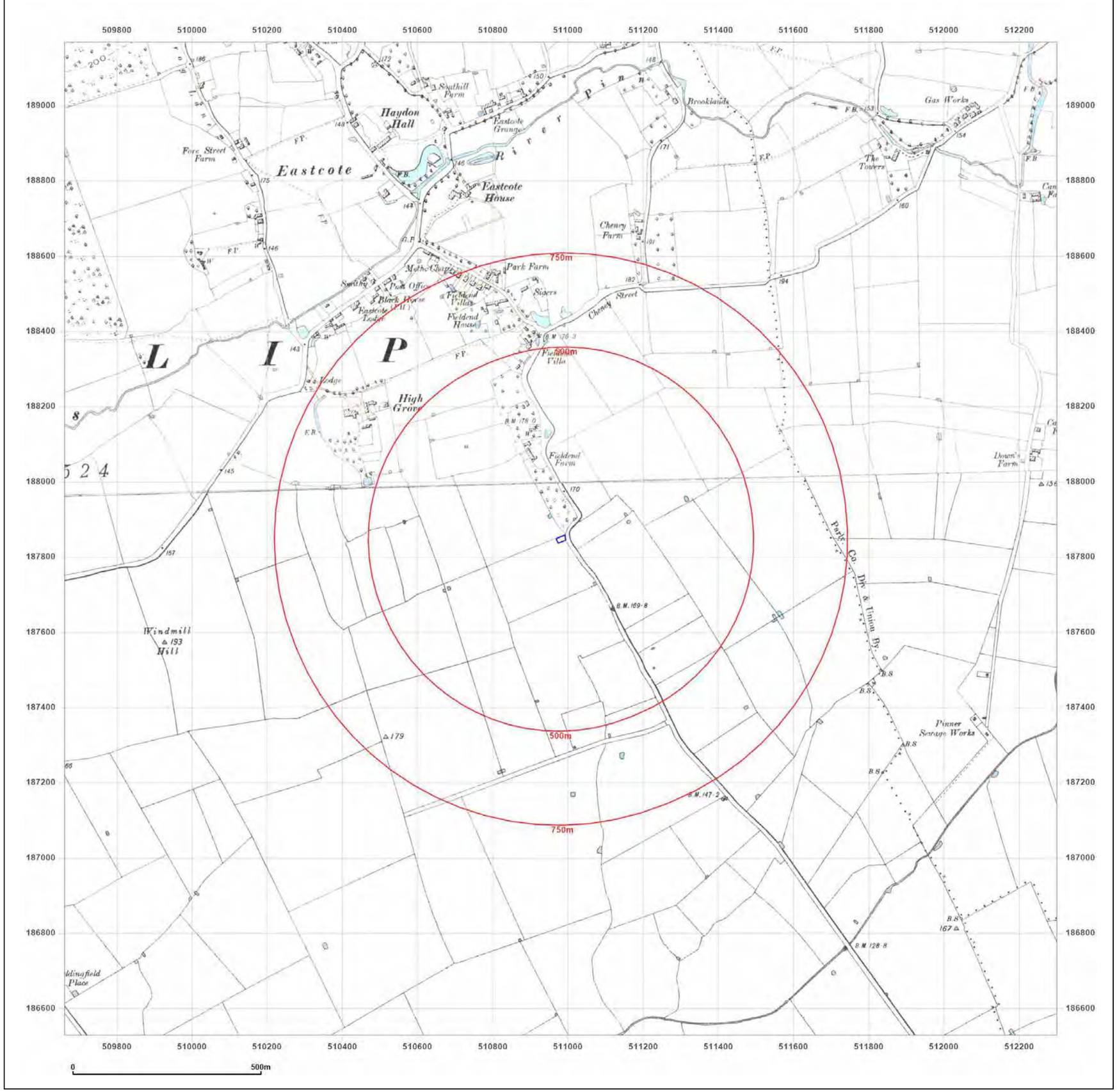

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1894-1897**

Scale: 1:10,560

Printed at: 1:10,560

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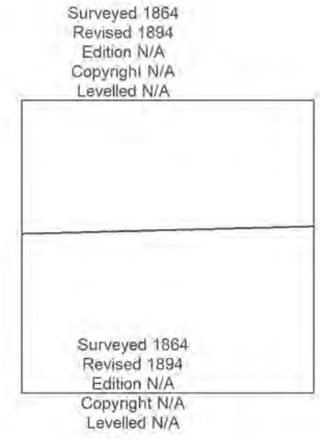

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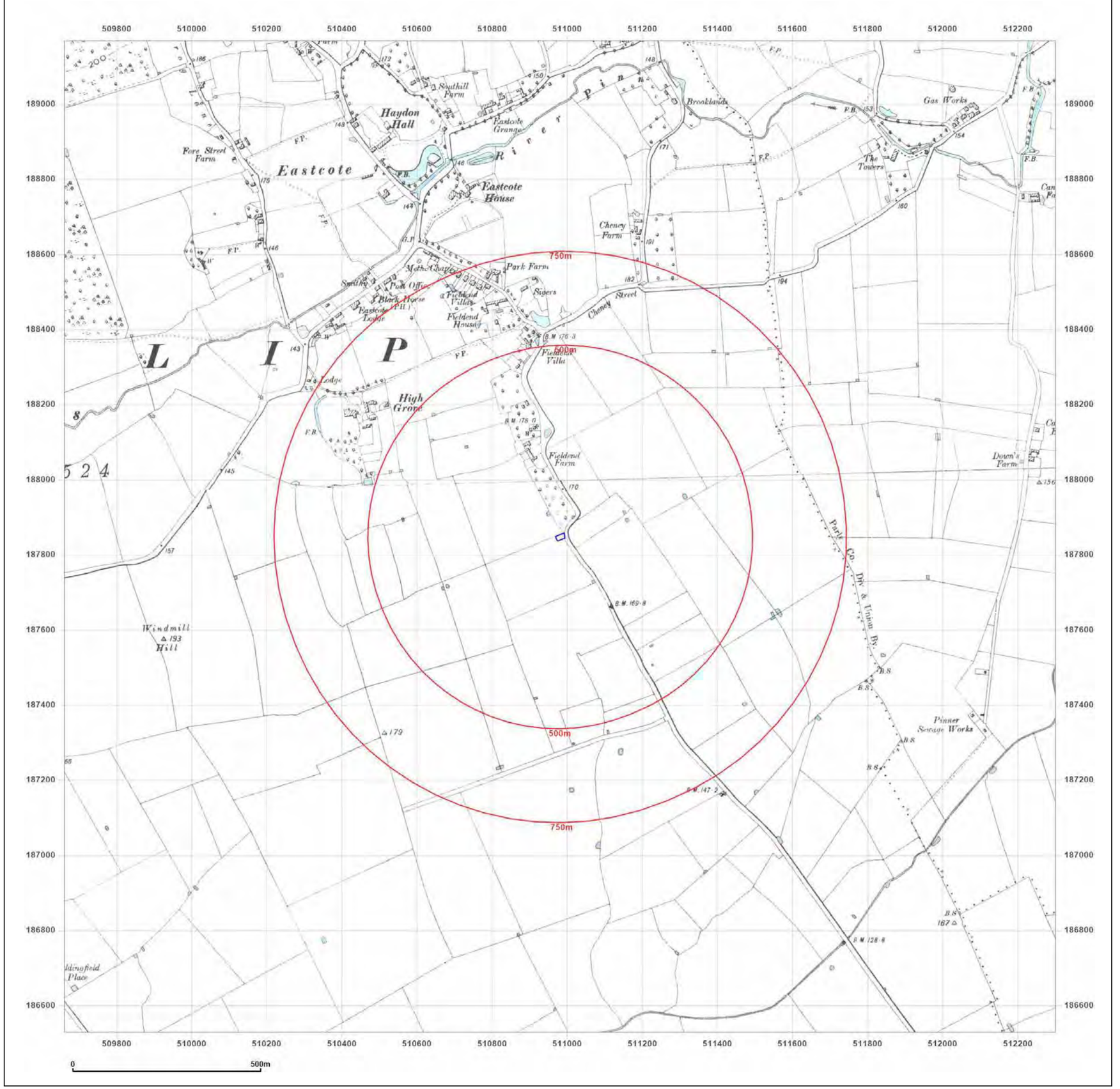

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1894-1897**

Scale: 1:10,560

Printed at: 1:10,560

N
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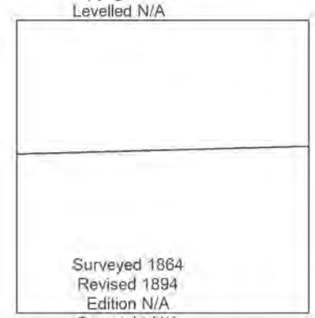
Surveyed 1864
Revised 1894
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1864
Revised 1894
Edition N/A
Copyright N/A
Levelled N/A

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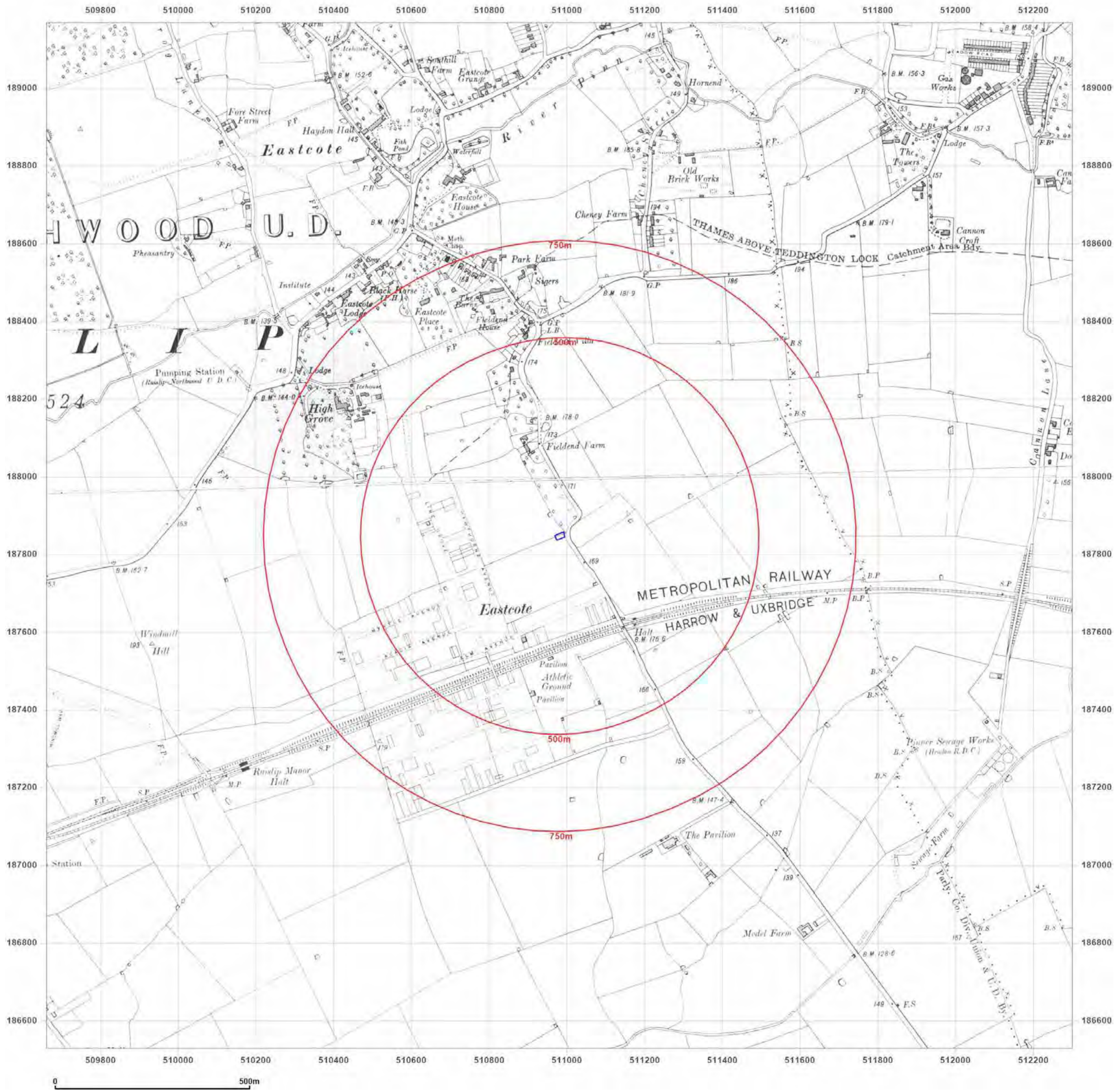

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1911-1912**

Scale: 1:10,560

Printed at: 1:10,560

N
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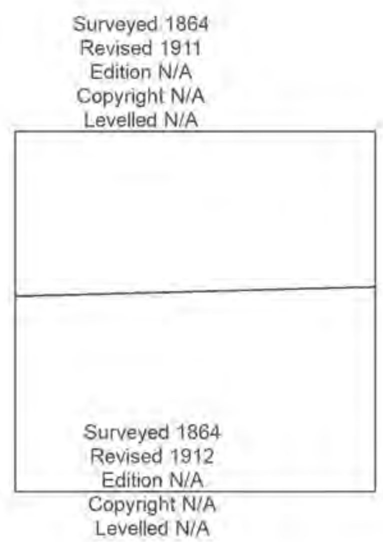

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Production date: 16 April 2024

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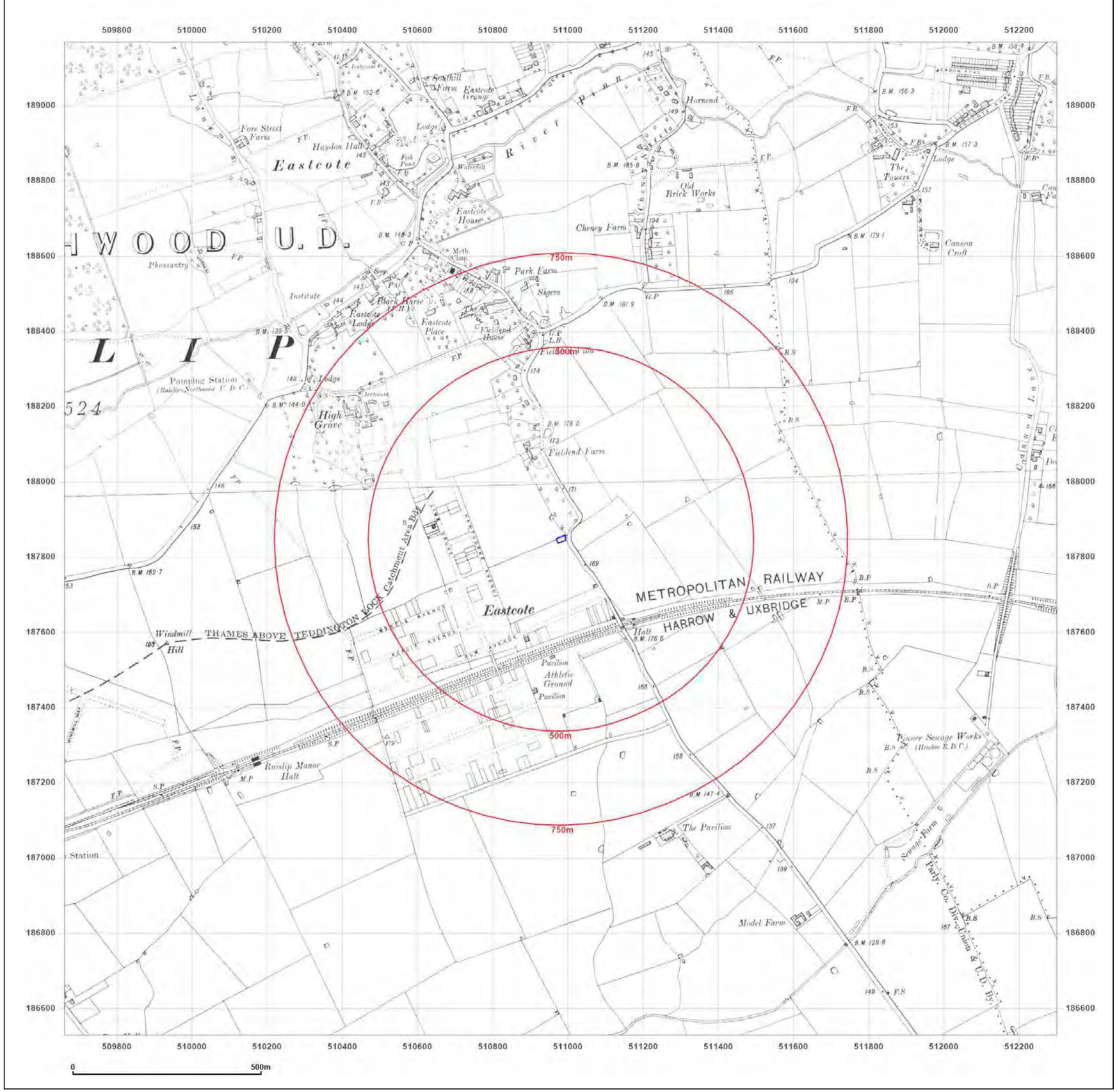

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1911-1912**

Scale: 1:10,560

Printed at: 1:10,560

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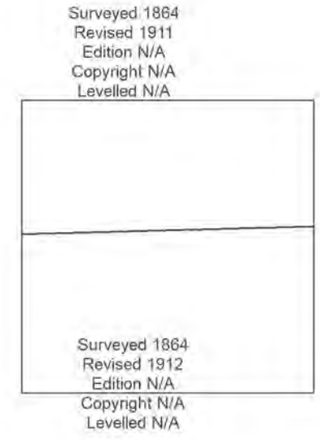

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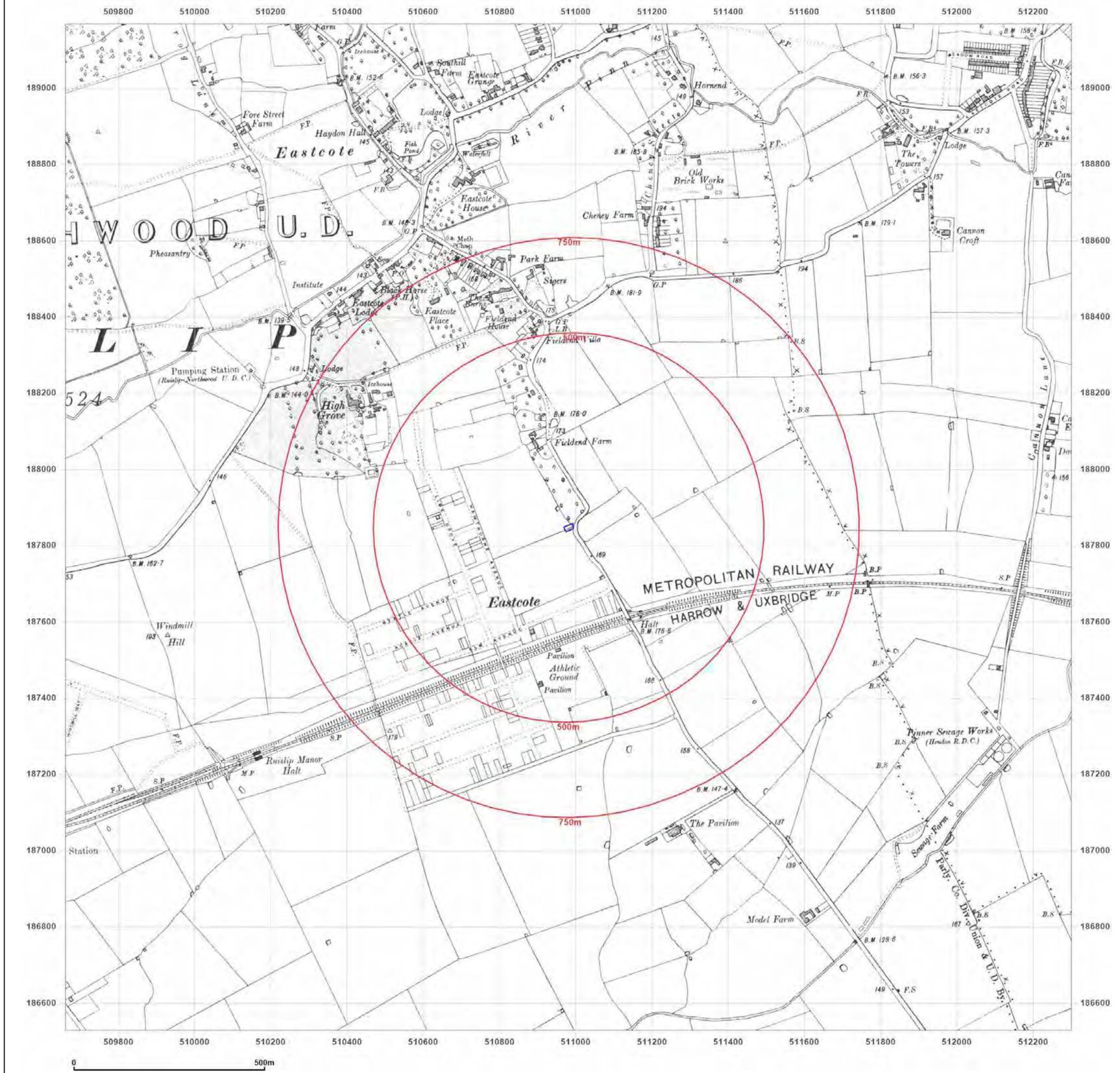

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1920**

Scale: 1:10,560

Printed at: 1:10,560

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

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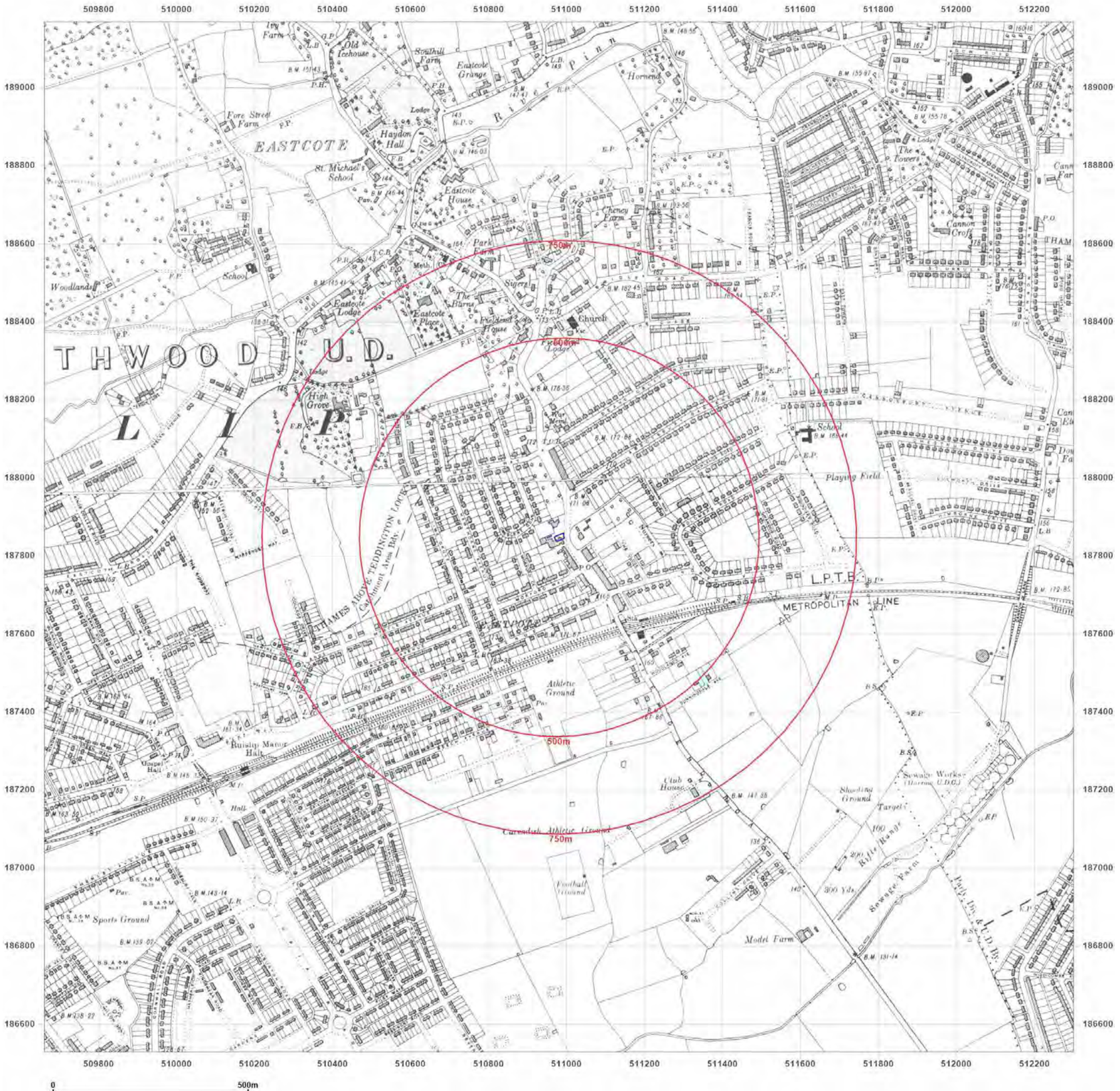

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1935**

Scale: 1:10,560

Printed at: 1:10,560

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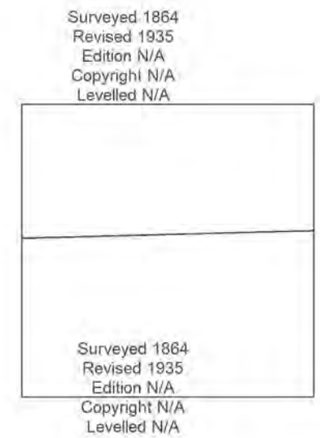

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T: 08444 159000
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W: www.groundsure.com

Production date: 16 April 2024

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

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1864
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1864
Revised 1938
Edition N/A
Copyright N/A
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Map legend available at:
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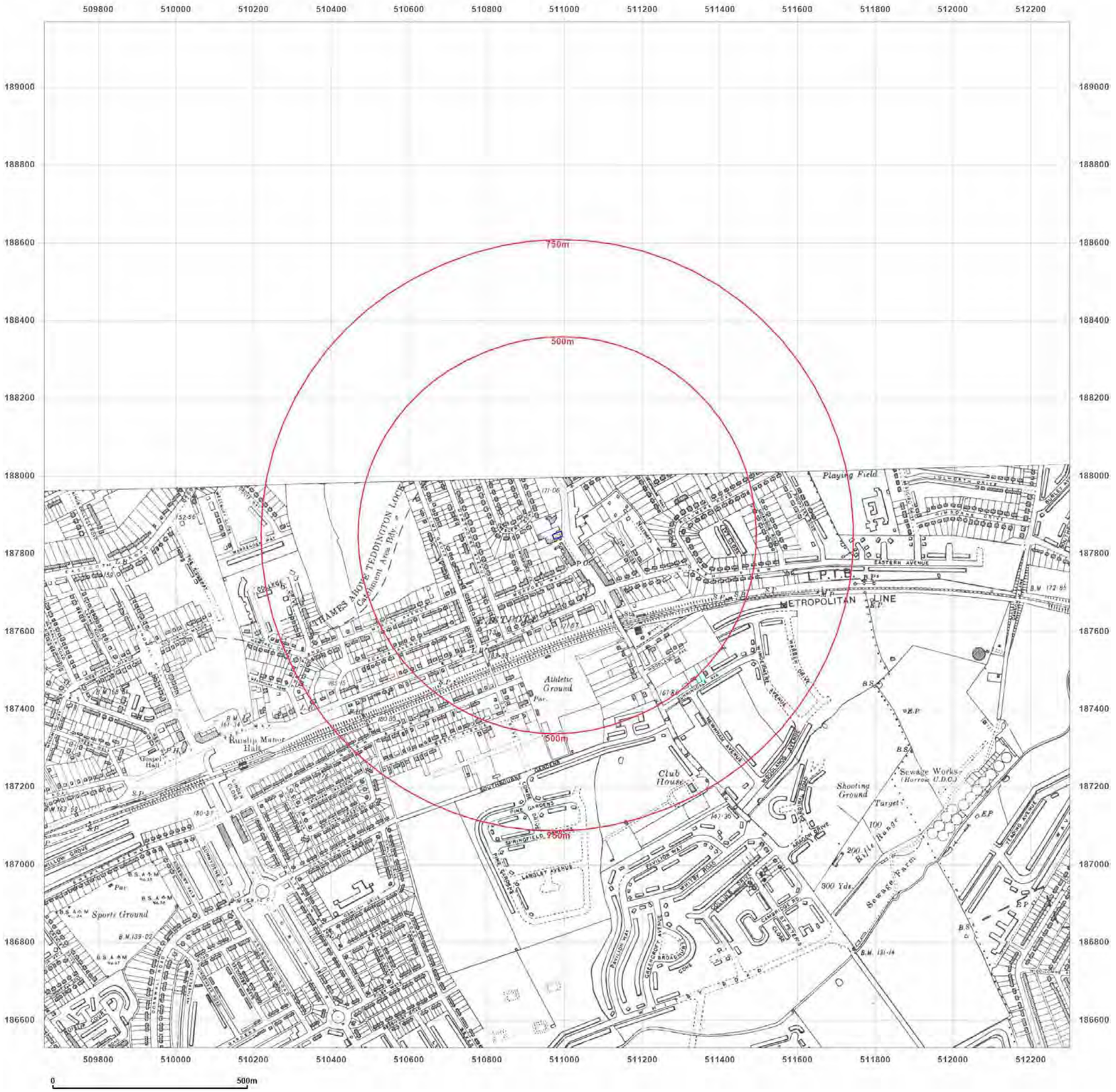

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

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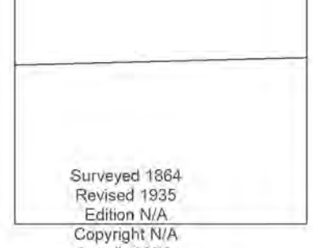

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Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: Provisional

Map date: **1960**

Scale: 1:10,560

Printed at: 1:10,560

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Map legend available at:
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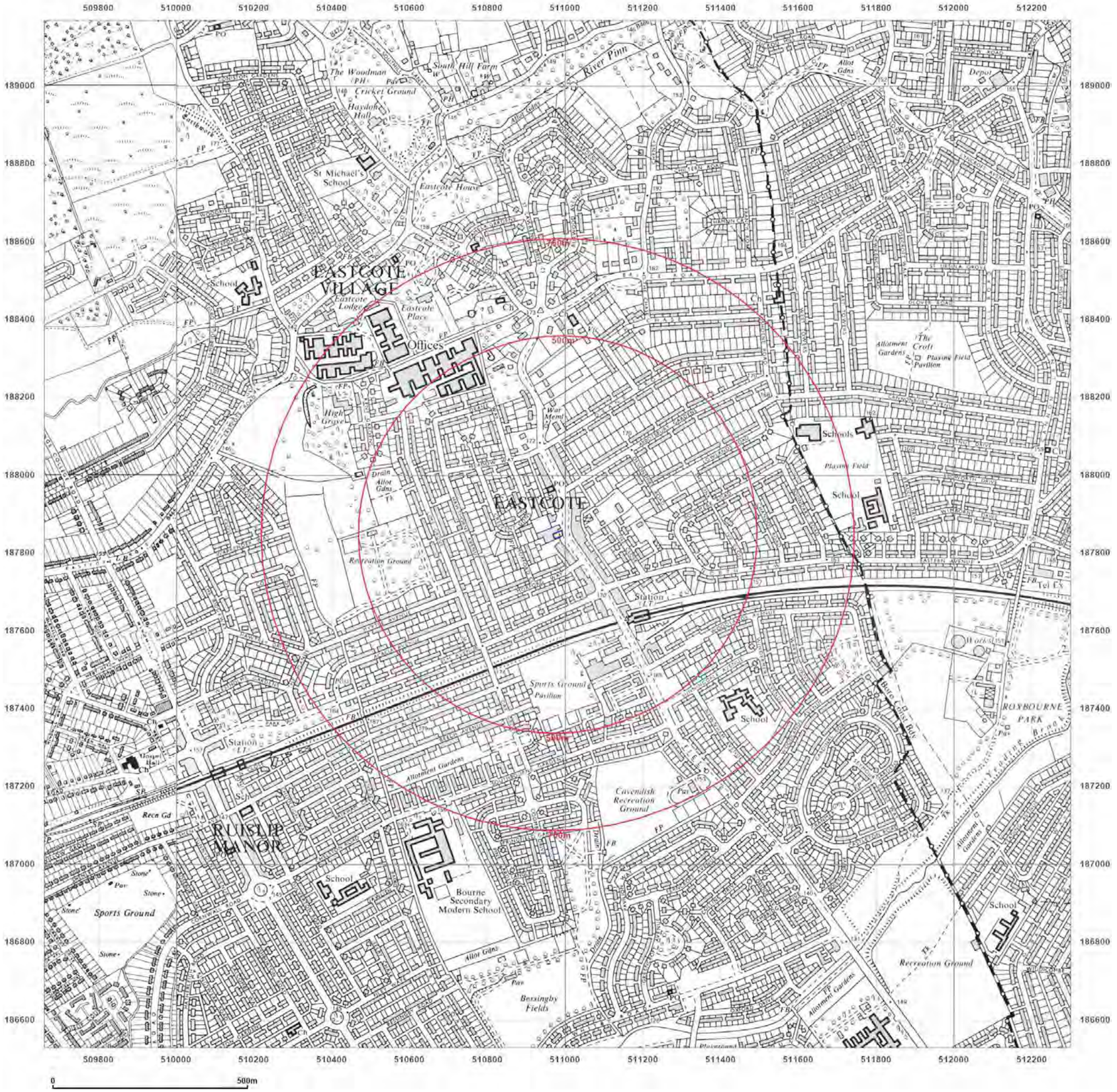

Groundsure INSIGHTS

Site Details:

CONEX HOUSE, 148, FIELD END ROAD, RUISLIP, HILLINGDON, HA5 1RJ

Client Ref: J24-028
Report Ref: GS-F1K-5TX-W12-Q58
Grid Ref: 510980, 187848

Map Name: Provisional
Map date: **1966-1967**
Scale: 1:10,560
Printed at: 1:10,560

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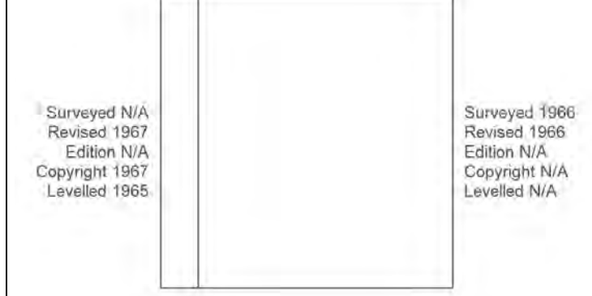

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Production date: 16 April 2024

Map legend available at:
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