



e3p

Phase I Geoenvironmental Site Assessment
Brassey Street, Middleton
Reference:16-124-R1
Date: September 2022



PHASE I GEOENVIRONMENTAL SITE ASSESSMENT

Brassey Street
Middleton
Manchester
M24 6AR

Prepared for:



Report Ref: 16-124-R1

Date Issued: 26 September 2022

Brassey Street, Middleton

Phase I Geoenvironmental Site Assessment

September 2022

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EXECUTIVE SUMMARY

Site Address	Land off Brassey Street, Middleton, M24 6AR.	
Grid Reference	E 387503 N406558	
Site Area	0.06 Ha.	
Proposed Development	Rochdale Metropolitan Borough Council intend to construct a mid-rise residential development comprising 6 residential apartment units over three storeys with associated landscaped areas, estate parking and utility infrastructure.	
Current Site Use	The subject site is a rectangular-shaped parcel of land located adjacent to 135 Brassey Street, approximately 1 km to the northeast of Middleton town centre. The site currently comprises an openly accessible parcel of maintained open green space associated with the neighbouring Boarshaw working men's club. Mature trees are present in the northeast corner and at the western boundary.	
Site History	The earliest mapping showed the site to comprise several fields separated by field boundaries. Terraced residential properties were constructed pre-1893 and were later demolished pre-1975, after which point the site remained vacant.	
Environmental Setting	Drift Geology	Glacial Till – SAND and GRAVEL.
	Bedrock Geology	Pennine Lower Coal Measures Formation – MUDSTONE, SILTSTONE AND SANDSTONE.
	Faults	The nearest geological fault is located circa 91 m southwest of the site trending roughly east to west.
	Hydrogeology	Secondary A bedrock and superficial aquifer are recorded. No groundwater abstraction licences are recorded within 1 km of the site boundary.
	Hydrology	The nearest off-site surface water feature is Whit Brook located 43 m southeast. Due to the local topography, it is likely that any shallow groundwater if present will flow in a south-westerly direction towards the brook and may over time discharge into Whit Brook.
	Flood Risk	Unaffected by flooding from rivers. The site is at moderate risk for groundwater flooding.
Utility Locations	A formal survey has not been completed. Statutory service plans do not record any services on-site.	
Landfill Sites and Ground Gases	No landfill sites (current or historic) are located within 250 m of the site.	
Radon	Less than 1% of houses above the 'Action Level' – no special precautions are required.	



Coal Mining/Land Stability	The site is located within a Coal Authority defined development high risk area and workings are recorded in the Arley Seam beneath the site at a depth of 159 m. Unrecorded shallow workings are also considered probable, associated with the Cannel Coal seam that is recorded to outcrop to the north of the site Geological maps indicate the Black Mine (BkM) to outcrop immediately north of the site, dipping beneath the site. (The Black Mine seam is inferred to represent the Cannel Seam recorded by the Coal Authority. Several mine entries are also recorded to the north, west and south of the site, associated with Tonge Colliery and Boarshaw Pit, indicating a legacy of mining in the wider area. Log annotations for the mapped mine entries on the 6-inch map record drift to 64-65 ft (19.5-20 m) bgl over sandstone, with coal at 79 and 96 ft (22.5 and 29 m). Based on the above, there is a moderate risk from shallow coal mining beneath the site (<30 m bgl).
Hazardous Installations	No hazardous installations that could potentially prejudice the proposed construction of highly sensitive residential dwellings have been identified within influencing distance of the subject site.
Initial Conceptual Site Model	The following potential off-site sources of contamination have been identified ✧ Made Ground – Heavy Metals, Speciated Polycyclic Aromatic Hydrocarbons (PAH), Total Petroleum Hydrocarbons (TPH), asbestos and ground gas (CO2 and CH4). ✧ Historical Mine Gas – CO2 and CH4. The following potential off-site sources of contamination have been identified: ✧ Boarshaw Bleach, Dye and Print Works and infilled reservoirs – 80 m northeast. ✧ Boarshaw Cotton Mill – 225 m. Made Ground may underlie the site, associated with historical development within the site boundary, which may contain contaminants such as heavy metals, non-volatile PAH and asbestos. Given the proposed development will comprise apartments with limited soft landscaping, the potential for direct contact is therefore reduced. The risk to future residential end users is considered low/moderate Controlled waters receptors are identified as the underlying Secondary A drift and bedrock aquifers, together with the off-site Whit Brook. Significant sources of mobile contamination have not been identified on the site that may present a direct risk to controlled waters. The overall risk to controlled waters from the site is considered low.



	Made Ground, potential unrecorded shallow mine workings and infilled reservoirs (80 m northeast) are all potential sources of ground gas to the site. The underlying natural drift is likely to comprise moderate permeability granular strata, thus providing a viable migration pathway. The risk from ground gas is considered moderate.
Recommendations	It is recommended an intrusive geo-environmental ground investigation should be completed to confirm the conceptual site models anticipated contaminant sources throughout the site.



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DRAWING LIST

16-124-001 - Site Location Plan
16-124-002 - Proposed Development Plan
16-124-003 - Site Features Plan
16-124-004 - Historical Features Plan



1. INTRODUCTION

1.1. BACKGROUND

E3P Ltd has been commissioned by AJ Cocker Associates on behalf of their client, Rochdale Metropolitan Borough Council, to undertake a Phase I Geoenvironmental Site Assessment at land off Brassey Street, Middleton, M24 6AR.

This report is required to determine potential contaminated land liabilities and geotechnical constraints as part of proposed site redevelopment.

1.2. PROPOSED DEVELOPMENT

Rochdale Metropolitan Borough Council intend to construct a mid-rise residential development comprising 6 residential apartment units over three storeys with associated landscaped areas, estate parking and utility infrastructure.

Drawing 16-124-002 (Appendix III) presents the proposed development layout. A snapshot of the proposed development layout is indicated in Figure 1.1.

FIGURE 1.1 SNAPSHOT OF PROPOSED DEVELOPMENT



1.3. OBJECTIVES

- ✧ The objectives of the geoenvironmental investigation are as follows:
- ✧ Review historical plans, geology, hydrogeology, site sensitivity, floodplain issues, mining records and any local authority information available to complete a desk study in line with Environment Agency (EA) document Land Contamination: Risk Management (LC:RM) (2021).
- ✧ Assess the implications of any potential environmental risks, liabilities and development constraints associated with the site concerning the future use of the site and to off-site receptors.
- ✧ Assess the desk-study information and, where possible, provide preliminary recommendations in relation to foundations, pavement construction and floor slabs.
- ✧ Provide recommendations regarding future works required and undertake a preliminary pre-construction cost appraisal.

1.4. SOURCES OF INFORMATION

Background information was sought from the following sources:

- ✧ Groundsure Search (GS-9028267);
- ✧ Historical mapping dated 1851 to 2019. A selection of historical maps are reproduced in Appendix V;
- ✧ On-line planning records held by Rochdale Metropolitan Borough Council;
- ✧ Consultations with representatives of Rochdale Metropolitan Borough Council;
- ✧ Magic Map Groundwater Vulnerability Map;
- ✧ Radon: Guidance on protective measures for new buildings (BRE Document BR 211, 2007);
- ✧ British Geological Survey Map;
- ✧ Groundsure IO database;
- ✧ <https://zeticauxo.com/downloads-and-resources/risk-maps/>; and,
- ✧ <https://flood-map-for-planning.service.gov.uk>.

1.5. LIMITATIONS

The limitations of this report are presented in Appendix I.



1.6. CONFIDENTIALITY

E3P has prepared this report solely for the use of the client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from E3P; a charge may be levied against such approval.

1.7. RISK CLASSIFICATION

E3P has utilised the available data to classify the site on the basis of its likely contaminated land liability and potential for geotechnical constraints in relation to the site development. The risk classification definitions are summarised in Table 1.1.

TABLE 1.1 RISK CLASSIFICATION

RISK	DEFINITION
Low	There are unlikely to be significant contaminated land liabilities/geotechnical constraints associated with the property.
Low Moderate	There are unlikely to be significant contaminated land liabilities/geotechnical constraints associated with the property with regard to the proposed use. However, minor issues may require further consideration in the event of future redevelopment of the site.
Moderate	Some potential contaminated land liabilities/geotechnical constraints are likely to affect the property as a result of historical and/or current activities. The risks identified are unlikely to pose an immediate significant issue but the purchaser/developer may wish to make further enquiries of the vendor or undertake further environmental improvements. Redevelopment of the site will likely require further site investigation.
Moderate High	Some potentially significant contaminated land liabilities/geotechnical constraints have been identified at the property that requires further assessment, including intrusive ground investigations.
High	Significant potential contaminated land liabilities/geotechnical constraints have been identified at the property. Further assessment including intrusive ground investigation will be required to determine the level of risk and associated liability.



2. SITE SETTING

2.1. SITE DETAILS

TABLE 2.1 SITE DETAILS

Site Address	Land off Brassey Street, Middleton, M24 6AR
National Grid Reference	E 387503 N 406558
Site Area	0.06 Ha.

All acronyms used within this report are defined in the Glossary presented in Appendix II.

A site location plan is presented in Appendix III as Drawing 16-124-001.

2.2. CURRENT SITE USE

E3P has undertaken a site walkover of the entire site and a description of the key findings is summarised in Table 2.2.

TABLE 2.2 SITE DESCRIPTION

Occupancy/Use	The subject site is a rectangular-shaped parcel of land located adjacent to 135 Brassey Street, approximately 1 km to the northeast of Middleton town centre. The site currently comprises an openly accessible parcel of maintained open green space associated with the neighbouring Boarshaw Working Men's Club. Mature trees are present in the northeast corner and at the western boundary.	
Surface Cover (%)	Buildings	0%
	Hardstand	5%
	Soft Cover	95%
Structures	No structures have been identified on site.	
Access	The site is openly accessible from Brassey Street along the north-western boundary and from the south-eastern site boundary from Boarshaw Road. Concrete bollards are present along Brassey Street.	
Slope	The site is uniform in topography with an even flat terrain with approximate elevation of 93 m AOD.	
Retaining Structures	There are no retaining structures present on site.	
Vegetation/Ecology	Managed grassland is present across the site, with two mature trees located at the north-west and south-east site boundary respectively.	
Hazardous Material Storage	No above-ground storage tanks (ASTs) or underground storage tanks (USTs) were observed at the site during the preliminary site walkover. Due to the previously undeveloped nature of the site, it is unlikely that hazardous materials storage will have occurred on the site.	
Asbestos-Containing Material (ACM)	No evidence of ACM was noted across the site during the site walkover.	
Polychlorinated Biphenyls (PCBs)	There is no equipment identified that may contain PCBs within the site boundary.	



Waste Storage	Potentially hazardous waste streams are unlikely to be generated at the site and none were observed during the preliminary site inspection.
Drainage/Utilities	A formal survey has not been completed. Statutory service plans do not record any services on-site.

2.3. SURROUNDING AREA

The surrounding area land uses are summarised in Table 2.2.

TABLE 2.2 SURROUNDING LAND USES

DIRECTION	LAND USE
North	Residential units
East	Boarshaw Working Men's Club
South	Whit Brook, Boarshaw Road, residential units
West	Residential units



3. SITE HISTORY

3.1. ON-SITE HISTORICAL DEVELOPMENT

A review of historical mapping and historical aerial imagery pertinent to the site is summarised in Table 3.1. In addition, historical site features are presented on Drawing No 16-124-003 in Appendix III.

TABLE 3.1 HISTORICAL DEVELOPMENT

MAP EDITION	HISTORICAL LAND USE	HISTORICAL MAP EXCERPT
1851 1:1,056	The site consists of agricultural fields, separated into 6 parcels with two structures recorded in the centre-south.	
1893 1:2,500	The site is no longer recorded as agricultural fields. Rows of presumed terraced houses are present along the north west and south east boundaries.	
1909 1:2,500	A small outbuilding is recorded adjacent the southern site boundary.	



MAP EDITION	HISTORICAL LAND USE	HISTORICAL MAP EXCERPT
1954 1:1,250	An additional small boundary segment is recorded belonging to the dwelling at the south eastern site boundary. Properties are now referenced by number.	

MAP EDITION	HISTORICAL LAND USE	HISTORICAL MAP EXCERPT
2019 Aerial Photograph	Most recent aerial photograph depicting the sites current composition and displaying no changes since 2003 mapping.	

3.2. OFF-SITE HISTORICAL DEVELOPMENT

A review of potentially contaminative uses identified on historical Ordnance Survey maps within a 250 m radius of the site is summarised in Table 3.2.

TABLE 3.2 SURROUNDING HISTORICAL DEVELOPMENT

SURROUNDING FEATURE	DISTANCE	DATES	DIRECTION
Boarshaw Mill Then: Mill Then: No longer recorded	56 m	Pre 1907–Pre 1932 Pre 1960–1990 Pre 1990 - Present	North East
Unspecified Pit Then: No longer recorded	115 m	Pre 1923–Pre 1932 Pre 1932 - Present	East
Boarshaw Bleach Works Then: Boarshaw Bleach Dye & Print Works Then: No longer recorded	167 m	Pre 1893–Pre 1932 Pre 1932–Pre 1954 Pre 1954 - Present	East
Cromer Ring (Cotton Spinning Mills) Then: marked as Cromer Industrial Estate Then: No longer marked	240 m	Pre 1954–Pre 1978 Pre 1978–Pre 1995 Pre 1995–Present	South East

3.3. PLANNING HISTORY

E3P has undertaken a review of online planning records held by Rochdale Metropolitan Borough Council and no environmentally pertinent information has been obtained for the site.

3.4. ANECDOTAL INFORMATION

No anecdotal information has been obtained for this site.

3.5. PREVIOUS REPORTS

No previous reports have been obtained for this site.



4. ENVIRONMENTAL SETTING

4.1. GEOLOGY AND HYDROGEOLOGY

The British Geological Survey (BGS) map for the site, (1:50,000, Solid and Drift editions) and online records indicate the site is underlain by the geological sequence presented in Table 4.1.

TABLE 4.1 SUMMARY OF UNDERLYING GEOLOGY

GEOLOGICAL UNIT	CLASSIFICATION	DESCRIPTION	AQUIFER CLASSIFICATION
Drift	Glaciofluvial Sheet Deposits	SAND and GRAVEL	Secondary A aquifer
Solid	Pennine Lower Coal Measures Formation	MUDSTONE, SILTSTONE, SANDSTONE	Secondary A aquifer

TABLE 4.2 SUMMARY OF BGS BOREHOLE RECORDS

LOCATION	DEPTH	MADE GROUND	DRIFT	SOLID
210 m E	78.03 m	None Encountered	CLAY and GRAVEL > 10 m	Grey Shale (17.67m)

TABLE 4.3 FAULTING

LOCATION	DESCRIPTION
91 m SW	Fault, inferred
159 m NE	Fault, inferred
244 m SE	Fault, Inferred

The Groundsure report indicates that the site is not located within a groundwater source protection zone. Furthermore, there are no groundwater/potable abstractions within 2 km of the site.

It is considered likely that shallow groundwater, if present, will flow in a south westerly direction, following the topographical gradient towards Whit Brook to the south.

4.2. NATURAL LANDFORM AND GEOMORPHOLOGY

Based on the initial geological assessment, a review of available topographic data and pertinent mapping, E3P has undertaken a preliminary geomorphological assessment of the landform and its possible mechanism for formation.

A river flows in a south westerly direction to the south of the subject site at a lower elevation than that of the site with a steep, partially wooded embankment. The current site level plateau will have been formed by the placement and upfilling of material before the construction of the historical development.

It is possible that the historical level raising has resulted in greater thicknesses of Made Ground overlying the natural glacial till and alluvial soils associated with the stream.

Prior to development, it is possible that the valley side falling to the river was at a lesser gradient and reduced angle compared to the current situation.



4.3. GEOTECHNICAL DATA

Geotechnical data presented within a commercially available environmental database is summarised in Table 4.4.

TABLE 4.4 SUMMARY OF GEOTECHNICAL DATA

HAZARD	DESIGNATION
Shrink-Swell Clay	Low risk
Landslides	Very low risk
Ground Dissolution	No hazard
Compressible Ground	Moderate risk
Collapsible Deposits	Very low risk
Running Sand	Low risk

4.4. COAL MINING

The Groundsure report states the site is in an area that may be affected by coal mining.

A CA mining report was obtained (Ref: 51003309357001) dated 5th September 2022.

The CA operates a risk-based approach to the assessment of potential instability issues associated with future development of land located within the predefined CA consultation areas. This risk-based approach subdivides the potential risk into “low” and “high” risk categories.

The risk categories can be defined as:

Low-Risk Sites – Deemed to be land where coal mining has taken place, however, it was at such depth not to pose a risk to new development and it, therefore, contains no known recorded risks and as such no further assessment is required.

For low-risk sites, the CA categorically states:

If your proposed development is within the Development Low Risk Area there is no need for you to submit any coal mining information with your planning application and The Coal Authority will not be consulted by the LPA. The LPA will include our Standing Advice as an informative note within the decision notice.

High-Risk Sites – Deemed to be landholdings located within an area known to contain legacy risks that include:

- ✧ Mine entries (shaft or adit);
- ✧ Shallow coal workings (recorded and probable);
- ✧ Workable coal seam outcrops;
- ✧ Mine gas sites and areas;
- ✧ Recorded coal-mining-related hazards;



- Geological features (fissures and break lines); and
- Former surface mining sites (sometimes using historic opencast extraction methods).

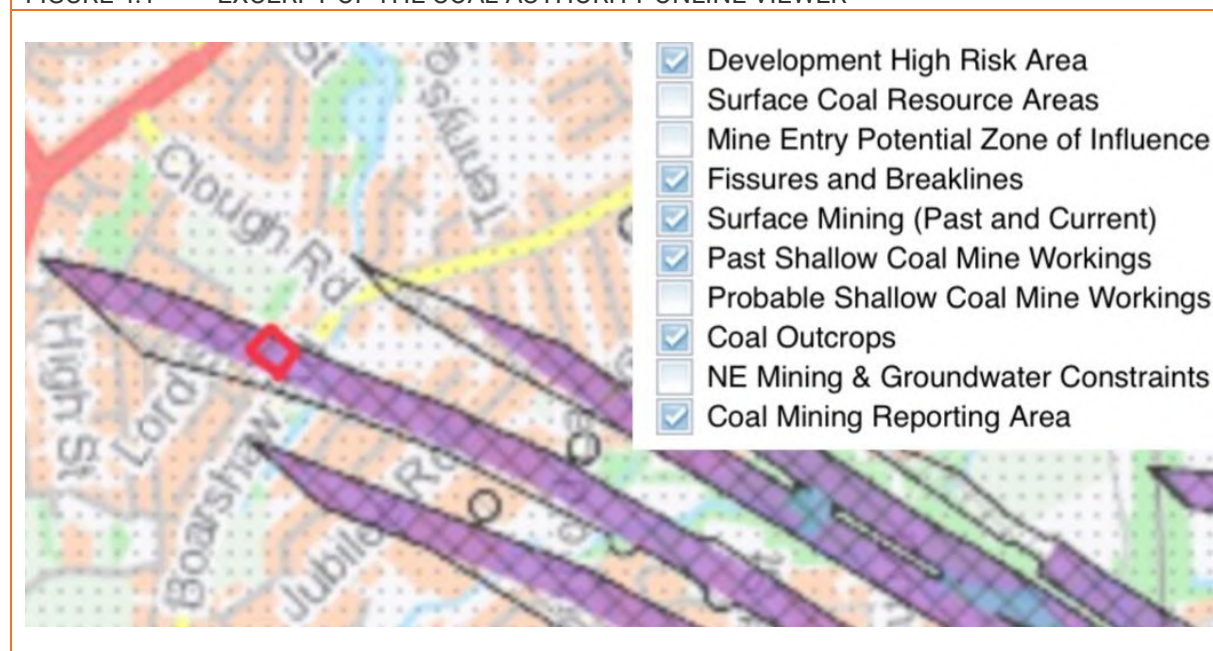
4.5. COAL MINING INFORMATION

Prior to the enactment of the Coal Mines Regulation Act (1872), which came into force on the 1st January 1883, there was no statutory requirement to record the extent of abandoned mine workings and as such, the CA has no knowledge of extensive workings throughout the UK Coal Fields where shallow workings are present at a depth that could result in a subsidence event in the future (through successive cavitation) associated with failure of the support mechanism.

To determine if a site may have unrecorded or recorded coal mine workings requires the consideration of a wide range of information, and E3P has completed a review of relevant information in relation to potential coal mining activities.

In the first instance, E3P has reviewed the Coal Authority Online Viewer, and an excerpt of this is presented as Figure 4.1. This map shows that the site lies within a development high-risk area associated with an outcropping coal seam to the north.

FIGURE 4.1 EXCERPT OF THE COAL AUTHORITY ONLINE VIEWER



As the site is within an area affected by Coal Mining E3P, have consulted with the Coal Authority, who have provided a Consultant Coal Mining Report for the site (ref: 51003309357001).

Table 4.5 provides a summary of pertinent coal mining information with this report.

TABLE 4.5 COAL MINING INFORMATION

SOURCES OF INFORMATION	SUMMARY
Known Past Underground Mining	Workings are recorded in the Arley Seam beneath the site at a depth of 159 m. The seam was reportedly last worked in 1874.



SOURCES OF INFORMATION	SUMMARY
Probable Unrecorded Workings	Yes.
Spine Roadways at Shallow Depth	No Spine roadways recorded at shallow depth.
Mine Entries Within 100 m of the Site	None recorded within 100 m of the boundary.
Mine Abandonment Plans	Yes
Known Outcrops	The Cannel Coal Seam is recorded to outcrop 20 m and 22 m to the north east of the site.
Faults / Fissures	No faults, fissures or break lines recorded on site.
Opencast Mines	No opencast mines recorded within 500 m of the site boundary.
Coal Authority Managed Tips	None recorded within 500 m of the site boundary.
Remediated Sites	None recorded within 50 m of the site boundary.
Coal Mining Subsidence	None recorded within 50 m of the site boundary.
Mine Gas	None recorded within 500 m of the site boundary.
Mine Water	None recorded within 500 m of the site boundary.
Future Underground Mining	None recorded.
Coal Authority Development Advice	The site is located within an area of historical mining activity and within a Development High Risk Area.
British Geological Survey Mapping	The following BGS Maps have been reviewed: - Country Maps 6" Lancashire 96 NE Solid Edition (1929) - Sheet 85, Manchester 1:50,000 Solid Edition (1974) Excerpts from each map are presented as Figure 4.2 and 4.3 respectively. Both maps record several coal seams cropping within the local region, intercepted by numerous faults. The Black Mine (BkM) is indicated to outcrop immediately north of the site, striking north east – south west and dipping south west (beneath the site) at c. 16 degrees from horizontal. The Black Mine is inferred to represent the Cannel Seam recorded within the Coal Authority Consultants Mining Report. The 6-inch map shows several mine entries to the north, west and south, associated with Tonge Colliery and Boarshaw Pit, indicating a legacy of mining in the wider area. Log annotations for the mapped mine entries on the 6-inch map record drift to 64-65 ft (19.5-20 m) bgl over sandstone, with coal at 79 and 96 ft (22.5 and 29 m).

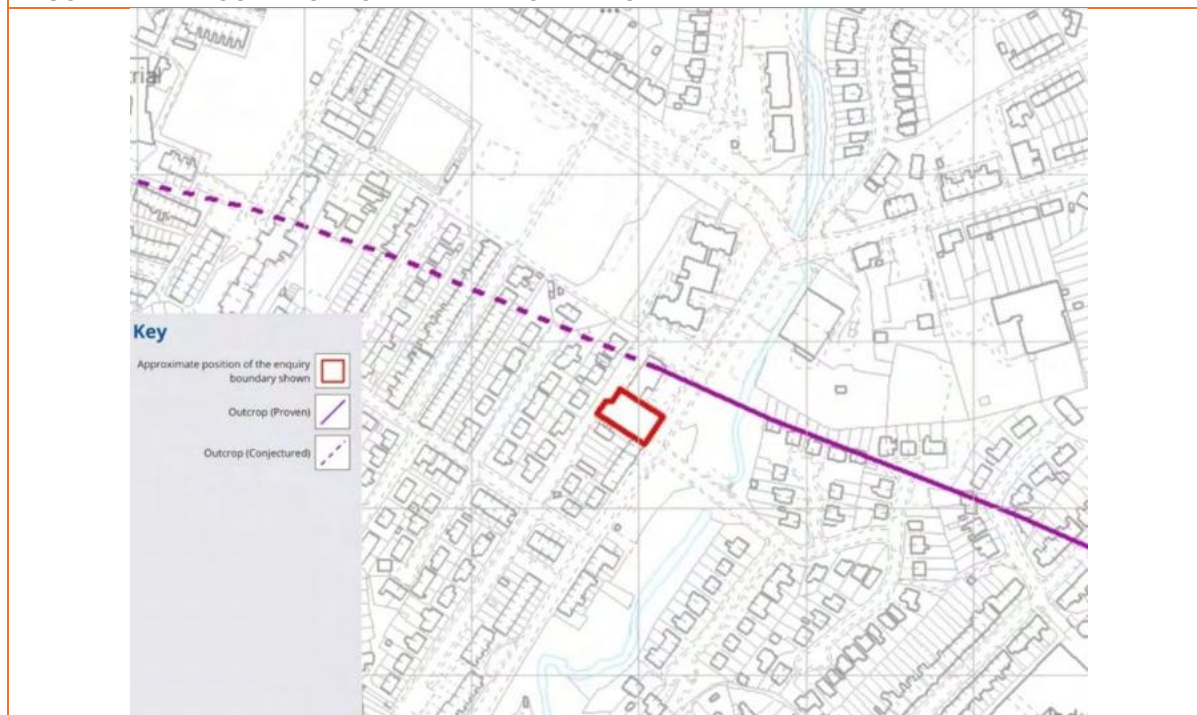


SOURCES OF INFORMATION	SUMMARY
	In consideration of the historical mining features in proximity to the site and potential for coal close to the surface it is considered possible that coal extraction has occurred, underlying the site at relatively shallow depths; further investigation would be required to determine the extent and depth of any worked seams.
BGS Memoirs	Correlation of shaft records has provided little information about the measures between the Arley and the Black Mines; this is owed to the presence of variations in the thickness of the sandstones in these measures and also the frequency of faulting in the area.
Review of Coal Authority Archive / Abandonment Plans	No CA archives/mine abandonment plans have been obtained for the site. Workings are recorded in the Arley Seam at a depth of 159 m beneath the site, these would not be considered to be within influencing distance of the surface. Unrecorded workings within the Black Mine (alternatively referenced as Cannel) are considered to present a greater risk.
Historical Ordnance Survey Mapping	Historical maps do not appear to show any mining features (collieries, pits, shafts etc) in close proximity of the site or the wider surrounding area.
Historical Site Investigations	E3P has not been provided with any historic site investigation reports.

4.5.1. COAL AUTHORITY PLAN

The Coal Authority plan referenced: MR-LARGE-PLOT-51003309357001-1662388323427 shows a proven coal seam striking north west – south east immediately north of the site.

FIGURE 4.1 COAL AUTHORITY PLAN FOR THE SITE



4.5.2. COAL MINING GEOLOGY

Figure 4.2 is an extract from BGS Sheet 85, Manchester 1:50,000 Solid Edition (1974) and Figure 4.3 is an extract from Country Maps 6" Lancashire 96 NE Solid Edition (1929)

Both maps record several coal seams cropping within the local region, intercepted by numerous faults. The Black Mine (BkM) is indicated to outcrop immediately north of the site, striking north east – south west and dipping south west (beneath the site) at c. 16 degrees from horizontal. (The Black Mine seam is inferred to represent the Cannel Seam recorded within the Coal Authority Consultants Mining Report).

The 6-inch map shows several mine entries to the north, west and south, associated with Tonge Colliery and Boarshaw Pit, indicating a legacy of mining in the wider area.

Log annotations for the mapped mine entries on the 6-inch map record drift to 64-65 ft (19.5-20 m) bgl over sandstone, with coal at 79 and 96 ft (22.5 and 29 m).

FIGURE 4.2 EXCEPT OF BGS SHEET 85, MANCHESTER 1:50,000 SOLID EDITION (1974)

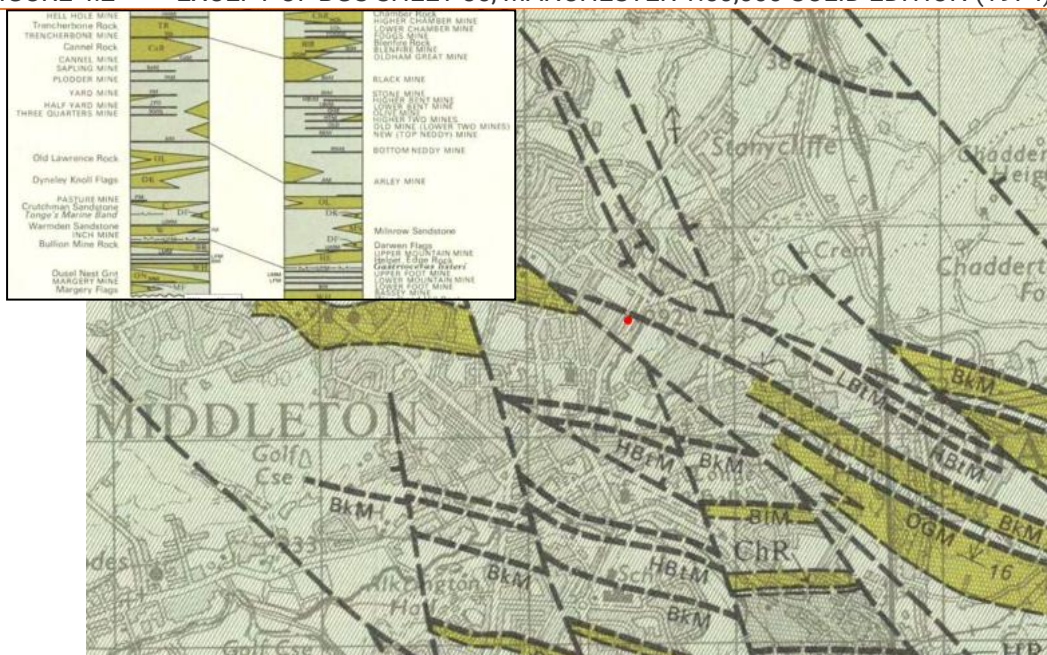


FIGURE 4.3 EXCEPT OF COUNTRY MAPS 6" LANCASHIRE 96 NE SOLID EDITION (1929)





4.6. PRELIMINARY MINE GAS ASSESSMENT

If coal mining is present below the site, then this may be a potential source of ground gas that could pose a risk to site end users. A preliminary mine gas assessment is provided in Table 4.6.

TABLE 4.6 PRELIMINARY MINE GAS ASSESSMENT

SCENARIO	DISCUSSION	RATING
Are there known coal seams beneath the site?	Yes – Cannel (Black Mine) at shallow depth <30 m. Arley at c. 159 m bgl.	Moderate
Are there coal seams within 150m of the top of bedrock?	Yes – Cannel (Black Mine) at shallow depth <30 m.	Moderate
Are there any known workings below the site?	Yes – there are known workings at 159 m bgl	Low
Are the underlying drift deposits impermeable?	No – The underlying drift in surrounding areas are noted to be moderate permeability granular deposits.	Moderate
Are there any mine entrances within the site boundary or within 50m of the site?	No – there are no recorded mine entrances within 50m of the site boundary.	Low
Are there any faults below the site or in close proximity?	No – The nearest recorded fault is circa 91m South West.	Low
Is there any records of mine gas emission on or within 50m of the site	No.	Low
Is there any record of historical mine stabilisation works?	No.	Low



SCENARIO	DISCUSSION	RATING
Evidence of rising groundwater in flooded mine workings?	Not known.	Low
OVERALL MINE GAS RISK (IF MODERATE/ HIGH THEN FURTHER ASSESSMENT IS REQUIRED)		Moderate
Conclusions:		
Source: The site is underlain by known coal workings at depth. Unrecorded workings in shallower seams may also be present, both of which are potential sources of ground gas. Pathway: The site is underlain by permeable granular deposits, increasing the risk of migration. Recommendations: Further assessment is required to assess the potential for mine gas to be migrating to the ground surface.		

4.7. COAL MINING RISK ASSESSMENT

This risk assessment comprises a desk-based review of all available information on coal mining issues relevant to the application site located within a high-risk area. This includes:

- ✦ Interpretation of information to identify and assess the risks to the proposed development of coal mining legacy, including the cumulative impact of issues;
- ✦ Setting out appropriate mitigation measures to address the coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrating how coal mining issues have influenced the proposed development; and
- ✦ Demonstrating to the local planning authority that the application site is, or can be made, safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

The coal mining risk assessment is summarised in Table 4.7

TABLE 4.7 SUMMARY OF COAL MINING RISK ASSESSMENT

COAL MINING RISK ASSESSMENT	YES/NO	RISK ASSESSMENT
Recorded Underground Coal Mining at Shallow Depth (< 30 m)	No	Low
Recorded Underground Coal Mining at Shallow Depth (> 30 m)	Yes	Moderate
Evidence of Unrecorded Surface Extraction of Coal Outcrop	No	Low
Unrecorded Underground Coal Mining at Shallow Depth (< 30 m)	Yes	High
Mine Entries (Shaft/Adits)	No	Low
Coal Mining Geology – Fractures/Fissures	No	Low
Recorded Gas Emissions	No	Low



COAL MINING RISK ASSESSMENT	YES/NO	RISK ASSESSMENT
Recorded Mining Surface Hazard	No	Low
Surface Mining (Opencast)	No	Very Low/Low

Based on the above, a high risk of unrecorded coal mining at shallow depth has been identified within the Cannel coal seam (Black Mine). The CA, as a statutory consultee, will require a series of rotary open holes across the site to determine the presence of any coal on-site and to understand the nature of any coal workings. Furthermore, the CA will require a probing exercise to be undertaken in the locality of the mine shaft in the northern sector of the site.

4.8. BRINE WORKINGS

The site is not situated within a brine working area.

4.9. RADON RISK POTENTIAL

The Envirocheck report indicates the site is situated in an area where less than 1% of homes are above the "Action Level" and that the BGS reports that full radon protective measures are not necessary for the construction of new dwellings or extensions.

4.10. PRELIMINARY GEOTECHNICAL ASSESSMENT

Based on the desk-study information, the following geotechnical assessment has been made:

- Given the previously developed nature of the site, it is likely there will be Made Ground fill deposits and obstructions present. Furthermore, relict foundations from previous structures will require grubbing out prior to the construction of the proposed development.

The site is very uniform in topography with a uniform flat terrain across the site.

4.11. HYDROLOGY

Surface water features within 250 m of the subject site are summarised in Table 4.8.

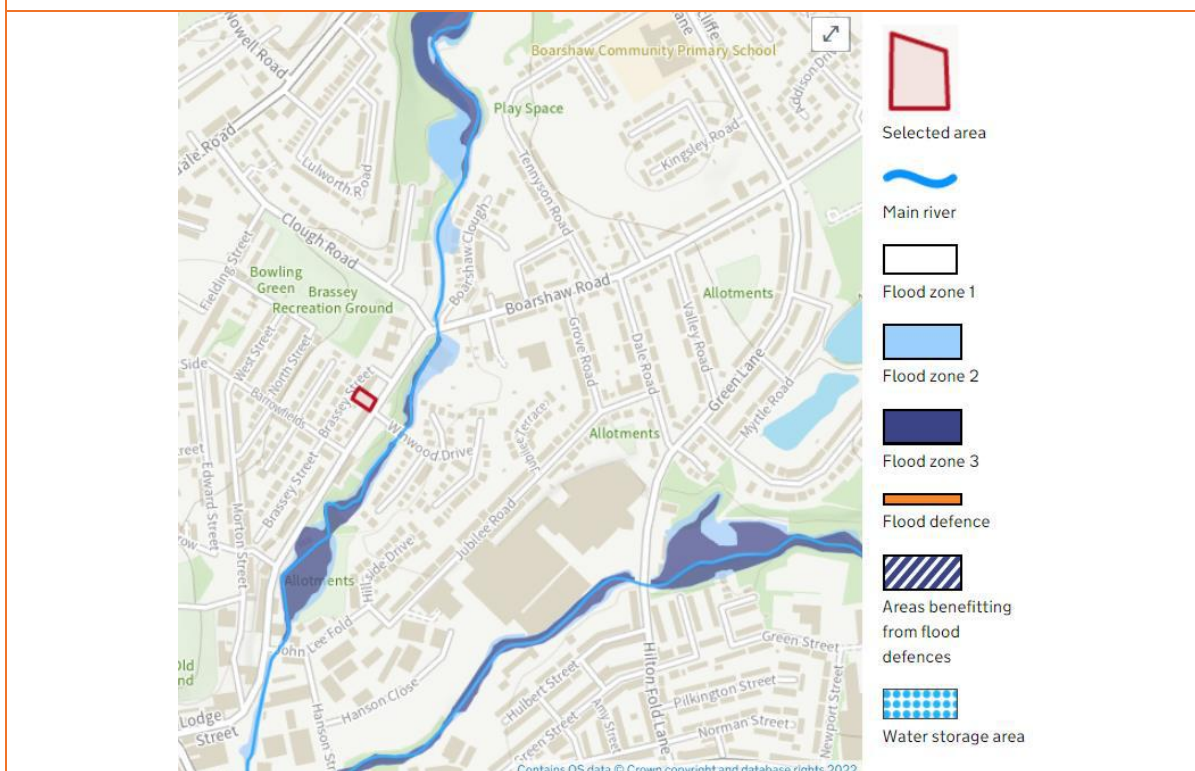
TABLE 4.8 SURFACE WATER FEATURES

SURFACE WATER FEATURE	QUALITY	DISTANCE (m)	DIRECTION
Whit Brook	Moderate	43 m	South East

The site is predominantly located within a currently defined "Flood Risk Zone 1"; defined as land assessed as having less than 1 in 1,000 annual probability of river or sea flooding (< 0.1%), and as such, is considered to be unaffected by river flooding. However, the Groundsure report states there is a moderate potential for groundwater flooding to occur at the site. The Environment Agency (EA) Flood Risk Map for the site is presented in Figure 4.3.



FIGURE 4.3 EA FLOOD RISK MAP



Source - <https://flood-map-for-planning.service.gov.uk/>

4.12. INDUSTRIAL LAND USES

The site is located within a predominantly agricultural and residential area, therefore there are limited entries within the trade directory noted below.

- ✧ Electricity Sub Station (52m S, 127m NE, 145m NE)
- ✧ Telecommunication Mast (162m NE)
- ✧ United Flags Ltd (212m E)
- ✧ Unspecified Works (231m E)

4.13. SENSITIVE LAND USES

The closest residential properties are located adjacent to the western, northern and eastern boundaries of the site. No other environmentally sensitive land uses have been identified within close proximity to the site.

4.14. SITE SENSITIVITY ASSESSMENT

The site is assessed to be located within a "Moderate" sensitivity setting as discussed within Table 4.10.



TABLE 4.10 SITE SENSITIVITY ASSESSMENT

SENSITIVITY PROFILE	DISCUSSION	RATING
Groundwater Source Protection Zone or Drinking Water Safeguard Zone	The site is not located within 2 km of a Groundwater Source Protection Zone or Drinking Water Safeguard Zone.	Low
Distance to the Closest Groundwater Abstraction Point	There are no active groundwater abstraction points recorded within 2 km of the site boundary.	Low
Aquifer Classification in Superficial Drift Deposits	Secondary A superficial aquifer is recorded beneath the site.	Moderate
Aquifer Classification in Bedrock	Secondary A Bedrock aquifer is recorded beneath the site.	Low/Moderate
Is the Site Underlain by Low-Permeability Drift to Depths in Excess of 10 m?	The underlying superficial deposits are likely to comprise gravelly sands interbedded with low-permeability clay soils to depths of c. 20 m.	Low/Moderate
Is the Site Located Within 50 m of a Surface Watercourse?	Whit Brook is located 43 m east of the site boundary.	High
Sensitive Land Uses	The site is situated within a densely populated residential area.	High
OVERALL SITE ENVIRONMENTAL SENSITIVITY		Moderate



5. REGULATORY DATA

5.1. LANDFILL SITES AND WASTE TREATMENT SITES

There are no recorded active or historical landfills located within 250 m of the site location.

Areas of artificial deposits and infilled ground are recorded within 250 m of the site, which may be potential sources of migrating hazardous gas.

5.2. REGULATORY DATABASE

The information summarised in Table 5.1 has been obtained from a commercially available environmental database. The summary table only includes records from within 250 m of the subject site and not otherwise detailed in the report.

TABLE 5.1 SUMMARY OF ENVIRONMENTAL DATA

RECORD	ENTRIES WITHIN 250 m	DETAILS
Contaminated Land Register Entries and Notices	0	None Identified
Authorised Industrial Processes (IPC/IPPC/LAPPC)	0	None Identified
Fuel Stations Entries	0	None Identified
Licensed Radioactive Substances	0	None Identified
Enforcements, Prohibitions or Prosecutions	0	None Identified
Discharge Consents	4	✱ Boarshaw Road, 70m S – Sewage Discharges to Whit Brook (Status: Revoked 2019). ✱ Boarshaw Road, 129m NE – Sewage Discharges to Whit Brook (Status: Revoked 2016) ✱ Boarshaw Road, 137m NE – Sewage Discharges to Whit Brook (Status: Active) ✱ Boarshaw Road, 139m S – Sewage Discharges to Whit Brook (Status: Active).



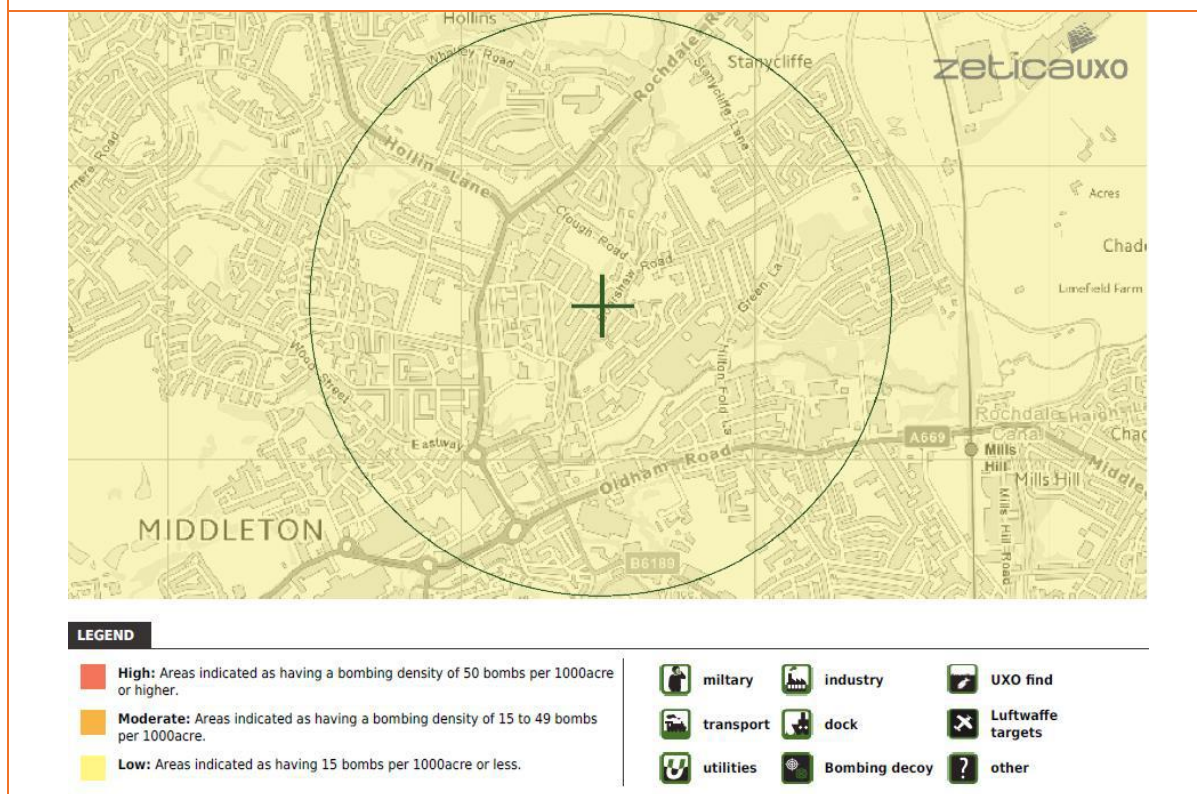
RECORD	ENTRIES WITHIN 250 m	DETAILS
Pollution Incidents	13	- Specific Waste Materials, 2001 (117 m N E) – Minor land Impact. - Specific Waste Materials, 2001 (142m NE) – Minor land and air impact. - Atmospheric Pollutants and Effects, Inert Construction and Demolition Materials and Wastes, Fumes, 2002 (161m E) – Minor land and air impact. - Specific Waste Materials, Household wastes, inert materials, 2001 (181 m E) – Minor land impact. - Atmospheric Pollutants and Effects, smokes and demolition materials and wastes 2002 (188m E) – Minor land and air impact. - Unidentified Pollutant (218m NE) – Minor land impact. - General Biodegradable Materials and Wastes, 2001 (281 m NE) – Minor land and air impact.
Consents Issued Under the Planning (Hazardous Substances) Act 1990	0	None Identified
Control of Major Accident Hazard (COMAH) Sites	0	None Identified

5.3. UNEXPLODED ORDNANCE

The regional unexploded bomb risk map from Zetica (2014) indicates that the site is in an area at low risk from possible unexploded ordnance (UXO) resulting from the Second World War. The Zetica UXO Risk Map is presented in Figure 5.1.



FIGURE 5.1 ZETICA UXO RISK MAP



Source - <https://zeticauxo.com/downloads-and-resources/risk-maps/>

5.4. INITIAL CONCEPTUAL SITE MODEL

- ✦ In accordance with EA LCRM (2019) and BSI 10175 (Code of Practice for Investigation of Potentially Contaminated Land), E3P has developed an initial conceptual site model (CSM) to identify potential contamination sources, migration pathways and receptors within the study area. This is summarised within Table 5.1. On-Site Sources of Contamination
- ✦ The following potential on-site sources of contamination have been identified: Made Ground – Heavy Metals, Speciated Polycyclic Aromatic Hydrocarbons (PAH), Total Petroleum Hydrocarbons (TPH), asbestos and ground gas (CO₂ and CH₄)
- ✦ Mine Gas – CO₂ and CH₄

OFF-SITE SOURCES OF CONTAMINATION

The following potential off-site source of contamination have been identified:

- ✦ Boarshaw Bleach, Dye and Print Works and infilled reservoirs – 80 m north east
- ✦ Boarshaw Cotton Mill – 225 m



5.5. CONCEPTUAL SITE MODEL

Following the completion of the intrusive site investigation, chemical analysis and risk assessment, the conceptual model shown in Table 5.1 has been prepared for the site.

TABLE 5.1 CONCEPTUAL MODEL

POLLUTANT LINKAGE	CONTAMINANT (SOURCE)	PATHWAY	RECEPTOR	PROBABILITY	CURRENT RISK	RESIDUAL RISK AFTER MITIGATION
PL1 PL2	Heavy Metals, non-volatile PAH (Made Ground)	Dermal contact. Dermal contact and ingestion.	Future site users. Off-site receptors.	Likely	Low	LOW
Discussion: Made Ground may underlie the site, associated with historical development within the site boundary, which may contain contaminants such as heavy metals and non-volatile PAH. Given the proposed development will comprise apartments with limited soft landscaping, the potential for direct contact is therefore reduced. The risk to future residential end users is considered low. Recommendation: A site investigation is recommended to assess the presence of soil contamination. Cover system to garden and landscaped areas will prevent exposure to future site users. Construction works completed with PPE and provision of welfare.						
PL3	ACM (Made Ground / historical developments)	Inhalation of dust.	Future site users. Buildings. Off-site land users.	Likely	Moderate	LOW
Assessment: Due to the age of the historically developed buildings, it is possible that ACM will be present within localised areas of Made Ground present on site. The risk to construction workers during the groundworks phase is considered moderate, with the risk to future end users reduced. Recommendation: Site investigation recommended. Cover system to garden and landscaped areas will prevent exposure to future site users. Construction works completed with PPE and provision of welfare.						



POLLUTANT LINKAGE	CONTAMINANT (SOURCE)	PATHWAY	RECEPTOR	PROBABILITY	CURRENT RISK	RESIDUAL RISK AFTER MITIGATION
PL4	Volatile contaminants hydrocarbons (Made Ground)	Inhalation of vapours. Migration through permeable strata and preferential pathways.	Future site users. Off-site receptors.	Low Likelihood	Low	LOW
Assessment: Historically the site was occupied by residential properties, therefore, no significant sources of volatile contamination have been identified. The overall risk to construction workers and residential end users is considered low. Recommendation: Site investigation recommended.						
PL4	Methane, carbon dioxide (Coal Measures, Made Ground, Infilled Features)	Inhalation of gas. Migration through permeable strata and preferential pathways. Explosion in confined spaces.	Future site users. Buildings. Off-site land users.	Likely	Moderate	LOW
Assessment: Made Ground, potential unrecorded shallow mine workings and infilled reservoirs (80 m north east) are all potential sources of ground gas to the site. The underlying natural drift is likely to comprise moderate permeability granular strata, thus providing a viable migration pathway. The risk from ground gas is considered moderate. Recommendation: Either gas monitoring or precautionary CS2 measures are required.						



POLLUTANT LINKAGE	CONTAMINANT (SOURCE)	PATHWAY	RECEPTOR	PROBABILITY	CURRENT RISK	RESIDUAL RISK AFTER MITIGATION
PL5	Mobile contaminants such as metals, PAHs, hydrocarbons, volatile compounds (Made Ground, Historical Mining, Bleach and Dye Works)	Surface runoff. Migration through permeable strata and preferential pathways. Perched waters migration.	Groundwater (secondary A aquifer). Surface water (Whit Brook).	Low Likelihood	Low	LOW
Assessment: Significant sources of mobile contamination have not been identified on the site that may present a direct risk to controlled waters. The overall risk to controlled waters from the site is considered low. Given the anticipated presence of granular strata, there is a theoretical risk of mobile contamination migrating from the former Bleach and Dye works to the site within groundwater. However, the likelihood of this is reduced because the migration pathway would be interrupted by the Whit Brook which runs between the site and the former works. Recommendation: Sampling of groundwater and surface water recommended.						
PL6	Sulphate (potential ash within Made Ground)	Sulphate attack on concrete.	Building structure.	Likely	Moderate/Low	LOW
Assessment: Made Ground with ashy constituents is a potential source of Sulphate, which presents issues with sulphate attack on concrete if present at elevated levels. Recommendation: Site investigation recommended.						



POLLUTANT LINKAGE	CONTAMINANT (SOURCE)	PATHWAY	RECEPTOR	PROBABILITY	CURRENT RISK	RESIDUAL RISK AFTER MITIGATION
PL7	Organic contaminants such as hydrocarbons, solvents (Made Ground, Historical Bleach and Dye works).	Ingestion of tainted water supply.	Future site users. Water pipes.	Low Likelihood	Moderate	LOW
Assessment: Significant organic contamination is not anticipated at pipeline depth (0.75–1.35 m). Recommendation: Intrusive investigation required. If present, barrier pipes may be required.						
PL8	Phytotoxic contaminants (Made Ground)	Direct Contact (plant uptake).	Flora.	Likely	Low	LOW
Assessment: Likely probability as contamination sources on site are considered possible, which may be taken up by flora in soft landscaping/gardens. Recommendation: Investigation work as part of PL1.						

Notes:

Main exposure pathways: PL1 = soil ingestion, PL2 = dermal contact and ingestion, PL3 = dust inhalation; PL4 = Vapour/Gas Inhalation; PL5 = Vertical / Lateral Migration; PL6 = Corrosion of concrete; PL7=Tainting of water supply; PL8 = Uptake by plants;



6. CONCLUSIONS AND RECOMMENDATIONS

6.1. SITE SUMMARY

Current Site Use	The subject site is a rectangular-shaped parcel of land located adjacent to 135 brassey street, approximately 1 km to the north east of Middleton town centre. The site currently comprises an openly accessible parcel of maintained open green space associated with the neighbouring Boarshaw working men's club. Mature trees are present in the north east corner and at the western boundary.
Historical Site Use	Earliest mapping showed the site to comprise several fields separated by field boundaries. Terraced residential properties were constructed pre 1893 and were later demolish pre 1975, after which point the site remained vacant.
Site Sensitivity	The site is situated within a residential development area, with dwellings adjacent to the northern and eastern site boundary.

6.2. CONTAMINATED LAND ASSESSMENT

Human Health	Made Ground may underly the site, associated with historical development within the site boundary, which may contain contaminants such as heavy metals, non-volatile PAH and asbestos. Given the proposed development will comprise apartments with limited soft landscaping, the potential for direct contact is therefore reduced. The risk to future residential end users is considered low/moderate
Controlled Waters	Controlled waters receptors are identified as the underlying Secondary A drift and bedrock aquifers, together with the off-site Whit Brook. Significant sources of mobile contamination have not been identified on the site that may present a direct risk to controlled waters. The overall risk to controlled waters from the site is considered low.
Ground Gas	Made Ground, potential unrecorded shallow mine workings and infilled reservoirs (80 m north east) are all potential sources of ground gas to the site. The underlying natural drift is likely to comprise moderate permeability granular strata, thus providing a viable migration pathway. The risk from ground gas is considered moderate.
Potable Water	An UKWIR risk assessment is required to determine whether barrier pipes will be required. .



6.3. COAL MINING

Coal Mining	The site is located within a Coal Authority defined development high-risk area and workings are recorded in the Arley Seam beneath the site at a depth of 159 m. Unrecorded shallow workings are also considered probable, associated with the Cannel Coal seam that is recorded to outcrop to the north of the site. Geological maps indicate the Black Mine (BkM) to outcrop immediately north of the site, dipping beneath the site. (The Black Mine seam is inferred to represent the Cannel Seam recorded by the Coal Authority. Several mine entries are also recorded to the north, west and south of the site, associated with Tonge Colliery and Boarshaw Pit, indicating a legacy of mining in the wider area. Log annotations for the mapped mine entries on the 6 inch map record drift to 64-65 ft (19.5-20 m) bgl over sandstone, with coal at 79 and 96 ft (22.5 and 29 m). Based on the above, there is considered to be a moderate risk from shallow coal mining beneath the site (<30 m bgl).
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6.4. GEOTECHNICAL ASSESSMENT

Geological	The site is anticipated to be underlain by c. 20 m of granular drift, with coal seams in the bedrock at depths c. 25-30 m bgl.
Civil and Structural	Relict substructures and obstructions may be present associated with the historic developments on-site.
Abnormal Foundations	It is likely that shallow strip / trench foundations will be suitable for the proposed structure, subject to the depth of Made Ground. Piled foundations would be precluded by the presence of coal mine workings.

END OF REPORT



APPENDIX I

LIMITATIONS

1. This report and its findings should be considered in relation to the terms of reference and objectives agreed between E3P and the client as indicated in Section 1.3.
2. For the work, reliance has been placed on publicly available data obtained from the sources identified. The information is not necessarily exhaustive and further information relevant to the site may be available from other sources. When using the information it has been assumed it is correct. No attempt has been made to verify the information.
3. This report has been produced in accordance with current UK policy and legislative requirements for land and groundwater contamination which are enforced by the local authority and the Environment Agency. Liabilities associated with land contamination are complex and requires advice from legal professionals.
4. During the site walkover, reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover, no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not been made known or accessible.
5. Access considerations, the presence of services and the activities being carried out on the site limited the locations where sampling locations could be installed and the techniques that could be used.
6. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.
7. Where mention has been made to the identification of Japanese Knotweed and other invasive plant species and asbestos or asbestos-containing materials, this is for indicative purposes only and do not constitute or replace full and proper surveys.
8. The executive summary, conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the report in full.
9. E3P cannot be held responsible for any use of the report or its contents for any purpose other than that for which it was prepared. The copyright in this report and other plans and documents prepared by E3P is owned by them and no such plans or documents may be reproduced, published or adapted without written consent. Complete copies of this may, however, be made and distributed by the client as is expected in dealing with matters related to its commission. Should the client pass copies of the report to other parties for information, the whole report should be copied, but no professional liability or warranties shall be extended to other parties by E3P in this connection without their explicit written agreement there to by E3P.
10. New information, revised practices or changes in legislation may necessitate the re-interpretation of the report, in whole or in part.



APPENDIX II

GLOSSARY

TERMS

ACM	Asbestos-containing material	MMP	Materials management plan
ADS	Acoustic design statement	ND	Not detected
AST	Above-ground storage tank	NDP	Nuclear density probe
BGS	British Geological Survey	NMP	Noise management plan
BSI	British Standards Institute	NPSE	Noise policy statement for England
BTEX	Benzene, toluene, ethylbenzene, xylenes	NR	Not recorded
CA	Coal Authority	PAH	Polycyclic aromatic hydrocarbon
CBR	California bearing ratio	PCB	Polychlorinated biphenyl
CIEH	Chartered Institute of Environmental Health	PI	Plasticity index
CIRIA	Construction Industry Research Association	PID	Photo ionisation detector
CLEA	Contaminated land exposure assessment	POS	Public open space
CML	Council of Mortgage Lenders	PPE	Personnel protective equipment
CoC	Contaminants of concern	ProPG	Professional practice guidance
CSM	Conceptual site model	QA	Quality assurance
DNAPL	Dense non-aqueous phase liquid (chlorinated solvents, PCB)	SGV	Soil guideline value
DWS	Drinking water standard	SPH	Separate-phase hydrocarbon
EA	Environment Agency	SPT	Standard penetration test
EQS	Environmental quality standard	SVOC	Semi-volatile organic compound
FFL	Finished floor level	TPH	Total and speciated petroleum hydrocarbon
GAC	General assessment criteria	TPH CWG	Total Petroleum Hydrocarbon (Criteria Working Group)
GL	Ground level	UKWIR	United Kingdom Water Infrastructure Risk
GSV	Gas screening value	UST	Underground storage tank
HCV	Health criteria value	VCC	Vibro-concrete column
ICSM	Initial conceptual site model	VOC	Volatile organic compound
LEL	Lower explosive limit	VRSC	Vibro-replacement stone columns
LMRL	Lower method reporting limit	VSC	Vibro-stone columns
LNAPL	Light non-aqueous phase liquid (petrol, diesel, kerosene)	WHO	World Health Organisation
MCV	Moisture condition value	WRAP	Waste and Resources Action Programme



Brassey Street, Middleton

Phase I Geoenvironmental Site Assessment
September 2022

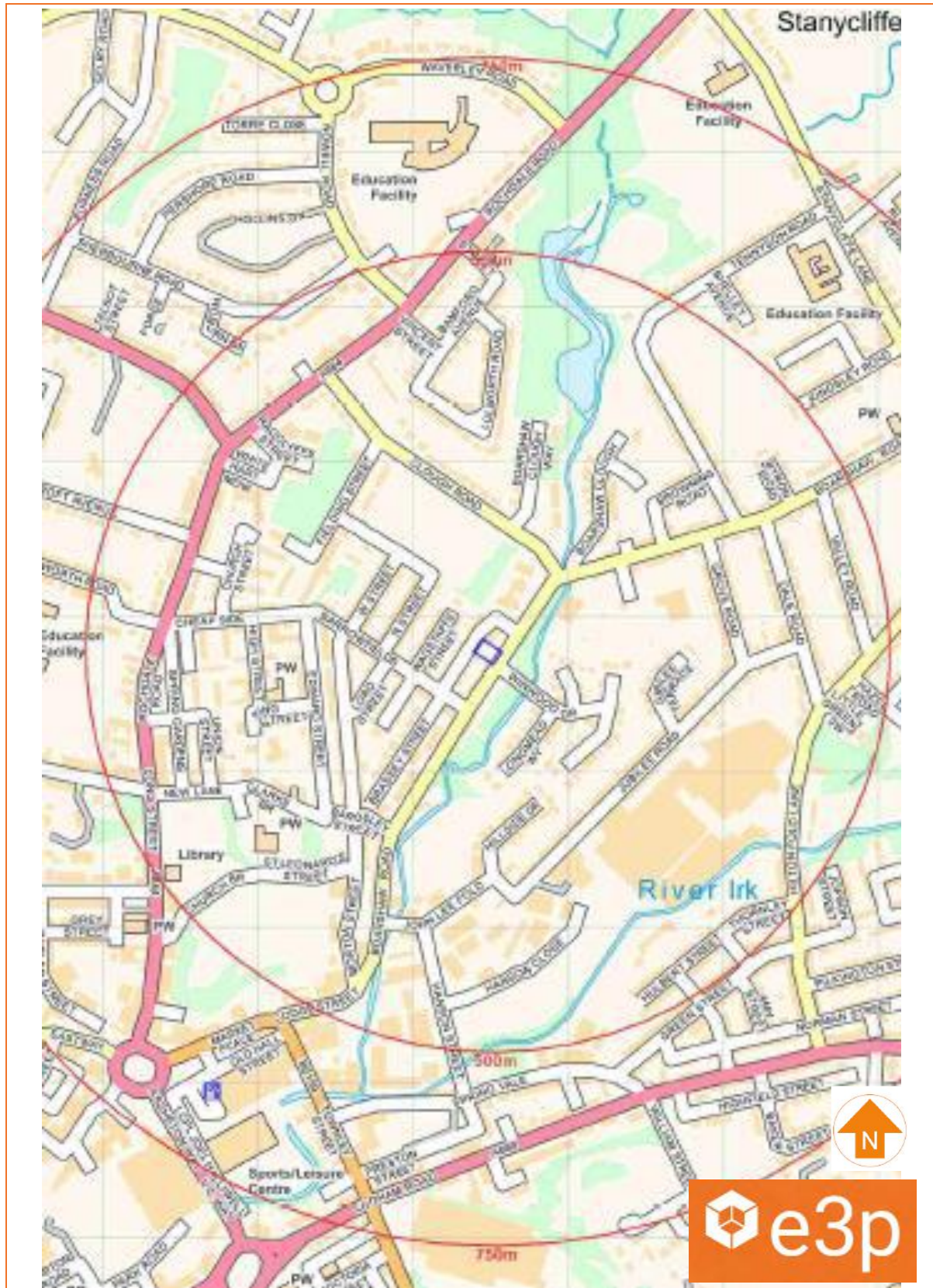
MIBK	Methyl isobutyl ketone	WTE	Water table elevation
m	Metres	ppm	Parts per million
km	Kilometres	mg/m³	Milligram per metre cubed
% v/v	Percent volume in air	m bgl bgl	Metres below ground level
mb	Millibars (atmospheric pressure)	m bcl	Metre below cover level
l/hr	Litres per hour	mAOD	Metres above ordnance datum (sea level)
µg/l	Micrograms per litre (parts per billion)	kN/m²	Kilonewtons per metre squared
ppb	Parts per billion	µm	Micrometre
mg/kg	Milligrams per kilogram (parts per million)	SSRT	Site Specific Remediation Target
PSD	Particle Size Distribution	DD	Dry Density
CL:AIRE	Contaminated Land: Applications in Real Environments	Mc	Moisture Content
ρ	Bulk Density	GPR	Ground Penetrating Radar
NDP	Nuclear Density Probe	FFL	Finished Floor Level
LEL	Lower Explosive Limit	UKWIR	UK Water Industry Research
CIRIA	Construction Industry Research and Information Association	LOD	Limit of Detection



APPENDIX III

DRAWINGS

DRAWING 16-124-001 – SITE LOCATION PLAN



APPENDIX V

HISTORICAL MAPS

Site Details:

137, BOARSHAW ROAD,
MIDDLETON, M24 6AR

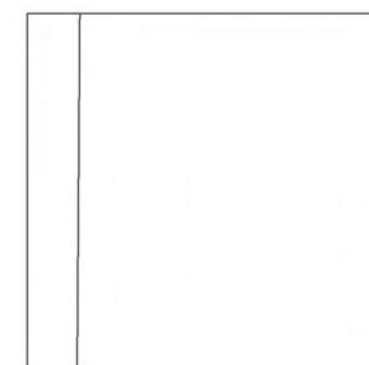
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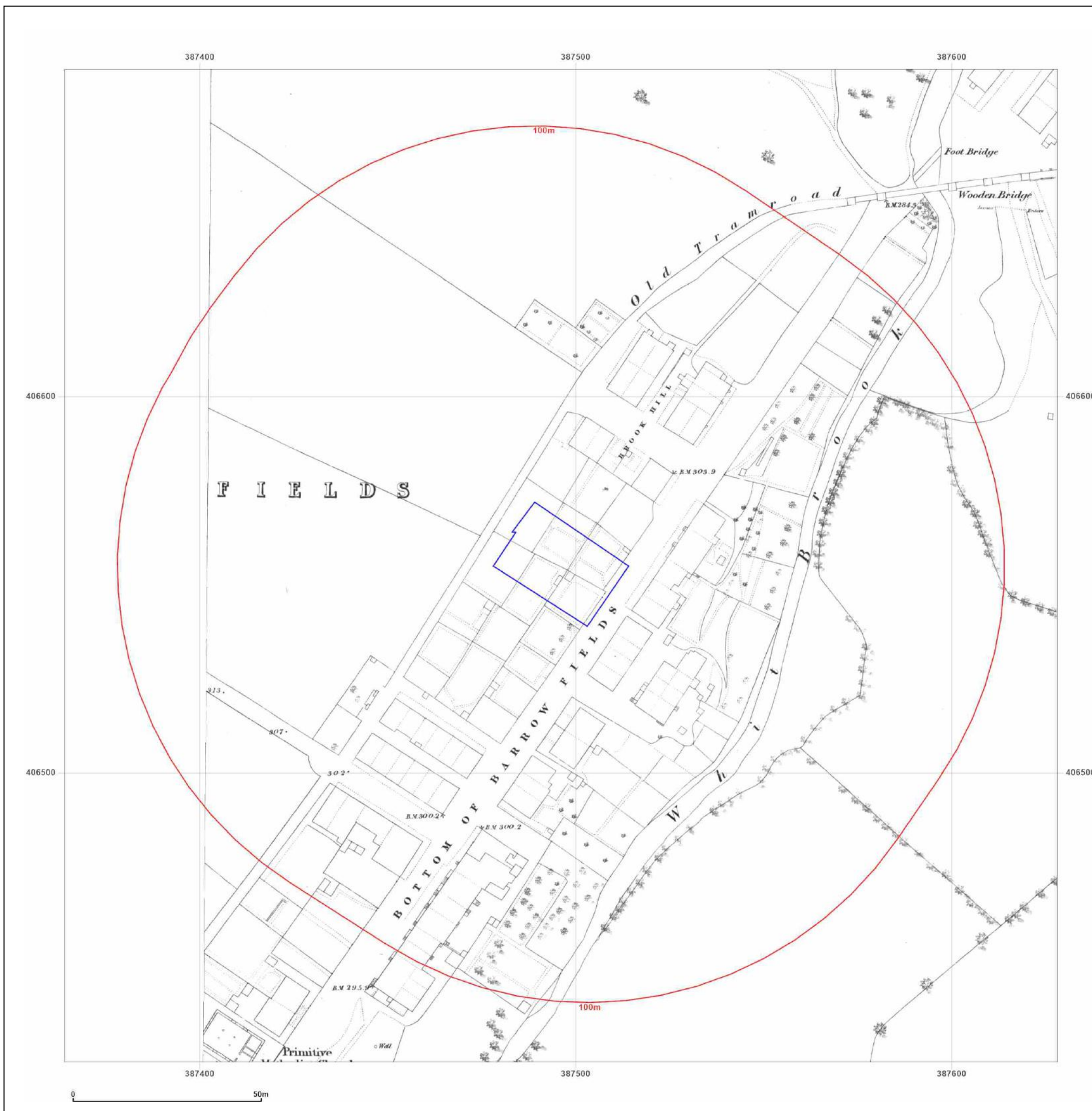


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Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: County Series

Map date: 1893

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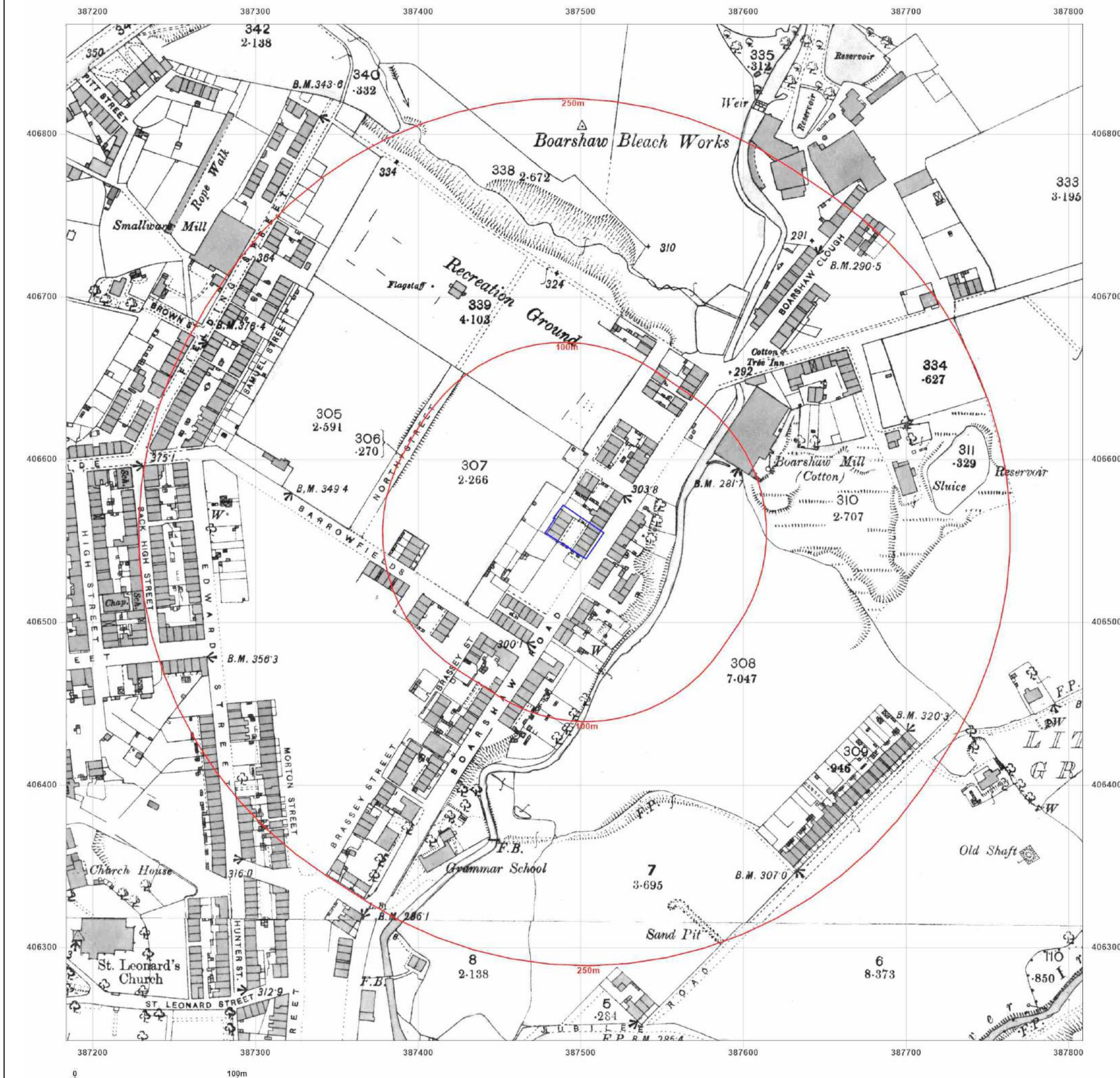


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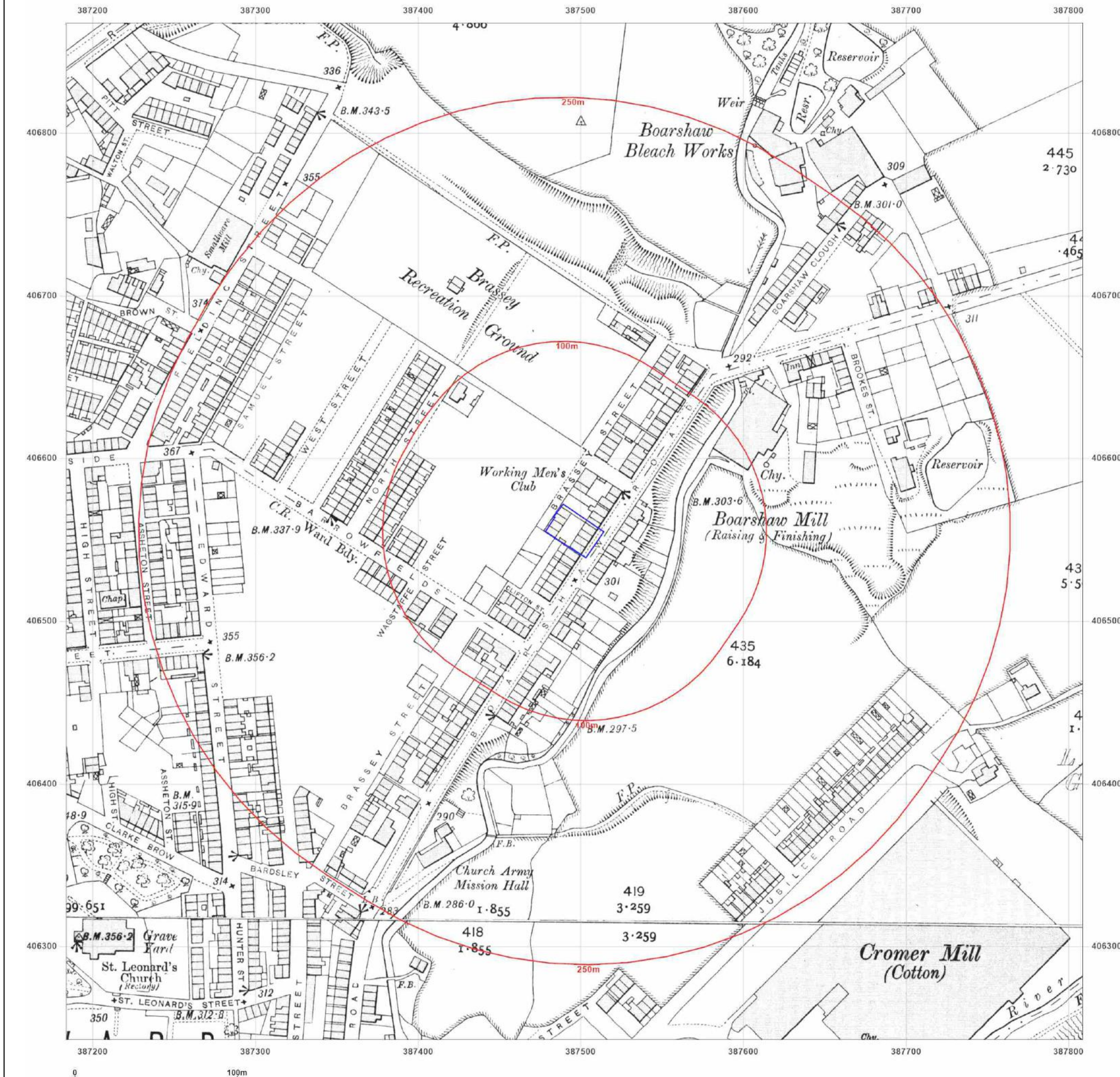


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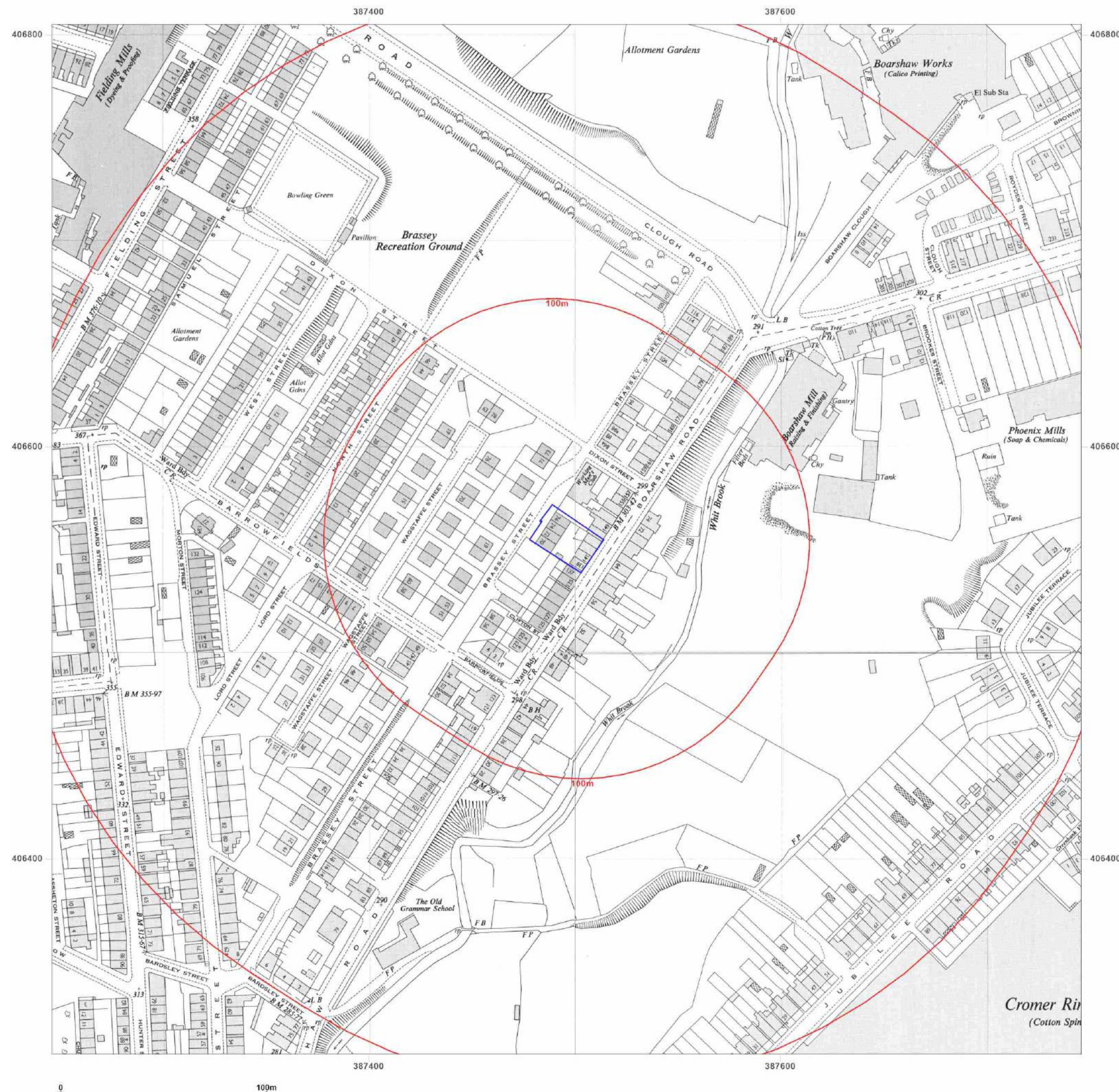


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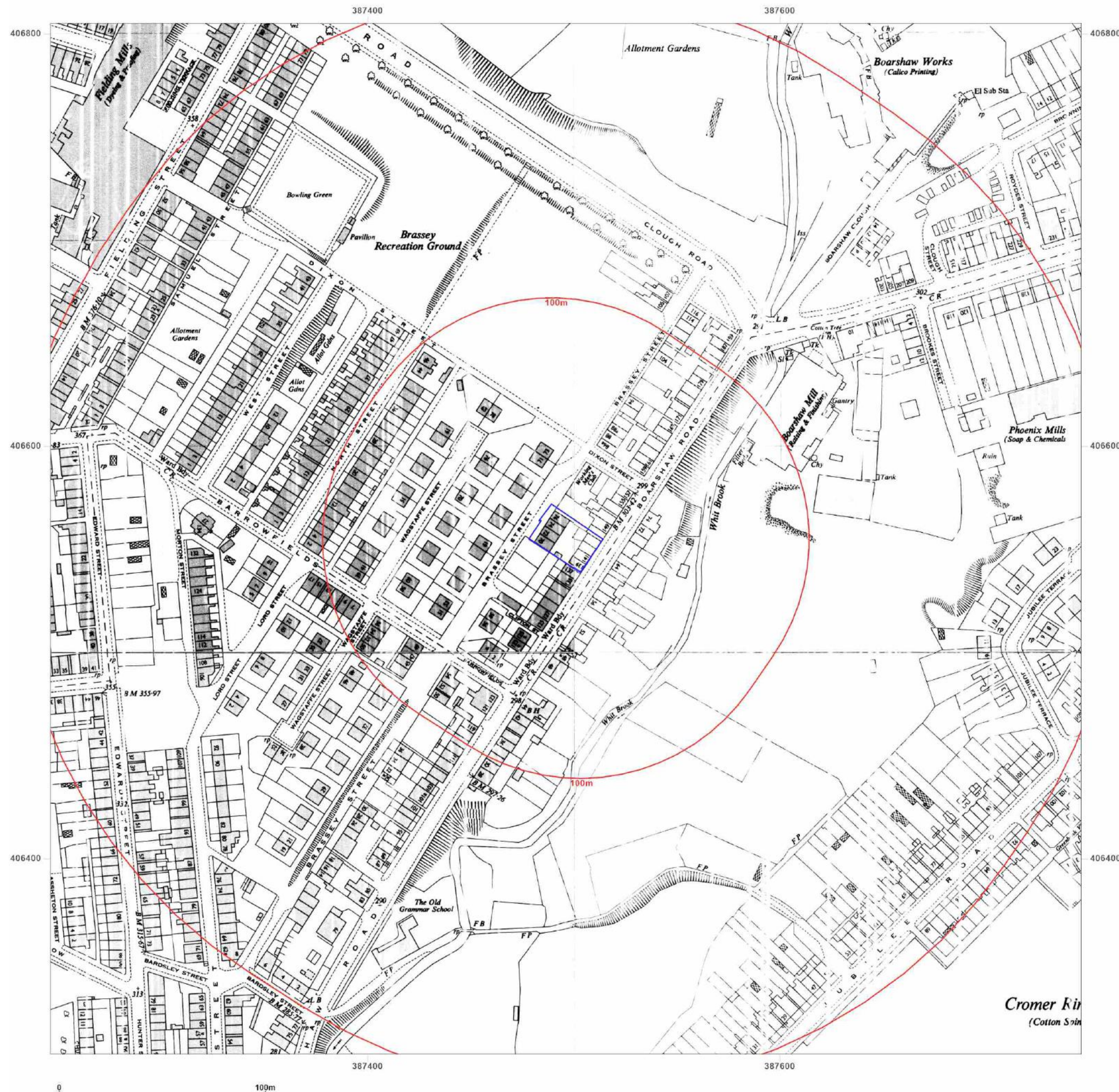


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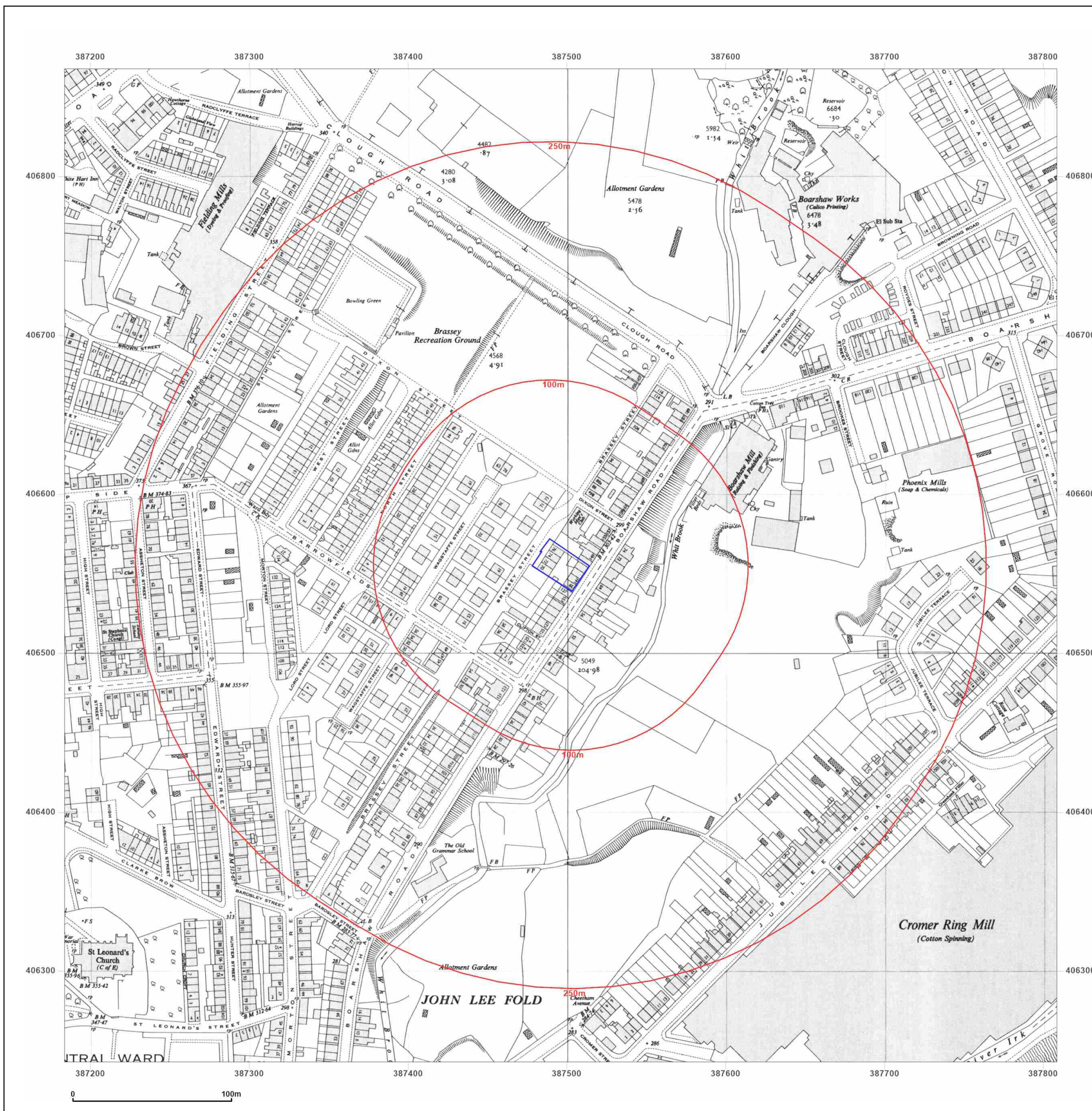


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Site Details:

137, BOARSHAW ROAD,
MIDDLETON, M24 6AR

Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1960

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1954
Revised 1959
Edition N/A
Copyright 1960
Levelled 1956

Surveyed 1954
Revised 1959
Edition N/A
Copyright 1960
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Site Details:

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MIDDLETON, M24 6AR

Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1967-1970

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1954
Revised 1970
Edition N/A
Copyright 1970
Levelled 1962

Surveyed 1954
Revised 1970
Edition N/A
Copyright 1970
Levelled 1962

Surveyed 1954
Revised 1967
Edition N/A
Copyright 1967
Levelled 1962

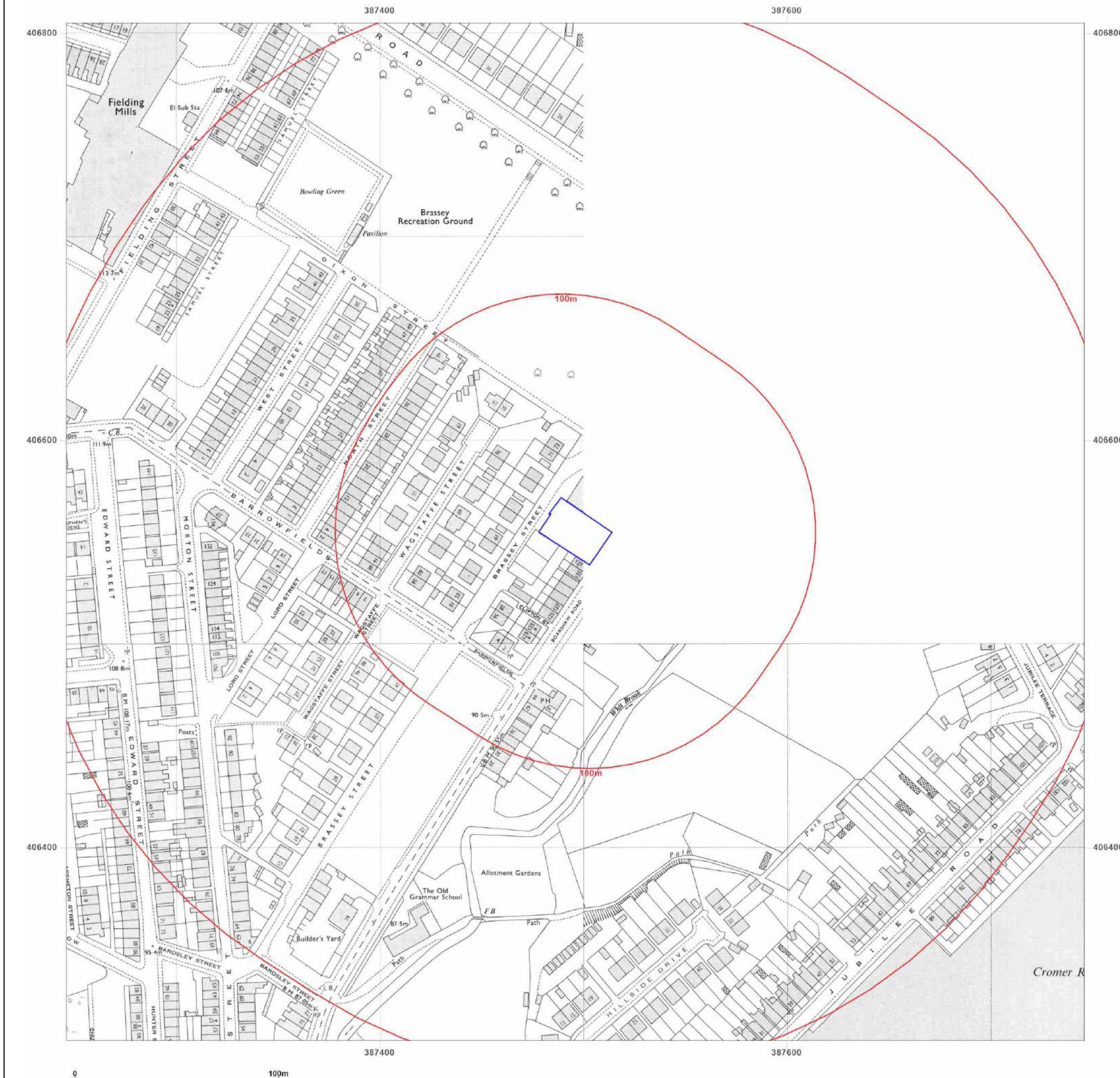


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Site Details:

137, BOARSHAW ROAD,
MIDDLETON, M24 6AR

Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1975

Scale: 1:1,250

Printed at: 1:2,000



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

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

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

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

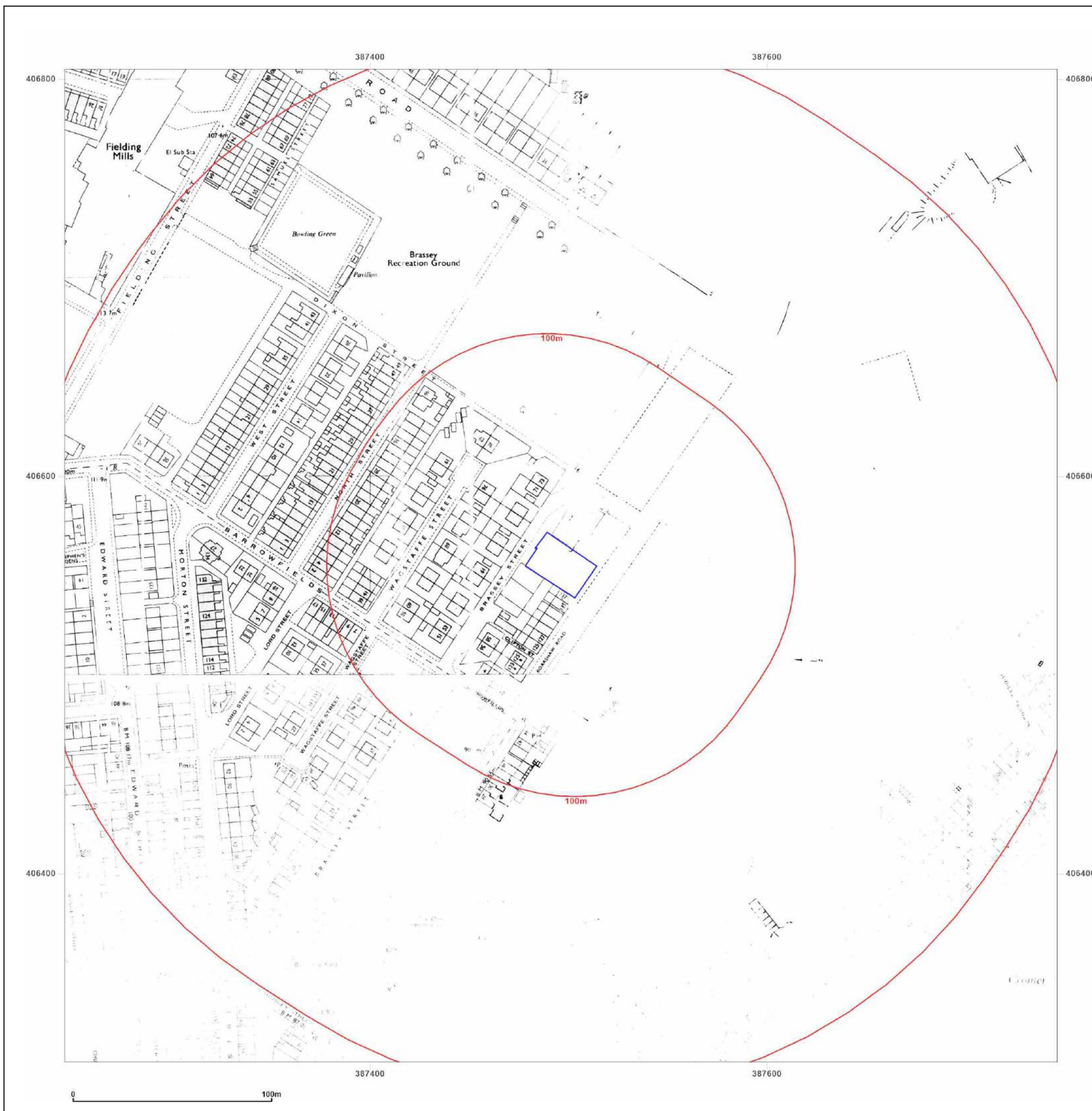


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Site Details:

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MIDDLETON, M24 6AR

Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1978-1982

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1978 Revised 1978 Edition N/A Copyright 1978 Levelled N/A	Surveyed N/A Revised N/A Edition N/A Copyright 1981 Levelled 1962
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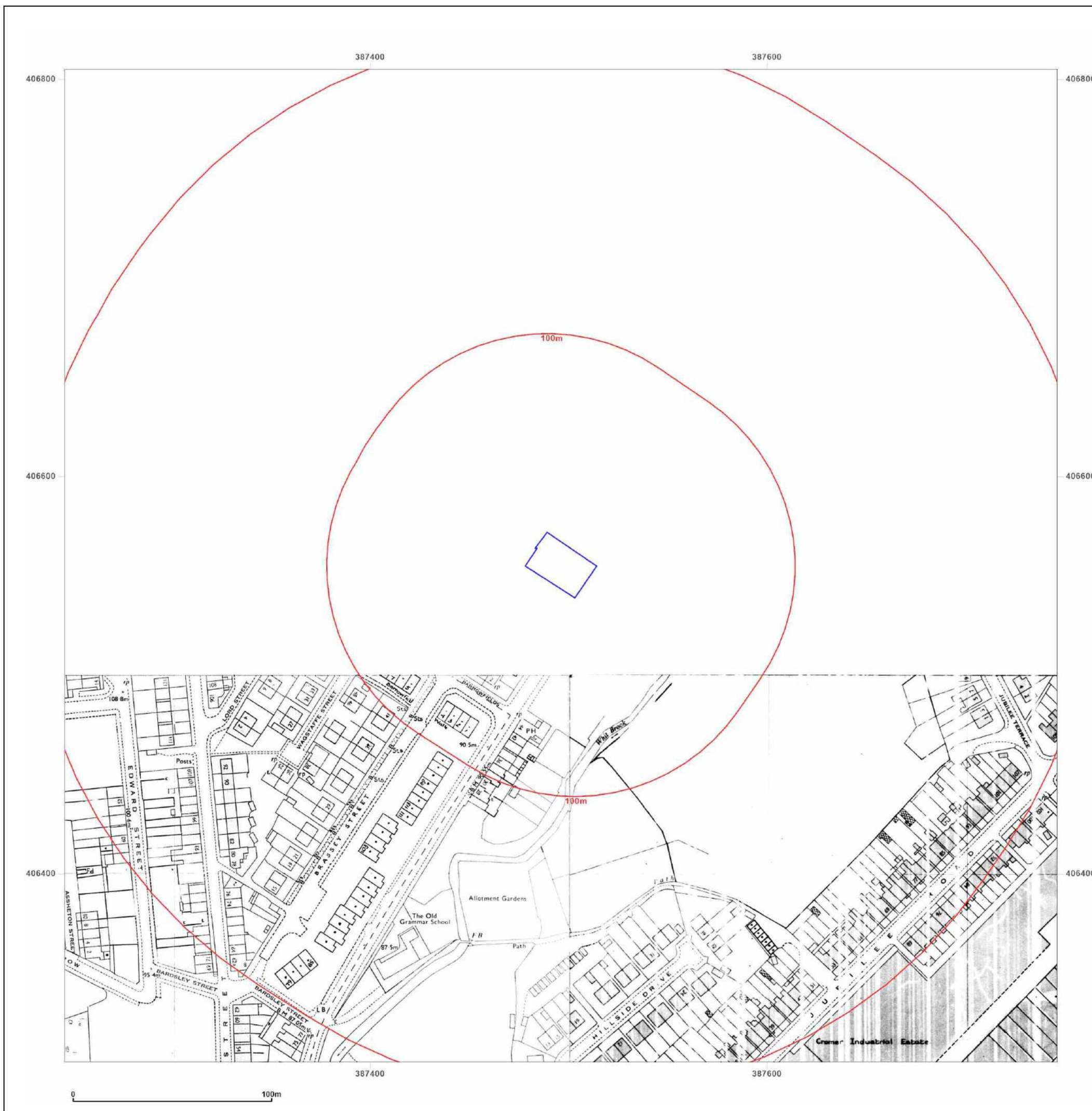


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Site Details:

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MIDDLETON, M24 6AR

Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1990-1992

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A
Revised 1992
Edition N/A
Copyright 1992
Levelled 1962

Surveyed 1992
Revised N/A
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1962
Revised 1990
Edition N/A
Copyright 1990
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Surveyed 1992
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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1992

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1992
Revised N/A
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1992
Revised 1992
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1992
Revised N/A
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1962
Revised 1992
Edition N/A
Copyright 1992
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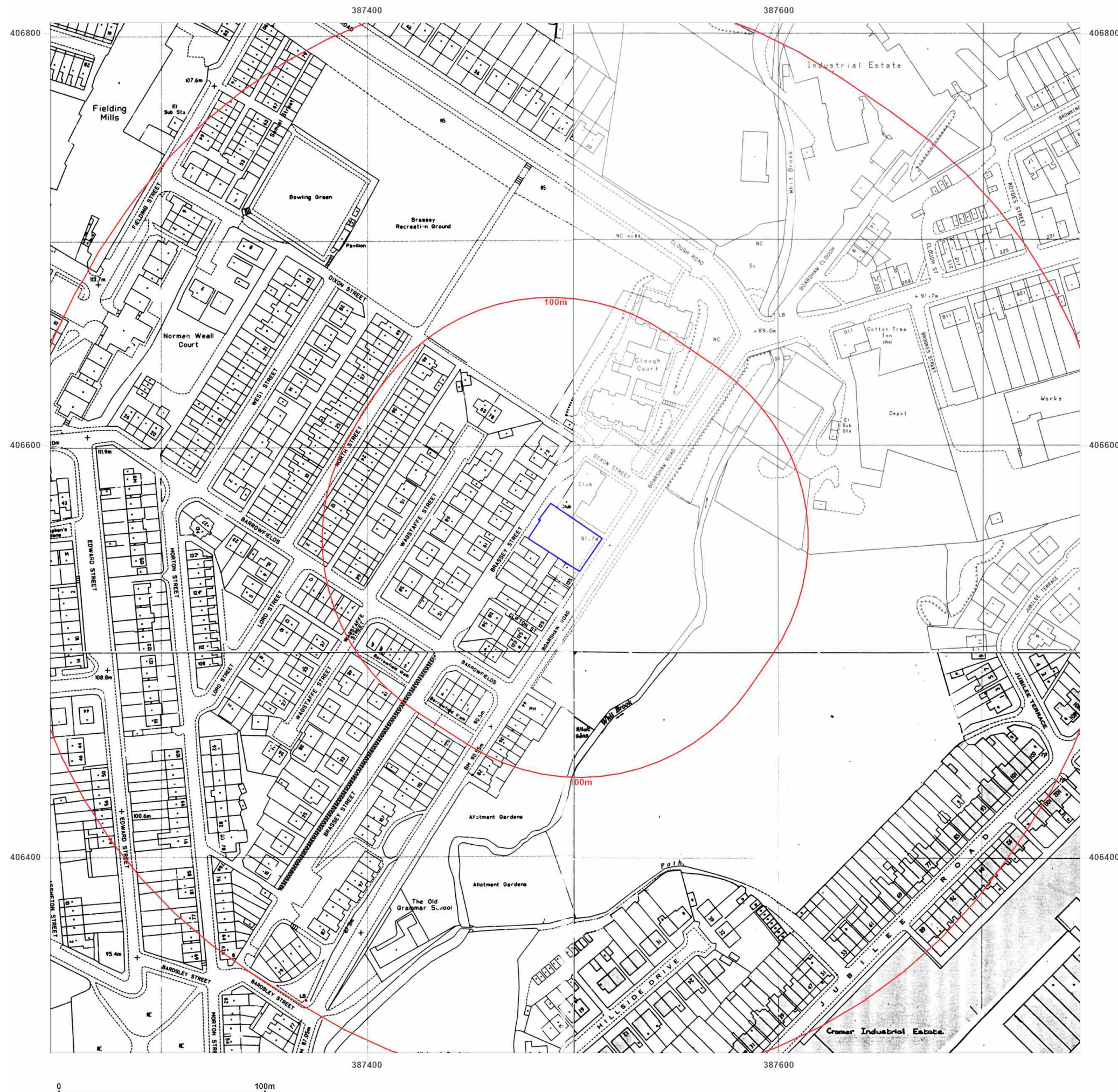


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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1992-1993

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed 1962
Revised 1992
Edition N/A
Copyright 1992
Levelled 1962

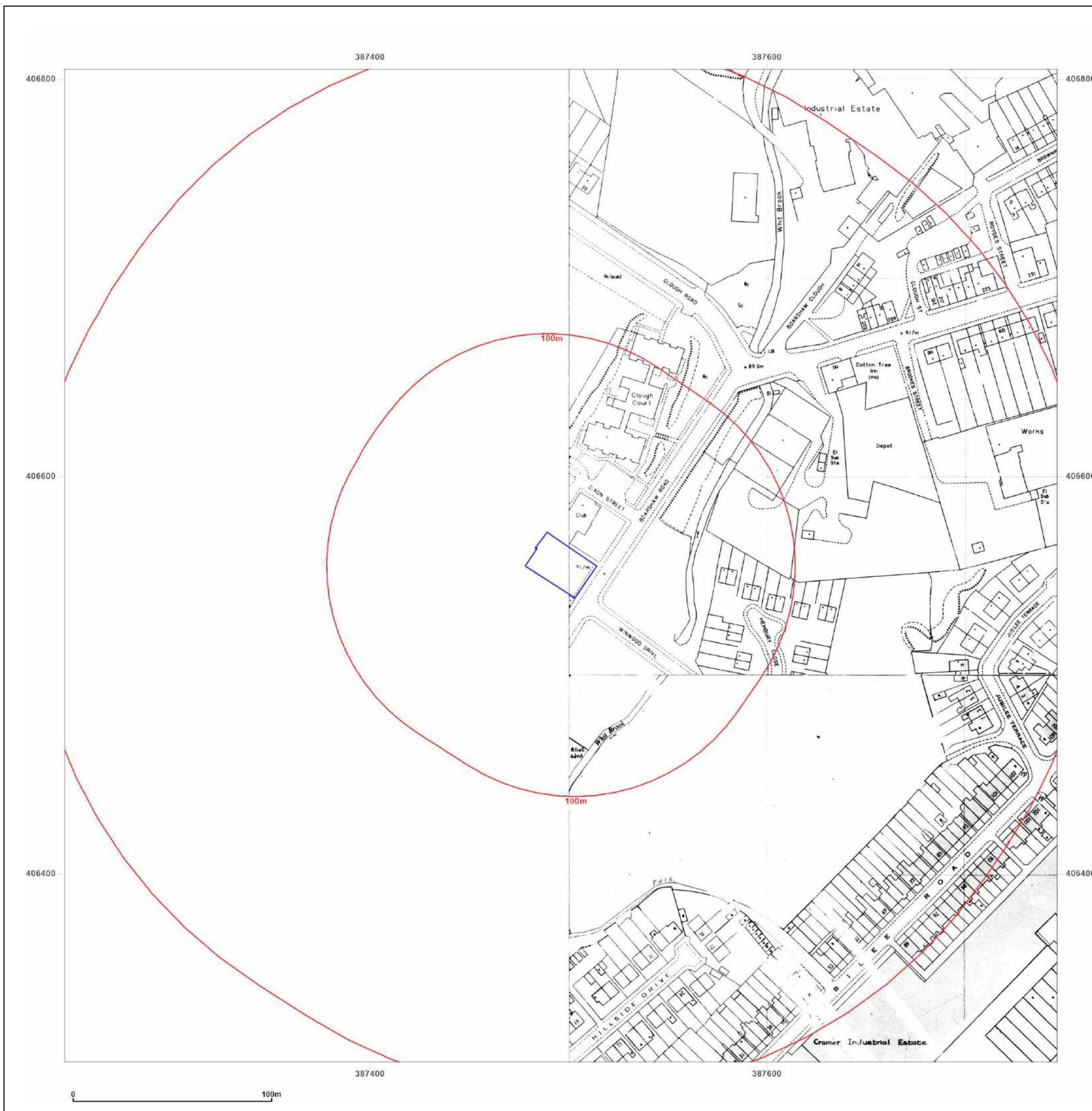


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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1993

Scale: 1:1,250

Printed at: 1:2,000



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

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

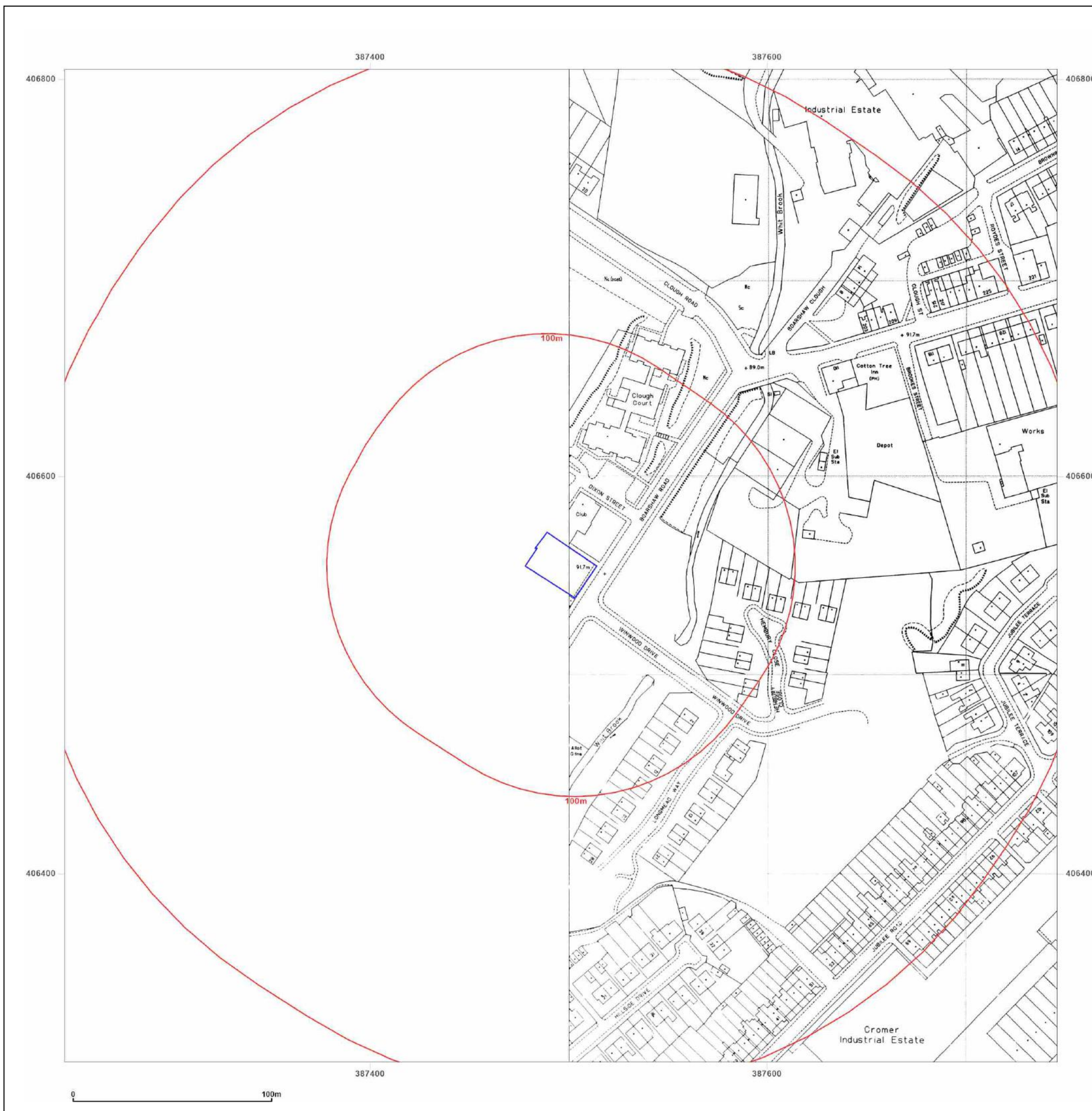


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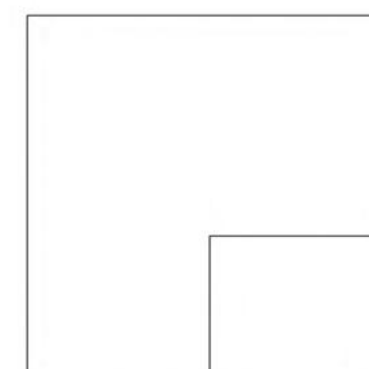
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Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1993

Scale: 1:1,250

Printed at: 1:2,000



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

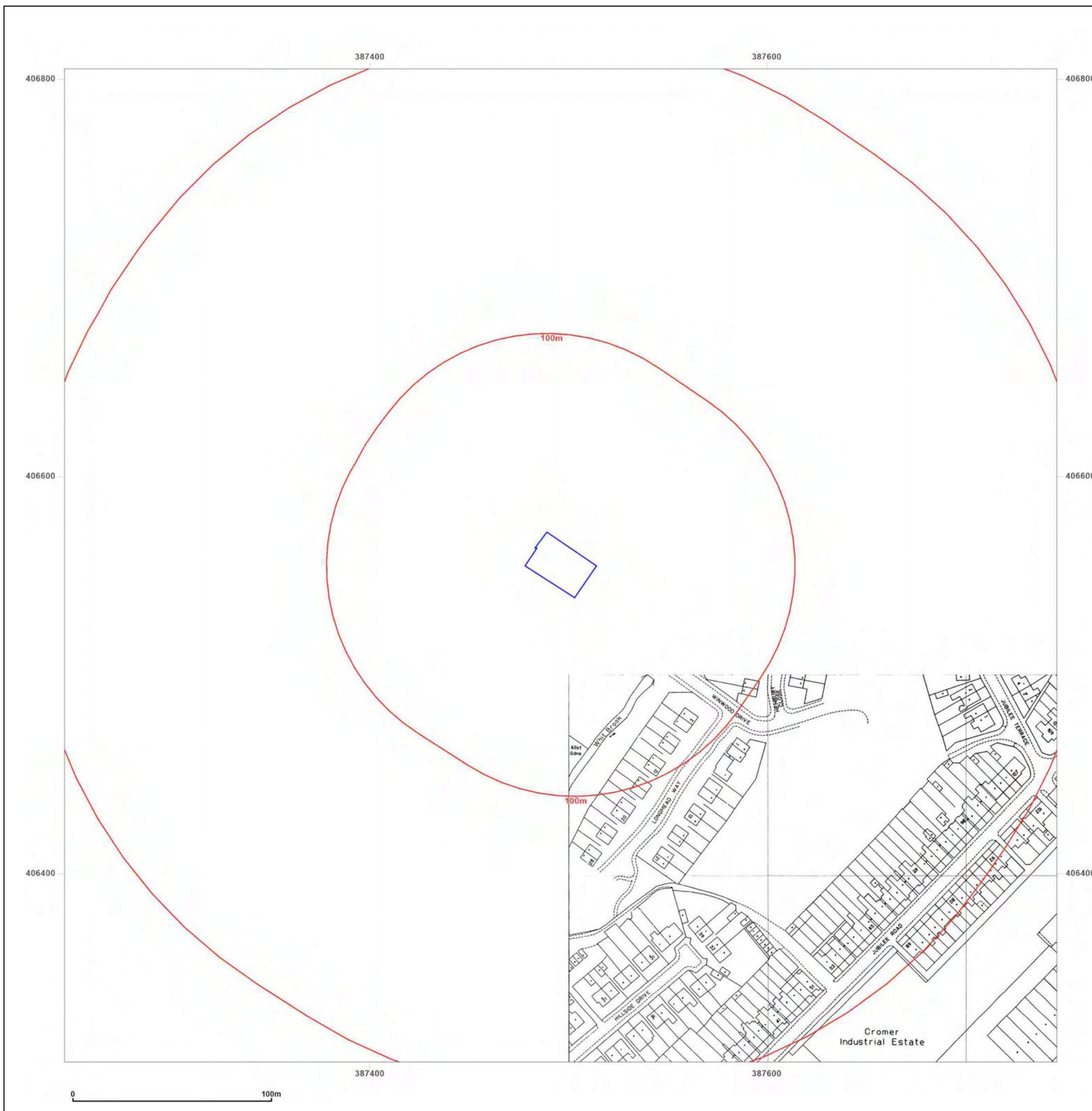


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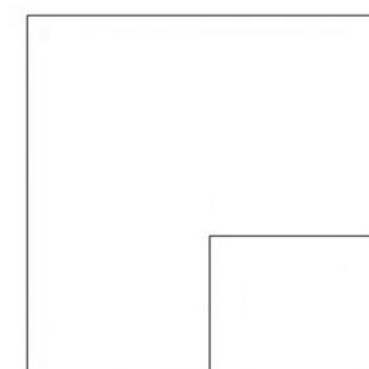
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Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1994

Scale: 1:1,250

Printed at: 1:2,000



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

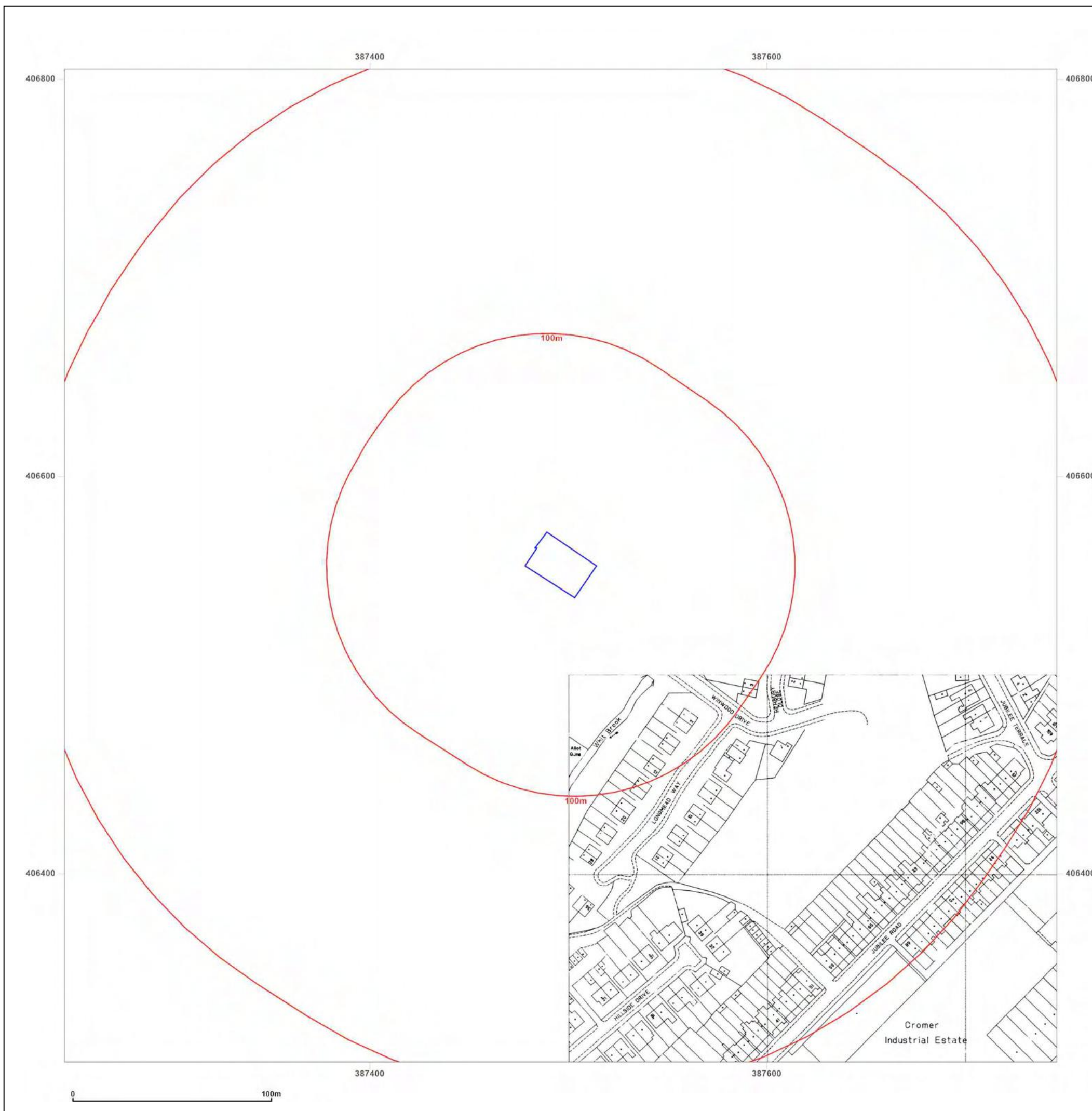


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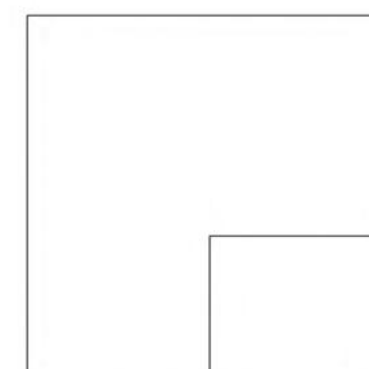
Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1994

Scale: 1:1,250

Printed at: 1:2,000



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

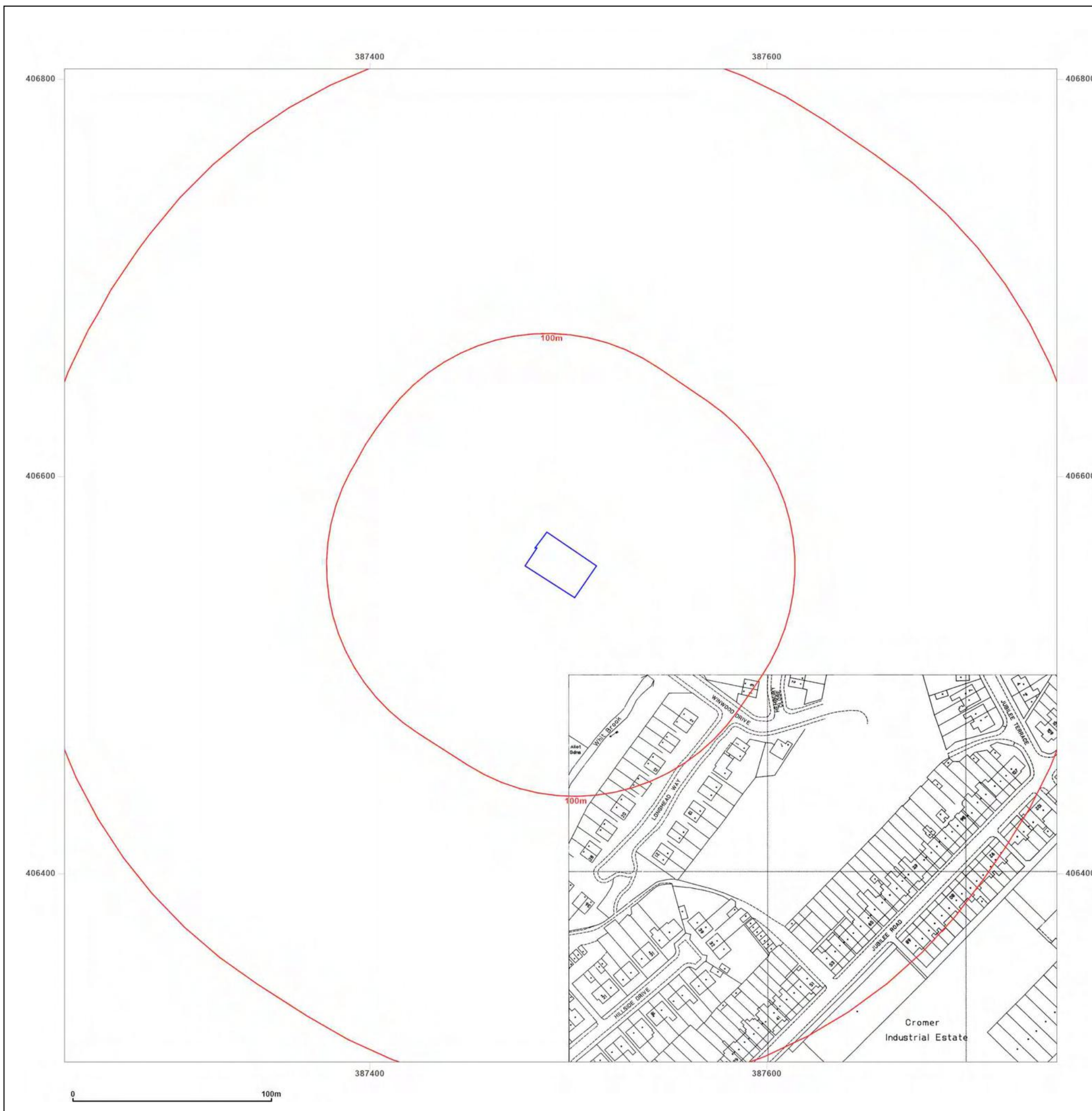


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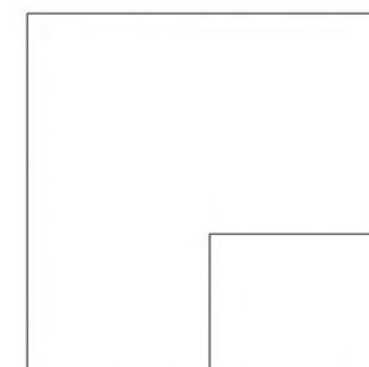
Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1995

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1995
Revised N/A
Edition N/A
Copyright 1995
Levelled N/A

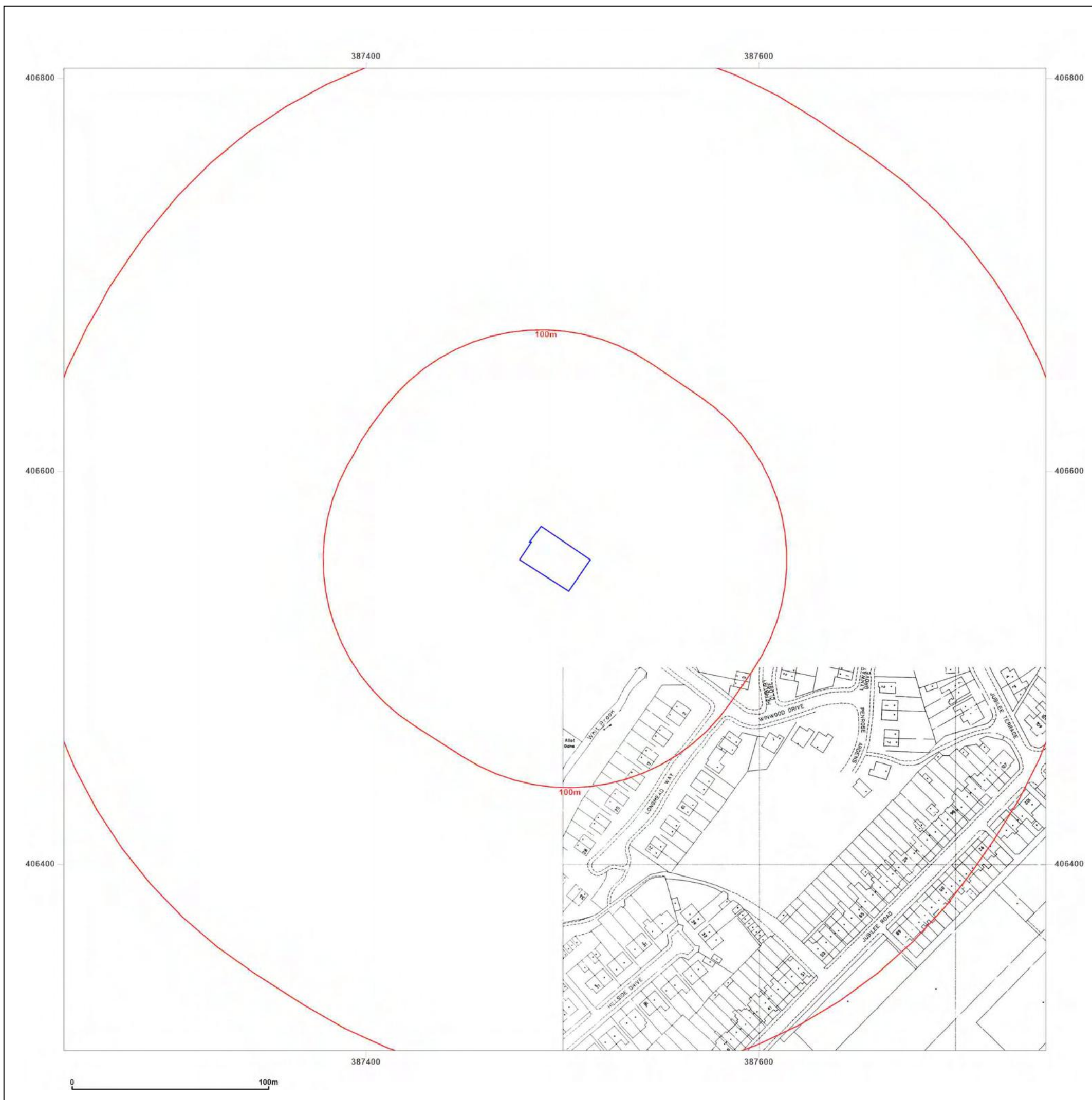


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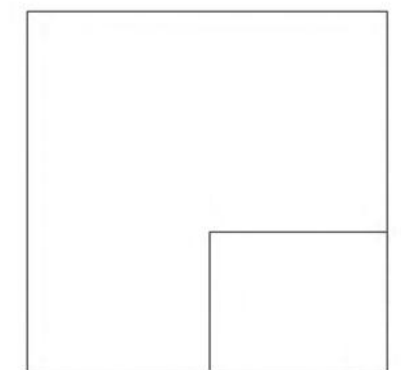
Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1995

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1995
Revised 1995
Edition N/A
Copyright N/A
Levelled N/A

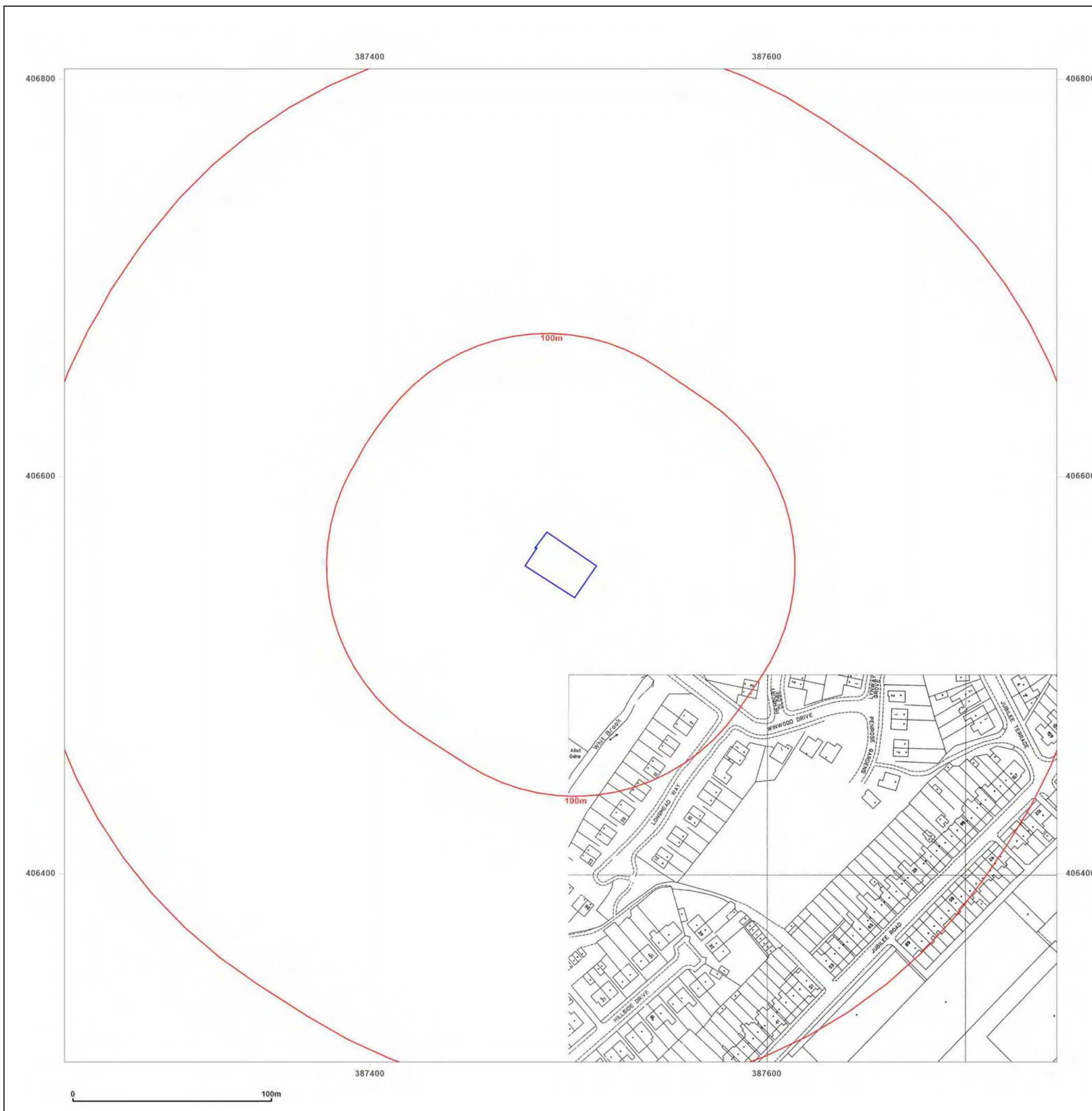


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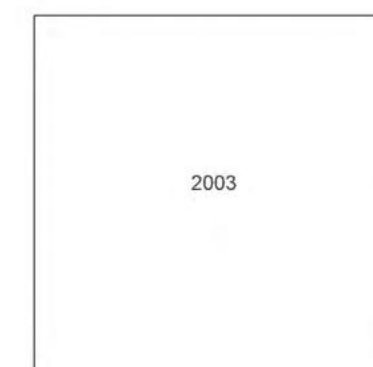
Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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Site Details:

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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: County Series

Map date: 1848

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1845
Revised N/A
Edition 1848
Copyright N/A
Levelled N/A

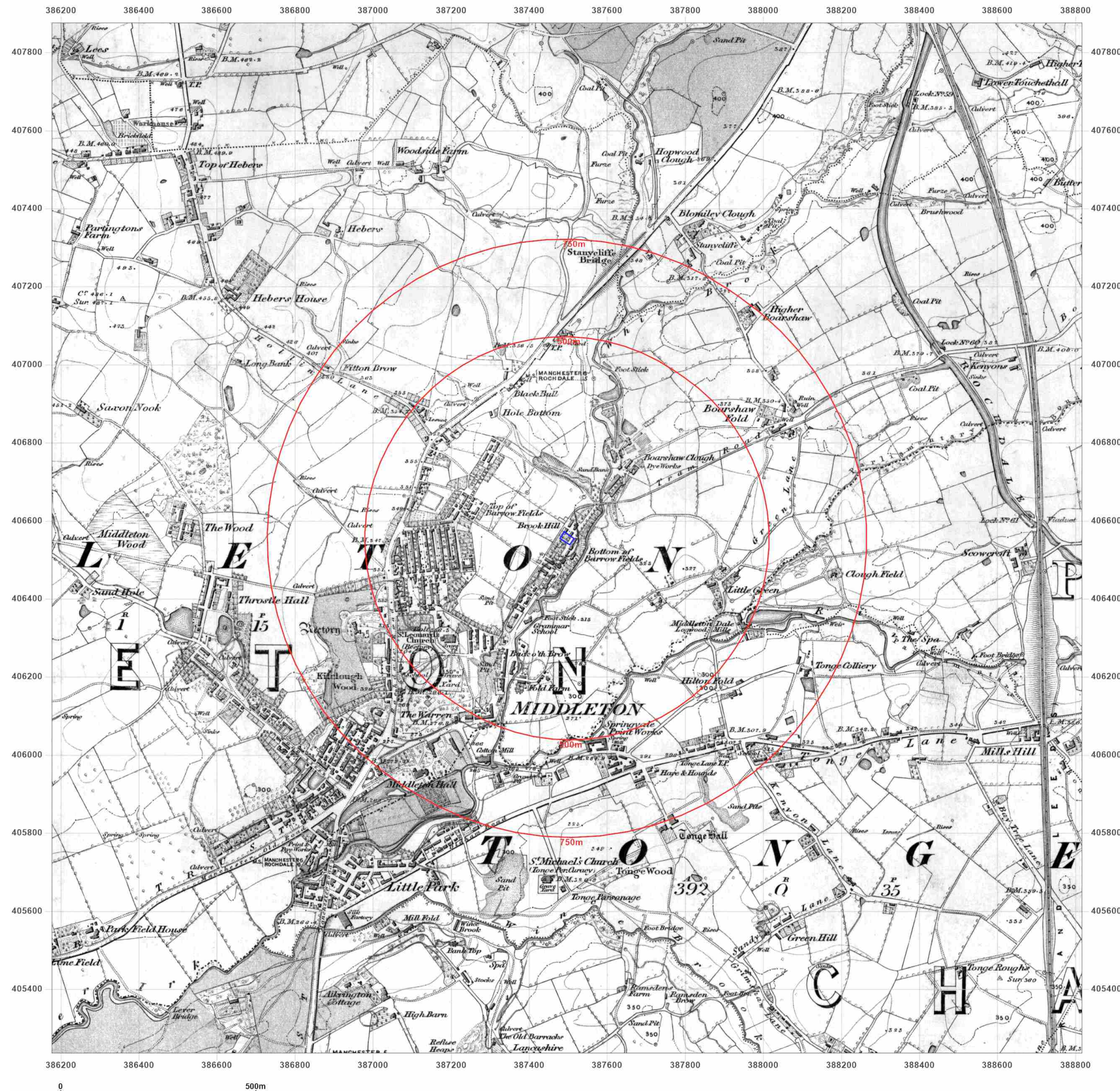


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Site Details:

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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: County Series

Map date: 1891

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1891
Revised 1891
Edition N/A
Copyright N/A
Levelled N/A

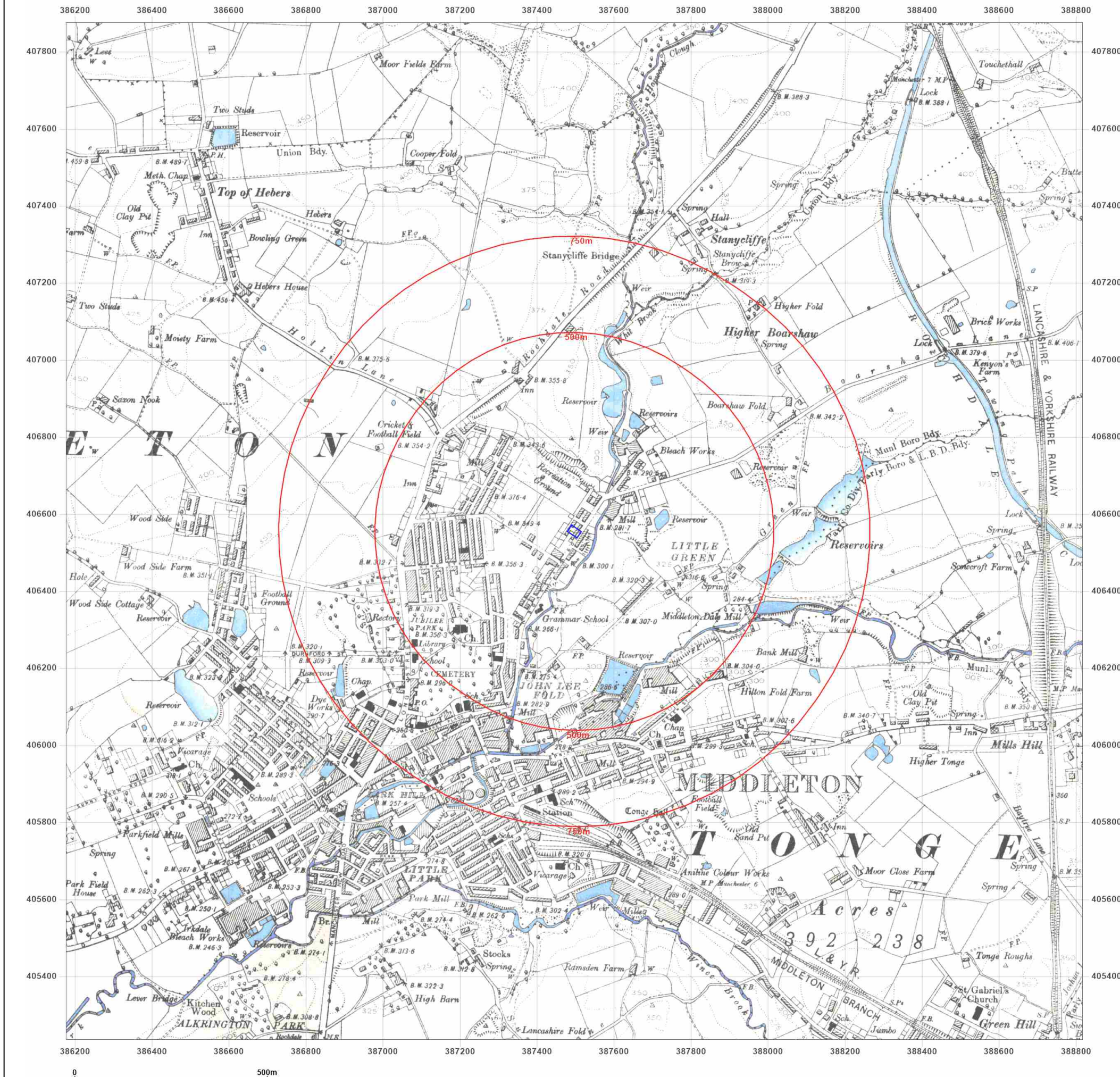


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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: County Series

Map date: 1907

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

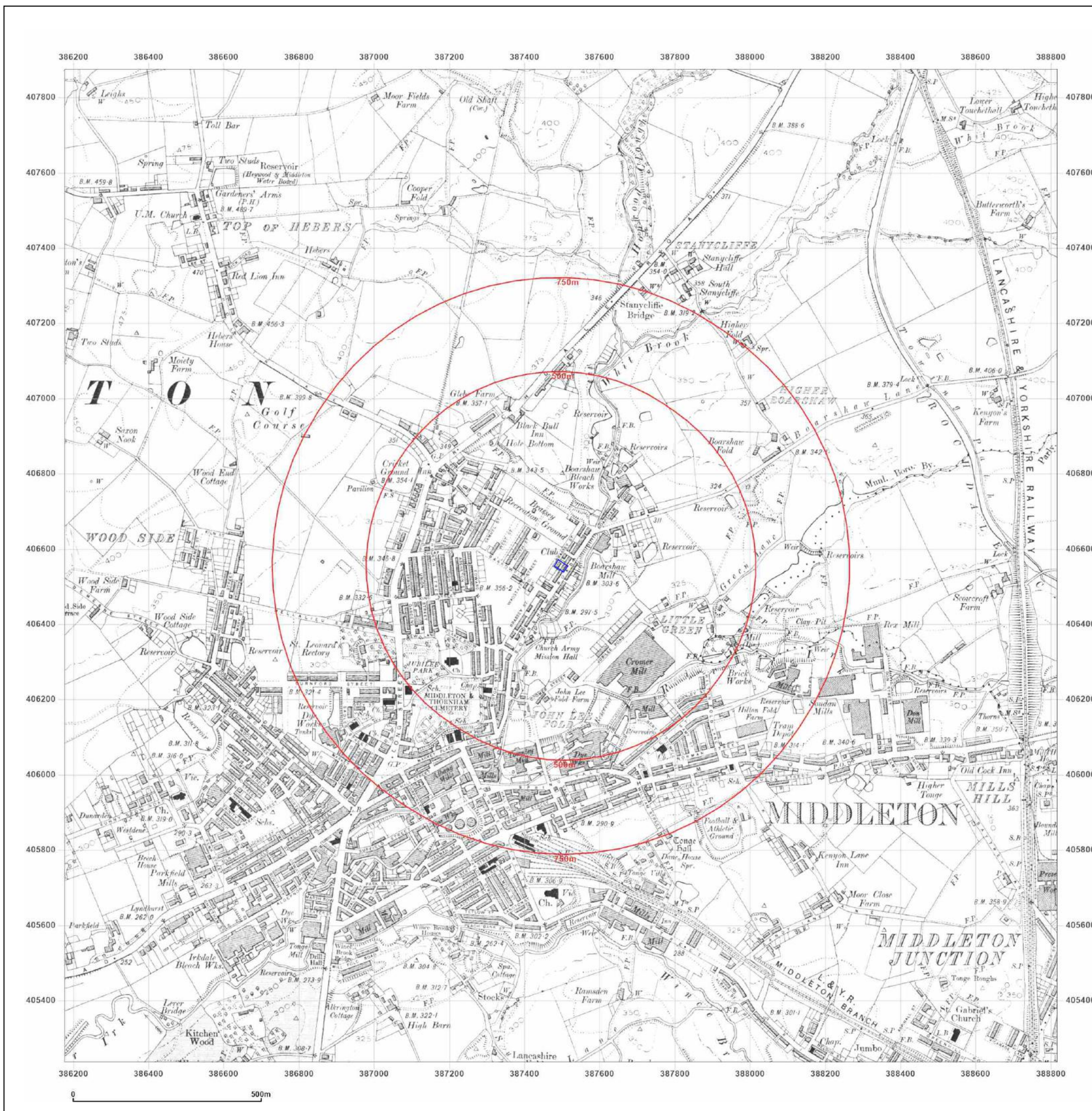


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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: County Series

Map date: 1915

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1915
Edition N/A
Copyright N/A
Levelled N/A

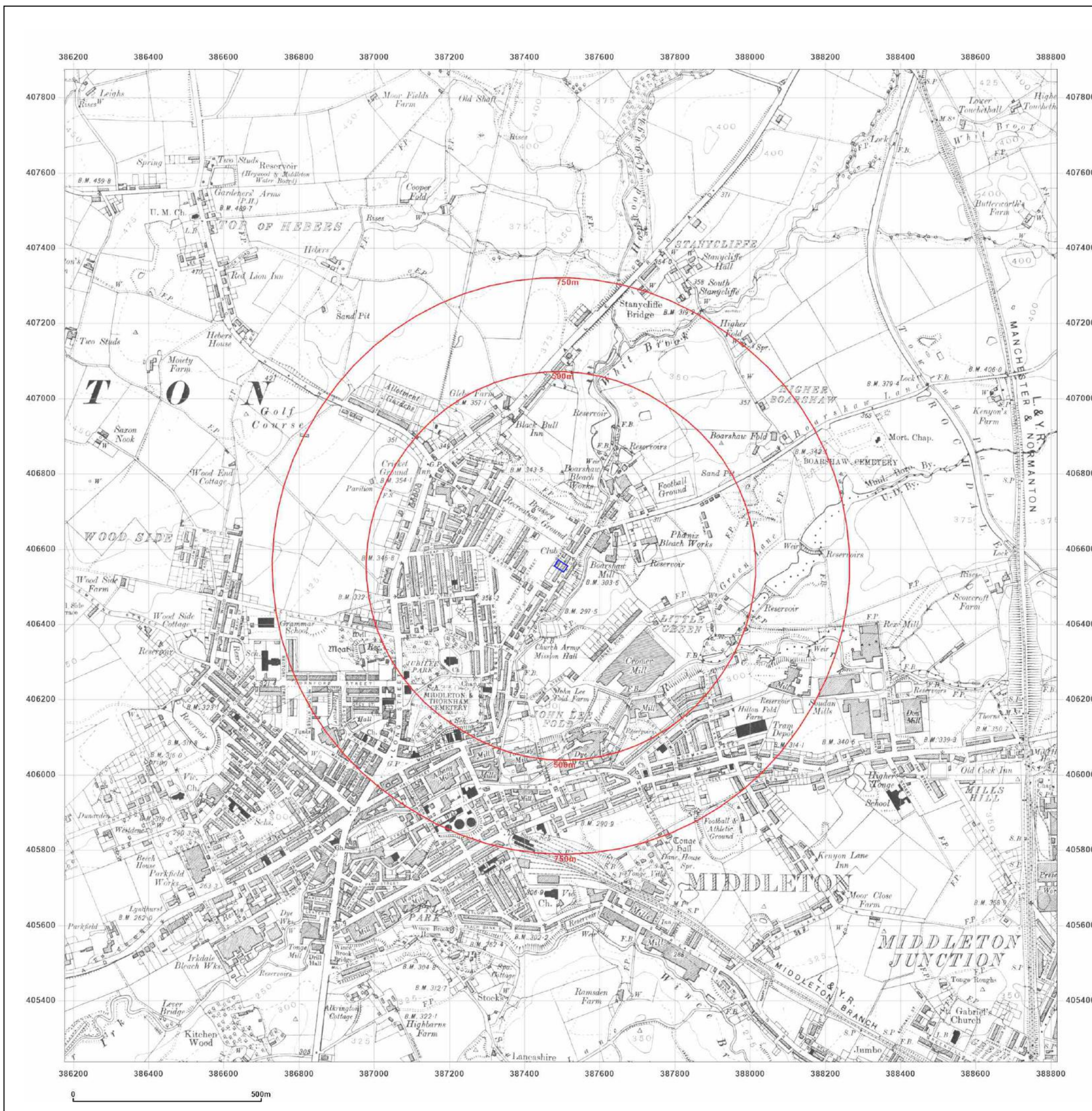


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Site Details:

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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: County Series

Map date: 1932

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A

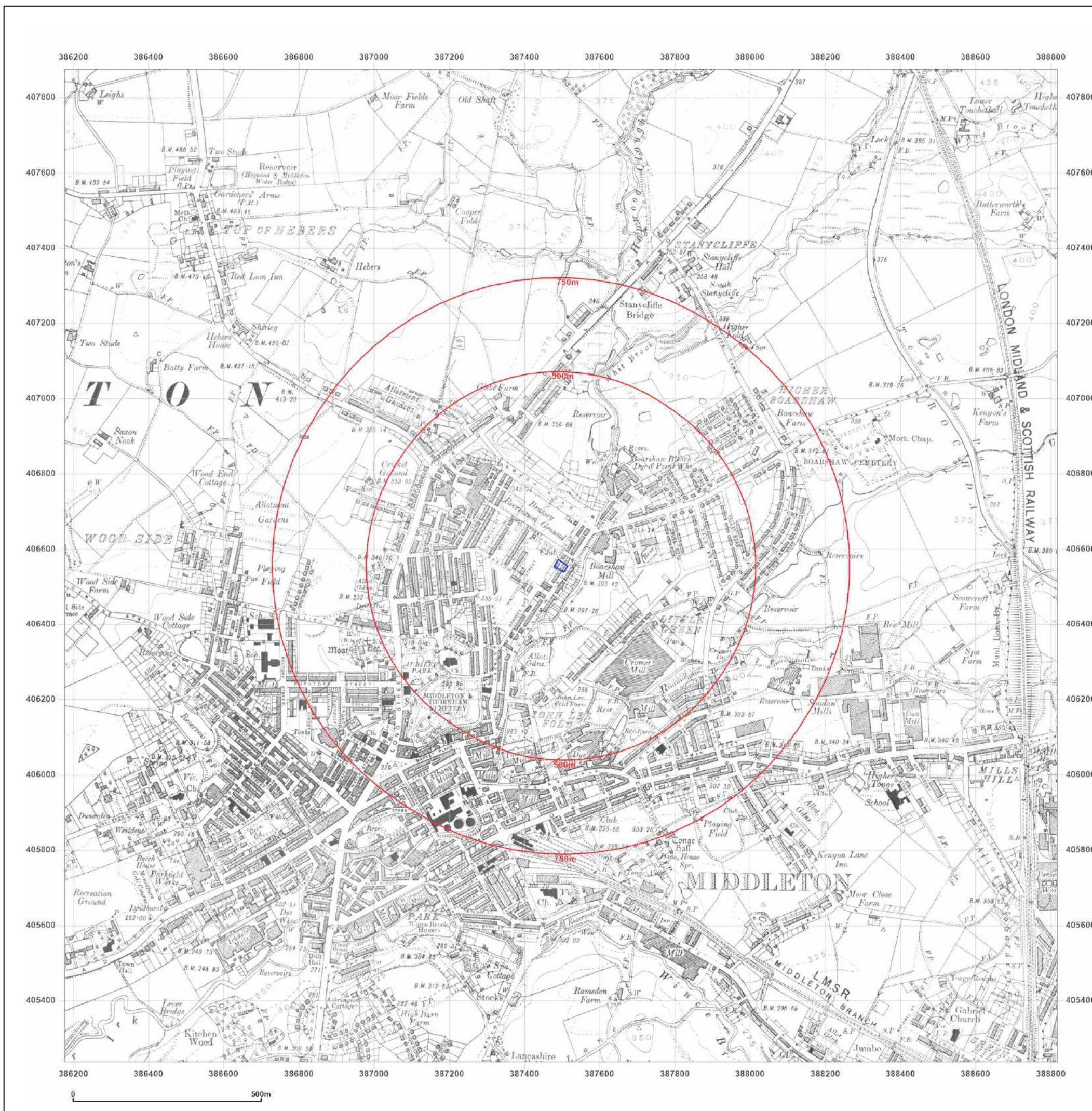


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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1938
Edition N/A
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Site Details:

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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: Provisional

Map date: 1955

Scale: 1:10,560

Printed at: 1:10,560



Surveyed N/A
Revised 1955
Edition N/A
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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: Provisional

Map date: 1965

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1965
Revised 1965
Edition N/A
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Site Details:

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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1975

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1974
Revised 1975
Edition N/A
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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 1982

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1980
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A

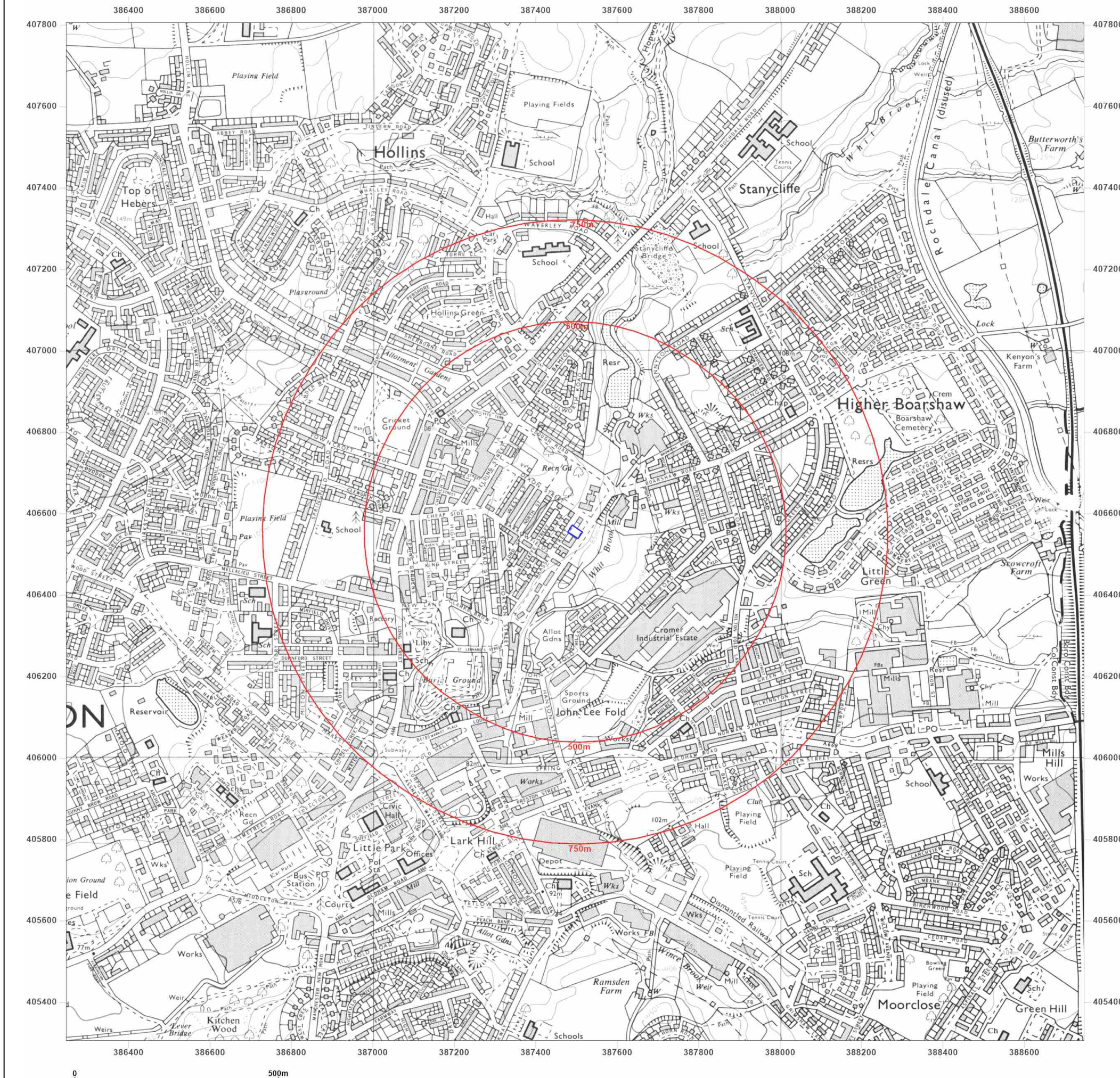


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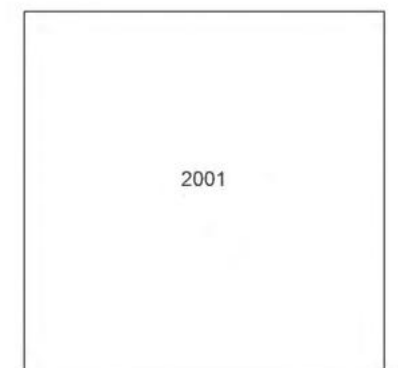
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Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

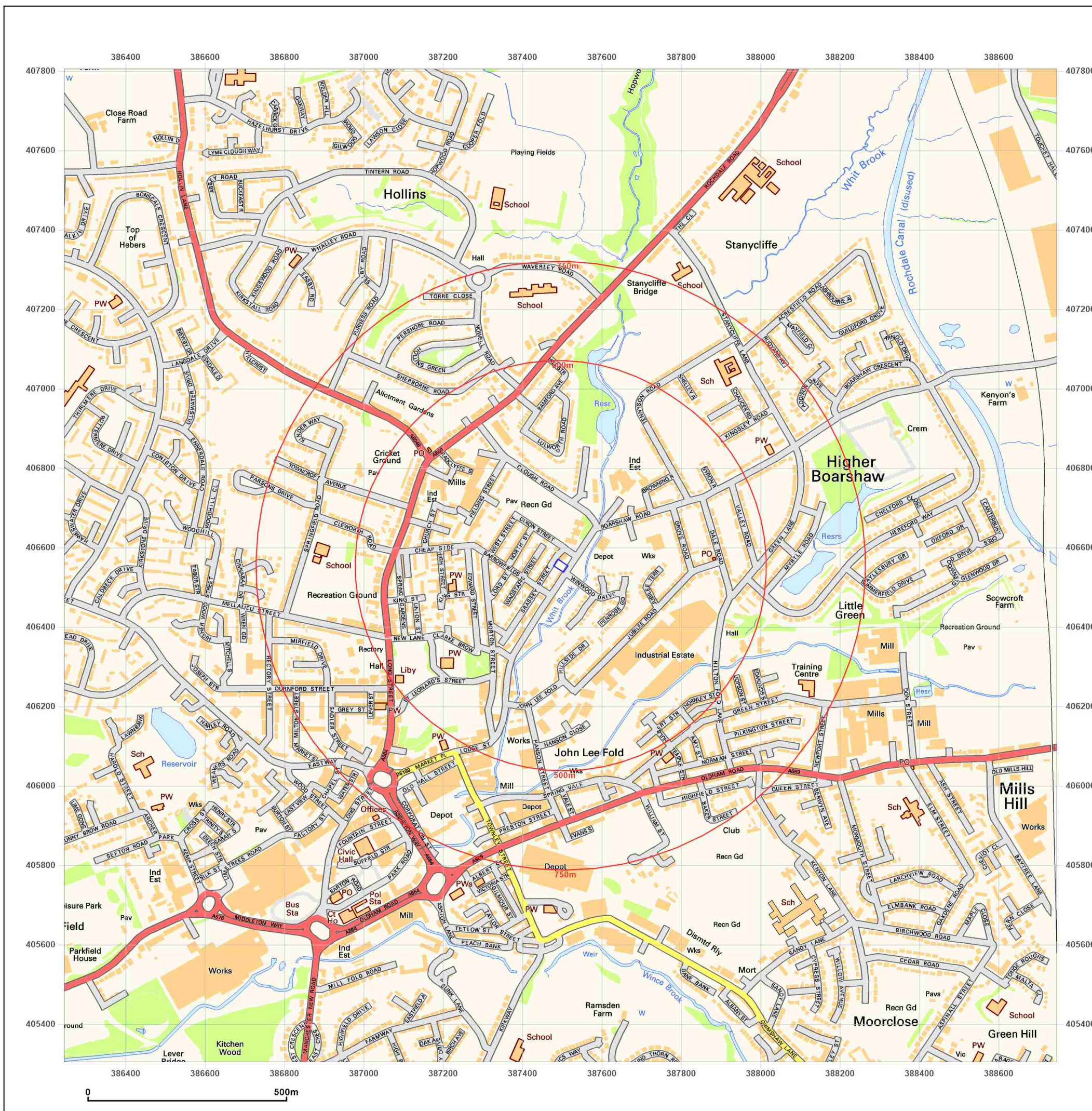


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MIDDLETON, M24 6AR

Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

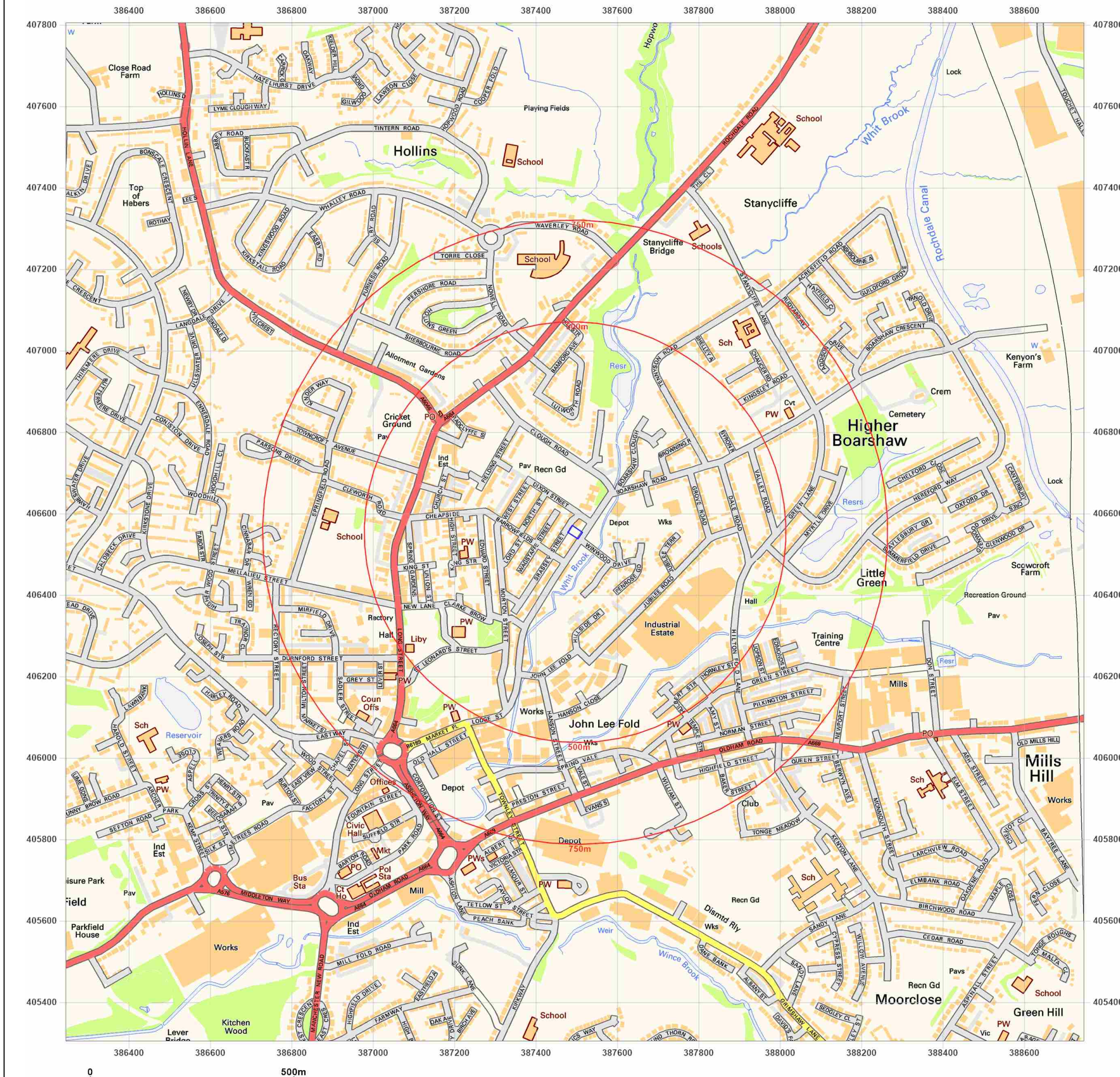


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Client Ref: 002805
Report Ref: GS-9028266
Grid Ref: 387496, 406555

Map Name: National Grid

Map date: 2022

Scale: 1:10,000

Printed at: 1:10,000



2022

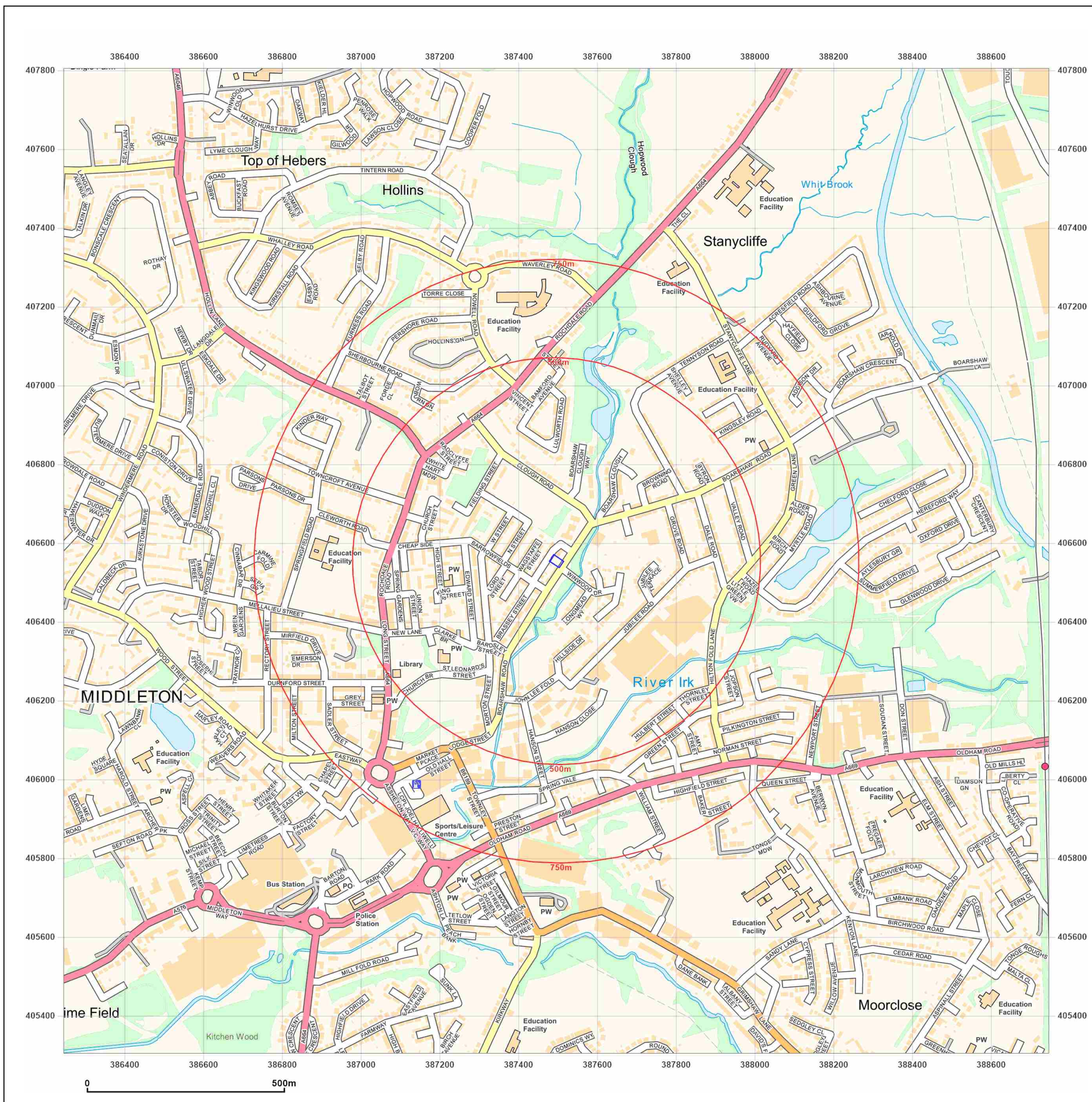


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Production date: 05 September 2022

Map legend available at:
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137, BOARSHAW ROAD, MIDDLETON, M24 6AR

Order Details

Date: 05/09/2022

Your ref: 002805

Our Ref: GS-9028267

Site Details

Location: 387503 406558

Area: 0.06 ha

Authority: [Rochdale Metropolitan Borough Council](#)



Summary of findings

p. 2

Aerial image

p. 8

OS MasterMap site plan

p.12

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Contact us with any questions at:

info@groundsure.com

08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	0	0	30	72	-
17	1.2	Historical tanks	0	0	14	12	-
19	1.3	Historical energy features	0	0	3	12	-
19	1.4	Historical petrol stations	0	0	0	0	-
20	1.5	Historical garages	0	0	0	6	-
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	0	0	46	100	-
27	2.2	Historical tanks	0	0	20	18	-
28	2.3	Historical energy features	0	0	4	22	-
30	2.4	Historical petrol stations	0	0	0	0	-
30	2.5	Historical garages	0	0	0	9	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
31	3.1	Active or recent landfill	0	0	0	0	-
31	3.2	Historical landfill (BGS records)	0	0	0	0	-
32	3.3	Historical landfill (LA/mapping records)	0	0	0	1	-
32	3.4	Historical landfill (EA/NRW records)	0	0	0	1	-
32	3.5	Historical waste sites	0	0	0	0	-
33	3.6	Licensed waste sites	0	0	0	6	-
35	3.7	Waste exemptions	0	0	1	3	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
36	4.1	Recent industrial land uses	0	0	8	-	-
37	4.2	Current or recent petrol stations	0	0	0	1	-
37	4.3	Electricity cables	0	0	0	0	-
38	4.4	Gas pipelines	0	0	0	0	-
38	4.5	Sites determined as Contaminated Land	0	0	0	0	-



38	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
38	4.7	Regulated explosive sites	0	0	0	0	-
38	4.8	Hazardous substance storage/usage	0	0	0	0	-
39	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
39	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
39	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	0	1	-
39	4.12	Radioactive Substance Authorisations	0	0	0	0	-
40	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	6	13	-
42	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
43	4.15	Pollutant release to public sewer	0	0	0	0	-
43	4.16	List 1 Dangerous Substances	0	0	0	0	-
43	4.17	List 2 Dangerous Substances	0	0	0	0	-
43	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	13	1	-
45	4.19	Pollution inventory substances	0	0	0	0	-
45	4.20	Pollution inventory waste transfers	0	0	0	0	-
46	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
47	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
48	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
49	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
50	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
50	5.5	Groundwater vulnerability- local information	None (within 0m)				
51	5.6	<u>Groundwater abstractions</u>	0	0	0	0	4
53	5.7	<u>Surface water abstractions</u>	0	0	0	0	7
55	5.8	Potable abstractions	0	0	0	0	0
55	5.9	Source Protection Zones	0	0	0	0	-
55	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
56	6.1	<u>Water Network (OS MasterMap)</u>	0	1	4	-	-



57	6.2	<u>Surface water features</u>	0	1	2	-	-
57	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
58	6.4	<u>WFD Surface water bodies</u>	0	1	0	-	-
58	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
59	7.1	<u>Risk of flooding from rivers and the sea</u>	High (within 50m)				
60	7.2	<u>Historical Flood Events</u>	0	0	2	-	-
60	7.3	Flood Defences	0	0	0	-	-
60	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
61	7.5	Flood Storage Areas	0	0	0	-	-
62	7.6	<u>Flood Zone 2</u>	Identified (within 50m)				
63	7.7	<u>Flood Zone 3</u>	Identified (within 50m)				
Page	Section	Surface water flooding					
64	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
66	9.1	<u>Groundwater flooding</u>	Moderate (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
67	10.1	<u>Sites of Special Scientific Interest (SSSI)</u>	0	0	0	0	1
68	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
68	10.3	<u>Special Areas of Conservation (SAC)</u>	0	0	0	0	1
68	10.4	Special Protection Areas (SPA)	0	0	0	0	0
69	10.5	National Nature Reserves (NNR)	0	0	0	0	0
69	10.6	<u>Local Nature Reserves (LNR)</u>	0	0	0	0	5
69	10.7	<u>Designated Ancient Woodland</u>	0	0	0	0	6
70	10.8	Biosphere Reserves	0	0	0	0	0
70	10.9	Forest Parks	0	0	0	0	0
70	10.10	Marine Conservation Zones	0	0	0	0	0
70	10.11	<u>Green Belt</u>	0	0	0	0	2
71	10.12	Proposed Ramsar sites	0	0	0	0	0



71	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
71	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
71	10.15	Nitrate Sensitive Areas	0	0	0	0	0
72	10.16	<u>Nitrate Vulnerable Zones</u>	1	0	0	0	1
73	10.17	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
74	10.18	<u>SSSI Units</u>	0	0	0	0	1
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
75	11.1	World Heritage Sites	0	0	0	-	-
76	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
76	11.3	National Parks	0	0	0	-	-
76	11.4	<u>Listed Buildings</u>	0	0	1	-	-
77	11.5	<u>Conservation Areas</u>	0	0	1	-	-
77	11.6	Scheduled Ancient Monuments	0	0	0	-	-
77	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
78	12.1	<u>Agricultural Land Classification</u>	Urban (within 250m)				
79	12.2	Open Access Land	0	0	0	-	-
79	12.3	Tree Felling Licences	0	0	0	-	-
79	12.4	Environmental Stewardship Schemes	0	0	0	-	-
79	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
80	13.1	Priority Habitat Inventory	0	0	0	-	-
80	13.2	Habitat Networks	0	0	0	-	-
81	13.3	<u>Open Mosaic Habitat</u>	0	0	1	-	-
81	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
82	14.1	<u>10k Availability</u>	Identified (within 500m)				
83	14.2	<u>Artificial and made ground (10k)</u>	0	1	4	5	-
85	14.3	<u>Superficial geology (10k)</u>	1	2	0	2	-



86	14.4	Landslip (10k)	0	0	0	0	-
87	14.5	<u>Bedrock geology (10k)</u>	1	0	7	2	-
88	14.6	<u>Bedrock faults and other linear features (10k)</u>	0	1	4	4	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
89	15.1	<u>50k Availability</u>	Identified (within 500m)				
90	15.2	Artificial and made ground (50k)	0	0	0	0	-
90	15.3	Artificial ground permeability (50k)	0	0	-	-	-
91	15.4	<u>Superficial geology (50k)</u>	1	2	0	2	-
92	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
92	15.6	Landslip (50k)	0	0	0	0	-
92	15.7	Landslip permeability (50k)	None (within 50m)				
93	15.8	<u>Bedrock geology (50k)</u>	1	0	5	0	-
94	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
94	15.10	<u>Bedrock faults and other linear features (50k)</u>	0	1	4	4	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
96	16.1	<u>BGS Boreholes</u>	0	0	7	-	-
Page	Section	Natural ground subsidence					
98	17.1	<u>Shrink swell clays</u>	Low (within 50m)				
100	17.2	<u>Running sands</u>	Low (within 50m)				
102	17.3	<u>Compressible deposits</u>	Moderate (within 50m)				
104	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
105	17.5	<u>Landslides</u>	Very low (within 50m)				
106	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
108	18.1	Natural cavities	0	0	0	0	-
109	18.2	<u>BritPits</u>	0	0	1	0	-
109	18.3	<u>Surface ground workings</u>	0	0	25	-	-
110	18.4	Underground workings	0	0	0	0	0
110	18.5	<u>Historical Mineral Planning Areas</u>	0	0	0	2	-



111	18.6	Non-coal mining	0	0	0	0	0
111	18.7	Mining cavities	0	0	0	0	0
111	18.8	JPB mining areas	None (within 0m)				
111	18.9	<u>Coal mining</u>	Identified (within 0m)				
112	18.10	Brine areas	None (within 0m)				
112	18.11	Gypsum areas	None (within 0m)				
112	18.12	Tin mining	None (within 0m)				
112	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
113	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
114	20.1	<u>BGS Estimated Background Soil Chemistry</u>	2	2	-	-	-
114	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
115	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
116	21.1	Underground railways (London)	0	0	0	-	-
116	21.2	Underground railways (Non-London)	0	0	0	-	-
116	21.3	Railway tunnels	0	0	0	-	-
116	21.4	Historical railway and tunnel features	0	0	0	-	-
116	21.5	Royal Mail tunnels	0	0	0	-	-
117	21.6	Historical railways	0	0	0	-	-
117	21.7	Railways	0	0	0	-	-
117	21.8	Crossrail 1	0	0	0	0	-
117	21.9	Crossrail 2	0	0	0	0	-
117	21.10	HS2	0	0	0	0	-

Recent aerial photograph



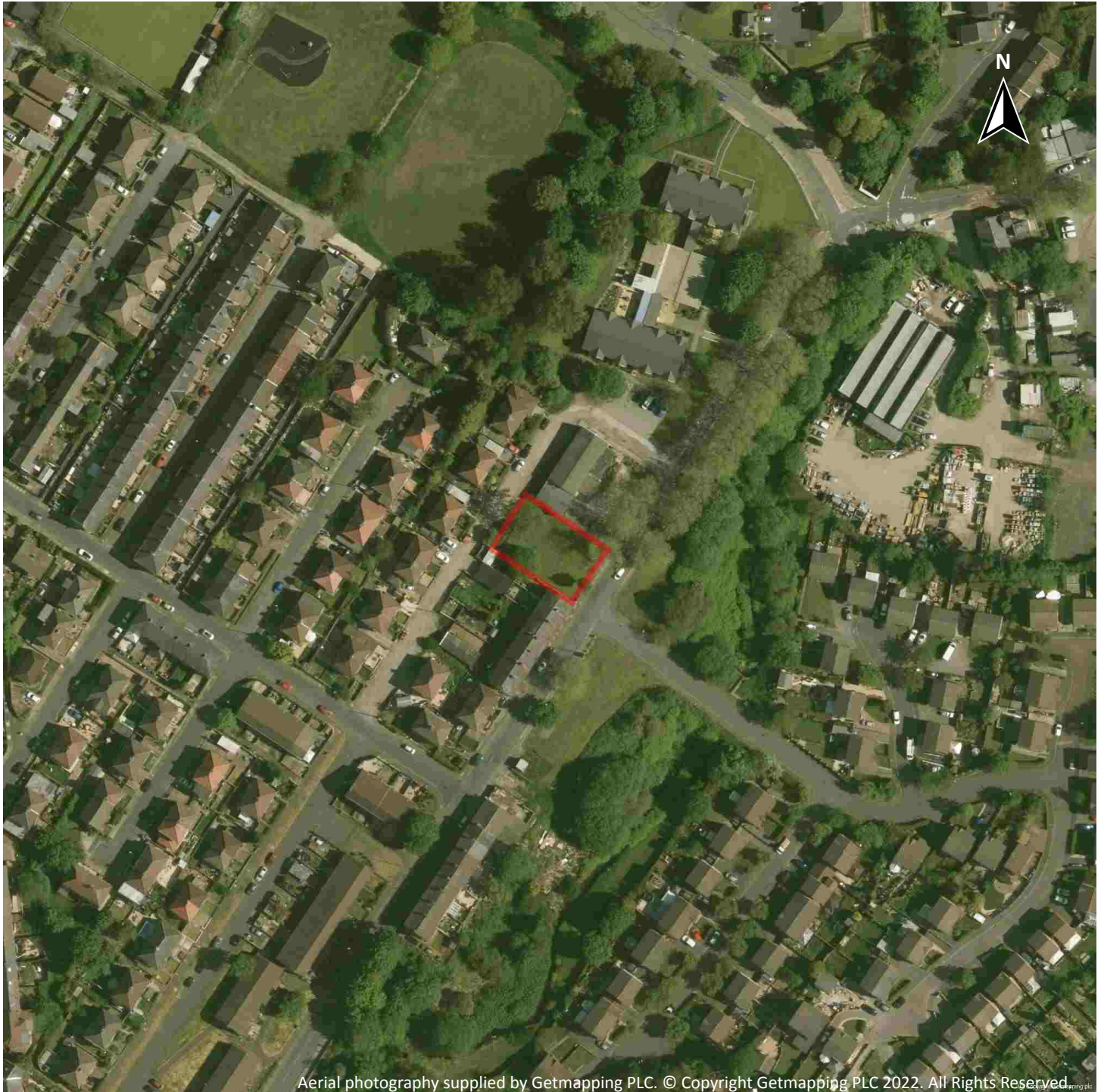
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Capture Date: 22/05/2019

Site Area: 0.06ha



Recent site history - 2015 aerial photograph



Capture Date: 11/06/2015

Site Area: 0.06ha



Recent site history - 2011 aerial photograph



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Capture Date: 01/05/2011

Site Area: 0.06ha



Recent site history - 2000 aerial photograph



Capture Date: 19/06/2000

Site Area: 0.06ha



OS MasterMap site plan

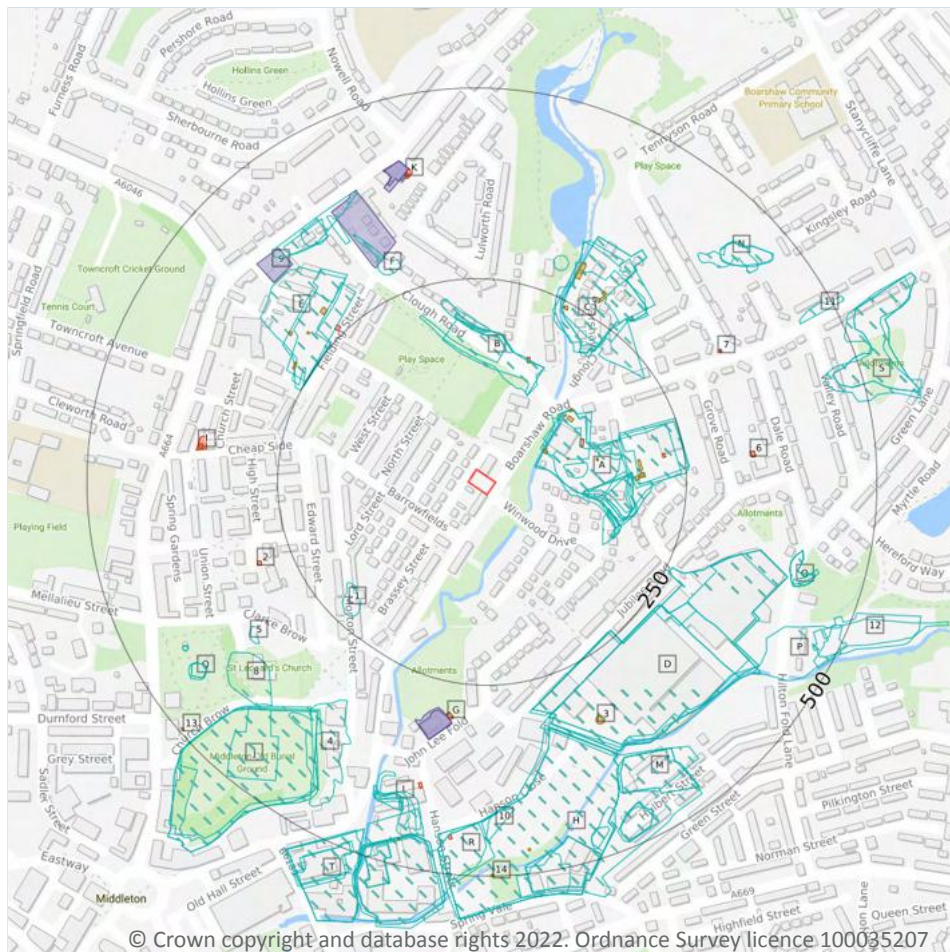


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Site Area: 0.06ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

102

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 13**

ID	Location	Land use	Dates present	Group ID
A	56m NE	Unspecified Mill	1907 - 1932	777120



ID	Location	Land use	Dates present	Group ID
A	56m E	Unspecified Mill	1938	744116
A	74m NE	Unspecified Mill	1891	733397
A	76m NE	Unspecified Mill	1965 - 1982	762459
A	91m E	Unspecified Heap	1907	650942
A	115m E	Unspecified Pit	1923 - 1932	728844
A	116m E	Unspecified Pit	1907	704574
A	116m E	Unspecified Pit	1915	754958
B	117m NE	Unspecified Pit	1923	690958
B	117m NE	Unspecified Ground Workings	1907 - 1915	706752
A	122m E	Unspecified Pit	1891	699485
A	137m E	Unspecified Ground Workings	1907	648225
A	144m E	Unspecified Ground Workings	1932	789038
A	145m E	Unspecified Pit	1938	712691
A	148m E	Unspecified Pit	1891 - 1907	771995
A	151m E	Unspecified Ground Workings	1915	738968
B	159m N	Unspecified Ground Workings	1932	758100
A	167m E	Bleach Works	1915 - 1923	787817
A	173m E	Unspecified Works	1965 - 1982	775228
B	181m N	Unspecified Ground Workings	1965	705314
C	199m NE	Bleach Works	1891	771014
1	201m SW	Sand Pit	1851	643936
C	203m NE	Bleach, Dye and Print Works	1932	668328
C	203m NE	Bleach Works	1907 - 1923	743583
C	207m NE	Dye Works	1851	681900
C	225m NE	Unspecified Works	1965 - 1982	769609
D	240m SE	Cotton Spinning Mills	1955 - 1965	730574
D	241m SE	Industrial Estate	1982	652323
D	241m SE	Unspecified Mill	1975	780776



ID	Location	Land use	Dates present	Group ID
E	249m NW	Unspecified Commercial/Industrial	1938	643321
E	251m NW	Unspecified Mills	1982	653269
E	251m NW	Unspecified Mill	1891	657168
D	262m SE	Unspecified Mill	1932 - 1938	725038
D	262m SE	Unspecified Mill	1915	728279
D	262m SE	Unspecified Mill	1907	740866
D	262m SE	Unspecified Mill	1923	787776
F	280m NW	Unspecified Pit	1907 - 1923	748864
C	283m N	Unspecified Tank	1965 - 1982	712647
H	311m S	Unspecified Mill	1891	731726
H	317m S	Dye Works	1907 - 1915	725132
H	317m S	Dye Works	1923	728542
H	317m S	Dye Works	1932	751038
4	326m SW	Sand Pit	1851	643937
5	336m SW	Unspecified Pit	1891	690959
F	341m NW	Unspecified Ground Workings	1923	648226
J	357m SW	Cemetery	1907 - 1932	755454
8	357m SW	Grave Yard	1851	668133
F	359m NW	Unspecified Pit	1915 - 1923	740835
J	360m SW	Cemetery	1891	722203
J	360m SW	Cemetery	1938	723824
J	360m SW	Burial Ground	1965 - 1982	755563
F	361m NW	Cuttings	1907	642587
F	363m NW	Unspecified Pit	1891	771983
L	384m S	Unspecified Ground Workings	1907	719567
M	389m SE	Unspecified Mill	1938	703837
M	389m SE	Unspecified Mill	1907 - 1915	766528
M	389m SE	Unspecified Mill	1923 - 1932	775358



ID	Location	Land use	Dates present	Group ID
N	395m NE	Unspecified Pit	1955 - 1982	723905
J	395m SW	Grave Yard	1851	668136
O	401m E	Sand Pit	1907	643933
O	401m E	Unspecified Heap	1923	650943
O	401m E	Refuse Heap	1915	678063
L	406m S	Unspecified Ground Workings	1915 - 1923	729414
L	408m S	Unspecified Ground Workings	1932	699499
P	410m SE	Unspecified Mill	1891	747984
O	411m E	Unspecified Ground Workings	1932	648224
L	411m S	Unspecified Pit	1938	690961
10	413m S	Unspecified Pit	1938	690960
N	415m NE	Unspecified Pit	1938	780015
N	416m NE	Unspecified Pit	1932	713526
Q	419m SW	Unspecified Pit	1907 - 1915	714536
Q	419m SW	Unspecified Pit	1932	726670
L	421m S	Unspecified Heap	1932	650947
Q	423m SW	Unspecified Pits	1938	659183
Q	426m SW	Unspecified Tank	1907 - 1915	699346
Q	426m SW	Unspecified Tank	1932	747614
R	431m S	Unspecified Pit	1891	690962
H	439m S	Refuse Heap	1975 - 1982	733131
H	450m SE	Refuse Heap	1915	711068
H	450m SE	Refuse Heap	1932	752241
11	450m NE	Sand Pit	1915 - 1923	738740
S	452m E	Refuse Heap	1891	737743
H	454m SE	Refuse Heap	1923	735963
L	456m S	Unspecified Mill	1891	731375
L	456m S	Unspecified Mill	1932 - 1938	702002



ID	Location	Land use	Dates present	Group ID
L	456m S	Unspecified Mill	1907 - 1915	700159
H	460m S	Unspecified Works	1965	728388
H	460m S	Unspecified Heap	1955 - 1965	747583
H	460m S	Unspecified Works	1975 - 1982	700527
L	460m S	Unspecified Mill	1923	749738
12	461m SE	Mills	1851	655367
S	463m E	Sand Pit	1907	643932
S	463m E	Refuse Heap	1915 - 1923	731708
T	467m S	Unspecified Mills	1932	738818
T	467m S	Unspecified Mills	1915	772334
P	471m SE	Unspecified Disused Mill	1907	675754
L	472m S	Unspecified Mill	1975 - 1982	723193
T	472m S	Unspecified Mill	1938	718538
H	473m S	Print Works	1851	680240
L	477m S	Unspecified Mills	1965	653270
T	488m S	Unspecified Mill	1907	740048
T	491m S	Unspecified Mill	1923	715258

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

26

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

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
A	73m NE	Tanks	1932	87863



ID	Location	Land use	Dates present	Group ID
A	99m E	Unspecified Tank	1893	84643
A	124m NE	Unspecified Tank	1954	96047
A	126m NE	Unspecified Tank	1932	84642
A	134m NE	Unspecified Tank	1954	97355
A	135m E	Unspecified Tank	1954	101355
A	136m E	Unspecified Tank	1954	95389
A	183m E	Unspecified Tank	1922 - 1932	102662
A	188m E	Tanks	1922 - 1932	91815
A	190m E	Unspecified Tank	1954	96354
C	239m NE	Unspecified Tank	1954	95225
C	241m NE	Unspecified Tank	1909	91276
C	241m NE	Unspecified Tank	1922	93096
C	241m NE	Unspecified Tank	1932	94124
E	272m NW	Unspecified Tank	1954	101692
C	272m NE	Tanks	1954	102895
C	282m NE	Unspecified Tank	1932	84647
E	282m NW	Unspecified Tank	1922	84644
C	283m NE	Tanks	1909 - 1932	92218
E	285m NW	Unspecified Tank	1922	84646
E	300m NW	Unspecified Tank	1954	84637
3	325m SE	Unspecified Tank	1995 - 1996	98436
L	465m S	Unspecified Tank	1978 - 1990	97919
H	467m S	Unspecified Tank	1922	84640
13	493m SW	Unspecified Tank	1978 - 1990	101523
14	497m S	Unspecified Tank	1893	84639

This data is sourced from Ordnance Survey / Groundsure.



1.3 Historical energy features

Records within 500m

15

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

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
A	120m NE	Electricity Substation	1992 - 1996	55032
B	155m NE	Electricity Substation	1996	45613
A	221m E	Electricity Substation	1996	45610
E	256m NW	Electricity Substation	1970	45612
C	277m NE	Electricity Substation	1954	48001
G	289m S	Electricity Substation	1970 - 1990	48539
2	291m W	Electricity Substation	1978 - 1990	57862
6	336m E	Electricity Substation	1954	58358
7	340m NE	Electricity Substation	1954	54870
I	345m W	Electricity Substation	1954	52696
I	350m W	Electricity Substation	1954 - 1970	54248
L	387m S	Electricity Substation	1970 - 1990	59249
K	392m N	Electricity Substation	1954 - 1970	57486
K	394m N	Electricity Substation	1954	48191
R	448m S	Electricity Substation	1990	45620

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or



succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

6

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

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
G	286m S	Garage	1970	15929
G	289m S	Garage	1978 - 1990	18281
F	295m NW	Garage	1960 - 1970	17280
9	361m NW	Garage	1970	14697
K	381m N	Garage	1954 - 1960	17884
K	389m N	Garage	1954	15678

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

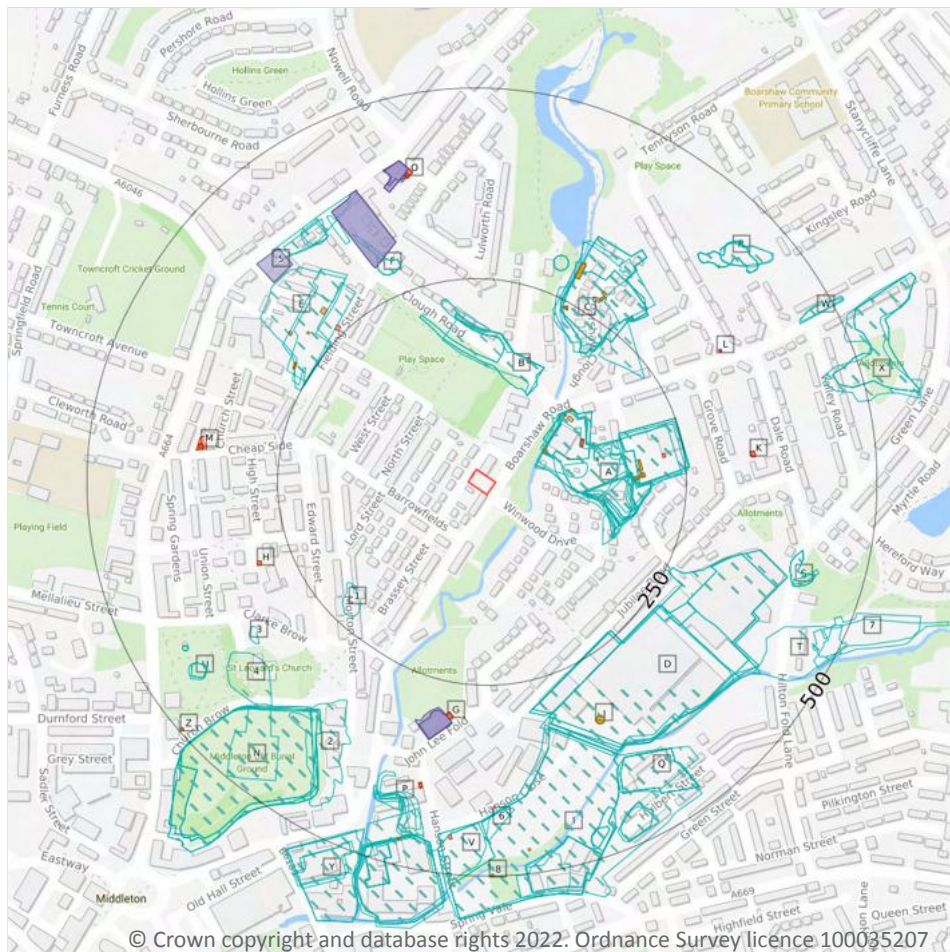
0

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

146

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	56m NE	Unspecified Mill	1932	777120
A	56m E	Unspecified Mill	1938	744116
A	63m NE	Unspecified Mill	1915	777120



ID	Location	Land Use	Date	Group ID
A	73m NE	Unspecified Mill	1907	777120
A	73m NE	Unspecified Mill	1923	777120
A	74m NE	Unspecified Mill	1891	733397
A	76m NE	Unspecified Mill	1975	762459
A	76m NE	Unspecified Mill	1965	762459
A	76m NE	Unspecified Mill	1982	762459
A	91m E	Unspecified Heap	1907	650942
A	115m E	Unspecified Pit	1923	728844
A	116m E	Unspecified Pit	1932	728844
A	116m E	Unspecified Pit	1915	754958
A	116m E	Unspecified Pit	1907	704574
B	117m NE	Unspecified Ground Workings	1915	706752
B	117m NE	Unspecified Ground Workings	1907	706752
B	117m NE	Unspecified Pit	1923	690958
A	122m E	Unspecified Pit	1891	699485
A	137m E	Unspecified Ground Workings	1907	648225
A	144m E	Unspecified Ground Workings	1932	789038
A	145m E	Unspecified Pit	1938	712691
A	148m E	Unspecified Pit	1891	771995
A	151m E	Unspecified Ground Workings	1915	738968
A	151m E	Unspecified Pit	1907	771995
B	159m N	Unspecified Ground Workings	1932	758100
A	167m E	Bleach Works	1923	787817
A	172m E	Bleach Works	1915	787817
A	173m E	Unspecified Works	1975	775228
A	173m E	Unspecified Works	1965	775228
A	173m E	Unspecified Works	1982	775228
B	181m N	Unspecified Ground Workings	1965	705314

ID	Location	Land Use	Date	Group ID
C	199m NE	Bleach Works	1891	771014
1	201m SW	Sand Pit	1851	643936
C	203m NE	Bleach, Dye and Print Works	1932	668328
C	203m NE	Bleach Works	1915	743583
C	203m NE	Bleach Works	1907	743583
C	203m NE	Bleach Works	1923	743583
C	207m NE	Dye Works	1851	681900
C	225m NE	Unspecified Works	1975	769609
C	225m NE	Unspecified Works	1965	769609
C	225m NE	Unspecified Works	1982	769609
D	240m SE	Cotton Spinning Mills	1965	730574
D	240m SE	Cotton Spinning Mills	1955	730574
D	241m SE	Unspecified Mill	1975	780776
D	241m SE	Industrial Estate	1982	652323
E	249m NW	Unspecified Commercial/Industrial	1938	643321
E	251m NW	Unspecified Mills	1982	653269
E	251m NW	Unspecified Mill	1891	657168
D	262m SE	Unspecified Mill	1932	725038
D	262m SE	Unspecified Mill	1915	728279
D	262m SE	Unspecified Mill	1907	740866
D	262m SE	Unspecified Mill	1923	787776
D	262m SE	Unspecified Mill	1938	725038
F	280m NW	Unspecified Pit	1915	748864
F	280m NW	Unspecified Pit	1907	748864
F	280m NW	Unspecified Pit	1923	748864
C	283m N	Unspecified Tank	1975	712647
C	283m N	Unspecified Tank	1965	712647
C	283m N	Unspecified Tank	1982	712647



ID	Location	Land Use	Date	Group ID
I	311m S	Unspecified Mill	1891	731726
I	317m S	Dye Works	1932	751038
I	317m S	Dye Works	1915	725132
I	317m S	Dye Works	1907	725132
I	317m S	Dye Works	1923	728542
2	326m SW	Sand Pit	1851	643937
3	336m SW	Unspecified Pit	1891	690959
F	341m NW	Unspecified Ground Workings	1923	648226
N	357m SW	Cemetery	1923	755454
N	357m SW	Cemetery	1932	755454
N	357m SW	Cemetery	1915	755454
N	357m SW	Cemetery	1907	755454
4	357m SW	Grave Yard	1851	668133
F	359m NW	Unspecified Pit	1923	740835
N	360m SW	Cemetery	1891	722203
N	360m SW	Cemetery	1938	723824
N	360m SW	Burial Ground	1975	755563
N	360m SW	Burial Ground	1965	755563
N	360m SW	Burial Ground	1982	755563
F	361m NW	Unspecified Pit	1915	740835
F	361m NW	Cuttings	1907	642587
F	363m NW	Unspecified Pit	1891	771983
P	384m S	Unspecified Ground Workings	1907	719567
Q	389m SE	Unspecified Mill	1932	775358
Q	389m SE	Unspecified Mill	1915	766528
Q	389m SE	Unspecified Mill	1907	766528
Q	389m SE	Unspecified Mill	1938	703837
Q	389m SE	Unspecified Mill	1923	775358



ID	Location	Land Use	Date	Group ID
R	395m NE	Unspecified Pit	1975	723905
R	395m NE	Unspecified Pit	1965	723905
R	395m NE	Unspecified Pit	1955	723905
R	395m NE	Unspecified Pit	1982	723905
N	395m SW	Grave Yard	1851	668136
S	401m E	Refuse Heap	1915	678063
S	401m E	Unspecified Heap	1923	650943
S	401m E	Sand Pit	1907	643933
P	406m S	Unspecified Ground Workings	1915	729414
P	408m S	Unspecified Ground Workings	1932	699499
T	410m SE	Unspecified Mill	1891	747984
P	410m S	Unspecified Ground Workings	1923	729414
S	411m E	Unspecified Ground Workings	1932	648224
P	411m S	Unspecified Pit	1938	690961
6	413m S	Unspecified Pit	1938	690960
R	415m NE	Unspecified Pit	1938	780015
R	416m NE	Unspecified Pit	1932	713526
U	419m SW	Unspecified Pit	1932	726670
U	419m SW	Unspecified Pit	1915	714536
U	419m SW	Unspecified Pit	1907	714536
P	421m S	Unspecified Heap	1932	650947
U	423m SW	Unspecified Pits	1938	659183
U	426m SW	Unspecified Tank	1932	747614
U	426m SW	Unspecified Tank	1915	699346
U	426m SW	Unspecified Tank	1907	699346
V	431m S	Unspecified Pit	1891	690962
I	439m S	Refuse Heap	1975	733131
I	439m S	Refuse Heap	1982	733131



ID	Location	Land Use	Date	Group ID
I	450m SE	Refuse Heap	1932	752241
I	450m SE	Refuse Heap	1915	711068
W	450m NE	Sand Pit	1923	738740
X	452m E	Refuse Heap	1891	737743
W	453m NE	Sand Pit	1915	738740
I	454m SE	Refuse Heap	1923	735963
P	456m S	Unspecified Mill	1891	731375
P	456m S	Unspecified Mill	1938	702002
P	456m S	Unspecified Mill	1932	702002
P	456m S	Unspecified Mill	1915	700159
P	456m S	Unspecified Mill	1907	700159
I	460m S	Unspecified Works	1965	728388
I	460m S	Unspecified Heap	1965	747583
I	460m S	Unspecified Heap	1955	747583
I	460m S	Unspecified Works	1975	700527
I	460m S	Unspecified Works	1982	700527
P	460m S	Unspecified Mill	1923	749738
7	461m SE	Mills	1851	655367
X	463m E	Refuse Heap	1915	731708
X	463m E	Refuse Heap	1923	731708
X	463m E	Sand Pit	1907	643932
Y	467m S	Unspecified Mills	1932	738818
Y	467m S	Unspecified Mills	1915	772334
T	471m SE	Unspecified Disused Mill	1907	675754
P	472m S	Unspecified Mill	1975	723193
P	472m S	Unspecified Mill	1982	723193
Y	472m S	Unspecified Mill	1938	718538
I	473m S	Print Works	1851	680240



ID	Location	Land Use	Date	Group ID
P	477m S	Unspecified Mills	1965	653270
Y	488m S	Unspecified Mill	1907	740048
Y	491m S	Unspecified Mill	1923	715258

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

38

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	73m NE	Tanks	1932	87863
A	99m E	Unspecified Tank	1893	84643
A	124m NE	Unspecified Tank	1954	96047
A	125m NE	Unspecified Tank	1954	96047
A	126m NE	Unspecified Tank	1932	84642
A	134m NE	Unspecified Tank	1954	97355
A	135m NE	Unspecified Tank	1954	97355
A	135m E	Unspecified Tank	1954	101355
A	136m E	Unspecified Tank	1954	95389
A	183m E	Unspecified Tank	1932	102662
A	183m E	Unspecified Tank	1922	102662
A	188m E	Tanks	1922	91815
A	188m E	Tanks	1932	91815
A	190m E	Unspecified Tank	1954	96354
A	190m E	Unspecified Tank	1954	96354
C	239m NE	Unspecified Tank	1954	95225
C	240m NE	Unspecified Tank	1954	95225



ID	Location	Land Use	Date	Group ID
C	241m NE	Unspecified Tank	1909	91276
C	241m NE	Unspecified Tank	1922	93096
C	241m NE	Unspecified Tank	1932	94124
E	272m NW	Unspecified Tank	1954	101692
C	272m NE	Tanks	1954	102895
E	272m NW	Unspecified Tank	1954	101692
C	275m NE	Tanks	1954	102895
C	282m NE	Unspecified Tank	1932	84647
E	282m NW	Unspecified Tank	1922	84644
C	283m NE	Tanks	1932	92218
C	283m NE	Tanks	1909	92218
E	285m NW	Unspecified Tank	1922	84646
E	300m NW	Unspecified Tank	1954	84637
J	325m SE	Unspecified Tank	1995	98436
J	325m SE	Unspecified Tank	1996	98436
P	465m S	Unspecified Tank	1978	97919
P	465m S	Unspecified Tank	1990	97919
I	467m S	Unspecified Tank	1922	84640
Z	493m SW	Unspecified Tank	1978	101523
Z	493m SW	Unspecified Tank	1990	101523
8	497m S	Unspecified Tank	1893	84639

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

26

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
A	120m NE	Electricity Substation	1992	55032
A	121m NE	Electricity Substation	1996	55032
B	155m NE	Electricity Substation	1996	45613
A	221m E	Electricity Substation	1996	45610
E	256m NW	Electricity Substation	1970	45612
C	277m NE	Electricity Substation	1954	48001
C	277m NE	Electricity Substation	1954	48001
G	289m S	Electricity Substation	1978	48539
G	289m S	Electricity Substation	1990	48539
G	290m S	Electricity Substation	1970	48539
H	291m W	Electricity Substation	1978	57862
H	291m W	Electricity Substation	1990	57862
K	336m E	Electricity Substation	1954	58358
K	336m E	Electricity Substation	1954	58358
L	340m NE	Electricity Substation	1954	54870
L	340m NE	Electricity Substation	1954	54870
M	345m W	Electricity Substation	1954	52696
M	350m W	Electricity Substation	1954	54248
M	351m W	Electricity Substation	1970	54248
P	387m S	Electricity Substation	1978	59249
P	387m S	Electricity Substation	1990	59249
P	388m S	Electricity Substation	1970	59249
O	392m N	Electricity Substation	1970	57486
O	392m N	Electricity Substation	1954	57486
O	394m N	Electricity Substation	1954	48191
V	448m S	Electricity Substation	1990	45620

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

9

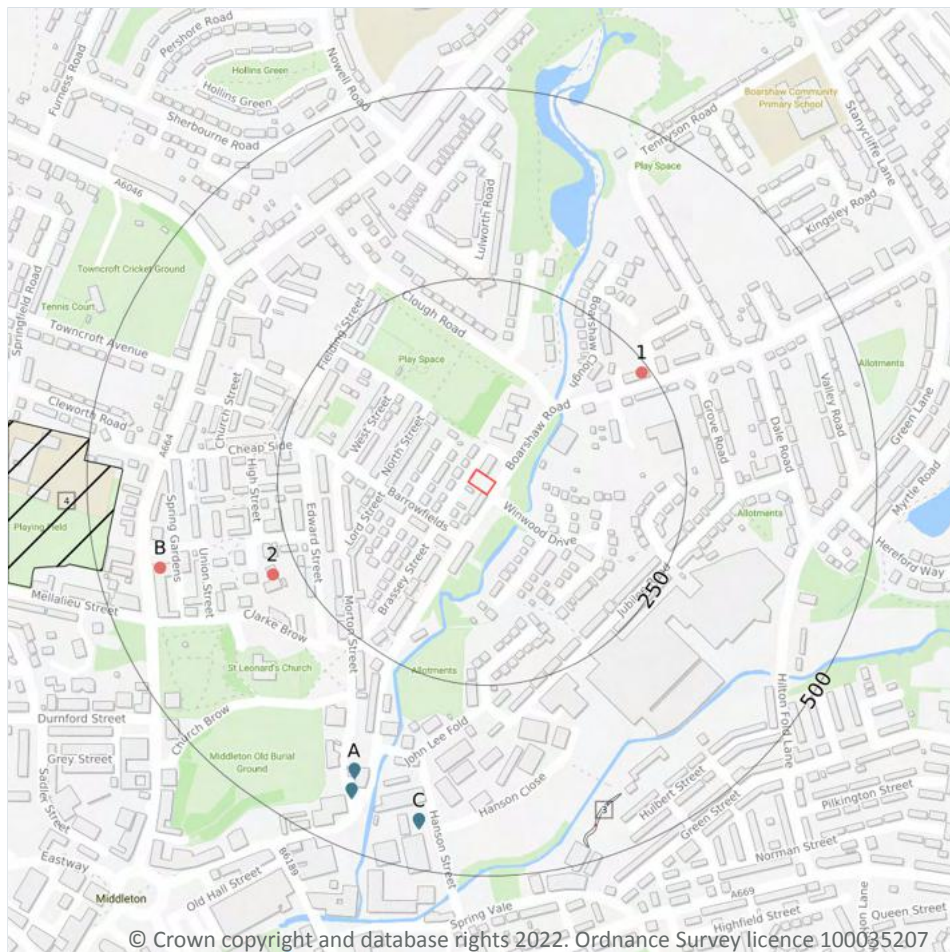
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

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

ID	Location	Land Use	Date	Group ID
G	286m S	Garage	1970	15929
G	289m S	Garage	1978	18281
G	289m S	Garage	1990	18281
F	295m NW	Garage	1960	17280
F	295m NW	Garage	1970	17280
5	361m NW	Garage	1970	14697
O	381m N	Garage	1960	17884
O	381m N	Garage	1954	17884
O	389m N	Garage	1954	15678

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical landfill (EA/NRW)
- Historical landfill (LA/OS)
- Licensed waste sites
- 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

1

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

Features are displayed on the Waste and landfill map on **page 31**

ID	Location	Site address	Source	Data type
3	429m SE	Refuse Tip	1967 mapping	Polygon

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

3.4 Historical landfill (EA/NRW records)

Records within 500m

1

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.

Features are displayed on the Waste and landfill map on **page 31**

ID	Location	Details		
4	453m W	Site Address: Mellalieu Street Playing Fields, Mellalieu Street, Middleton, Manchester, Greater Manchester Licence Holder Address: -	Waste Licence: - Site Reference: D068 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded: - Last Recorded: -

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

6

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

Features are displayed on the Waste and landfill map on **page 31**

ID	Location	Details		
A	402m SW	Site Name: 3 Star Salvage Site Address: Rear Of, 6, Morton Street, Middleton, Manchester, M24 6AN Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: KEN066 EPR reference: EA/EPR/BB3035AE/S002 Operator: Mr Wayne Kenny & Mr Stephen Ramsey Waste Management licence No: 103157 Annual Tonnage: 0	Issue Date: 28/10/2011 Effective Date: - Modified: - Surrendered Date: Sep 15 2020 12:00AM Expiry Date: - Cancelled Date: - Status: Surrendered
A	427m SW	Site Name: 3 Star Salvage Site Address: Rear Of, 6, Morton Street, Middleton, Manchester, M24 6AN Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: KEN066 EPR reference: EA/EPR/BB3035AE/A001 Operator: Mr Wayne Kenny And Mr Stephen Ramsey Waste Management licence No: 103157 Annual Tonnage: 4999	Issue Date: 28/10/2011 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
C	437m S	Site Name: Land At Hanson Street Site Address: Land At, Hanson Street, Middleton, Manchester, M24 2HW Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAL017 EPR reference: EA/EPR/YP3994CA/A001 Operator: Hall Steven Waste Management licence No: 50460 Annual Tonnage: 25000	Issue Date: 17/02/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued



ID	Location	Details		
C	437m S	Site Name: Land At Hanson Street Site Address: Hanson Street, Middleton, Manchester, M24 2HW Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MWR004 EPR reference: EA/EPR/CB3007MU/T001 Operator: Middleton Waste And Recycling Limited Waste Management licence No: 50460 Annual Tonnage: 74999	Issue Date: 17/02/2007 Effective Date: 01/10/2014 Modified: 15/11/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked
C	437m S	Site Name: Land At Hanson Street Site Address: Hanson Street, Middleton, Manchester, M24 2HW Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MWR004 EPR reference: EA/EPR/CB3007MU/T001 Operator: Middleton Waste And Recycling Limited Waste Management licence No: 50460 Annual Tonnage: 74999	Issue Date: 17/02/2007 Effective Date: 01/10/2014 Modified: 15/11/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked
C	437m S	Site Name: Land At Hanson Street Site Address: Land At, Hanson Street, Middleton, Manchester, M24 2HW Correspondence Address: -	Type of Site: 75kte HCI Waste TS + treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAL017 EPR reference: EA/EPR/YP3994CA/V002 Operator: Hall Steven Waste Management licence No: 50460 Annual Tonnage: 74999	Issue Date: 17/02/2007 Effective Date: - Modified: 15/11/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

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



3.7 Waste exemptions

Records within 500m

4

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

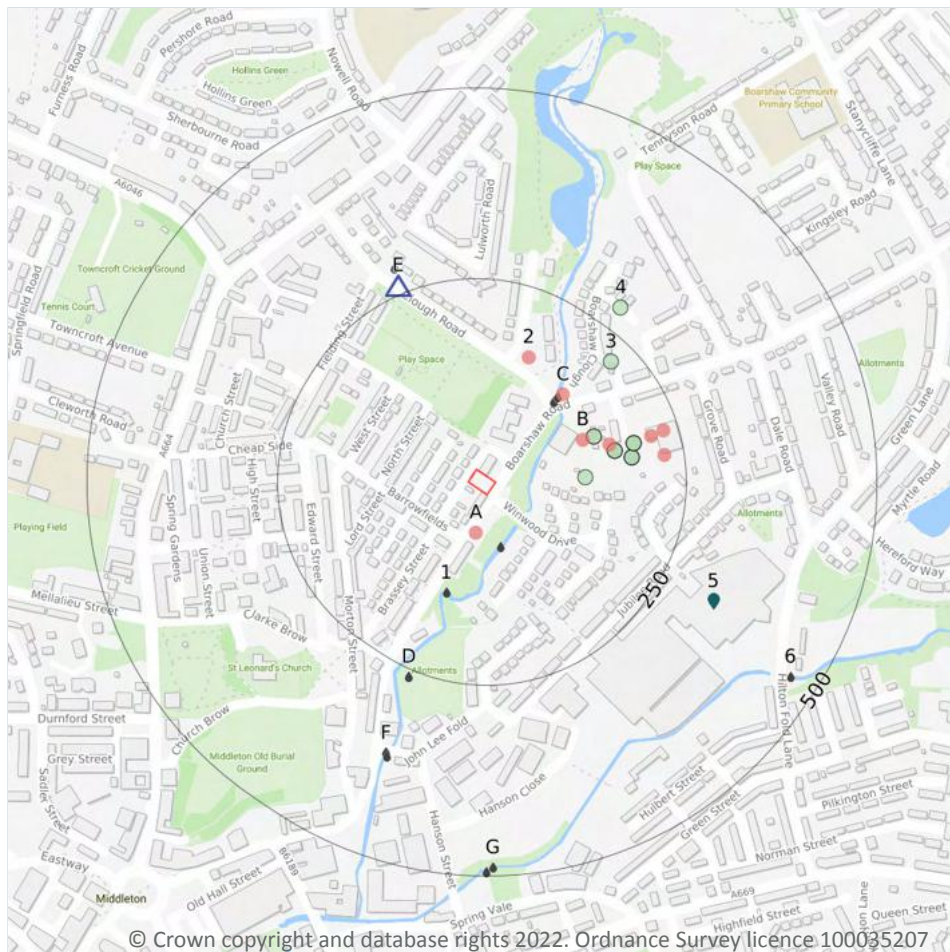
Features are displayed on the Waste and landfill map on **page 31**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	239m NE	221 Boarshaw Road MANCHESTER M24 2WQ	EPR/RF0735P W/A001	Treating waste exemption	Non- Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
2	285m SW	CLARKE BROW, MIDDLETON, MANCHESTER, M24 6BW	WEX246285	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	420m W	74, LONG STREET, MIDDLETON, MANCHESTER, M24 6DN	WEX244310	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	420m W	74, LONG STREET, MIDDLETON, MANCHESTER, M24 6DN	WEX300791	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



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

8

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 36**

ID	Location	Company	Address	Activity	Category
A	52m S	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities
B	127m NE	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities
C	145m NE	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
B	157m E	Mast (Telecommunication)	Greater Manchester, M24	Telecommunications Features	Infrastructure and Facilities
2	162m NE	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities
B	212m E	United Flags Ltd	Phoenix Works, Brookes Street, Middleton, Greater Manchester, M24 2WL	Medals, Trophies, Ceremonial and Religious Goods	Consumer Products
B	224m E	Electricity Sub Station	Greater Manchester, M24	Electrical Features	Infrastructure and Facilities
B	231m E	Works	Greater Manchester, M24	Unspecified Works Or Factories	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	1
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Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 36**

ID	Location	Company	Address	LPG	Status
E	262m NW	OBSOLETE	96, Rochdale Road, Middleton, Manchester, Greater Manchester, M24 2QA	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0
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High voltage underground electricity transmission cables.

This data is sourced from National Grid.



4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

0

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

This data is sourced from Local Authority records.



4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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

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

Records within 500m

1

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 36**

ID	Location	Address	Details	
5	325m SE	Milliken Chemical Elastomers, Hilton Fold Lane, Middleton, Manchester, M24 2HZ	Process: Rubber Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m

19

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

Features are displayed on the Current industrial land use map on **page 36**

ID	Location	Address	Details	
A	70m S	BOARDSHAW ROAD CSO, 125 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 6AR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016950217 Permit Version: 1 Receiving Water: WHIT BROOK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: - Effective Date: 31/07/1981 Revocation Date: 10/12/2019
C	129m NE	BOARSHAW ROAD CSO, 203 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2WQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0013 Permit Version: 1 Receiving Water: WHIT BROOK RIVER IRK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 13/04/2009
C	129m NE	BOARSHAW ROAD CSO, 203 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2WQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0013 Permit Version: 2 Receiving Water: WHIT BROOK RIVER IRK	Status: VARIED UNDER EPR 2010 Issue date: 14/04/2009 Effective Date: 14/04/2009 Revocation Date: 04/02/2016
C	137m NE	BOARSHAW ROAD CSO, 203 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2WQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0013 Permit Version: 3 Receiving Water: WHIT BROOK	Status: VARIED UNDER EPR 2010 Issue date: 05/02/2016 Effective Date: 05/02/2016 Revocation Date: 13/10/2019
C	137m NE	BOARSHAW ROAD CSO, 203 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2WQ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01ROC0013 Permit Version: 4 Receiving Water: WHIT BROOK	Status: VARIED UNDER EPR 2010 Issue date: 14/10/2019 Effective Date: 14/10/2019 Revocation Date: -
1	139m S	BOARDSHAW ROAD CSO, 125 BOARSHAW ROAD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 6AR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016950217 Permit Version: 3 Receiving Water: WHIT BROOK, TRIB OF RIVER IRK	Status: VARIED UNDER EPR 2010 Issue date: 11/12/2019 Effective Date: 11/12/2019 Revocation Date: -



ID	Location	Address	Details	
D	259m SW	H PICKUP AND SONS SWO, 6 BOARSHAW ROAD, MIDDLETON, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991160 Permit Version: 1 Receiving Water: WHITBROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/11/1994 Revocation Date: 01/11/1994
D	259m SW	MIDDLETON TRANSPORT LTD SWO, JOHN LEE ROAD, MIDDLETON, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991252 Permit Version: 1 Receiving Water: TRUB (WHIT) BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/11/1994 Revocation Date: 01/11/1994
E	285m N	FIELDING STREET CSO (ROC0193), 90 FIELDING STREET, MIDDLETON, MANCHESTER, M24 6BG	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: EPRJB3892VC Permit Version: 1 Receiving Water: CLV TRIB OF WHIT BROOK	Status: NEW ISSUED UNDER EPR 2010 Issue date: 14/05/2021 Effective Date: 14/05/2021 Revocation Date: 13/05/2022
E	285m N	FIELDING STREET CSO (ROC0193), 90 FIELDING STREET, MIDDLETON, MANCHESTER, M24 6BG	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: EPRJB3892VC Permit Version: 2 Receiving Water: CLV TRIB OF WHIT BROOK	Status: NEW ISSUED UNDER EPR 2010 Issue date: 14/05/2021 Effective Date: 14/05/2022 Revocation Date: -
F	363m S	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 1 Receiving Water: WHIT BROOK TRIB RIVER IRK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1991 Revocation Date: 31/12/1994
F	363m S	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 2 Receiving Water: WHIT BROOK TRIB RIVER IRK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/01/1995 Revocation Date: 10/05/1995
F	363m S	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 3 Receiving Water: WHIT BROOK TRIB RIVER IRK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 11/05/1995 Revocation Date: 08/03/2005



ID	Location	Address	Details	
F	363m S	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 4 Receiving Water: WHIT BROOK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: 09/03/2005 Effective Date: 09/03/2005 Revocation Date: 19/05/2005
F	363m S	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 5 Receiving Water: WHIT BROOK	Status: MODIFIED - (WRA 91 SCHD 10 - AS AMENDED BY ENV ACT 1995) Issue date: 20/05/2005 Effective Date: 20/05/2005 Revocation Date: 29/10/2019
F	368m S	JOHN LEE FOLD CSO, 2 JOHN LEE FOLD, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2LR	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982900 Permit Version: 6 Receiving Water: WHIT BROOK	Status: VARIED UNDER EPR 2010 Issue date: 30/10/2019 Effective Date: 30/10/2019 Revocation Date: -
6	462m SE	BILLINGTON BROS SWO, HILTON FOLD LANE, MIDDLETON, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991152 Permit Version: 1 Receiving Water: RIVER IRK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/10/1994 Revocation Date: 30/11/1994
G	488m S	HANSON ST BRIDGE SSO, 50M U/S HANSON STREET BRIDGE, MIDDLETON, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016950433 Permit Version: 1 Receiving Water: RIVER IRK	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 06/09/1983 Revocation Date: 27/02/2013
G	494m S	SPRING VALE COMBINED SEWER OVERFLOW, OPPOSITE 54 SPRING VALE, MIDDLETON, MANCHESTER, GREATER MANCHESTER, M24 2HS	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982642 Permit Version: 4 Receiving Water: RIVER IRK	Status: VARIED UNDER EPR 2010 Issue date: 09/01/2020 Effective Date: 09/01/2020 Revocation Date: -

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0
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Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

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



4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m

0

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

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

4.17 List 2 Dangerous Substances

Records within 500m

0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m

14

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 36**

ID	Location	Details	
B	117m E	Incident Date: 20/08/2002 Incident Identification: 101838 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	142m NE	Incident Date: 24/04/2001 Incident Identification: 3264 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)

ID	Location	Details	
B	142m NE	Incident Date: 24/04/2001 Incident Identification: 3264 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
B	161m E	Incident Date: 29/04/2002 Incident Identification: 75487 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Fumes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
B	161m E	Incident Date: 29/04/2002 Incident Identification: 75487 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
B	161m E	Incident Date: 29/04/2002 Incident Identification: 75487 Pollutant: Atmospheric Pollutants and Effects:Inert Materials and Wastes Pollutant Description: Fumes:Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
B	181m E	Incident Date: 24/08/2001 Incident Identification: 26661 Pollutant: Inert Materials and Wastes:Specific Waste Materials Pollutant Description: Soils and Clay:Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	181m E	Incident Date: 24/08/2001 Incident Identification: 26661 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	181m E	Incident Date: 24/08/2001 Incident Identification: 26661 Pollutant: Inert Materials and Wastes Pollutant Description: Soils and Clay	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	188m E	Incident Date: 15/05/2002 Incident Identification: 78870 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
B	188m E	Incident Date: 15/05/2002 Incident Identification: 78870 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)



ID	Location	Details	
B	188m E	Incident Date: 15/05/2002 Incident Identification: 78870 Pollutant: Atmospheric Pollutants and Effects:Inert Materials and Wastes Pollutant Description: Smoke:Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
3	218m NE	Incident Date: 05/06/2002 Incident Identification: 82905 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
4	281m NE	Incident Date: 06/03/2001 Incident Identification: 44 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)

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

4.19 Pollution inventory substances

Records within 500m	0
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The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

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

4.20 Pollution inventory waste transfers

Records within 500m	0
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The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

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

4.21 Pollution inventory radioactive waste

Records within 500m

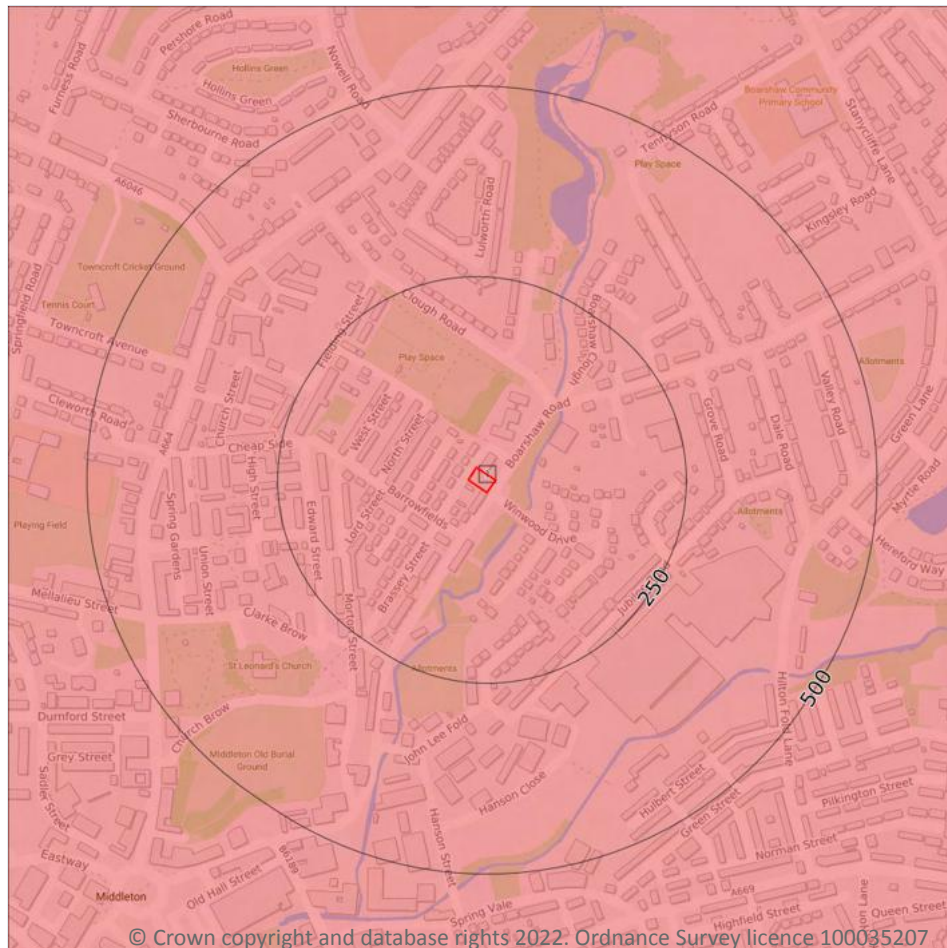
0

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

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



5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

1

Aquifer status of groundwater held within superficial geology.

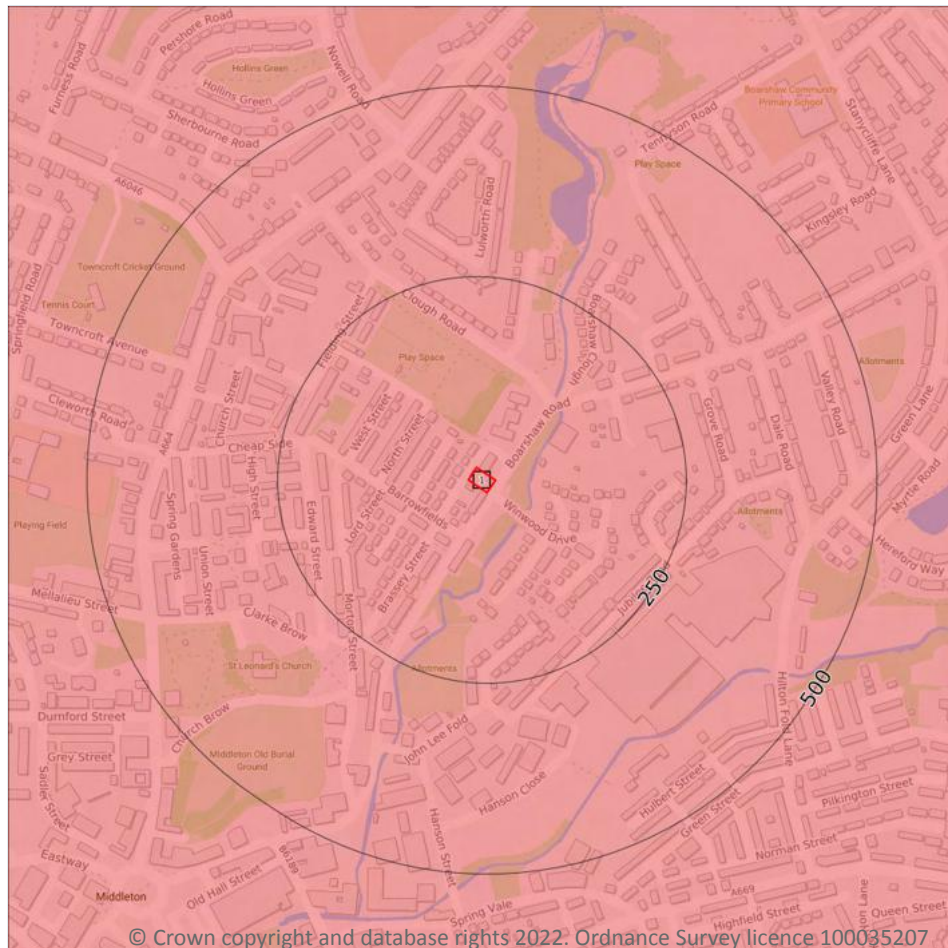
Features are displayed on the Hydrogeology map on **page 47**

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

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



Bedrock aquifer



- 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.

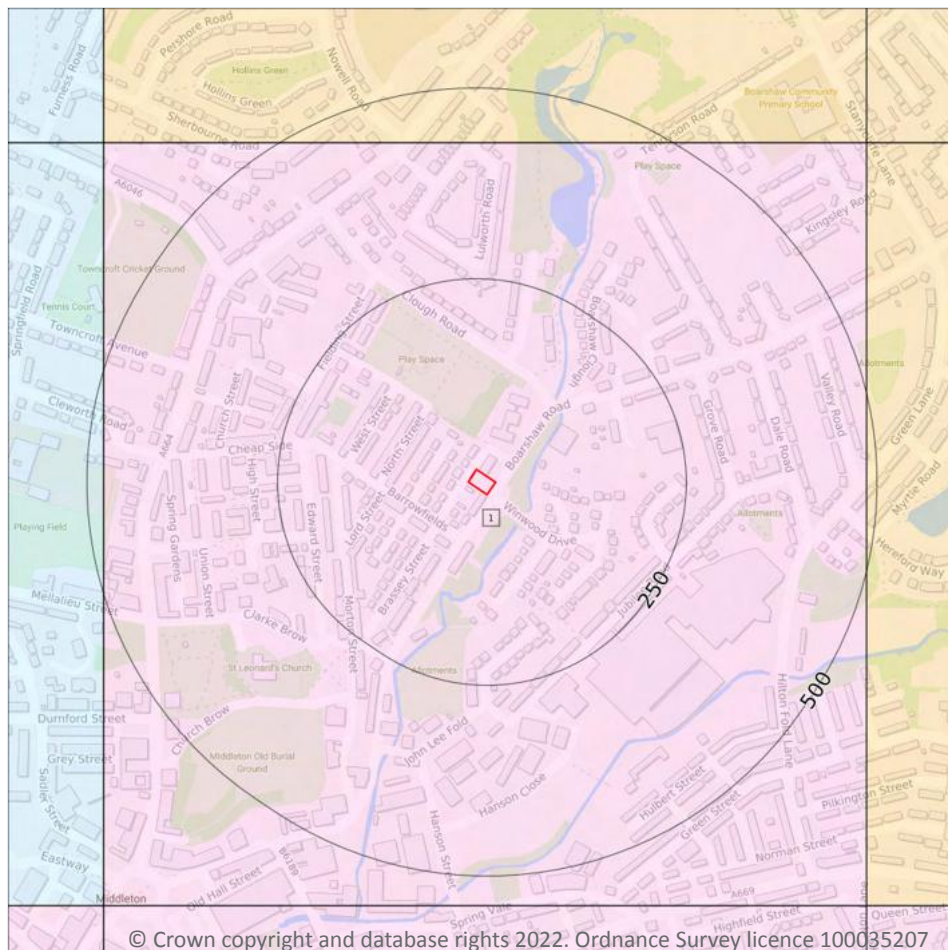
Features are displayed on the Bedrock aquifer map on **page 48**

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

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



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

1

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

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

Features are displayed on the Groundwater vulnerability map on **page 49**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

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

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

5.5 Groundwater vulnerability- local information

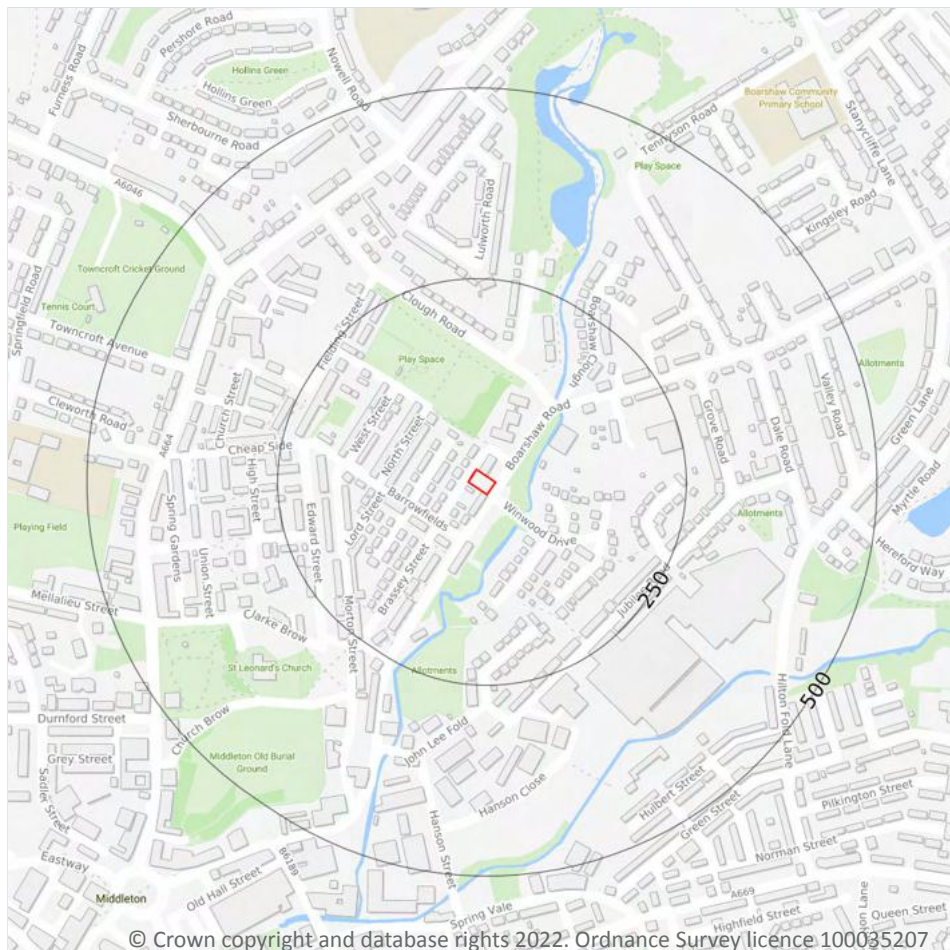
Records on site

0

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

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

Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)**
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
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

4

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 51**

ID	Location	Details	
-	857m E	Status: Historical Licence No: 2569005001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES DON MILL, DON STREET, MIDDLETON Data Type: Point Name: Vita Cellular Foams (UK) Limited trading as Vitafoam Limited Easting: 388312 Northing: 406242	Annual Volume (m ³): 545520 Max Daily Volume (m ³): 2182.08 Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 103 Version Start Date: 29/04/2010 Version End Date: -
-	865m E	Status: Historical Licence No: 2569005001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, DON MILL, DON STREET, MIDDLETON" Data Type: Point Name: VITACOM LTD Easting: 388320 Northing: 406240	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/01/1966 Version End Date: -
-	865m E	Status: Historical Licence No: 2569005001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, DON MILL, DON STREET, MIDDLETON Data Type: Point Name: EASTLAND COMPOUNDING LTD Easting: 388320 Northing: 406240	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 31/03/2004 Version End Date: -
-	865m E	Status: Historical Licence No: 2569005001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES DON MILL DON STREET MIDDLETON Data Type: Point Name: VITAFOAM LTD Easting: 388320 Northing: 406240	Annual Volume (m ³): 545520 Max Daily Volume (m ³): 2182.08 Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2007 Version End Date: -

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



5.7 Surface water abstractions

Records within 2000m

7

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 51**

ID	Location	Details	
-	997m E	Status: Historical Licence No: 2569005006 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "R IRK AT PREMISES, DON MILL, DON STREET, MIDDLETON" Data Type: Point Name: VITACOM LTD Easting: 388460 Northing: 406240	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 23/11/1998 Version End Date: -
-	997m E	Status: Historical Licence No: 2569005006 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: R IRK AT PREMISES, DON MILL, DON STREET, MIDDLETON Data Type: Point Name: EASTLAND COMPOUNDING LTD Easting: 388460 Northing: 406240	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 101 Version Start Date: 31/03/2004 Version End Date: -
-	1297m SW	Status: Historical Licence No: 2569005035 Details: Boiler Feed Direct Source: "Surface, Non-Tidal - North West Region" Point: "RESERVOIR FED BY SURFACE DRAINAGE AT MIDDLETON, MANCHESTER(T)" Data Type: Point Name: ROBERT McBRIDE LTD Easting: 386600 Northing: 405600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/01/1995 Version End Date: -



ID	Location	Details	
-	1297m SW	Status: Historical Licence No: 2569005035 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "RESERVOIR FED BY SURFACE DRAINAGE AT MIDDLETON, MANCHESTER(T" Data Type: Point Name: ROBERT McBRIDE LTD Easting: 386600 Northing: 405600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 18/01/1995 Version End Date: -
-	1297m SW	Status: Active Licence No: 2569005035 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY SURFACE DRAINAGE AT MIDDLETON, MANCHESTER(T Data Type: Point Name: ROBERT McBRIDE LTD Easting: 386600 Northing: 405600	Annual Volume (m ³): 28,867 Max Daily Volume (m ³): 2,182.08 Original Application No: 1898 Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1297m SW	Status: Active Licence No: 2569005035 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY SURFACE DRAINAGE AT MIDDLETON, MANCHESTER(T Data Type: Point Name: ROBERT McBRIDE LTD Easting: 386600 Northing: 405600	Annual Volume (m ³): 28,867 Max Daily Volume (m ³): 2,182.08 Original Application No: 1898 Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
-	1794m SW	Status: Active Licence No: 2569005055 Details: Spray Irrigation - Direct Direct Source: Surface, Non-Tidal - North West Region Point: RESERVOIR FED BY SURFACE DRAINAGE AT NORTH MANCHESTER GOLF C Data Type: Point Name: THE NEW NORTH MANCHESTER GOLF CLUB LTD Easting: 385900 Northing: 405700	Annual Volume (m ³): 2,273 Max Daily Volume (m ³): 45.46 Original Application No: 2477 Original Start Date: 21/02/1977 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -

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



5.8 Potable abstractions

Records within 2000m

0

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

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

5.9 Source Protection Zones

Records within 500m

0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m

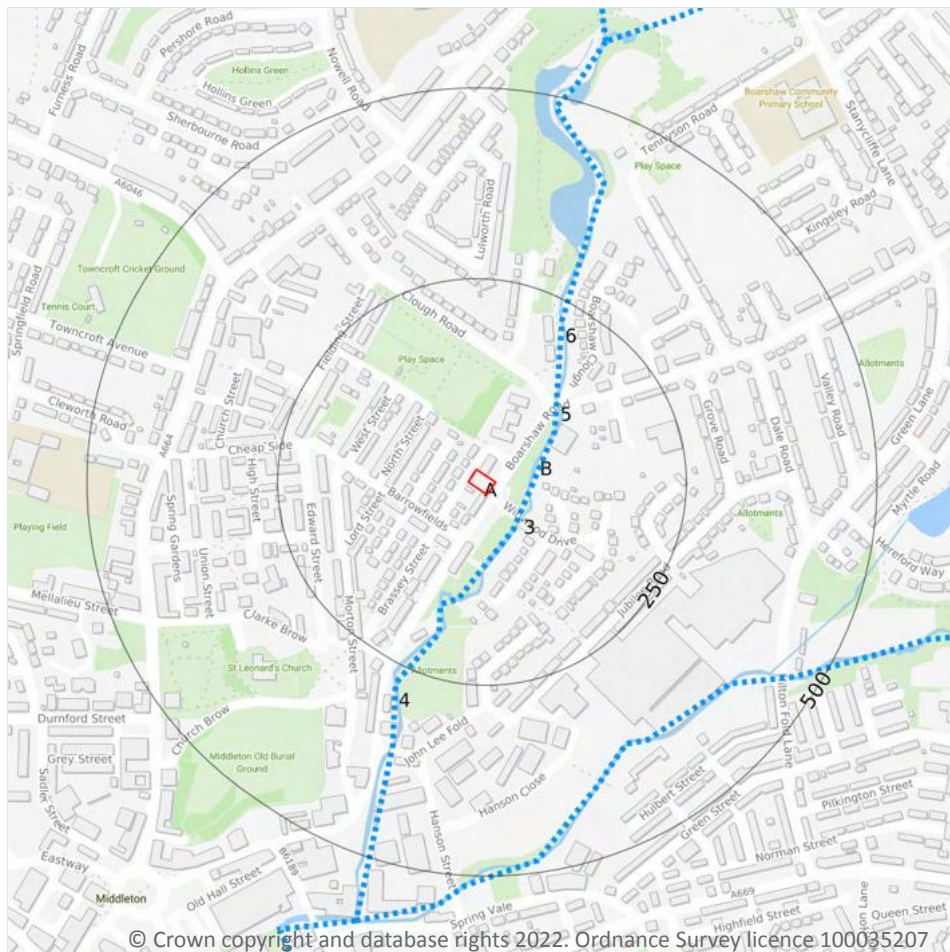
0

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

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



6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

5

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

Features are displayed on the Hydrology map on **page 56**

ID	Location	Type of water feature	Ground level	Permanence	Name
B	43m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Whit Brook



ID	Location	Type of water feature	Ground level	Permanence	Name
3	54m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Whit Brook
4	55m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Whit Brook
5	125m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Whit Brook
6	134m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Whit Brook

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

3

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

Features are displayed on the Hydrology map on **page 56**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

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

Features are displayed on the Hydrology map on **page 56**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Irk (Source to Wince Brook)	GB112069061161	Roch Irk Medlock	Irwell

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



6.4 WFD Surface water bodies

Records identified

1

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

Features are displayed on the Hydrology map on **page 56**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
1	46m SE	River	Irk (Source to Wince Brook)	GB112069061161	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site

1

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

Features are displayed on the Hydrology map on **page 56**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Northern Manchester Carboniferous Aquifers	GB41202G101800	Poor	Poor	Good	2019

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



7 River and coastal flooding



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

7.1 Risk of flooding from rivers and the sea

Records within 50m

3

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).

Features are displayed on the River and coastal flooding map on **page 59**

Distance	Flood risk category
On site	N/A
0 - 50m	High

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

7.2 Historical Flood Events

Records within 250m	2
----------------------------	----------

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

Features are displayed on the River and coastal flooding map on **page 59**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
C	59m NE	Middleton (Boarshaw Trading Estate)	2015-12-26 2015-12-26	Main river	Channel capacity exceeded (no raised defences)	Fluvial
B	182m S	Middleton (The Old Grammar School)	2015-12-26 2015-12-26	Main river	Channel capacity exceeded (no raised defences)	No data

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



- Site Outline
- Search buffers in metres (m)
- Flood zone 2
- Flood zone 3

7.6 Flood Zone 2

Records within 50m

1

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.

Features are displayed on the River and coastal flooding map on **page 59**

Location	Type
37m E	Zone 2 - (Fluvial /Tidal Models)

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

7.7 Flood Zone 3

Records within 50m

1

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.

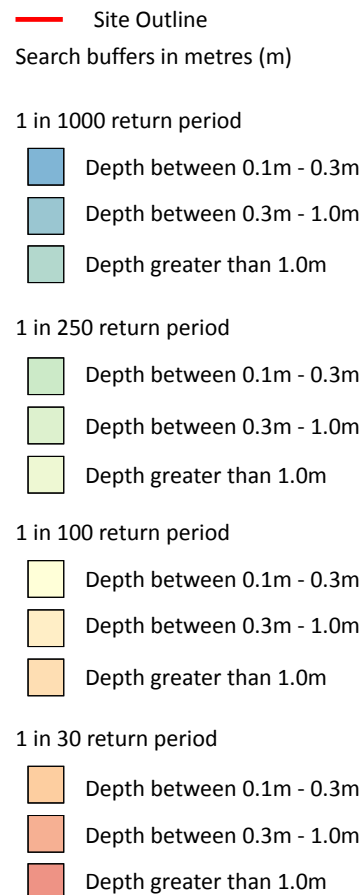
Features are displayed on the River and coastal flooding map on **page 59**

Location	Type
40m E	Zone 3 - (Fluvial Models)

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



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

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

Features are displayed on the Surface water flooding map on **page 64**

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

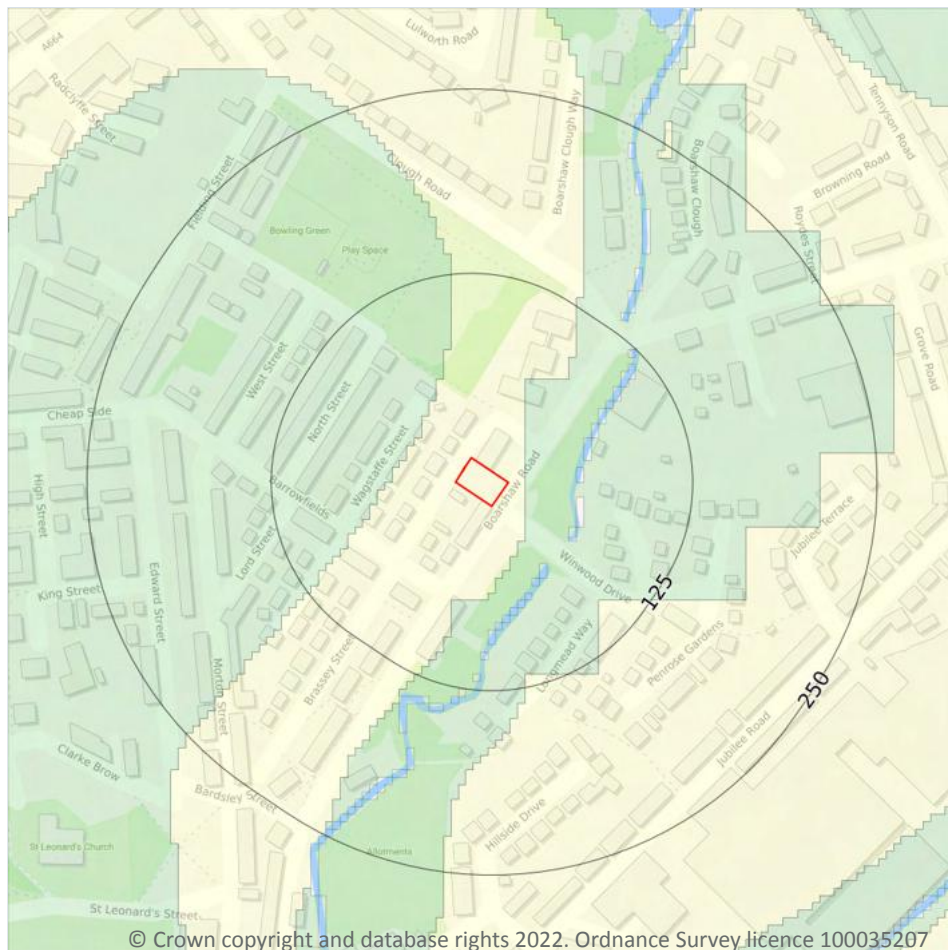
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from Ambiantal 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

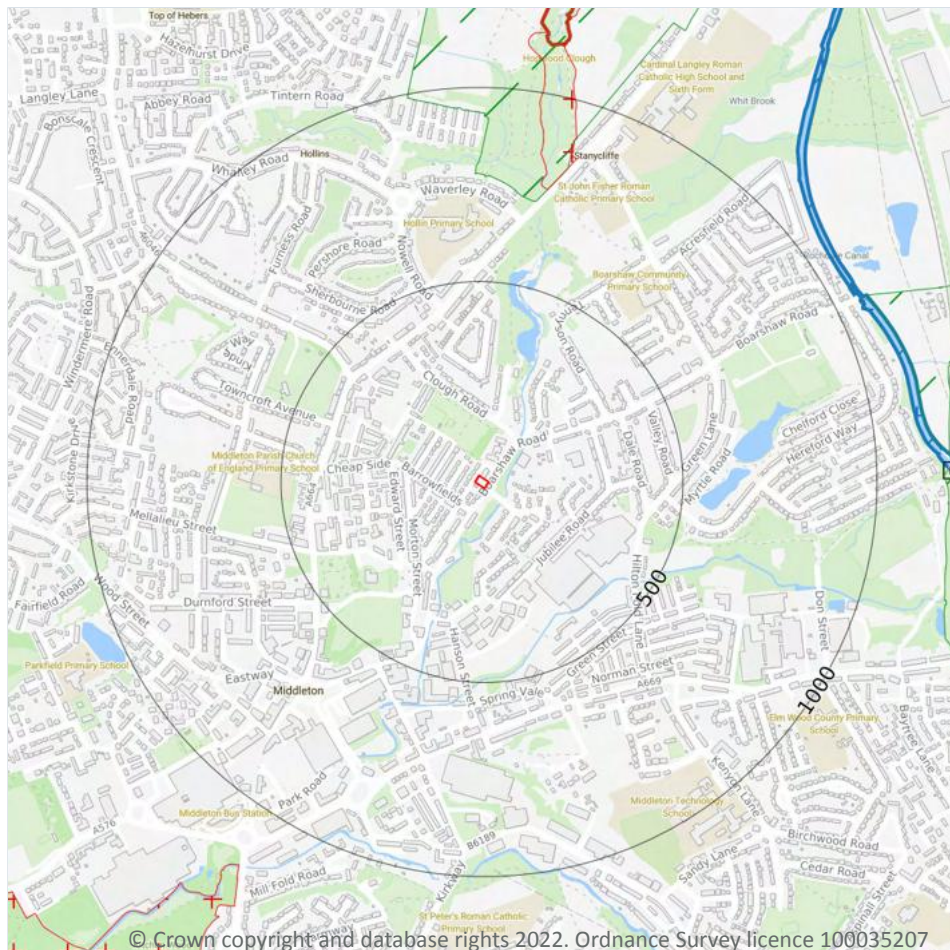
Moderate

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 66**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- + Special Areas of Conservation (SAC)
- + Local Nature Reserves (LNR)
- X Designated Ancient Woodland
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

1

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

Features are displayed on the Environmental designations map on **page 67**

ID	Location	Name	Data source
B	1053m NE	Rochdale Canal	Natural England



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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m

1

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.

Features are displayed on the Environmental designations map on **page 67**

ID	Location	Name	Features of interest	Habitat description	Data source
B	1053m NE	Rochdale Canal	Floating water-plantain.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water)	Natural England

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

5

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 67**

ID	Location	Name	Data source
A	757m N	Hopwood Woodlands	Natural England
2	1158m SW	Alkington Woods	Natural England
-	1390m N	Hopwood Woodlands	Natural England
-	1653m N	Hopwood Woodlands	Natural England
-	1990m N	Hopwood Woodlands	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m

6

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 67**

ID	Location	Name	Woodland Type
A	1126m N	Hopwood Clough	Ancient & Semi-Natural Woodland
-	1434m N	Hopwood Clough	Ancient & Semi-Natural Woodland



ID	Location	Name	Woodland Type
-	1653m N	Unknown	Ancient & Semi-Natural Woodland
-	1681m N	Oaken Bank Wood	Ancient & Semi-Natural Woodland
-	1688m N	Unknown	Ancient & Semi-Natural Woodland
-	1864m N	Unknown	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 **2**

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

Features are displayed on the Environmental designations map on **page 67**



ID	Location	Name	Local Authority name
1	721m N	Merseyside and Greater Manchester	Rochdale
3	1173m E	Merseyside and Greater Manchester	Oldham

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

10.12 Proposed Ramsar sites

Records within 2000m

0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was



closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

2

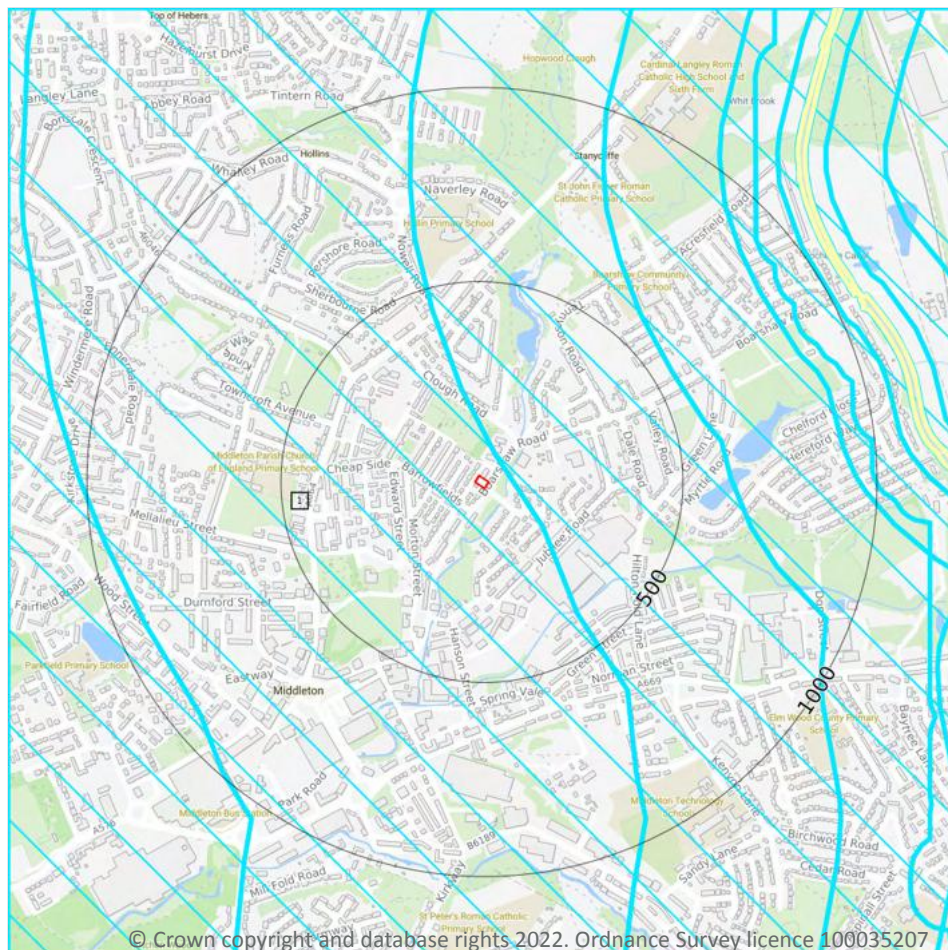
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	Existing
557m S	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	Existing

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



SSSI Impact Zones and Units



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

10.17 SSSI Impact Risk Zones

Records on site

1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 73**

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

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	1
----------------------	---

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

Features are displayed on the SSSI Impact Zones and Units map on **page 73**

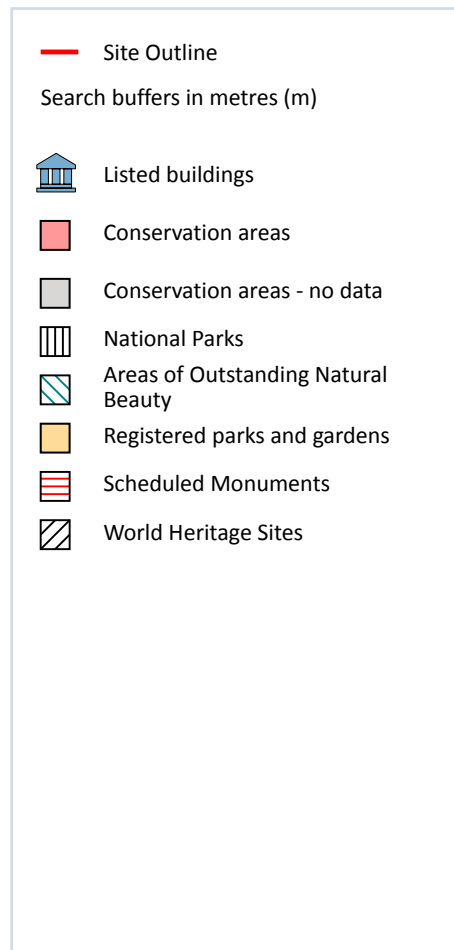
ID: 6
 Location: 1053m NE
 SSSI name: Rochdale Canal
 Unit name: Failsworth
 Broad habitat: Standing Open Water And Canals
 Condition: Unfavourable - Recovering
 Reportable features:

Feature name	Feature condition	Date of assessment
Population of Schedule 8 plant - Luronium natans, Floating Water-plantain	Unfavourable - Recovering	25/11/2010

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



11 Visual and cultural designations



11.1 World Heritage Sites

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

1

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

Features are displayed on the Visual and cultural designations map on **page 75**

ID	Location	Name	Grade	Reference Number	Listed date
2	206m SW	Former Queen Elizabeth Old Grammar School and Adjoining Schoolmaster's House, North Middleton, Rochdale, M24	II*	1356228	15/03/1957

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

11.5 Conservation Areas

Records within 250m

1

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

Features are displayed on the Visual and cultural designations map on **page 75**

ID	Location	Name	District	Date of designation
1	143m SW	Middleton Town Centre	Rochdale	05/07/1978

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

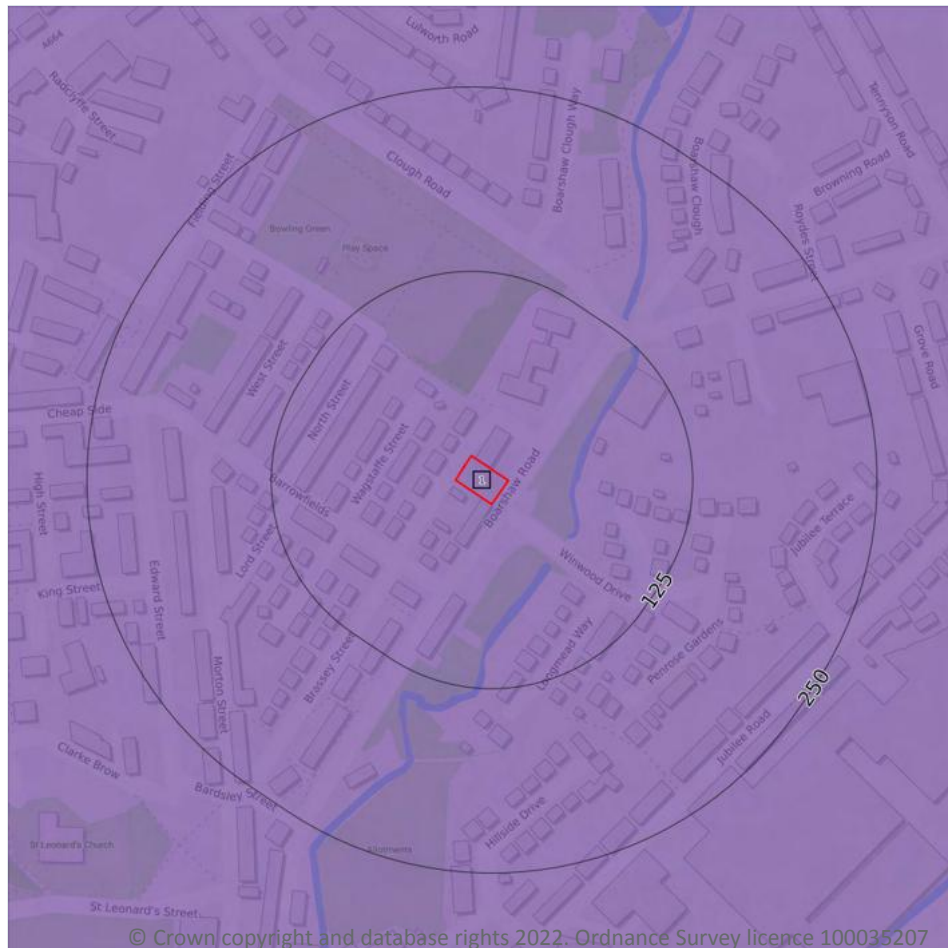
0

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

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



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

1

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

Features are displayed on the Agricultural designations map on **page 78**

ID	Location	Classification	Description
1	On site	Urban	-

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m

0

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

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

12.3 Tree Felling Licences

Records within 250m

0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

0

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

This data is sourced from Natural England.

13 Habitat designations



- 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

0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.



13.3 Open Mosaic Habitat

Records within 250m

1

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.

Features are displayed on the Habitat designations map on **page 80**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	247m NW	NLUD Ref: 422500222	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

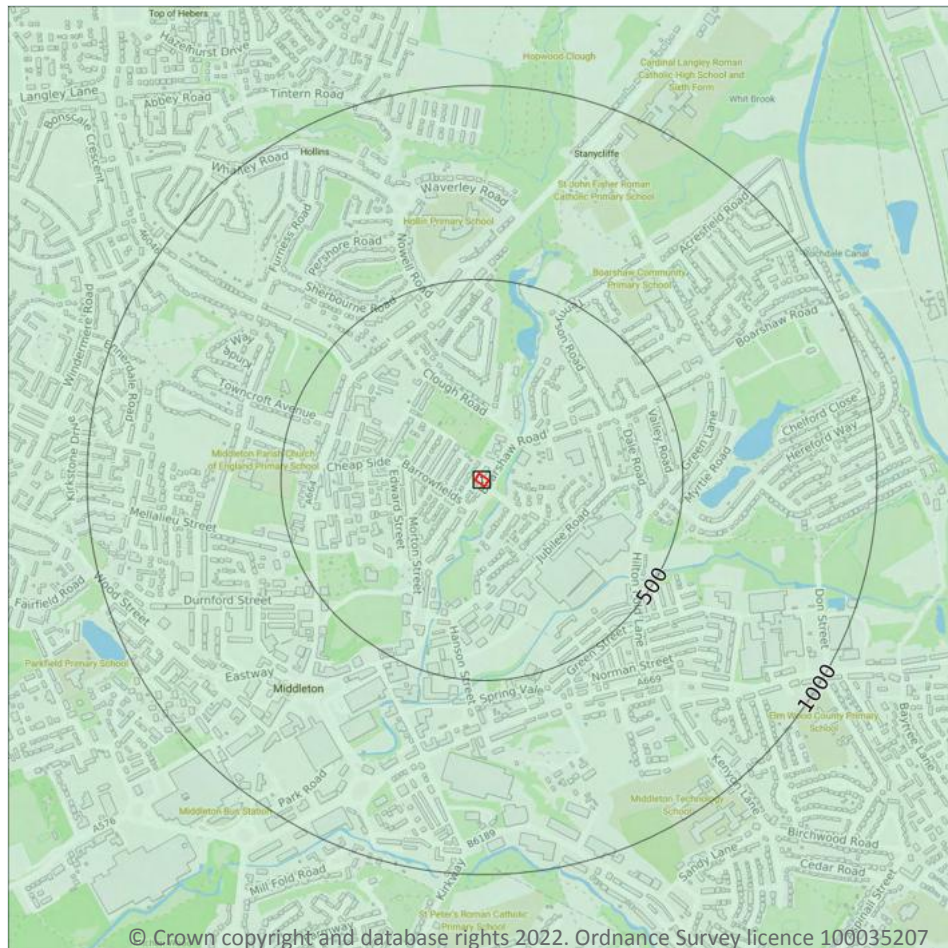
0

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 82**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SD80NE

This data is sourced from the British Geological Survey.



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



- Site Outline**
- Search buffers in metres (m)**
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

10

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

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 83**

ID	Location	LEX Code	Description	Rock description
A	49m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	126m E	WMGR-ARTDP	Infilled Ground	Artificial Deposit
B	148m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
B	204m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

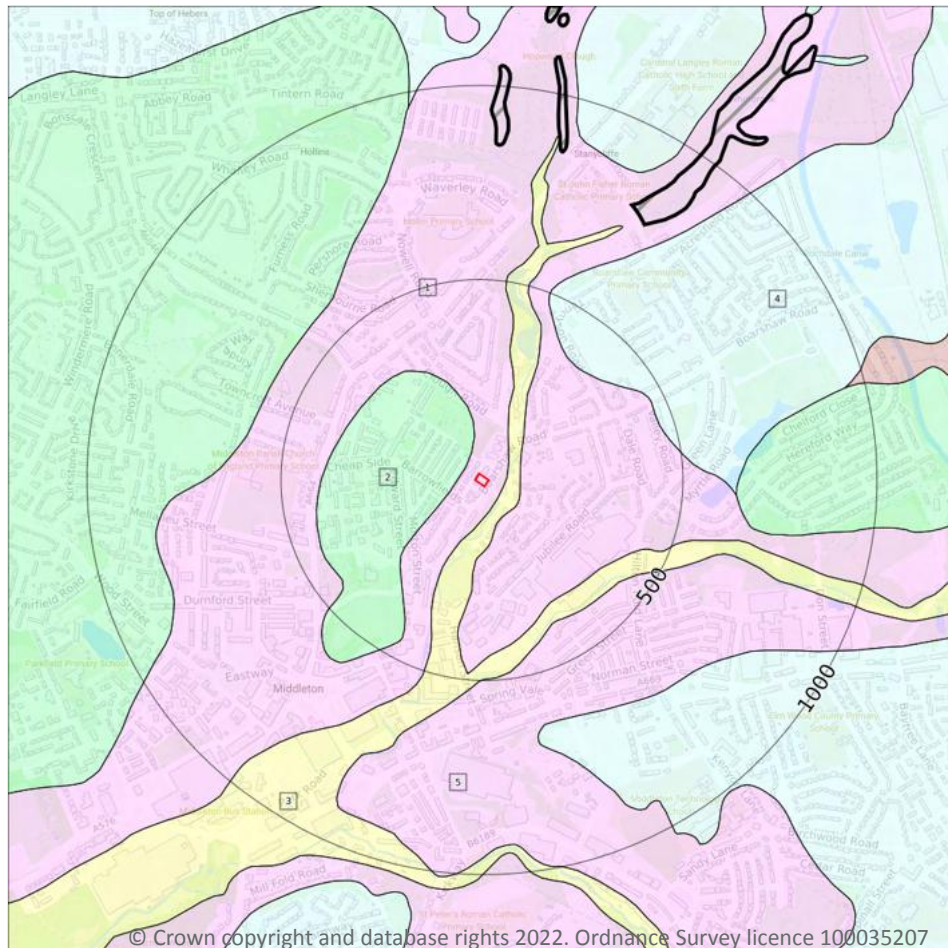


ID	Location	LEX Code	Description	Rock description
1	246m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	329m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	357m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
4	401m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
5	495m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
6	496m E	WMGR-ARTDP	Infilled Ground	Artificial Deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



— Site Outline

Search buffers in metres (m)

▣ Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m

5

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 85**

ID	Location	LEX Code	Description	Rock description
1	On site	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel
2	38m NW	HMGDD-DMTN	Hummocky (moundy) Glacial Deposits, Devensian - Diamicton	Diamicton
3	41m SE	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

ID	Location	LEX Code	Description	Rock description
4	369m NE	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
5	393m SE	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

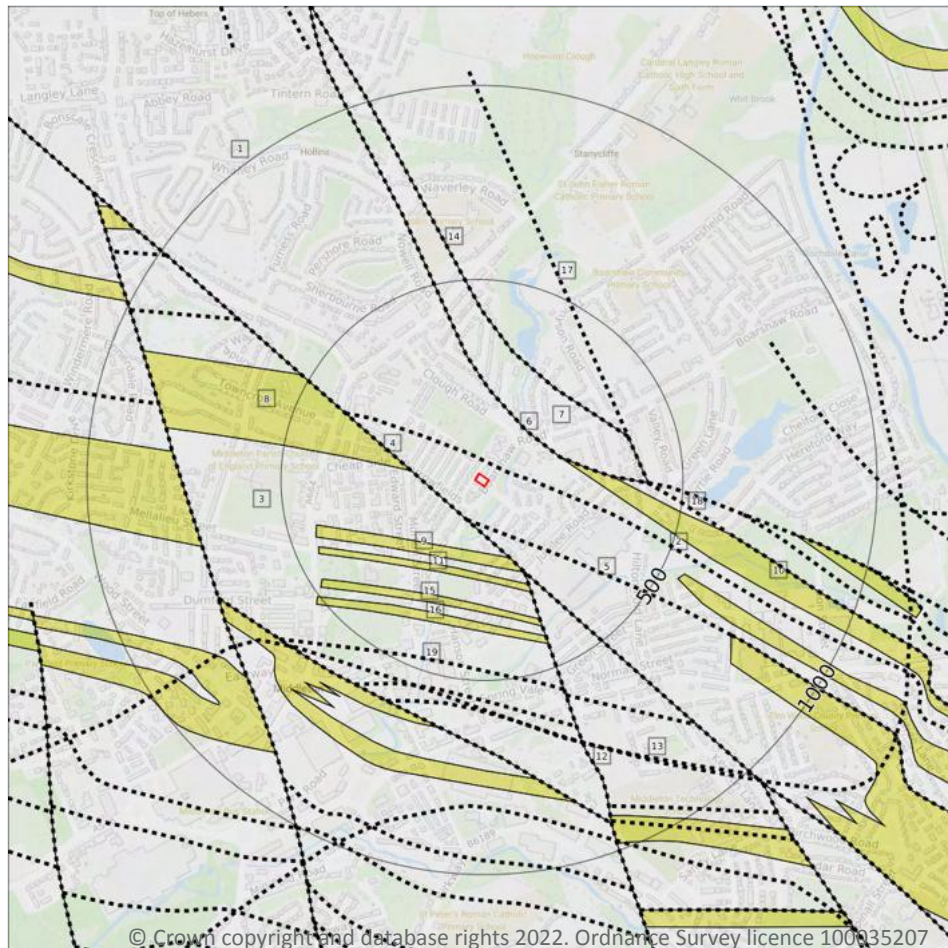
0

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

10

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 87**

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
3	91m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
7	160m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
8	166m W	RYSA-SDST	Royley Sandstone - Sandstone	Langsettian Sub-age
9	170m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
10	192m E	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
11	221m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
13	244m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
15	300m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
16	345m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

9

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.

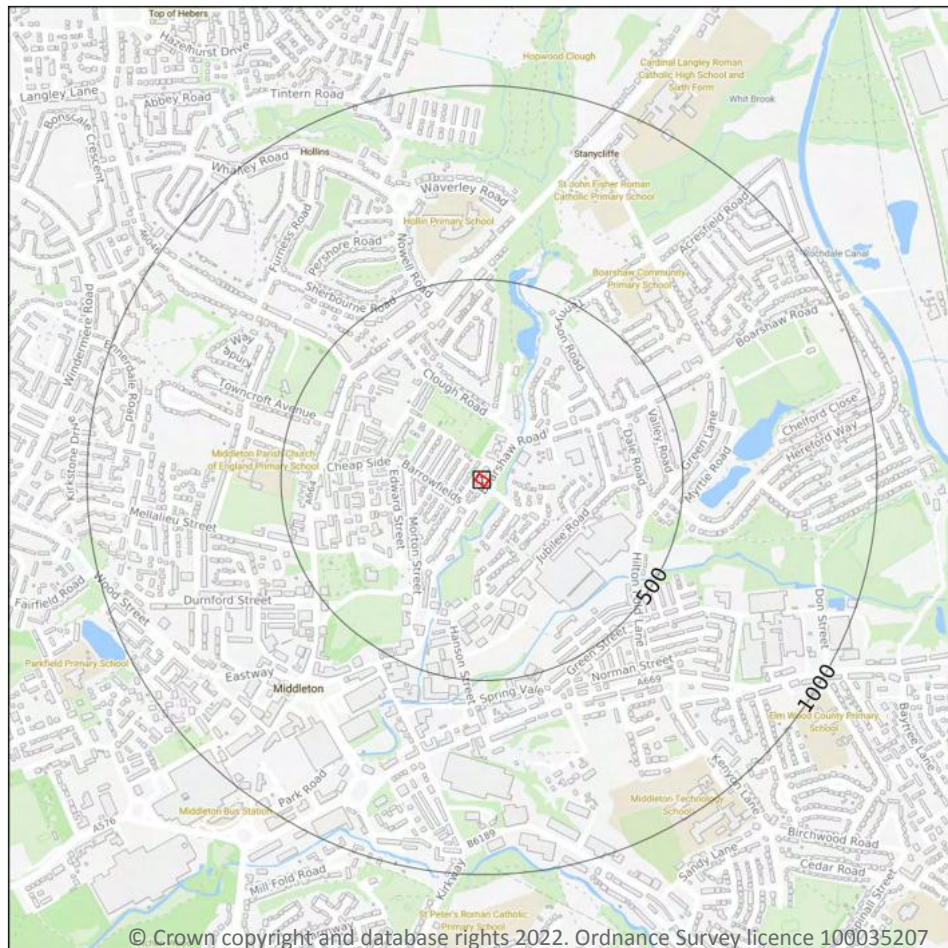
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 87**

ID	Location	Category	Description
2	35m NE	ROCK	Coal seam, inferred
4	91m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
5	97m S	ROCK	Coal seam, inferred
6	160m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
12	244m SE	FAULT	Normal fault, inferred; crossmarks on downthrow side
14	291m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
17	374m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
18	408m E	ROCK	Coal seam, inferred
19	464m S	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline
Search buffers in metres (m)

☐ Geological map tile

15.1 50k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 89**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW085_manchester_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

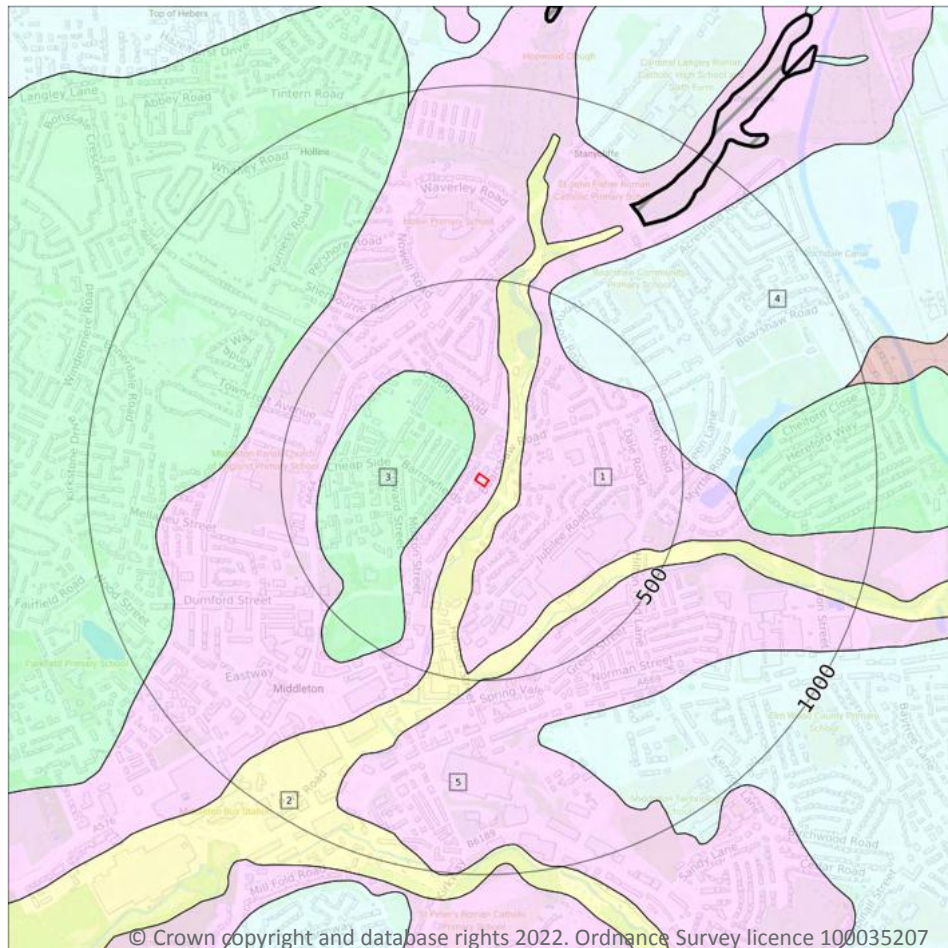
0

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

5

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 91**

ID	Location	LEX Code	Description	Rock description
1	On site	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL
2	27m SE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	38m NW	HMGDD-DMTN	HUMMOCKY (MOUNDY) GLACIAL DEPOSITS, DEVENSIAN	DIAMICTON



ID	Location	LEX Code	Description	Rock description
4	369m NE	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
5	402m SE	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

3

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
27m SW	Intergranular	High	Very Low
38m W	Mixed	High	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

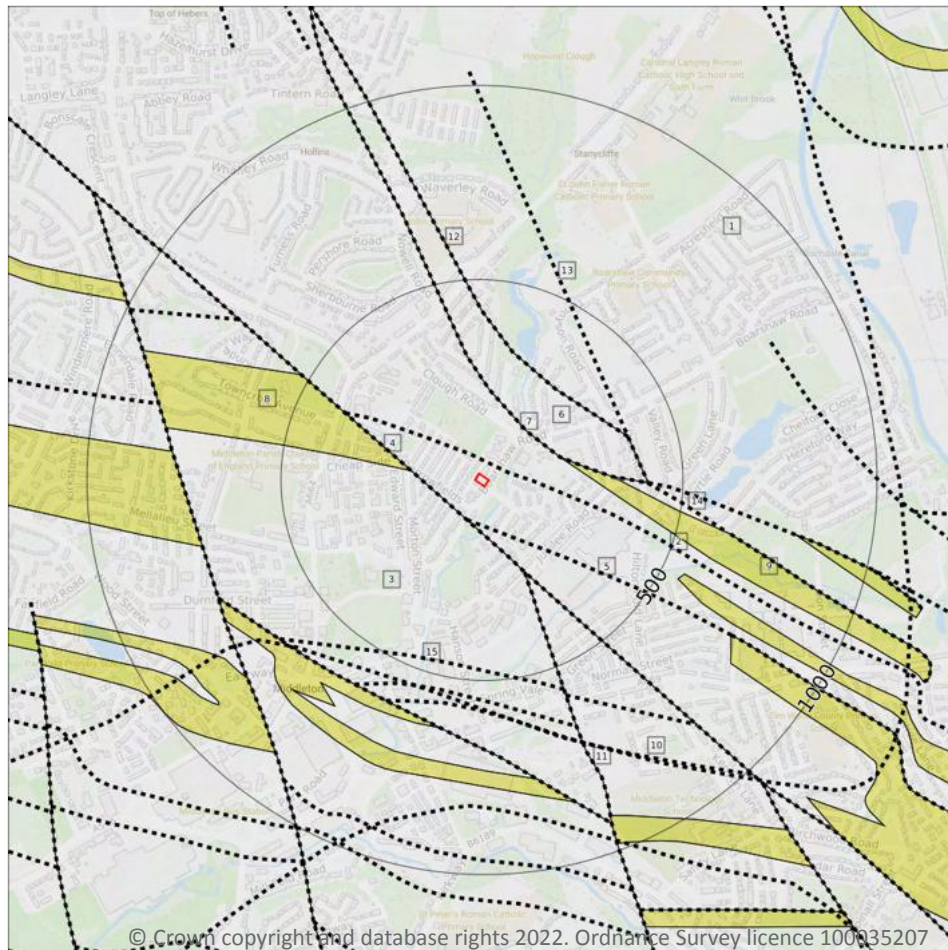
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

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

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

15.8 Bedrock geology (50k)

Records within 500m

6

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 93**

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
3	91m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
6	159m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
8	166m W	RYSA-SDST	ROYLEY SANDSTONE - SANDSTONE	WESTPHALIAN
9	192m E	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
10	244m SE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1
---------------------------	----------

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

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

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	9
----------------------------	----------

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.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 93**

ID	Location	Category	Description
2	35m NE	ROCK	Coal seam, inferred
4	91m SW	FAULT	Fault, inferred
5	96m S	ROCK	Coal seam, inferred
7	159m NE	FAULT	Fault, inferred
11	244m SE	FAULT	Fault, inferred
12	291m NE	FAULT	Fault, inferred

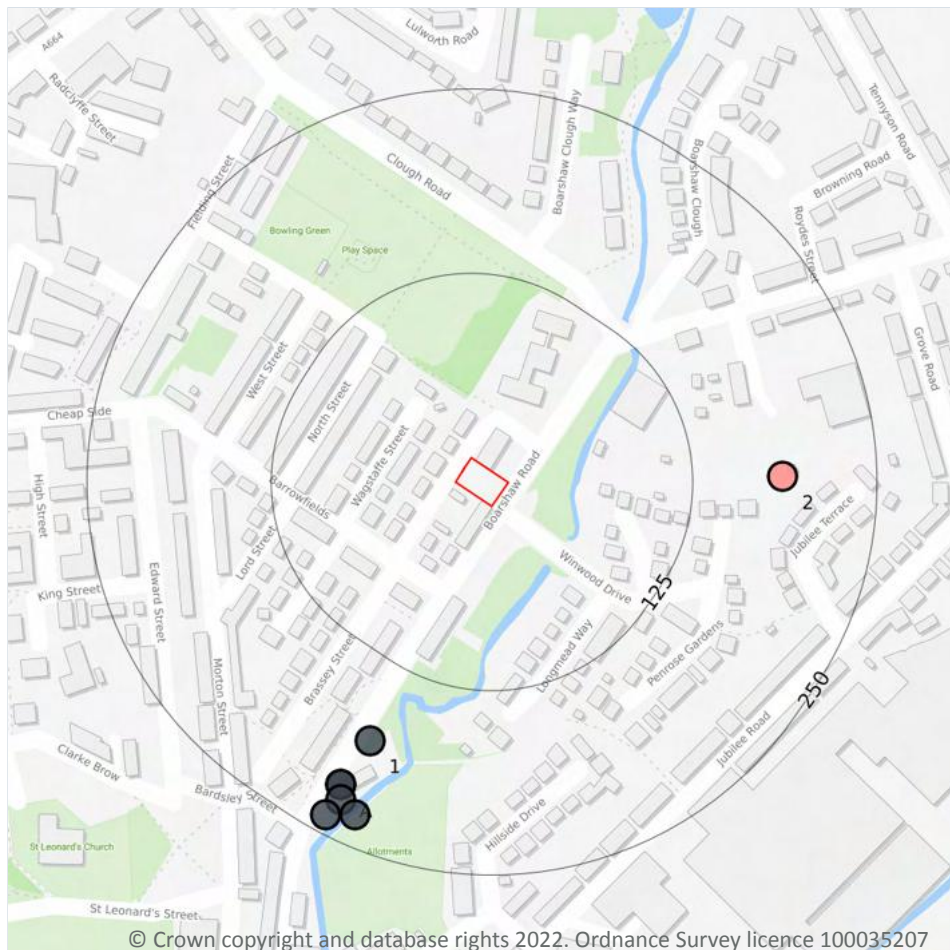


ID	Location	Category	Description
13	373m NE	FAULT	Fault, inferred
14	408m E	ROCK	Coal seam, inferred
15	464m S	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m

7

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 96**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	179m SW	387420 406380	QUEEN ELIZABETH GRAMMER SCHOOL 3	-	Y	N/A
2	186m E	387700 406559	RIBBLE MANUFACTURING CO BOARSHAW LANE	78.03	N	26961
A	215m SW	387400 406350	QUEEN ELIZABETH GRAMMER SCHOOL TP 1	-	Y	N/A

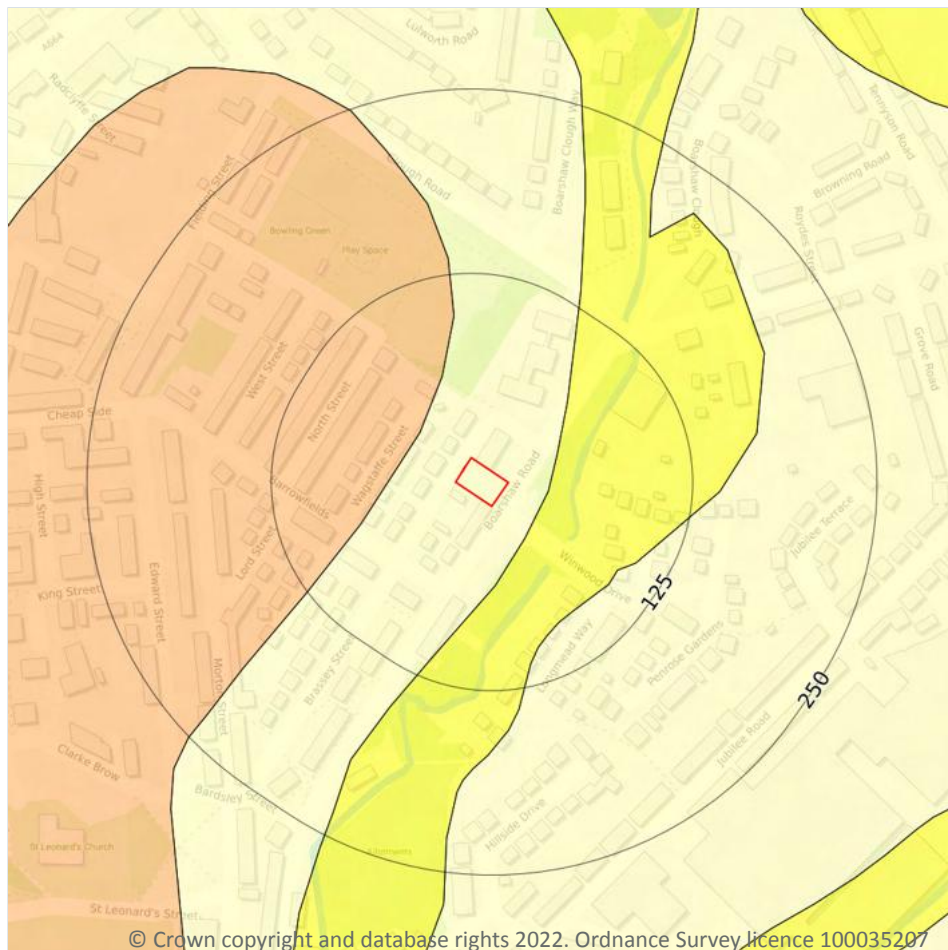


ID	Location	Grid reference	Name	Length	Confidential	Web link
A	215m SW	387400 406350	QUEEN ELIZABETH GRAMMER SCHOOL TP 2	-	Y	N/A
A	224m SW	387400 406340	QUEEN ELIZABETH GRAMMER SCHOOL 2	-	Y	N/A
A	228m SW	387410 406330	QUEEN ELIZABETH GRAMMER SCHOOL TP 3	-	Y	N/A
A	237m SW	387390 406330	QUEEN ELIZABETH GRAMMER SCHOOL 1	-	Y	N/A

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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

17.1 Shrink swell clays

Records within 50m

3

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 98**

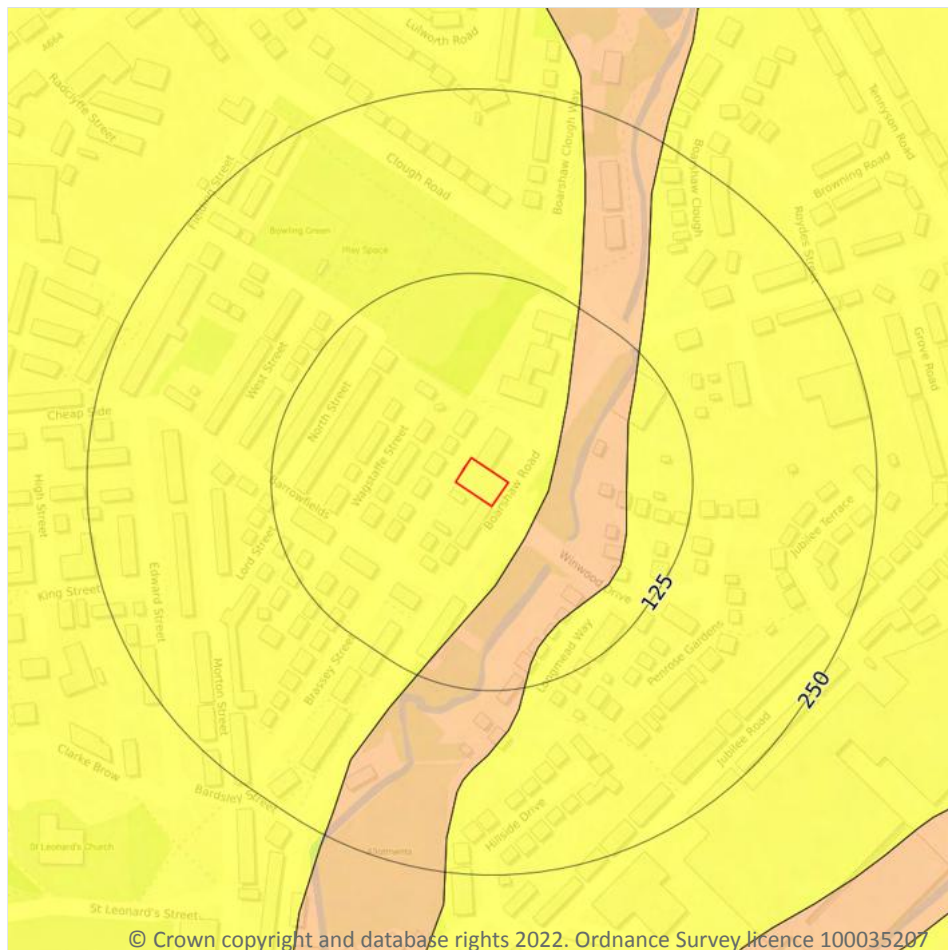
Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
27m SE	Very low	Ground conditions predominantly low plasticity.
38m NW	Low	Ground conditions predominantly medium plasticity.



This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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

17.2 Running sands

Records within 50m

2

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 100**

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.

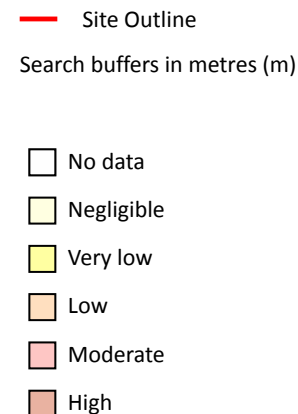
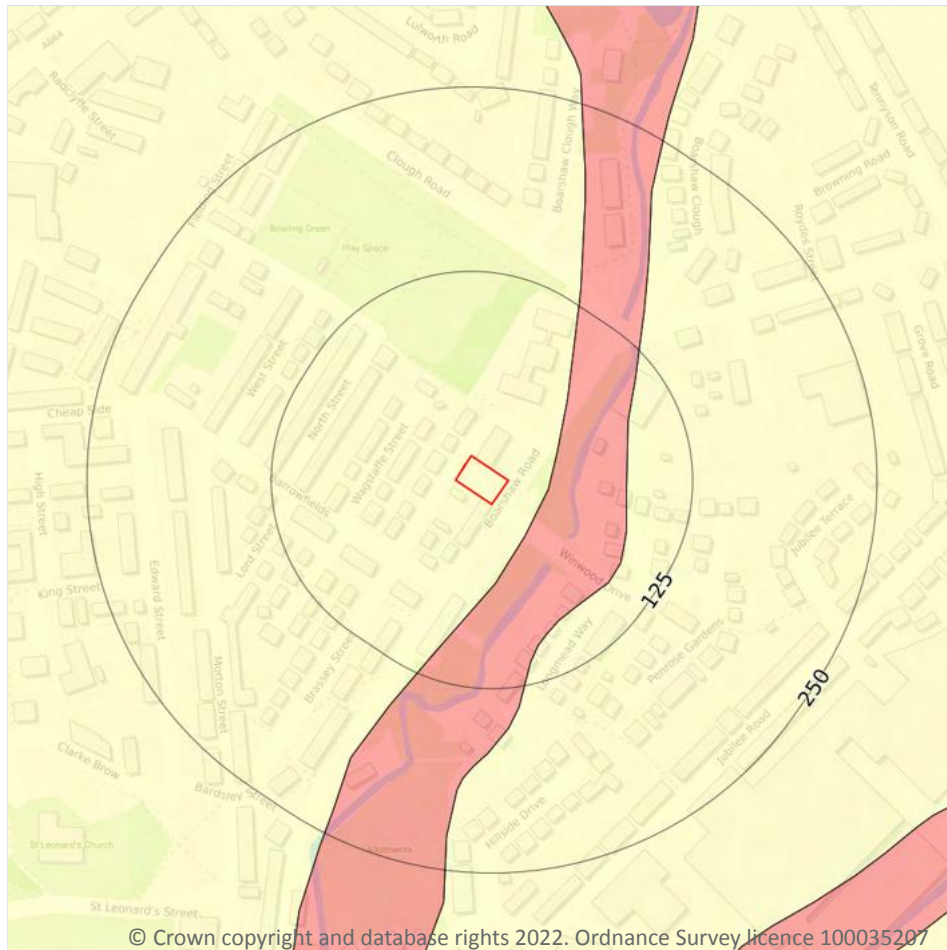


Location	Hazard rating	Details
27m SE	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m

2

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 102**

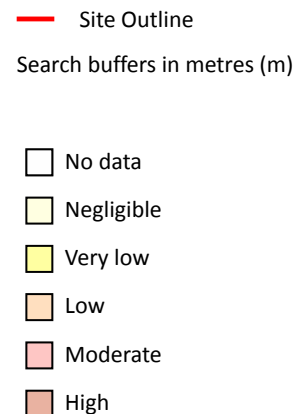
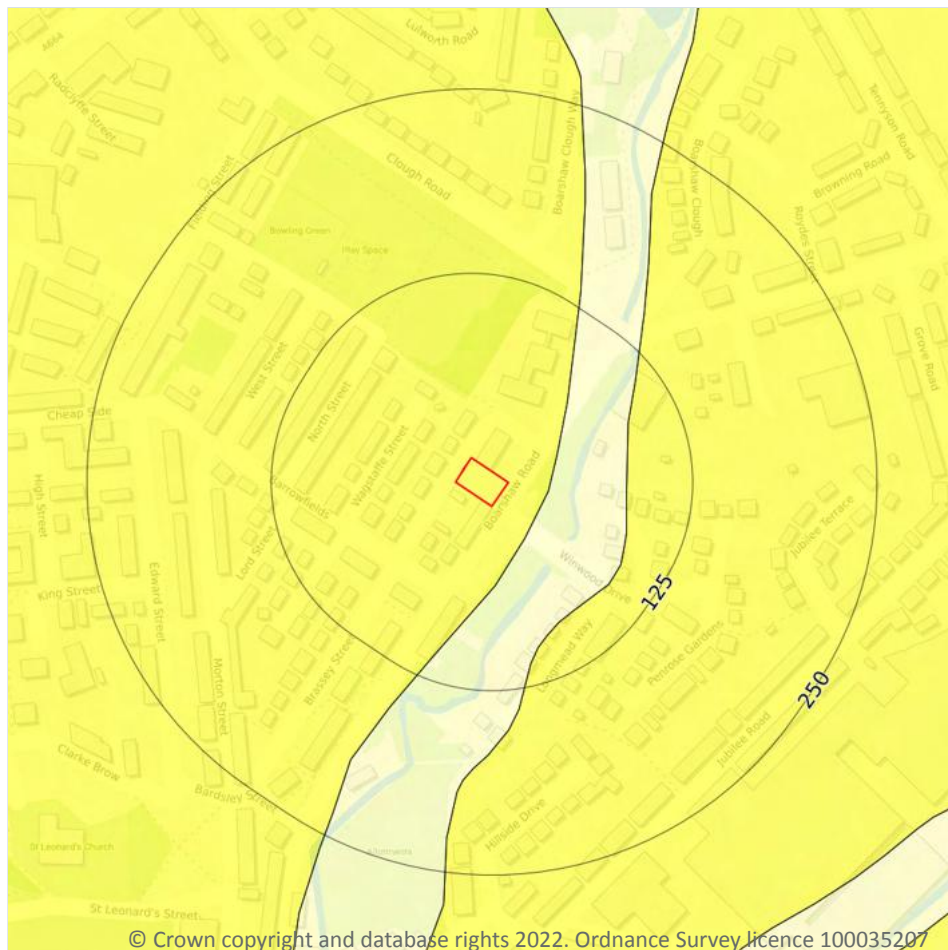
Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
27m SE	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.



This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m

2

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.

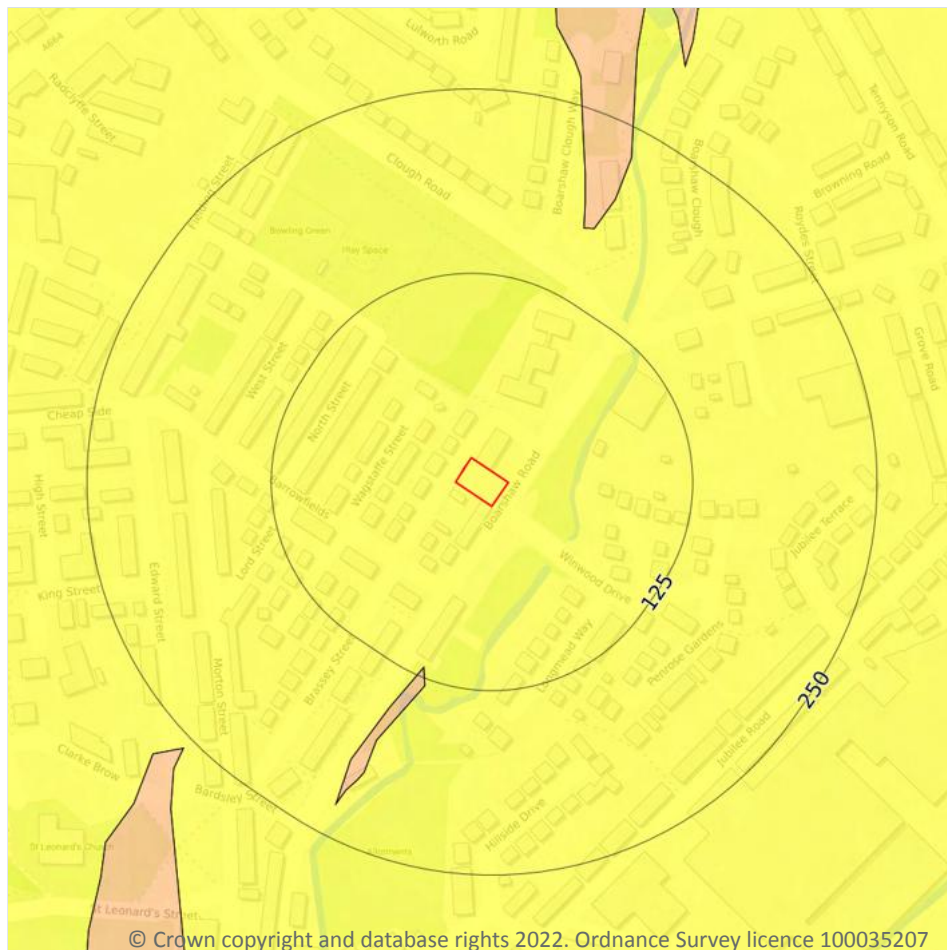
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 104**

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
27m SE	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



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

17.5 Landslides

Records within 50m

1

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

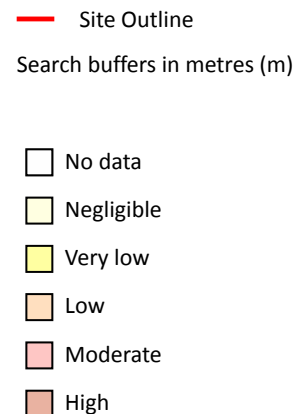
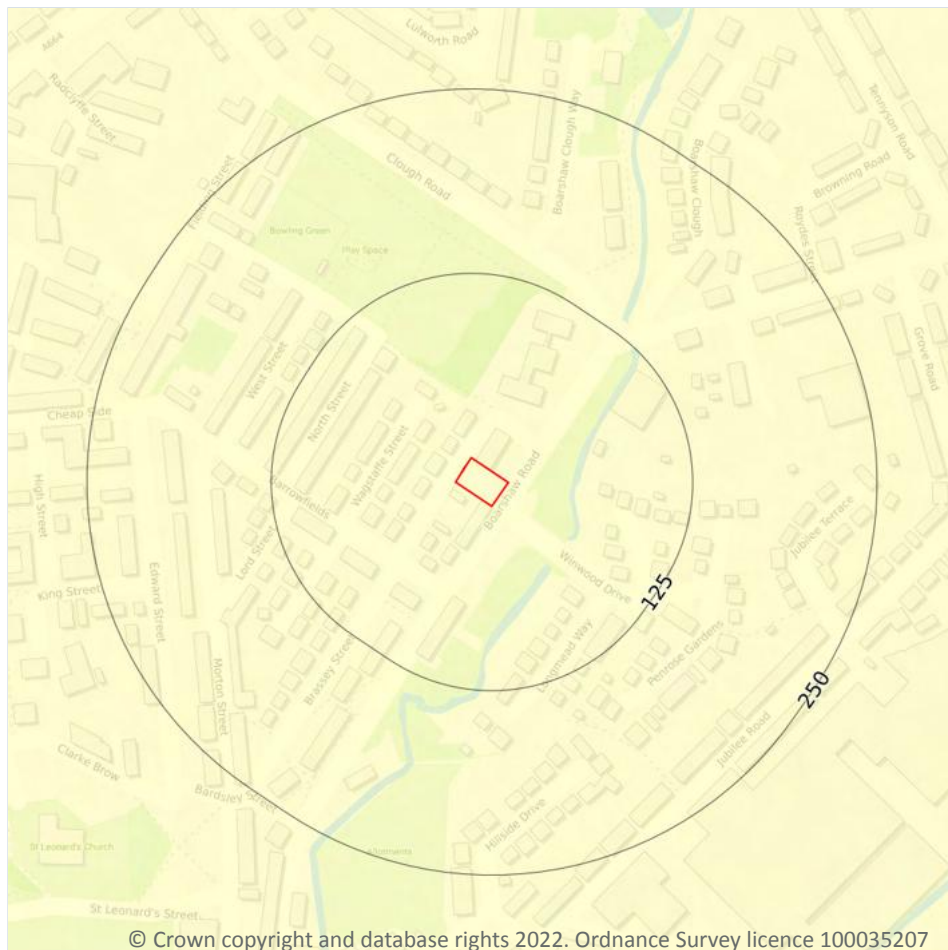
Features are displayed on the Natural ground subsidence - Landslides map on **page 105**

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.

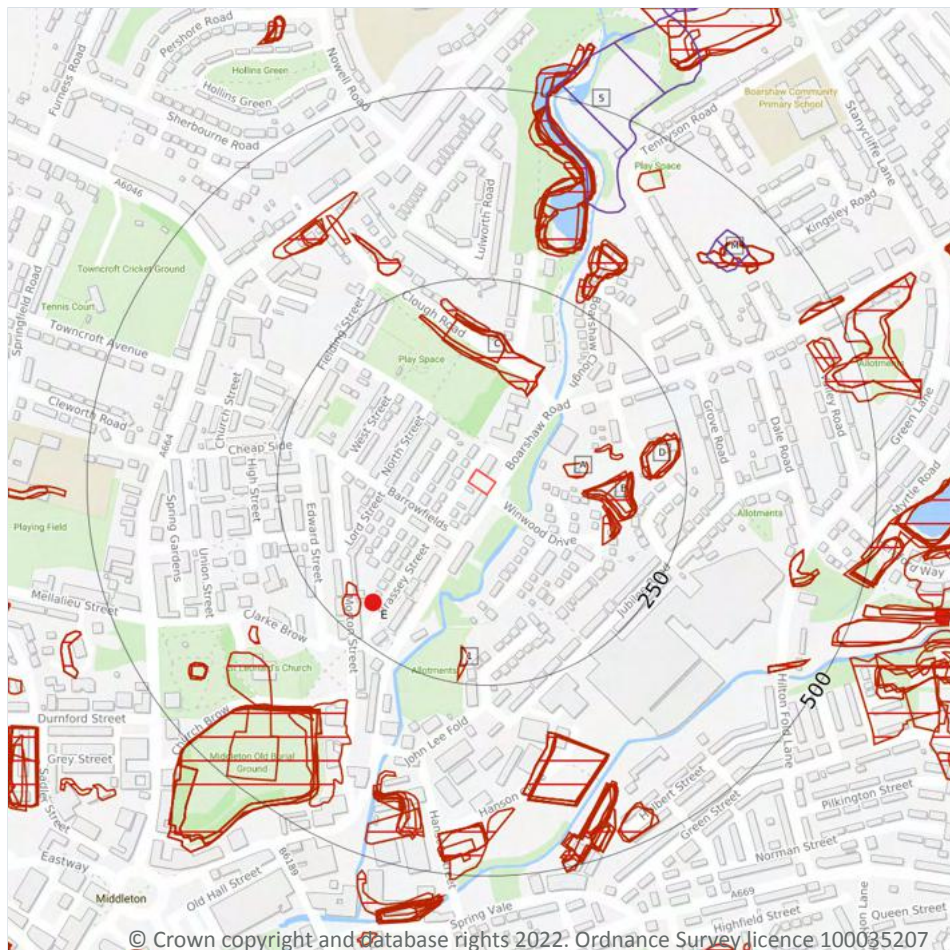
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 106**

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, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities
- 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 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.

18.2 BritPits

Records within 500m

1

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 108**

ID	Location	Details	Description
E	201m SW	Name: Brook Hill Sand Pit Address: MIDDLETON, Lancashire Commodity: Sand Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

25

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, ground workings and natural cavities map on **page 108**

ID	Location	Land Use	Year of mapping	Mapping scale
A	91m E	Unspecified Heap	1907	1:10560
B	115m E	Unspecified Pit	1923	1:10560
B	116m E	Unspecified Pit	1932	1:10560
B	116m E	Unspecified Pit	1915	1:10560
B	116m E	Unspecified Pit	1907	1:10560
C	117m NE	Unspecified Pit	1923	1:10560
C	117m NE	Unspecified Ground Workings	1915	1:10560
C	117m NE	Unspecified Ground Workings	1907	1:10560
B	122m E	Unspecified Pit	1891	1:10560
A	137m E	Unspecified Ground Workings	1907	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
B	144m E	Unspecified Ground Workings	1932	1:10560
B	145m E	Unspecified Pit	1938	1:10560
B	148m E	Unspecified Pit	1891	1:10560
B	151m E	Unspecified Ground Workings	1915	1:10560
B	151m E	Unspecified Pit	1907	1:10560
C	159m N	Unspecified Ground Workings	1932	1:10560
C	181m N	Unspecified Ground Workings	1965	1:10560
D	193m E	Reservoir	1891	1:10560
D	194m E	Reservoir	1938	1:10560
D	195m E	Reservoir	1932	1:10560
D	201m E	Reservoir	1915	1:10560
D	201m E	Reservoir	1907	1:10560
D	201m E	Reservoir	1923	1:10560
E	201m SW	Sand Pit	1851	1:10560
1	202m S	Pond	1932	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m

0

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

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

2

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.

Features are displayed on the Mining, ground workings and natural cavities map on **page 108**



ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
5	376m NE	Municipal Tip	Sand and gravel	Surface mineral working	Valid	11/63
M	405m NE	Stanycliffe	Sand and gravel	Surface mineral working	Valid	Not available

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

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

This data is sourced from the British Geological Survey.

18.7 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.

18.8 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.

18.9 Coal mining

Records on site

1

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



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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0
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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.

18.11 Gypsum areas

Records on site	0
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0
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Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

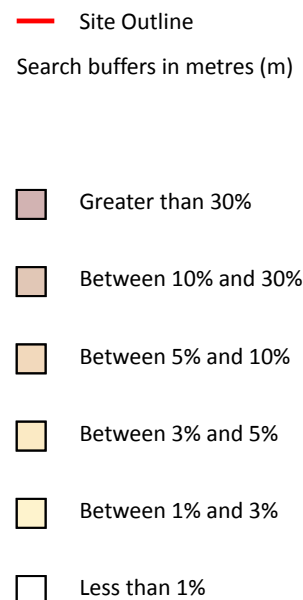
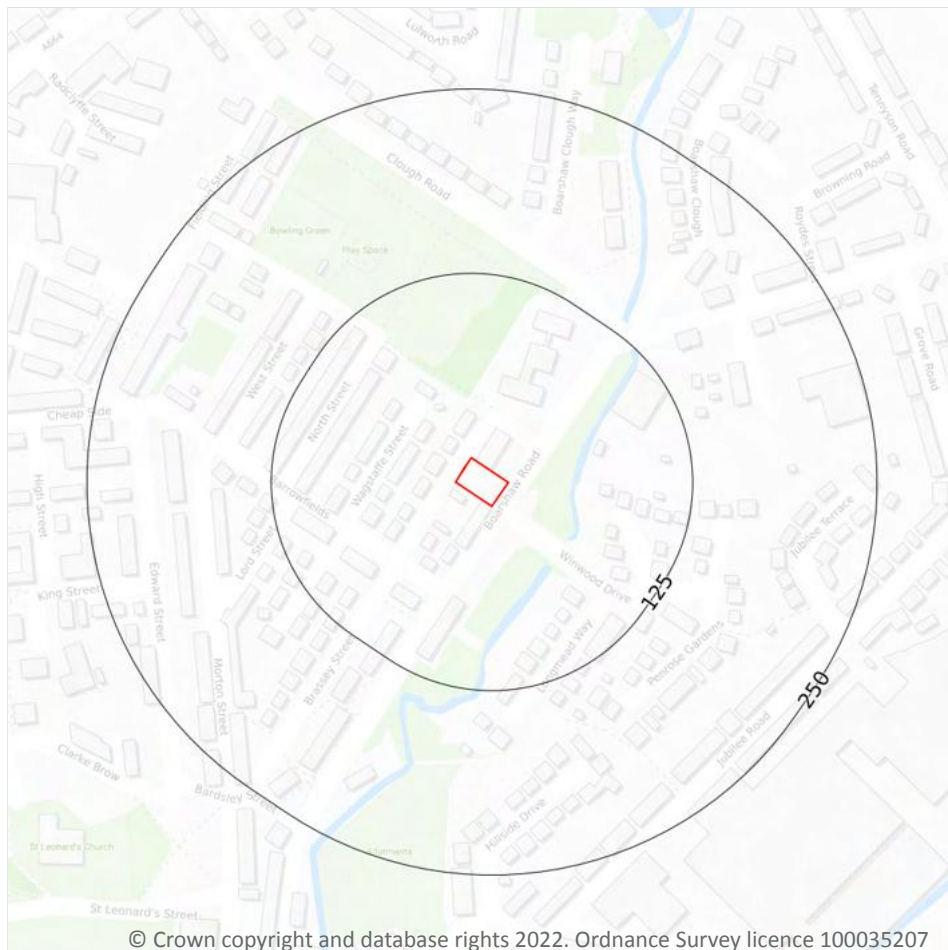
18.13 Clay mining

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 Radon



19.1 Radon

Records on site

1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 113**

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

This data is sourced from the British Geological Survey and Public Health England.



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

4

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
39m SW	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
39m SE	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.



20.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects

21.1 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.

21.2 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.

21.3 Railway tunnels

Records within 250m**0**

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 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.

21.5 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.

21.6 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.

21.7 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.

21.8 Crossrail 1

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>.



APPENDIX VI

COAL AUTHORITY REPORT



The Coal
Authority

Consultants

Coal Mining Report

Boarshaw Working Mens Club
Dixon Street
Middleton
Rochdale
M24 6GB

Date of enquiry:	5 September 2022
Date enquiry received:	5 September 2022
Issue date:	5 September 2022

Our reference:	51003309357001
Your reference:	002812

Consultants

Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

E3P

Enquiry address

Boarshaw Working Mens Club
Dixon Street
Middleton
Rochdale
M24 6GB

How to contact us

0345 762 6848 (UK)
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200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

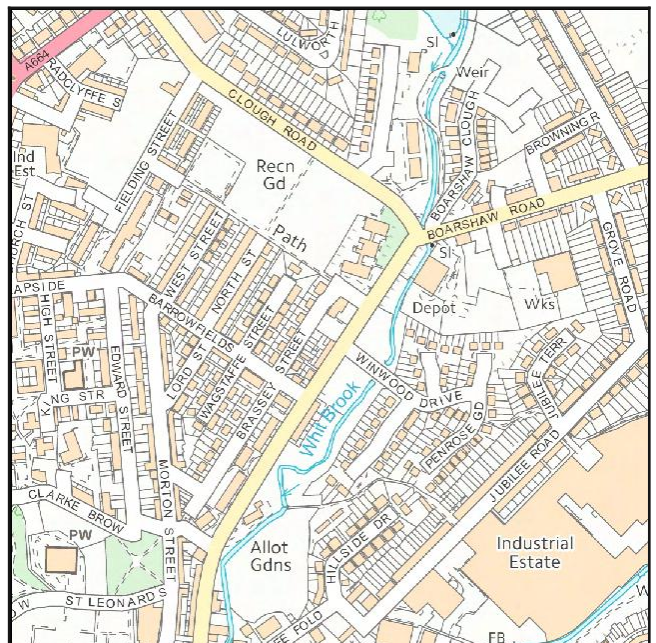
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	ARLEY	Coal	3W5I	159	North-East	7.8	South-West	150	1874

Probable unrecorded shallow workings

Yes.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

73	16820	
----	-------	--

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
CANNEL	Coal	Yes	20.0	North-East	293
CANNEL	Coal	Yes	22.4	North-East	294

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

Withdrawal of support notices

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land

Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

