A2 Site Investigation

Potters Bar

Phase I Desk Study

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1. Introduction

A2 Site Investigation Limited (A2SI) has been engaged by Chase New Homes (the Client) to prepare a Phase I Desk Study report for the proposed development at Maple House, Canada Life Place, High Street, Potters Bar (herein called the 'site'). The proposed development is described in more detail in Section 2.3, but can be summarised as the part-demolition of on-site structures, with the construction of six additional buildings ranging from four to fifteen-storeys. The proposed development includes a mixed land use including office and retail spaces, private residential dwellings, as well as affordable housing options.

1.1. Study Aims and Objectives

The desk study develops an initial Conceptual Site Model (CSM) and provides a qualitative Preliminary Risk Assessment (PRA) for the proposed development in accordance with *Land Contamination Risk Management* (LCRM) guidance, published by the Environment Agency on the UK Government website. The desk study has been prepared in the context of the *National Planning Policy Framework* (NPPF) and *The Building Regulations 2010, Approved Document C - Site preparation and resistance to contaminants and moisture (2004 Edition incorporating 2010 and 2013 amendments)*. The desk study includes an assessment of whether there are potentially unacceptable risks (ref. *LCRM* guidance) at the site, which would warrant further geo-environmental investigation.

Preliminary geotechnical assessment is not included in this desk study, although a preliminary ground model is established.

The outcomes of this desk study have been developed based on information current at the time of writing.

1.2. Information Sources

The desk study has been prepared based on information available in the public domain and in the provided documentation, including the following sources:

- Groundsure Enviro+Geo Insight Report dated December 2025 included in Appendix B (ref. GS-5Y4-KME-8K4-H25).
- Historical Ordnance Survey Maps produced from Groundsure in December 2025 included in Appendix B.
- Preliminary Unexploded Ordnance *(UXO) Risk Assessment* prepared by RMS UXO Limited, dated December 2025 (ref. INO6123), included in Appendix C.
- Detailed *UXO Risk Assessment* prepared by RMS UXO Limited, dated December 2025 (ref. INO6123), included in Appendix C.
- General Arrangement Ground Floor Plan produced by AFK Studios, dated the 6th of March 2026 (ref. PB-AFK-XX-00-DR-A-20000 P03)
- Topographical Survey produced by Land Utility Group Limited, dated May 2025 (LUG/9.1B).
- Potters Bar Brook Map, accessed in December 2025; https://waterwaymap.org/river/Potters%20Bar%20Brook%20000020610778/.
- British Geological Survey, GeoIndex Onshore GIS database, (accessed in December 2025); https://www.bgs.ac.uk/map-viewers/geoindex-onshore/
- British Geological Survey, Maps Portal (accessed in December 2025); https://webapps.bgs.ac.uk/data/MapsPortal/.
- Department for Environment, Food & Rural Affairs (DEFRA), Magic Map Application (accessed in December 2025); http://magic.defra.gov.uk/MagicMap.aspx.
- Historic England, online Aerial Photo Explorer (accessed in December 2025); https://historicengland.org.uk/images-books/archive/collections/aerial-photos/.
- UK Health Security Agency (UKHSA) and BGS radon mapping (accessed in December 2025); https://www.ukradon.org/information/ukmaps.
- Google Earth (ref. earth.google.com/web/), accessed in December 2025.

- Flood Maps for Planning (ref. https://flood-map-for-planning.service.gov.uk/), accessed in December 2025).
- Local authority planning portal (https://www6.hertsmere.gov.uk/online-applications/search.do?action=simple&searchType=Application), accessed in December 2025.

1.3. Common Abbreviations

The following common abbreviations are used within this report:

- PRA – preliminary risk assessment
- CSM – conceptual site model
- TPH – total petroleum hydrocarbons
- BTEX – benzene, toluene, ethylbenzene, and xylenes
- MTBE – methyl tert-butyl ether
- PAH – polycyclic aromatic hydrocarbons
- PCB – polychlorinated biphenyls
- VOC – volatile organic compounds
- SVOC – Semi volatile organic compounds
- Asbestos – potential free fibres, debris and / or fragments of asbestos containing material (ACM)
- Ground gas – methane, carbon dioxide (excludes soil vapour)
- mbgl – metres below ground level
- mOD – metres above Ordnance Datum

2. Site Setting

2.1. Development Location and Current Site Use

The development site is located at Maple House, Canada Life Place, High Street, Potters Bar, as shown in Figure 2.1. The approximate National Grid reference for the site is 525952, 200976 and the site covers an area of approximately 1.79 hectares. The development site is located within the administrative boundary of Hertsmere Borough Council and according to the Topographical Survey produced by Land Utility Group Ltd, elevations at the site range from +122mOD in the south to +125mOD in the north.

The surrounding area comprises a mix of commercial and residential land uses. Specific current land uses within a 250m radius of the site have been summarised in Table 2.1.



Image Source: Google Earth

Figure 2.1 Location of the proposed development (the red polygon reflects the site boundary used for this assessment)

Table 2.1 Surrounding land uses summary

Bearing from Site	Features directly adjacent to the site boundary	Other identified land uses and key structures
North	The northeastern site boundary is bound by a BP petrol garage, while the northwestern site boundary is bound by Goodacre Court (a housing association).	The land use within a 250m radius north of the site includes mainly residential and recreational uses. This is noted by semi-detached housing and Potters Bar Town Football Club.
South	The site is bound by Mutton Road.	The main land use within a 250m radius to the south of the site comprises a mixture of residential and commercial land uses. This is noted by retail shops, restaurants and cafes, as well as a mixture between terrace and semi-detached housing with private gardens.
East	The site is bound by the High Street.	The land use within a 250m radius to the east of the site comprises mainly residential use, with some commercial uses along the High Street. Potters Bar Allotment is noted from 200m east and beyond.
West	The western site boundary is bound by a grassed area belonging to a Bowls Club and two parking lots belonging to the Bowling Club and St John's Ambulance Centre.	Within a 250m radius west of the site the land use mainly comprises commercial uses. A petrol station associated with a Tesco Superstore is located 20m west of the site boundary, along with a car park and the Tesco Superstore.

2.2. Site Walkover

A site walkover was undertaken by a representative of A2SI on the 17th of November 2025. A summary of the findings is presented in this section and accompanying photographs are provided in Appendix A. These images should be reviewed alongside the summary below.

The site comprised a mixture of land uses, including office buildings, commercial businesses, residential dwellings and car parking areas. At the time of the walkover, access was granted only to the external areas of the site and the ground floor level of the two southwest buildings (shown in orange in Figure 2.2). It is known, however, that these two buildings comprise basement levels, however, access to the basement levels was not granted during the walkover. The footprint of these basements has been displayed in Figure 2.2.

The north, central-east and southwest portions of the site comprised hardstanding parking areas, with the north including a single storey parking structure. The single storey parking structure showed signs of vertical cracking to the brick walls in the lower level (photo included in Appendix A). An electricity substation was noted in the east of the site, annotated in purple on Figure 2.2.

A 4-storey and a 12-storey building were noted in the southwest portion of the site, which comprised a reception and café at ground level. Although not accessed further, it is known that these buildings are primarily used as office spaces.

The southeast portion of the site comprised a row of semi-detached terrace style buildings with commercial businesses on the ground floor and assumed residential uses on the upper floors. The northeast corner of the site comprised a hand car wash facility named Elite Hand Car Wash, which comprised areas of hard standing.

Existing areas of soft landscaping were noted in the south, southeast and central areas of the site, as well as along the western and northern site boundaries.

Access covers were noted throughout the car parking and the car wash areas.

During the walkover, no visual or olfactory evidence of contamination was identified. A site features plan is provided below as Figure 2.2.



Figure 2.2 Site features identified during the walkover

2.3. Proposed Development

At the time of writing, the current option for the proposed development, as provided by the Client, has been utilised for this assessment and described below, but may be subject to amendments with regards to layout of buildings, but will not fundamentally change in terms of proposed future land use.

The current scheme for the proposed development comprises the part-demolition of on-site structures and retention of the single-storey car park, followed by the construction/redevelopment of five mixed-use buildings. The basement beneath the Maple House will not be retained as part of the proposed development. The proposed land use for the site is mainly residential, though commercial land uses are also included.

The proposed development plan for the site has been displayed in Figure 2.3.



Source: General Arrangement Ground Floor Plan produced by AFK Studios, dated the 6th of March 2026 (ref. PB-AFK-XX-00-DR-A-20000 P06)

Figure 2.3 Proposed ground floor plan

3. Anticipated Ground and Groundwater Conditions

3.1. Geology

Figure 3.1 illustrates the location of the development within the context of a regional geological map. The maps illustrate the spatial distribution of superficial deposits and the bedrock geology at the ground surface. Artificial Deposits are generally not shown, but some Made Ground is assumed to be present on-site due to historical demolition and construction works. Nevertheless, a limited thickness (if present at all) is expected beneath the two existing basements in the southwest of the site, due to their excavation.

The geology maps indicate that the site is underlain by superficial deposits of 'Pebble Gravel' (now known as 'sand and gravel of uncertain age and origin'). The London Clay Formation is present beneath the superficial deposits which, in turn, is underlain by the Lambeth Group (depicted as Reading Beds in Figure 3.1) and the White Chalk Subgroup.

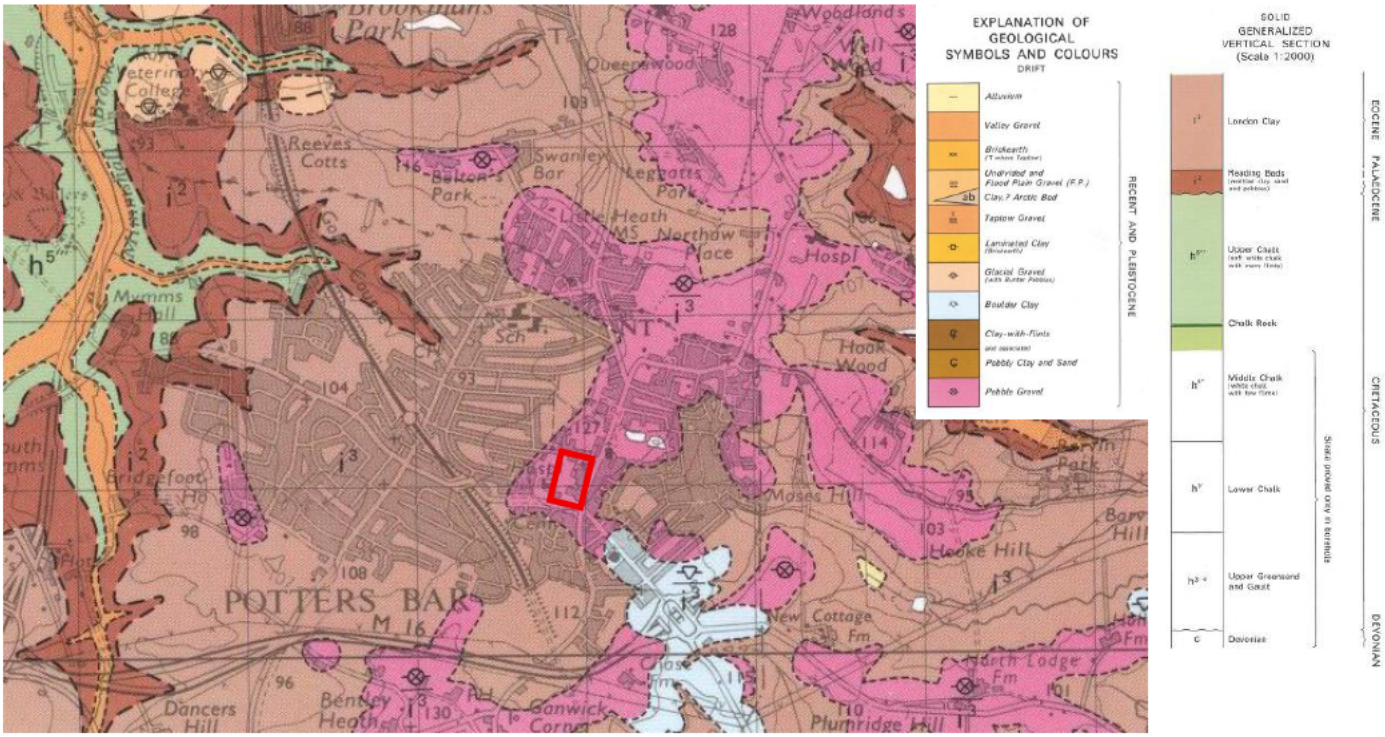


Image Source: BGS Geological Survey of England and Wales, Great Dunmow Sheet 1990 (scale 1:50:000)

Figure 3.1 Anticipated superficial and bedrock deposits beneath the site and the surrounding area (approximate site location shown by the red polygon)

The British Geological Survey (BGS) Geology of Britain web map services provide access to the geographic locations and logs of historical borehole investigations and well installations. Historical boreholes located at the site and surrounding the site are shown in Figure 3.2. The following historical records have been reviewed as part of this assessment; TL20SE21, TL20SE22, TL20SE23, TL20SE187, TL20SE190, TL20SE194 and TL20SE10. These boreholes have been highlighted in orange on Figure 3.2 and the historical data has been used to supplement the preliminary ground model provided in Table 3.1.

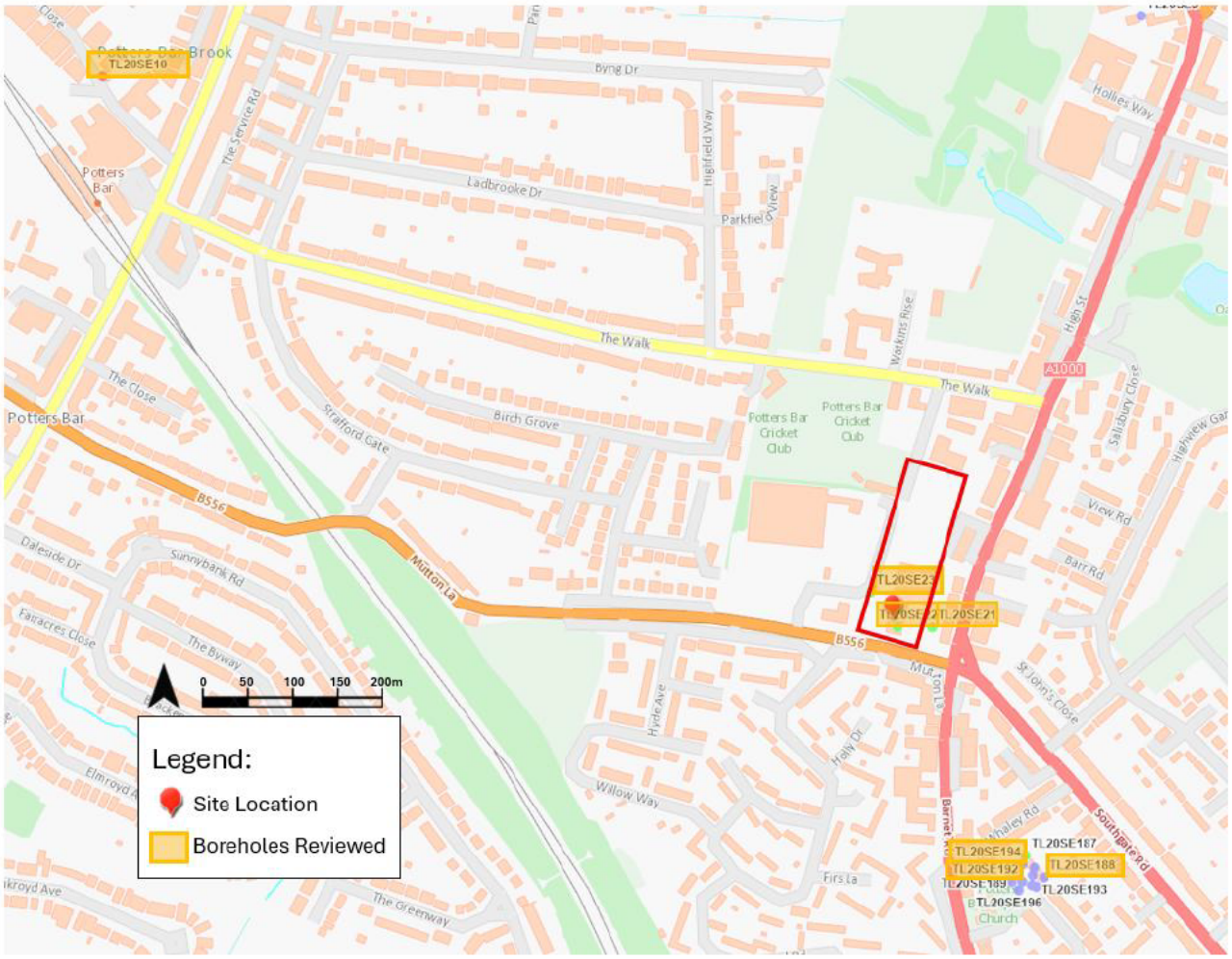


Figure 3.2 BGS borehole location plan (approximate site boundary is shown in red)

Table 3.1 Preliminary Ground Model

Unit	Level Top of Stratum Encountered[1] (mOD)	Depth Top of Stratum Encountered [1] (mbgl)	Approximate Thickness (m)	Description
Made Ground	+123.5	0.0	1.0	Variable anthropogenic deposits.
Pebble Gravels	+122.5	1.0	3.8	Clayey and gravelly SAND.
London Clay Formation	+118.7	4.8	25.5 (Base proven in TL20SE10)	Stiff blue grey silty CLAY.
Lambeth Group	+93.2	30.3	10.0	Interbedded SANDS and CLAYS.
White Chalk Subgroup	+83.2	40.3	>100m (base unproven)	CHALK.

[1] Elevation and depth refer to top of stratum from ground level. According to the *Topographical Survey*, site elevation ranges from +122mOD and +125mOD, therefore, an average site elevation of 123.5mOD has been adapted for the preliminary ground model.

[2] mbgl – meters below ground level.

3.2. Hydrogeology

The Pebble Gravel and the Lambeth Group are classified as Secondary A Aquifers, defined as containing permeable layers capable of supporting water supplies at a local rather than strategic scale, in some cases forming an important source of base flow to rivers. These strata are aquifers formerly classified as Minor Aquifers.

The London Clay Formation is listed as Unproductive Strata. Unproductive Strata are low permeability strata that are not considered to retain significant quantities of groundwater. If groundwater is present within Unproductive Strata, for example within more permeable lenses or small fissures, it is typically discontinuous, of low value and very low sensitivity.

The Chalk is classified as a Principal Aquifer, defined as a layer of rock or drift deposits that have high intergranular and/or fracture permeability, meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.

A review of the BGS borehole records located within 100m of the site (including boreholes located on the site) did not identify groundwater within the boreholes. However, the deepest and furthest borehole record reviewed (TL20SE10) identified groundwater at approximately 60mOD within the Chalk.

No groundwater abstraction points have been identified within a 500m radius of the site. However, the site has been identified as being within Source Protection Zones (SPZ). As displayed in Figure 3.3, the western and majority of the central portions of the site are located within SPZ 1, whereas a thin band of the central portion of the site lies within SPZ 2 and SPZ 3. The SPZ can also be noted from the site boundary to beyond 500m to the north, east and south.

The site has been identified as being within a Water Framework Directive surface water body for two separate catchments, the Turkey Brook and Cuffley Brook and for the Colne Catchment.

At this stage, the general direction of groundwater flow is not certain.

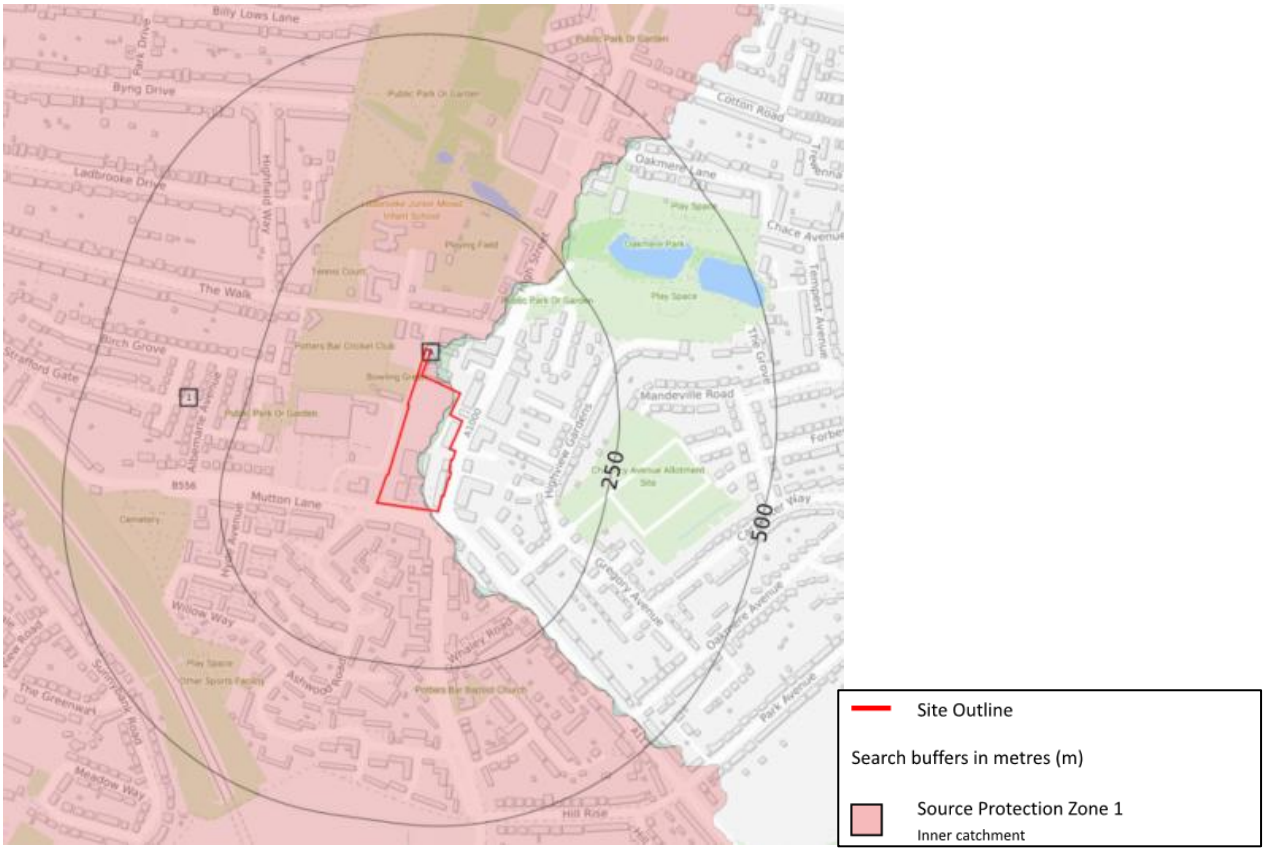


Figure 3.3 Source Protection Zones identified on-site

3.3. Hydrology

The nearest surface water feature is the Potters Bar Brook, a mainly culverted waterway which is a tributary of the Mimmshall Brook and flows in a north-westerly direction. At its closest point, the Potters Bar Brook flows approximately 400m southwest of the site as shown in Figure 3.4 below. No surface water abstraction points have been identified within a 500m radius of the site. Due to the distance of these surface water features, they will not be assessed as potentially sensitive receptors herein.



Image Source: Potters Brook Map as referenced in Section 1.2

Figure 3.4 Potters Bar Brook Map (dark blue line shows the course of Potters Bar Brook and red polygon shows the approximate site boundary)

3.4. Radon

UK Health Security Agency (UKHSA) and BGS radon mapping indicates that the site is in an area where <1% of homes estimated to be at or above the Action Leve (refer to Figure 3.5). *The Building Regulations 2010, Approved Document C* state that without a site-specific Radon Risk Report the maximum requirement for radon protection in these areas is 'none'.

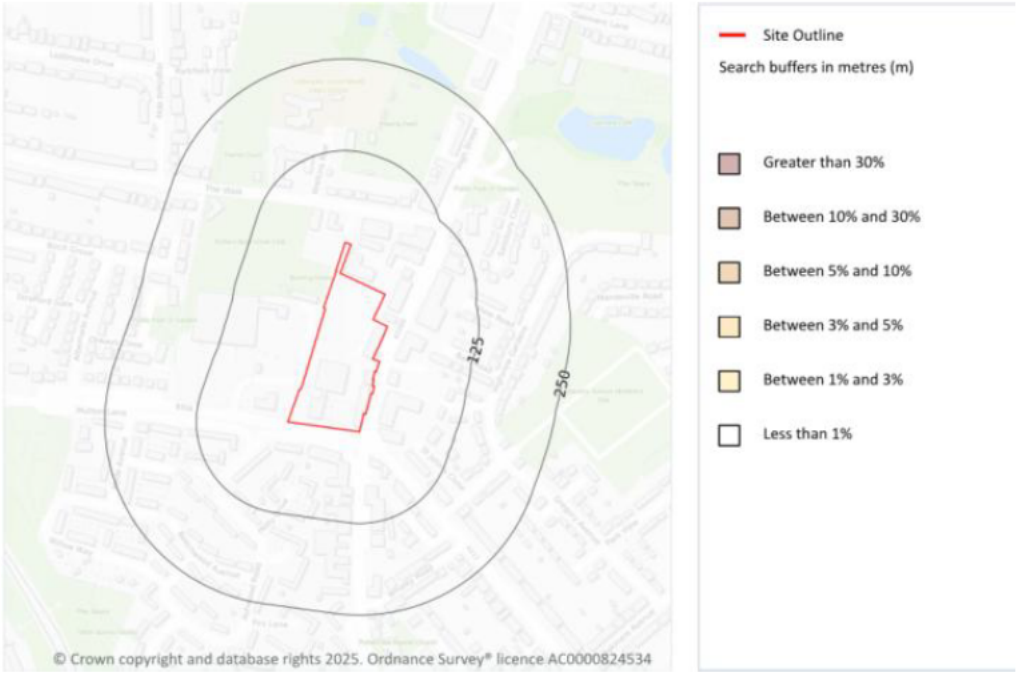


Figure 3.5 Radon liklihood level

The preliminary ground model presented in Section 3.1 indicates that the site is underlain by circa 40.3m of material before reaching Chalk. This includes approximately 3.8m of Pebble Gravels, 25.5m of London Clay Formation and 10.0m of Lambeth Group before reaching the Chalk.

The significant thickness of the London Clay Formation will afford protection from the underlying White Chalk Subgroup, notwithstanding that the Chalk is nevertheless typically of low radon potential in the absence of phosphate-enriched beds / zones.

The London Clay Formation and Lambeth Group do not pose an elevated risk of radon based on their low uranium mineralogy. Although some sections of these strata may contain iron-rich minerals such as pyrite and glauconite, the uranium content in these minerals is generally low and the strata are not a primary source of radon.

The basement below Maple House is expected to be infilled as part of the proposed development, therefore, is not considered a risk in relation to radon. However the basement of the Canada Life building is proposed to remain, which is supported by retaining walls and floor slabs of fully reinforced concrete. The basement is fully conditioned and ventilated in line with building regulations, which provide air circulation inhibiting the potential buildup of the radon within this area. Moreover, the basement will hold its existing use as an underground car park, representing a non-sensitive land use.

Based on the evidence presented above, the potential risks to human health associated with radon gas are considered to be low (i.e. no unacceptable risk) such that potential mitigation measures would not offer any significant benefit to the development.

4. Planning Records

The Local Authority Planning Portal has been searched for relevant geo-environmental documentation associated with planning applications. Searches have been undertaken for both the site and the immediate surrounding area. No relevant on- or off-site planning applications were identified.

5. Historical Development

5.1. Site History

Detailed historical maps and aerial photographs of the site and surrounding area dated between 1866 and 2025 (at scales of 1:1,056, 1:1,250, 1:2,500, 1:10,000 and 1:10,560), provided as part of the *Groundsure Enviro+Geo Insight* Report (Appendix B), have been reviewed as part of the desk study. This process has been undertaken to identify former land uses at the site and within the surrounding area that may have geo-environmental implications for the proposed redevelopment.

Only features considered to have a potential geo-environmental impact on the site and usually within a notional 250m radius of the site boundary are presented and discussed, with potentially infilled land (if present) located within 250m of the site also included. Any distances quoted for features remote from the site have been scaled from the maps and are approximate. Other information sources available in the public domain have also been reviewed to support this assessment, including the Historic England online Aerial Photo Explorer and historical aerial photographs available on Google Earth.

The earliest historical maps are dated to 1866 and showed that the site comprised residential uses along the eastern site boundary, a *Vicarage* in the central northern part of the site and open fields / gardens along the western site boundary (refer to Figure 5.1, left). During that time, two ponds were noted in the south of the site. Industrial activity at the site was limited to a *Smithy* in the southeastern corner of the site. Industrial or potentially contaminative land uses surrounding the site were also limited, shown by the presence of a single *Smithy* approximately 40m south of the site. The main land use surrounding the site during that time comprised residential buildings within 50m of the site to the southeast / east, and up to and beyond 100m to the northeast. Open fields were present adjacent to the southwest, west, north and from 25m east of the site. By 1896, the two ponds located in the south of the site were infilled and a *Smithy* was noted adjacent to the northeast corner of the site. By 1931, a *Graveyard* was noted 162m northeast of the site and the field located 105m southeast of the site was relabelled as an *Allotment Garden* (refer to Figure 5.1, right). By 1935 the composition of the site remained the same, however, the land within 250m radius of the site showed significant development, with the open fields located in the east, southeast and northwest being replaced with rows of residential housing.

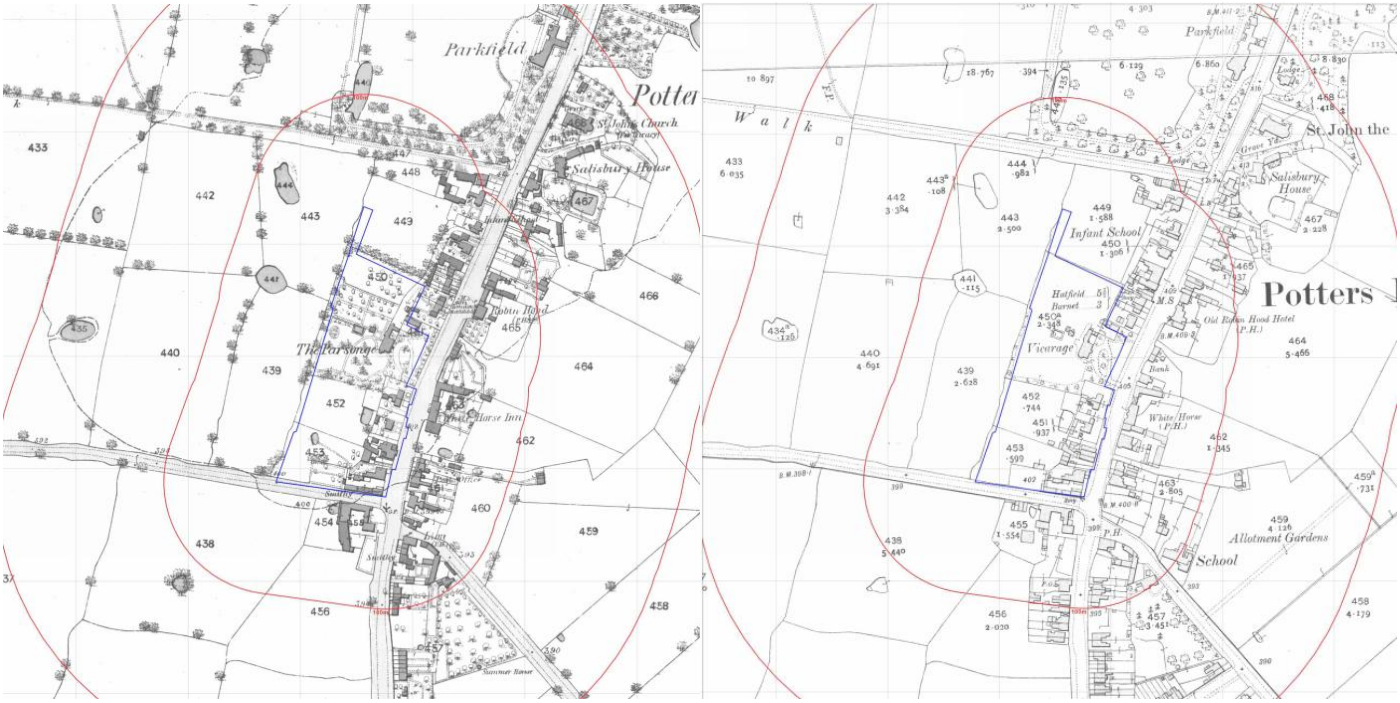


Figure 5.1 Ordnance Survey historical maps from 1865/1866 (left) and 1931 (right) (scale 1:10,560 and 1:2,500 respectively)

By 1967 the site composition had changed with the construction of industrial land uses (refer to Figure 5.2, left). A *Surgical Glass Works* was located in the central western portion of the site and a *Vehicle Repair Works* was noted in the central portion of the site. The *Smithy* located in the southeastern corner of the site was no longer labelled. The *Vicarage* had undergone redevelopment by this time. The land use surrounding the site within 250m had significantly changed, as the open fields within a 250m radius had been developed for residential, commercial and recreational uses. *Potters Bar and District Hospital* was located 95m west, two *Car Parks* were located 238m northeast and 62m east, two *Garages* were located 38m and 33m east, an *Electrical Substation* was located 50m south and two *Iron Works* were located 76m and 83m southeast of the site.

Although incomplete, the historical map from 1982 to 1985 shows that during that time the southern portion of the site (which was previously undeveloped) had been developed with two unlabelled structures. The *Surgical Glass Works* on-site was relabelled as *Works* and was adjacent to an additional *Works*. An *Electrical Substation* was also noted in the centre of the site. No additional industrial or potentially contaminative land uses were noted surrounding the site during that time period.



Figure 5.2 Ordnance Survey historical map from 1967-1969 (left) and 1982-1985 (right) (scale 1:2,250)

By 1992 the two *Works* located in the centre of the site were no longer noted. The two unlabelled buildings once located in the centre of the site had been demolished and a single building labelled as *Maple House* took its place. An *Electrical Substation* was noted west adjacent to *Princes Parade* and assumed residential properties were built along the southeastern site boundary. During that time the site composition reflected that which is seen in present day (2025). A *Multistorey Car Park* was constructed west adjacent to the site. A *Warehouse* and a *Garage* were noted 54m and 11m east of the site, respectively. The location of the *Garage* 11m northeast of the site coincides with the BP Petrol Garage which is located adjacent to the site boundary in present day (2025).

By 2003 two *Electrical Substations* were noted 72m east and 75m west of the site. Between 2010 and 2025 a *Petrol Station* was noted 20m west of the site boundary (refer to Figure 5.3, right), however, no industrial features such as Works and Factories are known to remain. Google Earth Satellite Imagery shows a BP Petrol Station located north adjacent to the northeastern corner of the site, however, it is unknown when this land use was first developed.



Figure 5.3 Ordnance Survey historical maps from 1992 (left) and 2025 (right) (scale 1:1,250 and 1:10,000, respectively)

The *Surgical Glass Works* and the *Vehicle Repair Works* identified in this section will be assessed as potentially contaminative features herein due to the limited level of development which has taken place in the immediate location of these historical features between when they were noted and present day (2025). This limited development means that potential contamination, if present, may remain in the shallow soils beneath these historical features.

The two petrol stations located northeast and west adjacent to the site boundary will also be assessed as potentially contaminative land uses, due to their proximity to the site and potential for mobile contamination (e.g. hydrocarbon fuels, petrol and diesel), if present, to migrate towards the site.

5.2. Former Industrial Land Uses

With reference to the Groundsure Report, 40no. historical industrial land uses were located within a 250m radius of the site, some of which were not easily identifiable on the Ordnance Survey historical maps summarised in Section 5.1. Of the 40no. historical industrial features, seven were located on-site. A full breakdown of the historical and recent industrial land uses is provided in the Groundsure Report (Appendix B).

The seven identified on-site features refer to two unspecified works dated between 1973 and 1988 (ref. A), two smithies dated between 1866 and 1897 (ref. B and C), an unspecified tank dated to 1982 (ref. C), an electrical substation dated 1982 (ref. A) and a vehicle repair works dated 1968 to 1971. The locations of the remaining identified off-site historical industrial land uses have been displayed in Figure 5.4 and summarised below.

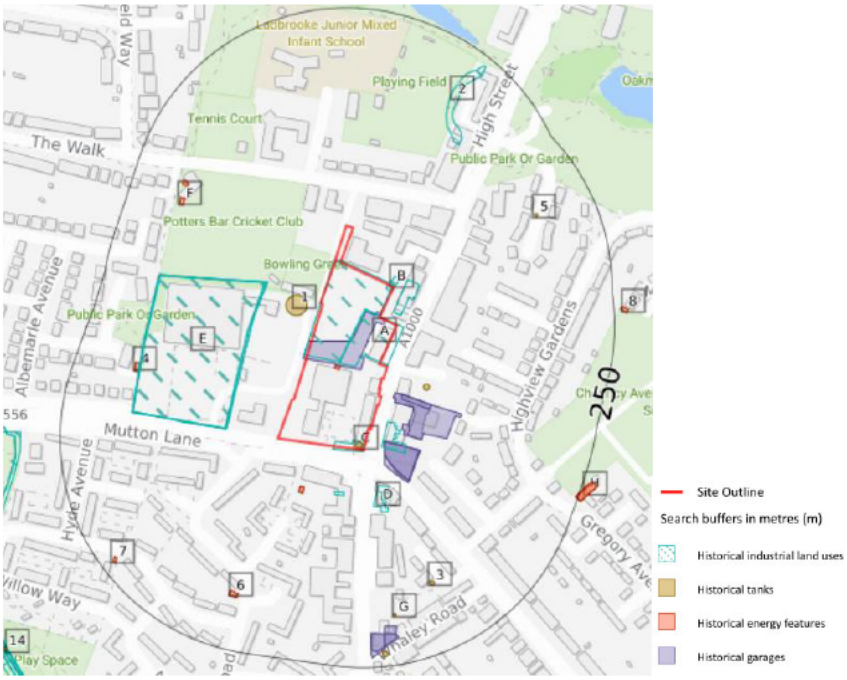


Figure 5.4 Historical Land uses in reference to the site

Table 5.1 Summary of historical land uses within a 250m radius of the site

Reference	Distance and Bearing from Site	Feature	Dates Present
B, D	11m and 44m southeast, 51m south	Three Smithies	1866 to 1895
C	17m east	One Police Office	1866
E	60m and 62m west	Four Hospitals	1866 and 1988
2	152m northeast	One Unspecified Ground Workings	1866
1, C, 3, 5, G	16m west, 47m east, 170m southeast, 181m northeast, 191m and 233m south	Six Unspecified Tanks	1866 to 1935
D, 4, 6, F, 7, H	51m and 183m south, 177m, 185m and 187m west, 230m southwest, 247m and 248m east	Eight Electrical Substations	1967 to 1985
C, G	14m and 24m east, 21m southeast, 204m, 211m, 212m and 213m south	10no. Garages	1967 to 1985

PCBs were widely used within electrical power stations / substations prior to their national ban in the United Kingdom in 1987. The electrical substations identified on-site and the eight displayed in Figure 5.4 are dated between 1967 to 1985, indicating that PCBs were likely used prior to 1987. This being said, due to their relative immobility it is unlikely that PCBs, if present, would have migrated onto the site (from off-site substations) and, therefore, have not been considered as potentially contaminative features with the potential to harm the development of the site herein. The on-stie electricity substations have been considered further as potentially contaminative features as localised shallow soils may have been impacted. However, the volume of PCBs in the dialectic fluid would be quite low given the scale of the substation.

There are no known records of contamination associated with land uses records relating to the police station and hospitals. These are unlikely to be sources of significant contamination that could migrate onto the site, and have, therefore, not been considered further herein. as potentially contaminative land uses herein due to.

The three off-site smithies, the unspecified ground workings (off-site) and the 10no. garages (off-site) displayed in Figure 5.4 will not be assessed as potentially contaminative land uses to their relative age and/or distance from site making it unlikely for contamination, if present, to remain and/or migrate to site.

The unspecified works, vehicle works and the unspecified tank on-site will be assessed as potentially contaminative features, due to the limited development which has taken place in the immediate location of these features since the 1970s to 1980s when they were present on-site. This means that contamination, if present, is considered to have the potential to remain within the shallow soils beneath the historical location of these features.

The two smithies displayed in Figure 5.4 which were located on-site will be assessed as potential sources of contamination with the potential for contamination, if present, to remain in the shallow soils beneath.

5.3. Unexploded Ordnance

Preliminary and Detailed Unexploded Ordnance (UXO) Risk Assessments were undertaken by RMS UXO Limited (RMS UXO) and have been included as Appendix C.

The preliminary search conducted of local records by RMS UXO revealed that during World War II (WWII), the borough of Hertsmere sustained a low to moderate level of bombing, with an average of 33 items of ordnance being recorded per 1,000 acres. It was identified in the preliminary risk assessment that bomb strikes had been recorded within the site boundary and within close proximity to the site. Bomb damage mapping analysed by RMS identified bomb damage to the structures located in the east of the site during WWII. It was, therefore, recommended that a detailed UXO risk assessment be conducted in order to further assess the risk from UXO at the site.

The detailed search conducted by RMS UXO divides the site into two distinct zones. Zone 1 covers the majority of the site and is classified as presenting a Medium UXO risk, while Zone 2, located along the eastern boundary, is classified as a Low UXO risk. For the Low-Risk Zone 2, the detailed report identifies risk mitigation measures including safety awareness briefings and the implementation of site emergency response plans during intrusive works. For the Medium Risk Zone 1 during intrusive works, the report states that mitigation measures should include a project-specific risk mitigation strategy, safety awareness briefings, an emergency response plan, on-site support from a UXO engineer, an engineer watching brief, non-intrusive and intrusive surveys, and appropriate data management.

The above provides a summary of the available preliminary UXO risk assessment, however, the full assessment provided in Appendix C must be referred to and takes precedence.

6. Environmental Designations and Data

6.1. Regulatory Data

Regulatory data from the *Groundsure Enviro+Geo Insight* Report in close proximity to the development site (generally within 250m of the site boundary, but with the inclusion of landfill and other notable infilled ground within 500m of the site, if present) has been summarised below. For a full breakdown of the regulatory data refer to the *Groundsure Enviro+Geo Insight* Report in Appendix B.

6.1.1. Waste and Landfill

No historical landfills or waste sites were identified on-site or within a 500m radius of the site.

6.1.2. Recent Industrial Land Uses

The Groundsure Report identified four records of current and recent industrial land use on-site and 30no. within a 250m radius of the site, nine of which are located within 50m of the site boundary.

The on-site electrical substation has been considered as a potentially contaminative land use as described in Section 5.2. The car wash identified on-site will also be assessed as a potentially contaminative land use, given the potential impact to shallow groundwater (if present) beneath the site.

The two identified petrol filling stations located 11m northeast and 20m west will be assessed as potentially contaminative features due to their distance from site, as described above in Section 5.1.

The remaining two features on-site and the 38no. identified industrial features have not been considered as potentially contaminative sources herein due to their records relating to retail units, offices, other general commercial uses (non-industrial) and/or due to their relative distance from the site. Overall meaning that contamination, if present, is not considered to have the potential to migrate onto the site.

6.1.3. Current or Recent Petrol Filling Stations

Three petrol stations were identified within a 250m radius of the site, all of which have an ‘open’ status. The two closest records have been considered above in Sections 5.1 and 6.1.2, and relate to a BP petrol garage located adjacent to the northeast of the site and a Tesco petrol station located west adjacent to the site. Although at this time the age of the BP petrol station is not known, a review of the local authority’s planning portal uncovered a planning application for the Tesco petrol station under the reference TP/99/0530 dating back to 1999.

The two nearest petrol stations will be considered further as potential sources of contamination.

The remaining record relates to a petrol station located 219m south of the site and given the relative distance of this station, it is considered unlikely for contamination, if present, to migrate towards the site and, therefore, it has not been considered as a potentially contaminative source herein.

6.1.4. Licensed Discharges

No discharge releases into controlled waters have been recorded on-site or within a 250m radius of the site.

6.1.5. Pollutant Incidents

No pollution incidents have been identified on-site or within a 250m radius of the site.

6.2. Flood Risks

Flood Maps for Planning (ref. https://flood-map-for-planning.service.gov.uk/, accessed December 2025) indicates that the site is located Flood Zone 1, meaning that the site a low probability of flooding.

No further consideration of flood risk is given in this report.

6.3. Ecology, Flora and Fauna

The site has been identified as being located within a Nitrate Vulnerable Zone for both surface water and groundwater.

An assessment of potential invasive species is not included in this report.

6.4. Regulatory Consultation

Requests for information have been made to the following bodies:

- The Environment Agency was contacted via email on the 8th of December 2025 and a response was received on the 8th of January 2026.
- The Local Authority (Hertsmere Borough Council) was contacted via their online portal on the 8th of December 2025 and a response was received on the 16th of December 2025.

The response from the Local Authority did not include information which was not already included in the Groundsure Report.

Copies of the regulatory correspondence and responses will be included in Appendix E.

7. Conceptual Site Model (CSM) and Preliminary Risk Assessment (PRA)

7.1. Approach

A means to qualitatively assess the risk posed by potential land contamination to a proposed development is to prepare an initial CSM and carry out a PRA. An initial CSM represents the characteristics of the site which influence the possible relationships between identified potential contaminant sources, pathways and receptors. A PRA is undertaken for each potentially complete source-pathway-receptor linkage (potential contaminant linkage). The PRA assessment matrix used in this report is included as Appendix E. The risk assessment approach is in accordance with the *LCRM* guidance.

An initial CSM and PRA for the proposed development is set out below in consideration of all the information detailed in the earlier sections of this report. Given the early stages of the proposed development plans, a 'worst-case' scenario has been adapted, with the assumption that site end users will have similar exposure to those in 'residential with homegrown produce' land use scenario. Should any changes be made to the proposed development compared to the details presented herein, or should any new information become available, then the PRA must be updated.

7.2. Potential Sources

The relevant potential on-site and off-site contamination sources are summarised in section. Current and former residential land-use, retail units, offices, and other general commercial uses (non-industrial) are not considered potential sources of contamination unless stated otherwise.

7.2.1. On-site Sources

Made Ground associated with previous phases of development/demolition at the site could be a potential source of contaminants associated with previous construction (predominantly including heavy metals, PAHs, TPHs and asbestos fibres). Additionally, Made Ground on-site could be variable in composition and/or thickness and may be a limited source of ground gas. However, a limited thickness of Made Ground is expected beneath the two buildings in the southwest of the site due to the historical excavation of the existing basement, which is expected to have removed the majority of the Made Ground in these areas. Moreover, Made Ground throughout the site is not expected to contain putrescible/readily degradable content in quantities that would give rise to a credible source of hazardous ground gases.

Previous site use as Smithies, Unspecified Works, Vehicle Repair Works, Car Wash, Electrical Substations, Surgical Glass Works and an Unspecified Tank may have led to potential impacted Made Ground and shallow soils / groundwater beneath the site. These land uses could have led to contaminants such as heavy metals, PAHs, TPHs, VOCs, MTBE and BTEX. Given the anticipated exposure pathways, this will require further assessment.

The current / recent site uses are potentially limited sources of contamination, including PCBs associated with the electricity substation (impacts, if present, are likely to be restricted to the soils immediately below the substation) and detergents (e.g. anionic surfactants, measured as Methylene Blue Active Substances, MBAS) associated with the car wash – there is potential for the mobilisation of oils and metals associated with the car wash, however, this is not expected to result in concentrations in the ground over and above those associated with Made Ground / previous land uses.

7.2.2. Off-site Sources

The two petrol stations located 11m northeast and 20m west of the site could be potential sources of TPHs, MTBE and BTEX due to the underground fuel storage tanks (petrol and diesel) associated with this land use.

Potential risks associated with naturally occurring radon gas are discussed separately in Section 3.4.

7.3. Potential Pathways

The potential pathways relevant to the identified sources/receptors include:

- Dermal contact with soil.
- Direct ingestion of soil or dust derived from soil.
- Inhalation of dust derived from soil.
- Inhalation of vapours.
- Lateral migration and migration through advection and diffusion.
- Permeation of contaminants through proposed water supply pipes.

7.4. Potential Receptors

Potential receptors identified as part of this assessment include:

- Human health (short-term, acute) of construction workers or below ground maintenance workers.
- Human health (long term, chronic) of proposed site end users (residential and commercial).
- Human health (long term, chronic) of off-site commercial and residential end users (closest adjacent west and eastern site boundaries).
- Controlled Waters (shallow groundwater) – underlying Secondary A Aquifer (Pebble Gravels).

The remaining underlying Secondary A Aquifer (Lambeth Group), the Principal Aquifer (Chalk) and associated SPZ 1, SPZ 2 and SPZ 3 have not been considered as controlled water receptors herein due to the presence of the relatively impermeable London Clay Formation, which is expected to be approximately 25.5m thick beneath the site and will afford protection to the underlying aquifers. Given the nature of the proposed development, pilling works will not generally penetrate base of the London Clay, although this is to be confirmed and is possible where taller structures are proposed. The presence of this cohesive layer will provide enough protection so that potential preferential pathways between the shallow and deep aquifers will not be present beneath the site and, therefore, this risk has not been considered further herein – a foundation works risk assessment may be required if piled foundations below the base of the London Clay Formation / cohesive Lambeth Group are required, however, suitable piling methodologies are available to mitigate potential risks associated with creation of preferential pathways.

It is anticipated that as part of geotechnical design, an appropriate concrete class is to be used as part of new proposed building foundations (if any). For this reason, buildings / foundations have not been assessed further as potential receptors.

Risks to site workers and the environment (from potential land contamination) during the construction phase of the proposed redevelopment can be appropriately managed by successful implementation of construction phase risk assessments and method statements (RAMS). The associated construction phase risks from potential contamination are considered further in this document but should be appropriately mitigated by the Principal Contractor in their preparation and implementation of construction phase RAMS and Construction Phase Plan (CPP).

7.5. Summary of Potential Contaminant Linkages

There are some potentially complete contaminant linkages based on the identified sources, pathways and receptors. Table 7.1 presents a PRA for contaminant linkages relevant for the Proposed Development. Qualitative risk classifications are provided in accordance with *CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001)* (see summary in Appendix E). Where there is no potentially complete contaminant linkage then no risk classification is provided. The PRA is applicable to current climatic conditions and those which may be expected in future due to human induced climate change.

Table 7.1 Preliminary Risk Assessment (PRA) for the Completed Redevelopment without Mitigation

Location	Potential Source	Potential Pathway	Potential Receptor	Severity	Probability	Risk Rating
On-site	Made Ground associated with previous phases of development / demolition (associated contaminants include heavy metals, PAHs, TPHs and asbestos fibres)	Dermal contact with soil	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
		Direct ingestion of soil or dust derived from soil	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
			Off-site users (residential and commercial)	Medium	Unlikely	Low
		Inhalation of dust derived from soil	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
			Off-site users (residential and commercial)	Medium	Unlikely	Low
		Inhalation of vapours	Future users (residential and commercial)	Medium	Unlikely	Low
			Off-site users (residential and commercial)	Medium	Unlikely	Low
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
		Lateral migration and migration through advection and diffusion	Controlled Waters – Secondary A Aquifer (Pebble Gravels)	Medium	Low Likelihood	Low to Moderate
		Permeation into proposed water pipes and ingestion	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
	Contaminants in Made Ground, shallow soils and groundwater associated with historical site use as Smithies, Unspecified Works, Vehicle Repair Works, Electrical Substations, Surgical Glass Works and an Unspecified Tank (associated contaminants include heavy metals, PAHs, TPHs, VOCs, MTBE and BTEX)	Dermal contact with soil	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
		Direct ingestion of soil or dust derived from soil	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
			Off-site users (residential and commercial)	Medium	Unlikely	Low
		Inhalation of dust derived from soil	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
			Off-site users (residential and commercial)	Medium	Unlikely	Low
		Inhalation of vapours	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Off-site users (residential and commercial)	Medium	Unlikely	Low
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low

Location	Potential Source	Potential Pathway	Potential Receptor	Severity	Probability	Risk Rating
On-site continued		Lateral migration and migration through advection and diffusion	Controlled Waters – Secondary A Aquifer (Pebble Gravels)	Medium	Low Likelihood	Low to Moderate
		Permeation into proposed water pipes and ingestion	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
	Recent / current site use: electrical substation (PCBs)	Dermal contact with soil	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
		Direct ingestion of soil or dust derived from soil	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
	Recent / current site use: car wash (anionic surfactants, MBAS)	Infiltration through surfaces / leaking drainage and vertical migration to groundwater	Controlled Waters – Secondary A Aquifer (Pebble Gravels)	Medium	Low Likelihood	Low to Moderate
Off-site	Active petrol stations located adjacent to the site listed in Section 7.2.2 (associated contaminants such as TPHs, MTBE, BTEX)	On-site migration followed by direct contact of soil	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
		On-site migration followed by ingestion of soil	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low
		On-site migration followed by impact to proposed water supply pipes and ingestion of the water supply	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
		Soil vapour generation, on-site migration and inhalation	Future users (residential and commercial)	Medium	Low Likelihood	Low to Moderate
			Construction workers (and below ground maintenance workers)	Mild	Low Likelihood	Low

The PRA has identified potential contaminant linkages with a maximum 'low to moderate' risk classification.

Potentially unacceptable risks have been identified to future residential and commercial users, as well as controlled water receptors (shallow Secondary A Aquifer). Therefore, it is recommended that ground investigation is undertaken for geo-environmental purposes to enable a refinement of the CSM and geo-environmental assessments for the specifically identified potentially unacceptable risks. The next stage of geo-environmental assessment should include a generic quantitative risk assessment (GQRA). The recommended ground investigation and assessments should be undertaken and presented in a geo-environmental interpretive report in accordance with *BS10175:2011 Investigation of Potentially Contaminated Sites – Code of Practice* and *LCRM* guidance. It should be noted that this investigation and refined geo-environmental assessment can be run concurrently with other required ground investigations at the site, which may be required (i.e. for Geotechnical / Drainage purposes).

The risk represented by potential ACMs in the current building fabric can be addressed by commissioning an asbestos Demolition and Refurbishment Survey for the relevant areas of the current building to be demolished and / or renovated. If ACMs are identified then their onward management should be informed by an asbestos specialist, but it is considered that appropriate ACM removal will be required prior to any phases of demolition.

8. Closing Remarks

A2 Site Investigation Limited has been engaged by Chase New Homes to prepare a Phase I Desk Study Report for the proposed development at Maple House, Canada Life Place High Street, Potters Bar. The site is currently occupied by a 4-storey and a 12-storey building in the southwest (both of which comprise basements), terrace style buildings in the southeast and northeast, car parking areas throughout and a car wash business in the northeast of the site. The proposed development can be summarised as the part-demolition of on-site structures and retention of the single storey car park structure, with the construction of six additional mixed-use buildings.

The site is expected to be underlain by Made Ground (limited thickness expected beneath the two existing basements, due to the historical excavation of these features), followed by superficial deposits of Pebble Gravels and bedrock deposits of the London Clay Formation, Lambeth Group and the Chalk, in sequence.

The PRA has predominantly identified potential contaminant linkages with a maximum of a 'low to moderate' risk classification indicating potentially unacceptable risks (ref. *LCRM* guidance) to human health and controlled water receptors, that would warrant specific further investigation or assessment. It is, therefore, recommended that a ground investigation is undertaken for geo-environmental purposes to enable a refinement of the CSM and geo-environmental assessments for the specifically identified unacceptable risks. The next stage of geo-environmental assessment should include a generic quantitative risk assessment (GQRA). The recommended ground investigation and assessments should be undertaken and presented in a geo-environmental interpretive report in accordance with *BS10175:2011 Investigation of Potentially Contaminated Sites – Code of Practice* and *LCRM* guidance.

The risk represented by potential ACMs in the current building fabric can be addressed by commissioning an Asbestos Demolition and Refurbishment Survey for the relevant areas of the current building to be demolished and / or renovated. If ACMs are identified then their onward management should be informed by an asbestos specialist, but it is considered that appropriate ACM removal will be required prior to any phases of demolition.

Risks to site workers and the environment (from potential land contamination) during the construction phase of the proposed redevelopment can be appropriately managed by successful implementation of construction phase RAMS. The associated construction phase risks from potential contamination should be appropriately considered and mitigated by the Principal Contractor in their preparation and implementation of construction phase RAMS and CPP.

The Detailed UXO Risk Assessment conducted by RMS UXO concluded that the site has two risk zones. Zone 1 covers the majority of the site and is classified as presenting a Medium UXO risk, while Zone 2, located along the eastern boundary, is classified as a Low UXO risk. For the Low-Risk Zone 2, the detailed report identified the need for risk mitigation measures including safety awareness briefings and the implementation of site emergency response plans during intrusive works. For the Medium Risk Zone 1 during intrusive works, the report stated that mitigation measures should include a project-specific risk mitigation strategy, safety awareness briefings, an emergency response plan, on-site support from a UXO engineer, an engineer watching brief, non-intrusive and intrusive surveys, and appropriate data management.

Should any changes be made to the proposed development compared to the details presented herein, or should any new information become available, then the assessments included in this desk study must be updated. This desk study should be made available to those preparing the operational site Health & Safety File for the Proposed Development.

Appendix A: Site Walkover Records



Image 1: North facing view from the south of the site.



Image 2: Parking area in the southwest of the site, facing the two buildings which comprise basement levels.



Image 3: Parking area in the northwest of the site, with the single storey parking structure on the right-hand side.



Image 4: Vertical cracking in ground level brick wall of single storey parking structure.

Appendix B: Groundsure Enviro+Geo Insight Report

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

Maple House, Canada Life Place High Street, Potters Bar

Order Details

Date: 08/12/2025

Your ref: 4234 - Potters Bar

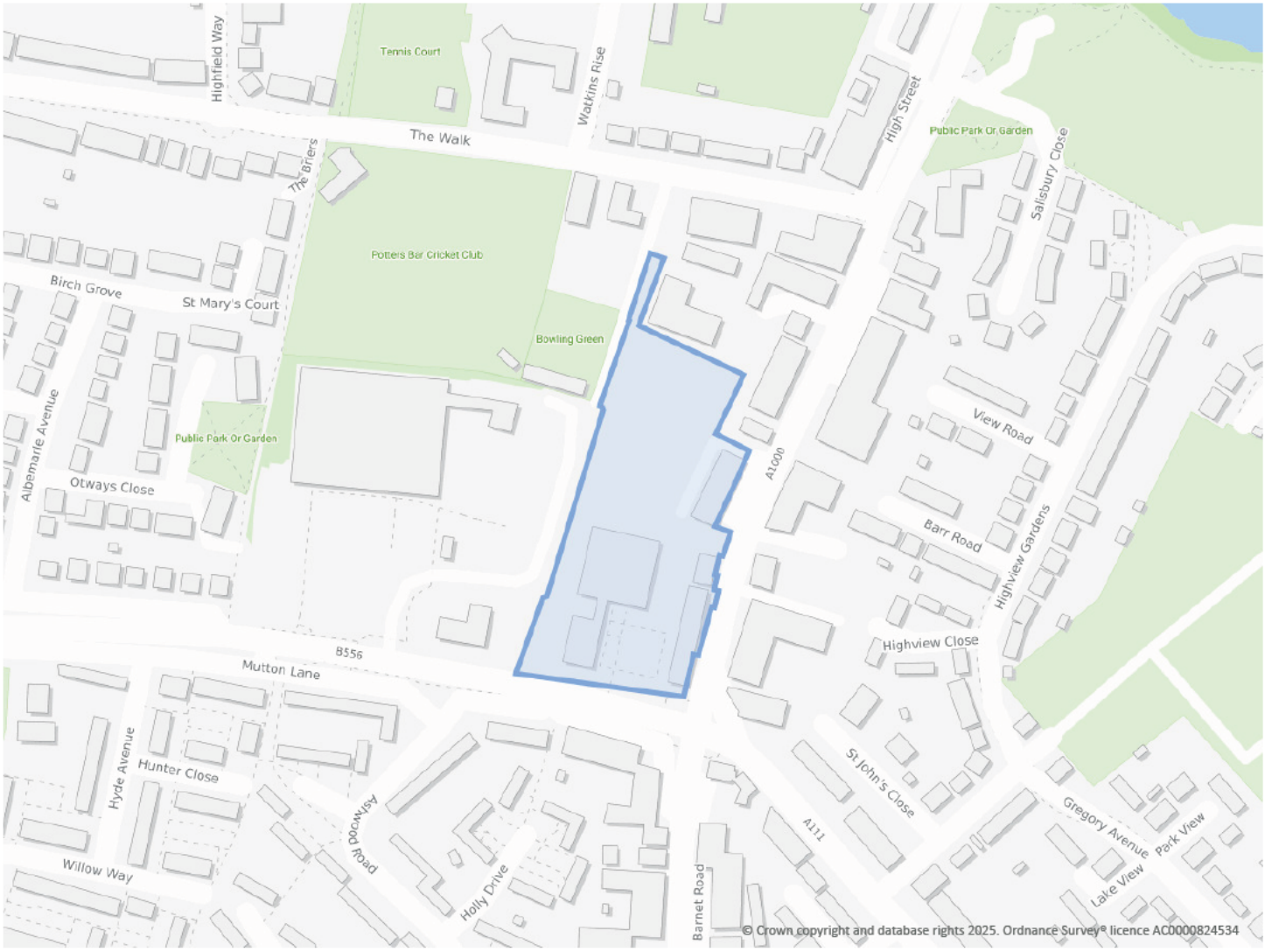
Our Ref: GS-5Y4-KME-8K4-H25

Site Details

Location: 525952 200976

Area: 1.79 ha

Authority: Hertsmere Borough Council ↗



Summary of findings p. 2 >

OS MasterMap site plan p.14 >

Aerial image p. 9 >

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

Certified B Corporation

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	4	3	6	34	-
17 >	1.2 >	Historical tanks >	1	2	4	6	-
18 >	1.3 >	Historical energy features >	1	0	8	14	-
19	1.4	Historical petrol stations	0	0	0	0	-
20 >	1.5 >	Historical garages >	1	6	4	1	-
20	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**
21 >	2.1 >	Historical industrial land uses >	6	4	8	48	-
24 >	2.2 >	Historical tanks >	1	2	6	7	-
25 >	2.3 >	Historical energy features >	1	0	15	27	-
27	2.4	Historical petrol stations	0	0	0	0	-
27 >	2.5 >	Historical garages >	4	6	6	2	-
Page	**Section**	**Waste and landfill >**	**On site**	**0-50m**	**50-250m**	**250-500m**	**500-2000m**
29	3.1	Active or recent landfill	0	0	0	0	-
29	3.2	Historical landfill (BGS records)	0	0	0	0	-
30	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
30	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
30	3.5	Historical waste sites	0	0	0	0	-
30	3.6	Licensed waste sites	0	0	0	0	-
30 >	3.7 >	Waste exemptions >	1	0	4	4	-
Page	**Section**	**Current industrial land use >**	**On site**	**0-50m**	**50-250m**	**250-500m**	**500-2000m**
32 >	4.1 >	Recent industrial land uses >	4	7	19	-	-
34 >	4.2 >	National Geographic Database (NGD) - Current or recent tanks >	0	0	1	-	-
35 >	4.3 >	Current or recent petrol stations >	0	2	1	0	-
35	4.4	Electricity cables	0	0	0	0	-
35	4.5	Gas pipelines	0	0	0	0	-

35	4.6	Sites determined as Contaminated Land	0	0	0	0	-
36	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
36	4.8	Regulated explosive sites	0	0	0	0	-
36	4.9	Hazardous substance storage/usage	0	0	0	0	-
36	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
36	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
37 >	4.12 >	Licensed pollutant release (Part A(2)/B) >	0	3	2	1	-
38	4.13	Radioactive Substance Authorisations	0	0	0	0	-
38	4.14	Licensed Discharges to controlled waters	0	0	0	0	-
38	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
38	4.16	Pollutant release to public sewer	0	0	0	0	-
38	4.17	List 1 Dangerous Substances	0	0	0	0	-
39	4.18	List 2 Dangerous Substances	0	0	0	0	-
39 >	4.19 >	Pollution Incidents (EA/NRW) >	0	0	0	2	-
39	4.20	Pollution inventory substances	0	0	0	0	-
40	4.21	Pollution inventory waste transfers	0	0	0	0	-
40	4.22	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
41 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
43 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
44 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
45	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
46 >	5.5 >	Groundwater vulnerability- local information >	Identified (within 0m)				
47	5.6	Groundwater abstractions	0	0	0	0	0
48	5.7	Surface water abstractions	0	0	0	0	0
48	5.8	Potable abstractions	0	0	0	0	0
48 >	5.9 >	Source Protection Zones >	13	8	25	29	-
51	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m

52	6.1	Water Network (OS MasterMap)	0	0	0	-	-
52	6.2	Surface water features	0	0	0	-	-
53 >	6.3 >	WFD Surface water body catchments >	2	-	-	-	-
53 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
54	6.5	WFD Groundwater bodies	0	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
55	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
55	7.2	Historical Flood Events	0	0	0	-	-
55	7.3	Flood Defences	0	0	0	-	-
56	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
56	7.5	Flood Storage Areas	0	0	0	-	-
57	7.6	Flood Zone 2	None (within 50m)				
57	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
58 >	8.1 >	Surface water flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
60 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
61	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
62	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
62	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
62	10.4	Special Protection Areas (SPA)	0	0	0	0	0
62	10.5	National Nature Reserves (NNR)	0	0	0	0	0
63 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	1
63 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	2
63	10.8	Biosphere Reserves	0	0	0	0	0
64	10.9	Forest Parks	0	0	0	0	0
64	10.10	Marine Conservation Zones	0	0	0	0	0
64 >	10.11 >	Green Belt >	0	0	0	1	4

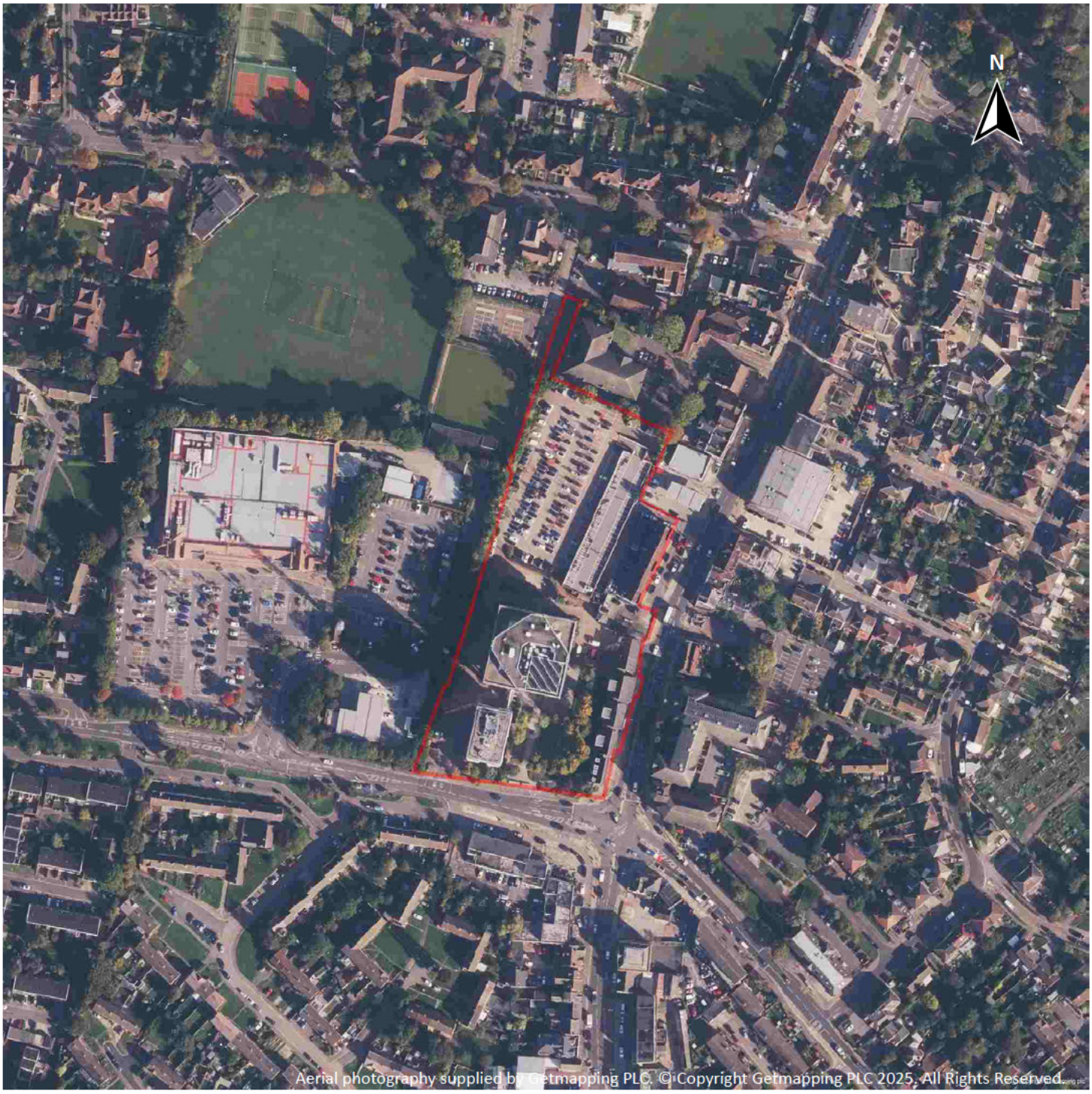
64	10.12	Proposed Ramsar sites	0	0	0	0	0
65	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
65	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
65	10.15	Nitrate Sensitive Areas	0	0	0	0	0
65 >	10.16 >	Nitrate Vulnerable Zones >	2	0	0	0	1
67	10.17	SSSI Impact Risk Zones	0	-	-	-	-
67	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
68	11.1	World Heritage Sites	0	0	0	-	-
69	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
69	11.3	National Parks	0	0	0	-	-
69 >	11.4 >	Listed Buildings >	0	2	3	-	-
70	11.5	Conservation Areas	0	0	0	-	-
70	11.6	Scheduled Ancient Monuments	0	0	0	-	-
70	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
71 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
72	12.2	Open Access Land	0	0	0	-	-
72	12.3	Tree Felling Licences	0	0	0	-	-
72	12.4	Environmental Stewardship Schemes	0	0	0	-	-
72	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
73 >	13.1 >	Priority Habitat Inventory >	0	0	1	-	-
74	13.2	Habitat Networks	0	0	0	-	-
74	13.3	Open Mosaic Habitat	0	0	0	-	-
74	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
75 >	14.1 >	10k Availability >	Identified (within 500m)				
76	14.2	Artificial and made ground (10k)	0	0	0	0	-

77 >	14.3 >	Superficial geology (10k) >	1	0	0	2	-
78	14.4	Landslip (10k)	0	0	0	0	-
79 >	14.5 >	Bedrock geology (10k) >	1	0	0	0	-
80	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
81 >	15.1 >	50k Availability >	Identified (within 500m)				
82	15.2	Artificial and made ground (50k)	0	0	0	0	-
82	15.3	Artificial ground permeability (50k)	0	0	-	-	-
83 >	15.4 >	Superficial geology (50k) >	1	0	1	1	-
84 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
84	15.6	Landslip (50k)	0	0	0	0	-
84	15.7	Landslip permeability (50k)	None (within 50m)				
85 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
86 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
86	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
87 >	16.1 >	BGS Boreholes >	2	1	0	-	-
Page	Section	Natural ground subsidence >					
89 >	17.1 >	Shrink swell clays >	Moderate (within 50m)				
90 >	17.2 >	Running sands >	Very low (within 50m)				
91 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
92 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
93 >	17.5 >	Landslides >	Very low (within 50m)				
94 >	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
96	18.1	BritPits	0	0	0	0	-
97 >	18.2 >	Surface ground workings >	0	0	24	-	-
98 >	18.3 >	Underground workings >	0	0	0	0	12
98	18.4	Underground mining extents	0	0	0	0	-

99	18.5	Historical Mineral Planning Areas	0	0	0	0	-
99 >	18.6 >	Non-coal mining >	0	0	0	0	2
99	18.7	JPB mining areas	None (within 0m)				
100	18.8	The Coal Authority non-coal mining	0	0	0	0	-
100	18.9	Researched mining	0	0	0	0	-
100	18.10	Mining record office plans	0	0	0	0	-
100	18.11	BGS mine plans	0	0	0	0	-
101	18.12	Coal mining	None (within 0m)				
101	18.13	Brine areas	None (within 0m)				
101	18.14	Gypsum areas	None (within 0m)				
101	18.15	Tin mining	None (within 0m)				
101	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
102	19.1	Natural cavities	0	0	0	0	-
102	19.2	Mining cavities	0	0	0	0	0
102	19.3	Reported recent incidents	0	0	0	0	-
102	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
104 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
106 >	21.1 >	BGS Estimated Background Soil Chemistry >	9	0	-	-	-
106	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
107	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
108	22.1	Underground railways (London)	0	0	0	-	-
108	22.2	Underground railways (Non-London)	0	0	0	-	-
108	22.3	Railway tunnels	0	0	0	-	-
108	22.4	Historical railway and tunnel features	0	0	0	-	-
108	22.5	Royal Mail tunnels	0	0	0	-	-

109	22.6	Historical railways	0	0	0	-	-
109	22.7	Railways	0	0	0	-	-
109	22.8	Crossrail 2	0	0	0	0	-
109	22.9	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 06/10/2022

Site Area: 1.79ha

Recent site history - 2020 aerial photograph



Capture Date: 08/04/2020

Site Area: 1.79ha

Recent site history - 2013 aerial photograph



Capture Date: 28/04/2013

Site Area: 1.79ha

Recent site history - 2005 aerial photograph



Capture Date: 29/08/2005

Site Area: 1.79ha

Recent site history - 1999 aerial photograph



Capture Date: 18/07/1999

Site Area: 1.79ha

OS MasterMap site plan



Site Area: 1.79ha

1 Past land use



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Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical garages

1.1 Historical industrial land uses

Records within 500m	47

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

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

ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Works	1988	2080016

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Works**	**1973 - 1988**	**2107740**
B	**On site**	**Smithy**	**1897**	**2089354**
C	**On site**	**Smithy**	**1866**	**2149026**
B	11m SE	Smithy	1895	2118774
C	17m E	Police Office	1866	2089032
D	44m SE	Smithy	1866	2089353
D	51m S	Smithy	1866	2089365
E	60m W	Hospital	1988	2107184
E	60m W	Hospital	1970	2147059
E	62m W	Hospital	1973 - 1988	2116931
E	62m W	Hospital	1960	2149528
2	152m NE	Unspecified Ground Workings	1866	2155516
I	295m W	Grave Yard	1988	2130045
I	302m W	Grave Yard	1960	2097499
I	302m W	Grave Yard	1973 - 1988	2147702
J	320m NE	Unspecified Garage	1988	2074737
J	320m NE	Bus Depot	1970	2111609
J	320m NE	Bus Depot	1960	2117548
J	320m NE	Garage	1973 - 1988	2127009
J	325m NE	Bus Depot	1938	2144688
J	325m NE	Bus Depot	1935 - 1938	2113014
K	343m E	Unspecified Heap	1973 - 1988	2140317
L	343m W	Fire Station	1970	2123041
L	344m W	Fire Station	1960	2141463
K	346m E	Unspecified Heap	1988	2110029
I	347m W	Grave Yard	1919 - 1938	2106676
I	347m W	Grave Yard	1865	2143044
I	347m W	Grave Yard	1938	2125376

ID	Location	Land use	Dates present	Group ID
I	351m W	Grave Yard	1919	2100843
M	360m N	Electric Substation	1988	2153875
M	362m N	Electric Substation	1973 - 1988	2144761
N	384m W	Cuttings	1988	2115674
N	384m W	Cuttings	1973	2120009
N	386m SW	Grave Yard	1988	2077115
N	387m SW	Cuttings	1865 - 1895	2138153
N	390m SW	Cuttings	1919 - 1938	2102023
13	391m SW	Cuttings	1866	2119512
N	392m SW	Cuttings	1960	2128514
N	392m SW	Cuttings	1970	2128308
I	392m W	Grave Yard	1970	2124976
N	394m SW	Cuttings	1919	2095771
N	395m SW	Cuttings	1895	2117463
N	399m SW	Cuttings	1897	2151090
17	399m SW	Cuttings	1866	2141524
O	423m NE	Unspecified Works	1988	2149293
O	433m NE	Unspecified Works	1973 - 1988	2148584

This data is sourced from Ordnance Survey® / Groundsure.

1.2 Historical tanks

Records within 500m	13

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

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

ID	Location	Land use	Dates present	Group ID
C	**On site**	**Unspecified Tank**	**1982**	**364982**
1	16m W	Unspecified Tank	1896	364988
C	47m E	Unspecified Tank	1896	364987
3	170m SE	Unspecified Tank	1896 - 1913	367742
5	181m NE	Unspecified Tank	1913 - 1935	371026
G	191m S	Unspecified Tank	1866	364984
G	233m S	Unspecified Tank	1866	364985
G	277m S	Unspecified Tank	1866	364986
9	324m NE	Tanks	1969 - 1970	373641
14	393m SW	Unspecified Tank	1866	364983
15	395m S	Tanks	1866	360154
18	406m SE	Unspecified Tank	1913	364989
O	437m NE	Unspecified Tank	1914	364978

This data is sourced from Ordnance Survey® / Groundsure.

1.3 Historical energy features

Records within 500m	23

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**	**1982**	**247739**
D	51m S	Electricity Substation	1968 - 1982	252099
4	177m W	Electricity Substation	1968 - 1982	252666
6	183m S	Electricity Substation	1968 - 1982	263472
F	185m W	Electricity Substation	1970	247741

ID	Location	Land use	Dates present	Group ID
F	187m W	Electricity Substation	1969	247742
7	230m SW	Electricity Substation	1982	247740
H	247m E	Electricity Substation	1967 - 1971	253892
H	248m E	Electricity Substation	1985	261355
8	258m E	Electricity Substation	1969 - 1970	255452
G	284m S	Gas Valve House	1967	257925
G	285m S	Gas Valve House	1985	264219
G	289m S	Gas Valve House	1971	250959
10	334m S	Electricity Substation	1968 - 1982	256502
11	349m S	Electricity Substation	1968 - 1982	264779
M	359m N	Electricity Substation	1970	251690
M	360m N	Electricity Substation	1969	263509
M	365m N	Electricity Substation	1970 - 1983	264774
12	389m NE	Electricity Substation	1969 - 1970	252407
16	397m W	Electricity Substation	1969 - 1970	257939
O	431m NE	Electricity Substation	1969 - 1983	254754
19	462m N	Electricity Substation	1969 - 1970	255041
20	498m E	Electricity Substation	1968 - 1971	258523

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	12

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**	**Vehicle Repair Works**	**1968 - 1971**	**79843**
C	14m E	Garage	1967	78782
C	14m E	Garage	1985	77785
C	21m SE	Garage	1967	79388
C	21m SE	Garage	1985	80640
C	21m SE	Garage	1971	78071
C	24m E	Garage	1971	77356
G	204m S	Garage	1967 - 1971	78112
G	211m S	Garage	1982	79219
G	212m S	Garage	1971	77689
G	213m S	Garage	1985	77470
J	321m NE	Bus Garage	1969 - 1970	78098

This data is sourced from Ordnance Survey® / Groundsure.

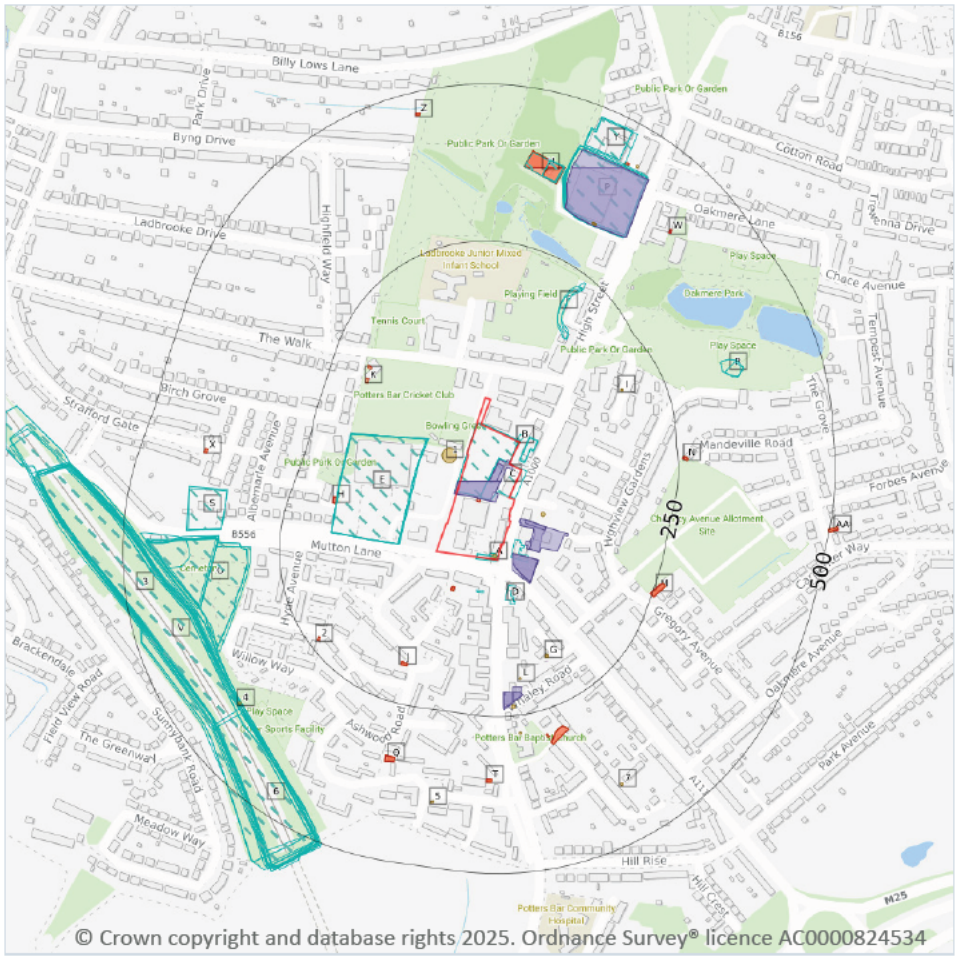
1.6 Historical military land

Records within 500m	0

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

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

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

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

2.1 Historical industrial land uses

Records within 500m	66

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 21 >

ID	Location	Land Use	Date	Group ID
A	On site	Smithy	1866	2149026
A	On site	Smithy	1866	2149026
B	On site	Smithy	1897	2089354

ID	Location	Land Use	Date	Group ID
C	**On site**	**Unspecified Works**	**1988**	**2080016**
C	**On site**	**Unspecified Works**	**1988**	**2107740**
C	**On site**	**Unspecified Works**	**1973**	**2107740**
B	11m SE	Smithy	1895	2118774
B	12m SE	Smithy	1895	2118774
A	17m E	Police Office	1866	2089032
D	44m SE	Smithy	1866	2089353
D	51m S	Smithy	1866	2089365
E	60m W	Hospital	1970	2147059
E	60m W	Hospital	1988	2107184
E	62m W	Hospital	1988	2116931
E	62m W	Hospital	1973	2116931
E	62m W	Hospital	1960	2149528
F	152m NE	Unspecified Ground Workings	1866	2155516
F	153m NE	Unspecified Ground Workings	1866	2155516
O	295m W	Grave Yard	1988	2130045
O	302m W	Grave Yard	1988	2147702
O	302m W	Grave Yard	1973	2147702
O	302m W	Grave Yard	1960	2097499
P	320m NE	Bus Depot	1970	2111609
P	320m NE	Unspecified Garage	1988	2074737
P	320m NE	Garage	1988	2127009
P	320m NE	Garage	1973	2127009
P	320m NE	Bus Depot	1960	2117548
P	325m NE	Bus Depot	1938	2144688
P	325m NE	Bus Depot	1938	2113014
P	325m NE	Bus Depot	1935	2113014
P	325m NE	Bus Depot	1938	2113014

ID	Location	Land Use	Date	Group ID
R	343m E	Unspecified Heap	1988	2140317
R	343m E	Unspecified Heap	1973	2140317
S	343m W	Fire Station	1970	2123041
S	344m W	Fire Station	1960	2141463
R	346m E	Unspecified Heap	1988	2110029
O	347m W	Grave Yard	1938	2106676
O	347m W	Grave Yard	1919	2106676
O	347m W	Grave Yard	1865	2143044
O	347m W	Grave Yard	1935	2106676
O	347m W	Grave Yard	1938	2125376
O	351m W	Grave Yard	1919	2100843
U	360m N	Electric Substation	1988	2153875
U	362m N	Electric Substation	1988	2144761
U	362m N	Electric Substation	1973	2144761
V	384m W	Cuttings	1988	2115674
V	384m W	Cuttings	1973	2120009
V	386m SW	Grave Yard	1988	2077115
V	387m SW	Cuttings	1866	2138153
V	390m SW	Cuttings	1938	2102023
V	391m SW	Cuttings	1919	2102023
V	391m SW	Cuttings	1865	2138153
V	391m SW	Cuttings	1935	2102023
3	391m SW	Cuttings	1866	2119512
V	392m SW	Cuttings	1960	2128514
V	392m SW	Cuttings	1970	2128308
V	392m SW	Cuttings	1938	2102023
O	392m W	Grave Yard	1970	2124976
V	394m SW	Cuttings	1919	2095771

ID	Location	Land Use	Date	Group ID
V	395m SW	Cuttings	1895	2117463
V	397m SW	Cuttings	1895	2138153
V	399m SW	Cuttings	1897	2151090
6	399m SW	Cuttings	1866	2141524
Y	423m NE	Unspecified Works	1988	2149293
Y	433m NE	Unspecified Works	1988	2148584
Y	433m NE	Unspecified Works	1973	2148584

This data is sourced from Ordnance Survey® / Groundsure.

2.2 Historical tanks

Records within 500m	16

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

Features are displayed on the Past land use - un-grouped map on page 21 >

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Tank**	**1982**	**364982**
1	16m W	Unspecified Tank	1896	364988
A	47m E	Unspecified Tank	1896	364987
G	170m SE	Unspecified Tank	1896	367742
G	170m SE	Unspecified Tank	1913	367742
I	181m NE	Unspecified Tank	1913	371026
I	181m NE	Unspecified Tank	1935	371026
L	191m S	Unspecified Tank	1866	364984
L	233m S	Unspecified Tank	1866	364985
L	277m S	Unspecified Tank	1866	364986
P	324m NE	Tanks	1970	373641
P	324m NE	Tanks	1969	373641
4	393m SW	Unspecified Tank	1866	364983

ID	Location	Land Use	Date	Group ID
5	395m S	Tanks	1866	360154
7	406m SE	Unspecified Tank	1913	364989
Y	437m NE	Unspecified Tank	1914	364978

This data is sourced from Ordnance Survey® / Groundsure.

2.3 Historical energy features

Records within 500m	43

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 21 >

ID	Location	Land Use	Date	Group ID
C	**On site**	**Electricity Substation**	**1982**	**247739**
D	51m S	Electricity Substation	1971	252099
D	52m S	Electricity Substation	1982	252099
D	52m S	Electricity Substation	1968	252099
H	177m W	Electricity Substation	1982	252666
H	177m W	Electricity Substation	1968	252666
H	177m W	Electricity Substation	1971	252666
J	183m S	Electricity Substation	1971	263472
J	184m S	Electricity Substation	1982	263472
J	184m S	Electricity Substation	1968	263472
K	185m W	Electricity Substation	1970	247741
K	187m W	Electricity Substation	1969	247742
2	230m SW	Electricity Substation	1982	247740
M	247m E	Electricity Substation	1971	253892
M	247m E	Electricity Substation	1967	253892
M	248m E	Electricity Substation	1985	261355
N	258m E	Electricity Substation	1970	255452

ID	Location	Land Use	Date	Group ID
N	258m E	Electricity Substation	1969	255452
L	284m S	Gas Valve House	1967	257925
L	285m S	Gas Valve House	1985	264219
L	289m S	Gas Valve House	1971	250959
Q	334m S	Electricity Substation	1971	256502
Q	335m S	Electricity Substation	1982	256502
Q	335m S	Electricity Substation	1968	256502
T	349m S	Electricity Substation	1971	264779
T	350m S	Electricity Substation	1982	264779
T	350m S	Electricity Substation	1968	264779
U	359m N	Electricity Substation	1970	251690
U	360m N	Electricity Substation	1969	263509
U	365m N	Electricity Substation	1970	264774
U	373m N	Electricity Substation	1983	264774
U	373m N	Electricity Substation	1969	263509
W	389m NE	Electricity Substation	1970	252407
W	390m NE	Electricity Substation	1969	252407
X	397m W	Electricity Substation	1969	257939
X	397m W	Electricity Substation	1970	257939
Y	431m NE	Electricity Substation	1983	254754
Y	431m NE	Electricity Substation	1969	254754
Y	431m NE	Electricity Substation	1970	254754
Z	462m N	Electricity Substation	1970	255041
Z	462m N	Electricity Substation	1969	255041
AA	498m E	Electricity Substation	1968	258523
AA	498m E	Electricity Substation	1971	258523

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	18

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'.

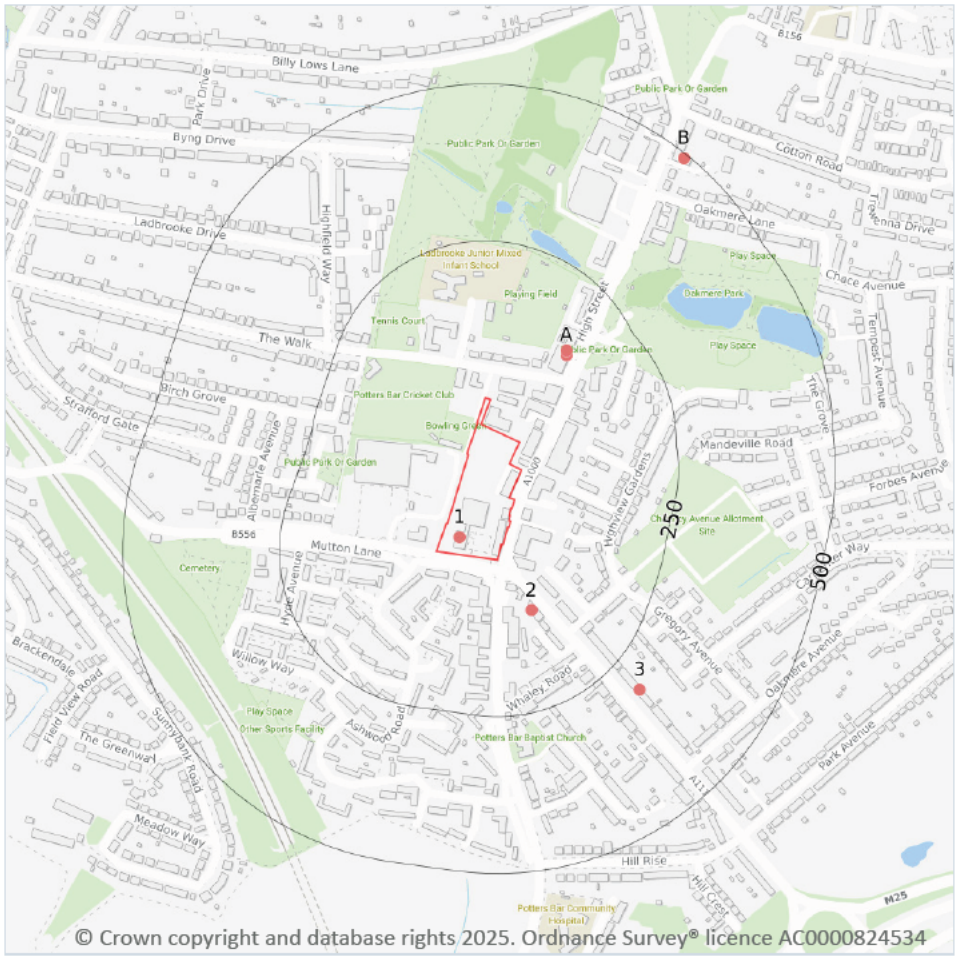
Features are displayed on the Past land use - un-grouped map on page 21 >

ID	Location	Land Use	Date	Group ID
C	**On site**	**Vehicle Repair Works**	**1970**	**79843**
C	**On site**	**Vehicle Repair Works**	**1969**	**79843**
C	**On site**	**Vehicle Repair Works**	**1971**	**79843**
C	**On site**	**Vehicle Repair Works**	**1968**	**79843**
A	14m E	Garage	1967	78782
A	14m E	Garage	1985	77785
A	21m SE	Garage	1967	79388
A	21m SE	Garage	1985	80640
A	21m SE	Garage	1971	78071
A	24m E	Garage	1971	77356
L	204m S	Garage	1967	78112
L	211m S	Garage	1982	79219
L	211m S	Garage	1968	78112
L	211m S	Garage	1971	78112
L	212m S	Garage	1971	77689
L	213m S	Garage	1985	77470

ID	Location	Land Use	Date	Group ID
P	321m NE	Bus Garage	1969	78098
P	322m NE	Bus Garage	1970	78098

This data is sourced from Ordnance Survey® / Groundsure.

3 Waste and landfill



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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	9

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.

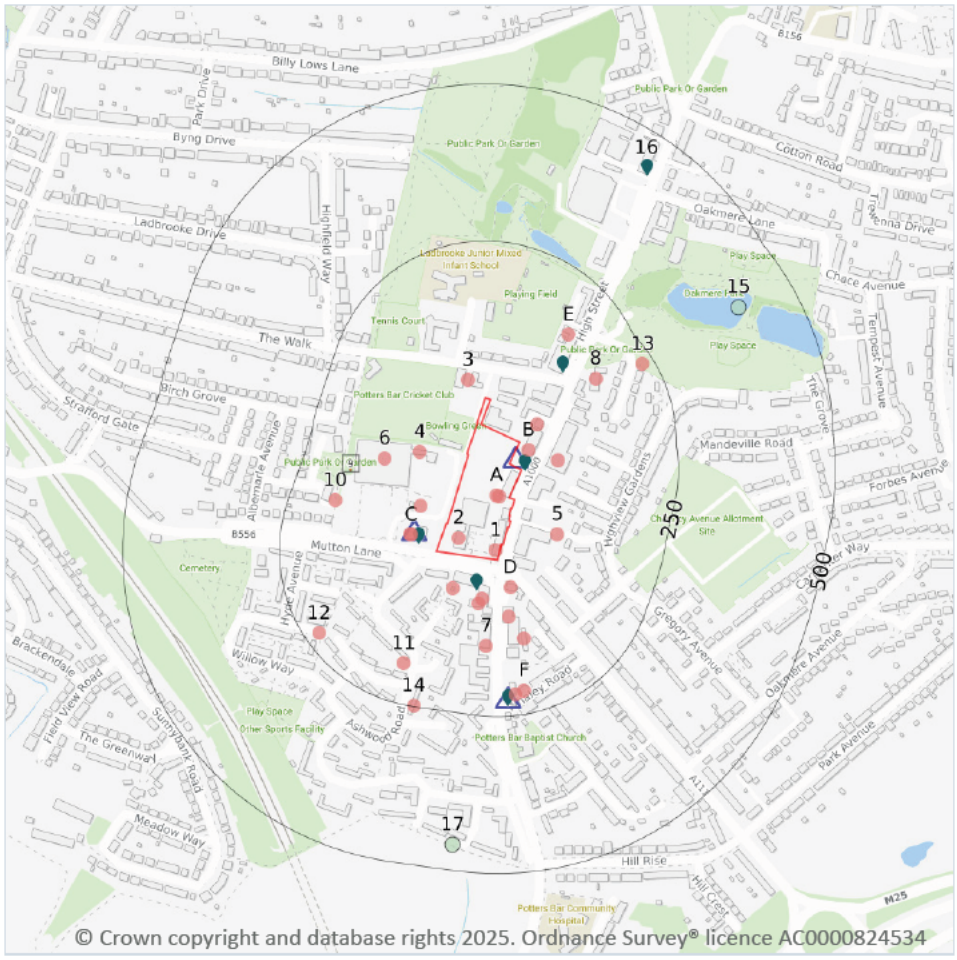
Features are displayed on the Waste and landfill map on **page 29 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	**On site**	**Bulk Registration - Details On Request**	**EPR/XE5340NG/A001**	**Storing waste exemption**	**Non-agricultural waste only**	**Storage of waste in a secure place**

ID	Location	Site	Reference	Category	Sub-Category	Description
2	97m SE	Village Vet, 7-9 Southgate Road, Potters Bar, En6 5dr	WEX158080	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	140m NE	96, High Street, Potters Bar, En6 5at	WEX094885	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	140m NE	96, High Street, Potters Bar, En6 5at	WEX299376	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	144m NE	96, High Street, Potters Bar, En6 5at	WEX431162	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
3	307m SE	20 Southgate Road Potters Bar Hertfordshire En6 5dz	EPR/EF0132RC /A001	Treating waste exemption	Non-agricultural waste only	Sorting and de-naturing of controlled drugs for disposal
B	493m NE	The Elms, High Street, Potters Bar, En6 5da	WEX242325	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	493m NE	The Elms, High Street, Potters Bar, En6 5da	WEX097975	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	493m NE	The Elms, High Street, Potters Bar, En6 5da	WEX370012	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

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

4 Current industrial land use



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Site Outline

Search buffers in metres (m)

Recent industrial land uses

NGD current or recent tanks

Current or recent petrol stations

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

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	30

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on page 32 >

ID	Location	Company	Address	Activity	Category
1	On site	Connx	8, High Street, Potters Bar, Hertfordshire, EN6 5AF	Radar and Telecommunications Equipment	Industrial Products
2	On site	Parliament International Ltd	Maple House, High Street, Potters Bar, Hertfordshire, EN6 5BS	Packaging	Industrial Products

ID	Location	Company	Address	Activity	Category
A	**On site**	**Electricity Sub Station**	**Hertfordshire, EN6**	**Electrical Features**	**Infrastructure and Facilities**
A	**On site**	**Elite Hand Car Wash**	**High Street, Potters Bar, Hertfordshire, EN6 5BT**	**Vehicle Cleaning Services**	**Personal, Consumer and Other Services**
B	18m SE	BP Service Station	48-56, High Street, Potters Bar, Hertfordshire, EN6 5AB	Petrol and Fuel Stations	Road and Rail
3	40m NW	Mast (Telecommunication)	Hertfordshire, EN6	Telecommunications Features	Infrastructure and Facilities
B	40m NE	Ital Living Ltd	70, High Street, Potters Bar, Hertfordshire, EN6 5AB	Furniture	Consumer Products
C	47m W	Tesco Petrol Filling Station	Mutton Ln, Potters Bar, Hertfordshire, EN6 2PB	Petrol and Fuel Stations	Road and Rail
C	48m W	Tesco Hand Car Wash	Tesco Superstore, Mutton Lane, Potters Bar, Hertfordshire, EN6 2PB	Vehicle Cleaning Services	Personal, Consumer and Other Services
D	48m SE	Moordale Motors	2, Barnet Road, Potters Bar, Hertfordshire, EN6 2QS	Vehicle Repair, Testing and Servicing	Repair and Servicing
C	49m W	Radio Mast	Hertfordshire, EN6	Telecommunications Features	Infrastructure and Facilities
D	54m S	Electricity Sub Station	Hertfordshire, EN6	Electrical Features	Infrastructure and Facilities
B	60m E	Lantern Recovery Specialists Plc	Lantern House 39-41, High Street, Potters Bar, Hertfordshire, EN6 5AJ	Vehicle Breakdown and Recovery Services	Personal, Consumer and Other Services
D	65m S	Approved Glazing Co	7, Barnet Road, Potters Bar, Hertfordshire, EN6 2QX	Glass	Industrial Products
D	72m S	Hertfordshire Fireplace Gallery	9, Barnet Road, Potters Bar, Hertfordshire, EN6 2QX	Fireplaces and Mantelpieces	Consumer Products
4	75m W	Electricity Sub Station	Hertfordshire, EN6	Electrical Features	Infrastructure and Facilities
5	78m E	Electricity Sub Station	Hertfordshire, EN6	Electrical Features	Infrastructure and Facilities
D	93m S	Potters Bar Garage	10-12, Barnet Road, Potters Bar, Hertfordshire, EN6 2QS	Vehicle Repair, Testing and Servicing	Repair and Servicing

ID	Location	Company	Address	Activity	Category
6	126m W	Waves Hand Car Wash Potters Bar	Mutton Lane, Potters Bar, Hertfordshire, EN6 2PB	Vehicle Cleaning Services	Personal, Consumer and Other Services
D	132m S	Moordale Motors	Unit Rear of 18, Barnet Road, Potters Bar, Hertfordshire, EN6 2QS	Vehicle Repair, Testing and Servicing	Repair and Servicing
7	138m S	Kwik-Fit (GB) Limited	37, Barnet Road, Potters Bar, Hertfordshire, EN6 2QX	Vehicle Repair, Testing and Servicing	Repair and Servicing
8	158m NE	Hidden Hearing	81, High Street, Potters Bar, Hertfordshire, EN6 5AS	Disability and Mobility Equipment	Consumer Products
E	162m NE	webuyanycar.com	Land Rear of 106, High Street, Potters Bar, Hertfordshire, EN6 5AT	Secondhand Vehicles	Motoring
10	179m W	Electricity Sub Station	Hertfordshire, EN6	Electrical Features	Infrastructure and Facilities
11	186m S	Electricity Sub Station	Hertfordshire, EN6	Electrical Features	Infrastructure and Facilities
F	213m S	C & D Tyres	C and D Tyres Ltd, Whaley Road, Potters Bar, Hertfordshire, EN6 2RA	Vehicle Parts and Accessories	Motoring
F	216m S	Mfg Potters Bar	46, Barnet Road, Potters Bar, Hertfordshire, EN6 2QU	Petrol and Fuel Stations	Road and Rail
12	228m SW	Electricity Sub Station	Hertfordshire, EN6	Electrical Features	Infrastructure and Facilities
13	233m NE	Electricity Sub Station	Hertfordshire, EN6	Electrical Features	Infrastructure and Facilities
14	248m S	Scrap Removal	86, Ashwood Road, Potters Bar, Hertfordshire, EN6 2QJ	Scrap Metal Merchants	Recycling Services

This data is sourced from Ordnance Survey®.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m **1**

Current or recent tanks identified from the Ordnance Survey® NGD.

Features are displayed on the Current industrial land use map on page 32 >

ID	Location	Tank description	Activity	Date first identified
9	171m W	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	17/04/2021

This data is sourced from Ordnance Survey®.

4.3 Current or recent petrol stations

Records within 500m	3

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on page 32 >

ID	Location	Company	Address	LPG	Status
B	3m SE	BP	48, High Street, Potters Bar, Hertfordshire, EN6 5AB	No	Open
C	45m W	TESCO	Mutton Lane, Potters Bar, Hertfordshire, EN6 2PB	No	Open
F	219m S	MURCO	46, Barnet Road, Whaley Road, Potters Bar, Hertfordshire, EN6 2QU	No	Open

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 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.

4.7 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.

4.8 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.

4.9 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.

4.10 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.

4.11 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.

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

Records within 500m	6

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 32 >

ID	Location	Address	Details	
B	13m NE	BP Oil UK Ltd, Potters Bar Connect, 48 High Street, Potters Bar, Hertfordshire, EN6 5AB	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
C	35m W	Tesco Stores Ltd, Mutton Lane, Potters Bar, Hertfordshire, EN6 2PB	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
D	39m S	Clean Image, 2 Mutton Lane, Potters Bar, Hertfordshire, EN6 2PA	Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: Enforcements Notified Date of enforcement: No Details Comment: Record keeping
E	128m NE	Master Care Valet Services Ltd, 92 High Street, Potters Bar, Hertfordshire, EN6 5AT	Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
F	219m S	Potters Bar Service Station, Barnet Road, Potters Bar, Hertfordshire, EN6 2QU	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
16	446m NE	JTT Autotech, Hollies Way Industrial Park, 218 High Street, Potters Bar, Hertfordshire EN6 5BJ	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.13 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.

4.14 Licensed Discharges to controlled waters

Records within 500m	0

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

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

4.15 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.

4.16 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.

4.17 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.

4.18 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.

4.19 Pollution Incidents (EA/NRW)

Records within 500m	2

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

Features are displayed on the Current industrial land use map on page 32 >

ID	Location	Details	
15	411m NE	Incident Date: 26/07/2013 Incident Identification: 1139323 Pollutant: Contaminated Water Pollutant Description: Urban Run-Off	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
17	459m S	Incident Date: 21/05/2018 Incident Identification: 1615544 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.20 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.

4.21 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.

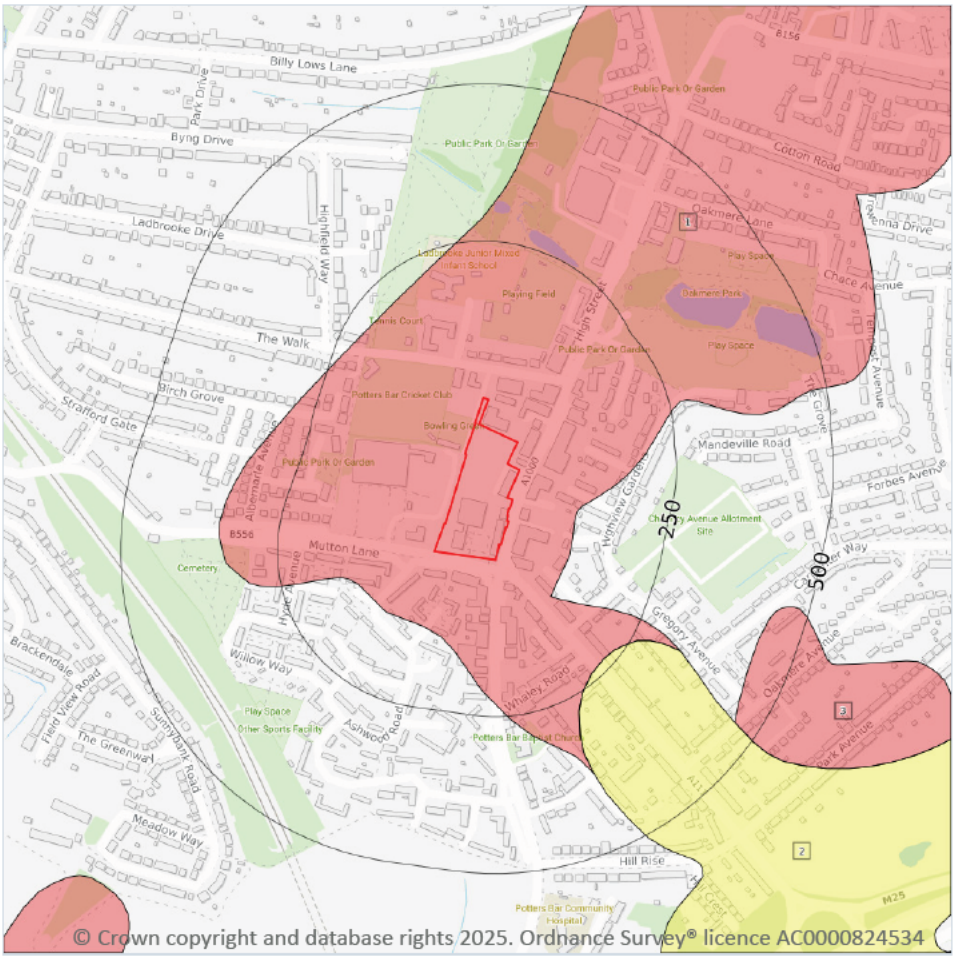
4.22 Pollution inventory radioactive waste

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



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Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

5.1 Superficial aquifer

Records within 500m	3

Aquifer status of groundwater held within superficial geology.

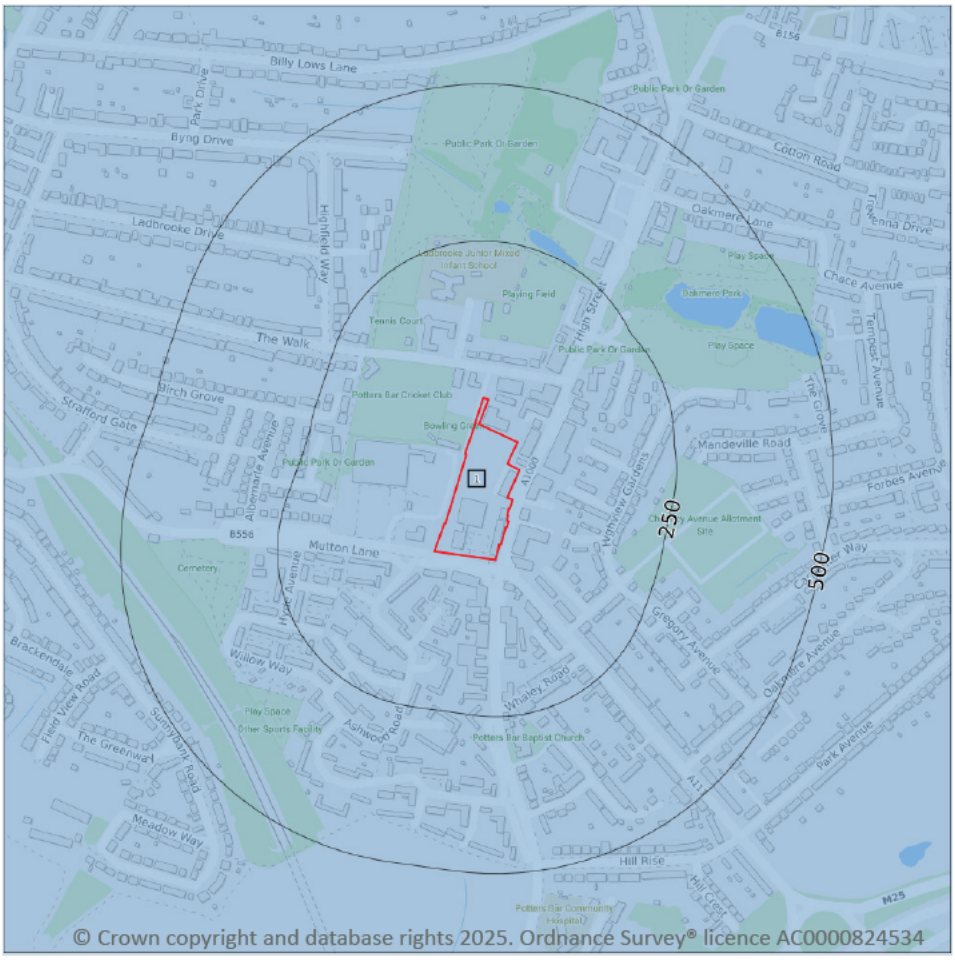
Features are displayed on the Hydrogeology map on page 41 >

ID	Location	Designation	Description
1	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
2	234m SE	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

ID	Location	Designation	Description
3	437m E	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

5.2 Bedrock aquifer

Records within 500m	1

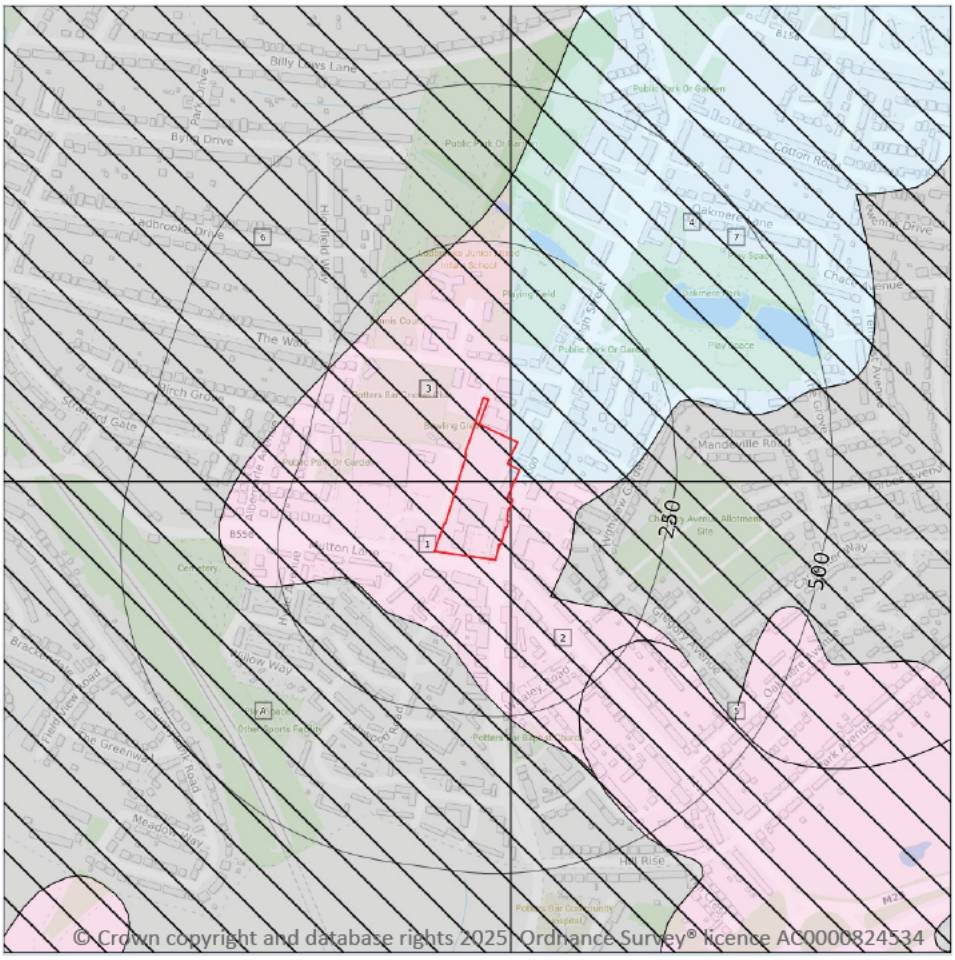
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on page 43 >

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

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

Groundwater vulnerability



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	4

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 44 >

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed
2	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: High	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed
3	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed
4	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: High	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

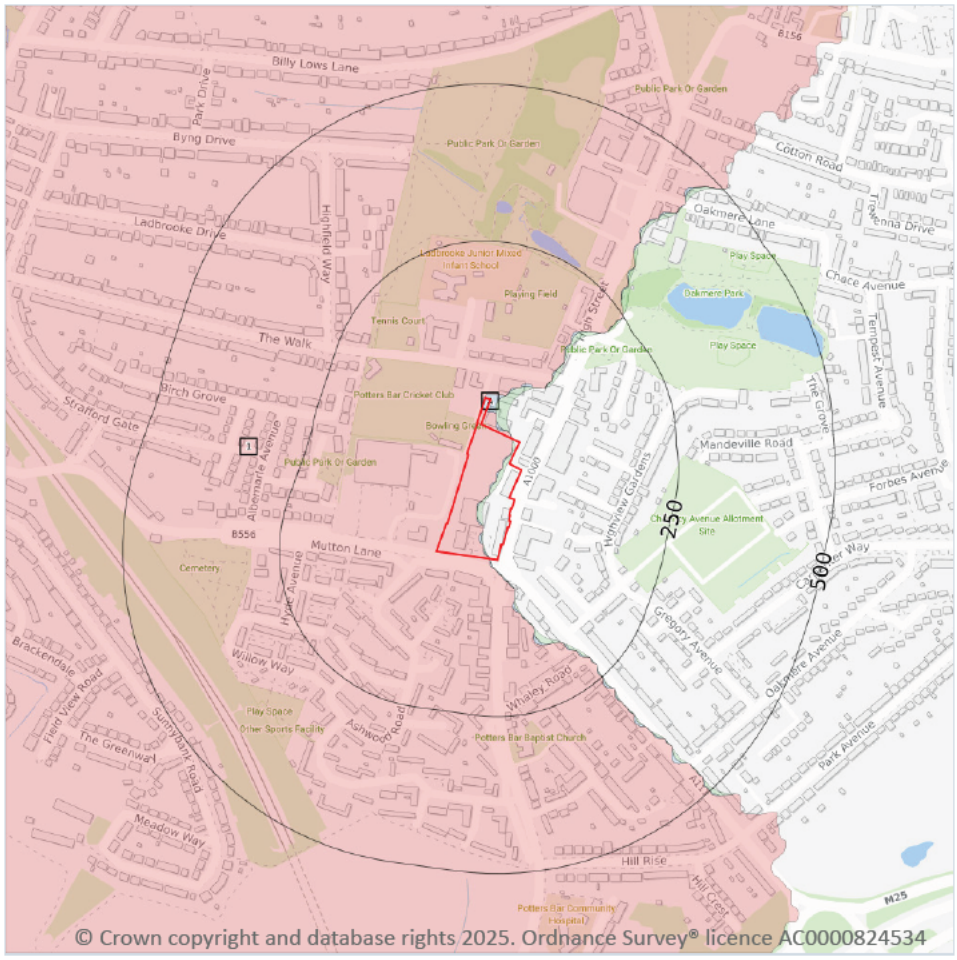
Records on site	4

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 ↗.

ID	Summary	Additional information
5	**Known fissure flow in area**	**Vale of St Albans fissure flow**
6	**Known fissure flow in area**	**Vale of St Albans fissure flow**
7	**Known fissure flow in area**	**Vale of St Albans fissure flow**
A	**Known fissure flow in area**	**Vale of St Albans fissure flow**

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

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

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

5.6 Groundwater abstractions

Records within 2000m	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	75

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

Features are displayed on the Abstractions and Source Protection Zones map on page 47 >

ID	Location	Type	Description
1	On site	1	Inner catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	2	Outer catchment
A	On site	3	Total catchment

ID	Location	Type	Description
A	**On site**	**3**	**Total catchment**
A	3m NE	2	Outer catchment
A	3m NE	2	Outer catchment
A	5m S	3	Total catchment
A	6m NE	3	Total catchment
A	17m S	2	Outer catchment
A	26m E	2	Outer catchment
A	28m S	2	Outer catchment
A	40m SE	2	Outer catchment
A	52m E	2	Outer catchment
A	56m SE	3	Total catchment
A	72m S	2	Outer catchment
A	89m E	2	Outer catchment
A	90m E	3	Total catchment
A	96m SE	2	Outer catchment
A	104m E	2	Outer catchment
A	110m SE	2	Outer catchment
A	119m NE	2	Outer catchment
A	127m SE	2	Outer catchment
A	134m NE	2	Outer catchment
A	157m NE	2	Outer catchment
A	167m SE	3	Total catchment
A	168m SE	2	Outer catchment
A	185m NE	2	Outer catchment
A	191m SE	2	Outer catchment
A	209m NE	2	Outer catchment
A	214m SE	3	Total catchment
A	214m SE	2	Outer catchment

ID	Location	Type	Description
A	217m NE	3	Total catchment
A	218m NE	2	Outer catchment
A	231m SE	2	Outer catchment
A	233m SE	3	Total catchment
A	233m NE	2	Outer catchment
A	248m NE	3	Total catchment
A	252m SE	2	Outer catchment
A	252m SE	3	Total catchment
A	261m NE	2	Outer catchment
A	280m SE	2	Outer catchment
A	280m SE	3	Total catchment
A	287m NE	2	Outer catchment
A	314m NE	3	Total catchment
A	316m SE	2	Outer catchment
A	327m NE	2	Outer catchment
A	329m SE	3	Total catchment
A	350m NE	2	Outer catchment
A	351m NE	3	Total catchment
A	357m SE	2	Outer catchment
A	367m SE	3	Total catchment
A	370m SE	2	Outer catchment
A	374m NE	2	Outer catchment
A	393m SE	3	Total catchment
A	394m NE	2	Outer catchment
A	408m SE	2	Outer catchment
A	410m SE	3	Total catchment
A	422m NE	2	Outer catchment
A	440m NE	3	Total catchment

ID	Location	Type	Description
A	442m NE	2	Outer catchment
A	448m SE	2	Outer catchment
A	451m SE	3	Total catchment
A	464m SE	2	Outer catchment
A	477m SE	2	Outer catchment
A	479m SE	3	Total catchment
A	485m NE	2	Outer catchment

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

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

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

6 Hydrology



Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m	0

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

This data is sourced from the Ordnance Survey®.

6.2 Surface water features

Records within 250m	0

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

This data is sourced from the Ordnance Survey®.

6.3 WFD Surface water body catchments

Records on site	2

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 52 >

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Turkey Brook and Cuffley Brook	GB106038033180	Lee Lower Rivers and Lakes	London
2	On site	River	Colne (upper east arm including Mimshall Brook)	GB106039029850	Colne	Colne

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

6.4 WFD Surface water bodies

Records identified	2

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 52 >

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
5	339m SW	River	Colne (upper east arm including Mimshall Brook)	GB106039029850 ↗	Bad	Fail	Bad	2019
-	505m E	River	Turkey Brook and Cuffley Brook	GB106038033180 ↗	Poor	Fail	Poor	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	**1 in 30 year, Greater than 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 1.0m**

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

Features are displayed on the Surface water flooding map on page 58 >

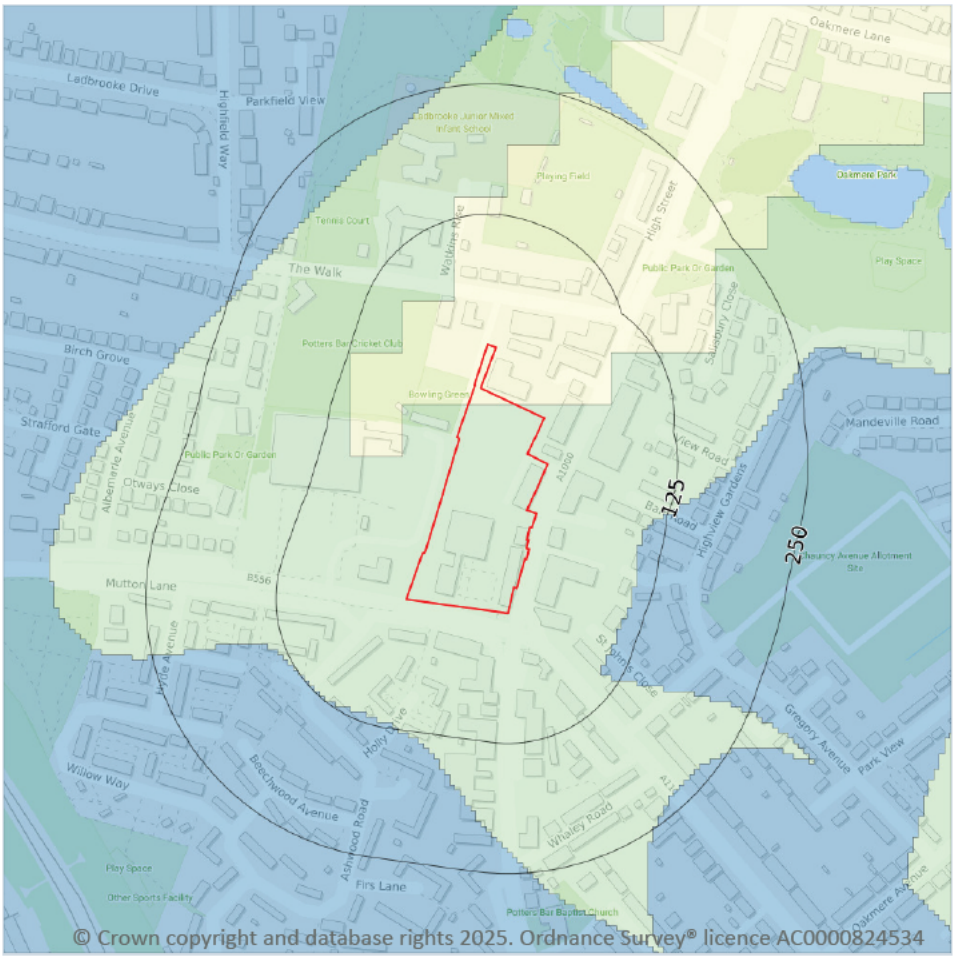
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

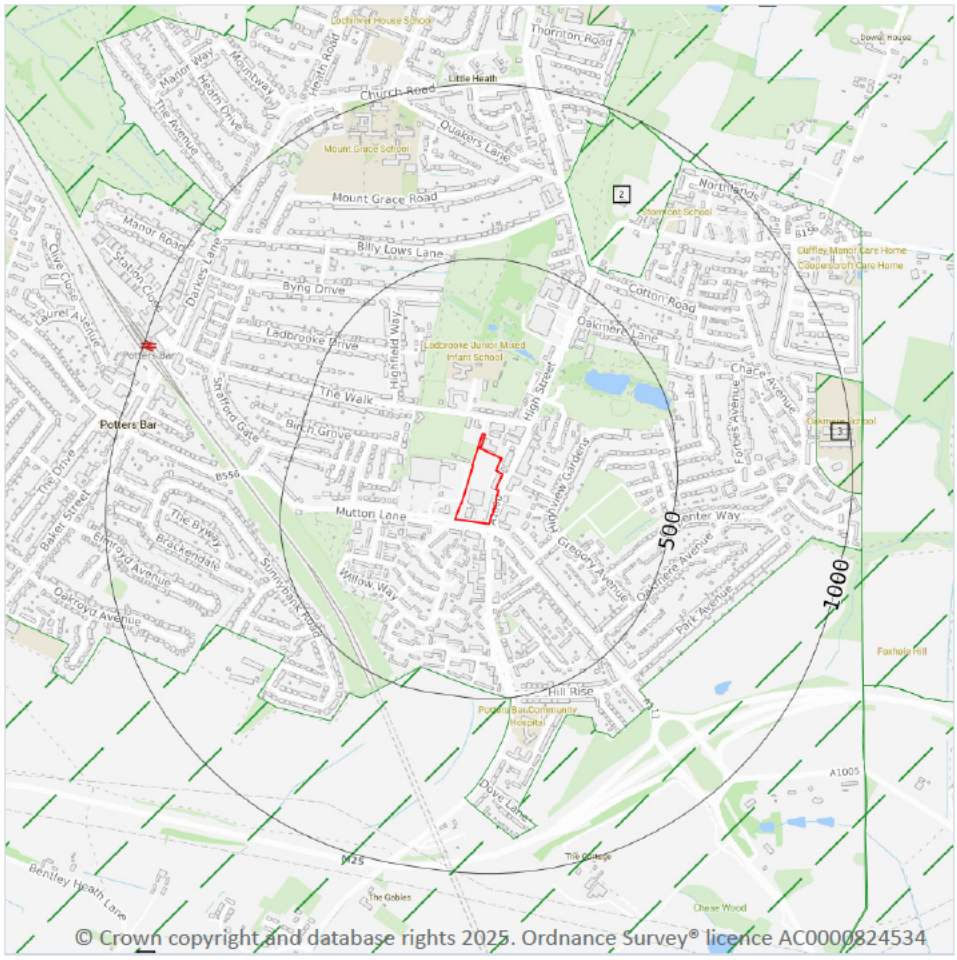
Highest risk on site	**Moderate**
Highest risk within 50m	**Moderate**

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 60 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	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 61 >**

ID	Location	Name	Data source
-	1970m NW	Furzefield Wood & Lower Halfpenny Bottom	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	2

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 61 >**

ID	Location	Name	Woodland Type
-	1460m E	Unknown	Ancient & Semi-Natural Woodland
-	1645m E	Pond 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	5

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

Features are displayed on the Environmental designations map on page 61 >

ID	Location	Name	Local Authority name
1	434m S	London Green Belt	Hertsmere
2	567m NE	London Green Belt	Hertsmere
3	898m E	London Green Belt	Hertsmere
4	970m NE	London Green Belt	Welwyn Hatfield
5	1165m SE	London Green Belt	Enfield

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	3

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

Location	Name	Type	NVZ ID	Status
On site	**LEE NVZ**	**Surface Water**	**443**	**Existing**

Location	Name	Type	NVZ ID	Status
On site	**North Mymms**	**Groundwater**	**92**	**Existing**
1786m W	North Mymms	Groundwater	92	Existing

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

SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site	0

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.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

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

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

11 Visual and cultural designations



Site Outline

Search buffers in metres (m)

- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	5

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 68 >

ID	Location	Name	Grade	Reference Number	Listed date
1	25m E	The White Horse Public House	II	1174613	12/08/1985
2	48m SE	The Lion Public House	II	1346939	24/10/1984
3	69m NE	Ladbrooke School And Forecourt Wall	II	1103528	12/08/1985
4	155m NE	Salisbury House	II	1346906	12/11/1971
5	198m NE	The War Memorial, St John's Churchyard	II	1174621	19/12/1973

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

11.5 Conservation Areas

Records within 250m	0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

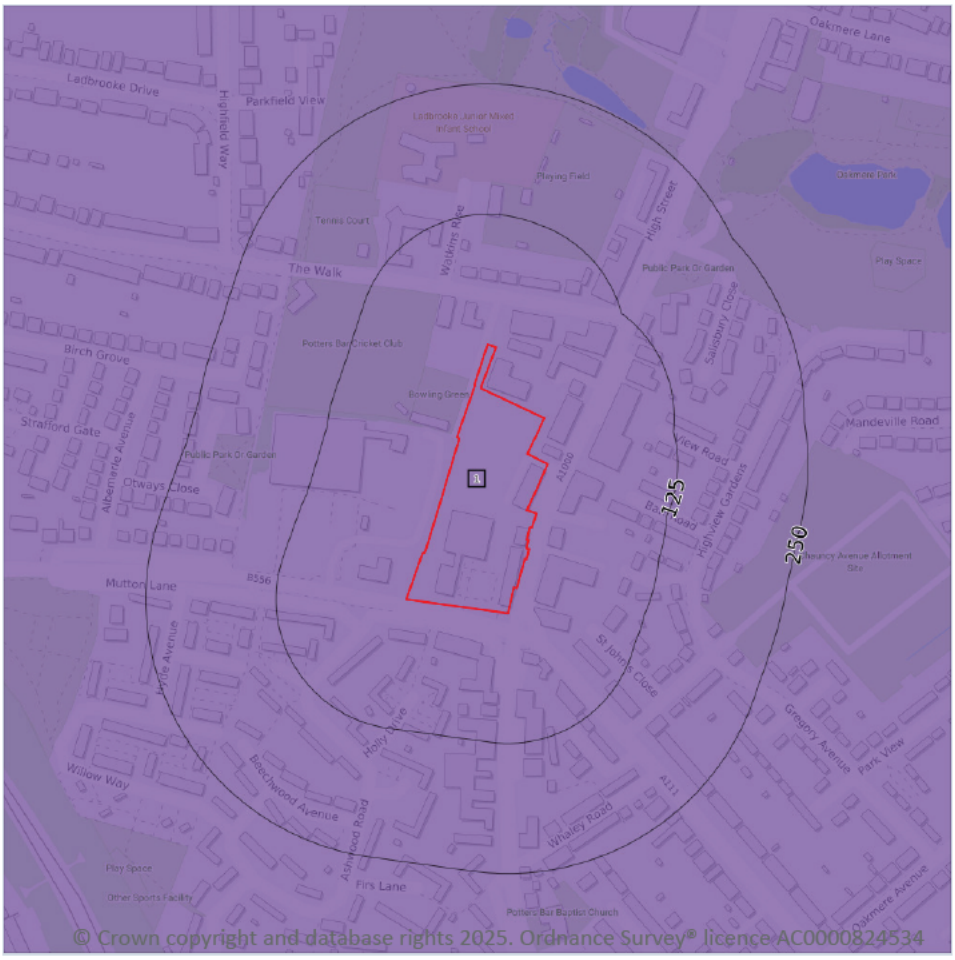
11.7 Registered Parks and Gardens

Records within 250m	0

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

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

12 Agricultural designations



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 71 >

ID	Location	Classification	Description
1	On site	Urban	Non-agricultural/no quality assigned

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

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

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

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

13.1 Priority Habitat Inventory

Records within 250m	1

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

Features are displayed on the Habitat designations map on page 73 >

ID	Location	Main Habitat	Other habitats
1	249m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

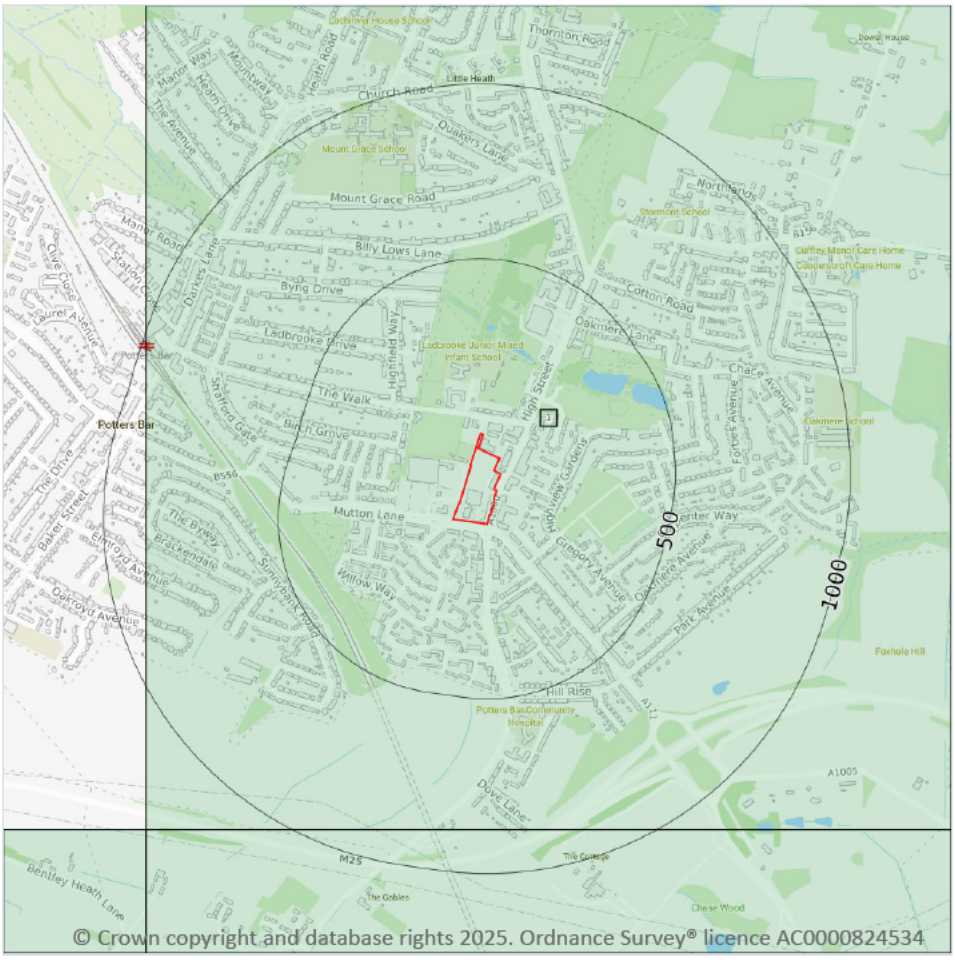
13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



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 75 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	TL20SE

This data is sourced from the British Geological Survey.

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

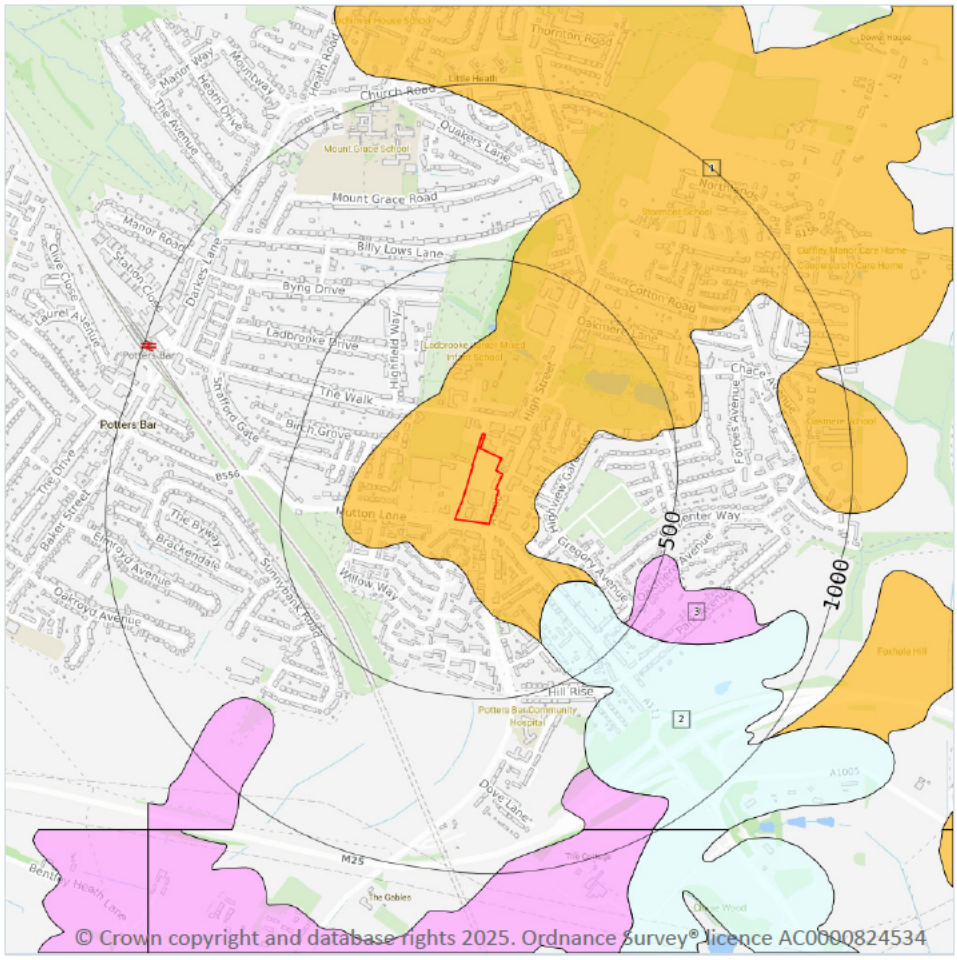
14.2 Artificial and made ground (10k)

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



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m	3

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on page 77 >

ID	Location	LEX Code	Description	Rock description
1	**On site**	**DHGR-XSV**	**Dollis Hill Gravel Member-Sand And Gravel**	**Sand and gravel**
2	262m SE	LOFT-DMTN	Lowestoft Formation-Diamicton	Diamicton
3	451m E	STGR-XSV	Stanmore Gravel Formation-Sand And Gravel	Sand and gravel

This data is sourced from the British Geological Survey.

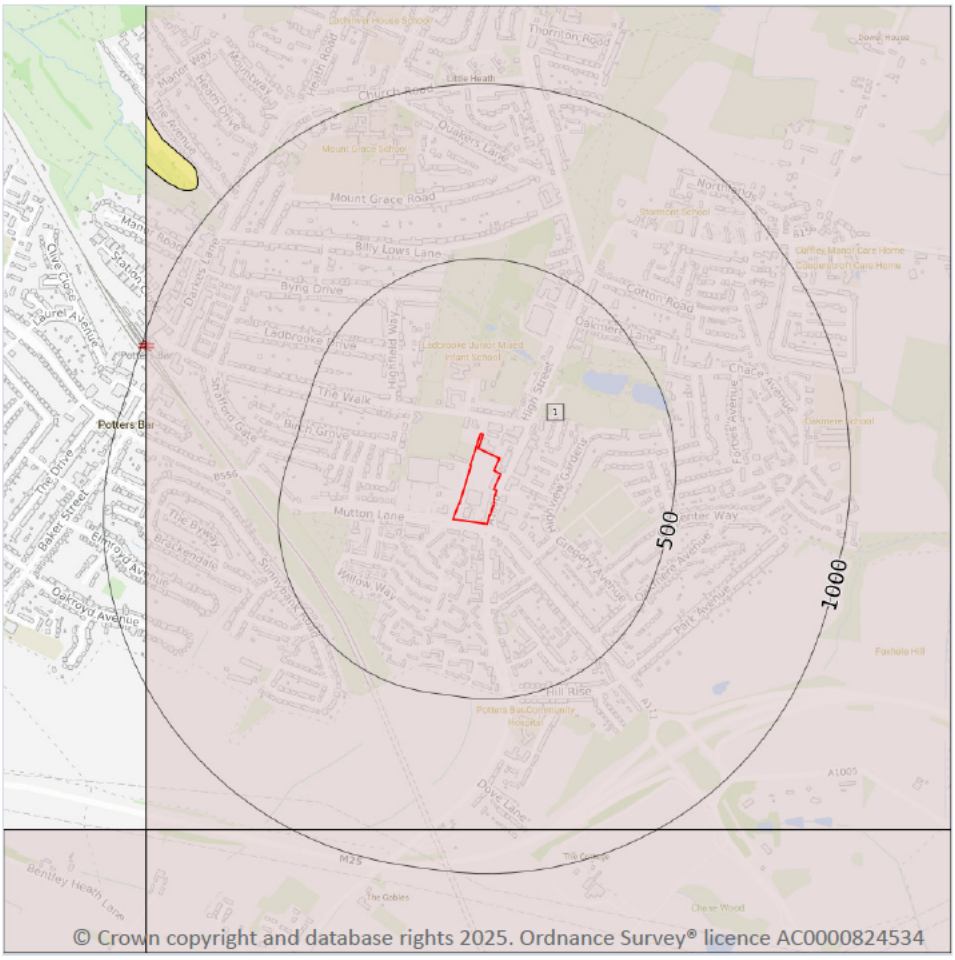
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on page 79 >

ID	Location	LEX Code	Description	Rock age
1	On site	LC-C	London Clay Formation-Clay	Ypresian

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



15.1 50k Availability

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Availability map on page 81 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW239_hertford_v4

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

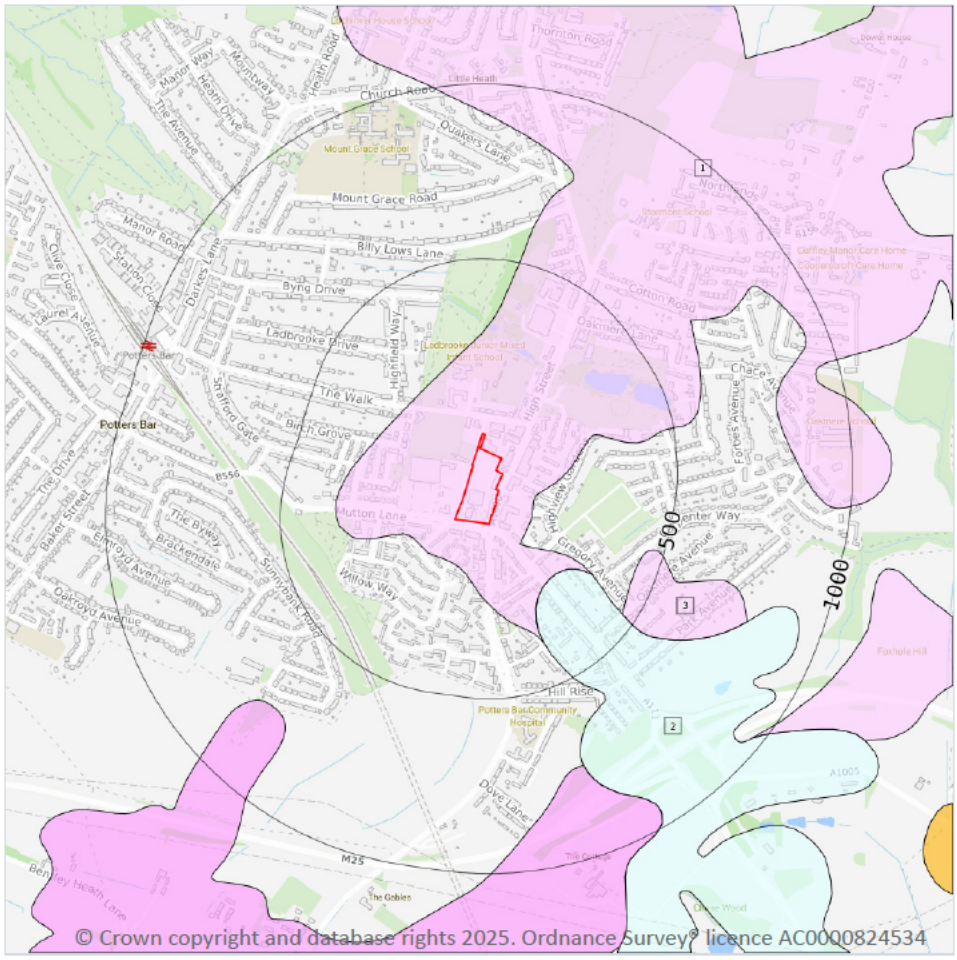
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m	3

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on page 83 >

ID	Location	LEX Code	Description	Rock description
1	**On site**	**SGAO-XSV**	**Sand and gravel of uncertain age and origin**	**Sand and gravel**
2	234m SE	LOFT-DMTN	Lowestoft Formation	Diamicton
3	437m E	SGAO-XSV	Sand and gravel of uncertain age and origin	Sand and gravel

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**Very High**	**High**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

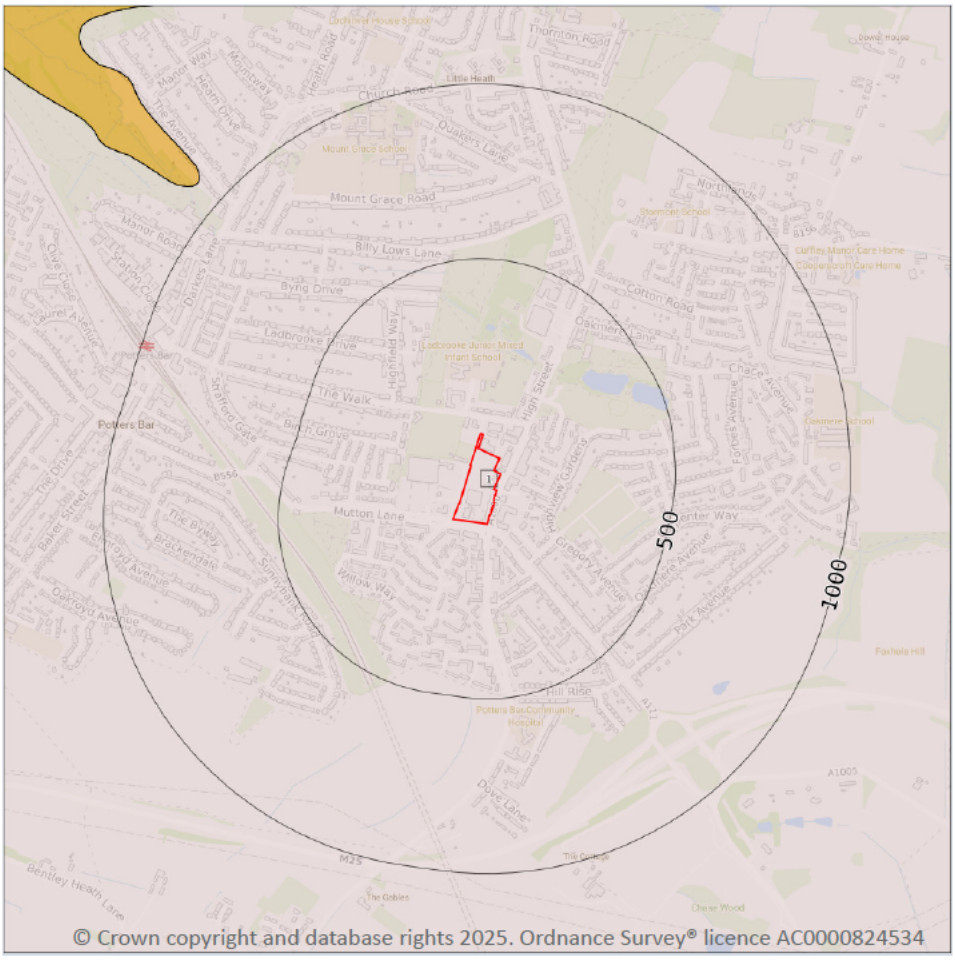
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on page 85 >

ID	Location	LEX Code	Description	Rock age
1	On site	LC-XCZS	London Clay Formation-Clay, silt and sand	Ypresian

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

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

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

This data is sourced from the British Geological Survey.

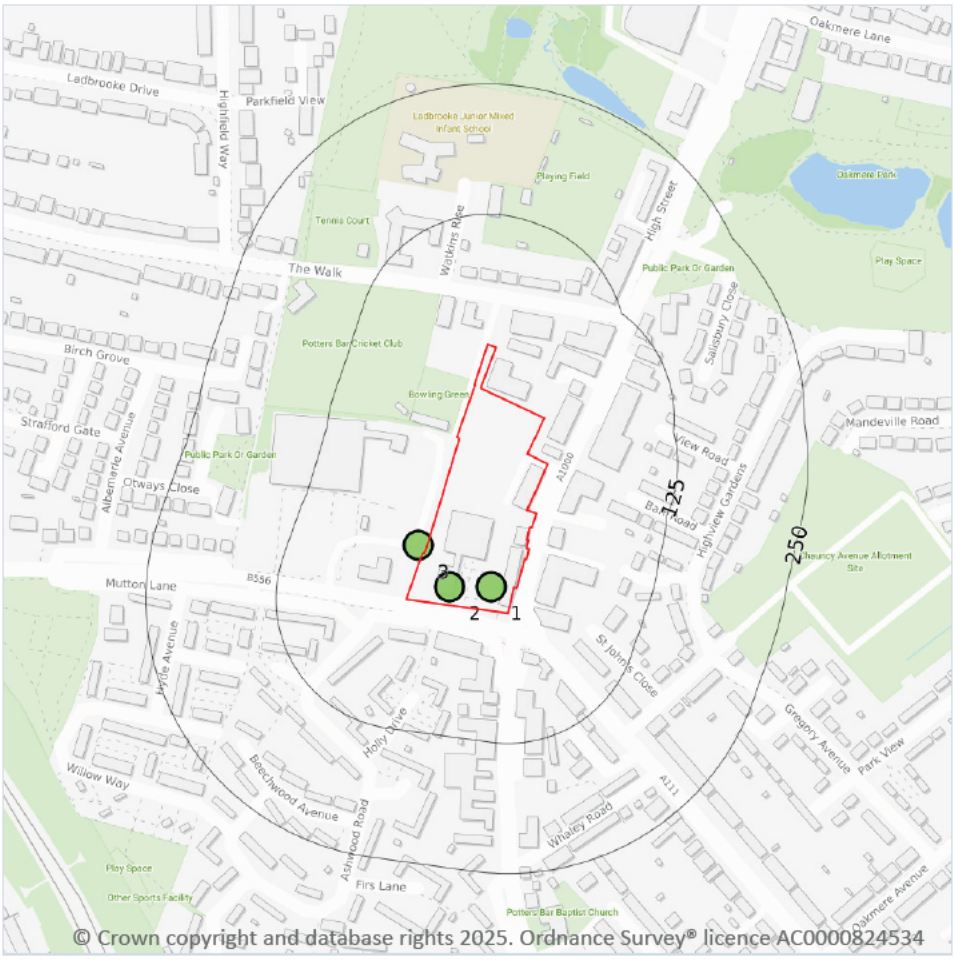
15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

16 Boreholes



16.1 BGS Boreholes

Records within 250m	3

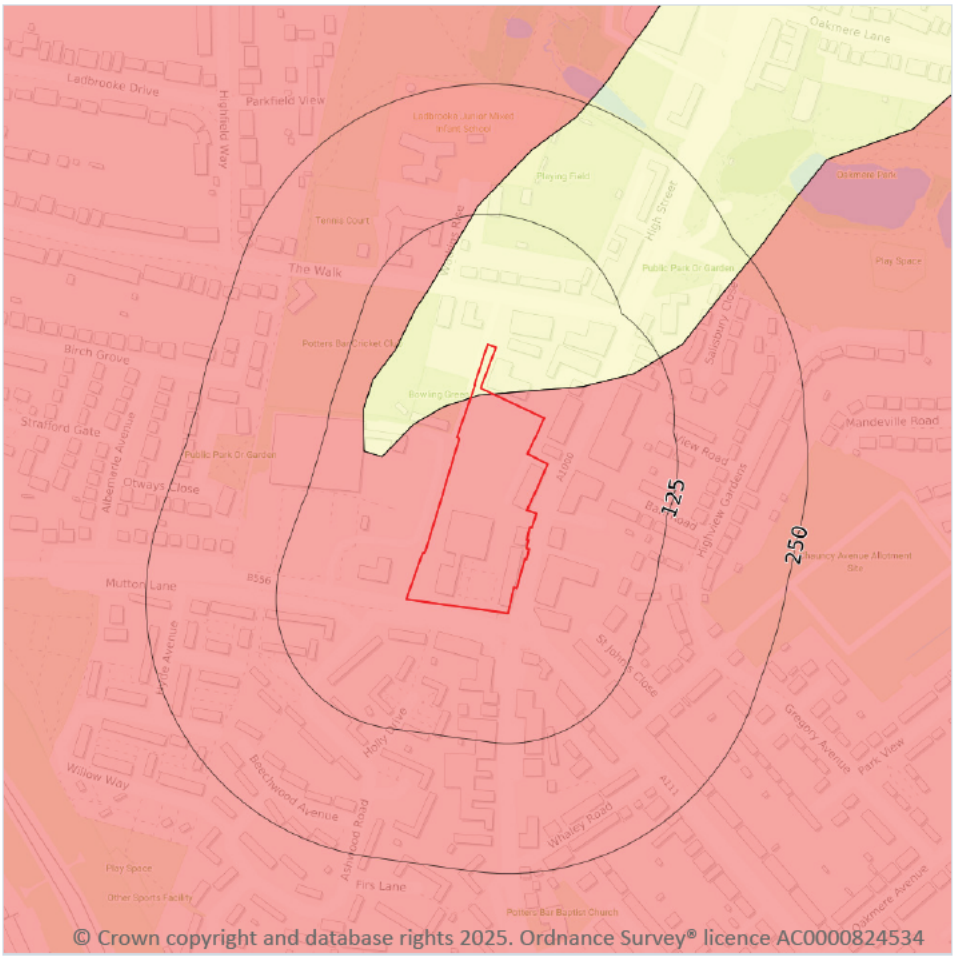
The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several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

Features are displayed on the Boreholes map on page 87 >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	525960 200900	HIGH ST POTTERS BAR 1	10.06	N	532723 ↗
2	On site	525920 200900	HIGH ST POTTERS BAR 2	18.29	N	532724 ↗
3	8m W	525890 200940	HIGH ST POTTERS BAR 3	10.06	N	532725 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m	2

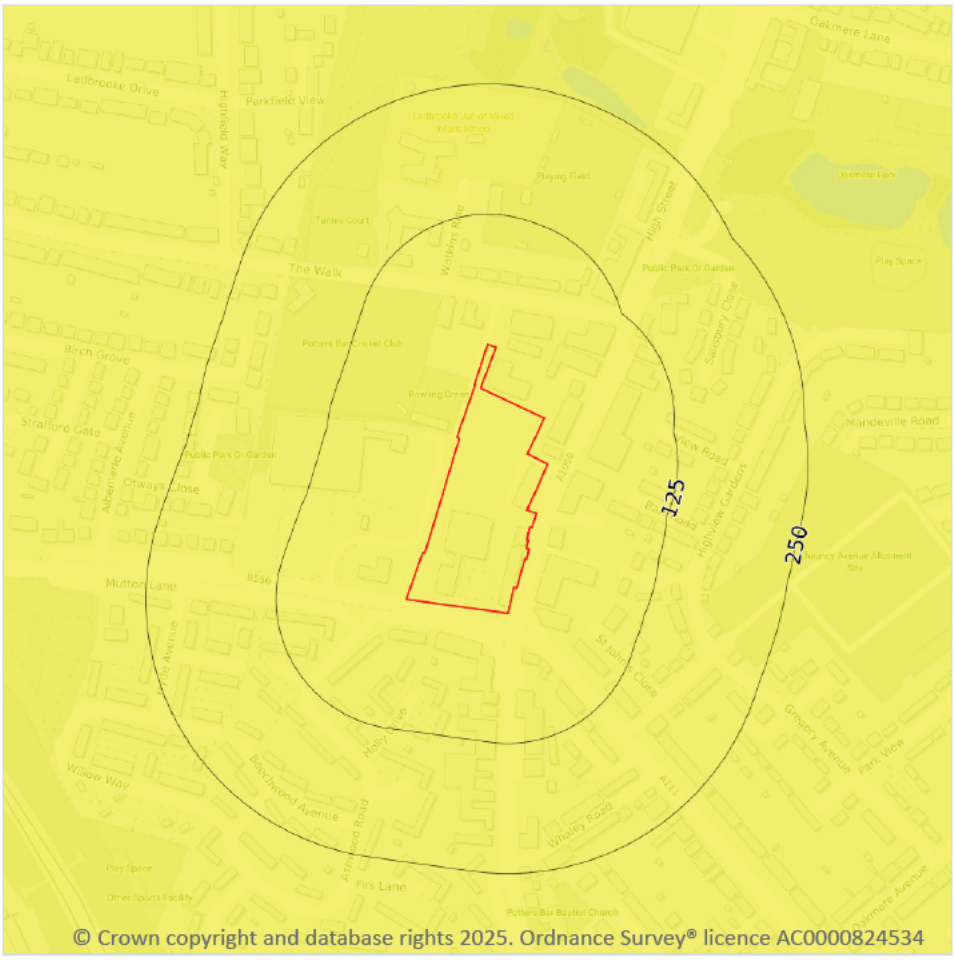
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on page 89 >

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
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

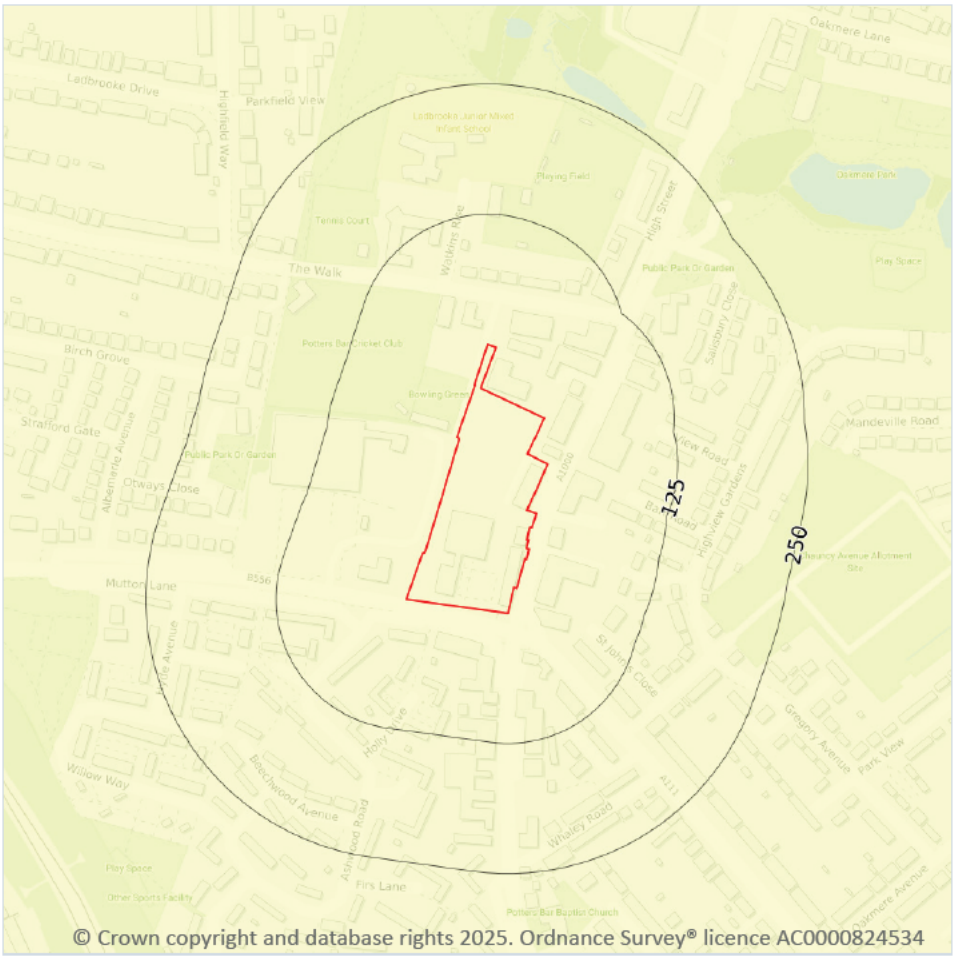
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on page 90 >

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



17.3 Compressible deposits

Records within 50m	1

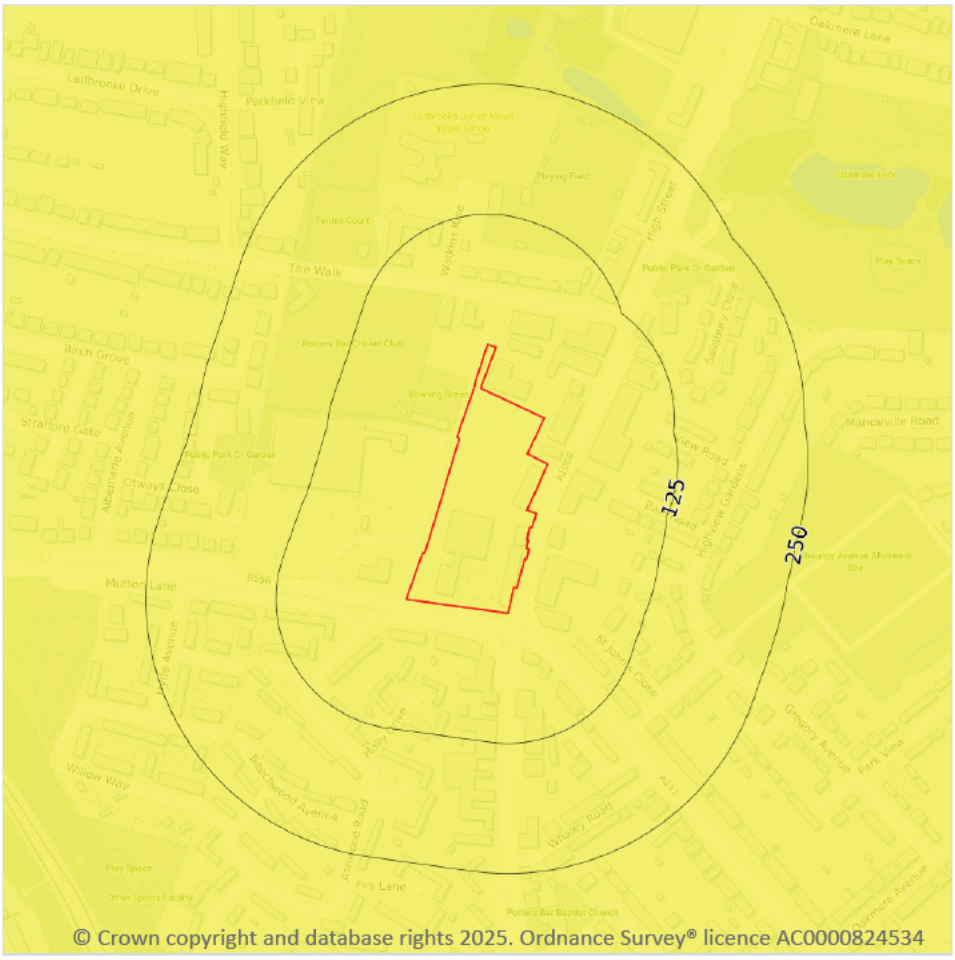
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on page 91 >

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

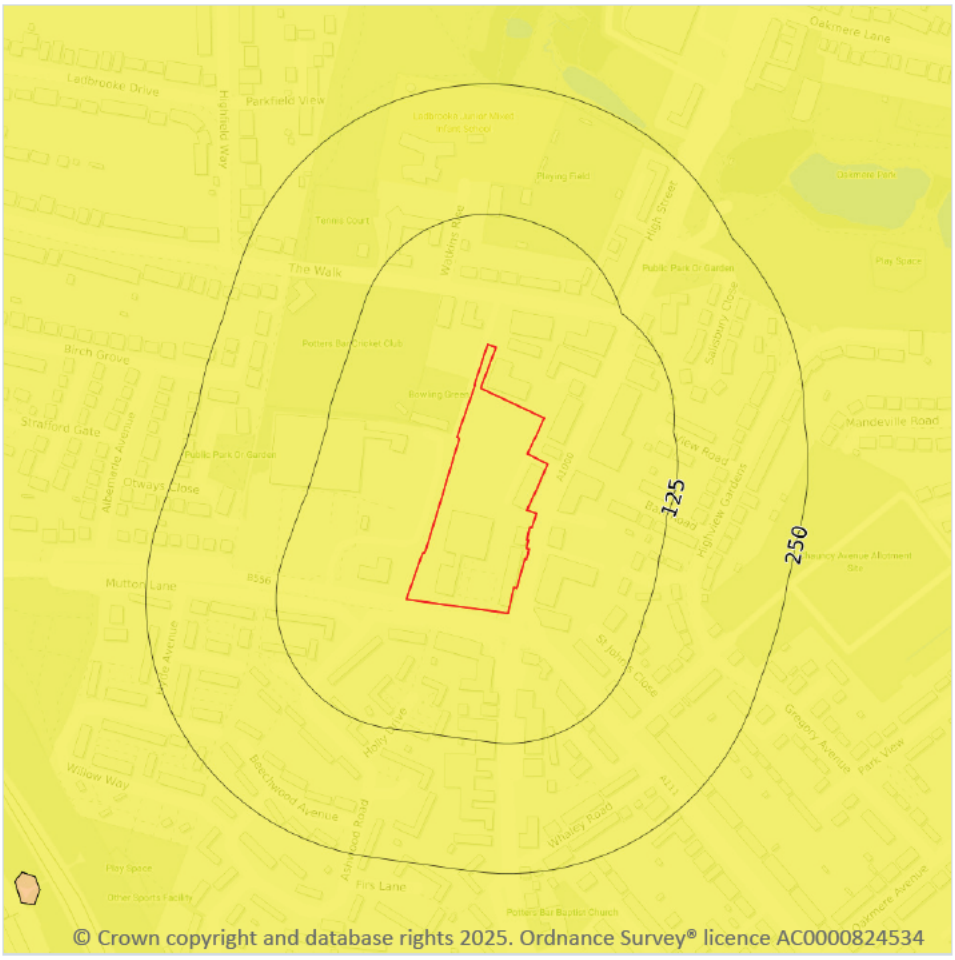
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on page 92 >

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



17.5 Landslides

Records within 50m	1

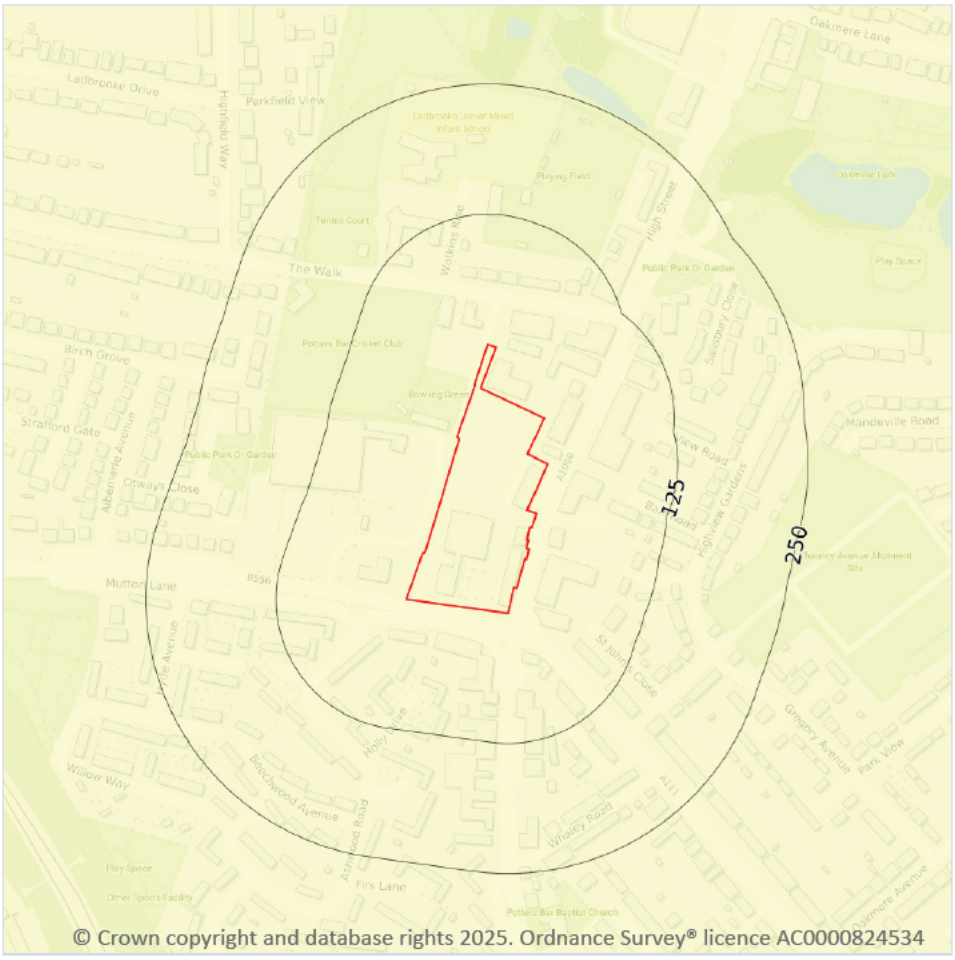
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on page 93 >

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



17.6 Ground dissolution of soluble rocks

Records within 50m	1

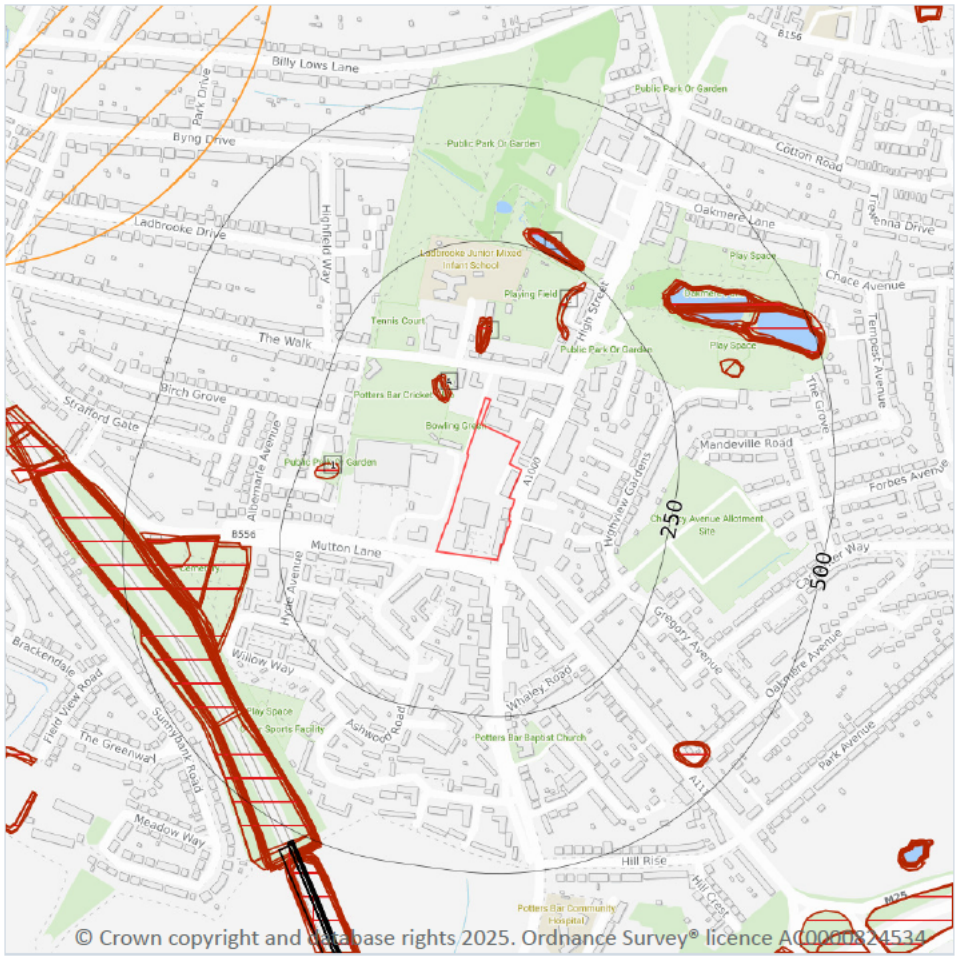
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on page 94 >

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	24

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 96 >

ID	Location	Land Use	Year of mapping	Mapping scale
A	54m W	Pond	1866	1:10560
A	54m W	Pond	1866	1:10560
A	59m W	Pond	1919	1:10560
A	60m W	Pond	1895	1:10560
B	72m N	Pond	1866	1:10560
B	73m N	Pond	1919	1:10560
B	74m N	Pond	1919	1:10560
B	74m N	Pond	1865	1:10560
B	74m N	Pond	1935	1:10560
B	75m N	Pond	1866	1:10560
B	76m N	Pond	1895	1:10560
B	76m N	Pond	1938	1:10560
B	77m N	Pond	1895	1:10560
C	152m NE	Unspecified Ground Workings	1866	1:10560
C	153m NE	Unspecified Ground Workings	1866	1:10560
1	190m W	Pond	1866	1:10560
D	247m NE	Pond	1895	1:10560
D	249m NE	Pond	1970	1:10560
D	249m NE	Pond	1988	1:10000
D	249m NE	Pond	1960	1:10560
D	249m NE	Pond	1988	1:10000
D	249m NE	Pond	1973	1:10000
D	250m NE	Pond	1866	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
D	250m NE	Pond	1938	1:10560

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

18.3 Underground workings

Records within 1000m	12

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

Features are displayed on the Mining and ground workings map on page 96 >

ID	Location	Land Use	Year of mapping	Mapping scale
K	515m SW	Tunnel	1973	1:10000
K	515m SW	Tunnel	1960	1:10560
K	518m SW	Tunnel	1988	1:10000
L	518m SW	Tunnel	1919	1:10560
L	518m SW	Tunnel	1865	1:10560
L	518m SW	Tunnel	1935	1:10560
L	520m SW	Tunnel	1895	1:10560
-	886m S	Tunnels	1974	1:10000
-	886m S	Tunnels	1988	1:10000
-	890m S	Tunnel	1960	1:10560
-	917m S	Air Shaft	1974	1:10000
-	917m S	Air Shaft	1988	1:10000

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 96 >

ID	Location	Name	Commodity	Class	Likelihood
4	595m NW	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.
-	977m 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

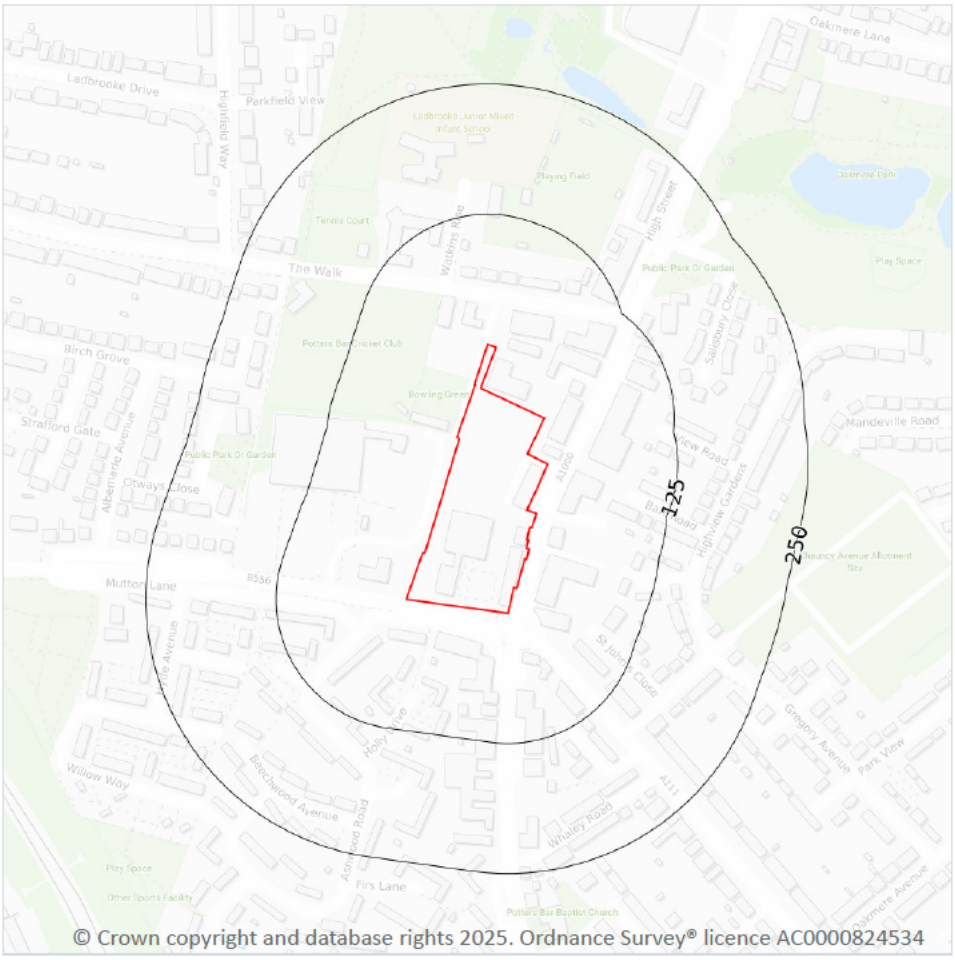
Records within 500m	0

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.

20 Radon



20.1 Radon

Records on site	1

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

Features are displayed on the Radon map on page 104 >

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	9

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	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey® mapping.

This data is sourced from the Ordnance Survey®.

22.4 Historical railway and tunnel features

Records within 250m	0

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

This data is sourced from Ordnance Survey®/Groundsure.

22.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	0

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

This data is sourced from Ordnance Survey® and OpenStreetMap.

22.8 Crossrail 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.

22.9 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.

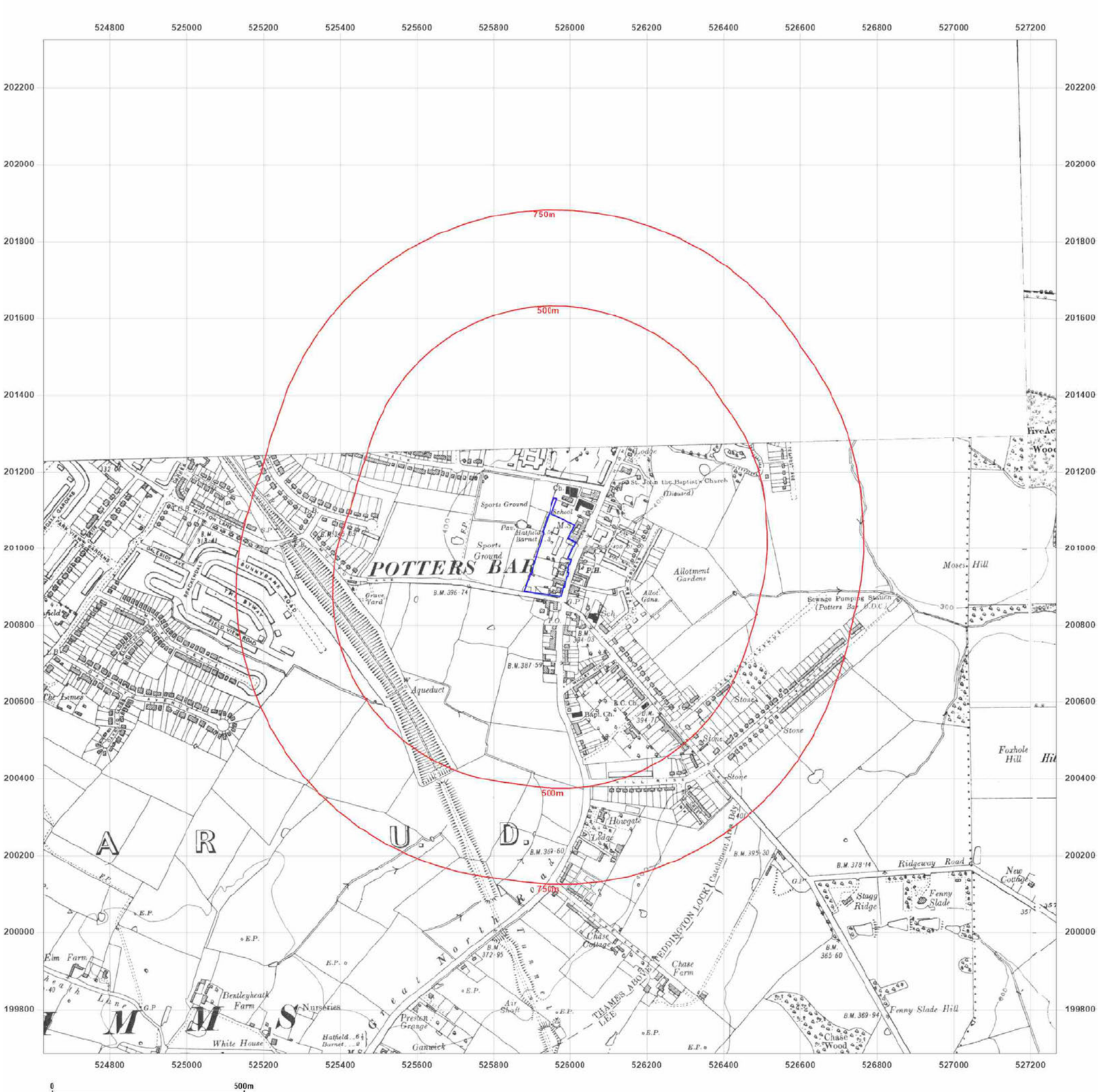
This data is sourced from HS2 ltd.

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 [redacted].

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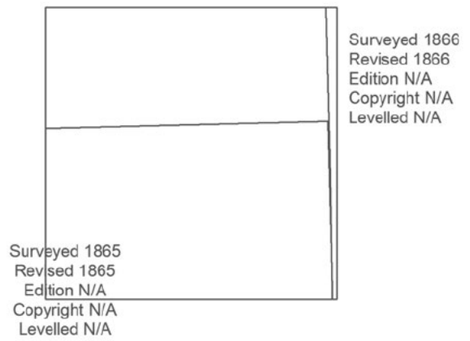
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Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series
Map date: **1865-1866**
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Printed at: 1:10,560

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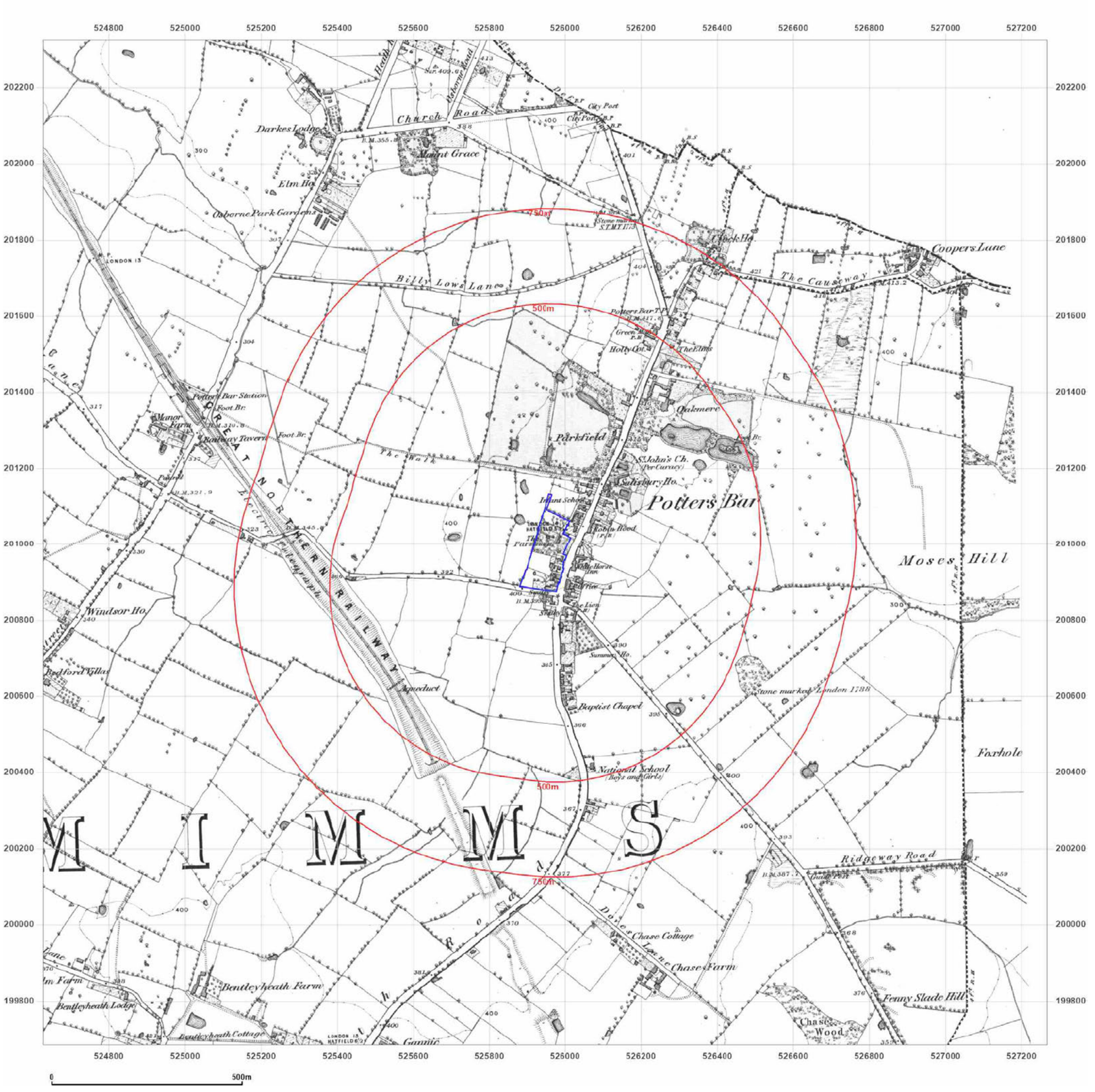
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Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series
Map date: **1866**
Scale: 1:10,560
Printed at: 1:10,560

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



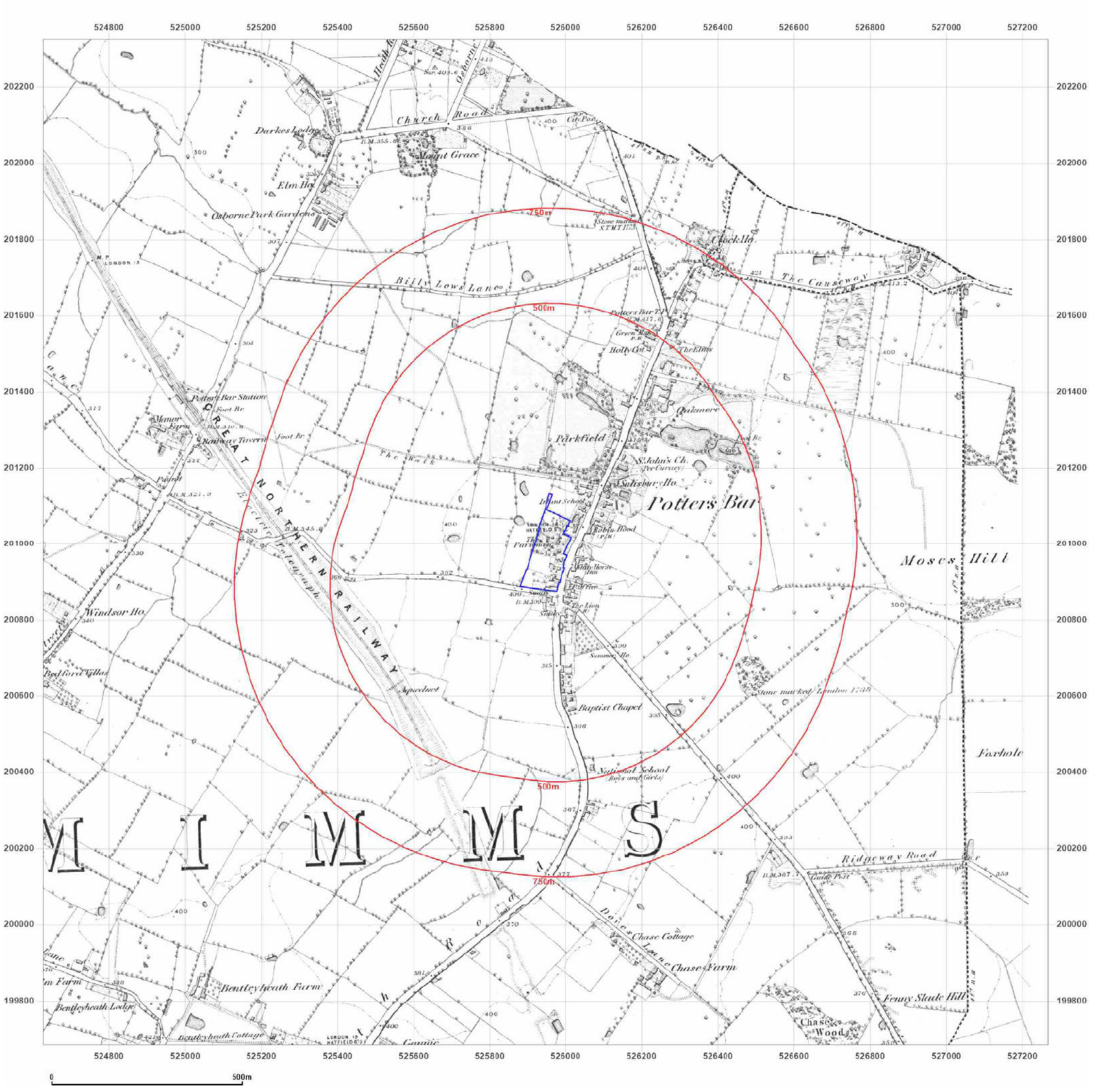
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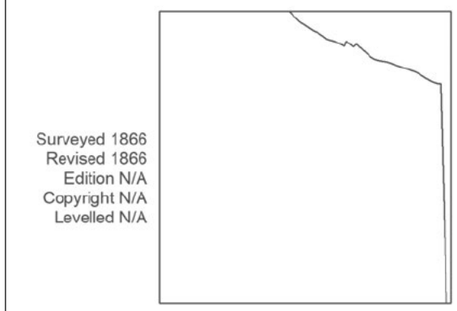
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High Street, Potters Bar

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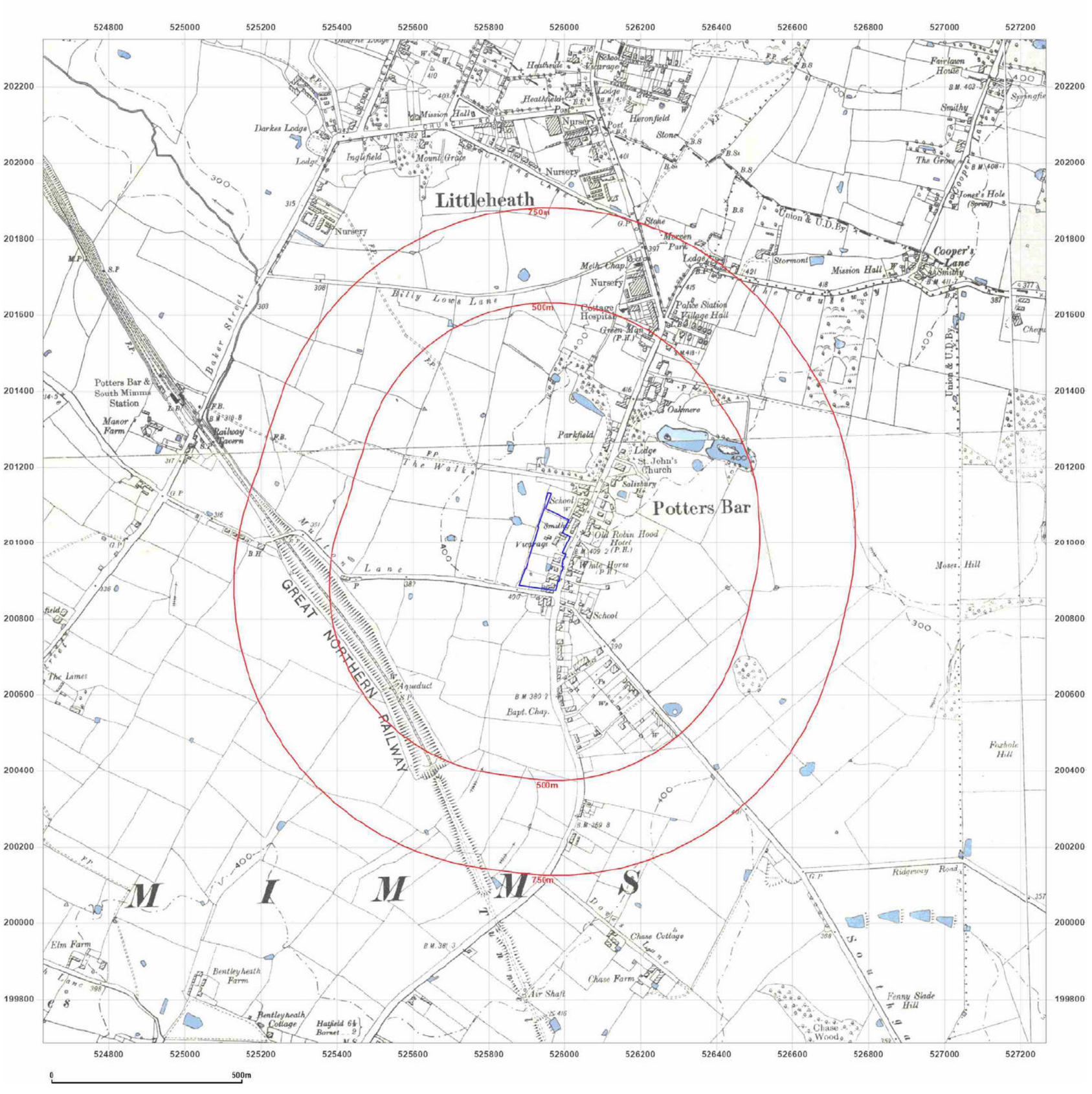
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Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series

Map date: **1895**

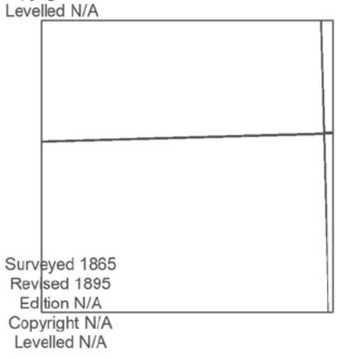
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Printed at: 1:10,560

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Surveyed 1865
Revised 1895
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1866
Revised 1895
Edition N/A
Copyright N/A
Levelled N/A



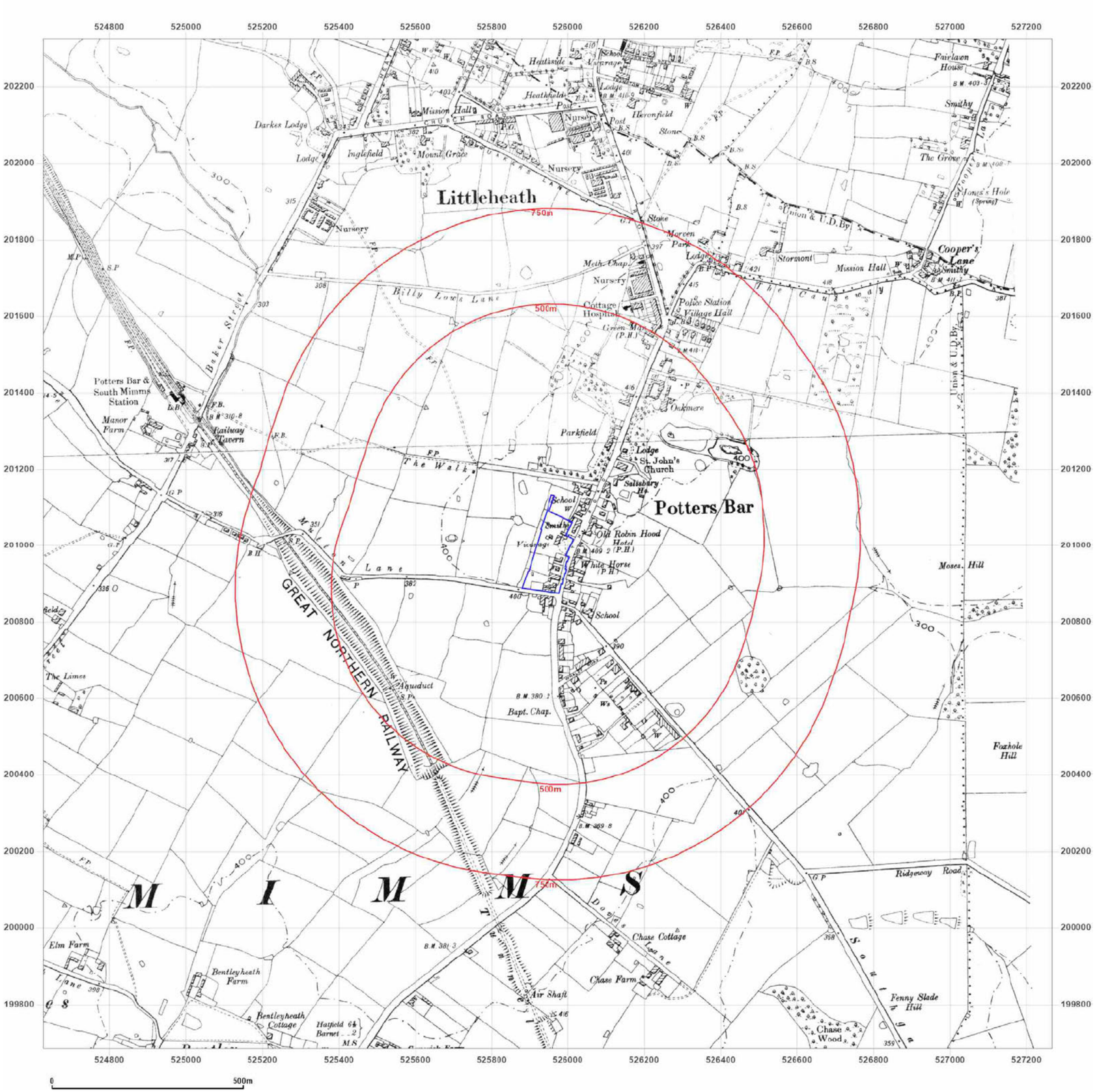
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Map Name: County Series

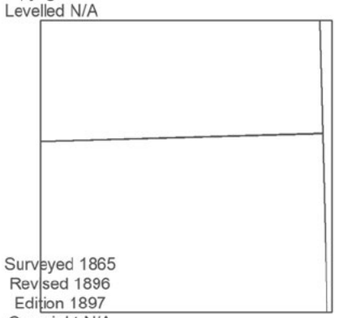
Map date: **1897-1898**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1872
Revised 1896
Edition 1898
Copyright N/A
Levelled N/A



Surveyed 1865
Revised 1896
Edition 1897
Copyright N/A
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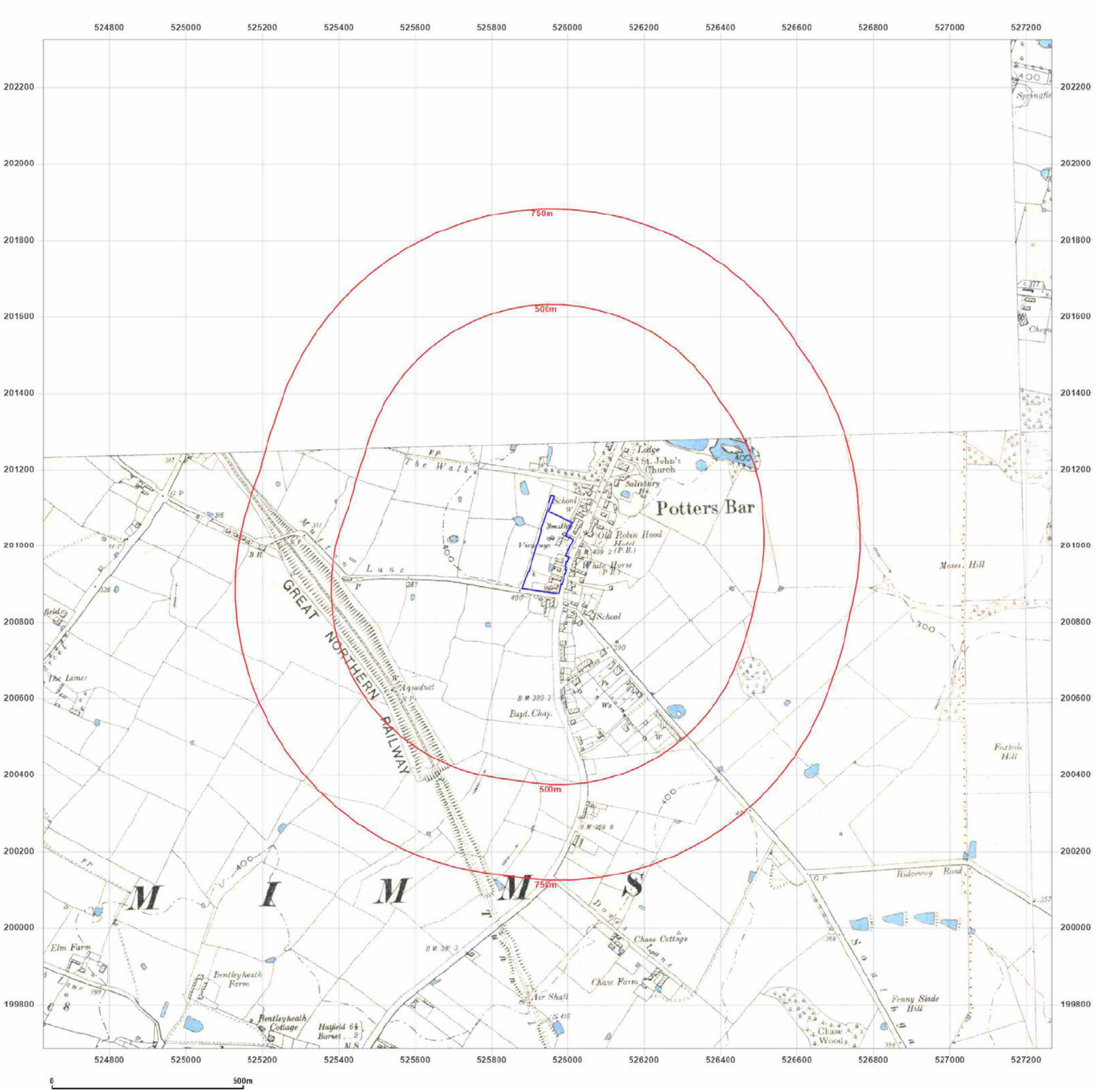
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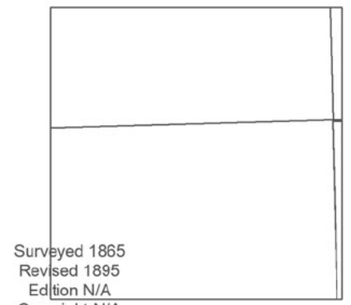
Maple House, Canada Life Place
High Street, Potters Bar

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Grid Ref: 525946, 201004

Map Name: County Series
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Surveyed 1873
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Edition 1898
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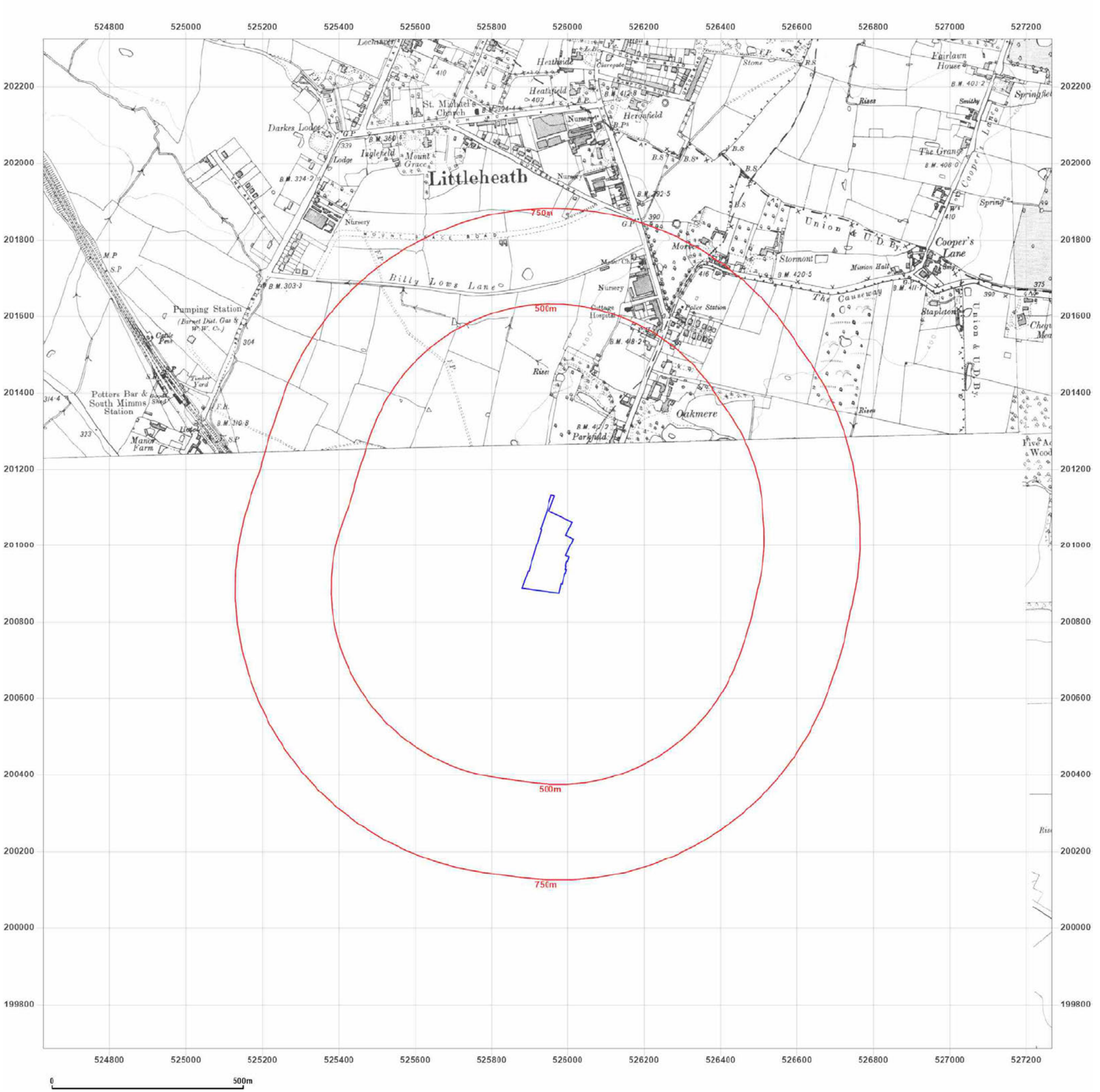
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Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series

Map date: **1912-1916**

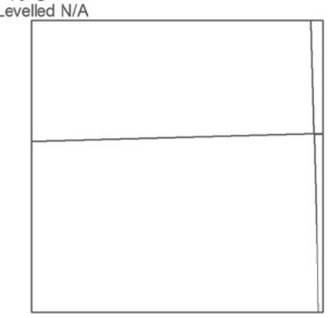
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Surveyed 1872
Revised 1913
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised 1912
Edition 1916
Copyright N/A
Levelled 1916



Surveyed 1872
Revised 1912
Edition N/A
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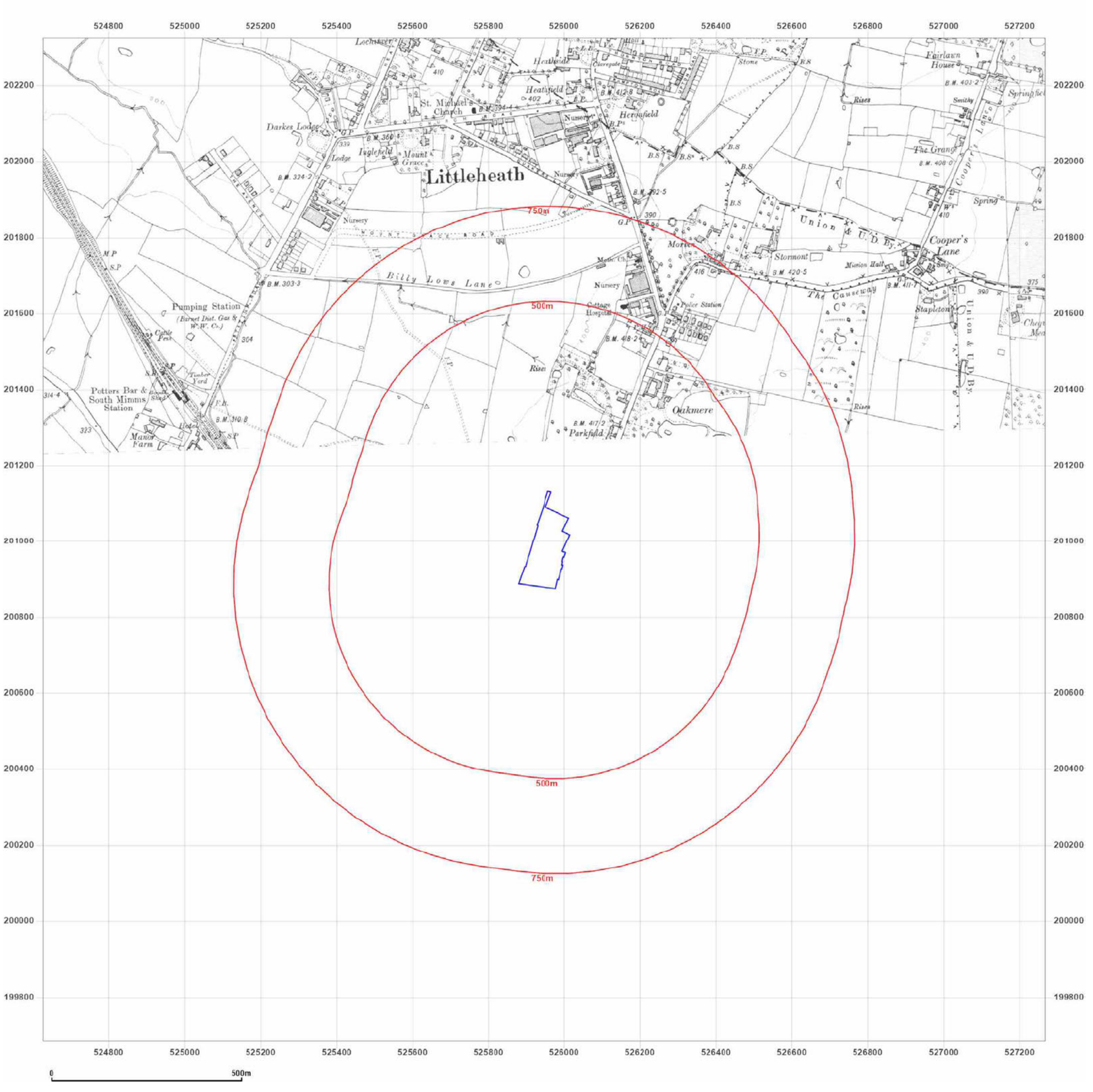
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Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series

Map date: **1913-1916**

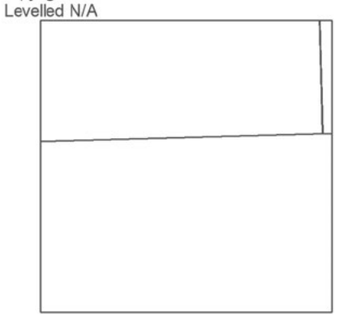
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Surveyed 1872
Revised 1913
Edition N/A
Copyright N/A
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Surveyed 1872
Revised 1916
Edition N/A
Copyright N/A
Levelled N/A



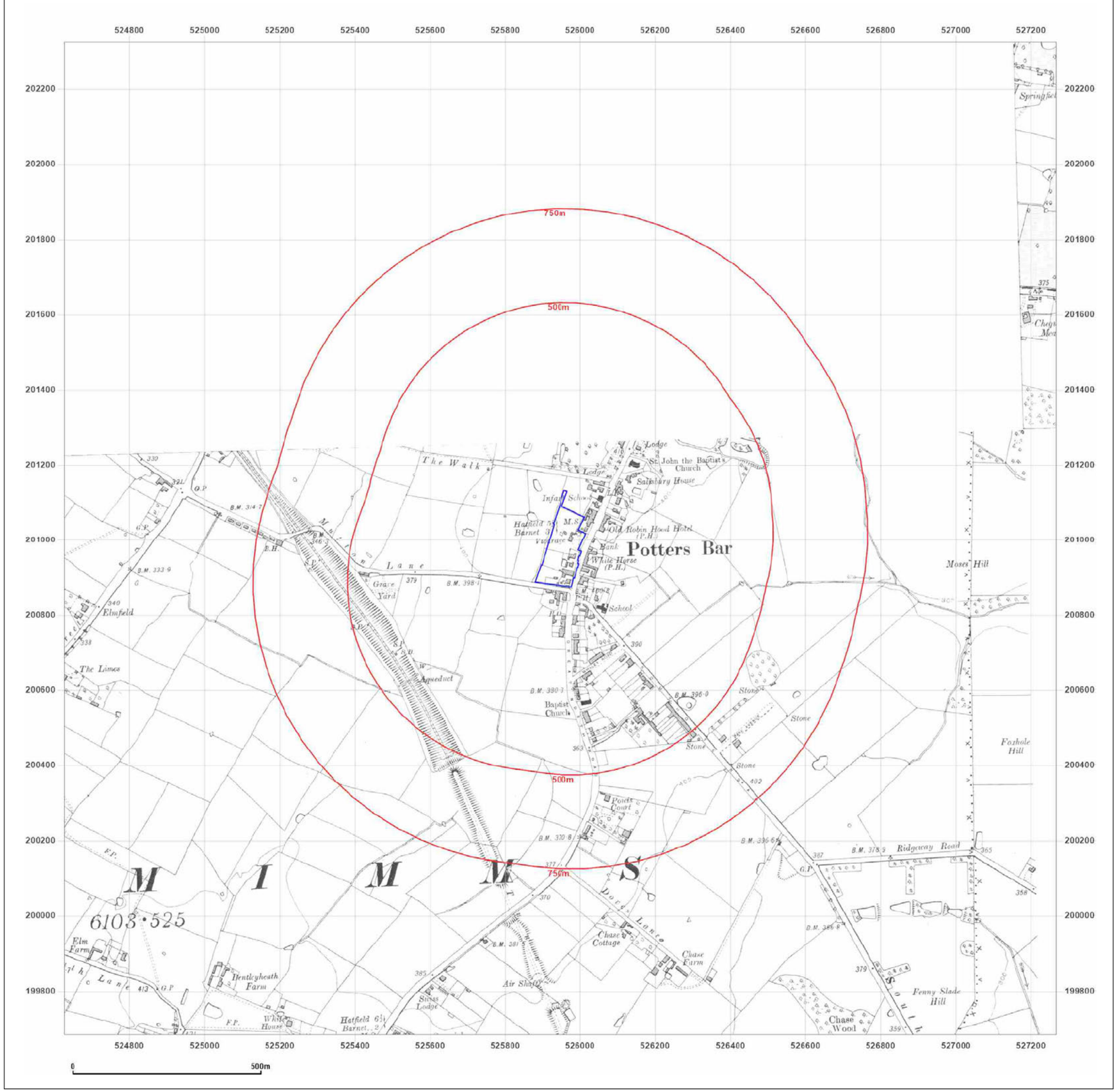
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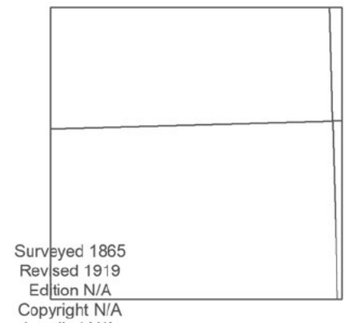
Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series
Map date: **1916-1919**
Scale: 1:10,560
Printed at: 1:10,560

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Surveyed 1872
Revised 1916
Edition 1916
Copyright N/A
Levelled N/A



Surveyed 1865
Revised 1919
Edition N/A
Copyright N/A
Levelled N/A

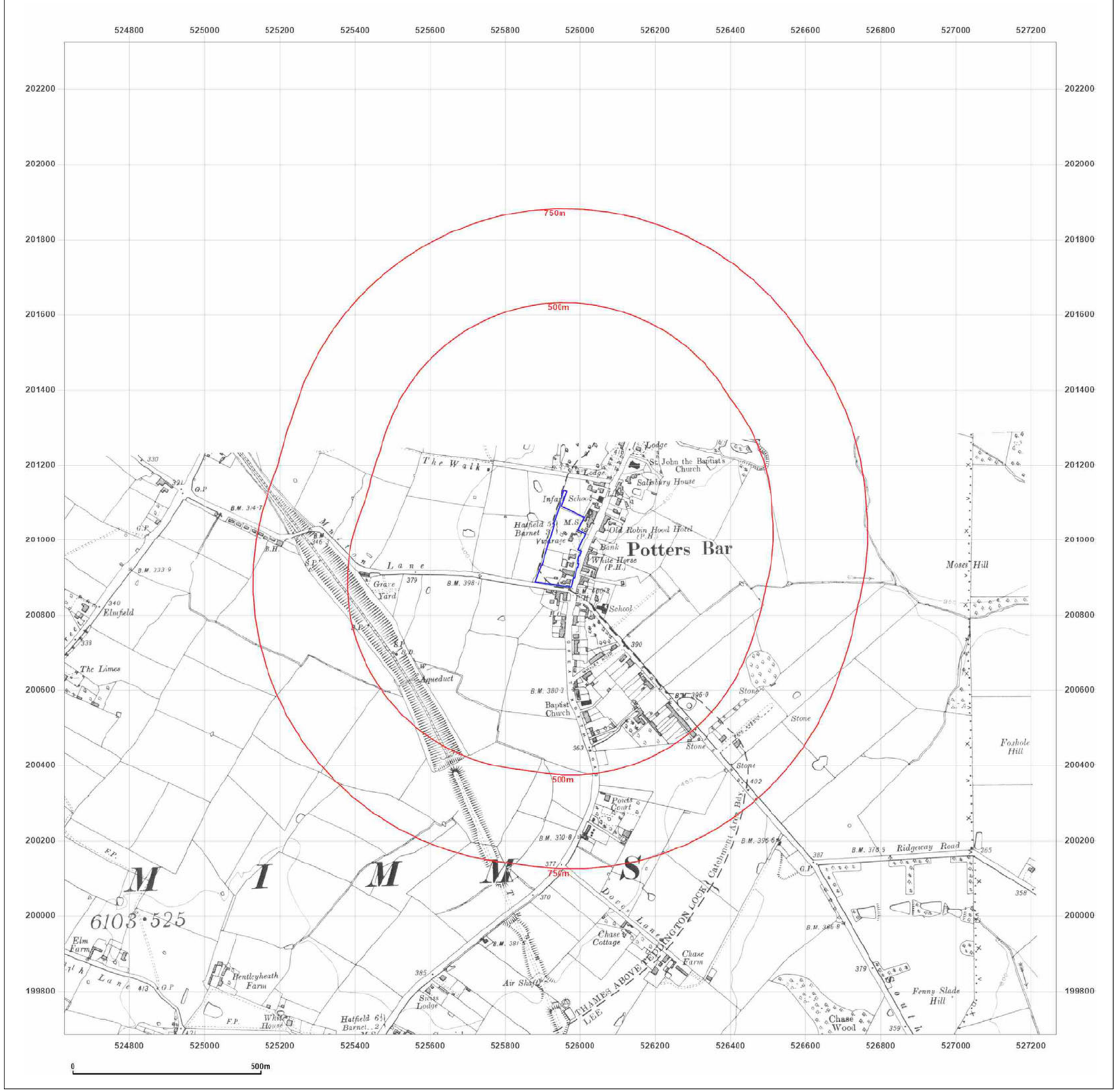
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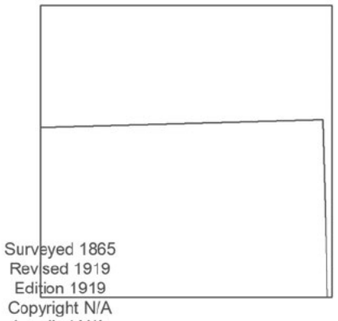
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Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series
Map date: **1919**
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Revised 1919
Edition 1919
Copyright N/A
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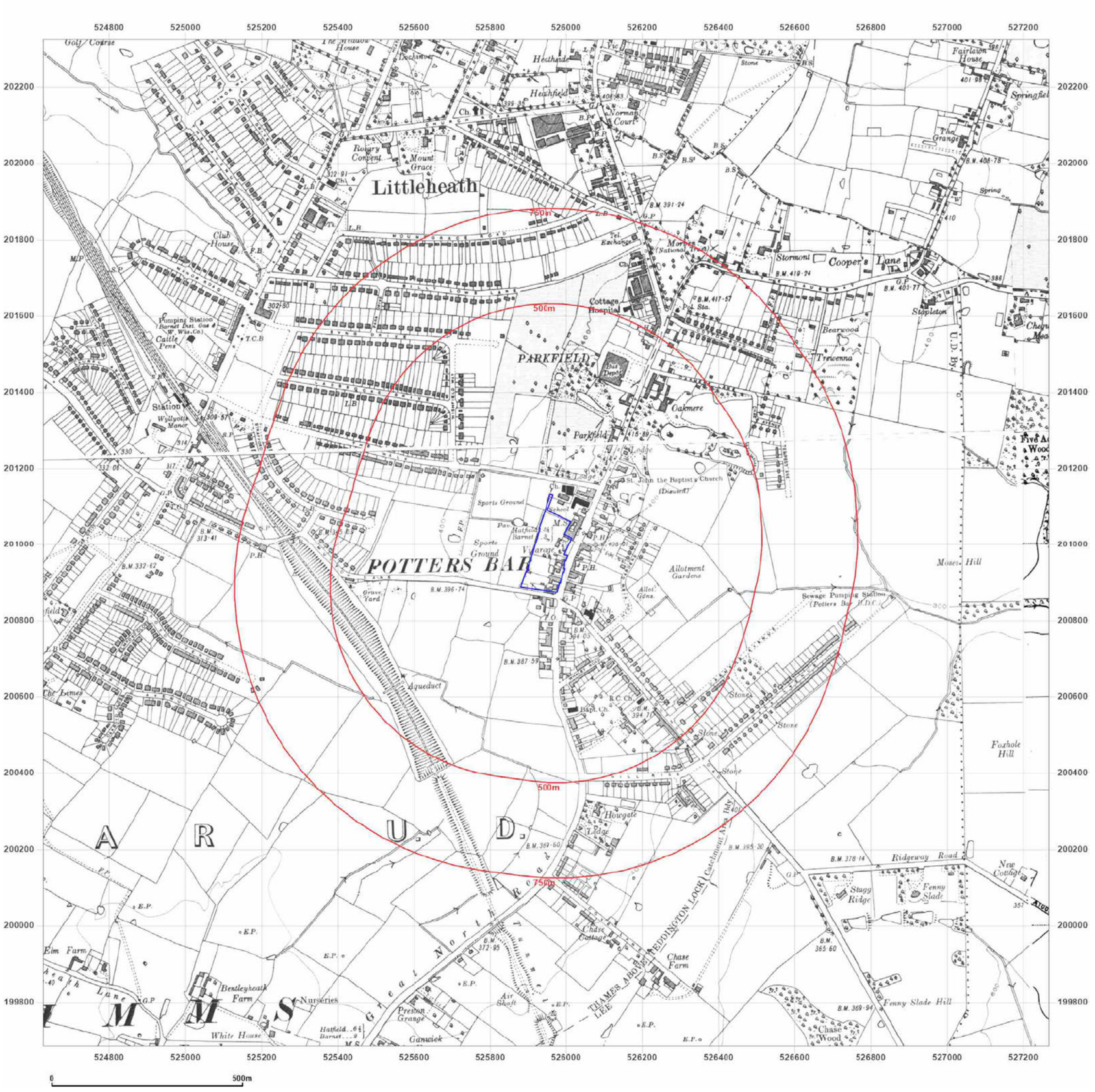
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Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

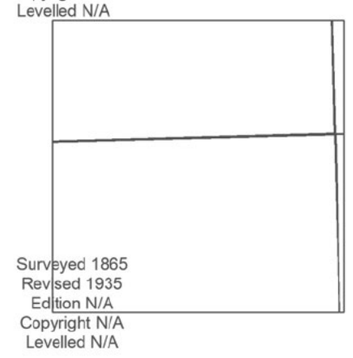
Map Name: County Series

Map date: **1935-1938**

Scale: 1:10,560

Printed at: 1:10,560

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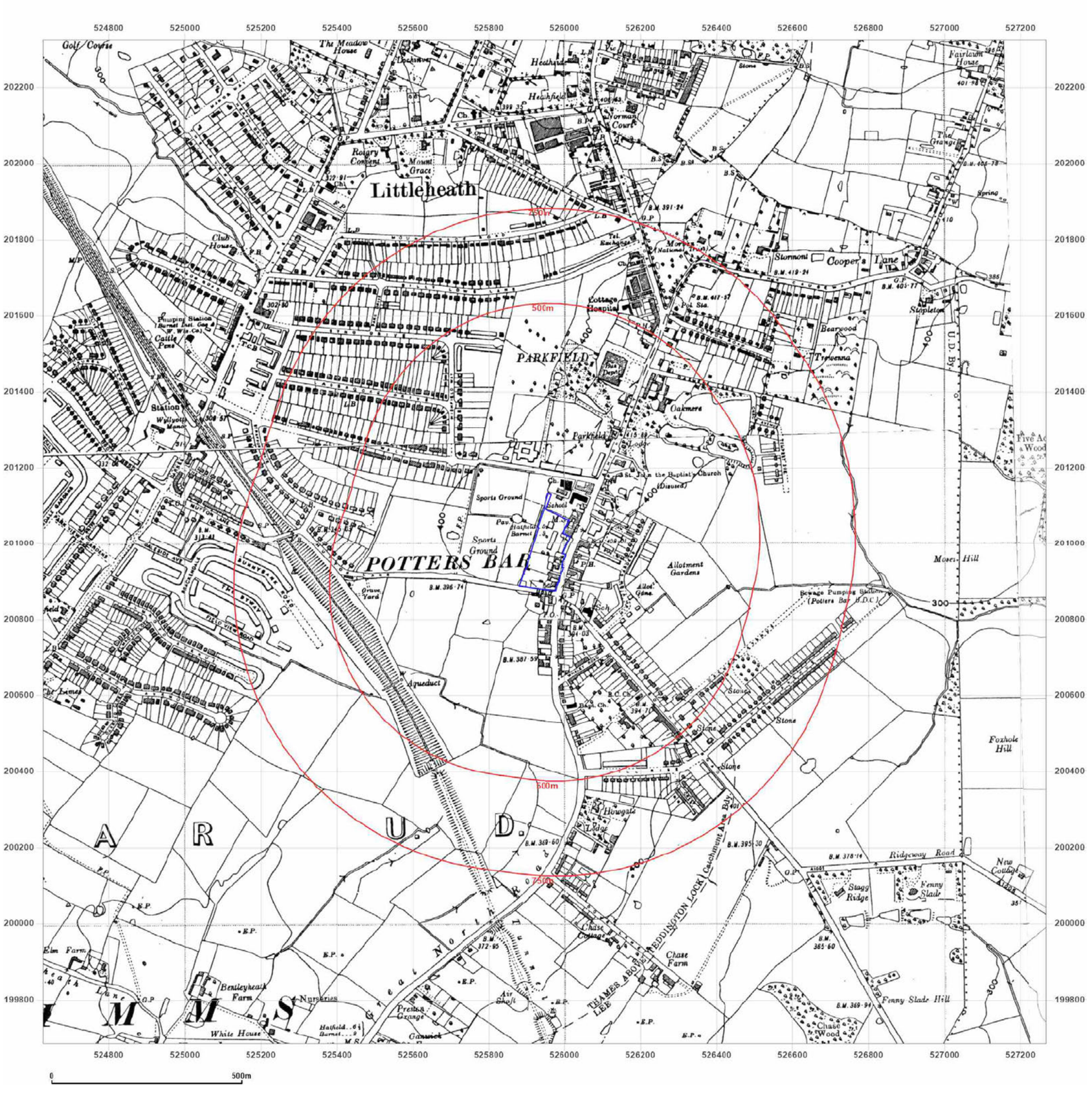
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High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series

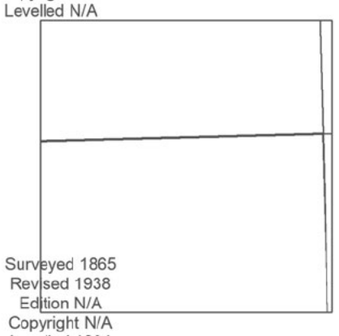
Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

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



Surveyed 1865
Revised 1938
Edition N/A
Copyright N/A
Levelled 1934

Surveyed 1872
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

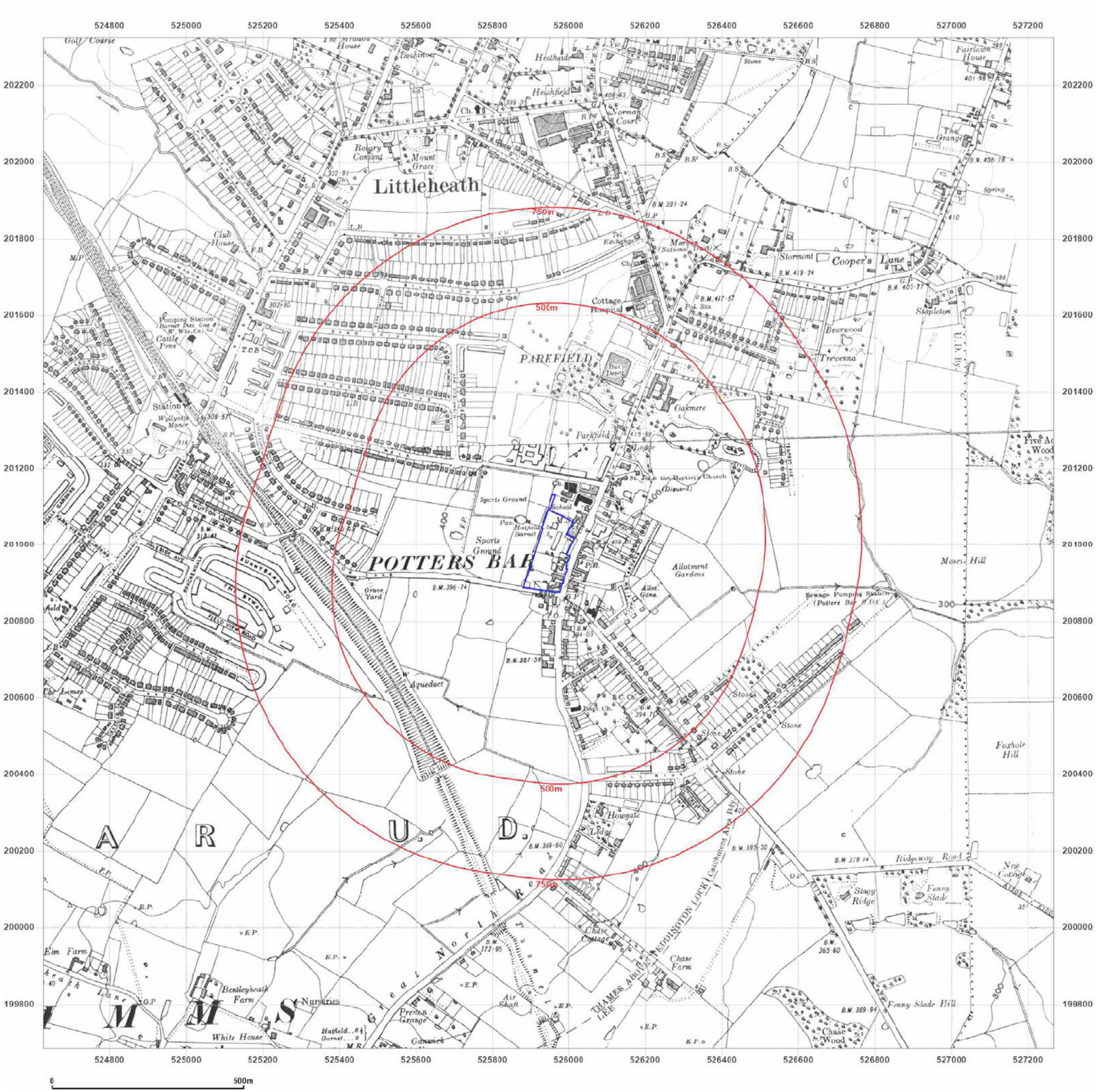
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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series

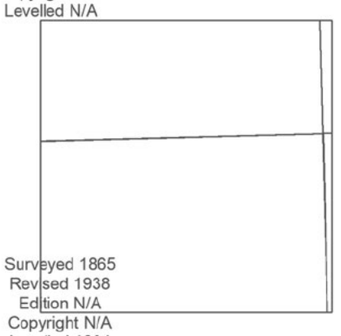
Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1872
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A



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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series

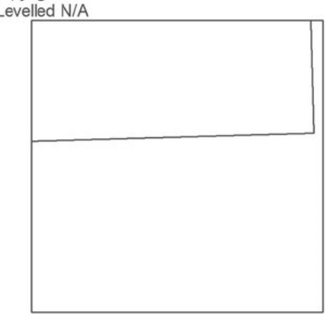
Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1872
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A



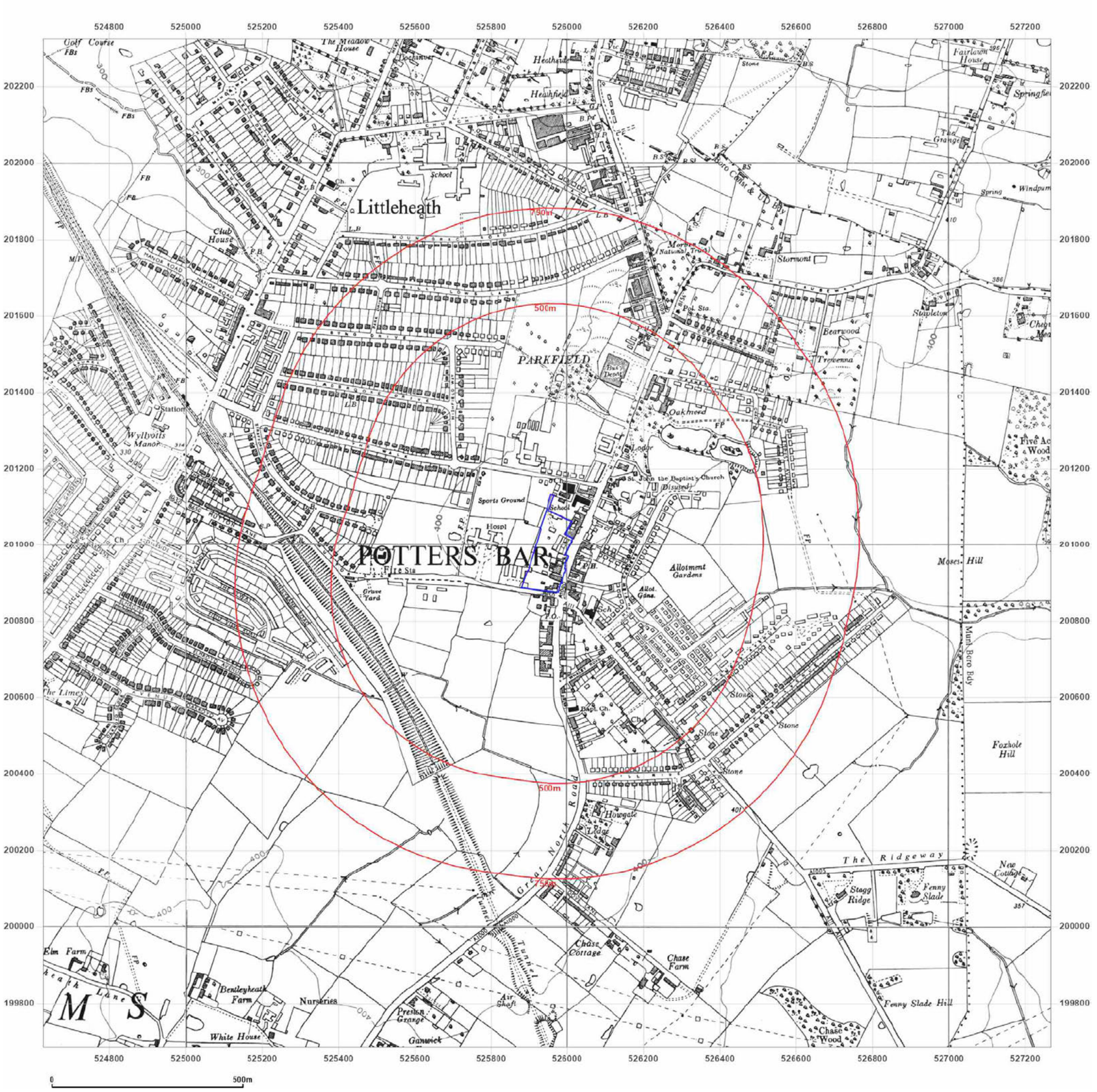
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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: Provisional
Map date: **1959-1960**
Scale: 1:10,560
Printed at: 1:10,560

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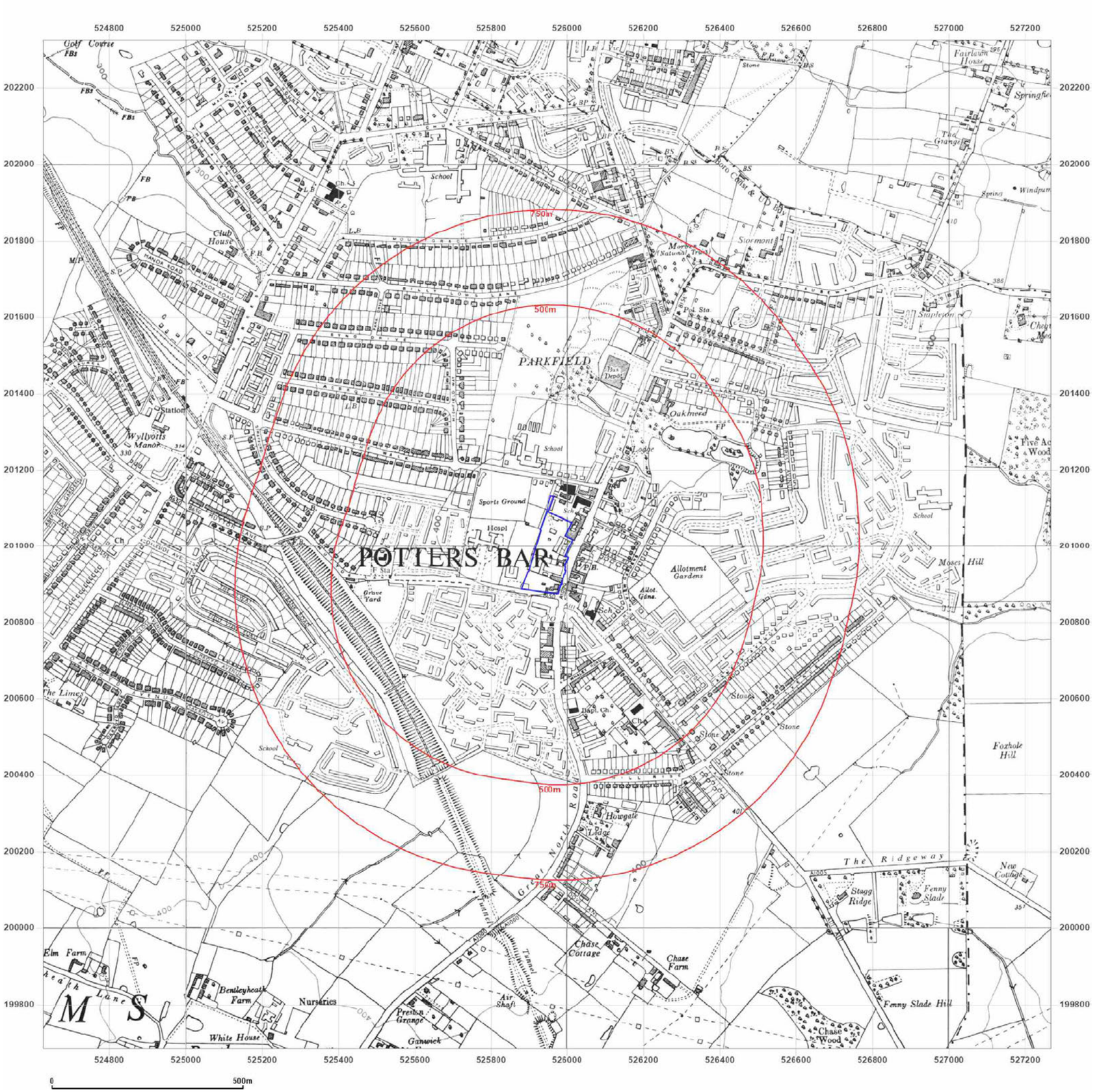
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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: Provisional
Map date: **1963-1970**
Scale: 1:10,560
Printed at: 1:10,560

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Surveyed N/A Revised 1963 Edition N/A Copyright 1960 Levelled N/A	Surveyed 1954 Revised 1970 Edition N/A Copyright 1960 Levelled N/A
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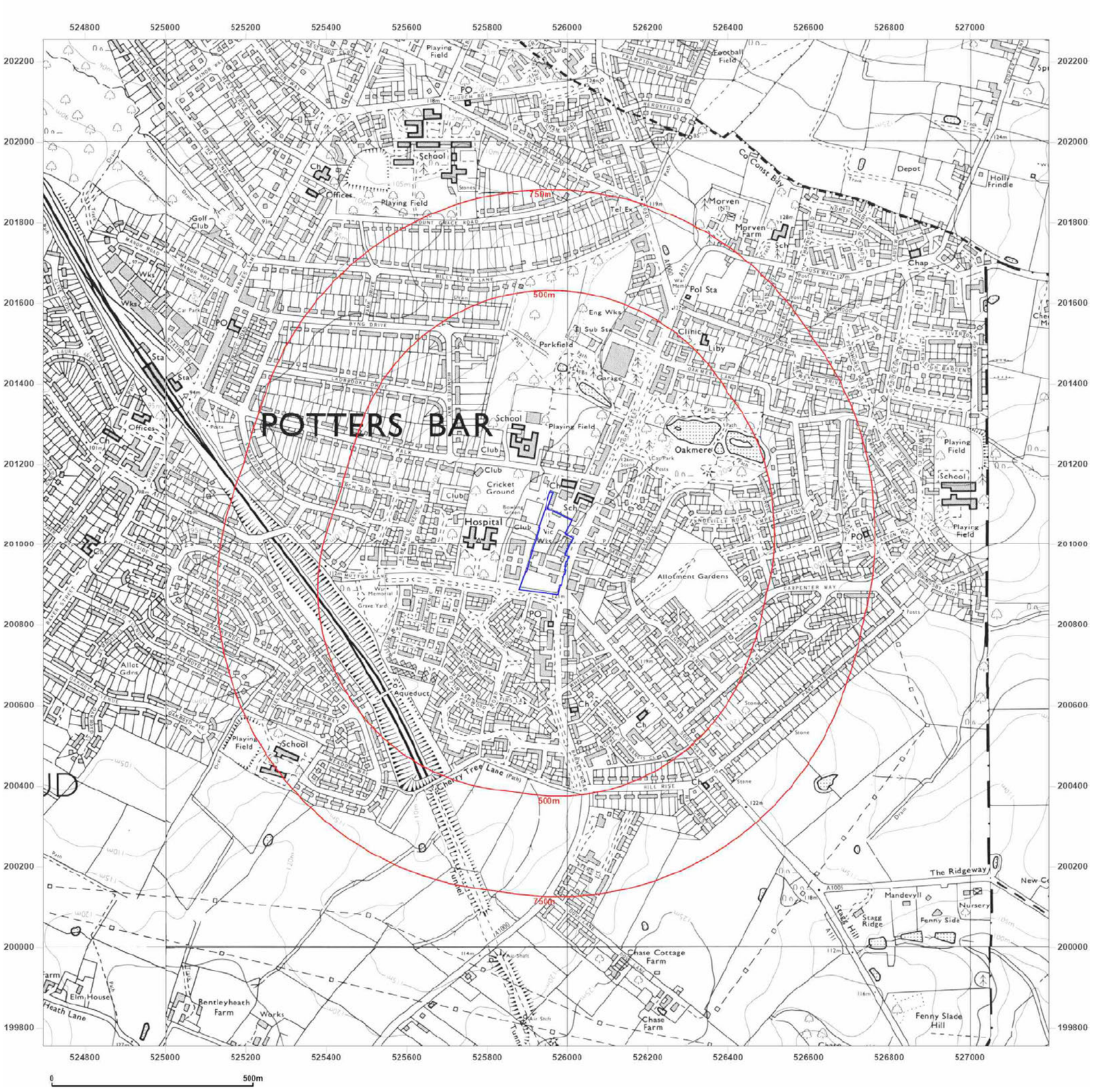
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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: National Grid
Map date: **1973-1974**
Scale: 1:10,000
Printed at: 1:10,000

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

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

Surveyed 1972
Revised 1973
Edition N/A
Copyright 1974
Levelled N/A

Surveyed 1973
Revised 1974
Edition N/A
Copyright 1974
Levelled N/A

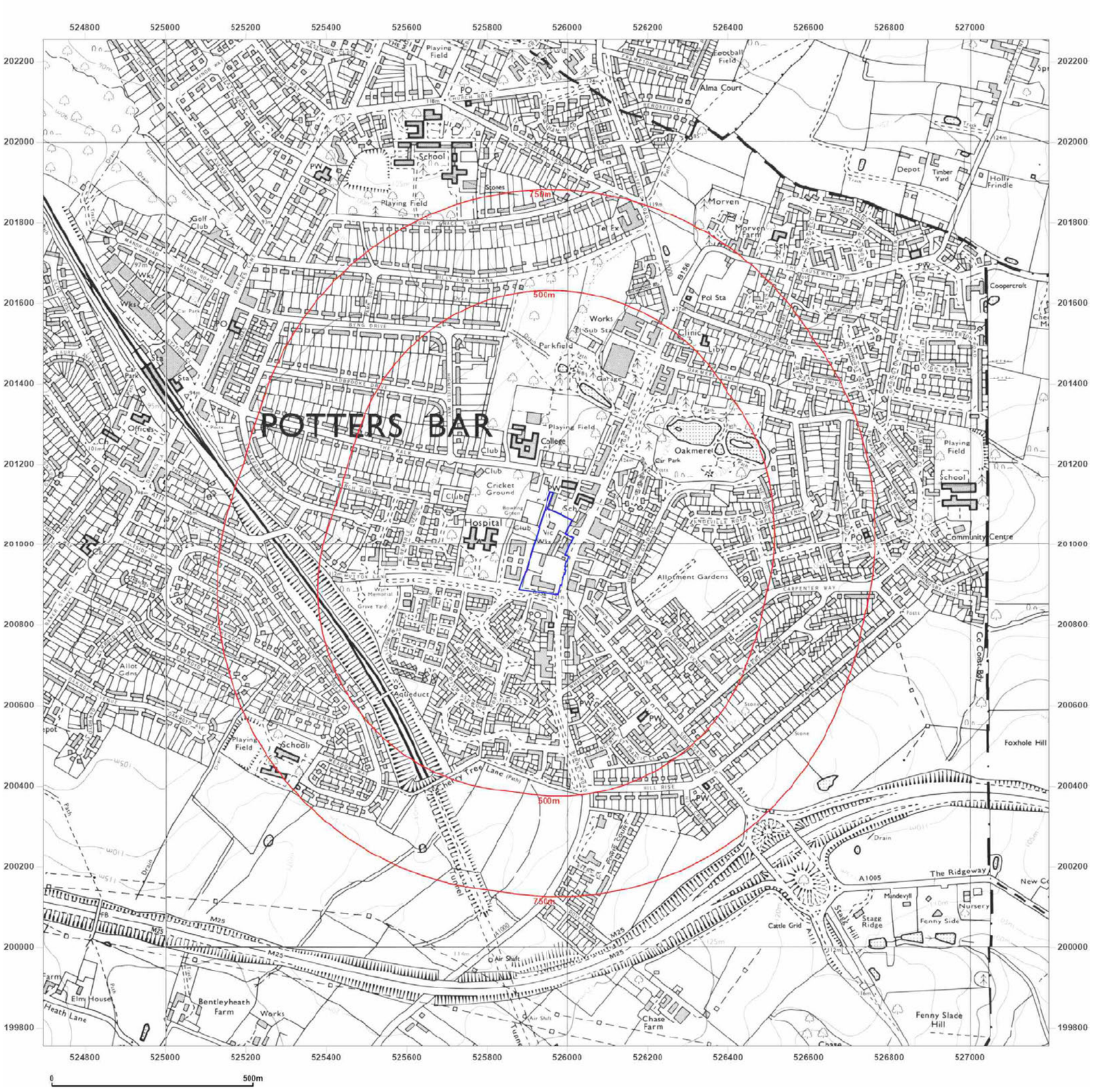
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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: National Grid

Map date: **1983-1988**

Scale: 1:10,000

Printed at: 1:10,000

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

Surveyed 1984
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1981
Revised 1983
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1984
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

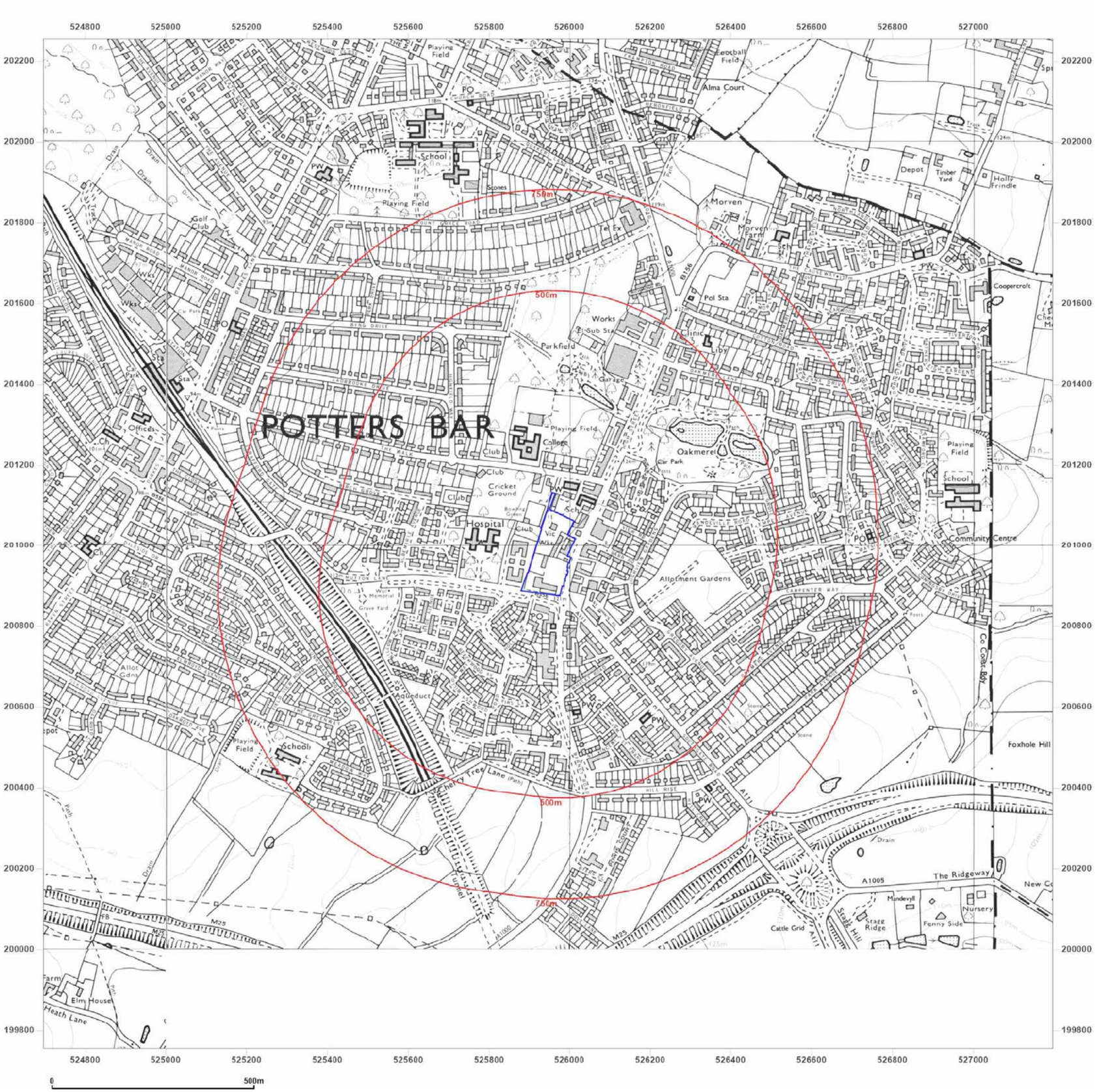
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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: National Grid

Map date: **1983-1988**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1983
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1984
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1981
Revised 1983
Edition N/A
Copyright N/A
Levelled N/A

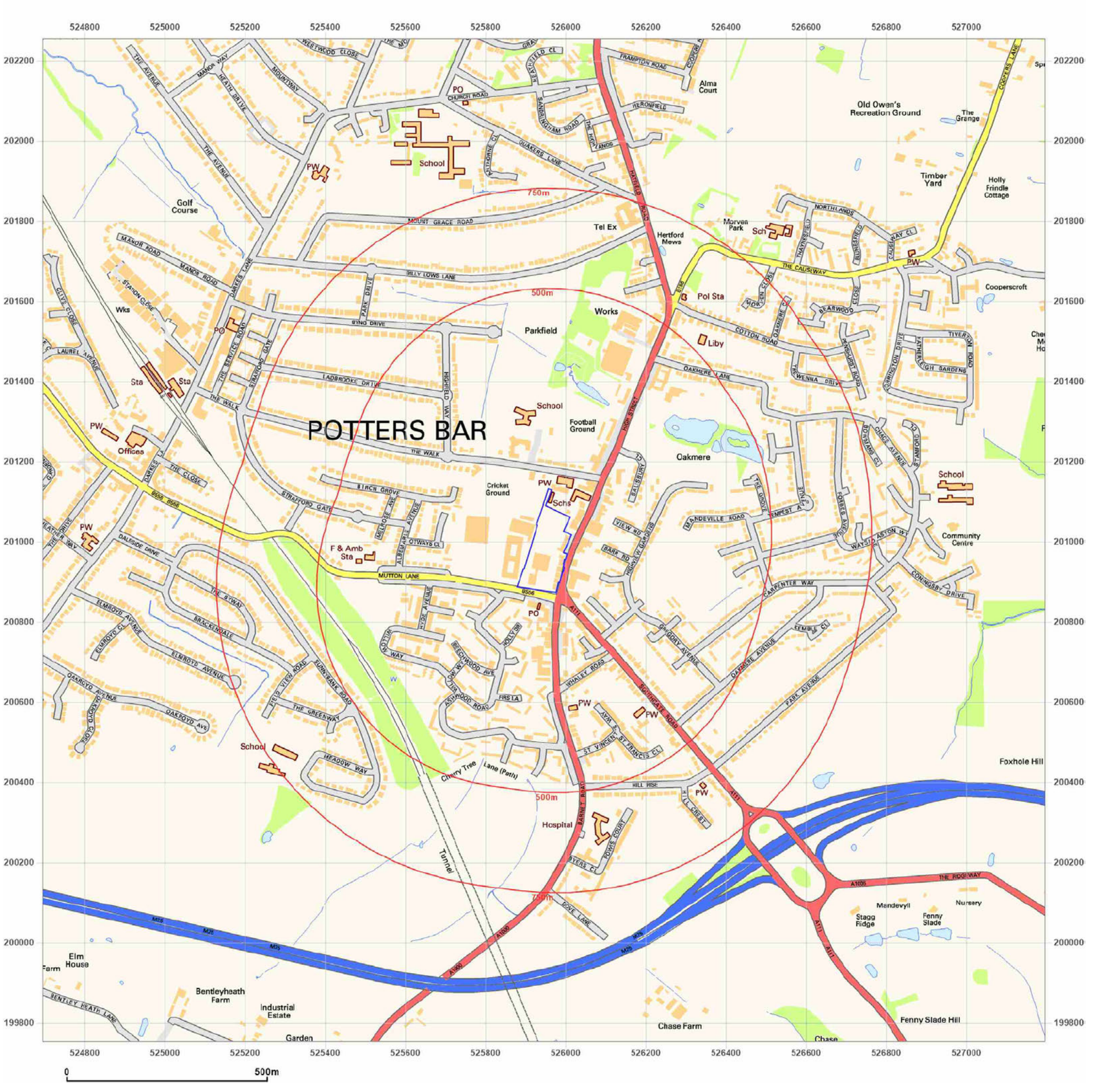
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Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: National Grid
Map date: 2001
Scale: 1:10,000
Printed at: 1:10,000

N
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2001

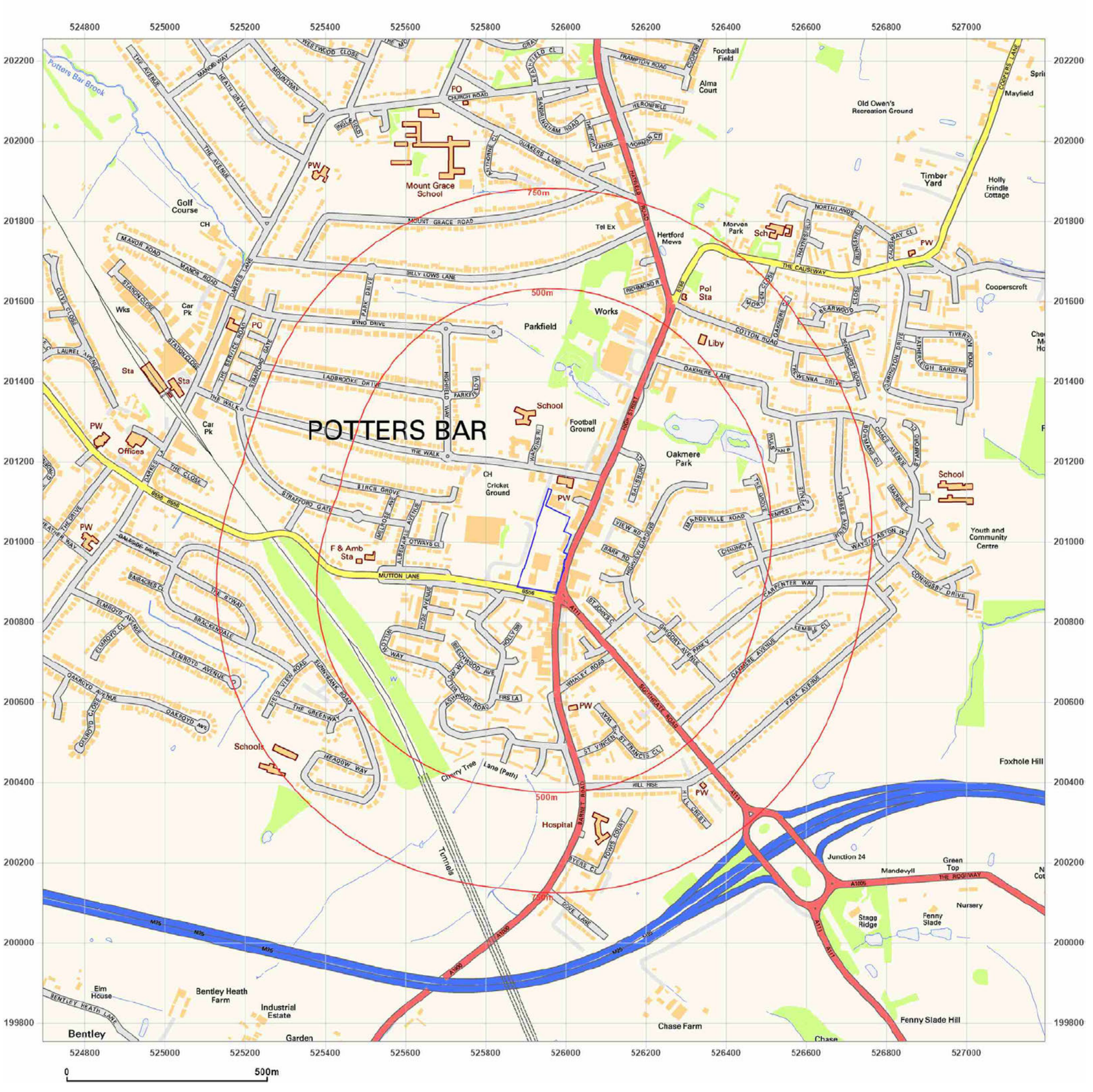
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Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
Printed at: 1:10,000

N
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2010

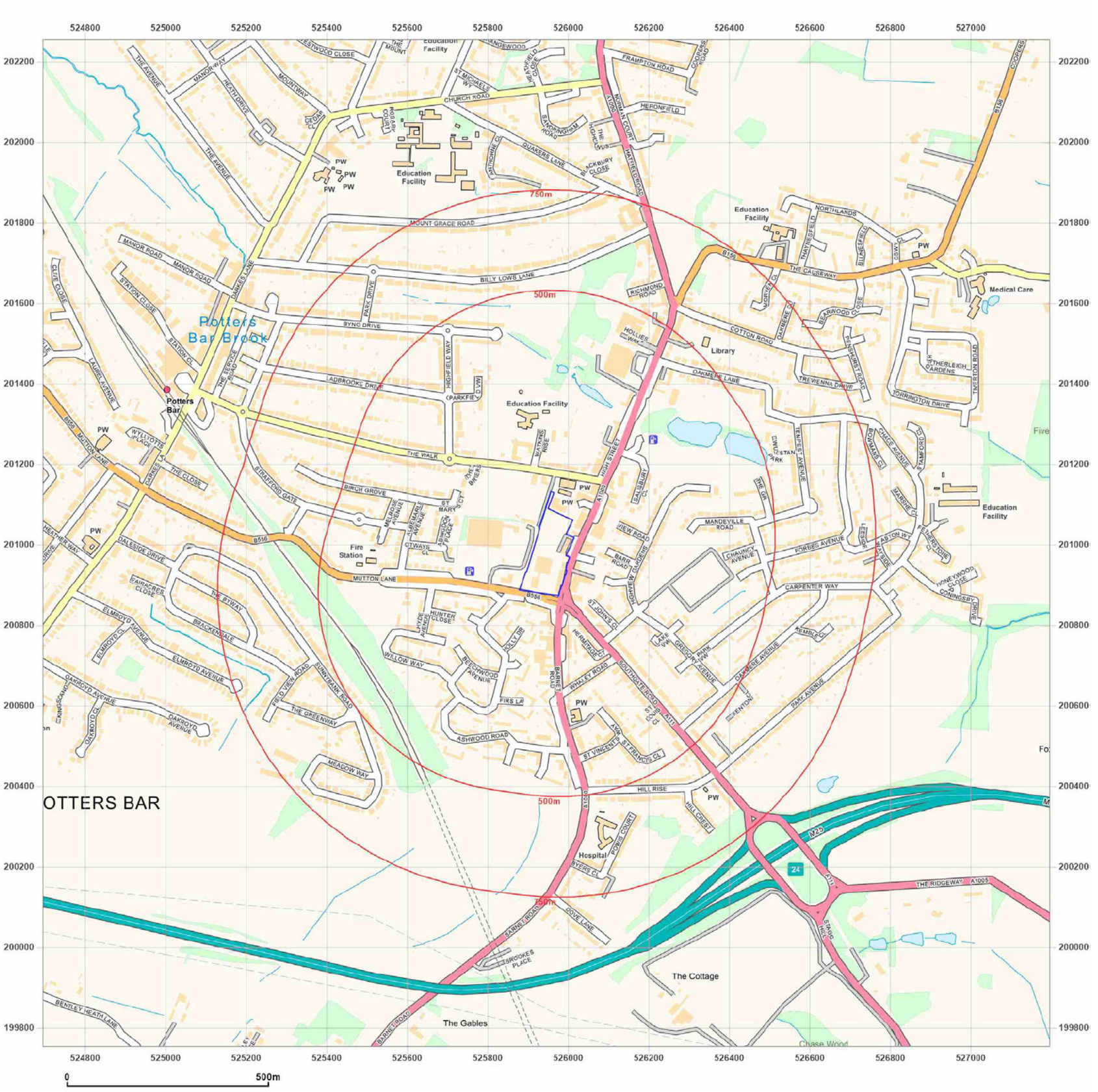
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524800
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525200
525400
525600
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526400
526600
526800
527000
202200
202000
201800
201600
201400
201200
201000
200800
200600
200400
200200
200000
199800
750m
500m
Potters Bar Brook
Potters Bar
Education Facility
Library
Medical Care
Fire Station
Hospital
Education Facility
Education Facility
Education Facility



Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series

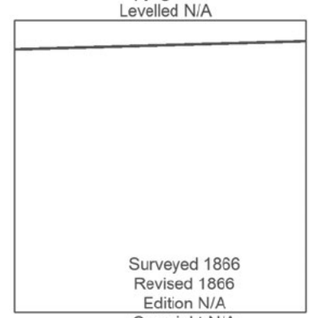
Map date: **1866**

Scale: 1:2,500

Printed at: 1:2,500

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



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

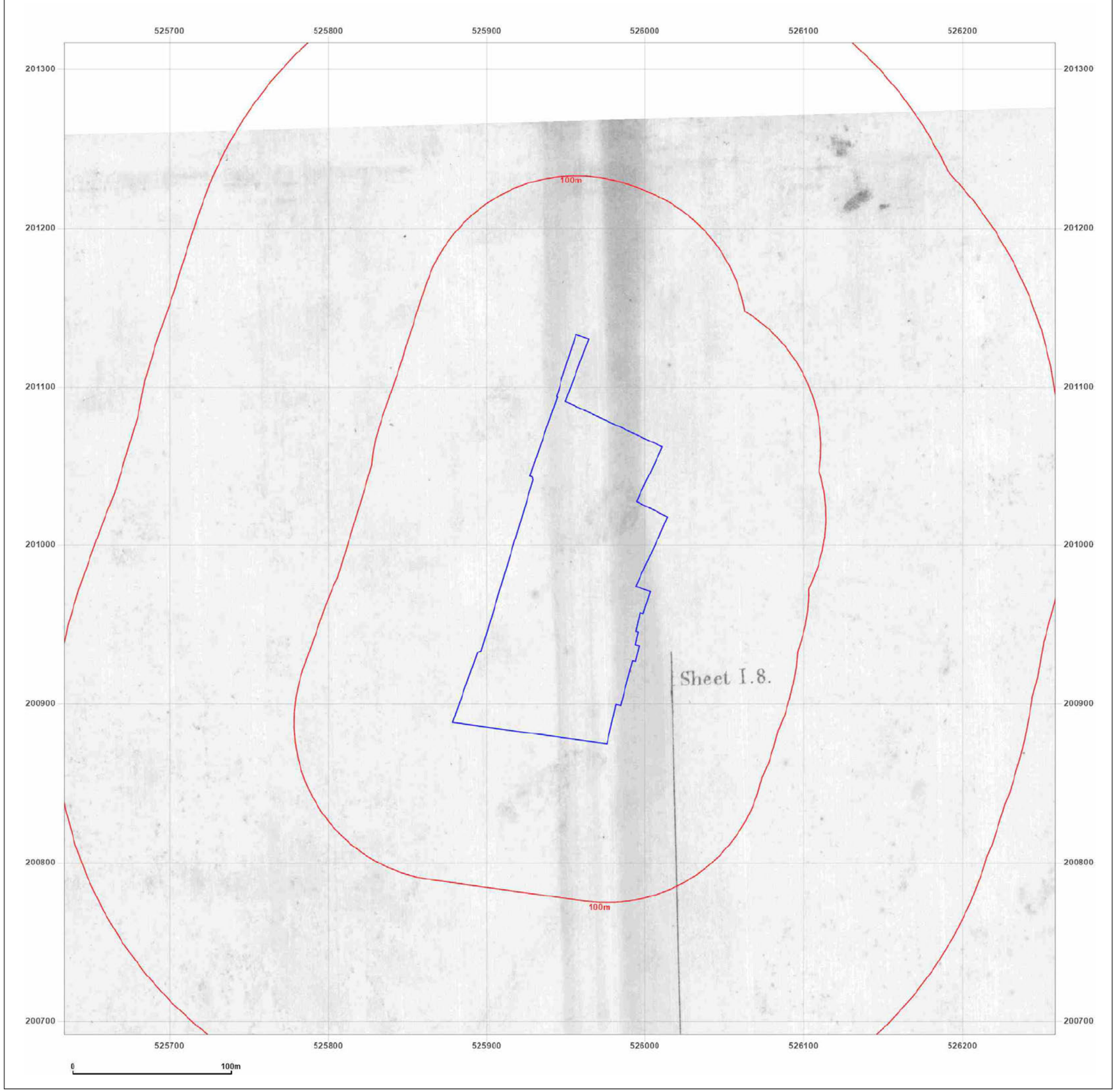
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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: County Series
Map date: **1866**
Scale: 1:2,500
Printed at: 1:2,500

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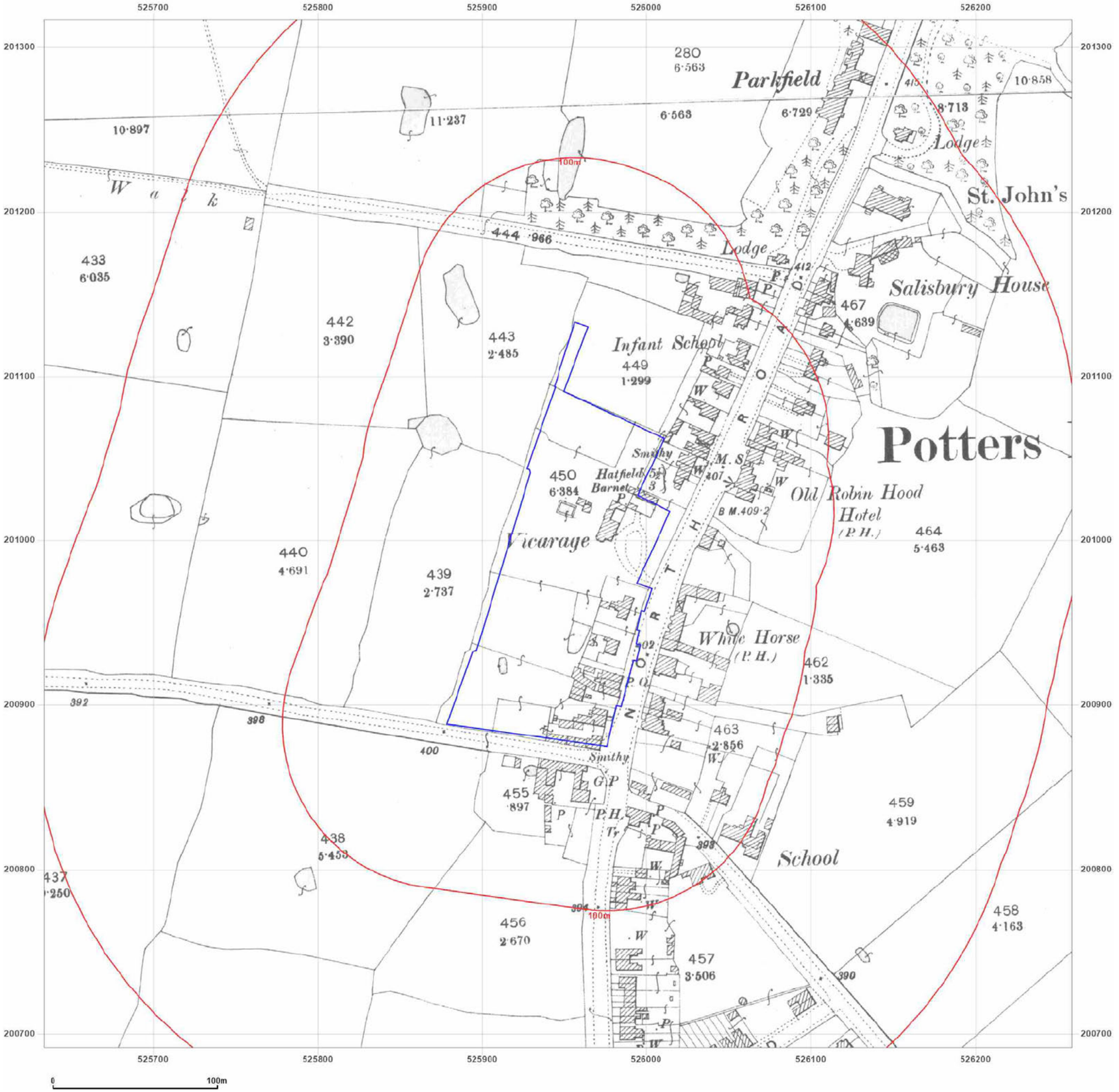
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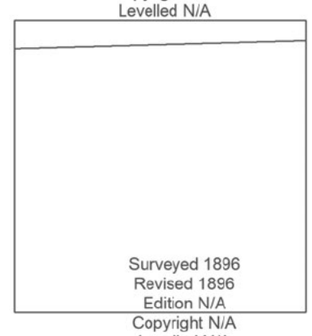
Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

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

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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

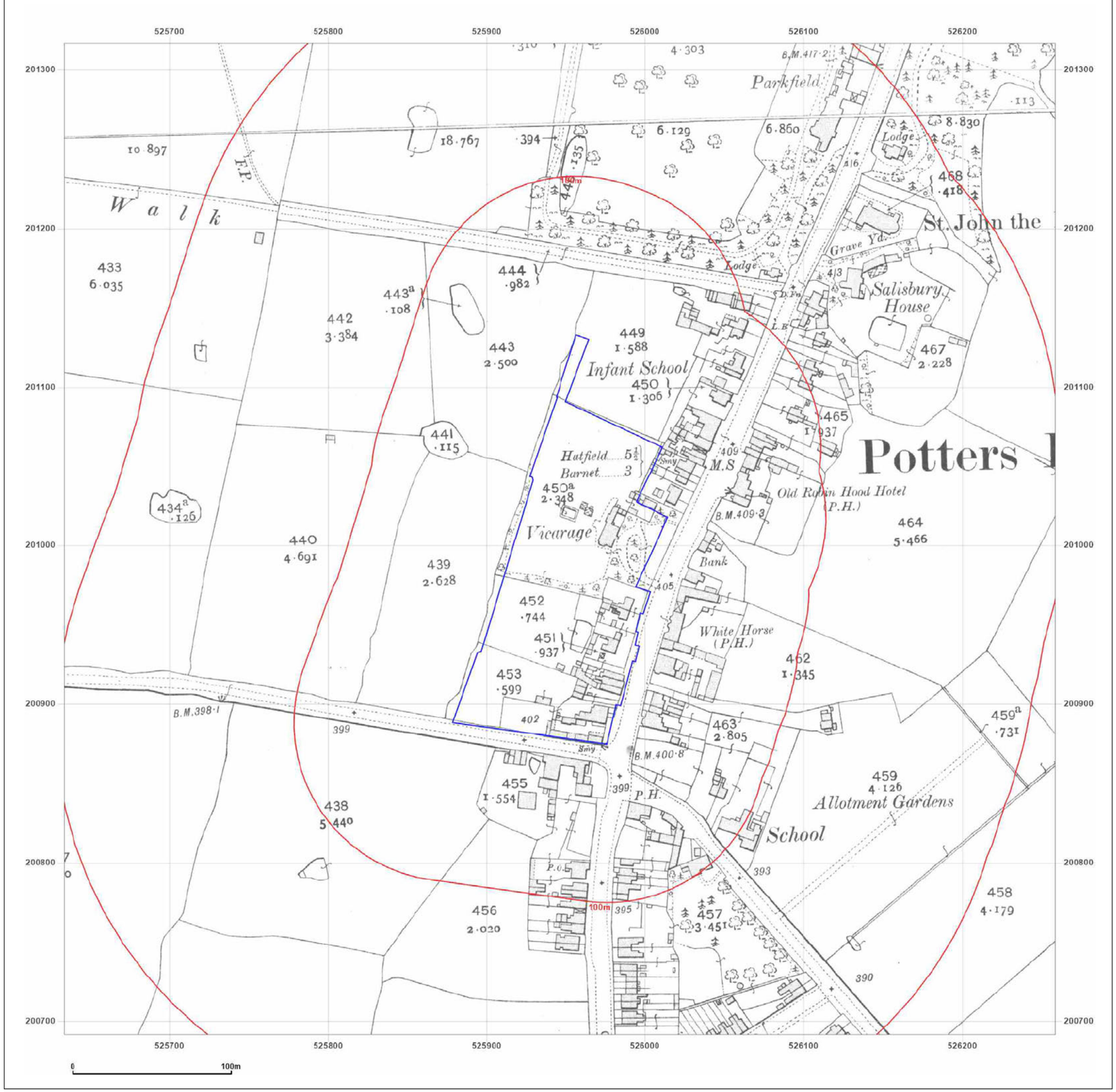
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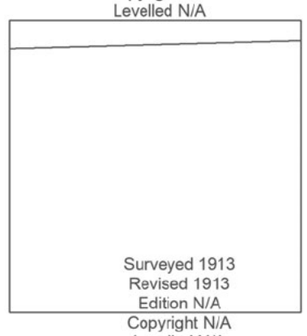
Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

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

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



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

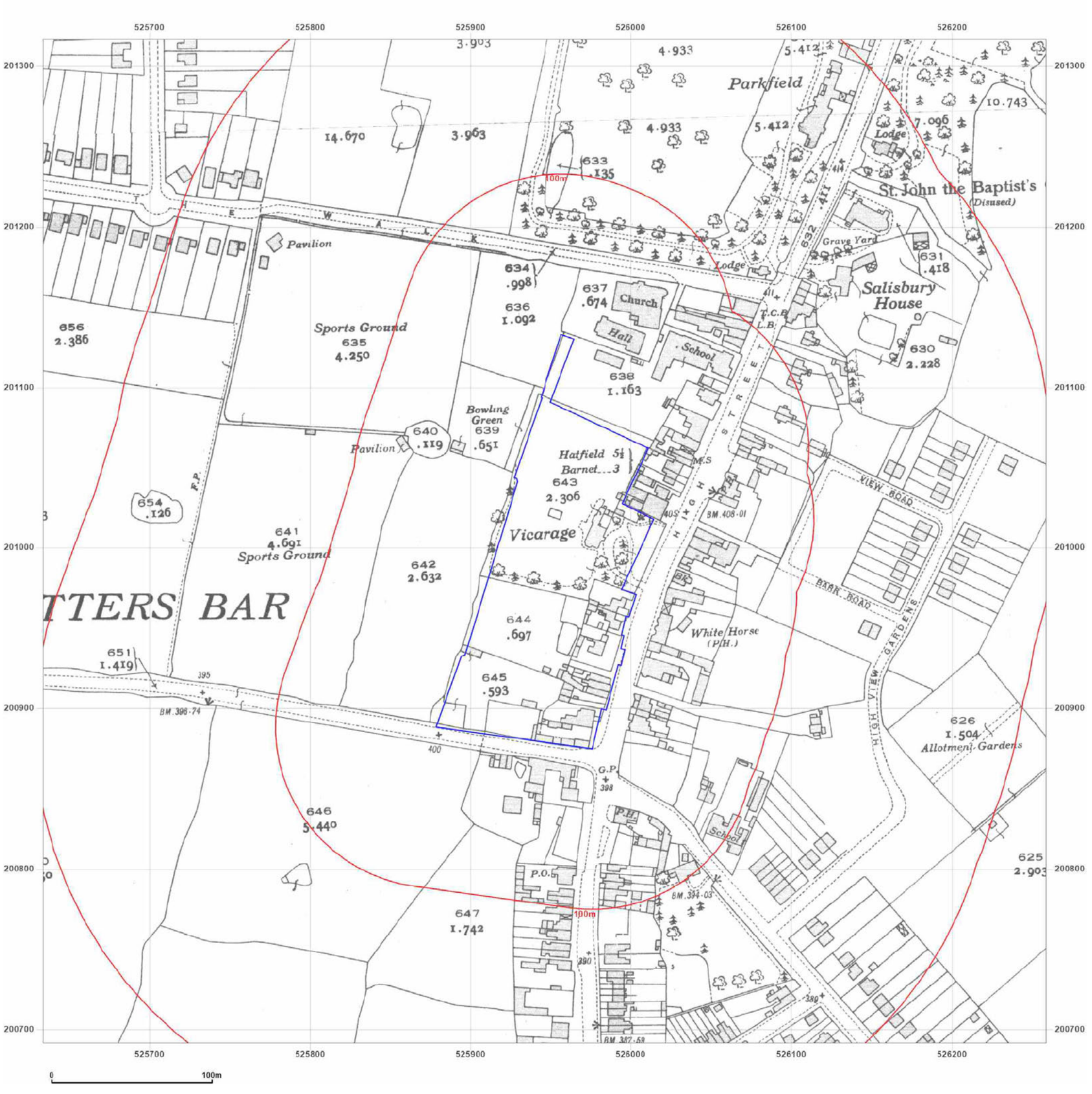
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Site Details:

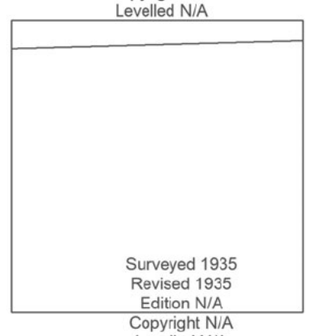
Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

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
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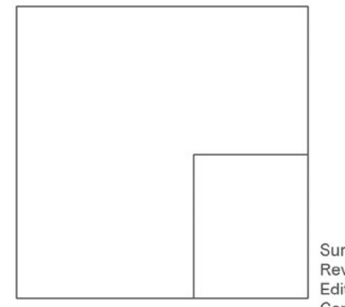
Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: National Grid
Map date: **1968**
Scale: 1:1,250
Printed at: 1:2,000

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

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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: National Grid
Map date: **1967-1969**
Scale: 1:1,250
Printed at: 1:2,000

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Surveyed 1968 Revised 1968 Edition N/A Copyright 1969 Levelled 1956	Surveyed 1968 Revised 1968 Edition N/A Copyright 1969 Levelled 1956
Surveyed 1967 Revised 1967 Edition N/A Copyright 1968 Levelled 1956	Surveyed 1967 Revised 1967 Edition N/A Copyright N/A Levelled N/A

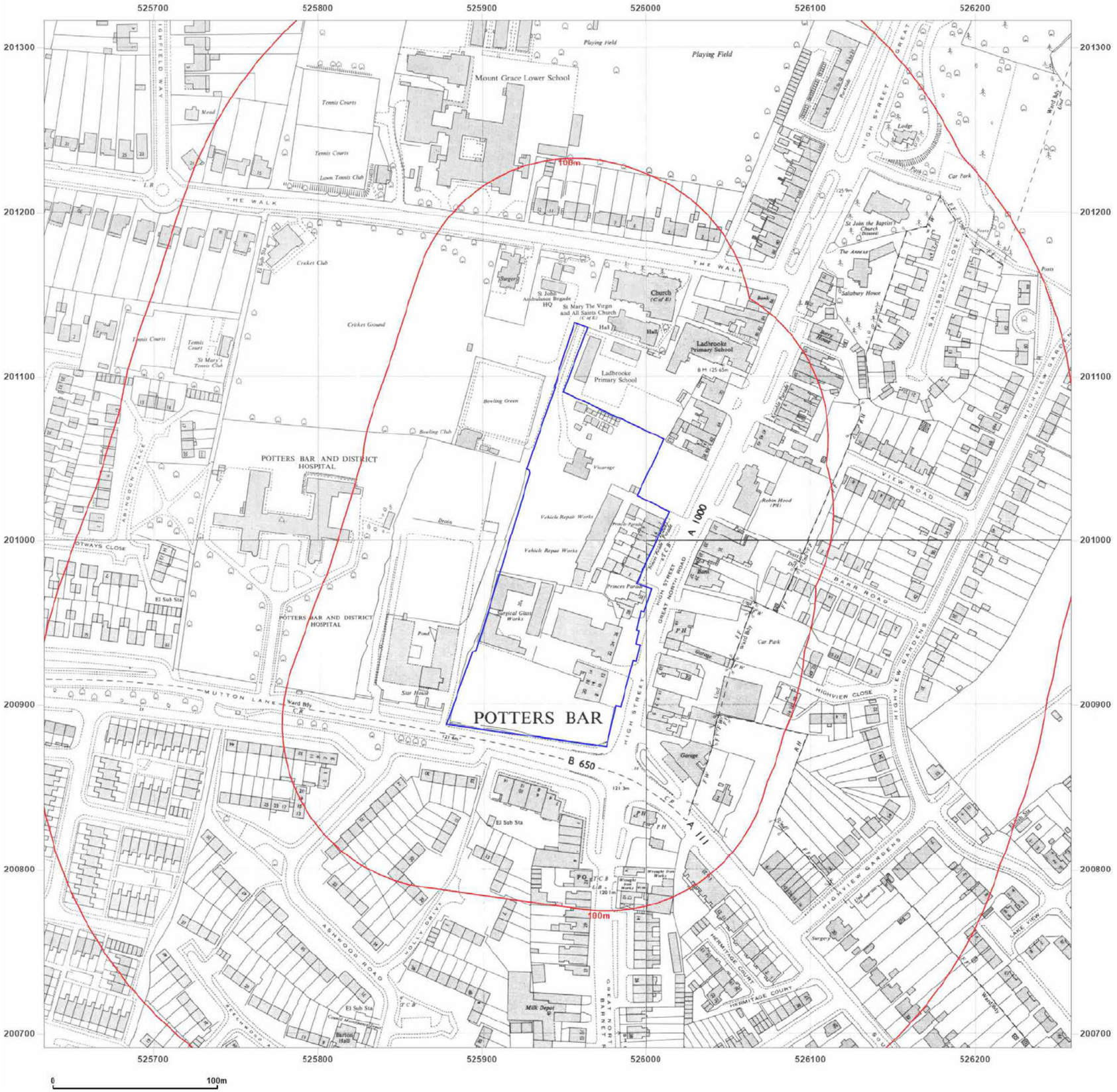
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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: National Grid

Map date: **1970-1971**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1968
Revised 1968
Edition N/A
Copyright 1970
Levelled 1956

Surveyed 1968
Revised 1969
Edition N/A
Copyright 1970
Levelled 1957

Surveyed 1968
Revised 1969
Edition N/A
Copyright 1971
Levelled 1956

Surveyed 1967
Revised 1970
Edition N/A
Copyright 1971
Levelled 1956

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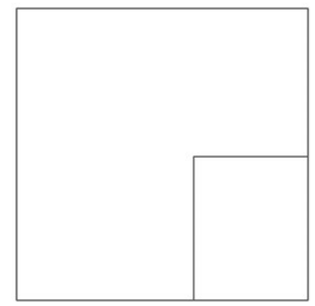
Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

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

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

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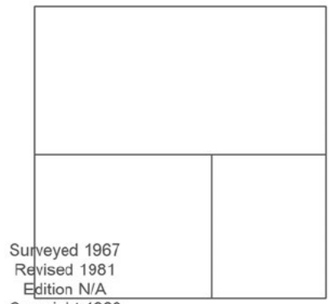
Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: National Grid
Map date: **1982-1985**
Scale: 1:1,250
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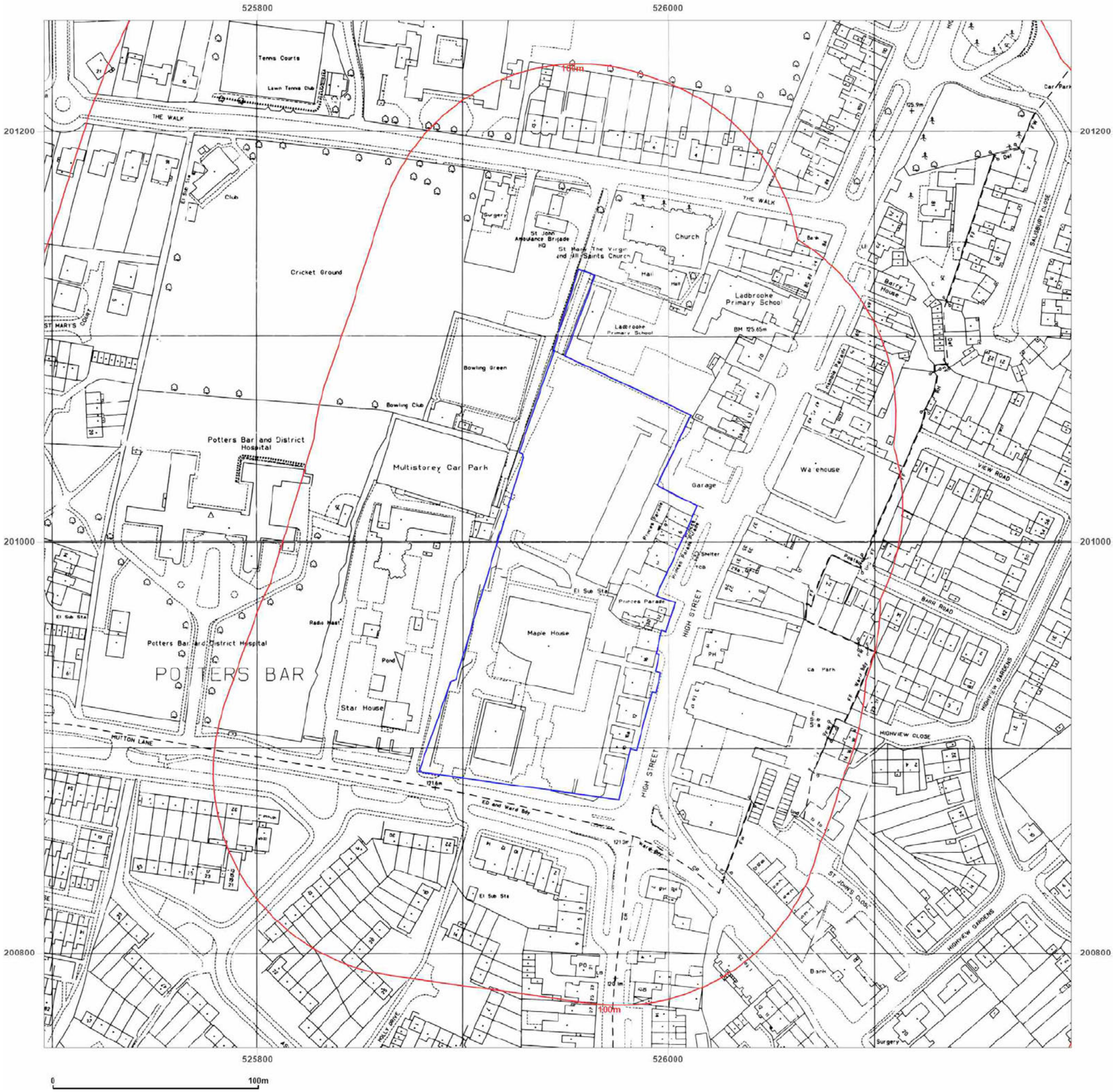
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Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

Map Name: National Grid
Map date: **1992**
Scale: 1:1,250
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Groundsure INSIGHTS

Site Details:

Maple House, Canada Life Place
High Street, Potters Bar

Client Ref: 4234 - Potters Bar
Report Ref: GS-Q7A-86J-IEB-SRI
Grid Ref: 525946, 201004

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

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Appendix C: Unexploded Ordnance Risk Assessments

Preliminary Unexploded Ordnance (UXO) Risk Assessment





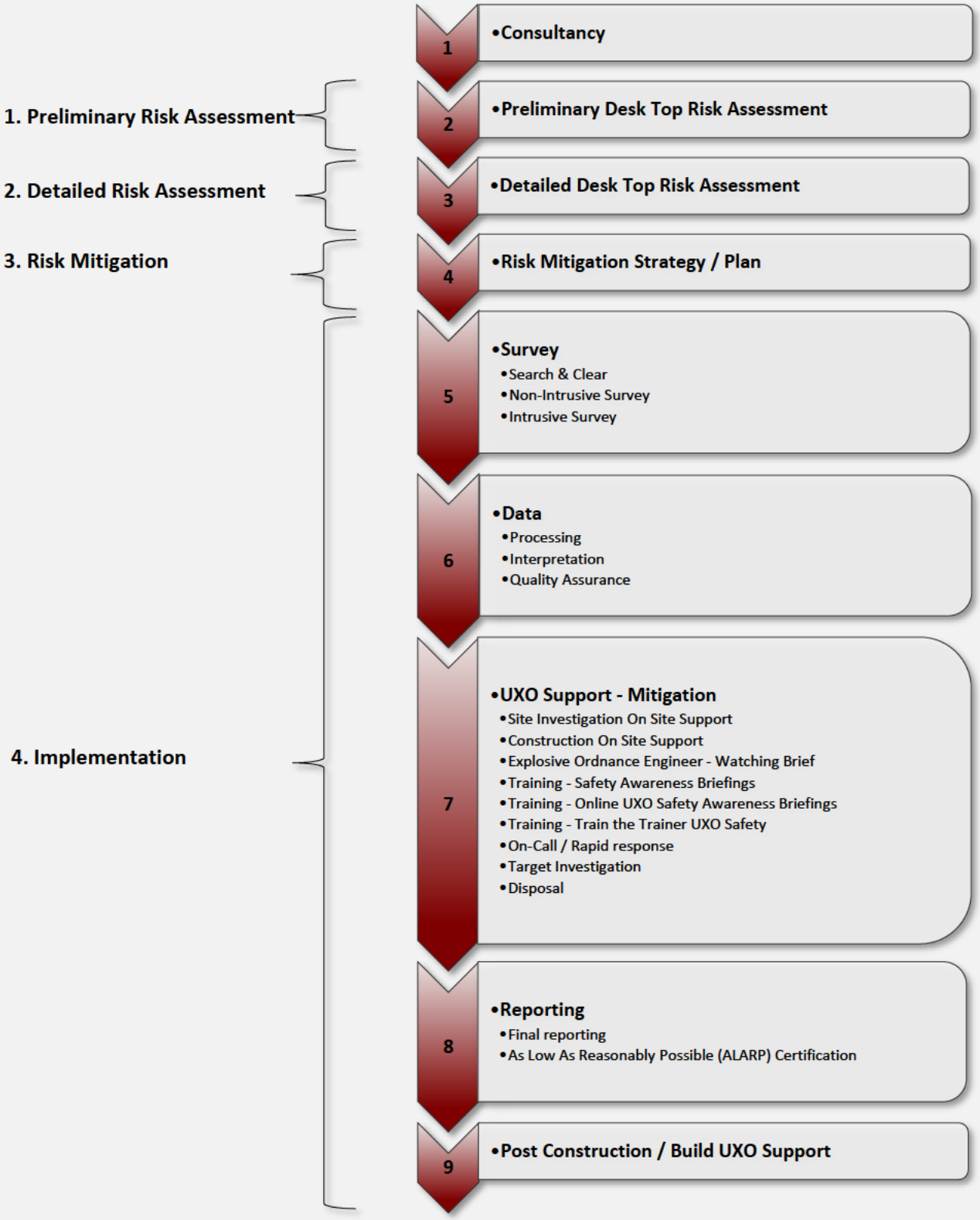


RMS UXO PROJECT NUMBER	INO6123	**AUTHOR**	H. Merritt
VERSION NUMBER	001	**Reviewed and Approved By**	K. Kneebone
CLIENT	A Squared Studios Limited	**Issue Date**	09/12/2025
SITE	Maple House, Canada Life Place High Street, Potters Bar, EN6 5BA		
RECOMMENDATION	Further Assessment Recommended - Detailed UXO Risk Assessment		

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UK UXO Risk Mitigation Process



1. Purpose of Assessment

This Preliminary UXO Risk Assessment serves as a qualitative screening tool to evaluate the likelihood of encountering unexploded ordnance (UXO). The assessment takes into account the basic factors impacting the potential presence of UXO, as detailed in Stage One of the CIRIA UXO risk management process, to provide an informed understanding of the associated risks at the site.

2. Location

The site is situated in Potters Bar and is approximately centred on the National Grid Reference: TL 25943 00965. Approximately 920m east of Potters Bar Station.

3. Background

This assessment, undertaken by RMS UXO Limited, (RMS UXO), serves as an initial analysis aimed at understanding the potential risks associated with unexploded ordnance (UXO). The assessment is conducted following the guidelines specified by CIRIA C681, "Unexploded Ordnance, a Guide for the Construction Industry".

The data compilation and analysis have been carried out by a team of UXO specialists at RMS UXO. Various resources have been used for this assessment; including but not limited to, extensive historical archives, comprehensive library documents, unique geo-databases, and other online materials.

The assessment is structured around the following key aspects to provide a preliminary understanding of the UXO risk profile for the site:

- Primary site Information
- Former Military Involvement
- Indicators of potential aerial dropped UXO threats
- Assessment of any Risk Reduction Factors
- Overview of Proposed Intrusive Activities
- Need for Extended Investigation

The main objective is to identify any need for a more Detailed UXO Risk Assessment. This preliminary analysis aims to go through the basic risk factors associated with UXO at the site, serving as a practical 'initial move' in the UXO risk management process. The report and its conclusions will be based on preliminary research from RMS UXO's team at the time of production.

4. Considerations

History of Military Activity	Geodata cross-referencing does not indicate a significant level of Allied military activity in close proximity to the site, however due to HAA battery recorded approximately 6km north-east of the site, the risk of Allied UXO cannot be entirely discounted.
Pre-WWII History	Pre-WWII mapping show that the site consisted of undeveloped open ground and some residential structures.
Post-WWII History	Post-WWII mapping shows that the site retained its pre-war composition.
WWII Air Raid Activity	Overall, the Borough of Potters Bar sustained a low-moderate level of bombing. An average of 33 items of ordnance were recorded per 1,000 acres; this does not include incendiary bomb 'showers'. There are recorded bomb strikes on and in close proximity to the site.

Bomb Damage	Middlesex County Council bomb damage mapping appears to show damage to structures in the east. As the site largely consisted of undeveloped ground, bomb damage mapping will not have recorded any further damage in these areas.
Site Access	The site is anticipated to have received a low-to-medium level of access due to the residential and largely undeveloped nature of the site. However, this would have decreased significantly during any bombing raids and would have depended on the overall usage of the site.
Post War Development	Recent aerial photography of the site appears to show a high level of development. This includes the construction of structures to the south and east of the site and the laying of hardstanding across the site.
Proposed Works	RMS UXO were not aware of any future site works at the time of writing the report.

5. Conclusions

Based upon the research undertaken, there are recorded bomb strikes on and in close proximity to the site and it is clear the site in question sustained damage from bombing in WWII. Therefore, there is a potential risk posed by UXO the extent of which needs clarification.

6. Recommendations

As per CIRIA C681 the Preliminary UXO Risk Assessment aims to evaluate the potential risk from UXO, based on historical data including wartime bombing records. Recommendations suggest advancing to a Detailed UXO Risk Assessment per CIRIA guidelines for a thorough examination of wartime conditions in the anticipated work area. This entails obtaining local bombing records, WWII-era aerial imagery, and other historical data. Before, or instead of a Detailed Assessment, implementing UXO Risk Mitigation Measures for planned intrusive works is advisable.

Should the client possess any subjective or data-driven insights into UXO risks on-site, contacting RMS UXO is encouraged.

This report has been constructed with professional thought and care by RMS UXO. Historical data has been meticulously collected and reviewed from third party sources. The validity of this information has been checked to the best of our ability, but RMS UXO holds no accountability for errors resulting from missing or incomplete information. Moreover, despite best efforts to compile a comprehensive historical dataset RMS UXO disclaims responsibility for any subsequent modifications to risk evaluations or mitigation proposals that may be necessitated by the discovery of additional information post factum.

EXPERTISE, INTEGRITY, PROFESSIONALISM

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Detailed Unexploded Ordnance (UXO) Risk Assessment

Project Name: Maple House, Potters Bar

Prepared for: A-Squared Studio Engineers Limited and Chase New Homes.

Prepared by: H. Merritt

Site: Maple House, Canada Life Place High Street, Potters Bar, EN6 5BA

Date: 15/12/2025

Document Name: INO6123 - Detailed UXO Risk Assessment - Maple House, Potters Bar

Version: INO6123-001

Reviewed By: K. Kneebone

Approved By: C. Reid

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A-6: UXO RISK MAP

B-1: EXAMPLES OF ANTI-AIRCRAFT PROJECTILES

B-2: EXAMPLES OF ANTI-AIRCRAFT PROJECTILES

B-3: LAND SERVICE AMMUNITION - ROCKETS

C-1: HIGH EXPLOSIVE BOMBS

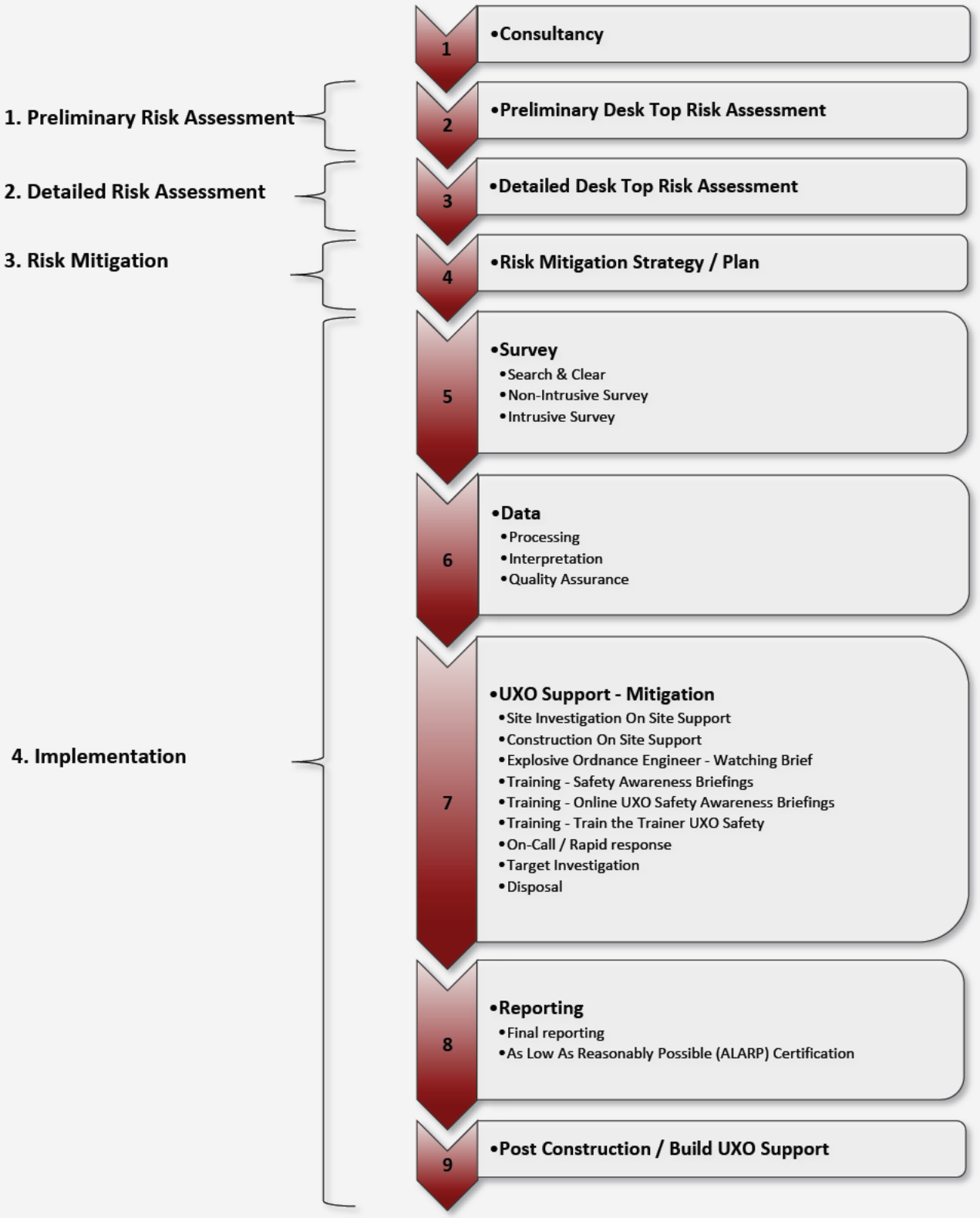
C-2: HIGH EXPLOSIVE BOMBS

C-3: INCENDIARY BOMBS

Acronyms & Abbreviations

AA	Anti-Aircraft
AAA	Anti-Aircraft Ammunition
ALARP	As Low As Reasonably Practicable
AOD	Above Ordnance Datum
ARP	Air Raid Precaution
AXO	Abandoned Explosive Ordnance
BD	Bomb Disposal
BDO	Bomb Disposal Officer
bgl	Below Ground Level
BGS	British Geological Survey
BH	Borehole
BPD	Bomb Penetration Depth
CDP	Cast Driven Piles
CFA	Continuous Flight Auger
CIRIA	Construction Industry Research and Information Association
CPT	Cone Penetration Testing
CS	County Series
EO	Explosive Ordnance
EOC	Explosive Ordnance Clearance
EOD	Explosive Ordnance Disposal
GI	Ground Investigation
GIS	Geographic Information Systems
GL	Ground Level
GP	General Purpose
GPS	Global Positioning Systems
HAA	Heavy Anti-Aircraft
HE	High Explosive
HO	Home Office
HSE	Health and Safety Executive
IB	Incendiary Bomb
kg	Kilograms
km	Kilometres
LAA	Light Anti-Aircraft
LCC	London County Council
LE	Low Explosive
LSA	Land Service Ammunition
m	Metres
MoD	Ministry of Defence
mm	Millimetres
NEQ	Net Explosive Quantity
NFF	National Filling Factory
NGR	National Grid Reference
OD	Ordnance Datum
OS	Ordnance Survey
PM	Parachute Mine
PoW	Prisoner of War
RADAR	Radio Detection And Ranging
RAF	Royal Air Force
RN	Royal Navy
RNAS	Royal Naval Air Service
ROF	Royal Ordnance Factory
SAA	Small Arms Ammunition
TA	Territorial Army
TNT	Trinitrotoluene
UK	United Kingdom
UN	United Nations
USAAF	United States Army Air Force
UXB	Unexploded Bomb
UXO	Unexploded Ordnance
V	Weapons Vergeltungswaffe– Vengeance Weapons
WD	War Department
WWI	World War One
WWII	World War Two
ZAA	'Z' Anti-Air Rocket Battery

UK UXO Risk Mitigation Process



1. Executive Summary

1.1 Site Overview

The client has specified the site location as Maple House, Potters Bar and is approximately centred on the National Grid Reference: TL 25943 00965.

RMS UXO Limited, (RMS UXO) was commissioned by A-Squared Studio Engineers Limited and Chase New Homes to conduct an Unexploded Ordnance (UXO) Desk Study Risk Assessment for Maple House, Potters Bar. The primary objective of this document is to evaluate the UXO risks present at the specified site and its surrounding areas, in compliance with the Construction Industry Research and Information Association (CIRIA) C681 guide on 'Unexploded Ordnance (UXO), a Guide for the Construction Industry'.

1.2 Proposed Works

The proposed works outlined by the client include Borehole Drilling and Window Sampling.

1.3 Summary of Available Information

- During WWII, the Borough of Potters Bar sustained a low-moderate density bombing campaign according to The National Archives statistics, with an average of 33 items of ordnance recorded per 1,000 acres.
- There are 18 bombing incidents known to have occurred within a 50om radius of the site, with the closest being recorded on the site. There is a possibility that additional HE bombs, UXBs and IB clusters may have struck certain areas of the site unrecorded due to open ground across parts of the site and bombing debris, masking any evidence of such strikes. Incendiary bomb showers were not recorded within these records and therefore may also pose a risk to the site. The open areas on site being the main risk pathway. It should also be noted that abandoned bombs and UXBs were recorded in the wider surrounds to the site.
- Middlesex County Council bomb damage mapping indicates the structures on site sustained moderate levels of damage, with structures adjacent to the site also suffering higher levels of damage. As the site largely consisted of undeveloped ground, bomb damage mapping will not have recorded any further damage in these areas.
- High-resolution aerial photographs around the Potters Bar area before WWII is unavailable. A high-resolution aerial photograph around the Potters Bar area in 1999 shows the site in its modern-day composition, this corroborates with the post-war OS mapping of a similar date.
- The structures on site are anticipated to have received moderate levels of access and observation due to their residential nature. However, during any bombing raids the anticipated level of access would have dropped significantly, and the chance of observing a bomb strike to the open ground on site in the west is low. The open areas are unlikely to have experienced frequent and regular access during WWII, with some areas potentially experiencing no access at all.
- RMS UXO's geo-referenced database has not identified Allied defensive features within an approximate 1km radius, therefore the risk from LSA and SAA is negligible.
- There are HAA batteries within proximity to the site where unexploded HAA may have landed unnoticed.
- No evidence has been located to suggest that the site formerly had any military occupation or usage that could have led to contamination with items of British / Allied ordnance.

- During post-war development works, there are no records of UXO being found on site.
- The potential for lateral offset of an air delivered bomb, or "J-curve" as it is often referred to, has been considered as part of the overall assessment and included in the risk zones applied within this report.

1.4 Risk Assessment Summary

Risk Level
Medium

Table 1.4.1 - Risk Assessment – Zone 1

Type of work	Potential Hazard	Likelihood (L)	Severity	Risk Rating	Risk Zone
Future developments	HE Bombs	2	5	10	Medium
Future developments	IBs	1	4	4	Low
Future developments	HAA	1	5	5	Low

The risk associated with UXOs is partially mitigated to the exact depths of post-war redevelopment within the structures' foundations and the hard standing. Although the exact depth of these works is unknown until site investigation has taken place and further assessment conducted.

Risk Level
Low

Table 1.4.2 - Risk Assessment – Zone 2

Type of work	Potential Hazard	Likelihood (L)	Severity	Risk Rating	Risk Zone
Future developments	HE Bombs	1	5	5	Low
Future developments	IBs	1	4	4	Low
Future developments	HAA	1	5	5	Low

Risk Map:

The below risk map details differing areas of risk based upon the Risk Matrix calculations as detailed in section 5. The medium risk area is georeferenced and centred on the NGR: TL 25943 00965.



Key:	
Zone 1 – Medium Risk	
Zone 2 – Low Risk	

1.5 Project Specific Recommendations

The table below provides the recommended methods of UXO risk mitigation required to adequately mitigate the risk of UXO for the project in line with the scope of works detailed within the report and is in accordance with the CIRIA 681 Guidelines.

	Table 1.5.1 MITIGATION METHOD – Medium Risk Areas	YES	TBC*
	Project Specific Risk Mitigation Strategy A project specific overarching strategy to manage UXO project risk on more complex sites. Developed in line with the client's construction plan and methods of construction to be used.	✓	
	Safety Awareness Briefings Explosive Ordnance Safety and Awareness Training is provided to site personnel to make them aware of the potential threat from UXO on the work site, what UXO might look like and what to do if suspected UXO is encountered.	✓	
	Site Specific Safety Instructions – Emergency Response Plan Provides site management teams the training, information and guidance to respond to a UXO related incident. Delivered by	✓	

	Table 1.5.1 MITIGATION METHOD – Medium Risk Areas	YES	TBC*
	experienced EOD qualified personnel and often employed alongside an on-call offsite EOD responder.		
	On-call EOD Engineer – Off-site Responder A retained service whereby a qualified EOD engineer will respond to a suspicious find on-site.		✓
	Onsite EOD Engineer – Support to Site Investigation Providing Realtime on-site EOD support to site investigation activities. Delivering safety briefings & employing handheld survey instruments ahead of trial pit excavations, drilling activities etc.	✓	
	Onsite EOD Engineer- Watching Brief Providing a reactive on-site support where pro-active UXO risk mitigation measures, are not practical. Supervising all open/bulk excavations, responding to suspicious finds & managing UXO related incidents.	✓	
	Non-Intrusive Survey The collection of survey data which is then processed & interpreted offsite. The purpose of the survey is to locate sub-surface anomalies/targets which may be UXO related. Usually employed on greenfield sites or sites which have not previously been developed.	✓	
	Intrusive Survey For sites where a non-intrusive UXO survey cannot reach the maximum depth of UXO risk, or the site is not suitable for a non-intrusive survey such as a brownfield site the intrusive UXO survey provides a suitable alternative. Designed to survey point specific locations where deep engineering works are being undertaken such a piling, pile clusters and sheet piled walls.	✓	
	Data Management Data processing, Interpretation or QA (of third-party survey data) The processing and interpretation of third-party survey data for the purpose of UXO clearance.	✓	
	Target Investigation The investigation of anomalies/targets identified by previously undertaken surveys. Conducted by a two-man EOD team using handheld locators/detectors.		✓
	UXO Removal & Disposal The removal from site of safe to move or inert items of UXO for disposal off-site.		✓
	UXO Disposal The disposal of UXO onsite. This may be through explosive means, burning or mechanical dismantling methods.		✓

	Table 1.5.3 MITIGATION METHOD – Low Risk Areas	YES	TBC*
	Safety Awareness Briefings Explosive Ordnance Safety and Awareness Training is provided to site personnel to make them aware of the potential threat from UXO on the work site, what UXO might look like and what to do if suspected UXO is encountered.	✓	
	Site Specific Safety Instructions – Emergency Response Plan	✓	

	Table 1.5.3 MITIGATION METHOD – Low Risk Areas	YES	TBC*
	Provides site management teams the training, information and guidance to respond to a UXO related incident. Delivered by experienced EOD qualified personnel and often employed alongside an on-call offsite EOD responder.		
	On-call EOD Engineer – Off-site Responder A retained service whereby a qualified EOD engineer will respond to a suspicious find on-site.		✓
	UXO Removal & Disposal The removal from site of safe to move or inert items of UXO for disposal off-site.		✓
	UXO Disposal The disposal of UXO onsite. This may be through explosive means, burning or mechanical dismantling methods.		✓

***Note: These are mitigation options that may be required as a result of either a non-intrusive or intrusive survey.**

For the complete list of UXO risk mitigation measures available please refer to section 6 within the report.

2. Project Context

2.1 Project Rational & Scope

Objective

The objective of this assessment is to evaluate the potential for encountering unexploded ordnance (UXO) at the Maple House, Potters Bar during the proposed site investigations. This assessment adheres to the UXO risk management process and follows CIRIA Guidelines.

Aims

The primary aim of this report is to examine the likelihood of encountering explosive ordnance during the planned works at Maple House, Potters Bar. Based on the findings, risk mitigation measures will be recommended to either eliminate or minimize the threat from UXO.

Issues Addressed

The report will focus on the following key issues:

- The risk of UXO contamination at the site.
- The possibility of remaining UXO on site.
- The potential for encountering UXO during intrusive works.
- The risk of ordnance initiation.
- The consequences of initiating or encountering ordnance.
- Appropriate risk mitigation measures will be recommended, contingent on the assessed level of risk and specific site conditions.

Tasks:

- **Preliminary Site Assessment:** Conduct an initial review of historical data and previous studies related to the site.
- **Data Collection:** Gather relevant data through field surveys etc.
- **Data Analysis and Risk Assessment:** Analyse the collected data to identify UXO threats and assess risks.
- **Mitigation Planning:** Develop a set of tailored risk mitigation measures.

Responsibilities:

- RMS UXO will be responsible for all data collection, analysis, and reporting.
- The client is responsible for providing access to the site and any existing data or reports.

Limitations and Assumptions:

- The assessment is based on the data available at the time of the study.
- Any changes in project scope or site conditions must be communicated to RMS UXO for re-assessment.

3. Methodology

3.1 Methods

Risk Assessment Process

Our risk evaluation employs a systematic methodology, focusing on several crucial aspects:

- Assessing historical UXO contamination at the location.
- Assessing the likelihood – pathways for UXO to have contaminated the site.
- Assessing the likelihood of UXO being still present
- Estimating the likelihood of encountering UXO during upcoming activities.
- Assessing the chances of UXO functioning as designed.
- Understanding the implications of either encountering or UXO detonating.

To comprehensively cover these aspects, we've considered:

- Past records of bombings and military engagements.
- Conditions and historical context of the site during times of conflict.
- Post-conflict developments and any documented UXO removal efforts.
- The characteristics and scale of the planned activities.
- The variety of munitions that could have affected the area.

Sources of Information

To ensure a thorough and comprehensive report, material from the following sources has been consulted:

- The National Archives.
- Local Historical Archives.
- Relevant Government Departments.
- Information provided by client.
- RMS UXO's comprehensive historical archives and UXO geo-database.
- Open sources such as published books and internet resources.

Reliability and Limitations

As of the date this document was issued, all contained information is verified to be both current and accurate. Our databases undergo systematic updates to include the most recent data, and RMS UXO has employed rigorous precision and specialised expertise in the creation of this document.

Our risk evaluations are grounded in thorough investigation and supported by data from multiple, verified external sources. While every measure has been taken to ensure the reliability of this data, it is understood that historical records may contain inherent limitations. Consequently, RMS UXO disclaims liability for any inaccuracies present in external data sets beyond our purview.

4. Site Profile

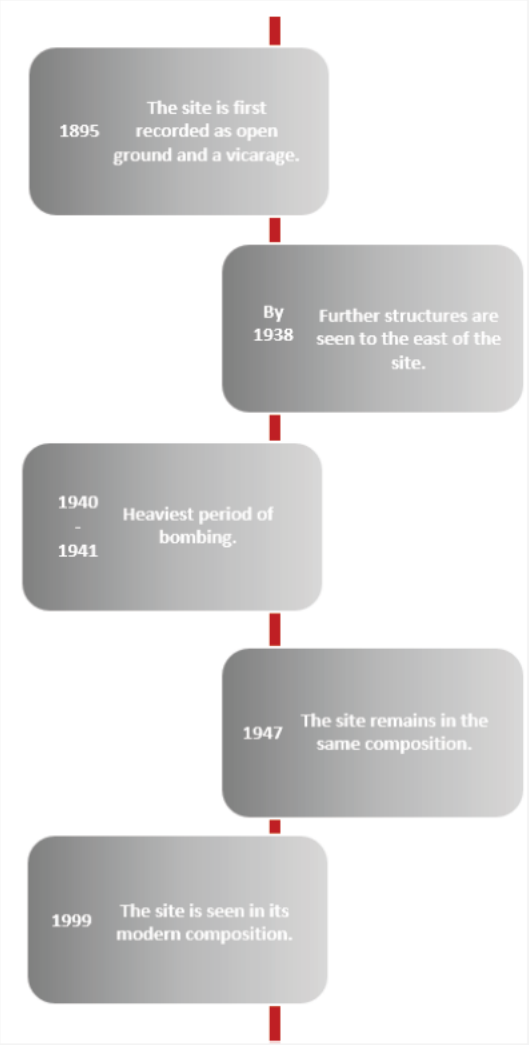
4.1 Location

The Client has defined the site as Maple House, Potters Bar and is approximately centred on the National Grid Reference: TL 25943 00965.

The site is situated in the Borough of Potters Bar, approximately 950m south-east from Potters Bar Station.



4.2 Historical Context & Previous Studies



Military Activity & WWII Site Utilisation: The site has not been identified as an area of military activity during the war.

Bombing Decoys: Records indicate no bombing decoys in the immediate area.

Air Delivered Ordnance: Archival records confirm the deployment of HE and Incendiary bombs via aerial delivery in the vicinity of Potters Bar between 1940 and 1945. 18 HE bomb strikes recorded to have occurred within an approximate 500m radius of the site; the closest of these being recorded on the site. Incendiary bomb showers were not recorded within these records and therefore may also pose a risk to the site. The open areas on site being the main risk pathway.

Anti-Aircraft Defences: There are 17 Heavy-Anti-Aircraft (HAA) gun batteries located within an approximate 15 kilometres radius from the site. These pose a risk of UXO contamination primarily due to storage of ammunition and partially due to searchlights rendering them clear targets for bombing at night. The closest is located approximately 5.9km south-east of the site with the main risk associated with this site is that unexploded HAA shells can land up to an average of 15km from the firing point.

Aerial Photography: High-resolution aerial photographs around the Potters Bar area are unavailable, as such establishing accurate ground conditions Is not possible.

Access to the Site: The structures on site are anticipated to have received moderate levels of access and observation due to their residential nature. However, during any bombing raids the anticipated level of access would have dropped significantly, and the chance of observing a bomb strike to the open ground on site in the west is low. The open areas are unlikely to have experienced frequent and regular access during WWII, with some areas potentially experiencing no access at all.

Bomb Damage Maps: Middlesex County Council bomb damage mapping indicates the structures to the east of the site sustained moderate levels of damage, with structures adjacent to the site also suffering higher levels of damage. As the site largely consisted of undeveloped ground, bomb damage mapping will not have recorded any further damage in these areas.

Pre-WWII Maps: Historical maps dated 1935, have been consulted and show the site comprised a mixture of structures, including a vicarage and some likely residential structures. There is also open, undeveloped ground recorded to the west of the site.

Post-War Maps & Historical Records: A thorough review of post-WWII maps and historical records show post-war the site retained its pre-war composition until at least 1970's.

Modern Development: Further development has comprised the construction of further structures to the centre and west of the site. By 1999 the site is seen in its modern composition.

Intentional or Unintentional Disposal: Records indicate no instances of disposal of UXO, within the confines of site. However, due to UXO finds in the wider study area of Potters Bar this cannot be entirely discounted.

4.3 Proposed Work & Risk Pathways

The planned activities at Maple House, Potters Bar encompass various intrusive engineering tasks, such as Borehole drilling. These tasks inherently create risk pathways for potential encounters with Unexploded Ordnance. The probability of encountering UXO is contingent upon the type and depth of the intrusive work being conducted. Consequences of UXO initiation could range from critical injuries to personnel to substantial damage to equipment and project delays. To mitigate these risks, a comprehensive approach will be employed, considering historical data, site-specific conditions, and previous UXO clearance operations. Tailored risk mitigation strategies will be developed to address the unique risk pathways associated with the proposed work. Considering the range of UXO that could exist within the site, boring could introduce a high-risk scenario. While not every UXO encountered in this manner is guaranteed to activate upon contact, the discovery of one could have severe repercussions. These could range from endangering personnel and damaging equipment to causing substantial delays in project timelines.

4.4 Potential Hazards

German Air Delivered Ordnance

To gain a comprehensive understanding of the impact of air raids on Potters Bar during wartime, a comprehensive examination of record sets was conducted at the National Archives and within online sources.

World War I

WWI bombs were smaller and dropped from a lower altitude, resulting in limited penetration depths. The risk of encountering unexploded WWI bombs today is very low.

World War II

Primary strategic targets in Britain included airfields, depots, docks, warehouses, wharves, railways, factories, and power stations. Later in the war the Luftwaffe bombing started to include civilian areas and sites of cultural and historical significance.

The most intensive period of bombing over Potters Bar occurred between October 1940 and May 1941, a phase known as "The Blitz." With an estimated total of 18,000 tons of bombs were dropped on London from 1940 to 1945.

WWII Home Office Bombing Statistics

The table below shows the quantity of German aerial delivered bombs (excluding 1kg incendiaries and anti-personnel bombs) dropped on the area of Potters Bar from 1940 to 1945.

Table 4.1 - Record of German Ordnance Dropped on Potters Bar	
Area (Acres)	6129
High Explosive Bombs	174
Parachute Mines	2

Oil Bombs	10
Phosphorus Bombs	15
Fire Pots	0
V1	3
V2	1
Total	205
Bombs per 1000 Acres	33

During WWII, the Borough of Potters Bar sustained allow-moderate-density bombing campaign according to The National Archives statistics, with an average of 33 items of ordnance recorded per 1,000 acres.

Records of the 1kg incendiary and anti-personnel bombs were not routine as they were too numerous to record. Although risk from IB's is less than that of HE bombs they were still designed to harm. Anti-personnel bombs are rare to find today but are potentially more dangerous. Although statistics for these bombs were not often recorded, it is important to carefully consider when evaluating risk to personnel and equipment.

Primarily HE bombs are most commonly associated with historical military activities in the area of Potters Bar. These UXO items are typically found in undisturbed soil, up to a standard depth of 9m.

4.2	Type of UXO	Characteristics
HE	High Explosive Bombs	The most commonly deployed German High Explosive (HE) bombs during WWII were the SC50, with 97% of all bombs dropped being in the 50kg, 250kg, and 500kg range. These bombs, which comprised 40-50% explosive fill, were capable of creating entry holes as small as 20cm in diameter and could easily penetrate the ground if they failed to detonate on impact. HE bombs were the primary ordnance used by the Luftwaffe in terms of weight. Post-air raid assessments often struggled to identify unexploded ordnance (UXO) due to the extensive damage caused by detonated bombs, which sometimes rendered the small entry holes of UXO undetectable, especially in certain ground conditions. This is further complicated as Air Raid Precautions (ARP) documents highlight the risk of misidentifying large UXO damage as resulting from an exploded 50kg bomb. As a result, UXO pose a significant risk to current intrusive works.
LIB	Large Incendiary Bombs	Large Incendiary Bombs (IBs) were less common than the 1kg variants but were used more frequently than Parachute Mines and Anti-Personnel bomblets. In instances where these large IBs penetrated the ground, complete combustion did not always take place. As a result, they could remain a hazard for any intrusive works, maintaining a risk due to their potential unburnt components.
IB	1kg Incendiary Bombs	In terms of the number of weapons dropped, small IBs were the most numerous. Millions of these were dropped throughout WWII. Large IB's were not as common as the 1kg IBs, although they were more frequently deployed than PMs and AP bomblets.
PM	Parachute Mine or G Mine	These were deployed less frequently than HE and IBs due to size, cost, and the difficulty of deployment
AP	SD-2 Anti-Personnel Bomblets	Anti-Personnel (AP) bomblets, though not widely used, are generally regarded as posing a low risk to most operations in the UK. The SD2 bomblets, typically packed in containers with 6 to 108 submunitions, had limited ability to penetrate the ground. They would have likely been identified during post-raid surveys, barring instances where they landed in

4.2	Type of UXO	Characteristics
		water, dense vegetation, or amidst bomb rubble, where their detection might have been more challenging
V-1	Vergeltungswaffe-1, Flying Bomb, Buzz Bomb, or Doodlebug	The V-1 was a pivotal advancement in military weaponry during WWII. It holds the distinction of being the first guided missile utilized in the conflict, serving as a precursor to modern cruise missiles. This innovative design was propelled by a pulsejet, marking a significant technological breakthrough at the time
V-2	Vergeltungswaffe 2 (Reprisal Weapon 2)	The V-2 was the first ballistic missile in military history. It was predominantly employed by the German Army against Belgian and British targets during the latter stages of World War II. Notably, the V-2 holds the distinction of being the first man-made object to reach space, achieving an altitude of 189 km (117 miles) during test flights in 1944.

German Air-delivered Ordnance Failure Rate

It has been estimated that approximately 10% of the HE bombs dropped during WWII failed to explode as designed. This estimate is probably based on the statistics of wartime recovered UXBs and therefore will not have taken account of the unknown numbers of UXBs that were not recorded at the time and is probably an underestimate.

The reasons for failures include:

- Fuse or gaine malfunction due to manufacturing fault, sabotage (by forced labour) or faulty installation.
- Clockwork mechanism failure in delayed action bombs.
- Failure of the bomber aircraft to arm the bombs (e.g. charge the electrical condensers which supplied the energy to initiate the detonation sequence) due to human error or equipment defect.
- Jettison of the bomb before it was armed or from a very low altitude.

Allied Explosive Ordnance

The potential risk of encountering Allied ordnance on construction sites is particularly high in areas with a history of military activity, including munitions from military exercises, poor disposal practices, or defensive placements against enemy occupation. Such areas may contain remnants like Land Service Ammunition (LSA) and Small Arms Ammunition (SAA).

While there's no evidence of military use at the specific site in question that could lead to contamination with Allied ordnance, urban areas like this one are still at risk from unexploded Anti-Aircraft projectiles from WWII. This is particularly relevant considering the Ministry of Defence's WWII defence tactics against the Luftwaffe, which involved heavy and light anti-aircraft artillery and 'Z' batteries to protect major towns, cities, and strategic locations. The table below offers further details on these defence systems and the associated risks.

4.3	Type of UXO	Characteristics
LSA	Land Service Ammunition	LSA resulting from historic military activity is commonly encountered across the UK by the public and construction industry alike. Such finds are much more common in rural areas than in urban environments and can often be anticipated in areas such as former RAF stations or ranges. However, many such items are encountered entirely by surprise where the landowner or developer has no knowledge of any previous military use of the land.

4.3	Type of UXO	Characteristics
	Mortars	A mortar is typically a simple, lightweight, man-portable, muzzle-loaded cannon, consisting of a smooth-bore metal tube fixed to a base plate (to spread out the recoil) with a lightweight bipod mount and a sight. Mortars are typically used as indirect fire weapons for close fire support with a variety of ammunition. Mortars launch high explosive or carrier shells in high-arching ballistic trajectories.
	Grenades	A grenade is a small explosive weapon typically thrown by hand (also called hand grenade) but can also refer to a shell (explosive projectile) shot from the muzzle of a rifle (as a rifle grenade) or a grenade launcher.
	Mines	A landmine is an explosive weapon often concealed under or camouflaged on the ground and designed to destroy or disable enemy targets as they pass over or near it. Land mines are divided into two types: anti-tank mines, which are designed to disable tanks or other vehicles; and anti-personnel mines, which are designed to injure or kill people
	Rockets	During World War II, a variety of rockets were mounted on planes, including air-to-air rockets, air-to-surface rockets, and guided bombs
SAA	Small Arms Ammunition	The most common type of ordnance encountered on land used by the military are items of Small Arms Ammunition (SAA). SAA refers to the complete round or cartridge designed to be discharged from varying sized hand-held weapons such as rifles, machine guns and pistols. SAA can include bullets, cartridge cases and primers/caps
	.303	It was the standard British and Commonwealth military cartridge for rifles and machine guns (Bren Gun) from 1889 until it was replaced by the 7.62×51mm NATO in the 1950s.
	7.92mm BESA	The British military's Besa machine gun was chambered for the 7.92×57mm Mauser and was used in armoured vehicles during World War II.
	9x19mm	These rounds were issued for use with Sten guns, the Lanchester sub machine gun and the Browning Hi Power pistol and were produced in huge quantities.
	20mm Hispano	Used in the Hispano 20mm Cannon, which was installed in various fighter planes including the spitfire and the hurricane.
	20mm Oerlikon	A semi-rimmed round that was used in the 20mm Oerlikon gun, which was a key weapon in defending ships and aircraft. During WWII, twin and quadruple Oerlikon mounts were developed, both for army and for navy use

4.4	Type of UXO	Characteristics
AAA	Anti-Aircraft Artillery	At the start of WWII, two types of AAA guns were deployed: Heavy Anti-Aircraft Artillery (HAA), firing large shells (3.7" plus calibre) and Light Anti-Aircraft Artillery (LAA) employing smaller calibre weapons, firing .303", 20mm and 40mm shells.
LAA	Light Anti-Aircraft	The Light Anti-Aircraft (LAA) artillery, notably the 40mm Bofors and 20mm Oerlikon guns, played a significant role in WWII, primarily targeting fast, low-flying aircraft. These mobile units were strategically repositioned along town perimeters and near key industrial sites, enhancing their operational flexibility. However, this mobility results in limited historical records regarding their exact locations. The 40mm Bofors gun, widely utilized due to its capacity to fire up to 120 projectiles per minute over a range of 1,800 meters, was a common fixture. The RAF Regiment initially employed the 20mm Oerlikon gun, capable of discharging up to 330 rounds per minute up to 4,000 meters,

4.4	Type of UXO	Characteristics
		before gradually integrating the Bofors gun from 1943 onwards, often maintaining a mix of both types until the end of the war. All Allied military airfields were fortified with these LAA batteries, strategically placed in isolated positions to optimize defence during aerial attacks. The primary function of these batteries was to intercept fast, low-flying German fighter bombers. The ammunition used in LAA batteries consisted of small projectiles equipped with contact fuses and either a high-explosive or incendiary charge, designed to detonate upon impact. In instances where these projectiles failed to hit their intended targets, they would fall back to the ground with their charges intact. Despite their reduced risk compared to larger ordnance, the 40mm projectiles, resembling large-calibre small arms ammunition, still pose a considerable safety concern.
HAA	Heavy Anti-Aircraft	Heavy Anti-Aircraft (HAA) batteries, equipped with large guns like the 3.7" Quick Firing (QF), were strategically positioned for engaging high-flying bomber aircraft. These installations, often permanent gun emplacements, were a key component of the UK's aerial defence during WWII. In addition to firing large High Explosive (HE) projectiles, triggered by various fuses including impact, area and time delay mechanisms, local ammunition caches were commonly situated near strategic location like defended roadblocks or pillboxes. The closest HAA Batteries to the site in question is located approximately 5.9 kilometres to the south-east, yet their effective range was up to 15km. This proximity and operational range underscore the potential risk of encountering Allied ordnance, especially in areas with a historical military presence.
ZAA	Z (Rocket) Batteries:	A Z-Battery comprised a grid formation of 64 rocket projectors which fired 2" and later 3" Unrotated Projectile (UP) rockets to a maximum altitude of 5,800m; a ground range of some 9,000m. They were deployed in cities all around the UK from 1941 and proved to be an effective addition to the existing AA guns. The rockets measured 0.9m (2") and 1.8m (3") in length with four stabilising fins at the base and were fitted with 3.5kg or 8.2kg HE warheads. The larger warhead had an effective airborne blast radius of up to 20m. Some variants deployed a form of aerial mine described as a "small yellow bomb" which was designed to detach from the rocket at height and descend on a parachute with the objective of becoming snagged on target aircraft and then detonating.

4.5 Site Geology & Bomb Penetration Depth

Assessing ground conditions is a key factor in determining both the maximum penetration depths of unexploded ordnance (UXO) and the likelihood of hidden munitions.

Should there be any changes in site investigation protocols, construction methods, or focus areas within the project site, immediate communication with RMS UXO is advised. This action allows for a timely reassessment of existing UXO risks and the adjustment of risk mitigation plans. Certain soil and rock conditions, such as iron-rich or mineralised soils, can impact the effectiveness of UXO risk reduction methods like magnetometer surveys. Identifying the source of altered soil types is essential for accurately assessing the ground state at the time of potential UXO contamination. This information aids

in fine-tuning the calculations for average and maximum bomb penetration depths, thereby enabling more targeted risk reduction strategies in line with ALARP guidelines.

Table 4.5 - GROUND TYPE	DEPTH
Topsoil	0.0 – 0.5m
Sandy clay with stones	0.5 – 1m
Grey and brown clayey sand with small stones	1 – 2m
Yellow sand with small gravel	2 – 2.4m
Yellow sand with large gravel	2.4 – 3.6m
Soft yellow and blue clay	3.6 – 4.4m
Stiff brown with traces of blue clay	4.4 – 5.4m
Stiff brown clay	5.4 – 8.5m
Stiff/hard grey fissured clay	8.5 – 18.2, (end of borehole)

Following a review of the BGS borehole log "TL20SE22 – HIGH ST POTTERS BAR 2" (located on the site), RMS UXO have been able to provide an estimate of the likely maximum bomb penetration depth:

The estimated average bomb penetration depths accounting for ground composition are:

500kg	<8m

The estimated bomb penetration depth for 50kg and 250kg bombs would be expected to be at shallower depths.

The calculation of bomb penetration depths involves several key factors.

These factors include the bomb being dropped from a significant height, leading to an impact speed of 260 m/s from heights above 5,000m. The angle of impact with the ground varies between 10 and 15 degrees from the vertical, and the bomb remains stable during its descent and upon ground penetration. Additionally, no slowing mechanisms are attached to the bomb, and the soil composition is consistent. When released from a high altitude, the bomb generally enters the ground at an angle of 10 to 15 degrees to the vertical. It maintains this angle until its momentum is nearly depleted, at which point it shifts suddenly to a horizontal position before coming to rest. The term 'offset' refers to the gap between the centre of the entry hole and the bomb's final position. Significant sideways movement from the initial entry path is not uncommon. For attacks from lower altitudes, the angle of impact can be 45 degrees or more, often resulting in increased lateral movement during penetration.

Determining the average impact velocity of World War II bombs like the 50kg, 250kg, and 500kg high-explosive (HE) bombs is not straightforward due to several factors, including the altitude from which they were dropped, their design/shape, and the mediums they passed through.

4.6 Lateral Off-set or 'J-Curve'

The lateral off-set, or 'J-curve' effect, is an important aspect of bomb trajectory, primarily influenced by the bomb's interaction with the ground upon impact. Bombs would typically fall nose-first and result in a varied deceleration between the nose and tail upon contact with the ground with the nose slowing down before the tail. This differential in speeds leads to a notable shift in trajectory and often results in the bomb either achieving a horizontal orientation or, in certain scenarios, curving upward in a J-shaped trajectory.

The horizontal distance between the bomb's entry hole and its final resting position is known as the offset and is typically a distance of about one third of the bombs penetration depth for bombs dropped from high altitudes.

5. Risk Analysis

5.1 Analysis

For each type of investigative method that might be used, RMS UXO has carried out unique calculations to rate the risks. The risks associated with encountering and activating UXO can vary widely. These variations depend on several factors, including the amount of high-explosive material in the UXO and the intensity with which it is encountered. Ground investigation specific to this research location have been prepared to help analyse these risks, as the likelihood of encountering UXO can differ based on the nature of the intrusive activities being conducted.

5.2 Risk Levels and Interpretation

Risk Rating

RMS UXO's Risk Assessment gauges and categorises the dangers presented by the most likely hazardous items during various operations on the site. The Hazard Assessment Score is calculated by evaluating the likelihood of coming across UXO and the potential outcomes of triggering it.

Firstly, the probability of encountering UXO (PE) has been considered and rated for the different construction techniques, as detailed below. The probability of detonating a UXO (PD) has been considered and rated for the different construction techniques, as detailed below.

Table 5.1.1 - Probability of Encounter (PE)	Rating
Highly likely and frequent.	5
Probable and likely to happen.	4
Occasional, increased chance or probability.	3
Remote, unlikely to happen but could	2
Improbable, highly unlikely	1
Impossible	0

Table 5.1.2 - Probability of Detonation (PD)	Rating
Highly likely and frequent.	5
Probable and likely to happen.	4
Occasional, increased chance or probability.	3
Remote, unlikely to happen but could.	2
Improbable, highly unlikely.	1
Impossible	0

Next, the probability of encountering and detonating the UXO (PE x PD) has been used to generate an overall likelihood rating (L).

Each potential risk has been assessed separately to generate the overall likelihood of encountering and detonation a UXO:

For the purpose of this risk assessment, the following values have been applied;

Zone 1:

- German HE Bombs - PE= 3 and PD= 3. Therefore, the overall likelihood (L) = 9.
- IBs - PE= 2 and PD= 2. Therefore, the overall likelihood (L) = 4.

- HAA - PE= 2 and PD= 2. Therefore, the overall likelihood (L) = 4

Zone 2:

- German HE Bombs - PE= 2 and PD= 2. Therefore, the overall likelihood (L) = 4.
- IBs - PE= 2 and PD= 2. Therefore, the overall likelihood (L) = 4.
- HAA - PE= 2 and PD= 2. Therefore, the overall likelihood (L) = 4

Table 5.2 L = PE x PD	Likelihood of Encounter and Detonation	Rating
21 to 25	Frequent, highly likely, almost certain.	5
16 to 20	Probable, more likely to happen than not.	4
10 to 15	Occasional, increased chance or probability.	3
6 to 9	Remote, unlikely to happen but could.	2
1 to 5	Improbable, highly unlikely.	1
0	Impossible	0

L ranges from 25, a certainty of UXO being encountered and detonated on the site by engineering activity, to 0, a certainty that UXO does not occur on the site and will not be detonated by engineering activity.

The likelihood of encountering and detonating UXO during site works is multiplied by the severity of such an event occurring (L x S), in order to provide a risk level using the following matrix.

Table 5.3 - Severity (S)	Rating
Multiple fatalities	5
Major injury, long term health issues, single fatality	4
Minor injury, short term health issues, no fatalities.	3
First aid case but no lost time or ill health.	2
Minor injuries, no first aid.	1
No injuries.	0

This risk matrix is underpinned by historical data, site-specific conditions, and expert analysis. The likelihood and severity ratings assigned are not just theoretical estimates but are grounded in a detailed understanding of the site's past and present characteristics. These factors combine to form a risk profile that guides our UXO mitigation strategy and ensures all necessary precautions are tailored to the site's unique context.

The final risk assessment for the site is given in Table 5.5-5.6.

Table 5.4	Severity (s)					
Likelihood (L)		1	2	3	4	5
	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5

Risk Level
Medium

Table 5.5 - Risk Assessment – Zone 1

Type of work	Potential Hazard	Likelihood (L)	Severity	Risk Rating	Risk Zone
Future developments	HE Bombs	2	5	10	Medium
Future developments	IBs	1	4	4	Low
Future developments	HAA	1	5	5	Low

The risk associated with UXOs is partially mitigated to the exact depths of post-war redevelopment within the structures' foundations and the hard standing. Although the exact depth of these works is unknown until site investigation has taken place and further assessment conducted.

Risk Level
Low

Table 5.6 - Risk Assessment – Zone 2

Type of work	Potential Hazard	Likelihood (L)	Severity	Risk Rating	Risk Zone
Future developments	HE Bombs	1	5	5	Low
Future developments	IBs	1	4	4	Low
Future developments	HAA	1	5	5	Low

6. Risk Mitigation & Recommendations

6.1 Recommended Risk Mitigation Measures

The recommendation table below is provided as an overview of the methods required to adequately mitigate the risk of UXO and is in accordance with the CIRIA 681 Guidelines. All of the methods listed are acceptable methods of mitigating explosive risk but do have limitations and should be employed only if viable, interpretable data can be collected.

This is particularly true of intrusive surveys, carried out on sites which are not suitable for this type of method, be it as a result of the underlying strata not allowing sufficient depth penetration or the magnetic environment being too high for the sensors to adequately detect a bomb at the distances from the probe as specified. There is also a reluctance by UXO contractors to raise these constraints once identified on site as it is in their interest to have their survey rigs fully employed.

As this is a direct conflict of interest, RMS UXO has made the decision to not own survey rigs and offer this service, when appropriate, in partnership with UK market leading geotechnical providers – combining our UXO knowledge and our partners ground engineering expertise.

	Table 6.1 - MITIGATION METHOD – Medium Risk Areas	YES	NO	TBC*
1	**Project Specific Risk Mitigation Strategy** A project specific overarching strategy to manage UXO project risk on more complex sites. Developed in line with the client's construction plan and methods of construction to be used.	✓		
2	**Safety Awareness Briefings** Explosive Ordnance Safety and Awareness Training is provided to site personnel to make them aware of the potential threat from UXO on the work site, what UXO might look like and what to do if suspected UXO is encountered.	✓		
3	**Site Specific Safety Instructions – Emergency Response Plan** Provides site management teams the training, information and guidance to respond to a UXO related incident. Delivered by experienced EOD qualified personnel and often employed alongside an on-call offsite EOD responder.	✓		
4	**On-call EOD Engineer – Off-site Responder** A retained service whereby a qualified EOD engineer will respond to a suspicious find on-site.		✓	
5	**Onsite EOD Engineer – Support to Site Investigation** Providing Realtime on-site EOD support to site investigation activities. Delivering safety briefings & employing handheld survey instruments ahead of trial pit excavations, drilling activities etc.	✓		
6	**Onsite EOD Engineer- Watching Brief** Providing a reactive on-site support where pro-active UXO risk mitigation measures, are not practical. Supervising all open/bulk excavations, responding to suspicious finds & managing UXO related incidents.	✓		
7	**Non-Intrusive Survey** The collection of survey data which is then processed & interpreted offsite. The purpose of the survey is to locate sub-surface anomalies/targets which may be UXO related. Usually employed on greenfield sites or sites which have not previously been developed.	✓		

	Table 6.1 - MITIGATION METHOD – Medium Risk Areas	YES	NO	TBC*
8	**Intrusive Survey** For sites where a non-intrusive UXO survey cannot reach the maximum depth of UXO risk, or the site is not suitable for a non-intrusive survey such as a brownfield site the intrusive UXO survey provides a suitable alternative. Designed to survey point specific locations where deep engineering works are being undertaken such a piling, pile clusters and sheet piled walls.	✓		
9	**Search & Clearance** For areas where a non-intrusive survey is not viable or cost effective two-man UXO Specialist teams can be deployed to conduct a manual Search & Clear operation of the site location with handheld UXO detection equipment.		✓	
10	**Data Management** Data processing, Interpretation or QA (of third-party survey data) The processing and interpretation of third-party survey data for the purpose of UXO clearance.	✓		
11	**Target Investigation** The investigation of anomalies/targets identified by previously undertaken surveys. Conducted by a two-man EOD team using handheld locators/detectors.			✓
12	**UXO Removal & Disposal** The removal from site of safe to move or inert items of UXO for disposal off-site.			✓
13	**UXO Disposal** The disposal of UXO onsite. This may be through explosive means, burning or mechanical dismantling methods.			✓

	Table 6.2 - MITIGATION METHOD – Low Risk Areas	YES	NO	TBC*
1	**Project Specific Risk Mitigation Strategy** A project specific overarching strategy to manage UXO project risk on more complex sites. Developed in line with the clients construction plan and methods of construction to be used.		✓	
2	**Safety Awareness Briefings** Explosive Ordnance Safety and Awareness Training is provided to site personnel to make them aware of the potential threat from UXO on the work site, what UXO might look like and what to do if suspected UXO is encountered.	✓		
3	**Site Specific Safety Instructions – Emergency Response Plan** Provides site management teams the training, information and guidance to respond to a UXO related incident. Delivered by experienced EOD qualified personnel and often employed alongside an on-call offsite EOD responder.	✓		
4	**On-call EOD Engineer – Off-site Responder** A retained service whereby a qualified EOD engineer will respond to a suspicious find on-site.			✓
5	**Onsite EOD Engineer – Support to Site Investigation** Providing Realtime on-site EOD support to site investigation activities. Delivering safety briefings & employing handheld survey instruments ahead of trial pit excavations, drilling activities etc.		✓	
6	**Onsite EOD Engineer- Watching Brief**		✓	

	Table 6.2 - MITIGATION METHOD – Low Risk Areas	YES	NO	TBC*
	Providing a reactive on-site support where pro-active UXO risk mitigation measures, are not practical. Supervising all open/bulk excavations, responding to suspicious finds & managing UXO related incidents.			
7	**Non-Intrusive Survey** The collection of survey data which is then processed & interpreted offsite. The purpose of the survey is to locate sub-surface anomalies/targets which may be UXO related. Usually employed on greenfield sites or sites which have not previously been developed.		✓	
8	**Intrusive Survey** For sites where a non-intrusive UXO survey cannot reach the maximum depth of UXO risk, or the site is not suitable for a non-intrusive survey such as a brownfield site the intrusive UXO survey provides a suitable alternative. Designed to survey point specific locations where deep engineering works are being undertaken such a piling, pile clusters and sheet piled walls.		✓	
9	**Search & Clearance** For areas where a non-intrusive survey is not viable or cost effective two-man UXO Specialist teams can be deployed to conduct a manual Search & Clear operation of the site location with handheld UXO detection equipment.		✓	
10	**Data Management** Data processing, Interpretation or QA (of third-party survey data) The processing and interpretation of third-party survey data for the purpose of UXO clearance.		✓	
11	**Target Investigation** The investigation of anomalies/targets identified by previously undertaken surveys. Conducted by a two-man EOD team using handheld locators/detectors.		✓	
12	**UXO Removal & Disposal** The removal from site of safe to move or inert items of UXO for disposal off-site.			✓
13	**UXO Disposal** The disposal of UXO onsite. This may be through explosive means, burning or mechanical dismantling methods.			✓

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RMS UXO has consulted its internal databases, as well as reference books and archived information, to gather relevant data. Additionally, historic mapping and aerial photography were sourced from the National Archives and other relevant government offices. Information has also been obtained from local county councils and record offices.

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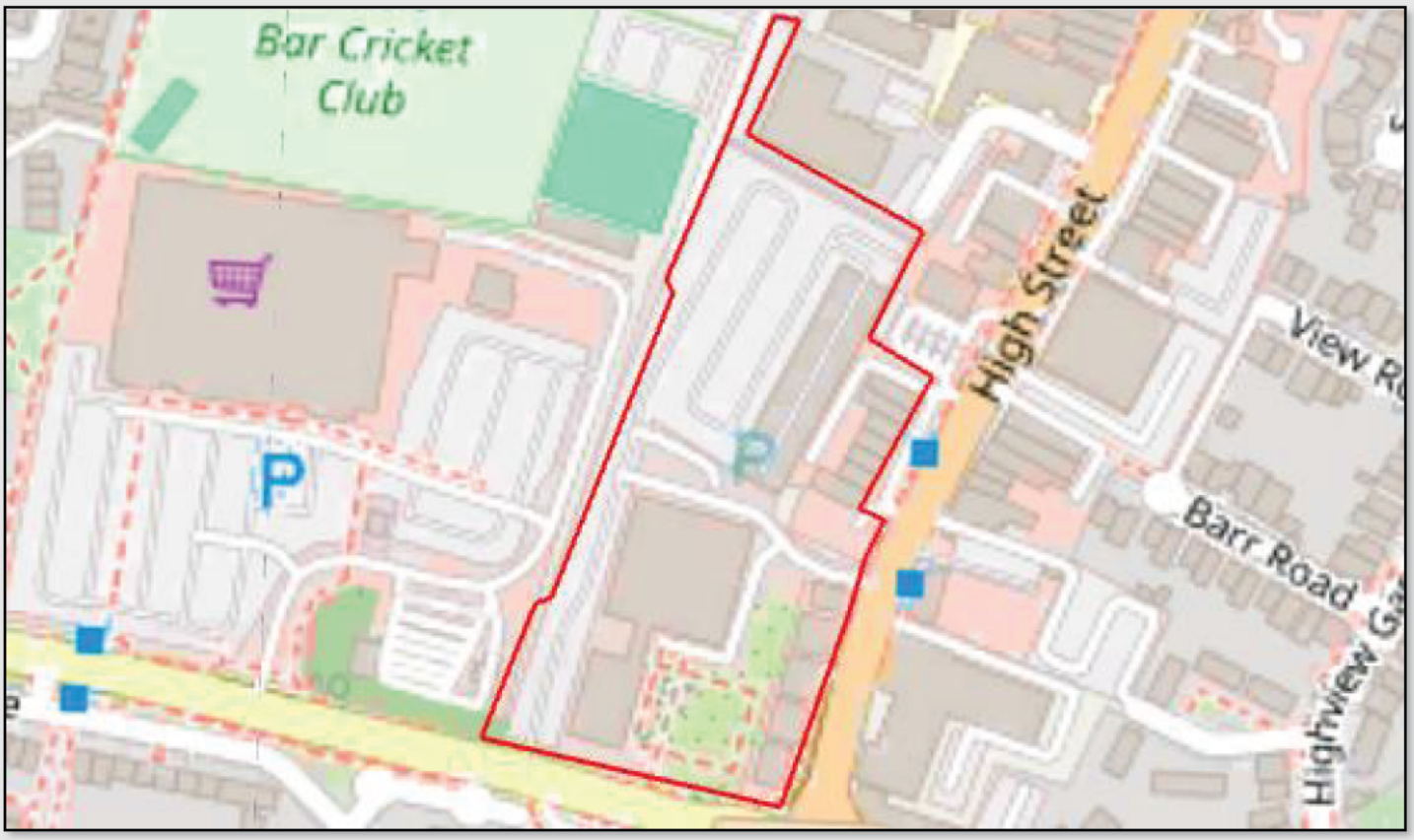
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This report has been constructed with professional thought and care by RMS UXO. Historical data has been meticulously collected and reviewed from third party sources. The validity of this information has been checked to the best of our ability, but RMS UXO holds no accountability for errors resulting from missing or incomplete information. Moreover, despite best efforts to compile a comprehensive historical dataset RMS UXO disclaims responsibility for any subsequent modifications to risk evaluations or mitigation proposals that may be necessitated by the discovery of additional information post factum.

SITE LOCATION

A-1





Approx. Site Boundary

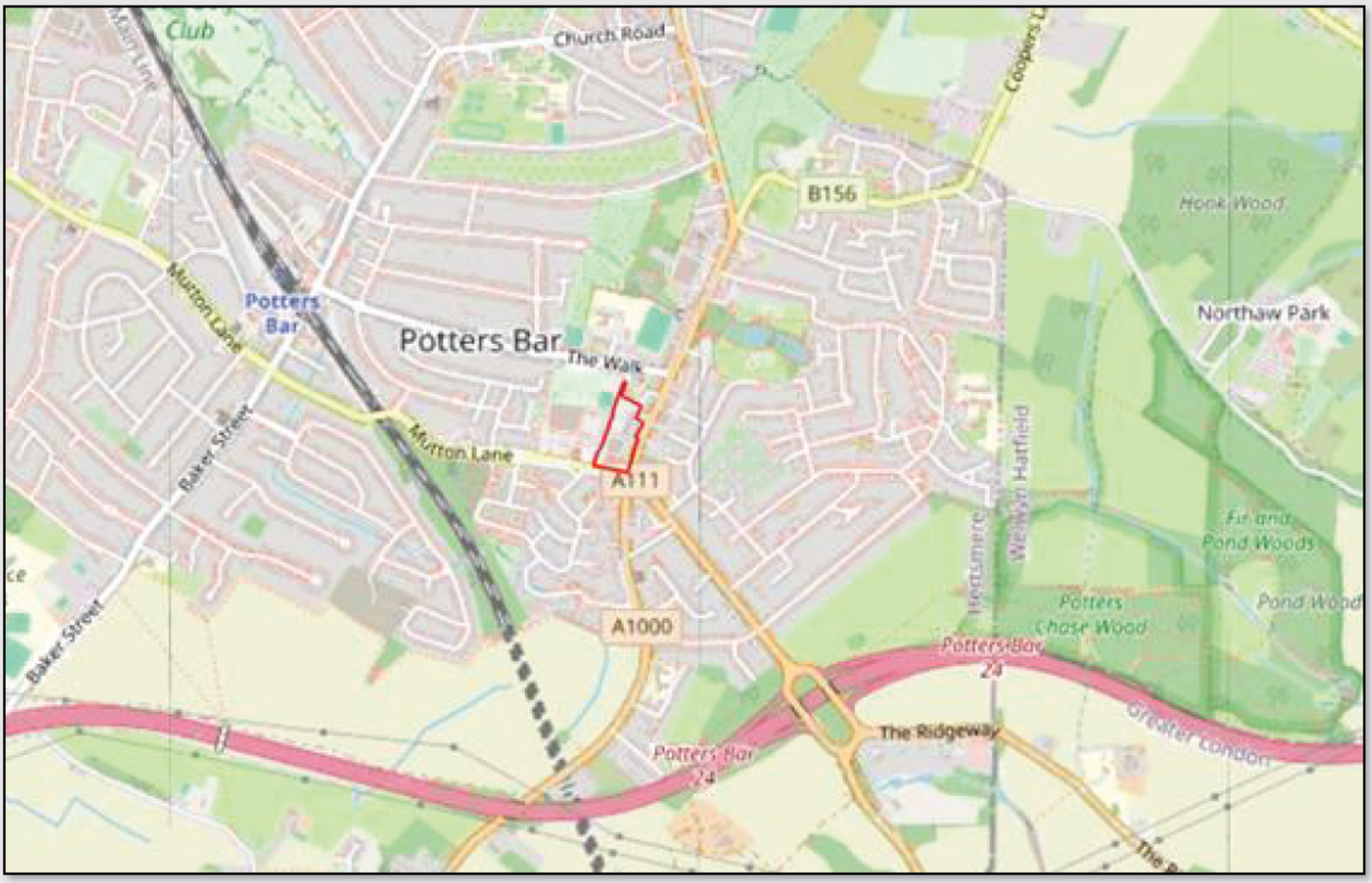
RMS UXO

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CLIENT: A-Squared Studio Engineers Limited and Chase New	PROJECT: Maple House, Potters Bar	DATE: 15/12/2025
SOURCE: Google Earth, OpenStreetMap	REPORT REFERENCE: INO6123	N

SITE LOCATION

A-2



Approx. Site Boundary	

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	SOURCE: OpenStreetMap	REPORT REFERENCE: INO6123	N



Bomb damage seen to a Public House approximately 220m south-east of the site.

Approx. Site Boundary	—

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A-Squared Studio Engineers Limited and Chase New	Maple House, Potters Bar	15/12/2025
SOURCE:	REPORT REFERENCE:	
Historic England	INO6123	

RECORDED BOMB STRIKES

A-4



Approx. Recorded HE Bomb Strike Locations	
Approx. Site Boundary	

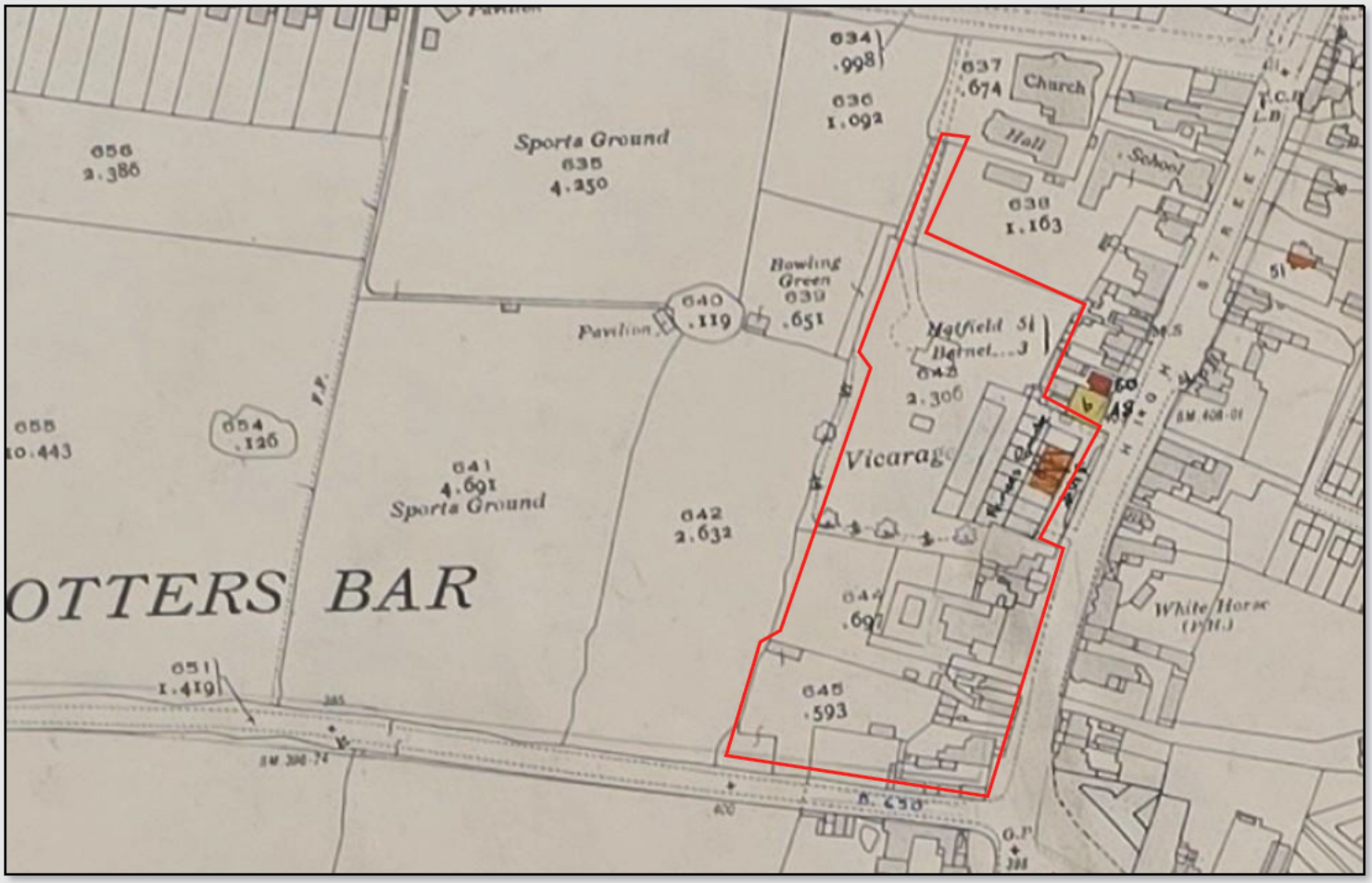
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SOURCE: RMS UXO Limited	REPORT REFERENCE: INO6123	N	

MIDDLESEX COUNTY COUNCIL (MCC) BOMB DAMAGE MAPPING

A-5



Key:



Category A which is a dark red for the most damage

Category B which is orange for mid-level damage

Category C which is yellow for the least damaged

Approx. Site Boundary	

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	SOURCE: London Metropolitan Archive	REPORT REFERENCE: INO6123	N

UXO RISK MAP

A-6



Key:	
Zone 1 – Medium Risk	
Zone 2 – Low Risk	

It should be noted that the risk is believed to have been partially mitigated to unknown depths from the construction of the structures and hardstanding. However, until details of the depths of the foundations are known the overall risk has been given as medium.

Risk Assessment Summary		
Type of work	Description	Risk Rating
Future development	Elevated likelihood of German HE UXBs remaining here. The Medium Risk areas lie approximately centred at the NGR: TL 25943 00965.	Medium
Future development	Low likelihood of German UXO remaining here	Low

Approx. Site Boundary	

RMS UXO

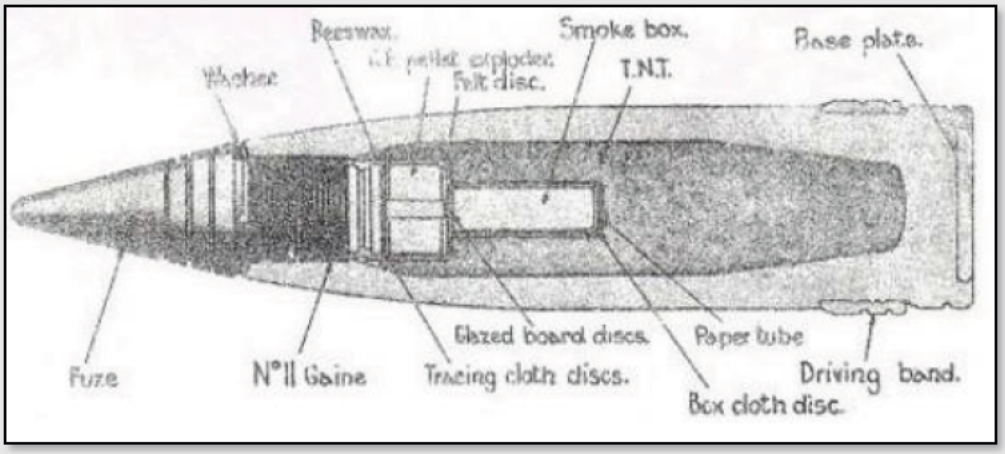
Produced by and Copyright to RMS UXO Limited

CLIENT:	PROJECT:	DATE:
A-Squared Studio Engineers Limited and Chase New	Maple House, Potters Bar	15/12/2025
SOURCE: Google Earth	REPORT REFERENCE: INO6123	N

3.7 Inch QF Anti-Aircraft Projectile







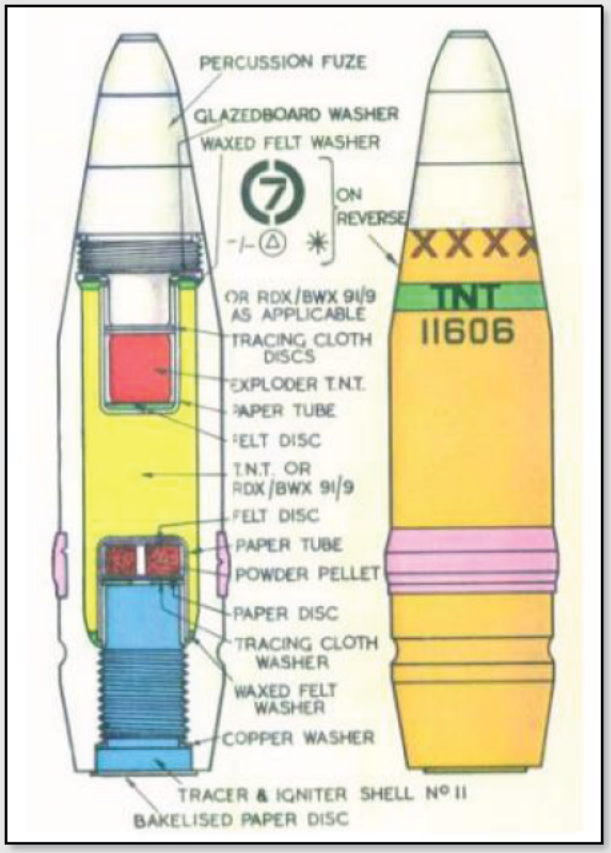
Total Weight	Projectile Weight 28lb (12.6 kg) Explosive Weight 2.52lbs
Dimensions	3.7in x 14.7in (94mm x 360mm) Rate of Fire 10 to 20 rounds per minute
Fuse Type	Mechanical Time Fuze
Use	The 3.7in AA Mks 1-3 were the standard Heavy Anti-Aircraft guns of the British Army. Ceiling 30,000ft to 59,000ft

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A-Squared Studio Engineers Limited and Chase New	Maple House, Potters Bar	15/12/2025
SOURCE:	REPORT REFERENCE:	
RMS UXO Limited	INO6123	

40mm Bofors Projectile







Total Weight	Projectile Weight 1.96lb (0.86kg) Explosive Weight 300g (0.6lb)
Dimensions	Dimensions 40 x 180mm
Fuse Type	Impact Fuze
Ceiling	23,000ft (7000m)
Remarks	Light quick fire high explosive antiaircraft projectile. Each projectile fitted with small tracer element. If no target hit, shell would explode when tracer burnt out. Designed to engage aircraft flying below 2,000ft

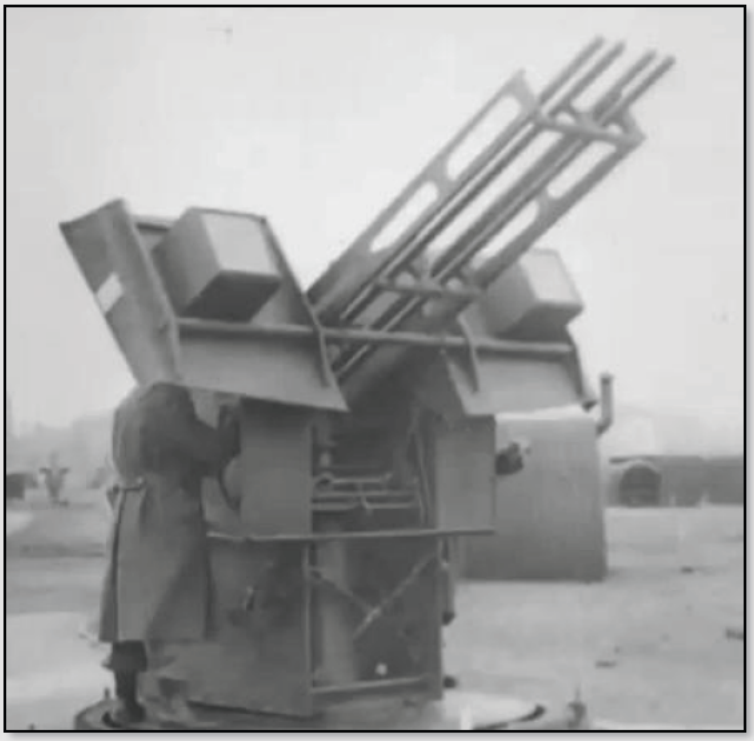
RMS UXO
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A-Squared Studio Engineers Limited and Chase New	Maple House, Potters Bar	15/12/2025
SOURCE:	REPORT REFERENCE:	
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3in Unrotated Projectile (UP) Anti-Aircraft Rocket ("Z" Battery)

This antiaircraft artillery, designed specifically for the Royal Navy, saw significant deployment in the initial stages of the Second World War. Known as the UP, it was not only utilised at sea but also found applications on land through single and 128-round launchers, commonly referred to as Z Batteries. The ammunition for this system features a cylindrical steel casing that tapers towards the bottom, equipped with external threading for secure attachment to the rocket motor's shell ring







RMS UXO

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SOURCE:	REPORT REFERENCE:	
RMS UXO Limited	INO6123	

SC 50

Bomb Weight: 40-54kg (110-119lb)

Explosive Weight: c25kg (55lb)

Fuze Type: Impact fuze/electro-mechanical time delay fuze

Bomb Dimensions:1,090 x 280mm (42.9 x 11.0in)

Body Diameter: 200mm (7.87in)

Use: Against lightly damageable materials, hangars, railway rolling stock, ammunition depots, light bridges and buildings up to three stories.

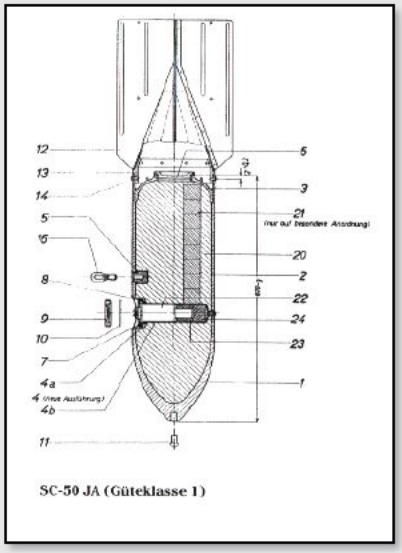
Remarks: The smallest and most common conventional German bomb. Nearly 70% of bombs dropped on the UK were 50kg.



50kg bomb, London Docklands



Minus tail section



SC 250

Bomb weight: 245-256kg (540-564lb)

Explosive weight: 125-130kg (276-287lb)

Fuze type: Electrical impact/mechanical time delay fuze.

Post-1943 – Type 50 (Y) electric anti-disturbance fuze

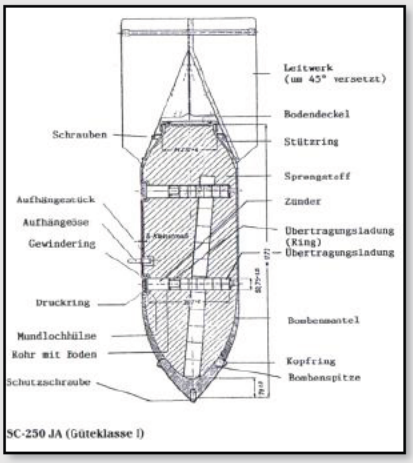
Bomb dimensions: 1640 x 512mm (64.57 x 20.16in)

Body diameter: 368mm (14.5in)

Use: Against railway installations, embankments, flyovers, underpasses, large buildings and below-ground installations.



250kg bomb, Hawkinge



SC 500

Bomb weight: 480-520kg (1,058-1,146lb)

Explosive weight: 250-260kg (551-573lb)

Fuze type: Electrical impact/mechanical time delay fuze.

Post-1943 – Type 50 (Y) electric anti-disturbance fuze

Bomb dimensions: 1957 x 640mm (77 x 25.2in)

Body Diameter: 470mm (18.5in)

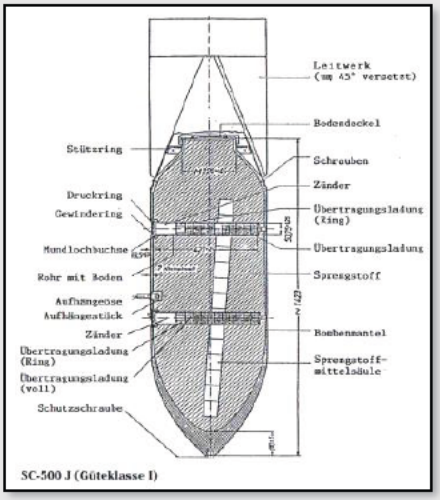
Use: Against fixed airfield installations, hangars, assembly halls, flyovers, underpasses, high-rise buildings and below-ground installations.



50kg bomb included for size comparison (see above)



500kg bomb, Felixstowe beach, April 2008



RMS UXO

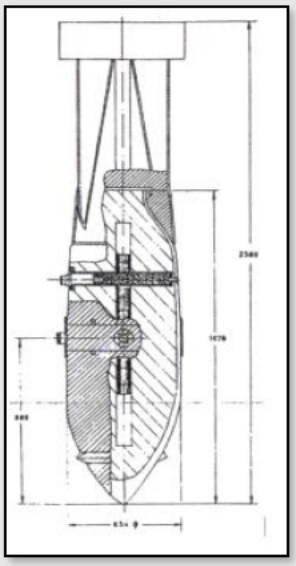
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A-Squared Studio Engineers Limited and Chase New	Maple House, Potters Bar	15/12/2025
SOURCE:	REPORT REFERENCE:	
RMS UXO Limited	INO6123	

SC 1000

Bomb weight: 993-1,027kg (2189-2,264lb)
Explosive weight: 530-590kg (1,168-1,300lb)
Fuze type: Electrical impact fuze.
Bomb dimensions: 2,580 x 654mm (101.6 x 2.5in)
Body diameter: 654mm (25.75in)
Use: Against unarmoured sea and land targets
Remarks: Known as the 'Hermann'



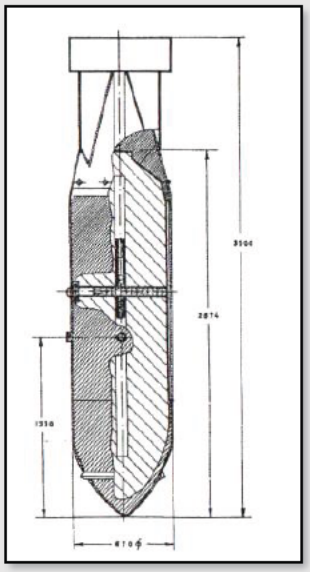


SC 1800

Bomb weight: 1,767-1,879kg (3,896-4,142lb)
Explosive weight: 1,000kg (2,205lb)
Fuze Type: Electrical impact fuze
Bomb Dimensions: 3500 x 670mm (137 x 26in)
Use: Against building complexes and large merchant vessels
Remarks: Known as the 'Satan'

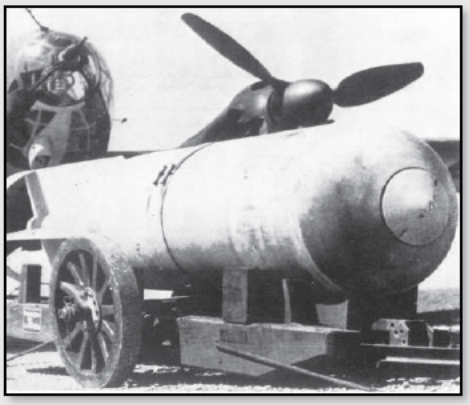


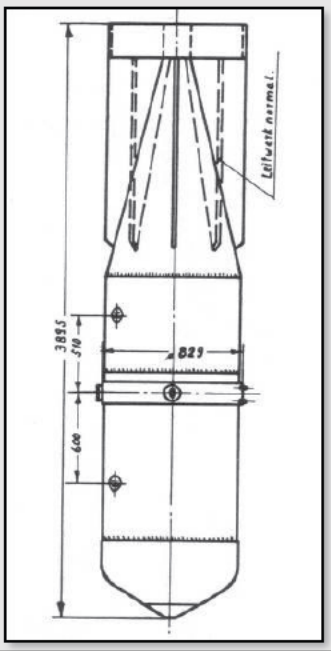
1800kg bomb, Bristol, 1941



SC 2500

Bomb Weight: Bomb weights have been quoted as 1,950kg (4,300lb) and 2,500kg (5,512lb)
Explosive Weight: 1,700kg (3,748lb)
Fuze Type: Electrical impact fuze
Bomb Dimensions: 3,895 x 829mm (153.3 x 32.6in)
Body Diameter: 829mm (32.6in)
Use: Against building complexes and merchant vessels.
Remarks: The SC 2500 has an aluminium body with a welded head and tailpiece. Known as the 'Max'. Only a limited number were deployed.





1kg Incendiary Bomb

Bomb weight: 1.0 and 1.3kg (2.2 and 2.87lb)

Filling: 680gm (1.3lb) Thermite

Fuze type: Impact fuze

Bomb dimensions: 350 x 50mm (13.8 x 1.97in)

Body diameter: 50mm (1.97in)

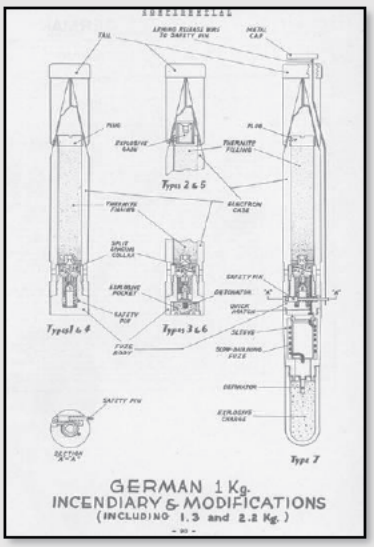
Use: As incendiary – dropped in clusters against towns and industrial complexes

Remarks: Jettisoned from air-dropped containers. Magnesium alloy case. Sometimes fitted with high explosive charge





1. Scaffold pipe
2. Incendiary 1kg bomb
3. Incendiary bomb recently found on site in UK



C-50 A Phosphorous Bomb

Bomb weight: 41kg (90.4lb)

Explosive weight: 0.03kg (0.066lb)

Incendiary filling: 12kg (25.5lb) liquid filling with phosphor igniters in glass phials

Fuze type: Electrical impact fuze

Bomb dimensions: 1,100 x 2800mm (43.3 x 11in)

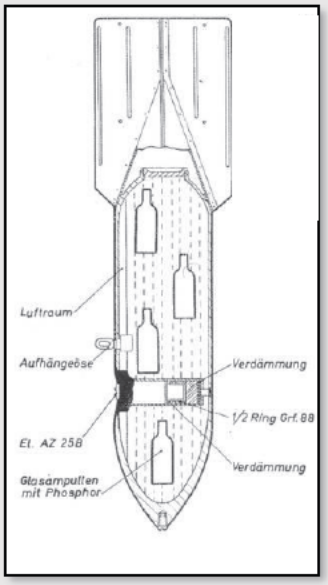
Body diameter: 200mm (2.87in)

Use: Against all targets where an incendiary effect is to be expected

Remarks: Early fill was a phosphorous/carbon disulphide incendiary mixture



Phosphorous Bomb, M25/A2, Kent



Flam C-250 'Oil Bomb'

Bomb weight: 125kg (276lb)

Explosive weight: 1kg (2.2lb)

Flammable weight: 74kg (163lb)

Filling: Mixture of 30% petrol and 70% crude oil

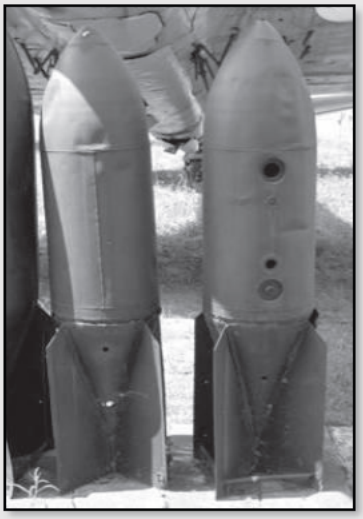
Fuze type: Super-fast electrical impact fuze

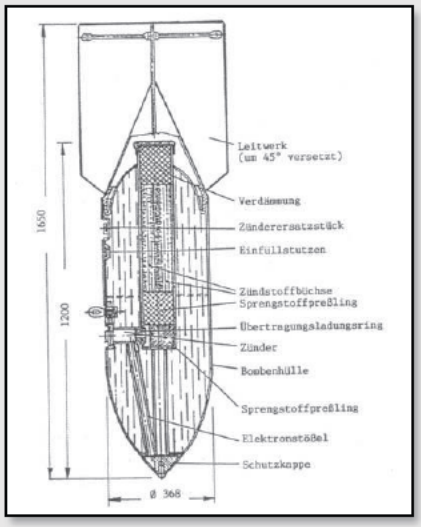
Bomb dimensions: 1,650 x 512.2mm (65 x 20.2in)

Body diameter: 368mm (14.5in)

Use: Often used for surprise attacks on living targets, against troop barracks and industrial installations

Remarks: Thin casing – not designed for ground penetration





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SOURCE:	REPORT REFERENCE:	
RMS UXO Limited	INO6123	

EXPERTISE, INTEGRITY, PROFESSIONALISM

RMS UXO Limited

Unit 6 Oaktree Business Park
Basey Road, Rackheath NR13 6PZ
info@rmsuxo.com I +44 0203 005 5246
Company Reg: 14666538
www.rmsuxo.com

Appendix D: Qualitative Risk Assessment Matrix

A2 Site Investigation Limited qualitative risk assessment for geo-environmental purposes is undertaken in accordance with CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001). The CIRIA C552 risk categories and the assessment methodology are summarised below in Table D.1, Table D.2 and Table D.3. Potential magnitude and potential likelihood are both classified to enable a risk rating to be assessed.

Potential magnitude considers the potential consequences should a complete source–pathway–receptor linkage be present. Potential magnitude is classified as per Table D.1.

Table D.1 Definition of potential magnitude of consequence

Category	Definition
Severe	Acute risks to human health, catastrophic damage to buildings / property, major pollution to controlled waters.
Medium	Chronic risk to human health, pollution of sensitive controlled waters, significant effects on sensitive ecosystems or species, significant damage to buildings or structures.
Mild	Pollution of non-sensitive waters, minor damage to buildings or structures.
Minor	Damage to non-sensitive ecosystems or species.

Potential likelihood takes into account the presence of the hazard and receptor as well as the integrity of the pathway for exposure, i.e., whether a source-pathway-receptor linkage is present or not. Potential likelihood is classified as per Table D.2.

Table D.2 Definition of potential likelihood of exposure

Category	Definition
High Likelihood	Pollutant linkage may be present and is almost certain to occur in the long-term. Or there is evidence of harm to the receptor.
Likely	Pollutant linkage may be present, and it is probable that it will occur over the long-term.
Low Likelihood	Pollutant linkage may be present, and there is a possibility that it will occur, although there is no certainty that it will do so.
Unlikely	Pollutant linkage may be present, but it is improbable that it will occur.

The potential magnitude of consequence and the potential likelihood of exposure are assessed in accordance with the risk matrix presented in Table D.3.

Table D.3 Geo-environmental risk assessment matrix

		Potential Magnitude of Consequence			
		Severe	Medium	Mild	Minor
Potential Likelihood of Exposure	High Likelihood	Very High	High	Moderate	Low to Moderate
	Likely	High	Moderate	Low to Moderate	Low
	Low Likelihood	Moderate	Low to Moderate	Low	Very Low
	Unlikely	Low to Moderate	Low	Very Low	Very Low

Appendix E: Regulatory Consultation

creating a better place
for people and wildlife

Environment Agency

Lecthicya Goncalves

[redacted]@a2-studio.com

Our ref: EIR2025/47076

Your ref: 251209/SL06

Date: 08 January 2026

Dear Lecthicya Goncalves,

RE: Environmental Information Regulations: EIR2025/47076

Thank you for your request for information regarding 251209/SL06 C&E HNL; Potters Bar Information Request, which we received on 8 December 2025.

We respond to requests for information that we hold under the Environmental Information Regulations 2004 (EIR).

We have considered your request under the provisions of the Freedom of Information Act 2000 / Environmental Information Regulations 2004 (EIR). The Act requires that we respond to requests by advising you whether or not information is held, and if so by providing you with that information.

EIR Regulation 3(2) states that information is held if it is in our possession and has been produced or received by us, or it is held by another person on our behalf at the time the request is received.

Information not held – Q1 Historical land uses (specifically for the site or immediately adjacent to it rather than within 500 m, in this case); Please contact the local planning authority for previous planning applications.

In this case, the information you have requested is not held by the Environment Agency, and we are therefore refusing your request on the grounds that there is no information we can provide.

Where a request is for environmental information, the Regulations allow us to refuse to disclose it if the exception at EIR Regulation 12(4)(a) applies. The regulation

states that a public authority may refuse to disclose environmental information to the extent that it does not hold that information when an applicant's request is received.

It is not possible for us to conduct a public interest balancing test because the reason for non-disclosure is that the information is not held.

1. Background groundwater and surface water quality.

Our water quality data is available online via open data website. [redacted]

Additionally, you can view the catchment data explorer for Water Framework Directive status and details of the area. - [redacted].

2. Groundwater flow direction (for the various geological units) and general hydrogeological site setting / hydrogeological parameters.

Please use the following link for details of reports for known problems regarding groundwater flooding issues [redacted].

If there is not one for your site then we have no reports of any problems there in our records.

Groundwater level data can be found as open data here: [redacted], alternatively a public database is available from [redacted]

Hydrometry data is available online as open data – [redacted]

3. Licenced water abstractions (surface and groundwater) and details of the geological unit each abstract from;

There are no licensed abstractions on site or in the search area.

Groundwater abstraction license [redacted]

Under the Water Act 2003, abstractions equal to or less than 20 cubic metres per day were deregulated as of 1 April 2005. We do not hold records of current abstractions which are below this threshold value. We only hold information on abstractions that were below the threshold before 1 April 2005.

We advise you to visit British Geological Survey's website [redacted] for details of all known boreholes and wells.

4. Groundwater Source Protection Zones (SPZs).

Source Protection Zones (aka groundwater source protection zone) – are available as a map on the DEFRA Magic webpage – or as open data. [redacted] or [redacted].

Nitrate Vulnerable Zones are available as a map on the DEFRA Magic website [redacted] or as open data [redacted]

5. Licenced Discharge Consents.

Discharge consent details are available on our public register. [redacted] and Discharge volume data - [redacted].

6. Records of any 'Special Sites' as per Part 2a (EPA 1990) and details of any sites under consideration for investigation as a potential 'Special Site' as per Part 2a (EPA 1990).

The register of Special Sites currently designated under Part 2A of EPA 1990 is publicly available at: [redacted].

7. Records of current or historical landfill sites or waste sites.

There are no current or historic landfill sites in the area defined.

Our historic landfill details are available online - [redacted]

Our permitted landfill sites can be found online - [redacted].

You can list all the waste permitted sites in an area via our public register available here: [redacted].

8. Details of any lined surface watercourses.

Details can be found online - [redacted]

9. Details of any culverted watercourses.

Details can be found online - [redacted]

10. Any ground investigation data for the site or immediately surrounding area.

We have checked with our groundwater and contaminated land team, and we hold no records of site investigations or remediation works in the defined search area.

Please be aware that we only consider risks to groundwater. The local council's Environmental Health Department is responsible for risks to other receptors (for example human health, property, and ecology) and should be contacted for further information.

This information above is provided subject to the [redacted], which you should read.

The following information is not available under the Open Government Licence but we may be able to license it to you under the Environment Agency Conditional Licence: [redacted].

1. Records of any pollution incidents and remediation subsequently undertaken.

Please find attached a spreadsheet of pollution incidents within the defined area. Please note this has been redacted to remove all Personal data and or Identifying locations. Please see the appendix below.

The following special conditions relate to the: pollution incident data provided.

Conditions:

1. Notwithstanding the fact that the standard wording of the Environment Agency Conditional Licence indicates that it is perpetual, this Licence has a limited duration of one year at the end of which it will terminate automatically without notice.
2.1. The Information contains some data that we believe is within the definition of "personal data" under the Data Protection Act 1998, but we consider that we will not be in breach of the Act if we disclose it to you with conditions set out in this condition and the condition above. This personal data comprises information relating to individuals, or to sites operated by an individual or partnership of individuals.
2.2 Under the Act a person who holds and uses or passes to others personal data is responsible for any compliance with the Act and so we have no option but to warn you that this means you have responsibility to check that you are compliant with the Act in respect of this personal data.

INFORMATION WARNING:

Where these data indicate an incident occurred on a particular site or property no inference should be drawn that the site or property owner necessarily was responsible. Grid references may be derived from third party information and at

different map scales and may have tolerances in accuracy and precision. Where there are multiple pollutants, an incident will have a row in the data for each.

However, you MUST first check the supporting information and the above link to determine if the conditions on use are suitable for your purposes. If they are not, this information is not provided with a license for use, and the data is provided for read right only.

Please get in touch if you have any further queries. If you want us to review the information we have sent, please contact us again within two months from the date of this email.

Rights of appeal
If you are not satisfied with the outcome of the internal review, you can then make an appeal to the Information Commissioner Office, the statutory regulator for the Environmental Information Regulations 2004 and the Freedom of Information Act 2000. Please follow this link to the [redacted]. The address is: Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire. SK9 5AF.

Tel: 0303 123 1113 (local rate) or 01625 545 745 (national rate) | Fax: 01625 524 510 Email: icocasework@ico.org.uk | Website: [redacted]

Yours sincerely,

Ali Glennie
HNL Area Customers and Engagement Team

To report environmental problems please visit [redacted] or call the incident hotline on 0800 80 70 60

Please tell us how we did
To help improve your experience as a customer we are currently gathering feedback. If you would like to take part in a short customer satisfaction survey, please click the link below:
[redacted]

Appendix One

We are refusing to provide some of the content of the pollution incidents spreadsheet to prevent identification of the person(s) from the property location. As this is personal data under the Data Protection Act 2018 (DPA 2018) and to disclose it would breach the First Data Protection Principle of the DPA 2018.

The information requested is therefore exempt due to Regulation 13(1) of the Environmental Information Regulations 2004, which explains that:

“To the extent that the information requested includes personal data of which the applicant is not the data subject, a public authority must not disclose the personal data if— (a) the first condition is satisfied…

” The ‘first condition’ referred to above is further explained in Regulation 13(2A):

“The first condition is that the disclosure of the information to a member of the public otherwise than under these Regulations— (a) would contravene any of the data protection principles…

” The First Data Protection Principle requires that we are fair to individuals when we collect, hold and use their personal data.

In this case it would be unfair to disclose information that would identify members of staff as those individuals have a reasonable expectation that such information held by the Environment Agency would remain confidential.

There is no requirement to conduct a public interest test when refusing information on this ground.

Hertsmere Borough Council, Civic Offices, Elstree Way,
Borehamwood, Herts, WD6 1WA
Tel: 020 8207 2277
e-mail: [redacted]
Internet: [redacted]

Environmental Health

Date: 16th December 2025

Our Ref: 25/02250/POLCLE

Contact: Craig Gent

Lecthicya Goncalves
A-squared Studio
One Westminster Bridge Road
London
SE1 7XW

Dear Madam,

Environmental Protection Act 1990
Environment Act 1995
Contaminated Land (England) Regulations 2000 (as amended)

Re: Maple House, Canada Life Place, High Street, Potters Bar, EN6 5BA

Please see below for the details of environmental information, with respect to the above referenced site/land.

- Historical land uses (specifically for the site or immediately adjacent to it rather than within 500 m, in this case);

Environmental Health has access to several historical maps, which show the previous land uses of the site/land at different periods. The historical maps provide a snapshot in time and cannot be relied upon as indicators of any events or activities that may have taken place at other times.

The location of the site/land of interest is outlined in red within the pages below.

- Licenced private water abstractions (surface or groundwater) and details of the geological unit each abstracts from and water use;

Environmental Health is not aware of any private water abstractions located within a 1 km radius of the site/land of interest.

- Recorded pollution incidents and the incident response / remediation details;

Please see Maps 8 and 9 below.

- Any Part 2a sites (EPA 1990);

At the time of writing, the site/land of interest or any surrounding sites have not been determined as Contaminated Land under Part 2A of the Environmental Protection Act 1990.

- Any sites being considered for investigation under Part 2a (EPA 1990);

N.A.

- Records of current or historical landfills and waste sites; and

Environmental Health is not aware of any records of current or historical landfills and waste sites within 500 metres of the site/land of interest.

- Any ground investigation data (specifically for the site or immediately adjacent to it rather than within 500 m, in this case).

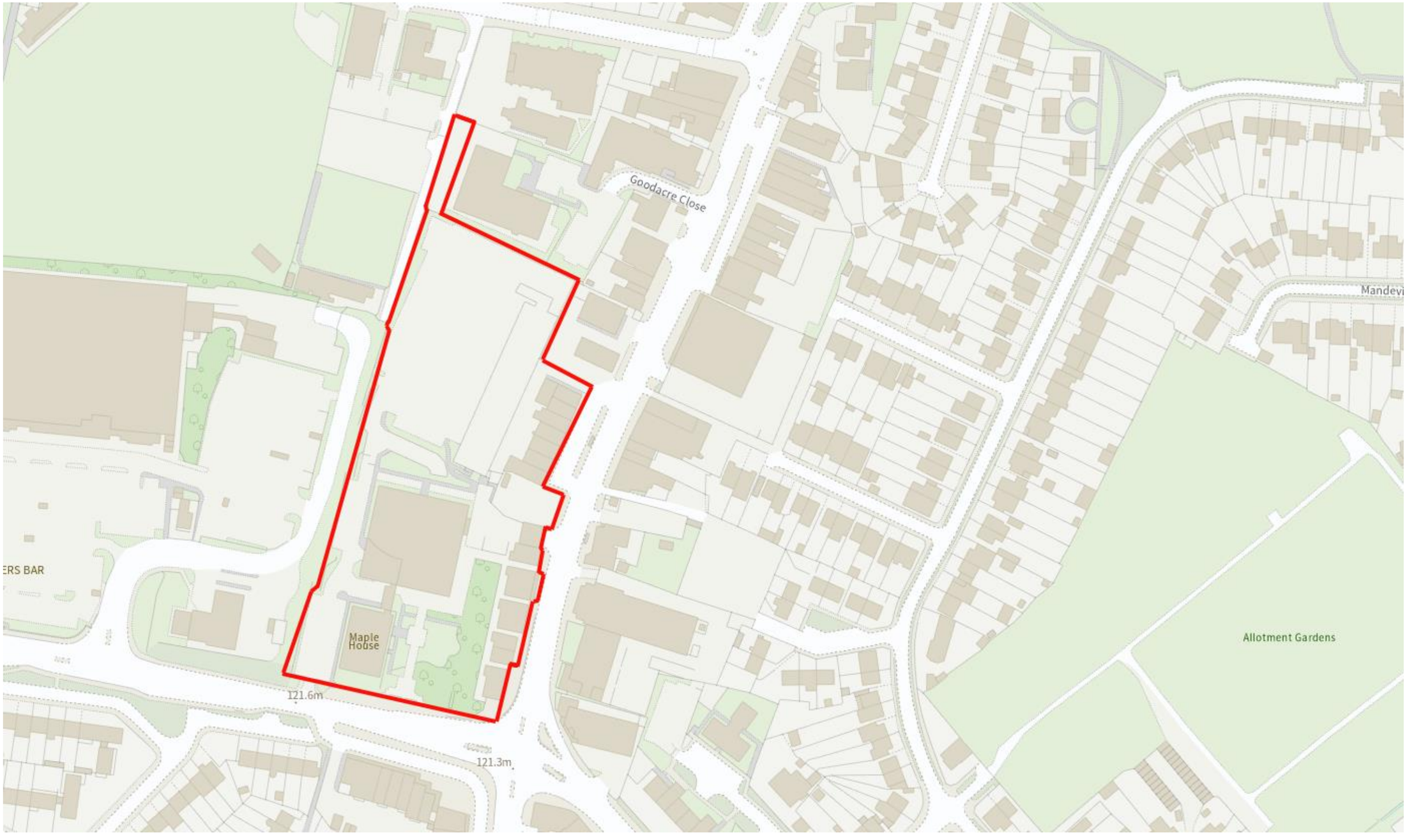
At the time of writing Environmental Health is not aware of any ground investigation data, associated with the site/land of interest or within close proximity. However it is possible that ground investigions/site investigations may have been carried out as part of a Planning Consent.

Previous Planning Applications may be accessed online via Hertsmere Borough Council's Planning Application Search Facility via,

[redacted]

Please contact the Planning Department at the Hertsmere Borough Council if you have any further queries in relation to reports which they hold on file. Planning may be contacted via admin.planning@hertsmere.gov.uk

Map 1: Site Location Map/Master Map

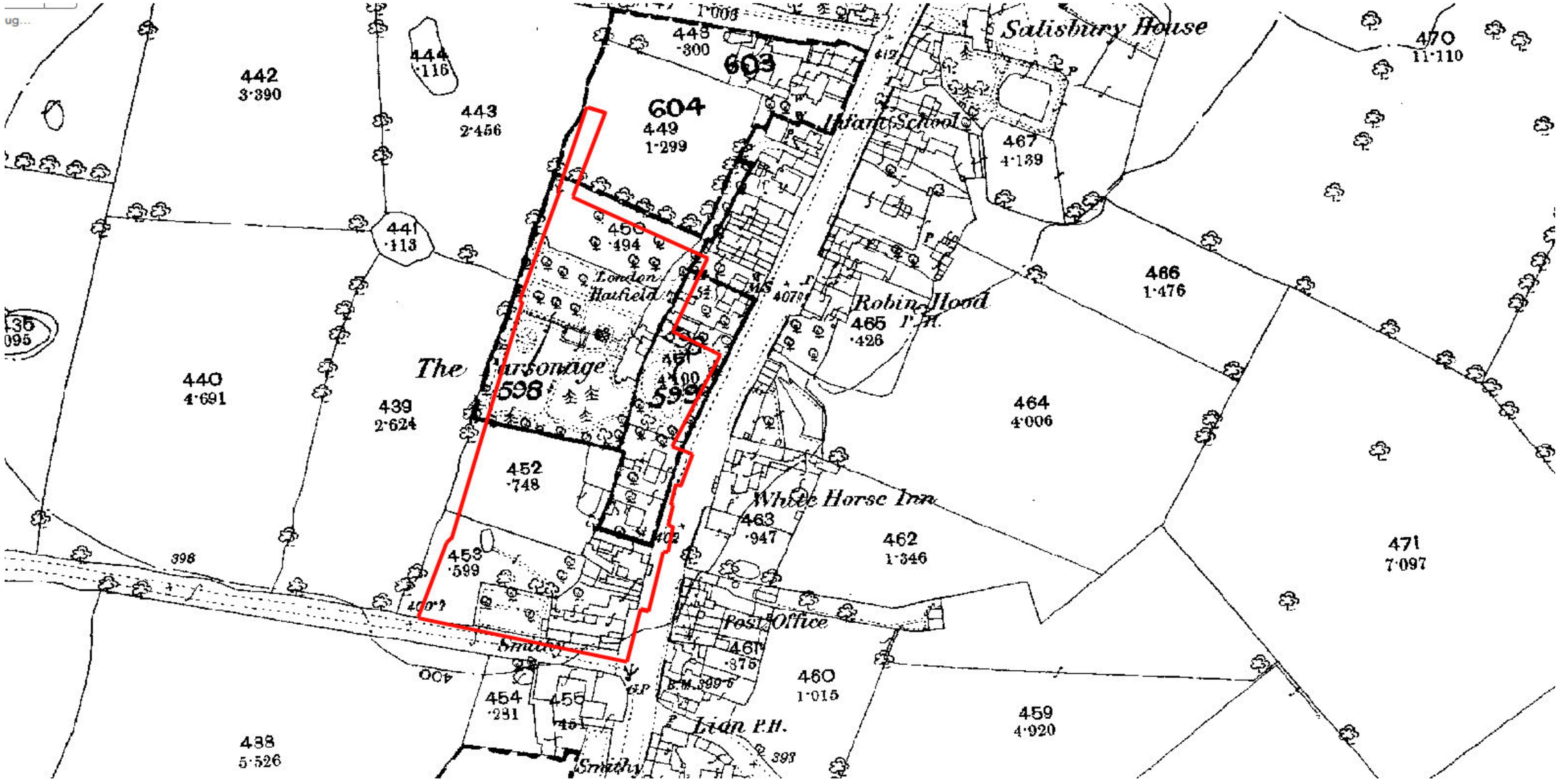


The site/land of interest is currently developed in to Office blocks known as Maple House and Canada Life House with associated car parking facilities. An electricity sub-station is located within the centre of the site/land of interest. Several blocks of commercial premises with residential properties located above run along the south–east end of the site, with a parade of shops with residential properties located above (Princes Parade), being located to the north-east of the site/land. A vehicle fuel filling station is located around 13 metres to the north of Princes Parade. Another vehicle fuel filling station is located around 23 metres from the south- west corner of the site/land of interest near Maple House.

Potential contaminants from vehicle fuel filling station land use scenario include but are not limited to:

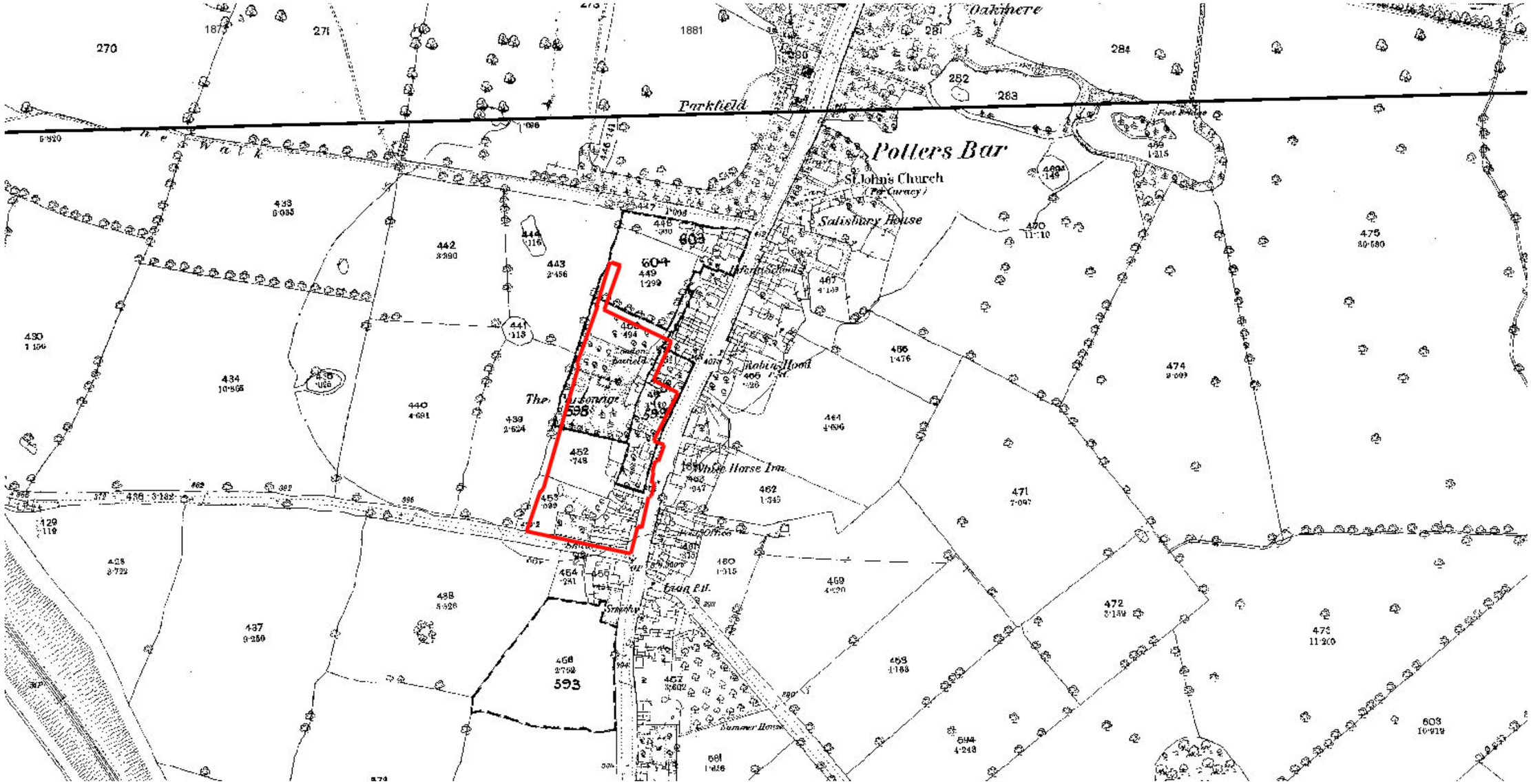
- **Battery acids**
- **Metals including, lead, copper, zinc, chromium, vanadium**
- **Spillages from fuel oils, lubricating oils and greases**
- **Total petroleum hydrocarbons (TPH) from fuel storage and leakage**
- **Polymerised glycols from brake fluids**
- **Benzene**
- **Methyl tert-butyl ether (MTBE) from fuel additives**
- **VOCs**

Map 2: Layer Name: Epoch 1: 1864 to 1892 Raster

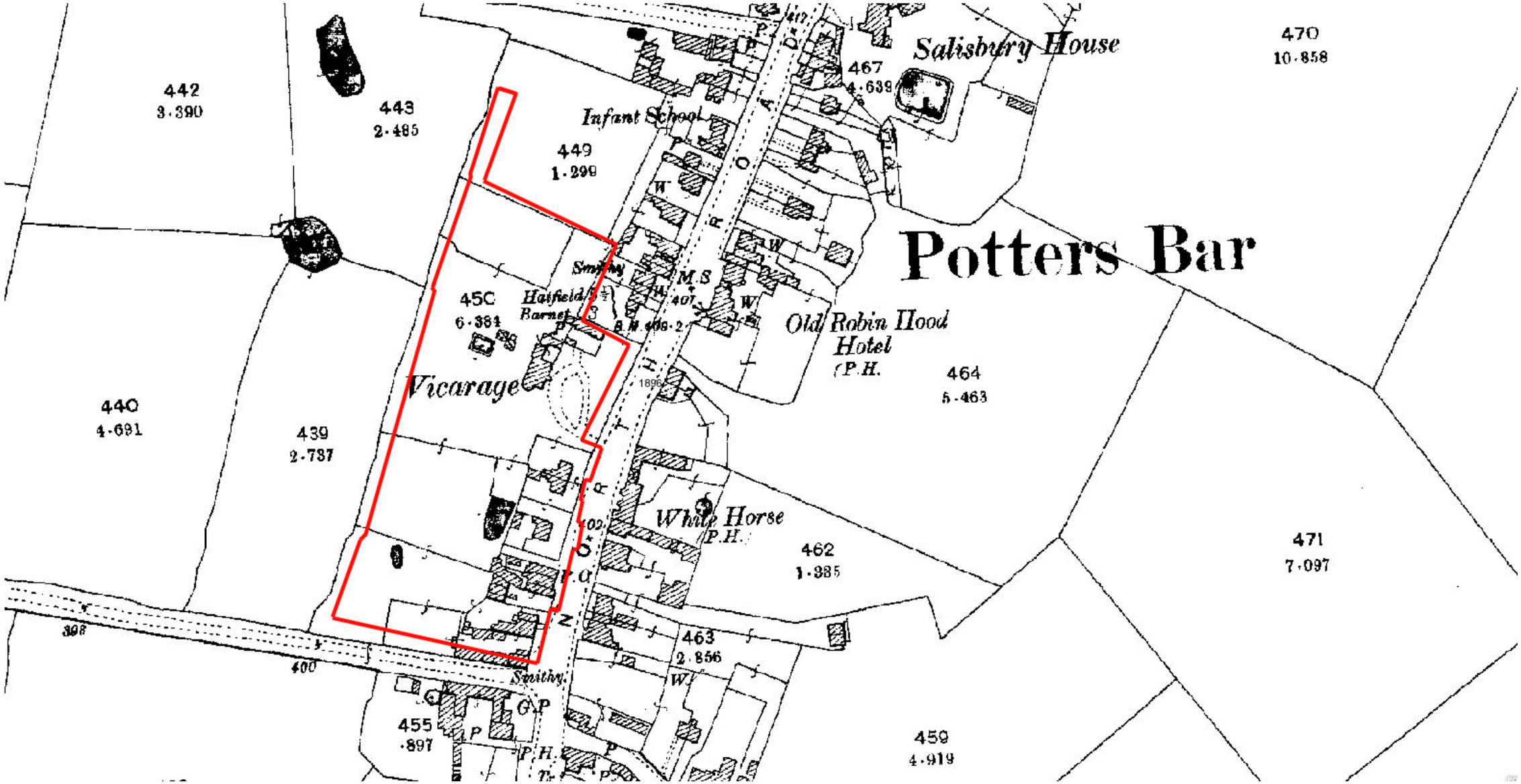


A property called The Parsonage is shown as being located on the site/land of interest within the Council's Epoch 1: 1864 to 1892 Raster historic mapping layer, with several possible residential properties also located along the south- eastern flank of the site/land of interest.

Map 2A: Layer Name: Epoch 1: 1864 to 1892 Raster – Expanded View

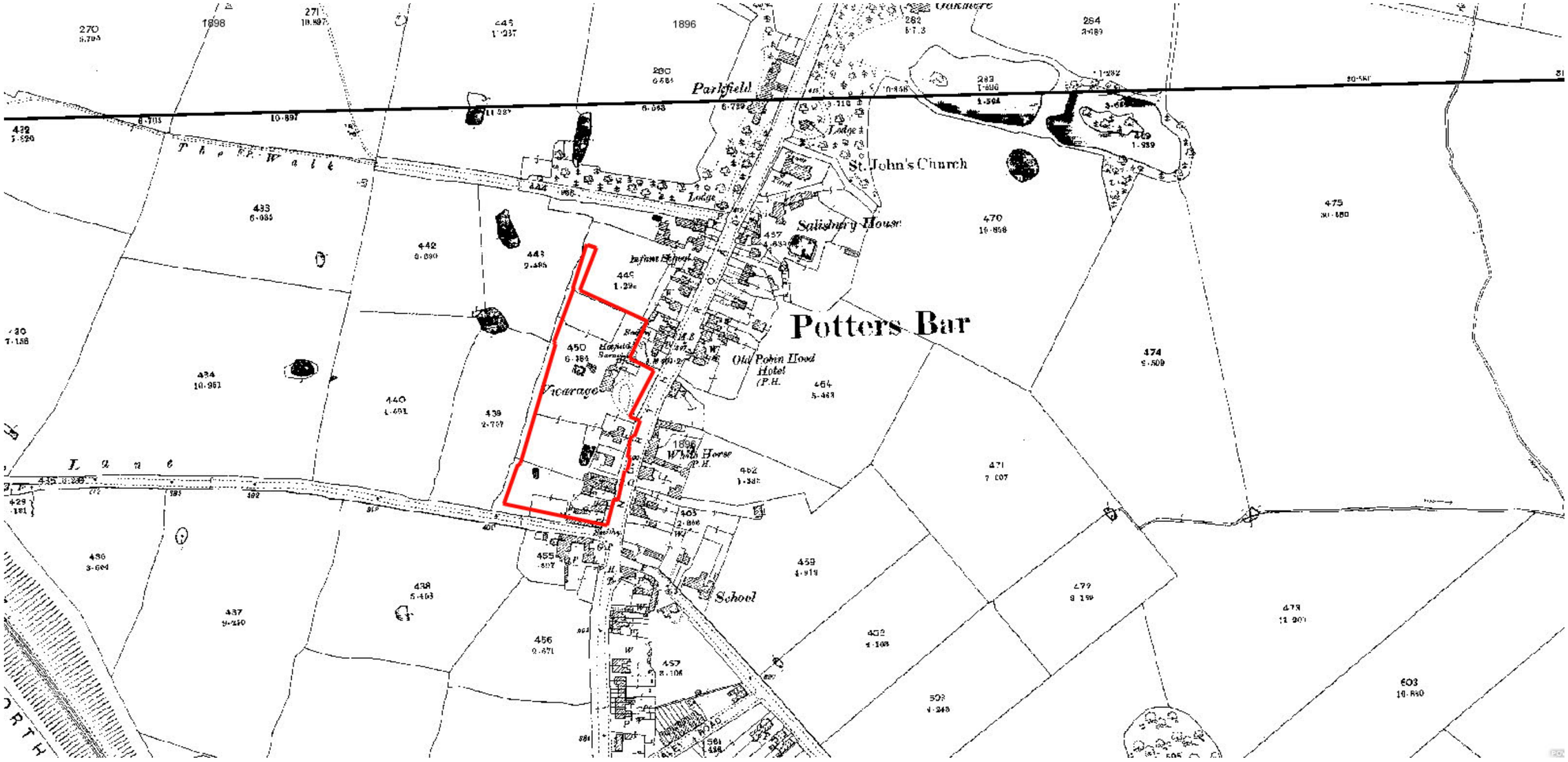


Map 3: Layer Name: Epoch 2: 1896 to 1898 Raster

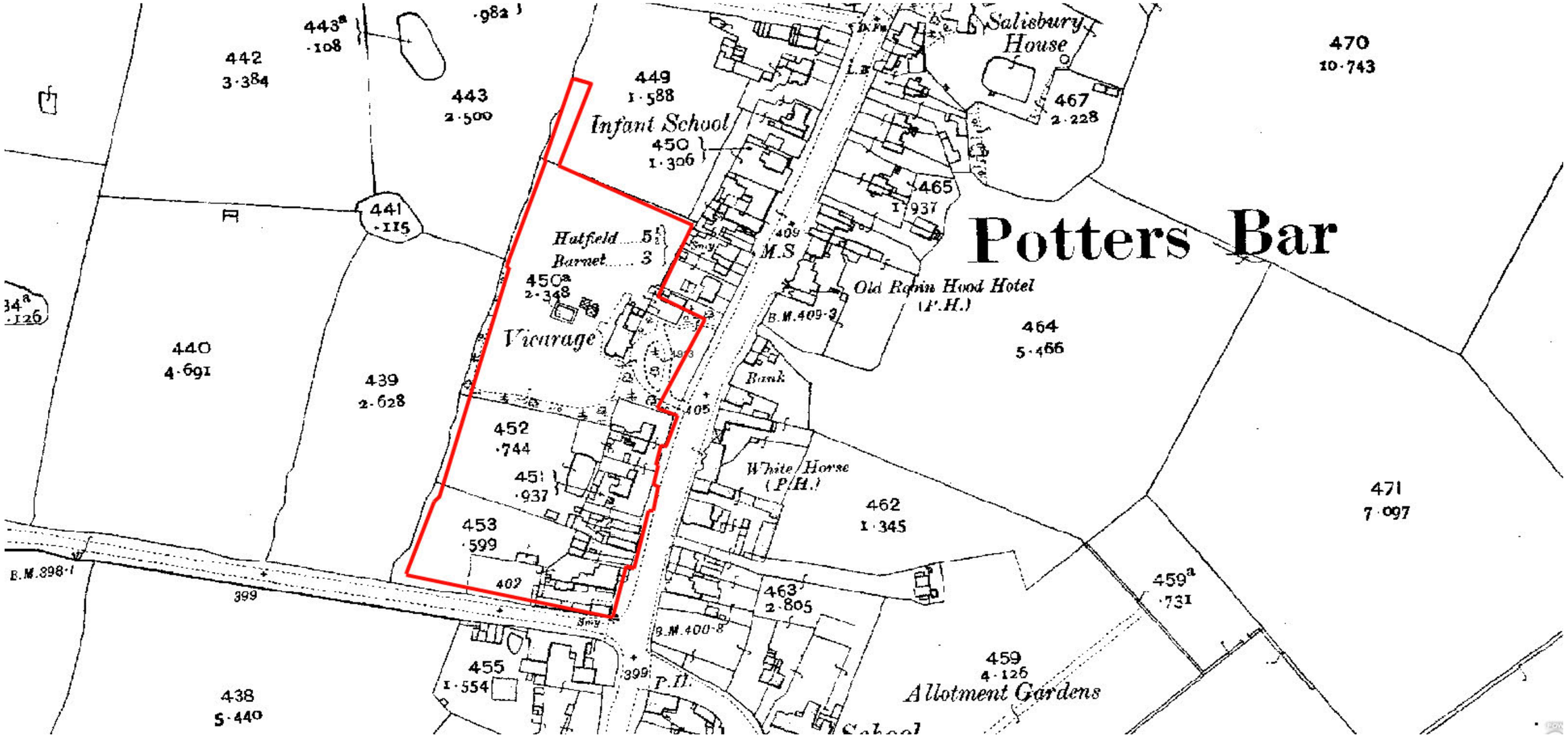


A Vicarage is shown as being located on the site/land of interest within the Council's Epoch 2: 1896 to 1898 Raster historic mapping layer, with several possible residential properties also located along the south- eastern flank of the site/land of interest.

Map 3A: Layer Name: Epoch 2: 1896 to 1898 Raster – Expanded View

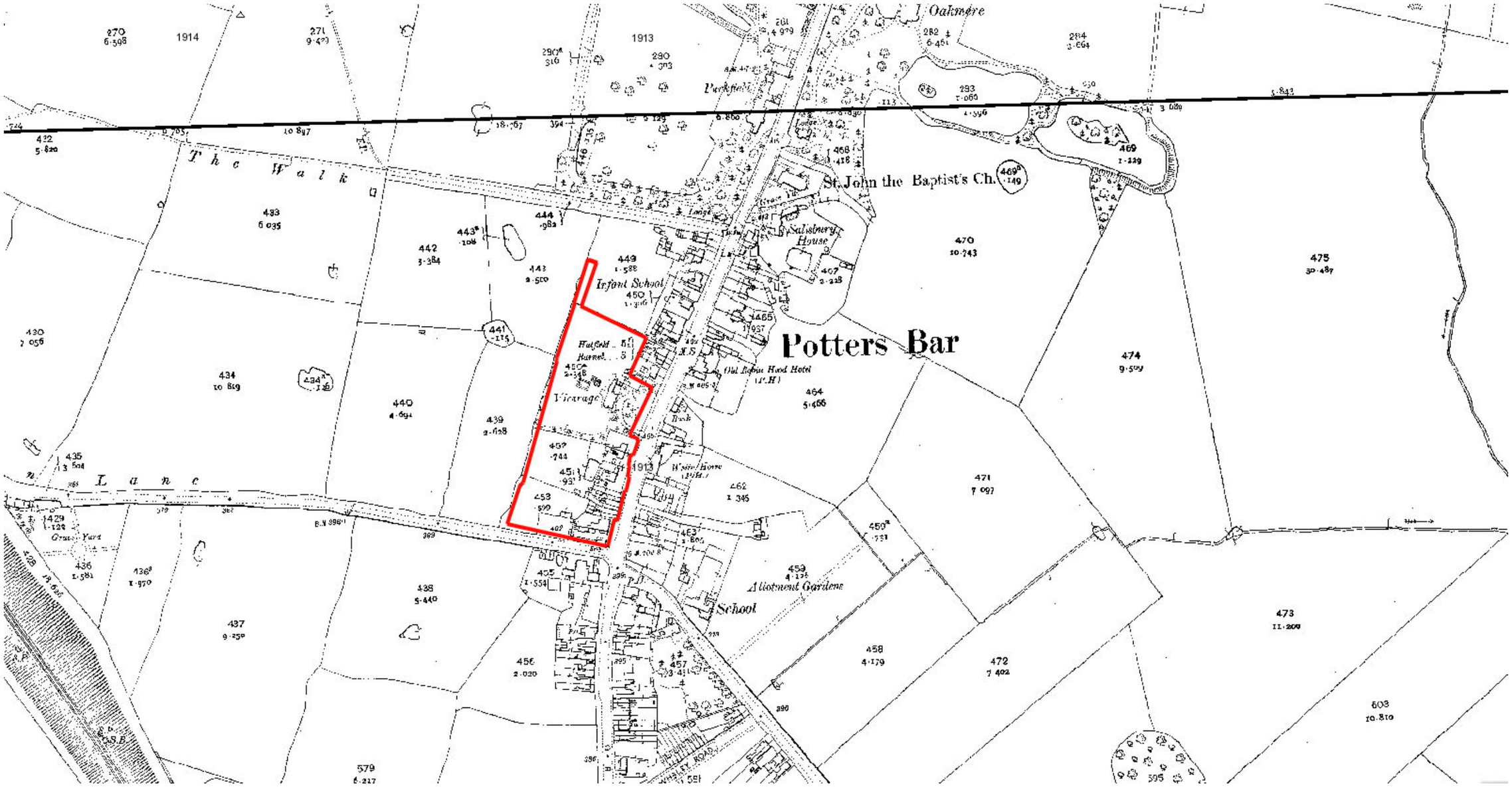


Map 4: Layer Name: Epoch 3: 1913 to 1924 Raster

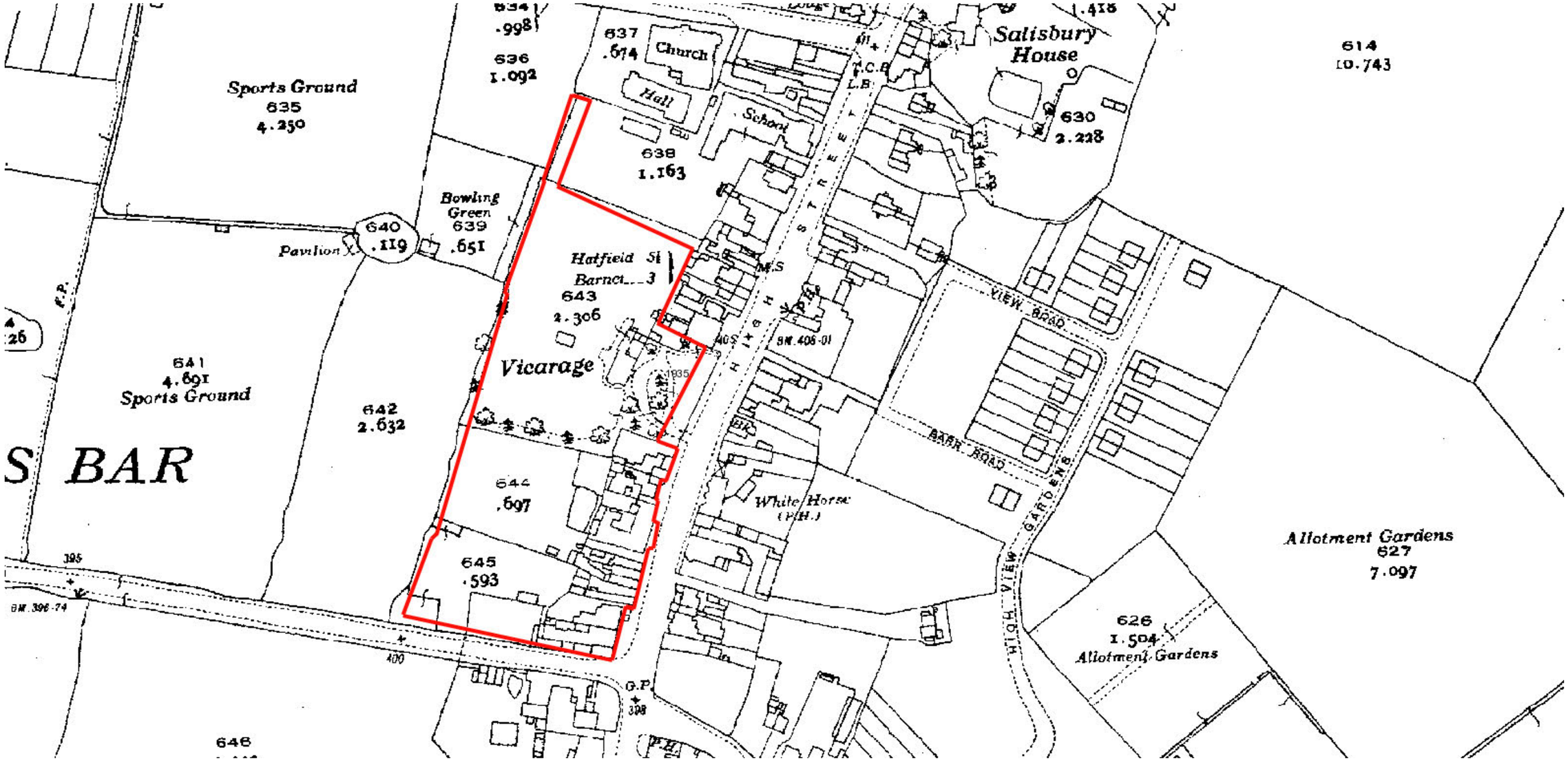


A Vicarage is shown as being located on the site/land of interest within the Council's Epoch 3: 1913 to 1924 Raster historic mapping layer, with several possible residential properties also located along the south- eastern flank of the site/land of interest. Allotment Gardens are shown as located around 112 metres to the south- east of the site/land of interest.

Map 4A: Layer Name: Epoch 3: 1913 to 1924 Raster – Expanded View



Map 5: Layer Name: Epoch 4: 1934 to 1941 Raster

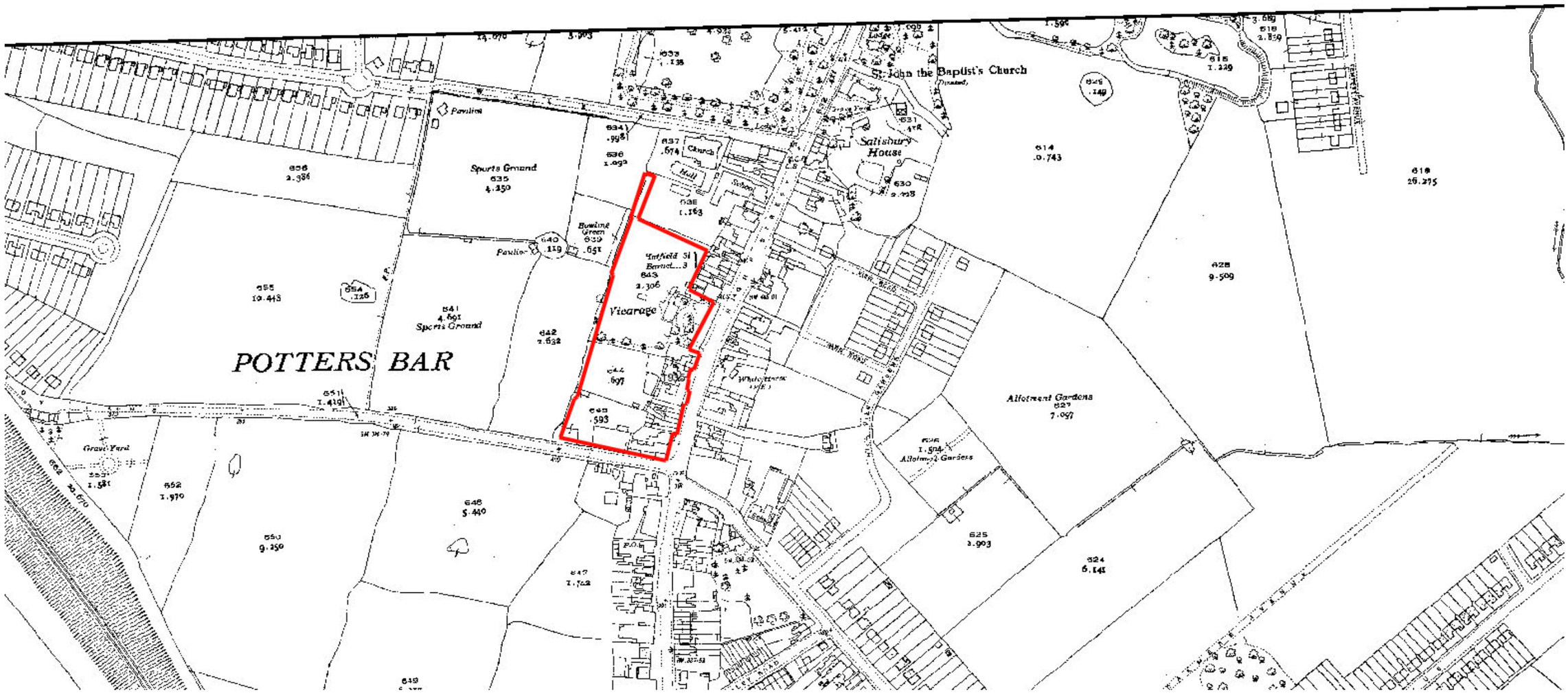


A Vicarage is shown as being located on the site/land of interest within the Council's Epoch 4: 1934 to 1941 Raster historic mapping layer, with several possible residential properties also located along the south- eastern flank of the site/land of interest. Allotment Gardens are shown as located around 171 metres to the east of the site/land of interest.

Potential contaminants from allotment land use during this period include, but are not limited to:

- **Use of lead, chromium and zinc based paints on former treated/painted timber structures**
- **Use of fertilizers including sewage sludge**
- **Use of Asbestos within shed structures**
- **Use of fungicides containing As & Cu**
- **Pesticide use**

Map 5A: Layer Name: Epoch 4: 1934 to 1941 Raster – Expanded View



Map 6: Layer Name: Epoch 5: Post World War 2 (Epoch 5 a5 Raster – Herts 1:2500)



A Vicarage is shown as being located on the northern end of site/land of interest within the Council's Epoch 5: Post World War 2 (Epoch 5 a5 – Herts 1:2500) historic mapping layer. A Vehicle Repair Works is also shown on the site/land of interest. Potential contaminants from Vehicle Repair Works include, but are not limited to:

- **Potential presence of dioxins, polycyclic aromatic hydrocarbon (PAH), sulphates and hydrocarbons deriving from fuel use, potential burning on site and ash disposal**
- **Asbestos, sulphur, battery acids**
- **Metals including, lead, arsenic, copper, zinc, chromium, vanadium**
- **Spillages from fuel oils, lubricating oils and greases**
- **Total petroleum hydrocarbons (TPH) from fuel storage and leakage**
- **Polymerised glycols from brake fluids**

- **benzene**
- **Aliphatic compounds**
- **Ketones from paint spraying**

Potters Bar and District Hospital is shown as being located around 70 metres to the west of the site/land of interest. Potential contaminants from a Hospital land use scenario during this period include, but are not limited to:

- **Use of lead, chromium and zinc based paints on former treated/painted timber structures**
- **Asbestos may have been incorporated within parts of the Hospital's structure during its lifetime**
- **Localised waste disposal including organic waste and sundry other wastes**
- **Hydrocarbons (TPH and PAH specifically diesel), oils, vapours from any on site fuel use/storage**
- **Oils and hydrocarbons (TPH and PAH), Paints (volatile organic compounds (VOC) and metals) from any on site chemical storage**
- **Lead from fuel leakage within any vehicle parking areas**

Allotment Gardens are shown as located around 171 metres to the east of the site/land of interest.

Potential contaminants from allotment land use during this period include, but are not limited to:

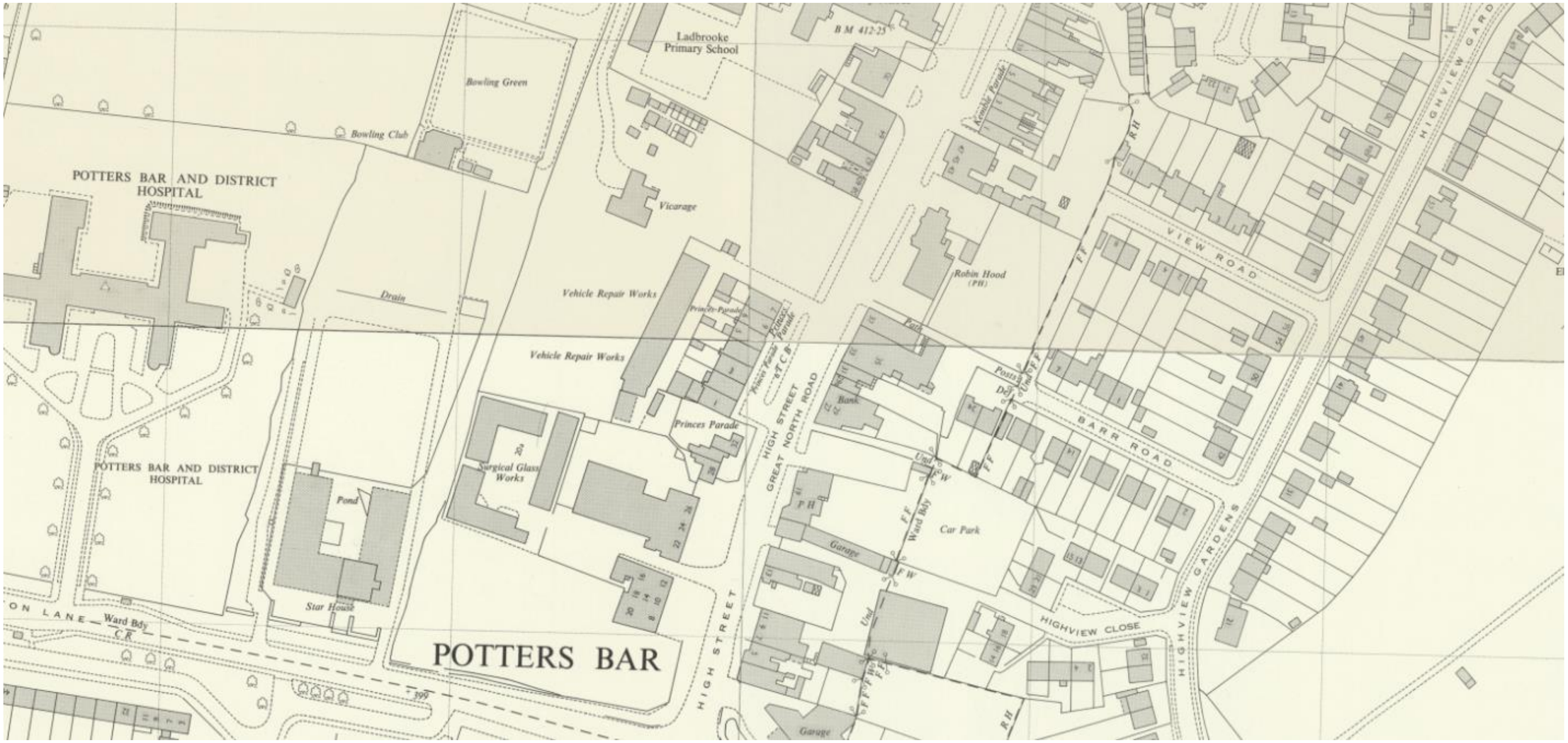
- **Use of lead, chromium and zinc based paints on former treated/painted timber structures**
- **Use of fertilizers including sewage sludge**
- **Use of Asbestos within shed structures**
- **Use of fungicides containing As & Cu**
- **Pesticide use**
- **Localised waste disposal including organic waste and sundry other wastes**

Unfortunately the data/mapping tile for the south end of the site/land of interest, within the Council's Epoch 5: Post World War 2 (Epoch 5 a5 – Herts 1:2500) historic mapping layer is not available.

Map 6A: Layer Name: Epoch 5: Post World War 2 (Epoch 5 a5 Raster – Herts 1:2500) – Expanded View



Map 7: Layer Name: OS 1:1,250/1:2,500, 1944 - 1974



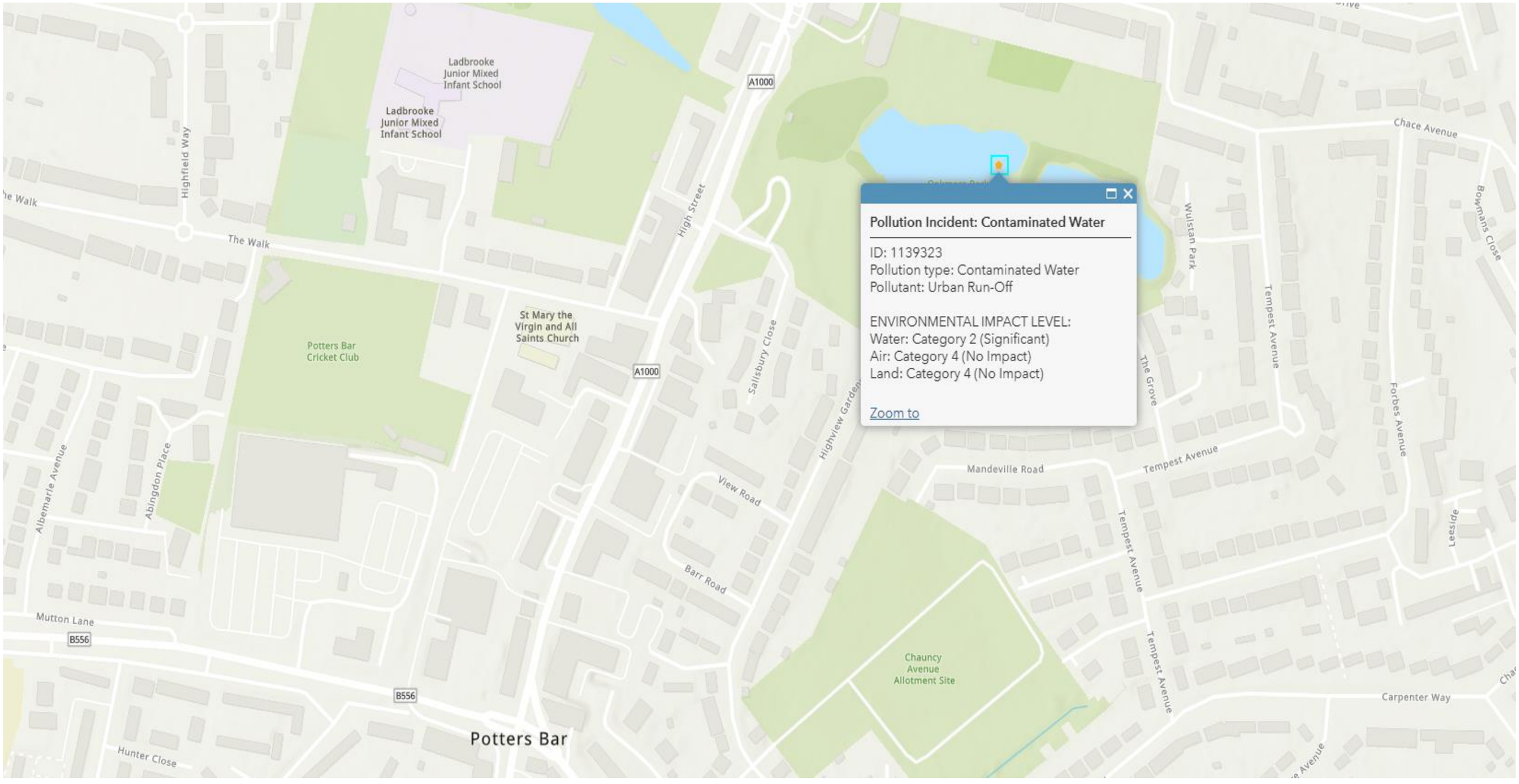
A Surgical Glass Works is shown as being located on the southern end of site/land of interest within the OS 1:1,250/1:2,500, 1944 – 1974 historic mapping layer.

Potential contaminants from Glass manufacturing works include, but are not limited to:

- **Metals including lead, arsenic, selenium, chromium, vanadium, nickel and copper**
- **Diesel fuel oil and heavy fuel oils, hydrocarbons**
- **Antimony trioxide or arsenic trioxide**
- **Asbestos**

Further information may be accessed online via; [redacted]

Map 8: Pollution Incident – Contaminated Water



The Rivers Trust hold one record of a Pollution Incident around 390 metres to the north-east of the site/land of interest within Oakmere Park.

Further information may be accessed online via; [redacted]

Map 9: Pollution Incidents



Environmental Health is aware of five Pollution incidents, which have taken place within 500m of the site/land of interest. The Pollution Incidents are indicated by the red markers. Unfortunately there are no further records on the nature of the pollution incidents or their date of occurrence.

I trust the above information is of assistance but should you wish to discuss the matter further then please do not hesitate to contact me on the number given above.

Yours Sincerely

Craig Gent

Environmental Health

Disclaimer

This report is compiled in good faith by information obtained from Hertsmere Borough Council's own researches and/or received from a number of different sources. This report is supplied on the distinct understanding that the Council does not warrant the accuracy of any of the information and on the basis that neither the Council nor any officer, servant or agent of the Council is legally responsible, either in contract or in tort, for any inaccuracies, or omissions herein contained whether arising from inadvertence or negligence or from any other cause whatsoever. No responsibility can be accepted by the Council for any negligence, omission or error on behalf of the Council in supplying the above information and you are advised to make further enquiries over and above this information as is felt necessary.

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